



HIGH-TECH HYBRIDS

Lighting and acoustics are becoming more integrated than ever.

PAGE 10

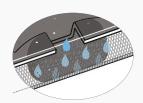
AN UPBEAT OUTLOOK

Heartland manufacturers give an optimistic report.

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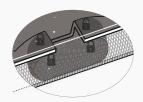
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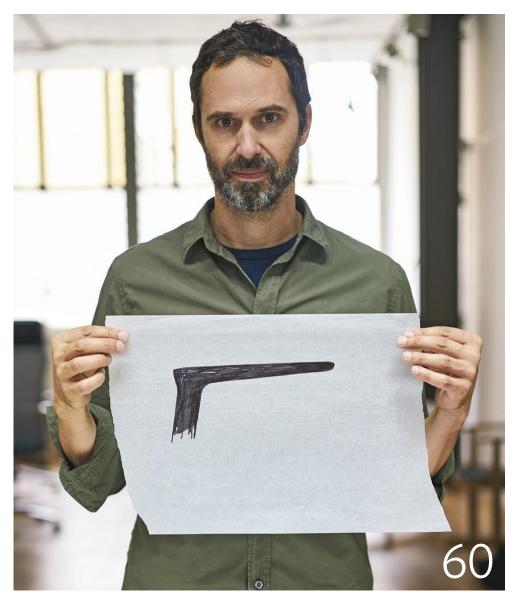
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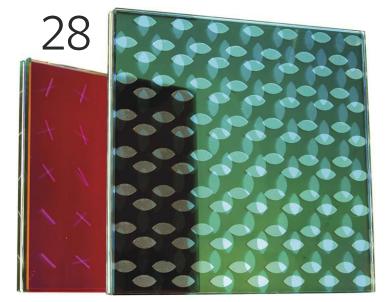
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JULY/AUGUST 2017





PHOTOGRAPHY (CLOCKWISE FROM TOP LEFT); COURTESY OF VITRA; COURTESY OF SENSITILE; GARRETT ROWLAND



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6 IN BRIEF

Architect Asif Khan draws attention to the energy crisis with his installation at Expo 2017 Astana. Lighting for the Harbin Opera House earns top honors. Tate Britain commissions a neon light sculpture.

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Jay Osgerby and Edward Barber collaborate with Vitra on the new Pacific chair.

TWO BY TWO

Design duo Edward Barber (shown) and Jay $Osgerby\,sketched\,some\,350\,drawings\,when$ partnering with Vitra. Sensitile's Vapor glass panels (above) feature two layers of $mirrored\ and\ iridescent\ patterns.\ A\ pair$ of firms joined forces to create dollyinspired furnishings (left) for Cornell's College of Architecture, Art, and Planning.

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R&A Architecture + Design remake an open plan office as a series of adjustable workspaces for BCG Digital Ventures in Manhattan Beach, California.

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Beebe Skidmore Architects convert a former Portland, Oregon, factory into a vibrant office for creatives.

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A new office building in Portland, Oregon, showcases mass-timber framing—and smart use of local materials.



CASE STUDY







Project: Matsuhisa Denver - Denver, CO

Firm: Rowland + Broughton

Design Challenge

Create a retractable private wall within a restaurant that feels natural, artistic, and unimposing when closed off, yet invisible when open.

Systems:

Sliding Pocket Wall used to divide bar from dining space

Pivot / Swing door for concealing storage

Finishes:

Frames – Teak Inserts – 3 Form Fray Pearl



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When It Clicks



I'M SO PLEASED to be the new editor of SNAP. That's probably because I love that moment of discovery when I come across a new product that meets a real need and works just as its designers intended. My eyebrows go up, registering satisfaction.

I experienced that moment at home recently when my personal product designers, ages 5 and 8, built adjustable task lights using Popsicle sticks, wires, AAA batteries, LEDs, and Dixie cups. The glue dried, they flicked their switches, and we all drew in surprised, quick breaths at the sight of

tiny firefly light diffused by paper-cup lampshades. Nothing beats the joy of

There's a similar thrill that comes from delivering the perfect solution for a job. For instance, in one of our product specs stories, "A Fast Company" (page 14), client **BCG Digital Ventures** was delighted when its architects demonstrated their plan for a custom, modular table by revealing a fun, working model made entirely of cardboard. In "Precious Metals" (page 38), coworking firm **Crew Collective** needed to feel at home in its new headquarters—inside a gilded, landmarked bank—and was wowed by workstations and meeting rooms built from brass-plated walls.

Elsewhere in the issue, you'll have your own aha moments checking out innovative ideas for contract furnishings, walls and partitions, and window glazing. And don't miss our recap of trends from the show floor at NeoCon 2017, which are shaping the future of office design.

We hope you enjoy all the product news in this issue—and that you savor that special moment when you turn the page and see the very thing you've been looking for to complete your own best work.

KELLY L. BEAMON Editor

elly T. Banin

CORRECTION:

The Made In the USA article in the May/June issue (page 44) misspelled the name of East Coast Lightning Equipment Inc. and misstated the company's function; it is a lightning protection systems manufacturer. In the same piece, the names of manufacturers **Excel Dryer** and **Accurate Lock** and Hardware were misspelled. We regret the inaccuracies.

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Exploring Resilient Building Design

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The Future of Fire-Rated Glass and Framing

Sponsored by Technical Glass Products (TGP) Credit: 1.25 AIA LU/HSW





A Look at What's New in Retail and Hospitality Design

Sponsored by Construction Specialties, Inpro, Mitsubishi Electric Cooling & Heating, and NanaWall Systems Credit: 1 AIA LU/HSW



The Evolving Workplace Environment

Sponsored by ASI Group, CertainTeed Ceilings, Construction Specialties, and Doug Mockett & Co. Credit: 1 AIA LU/HSW: 0.1 IDCEC CEU



Sustainability and Structural

Sponsored by American Institute of

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Window Solutions

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Considerations for

Credit: 1 AIA LU/HSW

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Capturing Timeless Values with Contemporary Design Sponsored by LaCantina Doors

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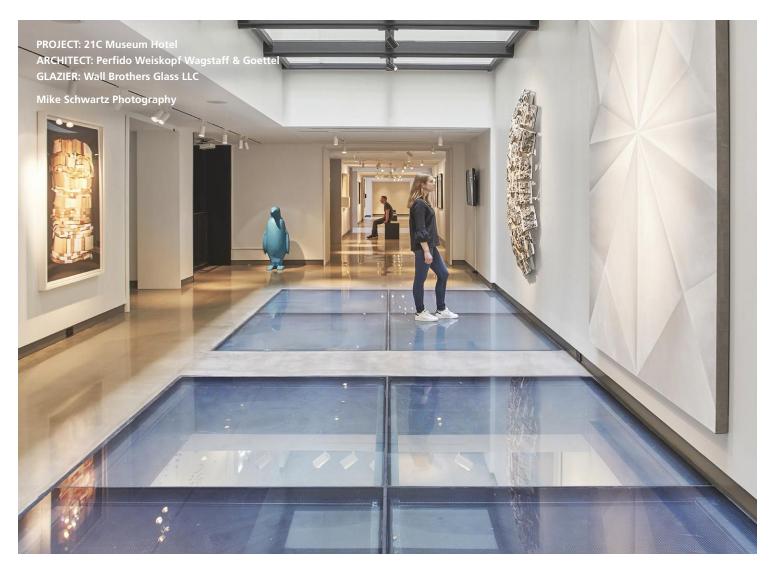
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COOL BRITANNIA

A ``pavilion" built by architect As if Khan to illustrate the history of energy - from the birth of the universed in the context of the conto today—heralds the United Kingdom's presence at Expo 2017 Astana in Kazakhstan.

Asif Khan's Exhibit Brings the Evolution of Energy to Light

A STUNNING INSTALLATION by Asif Khan is helping Britain make a global statement about the past and future of energy at an exposition currently under way in Kazakhstan.

The yurt-like structure at **Expo 2017 Astana** is intended to spark discussion on energy solutions. Visitors to its dome of polycarbonate spokes get treated to a video on a wraparound screen that orbits the structure; the video plays the physical history of energy, beginning with the origin of the universe 13.8 billion years ago and ending with the invention of graphene, an advanced carbon-like material that's stronger than steel. The animation is set to a score created by Brian Eno, the British musician best known as producer for David Bowie, Talking Heads, Devo, and U2.

"The idea that everything, including life on earth, is comprised of this archaic energy is fascinating to me," writes Khan on his website. "I wanted to find a way to express this relationship to our visitors and explore how energy is being continually harnessed and balanced around us." The installation coincides with Khan's most recent honor: being appointed by Her Majesty Queen Elizabeth II as a Member of the British Empire (MBE), a medal awarded for outstanding achievement and community service. His statement-making Astana exhibit will be on view through September 10. — Danielle Cohen



THE ILLUMINATI The lighting design for China's iconic opera house has earned the IALD

Chinese Opera House Wins Top IALD Honors

THE STRIKING ARCHITECTURE of the Harbin Opera House has received attention, and now its illumination by **Beijing United** Artists Lighting Design has won the lighting industry's highest honor.

At the recent 34th annual International Lighting Design Awards, the Chinese opera house, built by MAD Architects, was presented with the International Association of Lighting Designer's Radiance Award for interior lighting. The building, which opened in December 2015, features a variety of lighting strategies that are concealed within its undulating architecture. The effect is dramatic: Twinkling ceiling spots in the corridor appear starlike, and inside the auditorium strip lighting both delineates and illuminates the structure. Dongning Wang accepted the award for his firm.

IALD presented honors to 22 projects in eight countries around the world, spanning work on museums, public parks, monuments, retail environments, and even one house. Among the other recipients, Cooley Monato

Studio received the association's Award of Excellence for its dynamic LEDs at Barneys New York, and Schuler Shook won an Award of Merit, for its illumination of the newly designed Chicago Riverwalk. — DC

The Tate Britain's Neon Doodles

AN ARCHITECTURAL lighting masterpiece by artist Cerith Wyn Evans was selected this year to be the annual site-specific installation commissioned for Tate Britain's Duveen Galleries. The work Forms in Space...by Light (in Time) features over a mile's worth of white neon tubing—Wyn Evans's signature medium—arranged in straight, curved, and spiraling forms, which is suspended from the ceiling at more than 1,500 points. These light sculptures are meant to echo variations of musical notes as they unfold across three sections of the 300-foot-long hall. The gorgeous explosion of neon will be on view in the Neoclassical hall (the building was designed by American architect John Russell Pope and English architects Gilbert H. Jenkins and W.H. Romaine-Walker) through August 20. —DC



SUSPENDED ANIMATION

The installation of Cerith Wyn Evans's hanging light sculpture Forms in Space. by Light (in Time) festoons the Neoclassical hall of Tate Britain's Duveen Galleries.



"As soon as we knew we wanted it to be colorful, metal became the obvious choice for the exterior. PAC-CLAD corrugated metal would be the most economical, long-lasting material."

-Art Lubetz, principal, Front Studio Architects



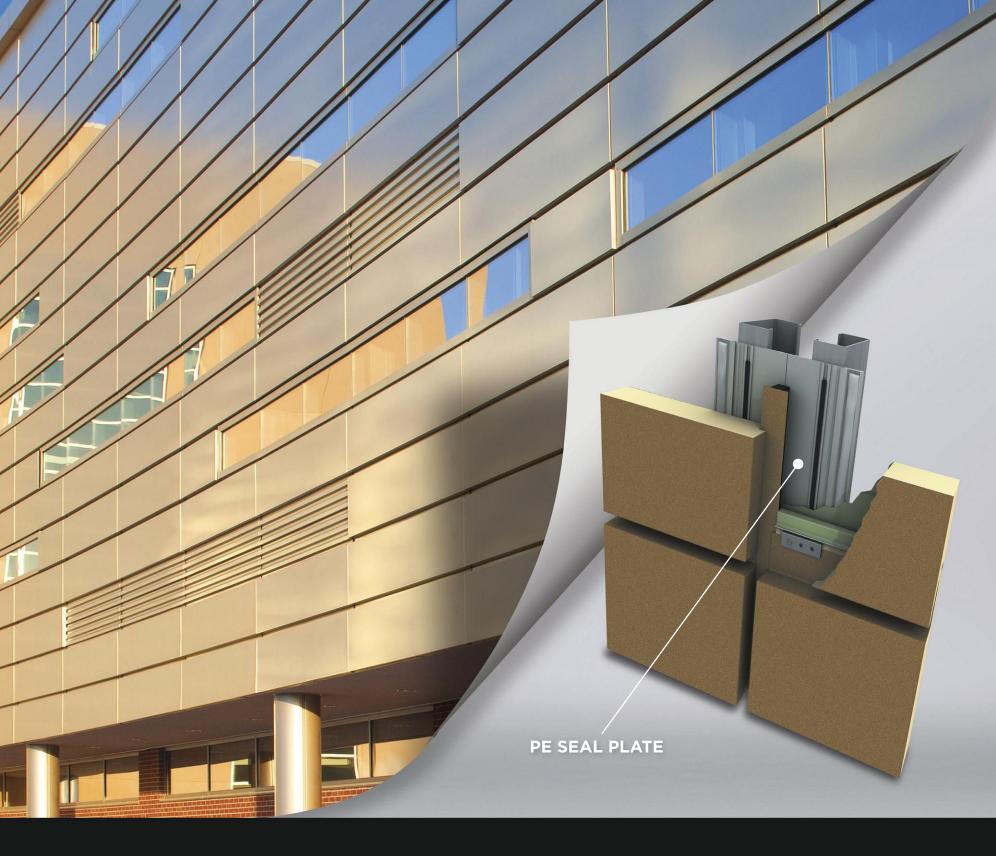
CASE STUDY











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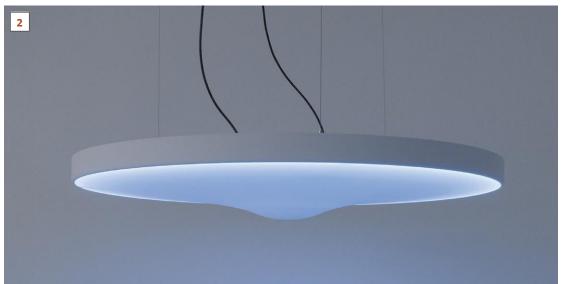
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NEW PRODUCT ROUNDUP









Cutting-edge design adds flexibility in contract settings.

SATELLIGHT

MANUFACTURER: Foscarini **PERFORMANCE:** This elegant suspension provides a dimmable 2700K LED inside a diffuser made from handcrafted, milk-white glass.

PRICE RANGE: \$\$\$

APPLICATIONS: The fixture, available in conventional 220V and 240V lamps or an LED, is UL-listed for use in contract settings.

FOSCARINI.COM (SNAP #200)

PÉTALE

MANUFACTURER: Luceplan **PERFORMANCE:** A whitetunable LED strip around the perimeter adds color options alongside the dimmable 3000K LED at the center of the fixture.

PRICE RANGE: \$\$\$

APPLICATIONS: An elastic textile diffuser, covering the fixture's 47 5/16" - diameter frame, combines the performance $of \, LEDs \, with \, sound \, absorption \,$ for hospitality settings.

LUCEPLAN.COM (SNAP #201)

ADORNE

MANUFACTURER: Legrand **PERFORMANCE:** The Adorne Furniture Power Center, which comes in 10 finishes and three sizes, adds convenient control panels in furnishings for switching, dimming, and charging devices. PRICE RANGE: \$

APPLICATIONS: Developed to

let designers choose where to add individual lighting controls, Adorne's Power Centers can enhance guestrooms and lobbies. **LEGRAND.US**

(SNAP #202)

BEMOLLE

MANUFACTURER: Snowsound **PERFORMANCE:** Designed by Italian firm Atelier Mendini, the natural-looking folds of this wall-mount textile absorb 94% of human speech.

PRICE RANGE: \$\$\$

APPLICATIONS: Fire resistant and machine washable, the 94 x 41" drapes have removable outer fabric in white, red, and dove gray for any public spaces. **SNOWSOUNDUSA.COM** (SNAP #203)

KEY \$=VALUE, \$\$=MID-RANGE, \$\$\$=HIGH-END









HEARTFELT

MANUFACTURER: Hunter Douglas Architectural **PERFORMANCE:** Designed by architects Schmidt Hammer Lassen, these slim panels have an NRC rating of 0.50, 0.60, or 0.70 depending on their spacing.

PRICE RANGE: \$\$

APPLICATIONS: Available in 8' lengths, the panels allow for flexible spacing around lighting, HVAC, and fire-safety features.

HUNTERDOUGLAS ARCHITECTURAL.COM

(SNAP #204)

C BY GE SOL

MANUFACTURER: GE **PERFORMANCE:** This light incorporates Amazon's Alexa Voice Service and performs tasks such as ordering dinner and playing music.

PRICE RANGE: \$

APPLICATIONS: Programmable features, such as sleep-enabling light and tunable color temperatures, make it a hit for homes. **GE.COM**

(SNAP #205)

N4 HUB

MANUFACTURER: Ketra **PERFORMANCE:** Designers can easily configure and control Ketra's high-tech LED lighting systems with this little hub.

PRICE RANGE: \$\$

APPLICATIONS: Plugged into a modem, the N4 relays designers' configurations to devices across the system, including to Ketra's proprietary mobile app.

KETRA.COM (SNAP #206)

ZINTRA ON ZINTRA CONCERTINA

MANUFACTURER: MDC **PERFORMANCE:** Specified on $Concertina\, screens, a\, Zintra$ fabric layer increases the dividers' acoustic performance with an NRC rating of up to 0.95. PRICE RANGE: \$-\$\$

APPLICATIONS: The lightweight, folding screen comes in custom colors and preassembled: an easy solution in retail and offices.

MDCWALL.COM (SNAP #207)

KEY \$=VALUE, \$\$=MID-RANGE, \$\$\$=HIGH-END



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- Install the panels between drain channel extrusions and anchor to substrate as required.
- Install the gasket to the compression cover and secure the assembly to the drain channel.
- Install & seal the cover cap securely over the compression plate to complete standard installation.
- Complete installation by installing perimeter covers and flashings.
- Can anchor to 3/4 plywood and a minimum 18GA metal substrate.

TEST DATA

- UL-580 Class 90 (Uplift Resistance)
- ASTM E 330 (Structural Performance)
- ASTM E 283 (Air Infiltration)
- ASTM E 331 (Water Penetration)

Testing is not applicable to all substrates, materials, and dimensions. Additional testing and analysis is available upon request.

COVER CAP

The width of the cover cap is 2 ¾ inches.

PANEL SIZE

Width: Maximum extrusion center is 4 feet in select materials and gauges Length: Maximum panel length is 30 feet in select materials and gauges

MATERIALS & FINISHES

MATERIAL	PANEL THICKNESS / WEIGHT	FINISHES
Aluminum	18 GA (0.040") / 16 GA (.050")	Painted (PVDF) finishes include: Standard, Custom Metallic, Mica, Exotic, Weathered Patina Prints, Woodgrain Prints, Embossed
Stainless	24 GA (0.024") / 22 GA (0.029") 20 GA (0.036")	2B, 2D, Matte, Custom Directional & Non-directional
Titanium Zinc	26 GA (.018") / 24 GA (.024") 0.7 mm / 0.8 mm / 1.0 mm	(Grade 1) Mill and Matte Back Coated Natural, Pre-Weathered, Colored

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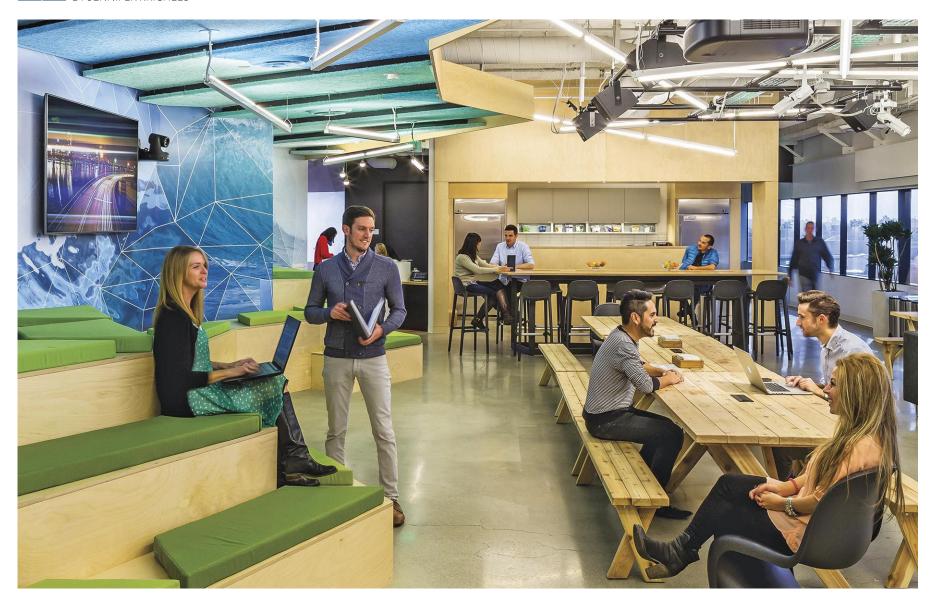
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Learn about the role of Azon thermal barriers in energy conservation.





BCG DIGITAL VENTURES MANHATTAN BEACH, CALIFORNIA

A Fast Company

CHALLENGE: Upgrade the typical open office to include a series of adjustable workspaces for a rapidly expanding company. **SOLUTION:** Custom tables and hexagonal breakout rooms add functionality to a floor plan worthy of a multicity rollout.

> **DESPITE ALL THE** digital design tools at its disposal, **R&A Architecture + Design** occasionally achieves better results with an analog process. Case in point: BCG Digital Ventures, a quickly growing products incubator, hired the five-year-old architecture practice to create its new North American Center, on two floors of a 1980s-era building in California's Manhattan Beach, just minutes from the sand.

> Early on, the client's need for flexible workspaces that could satisfy accounts people one day and creatives the next led R&A principal Christian Robert and his team to render their ideas in one of the most accessible and flexible materials around—cardboard moving boxes. Using them to mock up full

scale conference tables and walls, they found a solution to BCG's challenge of accommodating the work styles of three distinct teams—in ways that help them collaborate, not collide. The company's business consultants and strategists, for example, needed breakout rooms for joint work sessions, designers required plenty of flat work surfaces and wall space for vetting drawings and renderings, and engineers had to have permanent, quiet workstations.

"The client said, 'Don't give me just an open floor plan," Robert recalls. "They'd had a bad experience with [standard] open offices. Designers and software developers were stuck in open areas, and consultants hogged the conference rooms."

Some clients might be put off by the sight of architects unfurling U-Haul-box prototypes, but as a company accustomed to bringing its own products to fruition through experimentation, BCG was delighted by R&A's approach. The client even kept the cardboard models for internal presentations to employees, asking the architects to make a second "working" set. Not only had R&A hit upon a solution for the awkward 45-degree

angles of the Manhattan Beach office floor plan, but it also landed on a template that BCG wanted to roll out to satellite offices in New York, London, Seattle, Shanghai, Sydney, and several other cities around the world. They would use a series of hexagonal project spaces, dubbed Venture rooms, to create more wall-display space than you'd find in a square room. Custom-made movable rhomboid tables would be adapted to each team's needs. The almost-circular spaces have an effect analogous to that of a round dining table—no one is at the head, so hierarchies (ideally) dissolve.

In some iterations, more glass is added to the design. "The transparency allows [collaborating] teams [who share a project] to know what [counterparts] are working on," says Robert. "There is cross-pollination."

Clients and staff navigate the 54,000square-foot Manhattan Beach office along an internal "beach walk," a pathway of Maxwood veneer flooring with a noisereducing cork backing. Being able to see into the glass-enclosed workspaces helps orient them to the correct project. The walkway provides a slight separation between

SEAT AT THE TABLE A variety of vignettes allows employees

to choose taskappropriate options.





The Dri-Design Wall Panel System can be customized with a nearly endless combination of materials, finishes, shapes and textures, providing the freedom to design beautiful facades. However, Dri-Design's truest beauty lies in the elegantly simple design, which eliminates the need for joint sealants and gaskets, can never delaminate and is 100% recyclable. This means the striking white façade at Lackland Air Force Base needs minimal maintenance to be dazzling for decades.

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- Available in a variety of materials and colors.



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workstations and the potential distractions of the Venture rooms, but it doesn't block daylight from the enclosed spaces. And while so much floor-to-ceiling glass can be cost prohibitive, the architects were able to economize with single-pane indoor glazing because the office-wide white-noise system they implemented made double glazing unnecessary.

While the office has several spaces for impromptu work sessions or casual conversations, the most vibrant of these is the socalled Town Hall, the communal heart of the office, which can take on the role of a dining hall or an event and lecture venue. In another nod to beach culture, the architects gave offthe-shelf picnic tables a coat of varnish and retrofitted them with USB and power outlets. Tiered seating on two sides of the space—along with a ceiling-mounted steelpipe grid supporting audiovisual and lighting equipment—helps transform the space for presentations as needed.

Serving as an incubator for the incubator, the Manhattan Beach office spawned most of the concepts R&A has deployed in BCG's other offices. So far, six projects have been built based on the first one. Some elements threw off new standards across the locations. The custom rhomboid tables originally developed for Venture rooms, for example, found their way into other workspaces. All desks are height-adjustable and outfitted with casters; meanwhile, bright carpeting has improved wayfinding.

Each office really comes alive, though, with its own idiosyncrasies and signature touches. "The client is super willing to test things," says Robert. "One thing I'm working on now is the idea of hyperlocalizing the design." That means the floor plan being rolled out in each office leaves room for a local team to fill in some elements for themselves. (Phase 1 of the Manhattan Beach project encompassed the building's sixth floor, shown on these pages; the client later decided to double the office's size by adding another floor.) In the New York office, one employee designed a signature font for the space; the team also decided to sacrifice some workstations in favor of an open lounge area, where a cocktail trolley makes the rounds from time to time.

"As a designer, you have to take a step back and abandon a little control," Robert points out. "But at the same time, you get a lot more buy-in from the local team." His young firm has learned one lesson in its short tenure: It takes trust, and perhaps a few cardboard boxes, to win trust in return.

MOVE IT!

Thanks to their casters, the diamond-shape tables (top right) can be easily reconfigured to suit specific scenarios.



ARCHITECTS

R&A Architecture + Design

Office

PRODUCT

Venture table MANUFACTURER

Tangram Interiors

PERFORMANCE

Ideal for cross-functional collaboration, these customizable breakaway tables adapt to each team's

APPLICATIONS

This solution suits sites requiring maximum flexibility for work- and conferencetable configurations.

PRICE RANGE \$\$-\$\$\$ TANGRAMINTERIORS.COM (SNAP #208)



KEY \$= VALUE, \$\$ = MID-RANGE, \$\$\$ = HIGH-END

III IN THIS PROJECT



CLARITY CHAIR

MANUFACTURER: Allsteel **PERFORMANCE:** Designed with

BMW DesignworksUSA, this streamlined chair—featuring a mesh back and seat adapts to any office space and task.

PRICE RANGE: \$\$

APPLICATIONS: The chair suits both informal and formal work settings. **ALLSTEELOFFICE.COM** (SNAP #209)



MEZZANINE 600

MANUFACTURER: Oblong Industries **PERFORMANCE:** The 600 series, with six screens spanning multiple walls, creates an immersive environment for teams

and clients alike. PRICE RANGE: \$\$\$

APPLICATIONS: The 3-D visual platform made for cross-functional, collaborative data-sharing environments—helps teams manage and engage with visual information.

OBLONG.COM (SNAP #210)



TECTUM ACOUSTICAL CEILING PANELS



MANUFACTURER: Armstrong Walls & Ceilings

PERFORMANCE: Delivering acoustic absorption and design flexibility where noise control is needed, these panels can be installed in floating or grid arrangements.

PRICE RANGE: \$\$

APPLICATIONS: The panels are ideal for ceilings in presentation areas.

TECTUM.COM (SNAP #211)



MAXWOOD FLOORING



MANUFACTURER: Golvabia **PERFORMANCE:** The UV-coated

wood-veneer flooring with integrated cork backing is designed for sound reduction as well as comfort underfoot.

PRICE RANGE: \$

APPLICATIONS: The flooring is perfect for offices where comfort and acoustics are a priority.

GOLVABIA.SE/EN (SNAP #212)

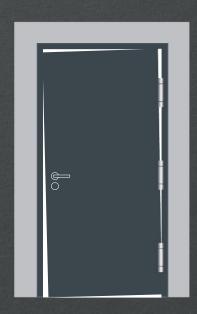


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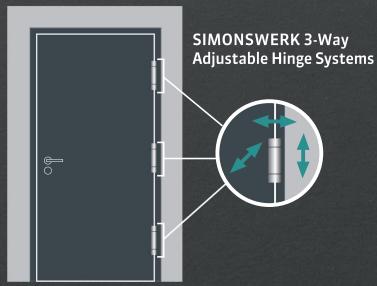
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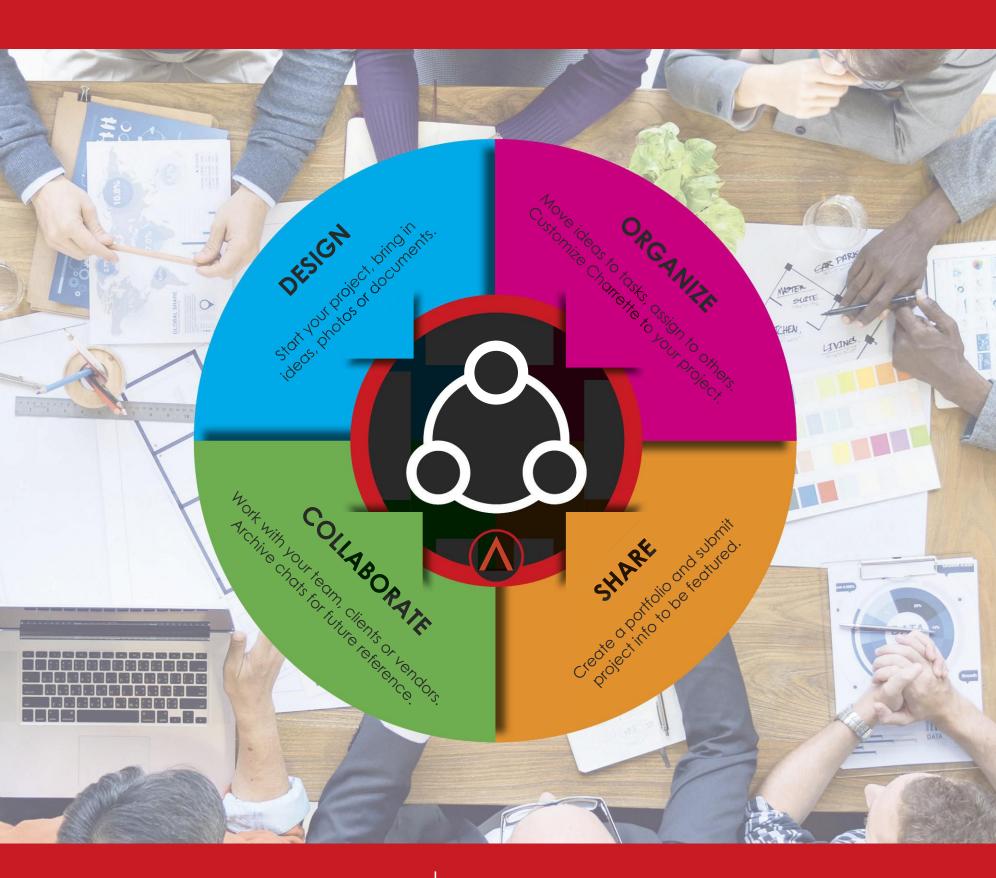


Standard Commercial Hinges



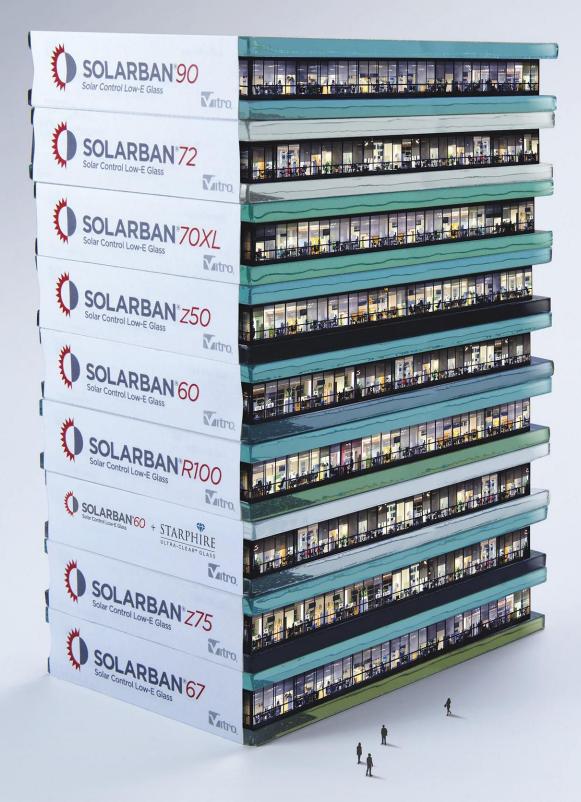


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SWIFT AGENCY PORTLAND, OREGON

Rose City Redo

CHALLENGE: Expand the floor plan of a compartmentalized former factory without changing its footprint. **SOLUTION:** Build upward to find an additional 5,000 square feet.

> IN 2015, as the Portland, Oregon-based strategic creative agency Swift hunted far and wide for a new base, a potential headquarters appeared outside its window. Adjacent to Swift's existing location, the speculative redevelopment of the **Rose City Awning** factory into an office building was getting under way. "We had opportunities to be part of new construction," COO Maren Elliott says of researching a company move. But what she calls "the history and thoughtful approach to reusing the space" next door proved more alluring.

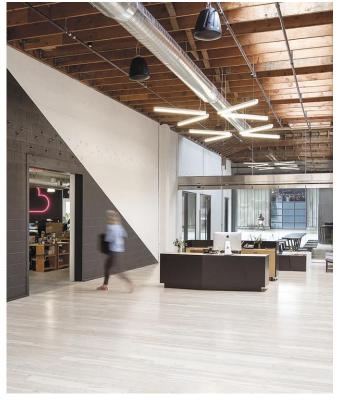
Local firm **Beebe Skidmore Architects** was responsible for the core and shell of the

PEAK OF CREATIVITY

The former Rose City Awning factory was transformed for strategic creative agency Swift (above). An open lobby (right) expresses the ethos of transparency and welcome that the company fosters.

factory conversion, which had been intended for five separate lessees. When Swift offered to install its 150 employees in the entire 25,000 square feet, architects Heidi Beebe and Doug Skidmore urged their client to accept. Single tenancy promised to remove partitions between workspace and circulation and to better integrate office and neighborhood landscapes, Skidmore recalls explaining. Swift signed the lease, then tapped Beebe Skidmore as its interior architect.

"The Swift building is a mix of old and new, industrial roughness and refined sleek surfaces. That combination appears in both big moves and small touch points," Beebe says of the intertwined commissions.





Rose City Awning was originally constructed in 50-by-100-foot modules over the course of two decades. Because the assemblage fell about 5,000 square feet short of Swift's program, "we had to identify a source for extra areas quickly," Skidmore says. The design team paired old and new for a solution, replacing two of the building's three northfacing sawtooths with a double-height version and putting in three more double-height monitors elsewhere. Mezzanine workspace occupies those volumes. Besides expanding the vintage building to 30,000 square feet, the sawtooth-as-mezzanine strategy enhanced daylighting. "Having natural light is especially important for people who choose to live in Portland," says Swift founder Alicia McVey. "It produces a healthier feeling inside."

That employees and visitors would feel part of Portland—and not just occupying any old building anywhere—was another criterion for the project. Besides preserving Rose City Awning as much as possible, the architect responded to the authenticity charge by making the building more porous to the street. Take the main entrance, which is a **Dorma**

custom-fabricated 9-by-20-foot operable glass wall. "This window wall connects the heart of Swift to a covered courtyard that meets the city street directly," Beebe explains. "The operable glass panels can be used as a single hinged entry door, or opened completely on an accordion track so there is no barrier between the city and Swift." The courtyard located within the retractable threshold is covered by the remaining midcentury sawtooth.

For an additional nod to local identity, the space is punctuated by a 24-foot-long custom picnic bench created by Portland firm The Good Mod. COO Elliott notes, "This atrium is our main entrance for everyone, including clients and potential employees; it speaks to an ethos of transparency and welcome."

Incising the factory's concrete-masonry structure wherever it was affordable to do so, Beebe Skidmore extended the covered courtyard into wide interior corridors organized around an expansive common area. That central node includes a kitchen niche that opens to a series of standing tables with barstools, as well as a conversation pit whose bench seating marks its sunken perimeter. The generously proportioned

scheme supports views to the street and neighborhood—as well as Swift's company culture, in which the casual run-in in the kitchen or hallway can lead to an impromptu brainstorming session a few steps away. Finishes with a residential sensibility encourage that easy interaction between colleagues: The kitchen's gray-stained plywood cabinets, Daltile backsplash, and stainless-steel counters could very well be in a stylishly renovated bungalow nearby; raised floors are whitewashed juniper grown in Oregon and milled at In the Sticks in Fossil, also in Oregon.

Swift depends on meetings and conference calls, and for these work sessions Beebe Skidmore placed multipurpose rooms along the Rose City Awning perimeter and within the new mezzanines. Office and conference partitions throughout the space employ frameless, butt-jointed glass sheets that ostensibly disappear from view. Gray Filzfelt wall panels and Interface carpet tiles laid over architectural surfaces help soften their tactile and acoustical edge. Swift's design seamlessly connects old and new, just as it links the formal and informal. It's the epitome of fluidity.

OPEN COMMUNICATION

A central conversation pit (above) encourages casual interaction among staff. Most of the other amenity spaces, as well as conference rooms, are arranged around the building perimeter on mezzanine levels.



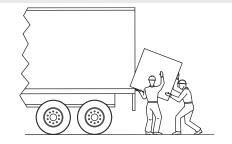
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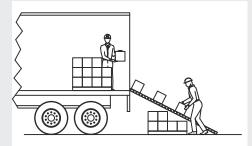
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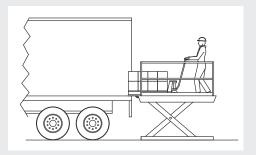
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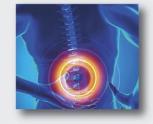












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Sound and Vision

FROM CUTTING INTO dropped ceilings to strategically spacing baffles, architects and designers have long sought unobtrusive ways to specify good sound control alongside appropriate lighting without compromising either. So recently, manufacturers of both lighting and acoustics have begun offering hybrids—acoustics/lighting products that perform the two functions in one. **Luceplan**, for example, collaborated with architects Odile Decq and Monica Armani on handsome luminaires that conceal acoustical material within the fixtures themselves. **Armstrong Ceiling Solutions** developed a system that integrates USAI-brand lights within the ceiling grid for a seamless appearance. And felt and furniture brand **BuzziSpace** continues to expand its lighting line, which incorporates its proprietary acoustical material. Now Seattle-based **LightArt**, a **3form** company, has tossed its hat into the ring.

"Designers would look at our [fixtures] and ask if we had something like those, but acoustic," says Ryan Smith, president and creative director

of LightArt, of why the company began rolling out such offerings.

During New York's annual NYCxDesign festival, LightArt unveiled two of its first forays in the category. Static is a linear LED suspension with a clean, minimalist look. Instead of acrylic, metal, or wood, sound-absorbing PET felt sandwiches the light source. The combination fixture is ideal for offices. It comes in 4- and 8-foot lengths with felt panels in nickel or cast gray.

More dramatic in appearance, Echo is a pendant light with baffles that fan out like spokes on a wheel. But its design is not purely decorative: The dimensional geometric patterns produced by combining Echo modules in various configurations can provide an NRC value ranging from 0.85 to 1. "Often our research comes from needs or gaps we see out in the field. We're solving the problem of high-quality lighting over people's heads. Why can't we solve [for] acoustics as well?" says Smith. Now that's music—or should we say silence—to our ears. —Sheila Kim





Line up LightArt's Static suspensions (above) for greater coverage. Echo pendants (top) can work in



LIK



wall sconce measures 3 1/8 "wide by 7" high with a maximum 3 3/5" depth. The built-in LED is a 6W, 3000K bulb that provides from 81 to 1350 lumens.

PRICE RANGE: \$\$

APPLICATIONS: With its minimalist form playfully alluding to a tongue, Lik looks at home in many settings, from residential to hospitality to retail. The gently curved fixture, available in bronze, matte nickel, or white, conceals a single dimmable LED.

AXOLIGHT.IT (SNAP #213)

KEY \$=VALUE, \$\$=MID-RANGE, \$\$\$=HIGH-END



DIADE

MANUFACTURER: Luceplan **PERFORMANCE:** Available with adjustable or vertical-only acoustic wings, this suspension features a 3000K LED as well as sound-absorbing PET.

PRICE RANGE: \$\$\$

APPLICATIONS: Architect and designer Monica Armani follows up her Silenzio drum pendant with this linear LED for workplaces and other commercial settings. Acoustical "wings" flanking the beam can fold down to form a ceiling cloud or close vertically. Choose panels in blue, black, or beige. **LUCEPLAN.COM**



(SNAP #214)



LIGHT GUIDE RING

MANUFACTURER: Sonneman **PERFORMANCE:** The technology used to backlight smartphones enables this pendant's glare-free illumination: A single 13W, 3000K LED at each ring's edge emits light through points across the acrylic lens for perfectly diffused downlighting.

PRICE RANGE: \$\$

APPLICATIONS: Suited to residential or hospitality settings, the 8"-diameter aluminum disc comes in a single or cluster, with a satin finish in either black or white. SONNEMANAWAYOFLIGHT.COM

(SNAP #215)



MIDISPY TRIMLESS

MANUFACTURER: Delta Light **PERFORMANCE:** The 5.9W, 2700K

white LED of this adjustable fixture provides 530 lumens and a flood reflector for beam angles up to 40°. With a maximum rotation of 355°, it can be angled up to 90°.

PRICE RANGE: \$\$\$

APPLICATIONS: As it transforms from a recessed downlight to a ceiling lamp and directional spotlight, this light is ideal for gallery, commercial, and even residential applications. The 2"-long by 1¾"-across housing is offered in white and black.

DELTALIGHT.US (SNAP #216)

Good Day, Sunshine

IT HAS BEEN SAID THAT HAPPY, healthy employees are also productive ones. At progressive offices, access to natural light is high on the list of mood-boosting on-site benefits. For spaces farthest from the windows, this can mean using innovative LED lighting to mimic natural light—even sunsets. (Tunable artificial light is thought to support circadian rhythms as much as real sun does.)

One company leading the charge into such natural-light simulations is Austin, Texas-based Ketra, which offers a fully integrated system from the proprietary driver chip technology and lamping to controls and fixtures. Its Natural Show setting, which transitions throughout the day without any intervention, can even be programmed to imitate the intensity, brightness, and temperatures of daylight in a client's geographic region. "Ketra's solution is based on an astronomical clock contained within our controllers," explains CEO Nav Sooch. "This clock is programmed to your location, knows sunrise and sunset, and extrapolates the Natural Show from these points." What it doesn't do is mimic the exact light outside at a given moment. (Feedback from customers was that even on cloudy days, they prefer spaces to appear sunlit.) So far, the Natural Show setting has been installed in offices for Squarespace, Vice Media, and the Foster + Partners-designed R/GA, among others. It runs from \$5 to \$15 per square foot.

Not all Ketra's lighting systems run the Natural Show setting nonstop. "A project can have multiple programmed settings, allowing [someone] to change the lighting at the tap of a finger," says Sooch, but "most use the Natural Show as default." Naturally. —SK





SKY LIGHTS

An office for creative consultancy R/GA makes use of Ketra's system of simulated daylight.

Studio O+A

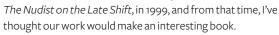
Verda Alexander and Primo Orpilla, cofounders

WHAT IS YOUR SECRET TO OFFICE **DESIGN THAT ALSO HELPS TELL A BRAND'S STORY?**

VERDA ALEXANDER: It's not really a secret. It means getting to know your client. We're like a nature writer who eats worms and sits in treetops to understand what it's like to be a bird: We immerse ourselves in the client's culture, and from that we create a narrative we use to guide our design development. All our recent work can be reverse-engineered from walls, lighting, furniture, and finishes back to the brand's narrative

YOUR NEW BOOK, **TWELVE NEW TALES OF WORKPLACE DESIGN, IS NOT YOUR FIRST FORAY** INTO PUBLISHING.

PRIMO ORPILLA: Right. This is our fourth book. We were also mentioned in Po Bronson's book on Silicon Valley,





HOW DID THE BOOK DEAL WITH FRAME PUBLISHERS COME ABOUT?

Po: I was at the Milan Furniture Fair a couple of years ago and ran into Robert Thiemann, the founder of Frame. He knew our work; he'd been watching us from Amsterdam. We both agreed that 26 years was a good perspective to look back from.

NAME THE BIGGEST INDUSTRY SHIFT OF THE PAST 26 YEARS.

Po: Companies wanting to make employees happy! When I started working, keeping staff happy was a low priority.Nobody cared how much natural light there was or whether you had a place to relax. I credit the tech world with bringing about a change in that mindset. Initially a lot of tech entrepreneurs were engineers and hackers hiring people like themselves. They believe in sharing office perks—the new generation wants everybody to share the windows.

WHAT DO YOU THINK OF THE TREND IN **COWORKING SPACES?**

va: If the forecasters are right—that we're moving away from long-term employment toward a gig economy—it will make sense to design spaces that adapt to different uses. That's a major thrust of O+A's design now. Last April in Milan, we did an installation on the workplace of the future, and what we imagined looked more like a stage set than an office. It was the ultimate coworking space. We even played with wearable desks! Never mind meeting rooms in the middle of common areas: How about a desk that pops out of your vest?



The rough total of recent design work featured on the firm's website. Studio O+A in 1992. Since then, the two have led their San Francisco design firm in creating groundbreaking workspaces for Facebook, Uber, and Microsoft, among other big-name clients.



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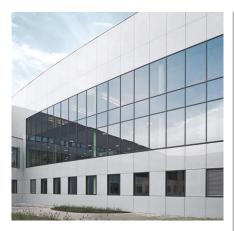
THIS JANUARY, workplace-software developer **Slack** got an office in Lower Manhattan befitting its reputation as a pioneer of free-flowing, unencumbered intra-office communication. New York firm **Snøhetta** designed a 12,000-square-foot headquarters that encourages spontaneous, fluid communication by using glass partitions instead of opaque dividers and walls to organize the space. The solution allows a gridlike plan of breakout and meetings rooms arranged along a central corridor to feel open and accessible to each other—much like the company's hallmark messaging software supports the exchange of ideas between coworkers.

Transparent partitions separating six conference rooms (plus one larger executive boardroom) and nine booths are all made from **Muraflex** tempered glass, which has a sound transmission class of 37 to ensure privacy while still allowing staff to see into rooms. To echo the company's fun, inclusive culture, architects added colored film—by **Decorative Film** and **3M**—on conference rooms' glass walls in shapes and hues inspired by the Slack logo.

In addition to reflecting the company culture, glass walls offered a way to retrofit modern circulation into the 1880s building; it's landmarked, meaning architects had to work within the existing footprint and around original windows and four 20-by-5-foot skylights. While the actual skylights were left untouched, edges of their enclosures were extended and widened to meet a dropped ceiling and allow more natural light to penetrate the space, says Anne-Rachel Schiffmann, senior architect for the firm. — Ashleigh Van Houten



 $Glass\,walls\,help\,keep\,communication\,flowing\,in\,Slack's\,new\,Manhattan\,offices.$



LACOBEL T



MANUFACTURER: AGC Glass Company

PERFORMANCE: Available in more than 20 colors and in clear and satinfinishes, this Cradle-to-Cradle-certified glass is ideal for building facades and interior wall cladding, door panels, elevators, and signage.

PRICE RANGE: \$\$

APPLICATIONS: Use this temperable float glass, back-painted with low-VOC paint, for interior and exterior applications.

US.AGC.COM (SNAP #217)

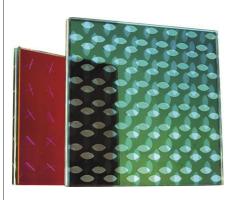


CLIMACLEAR

MANUFACTURER: NanaWall **PERFORMANCE:** A frameless all-glass single-track sliding system engineered for transparent weather protection and acoustic privacy, ClimaClear has no vertical stiles, giving the appearance of an all-glass unit.

PRICE RANGE: \$\$\$ **APPLICATIONS:** Standard configurations come with a single-action swing panel and are available in clear anodized, brushed, dark bronze, and black anodized options.

NANAWALL.COM (SNAP #218)



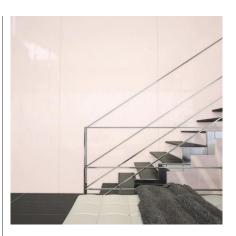
VAPOR GLASS

MANUFACTURER: Sensitile **PERFORMANCE:** Made with recycled materials, this lightweight glass (also offered in resin), available in four panel sizes, seven scalable patterns, and 20 colors, is ideal for screening, feature walls, and signage.

PRICE RANGE: \$\$

APPLICATIONS: Sensitile layers mirrored and iridescent patterns in various configurations and colors that are accentuated when backlit.

SENSITILE.COM (SNAP #219)



VIVID PASTELS SATINTECH GLASS



PRICE RANGE: \$

APPLICATIONS: Available in 60 x 120" sheets, the glass is back-painted in 12 soft pastels including robin's-egg blue, lavender off-white, and pale green tea.

BENDHEIM.COM (SNAP #220)

KEY \$=VALUE, \$\$=MID-RANGE, \$\$\$=HIGH-END



= ECO-FRIENDLY ATTRIBUTES

Local Vernacular

FAMILY OWNED SINCE 1916, the Washington Fruit & Produce company in Yakima asked Seattle firm **Graham Baba Architects** to design its new headquarters with a look departing from that of most industrial agribusiness facilities.

The brief seemed to say "get back to the land," given that the owners like the vernacular architecture of old barns. "From this grew the idea that the building would have a utilitarian, agricultural, and worn feel," says Graham Baba project manager Jenn LaFreniere.

But barns aren't usually flooded with natural light, which the client also wanted. So Graham Baba came up with a careful plan for exterior glazing. One large window wall on the north side takes advantage of Yakima's approximately 290 sunny days each year. The architects added small clerestory windows on the south. "This way, even light is cast over the workstations, versus all of it coming in from one side," LaFreniere explains. The team chose **Solarban 60** glazing for an interior courtyard to further promote visibility into the building; **Solarban 70** was used along the southern facades to lessen heat gain.

To combine the efficient glazing with barnlike features, the team created an exterior of sloping, 18-foot-high structural columns and an outer shell clad in reclaimed local barnwood. Glass fills in the exposed spaces. A **Wausau** glass wall system—measuring 18 feet high and more than 150 feet long at points—was specified throughout and has controllable shades.

"One of the biggest challenges was consistent lighting and climate control in a location where weather changes dramatically," says LaFreniere. — AVH





CLOSE TO THE LAND

Window walls (from left) make use of the Yakima, Washington, location's 290 days of sunny weather, while the interior and exterior wood framing satisfied the client's desire for the design to reference a barn.

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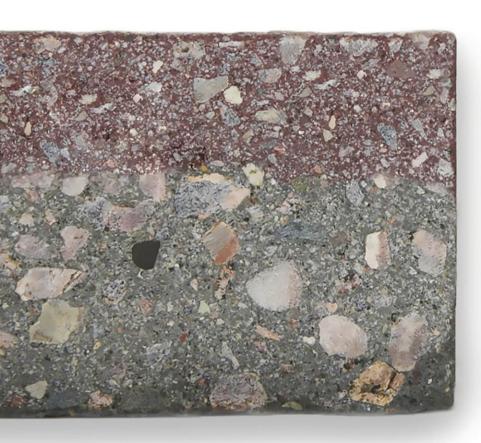
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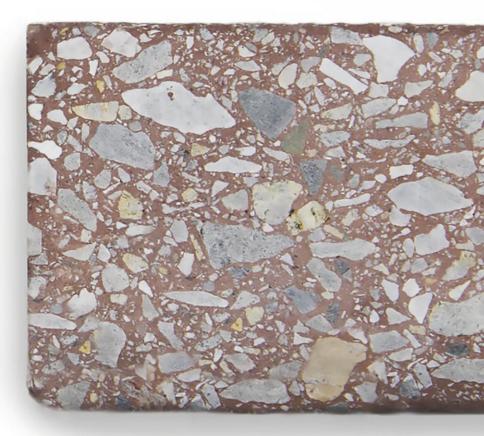
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Room with Two Views

A PRIMARY INTENTION for the design of a building to house the London headquarters of telecommunications company Sky Central was maximizing natural light throughout its 11,490 square feet.

The solution was to install a vast H-shaped atrium to drive daylight down from the roof into the three-story space. "This allows daylight to reach office spaces that are a considerable distance from the facade," says Wayne McKiernan, director for PLP **Architecture**, the firm behind the design. "That's a problem in any large-plan building."

PLP actually used 400 skylights made of low-iron, triple-glazed glass from Interpane. The combination was framed and installed by **Prater**. For a balance of light and shade, the team gave the rooftop glazing a north angle pitch, McKiernan says, explaining,

"Combined with deep beams, that enables a high degree of passive shading from the roof, as the majority of the roof skylights don't have blinds."

Another effective device adding natural light is the floor-to-ceiling glass composing the walls of the ground-floor café. Here, the architects specified 59-foot, slidingglass doors from Vitrosca because their minimal frames offer maximum sightlines.

A clear benefit of all this glazing is that users almost anywhere in the space can greatly reduce their reliance on artificial light. Then there are the perceived health perks. "Increased daylighting can reduce fatigue and increase happiness and alertness," McKiernan says. It also allows for 27,000 indoor plants to thrive in the hub, which doesn't hurt either. — Ashleigh Van Houten



LET THERE BE LIGHT

Sky Central in London boasts a skylight that illuminates even its ground-floor café (from top) and runs almost the entire 328-foot length of the building.



CONTROL WINDOW FILMS

MANUFACTURER: 3M Sun **PERFORMANCE:** These invisible films reduce heat gain by up to 37% in the summer and heat loss by up to 40% in the winter; they also help reduce fading of fabrics and floors. PRICE RANGE: \$\$

APPLICATIONS: The film can be applied to any existing window, offering high light transmission with a neutral appearance while reducing interior glare.

3м.сом (SNAP #221)



NET WORKS

MANUFACTURER: Création Baumann for Carnegie Fabrics

PERFORMANCE: The three drape designs the square-net Space, the open-spaced knit Link, and the large-patterned Globe—were inspired by high-performance-activewear knitting techniques.

PRICE RANGE: \$\$

APPLICATIONS: The PVC-free Trevira CS shades meet the most stringent flame codes—ideal for commercial settings.

CARNEGIEFABRICS.COM

(SNAP #222)



ROLLER 225

MANUFACTURER: Lutron **PERFORMANCE:** Manual and motorized versions of these shades deliver superior control of natural light, reducing excess glare and heat gain while letting in daylight.

PRICE RANGE: \$\$

APPLICATIONS: Available in sheer, dim-out, and blackout Greenguard-certified fabrics, this option provides a heavy-duty bracket and higher torque to control up to 225 square feet of fabric for larger applications.

LUTRON.COM (SNAP #223)



DYNAMIC DOME

MANUFACTURER: Velux PERFORMANCE: The geometric ridge pattern on these commercial skylights

means light gets transmitted to building interiors rather than bouncing away.

PRICE RANGE: \$\$-\$\$\$

APPLICATIONS: Ideal for warehouse-style buildings, the skylights come in four glazing options: Impact Modified acrylic, LuxGuard and LuxGuard Plus polycarbonate, and General Purpose acrylic.

VELUXUSA.COM (SNAP #224)

KEY \$=VALUE, \$\$=MID-RANGE, \$\$\$=HIGH-END



= ECO-FRIENDLY ATTRIBUTES

Where Go the Boats?

THE RECENTLY OPENED Eleanor Boathouse at Park 571 in Chicago's Bridgeport neighborhood has a big job: Its purpose is to help strengthen the locals' connection to the Chicago River.

Appropriately, the design of the boathouse buildings drew inspiration from the riverside site. The volumes by **Studio Gang Architects** total 19,003 square feet and span two structures—one for boat storage and one that serves as a training facility, with 57 ergonomic rowing machines and distinctive clerestory roofs. (The architects' design for the latter was inspired by photographer **Eadweard Muybridge**'s 1880s stop-motion images of rowing.) Their shapes incorporate structural steel trusses at angles that echo the high and low positions of rowers' oars. Using polycarbonate windows instead of glass in these clerestories helps in both lighting the building and reducing its heating demand in winter. In summer, the windows open, providing enough ventilation to eliminate the need for mechanical cooling.

According to Exterior Technologies (Extech), whose **Lightwall 3440** was specified for the clerestories, the opalescent panels offer just 51 percent light transmission, compared with nearly 90 percent from a clear window. That's how they're able to "provide a softer, more diffused daylight and drastically reduce glare," says Extech general manager Jim Leslie. -AVH

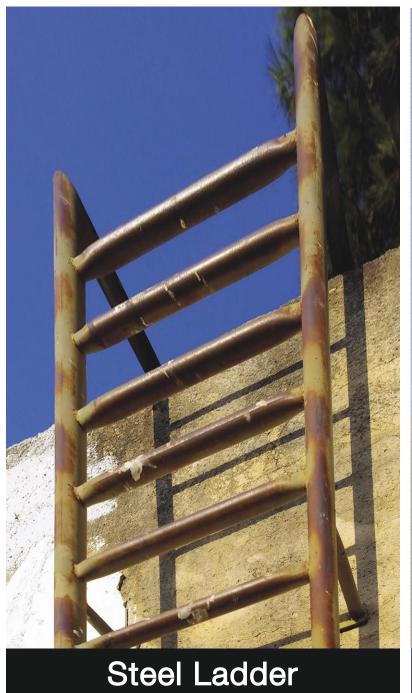




ROW, ROW, ROW

 $The field \ house \ (exterior \ view, left), which \ accommodates$ year-round rowing classes, uses its operable clerestory windows for natural light, passive heating in winter, and cooling in summer (above).

IT'S HOW YOU GET TO THE TOP THAT MATTERS!





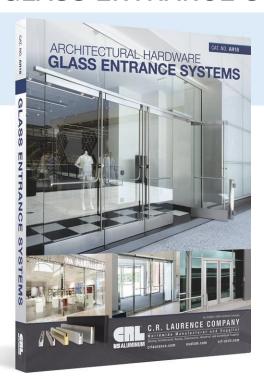
- X Heavy and difficult to install
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- Requires maintenance and costs money over time
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Heavy Metal

A PRIVATE ART GALLERY that film producer **Steve Tisch** commissioned for his Beverly Hills backyard was almost clad in brick. But then L.A.-based architects **Johnston Marklee & Associates**— which completed the building in March 2016, on the site of a former tennis court downhill from the main house—decided zinc might create a cooler first impression, especially when seen from above.

"Since the gallery sits approximately 40 feet below the main residence, the roof became an important design feature," says **Lindsay Erickson**, the project manager. Zinc panels from **Rheinzink** looked sleek and durable on the exaggerated gables. The building needed to live up to that first impression upon approach. So the architects wrapped the entire volume in zinc for a near-seamless skin that clads both the facade and roof. A total of 6,500 square feet

of prePATINA blue-gray Vertical Angle Standing Seam panels make up the exterior walls; 7,000 square feet of prePATINA Double Lock Standing Seam panels in the same color cover the roof. All were fabricated and installed by Glendale, California's **MJC Roofing**.

Wrapping the building this way emphasized its contemporary profile, fitting since it houses a collection that includes works by Ed Ruscha and Gerhard Richter. "This project was an incredible opportunity to design a building that in its essence is pure geometry and form, with minimal materials and transitions," says Erickson.

Gary McKee, a Rheinzink spokesman, says the zinc panels featuring the company's standing-seam profile offer a great deal of flexibility for such dramatic applications. Erickson points out another benefit: "It will patina to a dark gray." — Ashleigh VanHouten



RAISE THE ROOFThe blue-gray zinc panels cladding the gallery's facade (top) and roof (above) project a modern sensibility.



SEEYOND

MANUFACTURER: 3 form PERFORMANCE: These stacking polygonal "tiles," made of acoustic foam with 1/4"-thick acoustic-felt fronts, can be used on—or as—a wall. The class A fire-rated felt is offered in five patterns and eight hues, with 50% preconsumer recycled PET content.

PRICE RANGE: \$\$-\$\$\$

APPLICATIONS: The acoustic-felt "building blocks" reduce reverb with an NRC rating of 0.90; without foam, the NRC rating is 0.80.

3-FORM.COM (SNAP #225)



CROSSFUSE



MANUFACTURER: Architectural Systems

PERFORMANCE: Each 4 by 8' standard acoustic panel comes in HPL or wood-veneer finish layered over an MDF substrate.

PRICE RANGE: \$\$

APPLICATIONS: A good choice for hospitality and retail, these wallcoverings with 3-D patterns made from a mix of reclaimed wood veneers (such as teak, ipé, and walnut) absorb and refract noise.

ARCHSYSTEMS.COM (SNAP #226)



ZINTRA ACOUSTIC TEXTURES



MANUFACTURER: MDC PERFORMANCE: Made from 100% polyester in 16 colors, the ½"-thick panels come in 4 by 9' sheets, ideal for joint-free, floor-to-ceiling applications.

PRICE RANGE: \$

APPLICATIONS: Their sound-dampening properties and striking design make Zintra on Zintra patterns and Zintra Acoustic Textures a natural choice for offices, restaurants, airports, and institutional spaces.

MDCWALL.COM (SNAP #227)



ECOSCREEN



MANUFACTURER: Kirei PERFORMANCE: Used in combinations that can be custom printed (and cut) in 20 colors, these acoustic panels are ideal for contract settings. EchoScreen is made

PRICE RANGE: \$\$

APPLICATIONS: When hung from the ceiling or mounted on a wall, this modular 94 by 46" space divider absorbs sound and reduces echo.

from recycled PET and aluminum.

KIREIUSA.COM (SNAP #228)

KEY \$= VALUE, \$\$ = MID-RANGE, \$\$\$ = HIGH-END



= ECO-FRIENDLY ATTRIBUTES

Curtain Call

THE CENTRAL GALLERY in the 50,000-square-foot Moody Center for the Arts at Houston's Rice University is used for dance performances and social functions as well as traveling art exhibitions. The ability to close off part of the multifunctional space but still have it feel connected to the rest of the floor adds to its creative energy.

That's the reason Michael Maltzan Architecture in Los Angeles came up with its flexible stainless-steel mesh partition a custom-designed curtain from **Cambridge Architectural** that serves as the space's hardworking partition.

To fit the scale of the room, Cambridge Architectural wove together two 11 ½-foot-high curtain panels, one measuring around 46 feet and the other 25 $\frac{1}{2}$. (The mesh is hung sideways so it can pivot at the rods, to allow the curtains to collapse and fold.) The result is a dynamic alternative to solid partitions. The mesh in Cambridge's Mid Balance pattern has a 50 percent open area, providing more transparency than some of the more tightly woven meshes do. "This curtain retains the open-design intent," says Dave Zeitlin, a spokesman for the manufacturer.

For the gallery's high-volume traffic, architects needed something durable that wouldn't noticeably show wear over time. The curtains also serve a protective function when closing off valuable art, so engineers at Cambridge designed a system to hook them to floor and ceiling tracks that can be locked in place when the partition is extended to seal off the room. -AV





FUNCTIONAL FLAIR Architects specified a custom mesh curtain that can lock in place, a plus especially when art is on display.





Precious Metals

AS OF MAY 2016, a former bank in a 1928 skyscraper in Old Montreal, Quebec, houses a sleek coworking space for tech company **Crew**. Local architect **Henri Cleinge** took on the task of creating a modern design that also respected the building's historic bones. "When you renovate a heritage building, it has to look like it can be reversible. We wanted a lightweight structure with some personality, calibrated so it didn't take over the main space," he says.

Keeping the original marble-and-brass teller stands was a challenging requirement. But rather than just working around them, Cleinge echoed them in a row of five conference rooms—measuring 11 by 14 1/2 feet—which sit like elegant jewel boxes under the coffered 40-foot ceiling in the 12,000-square-foot space. Each room features two walls of **Techniverre**'s transparent glass and two clad in brassplated steel, fabricated by **Linea P** to echo

the old bank's brass and gilded accents and finishes still found throughout the building. These, along with ten 7-foot-square privacy booths around the perimeter, showcase the rich brass-plated walls, Sayl chairs from Herman Miller, and Cleinge's custom tables of white oak and steel.

To complement the dramatic furnishings, eight existing chandeliers were upgraded with LEDs. Laser Blade LED fixtures by iGuzzini (small recessed downlight fixtures measuring 11/4 inches square) provide discreet lighting in conference rooms and booths.

Though cool and modern, Cleinge's "temporary installation" works with the historic architecture of the building rather than against it. He credits the client's flexibility as much as his own resourcefulness: "The project was fun because we had dynamic clients who were open-minded and wanted something contemporary," he says.

—Ashleigh VanHouten



 $For Crew's \, Old \, Montreal \, coworking \, space, a \, former \, bank, Henri \, Cleinge \, clad$ the privacy booths (top) and meeting rooms (bottom) in brass-plated panels.



CHA BENCH



MANUFACTURER: Skylar Morgan Furniture

PERFORMANCE: Measuring 84 x 22 x 31," the bench is made with washed ash the wood is from a managed forest—and powder-coated steel with a zero-VOC water-based finish.

PRICE RANGE: \$\$

APPLICATIONS: The functional bench with leather cushion doubles as sculptural art. **SKYLARMORGANFURNITURE.COM** (SNAP #229)



LOLLIPOP

MANUFACTURER: Nienkämper PERFORMANCE: Each 21 x 22" seat has a durable plywood seat pan upholstered in Fortrel fabric over polyure than e foam. The base is powder-coated metal.

PRICE RANGE: \$\$

APPLICATIONS: LolliPOP is a reintroduction of a 1960s design featuring a round seat and back; it's available in a range of bright colors and in two-, three-, and four-seater options.

NIENKAMPER.COM

(SNAP #230)



BOWER COLLECTION

MANUFACTURER: NAU

PERFORMANCE: The chair comes in a low-back (32" tall) and high-back (56" tall) profile. Base finishes are available in natural or black-stained ash, oak, or walnut.

PRICE RANGE: \$\$\$

APPLICATIONS: Adam Goodrum's first series for Australian design brand NAU includes a workpod, armchair, and meeting lounge; adjustable acoustic screens feature a weave design that helps catch and absorb noise.

NAUDESIGN.COM.AU

(SNAP #231)



OPE

MANUFACTURER: Ope

PERFORMANCE: The modular shelving system can be assembled and rebuilt without tools—thanks to a patented bracket connector—in a multitude of configurations.

PRICE RANGE: \$\$

APPLICATIONS: The individual 15"-square boxes can be mounted to walls and floors alike, making the system suitable for use as a space divider. Custom colors and finishes are offered.

OPEWORK.COM (SNAP #232)

KEY \$= VALUE, \$\$ = MID-RANGE, \$\$\$ = HIGH-END



= ECO-FRIENDLY ATTRIBUTES

Hello, Dolly!

THIS FUN, INNOVATIVE group of modular furniture, based on the familiar profile of a moving dolly, is the brainchild of three **Cornell University** alums. Architect William Lim, founder of CL₃, along with Vincent Lim and Elaine Lu, cofounders of studio Lim + Lu, designed 12 portable pieces for use in their alma mater's College of Architecture, Art, and Planning. Knowing that the Genslerdesigned building already features movable partition walls, the designers thought the furniture should be versatile, too. "We wanted to complement the space with something flexible and portable," Lu says.

The push-pull pieces can also be turned on their sides or stood on end for alternative uses. The coffee table, for example, when lifted upright, can be a bookshelf; the three-seater sofa doubles as a coatrack. The block primary $colors \, of \, the \, vinyl \, upholstery \, on \, frames \, of \, powder-coated \, steel \, owe \, a \, debt \, to \,$ Le Corbusier, an icon of modernism. "Every piece has two lives—standing up and lying down," says Vincent Lim. — AVH





PUSHING BOUNDARIES

The portable pushcart furnishings designed for Cornell's College of Architecture, Art, and Planning can perform multiple functions.

LookingUp

Plants in Iowa, Michigan, Minnesota, and Nebraska strike an upbeat note.

BY J. MICHAEL WELTON



FIVE YEARS AGO, Canton, Michigan, was a rare bright spot in Midwest manufacturing, with **Duo-Gard Industries** churning out polycar-

bonate canopies for skylights, translucent walls, and bike and transit shelters. "We managed to grow through the recession," says Dave Miller, the company's president. "The stimulus package from President Obama had a lot of transit in it, and that carried us through."

In the rest of the Midwest, things were different. "Five years ago, we were still recovering," says Bill Blazar, senior vice president of public affairs and business development for the Minnesota Chamber of Commerce. "One of the great lessons of the recession," he adds, "was just how significant the building products industry is in Minnesota. The recession hit that industry hard."

But by 2016, manufacturers had reasons to smile. "There was a reduction in federal regulations and the Trump administration started to do away with the overtime rule," says Jaime Carl, vice president of public affairs and policy for the Nebraska Chamber of Commerce and Industry. "That boosted optimism and investment."

Today, plants like **Whirlpool**'s in Amana, Iowa, are flush with production. "The appliance industry is up this year by 4.6 percent," says Bob Bergeth, the manufacturer's general manager of contract builder sales and marketing. "For homebuilders, the peak was 2 million housing starts in 2008, and we're at 1.1 million now. There are a lot of bullish economists out there saying it could last another two to four years."

People are operating on good feelings, says J.R. Anderson, president and CEO of Minnesota's **Acoustigreen**, a division of Acoustical Surfaces. "We're in an opportunistic state," he says. Compared with the reality check delivered by the recession, all agree, that's a better place to be.

Iowa, Michigan, Minnesota, and Nebraska



MANUFACTURER: Acoustigreen LOCATION: Chaska, Minnesota

PRODUCTS: Acoustical wall and ceiling systems

FOUNDED: 2005 EMPLOYEES: 40 PRICE RANGE: \$-\$\$\$ ACOUSTIGREEN.COM



MANUFACTURER: SageGlass **LOCATION:** Faribault, Minnesota

PRODUCTS: Dynamic glass FOUNDED: 1989 EMPLOYEES: 315 PRICE RANGE: \$\$ SAGEGLASS.COM



MANUFACTURER: Viracon Inc. LOCATION: Owatonna,

Minnesota

PRODUCTS: Custom architectural glass for commercial buildings

FOUNDED: 1970 EMPLOYEES: 2,400 PRICE RANGE: \$\$-\$\$\$ VIRACON.COM



MANUFACTURER:

Duo-Gard Industries

LOCATION: Canton, Michigan **PRODUCTS:** Translucent daylighting systems, illuminated walls and ceilings, custom canopies, and bike and smoking shelters

FOUNDED: 1984 PRICE RANGE: \$-\$\$\$ DUO-GARD.COM





MANUFACTURER:

Tubelite Inc. LOCATION: Walker,

Michigan **PRODUCTS:** Eco-efficient

storefront, curtain wall, and entrance systems

FOUNDED: 1945 EMPLOYEES: 300 PRICE RANGE: \$\$ TUBELITEINC.COM





Whirlpool

MANUFACTURER:

Corporation

LOCATION: Amana, lowa **PRODUCTS:** Home, kitchen, and laundry

appliances **FOUNDED:** 1911

EMPLOYEES: 93,000 PRICE RANGE: \$-\$\$\$

INSIDEADVANTAGE.COM



Canopies

LOCATION: Lincoln, Nebraska

PRODUCTS: Aluminum architectural canopies

and walkway covers

FOUNDED: 1952 EMPLOYEES: 90

PRICE RANGE: \$-\$\$\$ MAPESCANOPIES.COM

SNAPSHOTS

IOWA

\$55,900

 $is the \, average \, salary \, for \, the \, Hawkeye \, State \, \lqs \,$ manufacturing workers.



Iowa generates 12.8% of the nation's constructionmachinery manufacturing employment.

SOURCE: IOWA ECONOMIC DEVELOPMENT AUTHORITY

MICHIGAN

Since 2009,

150,000

manufacturing jobs have been added in the Great Lake State.

Manufacturing workers in Michigan enjoy a 39.6% higher wage than those in the rest of the country.





SOURCE: MICHIGAN MANUFACTURERS ASSOCIATION

MINNESOTA

The North Star State's exports (such as agricultural, mining, and manufactured products)were valued at

\$4.8 BILLION,

 $rising \, 5\% \, (or \, \$234 \, million) \, between \, the \, first$ quarters of 2016 and 2017. In comparison, U.S. exports increased 7%.

SOURCE: MINNESOTA DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT

NEBRASKA

Manufacturers in theCornhusker State are clustered around Omaha and **Lincoln**, 55 miles apart.



The metropolitan statistical areas (MSA) for the two cities have a combined population exceeding

1.1 MILLION,

or nearly 60% of the state's total population.





Green Acres

A sustainable home in a sweltering Texas suburb sets a cool example for energy savings.

BY ALEX KLIMOSKI

WHEN HE HEARD that a family friend had bought a plot of land for her new residence in North Dallas, Paul Merrill, a project architect for 5G Studio, saw it as a unique opportunity. The firm would design its first single-family house and, thanks to the trust already established between client and architect, develop a useful prototype for sustainable living in the hot Texas suburb.

Merrill knew the client wanted to leave a light ecological footprint, but earning LEED certification was not in the original plan. (Nevertheless, the house, completed in 2016, has earned a LEED Platinum rating and is net positive energy, meaning it produces more energy than it uses.)

"When the project started, there was no expectation for this level of energy efficiency," says principal architect Yen Ong. "It sort of evolved as we educated our client on the benefits and showed her the added value."

Although the owner lives alone, she wanted the property—known as the Winnwood residence—to have enough space to accommodate frequent visits from relatives. So the architects devised an extensive program comprising three bedrooms, four and a half bathrooms, and a study that converts to a guestroom. A special prep kitchen, a pantry, and a storage room radiate off the open combined living, kitchen, and dining area.

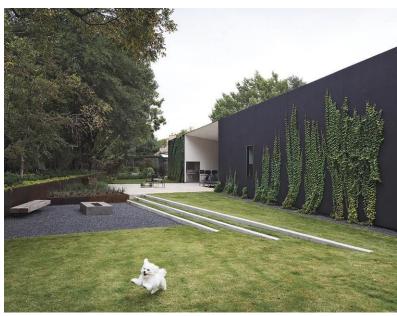
For general energy savings, architects looked first to the building envelope and its site orientation. One challenge: finding ways to let in enough daylight to reduce the need for artificial lighting without causing solar heat gain. Bedrooms featuring full-height glazing with views of the backyard were placed along the building's north wall. To add shaded outdoor areas but avoid direct sunlight at the east- and western ends, the architects designed inset

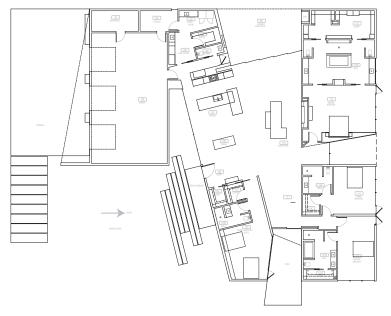


IN ITS ELEMENT

The LEED Platinum home (top) leaves a light footprint on the North Dallas landscape. The front inset patio (above), seen from inside, helps integrate the in-and outdoors while cutting sun exposure.







OPEN HOUSE

The airy combination living, dining, and kitchen area (above) $extends\,into\,one\,of$ two patios. A yard beside the house (far left) allows for free ranging.

patios that bookend the main living space (Both are separated from the interior by floor-to-ceiling sliding glass doors with low solar heat gain coefficients). The other perk of the patios is that they allow for enhanced natural ventilation when the home is not being mechanically cooled. When there's not enough daylight, energy-efficient lighting fixtures are used.

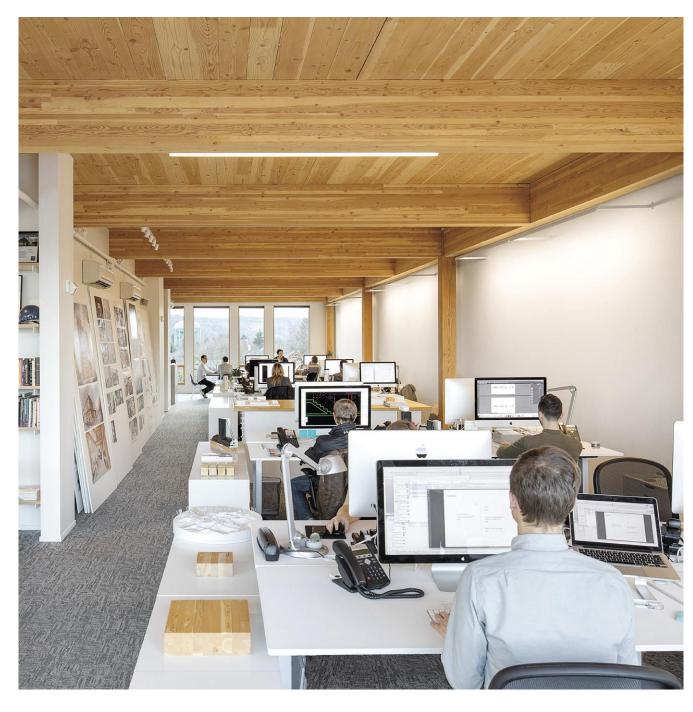
Indoors, architects made sure that sections of the 4,700 square-foot ranch would have the capability to "turn off" when not in use. Thus, each room is individually insulated and has its own thermostat.

Taking cues from a conservation park located across the street, the design team sculpted an intricately landscaped area composed of native and adapted vegetation around the front of the house, to the south. In conjunction with a rainwater harvesting system, the lush plantings use 72 percent less water than comparable landscapes in the area. Branches of a mature oak cantilever over the front door, shading the entry and serving as a welcoming visual landmark. The site's permeable paving and other stormwater management tools allow most of the rainfall to infiltrate the soil at a level where it is naturally filtered rather than being allowed to run off and flood storm drains. Such strategies, along with lowflow indoor fixtures, can usually help reduce the amount of water a single-family home consumes.

The house, which features an engineered wood frame, also benefits from a geothermal heat pump and a 10-kilowatt solar photovoltaic system. These are expensive up-front investments, but they yield significant long-term energy savings, says Merrill. "When you are looking at additional costs, you have to consider the additional value, too," he continues. "You aren't spending money and never getting it back."

Architects found ways to shave off some of the building costs as well. For the interior walls, for example, the team reduced the level finish of white Venetian plaster from five to three by doing mockups to see how it would reflect or hide variations in the wall. "It's really important to investigate alternatives and make informed decisions that can reduce premiums," Merrill explains. Also, a number of building materials used for the new home were repurposed from the house previously occupying the site.

Granted, the initial costs of building a sustainable home present hurdles for homeowners, but the Winnwood property offers an inventive model with features worth emulating. "A home cannot be viewed as an independent element but rather [should be seen] as a series of interconnected systems, where improvements are achieved not through one decision but through many," says Merrill. "The prototype is the thoughtful approach." ■



STACKING THE DECKS

The mass-timber elements of the four-story Albina Yard (opposite and above) serve as both structure and interior finish material. The exterior, which reads as a slightly askew pile of books, is clad in glass and corrugated metal.

Home Grown

In a city where locavores rule, a new office building showcases regional materials and innovative construction techniques.

BY MICHAEL COCKRAM

ALTHOUGH ONLY FOUR stories tall, Albina Yard, a spec office building, stands out among its one- and two-story neighbors in a scrappy residential and commercial district in north Portland, Oregon. Looking up from the street through the horizontal bands of the glass facade, the ceilings of each level—planes of warm Douglas fir—are visible. These elements are not just finish material but the building's exposed floor plate. Designed by Portland's LEVER

Architecture, Albina Yard, completed in 2016, is one of a handful of buildings in the United States constructed using a mass-timber structural system.

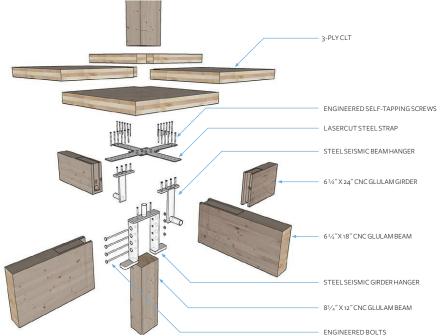
The divide between the new office building and its grittier context is bridged by the architect's use of understated formal moves and a humble material palette. The scale of the street elevation is modulated and delineated in a subtle dance of cantilevers. The second story projects straight out to form a











EXPLODED AXONOMETRIC — COLUMN-BEAM ASSEMBLY

DISAPPEARING ACT

Specially engineered and fabricated steel brackets (left) connect the columns, beams, and floor plates. These are mostly buried within the wood components and are hardly visible on the building's interior (above).

shallow protected zone over the storefront at the ground-floor retail space. The facades of the third and fourth floors twist a few degrees off the grid in opposite directions. The effect is like a stack of books slightly askew. Dark corrugated-metal siding, which clads the side walls and other opaque parts of the building, complements the nearly complete two-story office annex (also designed by LEVER) made of shipping containers and located in the rear courtyard of the L-shaped lot.

Although timber-framed construction has been around for thousands of years, mass timber is a

more contemporary spinoff. Instead of solid wood beams and columns $made \, from \, large \, trees, \, mass-timber \, frames \, incorporate \, engineered \, wood \,$ products such as cross-laminated timber (CLT), laminated veneer lumber (LVL), and nail laminated timber (NLT). Such components bind together small wood elements to form strong structural units.

Above its concrete foundation, Albina Yard has an all-wood structure. The architects designed a grid of glue-laminated (glulam) columns and beams with CLT panels acting as floor plates. Used for floor structures, walls, and even elevator cores, CLT panels are made up of three or more layers of dimensional lumber bonded with structural adhesives. Since the

A WALL THAT ROCKS

IN MANY WAYS, Albina Yard has served as a test-bed for a much more ambitious LEVER Architecture project: the 12-story mixed-use Framework building in downtown Portland, Oregon. It was one of two projects that split the \$3 million U.S. Tall Wood Building Prize, sponsored by the U.S. Department of Agriculture, the Softwood Lumber Board, and the Binational Softwood Lumber Council. At approximately 145 feet tall, Framework is expected to become the tallest mass-timber building in the U.S.

 $High-rise\ buildings\ typically\ rely\ on\ the\ shear\ walls\ that\ define\ a\ circulation\ core$ to stiffen the structure. In an earthquake or in high winds, the floor diaphragms transfer the lateral forces to the shear walls that resist and absorb movement. But Framework will have an innovative core system: a so-called "rocking wall" made up of vertical CLT panels.

Instead of trying to prevent the panels from moving in a seismic event, the designers have placed post-tensioned cables down the center of the wall to allow the ends of the panels to rock up and then pull the wall back into position to "selfcenter." According to Eric McDonnell, a structural engineer with KPFF in Portland, "With most traditional systems, like a concrete shear wall, the building won't necessarily come back to level once the shaking stops." LEVER principal Thomas Robinson adds that the team performed extensive testing with Oregon and Portland state universities to develop the resilient low-damage system.

Between the shear walls and the adjacent columns, the design team used a U-shaped flexural plate (UFP) that allows differential movement and absorbs energy. If the UFPs are damaged in an earthquake, they act like seismic "fuses" that can be replaced fairly easily, potentially saving costly repairs.

High-rise construction also has stringent fire-safety standards. Falling under the Type I-B noncombustible construction category, Framework's mass-timber structural frame is required to have a two-hour fire rating. LEVER partnered with fire-prevention experts at ARUP to devise tests for the CLTs and the structure's connection brackets. The team successfully tested the world's first two-hour rated, fully loaded beam-column-floor assembly made of mass timber.

Although wood is very combustible on its surface, once a layer of char forms, it insulates and slows the burning process, according to McDonnell. Framework's components—such as beams, columns, and floor plates—have been oversized to account for the extra depth of char while maintaining enough structural integrity to achieve the two-hour rating.

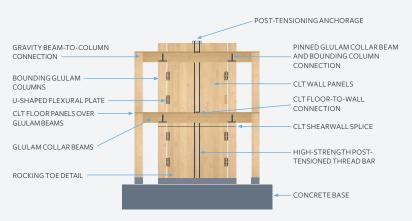
The USDA grant enabled LEVER and ARUP to subject loaded, full-scale mockups to combustion tests. According to ARUP fire-safety engineer David Barber, a major challenge was designing and testing the connectors, which needed to work aesthetically and structurally while standing up to the two-hour fire-rating requirement. Similar to what they did for the Albina Yard connectors, the team designed brackets that are totally encased by the wood structure, which makes them more fire-resistant.

The project has passed its life-safety tests and is currently in the final phase of permitting. Groundbreaking is slated for this fall. —MC



TREES TO TOWER

The 12-story, 145-foot-tall Framework tower (above), expected to be the tallest mass-timber $building in the \, \text{U.S.} \, once \, complete, will \, have \, a \, \text{``rocking wall''} \, core \, (below) \, designed \, to \, design$ self-center after a seismic event.



ELEVATION — POST-TENSIONED ROCKING WALL (STATIC STATE)

layers are stacked in alternating orientations, the panels are strong and lightweight and are able to span in two directions, in a manner similar to that of a two-way concrete slab. The bonded cross-lamination makes CLTs dimensionally stable, preventing the significant shrink and swell inherent in many wood products.

The approach has been used in Europe for a couple of decades and is spreading rapidly in Canada and the U.S. This momentum has spawned an informal competition, pushing mass-timber buildings to new heights, from midrise to high-rise construction. The current record holder is the 160-foot-tall, 14-story Treet residential building in Bergen, Norway (ARCHITECTURAL RECORD, September

According to Thomas Robinson, LEVER's founder, the firm decided to use this type of construction because of the client's interest in sustainable strategies and regionally sourced materials. Designing with locally grown and fabricated elements saves energy and transportation costs.

Robinson also sees projects like Albina Yard as a means to help reinvigorate Oregon's depressed timber industry. "We can connect the explosive growth in our cities to rural economic development," he says. The timber industry in the Pacific Northwest has never fully recovered from the recession in the 1980s and

subsequent forestry regulations that curtailed the supply of large trees for construction.

CLT and the other engineered-wood products used in mass-timber structures rely on smaller-diameter and potentially more sustainable second-growth trees, says Professor Thomas Maness, dean of the forestry department at Oregon State University. He adds that masstimber products can generate an array of highly skilled jobs, from those on the forest floor to others in high-tech fabrication facilities.

Because Albina Yard's glulam components and CLTs were prefabricated off-site in a controlled environment and because of their inherent dimensional stability,





KIT OF PARTS

Because the floors are made up of CLT panels fabricated off-site, each of the 4,000-square-foot decks was installed in about four hours. The prefabrication offered other benefits, including a quiet construction site and just-in-time delivery.

LEVER designed the building to an unusually tight tolerance of 1/8 inch. But the team wisely decided to construct the ground-floor structure before fabricating the rest of the frame in order to work out any glitches that might arise in the system. They found that they hadn't accounted for the full depth of the fillet welds on column-to-beam connectors. "A little grinding to fit the beams was the only on-site correction we had to do," says Robinson. The CNC software that cut the slots in the glulam elements for the connectors was adjusted to account for the welds, and the rest of the structure went up without a hitch.

Not only was the building erected easily but it also went up quickly. Each of the 4,000-square-foot CLT floor decks was installed in about four hours. With conventional methods, each level would have required up to a week, Robinson estimates. The construction method offered other benefits, including a quiet construction site and "just-in-time" material delivery, with the components arriving at the site immediately before they were ready to be installed. Such an approach is especially appropriate for projects in dense urban areas, where on-site storage and staging space is at a premium.

Although LEVER is currently working on a project that will rely on CLT for its structural core in addition to its superstructure (see sidebar, page 45), Albina Yard has a more conventional wood-frame core sheathed in plywood with hold-downs at each level. The core, along with the specially fabricated columnto-beam connectors, helps the building comply with seismic requirements. Fabricated in a local shop, the steel components are screwed to the columns but support the beams only with friction connections. They are embedded in the beam-ends with a saddle for the primary structure and a pin connection for the joist beams. The result is a seamless grid of glulam beams supported by hefty, square glulam columns without a fastener in sight.

Mass timber is substantially lighter than concrete or steel-frame construction. In addition to smaller gravity loads, a lighter structure can reduce lateral loads, which in turn further decreases the demands on the foundation, according to Eric McDonnell, a structural engineer for the project with KPFF in Portland. He adds that while smaller loads can allow smaller foundations, in some cases they can also preclude the need for expensive piles or even allow for a taller structure. For Albina Yard, the foundation loads are between 40 percent and 60 percent less than if the superstructure had been steel or concrete, estimates McDonnell.

Mass timber has several ecological advantages over typical construction methods. The earth's forests make up an enormous carbon sink that absorbs about 30 percent of global carbon dioxide emissions. When dry, one half of wood's weight is made up of carbon, which it retains until it is burned or decomposes. According to

European studies, one cubic meter of structural lumber can store about one metric ton of CO2. Also, mass timber is comprised of large-scale components that can be more easily disassembled and reused than those of many concrete and steel structures. Even standard stick framing, because of multiple fasteners and adhesives, is difficult to deconstruct intact.

When compared to a concrete structure, mass timber scores better across the board in terms of its impact on the environment. A 2012 study by the University of British Columbia's Sustainable Building Science Program found that producing mass-timber structures generates less air pollution and toxic waste, requires less water, and embodies 18 percent less energy from nonrenewable sources than a concrete building does. Overall, concrete has two-and-a-half times the potential impact for global warming than mass timber, the study asserts.

Despite these sustainable attributes and the aesthetic warmth of mass-timber construction, Robinson hadn't planned to build out the top floor for his firm. However, during construction, when several members of LEVER stood on the third-floor deck, they were surprised to see an unobstructed view of Mount Hood and decided it was an opportunity they couldn't pass up. "This is an architectural practice," Robinson says with a chuckle, "and it's good to practice on your own space before designing for other people."■

MICHAEL COCKRAM IS A FREELANCE WRITER AND DIRECTOR OF BOWERBIRD DESIGN IN FAYETTEVILLE, ARKANSAS.

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Learning Objectives

- 1 Define the term "mass timber" and explain what distinguishes it from other types of wood construction.
- 2 Describe the fire-resistive and structural properties of
- 3 Outline the environmental attributes of mass-timber construction.
- 4 Describe the lateral load-resisting system planned for Portland, Oregon's Framework building.

AIA/CES Course #K1706A.

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NeoCon 2017 Highlights the Office's Changing Landscape

THE ANNUAL CONTRACT furnishings show in Chicago may include products suitable for various contract environments, but it is still chiefly a bellwether of workplace design. Well attended as ever in its 49th year, the event in the Merchandise Mart drew more than 56,000 attendees—a 7 percent increase over last year's crowd and a significant swath of office-design influencers from both architecture and interior design firms.

What noteworthy trends did they see at NeoCon? Exhibitor offerings tended to skew toward residential crossover, marked by technology integration, acoustical privacy, and customization.

Daniel Stromborg, head of the product design practice at **Gensler**'s Los Angeles office, reaches for the industry shorthand frequently used to describe the tide change: resi-mercial. "I think we've moved away from futuristic-looking workspaces toward a hybrid of resi-mercial and timeless design," he says.

Aaron Wong, a design director at the San Francisco office of IA Interior Architects, agrees, adding, "As work environments continue to blur the lines between home and office, many manufacturers have enhanced this trend with their combinations of furniture and textiles."



The Merchandise Mart during NeoCon (top). Marshall's Landing, a new restaurant and lounge (above), opened atop the grand stair in the Mart in time for this year's show.



Cozier seating and occasional tables, also well suited to the home, showed up in nearly every major showroom from **Herman Miller** and Knoll to Allsteel and HBF.

Increasingly, homey profiles disguise high-performing technical functions. For example, Gensler collaborated with crossover brand**West Elm Workspace** on its new Conduit system. Central to the design is a backbone that conceals and routes power and data to workstations whose upholstered panels visually screen and help dampen sound. **Teknion** launched a similar system that distributes power and data via a central framework called Expansion Cityline. Specifiers can "build" a variety of work zones along this beam system by selecting components ranging from benching desks and storage $\,$ units to lounge seating.

Meanwhile, as designers continue to disrupt the open-plan by reintroducing privacy, manufacturers have responded with furniture, acoustical accessories, and screening products that perform the job of semipermanent wall systems at lower costs. "Everyone seems to be developing a pod for lounge or nook seating," says Gisselle Amador, an associate designer at the Miami office of IA.

In fact, pods and high-back seating standouts included **Davis Furniture**'s Soft Privacy, HBF's Sono Sofa, and **Koleksiyon**'s

IN THE (WORK) ZONE Designers can build clusters of workstations, storage areas, mini lounges, and impromptu meeting $spots\,around\,the$ central power spine of Expansion Cityline (top). Herman Miller's Prospect (right) is a semiprivate solution $customizable \, for \,$ individuals or team

workspaces.





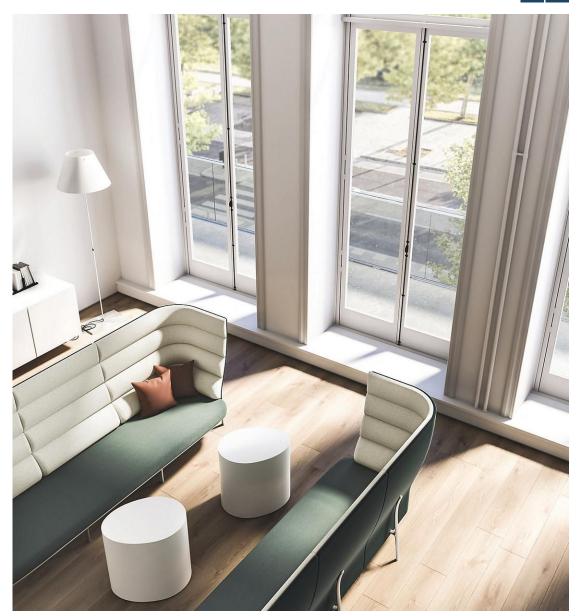
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TRADE SHOW NEWS



QUIET TIME

Designed by Scott Wilson, Sono sofas (above) feature optional high backs that transform lounge seating into quiet alcoves. Koleksiyon's $Boccaporto \, (below) \, places \, integrated \, lighting \, and \, power \, inside \, the \, booth, behind \, the \, sitter.$

Boccaporto. While not a furnishings manufacturer, **3form** also launched something in the acoustical enclosures category: Its Seeyond Wall is a system of acoustic felt–covered modules with strong magnets that attach to one another, forming semiprivate enclosures. Meanwhile, Herman Miller's Prospect line of semicircular freestanding systems—covered by acoustical fabric—can be customized for individuals or groups with desks, standing meeting tables, magnetic whiteboards or tackable finishes, and other components.

For fully enclosed, acoustically isolated spaces without walls, a freestanding phone booth is an option. One such product, which launched at NeoCon, was the debut offering from Jabbrrbox, a company founded by former $Studios\,Architecture\,associate\,Brian\,Hackathorn\,and$ entrepreneur Jeremy Jennings. Jabbrrbox One is a complete work environment outfitted with Philips Hue LED lighting, power outlets, USB ports, and a ventilation system; ${\tt Jabbrrbox\,Chromebooth\,adds\,a\,24-inch\,\textbf{Google}}$ Chromebase for videoconferencing.

In the end, all trends underscore the idea that workers should have options. "We all want to see more manufacturers addressing the individual [and] their needs [for] flexibility and choice," says Stromborg. "That's not so much a trend as a need." —Sheila Kim





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MANUFACTURERS' SPOTLIGHT SECTION

In these pages are products brought to you directly from manufacturers. You'll find price, application, performance data, and contact information—the facts needed to make the right decisions. Use the reader service card in the issue or go online at architectural record.com to request further details.



A trend in combining acoustical privacy with more visually open office plans inspired C.R. Laurence, a manufacturer and supplier of architectural glazing, to introduce its Series 487-AR Double Glaze Office Partitions. They have an acoustical rating of up to 47 STC. (SNAP #233)

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A broad range of electrical and tech goods, among them audiovisual, multimedia, and control systems. Also covers elevators and appliances.

Interior Finishes, Furnishings Pages 56-57

Products for finishing and furnishing building interiors, including flooring, wallcoverings, ceilings, furniture, shelving systems, and window treatments.

Materials

Page 57

Basic products used in construction, among them lumber, concrete, and masonry units. Includes paint, coatings, and structural materials and fittings.

Mechanical Systems, HVAC, Plumbing

Products for conditioning, moving, holding, and controlling air, water, and other fluids. Examples include fans, ventilators, and boilers.

Roofing, Siding, Thermal & Moisture Protection

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Specialty Products

Page 58

Products for special applications or that apply to more than one category, such as gates, ladders, columns, signage, awnings, canopies, and railing systems.

DOORS, WINDOWS

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GREEN

Azon

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Product Application:

- Storefront and curtain wall applications
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- Thermal barriers for framing

Performance Data:

- Intelligent technologies reduce overall U-factor
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SNAP 234

TRANSFORM SPACE

WR I GREEN

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Product Application

- Residential
- Hospitality
- Commercial

Performance Data

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DOORS, WINDOWS

SNAP 235

DOORS, WINDOWS

DOORS, WINDOWS

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WR

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Product Application

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Performance Data

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SNAP 236

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Performance Data:

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SNAP 237

DOORS, WINDOWS

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SSS I NEW

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SNAP 238

DOORS, WINDOWS

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Performance Data:

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SNAP 239

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Performance Data

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SNAP 240

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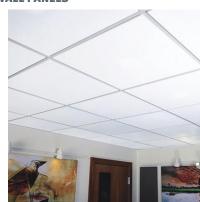
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SNAP 242

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Product Application:

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Performance Data:

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SNAP 243

MATERIALS

MECHANICAL SYSTEMS, HVAC, PLUMBING

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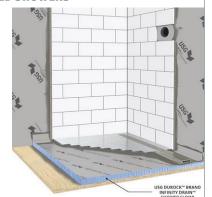
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SNAP 244

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SS I GREEN I NEW

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SNAP 245

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Performance Data

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SNAP 246

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Performance Data

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SNAP 247

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Performance Data

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SNAP 248

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Product Application

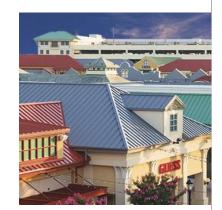
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Performance Data

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SNAP

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SPECIALTY PRODUCTS

SNAP 251

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\$\$ | NEW

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Product Application

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Performance Data

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www.precisionladders.com 800.225.7814 | Steve Fugate



SNAP 252

Making the complex clear

MAKING THE COMPLEX CLEAR

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NEW AND UPCOMING EXHIBITIONS

Sonic Arcade: Shaping Space with Sound

NEW YORK CITY

August 22, 2017-February 11, 2018 This multicomponent exhibition showcases immersive environments, interactive installations, and performing objects that explore the translation of sound into substance. Featuring Audiowear, a jewelry line designed by Arjen Noordeman and Christie Wright, the exhibition studies how abstract auditory information can be transformed into sensory experiences. At the Museum of Arts and Design. Visit madmuseum.org.

Chicago Architecture Biennial CHICAGO

September 16, 2017–January 7, 2018 The second edition of the Chicago Architecture Biennial features works by more than 141 architects and designers that fall under the theme "Make New History." Consisting of six community anchor exhibitions, two special project sites, installations,performances, talks, and films, the Biennial is a citywide event that encourages visitors to explore Chicago with an architectural eye. Visit chicagoarchitecturebiennial.org.

Found in Translation: Design in California and Mexico, 1915-85

LOS ANGELES

September 17, 2017-April 1, 2018 This exhibition accompanies a book about design dialogues between California and Mexico. The show will focus on four main themes—Spanish colonial inspiration, pre-Hispanic revivals, folkart and craft traditions, and modernism—and explore how modern and antimodern design movements $defined \ both \ locales \ throughout \ the \ 20th \ century.$ $At the \,Los\,Angeles\,County\,Museum\,of\,Art.\,\,For$

ONGOING EXHIBITIONS

more information, visit lacma.org.

Zaha Hadid Architects: Unbuilt

Through August 18, 2017

This exhibition features unrealized designs by Zaha Hadid Architects that demonstrate the firm's drive for innovation and experimentation. Developedcollaboratively with engineers and special $consultants, the\,designs\,show case\,the\,holistic$ approach that the practice employs to bring its nature-inspired designs to life. At the Zaha Hadid Gallery. Visit londonfestival of architecture.org.

Timber City WASHINGTON, D.C.

Through September 10, 2017

This exhibition explores the latest methods of timber construction, which have led to strong, $fire\text{-resistant}, and \, sustainable \, interpretations \, of \,$ the allegedly antiquated material. Curated and designed by the founding partners of the Boston $based\,architectural\text{-}design\,firm\,ikd, the\,exhibition$ highlights several U.S.-based projects that showcase innovative timber technology. At the National Building Museum. For more information, visit nbm.org.

Noguchi's Playscapes

SAN FRANCISCO

Through November 26, 2017

This exhibition, organized by the Museo Tamayo $for the San\,Francisco\,Museum\,of\,Modern\,Art, will$ revisit artist Isamu Noguchi's designs for several playgrounds and stand-alone play structures. Observing that playgrounds offer a physical and social interaction not typically seen in museums, Noguchi designed public spaces in which visitors could physically and actively engage with art. Through models, sketches, set designs, and archivalimages, the exhibition shows Noguchi's visions for new experiences of art, education, and humanity through play. For more information, visit sfmoma.org.

LECTURES, CONFERENCES, **AND SYMPOSIA**

IDSA International Design Conference 2017: Design Is Business

August 16-19, 2017

Industrial design strives to improve massmanufactured products through design. Whether the topic be digitization, electrification, autonomy, or connectivity, industrial designers attempt to surmount barriers, leveraging them as elements. This conference, which formally brings $the \, strategic \, advantage \, of \, industrial \, design$ into the business world, will feature speakers who sit at the intersection of design and business. At the Atlanta Marriott Marquis. Visit idsa.org.

Advancing Computational Building SAN FRANCISCO

August 28-30, 2017

This conference will teach attendees how to set up a computation team, train a nontechnical staff, and integrate computation into the traditional workflow. Visitors will gain guidance on how to apply computational design in the most advanced and efficient ways possible. At the Sheraton Fisherman's Wharf Hotel. Visit advancingcomputational-design.com.

COMPETITIONS

Planetarium: The Experience of Space

Submission deadline: August 11, 2017 Eleven magazine's latest challenge invites those working in creative fields, in any country, to $imagine \, a \, new \, typology \, of \, planetariums, one \, that \,$ reflects today's renewed interest in space as well as an emerging understanding of our world. Visit eleven-magazine.com.

Future House: Micro House

Submission deadline: August 15, 2017

 $Organized \, by \, Future \, House, this \, competition$ seeks a design for a microhouse with a floor plan no larger than 500 square feet. The house need not have a specific site location; participants may customize landscape design and site planning to their house. For more information, visit future-

Showing—Alternative Designs for Museums

Submission deadline: August 28, 2017 This competition aims to develop a design proposal for new ways to experience the

museum. Participants are urged to combine design tools and considerable programmatic innovation to conceptualize an unconventional device, piece of furniture, interior design project, pavilion, building, or urban plan. For more information, visit nonarchitecture.eu.

2017 Architectural Record Products

Submission deadline: September 1, 2017 For RECORD'S 2017 Products Awards Program. manufacturers and designers can submit products introduced in the United States between September 2016 and September 2017. A panel of architects and specifiers will judge the entries on criteria such as innovation, functionality, and aesthetics. Winners will be featured in the December 2017 issue. Visit architecturalrecord.com.

Duravit Designer Dream Bath Competition

Submission deadline: September 8, 2017 For its fifth year, this competition invites designers and architects to reimagine their own bathrooms to feature a range of Duravit's top collections and design solutions. The competition also $features\,a\,Built\,category, for\,which\,designers\,and$ architects may submit their completed residential, commercial, small-space, or hospitality projects featuring any Duravit products. For more information, visit duravit.us.

AIANY COTE Awards

Submission deadline: September 15, 2017

The AIA New York Committee on the Environment established the AIANY COTE Awards in 2014 with the goal of redefining how design excellence is evaluated, sharing new thinking and techniques, and inspiring creative thinking about design. This year's awards will recognize achievement in designing results-oriented buildings in the urban context. Visit aianycoteawards.org.

Beyond the Wall: A Manifesto for the Upcoming World

Submission deadline: September 15, 2017 This competition asks candidates to select an existing border, wall, or boundary and design a solution to reactivate the intensity of the space. A total of five scholarships will be awarded. each covering a different percentage of the total tuition fee of the master's program in Urban Vision & Architectural Design of Domus Academy. For more information, visit competition. domusacademy.com.

Amber Road Trekking Cabins

Registration deadline: September 27, 2017 The Amber Road Trekking Cabins architecture competition, in partnership with the Latvia Nature Conservation Agency, is calling for designs for a series of cabins to be situated along a new hiking $path\,that\,will\,span\,the\,full\,length\,of\,Latvia.\,The$ Amber Road path will run along the Baltic Sea beaches, allowing hikers to traverse the entire country. Visit amberroadtrekking cabins. beebreeders.com.



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JAY OSGERBY and EDWARD **BARBER** Both trained as architects, the duo founded their industrial design studio, Barber & Osgerby, in 1996. barber osgerby.com



ECKART MAISE Chief design officer for Vitra, Maise oversees development of all the company's products.

WHILE OFFICE CHAIRS are de rigueur for Vitra, they were uncharted territory for Edward Barber and Jay Osgerby in 2008. The British designers' previous collaborations had been with luxury home brands B&B Italia, Flos, and Louis Vuitton. Then the Swiss furniture giant challenged the duo to create a new archetype for school furniture; they delivered with Tip Ton, a desk chair with a fun, minimalist plastic frame and an ergonomic forward-tilt, which remains a company top seller. "After the success of Tip Ton, Vitra wanted to see what we could do with a more complex chair," says Barber. So the pair entered the world of contract office seating.

"At first, it was difficult to wrap our heads around this typology," Barber admits. But after months of industry research, he adds, the two grew confident that a pared-down aesthetic worked better than one with "all these exposed mechanisms and controls."

A studio hallmark is to create drawings that boil a design down to its essential parts. Hundreds of sketches later, they came up with a task chair that Osgerby says "you wouldn't mind using for your home." The Pacific chair, officially launched at June's NeoCon, has an elongated backrest that extends past the seat pan, obscuring the levers and projecting a sleek silhouette. The chair automatically adjusts to a user's weight and comes in unconventional office colors such as pink and purple. Specifiers can even order a version with fixed armrests instead of the usual adjustable ones. That attention to adaptability is what has Vitra scheduling future collaborations with the pair. "It's not all about this particular office chair; it's part of a system that will be continually developed," says Vitra's chief design officer Eckart Maise. "We're already working on the next project together." (SNAP #270)



THE 3D COLLECTION - DORIC

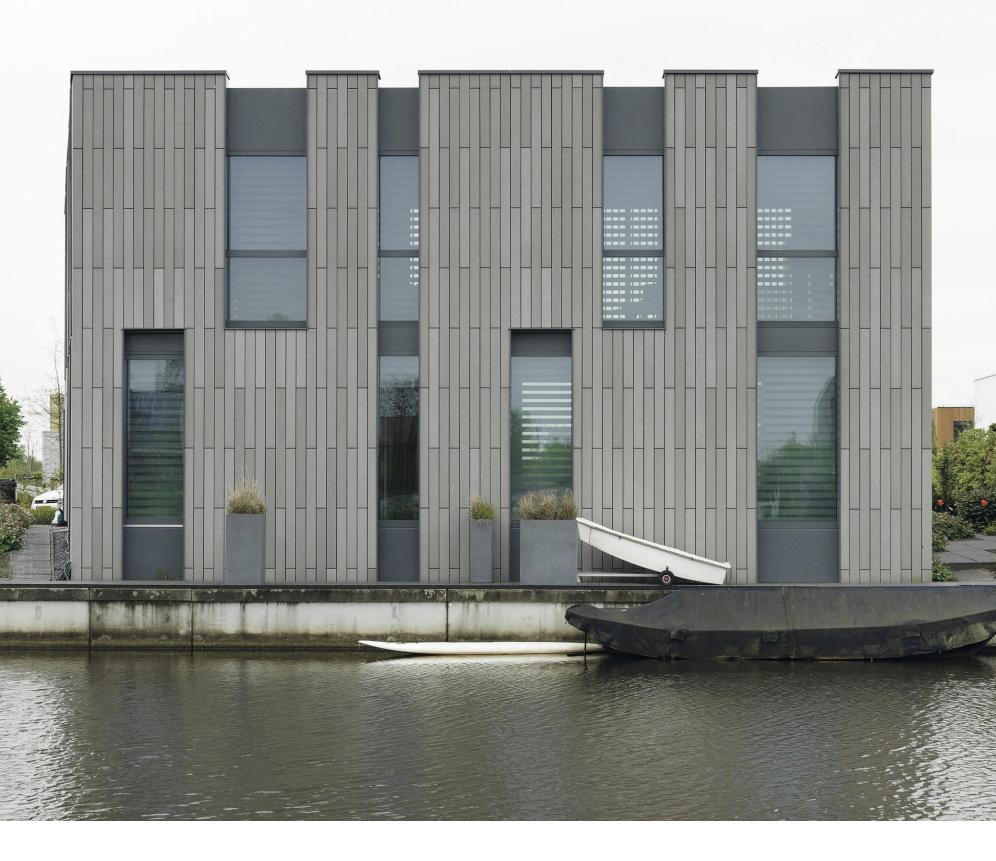
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