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**MAY/JUNE 2016**

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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

JULIE TARASKA Editor
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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 Francisco-based 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).

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, Arkansas–based 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
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

"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."

PAC-CLAD M-36 Panel
Silver Metallic - Energy Star - Cool Color
Versatile finds spotted at spring's crop of contract fairs

1. **META**
   - MANUFACTURER: Dune
   - PERFORMANCE: This 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)

2. **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)

3. **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 LED-equipped light comes in three sizes and neon, warm, and cool color combinations.
   - MARSET.COM (SNAP #202)

4. **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)
5. **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 non-directional tiles come in two sizes with three possible edge details.  
[CERTAINTEED.COM](http://CERTAINTEED.COM) (SNAP #204)

6. **NAVAJO**

**MANUFACTURER:** 4izero42  
**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](http://41ZERO42.COM) (SNAP #205)

7. **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 weather-resistant GFCI and four-port USB outlets.  
[LEGRAND.US](http://LEGRAND.US) (SNAP #206)

8. **PLAID**

**MANUFACTURER:** Chilewich Contract  
**PERFORMANCE:** The woven-vinyl 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](http://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.

15½ FEET
The height of Asiate's floor-to-ceiling 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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LOCATION: Los Angeles, CA
ARCHITECT: David Lawrence Gray, FAIA
DEVELOPER: Linear City Development
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, meal-time 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...
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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 hand-blown 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-stained-wood 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.”

**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 60w type-B E26 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)

**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)

**APPLICATIONS:** Suitable for floors and walls, these frost-resistant colored-body tiles are available in three muted hues.

**PRICE RANGE ** $$$

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Made to Measure

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

BY SAM LUBECC

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. Perry C. Langston designed the hotel's striking facade in 1965.

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 (above). Perry C. Langston designed the hotel's striking facade in 1965 (right).
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 PLANE furniture 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 extra-large Efco Series 5XP and Series 2700 windows 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."
At the Ace Hotel Pittsburgh, industrial touches abound, including tubular 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 five-story, 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 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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SNAP 181
**DECO**

**RATIVE LIGHTING**

**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
Join the Club

THE SOUTH BOSTON SITE of the Boys & Girls Club of Boston (BGCB) hosts after-school music and spoken-word 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 3000K 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
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SNAP 14
FINISHES

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-per-fortnight 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
Fresh Produce

“I LIKE 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 vegetables—tomatoes, 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 Davlin’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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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 LVT—which 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
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 nature-influenced 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 Novials, 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 (Novials), and Mesto Configurations (Johnsonite).
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Division 7 Thermal and Moisture Protection Specification Section 07411 - Manufactured Roof Panels

The Overlay 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 Overlay 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 internal drainage component which 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
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- 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
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System Design Data
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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 six-mile 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 21st-century needs.—David Sokol
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 onetime 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). Jessica Segall’s Fugue in B, which transforms a salvaged piano harp into a musical beehive, is another installation; there’s also a shipping container—turned-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

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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-square-foot 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 visit 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 imperious asphalt with permeable bright yellow and blue safety surfaces (installed by AquaSeal Resurfacing), and open-joint 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 equipment from Columbia Cascade’s 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
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 wooden boardwalk with a promenade about 1/4 mile long and 16 1/2 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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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 new construction,” explains Leonard.

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.

That kind of success spells recovery in any manufacturer’s book.
In the last year, the Sunshine State created 459,000 manufacturing jobs.

California's total manufacturing output in 2013 was $239 billion.

The state's 1,800 manufacturing companies employ more than 56,000 workers.

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

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.
Beyond the Prototype

Architects and designers take additive manufacturing to a new level.

BY JOANN GONCHAR, AIA

CONTINUING EDUCATION: 3-D PRINTING
FROM ARCHITECTURAL RECORD

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-fiber-reinforced 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 12½ 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 post-tensioning 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.
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 Amsterdam-based 3-D printing endeavor, efficiency is a secondary concern. To Tim Geurtjens, chief technology officer of MX3D—developer 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 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 still-to-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-D-printing 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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SKIRTING AROUND
A facade designed by DUS for a temporary building in Amsterdam (above and left) includes a skirt-like 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 low-rise 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

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."
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Hambro MD2000 on a conventional structural steel frame

Hambro D500 on load-bearing walls

SNAP 52

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SNAP 243

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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 highlights features of a project that imagined a public park for Malawi, Africa; it explores examples of how Danish design integrates nature and play and innovative play-centered design on the Boston waterfront. Extraordinary Playscapes offers interactive installations, videos, scale models, and handson elements that allow visitors to explore the art, history, and science behind play. For more information, visit architects.org/bspa.

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NEW YORK CITY
Through July 4, 2016
This exhibition at the Museum of Modern Art highlights the interconnected web of architecture 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, Kansyo 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 McNutt, FAIA, and Dhruv Thadani co-curate Architectural Drawings, an exhibition at 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 Amos, and Andrea Ponsi. For more information, visit nbdm.org.

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 machine-made in haute couture and avant-garde ready-to-wear. 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 (machiina) at the onset of mass production. For more information, visit metmuseum.org.

Thom Browne Selects
NEW YORK CITY
Through August 21, 2016
The fifth installment of the Cooper Hewitt’s contemporary design exhibition series, Beauty celebrates a 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, intimate, provocative, expressive, maternal, 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 tiles, laminate, paint, stone, and plastic to create form and atmosphere. Visitors can create architectural material compositions and examine the properties of materials and their relationship to function, history, technology, and culture. 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 embellished 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 master of the metal rod. Best known for his wire mesh Diamond chair, he discovered in the 1960’s that when metal rods are struck together, they create a lush, resonant sound. Bertoia then began experimenting with the potential relationship between sculpture and sound, eventually creating a significant oeuvre that would crown his life’s work. For more information, visit bertoia.org.

KieranTimberlake: Drawn + Quartered
PHILADELPHIA
Through October 14, 2016
On view at the Harvard and Irvin 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 exhibition includes drawings, scale models, and mock-up experiments. For more information, visit kierantimberlake.com.

15th International Architecture Exhibition:
Reporting from the Front
VENICE
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 fronts? For more information, visit labirennae.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 bauhaus-kolloquium.de.
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connect the tubular
steel frame, stretch
the supporting
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poles, and add
cushions—vollà!

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 design it.

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 center piece 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 manufacturer 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...
Each participating designer—Nendo, Konstantin Grcic, and Philippe Starck included—was asked to create an object he'd want to live with. The results were decidedly uneven: Fukasawa's blue-velvet Ten chair proved the most alluring. It was encouraging to see companies thinking outside the box, even if it meant using the box itself. Danish company Hay worked with Erwan & Ronan Bouroullec to develop a flat-pack sofa and chair that went well beyond Ikea. Plus, fellow Dane Hans Hornemann created Ace, a flat-pack upholstered seating collection, for Normann Copenhagen.

Going from the sublime to the ridiculous: Marcel Wanders's Charleston sofa for Moooi stands on its side, allowing room enough for a single occupant as the remainder of the piece towers above uselessly. Fabio Novembre tilted his Adaptation sofa for Cappellini, too, but at least it can seat several people. Yet the question remains, Why didn't Milan produce any profoundly new ideas this year? Perhaps there just weren't any.

**TIPPING POINTS**
Piero Lissoni, the architect responsible for Glas Italia's headquarters, designed these Commodore storage units for the brand (top) using tempered striped and printed glass. Naoto Fukasawa's Ten chair for Driade has a generous, enveloping seat (above). Variable leg heights allow Fabio Novembre's Adaptation sofa for Cappellini to keep its seating area perfectly parallel to the ground (left).
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.”
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