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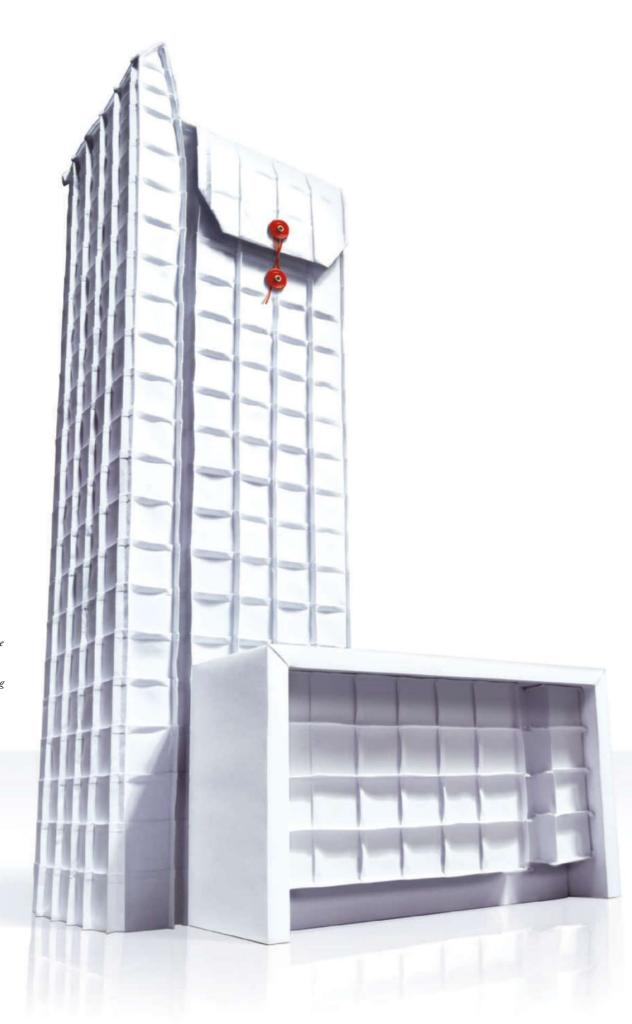
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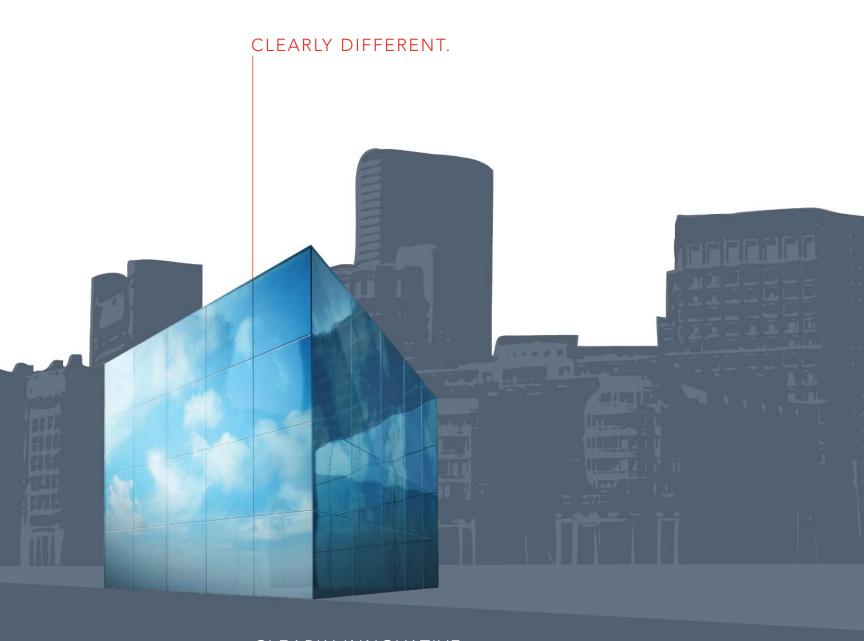






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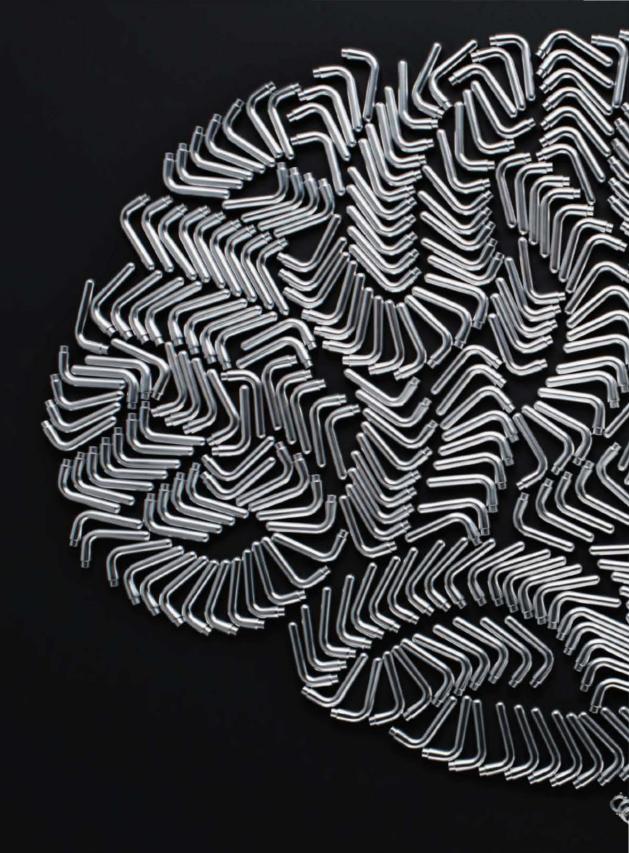


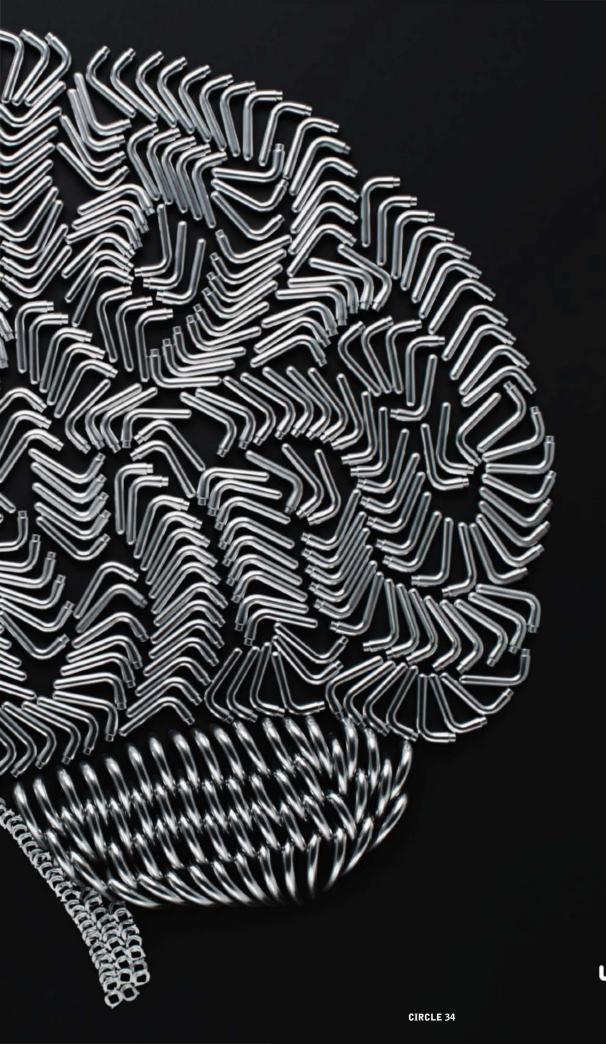
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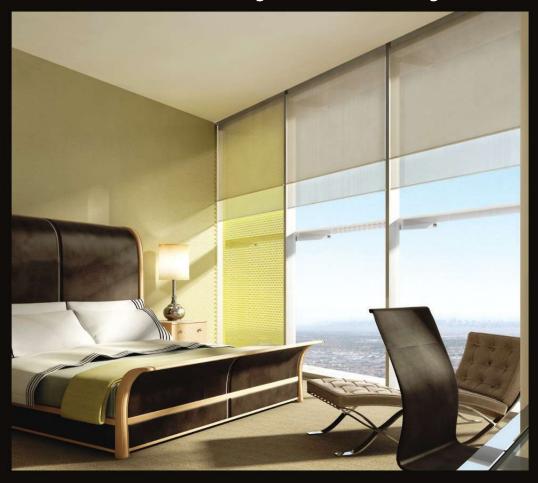
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Three residential buildings with innovative facades rise in New York City. *By Josephine Minutillo* 

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ABOVE: The Waterhouse at South Bund, Shanghai, by Neri & Hu Design and Research Office. Photograph © Derryck Menere.
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#### **NEW THIS MONTH**

Five years after Hurricane Katrina, we visit the **Porchdog House** in Biloxi, Mississippi. New in our video library, we take a close look at the metal cladding on Atelier Jean Nouvel's 100 Eleventh Avenue as well as three other residential facades; we visit New York's Metropolitan Opera to see Herzog & de Meuron's set for Verdi's Attila; and we tour the Vancouver office of Busby Perkins + Will.









#### **PLUS**

#### **BUILDING TYPES STUDY**

Browse an expanded version of this year's Record Interiors, including six projects exclusive to the Web.

#### **FEATURED HOUSES**

In this new column, we present groups of recently completed projects that exemplify a housing type. This month, we look at modern farm houses.

Read about the metal cladding on three residential projects - by Kohn Pedersen Fox, Gehry Partners, and Atelier Jean Nouvel - and take a free online test to earn continuing education credits.

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Our Web site allows readers to share images of their design work – as well as their photography, their drawings, and their opinions. Below are some of the best contributions to the site from the previous month.



Chesapeake Boat House | Elliott + Associates Architects | Oklahoma City, Oklahoma | Submitted by ray.

#### [COMMENTS]

"Whizz-bang light show and meaningless forms, this collision of clashing ideas has not elevated the architecture of Las Vegas one iota. Throw in a few mirror balls, and it's Vegas as usual."

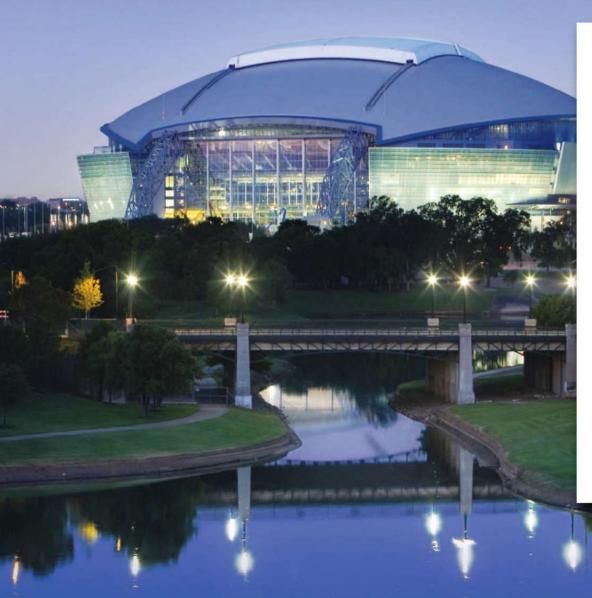
-Anonymous on "CityCenter, Las Vegas"



Neal Creek Residence | Paul McKean Architecture | Hood River, Oregon | Submitted by MAIL.

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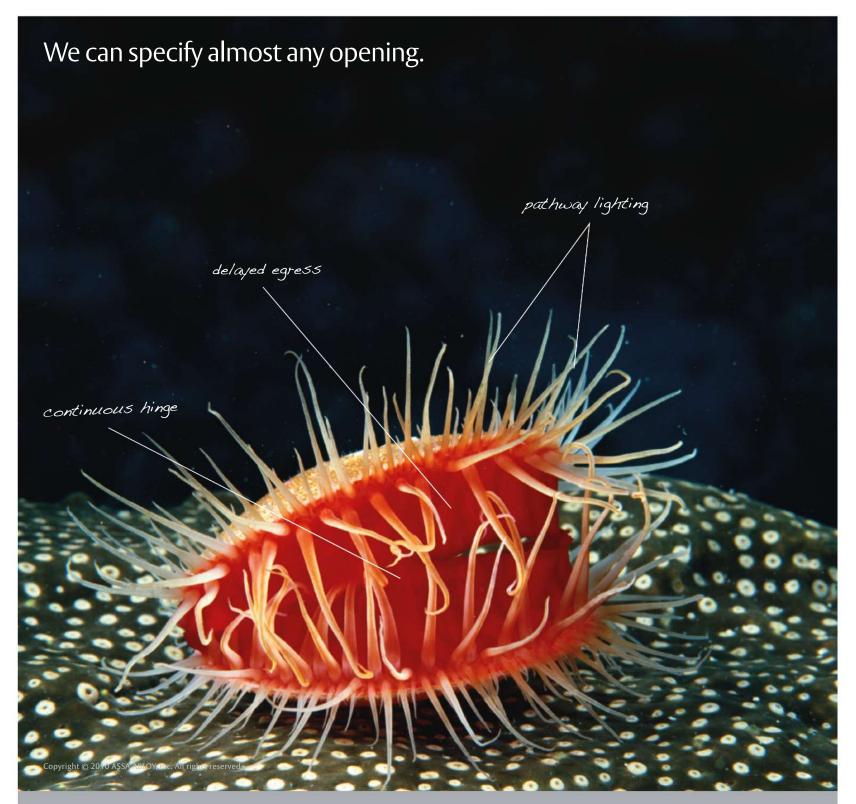
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## Competition for Ideas

St. Louis holds a design competition that points the way for well-run ideas competitions.

BY ROBERT IVY, FAIA

**AMERICAN ARCHITECTS** frequently complain that we lack effective design competitions in this country. We frequently point to Europe, where the widespread use of competitions by public and private clients apparently yields positive results, encouraging creative ideas and leveling the playing field for younger practitioners. Although these events are sometimes fraught with their own issues, such as fairness or adequate compensation or politicizing, we are constantly seeking new ways to open up the process.

A competition recently took place in St. Louis that, while small, might serve as a model for other cities: It worked like a textbook case, with annotated lessons along the path, so take note. The primary player was the Washington University School of Medicine, which partnered with AIA St. Louis. Here's what happened.

Paul Duell, an architect and a client of other architects at the university, served as the organizer. The senior project manager for design and construction for the medical school, he had a lingering, unsolved problem. The city's Central West End Metrolink station, its most active metro stop, lay at his footstep – an ugly site in need of improvement. Although the St. Louis light-rail system has been highly successful, this active stop, which serves both the medical school and the Barnes-Jewish Hospital to form one of the largest nonprofit health-care complexes in the country, greets its approximately 5,000 riders with a daily dose of the medical school's power plant. Imagine leaving work from patient care, exhausted, and looking up at a slew of pipes carrying steam or waste. Duell called in a crash team. **Lesson number one: Architects make great clients.** 

At his instigation, Washington University School of Medicine partnered with AIA St. Louis to instigate an ideas competition. Entries were open to teams with an unusual blend of skills and experience. Here's what the AIA's Web site said: "Entry must be made by a team comprising at least one architect with at least 20 years of experience and one architectural intern or architect with less than twenty years experience." (Read wilder, creative ideas would be tempered with experience.) Lesson number two: Give younger architects a shot.

The jury consisted of a diverse gathering. Pay attention. Yes, design professionals took part. Louis Saur, FAIA, a respected local architect, joined Laura Solano, from Michael Van Valkenburgh's office in Boston (who had overseen the realization of a poetic plaza just above the Metrolink stop, incorporating a lotus-filled pool by Maya Lin). And (full disclosure), this editor joined. But consider the client involvement that follows.

Rather than limit the jury to an in-crowd of designers, which always seems more comfortable, Duell went for power at the power plant. He cajoled the executive vice chancellor for administration at the medical school into joining, generating moxie on campus. Ditto the group president from BJC HealthCare responsible for its capital programs. A key representative from St. Louis's

Metrolink capped it off. Lesson number three: Incorporate the critical decision makers in the decision.

The jury deliberated, as juries do, with projected images behind closed doors, but had the advantage of being adjacent to the site, which allowed them literally to walk outdoors, despite the summer doldrums, and stand on the Metro platform. Lesson number four: Nothing compensates for familiarity with and access to the actual site.

Overall, the teams described artful, sustainable methods of screening a power plant. Some showed how to engage a multilevel site with structures that bridged levels and functions, including housing, retail, and public space. Having made their decision on a first project that would receive a cash award, a richly imaginative kinetic screening device by Trivers Associates, the university offered a second, equal sum, to be offered at the jury's discretion. The jury issued a second award for an alternative vision to HKW Architects. Lesson number five: When ideas are involved, why should they be limited to a single winner?

On day two, the St. Louis chapter of the AIA hosted a luncheon meeting to discuss the competition and present the winners to a filled room. Representative jury members had the luxury of presenting each of the thirteen entrants in some detail, describing their critiques of the ideas, the presentation quality, whether verbal or graphic, and overall impressions. While the discussions exceeded the intended time frame, the luxury of giving adequate time to each entry warranted it. Lesson number six: If time or space allows, give adequate attention to all entrants, not just the winners.

After two days, the jury emerged from air-conditioning and blinked in the full sun, having done their homework. The university/medical center complex had clever, creative notions for enriching its critical transit hub. But most important, the powers-that-be had been presented with alternative visions on future expansion at that location – loosely formed, broadly suggested, but real ideas. One of them may well come to pass. Lesson number seven:

The results of an ideas competition may extend beyond the expected

Had the jurors not been in the same room, so much would have been lost. Not only body language (an obvious fatality of the current swing toward virtual juries), but the context of the site, the willingness to stay and talk about potential uses of plans, and, uniquely in this case, the full presentation of results. In the name of economy and trying to be hip, we are cutting out travel and settling on virtual juries. Ugh. They feel like homework. They lack joy. They don't allow for chance. Comparisons of projects are virtually impossible. And no client will ever join in for the full proceedings. Lesson number eight: Conduct juries in person.

The St. Louis power-plant competition might be smaller than many, but its excellent structure demonstrates that juries can still be an effective way of sharing ideas.

Palent July

#### **LETTERS**

#### To infinity and beyond!

Short of taking a rocket to space, the Burj Khalifa [August 2010, page 78] is a compelling attempt to construct a stairway to the heavens. While the silver spire seems a bit cold and sinister when viewed from afar against the barren Dubai backdrop, the experience is absolutely breathtaking standing at its base. Mankind advances when boundaries are reset, so my compliments to the architects and engineers for enabling this contemporary wonder of the world. Michael T. McGrath Laboratory for Atmospheric and Space Physics University of Colorado at Boulder

I continue to find it shocking that RECORD has an almost total inability to write a critical word about any new building that graces its pages, the latest example being the Burj Khalifa, which stretches the rational uses of resources beyond the breaking point and is purely an ego-driven project for its owners. The floor plates are so tiny they can only accommodate small firms, like hedge funds, which can generate the necessary revenue to pay the rent. And while the engineers found a way to build so tall, every wall is needed to resist load, which means the current architectural layout is almost entirely fixed forever. Finally, from the drawings, it appears the space utilization factor is only about 50 percent, which cannot possibly be a rational use of materials and energy. Anton Nelson Union City, N.J.

The cover of the August issue is perhaps the most thrilling, inspiring, and jaw-dropping ever. I am stunned by the beauty and human achievement of the Burj Khalifa. The image of Wright's hypnotic Illinois Tower is no longer a mirage! I am also completely

perplexed by the Burj's economic and humanitarian validity and by its setting, so clearly shown in the surreal photograph by Iwan Baan. What has emerged may be our era's Tower of Babel. Given the surrounding hostile desert, world religious turmoil, eventual collapse of oil empires, and the sheer, untouchable visual and economic gravity of this shimmering landmark, can this endeavor succeed? Yes, the next decade will be most interesting, and nowhere more so than beneath this awesome stretch to the heavens. Kem Hinton, FAIA Nashville, Tenn.

On one hand, the cover image of the Burj Khalifa is truly spectacular – an impressive sculptural object and an architectural and engineering achievement. On the other hand, the August cover shows an uncoordinated scattering of mediocre towers

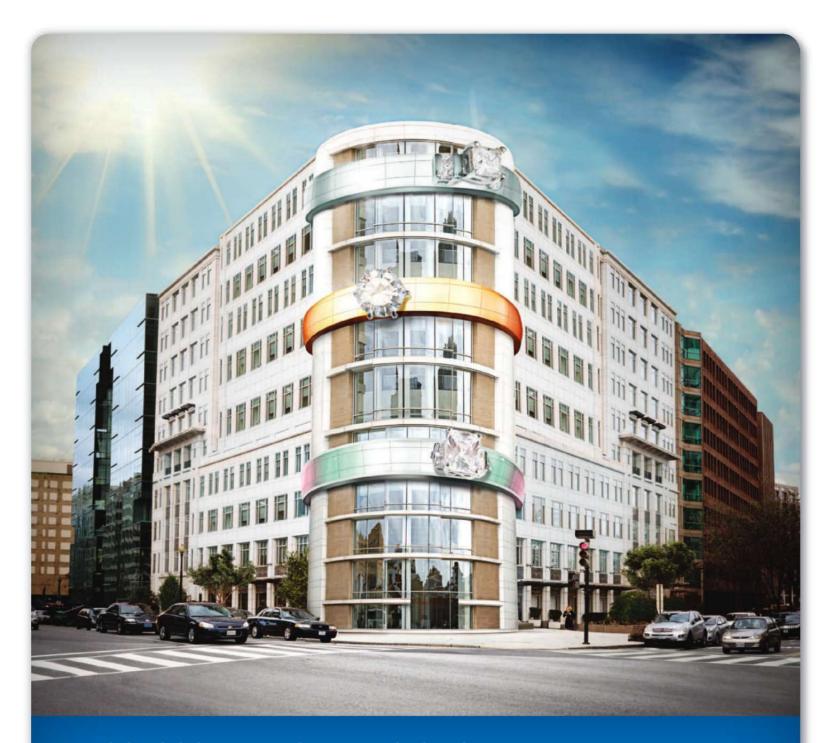
("random clumps," in the article's words). The context of the Burj seems to be a combination of strewn architectural trash, decorative water features, and a sand-blown haze reminding everyone that the desert is ready to obliterate it all once the population and the money goes away. Scott J. Newland, AIA Minneapolis

#### Corrections

In his article on Expo 2010 Shanghai China [August 2010, page 52], Thomas J. Campanella stated that the 1893 World Columbian Exhibition in Chicago featured "the world's first elevated rail line." Actually, elevated rapid-transit rail lines had been in regular service in New York City since the 1870s, but they were steam-powered. The Chicago fair had the first electric elevated rail line in regular service.

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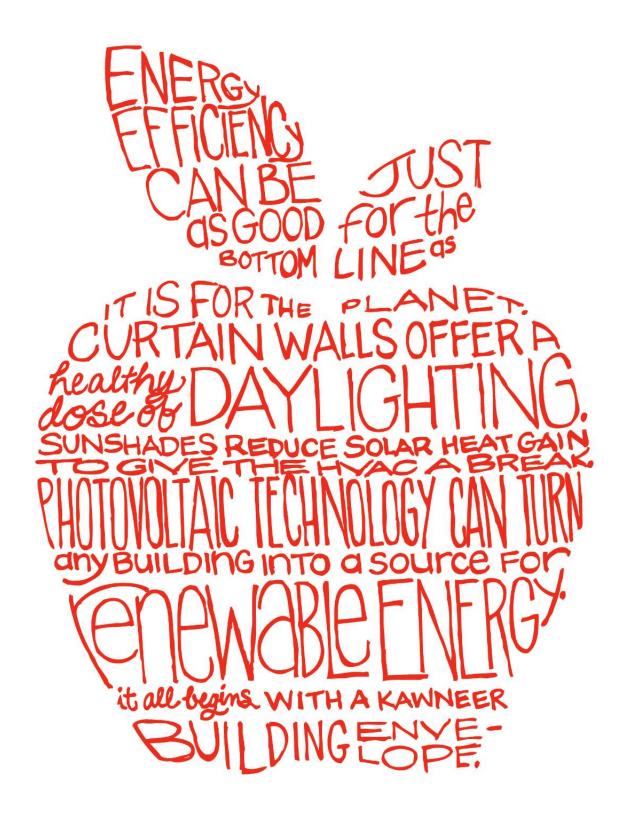
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#### [ IN PROGRESS ]

### Plan for Kahn Synagogue Stirs Controversy

For a growing congregation, Alexander Gorlin has designed an expansion to Louis Kahn's Temple Beth El of Northern Westchester (1972). Some say modifications to the original building go too far.

A PLAN TO ENLARGE the only surviving synagogue by Louis Kahn has sparked opposition among some preservationists, who call the alterations insensitive.

Completed in 1972, the 20,000-square-foot spruce-and-concrete home of Temple Beth EI of Northern Westchester, in Chappaqua, New York, was intended to host services and classes for 400 families. But in recent years, the congregation had swelled to more than 700 families, meaning it needed more space, says senior rabbi Joshua M. Davidson.

To alleviate crowding, the synagogue proposed nearly doubling its size with a 23,000-square-foot, U-shaped wing by architect Alexander Gorlin, to contain classrooms, which are currently located in the existing building, and an event space. A ground breaking occurred in May, and the \$12 million project is expected to be finished by next summer.

With three low-slung, singlesloped-roof sections framing a courtyard, the wing is meant to evoke European villages like those in Estonia, where Kahn was born, Davidson says. In fact, many consider the existing synagogue's eight-sided sanctuary to be inspired by those in Kahn's native land.

The building is one of only two Kahn-designed synagogues ever built. The other, in Philadelphia, is today a Baptist church whose brick facade has been replaced with faux stone. Kahn died in 1974 at the age of 73.

"We came up with something that we think honors his legacy," Davidson says, "and will allow us to grow and thrive as a congregation."

But the most controversial part of the plan has already happened: the demolition of the synagogue's boxy entryway to make way for a wider, taller version, which took place last week.

For opponents, who include architects and Kahn's son, Nathaniel, a

filmmaker, that effort to make access easier ruins a special aspect of the synagogue and a hallmark of Kahn's works.

"He purposefully made it hard to enter his buildings, to draw distinctions between where you were and where you were going," says Bill Whitaker, an architect who has curated the Kahn collection at the University of Pennsylvania for 17 years.

A similar example, he says, is the recently renovated 1955 Trenton Bath House in Ewing Township, New Jersey, a concrete-block structure with a tucked-away entrance (see page 34).

But the synagogue is far from a perfect creation, says New Yorkbased Gorlin, who taught courses about Kahn at Yale's architecture school for a decade.

The main section, which features an airy sanctuary ringed by class-rooms, lacks the types of connecting corridors found in similar houses of worship, such as Kahn's First Unitarian Church in Rochester, New York, says Gorlin.

As a result, people have to cut across the sanctuary to get from one classroom to another, "so you could never have two things going on at the same time," Gorlin says. Plus, he adds, eight of Kahn's drawings that were discovered in the synagogue's attic show Kahn intended an adjacent structure to be built on the site.

Still, despite his criticisms, the sanctuary and classrooms won't be reconfigured; the wooden walls, however, will be refinished. Nothing else is planned for the building, according to Gorlin.

It's not the first time that renovations of buildings by Kahn – considered one of the more prominent 20thcentury architects, even if his oeuvre is limited – have generated criticism.

An early 1990s addition to the Salk Institute in La Jolla, California, was panned by many as being too im-



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ABOVE: Alexander Gorlin designed a \$12 million expansion to Temple Beth El of Northern Westchester (1972). Construction has begun.

BELOW: In addition to a new U-shaped wing, the plan calls for refinishing interior walls in the Louis Kahn building and demolishing an entryway.



itative, and a proposed expansion of the Kimball Art Museum in Forth Worth, from the same era, was so roundly condemned it was scrapped. (A more recent addition from Renzo Piano has many fans, however.)

While it may be too late to stop the synagogue expansion, opponents at least want care to be taken with the renovation of the walls, says Nathaniel Kahn, whose 2003 film, *My*  Architect, is about his father.

Still, the loss of the entryway is painful, he says, likening it to lopping off the black-and-white introductory portion of the Wizard of Oz. "It would still be entertaining but robbed of its essential meaning," Kahn says. "You can't say that you are respecting the original design while taking away a part of it." C.J. Hughes



#### [RESTORATION]

#### A Modest Monument Revived

The Trenton Bath House, just restored by Farewell Mills Gatsch, respects Louis Kahn's original design, even if his full vision remains unrealized.

TO MANY ARCHITECTS, Louis Kahn's 1955 Trenton Bath House in Ewing, New Jersey, just restored by Farewell Mills Gatsch Architects (FMG), exudes everything that worked in 20th-century architecture. This concise design for the Jewish Community Center in a Trenton suburb engages in a thoughtful dialogue with history using modest materials. But the Bath House also is a disappointment. It began crumbling soon after completion, and Kahn's larger civic vision for the site proved too idealized for the clients to take on.

Today, encountering the Bath House is an experience that alternates between sublime and banal. From a distance, the windowless, concreteblock boxes resemble forgotten mechanical buildings. Yet, even to the uninitiated viewer, there must be something mesmerizing about the cruciform plan and the four dark pyramids that float just above the bare walls, covering the enclosed volumes and leaving a central courtyard open to the sky. Kahn's expression flows out of these roofs. They define the building's oblique historical reference. Structurally, each pyramid rests on four "hollow columns" – supports that serve as mechanical spaces or as circulation for changing rooms - central to Kahn's notion of "servant" and "served" spaces. The Bath House, now owned by the Ewing Senior and Community Center, is aggressively simple, embracing the initial assignment's limited program and scarce means.

As in countless cases, the abstract, architec-

tural forms were developed seemingly without regard to their resistance to rain, wind, and normal use. The Trenton Bath House began failing physically almost immediately after construction, even though it is an open-air pavilion with practically no building systems. Some shortcomings might be due to a lack of sophistication in 1950s construction techniques. In certain places, concrete slabs were laid directly on the ground, leaving them vulnerable to the earth shifting underneath. Prior to the recent restoration, the floor inside was buckling in several directions.

However, other technical failures seem almost intentional, perhaps reflecting Kahn's obsession with ancient ruins. The walls were placed directly beneath the roofline of the pyramids, which have no gutters. According to interviews with Anne Tyng, Kahn's longtime collaborator, Kahn imagined water "washing over" the rough walls. This meant that water has washed through the walls during the past 50 years, breaking them down drop by drop. The Princeton-based firm FMG, along with restoration contractor Wu and Associates, took on the painstaking effort of re-creating the concrete aggregate for the masonry-block walls using a Delaware River gravel, and even matching the rough mortar smears of the previous masons. The team also added a liquid-applied waterproof elastomeric membrane to the top course of block, allowing water to wash poetically down the wall

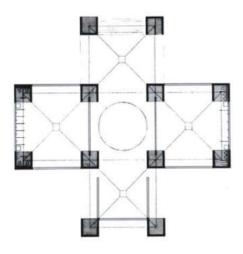
without ruining it.

The restoration returns the structure to the way it looked in the late 1950s. Yet even then, it was already short of Kahn's vision, as Susan Solomon's exacting study, Louis I. Kahn's Trenton Community Center (2000), reveals. As a result of disagreements among the Jewish Community Center's board, the Bath House is the only built section of Kahn's original design. For the restoration, due to restrictions attached to the funding (\$750,000 from the Mercer County Open Space fund and a matching grant from the New Jersey Historic Trust), along with lack of community support, the planners and architects were confined to re-creating what Kahn executed, not what he intended. His full plan called for a classic grove of trees, a common public area in front, and a pedestrian-oriented procession to the structure [RECORD, June 2007, page 63].

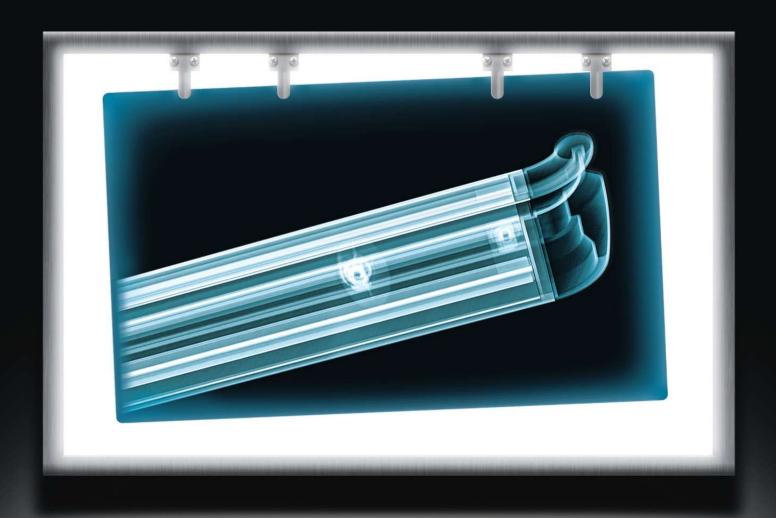
Kahn imagined a civic space for suburbia, a dignified place for nothing more than people going to the pool. His vision proved unrealistic in the 1950s, when suburbia was in its infancy. Today, in Ewing's fragmented landscape – where office buildings and parking lots give way to gabled roofs and driveways – Kahn's vision is even more important and much less possible.

If Kahn's ideal civic realm only exists within his design, and his forms only speak to those familiar with their references, it is still a monument to the search for a humanist architecture. Its persistence and its failures indicate we are still on that search.

Aleksandr Bierig, a recent editorial assistant for ARCHITECTURAL RECORD, is now a graduate student at Princeton University's School of Architecture.



The Louis I. Kahn Trenton Bath House (1955) is famous for the sense of monumentality achieved by its Greek-cross plan, elegant proportions, and cubiform volumes, all executed with the humblest materials – concrete block and asphalt roof shingles. The structure was recently restored by the Princeton firm of Farewell Mills Gatsch Architects.



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#### ON THE BOARDS

#### Calatrava Unveils Design of Major Addition to Denver Airport

#### **DENVER INTERNATIONAL**

Airport's (DIA) main terminal, with its distinctive white-peaked fabric roof, is getting some company: a 500-room hotel, commuter train station, and rail bridge, all conceived by Santiago Calatrava.

The architect-engineer unveiled his master plan on July 29. The \$650 million project is a major expansion for Denver's airport (1995), designed by Denver-based architect Curt Fentress and recently named one of the world's 15 most beautiful airports by *Travel + Leisure* magazine. (Calatrava's Sondika Airport in Bilbao, Spain, also made the list.)

Airport officials have long wanted to build a hotel next to the terminal, while the train station is the result of a \$1.2 billion commuter-rail project that will link downtown Denver with the airport. The "signature" bridge, as Day calls it, will carry trains over Peña Boulevard, the primary auto route from Denver to DIA, but Calatrava also intends it to serve as a symbolic gateway between the airport and the city.

Calatrava is collaborating with Parsons Transportation Group on the project. While Calatrava conceived the overall scheme, Gensler is designing the hotel.

The architect said his biggest challenge was to create a complex that would complement the airport. "It is always a problem to add to an existing building," he says. "In this case, it is an outstanding building that has become an icon." The 825,000-square-foot hotel/ train-station complex is directly adjacent to the terminal's south end and is nearly as tall as the terminal's 126-foot-tall peaked roof. To maintain a view of the terminal, Calatrava added a dramatic V-shaped saddle in the center of the hotel, evoking wings in flight.

The open-air train station, on ground level, is covered by a dramatic, vaulted glass-and-steel canopy. From the train platform, commuters can take stairs or escalators to a large plaza, lined with retail facilities and partially covered by another vaulted canopy.

The commuter-rail crossing, located about a mile and a half from the airport, is a tied-arch, steel-and-concrete suspension bridge with a 620-foot span. A box-girder





deck hangs from a single arch by cables and supports flanking orthotropic decks on steel ribs. According to engineer Gabriel Calatrava, Santiago Calatrava's son, the bridge's deck – without train tracks – will most likely be manufactured off-site and then "launched" into place, using temporary supports to limit traffic disruptions on Peña Boulevard.

The bridge and hotel are expected to be completed by

2013. The train station will be completed two years later, and rail service is scheduled to begin in 2016.

Kim Day, DIA's manager of aviation, is counting on the hotel to generate revenue for the airport, in the form of overnight stays, business meetings, retail, and conventions. She also hopes Calatrava's public spaces will lure Denverites to the airport even if they're not flying. "I'm hoping that when this

- 1. A train station and Westin hotel are planned for the south end of the terminal.
- 2. The project also calls for a commuter-rail bridge.

is done," she says, "people will take the train out to the airport on a Sunday, enjoy whatever exhibit we have programmed in the plaza, sit and have a drink, and then go home on the train."

Calatrava agrees. "The buildings," he says, "will create a kind of link between the city and the airport. We are almost exporting the urban quality of Denver into the airport. So that even people who spend five hours at the airport because they have a plane to catch will want to stay here." David Hill



Dr. Phillips Center for the Performing Arts
LOCATION Orlando, Florida
ARCHITECT Barton Myers Associates

Los Angeles-based Barton Myers Associates, with HKS Architects and Baker Barrios Architects, is designing a new, \$250 million home for the Orlando Ballet, the Orlando Philharmonic, and local community groups. The

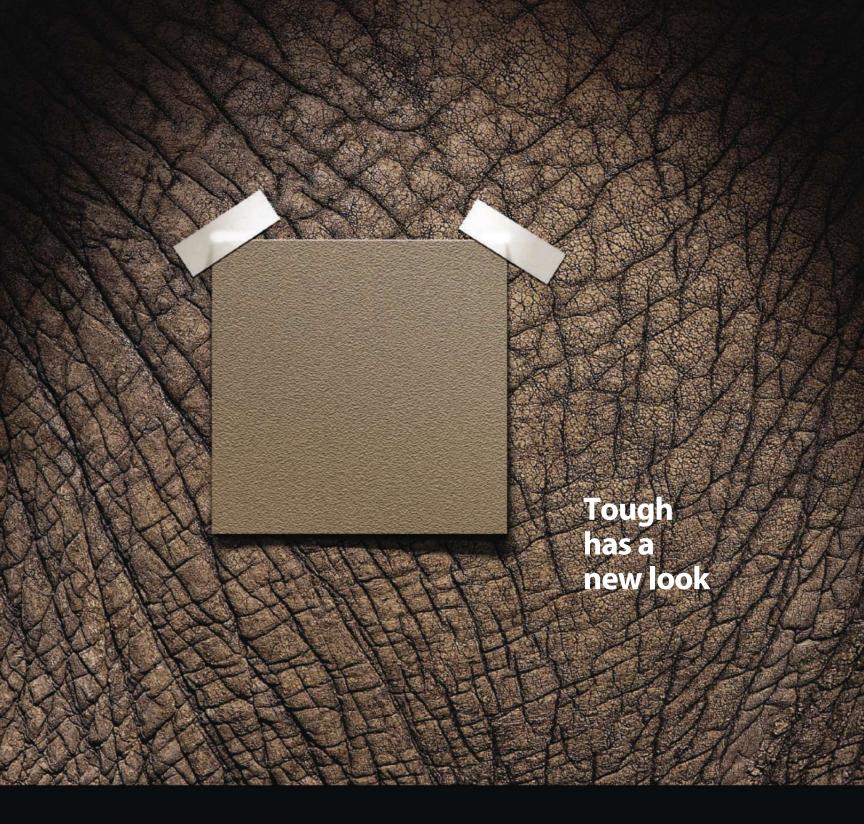
project's first phase includes a 2,700-seat concert hall, a 300-seat studio theater, and nearly 10,000 square feet of multipurpose space. A 1,700-seat venue will be built in the second and final phase. A 1.5-acre public plaza in front of the center will serve as an outdoor performance area, accommodating up to 3,000 people. Ground breaking is scheduled for this fall, with completion planned for 2013.



Signature Center
LOCATION New York City
ARCHITECT Gehry Partners

Frank Gehry is designing a new, \$60 million home for the 19-year-old, off-Broadway Signature Theatre Company. The facility will be located at the base of a 59-story glass tower (by Arquitectonica and Ismael Leyva

Architects) that is now rising at West 42nd Street and 10th Avenue. Signature Center will contain three theaters, along with a shared lobby, dual rehearsal studios, administrative offices, a bookstore, and a café. The theater company originally had planned to move to a freestanding venue at the World Trade Center site but backed out due to costs and complications.





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#### [RETROSPECTIVE]

#### A Golden Anniversary for a Modern Landmark in Utica

**THIS OCTOBER,** the Munson-Williams-Proctor Arts Institute's Museum of Art (MWPAI) in Utica, New York, will celebrate the 50th anniversary of its Philip Johnson–designed home with an exhibition commemorating the work of the illustrious Modernist and Postmodernist architect.

Johnson's design for the museum - a three-

story, 60,000-square-foot box sheathed in dark granite – is credited for introducing Modern architecture to Utica, a quiet town in upstate New York. Located along the Erie Canal, Utica was at the center of American industry when the institute was founded in 1919.

The exhibition, Look for Beauty: Philip Johnson

The museum, located in upstate New York, opened in 1960.

and Art Museum Design, explores Johnson's role as an ambassador of Modern architecture. In addition to the MWPAI, the show will feature Johnson's work for art institutions in Fort Worth (Amon Carter Museum, 1961) and Lincoln, Nebraska (Sheldon Memorial Art Gallery, 1963). Photographs, plans, models, and furniture designs, among other artifacts, will be presented.

Johnson, who died in 2005 at the age of 98, has been in the headlines in recent months. An extensive archive of his work has surfaced and is now for sale (see below); and the Beck House, a Dallas mansion Johnson designed in the '60s, has been restored (by the Texas-based firm, Bodron+Fruit) and was featured this spring in *The New York Times Magazine*.

Mary Murray, MWPAI curator of Modern and contemporary art, says it's a good time to evaluate Johnson's oeuvre. "Since he's been gone for five years," she says, "we can examine his work outside of the magnetism of his dynamic personality."

Look for Beauty will run from October 16 to February 27, 2011. Asad Syrkett

#### [UNCOVERED]

#### Philip Johnson Archive Now for Sale

A FORMER BUSINESS partner of acclaimed architect Philip Johnson (1906–2005) recently unveiled an archive of nearly 25,000 sketches, tracings, and renderings from between 1968 and 1992, a sparsely documented period of Johnson's prolific career.

Raj Ahuja, AIA, the archive's owner, has put the collection up for sale after holding on to it for nearly two decades. While he hopes to keep the archive intact, he sold a 7 1/2-foot hand drawing of the AT&T Building to London's Victoria & Albert Museum in April for \$70,000.

How Ahuja came to own the archive is an interesting story. In 1971, the Indian-born architect joined Johnson Burgee Architects – headed by Johnson and John Burgee – and ran the firm's Iranian office. In 1984, Ahuja became a firm partner. Problems ensued. Johnson stepped down as partner in 1986 and became a design consultant; in 1991, he left the firm altogether.

Ahuja and Burgee also parted ways – and not amicably. Burgee decided to terminate their partnership in 1988, and the two went into arbitration.

In early 1992, the arbitration panel awarded Ahuja \$13.6 million, minus \$1 million previously paid by Burgee as an initial settlement. Shortly afterward, Burgee filed for bankruptcy and Ahuja became a creditor. He accepted the archival material as part of his compensation.

Lawyers Andrew Ross and James Frankel of Arent Fox, who represent Ahuja, report that the meticulously preserved collection includes a wealth of unrealized projects, along with urban plans (an area of design for which Johnson was not known). Among these drawings are a master plan for New York City's Roosevelt Island and a turreted design for the city's Trump Tower. The archive also includes architectural photography by Ezra Stoller and Richard Payne.

However, according to John Burgee, now living in California, the archive is composed mainly of working drawings, design-development drawings, and renderings, not necessarily hand sketches by either Johnson or Burgee. "We did not keep our sketches – Philip and I did not feel they were that good. The sketches were only quick dashes, and Philip wanted them destroyed," says Burgee. "Most were not dated or signed."

Presentation drawings, such as the one executed for the AT&T project, Burgee notes, were not done by the principals, but by draftsmen. "I was so surprised to hear about the value of the one sold to the Victoria & Albert Museum," he says.

The existence of this extensive archive comes as a surprise. While New York's Museum of Modern Art (MoMA), Columbia University's Avery Architectural and Fine Arts Library, and the Getty Research Institute each have Johnson archives, documentation from the later period of Johnson's career is rare.

Ahuja's collection is currently being stored in a New Jersey vault.



Hand-drawing of the AT&T Building.

As for potential buyers, Ross says, "I can confirm we've had calls of interest," but declined further comment. Asad Syrkett and Suzanne Stephens



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#### [ NOW SHOWING ]

#### "City Beautiful" Comes Alive in Daniel Burnham Documentary

**AFTER THE OVERREACHING** of Modern city planning – barren plazas, rows of soulless apartment slabs – urban design got a bad rap. But as suggested in the documentary *Make No Little Plans: Daniel Burnham and the American City*, when ambitious visions are tempered with civic sensitivity, great things can happen.

The film, which premieres nationally on PBS on September 6 (check local listings for times), recounts the life of Chicago architect Daniel Burnham (1846–1912), famous for designing the Flatiron Building in New York, Union Station in Washington, D.C., and the landmark 1909 master plan for Chicago. He pioneered the skyscraper form, then introduced the City Beautiful movement to cities across the United States and the Philippine Islands; along the way, he practically invented not only the large, corporate architecture firm, but also the very discipline of urban planning.

Judith Paine McBrien, the writer, director, and producer of the documentary, has developed several films about Chicago, and she found that Burnham kept coming up in each one. "A lot of people in Chicago know the name," she said, "but you get outside the Midwest and people aren't as familiar with what he's done." With the Plan of Chicago's centennial occurring in 2009, the time was ripe to revisit his work. In fact, the film was shown last September in Chicago's Millennium Park, along the lakefront that







Among Burnham's well-known projects are the Flatiron Building in N.Y.C. (1) and Union Station in Washington, D.C. (2). Burnham (3), who died in 1912, also conceived the 1909 Plan of Chicago.

Burnham was instrumental in preserving.

With drawings, archival photos, contemporary footage, and a fly-through animation of the "White City" at the 1893 World's Columbian Exposition in Chicago, the documentary examines Burnham's architectural achievements. But his legacy extends beyond the built environment. He identified with the Progressive movement, and the film emphasizes some of the social programs he suggested in an early draft of the Chicago plan. He also gave freely of his time and wealth. "There are a lot of architects and planners who have looked beyond their own offices," says Tomas S. Hines, a UCLA professor of history and architecture and Burnham's biographer. "But no one to my mind has yet come up to Burnham's generos-

ity as a philanthropist and a leader of causes, and as a founder of institutions," such as the American Academy in Rome.

"Burnham was interested in the city not only as a physical artifact," says Howard Decker, FAIA, a planner and project director with Ehrenkrantz Eckstut & Kuhn Architects, "but as a social and cultural artifact." Decker, who appears on-camera, notes that Burnham addressed many of the challenges that face architects and planners today: population growth, sprawl, environmental degradation. "It's another reason to go back and look at the city Burnham was interested in – it's the city before the Modern city. Maybe it's an appropriate model to undo some of the damage we've done." Carl Yost

#### [SILVER SCREEN]

#### Demolished Bucky Fuller Dome Subject of New Film

#### **HOW COULD A BUILDING**

that combined the genius of Buckminster Fuller and the power of the Union Tank Car Company become obsolete in little more than 10 years? That is the question posed by filmmaker Evan Mather in his recently released, 30-minute documentary, A Necessary Ruin: The Story of Buckminster Fuller and the Union Tank Car Dome.

Built by the Chicagobased Union Tank Car Company, which manufactured railroad cars used to transport petroleum, the steel, geodesic dome was completed in 1958 in a field north of Baton Rouge, Louisiana. With a diameter of 384 feet, it was the largest free-span structure in the world at the time and was considered an engineering marvel.

By late 1960s, however, the company no longer needed the building and moved out. After sitting vacant for years, the dome was razed in 2007, one year before it was eligible for the National Register of Historic Places. "This was supposed to be a world-famous piece of architecture," says Mather, "and here it was a

genuine ruin rusting away in the wilderness." Mather's film sounds a cautionary note about imperiled Modern-era structures and the often prohibitive costs of maintaining them.

A Necessary Ruin
premiered in March at the
National Building Museum.
This month, screenings are
scheduled for New Orleans,
San Francisco, and Asheville,
North Carolina; DVDs are
also available. For information, visit www.handcraftedfilms.com. Shawn Kennedy



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THE

# AGES: © ARCHITECTURE OMI (TOP); DAVIS BRODY BOND (BOTTOM)

#### Beijing's Water Cube Reopens

Earlier this month, after almost a year of reconstruction, what is being touted as Asia's largest water park opened inside the bubblelike ETFE walls of Beijing's National Aquatics Center. The building, commonly known as the Water Cube, was designed by Australian architecture firm PTW and China Construction Design International as the site of aquatics events during the 2008 Olympic Games. It still contains pools for recreational swimming and competition, but now it also houses a 140,000-square-foot leisure hall created by Toronto-based planning and design firm Forrec. The park has cotton-candy-colored jellyfish suspended from the ceiling and attractions that include a wave pool, a 500-foot-long "lazy river," a nearly vertical slide that guests enter via a launch capsule, and a 45-foot-wide funnel slide called "the tornado." *Joann Gonchar* 

#### SCAD Names Brito Architecture Dean

The Savannah College of Art and Design (SCAD) has hired Heriberto J. Brito to head its School of Building Arts. He replaces Brian Wishne, who will now chair the school's urban design department. Brito previously taught at Miami International University of Art and Design while running his 20-year-old practice, Brito LLC, which specializes in historic rehabs. Assuming the deanship marks a return to SCAD for Brito: He formerly taught there and created the historic preservation program for the school's opening in 1979. C.J. Hughes

#### [ON VIEW]

# New Program Probes Intersection of Architecture and Sculpture

FROM A DISTANCE, interfere(nce) looks like a sculpture. Step closer, though, and the plywood structure tempts you to step inside to examine its sloped walls and jaggedly framed views of the surrounding fields and forest. Is it sculpture or architecture? That isn't an easy question to answer, which is why interfere(nce) is the perfect debut piece for Architecture Omi, a new program in Ghent, New York, devoted to fostering work that probes the intersection of architecture, sculpture, and landscape.

The program's 75-acre site is part of the Omi International Arts Center, which also owns an adjacent 150-acre sculpture park. Organizers emphasize that Architecture Omi is not simply an architectural version of a sculpture park; instead, it is a laboratorylike setting where designers of various disciplines



ABOVE: interfere(nce), by Oliver Kruse, et al.

can stretch their imaginations and tread on each other's turf. An open call for proposals spans a wide range of categories, from monument-scale structures to earthworks.

For any architect who has envied the creative freedom of artists, the experimental ethos is alluring. "You don't get to play out original ideas and abstract concepts for clients," remarked board chair Lee H. Skolnick, a New York architect, at a May 2010 panel at New York City's Center for Architecture. Architecture Omi offers "the chance to really explore ideas" in the actual landscape.

The program had its early beginnings in 2008 and is now kicking into full gear. In June, interfere(nce) – created by Oliver Kruse and collaborators from the Peter Behrens School of Architecture in Düsseldorf - was installed. Soon thereafter, Light Works, a double colonnade of glowing, 10-foot-high Plexiglas columns by Simon Ungers, went on view. Other projects will be more fleeting interactions with the natural world. For instance, Chicago-based artist Michael Rakowitz is planning a full-scale re-creation of the base of the Saddam Hussein statue in Baghdad after it was toppled. Rakowitz's rendition will be made of birdseed, so animals "will peck away and gnaw at the remnant of the monument, making it complete only through further ruination," says the artist.

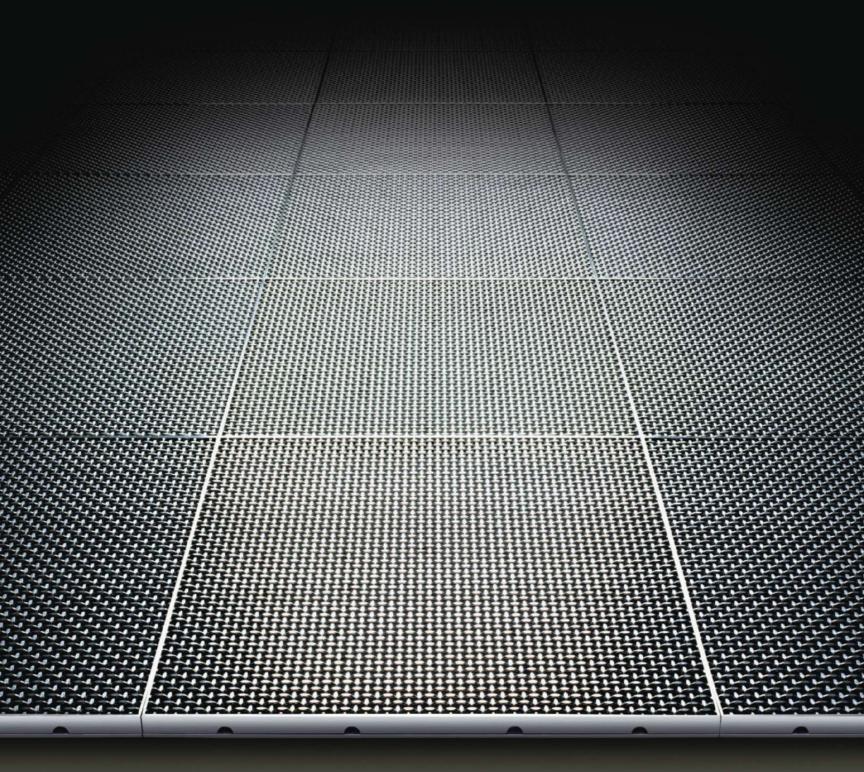
Pieces like Rakowitz's might seem more sculptural than architectural, but that depends on your perspective. "If you go way back to the Renaissance and other periods and places," says Skolnick, "architects were sculptors and artists. It wasn't just about making buildings." Lisa Delgado

#### [ GROUND ZERO ]

#### Work Under Way on 9/11 Museum



Designed by Davis Brody Bond Aedas, the National September 11 Museum at the WTC site is on track to open in 2012. The 120,000-square-foot, subterranean building will contain remnants from the Twin Towers, including an exposed slurry wall and a steel column that became an impromptu memorial. Visit us online to read more.



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#### [NEWSMAKER]

#### Playwright June Finfer

Some years back, the Chicago-based playwright and filmmaker June Finfer discovered stories about architecture to be packed with drama, and increasingly focused on this topic in her work. Her play, The Glass House, a quasi-fictional account of the story behind Ludwig Mies van der Rohe's Farnsworth House, has been staged at various venues, including the terrace of the Farnsworth House. Most recently, the Resonance Ensemble Company performed a short, sold-out run in New York City. Finfer hopes the play will be presented at other theaters across the U.S.; in the meantime, she's working on a new musical about Daniel Burnham. RECORD's Suzanne Stephens recently spoke to Finfer about the making of *The Glass House*.

#### AR|Suzanne Stephens: How did you become fascinated with architecture and Ludwig Mies van der Rohe?

June Fincher: My (late) husband had studied at IIT when Mies was there. So I heard a lot of stories about Mies and the group who came to Chicago from Germany just before the WWII. I was impressed that so much good architecture was being done because of Mies, his vision, idealism, and dedication. I began making documentaries on his work. The first was in the 1990s on Mies's Lafayette Park housing [Detroit, 1956]. It focused on the work by Ludwig Hilberseimer, Mies, and the developer Herbert Greenwald. After that, I made one on the Tugendhat House [Brno, Czech Republic, 1930] and then the Farnsworth House [Plano Illinois. 1951]. The one on the Farnsworth was actually commissioned indirectly by its owner at the time, Peter Palumbo, and focused on the origin of house, as well as his art collection.

#### When did you start working on the play?

Actually, I started some time ago and, in the meantime, did a lot of research on Mies. And naturally I found Philip Johnson interesting as well. The relationship between Mies and Johnson was so complex. I thought he would be a good action figure in the play. You can't just have people talking. Then I found that Lora Marx, Mies's companion for over 30 years, started drinking a lot when he got the commission from Edith Farnsworth. So I decided to dramatize possible encounters

between the two. Farnsworth and Mies had such a bitter separation, I thought there had to be more than to it than the design of the house.

There are elements in the play that are true. And then there are a lot of things that could be true, but aren't verified. What did you base your research on?

I read a lot, including Franz Schulze's biography [Mies van der Rohe, a Critical Biography, 1985], and he gave me permission to use some dialogue. Also, I read Edith Farnsworth's unpublished memoirs. They were written many years after the fact and were very bitter recollections. For example, she wrote in her memoirs, "He [Mies] never wanted a client, he wanted a dupe."

#### You mentioned you worked a long time on the play, with various readings.

I presented it in readings at the Chicago Arts Club, the Chicago Art Institute, IIT, and even at the Farnsworth House, with a Chicago cast. As I heard it more and more, I cut it down and modified it.

#### How did it come to New York City for the recent run?

Kyle Bergman, the brother of the director Evan Bergman, is an architect and was planning a documentary film festival. I submitted my documentaries, which he liked, and I mentioned the play. He sent it to his brother, and they both wanted to option it. I have had other plays produced in Chicago, but this is my best so far.



Why did you name your play about Mies and the Farnsworth House. "The Glass House," when Philip Johnson's house was already called that?

I didn't know Johnson's house was known as the Glass House, But, of course, the play is about both houses.

Harris Yullin, who played Mies, and David Bishins, who was Philip Johnson, were so good in their characterizations. Did they do much research into the lives of the two architects?

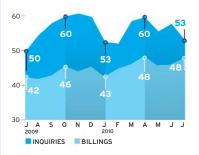
I devoted a short section of the documentary on Lafayette Park to Mies, and gave it to Yullin. Bishins didn't do much research, but had been involved in the readings and came up with his own take. By the way, two of Mies's grandsons – one, the architect Dirk Lohan from Chicago – came to see the play and said Yullin really captured Mies's mannerisms.

#### What is your next play or documentary?

My newest work is a musical called White City about the 1893 World's Fair in Chicago. I'm working with Elizabeth Doyle, a Chicago composer, and it will have a ragtime sound. I have a song "Never Marry an Architect" in it. The musical focuses on Daniel Burnham, John Root, Harriet Monroe, and Frederick Law Olmsted, and also goes into the origin of city planning. So far, we've given a couple of concert performances in Chicago.

#### **Billings Uptick**

The architectural billings index rose to 47.9 in July, up nearly two points from June's 46.0. The inquiries score, however, dropped to 53.1 from 57.7. "Business conditions at design firms remain quite volatile," said AIA chief economist Kermit Baker. The ABI reflects an approximate nine- to 12-month lag time between architectural billings and construction spending.



#### [OBITUARY]

#### **JOHN ROGERS**

John B. Rogers, FAIA, cofounder of the firm RNL Design, died on July 12 at the age of 88. A Kansas native and World War II veteran, Rogers held degrees from Kansas State University, the University of Texas, and the University of Colorado. RNL was established in 1966 and today has 250 employees, with offices in Denver, Los Angeles, Phoenix, and Dubai. Rogers's notable commissions include the Colorado Supreme Court Building and the Colorado History Museum. One of his three sons, Rob, has carried on the architectural tradition as principal at New York-based Rogers Marvel Architects. Melissa Leslie

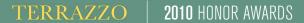


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Architect Perkins & Will Atlanta, Georgia



#### SHO SHAUN HERGATT RESTAURANT

New York, New York





Architect
Avinash K. Malhotra
New York, New York

Designer/Artist
Denniston Int'l
Architects & Planners
Kuala Lumpur, Malaysia



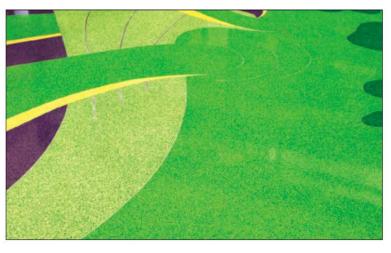
#### CHILDREN'S MERCY HOSPITAL

Kansas City, Missouri





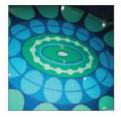
Designer/Artist
Donald (Scribe) L. Ross
Hospital Graphic Artist
Children's Mercy Hospital
Kansas City, Missouri







#### San Francisco, California





Architect
Page & Turnbull, Inc.
San Francisco, California

Designer/Artist
Rockwell Group
New York, New York



#### CHILDREN'S HOSPITAL OF WISCONSIN

Wauwatosa, Wisconsin





Architect
Shepley Bulfinch
Boston, Massachusetts
Designer/Artist
Shepley Bulfinch
Boston, Massachusetts



# HCC STAFFORD LEARNING HUB AND CLASSROOMS

Stafford, Texas



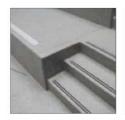


Architect
Hermes Architects
Houston, Texas
Designer/Artist
Hermes Architects
Houston, Texas



#### GOUCHER COLLEGE ATHENAEUM

Towson, Maryland

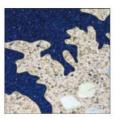




 $\begin{tabular}{ll} $Architect \\ RMJM \\ Princeton, New Jersey \end{tabular}$ 

## SPRINGFIELD-BRANSON NATIONAL AIRPORT MIDFIELD TERMINAL

Springfield, Missouri





Architect
Reynolds, Smith and Hills, Inc.
Jacksonville, Florida
Designer/Artist
Reynolds, Smith and Hills, Inc.
Jacksonville, Florida
Connie Turner Interiors, Inc.
Jacksonville, Florida



#### TIDEWATER COMMUNITY COLLEGE

Portsmouth, Virginia





Architect
Burt Hill Architects
Washington, DC



#### FREDERIK MEIJER GARDENS & SCULPTURE PARK

Grand Rapids, Michigan





Designer/Artist Michele Oka Doner New York, New York



#### ORANGE COUNTY CAR BARN

Fountain Valley, California





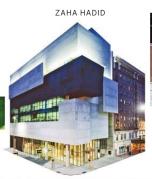
Architect
Calvin L. Smith
Associates, Inc.
Laguna Beach, California

Designer/Artist
Calvin L. Smith
Associates, Inc.
Laguna Beach, California



#### **ENCOUNTER**









## Hot in Cleveland

TALK TO MOST ARCHITECTS IN OHIO and they'll tell you it's a pretty conservative place. But while design innovation may be a hard sell for local architects, the state has had an astonishing track record in the last decade for giving cutting-edge foreign architects their first shot at building on American soil, arguably more so than more "forward-thinking" locales on either coast.

When the Toledo Museum of Art picked this year's Pritzker Prize winner, SANAA, to design an ethereal Glass Pavilion in 2000, it gambled on a young firm known by very few people outside of Japan. Cincinnati's Contemporary Arts Center was the first built project in the United States by London-based Zaha Hadid, who won the Pritzker shortly after completing that building in 2003.

The Akron Art Museum gave Austrian firm Coop Himmelb(I)au its first chance to erect its clashing, gravitydefying forms in the U.S. in 2001. The Wolfe Center for the Arts at Bowling Green State University will be Oslo- and (now) New York-based Snøhetta's first built project here when it is completed at the end of this year. Finally, plans for an expansion of the Cincinnati Art Museum, announced a couple of years ago, are moving forward. The new building would be the first in the U.S. by Rotterdam-based Neutelings Riedijk.

Now add Cleveland to the list. In July, the city's Museum of Contemporary Art unveiled a design by the Londonand Barcelona-based Foreign Office Architects. The boxy structure is the firm's first in the U.S., and its first museum.

Here's hoping the openness to daring design shown by these large cultural institutions will influence more clients and encourage daring design from local office architects. Josephine Minutillo

#### SANAA

Glass Pavilion at the Toledo Museum of Art, completed 2006.

ZAHA HADID ARCHITECTS **Cincinnati Contemporary Arts** Center, completed 2003.

COOP HIMMELB(L)AU

Akron Art Museum, completed 2007.

SNØHETTA

Wolfe Center for the Arts, Bowling Green, Ohio, under construction.

FOREIGN OFFICE ARCHITECTS

Cleveland Museum of



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### Studio H:T





**PRINCIPALS:** Christopher Herr, **Brad Tomecek** 

THE EMERGING ARCHITECT

LOCATION: Boulder, Colorado

**FOUNDED: 2005** 

**DESIGN STAFF:** 5

EDUCATION: Herr: San Francisco Conservatory of Music, San Francisco, Bachelor of Music, 1992; University of Florida, Gainesville, Fla., M.Arch., 1999; Tomecek: University of Florida, Gainesville, Fla., B.A. Design, 1996, M.Arch., 1998

#### **KEY COMPLETED PROJECTS:**

2002 Alpine, Boulder, 2010; Shipping Container House, Nederland, Colo., 2010; 32nd Street Modular, Denver, 2007; Box House, Boulder, 2005

#### **KEY CURRENT PROJECTS:**

303 Canyon, Boulder, 2011; Broadway Granary, Boulder, 2012; Motorsports Country Club Events Center, Limon, Colo., 2012

WEB SITE: studioht.com



WHEN CHRISTOPHER HERR AND Brad Tomecek met at the University of Florida, Gainesville, they discovered a serious difference between them: Herr had a degree in classical French horn, and Tomecek played guitar and was going through a heavy-metal phase. But the two, who were pursuing M.Arch. degrees, didn't let that musical disparity override their shared philosophy about architecture and design. Now coprincipals of five-year-old Boulder, Colorado-based firm Studio H:T, they operate with what Tomecek calls "the ping-pong effect." "Design, for us, is so much about the process and the conversation," he says. "Our firm is very collaborative, and we find that we always get farther, faster because of the back and forth – the energy flow."

With a furniture showroom and several

residences completed - including multifamily units – several regional AIA awards, and a handful of residential and commercial projects on the boards, the firm is finding farther and faster is what keeps them busy and challenged. They're also quite proud of their work with the University of Colorado, Denver, where they co-taught an advanced design-build studio that recently completed two pavilions made of salvaged and donated materials for an urban farm and agricultural education group.

The architects enjoy working with students

ABOVE AND RIGHT: Split into two halves, the Fracture House uses the fissure as a focal point to organize its circulation.







LEFT: This modular, 2,750-square-foot house, on track for LEED Silver certification, was conceived as two boxes that slide over one another to create outdoor living space and a lower covered rear entry.

because it was through their own experience as students that they acquired a love of design. Herr, a Colorado native, came to architecture via music: from the French horn into the world of acoustics, then on to a larger study of design. He moved to Florida to study under acclaimed acoustics professor Gary Siebein. Tomecek, who is from Orlando, followed a more straightforward path into the realm of architecture. "I was always drawing things that I wanted to make," he says. "My earliest memory of architectural styles was on a visit to Disney World. It wasn't until many years later that my education would reveal the climate, materials, and cultures that informed the regionalism and character of those places." His childhood got him thinking about the built environment, and he's never stopped. "The experience of place, how you move through spaces, and creating memorable places, that's my interest," he says.

Herr moved back to Colorado and "pursued the struggle" as he says, finishing his thesis, rock climbing, bartending, playing the French horn. Tomecek came to visit and staved. They each worked for various respected Colorado firms, and they continued their conversations about architecture, eventually sharing an office space to pursue individual projects. Then they took the plunge and created Studio H:T in 2005. Now a team of five, Herr and Tomecek say they are excited about new building technologies and committed to finding new ways to apply them. They recently completed a LEED Platinum house that uses a German ecopanel system, as well as a house made of shipping containers, but they're not eager to be pigeonholed. "I don't know that I want to be an 'ist,' " says Herr. "If I must be, I suppose I'm a 'situationist.' "Tomecek goes further. "We're excited about modular, but we don't want to be known as the 'modular guys' or the 'German-panel guys,' " he says. They feel the same way about issues of sustainability. "Sustainability is just about being ethical," says Herr. "It's a given that we would design that way. It doesn't come from a bag of tricks." Tomecek agrees, and ping-pongs back, "You get good at what you practice." Ingrid Spencer

#### [ STUDENT COMPETITION ]

#### Solar Decathlon Goes Abroad

AFTER FIVE U.S.-BASED competitions, the Solar Decathlon went to Madrid this year through an agreement between the U.S. government and the Spanish government's Ministry of Housing. Seventeen solarpowered residences were assembled on a vast dry stretch of land lining the Manzanares River, west of the Royal Palace in Spain's capital city. Students from universities around the world raised funds for the projects, and conceived, designed, built, and marketed them. The Solar Decathlon serves as a learning lab, where students are judged in 10 categories, challenging them to think holistically about design. Among the areas that are critiqued are architecture, engineering, energy performance, communications, and market viability. Next year, the competition will add affordability to the mix.

This internationally known competition began in the U.S. in 2002, the brainchild of the Department



#### VIEW SLIDESHOW

See houses and images of the Solar Decathlon Europe event.

of Energy's Richard King. He was frustrated at the slow deployment of solar technologies in the marketplace and sought a means to educate consumers and aspiring designers about them. In the inaugural year, 14 teams from the U.S. and Puerto Rico competed, their houses occupying the National Mall in Washington, D.C. This year, competitors included one U.K. team and four Spanish, two U.S., two French, three German, and

RIGHT: The 17 houses flank the Manzanares river, on what was once a highway. Pictured in the center is Lumenhaus, the winning project from Virginia Tech.

two Chinese teams, marking a major transition of the program to global participation.

THE EMERGING ARCHITECT

The enthusiasm of the students was palpable during this year's event, which was attended by 190,000 visitors. King, who has watched the program grow from its infancy, says its beauty lies in "its iterative progression. The teams come together and learn from each other what is successful. Then, the

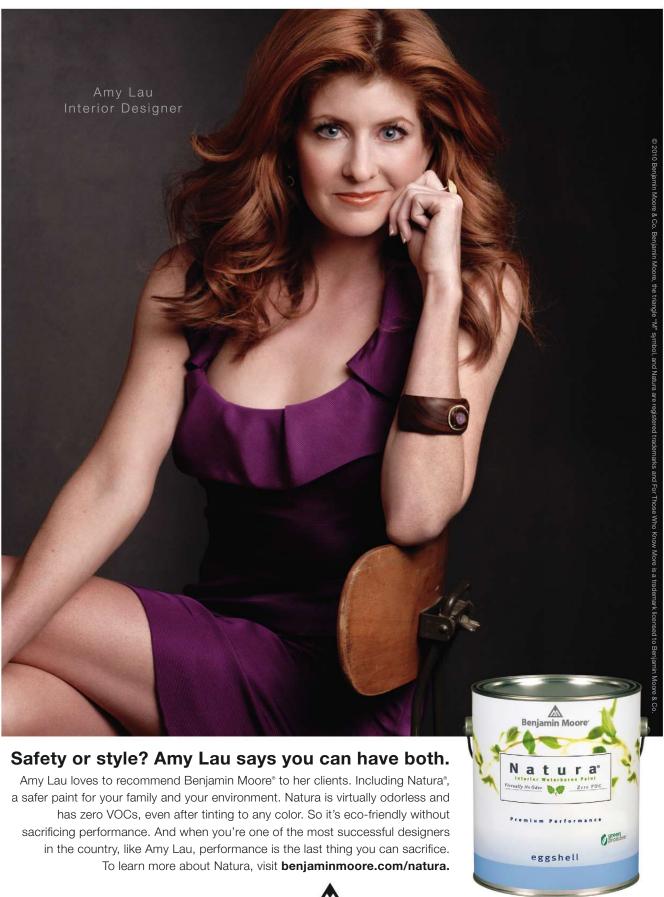
new generation of teams takes these lessons, goes back to the drawing board, and tries to create better homes."

Next year's U.S. competition will include newcomers from North America, as well as Hawaii, New Zealand, and Belgium, demonstrating the expanding international interest in the program. Spain and the U.S. will continue to host the competition in alternate years. Jane F. Kolleeny











## Architecture, Inside and Out



Re:Crafted – Interpretations of Craft in Contemporary Architecture and Interiors, by Marc Kristal. Monacelli, 2010, 208 pages, \$50.

The 25 projects by the famous and the unknown gathered here by Marc Kristal, a New York journalist and screenwriter, make for a dizzying and incoherent potpourri. Ranging from Snøhetta's Oslo Opera to a safari lodge in South Africa and a coffee shop in the East Village, these curiosities do not make a credible case for "the craft influence in contemporary architecture and design."

Craft, Kristal admits, is "subject to multiple, sometimes subjective definitions." Recalling Supreme Court Justice Potter Stewart, who famously opined that he could not define pornography, Kristal knows craft when he sees it. He recognizes Nakashima furniture, George Ohr pottery, and Fabergé eggs as craft, and notes that the craft of architecture "can perhaps be found in the appropriately named Craftsman style," as well as William Morris.

Kristal's attempts at describing changing definitions of craft – such as, "Now more than ever, architects and designers are crossing aesthetic borders, and redefining craft to suit their own creative needs, philosophies, and expectations" –

cannot obscure the feeling that he scattered a box of photographs of architecture from the last decade and swept them up into a book.

A true theme never emerges. But in spite of itself, Re:Crafted offers a look at some fabulous designs by Rick Joy. Office dA. Heatherwick Studio, and Tom Kundig, along with intriguing and strong work by offices with names like D.I.R.T. Studio, Studio Junction, and Atelier d'Architecture Kina Kona. Best of all is the Mobile Chaplet, a lowbudget chapel composed of thermoplastic composite rods mounted on a trailer. This whimsical work by North Dakotans Moorhead & Moorhead acknowledges the "personal touch found in the sometimes bewildering or inhospitable terrain of the contemporary aesthetic landscape." William Morgan

The SANAA Studios 2006–2008: Learning from Japan: Single Story Urbanism, edited by Florian Idenburg. Lars Mueller Publishers, 2009, 144 pages, \$45.

Where can we say architecture is today? Pluralism? Neo-Modernism? Parametricism? Other made-up words? The work of Tokyo-based SANAA – led by 2010 Pritzker Prize recipients Kazuyo Sejima and Ryue



Nishizawa – suggests a less anxious approach. Their quiet white surfaces and ethereal structures remain inscrutable yet consistently admired. Why this style, and why now?

This collection of essays and projects offers some answers. It is an uneven book, with lapses in detail (layout, copy editing) that, if translated into architectural terms, would easily ruin any one of SANAA's delicate buildings. Editor Florian Idenburg, who served as project architect for the firm's New Museum in Manhattan (but now has his own practice), is too wordy and too present – having contributed an introduction and an essay, and participated in both of the book's interviews.

Beyond that, however, the essays begin to unravel SANAA's work in a meaningful way. Sanford Kwinter questions the firm's unrelenting reticence - what he calls Sejima and Nishizawa's "studied withholding of intellectual or sensual declarations of ambition for the work." Michael Wang examines the psychological implications of SANAA's mute forms and surfaces. And Stan Allen begins to extricate SANAA's understanding of architecture from its overdiscussed aesthetic tendencies. Seeing "dirty realism" in SANAA's rarefied buildings, Allen writes, "They strip things down, not to arrive at some irreducible truth or to offer a corrective to an imperfect world, but to construct a new form of complexity, a complexity truly adequate to the strange artificial reality of the world today." Aleksandr Bierig

#### Hariri&Hariri Architecture, by

Gisue and Mojgan Hariri. Images Publishing, 2010, 256 pages, \$80. In an introduction to this monograph on her firm, Gisue Hariri writes: "If architecture is ultimately the articulation



and manifestation of our experiences, then we should see vast differences in how each gender designs."

Unfortunately, this volume of mostly paper projects designed since the turn of this century does not articulate and manifest Hariri's experiences. It does, however, offer a slickly produced but experientially empty collection of renderings, most of which never made it off the screen. Partly because of the economy, some of the more elaborate schemes - a Minority Report-style experimental film center for Brooklyn; a vertical museum of 21st-century art in New York; 9/11-commemorating towers in Lower Manhattan that literally weep sprinkler-system tears - will probably never see the light of ground breaking.

The Hariris have done some stellar work: Their Wilton, Connecticut, Pool House is a fascinating study in landscape and framing, and the Salzburg Residential Complex, which opens the book, is an intriguing look at the relationship between diagram and architecture, site, and location. They also have some stellar ideas, judging from Hariri's personal, idealistic, and articulate introduction. Unfortunately, to quote the Rumi line that launches the book, most of the projects here seem as though they "came whirling out of nothingness, scattering stars like dust." Eva Hagberg







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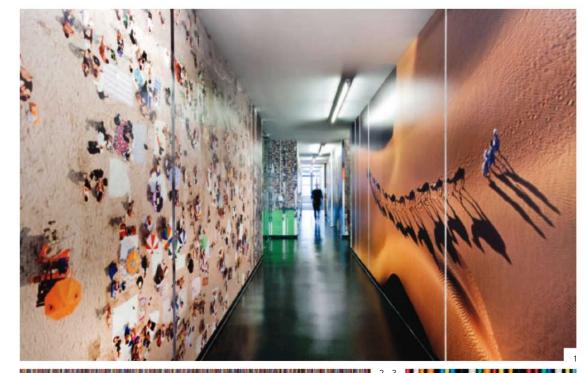
## **Vertical Integration**

Designtex invigorates walls with a suite of products that meld artistry with advanced digital technology.

BY JEN RENZI

IF WALLS COULD TALK, they would probably beg to be dressed up in something with visual impact that was one-of-a-kind. Such is the inspiration behind Designtex's digitally printed, customizable wall coverings. Launched this spring, the company's Digital Walls program has the capability to inkjet-print bespoke imagery - logos, photos, environmental graphics – on a variety of ecofriendly substrates. Ideal for vertical applications ranging from acoustic panels to signage, the technology has been used to envision immersive, branded environments for hotels, hospitals, boutiques, and offices – including (appropriately) the New York headquarters of Corbis Images.

Now the company is utilizing the technology to launch a made-toorder wall-covering collection, debuting this month. Called Rinekwall for Designtex, the line was developed with California-based photographer John Rinek and his business partner, interior designer Dana Agamalian. "The project happened organically," explains Designtex marketing director Caroline Vaughn. "John and Dana approached us as customers, looking for sustainable substrates on which to print his photographs large scale, and we embraced the opportunity for collaboration." Adapted from Rinek's vast image library, the 22 photorealistic patterns range from impressionistic florals to computer cables. The Type II wall coverings are printed with UV-curable inks on matte-finished, PVC-free Duraprene and customized to match the dimensions - and aspirations - of each installation. Designtex, New York, NY. www. designtex.com. circle 200







- 1. Digital Walls prints custom imagery on sustainable substrates to envision floor-toceiling installations.
- 2. Wired, from the Rinekwall collection.
- 3. The source material for Wired: a photo of computer cables.

3 | PRODUCT Suzanne Tick Markerglass MANUFACTURER Skyline Design

low-VOC, water-based finish. The product offers ample flexibility: Panels glue onto walls or apply as a frameless system, and can be specified with an optional

magnetic backing or tempered

custom dimensions up to 72" x

144". CIRCLE 203

glass. In three standard sizes plus

Materials guru Suzanne Tick's Markerglass line targets corporate, health-care, and hospitality spaces. The nine graphic patterns are printed on PPG's low-iron Starphire glass and back-painted with a

skydesign.com



1 | PRODUCT SoundScapes Acoustical Clouds and Canopies MANUFACTURER Armstrong armstrong.com/shapes

Architects seeking decorative, spot-acoustic solutions can now specify SoundScapes in custom colors and shapes. Adjustable to desired heights and angles, the quick-to-install clouds and canopies can be suspended from exposed structures, attached to drywall ceilings or walls, or mounted below existing suspended ceilings. They can hang individually or cluster to form lively compositions. CIRCLE 201



4 | PRODUCT Ecophon Master Solo S Ceiling Panels MANUFACTURER CertainTeed certainteed.com/products/ceilings

Made of high-density fiberglass composed of 75% recycled content, these sound-baffling panels suspend from wires for easy installation and seamless integration with lighting systems. Painted edges and clean profiles allow them to be hung at various angles. The Class A fire-rated product features a 0.95 NRE and an Akutex finish that boasts 85% light reflectivity and 99% light diffusion. CIRCLE 204



2 | PRODUCT Shape & Form MANUFACTURER Graham & Brown grahambrown.com

The Shape & Form collection comprises eight monochromatic wall coverings in crisp geometrics like the cubist Checkers (above). Wall coverings are embellished with subtle three-dimensional textures, and many pair matte and glossy finishes for a shimmering play of light and shadow. Each pattern comes in seven colorways and is sold in 20.5" x 32.8' rolls. **CIRCLE 202** 



6 | PRODUCT Lavawood Day and Night MANUFACTURER Livinglass

livinglass.com

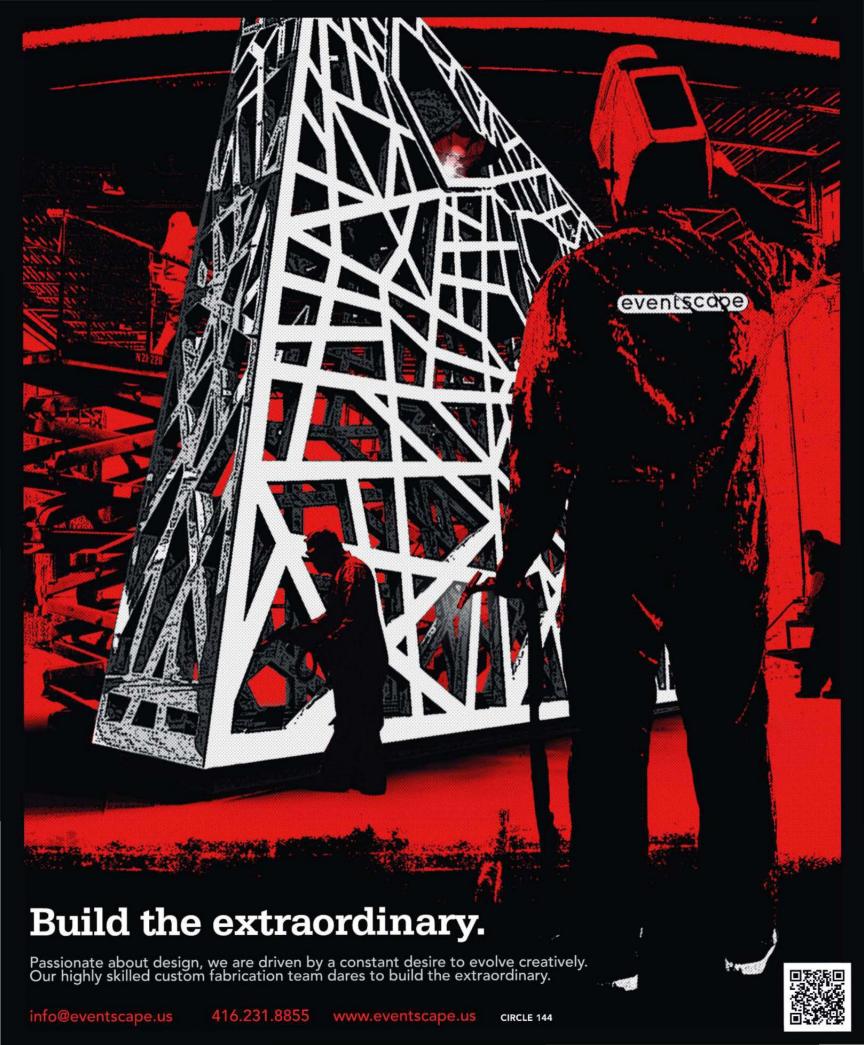
The Lavawood series encapsulates cork veneer (stabilized in recycled sheet resin) within 100% recycled, laminated safety glass. The lightweight, antimicrobial product can be specified with an antislip coating for ADA compliance. Plus, the Class A fire-rated material resists impact, UV rays, water, and chemicals. Available in custom sizes as well as curves, in radii from 40° to 330°. CIRCLE 206



5 | PRODUCT Invisible Lightswitch MANUFACTURER Forbes & Lomax forbesandlomax.com

The British manufacturer enters the U.S. market with a new series of flush and screwless light switches, dimmers, and outlets. Finish options include stainless steel, antique bronze, unlacquered brass, and nickel silver – as well transparent acrylic, which allows an uninterrupted view of specialized wall finishes behind. CIRCLE 205





#### PRODUCTS IN BRIEF

Multitasking architects have long moonlighted as product designers, collaborating with big-name manufacturers to launch everything from kitchens and baths to glass and furnishings.



1|PRODUCT Museum
Chair by Andre
Kikoski
MANUFACTURER Ligne

**Roset**Iigne-roset-usa.com

New York architect Andre Kikoski unveils the Museum chair for Ligne Roset. Talk about artsy cred: The swiveling seat, which floats a tufted cushion on a chromedsteel base, was originally designed for The Wright at the Guggenheim (see page 88) and is showcased in his design for the model apartment of 1280 Fifth Avenue - a residential tower above Manhattan's Museum for African Art. CIRCLE 207

3 | PRODUCT **NEA by Chi Wing Lo**MANUFACTURER **Giorgetti**giorgettiusa.com

Giorgetti's modular NEA system was designed by Hong Kong-born, Athens-based architect Chi Wing Lo. Available as a three- or four-shelf tower, the 31"-wide units group together for use as bookcases, retail displays, and even room dividers. The poplar-plywood frames are veneered in natural or dark-painted walnut; shelf interiors come faced in white-painted fiddleback sycamore for contrast. Bronze feet on the solid-walnut base adjust for leveling. CIRCLE 209





Designed by Matteo Thun in collaboration with Antonio Rodriguez, the aptly named Kitchenette integrates a refrigerator, dishwasher, cooktop, and sink into an elegant unit that could easily be mistaken for a credenza. Conceived with small, open-plan residences in mind, the compact cookery would work just as well as an auxiliary kitchen in a guest house, family room, showroom, or corporate office. The 94.5"-long lacquered unit comes with painted-glass doors. CIRCLE 208



4 | PRODUCT Robert A.M. Stern Collection for Bendheim MANUFACTURER Bendheim bendheim.com

Robert A.M. Stern continues his expansion into product design with a line of acidetched glass for Bendheim, produced by OmniDécor of Italy. The four patterns – which include the sinuous Merletto (shown) – are etched on both sides of ultraclear, low-iron float glass featuring a noncoated surface that resists fingerprints and stains. Glass is available in  $\frac{1}{4}$ ",  $\frac{3}{8}$ ", and  $\frac{1}{2}$ " thicknesses, in sheets up to 88.5" x 126". Special-order colors and/or mirror-backing are also available. **CIRCLE 210** 



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6 | PRODUCT +ARTESIO by Hadi Teherani MANUFACTURER Poggenpohl poggenpohl.com

The German architect Hadi Teherani rethinks the kitchen as a holistic extension of living spaces by introducing a system designed to integrate with surrounding architecture. +ARTESIO encompasses cabinets, walls, floor, furnishings, and even a ceiling canopy that incorporates lighting, ventilation, and audio. Detailed with a stainless-steel ribbon, the cabinetry and wall designs are based on a 5" incremental-height module that unifies fronts and sides for a seamless installation. CIRCLE 212

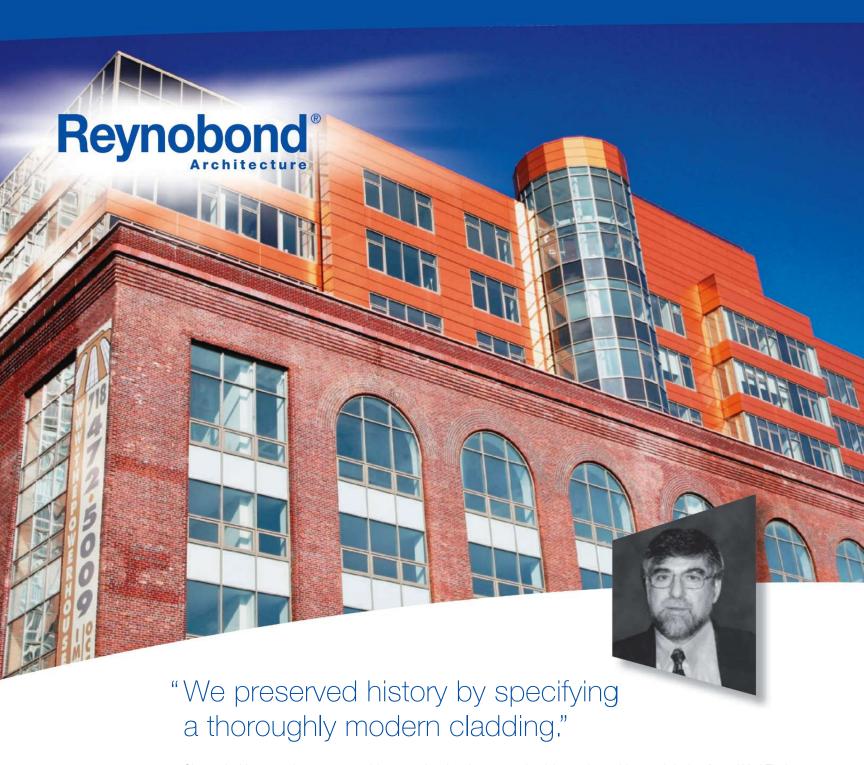


This upstart Los Angeles designer/manufacturer was founded by a collective of architects with a common mission: to create a line of products that better addressed the needs of their fellow professionals. The result? A core collection of durable, ecologically conscious designs, many of which can be modified or customized to suit. Arktura even has a contract division that handles everything from design engineering to delivery. Chris Kabatsi's swooping, sculptural Flow bench is made from an ecocomposite material and comes in red, white, gray, black, or bespoke hues. CIRCLE 213



8 | PRODUCT South Face by Massimo Iosa Ghini MANUFACTURER II Cantiere ilcantieresrl.it

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Charged with converting a century-old power plant into luxury condominiums, the architectural design firm of Karl Fischer Architects, based in New York City, chose to combine original elements with a contemporary look. The PowerHouse Condominium of Long Island City now has striking façades clad with Reynobond® to complement carefully preserved original elements. "We specified Reynobond ACM because we wanted a lightweight material that would give the building a modern look but, at the same time, blend in with existing masonry," according to Karl Fischer. From inspiration to implementation, no one's dedicated to your success like the people of Alcoa Architectural Products.



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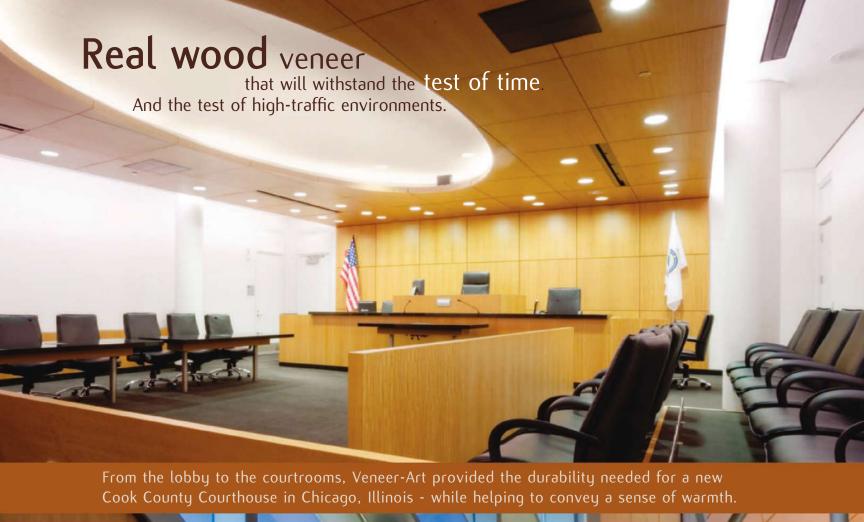
left, top to bottom: Lyra™ Cast Door Pull; Cornet™ Tubular Door Pulls; Modular™ Configurable Door Pull | right: Sextant™ Configurable Door Pull with Column finial



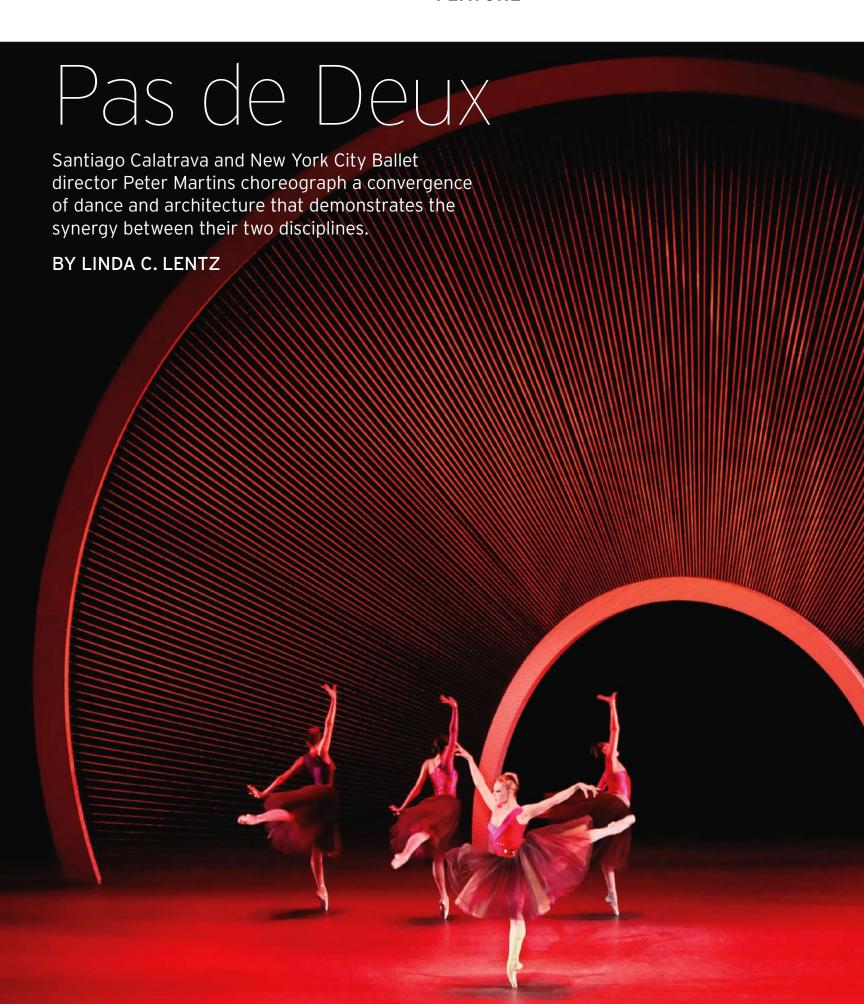
















OPPOSITE: Calatrava designed a skewed arch for Benjamin Millepied's ballet that comes to life as the dancers perform arabesques around it.

1.-3. Transparent semi-circles morph into a graceful, multi-hued "phoenix" above the dancers in Martins' ballet, Mirage".

ARCHITECTURE IMITATES DANCE, and dance takes its cues from architecture as the curtain rises on Benjamin Millepied's Why am I not where you are at New York City Ballet (NYCB). A soaring white arch spans the stage with a torque not unlike classical ballet's fourth position. Throughout the performance, the company of 20 ballerinas and danseurs execute arabesques and jetés – alone, in pairs, and en masse – in front, behind, around, and through its skewed opening. And the structure responds with taut bands that vibrate when the dancers' feet hit the floor, and eases into a poignant bow at the finale.

The dance is one of five ballets that were commissioned by NYCB artistic director Peter Martins to premiere at the company's 2010 spring season at the David H. Koch Theater (which would coincide with Lincoln Center's 50th anniversary). Inspired by the collaboration of his predecessor George Balanchine and architects Philip Johnson and John Burgee for a 1981 Tschaikovsky Festival, Martins became intrigued with the idea of architecture as it relates to dance in form and movement. So, he invited Santiago Calatrava – who is, he says, "his favorite architect" – to create designs for the new program, appropriately dubbed *The Architecture of Dance*.

While engaging an architect to design for the stage is not unprecedented [see sidebar, page 72], Martins broke with the norm by asking that the architectural elements influence the shape of the choreography – as well as vice versa. Admiring the way "Calatrava's work dances, I thought he could create environments that we could play off of to create dances," Martins said at a talk presented by *The New York Times* in May.

The multidisciplinary architect was surprised by the offer because, although he sculpts and paints, he had not attempted theater design. But when Martins expressed interest in three of the Calatrava bronze sculptures displayed in the architect's New York City office, the deal was



sealed. Interestingly, "The stage demands a different approach from architecture," notes Calatrava. "There is no wind. There is no rain. However, there are many special conditions, such as changing from one scene to another." So, working closely with Martins, the choreographers, and NYCB technical director Perry Silvey, he began to learn what his parameters would be.

To begin, Calatrava and his teams in New York and Zurich developed 10 models, drawing on the vocabulary of his architecture. He also created a series of muted watercolors – later re-created and enlarged to fit the proscenium – for choreographers Christopher Wheeldon and Melissa Barak, who both wanted traditional painted backdrops for their story ballets. Wheeldon's *Estancia* is set in Argentina's pampas, while Barak's *Call Me Ben* conjures up the life of Bugsy Siegel in the Las Vegas desert.

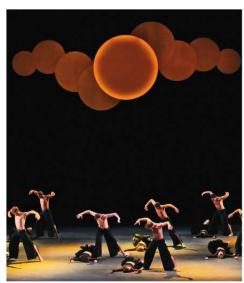
Successful as creative exercises, the painted scenes do not exploit the architecture-dance connection. This premise works best in Martins's own choreography, as well as the ballets of Millepied and Italian choreographer Mauro Bigonzetti, which



PHOTOGRAPHY: © PAUL KOLNIK

Hudson Scenic Studios did most of the engineering, "Mr. Calatrava's engineers are brilliant," says NYCB's Silvey. "But they're not used to building things that have to move on and off a stage in 15 or 20 minutes. For that we need to marry architectural with stage engineering." Consequently, Hudson Scenic created a 27-foot-tall-by-44-footwide structure for the Millepied ballet comprising two arches made of steel, aluminum, and silicon surgical tubing bolted to the floor in a way that allows the unit to be detached quickly and "fly" above the stage between productions. Likewise, the studio made the seemingly straightforward 15-foot semicircles that gradually morph into a graceful, multihued "phoenix" above the dancers in Martins's ballet Mirage out of aluminum and nylon cord for lightness and mobility. And for Bigonzetti's Luce Nascosta, the crew crafted a suspended series of nine wood-framed radiating discs, designed to mimic a pantograph, by using a system of motor-driven carriers on tracks to move the discs – each supported by two cables. The movement is barely perceptible as eight of the golden discs (in progressively smaller diameters) appear from behind the largest, a glowing backlit nimbus that takes center stage.

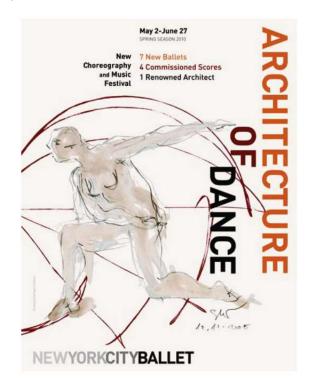
Calatrava says he came out of the experience with a strong admiration for his collaborators. Indeed, he feels that his contribution to the whole endeavor is small, seeing the stage itself as subsidiary. "It helps to highlight the action. It helps to create transparencies for people to move in front of or behind it. It articulates things around it," says the architect. "But if you take it away and the dancers perform, the performance is still there."



Dancers and nimbus align in the Bigonzetti ballet.

## The Bilbao Effect

By Leslie Yudell



#### IS ARCHITECTURE STILL

the alpha art it was when Frank Gehry's fame, not the renown of his client, transformed an obscure Basque town into a major museum destination? This was one of several questions that came to mind amid the excitement surrounding Santiago Calatrava's much-heralded participation – as set designer – in New York City Ballet's (NYCB) recent spring season.

While this was Calatrava's initial foray into stage design, the field has been the province of architects since at least the first century B.C., when Vitruvius described long-established Greek and Roman theater conventions in De Architectura, Italian Renaissance architects revived these ancient traditions, adapting Filippo Brunelleschi's one-point perspective system - a new tool of their trade - to create the illusion of deep space on a shallow stage. The Mannerist architect Sebastiano Serlio, who wrote the first practical treatise on architecture in the 16th century, devoted an entire volume - Scenographies, published in Paris in 1545 to scenic design. This, and several seminal books on the craft that followed, informed generations of architects who practiced it – from Palladio in the 16th century to Iniao Jones in the 17th, from Karl Friedrich Schinkel in the 19th century to Joseph Urban in the 20th. Still others were in the vanguard of modern theatrical design.

Today, many well-known architects – including Frank Gehry, Daniel Libeskind, David Rockwell, John Pawson, Zaha Hadid, Thom Mayne, Jean Nouvel, Dominique Perrault, Elizabeth Diller and Ricardo Scofidio, and, most recently, the firm of Herzog & de Meuron (who did the stage designs for the Metropolitan Opera's production of Verdi's Attila just this winter) - have created innovative sets for opera, dance, and theater.

Even at NYCB, Calatrava



#### **WATCH VIDEO**

The making of Herzog & de Meuron's set for Attila back stage with Metropolitan Opera tech director John Sellars.

was preceded by Philip Johnson and John Burgee, who designed its Tschaikovsky Festival in 1981. Yet unlike his predecessors, Calatrava was not only deployed to set the stage; he also served to promote the ballet's spring program, called The Architecture of Dance primarily in recognition of his contribution, though many famous choreographers, composers, and musicians were involved. He was the centerpiece of an aggressive publicity campaign that included not only in-house newsletters and bulletins, but ads and posters that appeared throughout the city. With Peter Martins, the company's Ballet Master in Chief, he was featured at a public interview organized by The New York Times that focused on his sets. And he and his wife were made honorary chairmen of the season's opening-night gala, where they were toasted before the evening's audience. Yet, out of a total of five schemes, Calatrava ultimately produced only three set pieces that actually reflected his architectural gifts.

Can an architect's celebrity draw audiences to dance performances nowadays, as well as to their venues? In these economically challenging times, can the Bilbao Effect sell tickets to the ballet? Perhaps. The New York Times quoted one patron, a dance lover and Calatrava fan, who said that for the first time in 40 years of attending NYCB, this spring he went to see the sets. Now, that really is groundbreaking. ■

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The September issue – that annual media call-to-attention for followers of fashion, style, and culture – gets a RECORD twist in the following 44 pages, where we explore the realm of interior design through eight winning projects by architects who excel in the genre. Turning architecture outside in, each of these interiors-savvy firms (hailing from the U.S., Europe, and Asia) makes use of a series of robust architectural strategies that fuse structure and context with a rich palette of materials and effects. As a result, the environments – ranging from an edgy boutique hotel carved from the ruins of an abandoned Shanghai warehouse to the reinvention of a busy news-media office in Midtown Manhattan to a dazzling jewelry shop set within the re-creation of a historic Tashkent bell tower – resonate with a solid sense of place and purpose that is visionary yet timeless, and ultimately wonderful to inhabit. Linda C. Lentz

IWI Orthodontics, Tokyo, designed by Contemporary Architecture Practice.





FAST-DISAPPEARING, SHANGHAI'S nong tang (lane houses) combine European construction with Chinese notions of tightly packed residential life. From the street, these early-20th-century buildings present gabled facades – respectable and a bit staid. But once you walk through the door to the lane running between the houses, you encounter a messy world of clothes hanging out to dry, shutters flung open, people gossiping, and kids running around. Private space bleeds into the public realm, with some folks cooking in the shared lane and others bathing their children there.

Neri & Hu Design and Research Office (NHDRO) tried to capture the spirit of a nong tang in its design of the Waterhouse at South Bund, a trio of industrial buildings from the early 1930s converted into a 19-room boutique hotel. Blending old and new, Western and local, the firm turned a nong tang on end. "We wanted to create a vertical lane house," states Lyndon Neri, who founded the Shanghai-based firm with his wife, Rossana Hu, in 2004. So instead of a series of public-blurring-into-private spaces that unfolds as you walk down an alley, the hotel reveals itself through a number of vertical cuts offering views down and up from guest rooms into public spaces (and vice versa).

Walk into the three-story-high lobby and look at the wall behind the reception desk. One flight above the desk, you'll notice a tall, narrow pane of glass overlooking the most public space in the hotel. It's a window of a guest room. Book that room, and you get to present yourself to everyone in the lobby; one guest did it totally naked, says Neri.

Wander over to Table No. 1, the hotel's restaurant, run by chef Jason Atherton, who had worked for Gordon Ramsay in London and Dubai. Check out the ceiling and you'll discover a pair of long, deep slices bringing light from guest rooms one story above. While you can't actually see anyone in the rooms because the vertical slot is too narrow, you realize the architects have designed a three-dimensional game of peek-a-boo. Either you're horrified by such transgressions of the usual boundaries between public and private or you get a quiet thrill from them.

NHDRO exposed other things, too. Instead of refinishing the building's aging facades and interior surfaces, the firm flaunted decay as a prominent theme. Fading paint, water stains, even holes in plaster walls remain for all to see. The hotel wears these marks as John Huston did his hard-earned wrinkles and leathery skin.

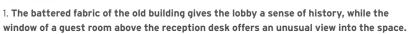
History serves as a powerful force in this

OPPOSITE: The architects retained the faded glory of the building's facades and added a roof garden and fourth-floor spaces wrapped in Cor-Ten.

RIGHT: Wood salvaged from the building's old roof clads the outside surface of shutters facing a courtyard; mirrors on the inside reflect views.







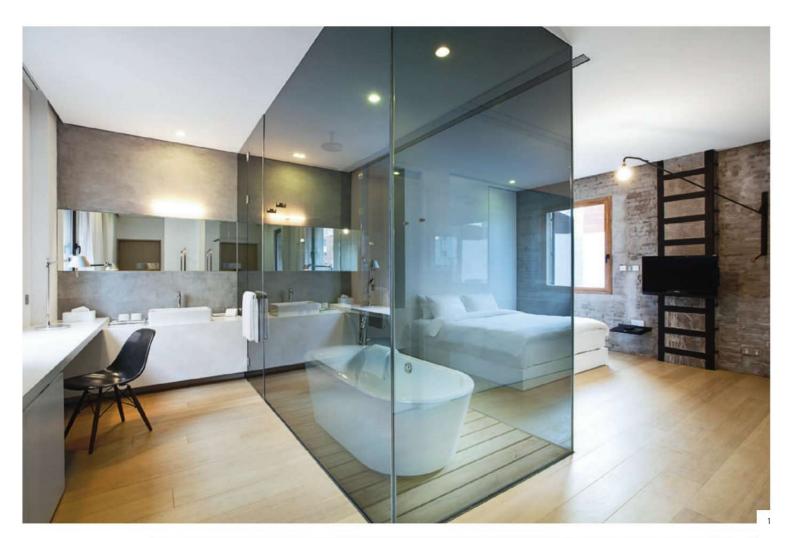
- $2.\ \mbox{A}$  ramp above the front door negotiates the different floor levels of the old buildings comprising the hotel.
- 3. New black-painted steel elements provide structural support for the three-story-high lobby and shore up portions of the old buildings that needed reinforcement.
- $4.\ A$  skylight runs above a set of bridges connecting a corridor to guest rooms on the second and third floors.





The east-west section shows how certain guest rooms get peeks into public spaces, such as the lobby and the restaurant, creating a voyeuristic frisson that enlivens the hotel. The architects worked with the different floor levels inherited from the original buildings and added a roof deck on the highest portion of the hotel overlooking the Bund.



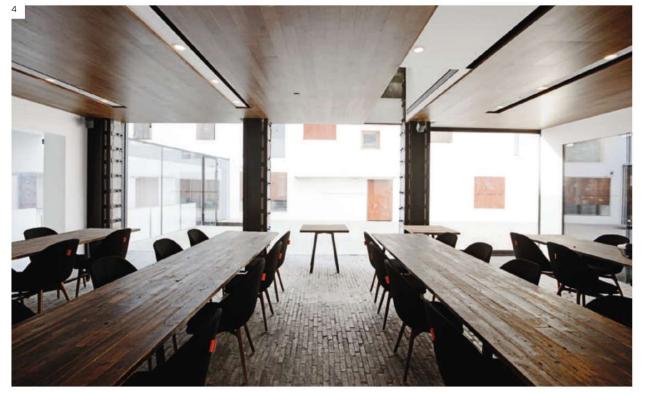


1. Each of the hotel's 19 guest rooms has its own layout and quirks. As a whole, the rooms range from 300 to about 645 square feet, and they all share a low-key palette of materials and components, including concrete sinks, wood floors, and tinted-glass partitions for the bathrooms.

2. In the bedrooms, the architects designed built-in desks, cabinets, and other furnishings for walls with new white surfaces. Wide-plank oak floors and oak beds complement the sleek built-ins, adding a touch of contemporary warmth.







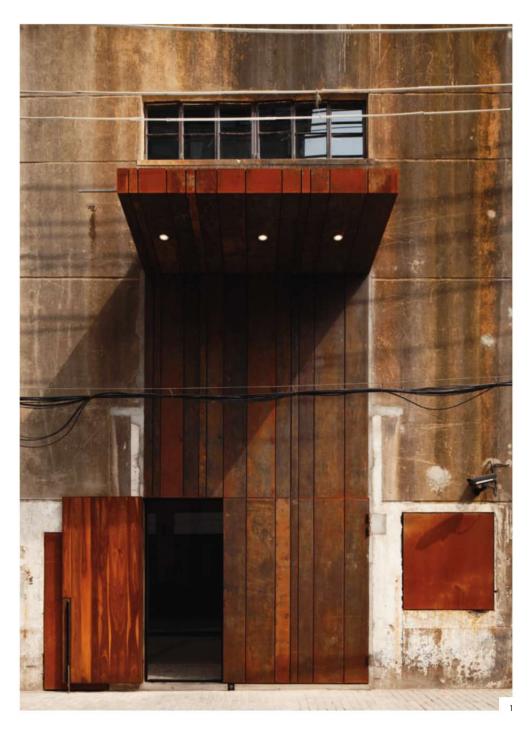
- 3. A few guest rooms have raised viewing platforms, while others (not shown) have private decks or balconies. Along walls with the building's original fabric, the architects specified a combination of new and antique freestanding furnishings, but no built-ins.
- 4. Communal tables made of salvaged wood and floors of gray brick work with Solo chairs designed by NHDRO in the restaurant. Tables in the courtyard extend the restaurant outdoors, and a pair of private dining rooms (not shown) offer alternative spaces for small parties and events.

From the outside, visitors clearly see NHDRO's approach to history and materials – with Cor-Ten steel wrapping around a new rooftop garden and sliding from an entry canopy to the front door. Inside, new materials, such as Cor-Ten, concrete, and painted steel, recall the building's industrial heritage without fooling anyone about their age. In addition to carving out the tall lobby, the architects animated a courtyard at the center of the site with the wood-and-mirrored-metal shutters that form ever-changing patterns depending on which ones are open and how they are angled. Tucked behind the hotel, NHDRO converted a warehouse into a special events hall, which supplements income earned from the guest rooms.

In stitching together three adjacent buildings to create the hotel, NHDRO kept old elements such as concrete stairs and used ramps to negotiate different floor levels, instead of erasing these quirks with a common datum for each story. While each guest room is different, they all adopt a uniform vocabulary: oak floors and beds, concrete bathrooms with tinted-glass walls, and built-in desks and cabinets along new white walls. Along walls where the old building fabric was retained, NHDRO used freestanding elements, such as mirrors and furnishings designed by the firm. Making the most of the building's idiosyncrasies, some rooms enjoy private decks while others get glassed-in viewing platforms raised a couple of feet, the better to spy on neighboring lots and catch glimpses of the Huangpu River.

In the past, NHDRO employed spectacle as a strategy in many of its interiors. With the Waterhouse, the firm uses an almost cinematic approach to space and procession, teasing a sense of suspense out of our desire to see and be seen. If Hitchcock were alive, he might want to shoot a remake of *Rear Window* here.

- Rusting steel cladding the front doorway and canopy allude to the hotel's industrial heritage as a set of buildings in the Shilupu district where docks and warehouses were erected in the first part of the 20th century.
- 2. The roof terrace includes several concrete-lined seating "pods" alternating with small gardens. The extensive terrace overlooks the hotel's central courtyard and features a clear polycarbonate bar top (not shown) that doubles as a skylight for the floors below.
- 3. From the roof terrace, visitors face views of the Huangpu River and the Pudong district with its landmark buildings, such as Kohn Pedersen Fox's 1,615-foot-tall World Financial Center.
- 4. A hallway introduces guests to the project's layering of history with new structural-steel elements, large windows, and Cor-Ten cladding complementing the building's old masonry fabric.









#### CREDITS

**PROJECT:** The Waterhouse at South Bund, Shanghai, China **ARCHITECT:** Neri & Hu Design and Research Office - Lyndon Neri, Rossana Hu, partners in charge; Debby Haepers, associate in charge; Cai Chun Yan, Felix Fu, Markus Stoecklein, Dagmar Niecke, Briar Hickling, Koen Savelkoul, Chu Yao, Jane Wang, Justin Gong, architecture; Christine Neri, Vivi Lau, Yang Su, graphic design; Brian Lo, Yun Zhao, product design **ENGINEERS:** China Jingye Engineering Technology Company (structural); Far East Consulting Engineers (mechanical) GENERAL CONTRACTOR: Shanghai Jinbo Construction

#### SOURCES

PAPER CHANDELIER (LOBBY): Moooi LIGHTING (LOBBY): Tom Dixon FURNITURE (RESTAURANT): Moooi, custom tables by Neri & Hu FURNITURE (GUEST ROOMS): Magis; Emeco; B&B Italia; custom desks and cabinets by Neri & Hu LIGHTING (ROOF DECK): Fontana Arte





AN EXPERTLY COOKED TRUFFLED egg, dome-shaped and strategically positioned atop a composed salad, is just one of the sensory pleasures awaiting patrons of The Wright, an urbane dining destination recently installed at the Solomon R. Guggenheim Museum on New York City's Fifth Avenue. Aptly named for Frank Lloyd Wright, the iconic 1959 building's noted (if not notorious) architect, the restaurant – a business collaboration of the Guggenheim Foundation and Restaurant Associates – opened in December 2009 as the culmination of the museum's 50th-anniversary celebration.

Designed with an intelligent sleight of hand by the New York-based firm of Andre Kikoski Architect, the 1,600-square-foot, 58-seat eatery, which is adjacent to the museum's soaring rotunda, replaces a drab coffee shop that had been in operation for years. Unlike the previous establishment, the new interior is evocative of its architectural pedigree. It is not, however, overwhelmed by it.

"We wanted the restaurant to be consistent with Wright's philosophy," says Kikoski, the firm's principal. So he and his design team took their cues from the master's geometry and materiality, carefully calculating the room's shapes and proportions based on the motifs and dynamic forms Wright used throughout the building. Ergo, a crisply stretched vinyl-membrane ceiling canopy swooping through the center of the room echoes the spirals that circle the museum's rotunda, as does the trapunto of the softly padded leather seating, and the uplit tiered wall covered in a sound-absorbing, meshlike textile that curves above the long banquette. Sleek solid-surface

- 1. Andre Kikoski's design for The Wright restaurant, in New York City's Solomon R. Guggenheim Museum, echoes the spirit and dynamic forms of Frank Lloyd Wright's soaring rotunda.
- 2. The rich, warm hues of artist Liam Gillick's installation meant to be understood as a "series of horizons" form a modulating transparent skin at the entrance and around the two exterior walls of the dining room.



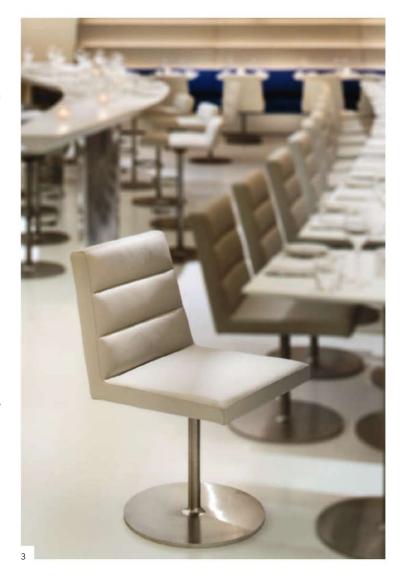
table- and bar tops reference the dynamic planes of the museum's interior, and custom-pounded stainless-steel bases – supporting the central communal table – adhere to the geometry of a hieroglyphlike eye used by Wright as a decorative motif. With a nod toward his predecessor's *gesamtkunstwerk* approach to architecture, Kikoski's strategy also included designing all of the furnishings, and using such cutting-edge materials as the panels of alternating walnut-veneer and fiber-optic strips fitted with backlit glass shelves that surface the wall behind the bar.

Further emphasizing The Wright's connection to the museum, the restaurant's architects maintained a similar white color palette to provide a gallerylike setting for the variable hues of Chef Rodolfo Contreras's seasonal cuisine. Likewise, this scheme serves as a neutral canvas for a work by Liam Gillick – an 11th-hour addition to the program. Inspired by a Robert Irwin kind of scrim Kikoski originally proposed, the Guggenheim commissioned the British-born artist, known for his thoughtful structural compositions, to collaborate with the architect and create a site-specific installation that would become part of its permanent collection.

Working closely with Kikoski (a friend and neighbor), Gillick devised a sculptural relief for the restaurant that continually alters the spatial experience for diners, just as Wright's museum changes the perception of art for those navigating its ramps and recesses. "I pushed for what I thought would be important," says Kikoski, describing the process. "At the same time, he told me to trust him – until finally we arrived at something we both felt was viscerally correct."

Gillick's ultimate solution, which he dubbed "The horizon produced by a factory once it had stopped producing views," comprises a variegated series of parallel aluminum planks, or bars, powder-coated in rich, warm colors. Due to the staggered placement of the bars, the skin appears transparent as it screens the glass entry wall and wraps the room's south and east elevations, hovering over the deep blue banquette. The symbiotic result, says Kikoski, "like the building, completes the architecture as much as the architecture complements the art."

It takes a certain professional daring to intervene in one of the most significant buildings of the 20th century. Indeed, Wright once wrote, regarding the integrity of his design, "No details (not even the smallest) can be interjected or interfered with without marring the peace and quiet of the whole concept, execution and purpose." Yet this elegant space that bears his name feels of a piece with his oeuvre, almost as if it had been there all along.



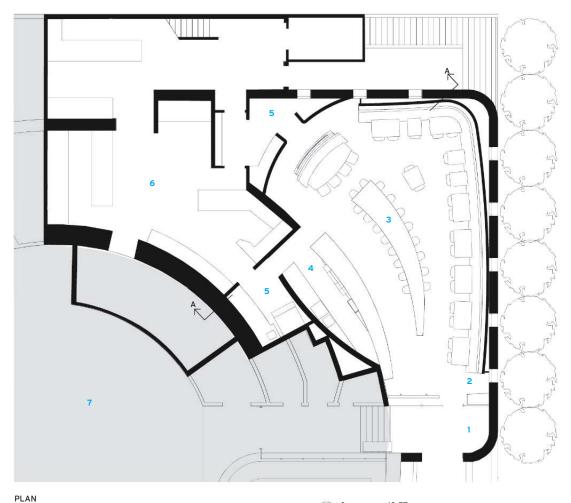






- 1. A stainless-steel wall beside the bar treated with a hydraulic pressure tool to give it a patina that mimics the texture of concrete reflects the elegant LED-backlit glass shelves displaying a selection of wine and liquor bottles.
- Panels of slender walnut and fiber-optic strips line the bar's back wall, providing subtle, purely decorative illumination that adds a bit of surprise and sparkle to this evocative restaurant design.
- 3. Kikoski designed all of the furnishings for The Wright, including the solid-surface tables and bar tops, banquettes, stools, and dining chairs. The latter design is soon to be manufactured by Ligne Roset (see Products in Brief, page 60).

NEW YORK CITY THE WRIGHT ANDRE KIKOSKI ARCHITECT



#### CREDITS

PROJECT: The Wright, New York City
ARCHITECT: Andre Kikoski Architect –
Andre Kikoski, principal; Brian Lewis,
Gunnar Jung, Adam Darter, Liam Harris,
Claire Foy, Laurie Karsten, project team.
LIGHTING DESIGN: Tillotson Design
Associates – Mark Kubicki, principal in
charge; Suzan Tillotson, principal;
Yoshimi Sato, lighting designer
ENGINEER: HHF Design Consulting
GENERAL CONTRACTOR: James G.
Kennedy & Co.
MILLWORK: Petersen; Geller; Spurge

SOURCES

CEILING: Newmat USA (canopy)
METALWORK: Amuneal (bar side wall

and front; communal table base)
FURNITURE: John Celli Custom

Furniture & Design (custom chairs,

stools, tables, banquette)

LIGHTING: CV Lighting (minicove); Tech Lighting, Nulux (downlights);

Edge Lighting (LED)

SURFACING: Corian (table- and bar tops);

Litwork (bar back wall)

GLASS: Carvart Architectural Glass (bar shelves)

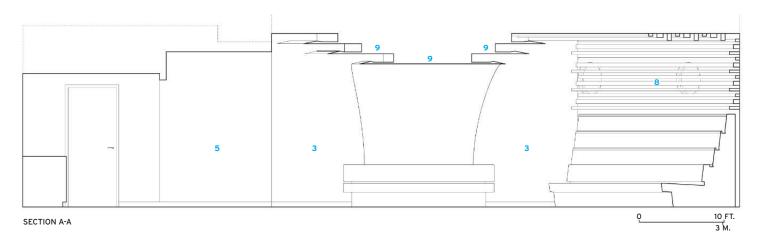
**LEATHER:** Spinneybeck

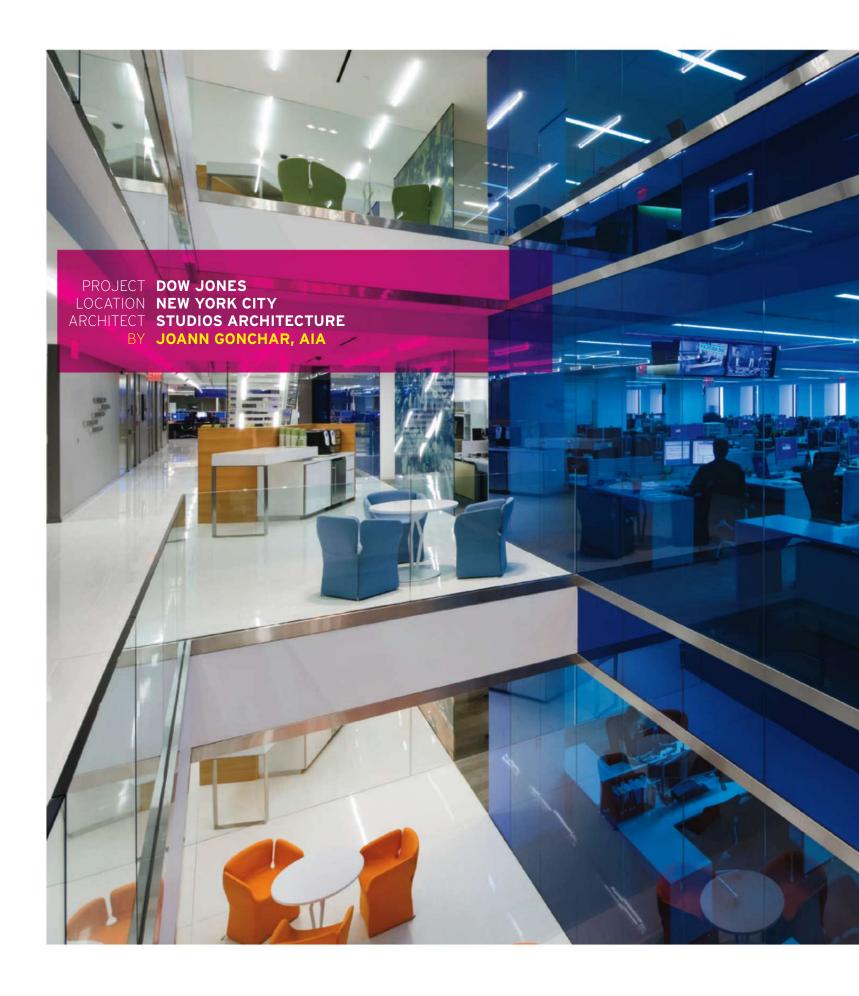
FABRIC: Création Baumann (banquette)

FLOOR: Sika (epoxy)

O\_\_\_\_\_

- 1 FOYER
- 2 HOST STATION
- 3 DINING ROOM
- 4 BAR
- 5 SERVICE
- 6 KITCHEN
- 7 MUSEUM ROTUNDA
- 8 LIAM GILLICK SCULPTURE
- 9 CEILING CANOPY







ASK ANY SEASONED JOURNALIST, and he or she will likely confirm that the office environment for a news and media organization needs to support several seemingly incompatible activities, often occurring simultaneously. At any given moment, reporters are gathering information on the phone, impromptu meetings are happening in aisles and corridors, while writers and editors are trying to complete stories on tight deadlines.

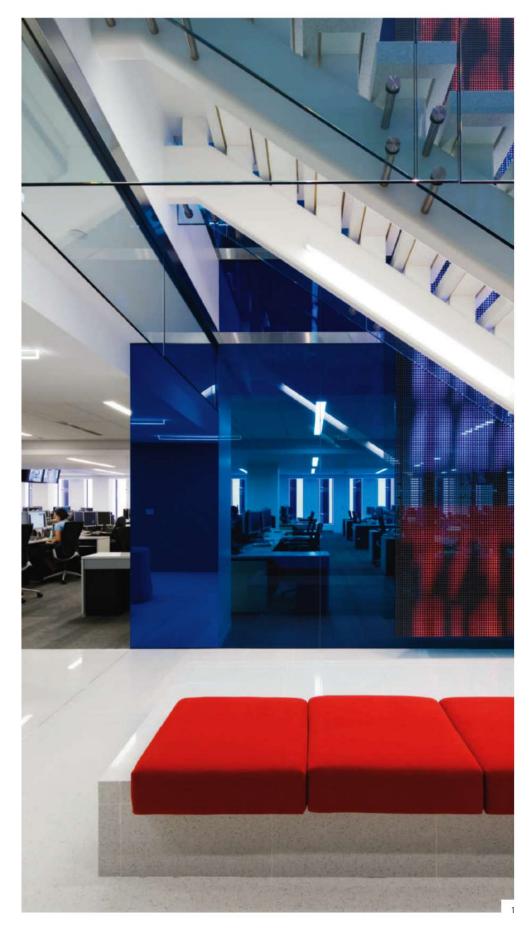
STUDIOs Architecture grappled with these demands when it designed offices for Dow Jones, the news and financial information provider best known as publisher of the *Wall Street Journal*. Soon after Rupert Murdoch's media conglomerate, News Corporation (News Corp.), acquired Dow Jones in late 2007, STUDIOs was hired to create a new home for the subsidiary's New York area—based print, online, and wire services divisions on five contiguous floors in a 45-story office tower in Midtown Manhattan's Rockefeller Center, where the parent company had long been the prime tenant.

Before the News Corp. acquisition, the approximately 1,000 Dow Jones staff members had occupied three separate offices – two in Lower Manhattan and another in New Jersey. As part of their relocation, management hoped to create a setting that would promote a tighter integration among the various Dow Jones groups. STUDIOs had completed a similar consolidation assignment for another New York City–based news media giant, Bloomberg, in 2005 [ARCHITECTURAL RECORD, March 2006, page 138].

Although the Dow Jones move offered a chance to satisfy the imperative for a collaborative workplace, News Corp.'s 1970s building presented STUDIOs with a number of challenges. The portion of the tower that Dow Jones would occupy (floors 4 through 8) has large but oddly shaped floor plates, making office layouts less than straightforward. Floor-to-floor heights are only a little over 12 feet, with about 9 feet 6 inches of clearance below structural framing, complicating the design of the mechanical systems. And the tall but narrow windows – part of an exterior skin of vertical strips of alternating limestone cladding and glazing that echoes the facades of the other Rockefeller Center buildings - offered a less-thanideal configuration for interior daylighting.

Working within these constraints, STUDIOs devised a layout in which most of the area on the Dow Jones floors is given over to open offices. A few private offices were deemed necessary, but those, for the most part, are positioned adjacent

STUDIOs cut through the building's structural slabs to create a set of staggered voids that provide employees with views of several Dow Jones floors simultaneously. The resulting horizontal and vertical circulation zone contains coffee stations and informal meeting areas.



to the building core or other service areas, instead of along windowed perimeter walls where they would block precious daylight. All have glass fronts, as do conference rooms and spaces designated for more solitary activities requiring privacy or quiet, such as writing.

The heart of the Dow Jones scheme is not the open offices, however. Instead, the crux of the design parti is a set of openings cut into the structural slabs to define a vertical and horizontal circulation zone on one side of the building's core. The zone links floors physically by means of open-riser stairs, and visually by providing sight lines to multiple areas simultaneously. "The openings aren't just a stack of voids," says David Burns, a STUDIOs principal. "They are staggered to allow diagonal views across spaces."

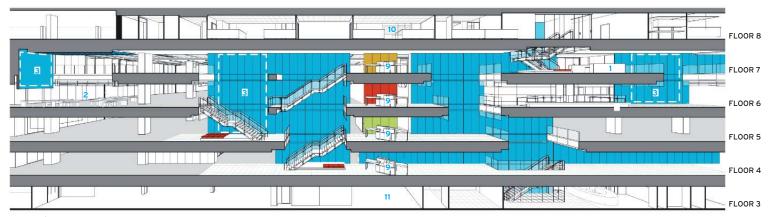
The architects chose materials and devised details that emphasize movement and help maintain a sense of dynamism for this part of the Dow Jones floors. For example, custom linear fluorescent fixtures have acrylic diffusers that project slightly from the strip of drywall ceiling running along the service core. Because three surfaces of the diffuser are etched, the light appears to hover just below the ceiling plane, accentuating its directionality. Vibrant blue glass walls that buffer the open-office areas, clear glass balustrades at the stairs and slab openings, and highly polished white terrazzo floors reflect and rereflect this light. LED media walls hung behind the stairs display scrolling stock information or graphics, further animating this zone.

Beyond the "connector," the strategy is more subdued, both aesthetically and acoustically, with suspended ceilings and muted carpet tiles. Low partitions that extend just a few inches above modular desks and relatively high 9-foot-tall ceilings (given the constraints of the structure) prevent the open-office zone from feeling like a sea of cubicles.

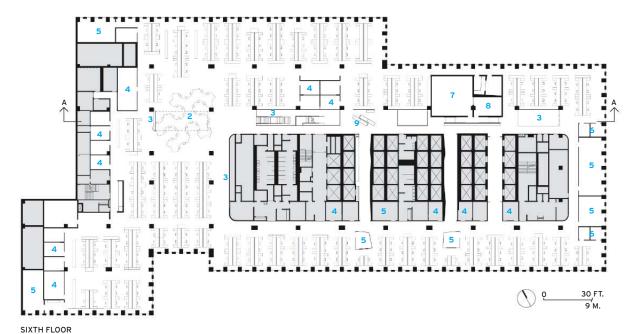
In one part of the offices on the sixth floor, known as "the hub," STUDIOs has created a double-story work area where editors from each of the Dow Jones publications sit at clustered C-shaped desks. LCD screens, suspended from the ceiling and from the edge of the opening cut in the slab above, surround this nerve center and display Web pages, broadcasts, and real-time data from News Corp. outlets and from competitors.

For an observer, how well the combination of information-sharing technologies and spatial interconnections serves Dow Jones is difficult to determine with any certainty. However, to this easily distracted architectural journalist, STUDIOs seems to have created an environment well suited to a news and media organization: The setting appears to allow employees to focus on individual tasks while it generates an atmosphere where the energy is palpable.

NEW YORK CITY DOW JONES STUDIOS ARCHITECTURE



SECTION/PERSPECTIVE A-A



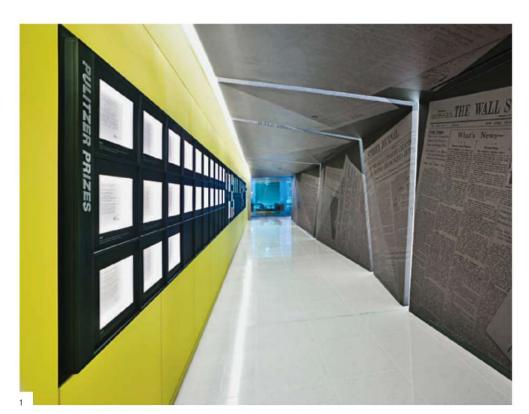
- RECEPTION
- 2 HUB DESK
- 3 MEDIA WALLS/LCD SCREENS
- PRIVATE OFFICES
- 5 MEETING ROOMS
- WRITING ROOMS
- 7 TV STUDIO
- 8 RADIO STUDIO
- 9 COFFEE STATION
- EXECUTIVE OFFICE FLOOR
- 11 NEWS CORP. AMENITIES



- A vibrant blue tempered-glass wall provides a buffer between the open offices and the horizontal and vertical "connector" near the building core.
- 2. STUDIOs designed diffusers for the fixtures illuminating this area that make the light appear to hover just below the surface of the ceiling. The lighting, along with reflective finishes and a LED media wall displaying scrolling graphics, animate the circulation zone and distinguish it from the more subdued work areas beyond.



NEW YORK CITY DOW JONES STUDIOS ARCHITECTURE



#### **CREDITS**

PROJECT: Dow Jones, New York City

ARCHITECT: STUDIOS Architecture – Todd

DeGarmo, FAIA, principal in charge; Tom Krizmanic,
AIA, design principal; David Burns, project designer;
Mike Krochmaluk, project architect; Brian Kaplan,
project manager; Erin Ruby, senior designer;
Alberto Valladares, designer

CONSULTANTS: AMA Consulting Engineers (m/e/p);
Axis Design Group (structural); SBLD Studio
(lighting); TM Technology Partners (IT); Design 360
(graphics)

#### SOURCES

GLAZING: Dorma (office fronts); Depp Glass (blue glass wall); Xhibitz (graphic walls)

FIRE CONTROL DOOR: McKeon Door HUB WORKSTATIONS: Unifor ACOUSTICAL CEILINGS: Armstrong

**PAINTS:** Benjamin Moore

CARPET: Constantine; Bentley Prince Street; Shaw

LIGHTING: Mark Architectural Lighting
MEDIA: NEC (flat-panel display); XL Video (LED

media wall)

OPPOSITE: The editors responsible for the minute-by-minute decisions about what the Dow Jones publications will cover sit at clustered C-shaped desks in a double-story part of the office known as "the hub." LCD screens surround this nerve center and display data and information from News Corp. outlets and other sources.

- 1. STUDIOs created passageways from one side of the office to the other by opening up previously enclosed parts of service core, enlivening them with color, graphics, and folded drywall planes.
- 2. Although most of the floor area is given over to open cubicles, the layout includes rooms where employees can meet without disturbing their colleagues.







AS DAZZLING AS A perfect smile, IWI Orthodontics makes a bold first impression, but its elegant beauty lingers on long after. Filling the fourth floor of an existing building in the heart of Tokyo's hip Harajuku neighborhood, the clinic specializes in an implant orthodontia system patented by its head doctor. With the goal of creating an equally innovative office space, he hired the New York City-based firm Contemporary Architecture Practice (CAP). The result of their collaboration is a sleek interior that seamlessly merges cuttingedge medical technology with gracious Japanese hospitality.

As if greeting guests at a traditional inn, a staff member meets patients at the street and individually escorts them upstairs. The elevator opens directly onto the lounge, where patients sip beverages while waiting for their appointments. From there, a short corridor leads to the three private examination rooms and the office laptop bar, a tiny windowed nook where staff keep records and an eye on activity. It adjoins a sequestered support and sterilization area in back. Across the front of the clinic, the patient-occupied places segue onto a large, covered terrace. Contiguous with the ceiling inside, the steel canopy of the terrace edits the city view, but its floor-level grass planters reference the wooded shrine precinct across the street – visually extending the entire clinic and providing a peaceful distraction for patients while their dental hardware is adjusted.

Intended to move teeth quickly and invisibly, IWI's jewel-like components are crafted with the utmost accuracy and installed behind the teeth. "The client wanted to bring these ideas to 3D life," explains CAP principal Ali Rahim. Inspired by this challenge, Rahim and the firm's coprincipal, Hina Jamelle, finished the raw space with an implant system of their own. Putting a fresh face forward, it consists of streamlined surfaces laced with lines of light that form the floors, walls, and ceiling in the lounge and exam rooms while completely concealing the construction underpinnings.

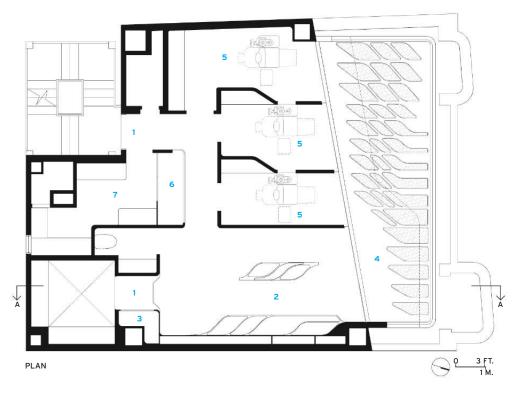
Flush with all four planes, the LED strip fixtures are longitudinally oriented to lengthen the 2,250-square-foot space. Beginning at the clinic entrance, twin tubes of light glide through the rooms, cross the barrier of glass doors that separate interior and exterior, and culminate at the edge of the terrace. En route, they diverge around shelving embedded in a wall, a built-in bench rising from the floor, and lozenge-shaped panel recesses. "They are like streams going around rocks," explains Jamelle.

Meant to be organizing elements that double as ambient lighting and expansion joints, the linear runs of LED illumination remain constant throughout the clinic. Between them, richly sculpted surfaces fluctuate continuously. "Many architects concentrate on the space and do not really pay attention to the wall design," comments the client. But CAP's highly articulated calcium-silicate wall and ceiling panels rise and fall, project and indent, or effortlessly curve around corners. Though low transfer beams, HVAC ducts, and other constraints determine high and low points, they do not compromise the impact of the energetic design. "Our desire was to remove these issues, so we incorporated them from day one," says Jamelle.

A subtle, secondary network of lines emerges when different surface materials abut. They are visible where compressed wood flooring evolves into balcony grass, silky smooth wall panels morph into Ultrasuede seating cushions, and laser-etched glass door panes change from transparent to translucent to opaque in order to both protect the privacy of patients in the exam rooms and admit daylight into the windowless corridor. To calm jittery nerves, white was the architect's color of choice throughout the clinic – even the patient chairs are custom-upholstered in white leather. But within the

Looking more like a hip cocktail or airport lounge, the Minimalist waiting room at IWI Orthodontics is outfitted to provide patients with relaxing, contemporary surroundings complete with sleek, upholstered built-in seating, fluid strips of LED lighting implanted in the walls, access to a grassy outdoor terrace, and lots of daylight from the glass doors.







examination rooms, back-painted green glass panels and built-in cabinetry predominate. The clinic's only other colors come from the sun, whose rays tint the walls and ceiling with a variety of hues over the course of the day.

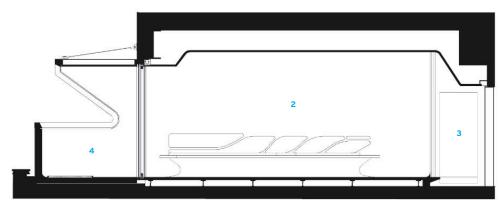
Getting all of the built-in components to align successfully was like fine-tuning orthodontic wires and brackets. Even a minor change had a major impact. "The panels are the same size," explains Rahim, but "each design on each panel is unique and does not repeat." Amazingly, CAP supervised this precision work largely from New York City while the local contractor coordinated activity on-site. Taking advantage of the latest technology, the firm maintained vigorous control by communicating directly with the fabricators via digital models. The architects also made site visits as needed to bring them up to speed on the digital millwork techniques required to make the complex, contoured sections. In terms of logistics, the limited size of the elevator – the job's only method of delivery – was a restraint from the start. To assure that the factory-finished panels got to the fourth floor of the building undamaged for installation, the architects scaled and configured the pieces to fit like a puzzle. When the panels arrived at the site, the construction team attached them to the interior and exterior framework with plywood and furring channels.

Exquisitely crafted down to the details, the completed clinic is a boon to patient confidence. Contained within a small space, its dynamic forms symbolize the steady movement and controlled repositioning of teeth. By putting a premium on patient experience, CAP's design for IWI Orthodontics makes a potentially unpleasant process more palatable.

Naomi R. Pollock is a Tokyo-based special international correspondent for ARCHITECTURAL RECORD.

- 1. The etched-glass doors and walls of the patient examination rooms admit daylight into the windowless interior corridor.
- 2. Wavy back-painted glass partitions serve as walls between the examination rooms, aligning with the LED ceiling fixtures.
- 3. Lined with LED lights, which echo the patterns of the interior, and lozenge-shaped grass patches, the terrace is a seamless outdoor extension of the examination rooms.

- 1 ENTRANCE
- 2 LOUNGE
- 3 CLOSET
- 4 TERRACE
- 5 EXAMINATION ROOMS
- 6 LAPTOP BAR
- 7 KITCHEN/BACKEND SUPPORT



SECTION A-A

#### CREDITS

PROJECT: IWI Orthodontics, Tokyo
ARCHITECT: Ali Rahim and Hina Jamelle/
Contemporary Architecture Practice – Ali Rahim,
Hina Jamelle, principal architects; Kevin Kehler,
Jae Jang, design team; Jisuk Lee, assistant
LOCAL CONSULTANT: Susetsusya Co. (architect
of record, engineer, general contractor)

#### SOURCES

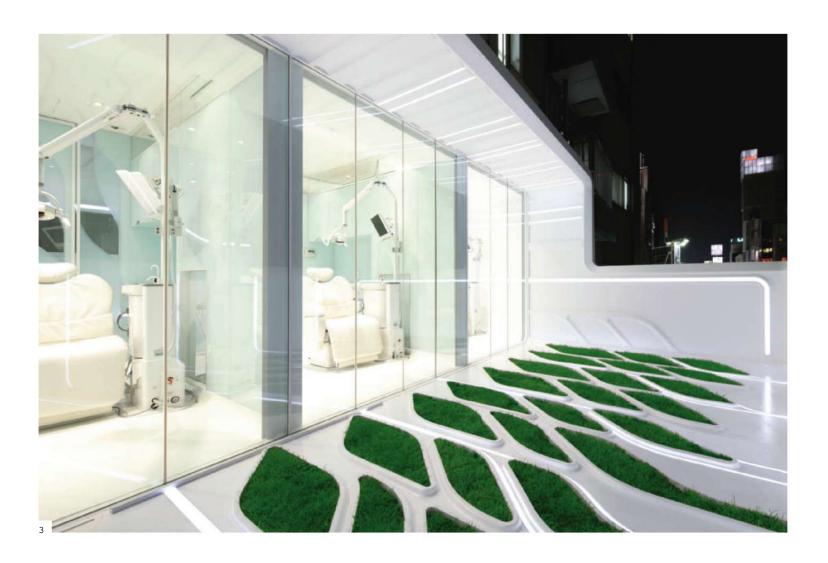
LIGHTING: Lutron (controls, shades); E&M Nippon (LEDs); Akari (downlights)

PAINT: Benjamin Moore

WALL COVERING: Toli (sterilization room)

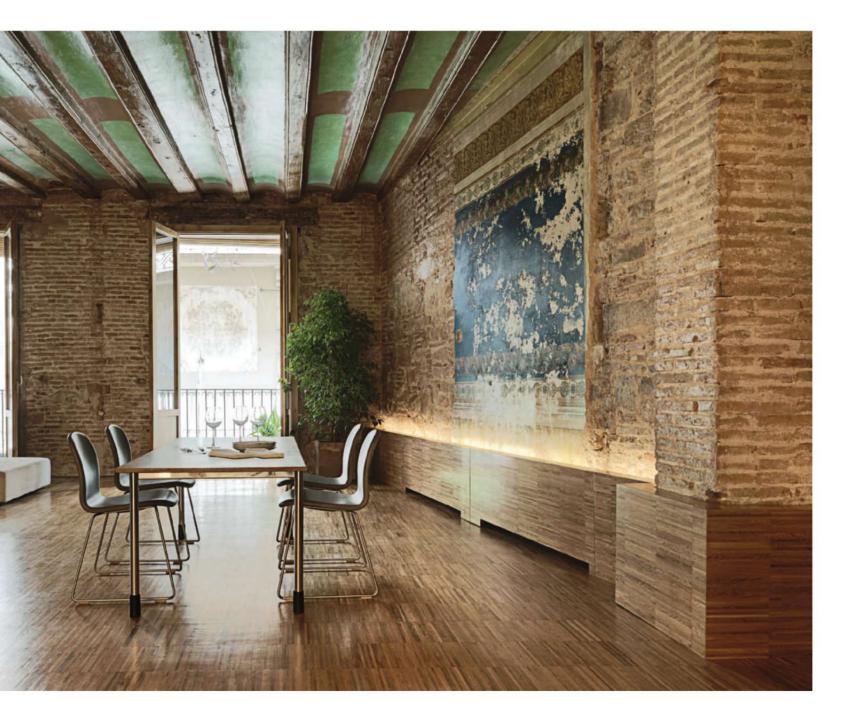
FURNISHINGS: Knoll (table, Ultrasuede

FURNISHINGS: Knoll (table, Ultrasuede upholstery); Nextage (examination chairs)
VINYL FLOOR TILE: Tajima (sterilization room)
PLASTIC LAMINATE: Aica (sterilization room)







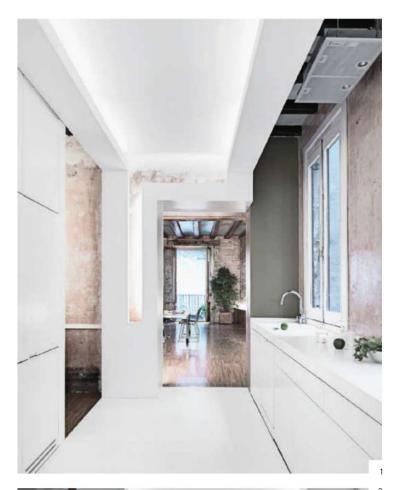


**SWISS ARCHITECT GUS WÜSTEMANN** defines his design approach as "program-free architecture," in which "everything that contaminates the space with a program disappears." Kitchens, baths, and circulation corridors are anathema to him, as are conventional living rooms and bedrooms, and the walls and doors that define them. In his designs, they are all subsumed into a larger spatial idea. He even criticizes the typical New York loft, seemingly a classic example of program-free living: "Today a loft is just a big space without quality. You put a cube in it, a kitchen or whatever, and it degrades everything."

Wüstemann commutes weekly between his practice in Zurich and Barcelona, where he has settled with his wife and two children in a 2,000-square-foot apartment in the heart of the Gothic Quarter. Baptized the Crusch Alba ("White Cross" in Romantsch, one of Switzerland's official languages), this residence demonstrates just what Wüstemann means by deprogrammed architecture.

The apartment, situated on the second floor of a building dating to about 1860, is divided by a major bearing wall. The existing front half, with three floor-to-ceiling balcony windows overlooking a narrow pedestrian street, easily lent itself to becoming an open living area. But the back was a warren of rooms dimly lit by several tiny patios. After studying dozens of possible solutions, Wüstemann came up with the

- 1. A backlit panel of translucent glass-fiberreinforced polyester resin surrounds the entrance to the sleek, white cross axis that forms the functional heart of the apartment and separates the restored front and back sections into public and private spaces.
- 2. The living (above) and sleeping areas are surfaced with new oak flooring and wainscoting that conceal radiators and lighting. The ceiling and remaining walls expose the original materials and historic finishes, such as the patch of fresco behind the dining table.







idea of the white cross. Inspired by the notion of an urban crossroads, he enveloped this cross in white gypsum board and subtle lighting to create an organizational center that fills the rear section with abundant light.

Superimposed over the existing structural shell of the building, which Wüstemann stripped, patched, and varnished, the cross is defined by the planes of its ceiling and white epoxy floor (with radiant heating coils below), and by the running strip of cove lighting that snakes around its edges and beyond. The overall effect is a rich sense of spatial layering in a limited area.

The linear continuum of indirect light is fundamental to Wüstemann's concept. "[It] suggests depth and a horizon," he explains. "There is no end to the space; it doesn't stop. You will never see a light source in my projects, because there's no horizon." To emphasize the importance of this detail, he always keeps this discreet illumination turned on, but often dimmed.

Taking advantage of the new floor plan, Wüstemann tucked a breakfast nook and sleeping alcoves into the spaces that formed around the geometry

- Softly illuminated cove lighting lines the perimeters of the walls and ceilings throughout the old and new spaces in the apartment, uniting them visually and imparting the illusion of an endless horizon.
- 2. Appliances and kitchen storage, as well as bath fixtures and fittings, are discreetly hidden behind doors and under hinged sections of counter to maintain the aura of Wüstemann's deprogrammed architecture.
- 3. A breakfast nook, adjacent to the kitchen, is tucked into a small space created by the formation of the central white cross.

BARCELONA CRUSCH ALBA LOFT GUS WÜSTEMANN 105

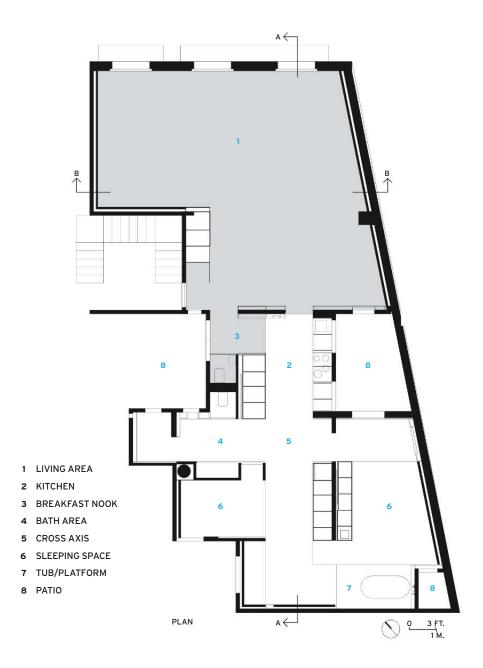
of the cross. Then he created a kitchen along the axis adjacent to the living area, and a bath corridor across that, keeping all of the fixtures, fittings, and appliances hidden in cabinets when not in use. A section of counter lifts up to reveal a six-burner gas cooktop, and pocket doors open and fold back into the cabinetry when it's time to access the refrigerator, freezer, oven, microwave, and storage. The architect also installed two lavatories behind a sliding door on the right arm of the bath axis. He housed the toilet in a cubicle, and a windowed shower nook at the far end. In the opposite direction, the left arm of the cross opens onto the master bedroom area.

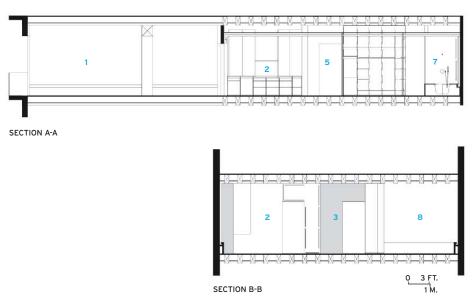
The family can move various sliding and folding doors to define up to three bedrooms and isolate the bath corridor, but they prefer to keep them open. "The kids have foldable mattresses, so they can choose where they want to sleep," says Wüstemann. "They are 'camping' in the apartment." One of their favorite places is a raised surface off the kitchen, near the master bedroom, where a bathtub is hidden under removable panels.

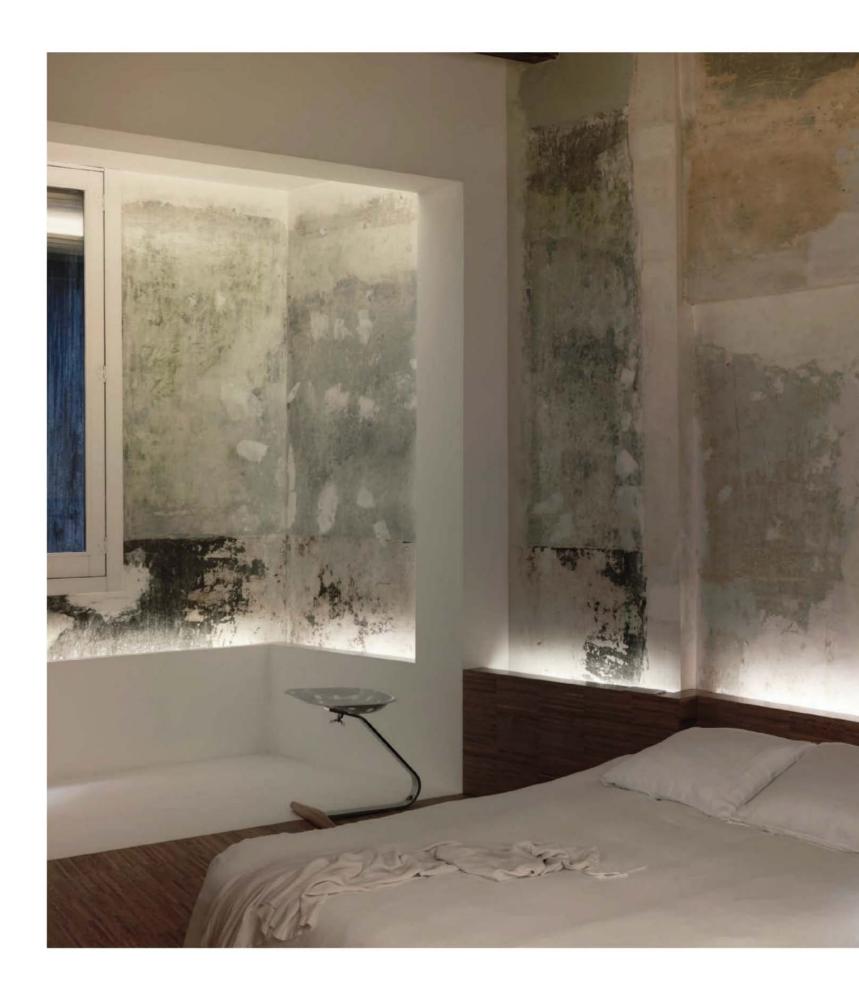
This concept of loose, flexible living extends to the front of the apartment, where Wüstemann installed new oak floors to define a habitable platform within the shell of the old structure. This expanse of wood continues up the walls to form a low wainscoting backed by a recess that accommodates runs of discreetly hidden fluorescent lights and radiators. The walls, like the ceilings with their exposed beams and typical Catalan rafters and vaulting, are stripped to the original materials - wood, brick, stone, and plaster - and coated with a semigloss varnish to minimize dust and enhance the daylight filtering through the windows. During the renovation, Wüstemann added steel beams to reinforce the ceiling and allowed the scraps and bits of different finishes and interventions to emerge. This includes the salvaged remnants of a plaster fresco, located behind the dining table.

Wüstemann's scheme is guided by a metaphor of urban space. In an earlier Lucerne loft, he used the idea of a glacier to create an interior "landscape" of ascending levels and descending light [RECORD, September 2007, page 129]. Here, the unfinished walls, marked with time, are extensions of the Gothic Quarter, and the white cross and living platform are elements the family can appropriate freely. "It's the aura of not finishing, keeping it urban and letting the process be visible that gives a feeling of freedom," he says. This interpretation of domesticity as an improvised encampment amid historic remains offers an interesting insight into the life of a modern urban nomad, in which a family can commute between two different worlds and feel at home in both.

David Cohn is ARCHITECTURAL RECORD'S Madridbased international correspondent.







BARCELONA CRUSCH ALBA LOFT GUS WÜSTEMANN 10





1. The cove lighting continues back around the walls of the master bedroom – accessible from the left horizontal arm of the cross axis – supplementing the daylight that filters into the room from the adjacent patio window.

2. The family bathtub has a hinged, glass-fiber-reinforced polyester-resin partition and is covered with removable panels. When not in use, it doubles as a sleeping platform for the architect's children — who love to "camp out" around the loft on their foldable mattresses.

#### CREDITS

PROJECT: Crusch Alba loft, Barcelona
ARCHITECT: Gus Wüstemann – Gus Wüstemann,
principal and architect of record; Marta B. Goñi,
Raquel Martinez, design team
ENGINEERS: Nolac Enginyers
GENERAL CONTRACTOR: Vector Construcciones

#### SOURCES

FLOORING: Gurdó (oak); Lotum (epoxy)
PARTITIONS AND WALL PANELING: Scobalit
(glass-fiber-reinforced polyester resin); Gurdó (oak)
COUNTER SURFACING: Corian (kitchen and bath)
SEATING: Cappellini (Rive Droite chair, dining chairs); Knoll (breakfast nook); Bonet (butterfly chair in living area); Living Divani (sofa); Zanotta (bedroom stool)





**STANDING BY THE HANDBAG** bar at the Louis Vuitton Maison (House of Vuitton) on New Bond Street, in London's Mayfair district, one can observe a strange kind of tourism. The most multilingual of London sales assistants are available to sell a \$4,000 handbag to just about anyone.

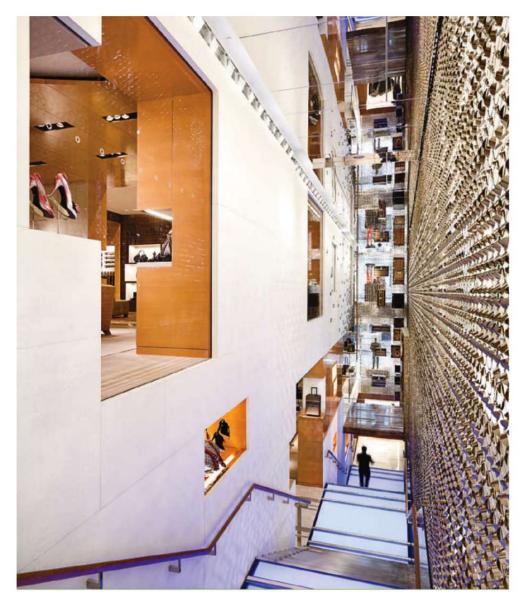
Wherever these tourists come from, you can bet there is a Louis Vuitton (LV) closer than London. But the new store, with 16,146 square feet of retail space, is intended to be unique. "New Bond Street is the most high-end shopping street in the world," explains New York City-based Peter Marino, the project's architect. "We all thought that with the recession it would crack, but it never stops." This comment is supported by recent reports in the U.K. press that, despite the ailing British economy, when consumers want an expensive handbag, they buy it in London. Even the "wave of new money from Asia and the Middle East comes to London," says Marino.

Building for such elite consumers comes with responsibilities. "These are exceedingly well-off customers," says the architect, who has been working with the client since 1996. The environment necessary to attract this clientele must evoke the brand's version of luxury, relate to the city (or at least a posh



- 1. A stainless-steel-mesh screen creates an interior curtain wall that segregates the rarefied, contemporary world of London's Louis Vuitton Maison, with its soaring double-height atrium, from the realities of the building's actual facade and traditional streets outside.
- 2. Within the large triple-height volume, an internal structural skin, punctuated with windowlike openings to bring in daylight, encloses much of the store's selling areas, such as the women's shoe shop on the upper level.





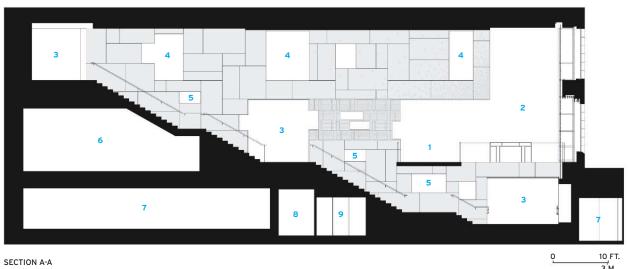
version of it), and to the structure. To create the London Louis Vuitton Maison – conceived as the home of a collector – Marino and his design team gutted and unified two buildings, one Georgian and the other vaguely Art Deco. Outside, he integrated them at the street level by resurfacing the facade with a blindingly white portland stone. A city ordinance prohibited going above that.

Inside, well-heeled patrons are treated to a grand double-height atrium with gold titanium-plated shelves displaying the company's signature luggage. To reach the "maison" from the entry, they must cross a bridge clad with stalattite stone, meant to be a camp reference to a drawbridge. This overpass spans a full-height void sliced by the shop's main vertical thoroughfare – a "bling" stair with treads composed of limestone and glass strips animated by color-changing LEDs and media streams.

Like a gilded cage, the glittering volume features window walls lined with a curtain of flower-patterned stainless-steel mesh and a mirrored ceiling that expands the space infinitely upward. Opposite, a limestone-clad inner structural skin, punctuated by openings to bring in daylight, encloses much of the actual sales area to create a more intimate experience.

Marino divided the ground floor into rooms dedicated to leather goods and accessories, covering a central cashier desk with a light

OPPOSITE: Beneath the mirrored ceiling, a stone drawbridgelike entry carries shoppers from the street to the ground-level selling floor across a 3-story void where Marino inserted a grand stair that rises from the lower level to the third floor. LEFT: The elegant limestone-and-glass stair, animated by color-changing LEDs and media streams, provides access to each of the floors.



- 1 BRIDGE
- 2 ATRIUM
- 3 SHOPPING FLOOR
- 4 APERTURES
- 5 DISPLAY
- 6 CASHIER
- 7 STOCKROOM
- 8 FITTING ROOMS
- 9 ALTERATIONS

Aniegre-wood-veneer canopy. Darker timbers line the walls of glamorous rooms at the back where fine jewelry and watches are displayed amid satiny surfaces of French lacquer veneer.

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Down a few steps, the tone is lighter both chromatically and atmospherically. Here, a circular costume-jewelry shop features playful LV-branded space-age mobiles and a sculpture, titled *Kiki*, by Japanese artist Takashi Murakami – one of a collection of art pieces installed throughout the store. Across the way, in a small boutique with a similarly round footprint, rows of sunglasses are reflected in a palpitating dichroic-glass ceiling. Between these, a casual "Bag Bar," complete with stools, allows customers to sit and relax while they select purses from backlit moving display boxes.

The lower level houses a men's clothing department, surfaced in dark brown tones and appointed with clubby armchairs and a large artwork, called *Paws*, by Gilbert and George. On the third level, intricately detailed combinations of materials distinguish women's ready-to-wear, as well as an exhibition of historic garments. Toward the rear of this floor, Marino positioned an installation appropriately dubbed *Trunk*, by British art scion Damien Hirst, at the entrance of the Maison's "Libraire," a "curated" bookshop with a

vaulted stretch ceiling backlit by LEDs.

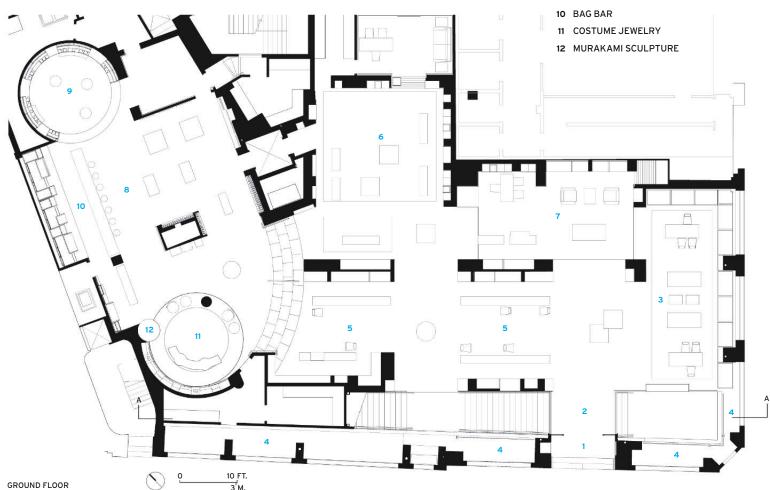
Of course, no true luxury establishment is complete without a private suite. Marino's take is "The Apartment," on a fourth level not accessible by the glass stair. This residencelike series of rooms is where the most "I" of VIPs are served in the comfort of a private sitting room. "It's an exciting idea – 2,200 square feet with no merchandise," Marino says, noting that he hasn't seen the numbers. But it must be working. He has just been commissioned to add similar "apartments" to LV's New York and Shanghai stores.

Many architects involved in retail feel that their work is not taken seriously by their peers. Perhaps the others should be jealous. The budgets, speed, and glamour of this type of project are often at a level most architecture never approaches.

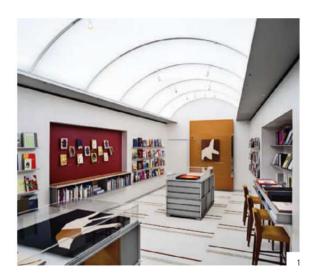
Marino's commercial insights are impressive. And while the aesthetic archetypes of luxury, as elaborated in 1920s Paris, have not really advanced with the century, Marino's business acumen and flair for materials and detail make him one of the most effective practitioners in the genre. ■

London-based Kieran Long is architecture critic of the Evening Standard and former editor in chief of Architectural Review and Architects' Journal.

- 1 ENTRANCE
- 2 BRIDGE
- 3 ATRIUM/LUGGAGE
- 4 DISPLAY
- 5 LEATHER GOODS
- 6 FINE JEWELRY
- 7 BAGS
- 8 ACCESSORIES
- 9 SUNGLASSES



- 1. The Maison's "Libraire," a carefully curated bookshop located at the back of the third floor, features a barrel-vaulted stretch ceiling evenly lit from above with LEDs.
- 2. A whimsical circular boutique in the accessories area of the ground floor features numerous sunglasses displays reflected in a palpitating, dichroic-glass ceiling.
- 3. The rings of Saturn dominate the playful costume jewelry shop in the displays, as well as on the floor and ceiling where LV-branded space-age mobiles hover near a sculpture called *Kiki*, by Japanese artist Takashi Murakami, one of a collection of fine-art pieces installed throughout the store.

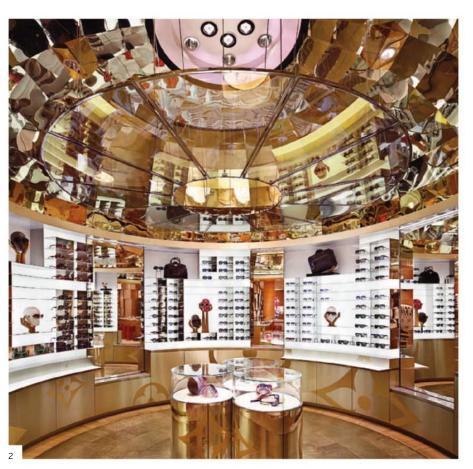


#### CREDITS

PROJECT: Louis Vuitton New Bond Street, London
ARCHITECT: Peter Marino Architect – Peter Marino,
FAIA, design architect; Uli Wagner, Maria Wilthew,
Enrique Pincay, project team
ARCHITECT OF RECORD: Wintersgill
ENGINEERS: Ramboll Whitbybird (structural);
J.E. Evans Associates (mechanical)
CONSULTANTS: Arup (lighting design); Millbridge
Group (project management); Powells Group
(general contractor); Marzorati Ronchetti (millwork)

#### SOURCES

PORTLAND STONE: Stone Firms Limited
LIMESTONE: L'Européenne de Marbre
DICHROIC GLASS: Schott
SOLID SURFACE: Corian (ground floor)
STRETCH CEILING AND WALL SYSTEMS: Barrisol
DECORATIVE WALL PANELS: Kinon (costumejewelry shop)
DECORATIVE PLASTER: Armourcoat
METAL FLOOR: De Ferranti (sunglasses shop)





**BEN VAN BERKEL, PRINCIPAL** of the Amsterdam-based architectural firm UNStudio, is known for his breathtakingly swoopy designs of sleek surfaces that never seem to end. The gleaming, aluminum-clad Mercedes-Benz Museum in Stuttgart, Germany, with its double-spiral-ramped concrete structure, convincingly argues the case [RECORD, November, 2006, page 128]. After completing that nine-story-high, 270,000 square-foot building, you might think that a 5,840-square-foot (gross) residential loft would be too rinky-dink a commission. Van Berkel argues otherwise: "I'm not interested as much in the scale of a project as with the program," he explains. In this case, he was asked to design a loft in New York City for a collector of Modern and contemporary art, which he found fascinating. "It's as if you're making

a portrait of someone and how he might live with his art," van Berkel adds.

The owner met the architect when van Berkel was working on an ill-fated expansion of the Wadsworth Atheneum in Hartford, Connecticut, earlier in the decade. The collector, who had seen UNStudio's famous Möbius House (1998) in Het Gooi, the Netherlands, says, "I found a clarity in the language and a logic of the space that made me think about the way I lived." He decided to seek van Berkel's help "in making sense out of the muddle that had become my art collection."

The architect's solution for the apartment, on a floor 95 feet long and almost 60 feet wide in a former light-industrial building, was as logical as it was novel: He pushed living spaces along the east and west party walls,



1. In a New York City loft building, the architects designed the space where an art collector lives to have a flowing, light-filled backdrop for his art. LED lights above two layers of stretch translucent fabric give a luminous quality to the ceiling. The existing steel columns clad in terra-cotta are filled out with preformed glass-fiber-reinforced-gypsum elements, as are other curved components in the space.

2., 3. The collector's books are arranged on shelves along the back side of the major gallery wall, which is suspended from the existing ceiling's structure. The sinuously meandering space separates the gallery from the private sleeping quarters.





saving the central portion for the gallery. At the north and south ends, the architect clustered living and dining areas, inserting a steel-and-glass wall on the south elevation, where a glass balcony allows unobstructed garden views.

The gallery walls of the central space meander sinuously, with a small library tucked behind the major wall on the west and defined by its curve. Even though the loft's floor-to-floor height is about  $11\frac{1}{2}$  feet, the client feared the art would appear cramped. He made it clear he didn't want

lighting fixtures to be visible or create any glare. So van Berkel came up with the idea of a luminous ceiling that would add the illusion of height. Like the one that UNStudio designed for the Museum Het Valkhof in Nijmegen, the Netherlands (1999), the ceiling takes on an ethereal quality, where artworks appear to float in space – "a limitless haze," according to the owner.

The design team – including van Berkel; the executive architect Franke, Gottsegen, Cox Architects; and lighting designer Richard Renfro – created a swerving hung ceiling where arrays of 18,000 individual LEDs could be mounted above two layers of a translucent, two-way-stretched polymer membrane. Tracks separating the fabric ceiling from the plaster surfaces accommodate fixtures for point lighting. "The ceiling took nearly a year to test and rework," recalls the client.

The team programmed the lighting to offer a changing mix of cool and warm illumination. A combination of fluorescent (on the underside of the major gallery wall) and halogen fixtures (embedded in the coves along with HVAC diffusers) provide additional indirect light.

While the actual structure of the early-20th-century building is concrete deck, and the steel columns are covered with terra-cotta fireproofing, very little of this structure is revealed by the continuous, off-white surfaces. Van Berkel covered the columns with preformed glass-fiber-reinforced-gypsum shapes, which were then hand-plastered on-site. He used these preformed elements for the concave ceiling coves and other curved pieces as well, including ones extending from the wall to the floor.

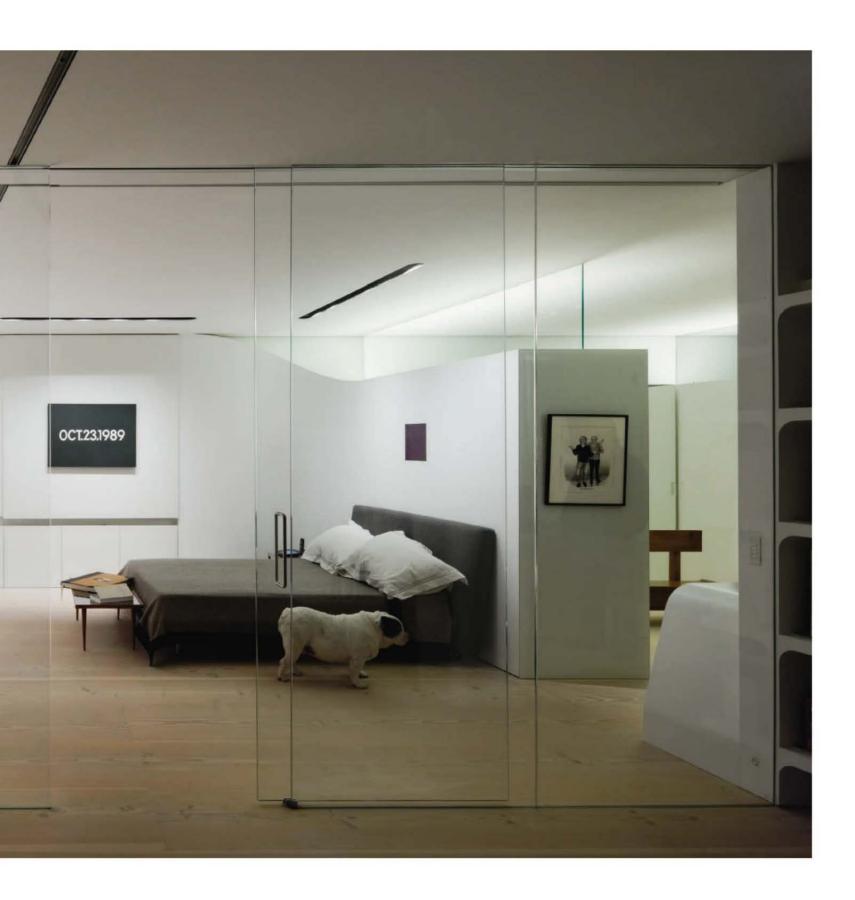
Hand-plastered surfaces characterize all walls – formed of metal stud and cement board – as well as much of the ceiling. The wall on the west side of the gallery, dividing the art display from the library, is a formal tour de force, seeming to float as it carries artworks on one side and the collection of books on the other. As Matthew Gottsegen of Franke, Gottsegen, Cox Architects explains, it is suspended from a steel beam in the existing building; the wall touches down on the north end to stabilize its curves.

The library's narrow, serpentine space allows the client to easily see his books, without having to rely on a typical four-walled room plan where a desk is plunked down in the middle. He avows, "The library turned out to be the most captivating part of the design."

This softly radiant setting, where off-white is the predominant color, allows the selected sculptures, paintings, drawings, and rare books to be seen as objects in space. Even Leo, the owner's bulldog, matches the color scheme. As the client puts it, "While it was a long time in the making, it far exceeds my hopes. The architecture still awes me, yet envelops me in a comforting way. Would I do it again? Never." But then, why should he?



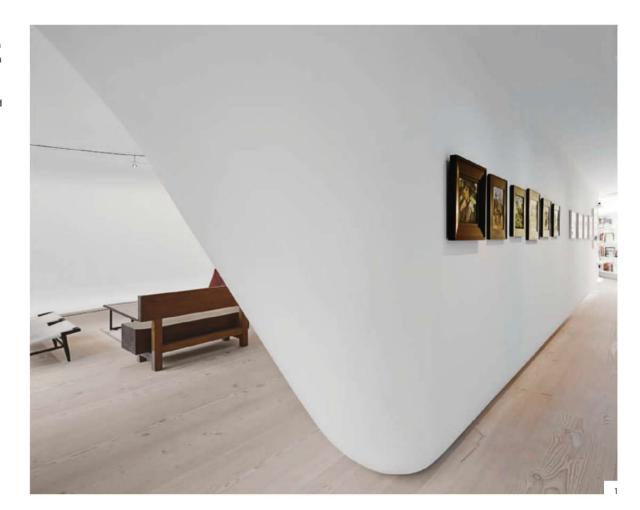
Leo, the bulldog, leaves his master's office and bedroom in the southwest corner, and saunters toward the walk-in-closet. The Eames chair (foreground), the solid-surface sculptural counter/table – and even Leo – all conform to an off-white color scheme that dramatically highlights the art and books on display.



1. A suspended serpentine wall snakes along the length of the loft and touches down by the living area at the north end for stability. The ultrasmooth, hand-plastered surfaces and the slightly textured Douglas fir planks of the floor set off the art in a surreal manner.

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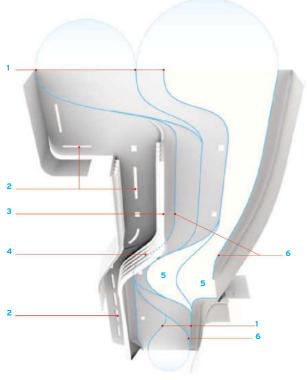
2. On the side of the suspended wall facing the gallery, halogen fixtures for the cove lighting and fluorescent lighting for its underside accentuate the ethereal quality of this setting.



- 1 FOYER
- 2 GUEST ROOM
- 3 EXHIBITION
- 4 DINING
- 5 KITCHEN
- 6 BEDROOM
- 7 LIBRARY
- 8 CLOSET
- 9 ART STORAGE







CEILING LIGHTING PLAN

- 1 TRACK LIGHTING
- 2 LIGHT SLOTS
- 3 FLOATING WALL LIGHTING
- 4 LIBRARY SHELF LIGHTING
- 5 LUMINOUS MEMBRANE
- 6 CONTINUOUS WALL-WASHER LIGHTING

#### CREDITS

PROJECT: Art Collector's Loft, New York City

ARCHITECT: UNStudio – Ben van Berkel, principal;

Arjan Dingsté, Marianthi Tatari, Colette Parras,

project team

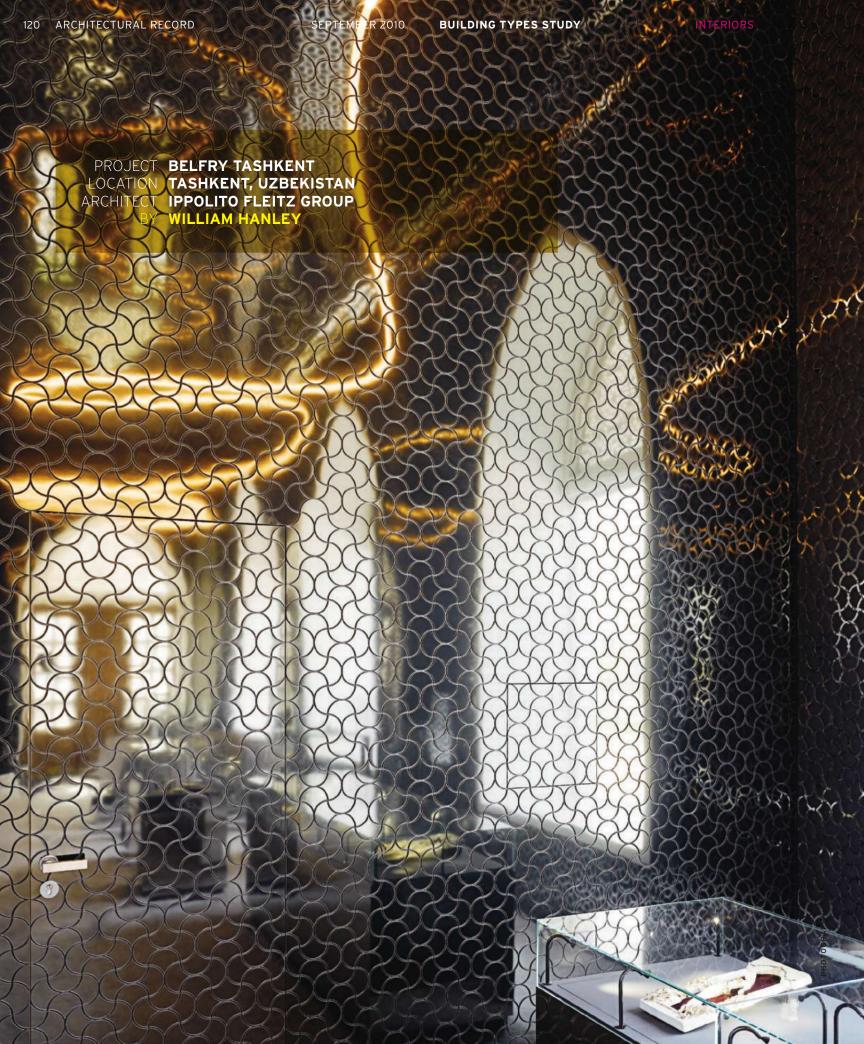
**EXECUTIVE ARCHITECT:** Franke, Gottsegen, Cox Architects – Matthew Gottsegen, principal; Bruce Harvey, Matt Shoor, team

**ENGINEERS:** Wayman C. Wing Consulting Engineers (structural); P.A. Collins Consulting Engineers (m/e/p)

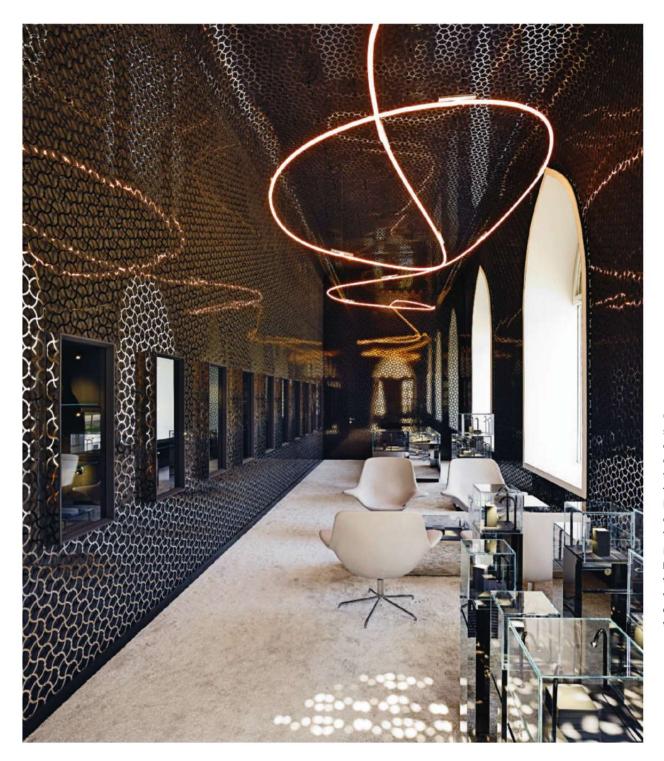
LIGHTING: Renfro Design Group – Richard Renfro, principal

#### SOURCES

GLASS-FIBER-REINFORCED GYPSUM: Formglas
STRETCH CEILING TRANSLUCENT MEMBRANE
AND ALUMINUM CEILING TRACKS: Newmat
DOUGLAS FIR FLOOR: Dinesen
GLAZING: Skyframe (south facade); Panorama
Windows, (north facade)
LED LIGHTING: G.E. Lumination



TASHKENT BELFRY TASHKENT IPPOLITO FLEITZ GROUP 121



OPPOSITE: The stainless-steel scrim covering the walls and ceilings of the sales floors was laser cut by the Bavarian company RIEDL and assembled on-site by the building team.

LEFT: Patterns created by light entering through arched windows and reflecting off of the walls change throughout the day.

**THE CITY OF TASHKENT JUST CELEBRATED ITS 2,200TH BIRTHDAY,** but the Uzbek capital, once a stop on the Silk Road, has retained little of its ancient architecture. In 1966, a 5.0-magnitude earthquake mostly leveled the city's historic center of clay-brick buildings. The Soviet Union rebuilt with modern structures lining wide boulevards. But in the decades since Soviet rule, the Uzbek government has redeveloped the area with an eye toward bringing traditional ornamentation back to the city's architecture while creating a sophisticated capital that embraces an international brand of contemporary design.

One of its recent efforts, the International Forums Palace, anchors a prominent site on Tashkent's Amir Timur Square. A large convention hall – and an outward-looking public face for Uzbekistan – it was designed by a local team, but officials decided to bring in Stuttgart-based Ippolito Fleitz Group for the interiors. Pleased with the result, officials also asked the German firm to design interiors for the adjacent

Belfry Tashkent, a 3,600-square-foot retail space selling traditionally made jewelry, housed in a re-created historic bell tower.

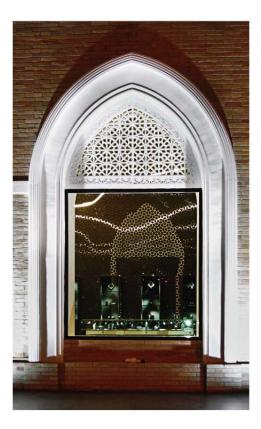
For the store, the firm produced a jewel-box space designed to appear contained and precious but also wrapped in seemingly infinite layers of ornament. "We wanted to interpret the ornamental architectural history of Uzbekistan in a very modern context," says firm principal Gunter Fleitz.

The central conceit hinges on a polished stainless-steel scrim laser-cut into a reductive version of an arabesque pattern. It lines both the ceiling and the walls of two long showrooms and hovers just above the nearly black painted surfaces in order to make it difficult for the eye to discern the actual depth of the spaces. According to Fleitz, "The room doesn't have an end."

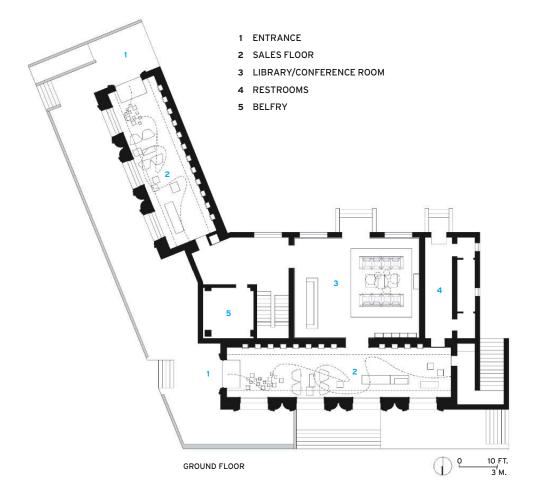
Working with Pfarré Lighting Design, the firm also developed a lighting scheme to accentuate the sense of never-ending ornamentation. In both showrooms, pointed-arch windows punctuate the otherwise hermetic space. The focused beams that they admit bounce off of the highly polished scrim to create patterns. Above, a serpentine cold-cathode lighting element draws a gestural line across the ceiling, adding another level of reflected embellishment.

Amid the swirling patterns, LEDs and adjustable spotlights allow the store to fix attention to the objects on the sales floors. "You can change the lighting easily, and in every showcase there are several focal points," says Fleitz.

The plays of focus and abstraction, traditional and modern that occur throughout the project stem from the firm adapting its ideas to a different design history, says Fleitz. "It's not our idea to bring a kind of German architecture to Uzbekistan. We wanted to find an interpretation of their historic architectural language. Of course, it's an interpretation from our point of view." The result is the kind of space Uzbek officials were seeking: It edifies an idea of tradition but projects a cosmopolitan outlook.



LEFT: A milled-acrylic silver mirror covered with transparent gray foil and mounted in traditionally styled window frames bounces reflected patterns back on the stainless-steel scrim. OPPOSITE: Beyond massive wooden doors at the two entries which heighten the sense of enclosure - and the crisp white furnishings, the only fixed points in the shifting layers of decoration are the vitrines and wall cases that display jewelry.



#### **CREDITS**

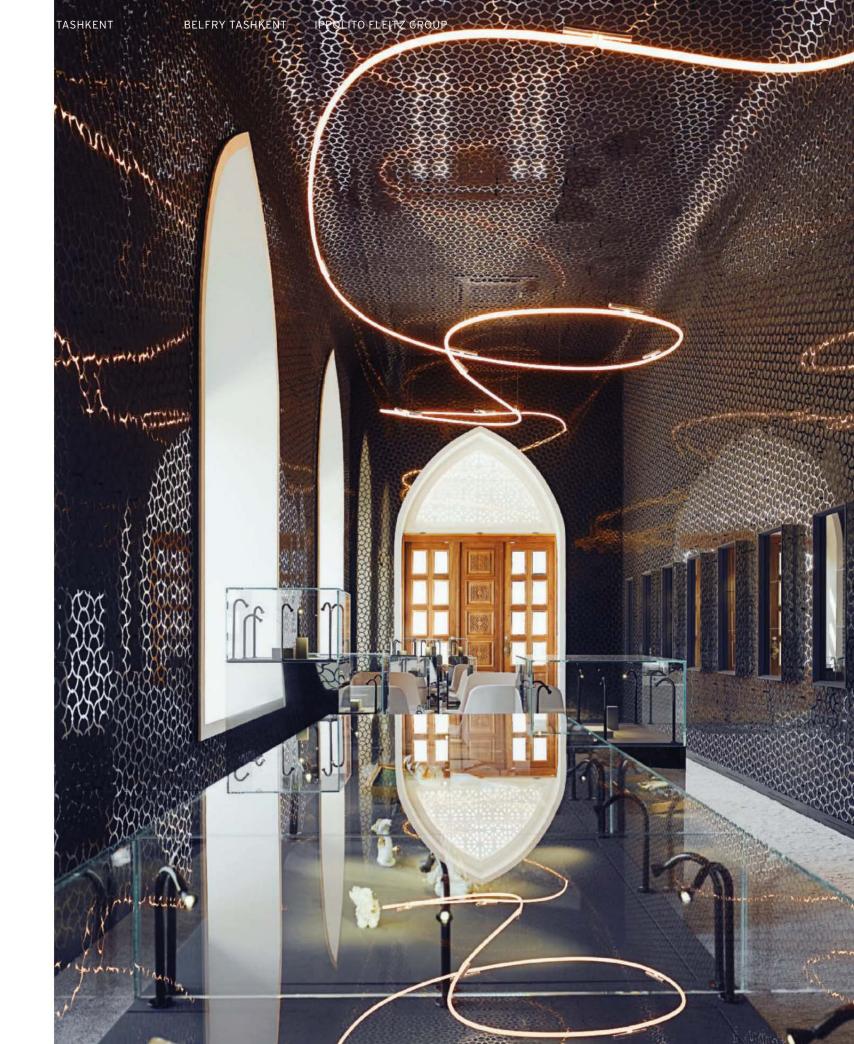
PROJECT: Belfry Tashkent, Uzbekistan

ARCHITECT: Ippolito Fleitz Group – Peter Ippolito,
managing partner; Gunter Fleitz, managing partner;
Steffen Ringler, project director
INTERIOR DESIGNERS: Alexander Fehre, Christian
Kirschenmann, Tilla Goldberg
LIGHTING CONSULTANT: Pfarré Lighting Design
GENERAL CONTRACTOR: RIEDL Messebau,
Ladenbau und Objektbau GmbH

#### SOURCES

ENTRANCES: Handcrafted wood doors
WALL PANELING AND MIRRORS: RIEDL
Messebau, Ladenbau und Objektbau
CARPET: Kasthall
CHAIRS: Offect

LIGHT SCULPTURE: Lichtlauf DISPLAY LIGHTING: Roblon



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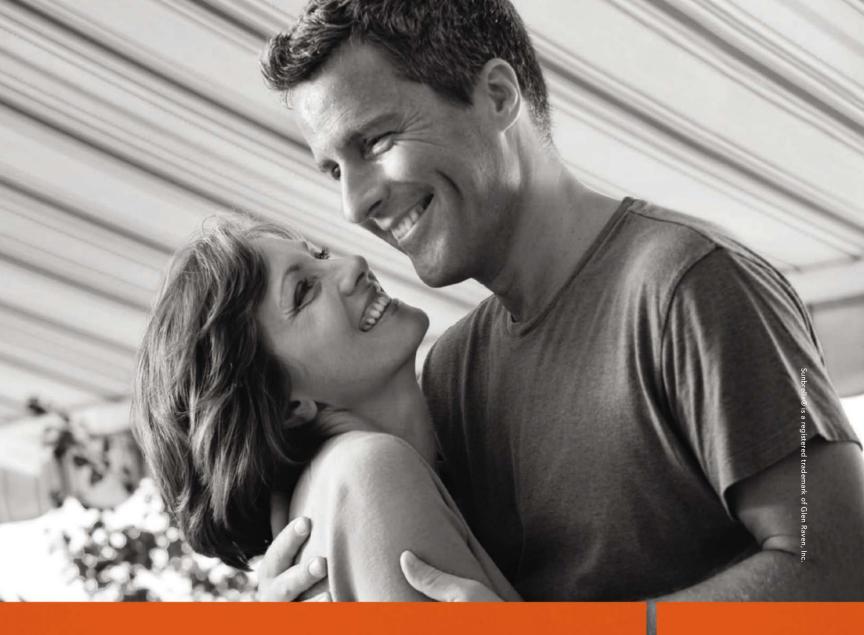
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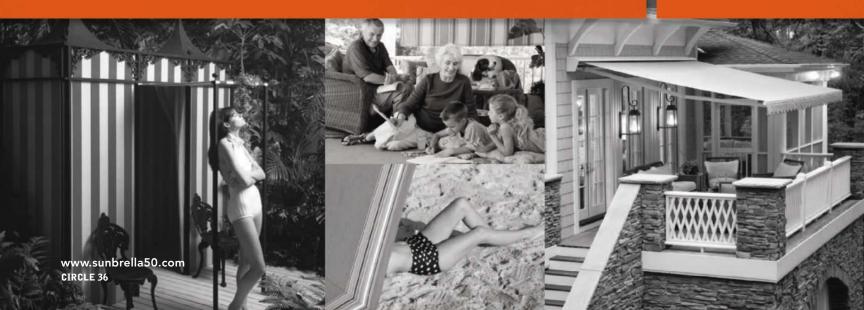


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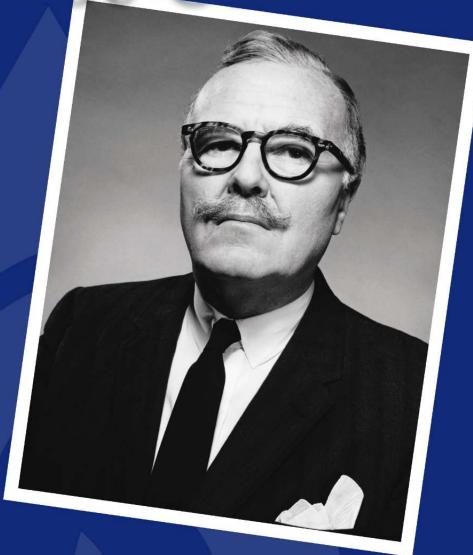
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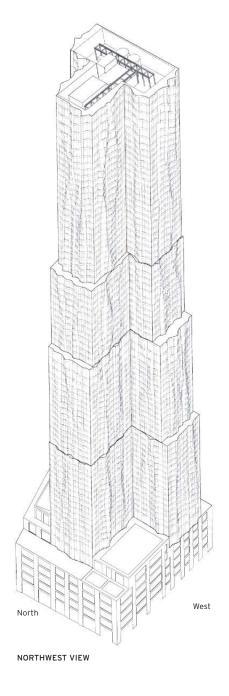


**Building Reputations Together** 

### Behind the Curtain Wall

Three residential buildings with highly innovative facades rise in New York City.

By Josephine Minutillo





#### **Continuing Education**

Use the following learning objectives to focus your study while reading this month's

ARCHITECTURAL RECORD/AIA Continuing Education article. To earn one AIA learning unit, including one hour of health, safety, and welfare (HSW) credit, turn to page 140 and follow the instructions. Other opportunities to receive AIA/CES credit begin on page 143.

#### **Learning Objectives**

- Discuss the advantages of a unitized curtainwall system.
- 2 Identify facades built using a stick system.
- Identify the uses of steel, aluminum, and other metals in facade construction.
- Discuss the facade-procurement process.

To view videos of each of the three buildings discussed in this article, visit our Web site and click on Video Library.

**APARTMENT BUILDINGS LINE** the sidewalks of New York City's streets. High or low, old or new, brick or glass, they define Manhattan neighborhoods. Before the real estate bubble burst and demand for luxury apartments could not be sated, savvy developers enlisted world-renowned architects to make their buildings stand out from the rest. Now, three such buildings featuring highly innovative facades are completing construction, from the Financial District to Greenwich Village to Chelsea.

Forest City Ratner hired none other than Frank Gehry to put his signature on what will be the tallest residential building in Gotham. The unprecedented stainless-steel folds that now drape all but the top few floors of the over-850-foot-tall Beekman Tower have already created a new landmark on Lower Manhattan's skyline beside Cass Gilbert's Woolworth Building and the Brooklyn Bridge. "I designed this building for New York," says Gehry, FAIA. "I'm a deeply rooted contextualist regardless of what anybody says. I stair-stepped the building like a New York skyscraper. It fits in without pandering to, or copying, its neighbors."

To produce the tower's distinctive, wavy skin in a cost-efficient and easily constructible process, Gehry Partners (GP) developed a concept for a flat, unitized curtain wall with a back-ventilated rainscreen cladding attached to its front. The firm solicited technical proposals and cost estimates from three curtain-wall contractors early in design development. Permasteelisa, with whom GP had worked previously on such projects as the Guggenheim Museum Bilbao and the Walt Disney Concert Hall in Los Angeles, was selected to procure and engineer the wall through the construction-documents phase of the project in a highly collaborative effort that also included Gehry Technologies (GT).

Computer models of the T-shaped tower were created by scanning physical models, a process that produced point clouds of scalable data. Designers used Rhino software to do preliminary surfacing of the building, but once those forms were refined, the team switched to Digital Project, an offshoot of Catia, Dassault Systèmes' aerospace and automotive design program, which GT developed to be a more user-friendly platform for the architecture and engineering community. "No other platform out there could have made Beekman Tower," says Terry Bell, GP's project partner. "It is the only one that has the ability to analyze surfaces in a sophisticated way that can be tied to parametrics and script writing."

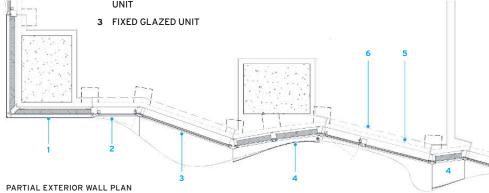
This was especially crucial as the tower's design began to go through several iterations. Since work on the project began in 2003, the shifting economy caused dramatic changes in program, and even threatened to cut the building in half. "That was devastating for a while to contemplate," Gehry recalls.

The switch from condominiums to a building composed entirely of rental units caused signifiRIGHT: Beekman Tower's curving, 16-gauge stainless-steel face sheets are riveted to an aluminum rain screen subframe which were then attached to the flat, unitized curtain-wall panels in the shop. The assembly is hung from the cast-in-place concrete floor slab at aluminum embeds along the slab edge.



129

- 1 CORNER COLUMN **COVER UNIT**
- 2 OPERABLE GLAZED UNIT
- 5 EDGE OF FLOOR SLAB
- 6 INTERIOR WINDOW SILL



cant disruption to the facade because of adjusted floor-to-floor heights and smaller room sizes. "Whenever a unit changes, everything shifts on the surface," explains GT's Dennis Shelden. "The flow of the metal is different."

The digitized physical surface allowed the designers the flexibility to tweak the facade vet still remain within established parameters. For instance, the rain-screen panels can curve out as much as 6 feet; the minimum projection is 6 inches. Throughout the process, Permasteelisa used the revised dimensions and geometries of the 10,300 curtain-wall units to update pricing and automate production.

"We developed a naming convention with Permasteelisa for the different units," says Bell. "All the various component sizes, angles, and extrusion types could be tracked to a particular unit. They were also tied to the manufacturing process with CNC data through to fabrication and installation."

While the facade is complex, the building's concrete structure is straightforward. But because of the surface's waves, each tower floor plate is unique (a rectangular, brick-clad structure forms the building's base). Pouring the concrete slab became complicated at the slab edges, where 4-inch-deep aluminum embeds, to which the curtain-wall units are fit, needed to be precisely



OPPOSITE: The curving steel walls of Gehry Partners' Beekman Tower, now under construction, rise over 70 stories in Lower Manhattan.

ABOVE: The folds of the facade become bay windows for the apartments.

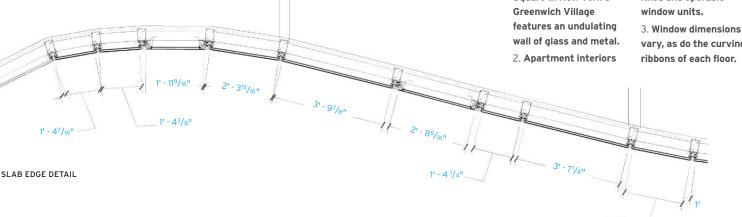






1. KPF's One Jackson Square in New York's Greenwich Village features an undulating have floor-to-ceiling fixed and operable

vary, as do the curving ribbons of each floor.





located. Three separate surveyors were used to verify the coordinates of the embeds.

The 16-gauge stainless-steel face sheets of the rain screen were produced in Permasteelisa's factory in Grand Rapids, Michigan, while the flat curtain-wall units were fabricated in its Miami facility. Despite the complicated geometry of the facade, the shop-fabricated wall assemblies of the unitized system made installation easy and economical.

The design team says there was no cost premium for the curving facade. The tower's southern wall, by contrast, is completely flat. "That was a design choice," says Gehry. "I wanted it to slice. When you see the building in profile from the east and west it looks like someone took a rock and cut it."

#### One Jackson Square

At the intersection of Greenwich and Eighth Avenues in Manhattan's Greenwich Village, an oddly shaped lot sat empty for nearly a century. The last occupant of the site was a string of row houses that was torn down in the 1920s to make room for a subway tunnel beneath it. For years, building over the tunnel proved too expensive to be worthwhile. But with the escalation of the New York real estate market in the last decade, the investment in construction there finally seemed justified.

Kohn Pedersen Fox (KPF) was hired by Hines, the developer, to design a completely as-of-right building while maximizing the zoning volume. The corner portion of the site could rise as high as 11

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stories, while the rest was limited to seven. "We treated the zoning volume like a rock in a stream," says William Pedersen, FAIA, design partner at KPF. "We allowed the surface to pour over the volume to modify its character and create something more acceptable architecturally." The designers envisioned a wall of glass since that was the best material they could imagine to unify the strange form in a consistent manner, but they wanted to deal with glass in a way that was unprecedented.

"We didn't want it to look like an office building," says KPF's Trent Tesch, AIA. "The more individuality we could give to each floor, the better." KPF created a series of striations that flowed horizontally through the building. Each striation is different from the one above it and below it in terms of the way it curves and the arrangement of windows it contains.

"The detail that allowed this resolution between the various layers is the key detail of the whole building," says Pedersen. "These constantly reversed positions pulling back and forth create the ability to separate the overlapping layers." Within each of these undulating ribbons, a series of 18-, 36-, and 48-inch-wide custom, floor-toceiling fixed and operable windows - all of which are completely flat - animate the facade.

"Because of all its facets, the glass wall becomes a kaleidoscopic playback of everything that surrounds it." says Pedersen. "An ordinary glass wall just reflects its context pretty much as you see it. This wall transforms it."

Convincing the New York City Landmarks

neighbors, that a glass wall was the way to go in the historic district presented challenges, but once approved, the real challenge came in building the structure.

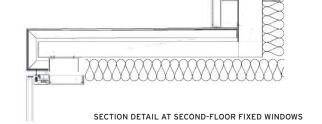
Since construction of the building was scheduled to proceed during the height of New York's building boom, it was nearly impossible to get a large curtain-wall company to take interest in such a relatively small project. Curtain-wall consultant Gilsanz Murray Steficek came up with a concept that would allow the unique wall to be built as a stick system, which meant that much of its assembly would take place on-site. The job of putting it together went to contractors whose experience lay mainly in fabricating storefronts, not luxury apartment buildings.

The metal contractors anchored 18-footlong horizontal sections, bent according to information provided by 3D computer models, to the floor slabs. As with Beekman Tower, it was critical that the concrete slab edges were formed precisely so that the mullion joints would align and the system would be plumb both vertically and horizontally. In a couple of the units containing double-height spaces, a large beam replaces the slab edge.

Another thing One Jackson Square had in common with Beekman Tower was the constantly changing unit mix. (The finished building contains 32 units, with retail expected on the ground floor). The undulating wall proved perfect for providing the needed flexibility. KPF developed a scheme that had four panel types and one variant. Wherever a partition ended up, a vertical mullion could be added at that point in space. The contractors installed the vertical mullions within the horizontal sections on-site. The framed windows, containing low-iron, reflective glass, were then added.

BELOW: One Jackson Square's glass exterior becomes a constantly changing image of what is





- 1 CURTAIN-WALL ANCHOR
- HORIZONTAL MULLION
- SPLIT SPANDREL STRUCTURE
- SPLIT SPANDREL WITH BRONZE **FINISH**
- 5 VERTICAL MULLION
- LOW-IRON, LOW-E INSULATED **GLASS UNIT**
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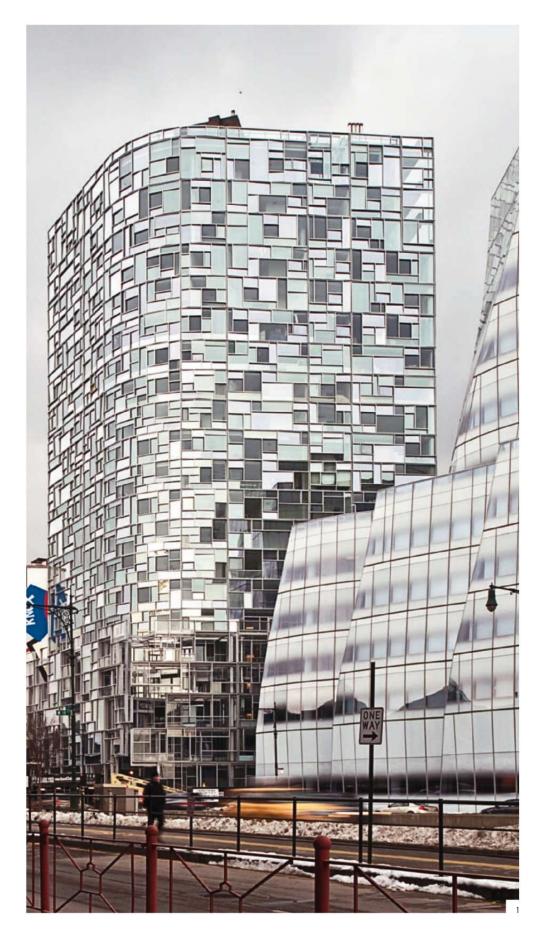


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#### 100 Eleventh Avenue

Just north of One Jackson Square in Chelsea, on a corner lot that sits opposite the billowing IAC Building, Frank Gehry's first building in New York City, Jean Nouvel has created a kaleidoscopic facade with an entirely different character from that of the KPF building.

The De Stijl—like composition of the 250-foot-tall, curving curtain wall is a tour de force of glass and metal. According to Nouvel, "The architecture expresses the exceptional pleasure of being at this strategic point of Manhattan."

The open site is on Manhattan's extreme West Side. Many apartments within the building have unobstructed views of the Hudson River. While Nouvel wanted to capture those views as much as possible, along with the changing light, he was not interested in dematerializing the wall. "We wanted the mullions to look strong and create strong frames," says François Leininger, Ateliers Jean Nouvel's project manager. "You can feel the presence of metal."

Facade consultants Front worked with Nouvel's office to create a curtain wall that featured fixed and operable tilting windows of various sizes and shapes – in essence, a random series of folding planes. To give some regularity to the wall, the team - which included curtainwall fabricators in China - created megapanels, some as large as 12 feet high by 37 feet wide and containing as many as 20 smaller, individual panels. The megapanel joints are the only areas on the facade that have a continuous vertical mullion. The curving section of the facade features a concentration of smaller panels. Several mock-ups were built both in China and the U.S. to evaluate the wall's aesthetic appearance and performance.

- 1. The gridded facade of Jean Nouvel's 100 Eleventh Avenue contrasts with Gehry's billowing IAC Building.
- 2. A crane lifts one of the curtain wall's megapanels into place during construction of the facade.



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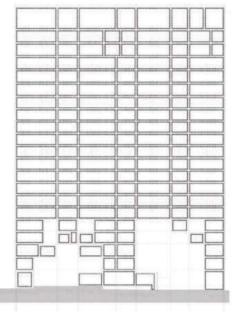
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MEGAPANEL ELEVATION

"There is a huge amount of dimensional variety," says Front's Marc Simmons. "But it is not a mathematically generated facade. It really is hand composed from a very architectural idea. It is a game of fragmentation."

Because of the fragmenting lines, the load path from slab to slab is not continuous. Steel forms the facade's structure since the nonlinear load paths and massive panels would have conspired to make an aluminum structure too large to be attractive inside the apartments. All the 3-inchwide steel elements sit in the same plane, but vary in depth. The steel frame, which is visible from the apartment interiors, is composed of laser-cut steel plates that were welded together, sandblasted, and painted silver. Interiors feature polished concrete ceilings and terrazzo floors.

"The wall was really designed from the inside out," Simmons explains. "A typical floor features seven megapanels, and each megapanel corresponds to a room. In the largest rooms, you have a 37-foot-wide panorama that eradicates all

ABOVE: The anodized aluminum mullions match the silver-painted steel sections on the inside. LEFT: A regular grid of megapanels contains the more random composition of smaller frames. Most

evidence of traditional curtain-wall construction."

floors feature seven megapanels.

Simmons describes this curtain wall as a hybrid, one that combines characteristics of a window wall where individual panels have no structural dependency on adjacent panels. "The fact is, hybrids are becoming much more common because they can achieve certain architectural intentions that could not be achieved by traditional aluminum unitized curtain walls," he explains. "Those are optimized for fabrication efficiencies and ease of transport. The megapanels on this project are so large and heavy that they can't overlap or have interlocking legs. They are independent of each other."

The exterior layer is silver anodized aluminum to match the silver-painted steel on the interior.

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#### "It is not a mathematically generated facade. It really is hand composed from a very architectural idea. It is a game of fragmentation."

While not structural, the aluminum holds the low-E glass panels, which are insulated and laminated. Three different glass coatings were selected to provide a variety of colors on the facade. The glass adheres to a strict STC rating required by noise ordinances for buildings along Manhattan's West Side Highway.

The aluminum mullions also provide the waterproofing (which steel is not good at doing). The waterproofing consists of a series of gaskets and sealant. The cruciform joint where four panels come together is an injection-molded accordion gasket. According to Simmons, "It is a common approach to combine the design intelligence of aluminum with the robust, abstract nature of a steel backup."

The aluminum caps on the front of the facade vary in depth to create a variety of shadow lines over the building. "There is no visual plane that has

any dimensional stability," says Simmons. "It is a very complex but organic assembly."

According to Leininger, the tilting planes and various materials create a patchwork of colors and reflections. "From one angle you catch glimpses of the Gehry building; from another, the sky and sunset."

For the lower apartments that do not have views out to the river, Nouvel offers a different amenity. A thin wall rises several stories as a buffer between the building and the street. The design calls for a vertical garden within that 15-foot-wide space, where trees will be planted at different heights. "From the same apartment, you may see the top of one tree and the trunk of another," Leininger explains.

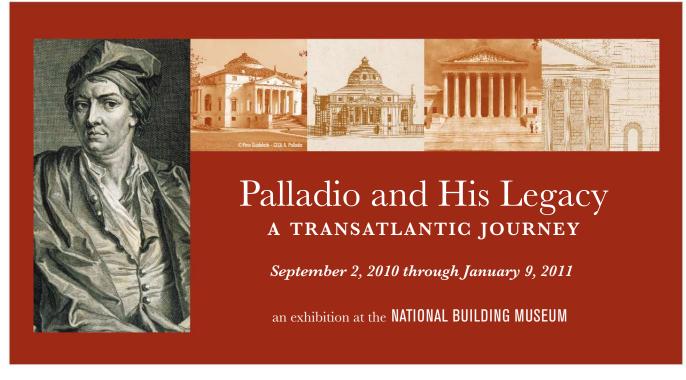
Interestingly, while the facades of all three buildings – Beekman Tower, One Jackson Square, and 100 Eleventh Avenue – push the limits of construction with their groundbreaking uses of metal and glass, all prominently feature traditional masonry walls as well.

While the undulating glass wall of One Jackson Square reflects the brick buildings surrounding it, the brick of its own back wall serves practical purposes. Because the building sits above a subway tunnel, it required a robust

structure. The masonry wall takes the lateral loads on the building and brings them down into the foundation.

The other two buildings include brick to address their immediate contexts. In Beekman Tower, the first five floors – which will house a primary school, office and retail space, and the residential lobby – are clad in buff-colored brick, and act as a simple pedestal for the sculptural form of the tower above. "For better or worse, it was my decision to make the bottom matter-offact so it fit in with the rest of the neighborhood," says Gehry. "There's enough height that the rest of the architecture is pretty damn strong."

For 100 Eleventh Avenue, the view from the east is a much different one than the shimmering glass wall that faces the water. The solid wall on this side of the building takes a more minimal approach – its black brick punctuated by a few randomly arranged windows on each floor. According to Leininger, a key to understanding the building's envelope is recognizing the diversity of its context. "There is the contrast of wide open views to the river from the transparent steel-and-glass facade, and the specific views to Midtown – like paintings on a wall – from the punched windows of the brick facade."





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To receive one AIA learning unit, read the article "Behind the Curtain Wall" using the learning objectives provided. To apply for credit, complete the test below and follow instructions for submission at right.



- 1 The curving panels of the rain screen on Beekman Tower's facade are composed of which?
  - A aluminum
  - в titanium
  - c stainless steel
  - none of the above
- 2 Gehry Technologies developed Digital Project for the architectural and engineering community from which aerospace and automotive platform?
  - A Autodesk
  - в Catia
  - c Rhino
  - **p** none of the above
- 3 Which of the following projects incorporate masonry walls within the building envelope?
  - A Beekman Tower
  - **B** One Jackson Square
  - c 100 Eleventh Avenue
  - **D** all of the above
- 4 The structure for 100 Eleventh Avenue's glass wall is which?
  - A steel
  - в aluminum
  - c a hybrid
  - **p** none of the above
- 5 Which is true about 100 Eleventh Avenue's facade?
  - A the megapanel joints are the only areas on the facade that have a continuous vertical mullion
  - **B** the megapanels interlock
  - c the aluminum extrusions were fabricated in Miami
  - **D** all of the above

AIA/CES credit registration

- 6 Of the projects discussed, which of the following had the greatest influence on facade design?
  - A building height
  - **B** location of building site
  - c interior apartment layouts
  - **b** both a and b
- 7 Which building contains curved glass panels?
  - A Beekman Tower
  - в One Jackson Square
  - c 100 Eleventh Avenue
  - **p** none of the above
- 8 Which of the following statements is false?
  - A One Jackson Square was designed to maximize the zoning volume
  - **B** Unitized curtain walls are designed for efficient fabrication and installation
  - c Beekman Tower is Frank Gehry's first building in New York City
  - Beekman Tower will be the tallest residential building in New York City when completed
- 9 Facade panels have no structural dependency on adjacent panels in which system?
  - A stick system
  - **B** window wall
  - c curtain wall
  - **p** none of the above
- 10 STC ratings for wall assemblies apply to which?
  - A light transmission
  - **B** sound transmission
  - c air transmission
  - **p** none of the above

#### Program title

"Behind the Curtain Wall," ARCHITECTURAL RECORD, 09/10, page 128.

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## Color in the Built Environment: Past, Present, and Future

Keeping color in building designs relevant to psychology, culture, and emerging trends

Provided by Glidden Professional

By Peter J. Arsenault, FAIA, NCARB, LEED-AP

olor is a strong and integral part of both our natural and built environment. People have experienced color for centuries and accordingly, human responses to colors have developed, evolved, changed, and continue to emerge anew. Some of these human responses are deep rooted and common — we will want to eat a red apple or yellow banana but will avoid either one if they are brown. Others are more subtle or related to the symbolism of a particular culture — royal purple robes or hot pink fashion for example. Acknowledging and understanding the role of color in our environment means that it can be used as a powerful design tool to influence the way people experience built spaces, the way they think while there, and even cause direct actions and reactions.



#### **EVOLUTION OF THE USE OF COLOR**

Throughout history, the use of color has reflected the culture, society and technology of the time. When colors were first intentionally used by people, they came from readily available natural materials that commonly produced yellow and red ochre, vegetative green, white chalk, iron oxide reds, and carbon lampblack. The eventual rise of the royal courts of the Roman Empire provided a theater of display for color where rulers and those of nobility reserved the use

#### CONTINUING EDUCATION

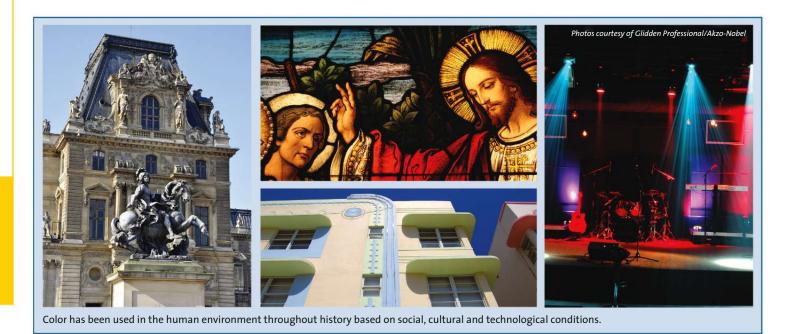
Use the learning objectives below to focus your study as you read Color in the Built Environment: Past, Present, and Future. To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit, answer the questions on page 147, then follow the reporting instructions or go to ce.architecturalrecord.com and follow the reporting instructions.

Learning Objectives
After reading this article, you should be able to:

- Observe and recognize the historical changes and influences in the use of color in fashion and design.
- Explore the aspects of color across the spectrum that engenders positive
  emotional responses among users of buildings including colors that are
  pleasing for the intended use.
- Differentiate and distinguish common symbolism and psychological associations in the U.S. of the general categories of color.
- Investigate emerging trends for color combinations in the built environment.

of white, black and red for their exclusive use. Later on, the Roman Catholic Church, Crusaders, and other religious groups assumed the use of these same colors, particularly red. With the Renaissance, new ideas came from travel, science and art that prompted the idea of a broader palette of colors that could be introduced from velvets, jewels, and dyes moved from one part of the world to another. By the time Louis XIV's reign was completed, lavish style and extravagant embellishment with extreme ornamentation had become integrated into society. Gold woven fabrics and gold embroidery adorned both men's and women's clothing and ladies of the 18th Century French Court adopted light pastels which were favored by Marie Antoinette. The world looked to Paris in 1855 as the fashion center. Aniline dyes brought increased color variety in the late 1800s. Sewing machines modernized the apparel production process as the onset of the Industrial Revolution had a major impact on the availability and proliferation of color in human made things and brought many swift changes.

By the early 1900s popular western culture magazines began to convey messages related to fashion and home, including commentary on the use of color. Rose shades and pastel colors carried over into the home as the Victorian era ended and William Morris introduced a range of natural colored dyes. Of course, this was also the time that Henry Ford is attributed with his famous quote "You can have any color car as long as it is black." He was counterbalanced by Paul Poiret who advocated use of brighter colors of red, purple, gold, emerald and lime green via Ballet Russe.



During the "Roaring Twenties," satin and pearls were all the rage, Coco Chanel did tan and beige in every fashion style, and art deco buildings introduced a range of colors including strong black and white combinations. Things changed during the Great Depression, which had Americans in a dark mood while Hollywood tried to overcome it with platinum blondes, a sense of "lightness" and glamour.

As the Depression subsided, designers became intent on using bright colors but dyes were rationed due to World War II so textiles which were intended to be bright, actually became muted and chalky. Bright reds became muted plums, bright limes were grayed and yellowed, therefore, women in Britain and the U.S. wore suits of khaki and olive. With material in short supply, denim was introduced but when servicemen returned from foreign ports, tropical motifs began to appear with bright primary colors influencing home fashion.

Things were looking up in the 1950s when manufacturers could take some risks since it seemed that everything they made would sell. As technology influenced the market, titanium was used to create brighter whites and mass produced colors were available in everything from lipstick to Tupperware. Psychedelic colors led the way in the 1960s through a long, unusual color trip where designers like Pucci used swirling prints for both women and men who were trying to make a fashion statement. Ethnic looks began to influence the country and shopping malls and boutiques brought new focus to fashion and to color. Those who lived through the 1970s certainly have colorful memories of it, even if they aren't particularly fond ones. Navy, browns and rusts were popular along with denims, jumpsuits and granny floral dresses while disco and top stitched polyester suits were "cool." Red, white and blue fashion pointed out the influence the bicentennial had on the country. Interior building colors moved to an overabundance of beige, green and grey, probably as an escape from the fashion overstimulation going on at the time, although avocado and gold appliances were in vogue.

The 1980s were characterized by extravagant hair dyes, dramatic and theatrical eye make-up, multi-layering of jewelry, floral accents and a punk influence. Opulence in fashion and architecture led to jeweled colors and faux finishes while music videos brought neon bright colors to the scene. During the 1990s the internet and other media changed the way we interact with the world with an accompanying explosion in television and internet shopping. With more American brands being sold overseas and more designers doing international work, lessons were being learned about cultural differences and sensitivity to colors and design. Our most recent decade of the 2000s has seen an almost constant influence on all aspects of design from every direction. Sophisticated urban highlights were dominant mid decade with eclectic mixes and strong influence from all things internet. The current trend and color pace could certainly be described as intense from both mass and micro levels with customization and unique personalization becoming a key to meeting consumer demands.

#### **CURRENT COLOR PSYCHOLOGY AND SYMBOLISM**

So here we find ourselves in 2010 at a new point in history influenced by all that has transpired before, the current events of our time, and an eye toward the emergent future. As desingers, we may be aware of the basic color groups to pick from, but as participants in the current times, we know there are more choices than ever before in variations, hues, and combinations of those colors. In the world of design, we might assume basic psychological associations and symbolisms, but what about the general public? If that is who we are serving, then how do we know the associations we are making are current, appropriate, and desirable for the spaces we are creating? Color specialists and professionals in this field have researched these questions and their work is directly relevant to design decisions related to color. Summarized below is some of their commonly accepted current thinking related to the standard "warm" colors of red, orange, yellow, and the warm neutrals of

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brown and beige along with "cool" colors of green, blue, violet and the cool neutrals of grey, charcoals, as well as black and white. Each of these colors is presented based on current, generalized, U.S. cultural psychological connections and symbolisms along with some alternative international cultural connections.

In this context, applications of each color group to selected building types are also indicated.

#### Warm Colors

In general, the four color groups below are interpreted as warm or hot, coming from the longer wavelengths of the light spectrum and typically create the feeling of advancing toward us.

**Energetic red.** Think of red roses, red lips, red flags, or red dresses. In the U.S., this is the color of love, desire, passion, excitement, strength, anger, aggression, energy, stimulation and courage. Symbolically, red creates vitality, demands results, encourages achievement, enhances activity, increases pulse rate, nurtures passion, promotes alertness, prompts action, stimulates excitement, and suggests a warm environment.

Red is viewed somewhat differently in various cultures, including the following:

China: sex, love, and joy England: aristocracy

United States: Christmas and Valentine's color, danger

Colors from this area of the palette include pink, rose, magenta, cranberry, maroon, burgundy, wine, mauve, ruby and crimson. These colors are best suited for active environments such as athletic and sport facilities, cosmetic areas, restaurant facilities, energetic atmospheres, factory and industrial areas, fast food environments, office areas, passageways and corridors, and physical therapy areas. It is also the industrial safety color for fire protection.

Active orange. This is the color of orange fruit, orange construction cones, and orange pumpkins. Orange evokes feelings of being friendly, fun, playful, childlike, flamboyant, energetic, gregarious, vibrant, social, and welcoming. It encourages movement, implies good cheer, indicates form, promotes joyfulness, releases emotion, and suggests a warm environment.

Cultural symbolisms for orange include:

France: hope & fertility

China: power

United States: Halloween, creativity, autumn

Warm colors from this area of the palette include melon, clay, salmon, coral, peach, rust and copper. These colors are appropriately suited to active environments, areas incorporating fun, athletic and sports facilities, cosmetic areas, dancing establishments, dining areas and cafeterias

(including restaurants/fast food facilities), energetic atmospheres, entertainment areas, healthcare environments, high energy areas, industrial safety/hazard areas, office areas, passageways and corridors, physical therapy areas, showers and restrooms.



Innovative yellow. Yellow shows up on bright yellow flowers, yellow taxis, and those classic yellow smiley faces. It is attributed with making people feel cheerful, happy, joyful, optimistic, imaginative, inspirational, creative, inquisitive, hopeful, and spiritual. Yellow advocates innovation, denotes a modern attitude, develops enlightenment, encourages spontaneity, expresses caution, indicates intellectualism, implies free spirit, inspires creativity, invites newness, denotes lightness of spirit, offers zest and joyfulness, promotes surprise, radiates warmth, raises alert level, proposes originality, and creates a sense of serendipity.



Yellow personifies a true variety of symbolism in different

India: brides Egypt: prosperity

Western: hope, joy, happiness, hazards, cowardice

Variations within the yellow grouping include ochre, buttercup, cream, gold, ivory, almond and lemon. It is effective in athletic facilities, creative environments, educational areas, fast food locations, healthcare, public areas, office areas, recreation locations, and stairwell areas. It is also an industrial safety color used to invoke caution.

Conservative warm neutrals — beige and brown. These hues are the subdued tones from the longer wavelengths of the spectrum with the feeling of subtly advancing toward us and include shades of off-white, tan, taupe, beige, ivory, oyster, pearl, sand, bronze and brown. These warm neutral colors evoke a comfortable attitude, conservative nature, implies stability, promotes a secure feeling, suggests a subtle warm environment, and a versatile nature. These colors work well in commercial facilities, an entertainment complex, factory and industrial areas, museum gallery environments, office complex facilities, recreation locations, shopping areas, and sports venues (with accent).



The use of warm neutrals for both exteriors and interiors creates conservative, appealing conditions.

Thinking of brown coffee beans, brown earth, brown chocolate, or brown mushrooms conjures up comfortable feelings. They might include a sense of being conservative, secure, quiet, calm, reliable, stable, sophisticated, conventional, confident, safe and protected. In some cultures, however, brown can take on other meanings:

France: melancholy Europe: reassurance

Western: wholesome, earthy, dependable, steadfast, health

#### **Cool Colors**

In general, the color groups below are interpreted as cool or cold, coming from the shorter wavelengths of the light spectrum and typically create the feeling of retreating away from us. It should be noted, however, that some greens with more yellow or violets with more red in their makeup will be considered as warmer than those containing more blue in their makeup.

**Calm green.** Green is the color of plants, of green jade, of green highway signs, and, in the U.S., green is the color of money. Green evokes a sense of being healthy, youthful, generous, envious, stable, persistent, balanced, intelligent, moral, and ethical. Green cultivates tenacity, enhances concentration, facilitates judgment, fosters perseverance, nurtures relaxation, offers balance, promotes security, provides coolness, represents a refreshing atmosphere, renews the spirit, suggests a cool environment and a thoughtful essence.



With only a few exceptions, green is a generally consistent color in

varying cultures: Europe: fertility Egypt: healing

Western: spring, birth, jealousy, environmental awareness

Continues at ce.architecturalrecord.com.

**Peter J. Arsenault, FAIA, NCARB, LEED-AP** is an architect and green building consultant based in New York State focused on sustainable design and practice solutions nationwide. He can be reached at www.linkedin.com/in/pjaarch

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Program title: "Color in the Built Environment: Past, Present, and Future" (09/10, page 143). AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare (HSW) credit. (Valid for credit through September 2012), Directions: Refer to the Learning Objectives for this program. Select one answer for each question in the exam and fill in the box by the appropriate letter. A minimum score of 80% is required to earn credit. To take this test online and avoid handling charge, go to ce.architecturalrecord.com One of the earliest examples of a culture using colors such as red, white, and black as a The violet family of colors promotes all of the below EXCEPT: 1. means of social distinction is: meditation. pre-historic culture. h. dignity. b. the Roman Empire. commercialism. c. the Catholic Church. c. d. reverence. the reign of Louis XIV. Drifts and observable movements ina prevailing direction describe a: 2. The rise of American products and services being offered overseas revealed differences trend. in cultural significance and symbolism related to color. b. fashion. a. c. hype. False b. none of the above The family of red colors is well suited for: 3. 8. In terms of color psychology, yellow is associated with: athletic and sports facilities. warmth. b. fast food facilities. b. sunshine. physical therapy facilities. c. c. being refreshing. all of the above all of the above The yellow color family is appropriately used for all locations EXCEPT: 9. Using color as a way of decoding our environment to help people navigate space and athletic facilities. a. clarify reality, is representative of the trend of: b. healthcare areas. the beauty of everyday life. c. banking institutions. h. pop-up pleasure. educational areas. d. finding the way. c. molecular magic. d. 5. The color green: facilitates judgment. The trend of "made with love" reflects a green or sustainable awareness where the full b. nurtures relaxation. life cycle of materials, a responsible approach, and the integrity of making one thing suggests a cool environment. well is embedded. c. all of the above. True b. False Last First ☐ To register for AIA/CES credits: Answer the test questions and send the completed Name Name form with questions answered to address at left, or fax to 888/385-1428. Job Title ☐ For certificate of completion: As required by certain states, answer test questions, fill out form, and mail to address at left, or fax to 888/385-1428. Your test will be scored. Firm Name Those who pass with a score of 80% or higher will receive a certificate of completion. Address Material resources used: This article addresses issues concerning health, safety and Zip City State I hereby certify that the above information is true and accurate to the best of my Tel. Fax knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period. E-mail AIA ID Number Completion date (M/D/Y) Signature Date Check one: ☐ \$10 Payment enclosed. (Make check payable to McGraw-Hill Construction and mail to: Continuing Education Certificate, PO Box 5753, Harlan, IA 51593-1253.) Charge ☐ Mastercard ☐ American Express Card# 090SPONB Exp. Date

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# Wood Rates: How Wood Products Stack Up in Green Building Systems

Green building rating systems credit wood, but do not recognize its full potential as a sustainable building material.



#### **Provided by Forestry Innovation Investment**

he choice of wood as a green building material is intuitive. Not only does it grow naturally, it's renewable and is completely recyclable. Wood is an effective insulator and uses far less energy to produce than concrete or steel. It can also offset climate change, since trees consume carbon dioxide as they grow, with the resulting products storing carbon for centuries. Wood's natural beauty and warmth have a positive effect in any application and have been shown to generate improved productivity and performance in schools, offices and better patient outcomes in hospitals.

#### **CONTINUING EDUCATION**

Wood Rates: How Wood Products Stack Up in Green Building Systems.
To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit and sustainable design, answer the questions on page 153, then follow the reporting instructions or go to ce.architecturalrecord.com and follow the reporting instructions.

## Learning Objectives After reading this article, you should be able to:

- · Discuss the sustainable aspects of wood
- Describe how wood receives credits in green building systems
- · Articulate the importance of life cycle analysis
- Communicate emerging trends in recognizing wood's sustainability

With all these attributes, wood might be thought of as a major credit earner in today's green building rating systems. But, according to a 2010 study by the Light House Sustainable Building Centre in Vancouver, BC, an average of only 20 percent of credits in commonly used rating systems relate to wood and, while residential ratings systems favor wood, in non-residential systems it is slightly easier to gain points by using other building materials. This article will examine how wood is covered in several key rating systems, as well as ways in which wood's green potential has gone under-recognized. Discussed, too, will be possible changes — including adoption of life cycle analysis and environmental product declarations — in the way rating systems view wood as they continue to evolve in the face of growing awareness of how buildings impact carbon emissions, resource depletion and eco-system degradation.

#### **WOOD IS GOOD**

Wood is an abundant, affordable and renewable natural resource, and when sourced from well-managed forests, it can be environmentally benign, as well. Strength for strength, wood uses less energy to produce than concrete or steel. Wood's inherent environmental merits include its material efficiency related to its combined thermal mass, as well as its water resistance, structural integrity and finish quality. Clean wood waste is easily recyclable. Add to these attributes the fact that wood can offer habitat restoration and eco-system well-being, support for local economies and contribution to carbon neutral/positive building.



Timber, in fact, is known for its ability to store carbon, giving it an environmental advantage over other construction materials with their energy-intensive production processes. Producing building materials such as steel, cement and glass require temperatures of up to 3,500 °F. In contrast, forests with healthy ecosystems are virtual carbon sinks by removing carbon dioxide (CO<sub>2</sub>) from the atmosphere. In the process of photosynthesis, all parts of the tree trunk, branches, leaves, and root systems — store carbon in the form of sugars, releasing oxygen back into the atmosphere. While trees that die and decompose in the forest release carbon as CO, back into the atmosphere, no more carbon is emitted in the production and whole life cycle of a wood product than is absorbed from the atmosphere when the tree is growing. Timber that ends up as wood products for use in buildings actually stores carbon over the life of the building. At the end of its structural use, it can be deconstructed, salvaged (for more information see www.dontwastewood.com) or used as an energy source, substituting for fossil fuels.

#### Systems Studied

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**BREEAM.** The UK-based Building Research Establishment's (BRE) Environmental Assessment Method for offices, multi-family residential and ecoHomes offers credits in ten categories according to performance which are then added together to produce a single overall score on a scale of Pass, Good, Very Good, Excellent and Outstanding. Established in 1990, BREEAM is the basis for most other rating systems and with more than 100,000 certified buildings, it is the world's most widely used green building rating system.

Built Green™. A voluntary program for residential construction, Built Green was started in the U.S. by home builders. In Canada, owned and managed by the Built Green Society of Canada, this system is open to members of participating Home Builders' Associations and offers certification for new single-family homes and row homes, and a pilot in multi-story residential.

CASBEE® (The Comprehensive Assessment System for Building). Japan's green standard uses building environmental efficiency (BEE) as a basis for assessment by dividing the building environmental quality and performance by the building environmental loads. Developed by a committee under the initiative of the Ministry of Land, Infrastructure and Transport in 2001, the system has sequentially developed various categories including new construction, existing buildings and renovations.

Green Globes<sup>™</sup>. In the U.S., Green Globes is owned and operated by the Green Building Initiative which, in 2005, became the first green building organization accredited as a standards developer by the American National Standards Institute (ANSI), and began the process of establishing Green Globes as an official ANSI standard. In Canada, the federal government uses the Green Globes suite of tools and it has been the basis for the Building Owners and Manufacturer's Association of Canada's (BOMA) "BESt" program. Green Globes is a web-based tool that provides feedback on how to reduce operating costs and environmental impacts of commercial projects based on input from the design team. Third-party certification of the site results in a higher rating.

**Green Star.** Australia's green standard launched by the Green Building Council of Australia in 2003. Since then, a variety of Green Star rating tools have been developed from multi-unit residential to retail, office, and office interiors. There are currently similar programs in New Zealand and South Africa.

**LEED®** (Leadership in Energy & Environmental Design). The U.S. green building certification program was developed by the U.S. Green Building Council and provides third-party verification that a building or community was designed and built using strategies that improve performance in the following areas: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, stewardship of resources and sensitivity to their impacts, and indoor environmental quality. LEED rating systems are tailored to various market segments. LEED version 3 was launched in 2009. LEED is increasingly in use in other countries such as Canada, China, India and Mexico.

Living Building Challenge. This program of the Cascadia Green Building Council is mainly active in the US and Canada and is meant to be the next step after LEED Platinum and a step before regenerative buildings. Intended "to define the highest measure of sustainability attainable in the built environment based on the best current thinking — recognizing that 'true sustainability' is not yet possible." No project has yet to incorporate all facets of the program.

**NAHB (National Association of Home Builders) Model Green Home Guidelines.** Published in 2005, these guidelines, now part of NAHB's National Green Building Program, include the ANSI approved ICC-700-2008 National Green Building Standard. They are the basis for the Green Scoring Tool, and can also function as the foundation for local organizations' green building programs.

**The SB Tool.** This software implementation of the Green Building Challenge assessment method has been under development since 1996. Initially launched by Natural Resources Canada, the process is now the responsibility of the International Initiative for a Sustainable Built Environment.



#### **HOW WOOD IS CURRENTLY RATED**

The Light House Sustainable Building Centre study commissioned by Forestry Innovation Investment examined the ways in which the world's major green building rating systems incorporate wood, pinpointing where the ecological value of wood products was most recognized. Systems surveyed include: BREEAM, Built Green<sup>TM</sup>, CASBEE<sup>®</sup>, Green Globes<sup>TM</sup>, Green Star, LEED<sup>®</sup>, the Living Building Challenge, NAHB Model Green Home Guidelines, and the SB Tool. As several systems such as LEED and Built Green offer a range of applications for specific building types, a total of 18 applications were assessed. All systems are voluntary and unregulated.

Generally, every rating system offered a certain percentage of credits that could be achieved with the use of wood. In most cases, wood is recognized by rating systems in the following areas:

Certified wood. Most rating systems give credits for wood that has been certified by a respected third party verifier as coming from a sustainably managed forest. Different rating systems allow for different certification schemes, with some more inclusive than others. While rating systems reward projects that use certified wood, they do not hold competitive materials such as concrete or steel to the same level of accountability, nor penalize them for failing to achieve a similar standard.

Recycled / reused / salvaged materials. Many rating systems give credits for recycled content, though only some allow salvaged wood to count towards this credit.

Local sourcing of materials. Most rating systems credit use of local materials, though the intent differs and ranges from supporting the local economy to reducing the environmental impacts from transportation. "This makes sense on an intuitive level since less energy will be required to transport the materials," writes Wayne Trusty, President of the Athena Institute, a non-profit organization that seeks to improve the sustainability of the built environment through better information and tools. "But there are a tremendous number of factors that influence whether or not a material produced

locally is better for the environment, including the sources of its components, type of manufacturing process and mode of transportation. So, in fact, using locally-produced materials could either add to or detract from a building's sustainability."

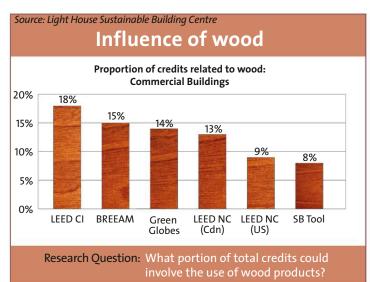
Some rating systems use local content credits with the intent of rewarding lower embodied energy and/or life cycle emissions, when in fact a life cycle analysis approach may be more appropriate. Rather than placing a travel distance limit for sourcing the material a more rigorous approach would be to have separate credits for local resources and embodied energy, as is done in Japan's CASBEE.

**Building techniques and skills.** Rating systems that focus on low-rise residential homes tend to be less performance-based and more prescriptive standards than those for commercial buildings, and frequently prescribe specific building techniques, such as advanced framing that reference wood.

**Waste minimization.** Many systems credit diversion of a certain amount of construction waste, or for minimizing wasted woodcuts. Architects may want to confer with builders on how to earn points by implementing certain job site protocols in order to leverage their use of wood in green building credits.

**Indoor air quality.** Most rating systems demand that all wood adhesives, resins, engineered and composite products contain no added urea formaldehyde and have strict limits on VOC (Volatile Organic Compound) content. While many products (such as carpets), have created clear guidance to specifiers about their toxicity, information about wood products (particularly panel products such as plywood and MDF) can be less straightforward, compounded by challenging tracking and quality control systems.

The study found that the prevalence of wood varied by rating system. Rating systems for single family homes in North America were the most inclusive of wood products: 25 percent of all credits in Built Green Canada for Homes involved the use of wood. Rating systems for commercial buildings and buildings outside of



North America were the least inclusive: less than 10 percent of the credits in SB Tool, LEED NC US, and BREEAM Code for Sustainable Homes related to wood. In rating systems for commercial buildings, between 8 percent and 18 percent of the total credits related to wood, with LEED CI at the top of the range.

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The use of wood helped achieve six points in Canada's first LEED Platinum certified building, the Operations Center at Parks Canada's Gulf Islands National Park Reserve. The reserve, which includes 15 islands and inter-tidal areas between Victoria and Vancouver, British Columbia, completed its Operations Center in 2005. The use of Canadian Standards Association-certified (PEFCendorsed) wood garnered points for the use of wood materials from local sources. Indigenous species were used for both finishes and structural application. Western red cedar, which has a strong historic and cultural importance locally, was used extensively for exterior cladding and sunscreens and finished with a water-based, clear finish that serves as a water-repellent shield and protects against ultra-violet (UV) degradation. Inside, cedar slat walls define the central stair and accent walls in other rooms. Douglas fir was used in glulam beams and columns that provide main structural support, and edge-grain Douglas fir for window and doorframes, casings and trim, and for the structural decking in the second-floor walkway bridges.

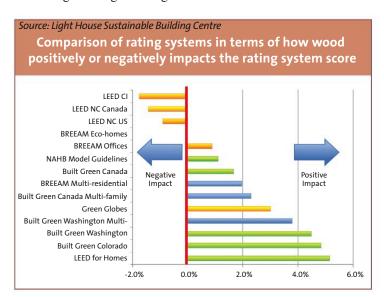
Wood finishes and structural members were finished with clear, water-based finishes with VOC content. In millwork and wood doors, clear birch veneer was used over formaldehyde-free substrates. Minimizing VOC emissions from all wood products — plywood, medium density fiberboard and solid core doors included — gained a point under indoor air quality. Though not eligible for LEED points, wood was the only structural and finish material that comes from a renewable resource. "The mandate of our client, Parks Canada, is the preservation of Canada's National heritage sites and they wished to demonstrate this commitment in their Operations Centre through the selection of sustainable/renewable building materials," says Larry McFarland, FRAIC, MAIBC, Principal, McFarland Marceau Architects Ltd., Vancouver, British Columbia. "Although LEED is a measuring device, it does not yet recognize the true environmental input of various construction materials of which wood is the only renewable one. We have not used other green building rating systems but advocate that all building materials should be held to the high level of accountability to which wood is subjected.



Wood helped the Gulf Island National Reserve Operations center to achieve LEED Platinum status.

#### **HOW WOOD IMPACTS RATING SYSTEM SCORES**

To understand the extent to which the use of wood aids or hinders rating system success, the study compared two theoretical projects in which the intensity of wood use was changed but all other considerations were held constant. In one "high intensity wood" project, wood is specified wherever possible. In the other "low intensity wood" project, other products are used in lieu of wood — selected based on their ability to maximize rating system point success. Several caveats applied. The assumption was that all wood-related credits would be achieved, regardless of cost or complexity — a scenario that is virtually impossible in reality. Some certified products are more difficult to specify than others, such as certified heavy timbers; some strategies are technically difficult or prohibitively costly to achieve; and some are challenged with regulatory constraints, including the use of wood in non-combustible construction. In addition, some systems could not be compared due to the integrated nature of the rating system and the structure and scope of the materials credits, as in Green Star and Living Building Challenge.



Caveats notwithstanding, the analysis found that while the intensity of wood used in a project did not have a large impact on the number of total credits that can be achieved, it was clear that certain rating systems are more "wood-friendly" than others. Rating systems for single family homes such as Built Green were most predisposed towards wood, while commercial building systems such as LEED (U.S. and Canada) made it slightly easier to score points by not using wood. "Rating systems have become the definition of energy efficient and environmentally responsible building, and that represents a limited view," says Helen Goodland, Executive Director of the Light House Sustainable Building Centre. "Yet rating systems are continually evolving. How wood is considered is surely an area of interest to be explored."

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Program title: "Wood Rates: How Wood Products Stack Up in Green Building Systems" (09/10, page 149). AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare/sustainable design (HSW/SD) credit. (Valid for credit through September 2012), Directions: Refer to the Learning Objectives for this program. Select one answer for each question in the exam and fill in the box by the appropriate letter. A minimum score of 80% is required to earn credit. To take this test online and avoid handling charge, go to ce.architecturalrecord.com Which rating systems made it slightly easier to score points by not using wood? 1 An average of how many credits in commonly used rating systems relate to wood? 6. 50 percent commercial building systems such as LEED (U.S. and Canada) a. b. 14 residential buildings such as LEED (U.S. and Canada) 20 percent office buildings in the UK. c. C. d. 25 d. sustainable buildings in Japan 2. Timber that ends up as wood products used in buildings: 7. Gaps in most rating systems in areas where wood may play a positive role include: stores carbon over the life of the building. acoustical performance. b. requires an intensive energy process. h. life cycle analysis. has a neutral environmental impact. c. material efficiency. all of the above d. compromises the environmental benefits of a forest. d. Most rating systems give credits for wood that: 8. Of rating systems surveyed, how many recognize wood's life cycle benefits? 3. is salvaged. a. a. b. b. is used in passive design. none  $\Box$ has acoustical properties.  $\Box$ c. c. 6 has been certified as coming from a sustainably managed forest. 16 Research indicates that homes framed in steel and concrete required how much more Which rating systems were the most inclusive of wood products? Systems for: 9. a. offices in Japan. energy respectively than wood-frame homes? 25 percent/50 percent b. single-family homes in North America. two times as much/three times as much sustainable buildings in Australia. b. c. 16 percent/17 percent Canadian systems. c. d. an imperceptible difference d. Which rating systems were the least inclusive for wood? Systems for: 5. commercial buildings. 10. What might rating systems adopt as a separate credit? a. passive design b. residential buildings and buildings in Australia. commercial buildings and buildings outside of North America. b. dematerialization c. salvaged wood buildings in the UK. c. d. LCA Last First ☐ To register for AIA/CES credits: Answer the test questions and send the completed Name Name form with questions answered to address at left, or fax to 888/385-1428. Job Title ☐ For certificate of completion: As required by certain states, answer test questions. fill out form, and mail to address at left, or fax to 888/385-1428. Your test will be scored. Firm Name Those who pass with a score of 80% or higher will receive a certificate of completion. Address Material resources used: This article addresses issues concerning health, safety, welfare and sustainable design. Zip City State I hereby certify that the above information is true and accurate to the best of my Tel. Fax knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period. E-mail AIA ID Number Completion date (M/D/Y) Date Signature Check one: 🖵 \$10 Payment enclosed. (Make check payable to McGraw-Hill Construction and mail to: Continuing Education Certificate, PO Box 5753, Harlan, IA 51593-1253.) ☐ Visa ☐ Mastercard ☐ American Express Card# 090SPONA

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Vice President, Global Thought Leadership & Business Development, McGraw-Hill Construction



The Outlook for Homebuilding & Residential Remodeling Kermit Baker, Ph.D., Hon. AIA Chief Economist, The American Institute of Architects



2011 Construction Outlook
Robert Murray
Vice President, Economic Affairs, McGraw-Hill Construction

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#### **DATES & EVENTS**

#### New and Upcoming **Exhibitions**

#### **London Design Festival**

London

September 18-26, 2010

The diversity of world-class design talent in -and attracted to - London is one of the key strengths of the city. The London Design Festival brings this talent to the fore every year to connect with others, explore issues, do business, exchange ideas, and have fun. The program ranges from major international exhibitions and trade events to installations, talks, seminars, product launches, and receptions. Festival events are staged in up to 150 different venues across the city. Check individual event listings for details. The festival's hub is at the Victoria and Albert Museum. For more information, visit www.londondesignfestival.com.

#### Made in New York

New York City

October 6-November 2010

The American Institute of Architects' New York Chapter is sending a message that design matters by highlighting the work of New York architects through its member showcase. Building on the success of last year's New York Now! subway exhibition, the AIA New York Chapter/Center for Architecture will open MADE IN NEW YORK in the West 4th Street subway station as part of the Center for Architecture's Annual Architecture Week. The exhibition will highlight the work of Chapter members across the globe. Posters will canvas the station, showing commuters and tourists alike the tremendous design being generated in New York City. For more information, visit http://cfa.aiany.org.

#### Notes from the Archive: James Frazer Stirling, Architect and Teacher

New Haven, Connecticut October 14, 2010-January 2, 2011

The Yale Center for British Art and the Canadian Centre for Architecture, Montréal (CCA) have coproduced the firs-ever exhibition of the archive of British architect, Yale School of Architecture professor, and Pritzker Prize laureate James Frazer Stirling. Premiering at the Yale Center for British Art, the exhibition will feature more than 300 original architectural drawings, models, and photographs drawn from the James Stirling/ Michael Wilford fonds at the CCA. Together, the works reveal Stirling's wide-ranging approach to architectural composition and language, as well as the fundamental importance of historic and Modernist architecture to his work. For more information, visit http://ycba.yale.edu.

#### **Ongoing Exhibitions**

#### **Amplify: Creative and Sustainable Lifestyles** in the Lower East Side

New York City

Through September 15, 2010

The New School presents an exhibition of sustainable community design, including innovative neighborhood gardening initiatives in New York City's Lower East Side. Amplify proposes a dialogue within the local community about creating a sustainable future, showcasing the process

for investigating and designing new scenarios for social innovation practices. Highlights of the exhibition include a large-scale map of local sustainability initiatives, profiles of local grass-roots innovators, and a selection of social innovation cases from around the world. For more details, visit www.ampifyingcreativecommunities.net.

#### Venice Biennale: 12th International Architecture Exhibition

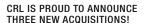
Venice, Italy Through November 21, 2010

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This year's architecture exhibition – titled *People Meet in Architecture* – is directed by Kazuyo Sejima, the first woman to direct the Architecture Sector of the Biennale. The show is laid out in the Palazzo delle Esposizioni della Biennale (Giardini) and in the Arsenale, forming a single itinerary, with 48 participants: firms, architects, engineers, and artists from around the world. The 2010 Architecture Biennale is a reflection on the radical changes that are taking place in the 21st century and explores how architecture can clarify new values and a new lifestyle for the present. For more information, visit www.labiennale.org/

# Small Scale, Big Change: New Architectures of Social Engagement

New York City

en/architecture

Through January 3, 2011

This exhibition focuses on 11 architectural projects in underserved communities located around the world, including the U.S., Bangladesh, Brazil, Burkina Faso, Chile, Lebanon, France, South Africa, and Venezuela. Confronting inequality via the tools of design, these architectural projects engage social, economic, and political conditions by developing architectural interventions that beginning with an understanding of – and deference to – a community. For more information, visit www.moma.org.

## New Pictures 3: James Welling, Glass House Minneapolis

Through March 7, 2011

On view at this exhibition focuses on the innovative work of Los Angeles photographer James Welling. Welling's atmospheric works featuring on Philip Johnson's Glass House reveal the ambiguity between the interior built space and exterior natural space evoked by Johnson's home. At the Minneapolis Institute of Arts. For more information, visit www.artsmia.org.

# Lectures, Conferences, and Symposia

#### ASAE10: Architecture and Beauty – A Troubled Relationship

Malmö, Sweden

September 10-11, 2010

Held at Lund University, this two-day symposium aims to maintain an ongoing discussion about international education programs and architectural education strategies by raising poignant issues regarding the place of beauty, aesthetics, and self-expression within the psychology and the design process of architects. For more information, visit www.lu.se.

#### **Annual Landscape Architecture Convention**

Washington, D.C.

September 10-13, 2010

The largest annual gathering of landscape-architecture professionals in the world, this event at the Washington, D.C., Convention Center will focus on the theme "Earth Air Water Fire DESIGN." Attendees may choose from more than 125 education sessions to earn up to 21 professional-development hours. More than 400 product manufacturers and service providers will be featured in the attendant EXPO trade show. Visit www.asla.org.

#### San Francisco Living: Home Tours

San Francisco

September 11-12, 2010

AIA San Francisco's popular San Francisco Living: Home Tours weekend is the first tour series of its kind in the Bay Area to promote a wide variety of architectural styles, neighborhoods, and residences – all from the architect's point of view. Projects are showcased via an open-house format, and tour participants have the opportunity to see some of the city's latest residential projects from the inside out, meet design teams, explore housing trends, and discover design solutions. Visit www.aiasf.org.

#### Modern Views: A Project to Benefit the Farnsworth House and Glass House

Chicago

September 16, 2010

One hundred works, to be auctioned at Sotheby's, have been donated to benefit Mies van der Rohe's 1951 Farnsworth House in Plano, Illinois, and Philip Johnson's 1949 Glass House in New Canaan, Connecticut. The Modern Views project leadership invited a global slate of participants to create and donate a drawing, sculpture, painting, or other artwork, accompanied by a short statement that captures how these two iconic buildings inspire their work. For more information, visit www.sothebys.com.

#### East Coast Green

Atlantic City

September 16-17, 2010

This two-day conference will focus on the relevant industries in the green marketplace, including government and legislation, alternative energy, and health care. Among the planned green legislative courses and lectures are the "Mayors' Panel on Greening Efforts of New Jersey Municipalities," and a presentation on "Sustainable Growth as Public Policy," presented by Mark Strauss, senior partner at FXFOWLE Architects. At Bally's Atlantic City. For more information, visit www.aia-nj.org.

# ACA-14

# THE 14th ASIAN CONGRESS OF ARCHITECTS 2010

OCT 25th - 30th 2010 at Expo & Convention Centre, Lahore, Pakistan

#### **PROGRAM OUTLINE**

OCT 25-27, 2010 ARCASIA COUNCIL MEETINGS

OCT 28-29, 2010 ACA-14 TECHNICAL SESSIONS FRIENDSHIP NIGHT ARCASIA AWARDS

OCT 25-28, 2010 ARCASIA STUDENTS' JAMBOREE

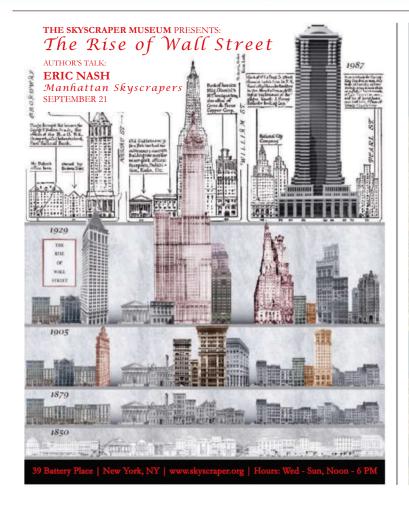
OCT 26-29, 2010 ACCOMPANYING PERSONS' PROGRAM

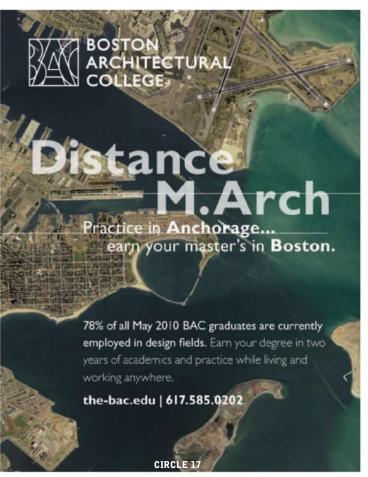
OCT 27-29, 2010 EXHIBITIONS

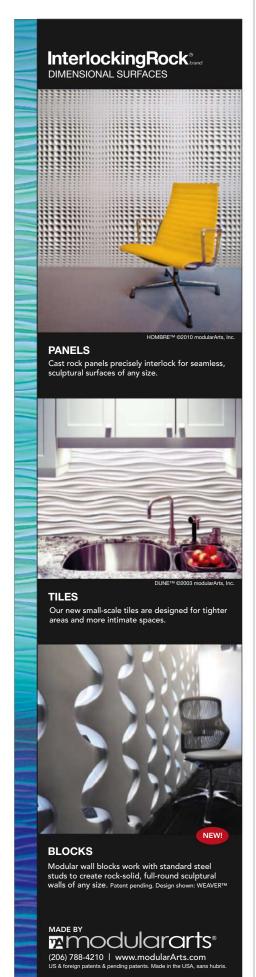
OCT 30, 2010 ARCHITECTURAL EXCURSIONS



CIRCLE 03







## INPUT\_OUTPUT: Adaptive Materials and Mediated Environments

Philadelphia

October 8, 2010

This symposium at Temple University will address the convergence of several significant and fundamental advancements in the ways that materials and environments are designed, evaluated, and experienced within architecture and related disciplines. The purpose is to interrogate the relationships that exist between each of four discrete, yet interrelated technologies of adaptive materials: Material Compositions, Material Fabrications, Material Behaviors, and Material Computations. For more information, visit www.temple.edu.

#### XXII Colombian Biennale of Architecture

Medellín, Colombia

October 11–15, 2010

Held in Medellín, one of the most architecturally innovative cities in Latin America, the Biennale will show the best work of Colombian architecture in 2010 and will be part of a bigger event called "The Week of Architecture," which includes Expo Arquitectura, an exhibition of technology innovations. For more information, visit www.sociedadcolombianadearquitectos.org.

## IMCL Conference on Planning Healthy & Child-Friendly Communities

Charleston, South Carolina October 17-21, 2010

This conference will focus on how to design healthy communities and improve children's health and development by improving the built environment and making natural and community spaces accessible. The conference will bring together 350 to 400 delegates from around the world. At the Dock Street Theater. For more information, visit www.livablecities.org.

#### Council on Tall Buildings and Urban Habitat: 9th Annual Awards Symposium

Chicago

October 21, 2010

The Council issues seven Tall Building awards annually: two Lifetime Achievement awards and five Best Tall Building awards, which recognize excellence in design and construction. Held within the atmospheric setting of Mies van der Rohe's iconic Crown Hall at the Illinois Institute of Technology, cocktails and a formal dinner are served as awards are presented between courses. This year, the ceremony and dinner will be preceded by an afternoon symposium, featuring presentations from all the 2010 winners. Visit www.ctbuh.org.

#### **Competitions**

#### Housing and Health in Haiti

Registration deadline: September 20, 2010
Seeking housing prototypes that work to reduce the transmission of tuberculosis for a community in St. Marc, Haiti, this competition encourages ideas that vary in size, scale, layout, grouping, building-construction methods, structural responses, materials, and form. Five winning designs will be used to build five single-family units. Visit www.archiveinstitute.org/haiti.

## Los Angeles Cleantech Corridor and Green District Competition

Registration deadline: September 30, 2010
This competition asks architects, landscape architects, designers, engineers, urban planners, students, and environmental professionals to create an innovative urban vision for the Cleantech Corridor, a several-mile-long development zone on the eastern edge of downtown Los Angeles. Visit www.sciarc.edu.

#### **Buckminster Fuller Challenge**

Deadline: October 4, 2010

The Buckminster Fuller Challenge is an annual international design challenge awarding \$100,000 to support the development and implementation of a strategy that has significant potential to solve humanity's most pressing problems. Winning solutions are regionally specific yet globally applicable and present a truly comprehensive, anticipatory, integrated approach to solving the world's complex problems. For more information, visit http://challenge.bfi.org.

#### 2011 Sustainable Design Assessment Team Program

Deadline: November 19, 2010

The American Institute of Architects Center for Communities by Design is seeking community applicants for the 2011 Sustainable Design Assessment Team Program (SDAT). The SDAT is an innovative program that brings together multidisciplinary teams of professionals to work with community stakeholders and decision-makers through an intensive planning process. The mission is to provide technical assistance and process expertise to help communities develop a vision and framework for a sustainable future. For more information, visit http://www.aia.org/about/initiatives/AIASO75425.

E-mail information two months in advance to recordevents@mcgraw-hill.com. For more listings, visit architecturalrecord.com/news/events.



50W MR16 13W L141 Lumen Output Lumen Output

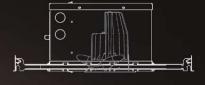
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Non-insulated frame-in kit configuration



Retrofit housing configuration



Insulated ceiling configuration





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- · Exterior canopies

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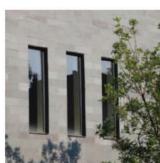
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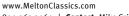


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The editors of ARCHITECTURAL RECORD announce the 2011 Record Houses awards program. Entry is open to any architect registered in the U.S. or abroad. Of particular interest are projects that incorporate innovation in program, building technology, materials, and form. Projects must be built and inhabited. They may be new construction or renovated and adaptive reuse projects.

The fee is \$75 USD per submission; please make checks or money orders payable to Architectural Record (sorry, we cannot accept credit cards or wire transfers). Download the official entry form at architectural record.com/call4entries. Email questions to josephine minutillo@mcgraw-hill.com. SUBMIT YOUR ENTRIES BY 10/29/2010.







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Special Guest Lecturer: Stefan Behnish, Hon. FAIA,

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Content Driven Approaches to an Innovative Architecture

#### Featured Case Studies











Firms presenting case studies include (clockwise from upper left): Adrian Smith + Gordon Gill Architecture with PositivEnergy Practice; International Workshop on Bionic & Architecture; SOM; Kuwabara Payne McKenna Blumberg Architects with Transsolar; Kohn Pederson Fox Associates.



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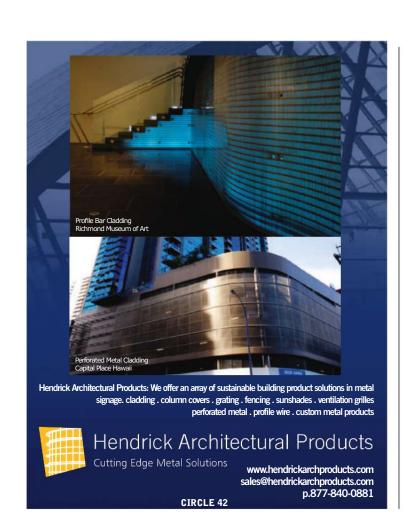
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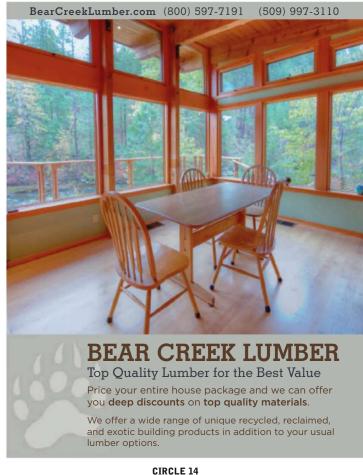
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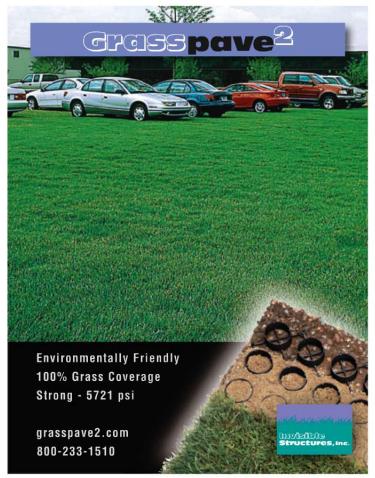


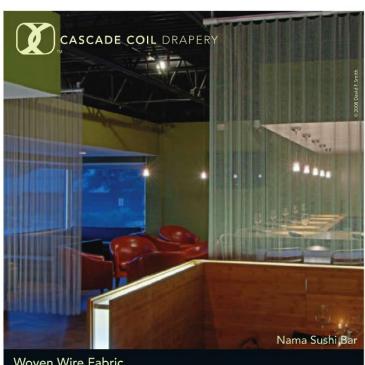






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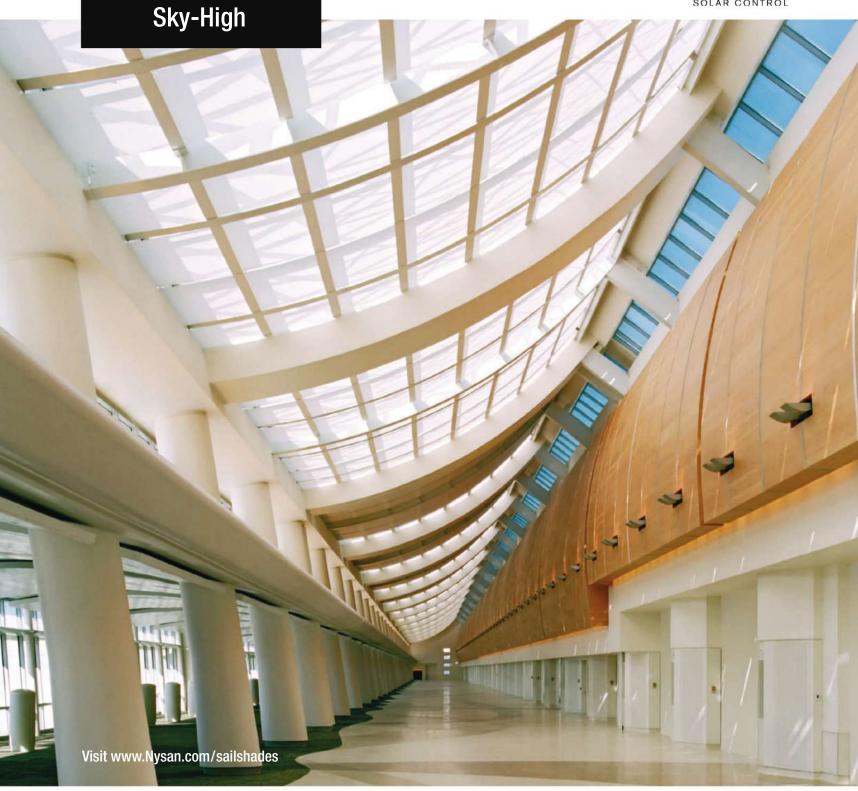
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