ARCHITECTURAL NEWS + PRODUCTS

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GREENSOURCE

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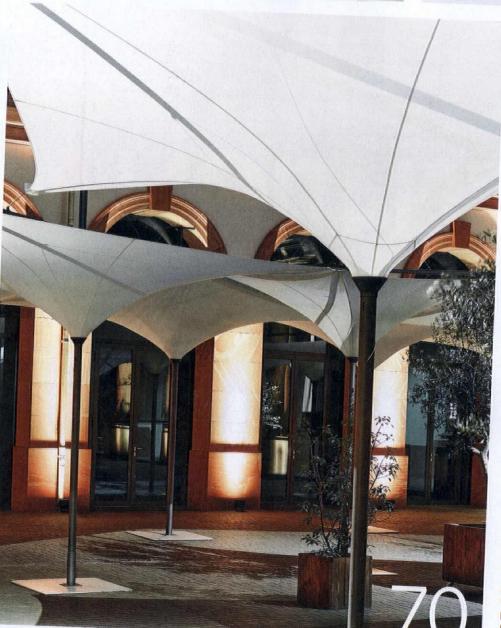
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MAY/JUNE 2016







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Legrand's outdoor charging station (top left) juices up cellphones for users on the go. Piero Lissoni's Commodore storage units (top right) are made with striped and printed glass. Grimshaw Architects and manufacturer MDT-tex created a first-of-its-kind canopy system (bottom).

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It's Our Pleasure



HOSPITALITY IS the art of making people feel comfortable. Its forms are many: a word that puts a guest at ease, a gesture that makes a stranger feel cared for, even a style that reminds a traveler of home. But the tripping point can be knowing your audience. What may seem tasteful in Tallahassee could offend in Tokyo, and the dish that's a delicacy in Austin might be haram in Abu Dhabi.

In this issue of SNAP, we look at numerous expressions of hospitality. We start by speaking with Christina Hart, HOK's director of hospitality

interior design, about trends she sees in the field (page 10) and continue to a case study of Curtis Stone's Share restaurant, located on a Princess Cruises ship (page 14). We then move to hotel guest rooms, looking at three examples whose furnishings and design reflect each city's culture and history (page 16).

Our product specs take conviviality outdoors with focuses on site furniture (page 32) and landscape (page 36). We also provide a behind-the-scenes look at a tensile shading system created by **Grimshaw Architects** and structural manufacturer MDT-tex (page 70).

Oh, and get ready: ARCHITECTURAL RECORD'S annual product competition opens June 1. Flip to page 6 for details on how—and what—to enter.

Warmest wishes,

JULIE TARASKA Editor



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OUTSIDE THE BOX

Habitat 67, the urban housing experiment built in Montreal by architect Moshie Safdie for that year's World Exposition, includes 158 residences created from 354 prefabricated factory units.

2016 National Design Awards Winners Named

EACH SPRING April showers beget May flowers—and Cooper Hewitt, Smithsonian Design Museum announces the recipients of the National Design Awards, the highest honor in the field. On May 5, the New York institution did just that, recognizing 11 innovators across the field's multiple disciplines for the 17th edition of the honors.

"This year's class of winners reflect design's remarkable empathy for contemporary social concerns," said museum director Caroline Baumann. "These designers and design firms cross disciplinary boundaries, explore innovative materials, and develop new models of problem solving in pursuit of these goals."

To that point, Israeli/Canadian architect Moshe Safdie—creator of the seminal Habitat 67 housing complex and winner of the 2015 AIA Gold Medal—received this year's Lifetime Achievement award, presented to talents practicing professionally for at least 20 years. Make It Right, a nonprofit organization founded by Brad Pitt to build homes, buildings, and communities for people in need, was honored with the Director's Award, chosen by Baumann herself. Designer Bruce Mau, founder of the consulting firm Massive Change Network, won for Design Mind, while New York-based nonprofit Center for Urban Pedagogy received the award for Corporate & Institutional Achievement.

Marlon Blackwell and his eponymous Fayetteville, Arkansasbased practice was recognized with the Architecture Design award.



Los Angeles-based graphic designer and artist Geoff McFetridge was honored in the Communication Design category, while avant-garde clothing company Opening Ceremony won for Fashion

Design. Tellart, a design studio that creates interactive objects, immersive spaces, and digital experiences, received the award for Interaction Design.

San Francisco firm Studio O+A took the Interior Design award and Hargreaves Associates won for Landscape Architecture. Ammunition, known for projects like Beats by Dr. Dre, UNICEF's Kid Power Band, and the Polaroid Cube, received the plaudit for Product Design.

A jury of design leaders chose the award winners from nominations made by the general public. Criteria included level of excellence, innovation, and public impact of a practitioner's work. The winners will be honored at a gala in October during National Design Week. - Miriam Sitz

Record's Products Competition Opens

THOUSANDS OF building and interior products are introduced every 12 months and ARCHITECTURAL RECORD is looking for ones that stand out from the crowd. Manufacturers and designers who've got the goods are invited to enter the 2016 Record Products competition, which launches June 1 and runs through September 2.

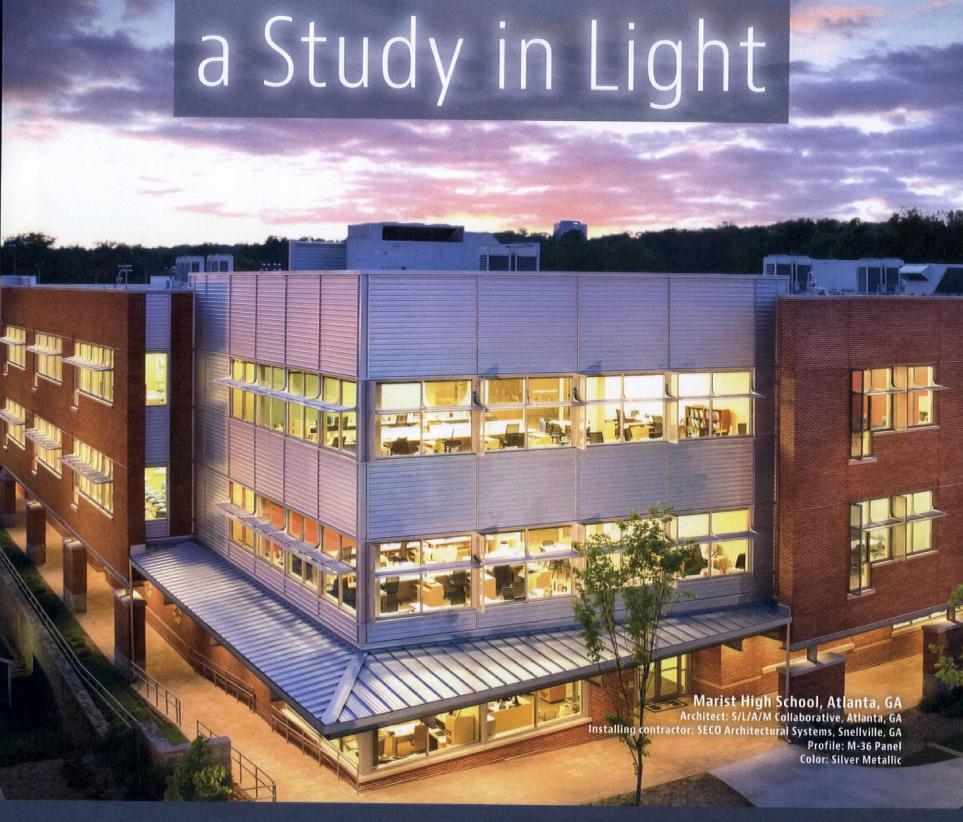
To be considered, the product must have debuted in the U.S. market between September 2015 and September 2016. Each submission must include images of the product and a \$25 USD entrance fee.

A panel of architects, designers, and editors will determine the winners, which will run in a special section within RECORD's December issue. To enter the competition, or for additional information, visit recordproducts. architecturalrecord.com. - Julie Taraska

BIG SHOTS

Ammunition, a San Franciscobased studio led by Robert Brunner, Matt Rolandson, and Bret Wickens (right, from left), received the 2016 National Design Award in the Product Design category thanks to a body of work that includes Polaroid's 35-millimeter Cube camera (below).





"The M-36 panel is an interesting profile to use on a building like this. It has deep shadow lines that help add lightness and a horizontal feel."

Will Stelten, Architect, S/L/A/M Collaborative

PAC-CLAD M-36 Panel

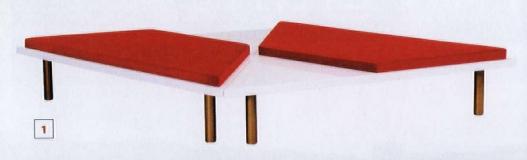
Silver Metallic - Energy Star - Cool Color

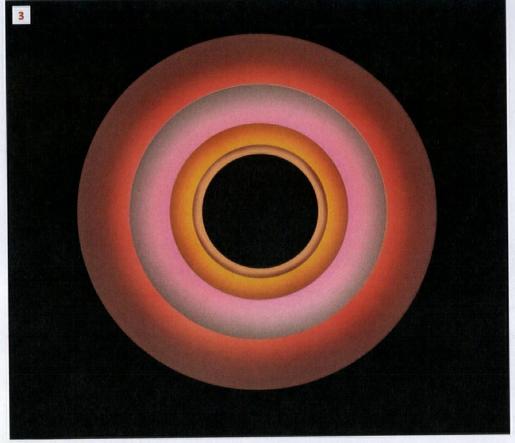




SNAP 23











Versatile finds spotted at spring's crop of contract fairs

META

MANUFACTURER: Dune
PERFORMANCE: This
upholstered bench/table

upholstered bench/table with a Corian frame and steel legs can stand alone or be configured with other units. PRICE RANGE: \$\$\$

applications: Ideal for offices and hospitality settings, the indoor/outdoor unit can be specified in any Corian color

and with powder-coated legs.

DUNE-NY.COM (SNAP#200)



FABRIK

MANUFACTURER: Shildan
PERFORMANCE: The dry-joint
architectural mesh system
features a flexible steel framework into which component
materials—such as terra-cotta,
glass, or wood—can be woven.

PRICE RANGE: \$\$-\$\$\$
APPLICATIONS: For use as a decorative element or screen,

Fabrik can be shipped folded or rolled and erected via crane.

SHILDAN.COM

(SNAP #201)



CONCENTRIC

MANUFACTURER: Marset
PERFORMANCE: When lit, this
steel wall lamp, a Rob Zinn design
composed of a series of white
concentric panels, reflects a
color painted on the previous
panel's back.

PRICE RANGE: \$\$

APPLICATIONS: The LEDequipped light comes in three sizes and neon, warm, and cool color combinations.

MARSET.COM (SNAP#202)



BOLON BY YOU

manufacturer: Bolon
performance: The woven
vinyl floor line allows users to
create a unique product; choose
from six patterns, four warp
colors, and 12 weft colors.

PRICE RANGE: \$\$

APPLICATIONS: Designed for dry-and heavy-use commercial areas, the textile is recyclable and phthalate-free.

BOLON.COM (SNAP #203)

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













FINE-FISSURED HIGH NRC/CAC

MANUFACTURER: CertainTeed **PERFORMANCE:** These mineral-fiber ceiling panels offer a 0.75 NRC and 42 CAC, which exceed requirements for LEED v4 for School Buildings.

PRICE RANGE: \$\$

APPLICATIONS: Created with educational and healthcare facilities in mind, the nondirectional tiles come in two sizes with three possible edge details.

CERTAINTEED.COM (SNAP #204)



NAVAJO

MANUFACTURER: 41zero42 PERFORMANCE: Inspired by traditional Native American patterns, the motif of this colored-body porcelain floor and wall tile is pressed by hand.

PRICE RANGE: \$\$ APPLICATIONS: Available in

four muted hues, this indoor/ outdoor unrectified tile is resistant to frost, scratches, and chemicals.

41zero42.com (SNAP #205)



CHARGING STATION WITH ACCENT LIGHT

MANUFACTURER: Legrand **PERFORMANCE:** This NEMA 3R-rated outdoor charging station with a 7w, 4000K LED light comes with up to three gangs to power multiple devices. PRICE RANGE: \$\$\$

APPLICATIONS: Prewired offerings include weatherresistant GFCI and four-port USB outlets.

LEGRAND.US (SNAP #206)



MANUFACTURER: Chilewich Contract

PERFORMANCE: The wovenvinyl flooring and wall textile uses a rotation of 14 hues in solid and bicolor yarns; the resulting pattern doesn't require that seams be aligned.

PRICE RANGE: \$\$ APPLICATIONS: Offered in three colorways and formats, with antimicrobial protection. CHILEWICHCONTRACT.COM (SNAP #207)



Christina Hart: Modern Comfort

Senior Principal and Director of Hospitality Interior Design, HOK, New York

WHAT WAS YOUR SCOPE OF DUTIES ON THE ASIATE RESTAURANT REFRESH?

We were to elevate and enliven this luxurious space, relate it to its Central Park and Midtown Manhattan views, and draw upon the Asian heritage of the Mandarin Oriental brand.

HOW DID YOU ACHIEVE THIS?

We decided to concentrate on a single concept referencing the beauty and intricacy of the orchid. For example, on the chairs we used a textural fabric reminiscent of the dotted pouch of an orchid; we created a dramatic graphic highlighting the orchid's sepal and petal shapes for the sofas and chose a custom fuchsia leather for the booths.

WHAT ELSE DID YOU DO?

We delineated the restaurant's spaces. In the general dining room, we added paint finishes, stained the wood floor a darker shade, and installed new furniture, fixtures, and equipment. In the private dining room, we opted for statement lighting-including two Ingo Maurer chandeliers with 770 crystals hung from filigree nets—and added a painting of a deconstructed orchid by New York artist Steven Wasterval.

WHAT ARE SOME OF THE CHALLENGES OF REWORKING A SPACE VERSUS **DESIGNING IT FROM SCRATCH?**

Although one can be creative, there are givens to follow: dealing with existing space, being mindful of timing and budgets, and honoring the idea of the original interior.

WHEN IT COMES TO HOSPITALITY **DESIGN, ARE YOU FINDING ANY TRENDS?**

There are moves toward overt layering and less fussy details, as well as letting the beauty of a material come through.

WHAT ARE MOST OF YOUR HOSPITALITY **CLIENTS REQUESTING RECENTLY?**

They want options and lots of them. Our clients know what is out there, both in hotel environments and materials. This pushes us to be even more innovative.

CHRISTINA HART specializes in luxury hospitality interiors. Past projects include the Hotel du Parc in Switzerland, Waldorf-Astoria in New York, and Rosewood Abu Dhabi in the UAE. She holds a B.S. in design and environmental analysis from Cornell University.

The height of Asiate's floor-toceiling windows.

The interior designer takes in the panoramic view from the 1,880-square-foot Asiate restaurant, located on the 35th floor of the Mandarin Oriental Hotel in Manhattan. The jewel-box space, which features an orchid theme, seats about 90 guests in its main and private dining areas.

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SHARE BY CURTIS STONE, PRINCESS CRUISES

Setting Sail

PROBLEM: Renovate a cruise-ship restaurant on a tight schedule and with a limited material palette.

SOLUTION: Focus on powerful decorative touches while reworking the space's existing finishes and layout.

FOR CELEBRITY CHEF Curtis Stone, mealtime is family time. When, as a child, he sat down to eat, his grandmother Maude (the namesake of his signature restaurant in Beverly Hills, California) would ask each person at the table to share the best and worst parts of their day. So when the designers at New York-based hospitality firm Jeffrey Beers International (JBI) began collaborating with Stone on his latest set of restaurants—all on cruise ships—they focused on the concept of sharing: sharing food and sharing stories.

Stone's Share restaurant replaces an existing dining space aboard *Emerald Princess*, one of the largest ships in Princess Cruises' fleet. JBI completed the renovation in December, while the ship was dry-docked in the Caribbean. (JBI finished an identical

ALL TOGETHER

A communal table telegraphs the familylike feel of Share, a restaurant designed by chef Curtis Stone and hospitality firm Jeffrey Beers International.



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fit-out for Ruby Princess in California at the same time; a third renovation of Sun Princess began a few months later.)

Aiming to re-create that sense of conviviality, the team organized Share around a communal table. Inset carpeting and custom glass-tile screens border it, while handblown glass pendants etched with some of Stone's favorite recipes and phrases hang low overhead. In the seating alcoves, adornments ranging from clocks to vintage doorknobs decorate the walls, while recipe books, photographs, and replicas of Stone's family heirlooms line the shelves. "We didn't want it to feel like a cruise-ship restaurant," said Michael Pandolfi, Share's design director, says of the consciously homey, residential-style decor.

In order to adhere to the International Maritime Organization (IMO)'s environmental and safety regulations for commercial passenger ships, JBI faced specifying challenges. Materials had to be noncombustible, antimicrobial, and water-resistant, for instance, and furniture and fixtures needed to be able to withstand the vessel's swaying movements. For the JBI designers, this meant making significant aesthetic adjustments. They selected porcelain tile for the floors instead of their preferred wood, and light fixtures acquired thicker-than-usual stems so they wouldn't swing. Elements from the previous restaurant that they

otherwise wouldn't have kept, such as a metal lay-in ceiling, also had to stay.

If that wasn't enough, the client called for a lightning-speed turnaround of three weeks. "For a typical restaurant, this might take six months to install," said Dina Lamanna, the project's senior interior designer. To ensure it met the deadline and complied with code, JBI enlisted the shipyard's contractors and builders to provide the bulk of the restaurant furnishings and fixtures.

The designers also saved time by working within the footprint of the preceding restaurant. They kept the locations of booth seating the same, which helped maintain satisfactory acoustics, and aligned the decorative bookshelves with the ceiling's existing millwork.

Still, JBI added its own touches wherever it could. The designers jettisoned the restaurant's wall-to-wall carpet, replacing it with a combination of faux-wood tiles and area rugs that coordinated with the walls' jumbled aesthetic. They also switched up the tables, interspersing round white-marble dining tabletops with espresso-stainedwood and blackened-steel versions.

Despite the challenges, JBI's designers are proud they managed to keep in step with Stone's family-oriented brand. When you enter the restaurant, says Lamanna, "you know you're in a special space."



ARCHITECTS

Jeffrey Beers International

Hospitality

PRODUCT Country Wood

Porcelain MANUFACTURER Country Wood Floors

PERFORMANCE

Offering the look and feel of real wood, these slipresistant planks for indoors and out come in 6 x 24" and 8 x 48" dimensions and with honed or bullnose edges.

APPLICATIONS

Suitable for floors and walls, these frost-resistant colored-body tiles are available in three muted hues. PRICE RANGE \$\$\$

COUNTRYFLOORS.COM (SNAP #208)

FAMILY AFFAIR

At Share, aboard the **Emerald Princess** cruise ship, shelves stocked with recipe books, photographs, and replica heirlooms serve as partitions.

IN THIS PROJECT



AXMINSTER 1018A

MANUFACTURER: Brintons Americas PERFORMANCE: This fire-retardant, wool-blend carpet comes in wall-to-wall and area-rug styles.

PRICE RANGE: \$\$\$

APPLICATIONS: With hundreds of color options, this floor covering is intended for use in high-traffic hospitality and healthcare projects.

BRINTONS.NET (SNAP #209)



HALEIGH WIRE DOME PENDANT

MANUFACTURER: Rejuvenation PERFORMANCE: This solid brass pendant features a parabolic-shaped dome and an external wire structure that creates the illusion the dome is floating.

PRICE RANGE: \$\$

APPLICATIONS: The fixture's adjustable wire length, wide canopy, and trio of finishes make it ideal for indoor and covered outdoor sites alike.

REJUVENATION.COM (SNAP #210)



HERA OCTAGON CHANDELIER

MANUFACTURER: Arteriors PERFORMANCE: Glass cylinder rods fill in the steel frame of this fixture, with sockets holding 6ow type-B E12 bulbs.

PRICE RANGE: \$\$\$

APPLICATIONS: Works as a single chandelier or in pairs over a dining room, master suite, or bar. Available in antique brass and vintage silver finishes.

ARTERIORSHOME.COM (SNAP #211)



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

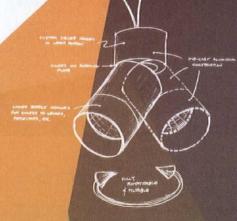
MOSAIC 2657

MANUFACTURER: Sahco (via Donghia) PERFORMANCE: This 100% Trevira CS upholstery is flame-resistant, with a Martindale value of 100,000 and a 7-inch repeat.

PRICE RANGE: \$\$\$

APPLICATIONS: Ideal for upholstering decorative pillows in residential and hospitality settings, the fabric comes in 11 color combinations.

DONGHIA.COM (SNAP #212)

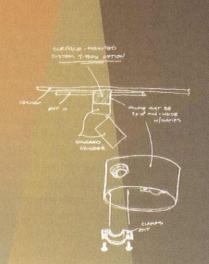




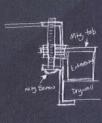
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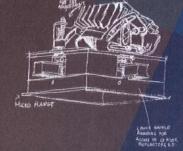
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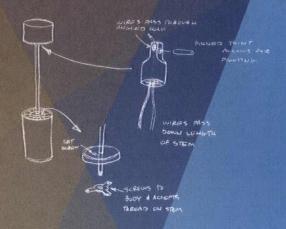














SNAP 192



SOUTHERN CHARM

The design and furnishings of North Carolina's Durham took cues from Midcentury modernism, mixing classic pieces with recent work by local artists (above). Perry C. Langston designed the hotel's striking facade in 1965 (right).

Made to Measure

Lodgings that incorporate a neighborhood's culture and history offer guests a new level of comfort.

BY SAM LUBELL

MANY HOTEL BRANDS—from corporate chains to high-end boutiques-standardize their room designs on the assumption that guests feel most at home when they know exactly what to expect.

In fact, the opposite is often true, particularly when services like Airbnb can provide travelers with a less formulaic experience affording a truer sense of place. To address that preference, some hotels are now taking their design cues from local building styles, materials, and ambience. They are incorporating furnishings with a history and a connection to the space, creating lodgings that are more personal than those produced via a corporate spreadsheet.

THE DURHAM

Commune design studio's colorful and confidently simple scheme for The Durham, in Durham, North Carolina, was inspired by the hotel's already notable structure: the flamboyant Midcentury Modern Mutual Community Savings Bank, designed in 1965 by Perry C. Langston. The group also channeled the creative spirit of nearby Black Mountain College, whose faculty included such avant-garde Midcentury design luminaries as Josef and Anni Albers, Walter Gropius, and Buckminster Fuller.

The L.A.-based studio collaborated with Teka Selman of Durham art gallery Selman Contemporary to commission three local





artists-Ashlynn Browning, Martha Clippinger, and Heather Gordon—to create boldly geometric, charmingly erratic print works for the guest rooms.

The firm also mixed Midcentury and contemporary furnishings, placing tables and chairs by Isamu Noguchi, Warren Platner, Hans Wegner, and Jens Risom alongside hardwood stools by PLANEfurniture and bright-red custom nightstands by Vaughan Benz. Textiles play a part, too, from the densely knit Virginia Quilting curtains to the quietly graphic Raleigh Denim Workshop bedcovers.

"We wanted to use the area's past as an inspiration," says Commune principal Roman Alonso, "but we were excited to add a new crop of local artists and artisans as well."

SOUTH CONGRESS HOTEL

Austin, Texas, is simultaneously laid-back, sophisticated, and progressive. So Michael Hsu and his Office of Architecture wanted the city's South Congress Hotel to reflect those qualities. The team also aimed to mirror the hotel's neighborhood, South Congress, a liberal quarter known for quirky shops, Mexican restaurants, rustic bungalows, and that precious "weirdness" for which Austin is celebrated.

 $The hotel's \, eclectic \, rooms \, fulfill \, that \, goal, replacing \, ostentatious$ luxury with what Hsu calls "naked" and "rugged" materials and furnishings such as exposed concrete ceilings, Kember EcoKlik hard flooring, and open-weave carpet and drapes. Hsu favored natural illumination over artificial lighting, with extralarge Efco Series 5XP and Series 2700 windows



ROUGH LUXE

The rooms at Austin's South Congress Hotel pair concrete ceilings with wood furnishings and floors (above). The bathrooms feature soaking tubs and brass fittings (left).

complemented by Gotham SQP recessed lights and custom pendants and sconces. The artwork, all local, was selected by hand.

Still, the firm didn't want the spaces to feel too spartan, so soft subtle touches—upscale linens, technology, and amenities—were included. Of the finished design, Hsu concludes, "It's only rough in the sense that it's casual and unpretentious."







ON TARGET

At the Ace Hotel Pittsburgh, industrial touches abound, includingtubular metal chairs and hanging-cage light fixtures (top). The architects preserved original details on the facade of the Beaux-Arts building (left), a former YMCA.

ACE HOTEL PITTSBURGH

The design of the new Ace Hotel Pittsburgh, located in a fivestory, century-old former YMCA in the East Liberty district of the city, was carried out by Atelier Ace, the hotel's creative arm, with architect of record Wildman Chalmers Design. The team incorporated both the Beaux-Arts building itself and Pittsburgh's eclectic aesthetic history, combining raw industrial resources with wood and other natural materials.

The institutional yet still luxurious design reflects the YMCA's grand working-class history, combining stately turn-of-the-19th-century shapes with unembellished details like humble trims and moldings, industrial lighting, and monochromic bathroom tile. This aesthetic is carried through with Amsterdam Modern's red vintage-style tubular chairs and Pendleton Woolen Mills' Mondrian-like bedcovers.

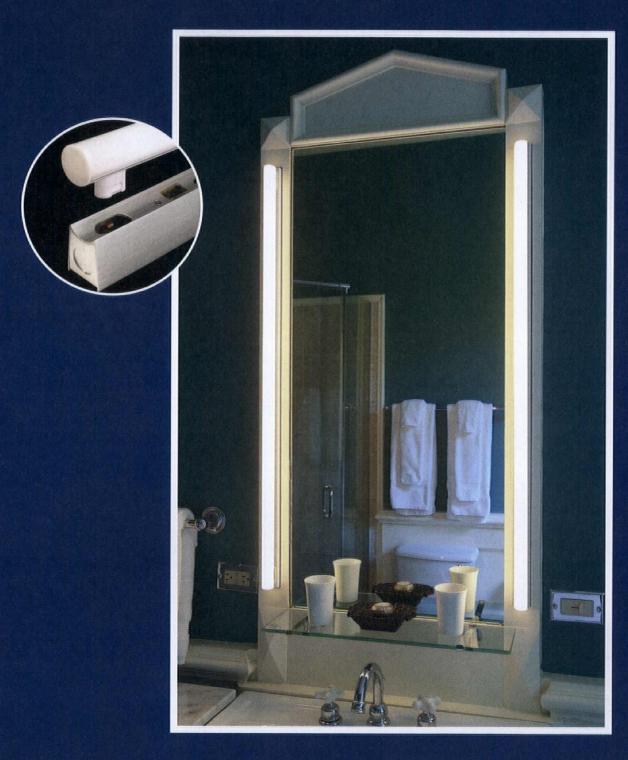
The designers also brought in Pittsburgh's legacy of woodworking via Uhuru Design's oak bed-boats, which meld austere forms with warm wood surfaces, and window seats upholstered with Woolrich's Heritage fabric. The metalworking, assembly-line history of the area came into play, too, with Industrial Light Electric's $hanging-cage\ light\ fixtures\ and\ \textbf{Emeco}\ 's\ aluminum\ tables\ reflecting$ intimate reincarnations of its once-thriving steel plants.

Stripped of its specific geography and history, the project wouldn't have as much impact. The design might not translate well to other locations, but that was never the developers' intention for Ace or the other lodgings. Location-specific hotels "are giving people access to something new but of its place," says Office of Architecture's Michael Hsu. "They just fit into the neighborhood." ■

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Volume, an LED light sculpture by artist Leo Villareal, dominates the grand stairway of the newly renovated Renwick Gallery in Washington, D.C.

Code Breaking

LEO VILLAREAL is a light artist known for such spectacles as the 25,000-LED Bay Lights installation over the San Francisco-Oakland Bay Bridge and the geodesic Buckyball sculpture in Manhattan's Madison Square Park. His latest work, titled Volume, is an ode to computer code. It features 23,000 white LEDs embedded in an assemblage of 320 mirrored, stainless-steel rods, each 20 feet long.

The majestic 9-foot-wide chandelierlike piece hangs over the grand staircase of the Renwick Gallery, in Washington, D.C.'s Smithsonian American Art Museum, as part of its current Wonder exhibition. The LEDs emit a dynamic display of light in response to a binary algorithm that Villareal wrote with his team of programmers and engineers. The string of 1's and 0's creates nonrepeating lighting sequences that "change how we think of code," the artist explains, "from a line of characters that can be read on any screen to an object that must be witnessed in a museum." Parallel Development, a New York-based interactive media engineering company, fabricated and installed the piece.

Nicholas Bell, the Fleur and Charles Besler curator in charge at the 156-year-old Renwick, says he invited Villareal to participate in the Wonder exhibition (on view through July 10) because "his work demonstrates a profound sensitivity to architectural space and how we engage it." Volume continues in that vein, Bell adds, as it "perfectly marries forward-looking art with [our] historic building." — Allison Craig



CAHGO

MANUFACTURER: Foscarini PERFORMANCE: Marco Zito created this fog-inspired, 8W LED suspension fixture, which is made from white and transparent blown glass.

PRICE RANGE: \$\$\$

APPLICATIONS: Measuring 9 5/8 by 113/8 inches, Caiigo is at home in both residential and contract settings—as a single unit, in a linear composition, or in an array.

FOSCARINI.COM (SNAP #213)



W163 LAMPYRE

MANUFACTURER: Wästberg PERFORMANCE: Made of two pieces of opaline glass, this dimmable table lamp designed by Inga Sempé emits a warm, incandescent light from its conic shade to its cylindrical base.

PRICE RANGE: \$\$\$

APPLICATIONS: The fixture, offered in a 13-by-10-inch bedside and a 20-by-15-inch table version, is fitted with E14 and E27 sockets, respectively.

WASTBERG.COM (SNAP #214)



PASSEPARTOUT

MANUFACTURER: &Tradition **PERFORMANCE:** This decorative

11.5W LED spotlight, a Jaime Hayon creation, comes in one cylindrical and two domed models

PRICE RANGE: \$\$

APPLICATIONS: Available in a choice of four finishes, Passepartout can be used singularly or installed in clusters to add a subtle ornamental edge to residential or commercial spaces.

ANDTRADITION.COM (SNAP #215)



RAIN

MANUFACTURER: Studio Italia Design

PERFORMANCE: These diminutive, raindrop-shaped 8.7W LED, 3000K fixtures have a chrome frame and diffuser.

PRICE RANGE: \$\$

APPLICATIONS: Offered in five finishes, the pendants can be hung alone on cables up to 13 feet long or clustered as a light sculpture. STUDIOITALIADESIGN.COM

(SNAP #216)

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



= ECO-FRIENDLY ATTRIBUTES

Join the Club

THE SOUTH BOSTON SITE of the Boys & Girls Club of Boston (BGCB) hosts after-school music and spokenword programs that enrich the lives of inner-city kids. Now, after a redesign by local studio The Architectural Team (TAT), the branch's 40,000-square-foot, 1940s-era building—officially titled the Edgerley Family South Boston Club—is a model for youth engagement, too.

"Our mission was to create a welcoming, culturally appropriate space that drove engagement, participation, and creativity," says TAT senior project manager Mark Rosenshein. Lighting was essential to the plan. The architects used daylighting wherever possible, opting for glass partitions and movable walls to maximize the sun's rays. For the circular connection that links the lobby, the computer lab, and the art room, they chose three sizes of custom 5.7W 3000K LED fixtures by Axis Lighting. In addition, Focal Point Skydome 175W 3500K recessed LED fixtures help members locate programmatic areas.

TAT's work was so successful that it was adopted as the new design standards for Boys & Girls Clubs across the U.S. (as detailed in the organization's Clubhouse Design Handbook, available by request). "With our new facilities, says educator Joshua Kraft, "Boys & Girls Clubs are now seen as important cutting-edge investments in the future." -AC



PATTERN LANGUAGE

At the Edgerley Family South Boston Club, a branch of the Boys & Girls Club of Boston, three sizes of custom LED fixtures—by Axis Lighting—echo the circular space connecting the art, computer, and lobby areas.

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- No added formaldehyde in fabrication
- Custom veneer species, veneer cutting, & assembly available
- Dustom stains and finishes are available

Product Specifications

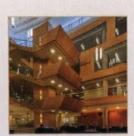
Maximum Size: 1549 mm x 3683 mm (61" x 145") Thickness: • 519: 19 mm (3/4") • 525: 25 mm (1")

Weight: • 519: 5.86 kg/m2 (1.2 lbs./sq. ff.)

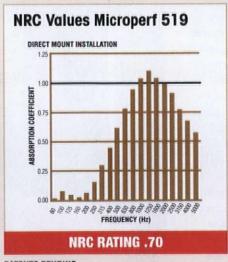
• 525: 7.03 kg m2 (1.3 lbs./sq. ft.)



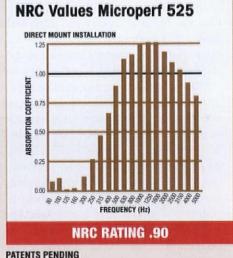








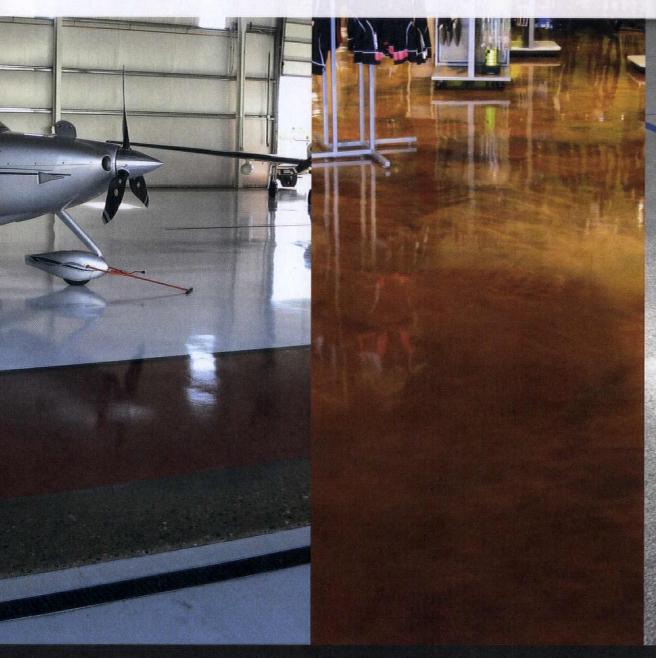




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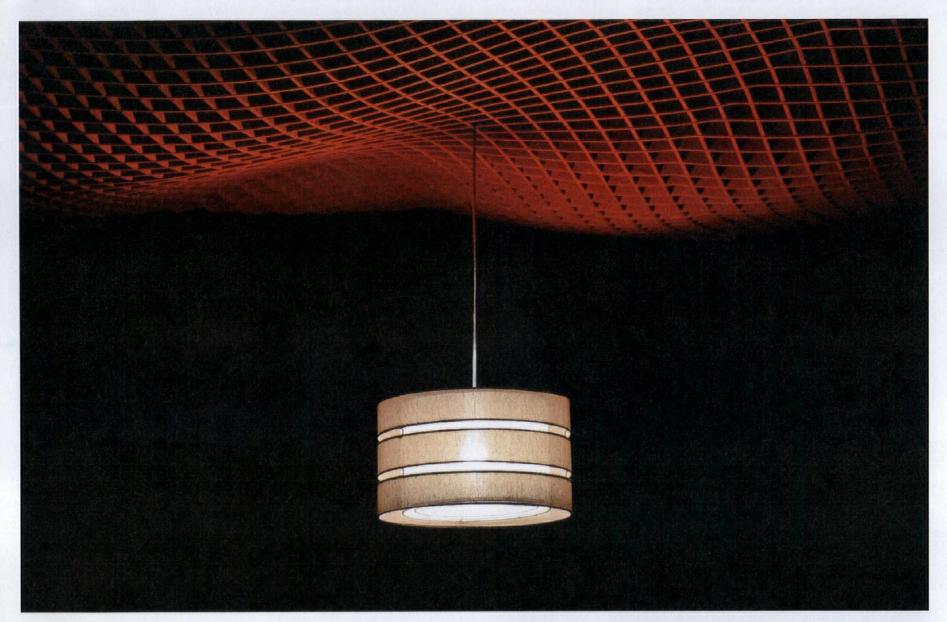
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Deeply Felt

TWO YEARS AGO, CEO Todd Rieke and his team at Rieke Office Interiors (ROI) set the ambitious goal of developing 25 new products every 52 weeks. "We've always been creative," Rieke says, "but we'd never put it into a package like 52/25," as the effort was dubbed. Although ROI, which manufactures its own wares, didn't hit the product-perfortnight target, 52/25 got results. Over the course of a year, the company released a dozen-plus diverse designs, from a floating shelf to a sit-stand workstation.

The process really took off when the team began experimenting with noise-dampening felt.

"[The material] is aesthetically strong," Rieke says, "and the office industry needs innovative acoustic solutions." The products flowed: dynamic wallcoverings, partitions, and ceiling systems. The response was so positive that Rieke is now forming a new, yet-to-be-named company—which will launch prior to this June's NeoCon—devoted solely to acoustic felt products.

Although Elgin, Illinois-based ROI "does great regionally," says Rieke, the new company stands to be more scalable. After all, he adds, "we don't need to sell anyone on the idea of a cool look and noise abatement." - Braulio Agnese



MATERIAL CONNECTION

Challenging themselves to create 25 products in 52 weeks, employees at Rieke Office Interiors beganexperimenting with felt, creating prototype wall and ceiling applications (above and top, respectively) with acoustic properties and aesthetic appeal.



PLANK

MANUFACTURER: Baux PERFORMANCE: Made from wood wool, cement, and water, these fully recyclable acoustic panels provide up to a 0.9 NRC. They also offer thermal insulation as well as store and release ambient heat.

PRICE RANGE: \$\$

APPLICATIONS: Suitable for indoor and outdoor use, the class-A fire-rated Plank comes in two sizes.

BAUX.SE (SNAP #217)



RAMPART

MANUFACTURER: Wolf-Gordon PERFORMANCE: More durable than type II products, the flexible, cotton-backed wallcovering protects against scratches, scrapes, and dents as well as or better than rigid-sheet options.

PRICE RANGE: \$

APPLICATIONS: Available in five patterns and 24 colorways, the wallcovering is ideal for high-traffic commercial interiors like hospitality and healthcare facilities.

WOLFGORDON.COM (SNAP #218)



HD LAMINATE WITH ANTIMICROBIAL PROTECTION

MANUFACTURER: Wilsonart PERFORMANCE: A new antimicrobial agent incorporated into this line of scratch- and scuff-resistant laminates prevents mold, mildew, and odor-causing bacteria.

PRICE RANGE: \$\$

APPLICATIONS: Destined for countertops and work surfaces, the HD line comes in 43 pattern and color options.

WILSONART.COM (SNAP #219)



SLIMTECH NAIVE

MANUFACTURER: Lea Ceramiche PERFORMANCE: Only 1/5 inch thick,

this laminated porcelain tile can be produced in slab sizes up to 11 4/5 by 3 % inches.

PRICE RANGE: \$\$\$

APPLICATIONS: Naive, whose minimal linear pattern is offered in four earthy hues, can be used indoors or out. The tile is rectified and LEED-compliant.

CERAMICHELEA.IT (SNAP #220)





= ECO-FRIENDLY ATTRIBUTES

Fresh Produce

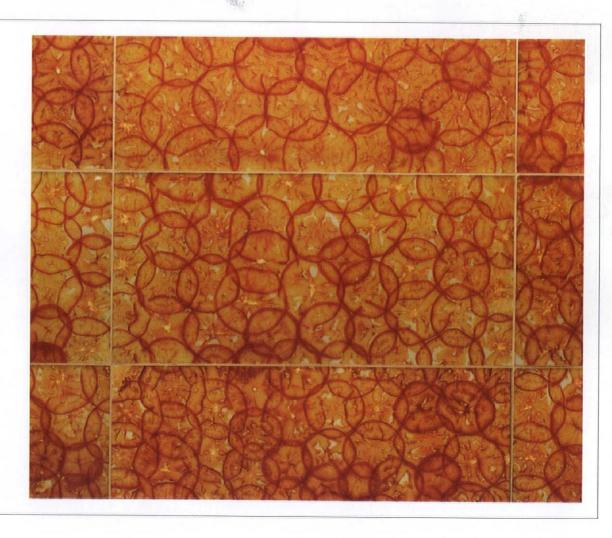
"ILIKE EXPERIMENTING," says Cambridge, Massachusetts, designer Tony Davlin, of his proclivity for developing unique architectural glass and tile products. Recently Davlin, who holds numerous manufacturing and packaging patents, has been investigating fruits and vegetablestomatoes, cucumbers, and oranges—as subject matter (literally) for decorative tiles.

The produce is sliced into thin discs, dried, laid between translucent laminate membranes in approximately 2-foot-square grids, and subjected to the force of a 60-ton press. The resulting sheet is then die-cut to fit between pieces of glass. Davlin calls the line Market: visually stunning tiles that are possibly the first of their kind for interior dry applications.

Working with Portland, Oregon, manufacturer Ann Sacks, Davlin tried to bring the tiles to a large audience. But the labor-intensive process and unpredictable organic imperfections foiled the plan. For now, Davlin will produce and sell Market himself through his website, tdavlin.com, offering it in custom sizes and quantities. — BA

FOR DISPLAY ONLY

For designer Tony Devlin's Market line of decorative tiles (a tomato version at right), thin slices of fruits and vegetables are dried and pressed between two laminate membranes. Next, the membranes are die-cut and encased in glass



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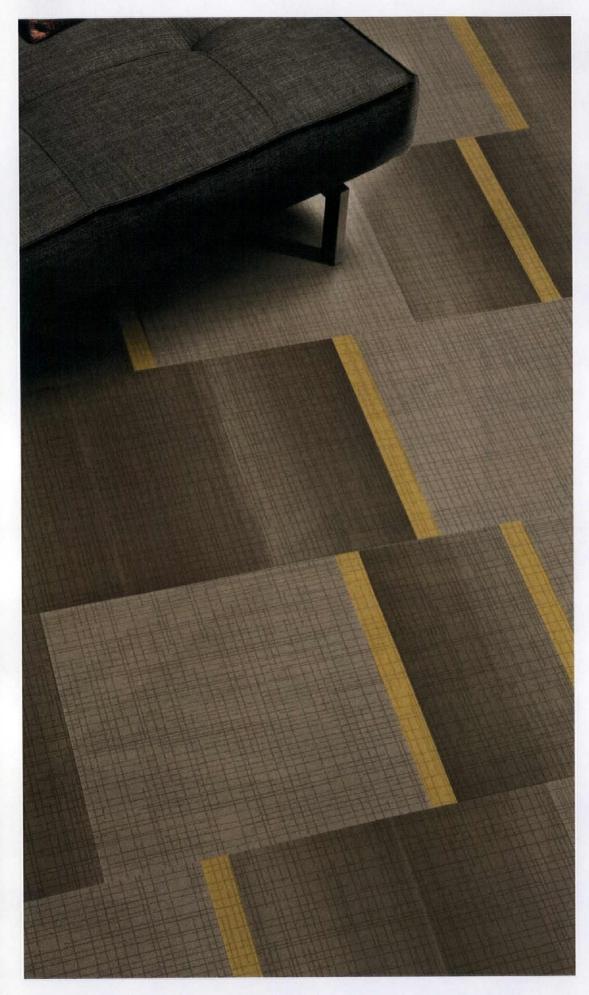


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Luxury vinyl tile is now welcome in Mannington Commercial's LOOP program. Returned LVT is cut (top right) and ground (lower right) to make new products like those in the Accent line (above), from the company's Connected collection.





Second Life

IN 2014, Mannington Commercial added luxury vinyl tile (LVT) to its LOOP takeback program. As part of the free service, the company sends trucks to pick up its customers' old LVT tile and haul it to the Calhoun, Georgia, facility, where it is added to the production stream for new LVT. (The company also accepts tiles from noncustomers, but the latter must cover shipping costs.) Lauded for its thoughtful design, the LVT Closed-Loop Recycling Program won Best of Show in the sustainability category at January's Surfaces 2016 trade show.

The service seems like a win for manufacturer and client, right? It is, says David Sheehan, Mannington's vice president of commercial hard surfaces, save one hiccup: a dearth of LVT to recycle. This means lower-than-desired reused content in new Mannington tile. But this problem reflects the material's durability, Sheehan points out, as LVTwhich has only existed for two decades—offers up to a 20-year lifespan. "Although we've demonstrated our ability to handle postconsumer material," he explains, "there just aren't that many customers looking to replace LVT yet."

Mannington will work to increase the flow by building customers' awareness of the program via its sales force and website. The company remains bullish on LVT recycling: Sheehan points out that takeback programs are something other domestic manufacturers can definitely emulate. "It's a great opportunity to prevent material from ending up in landfills," he says. - Braulio Agnese



VERSALLIA WIDE-PLANK VINYL FLOORING

MANUFACTURER: Carlisle PERFORMANCE: This 100% recyclable, 60-by-71/2-inch product-made with 25% postconsumer and 20% postindustrial material—resists water, stains, and scratches. PRICE RANGE: \$

APPLICATIONS: Each of the six hues in Oak Visions, the first Versallia collection, bears a unique wood-grain texture. The planks suit residential as well as commercial projects.

WIDEPLANKFLOORING.COM (SNAP #221)



VERTICAL LAYERS CARPET TILE



MANUFACTURER: Shaw Contract Group

PERFORMANCE: Woven from 70% recycled nylon, these 9-by-36-inch tiles feature a tipsheared finish.

PRICE RANGE: \$\$

APPLICATIONS: Targeted at corporate, hospitality, and retail projects, this line offers a weathered, scratched-away aesthetic in five styles. Tinge comes in eight colors; all other patterns are available in 12.

SHAWFLOORS.COM (SNAP #222)



SAFETY ZONE SHEET FLOORING

MANUFACTURER: Armstrong PERFORMANCE: When you walk on this vinyl-composition tile, the slip-retardant particles embedded in its surface are activated, improving user traction.

PRICE RANGE: \$\$

APPLICATIONS: LEED-compliant and durable enough for education and healthcare facilities, Safety Zone comes in sheets 61/2 feet wide and 66 feet long, with eight color options.

ARMSTRONG.COM (SNAP #223)



OUTDOOR PAVER

MANUFACTURER: Florim USA PERFORMANCE: Made from fused quartz, clay, and feldspar, these 4/s-inch-thick porcelain pavers are stain-, mold-, and frost-resistant.

PRICE RANGE: \$\$

APPLICATIONS: Suitable for high-traffic exterior spaces, the 24-inch-square pavers are easy to install and clean. This new collection is available in three wood and eight stone patterns.

FLORIMUSA.COM (SNAP #224)

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



= ECO-FRIENDLY ATTRIBUTES

Floored by Nature

THE NATURAL WORLD is influencing hospital and school designers. The trend surpasses aesthetics; it's also a response to research. Aneetha McLellan, a healthcare leader at the Omaha-based design firm DLR Group, says the use of such motifs "directly correlates to positive outcomes." Daylit spaces, for example, can promote faster healing. Brighter colors foster student alertness. And now this natureinfluenced design is appearing underfoot, as a trio of recent releases illustrates.

Inspired by the color gradients of geological formations, Johnsonite added 12 new hues in three shades each to its Mesto Configurations line of rubber tiles. The offerings, ranging from gold to deep blue, come in five sizes and two formats.

Nora Systems' Noraplan Valua combines a warm, nature-based palette with the resilience of rubber sheet flooring. The collection features 24 marbled hues, eight complementary accents, and six plank colors.

The AVA SNSE line of 12-by-24-inch vinyl planks, by **Novalis**, provides a gardenlike intensity with its eight saturated colors and just as many coordinating neutrals, all in a flowing wood-grain pattern.

These three products answer institutions' exacting needs for durability and bacteria resistance. But they also address the well-being of users, introducing the healing touch of nature where—and when—it's needed most.—BA







DOWN TO EARTH

Resilient-flooring companies are bringing outdoor palettes inside, with new offerings such as (clockwise from left) Noraplan Valua (from Nora Systems), AVA SNSE (Novalis), and Mesto Configurations (Johnsonite).



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The Overly Evolution metal wall and roof system is without raised batten or standing seams and exposed fasteners. The system consists of a hidden drain channel, compression bar, cover cap and cladding sheets. The smooth, contemporary design appears monolithic when viewed from just a short distance. It's an 'Evolution' to all the standard metal wall and roof systems available throughout the history of the industry.

Applications

The Overly Evolution system can be installed on sloped roofs and vertical walls. Panels can be curved and/or tapered for barrel vaults and domes or spherical shapes. The system features hidden fasteners and an removes any moisture that migrates into the system and skillfully designed joints which allow for expansion and contraction. The system is the exterior exposed component of a wall/roof composite assembly. Several composite assemblies are available ranging from thin to thick as determined by aesthetic preferences or as necessary to meet performance requirements such as thermal, structural and fire ratings.

Materials

- Aluminum Alloy 3003-H14, Standard Thickness 18 gauge (.040")-16 gauge (.050") available in painted K500 finishes, brushed and mill finishes
- Stainless Steel type 304 and type 316,
 24 gauge (.024") –20 gauge (.036") available in 2B, 2D, #4 and several custom directional and non-directional finishes
- Titanium Grade 1, gauges .018" .024" available in standard mill or matte finishes
- Zinc, gauge .028" .032" available in natural or pre-weathered finishes
- Recycled content varies upon material selected.
 100% recyclability of all metal components

System Design Data

- Width of Compression Cover: 2.75"
- Mininum/Maximum Spacing between Compression Covers: 12"–48"
- · Maximum Length of Panels: 40'
- Compression Extrusion Thickness: .056"
- Channel Extrusion Thickness: .056"
- Test data in accordance with ASTM E 283, ASTM E 330, ASTM E 331 and UL 580 (Class 90 available upon request)



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SNAP 21



Boardwalk Empire

BEFORE HURRICANE SANDY struck the Northeast in October 2012, Rockaway Beach was one of New York City's better-kept secrets. Unlike the famous Coney Island in Brooklyn, this sixmile peninsula in Queens offered surfing, a hipster vibe, and relative seclusion. In the powerful storm's wake, the site has earned kudos as a model of resilience, thanks to a \$140 million, FEMA-funded coastal reconstruction plan that includes a boardwalk redesigned by local design practice WXY as part of a team led by engineering firm CH2M Hill.

Commissioned by the New York City Economic **Development Corporation and the Department of Parks** and Recreation, the project reaches a milestone on Memorial Day, when the boardwalk becomes fully contiguous for the

first time since Sandy. In addition to elevating sections of the walkway, WXY designed and specified a variety of furniture in direct response to community listening sessions. The studio hired Harrison, New Jersey-based FMB to fabricate seating from mill-finish aluminum and reclaimed boardwalk planks. With their jaunty, angular geometry, the benches "can be used for sitting two ways and leaning," says WXY founding partner Claire Weisz. WXY also conceived cast-iron drinking fountains, made by Allen Architectural Metals of Talladega, Alabama, which are shaped for both sipping and filling water bottles. With the new fountains, WXY gave a small nod to the destination's past while updating the form to meet 21stcentury needs. - David Sokol

COME TOGETHER

Devastated by 2012's Hurricane Sandy, the boardwalk at New York's Rockaway Beach (above) is finally contiguous again thanks to restoration by local design firm WXY. Benches made from reclaimed boardwalk planks dot the route (inset).



LAKESIDE PLANTER



Margaret McCurry, these receptacles offer a choice of patterns plasma-cut into a 36-inchdiameter cylindrical steel shell, revealing the colorful liner of recyclable MDPE.

PRICE RANGE: \$\$

APPLICATIONS: Ideal for casual public and semipublic spaces such as village greens and resorts, the planters coordinate with other Lakeside collection pieces.

LANDSCAPEFORMS.COM (SNAP #225)



SAGE RECEPTACLE



MANUFACTURER: Victor Stanley PERFORMANCE: This trash bin's

exterior steel panels nest in a solid-steel frame built to thwart vandals. All fabricated metal components are electrostatically powder coated with TGIC polyester.

PRICE RANGE: \$\$

APPLICATIONS: Available in 36- and 45-gallon capacities, the receptacles come with a high-density plastic liner and rubber-tip leveling feet.

VICTORSTANLEY.COM (SNAP #226)



OGDEN BENCHES



MANUFACTURER: Maglin Site **Furniture**

PERFORMANCE: This modular bench collection with powder-coated steel components can be specified in sustainably harvested ipé, recycled HDPE, or HDPC made from recycled paper.

PRICE RANGE: \$\$\$

APPLICATIONS: The in- or outdoor seating comes in two standard lengths and leg styles and in wall-mount and cantilevered versions.

MAGLIN.COM (SNAP #227)



GIANT OUTDOOR COLLECTION

MANUFACTURER: Anglepoise PERFORMANCE: Offered in freestanding or articulated wall-mount styles, the supersize outdoor version of the iconic 1227 desk lamp comes in 15 colors and custom options.

PRICE RANGE: \$\$\$

APPLICATIONS: Designed to withstand the elements, the light is delivered with a class-D (halogen) bulb but also compatible with LEDs, compact fluorescents, and some incandescent lamps.

US.ANGLEPOISE.COM (SNAP #228)



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

= ECO-FRIENDLY ATTRIBUTES

The Socratic Method

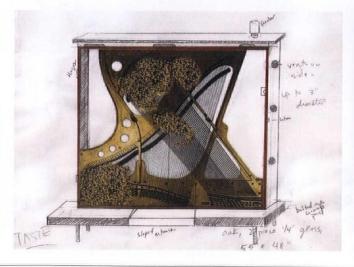
WHETHER IT'S BEAUTIFYING A LOCATION, holding vegetation, or serving as a plaything, site-specific art can perform all the roles of site furniture—while provoking thought and conversation. At Socrates Sculpture Park, on five acres in Long Island City, Queens, more than 1,000 public art pieces have, over the years, supplemented and transcended the adjacent amenities, helping transform this one time industrial landfill into a much-visited green space.

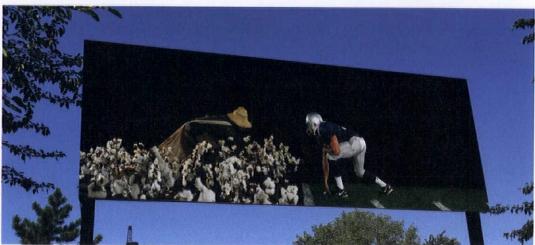
Eight new art commissions being unveiled May 8 celebrate the park's 30th anniversary. Called Landmark, the summertime exhibition centers on Meg Webster's Concave Room for Bees, a 70-foot-diameter planted earthwork that visitors enter (come autumn, the piece will be dismantled and used for topsoil). ${\it Jessica Segall's Fugue in B}, which transforms a salvaged piano harp into a musical$ $be ehive, is another installation; there \verb|'s also ashipping container-turned-lines and the standard container and container and container and container and container and contai$ screening room, by ARTPORT_making waves, which airs videos on climate change.

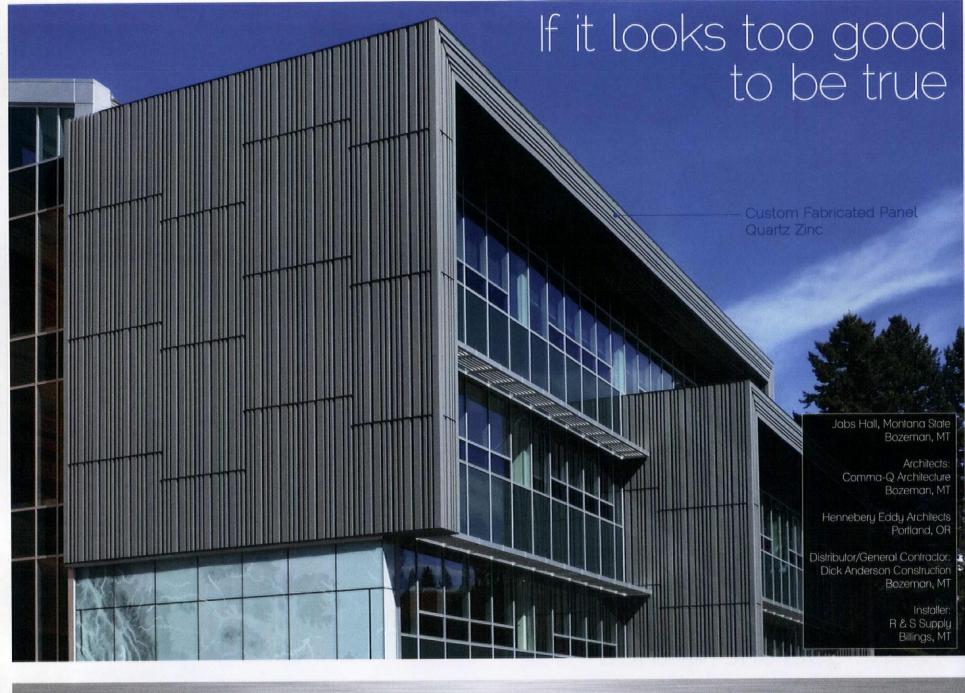
Sculpture park spokesperson Katie Denny Horowitz notes that the Landmark pieces contemplate humanity's changing relationship with nature. She adds that Webster's work, in particular, "recalls the park's early days of reclamation as it creates a vision for the future." In all, it underscores how art can play more than one role in fashioning vibrant outdoor spaces. — DS

ON-SITE

Meg Webster's Concave Room for Bees (rendering below left) and Hank Willis Thomas's From Cain't See in the Mornin' till Cain't See at Night (below) are among the Queens sculpture garden's new public-art works.







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- Aluminum Plank diagonal punch with a slip resistant metal spray surface (ALPlank8)

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- **ADA Walkways**
- Fencing & Gates
- Sunshades
- **Metal Grilles**





Play It Again

BLAKE HOBBS PLAY-ZA, in New York's East Harlem, proves it takes a village to make a playground. The 20,000-squarefoot recreational space, performance stage, and running loop—knit together by local design firm Scape/Landscape Architecture with feedback from residents—is recess central for students at the adjacent Dream Charter School. It is also a gathering spot for the community, which includes the tenants of a new adjacent affordable-housing project. The goal of serving both sets of users led to the concept of a "play-za"part playground and part urban plaza, notes Lanie McKinnon, senior associate at Scape. "The combination allows the site to address the variety of users who vicit the park on a daily basis "she says

In transforming the once-neglected park, Scape also rehabilitated it with green design measures, helping the project win a 2016 ASLA-NY Merit Award. The designers replaced impervious asphalt with permeable bright yellow and blue safety surfaces (installed by AquaSeal Resurfacing) and openjoint pavers to filter water into the ground. The new pavement diverts rainwater from the sewer to 4,000 square feet of understory plants, among them small trees, shrubs, and perennials. The design not only adds more greenery but also preserves 22 mature London plane trees, accommodated by circles carved into the park's variegated surfaces.

The designers customized play



Timberform line, sourced benches from **Landscape Forms**, and chose picnic tables from **Streetlife**. To link the park to the neighborhood, they hardscaped its edge with patterned paving and a fence design executed by Long Island metal fabricator **Brenseke Welding**; the latter, inspired by a piano keyboard, honors the park's namesake, local music man Blake Hobbs. — *Elizabeth Pagliacolo*

LONG PLAYER

The multipurpose Blake Hobbs Play-za in New York's East Harlem (top, with site plan above) was designed for both neighborhood residents and students at the adjacent Dream Charter School.



CIEL COLLECTION

MANUFACTURER: Restoration Hardware **PERFORMANCE:** Durable and weather-resistant grade-A teak forms the frames of these outdoor loungers, sofas, ottomans, and tables by Brad Ascalon.

PRICE RANGE: \$\$

APPLICATIONS: As suitable for hotel poolside projects as they are for home patios, the pieces feature zippered, polyfilled cushions in mildew-, stain- and faderesistant Perennials or Sunbrella fabrics.

RESTORATIONHARDWARE.COM (SNAP #229)



JADE 16W SPOTLIGHT

MANUFACTURER: Griven

PERFORMANCE: Housing 16 high-power RGBW or dynamic white LEDs, this digitally programmable, surface-mount spotlight bathes buildings in light.

PRICE RANGE: \$\$

APPLICATIONS: The spotlight, suitable for illuminating public buildings and landmarks, also comes in a Polar Edition, which has de-icing capabilities.

GRIVEN-USA.COM (SNAP #230)



NA.ME PORCELAIN TILES

MANUFACTURER: Belgard
PERFORMANCE: With finishes

inspired by stone, these ¾-inch-thick transitional porcelain pavers come in three sizes and eight subdued designs.

PRICE RANGE: \$\$

APPLICATIONS: Frost- and skid-resistant, the tiles support loads up to 2,000 pounds and can be dry laid onto grass, gravel, dirt, and sand. They also can be installed—with raised supports—on terraces and roofs.

BELGARD.COM (SNAP #231)



LIDO COLLECTION

MANUFACTURER: Fiam

PERFORMANCE: Inspired by public benches, these outdoor armchairs, loungers, and footrests feature fabric or PVC cord wrapped around curved, steel-tube frames.

PRICE RANGE: \$\$

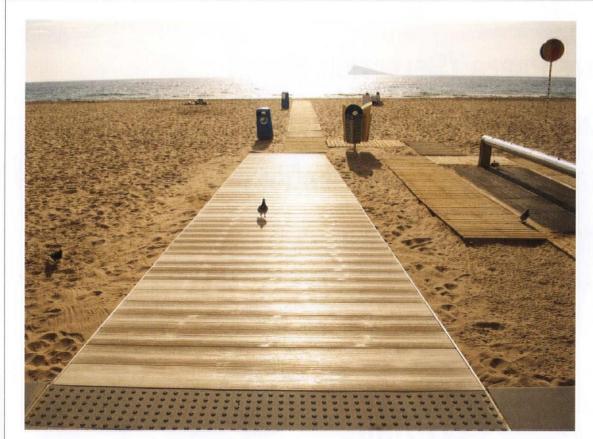
APPLICATIONS: With its vibrant finishes and contemporary look, this collection would be a welcome addition to any patio, outdoor café, or poolside area.

FIAM.IT (SNAP #232)

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



= ECO-FRIENDLY ATTRIBUTES



RAMPING UP

 $Architect José \ Luis \ Camarasa \ and \ manufacturer \ Escofet \ replaced \ an old \ wooden \ boardwalk \ and 19 \ access \ ramps \ in the \ Spanish \ seaside town of \ Benidorm \ with \ faux-bois \ planks \ made \ from \ aluminum \ and \ fiberglass-reinforced \ UHPC \ concrete.$

On the Waterfront

urban beaches are oases for Spanish city dwellers—and a boon to regional tourist industries. So when the boardwalk at Levante Beach, in the eastern coastal city of Benidorm, began to crumble, repairs were imperative.

Through an initiative by the architect José Luis Camarasa and Escofet, a local manufacturer of streamlined landscape products, the rejuvenated walkway now offers green design details, improved accessibility, and added resiliency.

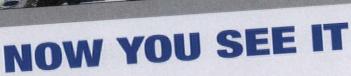
The designers replaced the old timber boardwalk with a promenade about 1½ miles long and 16½ feet wide, with 19 ramps leading down to the beach. Made of recyclable, heavy-duty aluminum and UHPC concrete reinforced with fiberglass, the ramps feature raised-dot edges that mark changes in incline. The surfaces received an accessibility makeover, too, with a new nonslip finish and wood-grain-like relief for visual and tactile warmth.

Camarasa predicts the project, completed in January, will last 40 years: twice the lifespan of the previous promenade. "The key was durability—the resistance of the big textured slabs," says Enric Pericas, Escofet's director of urban elements. (The company's products are available through **Landscape Forms** in the U.S.) The effort also creates a smooth transition from the buildings near the beach to the low wall delineating the sand, in effect tying together the bustling city and the boisterous beach. —*EP*



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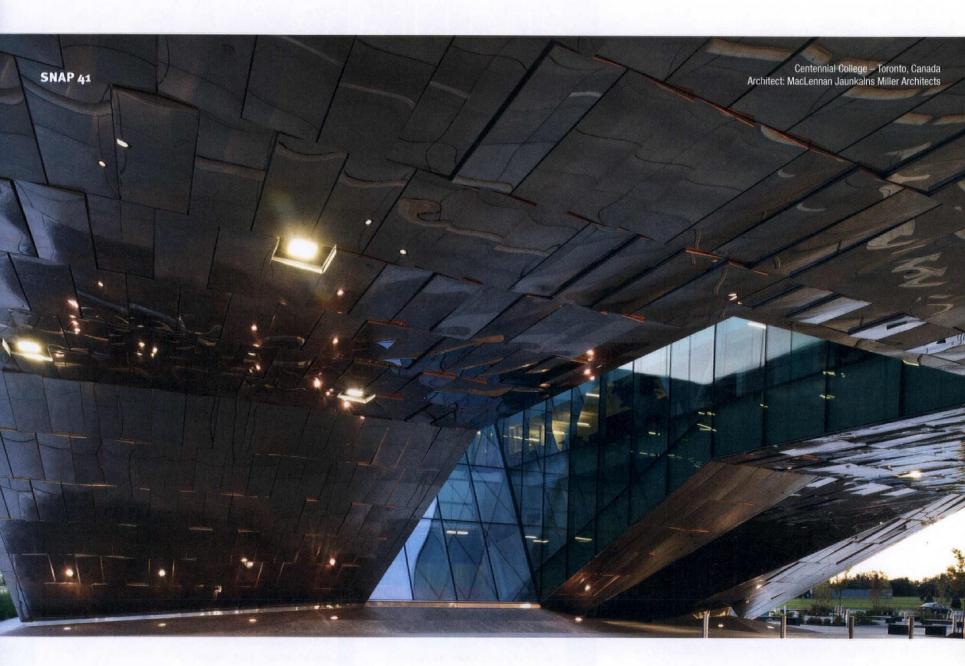


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Winning Out West

In California, Nevada, and Utah, the recession is in the rearview mirror.

BY J. MICHAEL WELTON



STRATEGIC MOVES made by manufacturers and governments in three Western states are now paying off.

Since becoming

governor of California in 2011, Jerry Brown has emphasized fiscal stability, achieving four balanced budgets. Over time, that has not only added up to a \$6 billion surplus for the state but also increased investment in its marketplace.

For California Faucets in Huntington Beach, sales grew 20 percent in 2015 and are on track for a 25 percent increase this year. "The recession was very Darwinian for our industry," says Noah Hunt, senior vice president for marketing and sales. "We grew by taking market share from companies that weren't innovating."

In Nevada, construction is picking up. Casinos are "starting to spend more money, renovating existing facilities," says Young Leonard, outside sales representative at Panda Windows & Doors. Sales are up 40 percent over last year's for the North Las Vegas-based company, with its bifolding and Lift & Slide door systems particularly popular. "Both lend themselves to residential and commercial projects and work in retrofits and

As for Utah, it exported almost \$12 billion in manufactured goods in 2014, up 16.82 percent since 2009. Producers moving to the state from elsewhere have fueled much of that increase, as have fresh tactics. For example, when Rustic Hardware switched last year from making custom doors to partnering with retailers, it doubled its annual sales to over \$20 million. In 2016, the company is "on track to reach \$40 million," reports product manager Seth Parker.

new construction," explains Leonard.

That kind of success spells recovery in any manufacturer's book.

California, Nevada, and Utah

MANUFACTURER: NanaWall Systems

LOCATION: Corte Madera, California **PRODUCTS:** Screening accessories and folding, sliding, and frameless

FOUNDED: 1986 EMPLOYEES: 100+ PRICE RANGE: \$\$

NANAWALL.COM





MANUFACTURER: Safti First

LOCATIONS: Brisbane and Merced, California

PRODUCTS: Fire-rated glass, glazing, and framing systems. FOUNDED: 1981

EMPLOYEES: 150 PRICE RANGE: \$-\$\$\$

SAFTI.COM



MANUFACTURER: Tournesol Siteworks

LOCATIONS: Hayward, California PRODUCTS: Fiberglass planters, site furnishings, fountains, and deck and paving products.

FOUNDED: 1979 EMPLOYEES: 100

PRICE RANGE: \$\$

TOURNESOLSITEWORKS.COM



MANUFACTURER: Simpson Strong-Tie

LOCATION: Pleasanton, California PRODUCTS: Connectors and fastening, lateral, and anchoring systems.

FOUNDED: 1956 EMPLOYEES: 2,400 PRICE RANGE: \$\$-\$\$\$ STRONGTIE.COM



MANUFACTURER: CRL-U.S. Aluminum LOCATION: Los Angeles, California

PRODUCTS: Entrances, storefronts, curtain walls, railings, commercial hardware, architectural metals, security screens, and frameless shower doors.

FOUNDED: 1961 EMPLOYEES: 1,700 PRICE RANGE: \$\$ CRL-ARCH.COM



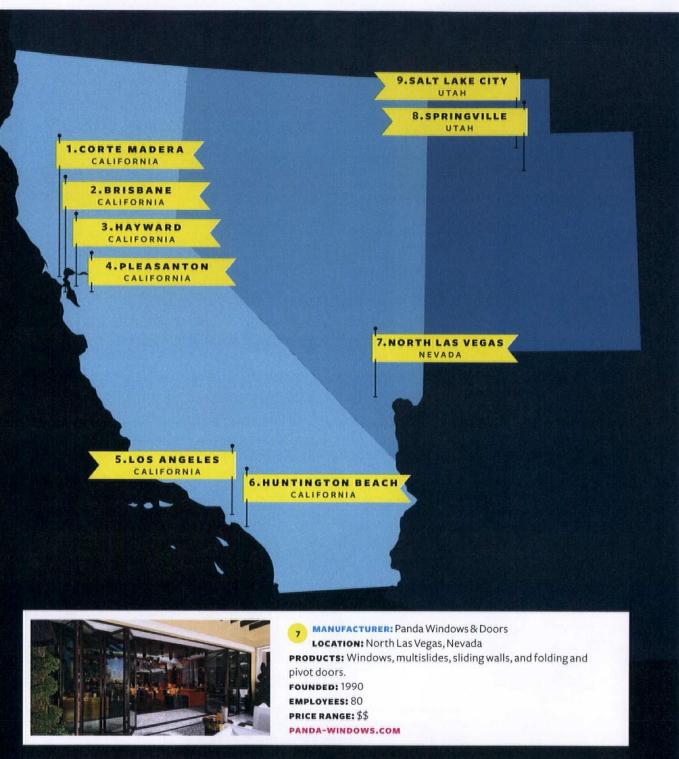
MANUFACTURER: California Faucets

LOCATION: Huntington Beach, California

PRODUCTS: Luxury bath and kitchen fittings and fixtures, including drains, faucets, trim, tubs, and shower systems.

FOUNDED: 1988 EMPLOYEES: 100 PRICE RANGE: \$\$-\$\$\$ CALFAUCETS.COM





MANUFACTURER: Rustica Hardware LOCATION: Springville,

Utah PRODUCTS: Sliding barn

doors and hardware; home decor.

FOUNDED: 2007 EMPLOYEES: 126 PRICE RANGE: \$-\$\$\$ RUSTICAHARDWARE.COM







LOCATION: Salt Lake City, Utah PRODUCTS: Interior and exterior glass and resin-based products, including partitions and wall and ceiling features. FOUNDED: 2002

EMPLOYEES: 350 PRICE RANGE: \$\$-\$\$\$ 3-FORM.COM

SNAPSHOTS

CALIFORNIA

In the last year, the Sunshine State created

459,000

manufacturing jobs.

California's total manufacturing output in 2013 was

BILLION.

SOURCES: U.S. BUREAU OF LABOR STATISTICS, NATIONAL ASSOCIATION OF MANUFACTURERS

NEVADA

The state's 1,800 manufacturing companies employ more than

56,000



Manufacturing jobs in Nevada's southern region pay an average of nearly \$49,000 a year.

SOURCES: NEVADA GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT

UTAH

The Beehive State had a total manufacturing output of

\$17.5 BILLION

in 2014.

Utah manufacturing employment in 2015 was 126,000, or 9.13 percent of all nonfarm employment.



SOURCE: NATIONAL ASSOCIATION OF MANUFACTURERS



GIMME SHELTER

SOM and Oak Ridge National Laboratory have developed a small 3-D-printed building dubbed AMIE, for "additive manufacturing and integrated energy."

Beyond the Prototype

Architects and designers take additive manufacturing to a new level. BY JOANN GONCHAR, AIA

GUTENBERG'S INTRODUCTION of movable type six centuries ago was a true revolution. The development forever altered the way information was received and disseminated, democratizing knowledge. Printing's recent move beyond two dimensions could be similarly transformative. Since 3-D printers were first developed in the 1980s, the technology has made inroads into medicine and the aerospace and auto industries; DIYers and tinkerers also have embraced it.

In architecture, 3-D printing is now regularly used to make study models and as a rapid prototyping tool, but not to create full-scale functional components or habitable spaces—yet. This situation seems to be on the cusp of change, however, as architects, engineers, and others explore the

process as an alternative to conventional fabrication and construction.

Also known as additive manufacturing, 3-D printing is actually a term for several production techniques that can transform various materials-plastics, metals, ceramics, concrete, and more—into three-dimensional objects of almost any shape or geometry. The forms are produced from a 3-D model or another digital data source by sequentially depositing layers of material one on top of the other and fusing them. It contrasts with other machining methods, such as stamping, cutting, or grinding, which create shapes by removing unwanted material.

One firm that has been investigating the potential of 3-D printing is Skidmore, Owings & Merrill (SOM). It recently completed the

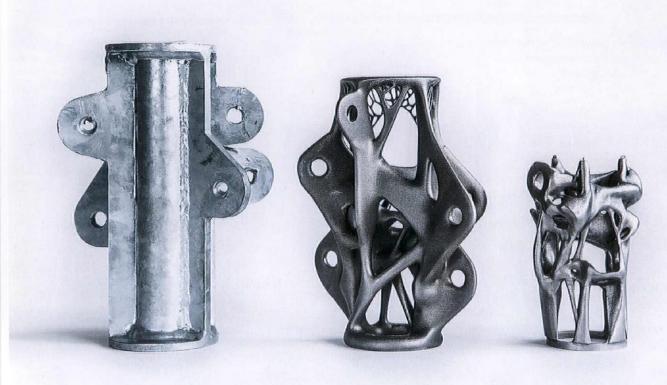


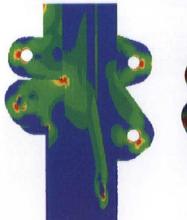
Additive Manufacturing Integrated Energy (AMIE) demonstration project—a small building the firm designed in collaboration with Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee, and the College of Architecture and Design at the University of Tennessee, among other industry partners. The 450-square-foot carbon-fiberreinforced ABS plastic structure, which was first exhibited on ORNL's campus in September, has the ability to operate off the grid: Its roof includes thin-film photovoltaics that work in tandem with a natural gas-fired generator housed in an accompanying 3-D-printed vehicle.

Arguably, AMIE's most sustainable feature is not its source of power but its tight integration of enclosure and structure, which translates into an extremely efficient use of materials. The shelter consists of a series of C-shaped printed channels 121/2 feet tall, 6 feet wide, and 2 feet deep (the latter dimension was determined by the capabilities of the chosen printer). Although the machine could produce large objects, it did not have the ability to create so-called support material—a printed element, eventually to be removed, that keeps complex shapes from slumping over or drooping during fabrication, explains Brian Lee, a partner in SOM's Chicago office.

Once assembled, and other nonprinted elements such as insulation and air and moisture barriers are included, the pieces create a highly thermally-efficient volume with rounded corners and curved surfaces where the floor, wall, and roof are continuous. The form—a direct outcome of the fabrication method—gives the building stability and the capability to resist wind loads. Curiously, the printed material has a grain similar to wood's and is therefore stronger in one direction than the other. So to prevent cracking in the weaker direction (the one perpendicular to the grain), the structure includes posttensioning tendons that run the full length of the shelter. "It looks the way it does because we wanted to take full advantage of the additive manufacturing process and the material's properties," says Lee.

TAKING FORM SOM's AMIE structure, assembled from multiple AIME PRINTED OUTER RING D C-shaped channels of carbon-fiber-reinforced COMPONENTS ABS plastic (above and below), includes INNER RINGD photovoltaics on its roof that work in tandem with INNERRING N-PART 04 a generator housed in an accompanying INNER RING D-3-D-printed vehicle. INNER RING N -OUTER RING N INNERRING D INNERRING N - PART 01 INNER RING N - PART 02 INNERRING D-PART 01









Another firm that has also been studying how 3-D printing can be deployed to optimize material use and structure is Arup. The engineering firm's research grew out of a 2008 commission for street lighting in the Hague, the Netherlands, that involved several irregularly shaped tensegrity structures (structures made of isolated struts in compression inside a continuous net of cables in tension). Although the scheme was not realized, it became the basis for Arup's ongoing investigation of additive manufacturing.

The Arup study focused on the nodes the elements that would connect the struts and cables. It would make perfect sense to produce them with 3-D printing since, of

PROCESS OF ELIMINATION

Arup used additive manufacturing and computational tools to optimize a node for a tensegrity structure. The iterative process created a node (at right in both groupings) that was 75 percent lighter than and half as tall as the original, conventionally fabricated one (at left in both groupings).

the approximately 1,600 steel connector pieces in the series of lighting structures, very few would be identical, says Salomé Galjaard, a senior designer in the firm's Amsterdam office. Fabricating them conventionally by machining steel plates of different sizes and shapes and welding them to steel tubes "would have been a production nightmare," she says. "[But] the printer does not 'care' whether it builds up the same product each time or one that is slightly different."

The Arup engineers combined 3-D printing with computational tools for structural analysis and parametric modeling. This helped them identify material that could be omitted from the nodes, creating elements with organic shapes that make them look a bit like chunks of Swiss cheese. More important for the structural engineers, the process significantly reduced the weight of the nodes, which meant that the forces on the rest of the system's components, including the cables and struts, were reduced, allowing them to also become smaller and lighter.

Further analysis permitted Arup to make the nodes lighter still.

Arup's final application of this iterative optimization process produced a node that was 75 percent lighter and half as tall as the original, conventionally fabricated node. The lighting structures as a whole were 50 percent lighter. The results have broad implications, including the possible elimination of reinforcement of the buildings from which the lighting elements were to have been hung. The benefits of additive manufacturing can have a snowball effect, according to Galjaard.

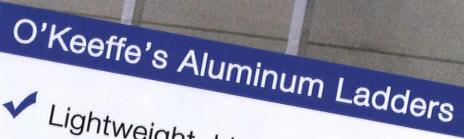
Advocates for additive manufacturing in architecture say there is more than one way that 3-D printing can help the industry make more efficient use of materials. DUS, a Dutch firm best known for its ongoing 3-D Print Canal House project, recently created a facade for the temporary building in Amsterdam where the Presidency of the Council of the European Union, an EU leadership body, is now meeting. The facade consists of multiple 16-foot-wide and -tall triangular pieces with integrated benches shaded by tentlike awnings. The triangular elements, which all have slightly different faceted surfaces, are printed from a bioplastic that can be shredded and reprinted once the Presidency's stay in Amsterdam is over in June. Hedwig Heinsman, a DUS founder and partner, makes the point that the recyclability of the printing matrix is not the only resource-conserving aspect of the technology. By its very nature, 3-D printing produces less waste than conventional construction. "By connecting design directly to manufacturing," she says, "the process is made much more efficient."

For the team behind another Amsterdambased 3-D printing endeavor, efficiency is a secondary concern. To Tim Geurtjens, chief technology officer of MX3Ddeveloper of a robotic 3-D-printing technology—the main attraction of additive manufacturing is its ability to produce complex shapes with intricate detail. "We can restore the decoration that has gone out of architecture," he says.

MX3D is working on a 3-D-printed pedestrian bridge that will a span a 28-foot-wide canal in Amsterdam's red-light district. Designed by Joris Laarman, a product designer who has long been experimenting with 3-D technology at various scales, the bridge is being fabricated in an Amsterdam shipyard and is to be installed on-site in the summer of 2017. It will be made of a stillto-be-determined alloy, using an additive technique that involves the robots and MIG (metal inert gas) welding. The process, which resembles drawing in midair with

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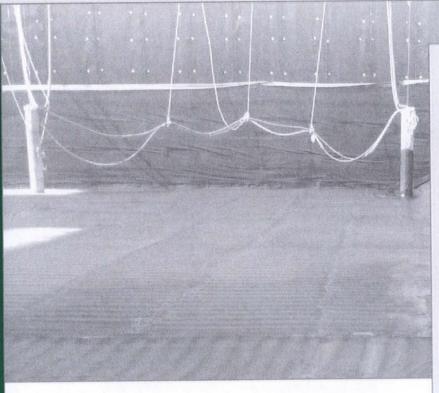
WELDED WEB

MX3D is building a 3-D-printed pedestrian bridge for an Amsterdam canal (rendering above). The fabrication technique developed by the 3-D-printing startup resembles drawing in space with molten metal (left).

molten metal, is well suited for production of Laarman's lacy, cobweb-like span. "We can put the material exactly where we need it," explains Geurtjens.

Despite all the touted benefits, 3-Dprinting enthusiasts do not predict that the technology will entirely replace conventional construction anytime soon. Creating a completely 3-D-printed, move-in-ready building, for instance, would require a machine that could print a wide array of materials needed for construction simultaneously or one that could print these materials in multiple passes. This technology is at least a decade off, according to Todd Desmarais, a director in the Chicago office of Gensler. The firm has designed a 2,600-square-foot 3-D-printed office building nearing completion in Dubai. The

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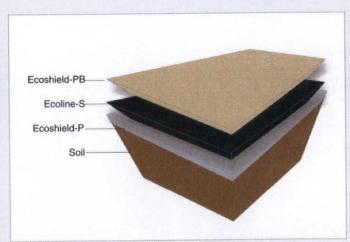
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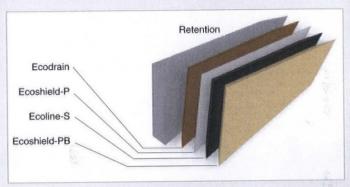
Self Sealing - The bentonite layers seal at any penetration of the system.

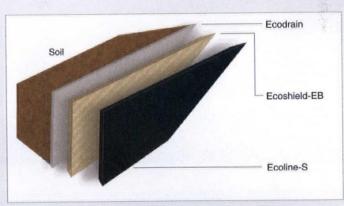
Redundant Protection - Multiple waterproofing protection courses and drainage plane.

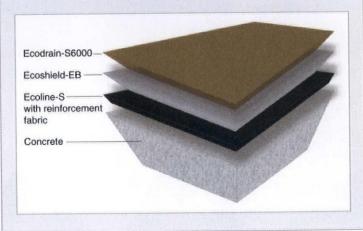


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SKIRTING AROUND

 $A facade \ designed \ by \ DUS \ for a temporary \ building \ in \ Amsterdam \ (above \ and \ left) \ includes \ a \ skirtlike$ shading device and triangular elements with integrated benches. These are printed from a bioplastic that can be shredded and reprinted once the facade is dismantled.

client is a group of investors that includes the Chinese 3-D-printer manufacturer.

The Dubai office project, which is part of an effort to create a prototype for 3-D-printed structures that would be suitable for lowrise residential or commercial use, consists of multiple shoebox-shaped modules surrounding a courtyard. The modules have an inner enclosure of a cement-based material and an outer fiberglass shell. Both were printed in Shanghai in C-shaped sections and then shipped to Dubai for assembly

on-site. There, other elements were also installed in a process that resembles traditional construction, including glazing, casework, and mechanical, electrical, and plumbing equipment.

The impediments to creating a building entirely with additive manufacturing are not only technical, says Rob Bolin, a senior partner at Syska Hennessy, the Dubai office project's mechanical engineer. He points out that any printed element for the distribution of air, water, or power—such as ductwork,



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CONTINUING EDUCATION: 3-D PRINTING FROM ARCHITECTURAL RECORD



HOME OFFICE

Gensler's 3-D-printed office, now nearing completion in Dubai (shown above in an early rendering), consists of multiple modules surrounding a courtyard. It is part of an effort to create prototypes of 3-D-printed structures suitable for commercial and residential use.

piping, or conduits—would need to comply with established standards. "The hurdles are in part regulatory," he says.

But even if 3-D-printing technology is not yet advanced enough to create an entire building from additive manufacturing in one go, additive manufacturing can still provide the answer to a variety of pressing problems. SOM's Lee says that buildings like AMIE could serve as emergency shelters, especially as different printing matrices are developed and tested and their cost comes down. He raises the possibility that if there were access to a printer, disaster housing could be printed on-site, from locally sourced material.

Most devotees of the technology predict that additive manufacturing will infiltrate design and construction practices for buildings—but gradually and selectively. "The conventional process will be more efficient and cheaper for most buildings," says MX3D's Geurtjens. However, 3-D printing will make sense where customization is important or for elements with an extra level of complexity. He points to facades in particular.

Arup's Galjaard agrees that for the time being at least, the use of additive manufacturing will not be widespread. But she expects that we will see the technology used in projects where weight is especially critical—in the components of long-span, operable roofs over stadiums, for instance. She points out, not surprisingly, that to take full advantage of the benefits of additive manufacturing, designers need to "zoom out" and look beyond the individual 3-D-printed element, studying the implications for the whole project. This, she says, "will lead to better design solutions in the long run."

Continuing Education



To earn one AIA learning unit (LU), including one hour of health, safety, and welfare (HSW) credit, read "Beyond the Prototype," review the supplemental material at architectural record.com, and complete the online test. Upon passing the test,

you will receive a certificate of completion, and your credit will be automatically reported to the AIA. Additional information regarding credit-reporting and continuing-education requirements can be found online at continuingeducation.bnpmedia.com.

Learning Objectives

- 1 Define the terms "3-D printing" and "additive manufacturing."
- 2 Describe how architects and engineers are using 3-D printing to create habitable spaces and full-scale functional components.
- 3 Discuss some of the technology's current limitations.
- Describe some of the most appropriate applications in architecture for 3-D printing.

AIA/CES Course #K1605A

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Hambro MD2000 on a conventional structural steel frame

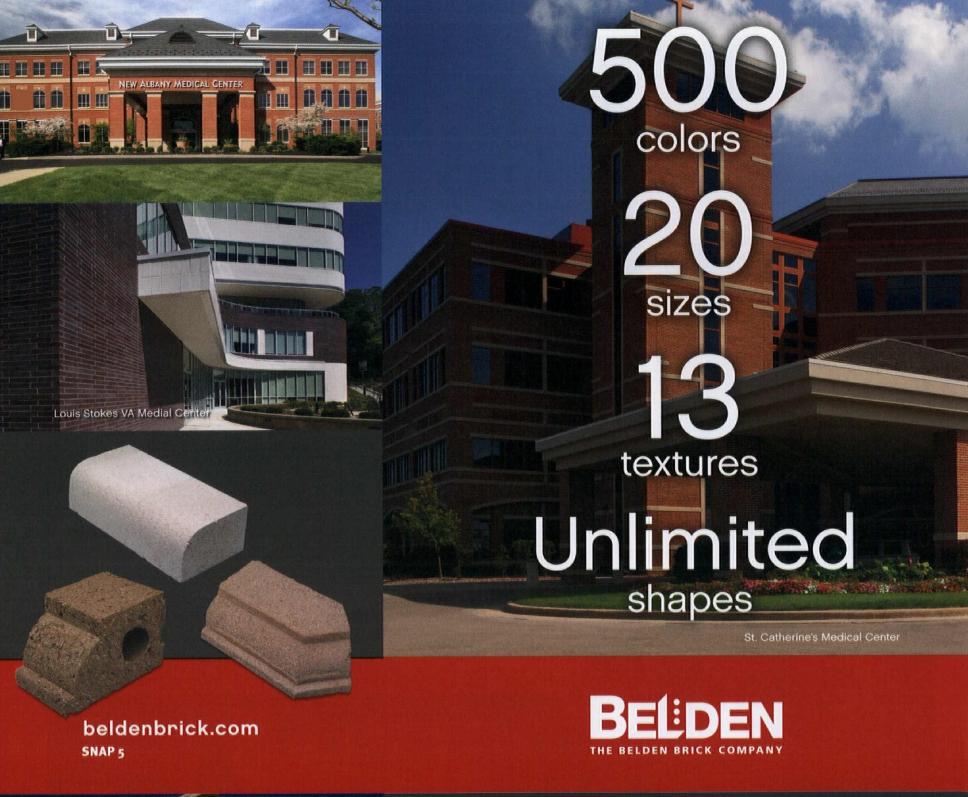


Hambro D500 on load-bearing walls

CANAM BUILDINGS

SNAP 52

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MANUFACTURERS' SPOTLIGHT SECTION

Look to these pages for products brought to you directly from manufacturers. You'll find the information you need to make SNAP decisions: price, performance data, product application, and contact information. Use the reader service card in the issue of go online at architecturalrecord.com to request further details.



The nature-inspired AVA SNSE collection of 12-by-24-inch vinyl flooring planks (Novalis) includes eight saturated hues and eight coordinating neutrals. (SNAP #233)

TABLE OF CONTENTS

Doors, Windows

Pages 54-56

Doors, windows, storefronts, entrances, skylights, framing systems, glazed curtain walls, and translucent wall and roof assemblies

Electrical, Lighting

Page 56

Products for generating, transmitting, distributing, and transforming electrical energy, such as light fixtures and power supplies. Includes intercom equipment.

Equipment

Page 56

Electrical and tech goods for a broad range of uses, including audiovisual, multimedia, and controller systems. Also covers elevators and appliances.

Interior Finishes, Furnishings

Page 56

Products for finishing and furnishing building interiors, such as flooring, wall coverings, ceilings, furniture, shelving systems, and window treatments.

Landscaping, Sitework

Page 58

Exterior improvement products, such as site furniture, bollards, pavers, landscape edging, and exterior green walls. Also includes gazebos and other site structures.

Materials

Page 58

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

Products for conditioning, moving, holding, and other-

wise controlling air, water, and other fluids. Includes plumbing products, fans, ventilators, and boilers.

Mechanical Systems, HVAC, Plumbing Pages 58-60

Roofing, Siding, Thermal & Moisture Protection

Page 60

Products for constructing the building envelope, such as exterior wall and roof panels, sheathing, thermal insulation, and waterproofing.

Specialty Products

Pages 60-64

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

SLEEKLINE CANOPY SYSTEM USES **MAKROLON® POLYCARBONATE** SHEET

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SNAP 234

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DOORS, WINDOWS

CUSTOM WOOD GARAGE DOORS

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Custom architectural designs available. **Product Application**

- · High-end PVC and wood garage doors
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- · Entry doors



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SNAP 236

DOORS, WINDOWS

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Major Industries, Inc.

Major offers a wide range of glazing materials - from translucent FRP panels to glass to polycarbonate multi-wall and mixed glazed systems. We'll work with you to find an optimum daylighting solution.

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Booth: 1922 AIA Expo **SNAP 238**

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Product Application

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Performance Data

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DOORS, WINDOWS

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Performance Data

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- · CPSC Cat. II safety
- 40 STC
- · UL/WHI listed in large sizes

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DOORS, WINDOWS

SNAP 235

DOORS, WINDOWS

CLOSURE SYSTEMS

MobilFlex Folding & Rolling Closures Inc.

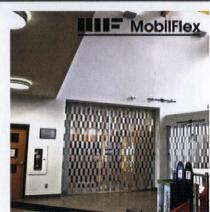
MobilFlex provides imaginative options for a wide range of storefront entrance and space delineators. **Product Application**

· Malls, window protection, banks, schools, hospitals, airports, ships, reception desks

Performance Data

- · Any layout, any radius curve
- Large spans up to 19 ft high, 200 ft wide
- · Distinctive looks, rugged protection

www.mobilFlex.com 800.501.3539



SNAP 237

DOORS, WINDOWS

WOOD ACOUSTIC DOORS

Overly Door Company

Wood acoustic doors are lead-, asbestos- and formaldehyde-free and are now available with FSC Chain of Custody.

Product Application

- · Brentwood Baptish Church, Brentwood, TN
- · US Department of State, Washington, DC
- · Pennsylvania State University, State College, PA

Performance Data

- . FSC Chain of Custody
- 3/4-hr UL fire ratings; STC 41 thru 49

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SNAP 239

DOORS, WINDOWS

ADJUSTABLE CONCEALED HINGES

\$\$ I NEW

Rocyork Architectural Opening Solutions

The Rocyork 6-way adjustable concealed hinges offers designers and architects a solution for concealing hinges on modern contemporary interiors. Manufactured in Italy Rocyork offers the best of European design and quality.

Product Application

- Condominiums, multifamily
- Offices, residential, health care

Performance Data

- · Fire rated
- Available in a variety of weight capacities

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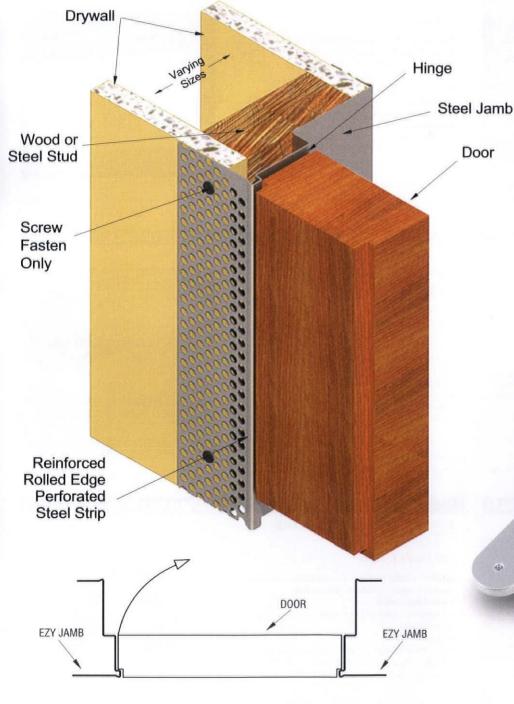
Circle 241

CLEAN LINES! ... The Flush Finish r Jam' System

rimless door frames... Make a statement, clean lines, flush finish... G ve your project a clean cut edge!

The **EzyJamb InSwing ISD Trimless door frame** is simple to install, and requires no special maintenance. InSwing is designed to be flush to the wall on the exterior side of the opening, but allows the door to swing into the room. The system is complemented by a range of hardware to suit different applications.

The completed jamb is flush finished and can be painted in with the whole wall area to fully conceal any fixing, achieving simple clean lines around the door face. The incorporation of reinforced edges overcomes the continual damage door jambs are subjected to by normal everyday use.





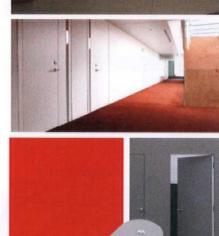
EZYJamb Inswing - ISD

(PATENT PENDING)

SNAP 60











EZYJamb is complemented by a range of Concealed, Standard and Mortised hinges from Rocyork.

www.ezyjamb.com

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DOOR HINGE SAFETY GUARDS

5

Fingersafe USA

Full-length door protection that blends with existing hardware and folds flat against the frame. Designed for commercial use to avoid amputation, damaged fingers and costly insurance claims.

Product Application

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Performance Data

- · 4-hour fire door rating
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SNAP 242

ADJUSTABLE CONCEALED HINGES

SIMONSWERK North America, Inc.

The TECTUS 3-way adjustable concealed hinge series for doors offers designers and architects an entire range of hinges for different architectural openings.

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- Residential 2012 Olympic Village, London, U.K.
- · Retail Apple Retail Stores, global

Performance Data

- . Maintenance-free slide bearings for doors up to 300 kg/660 lb
- · Designed for high-frequency use (not limited to lowfrequency applications)

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262.472.9500 | info@simonswerk.com



DOORS, WINDOWS

SNAP 243

EQUIPMENT

ELECTRICAL, LIGHTING

DOORS, WINDOWS

LED RAIL LIGHT KITS FOR ALUMINUM RAILINGS WR I GREEN

Feeney, Inc. (DesignRail®)

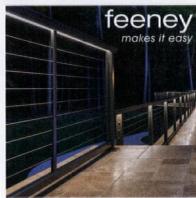
All-weather, energy efficient LED lighting kits for DesignRail® aluminum railings with high-bond installation adhesive strips, special snap-on light-diffusing lenses, and remote control dimmers

Product Application

- · Fits into top & bottom rails of all DesignRail® railings
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- · Outdoor lighting accent & visual aid for low-light areas **Performance Data**

· High CRI (80) LEDs for excellent color rendering, rated

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Booth: 3300 AIA Expo SNAP 244

NEW IDEAS

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- · Compatible with any dry erase marker

Performance Data

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SNAP 245

EQUIPMENT

SERIES 3000 DOCK LIFT- UPDATED & EXPANDED

Advance Lifts, Inc

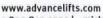
Advance Lifts Inc. The nations #1 dock lift builder has recently updated and expanded their 3000 series of pit mounted dock lifts.

Product Application

. This newly expanded line brings lower lowered heights and a significant cost reduction to dock lifts with capacities between 8,000 and 20,000 pounds.

Performance Data

· With the industry's leading warranty and most complete lines of surface and pit mounted dock lifts, every dock needs and Advance Lift.



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SNAP 246

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WR I GREEN

Armstrong Ceiling Solutions

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- · Lobbies/reception areas
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- Restaurant

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INTERIOR FINISHES, FURNISHINGS



SNAP 247

INTERIOR FINISHES, FURNISHINGS

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- · Backsplashes
- · Counter & table tops

Performance Data

- · Environmentally friendly, VOC-free · Most durable color coatings

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SNAP 248

INTERIOR FINISHES, FURNISHINGS

BENCHES, COAT HOOKS & RACKS

GOF Ltd./A.J. Binns

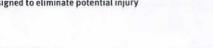
A.J. Binns manufactures a complete line of coat hooks, hangers, shelving and seating.

Product Application

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Performance Data

- · Functional, adaptable and particularly durable
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SNAP 249

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SNAP 182



LANDSCAPING, SITEWORK

CUSTOM INVERTED GABLES PROVIDE DESERT SHADE

ICON Shelter Systems Inc.

These inverted gable shelters at McCullough Vista Park in Henderson, Nevada measure 12' x 12'. Tubular steel frame is Ash Gray. Roof panels are Slate Gray. Product Application

- McCullough Vista Park, Henderson, NV
- · Old Settler's Park, Round Rock, TX
- · Barton Park, El Paso, TX

Performance Data

- · E-coated, powder coated frame to 8-12 Mils.
- · Pre-Cut Galvalume roof panels with Kynar 500 finish
- · Engineering services and footing design provided

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SNAP 250

LANDSCAPING, SITEWORK

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- · Entrances and walkways.
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- Long-term performance.
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SNAP 252

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IN-SINK DRAIN SYSTEM SS I GREEN I NEW

Just Manufacturing

Integra Drain - seamlessly welded to sink, creates an integral drain in-sink system, without additional parts or rings. Reduces leak potential. Includes basket strainer and tailpiece.

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Performance Data

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SNAP 254

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SS I GREEN

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Maintenance-free, weatherproof, waterproof, fiberglass fence systems, three times tensile strength of steel, variety of colors, non-conductivity, lifetime warranty, green.

Product Application

- Kona International Airport, HI
- · Hurst Conference Center, Hurst, TX
- · US AFB, Portugal
- Alcoa, Washington

Performance Data

- · Highest strength in a fence product
- · Sustainable, no maintenance

www.fiberfence.com

817.379.4411 | Suzanne Seely



LANDSCAPING, SITEWORK

SNAP 25

LANDSCAPING, SITEWORK

CUSTOM PLANTERS

WR

Planters Unlimited

Planters Unlimited designs and manufactures custom commercial-grade planters in an unlimited variety of materials, styles, colors and finishes.

Product Application

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- Hyatt Regency, Tulsa, OK
- · Niagara Parks, Niagara Falls, Ontario

Performance Data

- Commercial-grade materials to withstand outdoor elements
- · Manufactured to meet your specifications

www.plantersunlimited.com 888.320.0626 | sales@plantersunlimited.com



SNAP 253

MATERIALS

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Microperf Acousticore 519 & 525 Acoustic Wall & Ceiling Panels are superior in performance, discrete aesthetics, & structural integrity. They are an entirely new class of sound-absorbent panels.

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- Auditoriums, restaurants, bars, conference rooms, schools
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- Microperf 519 NRC Rating .70 Microperf 525 NRC www.acousticalsurfaces.com
- 1.800.448.0121 | sales@acousticalsurfaces.com



SNAP 255

Clear Seas RESEARCH

Making the complex clear

MAKING THE COMPLEX CLEAR

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WR I NEW

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SNAP 258 Booth: 10120 HD Expo

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Product Application

- · Labor savings
- · Fits all commonly used pipe materials
- · Unique Attachment design
- Low profile to wall surface
- · Architecturally pleasing

Performance Data

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SNAP 250

ROOFING, SIDING, THERMAL & MOISTURE PROTECTION

THE ULTIMATE WATER TABLE WATERPROOFING SYSTEM

Epro Services, Inc., Wichita, KS 67211

Product Application

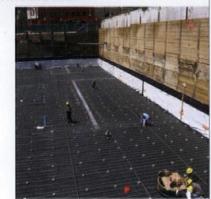
- · Complete field-installed composite
- · Cost effective, timely application
- · Adaptable project design
- · Flexible for unique construction conditions
- · High productivity

Performance Data

- · Seamless, self-sealing system
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- · Exceptional chemical resistance
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- · Redundant protection

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Performance Data

. The Tapered Series still maintains Dri-Design's true dry joint rain-screen technology, sustainability and ease of

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SNAP 261

ROOFING, SIDING, THERMAL & MOISTURE PROTECTION

ROOFTOP WALKWAY & SAFETY RAILING

Design Components, Inc.

METALWALK™ Rooftop Walkway along with the optional safety handrail provides safe roof access for any commercial or industrial application.

Product Application

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- Meets or exceeds OSHA & IBC 2006 specifications
- Available in galvanized, Galvalume™ or painted finish



SNAP 262

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Easi-Set Worldwide Licensed Precasters

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Product Application

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Performance Data

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Fewer on-site trades • Faster installation Lower structural cost - Class "A" finishes

SPECIALTY PRODUCTS

SNAP 263

ROOFING, SIDING, THERMAL & MOISTURE PROTECTION

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www.rooftopwalkway.com

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SNAP-CLAD Metal Roofing Panels feature architectural aesthetics and structural performance. They are corrective leveled for superior flatness.

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Performance Data

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- Available in 38 colors on steel and 36 on aluminum
- 30-year non-prorated finish warranty

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· Labor-saving one-piece design



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Performance Data

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- · Accommodates stadium chair seating

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SNAP 265

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SPECIALTY PRODUCTS

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Smart Vent has expanded from it's line of ICC-ES Certified Foundation Flood Vents to bring you the most advanced dry floodproofing on the market. **Product Application**

· Commercial buildings in flood zones benefit from

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- · Rapid deployment in minutes
- · Can be sized to fit any opening
- · Layered Kevlar® structural webbing with coated fabric water retention

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SNAP 266

DELUXE STAINLESS STEEL SERIES

WR I NEW

Ketcham Medicine Cabinets div. of Fred Silver & Co.

Stainless steel medicine cabinets.

Product Application

- · Nursing homes, hospitals
- · Assisted living, multi-residential
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Performance Data

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SPECIALTY PRODUCTS

SNAP 267

SPECIALTY PRODUCTS

SPECIALTY PRODUCTS

CUSTOM-MADE ROLLING LADDERS

Putnam Rolling Ladder Co., Inc.

Since 1905 Putnam Rolling Ladder Co. has been manufacturing custom-made rolling ladders.

Product Application

- · Library rolling ladder
- · Loft ladder
- · Decorative office ladders and stools

Performance Data

· Numerous hardwood species, stains and hardware metal finishes

www.putnamrollingladder.com 212.226.5147 | Sales



SNAP 268

FIXED-ACCESS, SHIP & CAGE LADDERS WR | GREEN

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SNAP 269

SPECIALTY PRODUCTS

SPECIALTY PRODUCTS

VERSATILE & BUILT TO LAST

Woven Wire Products Association

Wire mesh partitions and infill panels offer security and safety while allowing free airflow and visibility.

Product Application

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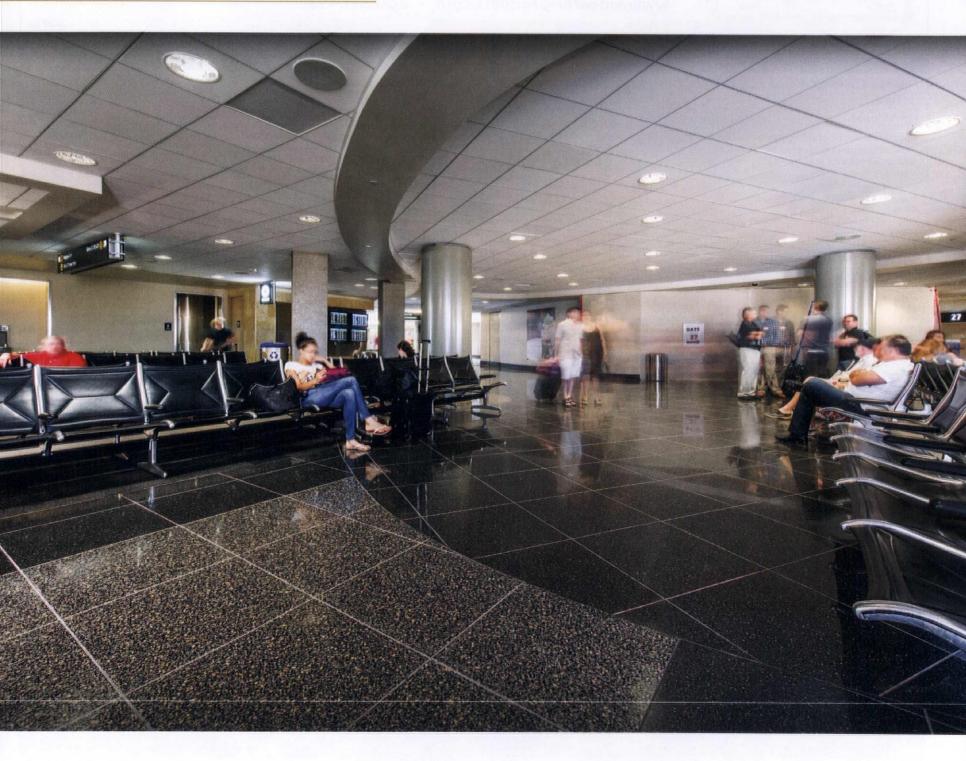


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Performance Data

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Product Application

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- 1-78 Toll Plaza, Blackwood, NJ
- · Fort Saskatchewan Hospital, Edmonton, Alberta

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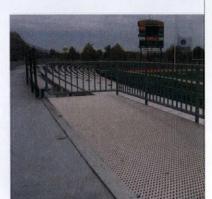
- · Harahan Bridge, Memphis, TN
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Performance Data

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NEW AND UPCOMING **EXHIBITIONS**

Eye for Design

June 7-October 2, 2016

Eye for Design showcases catalogues produced by the Museum of Arts and Design (MAD) between the 1950s and 1970s. Designed by graphic artists including Emil Antonucci, John J. Reiss, and Linda Hinrichs, the catalogues and other printed exhibition-related ephemera highlight a lesserrecognized aspect of 20th-century graphic design history while defining MAD's place in the design community of New York during that time. For more information, visit madmuseum.org.

Extraordinary Playscapes

BOSTON

June 8-September 5, 2016

Curated by Design Museum Foundation, Extraordinary Playscapes explores contemporary playground design, making a case for the importance of free play to healthy childhood development, thriving communities, and social equity. The exhibition features a project that reimagined a defunct ambulance as a children's playground at a Malawi, Africa, hospital; examples of how Danish design integrates nature and play; and innovative playcentered design on the Boston waterfront. Extraordinary Playscapes offers interactive installations, videos, scale models, and hands-on elements that allow visitors to explore the art, history, and science behind play. For more information, visit architects.org/bsaspace.

ONGOING EXHIBITIONS

A Japanese Constellation: Toyo Ito, SANAA, and Beyond

NEW YORK CITY

Through July 4, 2016

This exhibition at the Museum of Modern Art highlights the interconnected web of architects and designers surrounding Pritzker Prize winners Toyo Ito and SANAA. The curators provide an overview of Ito's career and his influence as a mentor to a new generation of Japanese architects; it also offers a retrospective of three generations of acclaimed Japanese designers, Kazuyo Sejima, Ryue Nishizawa, Sou Fujimoto, Akihisa Hirata, and Junya Ishigami among them. For more information, visit moma.org.

Architects Drawings

WASHINGTON, D.C.

Through July 30, 2016

Architects Mark McInturff, FAIA, and Dhiru Thadani co-curate Architects Drawings, an exhibition-at Cross MacKenzie Gallery, in partnership with the National Building Museum-that celebrates drawings and sketches made by hand, not digitally created and manipulated. Drawings and prints include the work of Richard Meier, Rob Krier, Rodolfo Machado, Tom Kundig, Rand Elliott, Ray Gindroz, Deborah Berke, Tony Ames, and Andrea Ponsi. For more information, visit crossmackenzie.com.

Manus x Machina: Fashion in an Age of Technology

NEW YORK CITY

Through August 14, 2016

The spring 2016 exhibition of the Metropolitan Museum of Art's Costume Institute, presented in the Robert Lehman Wing, explores how fashion

designers reconcile the handmade and the machinemade in haute couture and avant-garde ready-towear. With more than 150 ensembles dating from the early 20th century to the present, the exhibition addresses the origins of haute couture in the 19th century, with the invention of the sewing machine, and the emergence of a distinction between work made by hand (manus, in Latin) and machine (machina) at the onset of mass production. For more information, visit metmuseum.org.

Beauty

NEW YORK CITY

Through August 21, 2016

The fifth installment of the Cooper Hewitt's contemporary design exhibition series, Beauty celebrates design as a creative endeavor engaging the mind, body, and senses alike. The show, which features more than 250 works by 62 designers, is organized around seven themes: extravagant, intricate, ethereal, transgressive, emergent, elemental, and transformative. For more information, visit cooperhewitt.org.

Materials Inside and Out

CHICAGO

Through Summer 2016

Inspired by the working process of architect David Adjaye, this installation at the Art Institute of Chicago invites visitors of all ages to discover how architects use building materials like wood, fabric, ceramic tile, laminate, paint, stone, and plastic to create form and atmosphere. Visitors can arrange material samples and sketches to create a mood board, considering how color, texture, and cultural context can contribute to a specific feel. For more information, visit artic.edu.

Roberto Burle Marx: Brazilian Modernist NEW YORK CITY

Through September 18, 2016

The Brazilian artist and landscape architect Roberto Burle Marx (1909-94) undertook such projects as the mosaic pavements on the seaside avenue of Rio de Janeiro's Copacabana Beach and the multitude of gardens that embellish Brasilia (one of several large-scale projects he executed in collaboration with the legendary Oscar Niemeyer). This exhibition at the Jewish Museum explores the richness and breadth of the artist's oeuvre—from landscape architecture to painting, from sculpture to theater design, and from tapestries to jewelry. For more information, visit thejewishmuseum.org.

Atmosphere for Enjoyment NEW YORK CITY

Through September 25, 2016

Artist Harry Bertoia might fairly be called the maestro of the metal rod. Best known for his wiremesh Diamond chair, he discovered in the 1960s that when metal rods are struck together, they create a lush, resonant sound. Bertoia then began exploring the potential relationship between sculpture and sound, eventually creating a significant oeuvre that would crown his life's work. Referred to collectively as Sonambients, these sculptures are interactive, kinetic, and audible forms composed of bundled metal rods that, when agitated by wind or human touch, collide and set off radiant tones. Atmosphere for Enjoyment, at the Museum of Arts and Design, explores the Sonambients, their installation in Bertoia's stone barn, and their legacy as sound art. For more information, visit madmuseum.org.

Thom Browne Selects

NEW YORK CITY

Through October 2, 2016

For the next edition of Cooper Hewitt's Selects series, fashion designer Thom Browne explores ideas of reflection and individuality with, aptly, an installation including more than 50 of the museum's historic and contemporary mirrors and frames. The exhibition is the 12th of the series in which prominent designers, artists, and architects are invited to mine and interpret the museum's collection of more than 210,000 objects. For more information, visit cooperhewitt.org.

Hippie Modernism: The Struggle for Utopia

BLOOMFIELD HILLS, MICHIGAN

Through October 9, 2016 Presenting a broad range of art forms and artifacts of the era, Hippie Modernism: The Struggle for Utopia features experimental furniture, alternative living structures, immersive and participatory media environments, alternative publications and ephemera, and experimental film. The exhibition, taking place at the Walker Art Center, covers one of the most vibrant and inventive periods of the not-toodistant past: one that continues to resonate culturally today. For more information, visit cranbrookart.edu/museum/exhibition.

KieranTimberlake: Drawn + Quartered

PHILADELPHIA

Through October 14, 2016

On view at the Harvey and Irwin Kroiz Gallery and the subject's office, KieranTimberlake: Drawn + Quartered is an architecture exhibit that surveys the execution of line and prototype in the firm's design process. Presented by KieranTimberlake and the Architectural Archives of the University of Pennsylvania, the exhibit includes drawings, scale models, and mock-up experiments. For more information, visit kierantimberlake.com.

15th International Architecture **Exhibition: Reporting from the Front**

Through November 27, 2016

Taking place in the Arsenale, the Giardini public park, and various other venues in Venice, this annual blockbuster show features success stories in which architecture helped expand the possible. Designed to attract a broad audience, Reporting from the Front explores what it's like to improve the quality of life while working within the margins, under tough circumstances, and facing pressing challenges. In a collective effort to better the built environment, the exhibition asks, What does it take to be on the cutting edge and to conquer new fields? For more information, visit labiennale.org.

Form/Unformed: Design from 1960 to the Present

DALLAS

Through December 31, 2016

Showcasing more than 30 works drawn largely from the Dallas Museum of Art's collection dating from the 1960s to the present, this exhibition reveals the transformation of ideology and forms that have shaped international design in the last half century. From the technological and formal ideals of modernism to the influence of the handmade object, the pieces reflect increasingly complex and vibrant relationships between

concepts of function, aesthetics, and material expression. Featured are designs by Verner Panton, Frank Gehry, Aldo Rossi, Ettore Sottsass, Robert Venturi, Donald Judd, Zaha Hadid, Louise Campbell, and Fernando and Humberto Campana. For more information, visit dma.org.

LECTURES, CONFERENCES, AND SYMPOSIA

ARCHITECTURAL RECORD **Innovation Conference**

SAN FRANCISCO

June 8, 2016

Innovative architecture requires expanding the discipline's boundaries through design and technology. The spring edition of ARCHITECTURAL RECORD's conference—taking place at the Mission Bay Conference Center—brings together key figures who have generated a range of imaginative solutions for the built world. From materials experts and architects practicing outside the field to principals of large firms, the speakers will represent a variety of approaches to problem solving in a rapidly changing world. For more information, visit arinnovation conference.com.

NeoCon 2016

CHICAGO

June 13-15, 2016

The largest commercial interiors show in North America, NeoCon launches thousands of new products from a spectrum of markets: workplace, healthcare, hospitality, retail, education, public spaces, and government. The event is held annually at Chicago's historic Merchandise Mart. For more information, visit neocon.com.

2016 Glenn Murcutt **International Master Class**

SHOALHAVEN, AUSTRALIA

July 3-17, 2016

The annual Glenn Murcutt Architecture Master Class in Australia has become a major event on the international architecture calendar. The intensive two-week design studio program involves a project undertaken in groups and culminating, at the end of week two, with a presentation by participants and a critique by Glenn Murcutt and the other tutors. The studio program, associated lectures, and supporting events are equivalent to 150 hours of high-level study at the postgraduate level. Only 32 slots are available; applications are assessed on credentials and merit, with preference given to early applicants. For more information, visit ozetecture.org.

International Bauhaus Colloquium WEIMAR, GERMANY

October 26-29, 2016

The 13th International Bauhaus Colloquium at the Bauhaus-Universität Weimar is entitled Dust and Data. It will reflect on the almost 100-year history of the Bauhaus at its original sites—Weimar, Dessau, and Berlin—as well as the history of its international reception and migration. Because the conference is a historiographical laboratory of sorts and a barometer of shifting political landscapes, the 2016 iteration will celebrate this legacy by examining both architectural history and methods in order to address contemporary political transformations. For more information, visit bauhaus-kolloquium.de.





YES YOU CAN

Ronan & Erwan Bouroullec's Can armchairs for Hay raise the barfor self-assembled furniture. Unpack, connect the tubular steel frame, stretch thesupporting material between the poles, and add cushions-voilà!



Salone del Mobile 2016

Work by architects—including Zaha Hadid's posthumous pieces—stole the 55th edition of the show.

NOW IN ITS FIFTH DECADE, Milan's famed Salone del Mobile has evolved from a new-product showcase into a massive extravaganza of design, marketing, and cultural happenings. There were more than 400 events outside the 2016 edition of the annual exposition, held April 12 to 17, making it virtually impossible to see everything. Plus, with multinational companies like Nike and PepsiCo elbowing their way into the conversation and architects such as Sou Fujimoto staging spectacular art installations, the excitement went far beyond the latest in furnishings.

The biggest surprise, in fact, awaited people at the Triennale, Milan's design museum, which in recent years served as a venue for product introductions. This year, it returned

to its former glory with a bevy of thought-provoking shows: Neo Prehistory, for one, told the story of civilization through 100 verbs. Curators Andrea Branzi and Kenya Hara selected a single object to exemplify each word, with items ranging from the extraordinary (a re-created Titanic propeller) to the everyday (a bottle of Chanel No. 5).

As for furniture, the fair's raison d'être, the mood was upbeat, but there was little true innovation on display. No one was eager to applaud the millionth iteration of a side chair even if Jasper Morrison or Naoto Fukasawa did

There were homages to Zaha Hadid, of course. Longtime collaborator Sawaya & Moroni presented prototypes of every project it had developed with the late architect, capping things off with her new Mew combination table and desk. Citco introduced Hadid's Valle shelves, a set of four sinuous forms crafted in Nero Assoluto granite, while the debuting Atelier Swarovski home decor collection featured a crystal and metal centerpiece that she had designed. Best of all, though, was Cassina's ZH-One prototype, a subtly manipulated cube of an armchair that Hadid was working on at the time of her death.

Other architects made their presence felt. Greg Lynn participated in Nike's Nature of Motion presentation, with his microclimate chair drawing sharply divided opinions. Designed for sidelined basketball players, the chair



integrates temperature and weight sensors that can monitor lost fluids and simultaneously cool and heat different parts of a resting athlete's body. The chair's grand scale made it clear that it was not meant for mere mortals.

At **Glas Italia**, **Piero Lissoni**, a towering figure on the Milan design scene, introduced mesmerizing cabinets made from patterned glass. The art director for **Fantini**—a manfacturer of faucets and shower systems—for more than 15 years, Lissoni is not interested in newness for newness' sake. "I'm worried about human stupidity," he quipped. "Manufacturers want to make intelligent products in the kitchen, but what about [helping make] intelligent people?"

Another great Italian architect/designer, **Michele de Lucchi**, reimagined the classic secretary desk. His modern take, the Secretello workstation for **Molteni**, is crafted of wood and safety glass.

David Chipperfield, Driade's new artistic director, curated a mixed bag of products based on the idea of the living









GRIMSHAW ARCHITECTS

A partner based at Grimshaw's London office, Neill McClements has overseen major projects including New York's Fulton Street Transit Center and London's Crossrail system.



architects.com

MDT-TEX

Enlai Hooi is the creative director of MDT-tex, which specializes in membrane and sun-protection systems. The company has facilities in Germany, Latvia, and Switzerland.

GRIMSHAW ARCHITECTS is famous for its mastery of structure. Take the curved roofline it designed for London's Waterloo rail terminal and the surreal collection of geodesic bubbles that compose its Eden Project in Cornwall, England. This all-embracing approach to materials informed a recent tensile shading system developed in tandem with coverings manufacturer MDT-tex.

The two companies joined forces after MDT's creative director, Enlai Hooi, delivered a talk at the architecture, planning, and industrial design firm's London offices. Says Grimshaw partner Neill McClements: "Quite early on, we realized there was lot of shared territory between our companies," such as an interest in modularity and tensile and membrane technology.

The pair recognized a void in the market for a lightweight shading system that was weather-resistant and adaptable to diverse urban conditions and, most important, could be rapidly set up without the use of special equipment. "Each workshop was a hackathon," says Hooi, who helped home in on a design with Grimshaw at MDT's fabrication facilities. "Grimshaw would arrive and we would work until 1 o'clock the next morning."

This spring, after the team spent more than a year refining numerous prototypes on MDT's factory floor, the results were unveiled in Frankfurt at the Light + Building festival. Called Tensilation, the system comprises individual attachable umbrellas fastened to one another with aluminum clips to create a versatile, quilt-like canopy. The 13-foot-tall, aluminum-framed units—available in a square or diamond version—feature a double-layer polyester membrane over aluminum spokes, held up by tensile stainless-steel cables.

Besides yielding a canopy system that was the first of its kind, the experience was unique for MDT. "We had never worked hand in hand with an architect before," says Hooi. "Our guys were extremely ready to collaborate." (SNAP #277)

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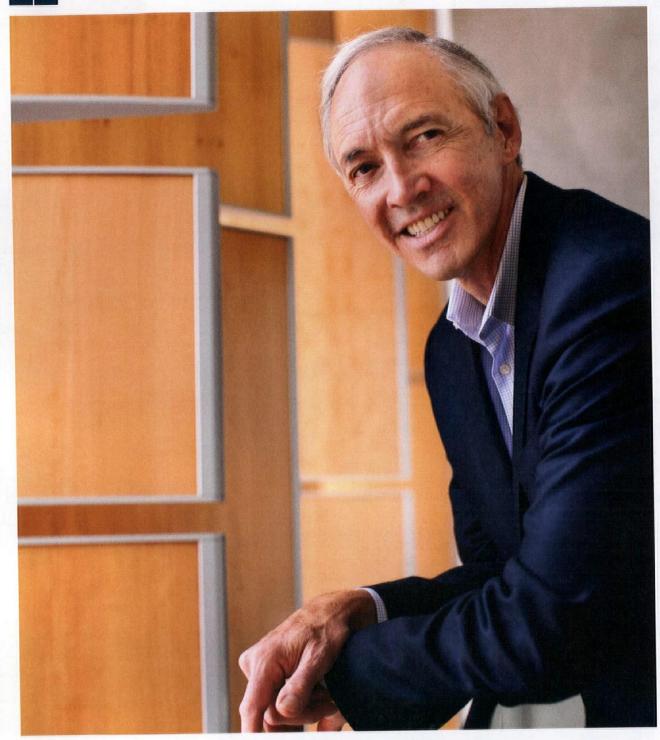
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SMALLER FOOTPRINT

The consultant advocates for a simpler green building rating system that uses digital data and focuses mainly on reducing carbon emissions.

Smart + Simple = Save the Planet

Onetime LEED promoter Jerry Yudelson argues that the ubiquitous green building system is too complex and costly—and does little to address global climate change.

BY PETER FAIRLEY

JERRY YUDELSON wants to foment a revolution in sustainable architecture by narrowing building certification systems to aggressively target climate change. The San Clemente, California-based consultant lays out his case in Rethinking Green Building (New Society Publishers, June 2016), arguing that the world's leading certification system—the U.S. Green Building Council's LEED standard—not only is overly complex and needlessly pricy, but also lacks rigorous goals for carbon reduction.

LEED is a continuing story for Yudelson. He has trained several thousand LEED professionals and in 2011 was recognized by USGBC as a LEED Fellow. But two years ago, the engineer switched teams, taking over the Portland, Oregon-based Green Building Initiative (GBI) and its more affordable Green Globes rating system (he has since left). With this latest book, Yudelson proposes a radical shift, enabled by smart building technology, to take certification mainstream and aggressively slash energy and carbon emissions.

WHY SHOULD GREEN BUILDING **CERTIFICATION FOCUS PRIMARILY** ON CARBON EMISSIONS?

We're not making progress fast enough to have a significant impact on carbon emissions, even by 2030. Green building certification systems aren't reaching beyond the top 1 percent of structures. For existing buildings, which represent the great bulk of carbon emissions over the next 15 years, LEED is doing 0.01 percent of the U.S. nonresidential building stock per year. We have to get serious about cutting carbon emissions, and the current approach isn't doing it. Certification systems need to be much simpler and cheaper, which is possible with Internet 3.0 technologies. Focus maniacally on energy and carbon—and throw in a little bit on water and resource recycling-and you've got the key performance indicators for sustainability.

HOW CAN SIMPLIFICATION AND TECHNOLOGY DELIVER CERTIFICATION AT A LOWER COST?

By focusing on available building-performance data. Tracking performance is now possible at almost no cost. You're talking \$1,000 a year for a big building to measure 50 different data points in real time. Hundreds of thousands of buildings in the U.S. are already being managed remotely using thirdparty platforms. A green certification system would sit on top of those platforms and become one more management app, eliminating third-party auditors and expensive consultants.

YOU WOULD LEAVE OUT CERTIFYING THE USE OF HEALTHY MATERIALS?

You can get LEED Gold certification without even thinking about materials credits. What's driving better green-building options are the environmental product declarations [EPDs], the healthy product declarations [HPDs], and the commitment of large architectural firms to use sustainable materials. Certification systems should focus on our health in the long run, and that means carbon: from both direct and indirect energy use, such as employee travel and materials manufacture. LEED is moving in the wrong direction, with the new version mandating at most a 5 percent energy reduction relative to code. It also dramatically cuts the credits given to renewables.

WHY NOT SKIP GREEN BUILDING CERTIFICATIONS ALTOGETHER?

Rating systems have a significant role to play in holding people's feet to the fire, [ensuring] that environmental claims are actually being examined. That leads to better results. Existing rating schemes such as EnergyStar give you a sense of where a building's performance stands versus current practice. But incremental improvement to current practices is just the road to oblivion.



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