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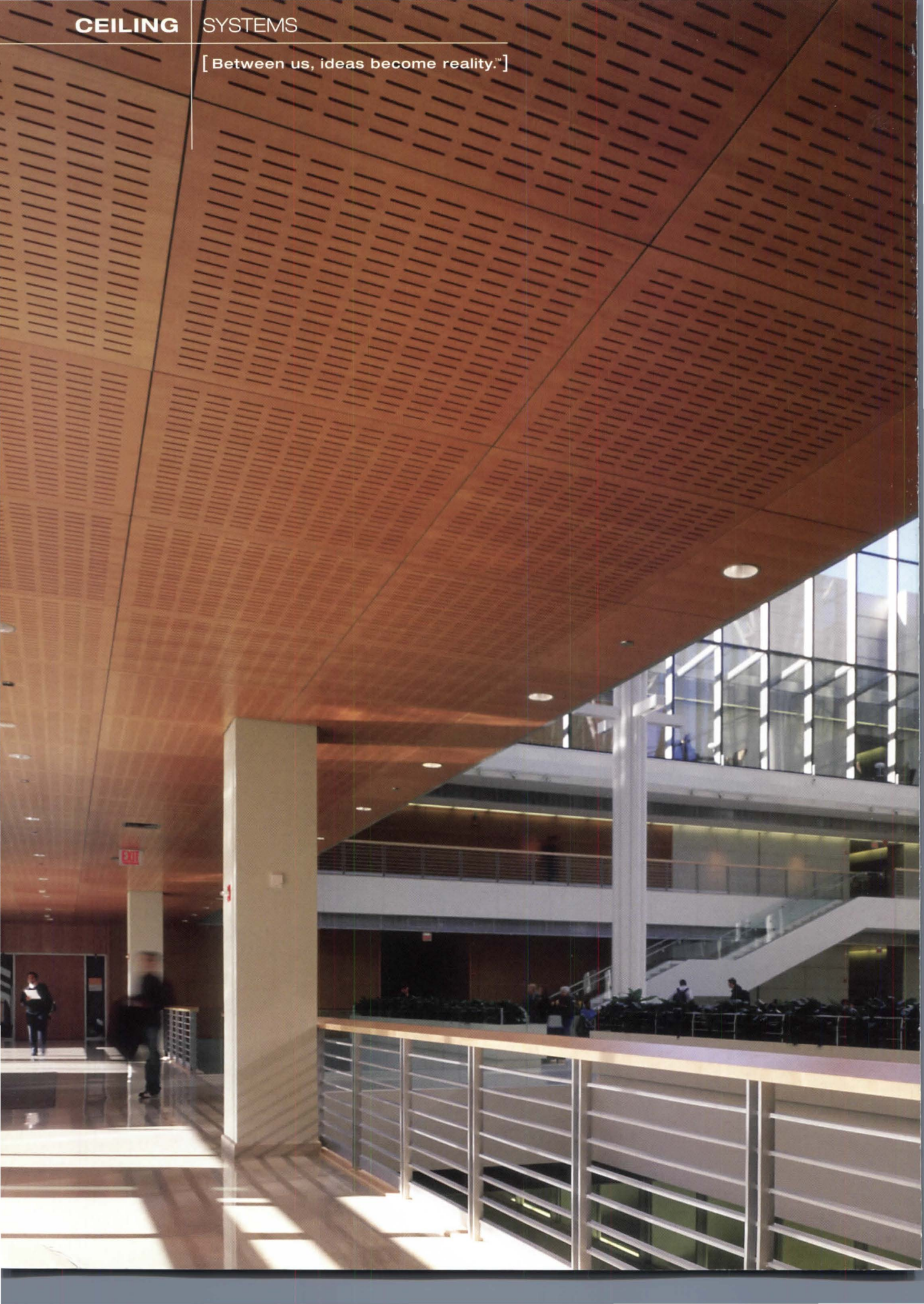
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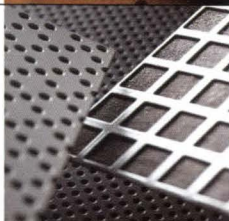




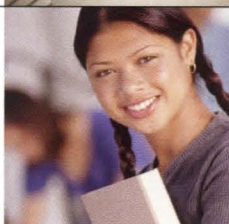
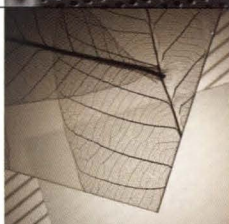
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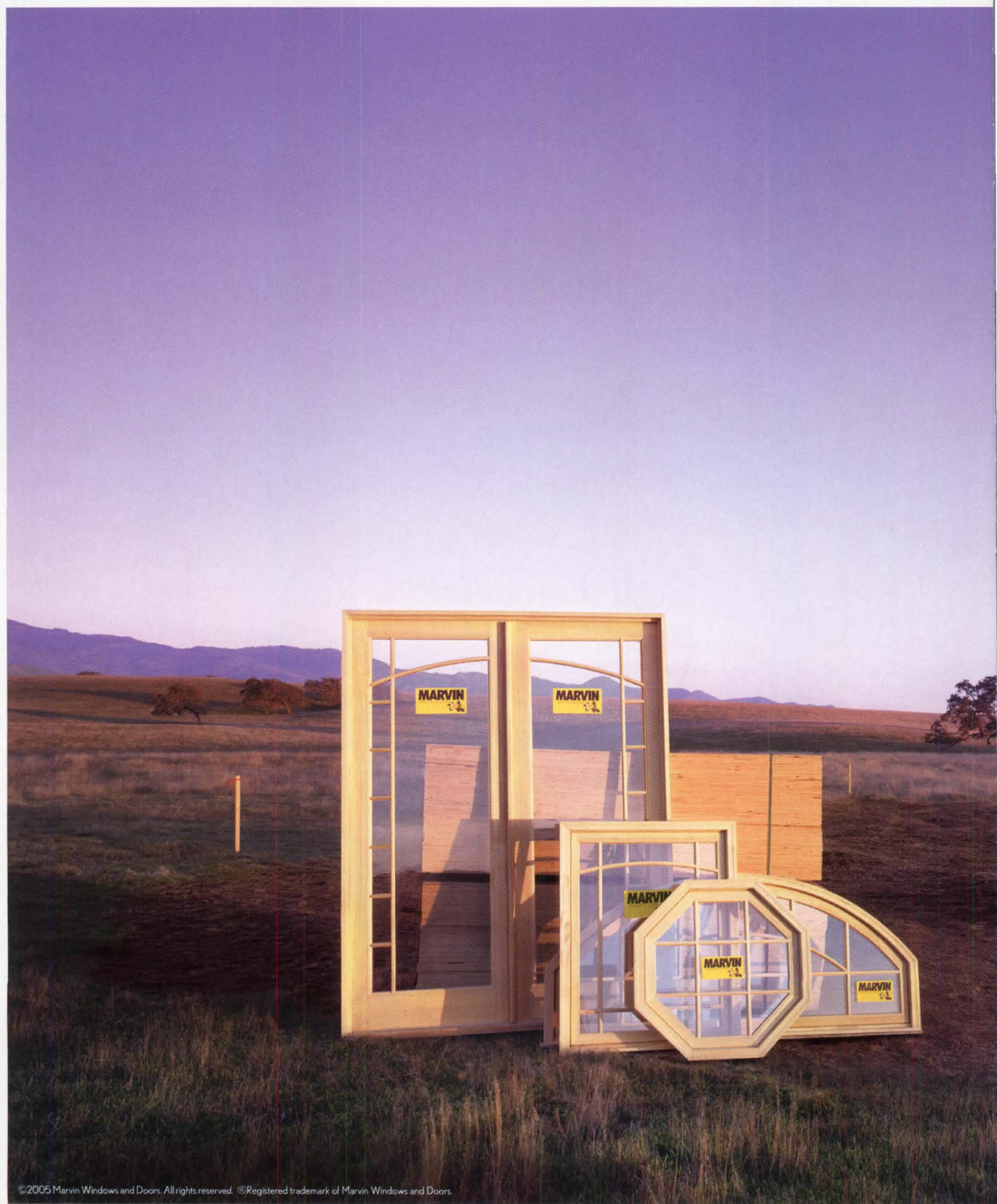
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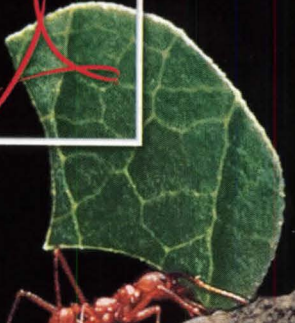
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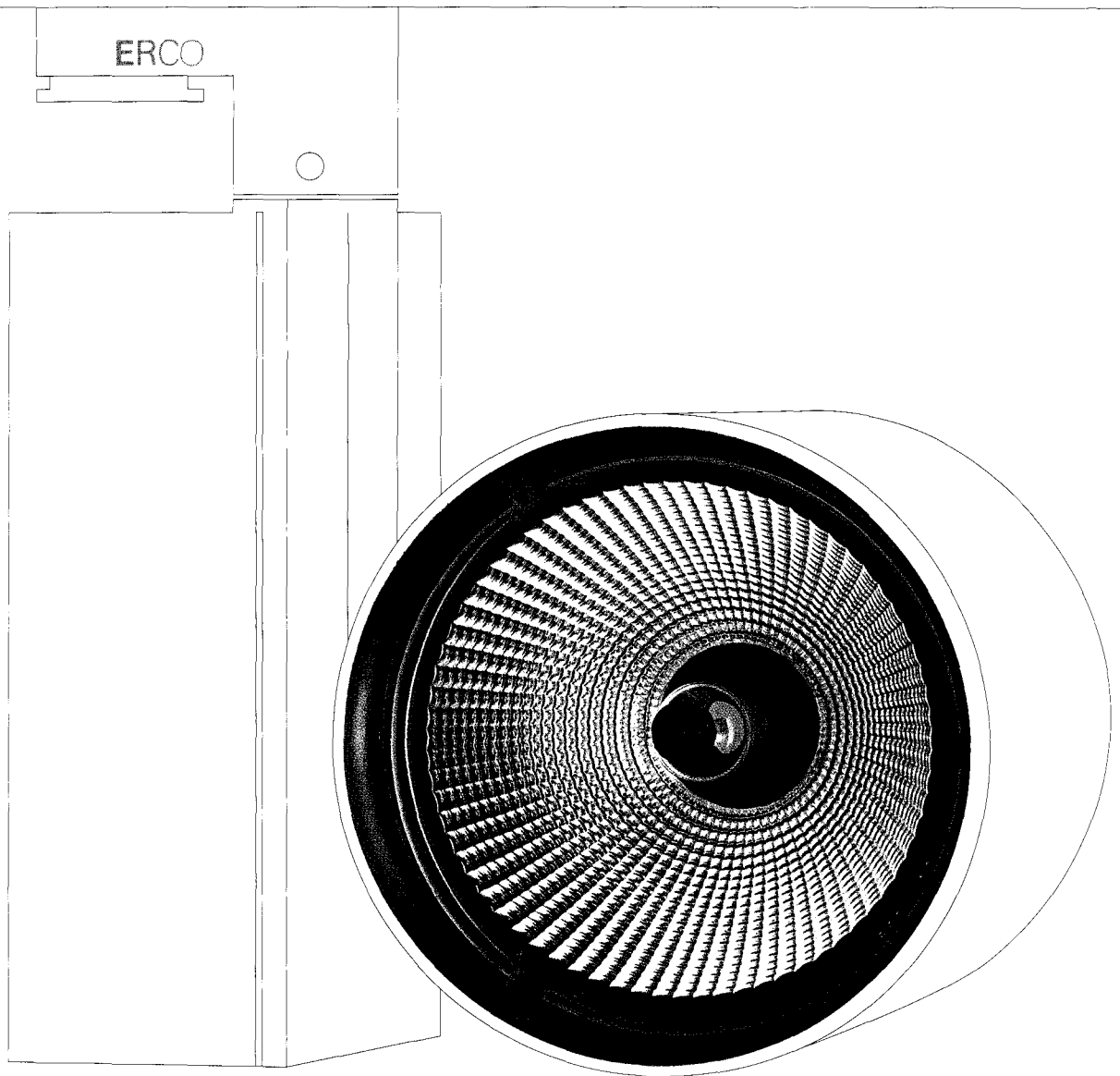
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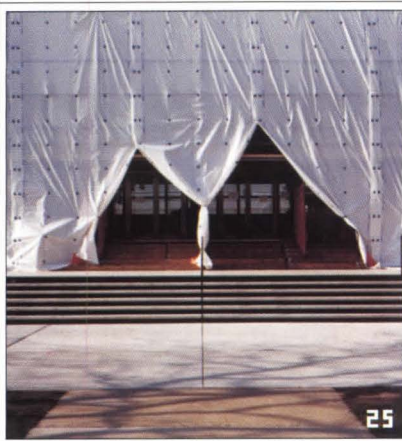
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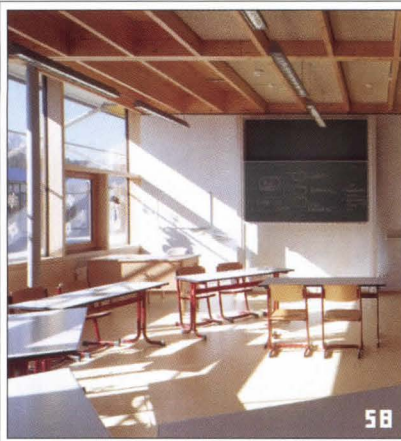
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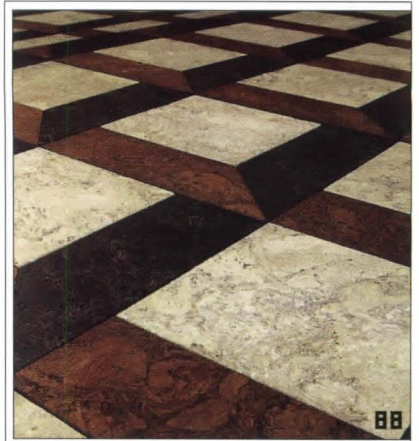
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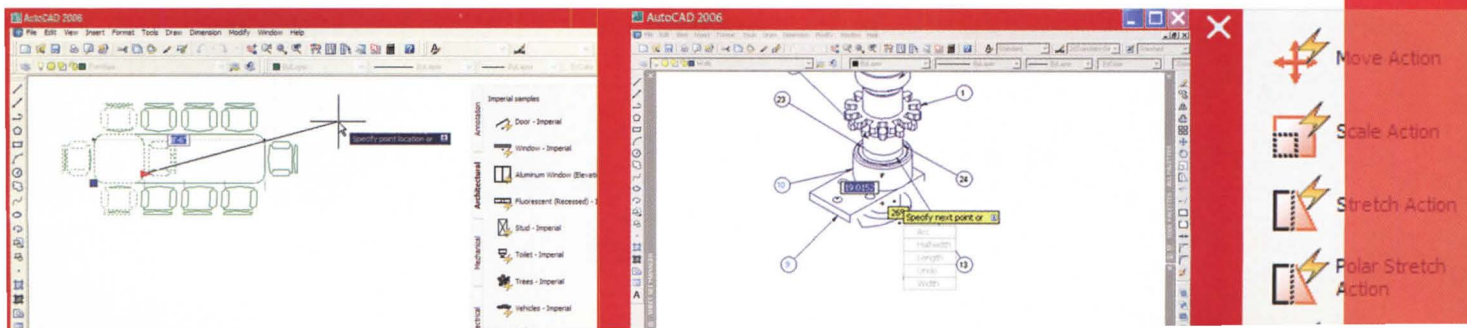
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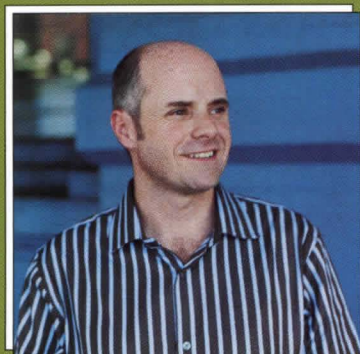
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## A FAREWELL NOTE

BY C.C. SULLIVAN

As someone who takes equal pleasure in the making of buildings and the making of magazines, I've been fortunate to help nurture the 90-year-old tradition of *Architecture*. Charged with the magazine's mandate to serve the profession and uncover inspirational design, I've pushed hard to present only best-in-class architecture—with special attention to the process behind the finest results.

While the challenges of this effort have been great, so too have been the rewards. That's why it's with mixed feelings that I leave *Architecture* this month to pursue new challenges, leaving in the hands of an eminently capable team this great brand and its legacy. I'll continue to support *Architecture*, and I'm sure you will, too.

A proudly independent critic of the architectural scene, this magazine has taken on a unique and somewhat provocative role in the last decade. Following its assimilation of *Progressive Architecture's* readership and awards program in the mid-1990s, *Architecture* was relied on to question the fundamental assumptions underlying the discipline. In the last few years, our mission has expanded to balance criticism and cutting-edge design coverage with insights into practice governance and technology integration. To meet these challenges, we've built new online services, launched conferences, and established the premier awards program for residential works. As a result, we now more effectively serve today's vital information needs.

Along this journey, we've uncovered remarkable things; I'll highlight three in this last editorial note:

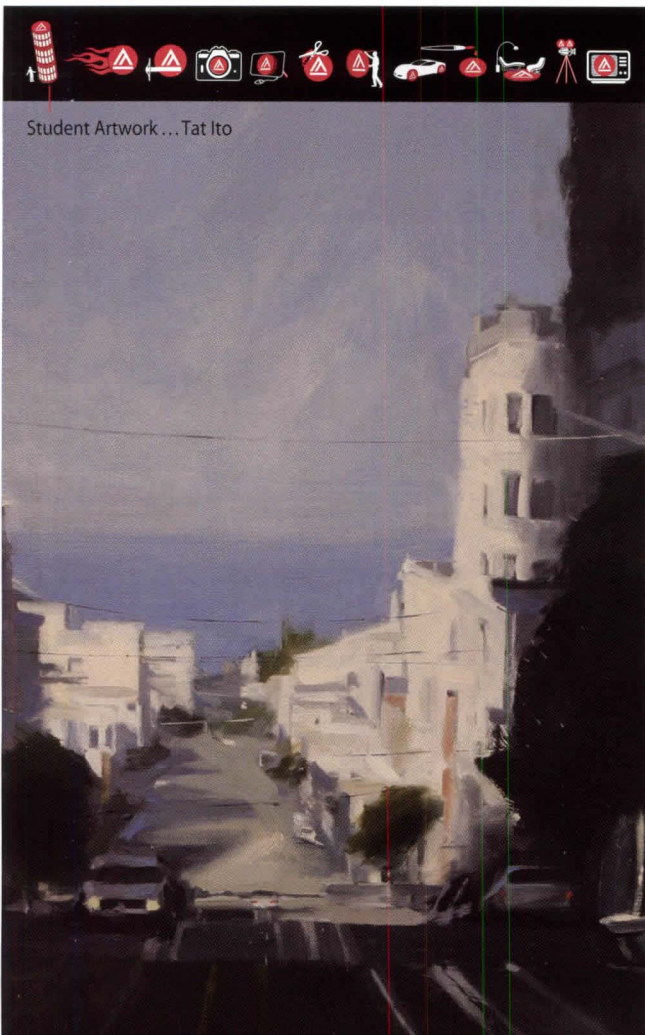
**1. Great architects are generalists. Let's celebrate that.** In spite of the global drive toward specialization, the best architects are still generalists. While successful professionals intimately know their clients' lives and operations, this is quite secondary to their unique role in uncovering, synthesizing, and interpreting a broader array of issues. Architecture is still—as a wise friend likes to say—"an old person's game," in spite of the recent spike of public interest in glamorous starchitects and hot young designers just breaking onto the scene. Why? Because accumulated knowledge is what makes architectural solutions powerful. The more experience, the more consistent and powerful one's offerings.

**2. Architecture's "value problem" endures. Let's fix it.** We're simply not paid enough, and our services are rarely recognized for their true worth. Many practitioners blame the profession itself on this score, arguing that we've shot ourselves in the foot by shunning liability. But architects also suffer from a social prejudice against the softer sciences. A recent analysis by *CNN/Money* placed architects among the most underpaid professionals; nationally, our salaries fall below those of clerics. And in short order, our value problem has gone multinational. A few firms—mainly the big ones—have found that the globalization of design services has improved their business prospects. (And some small firms have catapulted onto the global scene, thanks to open competitions in other countries.) But most architects feel the other edge of the sword: The offshore portability of design and CAD services has an insidious cheapening effect at home.

**3. The public still doesn't get it. Let's help them.** Disregard for a moment the idea that we can teach every American the value of great architecture in the public sphere. Instead, consider how little awareness most of our elected and appointed leaders have about this; that's where the gravest danger lies. To defeat sprawl, enhance livability, and vanquish thoughtless construction, let's first cultivate a patron sensibility in the highest ranks of government. Then we can move into the hit-or-miss private realm and look for appreciative audiences that support design.

To attain all of these goals, let's quickly tap into our rich talent pool. Architects, after all, make great public leaders. Considering the skills and tact required to pursue a vision, all the while effecting compromise in a highly collaborative setting, it's not hard to see how the architectural process translates into leadership skills.

A world with more architects would be a better place to live in, of that I'm convinced. So as I step down from my post at *Architecture* magazine this month, one of my top goals will be to continue working as an advocate for architects and their craft. I'll focus my energies first on solving these most pressing issues facing all practitioners. And I hope you'll join me in these efforts for the good of our profession—and our nation. ■



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## letters

### Going over Gunnar

As someone long familiar with the adventurously varied works of Gunnar Birkerts, I found your interview with him particularly interesting [July 2005, page 20]. I was happy to see images of the museum in Houston and the school in Columbus, Indiana, but missed the inventive dance school at Purchase College of the State University of New York.

Birkerts did not, however, win the AIA Gold Medal in 1975—at least not the national one implied by that claim. In part because of precautions against rash decisions, the AIA has long been stingy with these awards. In fact, nobody won this medal between Pietro Belluschi in 1972 and Richard Neutra (posthumously) in 1977. The fact that Neutra wasn't recognized until after his death underlines the procedural obstacles in the AIA's Gold Medal program, which still haven't been fully resolved.

**John Morris Dixon**

*Old Greenwich, Connecticut*

### Too windy in Chicago

Edward Keegan perhaps protests too much in "For Chicago, An Architectural Feast—or a Fundraiser" [July 2005, page 88]. The very "retrospective of [Renzo Piano's] extraordinary career" that Keegan bemoans as lacking from the Art Institute of Chicago's exhibition of its expansion plans is currently on display at the Los Angeles County Museum of Art (LACMA). "On Tour with Renzo Piano & Building Workshop: Selected Projects" plays the exact role for which Keegan is looking: a foil against which to judge Piano's expansion plans for LACMA, which are also on display. Keegan wasn't acting as a reporter here, but even opinion can be enhanced by easily accessible information.

**Benjamin Clavan**

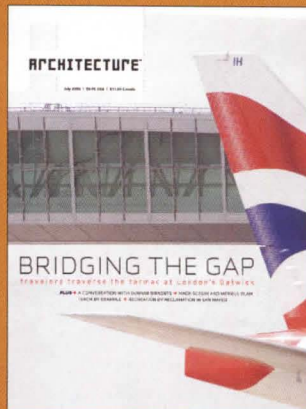
*Los Angeles*

### CORRECTIONS

Gunnar Birkerts's 1975 Gold Medal [July 2005, page 20] was awarded by the Michigan chapter of the AIA; his post at the American Academy in Rome was architect in residence; and his libraries in San Jose and San Marcos, California, were designed with DSA Architects and Carrier Johnson.

### TELL US WHAT YOU THINK

Write to: Robert Klara, managing editor, *Architecture*, 770 Broadway, 4th floor, New York, NY 10003. Or e-mail: [rklara@architecturemag.com](mailto:rklara@architecturemag.com).



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## REVISED CALATRAVA HUB READY FOR TAKEOFF

Eighteen months after its original design by Santiago Calatrava was made public—and then sent back to the drawing board for security-related revisions—the World Trade Center (WTC) Transportation Hub has been given the green light by the Port Authority of New York and New Jersey Board of Commissioners. The building, designed with architect of record DMJM Harris, is scheduled to open in Lower Manhattan in 2009, and will cost \$2.21 billion.

According to Calatrava, the hub's design—a structure that has been likened in the press to both bird wings and a dinosaur skeleton—was inspired by the Statue of Liberty's spiky crown.

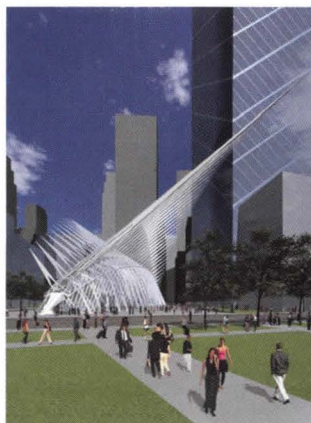
The hub aims to express how the terrorist attacks of September 11, 2001, “changed the life of the city, the lives of many people, the life of the nation,” Calatrava told the Port Authority board, which owns the WTC site and is now redeveloping the 16-acre parcel.

But evolving security guidelines post-September 11 have changed Calatrava's design, and the building that will rise on WTC's northeast corner differs significantly from the some-

what more delicate initial scheme unveiled a year and a half ago (middle). While the luminous, skeletal profile of the structure remains (above), the revised hub's footprint will shrink from 360 to 330 feet long, and move further back from the curb (a potential blast source.) The number of steel beams at the building's base has doubled, and while its wings still soar 150 feet above the street, their glass elements have been removed.

Calatrava has stated that these revisions, while noticeable, do not diminished his original intent or the building's symbolic import. “We reduced the amount of glass we are using, but you can see we preserved the transparency and the ethereal character.”

Ample glass remains in the form of the building's skylight, which can be opened mechanically (plans call for the hub's roof to be opened to the sky every September 11), and is expansive enough to permit natural light to filter down some 60 feet to the track levels below grade, where 14 subways and one New Jersey commuter train line converge. **Robert Klara**



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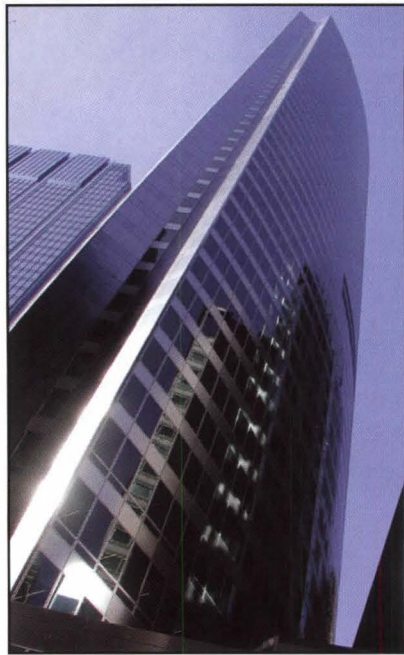
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## HYATT CENTER OPENS IN CHICAGO

Before September 11, 2001, the Pritzker family, of Hyatt hotel fame, was planning a dramatic new corporate headquarters designed by Norman Foster for a downtown Chicago site. But the sudden cooling of the development climate immediately following the terrorist attacks caused the noted patrons of the Pritzker Architecture Prize to scrap their initial plans—and replace their architect.

The Pritzkers chose to commission a more conservative design, intending to make the building less of a potential target in today's security-minded world. Known as the Hyatt Center, the 1,765,000-square-foot, 49-story tower by Henry Cobb of New York City-based Pei Cobb Freed & Partners, opened in July. Lozenge-shaped in plan, the building provides a respite from the traditional boxy forms that dominate the city's skyline and includes a series of security measures that reflect high-rise building in a precautionary age. Spaces designed specifically for metal detectors and security checkpoints integrate these devices into two separate entrances on either side of the building—both of which can be completely sealed off to control egress. Planters placed on street level around the perimeter do double duty as landscape elements and barriers to prevent vehicular threats. **Edward Keegan**



↳ The Pritzker Architecture Prize has a new executive director. Martha Thorne, who replaces Bill Lacy, assumed the post last month, after serving for nearly 10 years as the associate curator of architecture at the Art Institute of Chicago.

## NEW DEAN FOR TALIESIN

The Frank Lloyd Wright School of Architecture at Taliesin West in Scottsdale, Arizona, has a new dean. Victor Sidy, a 30-year-old graduate of the school who was one of *Architecture's* emerging architects in 1999 (May 1999, page 100) was appointed last month. He fills the void left by former dean John Wyatt, who departed in April 2004, and some board members hope his youth and qualifications can attract new students and faculty. The New York City-based Sidy has his own design firm that works on specialized research and architectural projects, including adaptive reuse of historic structures, new designs for disaster shelters and luxury retreats, and research with the Montessori school system.

His appointment comes as part of a major restructuring of the Frank Lloyd Wright Foundation (March 2005, page 30), the governing body of the school, Taliesin West, and Taliesin in Spring Green, Wisconsin. A search is now underway for a new foundation CEO, and to fill 14 spots—both vacant and soon-to-be—on the board of directors. **Katie Gerfen**

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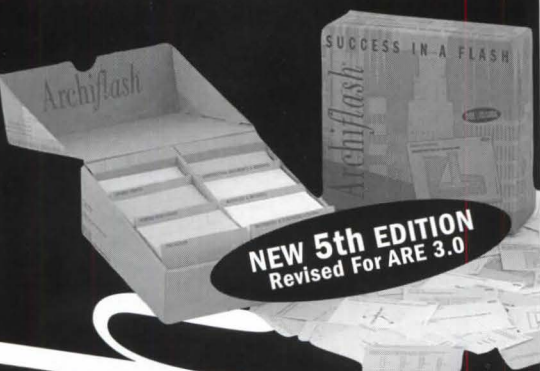


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## HEALTHCARE FOCUS FOR LATROBE



The Latrobe Fellowship architectural research grant, awarded biennially by the AIA's College of Fellows, has been conferred this year on an unusual consortium of architect, client, and university. Chong Partners Architecture—a firm with offices in San Francisco, Sacramento, San Diego, and London—will partner with the University of California, Berkeley School of Architecture and the healthcare provider Kaiser Permanente, based in nearby Oakland.

The team will examine how hospital design affects recovery and healing for people of different cultures, and will produce a study that may serve as a guide for architects designing any type of project where cultural diversity is key. Says Chong Partners principal Gordon Chong, "If we could understand and predict the kind of response someone might have to a certain lighting condition, for example, we could design more intelligent spaces."

Kaiser Permanente will contribute \$15,000 in direct funding and \$20,000 of in-kind support to the project, adding to the \$100,000 Latrobe grant. The College of Fellows' selection of this project follows the 2003 premiation of the Academy of Neuroscience for Architecture's study of how the human brain perceives architecture at the biomedical level. **Anna Holtzman**

## HOLD PLACED ON HOTEL CONVERSIONS

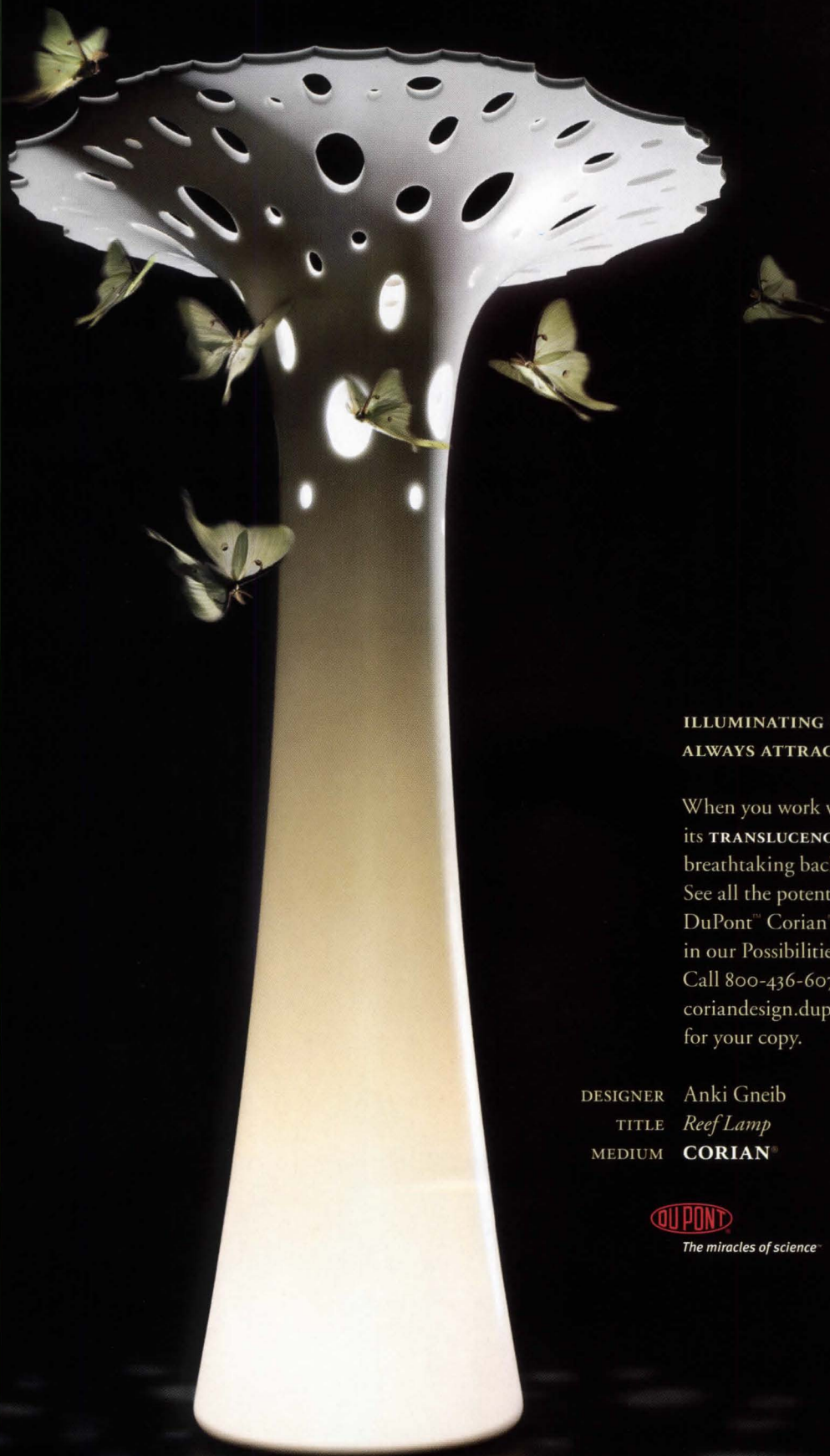
The City of San Francisco has instituted an 18-month moratorium that restricts hotels with more than 100 rooms from converting guestrooms into condominium units. The legislation—a response to plans of the historic Fairmont Hotel (right) to turn 226 of its 591 rooms into 60 luxury residential units—is motivated by concern for the region's tourism economy, according to the city's Board of Supervisors.



Says one member of the board, Jake McGoldrick, "Right now, it's just the one hotel in San Francisco [planning to do this], but there are other hotels beginning to convert around the country—and we don't think that it's a good trend. Our need is not for million dollar condos," he explains, "it's for affordable housing." He adds that hotels not only provide tax revenue for the city, but also supply jobs for local workers. Over the next 18 months, the city will study the potential effects of hotel conversions before deciding whether or not to impose a ban on them. **Anna Holtzman**



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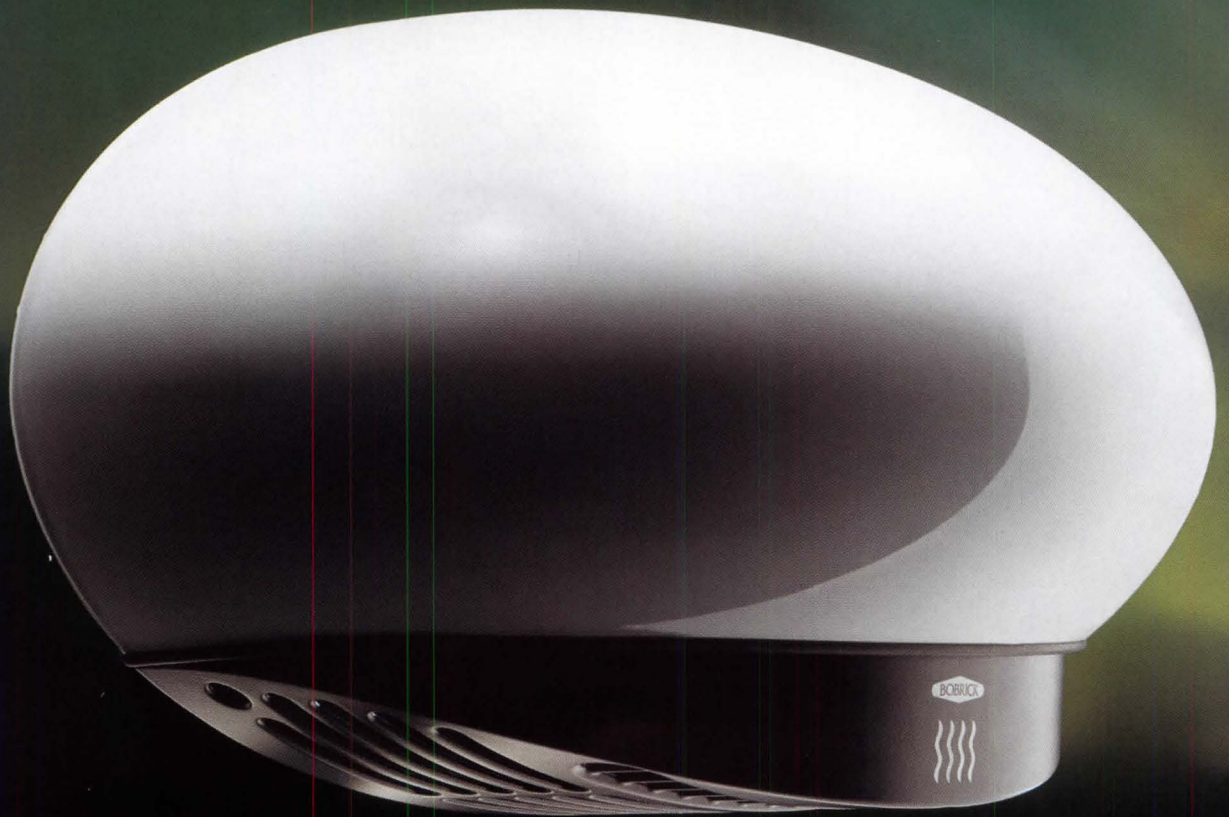
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## A TWENTY-FIRST-CENTURY MIES

Innovative materials and methods create a new and improved Crown Hall. by Edward Keegan

This fall, students and faculty are arriving at the Illinois Institute of Technology's (IIT) College of Architecture in Chicago to discover an old friend made new. Mies van der Rohe's S.R. Crown Hall, the architecture school's main building, underwent a 13-week renovation this summer that has the seminal glass box glowing and gleaming as it did when it was built a half century ago.

In 1978, Chicago architect Stanley Tigerman produced a memorable photo-collage of the building slipping beneath the waters of nearby Lake Michigan. Titled "The Titanic," the not-so-subtle image was a dramatic talisman for the rise of postmodernism in a city that had been dominated by the master's presence for almost four decades. It was also emblematic of how Crown Hall had fared since its completion in 1956. Its single-pane glass walls had to be replaced in the mid-1970s, the travertine front steps were cracking, and its massive flat roof was prone to leaking on student projects and presentations whenever the Windy City's fickle weather threw precipitation at the building.

### A ONE-ROOM SCHOOLHOUSE

Mies's design for Crown Hall was a perfect foil for Tigerman's polemics precisely because it was such an icon. During his 20-year tenure as head of the architecture school, Mies created the campus master plan and designed 19 buildings for the institute. While he experimented with several formal types and construction systems, every one of his proposed buildings on the 110-acre site was set in a 24-foot grid. Only Crown Hall deviates from this self-imposed constraint.

The building is startlingly simple in concept: A single inte-

rior space—120 feet deep, 220 feet long, and 18 feet tall—is formed by a steel frame on 10-foot centers. Four 6-foot-deep steel-plate girders support the structure's roof from above so that the ceiling becomes a floating plane only twice interrupted by mechanical chases. Like a classical temple, the building's main floor is set six feet above the surrounding lawn, which allows for clerestory windows to open into the basement spaces. Significantly, Crown Hall was the first substantial, clear-span structure that Mies constructed. "It's the

world's largest one-room schoolhouse," enthuses Dean Donna Robertson, who has held Mies's former post since 1996.



Built in 1956, Crown Hall (top) quickly became a modern icon. Stanley Tigerman's 1978 "The Titanic," (above) signaled postmodernism's reign in Chicago.

### MAINTAINING A LANDMARK

In the five decades since its completion, Crown Hall has seen extensive—yet primarily invisible—changes. The most significant was the exterior glazing, all of which was replaced in 1975 by the Chicago office of

Skidmore, Owings & Merrill (SOM), a firm once known for its strict adherence to Miesian architectural principles.

Mies's design for the building's skin included two bands of glass: an 8-foot-tall course of translucent glazing that began at the floor, creating a soft natural light while focusing attention away from outside activities; and a clear glass upper section that made the skin practically disappear while providing expansive views of the ever-changing sky and the swaying branches of nearby trees.

But both types of glass caused immediate problems. The sandblasted finish that gave the lower portion its ethereal glow was impossible to maintain properly. "It was used as a perfect light box," explains IIT alumnus Mark Sexton of Krueck & Sexton, the design architects for the renovation.

"Tape would bake on the glass," he recalls, describing how students used the windows for tracing. This irreverence hardly reflected Mies's oft-stated dictum, "God is in the details."

The upper glass panels had a different problem. Former students and longtime faculty members told Robertson how the 9-1/2-foot-wide by 11-1/2-foot-tall clear glass lights—each only a 1/4-inch thick—would bow in and out during windstorms. "There were bet pools among the students on how long it would take the glass to shatter," recalls the dean, adding that, "it would occasionally blow out." SOM solved the wind load problems by using 3/8-inch-thick replacement panels. Mies used 1/4-inch because his was such an early application of large panes that he did not yet understand the necessary sizing. In later projects, he'd use thicker glazing.

SOM replaced the sandblasted lower panes with a laminated product that created a translucent effect through a Mylar interlayer. Some former students and faculty—including one of the project's design architects, Ron Krueck, who has

tractors, and students. But the key players in the process have been Robertson, Krueck & Sexton, and preservation architect T. Gunny Harboe of Austin AECOM.

Harboe has directed many substantial historic renovation projects in Chicago including such nineteenth-century classics as Burnham & Root's Rookery and Reliance buildings. This time he has a unique advantage. "It's certainly different [to complete a restoration] and have people around who were alive when the building was built," says Harboe. Some of the current faculty, for example, were students at the school shortly after the building's construction and have offered their perspectives during the restoration process.

The work has been organized into phases, each scheduled for a different summer vacation period. The first segment of work, completed three years ago, involved repainting lockers to their original dove white from a stark photographer's white that seemingly matched the old black and white pictures of the building; renovating the freestanding oak panels that



The restoration has not disturbed Crown Hall's four 6-foot-deep steel girders—seen in this archival photograph.

worn both hats at the school—realized that, after the 1975 window replacement, the quality of natural light created inside the building was vastly different. It had, critics said, lost the softness that had been part of Mies's original design.

Last, the entire steel structure was repainted that same year due to peeling. But as the environmental hazards of the original lead-based paint had not yet been recognized, the frame was, alas, given a second toxic coat.

## TWENTY-FIRST-CENTURY RENOVATION

It's only in the past decade that IIT's administration has made a conscious decision to embrace its rich tradition of architectural innovation by both committing to renovate many of the school's original structures, as well as commissioning new buildings by Rem Koolhaas and Helmut Jahn on the blocks adjacent to Crown Hall.

Robertson spearheaded the multibuilding renovation with the support and input of school administrators, alumni, con-

form the central space of the main floor; and bringing electrical and data services to the desks throughout the main floor.

Phase two, the most radical in terms of aesthetic intent, has just been completed. A total rehabilitation of the shell, the plan involved replacing all exterior glazing to both solve its functional problems and restore the building's original aesthetic. This also included stripping the steel frame of its lead-based paint and repainting it with a lead-free formulation that is said to match the original color more closely than the one used in 1975. For the entire summer of 2005, Crown Hall was wrapped in scaffolding—both inside and out—since the stripping of the coated steel was a delicate endeavor.

The clear glass in the upper lights is now a 1/2-inch thick to meet current building code requirements. And the lower lights are once again sandblasted to provide the softness of diffused sunlight that Mies first intended. A three-part epoxy clear sealer that covers the sandblasted finish was developed to withstand the abuse of sticky pin-ups. "In side-by-side

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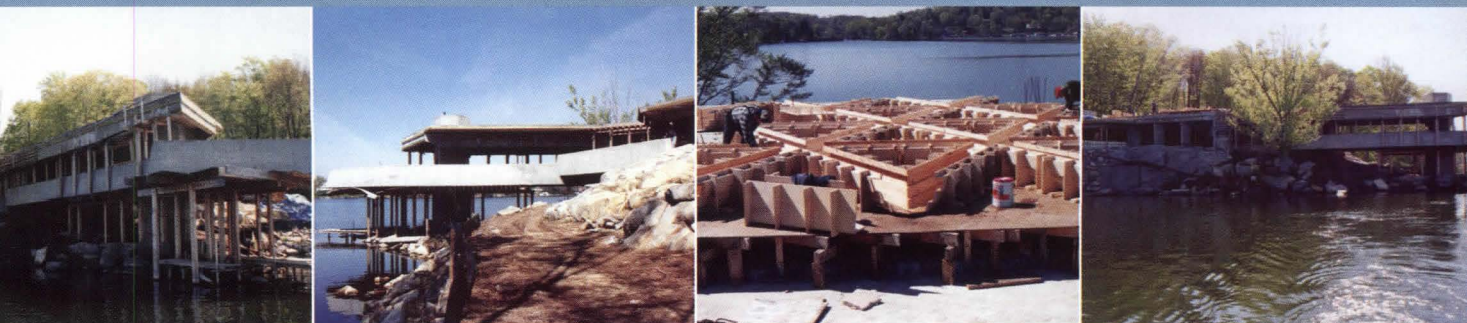
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comparison, you cannot tell that there is a sealer on the glass," claims Sexton, who reviewed dozens of mockups before settling on this finish.

The material changes—even when used to bring back Mies's original design intent—were not without controversy. "There were some old-time professors who wouldn't mind if we went back to laminated glass," relates Sexton. "They love the building as much as we do. They're not trying to sabotage it; they just have different opinions."

### THE FUTURE OF CROWN HALL

When funding is in place the final phase of the renovation will commence, substantially reducing Crown Hall's energy use—a daunting challenge in a single-pane, glass-skinned structure with no thermal barrier to reduce the migration of hot and cold air. All light fixtures will be replaced, a new automated building management system that will efficiently coordinate

IIT's students, but for the faculty and renovation team members as well. "There's more color in Mies than you think," observes Robertson. She cites the warm wood partitions that demarcate the open spaces of Crown Hall, the dove-white paint on the lockers, and the buff brick that he used on all the other academic buildings as examples of a more varied palette than is usually recognized. "Mies is a much more subtle architect than he's given credit for," she says.

Sexton likewise gained some insight into the modernist master as the restoration project progressed. After taking Crown Hall apart, literally down to its bones, he's still amazed at how thin and minimal Mies was able to make the building. "There's so little to it, that it all has to be done perfectly," Sexton concludes.

And even though Tigerman metaphorically sunk Crown Hall a quarter century ago, he lives in a Mies-designed apartment building in downtown Chicago and frankly admits his



The just-completed phase of Crown Hall's restoration, which focused on the glazing, is the most significant aesthetically.



all of the M/E/P systems will be installed, and energy-saving daylighting will be employed through automated blinds to better capture natural light. The hydronic floor system that has provided heat to the building since its completion will be retrofitted to add chilled water for cooling in the summer months. "The goal is to reduce the overall energy consumption of the building by almost half," says Sexton.

While halving the energy consumption in a 1956 building is significant, no one has illusions that Crown Hall will ever match current green-driven design standards. "Using painted steel in a building like this is really not [an ecofriendly] thing to do," says Robertson. "You're just going to have to bite the bullet and repaint it every 25 years," she adds.

### LEARNING FROM MIES

The multistage renovation process has had the added benefit of providing a remarkable learning opportunity, not just for

admiration for Crown Hall: "It's a beautiful building and every time you go there you find yourself talking more softly because it has this aura."

With a greater public profile thanks in part to IIT's recent building campaign, the 2005–2006 academic year will see 717 students at the architecture school, up from 380 just two years ago. With 625 of the students enrolled in studio design courses, some are forced to take refuge in another Mies building next door, because—despite the renovations—there is no longer enough space at Crown Hall to contain all of the new enrollees.

While Mies had his desk in the soaring ground floor space, Robertson has chosen to occupy a basement office during her tenure. "It's become a privilege to have a desk in the main space of Crown Hall," she explains. Those so privileged occupy the newly renovated space with an ever-present ghost still lurking in the details. ■

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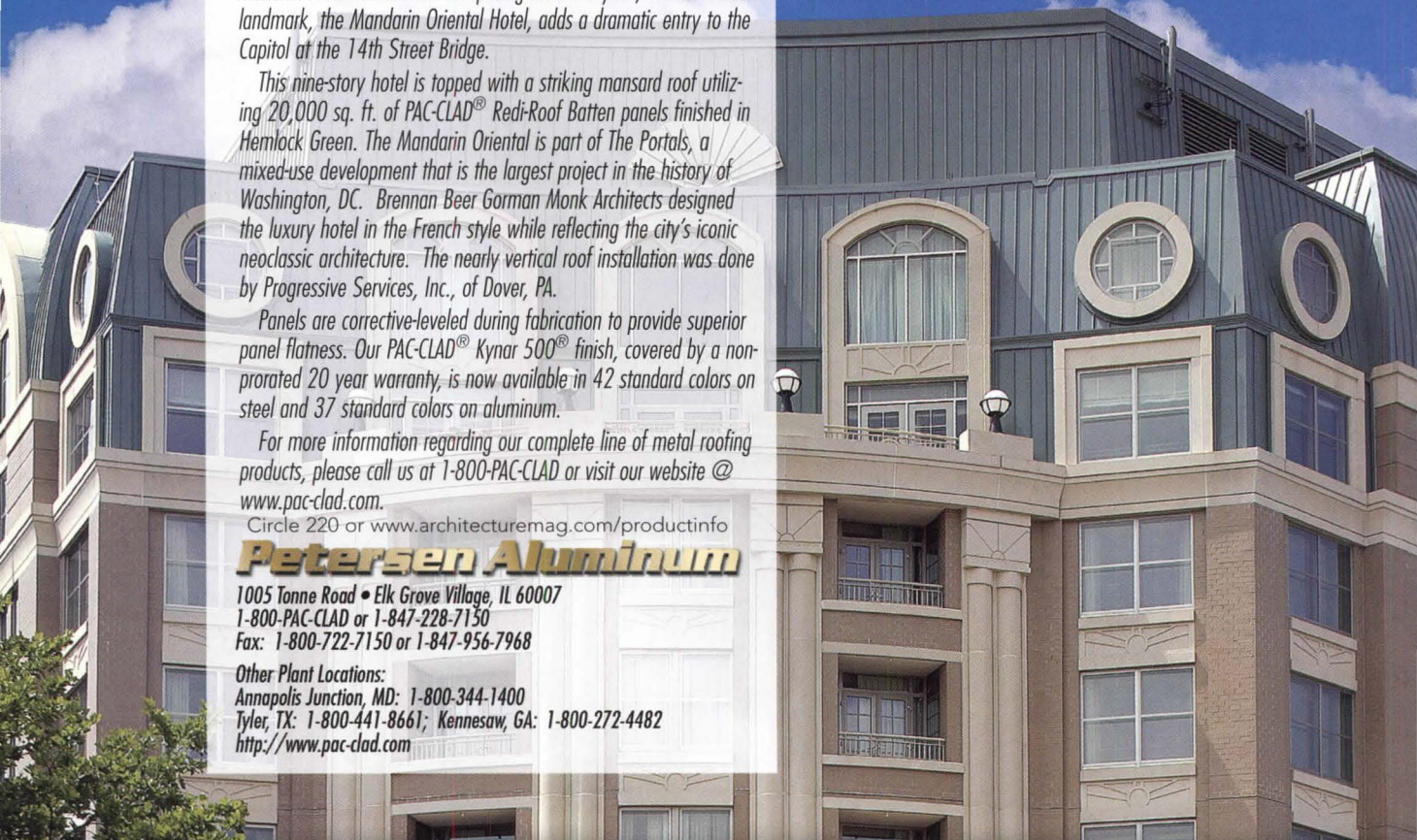
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# THE DIRECTOR'S CHAIR

Karen Braitmayer's mission is accessibility. But she's not just addressing architects—she is one. by Robert Klara

a profession known for portfolios bursting with glossy photographs of dashing and colorful commissions, architect Karen Braitmayer is bound to raise some eyebrows when she speaks of what's in her own valise.

"What I do isn't glamorous," she says, a chuckle sneaking into her voice. "My portfolio consists of a lot of bathrooms and handrails."

She's not just being modest. A project roster for Studio Pacifica, the Seattle-based architectural firm that Braitmayer founded in 1991, is a catalog of entries such as "accessible circulation paths" and "barrier removal." Yet such unpretentious professional fare was enough to place Braitmayer among 80 others chosen for fellowship in the AIA last year. And despite the fact that she designs ramps more often than whole buildings, that's hardly diminished her profile: Her time is in demand—in existing structures, architectural offices, and construction sites nationally. "I travel across the country a lot," she says.

Yet when she does, Braitmayer is often discouraged. Some 15 years following the adoption of the Americans with Disabilities Act (ADA), she routinely sees examples of inaccessible facilities: from restrooms with too-narrow stalls to doors obstructed by floor mats. And it's not like she has to roll out a tape measure to discern the offending conditions; she knows them because she can't see them. *Osteogenesis imperfecta*, a rare genetic bone disorder, causes Braitmayer to use a wheelchair. "I'm quite stumped as to how so many public accommodations miss the mark," she says. "I can't figure out where the flaw starts. Is it because architects don't understand the law, or is it the owner who insists on doing things his way?"

Continuing Education

At the end, maybe that doesn't matter, because Braitmayer is determined to change the situation (see "Leading by Example" page 30). While she's casually mannered and hardly given to sermonizing, Braitmayer's nonetheless become an ardent champion for accessibility. She's appeared in an episode of the popular ABC television series *Extreme Makeover: Home*

*Edition*, on which she helped refit the house of a family with a boy who suffers from the same disorder Braitmayer does. In Seattle's city hall—which was designed by Bassetti Architects and Bohlin Cywinski Jackson in 2003—she pushed for no-slip flooring on a glass pedestrian bridge for the benefit of those using crutches and canes. But for the architectural profession,

she's become something even greater: A critical voice who's not some fringe activist, but rather one of their own. "Architecture needs more people with disabilities to join the profession," she says. "Once we have more architects who see the world differently, we'll get more inclusiveness in design."

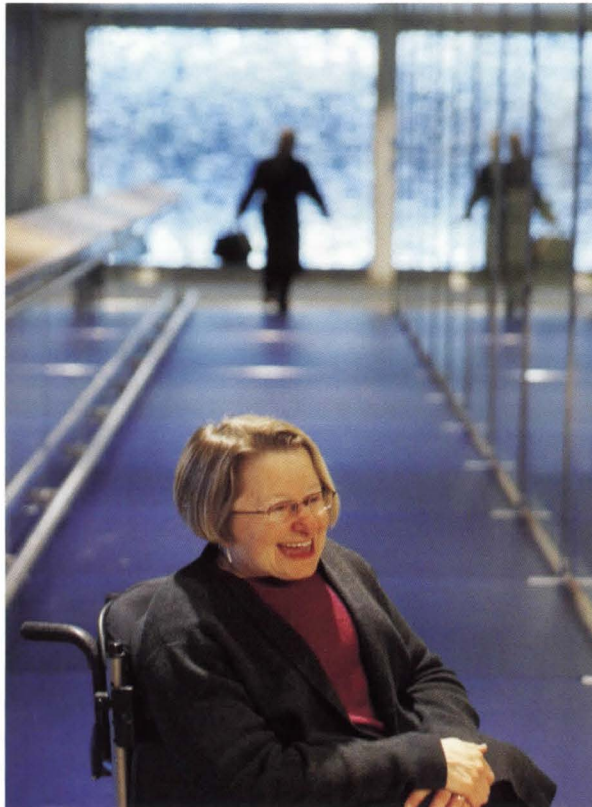
For now, however, Braitmayer has her own theses to nail to the door. She believes there should be continuing-education courses to help architects understand the ADA regulations ("Isn't the AIA an organization that could help to provide training like this?" she challenges), and she thinks that architects and community advocates for the disabled should find opportunities to interact with each other. "Architects are visual people, and if they have someone who can show them, it would really click."

Until it does, Braitmayer does daily field battle with the still-common misconception that accessibility is solely a mandate

of the federal or local government. In fact, she argues, accessible design is simply good business. "Owners, and perhaps architects, too, have been slow to understand that people with disabilities are also consumers," she explains. "We have a choice of where to spend our money. And if we find a store or a hotel that makes it easy for us to get around, we will spend our money there. And not only will those businesses get my money, but the money of my family and friends—everybody who's with me on that visit."

## WORLD OF TOMORROW

She develops this point with a little crystal-ball gazing. The future, Braitmayer says, will not be a time when the ADA threatens its way toward uniform adoption. Rather, she says, the country is slowly moving to a point at which the concept



"In Seattle, there's a high level of ADA compliance," says Braitmayer, above, on the no-slip surface she specified for City Hall's glass pedestrian bridge. "But other places don't have that."

of "special" adjustments for the few are ceding to the higher ideal of universal design, which promotes optimal usage for everyone rather than satisfying minimum standards like those set forth in the law.

In the Seattle residential market, for example, architects are seeing an increasing number of clients who want accessibly designed homes (single-level layouts, wide doors, entrances without stairs) even though they're fully ambulatory people. Right now, the reason for this trend seems principally financial—in a runaway housing market, clients are realizing that their first house may indeed be the last one they can afford, so they're making plans to grow old in it. "Maybe it's age, too," she adds. "People are watching their parents get older, and thinking, 'What's going to happen to me when I get there?'"

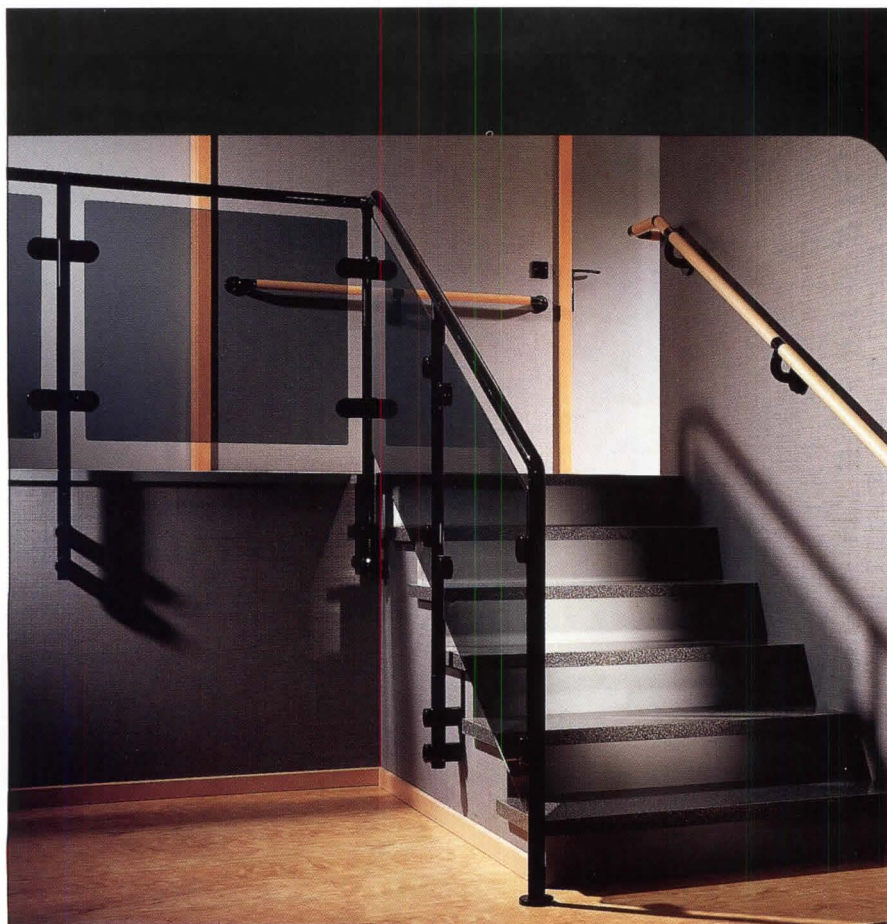
As accessible design gains prevalence, Braitmayer says, its merits will become increasingly apparent, and then begin to move the market—that is, more than it has already. "If the consumer says to the developer that he needs a universally designed home, the developer will begin to adopt universal design in order to sell houses," she speculates. "That's the groundswell that will make the change."

For now, however, Braitmayer's portfolio continues to fill with the likes of grab-bars, ramps, and partitions. But for her, ease of use might be the most beautiful aspect of design anyway. ■■■

## LEADING BY EXAMPLE

In her efforts to boost the profile of universal design using her own work, Braitmayer's biggest hurdle may be that the best accessible designs aren't easy to pick out—they are, very often, remarkable for the absence of inaccessible design. For instance, contracted by the Puget Sound Environmental Learning Center, a retreat on Seattle's Bainbridge Island, Braitmayer was tasked with making a nature trail accessible for those who, like her, use a wheelchair. But she didn't specify asphalt paving or the cutting down of trees to straighten the trail. "We tested natural paving compounds," she says, "until we found the right mixture of materials that would bind together to create a firm and stable surface—but it still looked like a typical nature trail."

Braitmayer also often surprises nail-biting managers whose buildings are not in ADA compliance with the news that creating accessible facilities seldom means moving heaven and earth to let a wheelchair through; it's usually a bunch of small stuff. Called in to survey the restrooms in a high-rise in Seattle, for example, Braitmayer informed a much-relieved owner that the plumbing lines wouldn't have to be shifted to create wider toilet stalls on all 40 floors, just the partitions. Rather than removing the stone slabs at the door thresholds (a common, and literal, stumbling block for people with disabilities), she says "we just inserted wedges so you can get over them." ■■■



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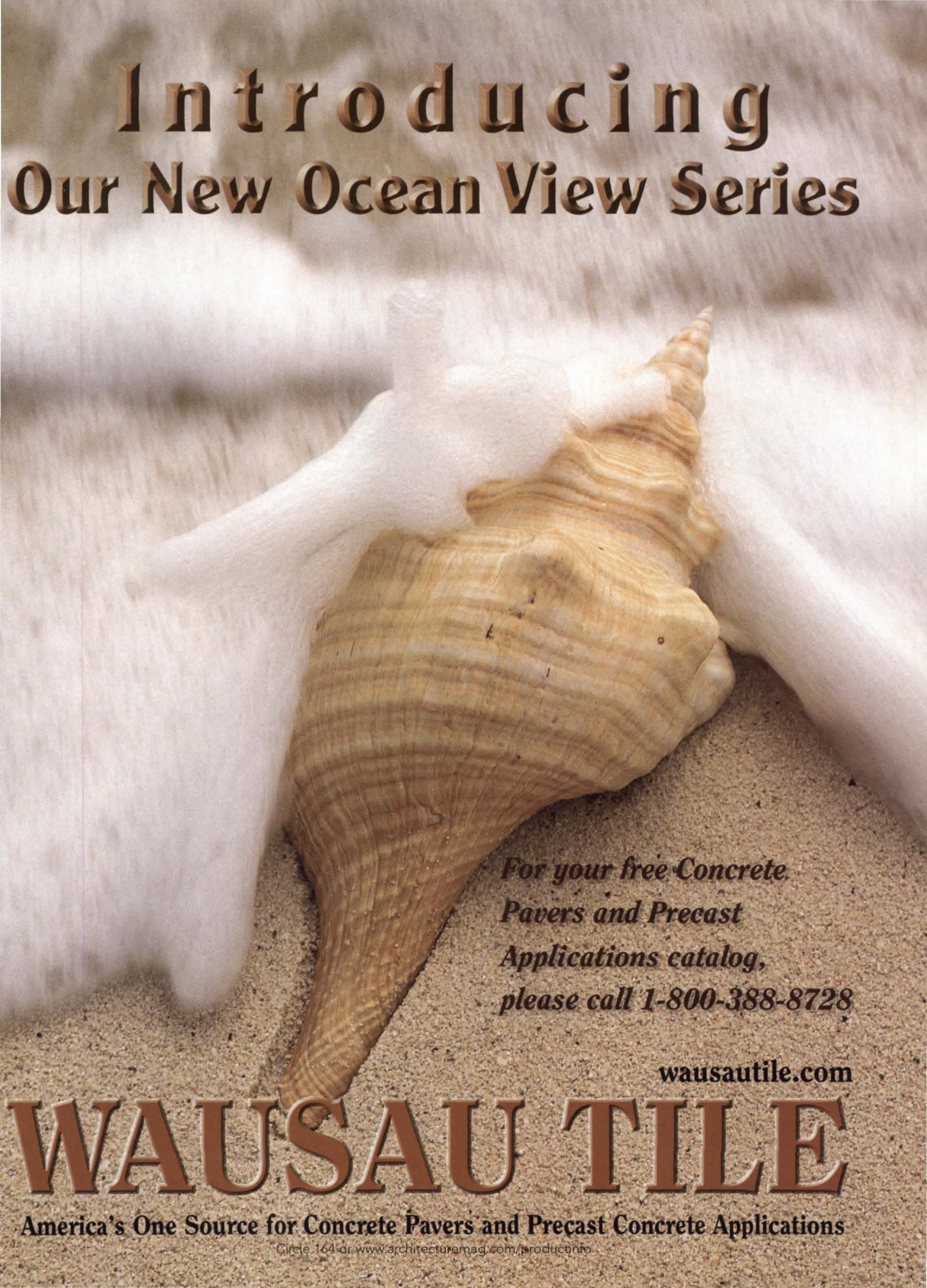


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## FREE FOR ALL BY ANNA HOLTZMAN

firm

Last March, a San Francisco-based nonprofit called Public Architecture began a national dialogue about the state of pro-bono work in the architectural profession. Since then, the organization—founded by John Peterson, principal of Peterson Architects, and led by architect and *ArchVoices* editor John Cary—has signed up more than 45 firms to a challenge called the 1% Solution: Each of these offices, ranging from a one-woman studio to an 800-person, multibranch company, has committed one percent of its billable hours to work for the public good, free

good for more than 30 years, according to president Ralph Hawkins. Recently, HKS completed a picnic pavilion for a children's hospital, and currently, the office is working on a substance abuse recovery center for women and children.

While pro-bono work has been a company focus for years, Hawkins says that the 1% pledge "Makes it a bit more formalized, and the staff becomes a bit more committed to it." The structure could benefit other firms that regularly donate time but don't quantify the hours, like 60-person,

work helps nurture our relationship with the community, so when we want to challenge norms, it gives us some collateral." One of his first such projects was a successful densification masterplan for a downtown area of the city of Atlanta.

Abernathy's years of experience with public interest work have also yielded tips on how to make the experience most productive. For example, his firm is currently working on a shelter for women and children for which he is receiving offers of in-kind donations, such as furniture and equipment. While monetary donations are "always great," says Abernathy, fitting in material gifts after the parameters of the project have already been defined can add substantial time and effort to design and construction. Anderson adds that occasionally, when the client committee isn't convinced it needs an architect's expertise, it becomes necessary to charge a nominal fee, "just to establish authority in the project. Sometimes if you work for nothing, they see the value of your work as nothing—but that's rare," she says.

Another caveat is to be conscious of the amount of pro-bono projects a firm can fiscally sustain—something that Lawrence Scarpa, of Santa Monica-based Pugh+Scarpa, admits he's not very good at. As an extension of his firm's zeal for charitable work, he and partner Gwynne Pugh have started their own nonprofit called Livable Places, devoted to creating quality, affordable housing. "I get so many calls from architects who want to be involved," relays Scarpa. "They say, 'We really want to do something good, we just don't know what to do.'" At present, finding such an outlet is a matter of chance for architects—and Public Architecture's efforts so far have been limited to signing firms up to its web site. However, in the near future, the organization's Cary and Peterson assert that they'll be actively pursuing clients and projects in need and setting them up with architecture firms in their network. ■



Public Architecture's recycled-metal-clad ScrapHouse was a demonstration project temporarily sited adjacent to San Francisco's City Hall.

of charge. Based on a 40-hour work week, this amounts to 20 hours per person annually.

Peterson started the program, which was funded this year by a grant from the National Endowment for the Arts, because he was embarrassed by the lack of organizational support for architects doing this work. In the legal and medical professions, for example, the bar mandates pro-bono case-loads, and doctors have access to organizations such as the international Doctors without Borders.

The largest firm to come aboard the 1% Solution to date is Dallas-based HKS, with 800 employees (500 of them architects) divided among 12 offices around the world. Having pledged an annual 17,650 hours, the firm already has routinely donated its services to the public

Glendale, California-based Osborn Architects. Partner Michael Pinto chuckles, "You're talking to a firm with loose management; if we make money at the end of the year, we know we're balancing things. In business terms, maybe [volunteerism] doesn't work, but psychologically, we need to see something built quickly and for enthusiastic clients."

While pro-bono work is by nature altruistic, some architecture firms cite byproducts that do make business sense: "It's a good way to raise your profile in the community," maintains Allison Anderson, of one-person firm Unabridged Architecture, in Bay St. Louis, Mississippi. "And sometimes," she adds, "more innovation is possible when you're working for free." Roy Abernathy of Atlanta-based Jova/Daniels/Busby concurs: "This

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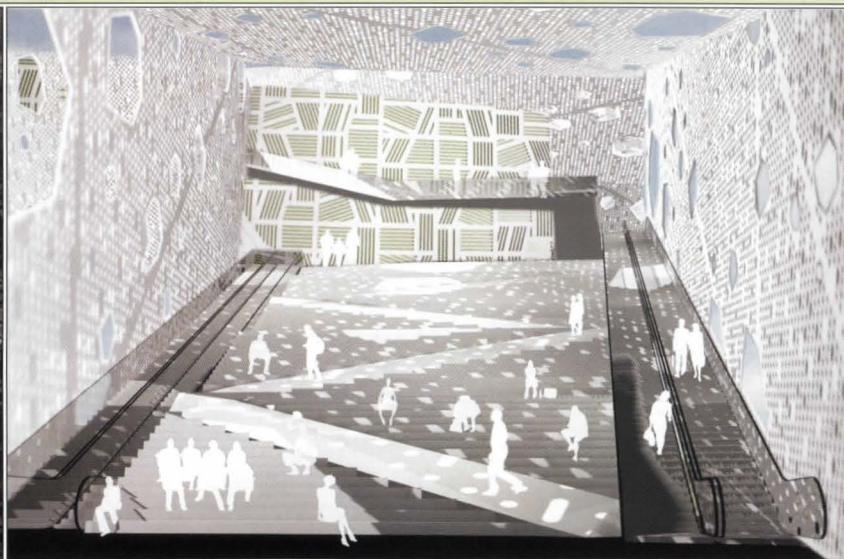
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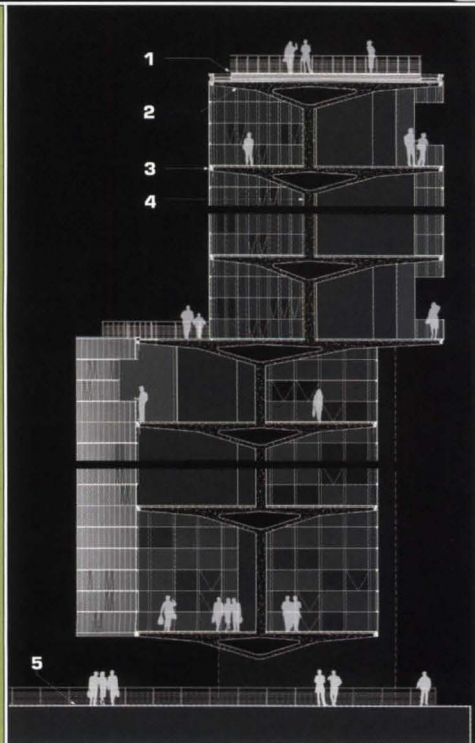
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➔ STEVEN HOLL ARCHITECTS WITH BURO 2 | "SAIL HYBRID" CASINO | KNOKKE-HEIST, BELGIUM

The 75-year-old Albert Place Casino in the seaside spa town of Knokke-Heist, Belgium, is slated for a major transformation and expansion led by New York City architect Steven Holl. Beating out shortlisted peers such as Herzog & de Meuron and Zaha Hadid in an international competition, Holl proposed a tripartite design that he calls "Sail Hybrid," inspired by *The Ship Which Tells the Story to the Mermaid*, one of the eight René Magritte murals in the original 1930 casino. The scheme calls for the restoration of the existing two-story, white stucco and concrete structure by Belgian modern master Leon Stynen along with two new additions: a sail-shaped, glass-clad tower containing a hotel and residential units that rises atop the Stynen plinth; and a low horizontal building housing a convention hall, clad in white, perforated-metal panels. The rest of the 764,000-square-foot, 350-foot-high complex comprises a casino, two cafés and two restaurants, an exhibition hall, a 500-seat auditorium, two terraces with pools, a spa, and a five-level, subterranean parking garage, below which is a geothermal energy plant. The complex, which the town hopes will "Bilbao" it into the league of major resorts like Biarritz and Monte Carlo, does not yet have a completion schedule. **Anna Holtzman**



- 1 sedum-covered roof
- 2 tapered extruded concrete slab off shear wall and core
- 3 radiant heating and cooling
- 4 structural glazed curtain wall
- 5 public roof terrace on restored Albert Place Casino



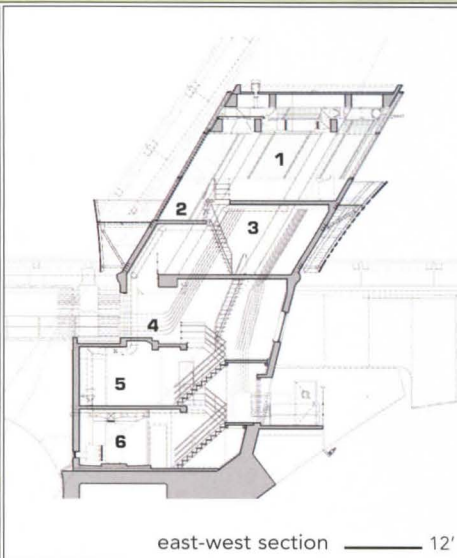
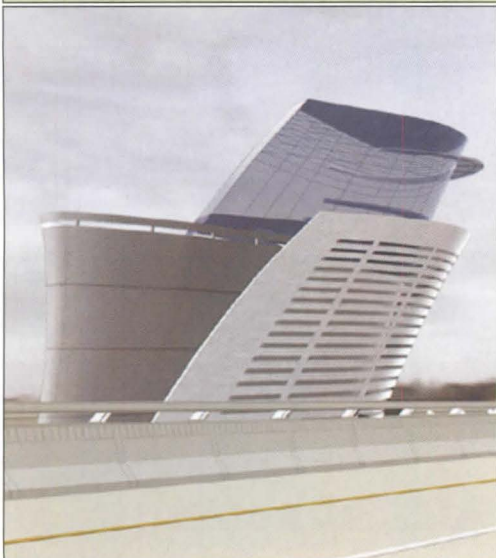
➔ **KIERAN TIMBERLAKE ASSOCIATES | SIDWELL FRIENDS SCHOOL | WASHINGTON, D.C.**

For this private Quaker school located on a ridge between two watersheds in Washington, D.C., Kieran Timberlake Associates was asked to renovate and expand a 1950 middle school building on a campus that is trapezoidal in plan. Focusing on tenets of environmental and visual harmony, the designers preserved as much of the site's open landscape as possible. The buildings are sited to maximize natural light, while solar chimneys provide passive ventilation to classrooms in the middle school addition. The new structure houses a central mechanical plant below ground that uses high-efficiency pulse boilers and modular chillers. Above is a green roof that collects and diverts rainwater into a "biology pond" located in a courtyard formed by the new and existing middle school structures. The courtyard is a stepped, constructed wetland in which wastewater from the building is recycled for reuse. The old and new structures are visually unified by the addition's wood cladding, which spreads across the existing wing's façade in the form of sunshades, and by the old building's brick, which wraps around the base of the new one. Slated for completion next summer, the project is seeking a LEED Platinum rating. **Anna Holtzman**



➔ **COX GRAAE + SPACK ARCHITECTS | WOODROW WILSON MEMORIAL BRIDGE OPERATOR'S CONTROL HOUSE | ALEXANDRIA, VIRGINIA**

Drivers stuck in rush-hour traffic on the Woodrow Wilson Memorial Bridge, which crosses the Potomac just outside of Washington, D.C., can relax: A 12-lane replacement bridge designed by Parsons Engineering opens for business as early as 2008. But the busy bascule bridge—a counterweighted drawbridge—cannot run itself, which is why the Maryland Department of Transportation commissioned Cox Graae + Spack to design an operator's control house, nestled in the 15-foot-wide gap between the eastbound and westbound spans. The six-story, 1,500-square-foot control house, supported by one of the bridge's structural piers, is a cast-in-place concrete structure clad in perforated stainless-steel panels and ballistic-resistant glazing. The first phase of construction, including the control house and eastbound span, will be completed late next year. **Katie Gerfen**



- 1 bridge control room
- 2 observation access level
- 3 operations room
- 4 entry access level
- 5 break room
- 6 mechanical/electrical





Lead Times

Budget Pricing

Fixture Selection

Application Guidelines

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# SMART SPACES

For those of us whose formative years were spent walking the concrete-block-lined corridors of brick-clad postwar schools, there's a welcome reprieve in seeing a crop of educational spaces that offers alternatives to warehouse-style facilities, both programmatically and pedagogically. John McAslan + Partners's Lavender Sure Start and Children's Centre (above) in South London uses a kit-of-parts to build economically, while still ensuring light, airy spaces for the school's young charges and their families. The Accelerated School by Marmol Radziner Associates also sees currency in connecting its students to their neighborhood—this one in South Los Angeles—while simultaneously protecting them from the harsh conditions just outside the campus. And the Pistorius Schule for disabled children takes advantage of its more sedate surroundings near Ulm, Germany, by encouraging its youngsters to experience the outdoors—and a semblance of independence—by linking its pavilionlike classrooms to open-air courtyards. All of these schools were done on tight budgets and all are public. And they prove that limited means ought never be an excuse for unimaginative design. ■■■

# FRESH START

John McAslan + Partners's hybrid nursery school/social services center aims to improve future prospects for a low-income community in London. BY CATHERINE SLESSOR | PHOTOGRAPHS BY PETER COOK/VIEW PICTURES

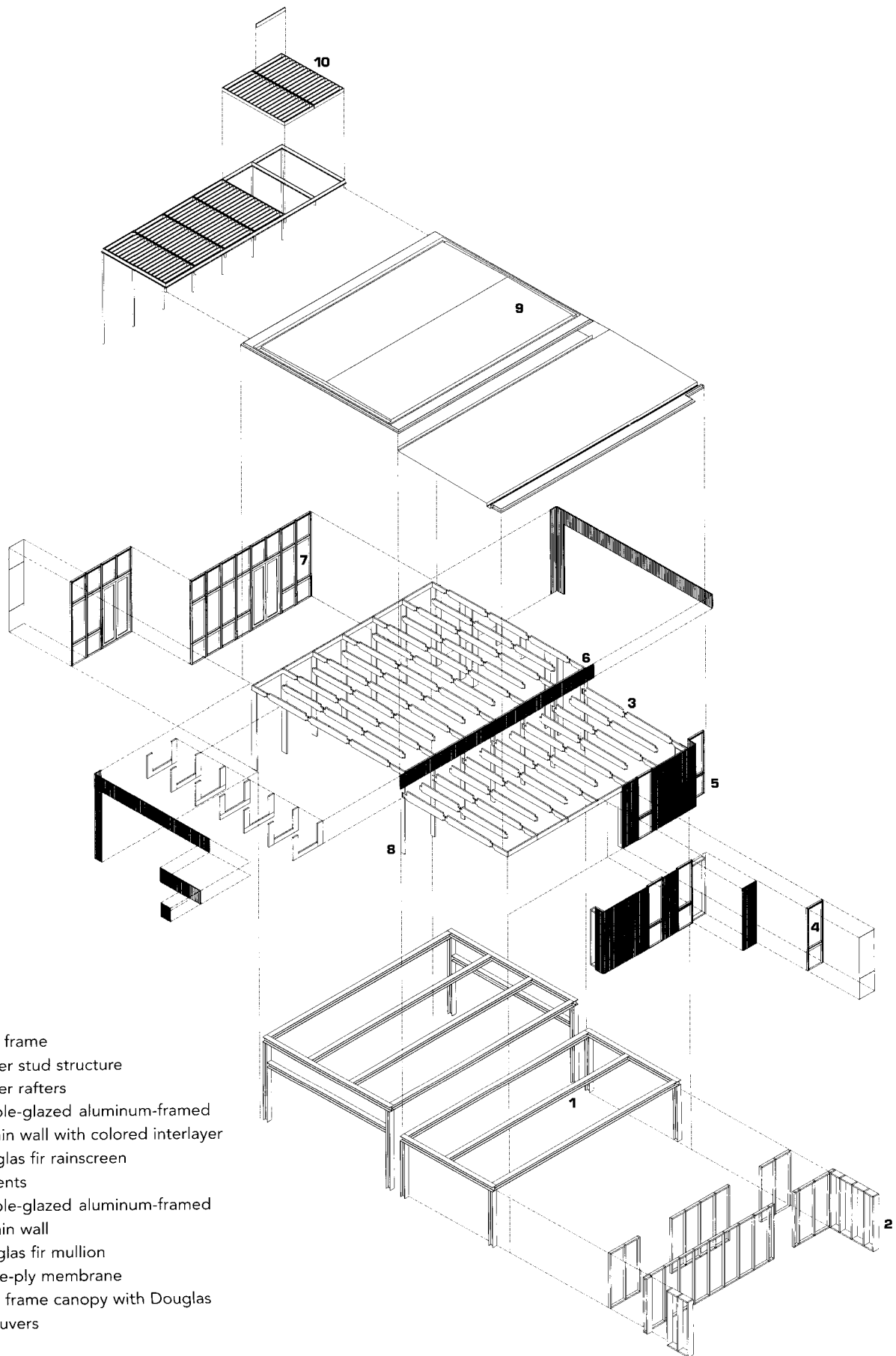


**Most people have fond childhood** memories of playing with Lego blocks, so there is a pleasing synergy when the principles of modular construction find expression in a building designed especially for children. The new Lavender Sure Start and Children's Centre in Mitcham, South London, by John McAslan + Partners adopts the familiar kit-of-parts approach to create a robust, welcoming pavilion for learning, play, and community support that manages to stand up to its tough surroundings.

Set among a population of low-income families battling debt, cramped housing, and weak employment prospects,

the Lavender project, commissioned by the local borough of Merton, has wider and more challenging social aims. It forms part of the United Kingdom's Sure Start program, a national political initiative with a budget of \$905 million intended to spark a cycle of social improvement through counseling for disadvantaged families, focusing on early childhood health as well as social and emotional development.

The building itself combines facilities for over 90 children (including infants and two- to four-year-olds), together with a café, training rooms, and offices. Parents are able to leave



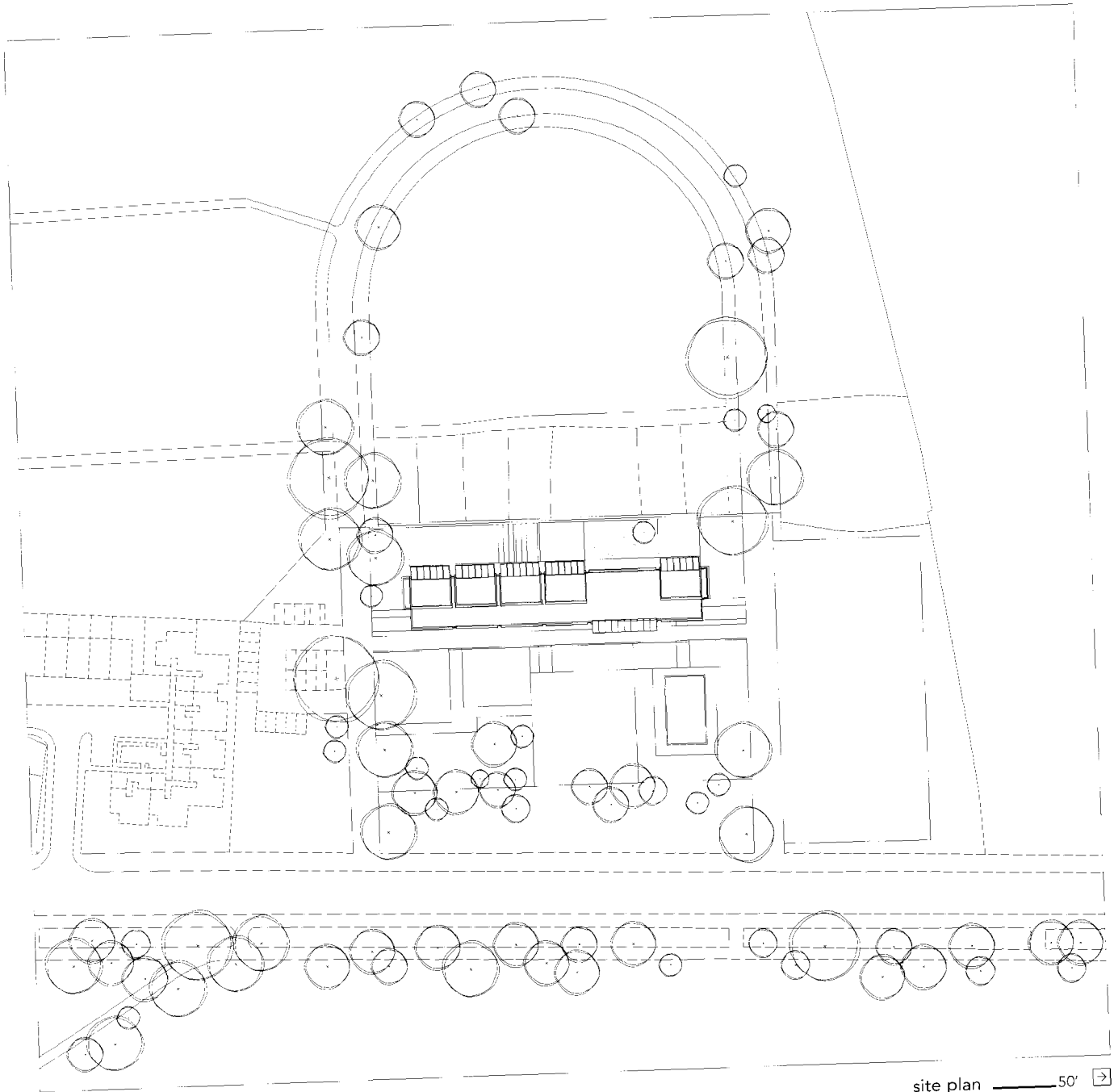
- 1 steel frame
- 2 timber stud structure
- 3 timber rafters
- 4 double-glazed aluminum-framed curtain wall with colored interlayer
- 5 Douglas fir rainscreen
- 6 air vents
- 7 double-glazed aluminum-framed curtain wall
- 8 Douglas fir mullion
- 9 single-ply membrane
- 10 steel frame canopy with Douglas fir louvers


exploded isometric

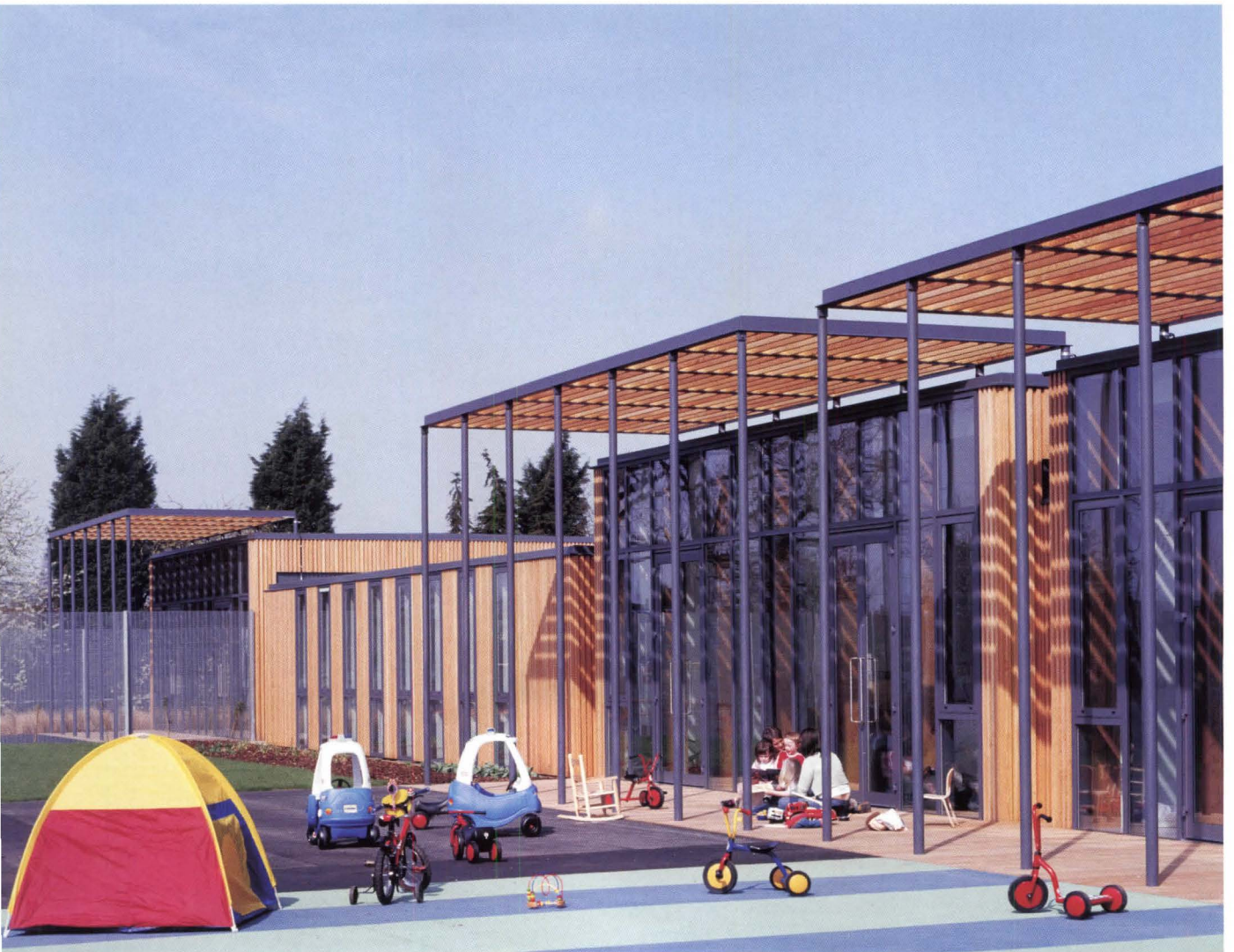


their children in a series of large, airy activity spaces while they relax in the café, undertake counseling, or attend vocational training courses. Hemmed in between a main road and community gardens, the site is parklike, yet the surroundings have a desolate, run-down air. Because a community center on the same parcel burned down, a heavy-duty fence to deter vandalism and ensure the children's safety surrounds the new building. Locked gates and surveillance cameras reinforce the message that modern schooling, even at nursery level, has assumed a different, less carefree dimension.

John McAslan's response to this current fortress mentality is a sympathetic one. Conceived as a pavilion in the park, the 10,700-square-foot building has two contrasting faces. From the busy road, it reads as a series of interconnected cabins, each distinguished by vertical strips of colored glass cut at regular intervals into an external skin of Douglas fir. From the secluded garden side, it is lighter and more transparent, with walls of full-height glazing shaded by a louver-roofed colonnade supported on slim steel columns. The colonnade establishes an interstitial inside-outside space—much like a back porch—and acts as an extension of the activity rooms



site plan 50' 

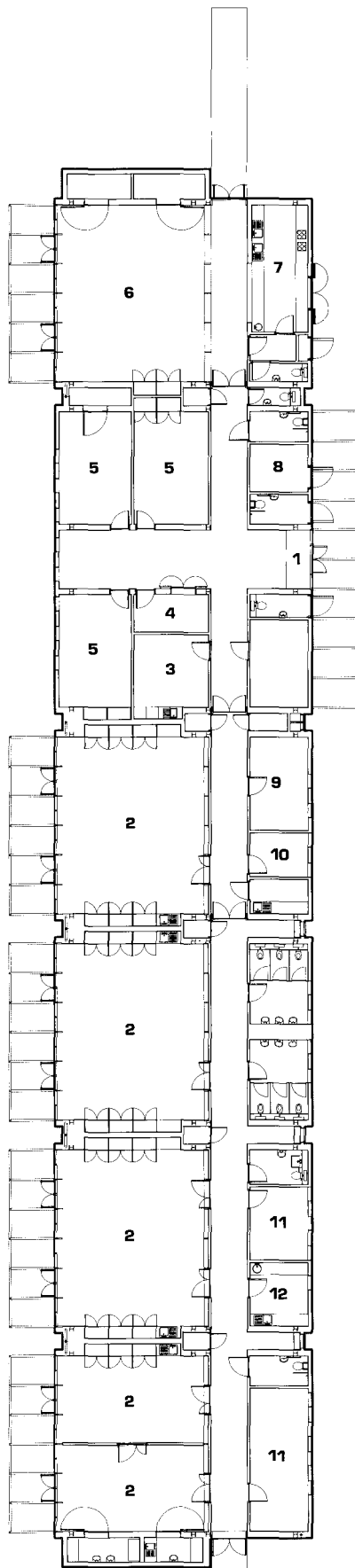


in fine weather. So, despite the security proscriptions, the building has a permeability and lightness, its functional spirit enlivened by bold touches of color.

The strict budget of \$2.5 million meant there was little room to maneuver in terms of design and materials, but employing a prefabricated system saved both time and money. With its elongated form derived from repeating elements, the project logically evolved into a modular structure that was delivered by truck and assembled on site in a matter of weeks. The result can be plainly understood as a system of pieces layered onto one another.

Though this is one of John McAslan's smaller and quirkier commissions (his practice is better known for its large-scale institutional, commercial, and restoration work), he views the nursery as a research project: not viable in financial terms, but one that provided a valuable opportunity for his firm to investigate ideas. And as an economical prototype, it has the potential to be applied to other sites and programs. The building's modest means belie the intricate calibrations and careful craft that have gone into it. As McAslan's design reveals, for the youngsters of Mitcham—and their families—less really is more.





- 1 entrance
- 2 activity room
- 3 staff room
- 4 reception
- 5 multipurpose/training room
- 6 community café
- 7 café kitchen
- 8 maintenance office
- 9 nursery manager's office
- 10 parent room
- 11 quiet room
- 12 nursery kitchen

plan ——— 11' ↑

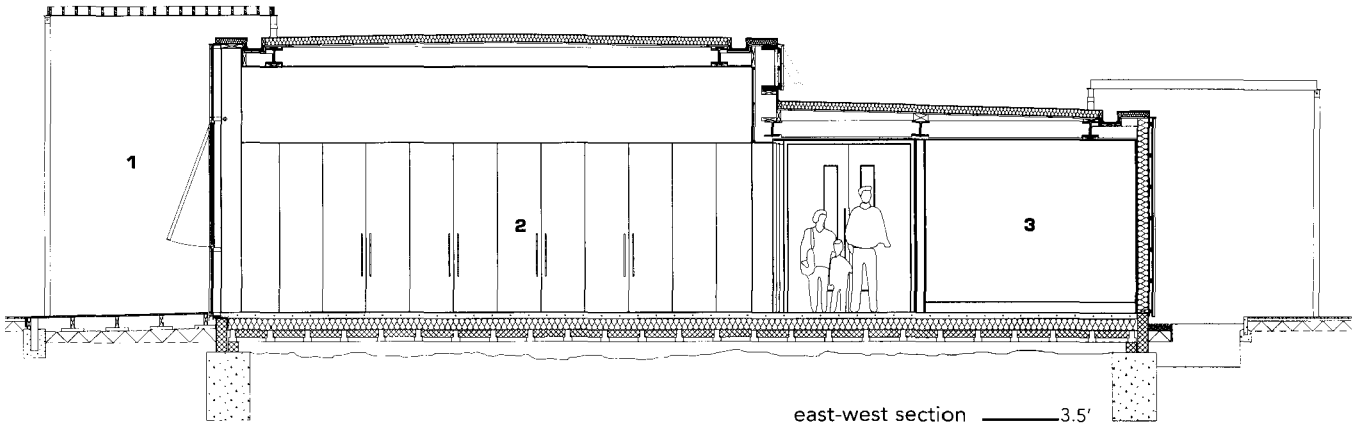


**Lavender Sure Start and Children's Centre, London**  
**client:** London Borough of Merton **architect:** John McAslan + Partners, London—John McAslan (principal); Murray Smith (project director); Alasdair Travers, Hannah Lawson (architects) **engineer:** Arup (structural, M/E/P) **consultant:** Boyden and Company (quantity surveyor) **general contractor:** Durkan Pudelek **area:** 10,700 square feet **cost:** \$2.5 million

#### Specifications

**concrete:** Hansen **steelwork:** Fourbay Structures **wood**

**framing:** South London Timber **curtain wall:** Comar Systems **wood cladding:** Douglas fir timber rainscreen **builtup roofing:** Sarnafil **colored-glass interlayer:** Vanceva **locksets/hinges/closers/exit devices/cabinet hardware:** Dorplan **cabinetwork/custom woodwork:** DMB Construction **paints and stains:** ICI **flooring:** Dalsouple **carpeting:** Interface **interior lighting:** Wila, Lightworks **exterior lighting:** Yguzzini **plumbing fixtures:** Armitage Shanks



- 1 porch
- 2 activity room
- 3 nursery manager's office



# CHARTER TERRITORY

MARMOL RADZINER AND ASSOCIATES  
CREATES A PROGRESSIVE PUBLIC SCHOOL  
IN A LOS ANGELES NEIGHBORHOOD ONCE  
KNOWN ONLY FOR VIOLENCE AND DECAY.

BY BARBARA LAMPRECHT  
PHOTOGRAPHS BY BENNY CHAN



In 2001, *Time* named The Accelerated School, or TAS, its Elementary School of the Year. The honor came only seven years after TAS opened in two rooms, which it had leased from a church. For the first three years, 50 students and their teachers swept floors and “broke set” every Friday, arriving again on Sunday night to set up. There was an idea for a new kind of school and, given the stubbornness and resourcefulness of the educators and their supporters, the magazine’s honor seemed natural.

When it came time to create a permanent home for TAS, Marmol Radziner and Associates, best known for expensive restorations of modernist residential masterpieces—and with no prior experience in schools—used a standard-issue palette of materials to design a school that is also a community center. Today, TAS not only serves prekindergarten through 12<sup>th</sup> grade, it has a new \$37 million campus whose architectural strategies parallel the school’s goal: Success despite any challenge. The architecture had to support a learning style that encourages accountability, proactive involvement by both teachers and parents, and one that reaches out to progressive curriculums.

#### CONTRASTING VIEWS

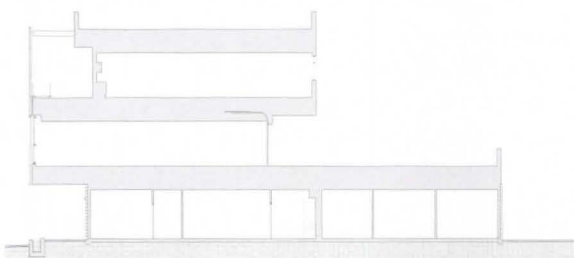
The school also demonstrates how to deliver a dose of compassionate *civitas* to an area so notorious for crime—it was the site of the 1992 riots—that the city council voted unanimously to change its name from South Central to South Los Angeles in 2003. Beyond TAS’s formidable but handsome façade lies a community whose built fabric frayed long ago into visual incoherence. And while it is definitely a shock to this derelict status quo, the school feels not so much like an imposed intervention as it does a kind of meta-loom for knitting a neighborhood together.

Because it is unusual both architecturally and academically, TAS is already legendary amidst a spate of new public school construction in the city, addressing decades of the neglect and overcrowding that led to long bus rides and triple shifts in the 707-square-mile Los Angeles school district. But now, fueled by immigration, the population is exploding, and billions of dollars in bond money are available to build schools. By year’s end 38 will have been completed, with a total of about 150 operating by 2012 in what is the largest school construction effort in U.S. history.

Owing to the resourcefulness of founders Kevin Sved and Johnathan Williams, who gathered a sophisticated team of fundraisers and financial experts, TAS fits into this picture as a complicated hybrid. It’s the first school in the nation to hybridize a charter school with the “Accelerated Schools Model,”

a 20-year-old educational concept that eschews the idea of peremptorily viewing at-risk students as slow learners and instead presumes every child is de facto gifted. A burgeoning national trend, charter schools are neighborhood-centered nonprofit institutions that select their own teachers and curriculum, and are eligible for state tax money. There is no academic standard for acceptance; students are chosen by lottery and there is no tuition fee.

During the course of neighborhood fundraising for TAS's construction, parents, teachers, and students also wrestled with what the school would look like. (In fact, the firm's "thoughtfulness" was a primary reason the school hired Marmol Radziner after a national search, according to Williams.) Safety, parents insisted, was paramount.



### FORTRESS OF LEARNING

The Janus-faced four-story school somehow manages to be a fortress without looking like one, a delicate but requisite task in this neighborhood. It invites, but with boundaries. The sleekly articulated, strongly horizontal street façade recalls Erich Mendelsohn's 1928 Schocken department store in Berlin, even down to the use of large letters as signage that manifests acceleration metaphorically.

Instead of a monolithic visage, the street façade, facing west before sweeping around the corner to look north toward downtown, is a crisply articulated layering of polycarbonate, glass, steel mesh, and concrete block. Three emergency staircases running behind the polycarbonate speed the façade's suggested momentum.

Outside, the street is a cacophonous muddle. But walk through the metal detector just below the massive diagonal metal slash defining the entrance, and one suddenly enters a world rationalized to liberate. Here, the architecture sheds its civic role. "While the public side is monumental, the 'school' side is more residentially scaled, more visually activated with colors," says project manager Jim Burkholder. Multistory volumes of classrooms in shades of brown plaster jut out from the protective L-shaped main block into an expansive courtyard softened by strips of landscaping





and angled open staircases. A generous carpet of Bermuda grass punctuated by two rows of palm trees creates dappled patterns of sunlight on the children running around them.

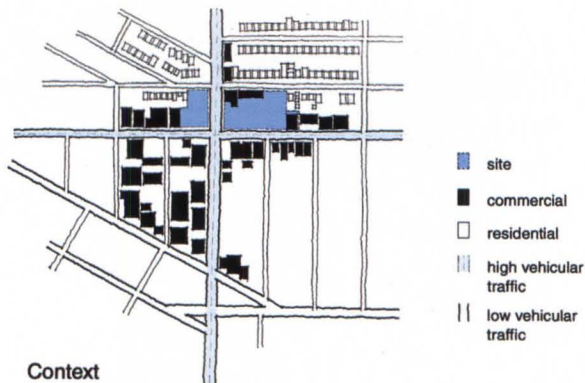
The 3.2-acre campus is also highly unusual for regional schools in that it compresses the sort of program that would typically require 29 acres, a feat made possible by pushing the building out to the property line and sharing large-area sports needs with a nearby park. Internally, each age group is located in separate but overlapping areas that help give the campus a village quality without feeling cramped; the prekindergarten section, for example, is housed in a renovated one-story building well away from the rest of the campus.

### A SYNTHESIZED SPACE

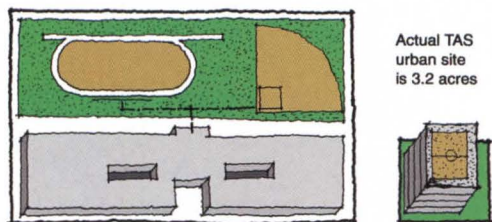
This compression reflects a shift from Southern California’s relaxed assumptions about sprawl to the new demands of urban density. Its 110,000 square feet of space is predicated on 60,000 square feet of outdoor circulation area, so that every square foot participates in learning or playing. The school boasts state-of-the-art music and art studios, laboratories, and even a yoga room. Its numerous corridors and broad exterior staircases demand exercise—a significant topic with educators concerned about obesity. Gym teachers use the stairs for calisthenics. Terraces—some shaded, others not—animate the spatial sequences and give students an opportunity to learn and socialize outside of traditional educational paradigms.

To increase community involvement, facilities clustered along the building’s north and west edges can be secured so that visitors can enter from the street. These include a multipurpose room, an auditorium with a stage, and a walk-in health clinic staffed by local medical personnel.

The admission and modulation of natural light assists the school’s spatial integration in achieving its educational mandate. The library sports a low ceiling that opens up to a double-height, rounded tower where clerestories gently suffuse the space with sunlight. Almost every classroom has a unique shape, orientation, and window placement, so that “light and one’s sense of place shifts as students move through their day,” Burkholder explains. Natural light enters the building through roll-up steel garage doors, transparent operable window groupings (facing the courtyard), and polycarbonate panels (facing the street). Here, the translucent material focuses students’ attention on their school work and blurs interior activities from the street, while also providing



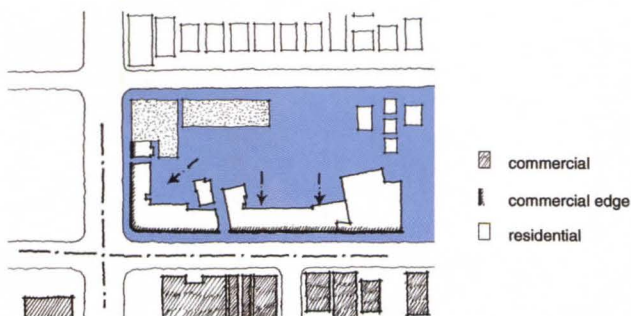
Context



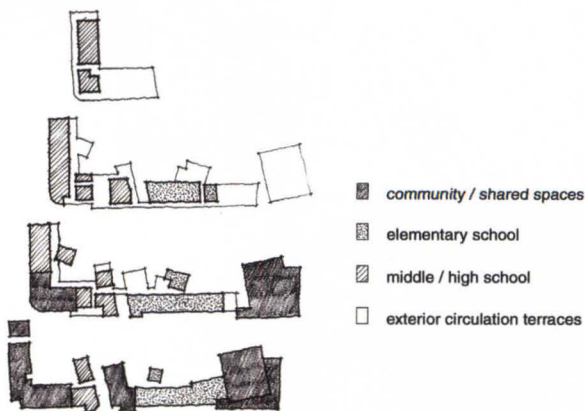
Typical California Model is a 1 story building with extensive playfields on site

Typical Urban Model is a multi-story building with playspace on the roof

### School Planning Model

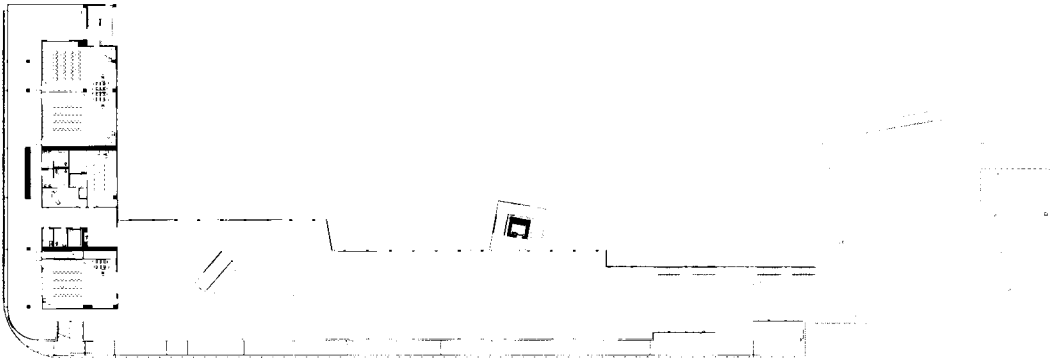


Site Organization and Planning

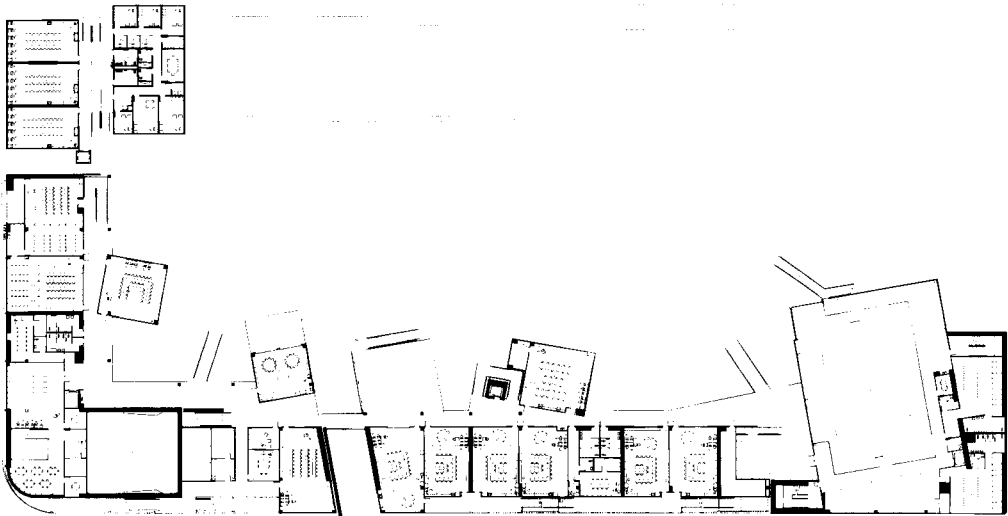


Building / Program Organization





fourth-floor plan



second-floor plan

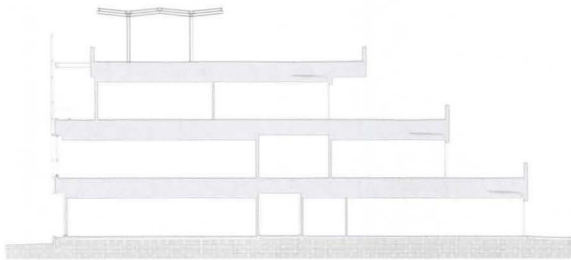


ground-floor plan ——— 44' ←

a secure environment—the ground-floor concrete block wall can withstand the impact of a car.

TAS's ganglia of multidisciplinary spaces culminates in a Corbusian moment on the rooftop. In addition to a basketball court, four classrooms, and an amphitheater leading down to a gymnasium where parents can work out with their kids after school, the architects provided one more accoutrement: a grand vista of the downtown skyline. "With binoculars, you can see Malibu, Big Bear, the Hollywood sign," says Burkholder. To virtually everyone at the school, the roofscape offers a view to a bigger world—one there for the taking.

**Los Angeles-based writer Barbara Lamprecht is the author of two books on Richard Neutra.**



### **The Accelerated School, South Los Angeles**

**client:** The Accelerated School **architect:** Marmol Radziner and Associates, Los Angeles—Leo Marmol (managing principal); Ron Radziner (design principal); Jim Burkholder (project manager); Annette Wu (project architect); Tracy Bromwich, Nicole Cannon, Anna Hill, Jeniffer Kim, Warren Bradley Lang, Brian Nesin, Susanna Seierup, Risa Narita, Nicole Starr, Nathan Swift (project team) **engineers:** KPFF (structural, civil); William Yang & Associates (M/E/P) **consultants:** Mia Lehrer + Associates (landscape); Horton Lees Brogden Lighting Design (lighting) **construction manager:** Gafcon **general contractor:** Swinerton Builders **area:** 131,000 square feet **cost:** \$36 million

### **Specifications and Suppliers**

**playground structures:** Kompan **impact surfaces:** No Fault Industries **masonry:** Angelus Block **metal decking:** Verco polycarbonate **curtain wall:** Danpalon/CPI **veneer masonry:** Angelus Block **glazing:** Pilkington **metal doors and frames:** Curries metal **vision windows:** Anemostat **locksets:** Schlage **acoustical tile ceilings:** Celotex, Tectum **linoleum:** Marmoleum **carpet:** Collins and Aikman **classroom cabinetry:** Seeley Brothers Custom bathroom **accessories:** Bobrick curtain **wall lighting:** NSI Cold Cathode **elevators:** Mitsubishi Electronics





Even in progressive western European countries—where national affluence trickles into social-welfare programs more generously than in the United States—it's a common lament that not enough is done to help mentally and physically disabled children in the learning environment. The deficiency is a case of economics: Good intentions become entangled with bureaucracies and budgets, and the results are usually the best that can be done under the circumstances.

But near the town of Ulm in Southern Germany, a new school stands as evidence of what can be accomplished, both socially and architecturally, when educational ideals are given precedence. Pistorius, a public school for disabled children, is a modest proposition. Even so, it was unavoidably more expensive than a similar facility for "normal" children because of the larger spaces and greater number of teachers and caregivers required for the pupils. The 49,730 square foot project cost \$10 million, or \$201 per square foot. That's still good value, but up to five times more expensive than other schools. Yet Pistorius' attainments, both structural and academic, still make a strong case for special-needs education, especially considering that its pupils were previ-

ously taught in an old brick building, which would have required extensive renovation and adaptation.

context by designing a village of wood-clad pavilions. The architects, in consultation with the school staff, believed that the building should strengthen the children's self-confidence. Because the family unit symbolizes security, each classroom is treated as a "family house," where teachers serve as surrogate parents for their pupils. Children, in turn, can feel safe in their home classrooms, and from that secure environment they can branch out—into other classrooms and, thus, into regions of their individual development.

This pedagogical concept, the architects theorized, could not be reflected in a solid block building but instead should be expressed as an open spatial experience. Each house is independently articulated, while still being connected to the other classrooms and communal areas. The symbolic hearth in each classroom area is a central point covered by a barrel-vaulted skylight that filters daylight into the heart of the individual "family" space. While the scaled-down furniture, natural light wood finishes, red and white desks, sunny wall colors, and uncluttered rooms aim to provide a safe haven, the individual houses extend outward, like adventurous fingers, in the form of terraces and land-

# HOME SCHOOLED

**In an alpine town, Behnisch, Behnisch & Partner creates a classroom village for special-needs children.**

**BY LAYLA DAWSON | PHOTOGRAPHS BY ROLAND HALBE**

ously taught in an old brick building, which would have required extensive renovation and adaptation.

## WOODLAND CREATURE

The school sits in a park bordered by trees in Herbrechtingen, a small town in the Swabian Alps, where forestry, timber engineering, and the production of furniture and other woodcraft are dominant local industries. In Germany's decentralized political structure, the *Länder*, or federal states, are responsible for educational facilities, from schools to universities. Basic requirements such as space and equipment are paid for by the state, but extras must be privately financed. Standards across the country are therefore variable. An architectural competition held in 2001 by the municipal government of the Heidenheim district asked for a school to cater to 100 mentally or physically disabled children between the ages of six and 16. Whereas in mainstream German schools there can be up to 30 children in one classroom, here there are only five per class, and a total of 20 classrooms.

Architects Behnisch, Behnisch & Partner, winners of the competition, started off with two basic ideas: to shape a supportive environment and to set the school into its regional

scape plantings. This organization allows teachers to expand lessons in the house into lessons in the park, using outdoor areas to entice the children to explore their surroundings.

## RESPECTING BOUNDARIES

Although the school is not on a heavily trafficked road, additional psychological and physical protection is given on the south side of the complex by using the administration offices as a buffer between the public world outside and the private realm of the school. The communal heart of the complex is the entrance foyer—a village square where children and teachers cross paths during the day and where concerts and plays can be staged—that leads into areas for various learning activities. In the school kitchen, which is equipped with variable worktop heights and under-counter space for wheelchair use, pupils learn to cook for themselves and gain confidence by becoming more independent. There is a music suite (which, via sliding doors, expands to auditorium size), a therapy suite for medical treatment, and a therapeutic swimming pool with a floor that can be hydraulically raised or lowered to match students' heights and abilities.



Pistorius is a composition of single-story pavilions grouped around a central courtyard, which allows for “open-air lessons” as well as spatial connectivity. The classrooms are shaded by yellow and white awnings (not shown).

### A CLEAN, WELL-LIGHTED PLACE

This complex is no architectural firecracker, but a series of carefully detailed spaces—all on one level—with a spacious and well-ventilated atmosphere that’s bathed in natural light from all sides. Instead of corridors, there are wide connecting lanes easily navigated by those in wheelchairs or on crutches. In an effort to keep the mood upbeat, internal walls are painted white, yellow, or orange, while exposed beams and the frames of all windows and doors are natural pine, reflecting the region’s industrial identity. Canvas sunshade awnings striped in yellow and white do battle with overcast days. The yellow canvas filters the daylight to infuse rooms with a warm glow. Forms and colors meld into the site, avoiding sudden changes, which might overexcite the students or disturb their ability to concentrate. Blue roof fascia boards blend into the sky while the green panels below the windows blend into the grass. The resulting effect is pleasingly harmonious: Viewed from neighboring hills, the pebble-strewn, partially vegetated roof makes the complex appear as one with the landscape, and the school’s inhabitants profit from the added insulation.

### PASSIVE INFLUENCES

Pistorius achieves its environmental goals discreetly and, at times, passively. There is, for example, no air-conditioning. Instead, operable windows provide adequate cross ventila-

tion. A central plant in town supplies hot water for the school’s radiators. And the planted roof ameliorates harsh summer temperatures.

The school’s construction followed a similar ethos. The architects took timbers from regenerative sources, and all building materials are recyclable. And virtually all the school’s components—from timber beams and lightweight wall panels, reinforced-concrete bracing walls, furniture, and polycarbonate skylights—were produced locally.

Such eco-conscious measures, however, are drawn from a well-established template. Pistorius School sports all the hallmarks of Behnisch, Behnisch & Partner’s years of experience in both sustainable design and in building many larger educational and public structures for which budgets were tightly controlled. For disabled children, money does not necessarily buy the best or most appropriate environments—but it goes a long way in helping staff and parents provide better learning opportunities. This is architecture as a social art, one that juggles design values and public accountability. It’s also an example of how complex a challenge it is to create simplicity.

**Layla Dawson is an architect and writer based in Hamburg, Germany. Her book, *China’s New Dawn: An Architectural Transformation* (Prestel), will be published next month.**

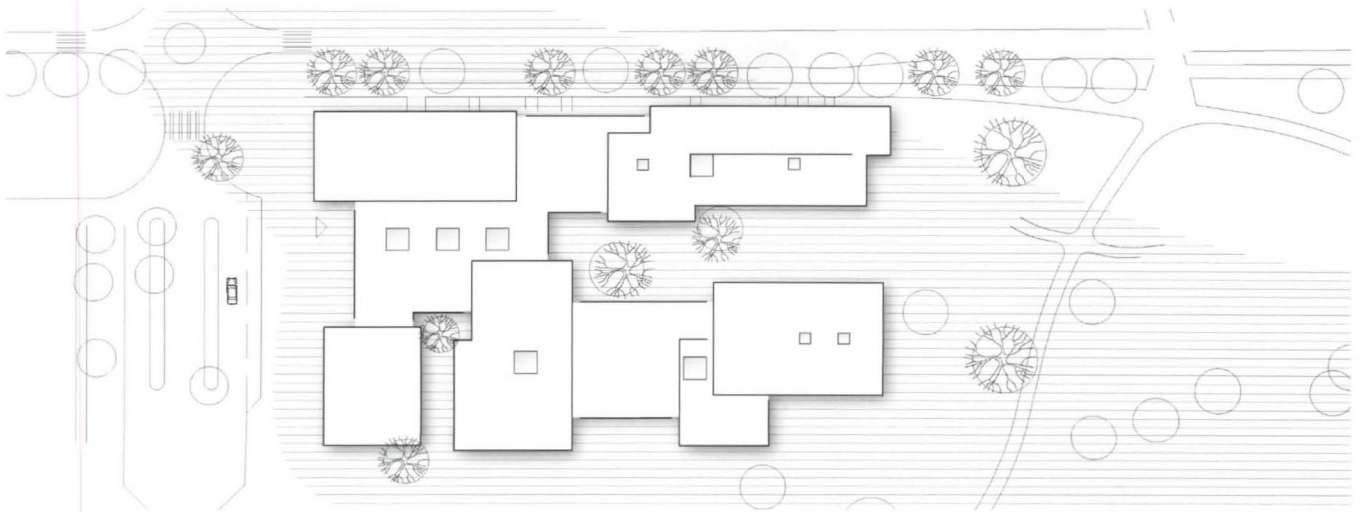


On the edge of Herbrechtingen, Pistorius provides a sense of security and privacy. Partially planted roofs integrate the school with the land, while the simple use of wood and concrete demarcates the low-slung complex.





Building, literally, on the town's timber-based economy, the architects made widespread use of local wood, which is at once subtle and celebratory. Extensive glazing maximizes daylight penetration, aiding with study and energy costs.



site plan ——— 50' ↘

### Pistorius-Schule Herbrechtingen, Herbrechtingen, Germany

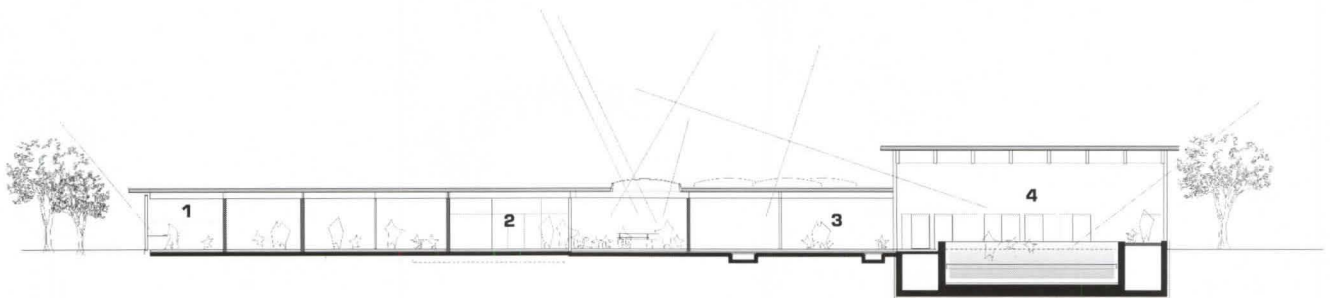
**client:** Landkreis Heidenheim **architect:** Behnisch, Behnisch & Partner, Stuttgart, Germany **landscape architect:** Luz Landschaftsarchitekten **engineers:** Knippers und Helbig (structural); H+H Ingenieurpartnerschaft (M/E/P) **area:** 49,730 square feet **cost:** \$10 million

### Specifications and Suppliers

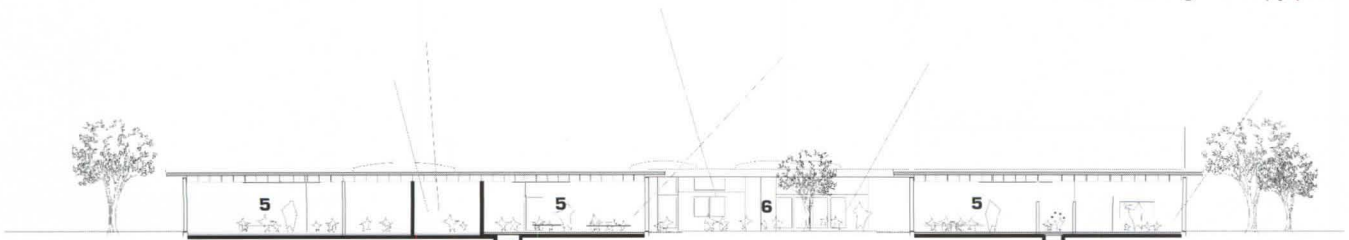
**wood and plastics:** Kerto, Grossmann **cladding:** Montag **roofing:** Pohl, Rossaro **glazing:** Montag **skylights:** Essmann **doors:** Riexinger (metal); Lindner (wood); GEZE (sliding); Forster (fire) **locksets:** FSB/06RO **hinges:** Simons Werk **closers:** GEZE, Dorma **ceilings:** Hera **flooring:** DLW, Forbo



Naturally illuminated, barrier-free spaces dominate the Pistorius school, where color and form meld together to avoid any sudden changes that might disturb the students or hamper their ability to concentrate.



section through therapy pool



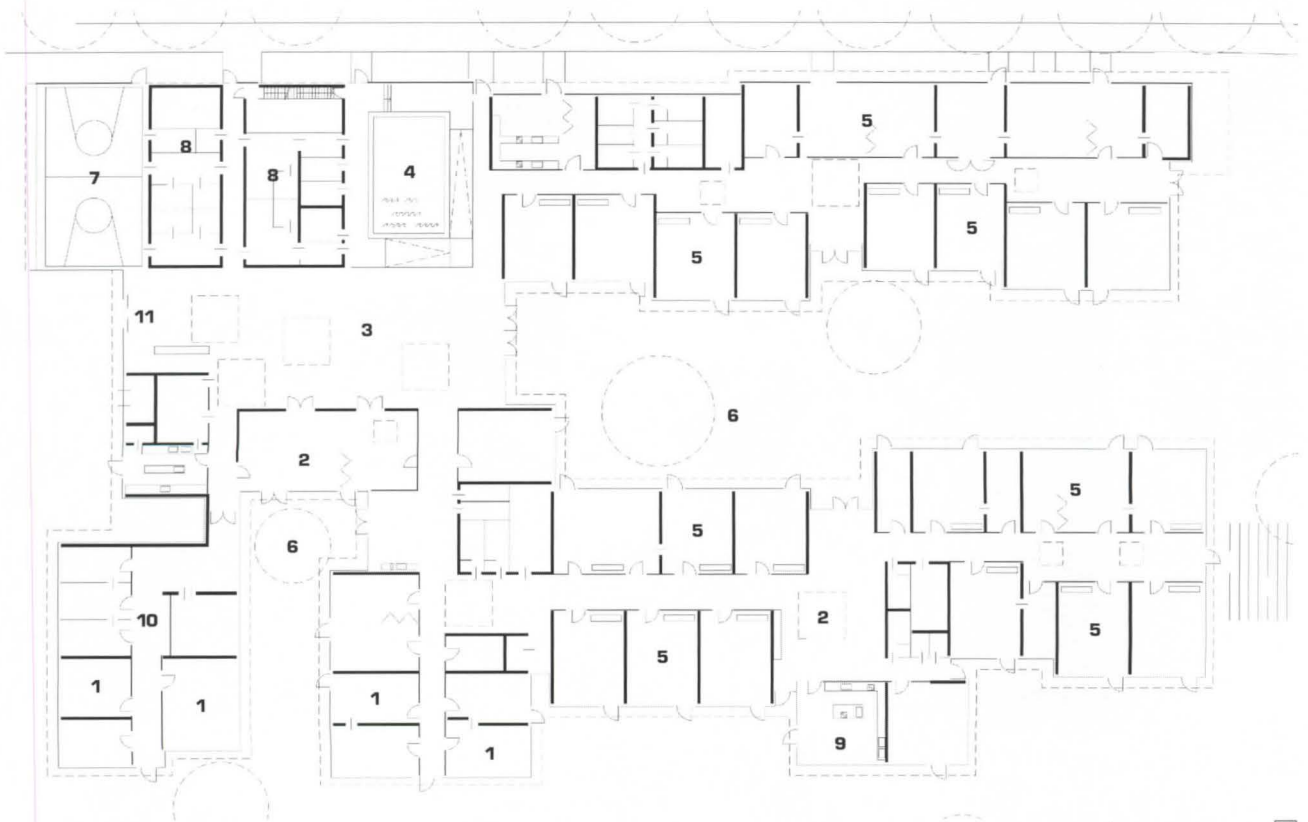
section through courtyard ——— 12'

- |                     |                  |                    |
|---------------------|------------------|--------------------|
| 1 therapy room      | 5 classroom      | 9 teaching kitchen |
| 2 multipurpose room | 6 courtyard      | 10 administration  |
| 3 reception hall    | 7 gymnasium      | 11 entrance        |
| 4 therapy pool      | 8 changing rooms |                    |





To help create and maintain a positive mood throughout the complex, the architects specified a palette of yellow, orange, and white for the interior walls. Barrel-vaulted skylights accentuate the intended color effects.



plan ——— 20' 



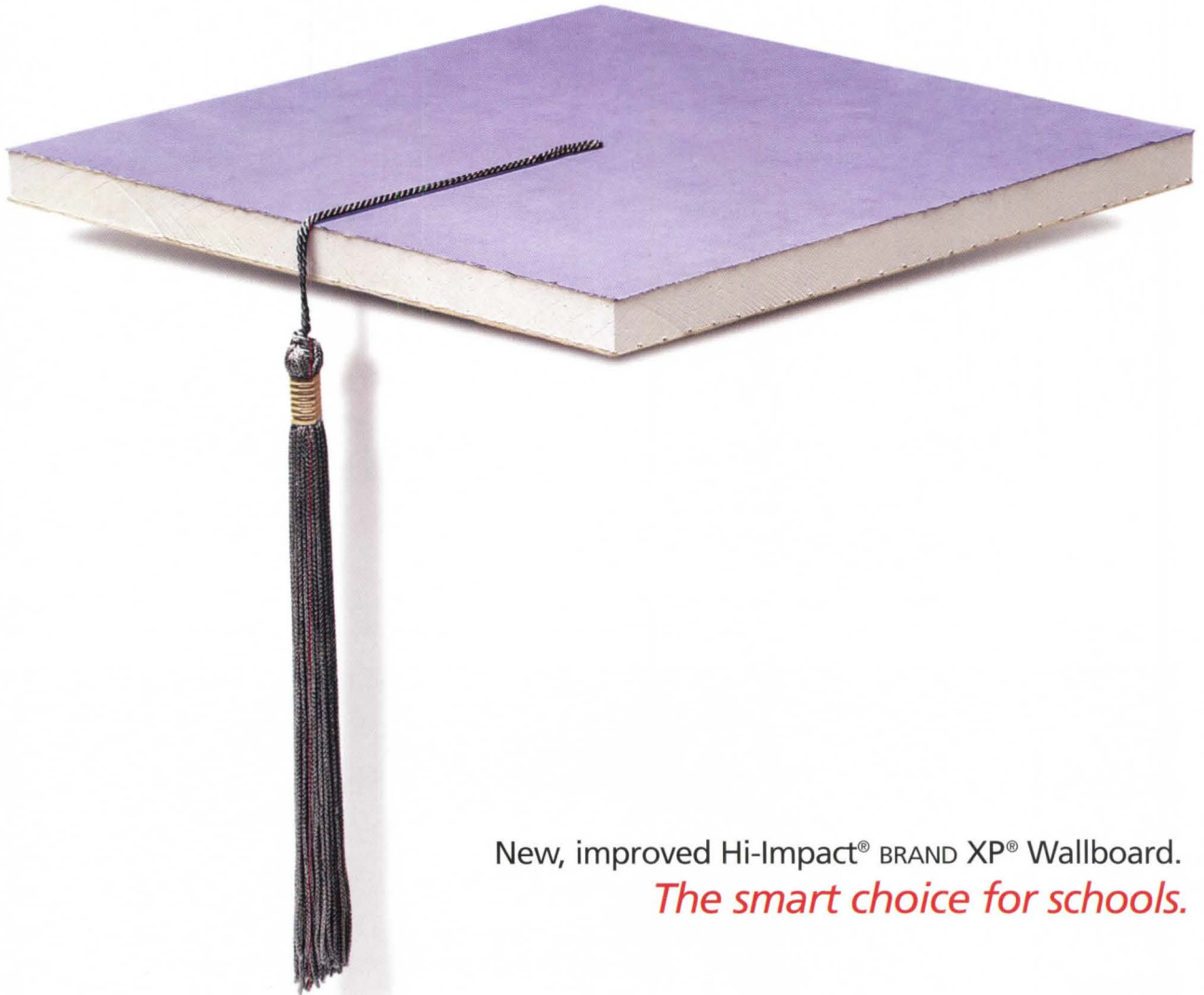
Classrooms like the one above are light-bathed spaces where simple furniture and an absence of clutter provide a sense of security. The therapy pool (below) is equipped with an adjustable-height floor to match students' abilities.





In Pistorius' kitchen (above), children learn to cook and socialize while seated at the long, communal table. Like the school's other instructive spaces, the gymnasium (below) is an open and airy environment filled with natural light.





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## SCREEN GEM

In Paris, Francis Soler cloaks a government ministry in evocative latticework.

by C.C. Sullivan

**Just steps from the Louvre** and the Palais Royal stands Bons Enfants, the shimmering full-block home of France's Ministry of Culture and Communication. Two adapted Parisian buildings, wrapped head to toe in a tech-nouveau **latticework of stainless steel**, project a powerful image, but also an ambivalent one: Is this France's artistic gilding, or an iron mask?

On closer inspection, the complex designed by the prolific local architect Francis Soler, whose work has become increasingly delicate and ornamental over the decades, seems less the symbol of protectionism that some critics decry and more like a way of shedding light on French culture. Such a wrapping would

"harmonize" the block's now conjoined buildings, Soler has said, merging the stone façade of a 1919 department store warehouse with the corroding 1960s exterior of a government bureau. He compared the lightweight gesture to a Spanish mantilla, or traditional veil, which could appear to unite "different strata—an intersection of regulatory, social, and aesthetic values." The shroud could also allow him to adjust the materials and functions behind it as needed to accommodate the ministry's 1,000 workers in hundreds of offices and support spaces with **movable glass partitions**. "The site needed to be woven together and to remain in movement," Soler explains, to allow "a complicity between heritage and modernity" and to be faithful to the ministry's evolving and pluralistic role.

Functionally, the screen smooths and rewrites the envelope, announcing its single occupancy and actually improving its integration into the cityscape. (To physically integrate the structures, some floors were thickened with up to 28 feet of **pan-joint concrete floors**.) This effect, together with the elegantly stark interiors created by Frédéric Druot, derives from a surprisingly limit-



Hundreds of panels of laser-cut, 1/2-inch-thick stainless-steel lattice envelopes the entire façade of the French Ministry of Culture and Communication in Paris. Each panel measures 10 feet by 12-1/2 feet.

ed palette, including: the steel lattice, a **zinc roof**, **molded basalt pavers**, and glass-and-aluminum fenestration. Inside, the frosted-glass partitions hover above glistening resin floors accented by strips of raspberry-colored carpet.

While the ornamental motif reappears on the lobby's **stone reception counters** (and, of course, in the shadows and fractured views out of the perimeter spaces), it is at its most powerful from the street. At times bright and sharp, at others blurring and dull, this cross between artwork and body armor strikes a midpoint between the figurative and the abstract. But whether from outside or within, the mantilla is a persistent reminder for both occupants and outsiders that Bons Enfants is a place like no other. ■

### Ministry of Culture and Communication, Paris

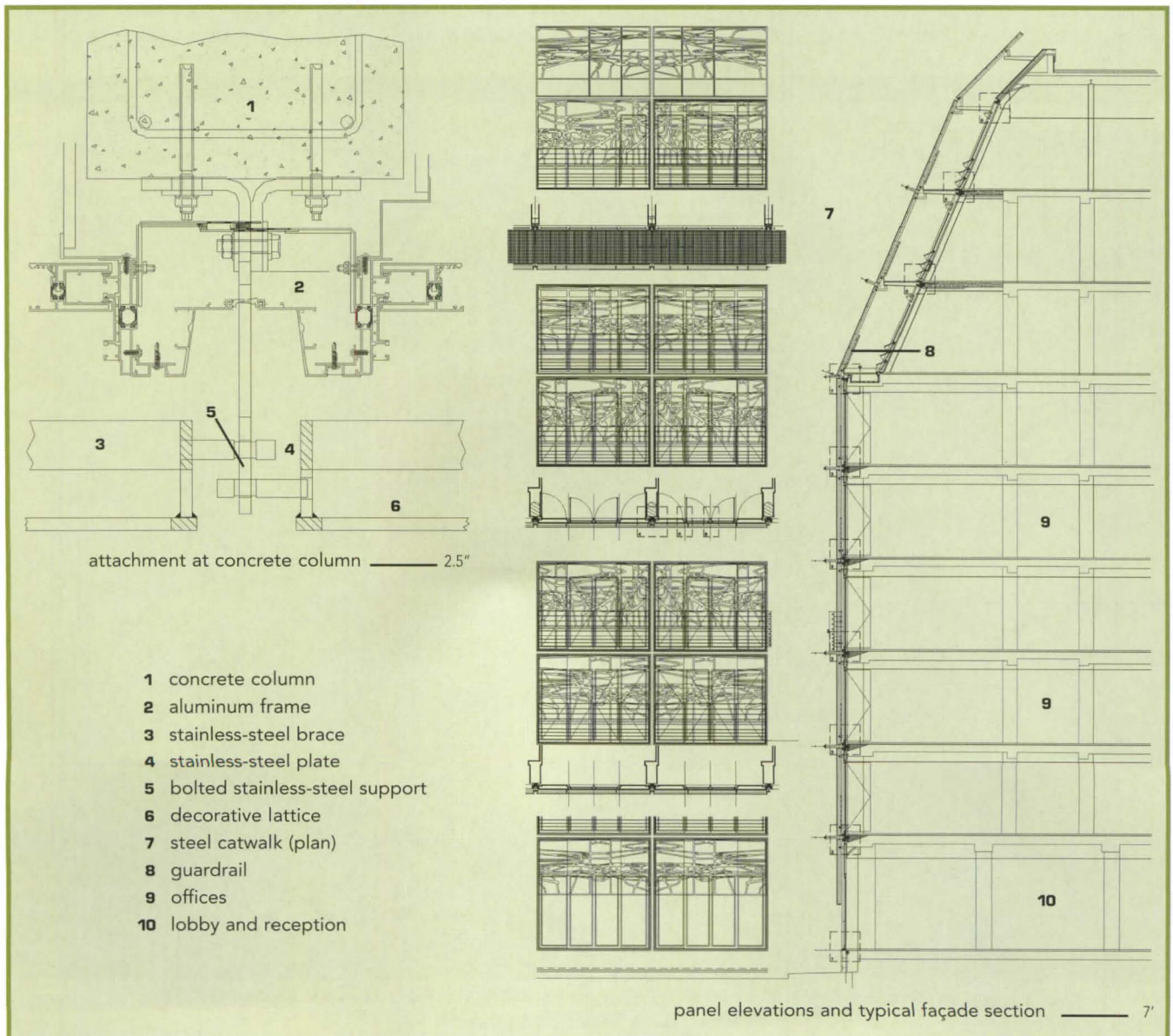
**client:** Ministry of Culture and Communication, Paris; EMOC,

The screen has six recurring, symmetrical motifs, each consisting of stainless-steel lattice with about 60 percent open area. New aluminum windows behind the latticework feature delicate silkscreen prints on lower glass panels to help prevent vertigo in occupants. To combine these two adjacent structures for the new Ministry of Culture and Communication, some floors were strengthened with pan-joint concrete members. Existing slate roofs were replaced with zinc paneling.

Public Establishment for Ownership of Cultural Works **architect:** Architectures Francis Soler, Paris—Francis Soler (principal); Jérôme Lauth, Vincent Jacob, François Hernandez, Vincent Dugravier (project team) **interior architect:** Frédéric Druot **landscape designer:** Michel Desvigne **engineers:** Sechaud and Bossuyt (structural); Setec bâtiment (M/E/P) **consultants:** Fernand Tomasina (cost); VP Green (façade); JP Lamoureux (acoustics); Jean Marc Casso (safety); Patrick Blanc (botanical) **area:** 420,000 square feet **cost:** \$90 million

### Specifications and Suppliers

**structure:** Laine Delau **façade latticework and basalt pavers:** Laubeuf **aluminum fenestration:** Goyer Bel alu **interior glass partitions:** Permasteelisa **resin flooring:** Eurosyntec **metals:** Métallerie de l'Authion **HVAC:** Cegelec **hung ceiling:** DBS **elevators:** ThyssenKrupp



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## ORDER IN THE COURT

In the renovation of a famed modernist plaza in Detroit, PLY Architecture uses digital technology in a way that might make even Mies proud.

by Robert Klara

Since rising from the rubble of a Detroit slum in the 1950s and 1960s, Lafayette Park—a 78-acre development conceived by Mies van der Rohe, urban planner Ludwig Hilberseimer, and landscape architect Alfred Caldwell—has stood as a watershed in mixed-income planning. On the National Register of Historic Places since 1996, the park remains an opportunity for visitors to move among what the National Park Service terms the “classic elements of Miesian design.”

And when the Ann Arbor, Michigan-based collaborative team of PLY Architecture and PEG Office of Landscape + Architecture won an invited competition to redesign the development's retail plaza—a 4,000-square-foot courtyard near Lafayette Tower West—it represented an opportunity of another kind. Not only would these young architects have a chance to contribute to an iconic landscape, they'd be able to use the technology of **digital fabrication** in a way that would likely have won a nod from Mies himself.

“Most projects being produced by digital fabrication are ‘strong-form’ projects,” maintains PLY principal Karl Daubman—meaning, he explains, that many structures created through digital fabrication end up becoming *about* the digital fabrication. Dazzlingly complex forms that would be impossible to design and fabricate without CAD/CAM technology can often wind up visually reflecting the mechanics of their creation almost more than their programmatic goals, just as a lot of early synthesized music bombastically overreached the very orchestral instruments it was meant to imitate.



The Mies van der Rohe Plaza (above left) achieves its seemingly haphazard topography through the strategic distribution of just 10 tile profiles. The “mirroring” placement of opposing tiles (above right) creates symmetry within what in other respects is an asymmetrical plane.



PLY sought to redirect this lapse and use the technology solely as a means of production and, in the process, achieve a simplicity of aesthetic intent that would blend with the existing ethos of the Mies plaza itself. “Our project isn’t just about digifab,” seconds PLY principal Craig Borum. “It’s about that **process as a means**—a means to a better space.”

### LAY OF THE LAND

Working within the confines of the weedy, neglected plaza, the architectural team—which included landscape architect Karen M’Closkey—sought to drain off the water into planting beds throughout the project plane. To accomplish that goal, the architects envisioned rows of precast concrete tiles, cut with grooves to facilitate runoff, with thickness variations to gravitationally direct the water flow.

The team did not require digital technology to generate the idea of reciprocally patterned, grooved tiles. They did, however, need it to make the concept practical. “In this case,” Daubman continues, “digital fabrication was about efficiency and economy.”

Using **Rhino 3D** modeling software ([www.rhino3d.com](http://www.rhino3d.com)), the architects experimented with various tile shapes by starting with a square and then pulling out one of the four corners in multiple directions, creating an array of **quadrilaterals** with varying thickness profiles. Through simple trial and error, the modeling soft-

ware enabled the architects to find the elusive balance between the number of distinct geometries and the multiples required for efficient production.

In the end, they came up with five unique tile shapes, each with a corresponding mirror-image component, for a total of ten tile profiles. Arranged on the site, this relatively simple tile succession would nonetheless create a rich **asymmetrical pattern** and open up oblong gaps to be used as planters.

With the roughly 4-by-4-foot tile shapes rendered on screen, PLY translated the geometry into tool-path code for the CNC routers, which cut the undulating, grooved patterns. Using these as bases for molds, a fabricator popped out 192 tiles, each of them 700 pounds.

### DIGITAL DEVELOPMENT

Borum observes that, like any new technology, digital fabrication has perhaps been allowed too broad a sway. Today, he posits, as digifab increasingly becomes just another tool, architects will learn not to overuse it, or allow it to substitute for the traditional modes of creativity: “In the initial phases, emerging technology pushes the extremes, and the other aspects of architecture tend to recede,” he says. “But once the tool is understood, it should go back to being a means to the larger agenda.”

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# DESIGN OBJECTIVE: THINK SAFETY

The best new building designs go beyond code to ensure the safety of occupants.

by J. Nigel Ellis

**Safety is a duty of all professionals** who influence community health and well-being. Almost one third of all the 54,000 accidental deaths in the United States (not including highway fatalities) occur at home or at work, according to the National Safety Council. For these reasons, architects need to see beyond the codes and into the human condition through injury statistics and human factors so that they can help design enhanced structures that protect occupants and users from known hazards.

Just as one expects a person holding a knife to be careful and not cut himself, architects might expect people to know how to climb a ladder, walk on a roof, and generally pay attention in places where they can fall. But inevitably, that assumed knowledge often lets us down, as do many clients' in-house safety departments and policies recommending guardrails, added slip resistance, or fall-arrest systems. Moreover, safety practice—as it relates to people's movements and behaviors—is largely absent from building codes, except in the case of fire and electricity.

Nevertheless, designers need to be especially aware of hazards that can trap people. A few specific areas of exposure are worth considering up front.

**1. Stairs and stair rails.** Rail designs in American buildings are often unsuitable in sliding and gripping for an occupant to retain balance in a fall. A 1-5/8-inch-diameter round pipe is close to ideal for adults, so that the hand can curl around the rail but not strike its supports. Also, stair layouts—especially for retirement homes and residences—should be carefully designed, especially when there are only one, two, or three steps which are not easily visible. The 7-11 rule for riser-tread dimensions is the minimum acceptable step design, but a

ramp is always better than a single step. And, of course, lighting and contrast are critical for stair-danger recognition.

**2. Roof edges and access.** Another serious hazard is the commercial roof with no parapet or railing. Protected roof edges may not be required by code, yet they are needed for safe client maintenance of HVAC units, smoke vents, roofing materials, telecommunications equipment, and other rooftop items. Roof hatches accessed by fixed ladder are another area of concern: Many designs omit handholds, which are critical when the occupant is returning from the roof. Even more important are reliable horizontal grab bars (rungs)—without side rails, where an uncontrollable sliding of the hand can occur. The ideal design includes a walk-through continuation of the access ladder at roof level, and 1-foot spacing between horizontal grab bars. Personal fall protection, such as self-retracting lanyards, can be added.

**3. Skylights and roof windows.** Skylights are often the first place to look for additional protective specifications. They must have grilles to compensate for the aging of plastic components—for example, the crazing around screw holes—that occurs as early as 10 to 20 years after installation. OSHA requires these grilles for employee-safety and, often, where there is worker access to the roof for maintenance.

**4. Mechanical areas and dropped ceilings.** Dropped ceilings in corridors can be a trap for service people working on sprinkler pipes, HVAC ductwork, and wiring and cabling, mainly because the installed systems are often totally disorganized. Architects should ensure that the utilities are orderly and that the spaces feature catwalks and cable or rail fall-protection systems—and a reason-



able means of access. Similarly, mechanical rooms and some basements have insulated pipes which restrict openings for servicing shut-off valves, wiring, and other M/E/P components. The principle of allowing access both vertically and horizontally for maintenance personnel is applicable even in these remote areas.

Designs that better recognize hazards will better forestall predictable injuries, and only architects can provide the answers to many of these challenges—especially those that affect maintenance work. There is no cost too high for a safer building; it's what an architect's reputation is built on.

**J. Nigel Ellis is CEO of Ellis Fall Safety Solutions in Wilmington, Delaware, which provides safety consulting and design services.**

## JOB-SITE SAFETY 101

One Saturday afternoon, 45-mile-per-hour winds blew over the 25-foot-high concrete-masonry wall of a \$7 million warehouse under construction in suburban Philadelphia. Two masons, on site even though it was the weekend, were killed by the falling structure. A police investigation determined that the workers were on site without the knowledge of the general contractor (GC), and that the masonry subcontractor had no workers' compensation insurance (though the GC did). In addition, the wall had no temporary shoring on the leeward side, and the GC had never issued a jobsite safety program.

But the findings only got worse: The project architect hadn't engaged a structural engineer for the design; failed to specify horizontal joint reinforcing; and omitted concrete-filled cores and vertical reinforcing from the wall and its pilasters. Moreover, the architect had not visited the project site for months, and had instead delegated that duty to a summer-employed, second-year architecture student. (The local code official had assumed the inferior design was satisfactory, based solely on the fact that "the drawings were sealed by an architect.")

The collapse was, among other things, a wake-up call. Had the wall been completed as designed, even with lateral support from the roof, it might still have failed under impact or heavy wind loads. (Design corrections made dur-

ing rebuilding—due to the revelations of a subsequent lawsuit—prevented that possibility.) The accident also demonstrated the architect-of-record's unique responsibility in protecting workers, building users, and passersby. Reliance on contractors, code officials, and on-site workers was not sufficient. In this case, the architect was found liable for design errors and omissions, and his professional liability policy paid for large injury damages. The warehouse owner was cleared of culpability—having relied, of course, on the architect's skill, for which he paid a hefty fee.

As this mishap proves, whether designing a handrail or a 40-story elevator shaft, the architect must safeguard against injury before, during, and long after construction—usually 10 to 12 years after, depending on the state's statute of repose. That's why seasoned architects always:

- Engage appropriate professionals for specialized design work.
- Meet or exceed codes and regulations.
- Specify to (or above) industry standards.
- Keep a close eye—and detailed records—on jobsite conditions.
- Consider the public-safety implications of each design activity.
- Never rely on other parties to catch mistakes.

**Gray Smith is principal of Gray Smith's Office in Philadelphia, an architecture firm and forensic expert.**



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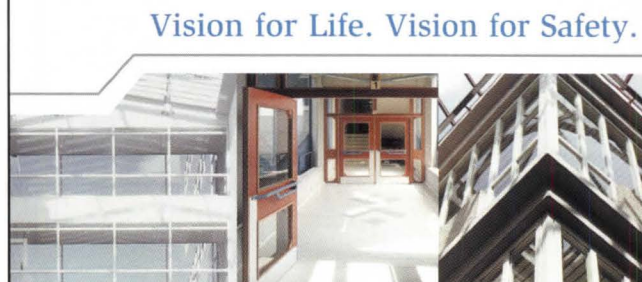
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# A HARD LOOK AT HARDENING THE STADIUM

For arena security, take a multidisciplinary approach.

by William R.B. McCullough

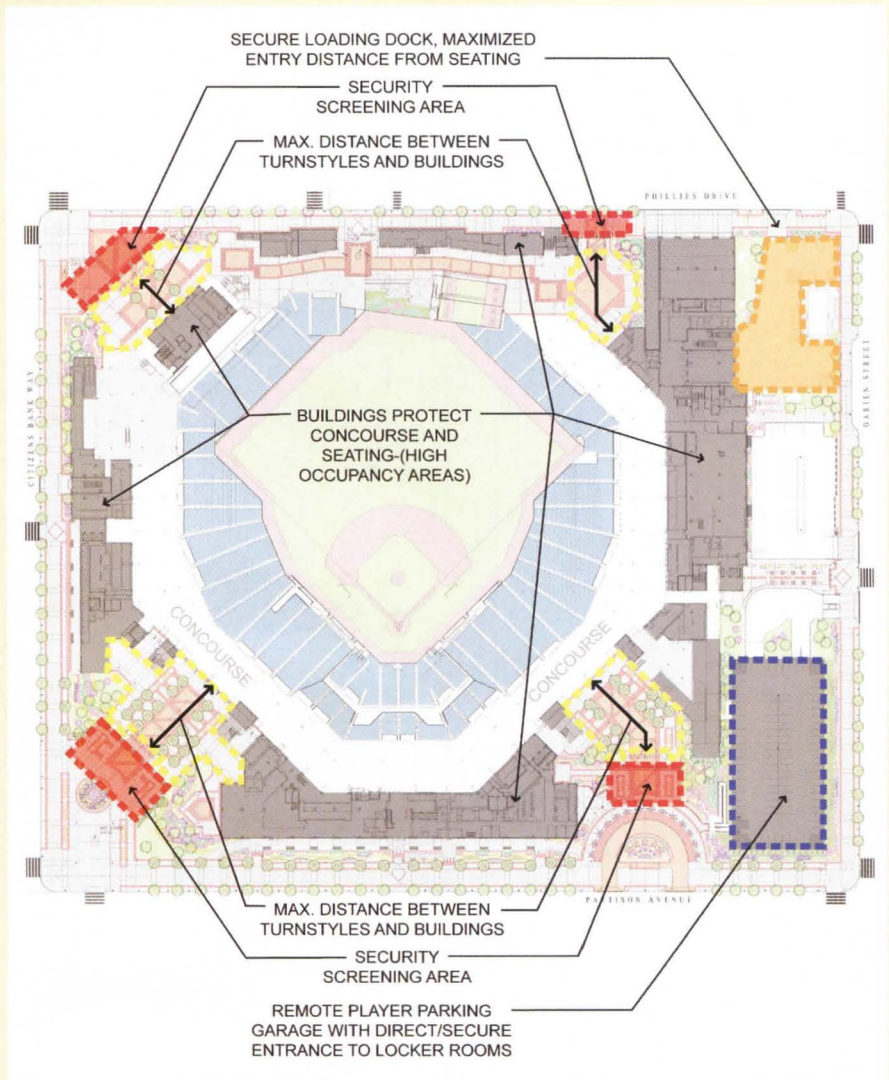
Developing safety and security recommendations for the design, construction, and operation of stadiums has become more complicated since the events of September 11, 2001. With their large gatherings and media presence, public assembly facilities are inherently attractive targets to terrorists. Architects must therefore go beyond the basic life-safety reviews and checks for errors and omissions: It's imperative to consider such key issues as building and site security, indoor air quality, evacuation and crowd management, security technologies, and code implications in general.

Many enhanced security procedures and systems (access control, surveillance, biochemical protection, and blast mitigation) require utility infrastructure that must be included early in the documentation. Considering that large sports-and-entertainment venues are usually delivered on a fast-track basis, architects—with a comprehensive team of consulting experts—should assess safety and security needs early in the design process by analyzing applicable codes and potential threats.

## MITIGATING BLAST EFFECTS

To better understand this multidisciplinary approach, consider the issues inherent in blast mitigation. One way to prevent or delay the collapse of a structural system is, of course, to build in redundancies. Facilities with cantilevers, hangers, and inherently nonredundant systems should be evaluated to prevent progressive collapse. Designing to reduced stress levels for key elements—and providing redundant and secondary load paths—can significantly improve the response of a building to a blast.

Typically, loading dock areas are located at remote, back-of-house locations, away from public entrance points. To properly "harden" these areas, the level of threat—as well as the level of acceptable damage—must first be determined. To this end, overhead doors should be reinforced if they are located



near critical life-safety or emergency-command functions.

Building codes may permit the use of a layered gypsum-board construction to achieve required fire ratings for exit stairs, but these assemblies may be unlikely to withstand blast forces. Recent

studies underscore the importance of constructing fire stairs of reinforced masonry or concrete.

## FROM TAILGATE TO FRONT GATE

Another highly effective solution for reducing the risk of blast threats is to

increase the setback or standoff distance of critical building elements from parking and vehicular access. Bollards, control points, and appropriate setbacks can be used to protect entrances and exits. The location of vehicular drop-off points and VIP entrances must be reviewed in relation to public safety and critical building elements. Safe distances for the placements of these elements might range from 150 feet to 200 feet, depending on threat levels and adjacent uses.

The proximity of glazing, which can cause considerable secondary damage, should be reviewed within the context of standoff distances and threat assessment. The recent trend of "opening" arenas to the street is being re-evaluated in the post-September 11 era. And while tempered and laminated glass or polycarbonate panels can significantly improve the exterior's response to blast effects, window size and configuration is equally important. It is virtually impossible to design a curtain-wall system to completely resist blast effects, but certain crucial spaces can be equipped with blast-resistant glazing, films, catcher bars, curtains, and screens.

#### SEALING THE ENVELOPE

The use of heavier building materials to provide mass at areas of increased threat can help limit damage to the overall structure. Reinforcing should be used in masonry walls where blast potential exists, and curtain-wall and glazing systems should be employed only to a limited extent. Material gauge and the spacing of structural framing are considerations in the cost-to-threat analysis. Secure attachments of nonstructural elements should reduce the potential for additional damage from projectiles; door frames and hardware should also be reinforced to prevent injury from blasts.

Last, take a hard look at signage, canopies, balconies, light fixtures, and ornamental veneers; torn from their mountings, they can all increase secondary damage following a blast. Recessed anchorages and redundant attachments may improve their performance, but their proximity to potential blast sources—as well as to patrons and gathering points—deserves careful consideration.

Clearly, to a large degree, safety measures follow common sense. But stadium owners rely on the architect's expertise to guide the process at all levels. Specialty consultants can recommend approaches and inform these methods, but the architect is ultimately the one to organize and synthesize a meaningful and safe design.

**William R.B. McCullough, a senior sports architect and principal at EwingCole in Philadelphia, wrote this article with contributions from the firm's Donald Dissinger, Jared Loos, and Craig Schmitt.**



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# THE HIDDEN DANGERS OF HEALTHCARE CONSTRUCTION

Healthcare architects play a new role in patient safety: The infection-control risk assessment.

by Gloria A. Cascarino

As healthcare organizations undergo expansions and renovations, they face increased regulatory scrutiny about the reduction of hospital-acquired infections. This has increased the importance of a well-developed infection-control risk assessment (ICRA) related to construction projects. ICRA measures potential risks based on the type, location, and duration of construction, as well as affected patient populations and care activities; the evaluation will point to preventive measures, barriers, monitoring, and cleaning methods that should be used in order to minimize exposure.

Healthcare architects must be aware of the potential risks and exposures caused by construction activities, and they must understand the ICRA process. By participating in an advisory capacity, the architect can assist healthcare clients in ensuring the safety of their patients.

The most common microbes associated with demolition and construction are *Aspergillus*, a fungus found in dust, soil, moisture, and mold; and *Legionella*, a bacterium found in water. They can be harmful—even deadly—to patients with compromised immune systems. Patient groups such as the critically ill, newborns, and those receiving chemotherapy and dialysis are at the greatest risk. In addition, care-delivery locations, such as operating rooms, must be especially protected from contamination, since they are maintained as sterile environments.

## PRECONSTRUCTION ICRA

The best ICRA process is a collaborative one. Before construction begins, the client conducts a multidisciplinary committee meeting with the architect and contractor as well as the hospital's project manager, the infection-control practitioner, and representatives from affected hospital departments. The committee reviews hospital policies and architectural plans and, with the architect's advice, plans construction phasing, barrier types and locations, and the disposition of construction debris. The committee also

plans air sampling and compliance monitoring, along with cleaning procedures and schedules. (ICRA must also be conducted for any mock-up rooms planned within a patient-care area, too.)

Examples of ICRA activities include:

- Containing dust and debris from drilling, cutting, and removing walls, ceiling tiles, and floor coverings within sealed plastic or drywall barriers.
- Maintaining negative air pressure in some areas to prevent migration of dust, and using HEPA-filtered air scrubbers.
- Isolating and sealing HVAC systems to prevent the spread of dust into patient areas. (New ductwork should be capped during storage and transport.)
- Transporting construction debris in covered carts for disposal in designated areas away from air intakes.
- Planning excavation to prevent the release of fungus into air-handling systems.
- Flushing and decontaminating water systems that are shut down during construction, to remove stagnant water or scale loosened by drilling vibration.
- Cleaning the work site and performing testing and inspection to ensure that affected areas and systems are safe for patient use.

## ICRA'S POTENTIAL DESIGN IMPACT

Healthcare clients often request the design of a "shelled" area for future expansion that is contiguous to a new or existing space. When developing design alternatives, the architect should address ICRA concerns, since the client may want to conduct later construction or fit-out while adjacent clinical areas are functioning.

The key consideration for the architect is: Which design alternative will enable this expansion to take place with

the least infection risk to patients, the least disruption in day-to-day operations due to ICRA-related activities, and the least impact to the project budget? (Budget control is another good reason to consider ICRA early in the design process, since barriers, testing, and assessment activities add to the costs.)

As part of their survey process, the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) reviews a hospital's ICRA policies and practices for compliance with JCAHO's standards for infection control and the "environment of care." The Association for Professionals in Infection Control and Epidemiology, known as APICE, and the Centers for Disease Control (CDC) have published guidelines for infection control during construction. JCAHO, APICE, and CDC also have extended their recommendations to other healthcare settings, such as long-term care and ambulatory surgery centers. The AIA references ICRA in section 5.1 of the 2001 edition of *Guidelines for Design and Construction of Hospital and Health Care Facilities*, with instructions to "incorporate the specific, construction-related requirements of ICRA into the contract documents." Not every state department of health requires ICRA to be noted on architectural plans, but these regulators often question the ICRA status of a project.

As dramatic changes sweep through their industry, today's healthcare clients expect increasing support and expertise from their architects. From strategic planning through the official opening of a new unit or building, design professionals must think beyond the initial design and into functionality and quality of care. A thorough knowledge of ICRA makes the architect a much more valuable resource.

**Gloria A. Cascarino is the ICRA coordinator for the Philadelphia-based architecture firm Francis Cauffman Foley Hoffmann.**





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## NEW AND NOTEWORTHY

### RETROFIT HIGH-RISE EGRESS

Escape Rescue System (left) is an innovative building-wide solution for rapidly evacuating occupants and transporting rescue personnel to high floors. **Circle 125**

### ANTITERROR STANDARD

Kalwall panels comply with both GSA and Department of Defense antiterrorism standards for applied blast loads, with no flying debris. **Circle 126**

### FIRE-TREATED CEDAR

SaferWood from Potlatch (and Chemco) is a fire-resistant cedar decking and siding. The Class-A-rated material is environmentally friendly. **Circle 127**

### EMERGENCY-RESPONSE GRILLE

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Cornell's CrossingGard grille opens automatically in an emergency, without electrical or battery power. It is ideal for corridor protection and area separation. **Circle 128**

### SEISMIC-VERIFIED CEILING DESIGNS

To conform to IBC seismic codes, Armstrong offers data and reports from university testing of 80 ceiling products and suspension systems, including the WoodWorks Vector ceiling. **Circle 129**

### CUSTOM RAILINGS

Railings of custom, laser-cut panels afford architects creativity with safety, including maximum 4-inch-diameter openings for preventing child falls. **Circle 130**

## LIGHTING

### EMERGENCY SCONCE

Offering a new look in emergency lighting, the sconce-shaped Sure-Lites emergency lighting fixture from Cooper Lighting features an advanced optical design and high-output xenon lamps in an aluminum housing. **Circle 131**

### ADA SCONCE

An ADA-compliant, compact-fluorescent sconce, Brass Light Gallery's Metro comes in 15 finishes and five shade options. **Circle 132**

### STEALTH FIXTURE

Lightolier's LP Series employs three white LEDs for powerful illumination in such low-level applications as stairwells, step landings, wheelchair ramps, and exit corridors. **Circle 133**

### FIRE-RESISTANT LUMINAIRES

The FireTight line of recessed downlights from Prescolite now includes a compact-fluorescent model that is rated for up to two hours. **Circle 134**

### EMERGENCY SCONCE

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## FLOORING

### FLOORING THAT FIGHTS GERMS

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### ATHLETIC STANCE

Made of virgin rubber, the Pro-Tek HL-155 interlocking athletic tile from Pawling provides ADA-compliant slip resistance in both wet and dry conditions. **Circle 137**

### GLOWING PATHWAY

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### SAFETY UNDERFOOT

An all-recycled vinyl flooring ideal for high-traffic areas, ProtectAll from Oscoda Plastics offers slip, stain, and fire protection. **Circle 139**

### FOR WET FLOORS

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### SLIP-RESISTANT FLOORS

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## INTERIOR FINISHES

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## SLATE SENSIBILITY

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## CLEAN ENTRYWAY SYSTEM

A two-step entryway system by Mannington, comprised by Ruffian and Ruffian Ridge, helps keep dirt and particulates out of building lobbies, thanks to grooved scraper tiles and a brushlike surface. **Circle 144**

## TRUCKS AND SHOES

Satisfying both AASHTO vehicle-loading specs and ADA requirements for pedestrian comfort, Ohio Gratings's new "Wheels n' Heels" steel-bar product is ideal for parking garages and walkways. **Circle 145**

## BATHROOM

### ADA BATH ACCESSORIES

New bath and shower accessories from Häfele's Hewi line of polyamide (nylon) include hooks, grab bars, and shower seats suitable for healthcare and residential applications. **Circle 146**



### BARRIER-FREE BATHING

Lasco Bathware's FreedomLine features bathing products for barrier-free and assisted-care settings, including acrylic and fiberglass prefab showers. **Circle 147**

### PLAIN-ENGLISH ACCESSIBILITY

Bobrick translates into plain English and useful drawings the complex new guidelines for public washrooms published by the United States Access Board, in the "Barrier-Free Washroom Planning Guide." **Circle 148**

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### FIREPROOFING ADHESION

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### CUTTING HEAT AND GLARE

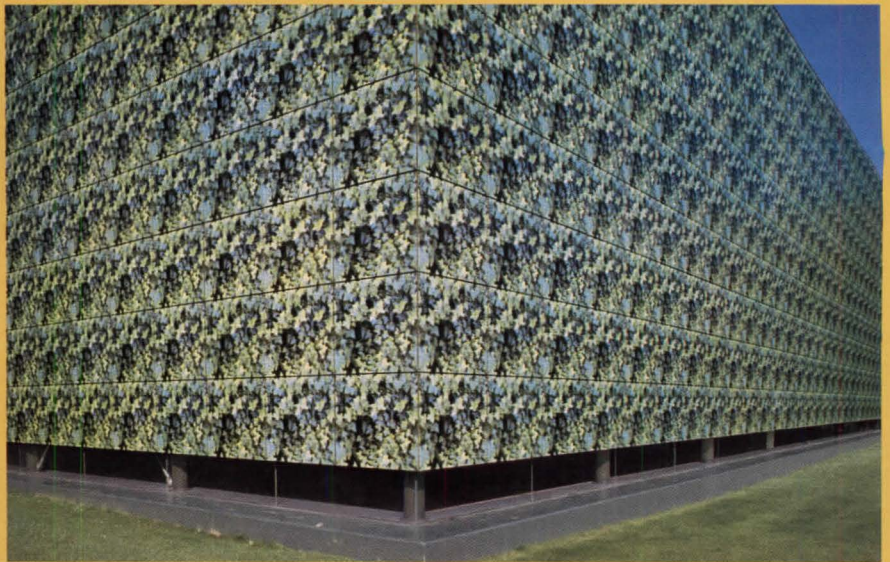
Extruded-aluminum sun controls by Airolite include cantilevered, vertical, horizontal, and inclined designs that can reduce solar heat and glare by up to 80 percent. **Circle 150**

### COLORFUL PROTECTION

Abet's phenolic panels (above right) in 45 colors for use as cladding, railings, signage, and fences are graffiti-proof, vandal-resistant, fire-resistant, and environmentally friendly. **Circle 151**

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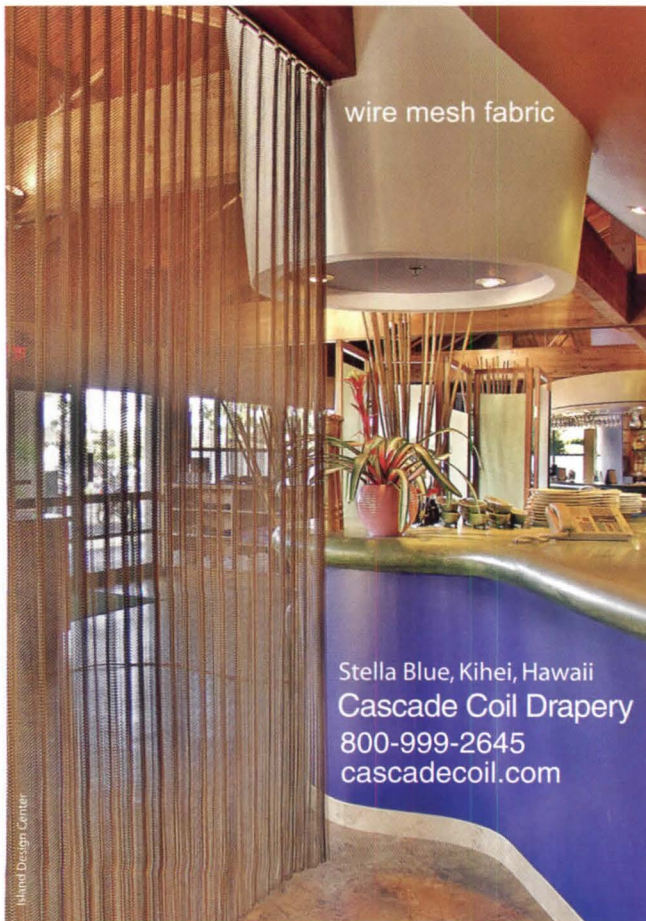
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### STORMPROOFED FENESTRATION

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### SAFER STILE-AND-RAIL

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### IMPACT-RESISTANT STYLE

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dows and patio doors help buildings withstand hurricane-force winds and wind-driven debris. **Circle 160**

### FALL-SAFE SKYLIGHTS

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### GLOWING DOOR FRAMES AND LOCKS

LiteGuide from Assa Abloy brightly illuminates door frames and lock devices to increase visibility of exit doors in low-light, no-light, or smoky conditions. Enhances egress signage for identification of escape routes. **Circle 162**

### AUTOMATIC RESET

A self-testing fire door from Cookson resets automatically after being actuated—no technician is needed. **Circle 163**

## M/E/P SYSTEMS

### BIOMETRICS AT HOME

Veridicom and Leviton now jointly develop "advanced personal authentication solutions" for home automation systems, including fingerprint recognition devices for security use. **Circle 165**

### HIGH-CEILING SMOKE-SPOTTER

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### SAFER LAB AIR

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## IV TILE OF SPAIN AWARDS OF ARCHITECTURE AND INTERIOR DESIGN

ASCEM (the Ceramic Tile Manufacturers' Association of Spain), has called for entries for the fourth **Tile of Spain Awards of Architecture and Interior Design**. The competition was created to increase awareness among the architectural and design community of the multiple applications and benefits of ceramic and porcelain tiles produced in Spain.

### TWO AWARDS: ARCHITECTURE & INTERIOR DESIGN.

— **Architecture.** It's open to new buildings, improvement or restoration of existing buildings, urban development and landscaping projects. Prize: 18.000 €.

— **Interior Design.** Covers decoration of interior spaces in new buildings or as part of restoration and renovation projects, and also settings created for a short term duration (ephemeral spaces). Prize: 18.000 €.

The competition is open to all professional architects, decorators and interior designers of all nationalities.

Work submitted must make substantial use of Spanish ceramic floor and/or wall tiles in the formal part of the building. Entries must be received no later than **3<sup>rd</sup> November 2005**.

### JURY MEMBERS

Guillermo Vázquez Consuegra  
(President)  
Benedetta Tagliabue  
Carlos Quintáns  
Chris Sullivan  
Daniel Nebot  
Frances Aldrich de Llopis  
Teresa Sapey  
Ramón Monfort



Detail of Sta. Caterina Market, Barcelona - 3rd edition award winner

More Information at: [www.spaintiles.info/awards](http://www.spaintiles.info/awards)



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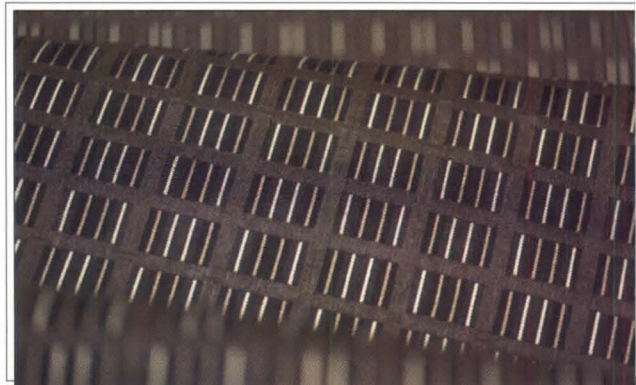
e-mail: [global@ascer.es](mailto:global@ascer.es)

sources

fabric

- ☒ product: **Charette Collection**
- ☒ manufacturer: **Unika Vaev**
- ☒ web: [unikavaev.com](http://unikavaev.com)

Unika Vaev, the textile division of ICF Group, debuts Charette Collection—a line of ultra heavy-duty solution-dyed nylon for high-performance upholstery applications. The collection's three patterns—Format, Sequence (below), and Motive—feature evocative renditions of stripes, rectangles, and “buzzing squares” that are whimsical but also durable. Colorfast, pilling-resistant, able to withstand harsh cleaning agents, and equipped with a light acrylic backing, each design is available in eight different colorways.



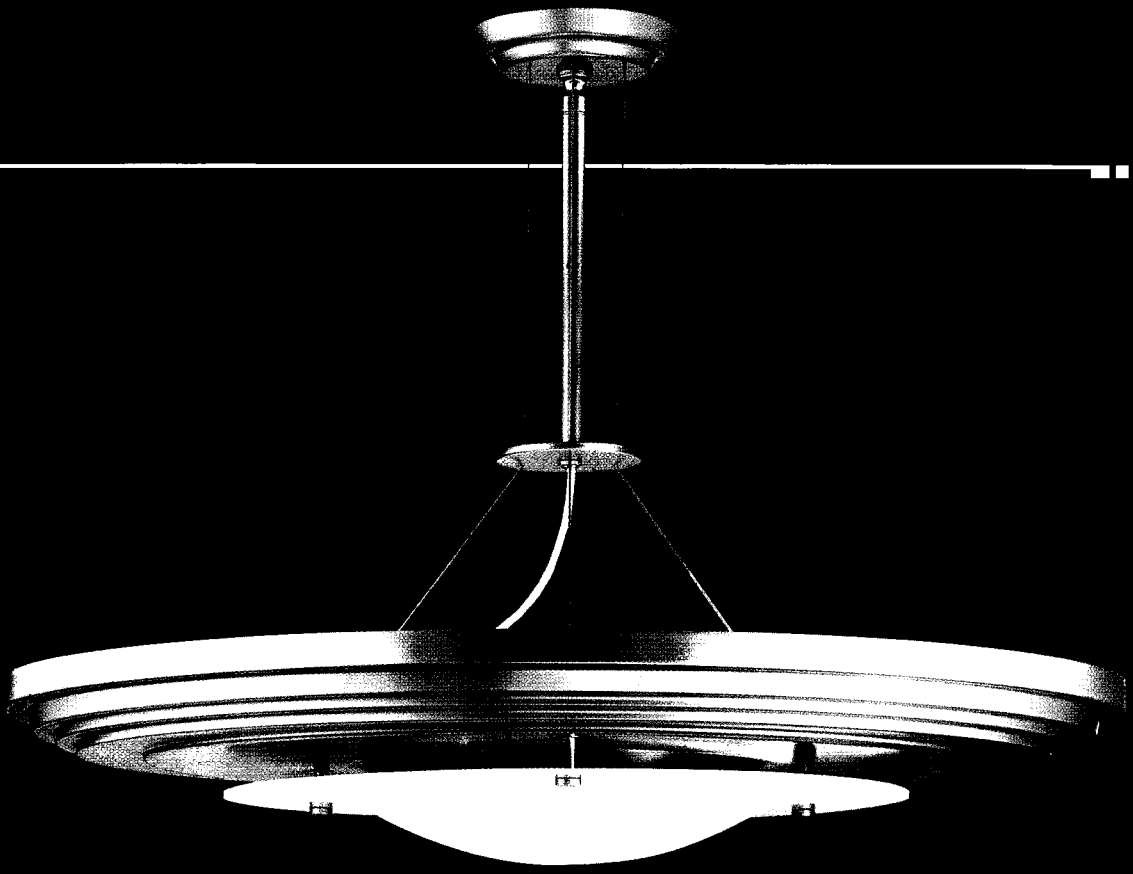
- ☒ product: **Tradewinds Collection**
- ☒ manufacturer: **Pallas**
- ☒ web: [pallastextiles.com](http://pallastextiles.com)

The four textures in Pallas's new Tradewinds Collection designed by Lori Weitzner—Billows, Breeze, Whisk, and Thunder—employ innovative weaves that evoke movement instead of just displaying a woven pattern. Thunder employs an extra chunky yarn to create a “rumbling” surface; Billows uses two dupioni yarns that when combined form an irregular texture; and Breeze shows a striped topography created by combining thick and thin bouclé yarns. These jacquard textiles come in a variety of bright colors as well as neutrals, and meet or exceed ACT standards for heavy-duty contract upholstery fabric.

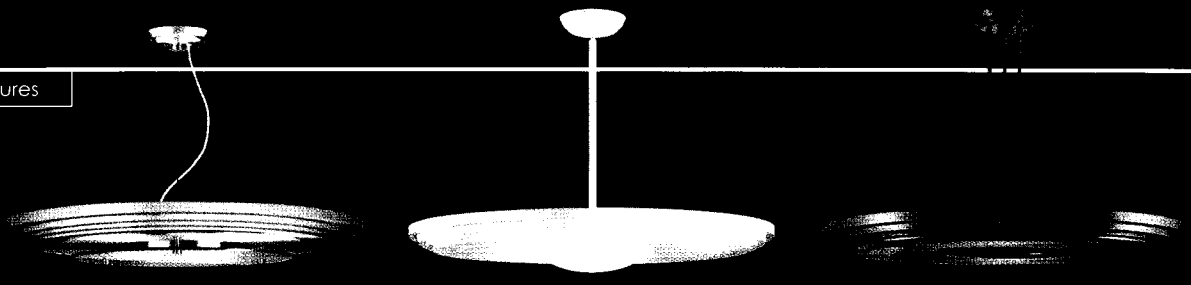


FOR MORE INFORMATION ON CONTRACT UPHOLSTERY FABRICS CIRCLE 122 ON PAGE 105.

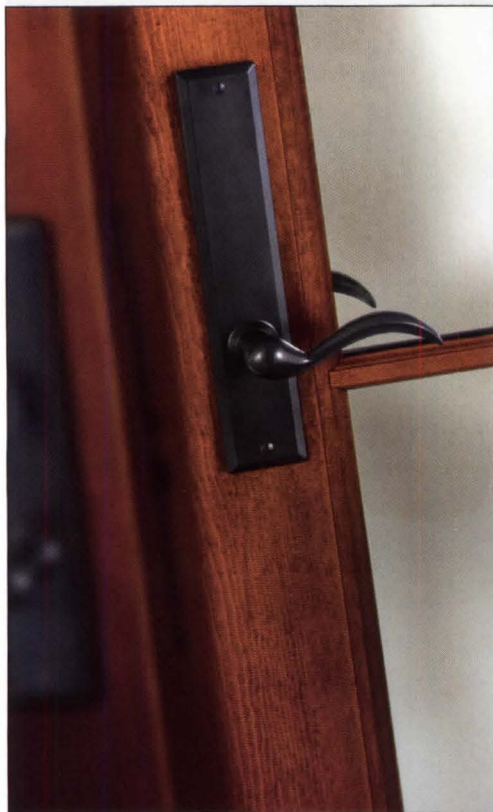




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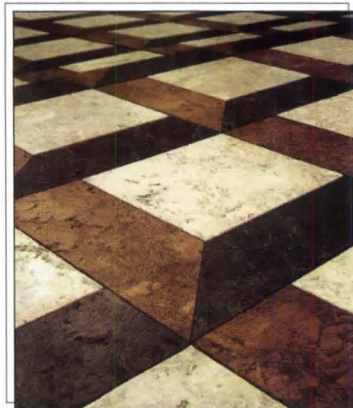
Circle 191 or [www.architecturemag.com/productinfo](http://www.architecturemag.com/productinfo)

sources

wood

☑ product: cork flooring  
☑ manufacturer: Globus Cork  
☑ web: [corkfloor.com](http://corkfloor.com)

Cork has long been employed for its thermal and acoustical properties, but is now enjoying a resurgence in wall and ceiling applications. Globus Cork makes its flooring from the bark of oak trees grown in the Mediterranean. The bark is harvested every nine years, leaving the forest largely undamaged, according to the manufacturer. In addition to being made from a renewable resource, the tiles are water-based and solvent-free. Globus offers more than 20 tile shapes and sizes and 36 standard colors, with custom colors and sizes available as well.



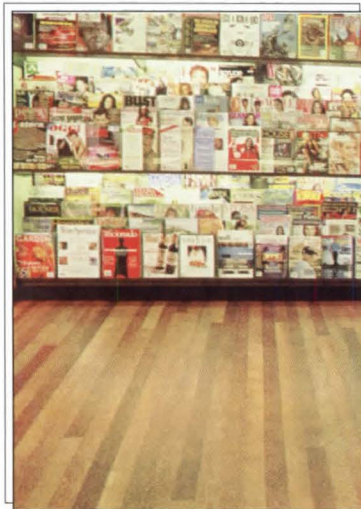
☑ product: Kirei board  
☑ manufacturer: Kirei USA  
☑ web: [kireiusa.com](http://kireiusa.com)



When your kids are playing with their Cheerios, they may actually be testing the ingredients of new building materials. Another cereal, sorghum, is used to make Kirei board. Technically considered an engineered wood, Kirei is produced from the stalks of the sorghum plant, a grass that has broad, cornlike leaves and is grown worldwide. The stalks left over after harvest are heat-pressed with a nontoxic adhesive to form strong, lightweight panels, which can be used for interior millwork applications, including wall coverings, ceilings, cabinetry, furniture, retail displays, and flooring.

☑ product: Durapalm  
☑ manufacturer: Smith & Fong  
☑ web: [durapalm.com](http://durapalm.com)

Another environmentally sound wood product is Durapalm, a plank flooring and plywood material made from multiple layers of coconut palm. Smith & Fong harvests the wood from palms—typically between 80 and 100 years old—that have ceased producing coconuts, and have been discarded by coconut plantations. Durapalm is made from the outer surface of the tree, which is harder than oak or maple.



FOR MORE INFORMATION ON WOOD FINISHES, CIRCLE 122 ON PAGE 105.

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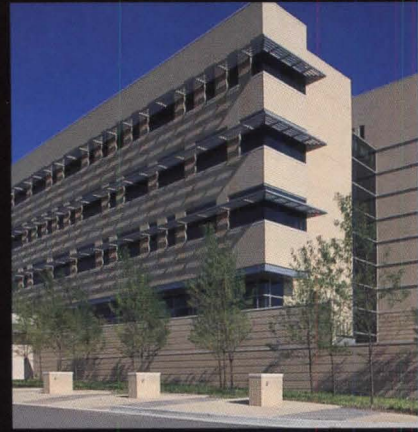
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Belden Brick is available in a world of colors including soft whites and creams, golden buffs and dusty tans, delicate pinks and cinnamon reds, chocolate browns, pewter grays and coal blacks. With so many colors to choose from your options are truly endless. Here is a small sample of over 200 color ranges, 13 textures and 16 different sizes.

## Landmarks in Brick

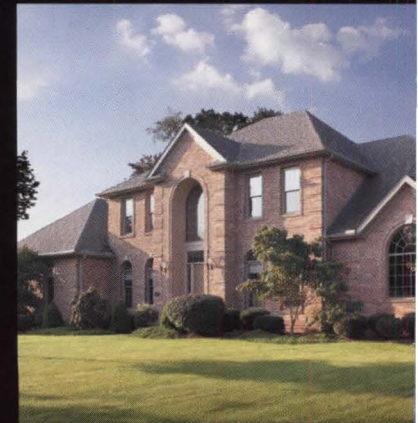
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Belden Brick offers thirteen different textures that range from silky smooth finishes to rugged randomly textured styles. Each texture can make its own distinctive contribution to the visual impact you seek.



## EXHIBITION

**Super City | Canadian Centre for Architecture | Montreal | Through November 20**

Since 1990, the Canadian Centre for Architecture in Montreal has regularly staged architectural toy exhibitions, bringing a playful perspective to the serious business of design. This year's show *Super City* is no exception, with its 12-by-12-foot model of a utopian cityscape put together from toy building kits and scale models. Its creator, Canadian writer and artist Douglas Coupland, celebrated for his definitive 1991 novel *Generation X*, included pieces from his own collection of Super City, Tinkertoy, Jumbo Lego, Meccano, Tog'L, and Matador kits, all painted white to evoke a clean, plastic, futuristic "Lego Universe."

These toys, examples of Coupland's childhood playthings, now supply intellectual fodder for his artistic speculations. So the best way to enjoy this show is to adopt his nostalgic reverence. The most prominent artifact is a scale model of an important symbol for Coupland: Minoru Yamasaki's World Trade Center towers. Their famous destruction brought to an end the 1990s slacker irony that *Generation X* defined and popularized. More dramatically, Coupland believes the Twin Towers' collapse destroyed the optimistic version of modernist urbanism that playing with the building kits imprinted on his, and his generation's, "brain wiring." It makes for a melancholy yet beguiling look at the whimsical artifacts of architectural culture. **David Theodore**



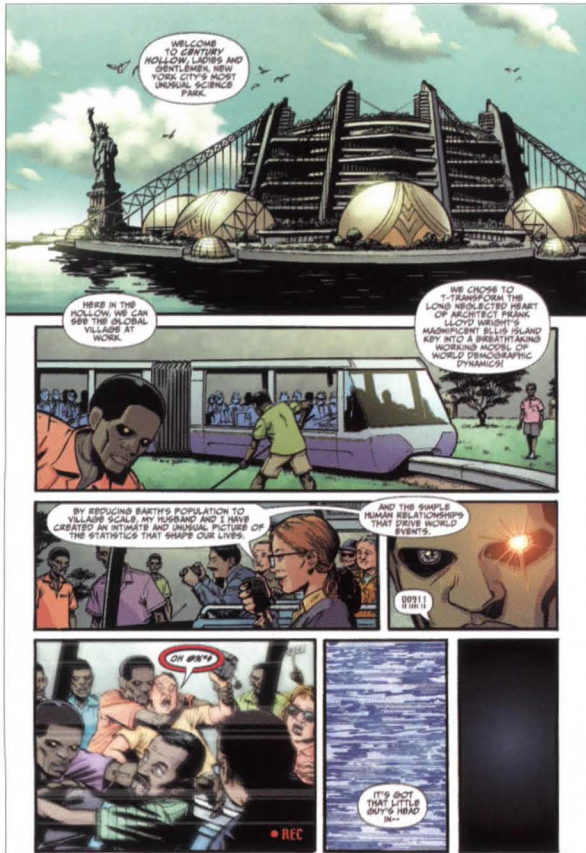
## COMIC BOOK

**The Manhattan Guardian | Grant Morrison with Cameron Stewart | DC Comics**

DC Comics writer Grant Morrison, a Scotsman who's written the *X-Men* titles for four years, has brought an esoteric architectural twist to his latest venture: a four-part miniseries titled *The Manhattan Guardian*—part of a larger collection called *Seven Soldiers*—that takes place in "Cinderella City," an allusion to that great concrete carnival of superheroes and superfreaks known elsewhere as Gotham, Metropolis, and the Big Apple.

In Morrison's version of this dark grimy city, the unborn children of some of the world's greatest designers come to life: The most recent issue, for example, opens on an illustration of Frank Lloyd Wright's late 1950s Key Project, a never-realized hotel and residential complex proposed for Ellis Island that resembles something out of "The Jetsons." Other designs that get new life in Morrison's imaginary world include a skyscraper by Hans Hollein and a hotel by Antonio Gaudí—both intended for New York City and both killed on the drafting table. What will Morrison come up with next? Stay tuned for the forthcoming edition . . .

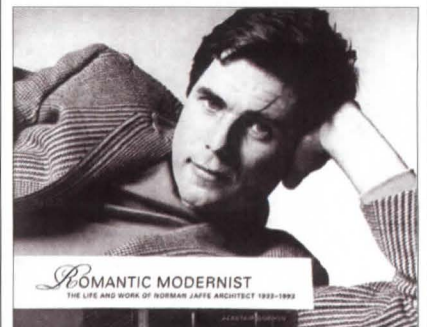
**Anna Holtzman**



## BOOK

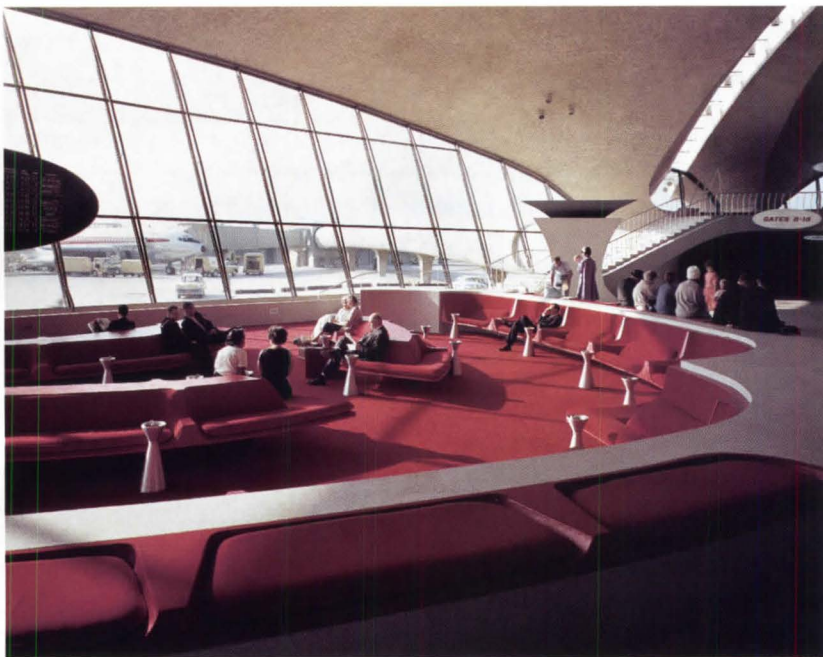
**Romantic Modernist: The Life and Work of****Norman Jaffe, Architect | Alastair Gordon | Monacelli Press**

Known as much for being a groovy dresser and lady's man as he was for his carefully crafted houses, Hamptons native Norman Jaffe died a mysterious death in 1993 that only accentuated his James Bond-like public persona. The prolific architect disappeared without a trace during a morning swim off Bridgehampton. But his legacy lives on in masterful works such as the 1987 Gates of the Grove Synagogue in East Hampton, as well as numerous residences, many also on the eastern end of Long Island, which he imbued with a spiritual, meditative quality. Alastair Gordon's ode to the late designer offers up ample imagery, capturing the photogenic attributes of both the work and the man himself. **Anna Holtzman**

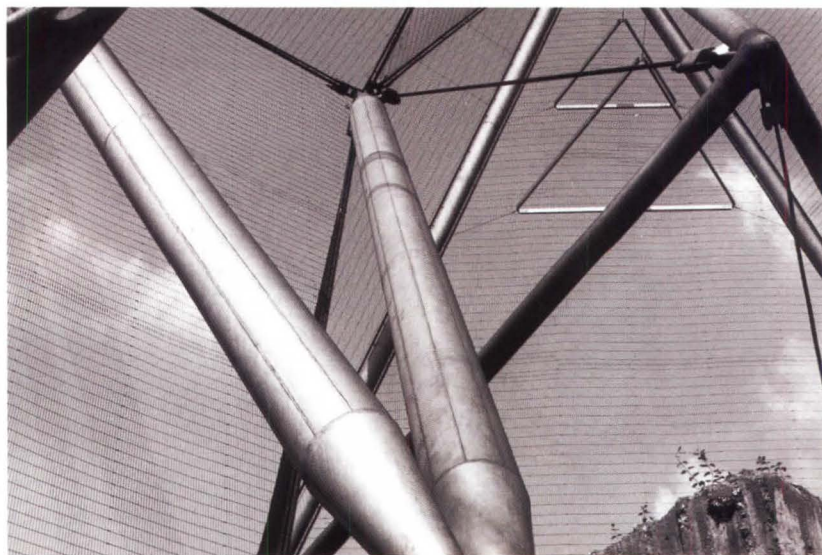
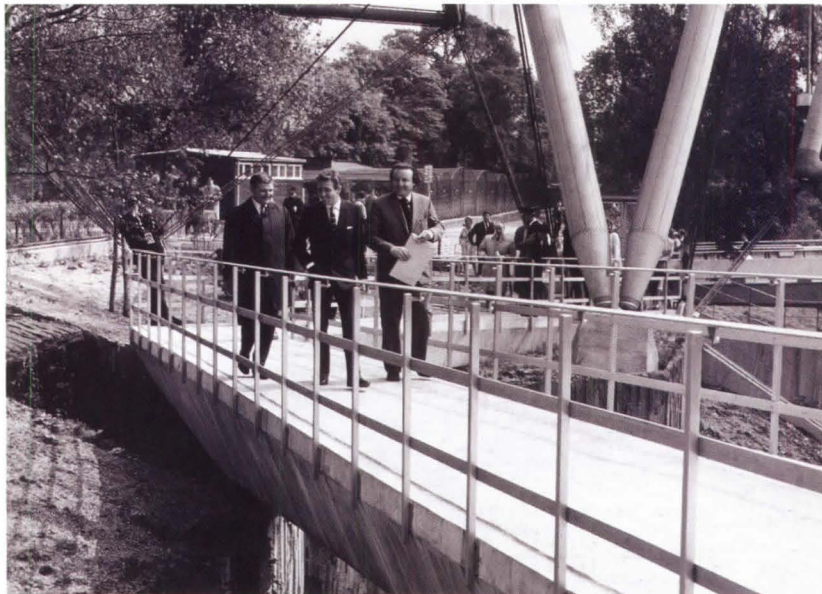


**Eero Saarinen | Jayne Merkel****| Phaidon**

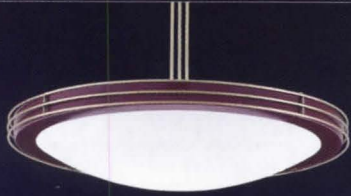
Eero Saarinen is hot again, so we're told. Among several rationales offered for the return of popular confidence in Saarinen's oeuvre is the ascendance of organic expression by the Frank O. Gehrys and Santiago Calatravas of the world. This thinking strikes some as backwards: The power and truth of Saarinen's postwar works has never diminished, and his experiments on corporate campuses paved the way for today's star designers. But Saarinen's stylistically wide-ranging work has been poorly documented and underexposed, which makes Jayne Merkel's thoughtful and fact-filled monograph an instant publishing event. As a biographical document, this new book is right on; as an exploration of Saarinen's architectural process, its lack of visual and anecdotal evidence may leave one wanting. **C.C. Sullivan**

**Cedric Price: Doubt, Delight****and Change | Design****Museum | London | Through October 9**

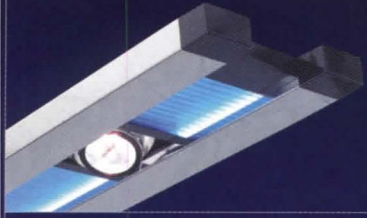
Much like the built work of the late, great Cedric Price, this engaging survey of eight projects and a film, outshines its modest size. As the show's title suggests, Price's was an architecture of critique, pleasure, and impermanence. From 1960 until his death two years ago at the age of 68, Price ran a truly visionary practice, one driven by a love of new technologies and social commitment to create "a building that was not a building"—he dreamed of more. Starting from the London Zoo Aviary (1961), a monumentally scaled free-flight, aluminum mesh and cable structure for birds that enables people to watch from every possible angle, his work—mostly in the form of proposals, lectures, and writings—sought to capture architecture as a catalyst, "enabling and supporting its users . . . according to their needs." *Fun Palace* (1960–1965), for example, a prefabricated "laboratory," was an education/recreation center that enshrined the public's active participation in its control over the built environment: With its variability of structure and open framework of theaters, restaurants, workshops, and cinemas, the project became an idea that inspired Richard Rogers's and Renzo Piano's Pompidou Centre a decade later. Price notoriously stated that a building should only remain as long as it is useful—about 20 years. Following this logic, we should be grateful that *his irreverent, utterly prescient ideas still endure.* **David Bussel**



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## EXHIBITIONS

**CHICAGO**  
**Design Innovations in Manufactured Housing**  
 Drawings and models showcase the latest ideas and technologies for pre-fabricated homes.  
**THE FIELD MUSEUM**  
[www.fieldmuseum.org](http://www.fieldmuseum.org)  
 Through January 16, 2006

**FORT LAUDERDALE, FLORIDA**  
**Going, Going, Gone?**  
 Photographs by Robin Hill highlight 80 at-risk mid-century modern buildings.  
**MUSEUM OF ART, FORT LAUDERDALE**  
[www.moaf.org](http://www.moaf.org)  
 Through November 6

**LONG ISLAND CITY, NEW YORK**  
**The Imagery of Chess**  
 A reprise of the 1944–1945 exhibition by Marcel Duchamp and Max Ernst.  
**THE NOGUCHI MUSEUM**  
[www.noguchi.org](http://www.noguchi.org)  
 October 20–March 5, 2006



**LOS ANGELES**  
**Ecstasy: In and About Altered States**  
 Environments explore notions of perception.  
**THE MUSEUM OF CONTEMPORARY ART**  
[www.moca.org](http://www.moca.org)  
 October 9–February 20, 2006

**MIAMI BEACH, FLORIDA**  
**The Pursuit of Pleasure**  
 Schultze & Weaver's design impact on the era of palatial prewar American hotels.  
**THE WOLFSONIAN**  
[www.wolfsonian.org](http://www.wolfsonian.org)  
 November 13–May 28, 2006



**NEW YORK CITY**  
**SAFE: Design Takes on Risk**  
 Three hundred products and prototypes designed to protect their users.  
**MOMA**  
[www.moma.org](http://www.moma.org)  
 October 16–January 2, 2006

**NEW YORK CITY**  
**Designing the Taxi**  
 The Design Trust for Public Space rethinks this mode of transport as it approaches its bicentennial.  
**PARSONS AND THE NEW SCHOOL FOR DESIGN**  
[www.parsons.edu/events](http://www.parsons.edu/events)  
 November 1–23



**PHILADELPHIA**  
**Ramp Project: Fortuyn/O'Brien**  
 A garden design firm brings the outside in on the ICA's glass-clad ramp.  
**INSTITUTE FOR CONTEMPORARY ART**  
[www.icaphila.org](http://www.icaphila.org)  
 Through December 23

**SAN FRANCISCO**  
**2x4**  
 Highlights the work of this New York City graphic design firm.  
**SAN FRANCISCO MUSEUM OF MODERN ART**  
[www.sfmoma.org](http://www.sfmoma.org)  
 Through November 27



**WARSAW, POLAND**  
**Transit Spaces**  
 A look at the expansive postsocialist urbanism taking shape in Eastern European countries.  
**UJAZDOWSKI CASTLE**  
[www.bauhaus-dessau.de](http://www.bauhaus-dessau.de)  
 Through October 2

## EVENTS

**ATLANTA**  
**Mixed-Use East**  
*Architecture, CPN, and Multi-Housing News'* conference on trends for architects and developers.  
**RITZ CARLTON BUCKHEAD**  
[www.mixeduseconference.com](http://www.mixeduseconference.com)  
 October 27–28

**BALTIMORE**  
**2005 Architecture Week**  
 A week-long series of events focusing on the built environment in the Baltimore area.  
**VARIOUS LOCATIONS**  
[www.aiabalt.com](http://www.aiabalt.com)  
 October 15–22

**CHICAGO**  
**Expanded Metal Manufacturers 2005 Conference**  
 An annual conference for metal manufacturing companies and affiliates.  
**THE WYNDHAM CHICAGO**  
[www.emma-assoc.org](http://www.emma-assoc.org)  
 October 22–24

**DRESDEN, GERMANY**  
**Strategies for the Future of Culture: Dresden in Global Context**  
 A conference focusing on the city's restoration.  
**KULTURRATHAUS**  
[www.spcs.nyu.edu/dresdenculture](http://www.spcs.nyu.edu/dresdenculture)  
 October 27–29

**LONDON**  
**Architecture And . . . Ornament**  
 A lecture examining ornament's place in modern architecture.  
**VICTORIA & ALBERT MUSEUM**  
[www.vam.ac.uk](http://www.vam.ac.uk)  
 November 2

**NEW YORK CITY**  
**Open House New York**  
 The third annual weekend inviting the public into 150 architecturally and culturally significant sites in New York City.  
**MULTIPLE LOCATIONS**  
[www.ohny.org](http://www.ohny.org)  
 October 8–9



**SAN FRANCISCO**  
**Architecture and the City**  
 A month-long celebration of San Francisco's design community with home, studio, and restaurant tours and other events.  
**VARIOUS LOCATIONS**  
[www.aiaf.org/archandcity](http://www.aiaf.org/archandcity)  
 Through October 25

**WASHINGTON, D.C.**  
**Communities on the Line: Transit and Design**  
 A conference featuring sessions, tours, and case studies on local transit-oriented developments.  
**WYNDHAM CITY CENTER**  
[www.aia.org](http://www.aia.org)  
 October 7–9

## COMPETITIONS

**Grohe Winning Designs Competition**  
 Grohe Canada-sponsored competition for kitchens and custom baths that use the company's products.  
[www.grohewinningdesigns.com](http://www.grohewinningdesigns.com)  
 Deadline: November 7

**Estonian National Museum Design Competition**  
 Call for entries for a museum in Tartu, Estonia's second largest city.  
[www.museumcompetition.org/en/home](http://www.museumcompetition.org/en/home)  
 Deadline: November 10

**25th Annual Tucker Architectural Awards**  
 The Building Stone Institute's annual awards for projects that incorporate natural stone.  
[www.buildingstoneinstitute.org](http://www.buildingstoneinstitute.org)  
 Deadline: November 11

**Urban Voids: Grounds for Change**  
 Ideas competition for the development of vacant lots in Philadelphia.  
[vanalen.org/urbanvoids](http://vanalen.org/urbanvoids)  
 Registration deadline: November 14



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- 2. The article covers the use of cement board in interior and exterior applications.
- 3. The article covers the use of cement board in interior and exterior applications.

**Key points include:**

- 1. The article covers moisture control, including the use of cement board in interior and exterior applications.
- 2. The article covers the use of cement board in interior and exterior applications.
- 3. The article covers the use of cement board in interior and exterior applications.

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- 2. The article covers the benefits of flat panel monitors in office design.
- 3. The article covers the benefits of flat panel monitors in office design.

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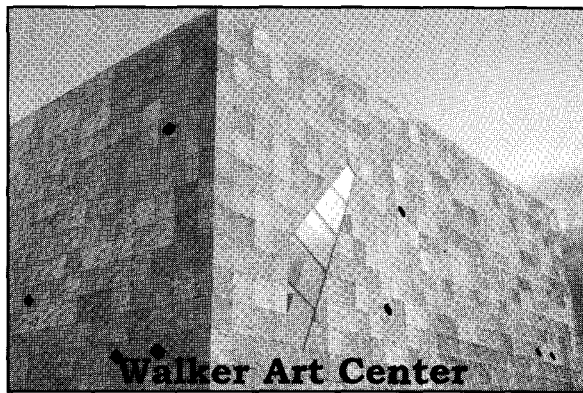
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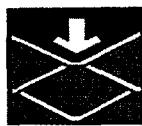
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## Expanded Metal Project



### Walker Art Center

Architect Herzog & de Meuron  
Fabricator/Installer M.G. McGrath  
Completion: Spring 2005



**SPANTEK**  
EXPANDED METAL

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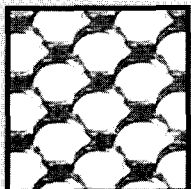
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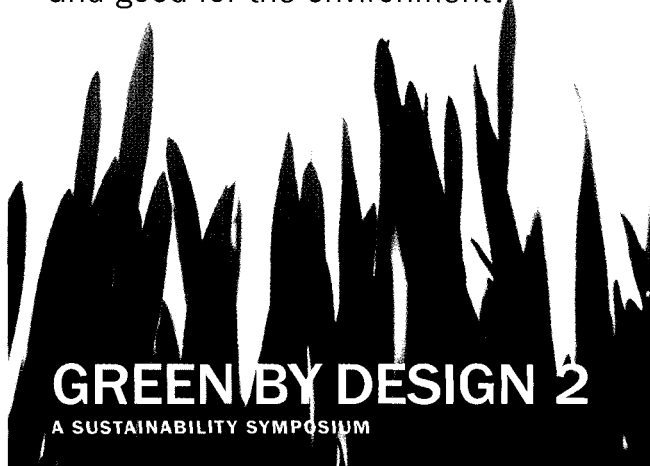
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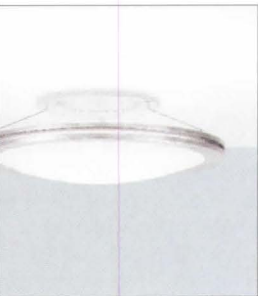
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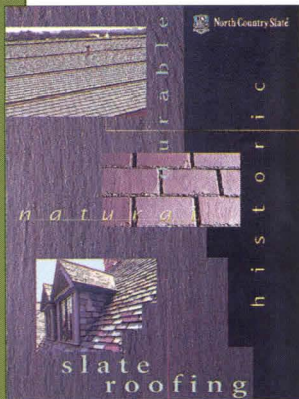
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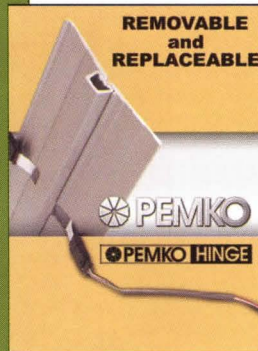
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# IT'S TIME FOR PRESERVATION ON THE WRONG SIDE OF THE TRACKS, TOO.

BY ROBERT KLARA

On an afternoon's walk through downtown Buffalo, New York, an architecturally minded visitor should prepare for an accelerated heart rate. For here is beautifully restored and fastidiously maintained evidence of what happened when the City Beautiful movement waltzed with industrial prosperity. The concentration of monumental structures by the likes of Daniel Burnham, Louis Sullivan, and Carrère & Hastings—plus later twentieth-century works by Rapp & Rapp and Minoru Yamasaki—explain why historians hail the city as an architectural museum.

After decades of decline, Buffalo is proud of having found the wherewithal to preserve its built legacy, and rightfully so. Good thing, then, that one scuff on its record lies well outside downtown, where visitors are scarce: Buffalo Central Terminal, its windows replaced by plywood, casts its hulking shadow over the slums of the east side. The contrast between the terminal and its pampered brethren downtown is striking visually, of course, but philosophically, too, because it raises an unsettling question: Are worthy buildings preserved solely for their cultural and aesthetic merits, or because they're fortunate enough to be located in "safe" affluent areas?

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chose a parcel 2.5 miles outside downtown. Its station—a luminous chest of Gustavino tile, pressed-metal ornament, and four types of marble—became a talisman for Buffalo's economic might.

In a story oft told, passenger railroads began their slow roll into oblivion in the 1950s. Central Terminal saw its last train off in 1979. Subsequent owners pillaged the place. When an influential senator allotted \$1.5 million in federal funds for the terminal in 1995, Mayor Anthony Masiello diverted the money to a build-

**⊗Much is lost when the architectural heritage that visitors are shown is limited to those buildings within a stone's throw of a Starbucks.**

ing downtown. That seemed strange, because Central Terminal was quite the plum for any developer: 15 acres for parking, tower floors of 6,000 square feet each, all for the special, low price of \$1. That's what the Central Terminal Restoration Corporation (CTRC) paid for the place eight years ago.

## THANKS, BUT . . .

Why no takers for Central Terminal? It's not because the trains don't stop there anymore. Whistles haven't echoed across the concourses of the Union Stations in Louisville or St. Louis since the 1970s, either—yet both currently house opulent hotels and those cities' finest restaurants. Nor is it due to lack of

effort by preservationists. The CTRC has spent its modest donations on patching the roof and sweeping up, and used \$25,000 given by a local bank to repurchase the terminal's concourse clock, which turned up on eBay in 1999. Nor, apparently, is it due to a lack of change in the state coffers—which have coughed up \$100 million for H.H. Richardson's Buffalo Psychiatric Center.

So what is it? In a word, location. East Buffalo is poor. Crime rates are high. Even though the terminal property has advantages undreamed of downtown (such as easy interstate access), it's a matter of how one views a half-filled glass. "It's not downtown, it's in the wrong part of town: We've heard all the flip answers," laments CTRC president Russell Pawlak. "There's this notion that you're going to die if you go there," says Tim Tielman, executive director of the Campaign for Greater Buffalo, another preservation group. "We have to keep plugging away," concludes the CTRC's treasurer Michael Miller. "Eventually the right person with the right connections will come along."

Really? Will Buffalo get a visionary who will take a chance? Because the persisting failure—of the city, of developers—to rescue the terminal isn't just a missed economic opportunity, it's an occlusion of the historic record. Much is lost when the architectural heritage that visitors are shown is limited to those buildings within a stone's throw of a Starbucks. But in East Buffalo, for now at least, a stone's throw only means another broken window. ■

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