WHAT’S ON TAP FOR 2019

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A SOUTHEASTERN SLOWDOWN
Manufacturers in Georgia, Virginia, and the Carolinas report cautious optimism
PAGE 36

HOT STUFF
Playful new offerings for Kitchen & Bath
PAGE 10
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Clockwise from top left: ABK’s “ceramic wallpaper,” digitally printed aluminum siding by Dizal, and British designers Alicia Perry and Rebecca Intavarant of Tupference Collective.

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Architects turn to the next frontier in building operations—managing garbage.
Just the Specs

SAFE BUILDING MATERIALS matter now more than ever. Just look around at all the green certifications manufacturers are vying for.

For architects and designers, this is not a new concern. But our recent interviews with pioneers in the search for greener and safer specs revealed that there is still lots of room for improvement.

Perkins+Will’s Suzanne Drake and Mary Dickinson, for example, are two of three co-directors who lead the firm’s Material Performance Lab and help update its 11-year-old Precautionary List of harmful substances that specifiers should avoid. They told SNAP that labels alone can’t always accurately represent a product’s safety. Turn to page 12 for more of their insights and advice.

A thoroughness in vetting products is critical in residential design especially, where clients must live with an architect’s material and design choices every day. Just ask tenants of a project in Charleston, South Carolina (page 14) designed by David Baker Architects (DBA). In support of the local tradition of socializing on the porch in an area that frequently floods, DBA created extra-wide, elevated terraces to serve as communal porch fronts.

Elsewhere, personal comfort is simply tied to privacy for an owner. A case in point is the owner of an Atherton, California, residence on page 18. Here, architect Craig Steely resolved a cluttered view of neighbors’ incongruous house styles by erecting a 14-foot cedar wall.

Of course, some design issues can still be resolved by the right finish, color, or style, so you’ll find the usual collection of innovative offerings in the special kitchen-and-bath focused products roundup on page 10 and in our product specs sections for lighting, hardware, flooring, roofing, siding, and doors and windows. We’ll point you toward options for color, or style, so you’ll find the usual collection of innovative offerings. 

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Kelly L. Beamon
Editor
Simple is best.

Our installation has nothing to hide.
Concrete products require extra work to install (according to NCMA guidelines). This hidden cost means there’s no cost benefit to choosing a cheaper product over our stone. Furthermore, Arriscraft stone requires no added detailing and materials when combined with brick.
The Forte is a LED illuminated mirror with side glass walls and perimeter backlighting, creating a 3-D aura of light. Custom sizes and optional features are available. Explore all of our luxury mirror options available on our website at www.aamsco.com.
BAUHAUS, THE GERMAN DESIGN SCHOOL that influenced the broader Modern Movement, was founded 100 years ago this year. To mark the occasion, the German tourism board has kicked off the Bauhaus Centenary 2019, starting with a festival in Berlin, and extending to a “Grand Tour of Modernism” that includes relevant sites in Weimar and Dessau.

Thanks largely to architect Walter Gropius (who founded the school in Weimar in 1919 and designed its second location in Dessau in 1925, before he arrived at Harvard University), Bauhaus teachings and culture revolutionized design education and practice throughout the U.S. and Europe. Celebratory exhibitions have also occurred at the Tate Modern in London, Museum Boijmans Van Beuningen in Rotterdam, SESC Pompeia in São Paulo, the Garage in Moscow, and at Harvard in Cambridge, Massachusetts.
The Art of the Experience

Award-winning designer Mark Zeff has opened the new year by entering into a partnership with BlackBook, the publisher of a culture and arts magazine by the same name, to launch a gallery called BlackBook Presents.

Located in Brooklyn’s DUMBO neighborhood, BlackBook Presents will feature works by artists such as Christopher Ten- nant, Daido Moriyama, Diane Arbus, and Andy Warhol. In addition to functioning as a gallery, the space will host events.

The gallery will merge with the retail business of BlackBarn, the name of Zeff’s four-year-old retail brand and shop. —Vittoria Elliott

A Reading Rainbow

This arch-shaped one-room library has become an inviting retreat on the mezzanine level of Concourse House: Home for Women and Children, a Bronx homeless shelter. Michael K. Chen Architecture (MKCA) came up with the thoughtful design to add ready access to books for children staying at the facility, who do not have books of their own.

Under the vaulted ceiling, MKCA built lozenge-shaped shelving to screen off a treehouse-like space and mitigated the dark wood-paneled ceiling by illuminating the shelving and a panel behind a large Corian table with LEDs to encourage lingering over books. “The space for imagination and reflection that books afford is a gift,” Chen says, adding, “It’s a privilege to make the library a reality for such a deserving group of children.”

A PLACE OF THEIR OWN
An unused mezzanine (left) in a Bronx homeless shelter is now a library (top) for children staying at the facility.

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The latest residential fittings and fixtures skew playful

1. **SOLAR ROOF SHINGLES**

**MANUFACTURER:** Sunflare  
**PERFORMANCE:** These thin-film roof shingles can generate solar power.  
**PRICE RANGE:** $-$ $$  
**APPLICATIONS:** Scaled for residential applications and designed for easy installation, the polymer solar panels are waterproof and attach using patent-pending snap-on fasteners.

[SUNFLARESOLAR.COM](http://SUNFLARESOLAR.COM)

2. **DARK EDITION**

**MANUFACTURER:** ABK  
**PERFORMANCE:** Dark Edition is an extension of the Italian tile maker’s Wide & Style line of versatile “ceramic wallpaper.”  
**PRICE RANGE:** $$  
**APPLICATIONS:** The large-format porcelain slabs feature photo-realistic graphics, and are produced using the company’s proprietary hot four-color process to print patterns such as Papillon (shown). Dark Edition is available in units ranging from 2’ x 4’ up to 5’ 4” x 10’ 7”.

[ABK.IT](http://ABK.IT)

**KEY**  
$ = VALUE, $ = MEDIUM RANGE, $$ = HIGH END
3. **NUT C**

**MANUFACTURER:** MZPA  
**PERFORMANCE:** This collection of pendants and sconces from a Ukrainian manufacturer features a surprising mix of lacquered ash and aluminum.  
**PRICE RANGE:** $$$  
**APPLICATIONS:** The six styles of pendants and wall sconces are UL-listed and hand-finished.  

MZPA.CO

4. **UNDERCOUNTER COLLECTION**

**MANUFACTURER:** True Residential  
**PERFORMANCE:** This manufacturer of commercial-grade refrigerators has rolled out an undercounter line of refrigerators, refrigerated drawers, wine cabinets, beverage centers, and drink dispensers in a range of colors.  
**PRICE RANGE:** $$-$$$  
**APPLICATIONS:** Thirty-six available hues include such standouts as gold, copper, brass, and cobalt (shown), which help distinguish these condo- and hotel-friendly units.  

TRUE-RESIDENTIAL.COM

5. **NICE**

**MANUFACTURER:** Fantini  
**PERFORMANCE:** Measuring roughly 2 1/2” in diameter, the colorful acrylic faucet handles project a little more than one inch from walls and sink decks.  
**PRICE RANGE:** $$$  
**APPLICATIONS:** Designed by Matteo Thun and Antonio Rodriguez, these knobs are the latest from Italian manufacturer Fantini.  

FANTINIUSA.COM

6. **HV1**

**MANUFACTURER:** Vola  
**PERFORMANCE:** Marking its 50th anniversary, Scandinavian manufacturer Vola has released a rainbow of new finishes for this bath faucet originally designed by Arne Jacobsen in 1968.  
**PRICE RANGE:** $$  
**APPLICATIONS:** Recommended for bathrooms (and distributed in the U.S. by Hastings Tile and Bath), the one-handle model is made of brass, measures 4 1/2” tall, and comes in 25 finishes, including chrome and stainless steel.  

HASTINGSTILEBATH.COM
Despite the many certifications now steering us toward products that seem eco-friendly and safe, architects still need tools for vetting the most improved building materials.

Part of the challenge is understanding that a certification doesn’t always mean there’s no health risk; not all, for example, subject manufacturers to the same rigor or transparency requirements. And even when a disclosure label spells out what was used to make a product, every potentially harmful chemical may not be listed.

To fill in the blanks, Perkins + Will has been cataloging harmful substances used in building materials since 2008. Dubbed the Precautionary List, that index has evolved into a free, online database anyone can search by visiting transparency.perkinswill.com. Mary Dickinson and Suzanne Drake are two of three co-directors leading the firm’s Material Performance Lab, which generates the data that fuels the index. They shared their insights with SNAP.

Your firm’s Precautionary List continues to evolve, but manufacturers are more transparent than they were 11 years ago. Many provide health product declarations. Aren’t such disclosures sufficient?

Drake: The way the ingredients are listed, exactly which part of a product contains a high-risk chemical can still be unclear. We need to know what’s in each component.

Dickinson: Also, it’s best to take a preventative approach. That means looking for alternative products that significantly reduce exposure to health risks, not settling for materials that likely pose some risk.

The index is something a lot of firms would like to emulate. But are there immediate steps they can take to vet safer products?

Drake: Yes. Focusing first on materials that cover large surface areas—such as floors and walls—is a reasonable place to start. The AIA’s Healthier Materials Protocol offers several additional frameworks and case studies illustrating ways to achieve material health goals. Any specifier can try these, regardless of the firm’s or the project’s size.
We wanted materials that would be long-lasting and have low or virtually no maintenance. We’ve used Petersen products a lot. Almost every home we do includes a variance of their siding or roofing profiles. It’s our ‘go-to’ solution.”

-Scott Rappe, AIA, LEED AP, Principal, Kuklinski+Rappe Architects
**WILLIAMS TERRACE SENIOR HOUSING, CHARLESTON, SOUTH CAROLINA**

**PROBLEM:** Create a modern, friendly building for active seniors in a hot, flood-prone area

**SOLUTION:** Keep ground floor free of apartments to limit flooding damage. Create continuous wraparound louvered decks and a rooftop gathering space to foster social interaction

**CHARLESTON, SOUTH CAROLINA** is renowned for its historic architecture. When David Baker Architects (DBA) partnered with local firm McMillan Pazdan Smith (MPS) to design a brand new housing project for low-income seniors, they needed to create a building that was modern but would incorporate elements of the city’s historic fabric.

Like so many architects, DBA architect Daniel Simons was inspired by the distinctive residential building type referred to as the Charleston single house. “There’s a huge porch culture in the South, of people sitting on porches and seeing their neighbors,” says Simons. “We were trying to find a way to make the porches have a communal quality to them.”

The 47,851-square-foot building was designed around a central courtyard with open-air corridors running alongside, and replicating the look of the two-story piazzas common in Charleston, South Carolina.

**GROUND CONTROL**

Although the front porch is a cornerstone of Charleston’s socializing, excessive flooding made elevated versions in the form of huge wraparound decks a must for new senior housing (above) designed by David Baker Architects.

Photography: Courtesy Kris Decker/Firewater Photography

**SOUTHERN COMFORT**

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**CASE STUDY: RESIDENTIAL DESIGN**

**BY VITTORIA ELLIOTT**
many single house designs. Like the single house, the 41 units in Williams Terrace are narrow, and each has its own porch. DBA worked with Southeastern Architectural Systems to create a porch screen comprised of sliding louvers that seniors could easily operate. Mounted on an aluminum track, the floor-to-ceiling 2-inch by 2-inch stained wood slats help regulate the temperature and provide shade throughout the day.

Each porch also has an overhead fan, allowing seniors to enjoy their communal space in hot weather, and facilitate cross ventilation via windows on opposite sides of each apartment. In a nod to the historic look of Charleston, all the bricks used for the facade of Williams Terrace were lime-washed.

But in a design that hinged on maximizing communal and open space, the designers also needed to contend with Mother Nature. Charleston is a low-lying coastal city, and Williams Terrace is located in a high-velocity flood zone. This consideration was especially salient because the property had once been home to another affordable housing complex that was destroyed.
in a 1989 hurricane.

“We couldn’t put anything on the ground floor,” said Simons.

So the team decided to treat the ground floor like one enormous screened porch—a space that people could use to gather but, without any apartments or permanent structures, could withstand flood waters up to 14 feet high.

The ground level leads to a sidewalk that runs along a recently renovated public park.

Williams Terrace’s more permanent community space is located on the roof, keeping residents safe and affording expansive views of the city.

CASE STUDY: RESIDENTIAL DESIGN

IN THIS PROJECT

TUSCANY STRAIGHT EDGE MODULAR BRICK (CUSTOM)
MANUFACTURER: Carolina Ceramics
PERFORMANCE: Rustic appearance, available in a range of colors; for this project, bricks were pre-aged.
PRICE RANGE: $ APPLICATIONS: Available in modular and queen-sized; recommended for facades and external elements.
CAROLINACERAMICS.COM

HIDDEN SIDING FASTENER
MANUFACTURER: DeckWise
PERFORMANCE: Helps reduce water penetration and mold growth in outdoor applications and can hold many different angles.
PRICE RANGE: $$ APPLICATIONS: Recommended for commercial and residential projects; stainless steel fastener works with most types of hardwood.
DECKWISE.COM

HANOVER PREST PAVERS
MANUFACTURER: Hanover Pavers
PERFORMANCE: Low water absorption allows pavers to function like natural stone.
PRICE RANGE: $ APPLICATIONS: Recommended for commercial and residential projects; can be used for a range of applications including pool decks and rooftop plazas.
HANOVERPAVERS.COM

PORCH LOUVER SCREEN
MANUFACTURER: Southeastern Architectural Systems
PERFORMANCE: Recommended for exterior use; allows for control of temperature, shade, and airflow in porch areas and home interiors.
PRICE RANGE: CUSTOM APPLICATIONS: Adjustable louvers are comprised of 2” x 2” stained wood slats with an aluminum angle frame mounted on an aluminum track.
SEAS-TR.COM

TRADITIONAL DESIGN
Each unit is one room wide with a large screened porch, inspired by the design of the iconic Charleston single house.
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PROBLEM: Create absolute privacy for one homeowner without ruining her neighbors’ views.

SOLUTION: Shield the house behind a 14-foot-high wall that resembles a sculpture.

WALLED OFF
From the street (above), the Roofless House appears to be windowless. But behind the curvilinear, 14 1/2-foot-tall cedar-clad enclosure are living spaces that open up onto courtyards through generously sized sliding glass doors (left).

THE RESIDENTIAL ARCHITECTURE of Atherton, California, is nothing if not eclectic. Peeking out from behind the town’s ubiquitous fences are modernist glass boxes, French chateaux, and Italianate villas. But a recently finished house in this leafy Silicon Valley suburb, by San Francisco–based architect Craig Steely, defies stylistic categorization. The enigmatic one-story structure on a long and skinny lot is defined by a sinuous, almost windowless wall clad in vertical cedar planks. Although about half of the 5,900 square feet behind the curving enclosure are sheltered under flat roofs, the architect has dubbed the residence the Roofless House, since the remaining space is devoted to courtyards and is open to the sky.
Steely’s aim was to create an “escape pod” for his software-engineer client, who hoped to take advantage of the temperate Bay Area climate through as much outdoor area as possible, but who also wanted to limit her views of the surrounding architectural hodgepodge. The solution was to replace the typical Atherton perimeter fence with the 14-foot-tall wood wall, but pull it well inside the boundaries of the half-acre property.

The gracefully snaking element, supported by a steel frame with wood-stud infill, defines a house entered through a 7-foot-square glass pivot door into the foyer (right). The living and dining room (above, left) has courtyards on two sides and, at one end, the kitchen pantry (above, right). It is enclosed within a U-shaped, free-standing volume made of cedar planks, like the wall that surrounds the house.

The result is a house that is insular but not hermetic. The rooms are light and airy, and flow easily into the courtyards through oversized sliding glass doors. The white-painted drywall ceilings seemingly float above the wood planks that clad not only the curving enclosure’s outward-facing facade but also serve as the wall surface for the courtyards and interior living spaces. The travertine floors, meanwhile, continue into the courtyards, although there the pavers are supported on pedestals and are ungrouted, so that rainwater readily drains. These outdoor spaces include drought-resistant river birch trees, whose slender trunks extend through circular openings in the stone, creating the impression, says Steely, that the trees are growing indoors.

With such combinations of nature and architecture, curving and rectilinear, and spaces that are open and closed, Steely has created an inventive house that ingeniously screens out its less remarkable neighbors, while framing the sky and inviting the sun and breezes inside. ■
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Nordstrom Toronto Eaton Centre | Design Architect: Callison/RTKL
Architect of Record: Queen’s Quay Architects
Evening Star

ARCHITECT YOSHIO TANIGUCHI’s design of a new wing of the Kyoto National Museum is a minimalist annex that starkly contrasts with the original ornate, brick museum, which dates back to 1895. To make sure the landmark would also make a strong impression after dark, lighting design firm Iwai Lumimedia Design also orchestrated a balance between strong forms and nuanced illumination.

Making use of a translucent-glass curtain wall that fronts the building’s lobby, lighting designers mounted fixtures along the wall’s horizontal beam. Viewed from outside, the effect is similar to a glowing traditional Japanese paper lantern.

Lumimedia founder Tatsuya Iwai also wanted this luminous quality to extend to the limestone facade to highlight the richness of that material. To do this, he positioned a row of linear wall washers along the outside of a skylight above the lobby and focused them on the central upper register of the stone wall. Additional spotlights strategically located on the site are angled to illuminate the corners of the wall, and are tempered to ensure an even wash of light across its surface. The exterior lighting treatment articulates the building’s architectural details at night and subtly merges the background plane with the foreground. The result is a dramatic nighttime identity for the museum.

—Leslie Clagett
**Message Received**

**There’s A Growing Trend** to use LEDs not just as light sources but also as wireless data transmitters to address the problem of limited bandwidth in radio frequencies used by conventional WiFi networks. Potential applications for this exist in any public space where people tend to search for information on their mobile devices.

One technology central to the trend, called light fidelity—or LiFi, if you will—embeds data in light waves instead of radio waves. And as LEDs are semiconductors, the brightness of their illumination can be modulated to create a signal that special receiving devices can interpret as data.

In addition to LEDs, LiFi can also work with daylight—including direct sunlight. In fact, a pioneer in the technology, Edinburgh, Scotland-based Pure LiFi, has developed and tested receivers outdoors under 77,000 lux of sunlight. Because LiFi relies on detecting rapid changes in light’s intensity, its signal strength is not affected by daylight’s slower, gradual changes. Instead, the near-constant level of the sun’s brightness is filtered out by a LiFi receiver, which keeps the data stream intact. —LC

**In A New Light**
Potential applications for LiFi-enabled LEDs range from street lamps to bus shelters and train stations—anywhere people might conduct Internet searches on their mobile devices.
ARCHITECTURAL DIGEST

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DESIGN: Ross Barney Architects
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Fortune favors the bold, and possibly the colorful. Unconventional finishes for hardware pieces are becoming popular choices for everything from faucets to grommets.

Mockett’s PCS7f Series Power Grommets come with 15 finish options, including a variety of bright colors meant to stand out rather than blend in. The Power Grommets allow for a single or dual USB outlet and include a locking ring that permits them to be mounted almost anywhere.

INOX’s door handles in Glacier White also offer a departure from traditional metal hardware.

Vola’s HV1 faucets include statement shades of bright orange, electric green, and stoplight red in addition to subtler brushed stainless steel and matte black.

Even metal finishes are seeing a pop; Kohler’s Ombré Vibrant fades its polished nickel and titanium finishes into a bright rose gold. Using Kohler’s proprietary physical vapor deposition process, the finish is scratch- and tarnish-resistant. —Vittoria Elliott
**ELECTRICITY**
**MANUFACTURER:** Buster + Punch
**PERFORMANCE:** This collection of marine-grade stainless steel, brass and aluminum switches, dimmers, and wallplates provide electrical outlets with an uncharacteristically hip finish.
**PRICE RANGE:** $$$
**APPLICATIONS:** The line is UL-listed for use in North America and is sold individually or in sets to unify entire residential interiors. 
*BUSTERANDPUNCH.US*

**EVOLVED HOLLYWOOD HILLS HANDLESET**
**MANUFACTURER:** Baldwin Hardware
**PERFORMANCE:** Made of solid brass, this touch-to-open handleset and escutcheon are part of a collection that emulates a traditional style, but can be operated remotely with a smartphone.
**PRICE RANGE:** $$$
**APPLICATIONS:** The smart handle is made of solid forced brass, requires no hardwiring and works with an app, making it programmable for unlimited key sharing.
*BALDWINHARDWARE.COM*

**GRACE COLLECTION**
**MANUFACTURER:** Top Knobs
**PERFORMANCE:** Comprised of the company’s most popular designs over the years, the Grace collection spans 276 pieces across six styles.
**PRICE RANGE:** $$$
**APPLICATIONS:** Made of zinc alloy, the pulls are recommended for adding style to residential applications—an affordable alternative to heavier metals in the same traditional designs.
*TOPKNOBS.COM*

**LOUVRE RAIL SYSTEM**
**MANUFACTURER:** Amuneal
**PERFORMANCE:** Fabricated from a series of solid .25”-thick x 1.5”-wide steel slats, the Louvre Rail banister is a railing-only update of the company’s whole-staircase system.
**PRICE RANGE:** $$$
**APPLICATIONS:** The railing works with new and existing steps and can be specified as a divider wall. Handrails come in white oak or walnut.
*AMUNEAL.COM*

---

**LINEAR DRAINS**

**WITH DRAINS,** as with real estate, it’s all about location. And moving a shower drain can be an expensive endeavor for those remodeling or renovating, limited by proximity to drainpipes.

A new suite of products is looking to address these issues and expand the possibilities for bathroom renovations. Meet the linear drain.

**Schluter Systems**' KERDI-DRAIN-H and KERDI-SHOWER-CB allow the drain to connect any existing drain pipe—meaning the drain can be placed even in tricky spots, like against a shower wall. This can significantly reduce the amount of demolition or restructuring necessary to retrofit a drain into a new space.

**QM Drain’s** linear drain allows for a flexible range of 8”, letting the grate sit in a different position than the base. The linear drain can be cut to a specific length to fit a variety of spaces.—VE

**REVOLUTIONIZING THE RETROFIT**
QM Drain’s Supreme linear drain installed (above and right) and Schluter Systems’ KERDI-DRAIN (far right)
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Manufacturer’s 20 Years Leak-Proof Performance

INSTALLATION
Overly provides a “complete” system package to include hardware, flashings, closures, etc. Custom shop drawings are standard and “Overly On-Site” mechanics assist with initial layout and start-up.

- Install starter base materials and continuous internal drain channels to a suitable substrate.
- HD Infill Board is set in place between drain channels prior to the metal roof panel.
- Install the panels between drain channel extrusions and anchor to substrate as required.
- Install the gasket to the compression cover and secure the assembly to the drain channel.
- Install & seal the cover cap securely over the compression plate to complete standard installation.
- Complete installation by installing perimeter covers and flashings.
- Can anchor to 3/4 plywood and a minimum 18GA metal substrate.

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

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

COVER CAP
The width of the cover cap is 2 ¾ inches.

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

MATERIALS & FINISHES

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

Recycled content varies upon material selected. All metal components are 100% recyclable.

We provide free cost estimates and detailed quotations. Our engineering deliverables include shop drawings, anchor details, and wind load calculations. We can fully engineer our materials to local codes with an engineer registered and licensed in your state.

Contact Overly for more information on how this system can be applied to a vertical surface.

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A More Rugged Rug

**ADVANCED MANUFACTURING TECHNOLOGY** means more companies can offer statement rugs and carpets that also stand up to high traffic demands of busy spaces. One example is Bentley’s Redux, a Cradle to Cradle-Certified, NSF 140-certified, CRI Green Label Plus-certified carpet tile available in 13 colorways and three tile sizes (9” x 36”, 18” x 36”, and 24” x 24”). And its multi-directional tiles use a gradual blending of color to produce an ombré effect that would not be out of place in common areas of multifamily residential projects. The line also features an easy-to-install, adhesive-free hook-and-loop system.

Just as versatile and durable is Forum from Shaw Contract, a collection featuring a palette of neutral tones with sweeping black calligraphic lines available in a broadloom, carpet tile, and a 12′-wide x 18′-long rug format. And the latest nanimarquina collections, also for Shaw, make for statement pieces that perform: Herb is made entirely from hand-spun hemp, so it’s lightweight and boasts natural thermal insulation; Tres Vegetal, another hemp-based flat weave made in India, is highlighted by natural irregularities in fiber thicknesses for a textural appeal available in beige, ivory, or off-white. The biodegradable fibers and antibacterial properties make both collections more eco-friendly. Given the right project, there’s no reason some residential projects can’t borrow a few contract-grade products and ideas.—Ashleigh Van Houten
Bouncing Back

VINYL AND RUBBER FLOORING companies are amping up their designs to compete with stylish alternatives. A case in point is Tarkett’s latest certified rubber flooring collection, Pentagonals, which combines a surprising level of style with function. Comprised of three puzzle-inspired patterns and 142 solid color options as well as a variety of marble and flecked colorways, the line adds fresh design opportunities in a material best known for being purely practical and easy to maintain. The product also exceeds Tarkett’s sustainability goals: it’s Cradle to Cradle Bronze certified v3.1 and ILFI Living Product Challenge Imperative Certified with a Water Petal certification.

Also easy to maintain, the Colour design series of Studio Luxury Vinyl from manufacturer Parterre, offers 18” x 18” tiles with highlights of vibrant colors and shapes—ideally suited for visual delineation in busy zones. Studio Luxury Vinyl also has an ultra-clear, high performance wear layer that makes the flooring resistant to stains and scuffs. —AVH

A FRESH LOOK FOR RESILIENT FLOORS

Tarkett’s Rubber Pentagonals collection (above) and Raya and Tela from Parterre’s Colour design series (right, top and bottom) stand out for their unlikely pops of color.
It’s a Wrap

BEFORE ITS REBIRTH as a financial services company called Symmetry Partners, this 40,000-square-foot, windowless building in a Glastonbury, Connecticut, industrial park sat vacant for several years. It was originally a data center. “People called it ‘the bunker’,” says Michael Tyre, principal of Hartford-based Amenta Emma Architects, a firm charged with renovating the building into something surprising, edgy, and artful.

To get the biggest impact on a tight budget, Tyre determined that the main gesture would need to be added right at the curb. So the architects focused a chunk of their energy on selecting exterior cladding whose performance could equal its visual impact.

Tyre’s team covered the exterior walls with Amico’s Apex 01 quarter-inch expanded aluminum mesh. Not only do the panels create a distinctive grid pattern on the facade, but they also function as a brise soleil, mitigating glare and heat gain from a band of new windows punched into the south and west walls. The Amenta Emma team even detailed the screen to ensure its pattern conceals as much of the support framework as possible for a cleaner look. Although the material is humble, that step, so important to the integrity of the design, required considerable coordination between the vendor, fabricator, and architects. The screen also needed to hold up under the added weight of accumulated ice in winter.

To add drama at the entry, a canopy of Cor-Ten steel panels from MetalTech USA combines with the aluminum screens to create dynamic angles. The two elements were conceived as a single-folded surface moving across the building, yet each has its own unique material articulation relative to its function.—Leslie Clagett
Building a Safer Green Roof

The indelible images of the scorched landscapes and structures following the recent wildfires in California are causing some to reconsider the combustibility of green roofs. But clarity is emerging on that issue: effective with the 2018 edition of the International Building Code, vegetative roof systems must meet the same fire classification requirements as the roof covering and roof assembly materials.

While many architects know best practices for these roofs, those with residential clients unused to the standards may want to refresh themselves and remind clients about the green roof schemes that are not just aesthetically pleasing but also fire-rated.

Due to many variables—such as plant type, condition, depth of the growing media, and combustibility of the assembly materials—a classification of exterior fire exposure cannot be made with certainty just yet. However, choosing appropriate plants is key to safer roof design. For starters, pick plantings already evaluated for their fire-resistance, drought tolerance, and non-aggressive root systems which are less likely to penetrate and compromise underlying layers of waterproofing. Class A-rated assemblies are limited to succulent-based systems. Experts recommend at least 60% of a roof’s vegetation come from the sedum family of groundcover plantings. It is also best to avoid grasses and mosses, which can dry out and create a potential fire hazard.

Meanwhile, border zones free of vegetation can provide a fire break at rooftop equipment, penetrations, and structures. They also work to reduce the potential generation of wind-borne debris at roof perimeters and corners and provide additional resistance to high-wind pressures.

Clients should know that maintenance also plays a role in the roof’s fire-rating. Moisture levels of growing media should be checked regularly and the irrigation schedule adjusted to retain moisture and plants’ health. Weeding, fertilization, and removal of dead or dormant plants is just as important here as on the lawn, since ignoring excess biomass could inadvertently fuel a fire. —LC
Making an Entrance

ENERGY-SAVING WINDOWS AND DOORS usually aren’t the most newsworthy updates in a historic preservation, but two such solutions completed as part of the critical 10-year preservation of St. Patrick’s Cathedral in New York City a couple of years ago warrant careful review for their elegant simplicity.

Asked to find an energy-efficient way to keep the cathedral’s 9,000-pound bronze doors open during visiting hours, Murphy Burnham & Buttrick Architects (MBB), the firm leading its preservation, designed transparent glass insertions to enable the practice without obstructing the church’s inspiring architecture. The MBB team understood that the doors are left open because “the entrance is symbolic of core congregation values of openness, welcome, and a sense of refuge,” explains MBB partner Jeffrey Murphy. Still, leaving them ajar had previously led to an expensive loss of conditioned air and energy. The solution: MBB worked with Silman and Eckersley O’Callaghan Engineers and glass manufacturer Seele, to devise massive transparent glass pocket doors that slide open and closed using Vitrocsa’s Invisible Wall System. Now, at the push of a button, the panels slide within floor channels and vanish into the new interior wall MBB built out to house them. With the original bronze doors open, the clear-glazed entry looks virtually unobstructed.

Just like the impressive bronze doors, the cathedral’s lofty ceilings are meant to inspire worshippers and need to remain visible. But with a high volume of visitors, they’re also less than ideal for quiet worship. So in the cathedral’s Lady Chapel where regular devotions are held, the architects employed glazing again—this time, using it to control noise.

MBB conceived an 880-square-foot, 48-foot-tall glass wall that reaches the Lady Chapel’s arch to acoustically isolate the space. CRL Jackson 900 doors with ultra-slim rails and custom hardware grant entry into the chapel and close as needed without hindering sightlines. “The archdiocese recognized that an all-glass scheme would achieve their goals for the chapel while being deferential to the cathedral’s architecture,” says Murphy. “As you approach the chapel the transparency makes it appear as if there’s no wall at all.”—Sheila Kim

GLASS ACTS
Glass sliders enable St. Patrick’s bronze entry doors to open (top left and right) without wasting energy. A floor-to-vaulted ceiling glass wall (above) acoustically seals off the Lady Chapel.
DT 750 Door Terminal
MANUFACTURER: Häfele
PERFORMANCE: This door system uses Dialock with RFID technology for quick operation via a key card, and features both a do-not-disturb function and an emergency deadbolt release.
PRICE RANGE: $$
APPLICATIONS: Suitable for securing interior doors, cabinets, and other areas, Häfele’s Dialock is compatible with various building network and management software. HAFELE.US

Wood-Ultrex
INTERIOR FINISHES
MANUFACTURER: Integrity Windows and Doors
PERFORMANCE: Previously available in bare or white, the interior-facing wood frames of Wood-Ultrex windows and doors now also come in Clear Coat and Designer Black.
PRICE RANGE: $$
APPLICATIONS: Ideal for use in most residential projects regardless of house style. MARVIN.COM

Series 900 Terrace Door
MANUFACTURER: CRL-U.S. Aluminum
PERFORMANCE: This clean-lined terrace door comes with a new optional low-profile threshold. Projecting just ¼” from the floor, the threshold is ADA-friendly and thermally broken with an inch of insulating glass.
PRICE RANGE: $$$
APPLICATIONS: The streamlined design and new threshold option makes the door well-suited to multi-unit residential and hospitality projects. CRLAURENCE.COM

Axes
MANUFACTURER: Maars Living Walls
PERFORMANCE: Axes acoustical doors form virtually seamless walls when closed and pivot to open up sightlines. As the steel units do not require floor tracks, they are ADA-compliant.
PRICE RANGE: $$-$$$-
APPLICATIONS: This system is ideal for spaces requiring flexibility in privacy and openness such as schools, offices, and healthcare environments. MAARSLIVINGWALLS.COM

Glazed and Amused
RETRACTABLE GLASS WALLS are increasingly becoming a standard offering and not just a specialty. And one reason may be that people are starting to expect these streamlined entrances in both commercial and residential environments, says Andrew Haring, vice president of business development at the National Glass Association. “The places we live, work, and play in are all subject to real-estate compression,” Haring says, explaining that we all expect to squeeze into a smaller footprint. “Glass seems to be the effective space-saving conduit,” he adds.

The revelation is not lost on manufacturers of doors and operable walls, which are keeping pace and rolling out new technical and aesthetic features. Arc3D, by DoorWall Systems, is exemplary in its ability to seamlessly integrate an operable door in glass facades without the clutter of hydraulics or cables; instead it uses a direct-drive system. The garage-style door boasts a thermally broken aluminum frame and 1 5/16” triple-pane insulated safety glass.

As interior walls, glass is also an increasing solution. To add noise-control, NanaWall’s AcoustiFOLD, out this year, provides a floor-supported folding wall with sound-dampening glass, discreet gaskets, and an STC rating of up to 45. Additionally, the wall’s flush sill is ADA-compliant for a truly seamless transition.

While horizontal sliding-door systems retract into the walls to eliminate door swings, not all walls can be made to accommodate the necessary door pocket. Some manufacturers are even addressing this hurdle, by enabling designers to specify a guillotine-, garage-, or hangar-style system. One example is HIRT’s SF90 Descending Wall, which as its name suggests, lowers at the press of a button and disappears into the floor to open up an interior space. In units of up to 20-feet square, SF90 provides the same thermal insulation and air- and water-tightness as its horizontal sliding counterparts. The appeal of all of these advanced doorways offerings is simple, says Haring: “Bring the outside in when you want, and keep the weather out.” —SK

SOUND OFF
NanaWall’s new operable glass wall system (above right) uses specially designed gaskets and sound-dampening panels to control noise. AcoustiFOLD in a school corridor (right).

KEY $ = VALUE, $$ = MID-RANGE, $$$ = HIGH-END
The Winds of Change

Manufacturing is booming in Georgia, Virginia, and the Carolinas. But challenges lie ahead.

BY J. MICHAEL WELTON

FOR FIVE YEARS, four Southeastern states have had impressive growth in their manufacturing sectors. Now construction slowdowns and trade policies paint an uncertain future.

North Carolina, for example, generated $102 billion in manufacturing in 2017, compared with $92 billion four years earlier. That growth contributed to a surge in jobs. “In terms of head count, 468,000 North Carolina residents work in manufacturing today, up 25,000 from five years ago,” says Chris Chung, CEO at the Economic Development Partnership of North Carolina.

In October 2018, the South Carolina Department of Commerce reported average weekly manufacturing hours there rose 3.8 percent, local unemployment claims dropped 7.3 percent, and housing permits jumped 9 percent.

Bristol, Virginia-based Strongwell reported rising demand for its fiber-reinforced polymer composites in 2017 that coincided with “an uptick in oil and gas and commercial construction,” says Barry Myers, Strongwell’s corporate marketing manager.

Meanwhile in Georgia, Georgia Manufacturing Alliance CEO Jason Moss says, “Wages are increasing, because we’re all competing for the same people.”

Yet there are signs things are starting to cool. MTI Baths, a supplier of bath fixtures in Sugar Hill, Georgia, reports its double-digit annual growth halted, with a recent housing slowdown. “One reason is that the cost of materials is soaring,” CEO Kathy Adams says. Another: millennials aren’t buying enough houses to fuel the market. The spector of tariffs and renegotiated trade deals is not helping, says Stephen Moret, president and CEO at the Virginia Economic Development Partnership. “We’re seeing activity, but uncertainty makes economic development less resilient,” he says.
SNAPSHOTS

GEORGIA

The manufacturing sector constitutes at least $57.3 billion in economic impact a year in Georgia, amounting to 10.8 percent of the state’s total GDP.

In the third quarter of 2017, Georgia had about 9,620 facilities employing almost 400,000 manufacturing workers.

SOURCE: OFFICE OF GEORGIA GOVERNOR, NATHAN DEAL

NORTH CAROLINA

North Carolina’s furniture industry is comprised of 3,000 companies and more than 35,000 employees.

The state is home to High Point Market, the furnishings industry trade show, which attracts more than 75,000 attendees twice a year.

SOURCE: THE ECONOMIC DEVELOPMENT PARTNERSHIP OF NORTH CAROLINA

SOUTH CAROLINA

Almost 30 percent of the state’s manufacturing jobs depend on exports.

The average salary for a manufacturing job in South Carolina is $71,123, compared with an average salary of $43,939 for other jobs statewide.

SOURCE: SOUTHERN CAROLINA MANUFACTURERS ALLIANCE

SOUTH CAROLINA

Roughly 5,000 manufacturers employ more than 200,000 people, contribute $34 billion to the gross state product, and account for more than 80 percent of the state’s global exports.

SOURCE: VIRGINIA MANUFACTURERS ASSOCIATION, VIRGINIA DEPARTMENT OF EDUCATION

VIRGINIA

Virginia is the national leader in private shipbuilding and repairing.

In the fourth quarter of 2017, Virginia had about 1,810 facilities employing almost 105,000 manufacturing workers.

SOURCE: VIRGINIA MANUFACTURERS ASSOCIATION, VIRGINIA DEPARTMENT OF EDUCATION

ARCHITECTURALRECORD.COM | JANUARY/FEBRUARY 2019 | SNAP | 37
CONTINUING EDUCATION: ZERO WASTE
FROM ARCHITECTURAL RECORD

CEU CREDIT!
Talkin’ Trash

Architects and their clients turn to the next frontier in building operations—garbage.

BY JOANN GONCHAR, FAIA

ARCHITECTS—EVEN THOSE who don’t call themselves super-green—by now are obliged to design buildings that conserve energy and water. But do they expect to create structures that allow occupants to better manage and reduce the waste they produce? Not so much. Nevertheless, that is what a number of zero-waste champions say is needed.

How can architects help? First, the background: every day, Americans create mountains of trash. We toss food scraps, garden clippings, dog-eared magazines, soiled take-out containers, threadbare clothing, and broken furniture. In 2015, the U.S. generated approximately 262 million tons of municipal solid waste, according to the most recent figures available from the Environmental Protection Agency. But, of that, only 91 million tons, or less than 35 percent, was recycled or composted. The majority was sent to landfills or incinerated.

As everyone knows, trash and recyclables clutter loading docks and obstruct basements. Garbage bags clog sidewalks and attract vermin, while the collection of this refuse exacerbates traffic and has an adverse impact on air quality. Municipalities and businesses spend huge sums to dispose of their waste, often shipping it to distant states or even internationally to landfills or recycling centers.

Less well known, perhaps, is the relationship between the disposal of waste and global warming. Since landfill gas is in large part methane—a greenhouse gas that is many times more potent than CO2—effective resource and waste management are needed to slash heat-trapping emissions. According to the Green Business Certification Institute (GBCI), increasing the national recycling rate by just 8 percent and reducing the amount of waste we generate by only 5 percent could eliminate the equivalent of 20 million metric tons of carbon.

Many progressive cities, of course, do recognize better management of their refuse as a powerful climate-change mitigation tool and have adopted ambitious waste-reduction targets in their long-range environmental plans. This summer, 23 cities signed on to an “advancing towards zero waste declaration,” sponsored by C40 Cities, a global environmental nonprofit organization. The signatories, which included seven U.S. cities, pledged that by 2030 they would reduce the amount of waste generated by each inhabitant by 15 percent and cut the amount sent to landfills or incineration by half.

ONE WORD: PLASTICS
Recyclables from New York households, including plastic, metal, and glass, arrive at a facility in Brooklyn for sorting.
**NEW YORK - CURRENT WASTE FLOW**

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount/day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WASTE</strong></td>
<td>12,838</td>
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<tr>
<td><strong>TRASH</strong></td>
<td>3,194</td>
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<tr>
<td><strong>RECYCLABLES</strong></td>
<td>9,644</td>
</tr>
<tr>
<td><strong>TEXTILES</strong></td>
<td>756</td>
</tr>
<tr>
<td><strong>PAPER &amp; CARDBOARD</strong></td>
<td>2,010</td>
</tr>
<tr>
<td><strong>METAL, GLASS, PLASTICS</strong></td>
<td>2,268</td>
</tr>
<tr>
<td><strong>GLASS, METAL, PAPER &amp; CARDBOARD</strong></td>
<td>1,005</td>
</tr>
<tr>
<td><strong>ORGANICS</strong></td>
<td>5,461</td>
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<tr>
<td><strong>NON-DIVERTABLE</strong></td>
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<td><strong>Other</strong></td>
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</table>

What does the term “zero waste” actually mean? The Zero Waste International Alliance defines it as “designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of water and materials, conserve and recover all resources, and not burn or bury them.” In practice, however, absolute zero is a tough mark to attain, especially for industrial economies, and many international and U.S. organizations recognize a 90 percent diversion rate from incinerators, landfills, or the environment as zero waste.

New York is one city whose zero-waste goals call for reducing what it sends to landfills and incinerators by 90 percent by 2030 (compared with a 2005 baseline of 3.6 million tons). Now, however, only about 20 percent of the garbage the city produces each day is diverted, and just over half of the metal, glass, and plastic that inhabitants discard is collected for recycling. A measer four percent of food scraps and other organic waste is collected for composting, through a voluntary program. To have any hope of reaching its targets, the city will have to drastically reduce the amount of waste generated and dramatically ramp up recycling and composting rates.

Architecture and design can help remove some of the roadblocks in the way of achieving goals like those adopted by New York, according to zero-waste advocates. One way is through clearer messaging: “People don’t recycle, because it is confusing,” says Ushma Pandya Mehta, cofounder of Think Zero, a waste-reduction and diversion consultant. The rules are constantly changing, and they are different from place to place, she says. But facilities with good signage and well-placed receptacles—along with education—typically see strong participation, adds her Think Zero partner, Sarah Currie-Halpern.

That’s what San Francisco International Airport (SFO) is banking on. As part of its goal to reach zero waste by 2021, it examined all aspects of airport operations, including offices, maintenance shops, and terminals. Then it reached out to Gensler for help. Sustainability director David Briefel describes the firm’s role as one that was
“graphics heavy” but also involved coordinating with SFO management and custodial staff and assisting with studies of waste-diversion rates and sorting accuracy at security screening points, food concourses, gates, and at back-of-house areas. The physical product of this exercise was new trash receptacles and signage intended to help airport users and employees better differentiate the various waste streams. The graphics and bins have so far been installed in Terminal 2, but will ultimately be implemented airport-wide.

Reducing waste and recovering more for recycling and reuse can also entail infrastructure-scale strategies, such as the installation of pneumatic tube systems. Powered by turbines that generate a vacuum, these whisk away trash at high speeds to a central terminal. The technology reduces the amount of space that individual buildings must devote to storage of waste and eliminates the need for piling trash bags at the curb. Best-suited for new, multi-building complexes, the first systems were installed in Sweden in the 1960s and now exist all over the world.

Although they are still rare in the U.S., the apartment buildings on New York’s Roosevelt Island have a single-stream system that has been in continuous operation since 1975. It has been expanded several times and now serves 12,000 residents in 16 buildings. By the middle of the next decade, the city could have another complex relying on pneumatic waste collection. Plans for the primarily residential second phase of Hudson Yards—the megadevelopment rising over rail lines on Manhattan’s far West Side—include a pneumatic network with dedicated tubes for landfill items, recycling, and organics that would connect to seven buildings with a total of 4,000 apartments.

New developments can also provide resources that serve a much larger surrounding urban district. Clare Miflin, an architect and founder of ThinkWoven, a New York–based urban-ecology consulting firm, points to Ménilmontant, an 85-unit social-housing complex under construction in Paris’ 11th arrondissement. According to Pierre Maurette, a partner at Vincent Lavergne Architecture Urbanisme, the inte-
Tools are starting to emerge that can help architects and their clients better manage the waste stream. Last year, AIA New York and a host of collaborators, including the Rockefeller Foundation, published a set of Zero Waste Design Guidelines, a 270-page examination of commercial and residential building design, urban infrastructure, collection methods, and policy. Already the document is influencing design decisions. The guidelines helped persuade the project team for Sendero Verde—a 655-unit mixed-income housing project for the Harlem neighborhood—to include a second trash chute for recyclables, according to Lauren Zullo, director of environmental impact for developer Jonathan Rose Companies. The three-building complex, by Handel Architects, slated for completion in 2021, is targeting Passive House certification, but also has a goal of waste-stream optimization, she says.

The guidelines are focused on solutions for New York, its unique building typologies, and its dense urban condition, but organizations in other locales are taking notice. Groups in Seattle are among those interested in adapting the recommendations to their circumstances, according ThinkWoven’s Miflin, the document’s lead author. She cautions, however, that it “is still very early days.”

Another framework for the design and operations of facilities that minimize waste is the rating system TRUE, short for Total Resource Use and Efficiency. Previously known as Zero Waste Facility Certification, it was acquired two years ago by GBCI, which also oversees LEED and WELL (an occupant-health-focused standard). Similarly to those two systems, TRUE has a point-based structure and graded recognition levels, in this case Certified, Silver, Gold, and Platinum. Minimum requirements include demonstrating at least 90 percent diversion from landfills, incinerators, and the environment, and submittal of diversion data annually to GBCI.

Since Stephanie Barger, TRUE director of market transformation and development, maintains that the design of a facility “is absolutely critical to zero-waste suc-
cess;” it is ideal for ambitious targets to be adopted early in the life of a project. But such commitments can also be made later, as was the case with Chou Hall, a 76,000-square-foot, six-story classroom building for the Haas School of Business at the University of California, Berkeley. Designed by Perkins+Will, it is pursuing the certification trifecta of LEED, WELL, and TRUE. Although certification under LEED and WELL was decided upon during the design phase, the third rating system was added just a few months before opening, in August 2017. Administrators felt that Chou Hall should be the first TRUE-certified building on campus as part of the University of California’s system-wide goal for zero waste by 2020. “The idea was to create a blueprint that other Berkeley buildings could follow,” says Jessica Heiges, a master’s candidate in the College of Natural Resources, and one of the leaders of Chou’s TRUE-certification effort.

Chou Hall has many advanced and integrated features for energy efficiency, water conservation, and health, such as a high-performance building envelope, extensive daylighting, rainwater collection, and an inviting central stair to encourage students to forgo the elevator. Aspects of the design that should help with its TRUE certification include water-bottle filling stations and waste-sorting bins that are cleverly integrated into niches on each floor. But since formally adopting the zero-waste goal, the multidisciplinary faculty, staff, and student TRUE team has closely examined Chou Hall’s operations, establishing new initiatives that had not been part of the design brief. One area of particular scrutiny is the building’s café and the catering for its top-floor events space. “Food is the single largest generator of waste,” says Heiges. Some of the practices intended to shrink this footprint include collecting coffee grounds separately from other organics and sending them directly to a nearby farm; selling snacks from bulk containers, from which customers disperse the desired amount themselves into paper bags (to reduce the amount of uneaten food and eliminate plastic wrappers); and relying on reusable tableware and utensils for people who eat in and compostable ware for those who carry food out.

But all of these initiatives require space for storage and equipment, which is at a premium, says Danner Doud-Martin, the assistant director of operations for Haas’s international business-development program and the faculty leader for the TRUE certification effort. “Real plates and dishwashing capabilities were just not in the plans three or four years ago.” Despite these space constraints, Chou Hall is on track to achieve both True Platinum and LEED Platinum, along with WELL Silver, which would make it the first academic building to be certified under all three systems.

Such an intense focus on minimizing trash, like that exhibited by the Chou Hall certification team, may be relatively new, but it is an important aspect of building operations. TRUE’s Barger calls waste the “next frontier” in facility design. Let’s hope it is widely explored and embraced by architects and building owners. Getting to zero depends on it.
FOR A THIRD CONSECUTIVE YEAR, Salone del Mobile Milano Shanghai, an offshoot of the annual Italian furniture tradeshow, brought well-known Italian manufacturers to the Shanghai Exhibition Centre. The show attracted 22,500 attendees to visit 123 exhibitors including Kartell, Artemide, Molteni & C, B&B Italia, Florim Ceramiche, Foscarini and Minotti, along with a few companies from France and the United States.

Despite the reportedly slowing pace of the Chinese economy and its recent trade war with the U.S., optimism about gaining ground in the market ran high. This year’s show “justified our expectations,” says Emanuele Orsini, president of Federlegno...
MADE IN ITALY
Clockwise from top: Foscarini’s Spokes fixtures; Marva Griffin Wilshire, creator and curator of the young designers’ showcase SaloneSatellite, with Italian singer Lorenzo Licitra; architect Yung Ho Chang teaching the master class “Earth Stations: Future Sharing Architectures”; the Kartell booth.
A theme of cross-pollination pervaded Salone del Mobile. Milano Shanghai, which featured the signature attractions of the original Milan show. There was also a version of SaloneSatellite, the showcase for young designers that has been part of the Milan exposition since 2010. Its Shanghai iteration included 39 emerging Chinese designers, four of whom won SaloneSatellite awards. The first prize went to Huang Jing for a lamp, Miao Yunzi Hu came in second for a table, third prize went to Ruixue Song for a lantern, and Duan Bingdong earned honorable mention for a chair. The award winners, selected by a jury of design professionals, will be hosted at the SaloneSatellite at the Milan fair to be held this spring from April 9 to 14.

The organizers of Salone del Mobile. Milano Shanghai strove to present an equal number of talented designers from Italy and China, with the goal of building a cultural bridge between the two countries. One of the master classes at the show was taught by MIT professor and architect Yung Ho Chang, and another was jointly led by architect and industrial designer.
Roberto Palomba and engineering science professor Fu-Rong Chen.

“There’s a huge appetite for Italian experience, our products, and our story,” says Claudio Luti, Kartell’s CEO, who is also president of the Salone del Mobile.Milano. “The Shanghai edition provides an opportunity to attract an increasingly broad Chinese audience to the Salone in Milan,” he adds.

MARKETPLACE MAKER
The show’s third edition drew roughly 2,500 more visitors than the previous year’s event.

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