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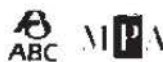
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**Right:** *House for a Photographer II*, by Carlos Ferrater. Photo by Alejo Bague.  
**Bottom:** *23 East 22nd Street*, by Office for Metropolitan Architecture.  
**Products:** *The Raw chair*, from Muuto; *Wastberg's w084t halogen task lamp*.



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On the Web 

In addition to the **Record Houses** included in this issue, on our Web site features **10 additional** residential projects selected by our editors for their exemplary details. Also, take a **video tour** of one of this year's houses in our video library.



Reader Photo: This image of Philip Johnson's Glass House in New Canaan, Connecticut, is one of more than 2,000 reader-submitted images in ARCHITECTURAL RECORD's online galleries.

## Online Only

PHOTO GALLERIES

BLOGS

FORUMS

VIDEOS

COMMENTS



### House of the Month

A house in a fire-prone canyon by Olson Sundberg Kundig Allen Architects harvests the very climatic conditions that make the site so dangerous.



### AIA 2009: San Francisco

Our guide features local architects' recommendations, an overview of Bay-Area projects, and live coverage from the convention.



### Recession and Recovery

Our reports on the economic crisis ask: How has the economy impacted architecture? And what are our best prospects for recovery?

### Your Comments

*"Professional practice is a cycle of feast and famine. Remember to save your money in the good times. Sharpen your skills during the lean. Follow these rules and you will prevail."*

—Anonymous, on "Volunteer Opportunities for Architects"

## Expanded Coverage



### Record TV

View more than 60 videos in our library. New this month: Tour a house by Allied Works featured in this year's Record Houses.



### Record Houses

In our online section, view 10 additional houses selected because they each contain a single unusual or remarkable attribute.



### AR2

New York's Carlos Rodriguez designs for small spaces, and UW's landscape architecture students green underserved communities.



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Page

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127-131

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### Recycled Rubber Flooring: Yesterday's Tires Transformed into Today's High-Performance Flooring

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### What's So Cool About Cool Roofs?

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# Death of the Icon

## Editorial

By Robert Ivy, FAIA

**T**he student firmly raised his hand at the luncheon, catching my attention over the turkey sandwiches and cold drinks. We were there to talk, after all. Most of the questions thus far had been softball—related to publishing or favorite architects and their work, or to travel, but not to pushing the boundaries. He appeared eager and young. Then he spoke: “Can you tell me,” he asked, “why media like ARCHITECTURAL RECORD have continued to promote icons, when we are interested in a different kind of architecture today?” All eyes opened up around the long table, and heads seemed to be nodding. His curve ball had come from out of nowhere, but hit the mark.

After pausing a moment for reflection, the answer came, not so much as an emphatic reply, but rather as a series of rhetorical considerations. What, I asked, do you think the role of the media should be: to reflect the ideas of any given moment, to lead an audience in a specific direction, or a combination of the two? Second, what has been the meaning or role of architectural icons? And third, what are students interested in today? The delivery, I hoped, provoked speculation on the students’ part: I needed to know what was on their minds.

He was right, of course. ARCHITECTURAL RECORD had been party to celebrating the iconic projects of the past decade, and what a decade it had been. After a series of quiet years in the aftermath of a recession in the 1990s, 1997 brought Frank Gehry’s Guggenheim Museum in Bilbao, Spain, a work of genius that galvanized professional and public attention and set a standard for works that would emerge in the decade of its aftermath. For the past 10 years of unprecedented material prosperity, RECORD has faithfully recorded a cavalcade of singular, individualistic buildings that celebrated formal invention, exuberance, and innovation in building materials and systems, most of which reflected the advent and flowering of a new generation of computer-assisted design. Bilbao became a trophy for Spain, and a new image for a city and a region’s renaissance. We bore witness.

Today’s students, asserted my interlocutors, had moved beyond the icon, to a finer-grained architecture. Rather than focus on a structure’s immediate physical attributes, they maintained that chief among their interests was a matrix of concerns that, for want of terminology, could be described as humane. How did a given project fulfill its social contract for the community it was meant to serve? What sorts of relationships to the

landscape, the neighboring buildings, the urban fabric, or the geographic region would a project create for its inhabitants? What alternatives could it pose for its users or clients? Could its initial agenda shift over time? As a fundamental, overriding question, how could a project be described as sustainable?

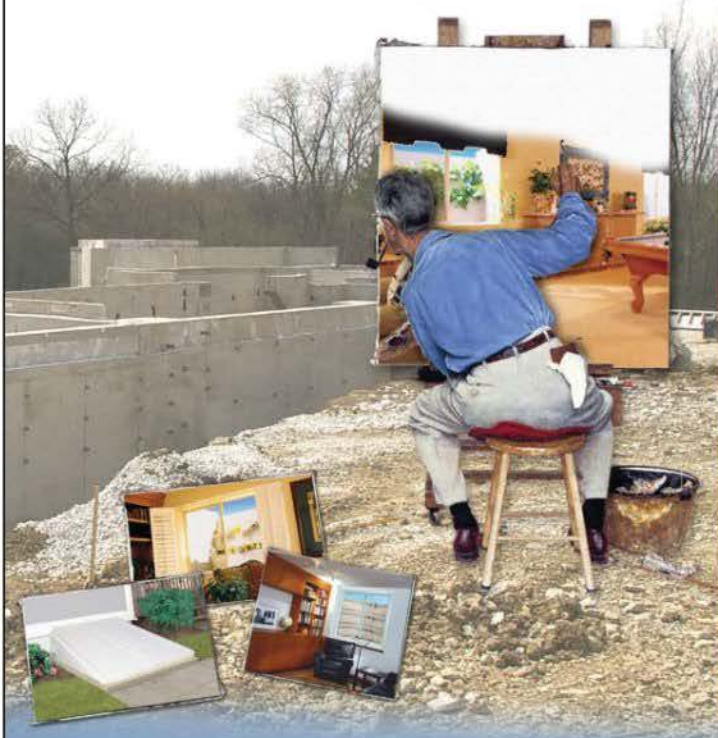
I puzzled over the students’ viewpoints, which seemed harmonious with those of another generation’s, perhaps more closely aligned with the activist periods of the late 1960s and ’70s that I had grown up with. What had caused this shift, if it was a shift at all? Perhaps the economic contractions of the previous year had altered the zeitgeist within the academic community, or perhaps the socially engaged, environmentally active movements of the last decade had simply taken root and had grown to an ascendant position.

The luncheon’s earnest tone struck a chord that would play out at ARCHITECTURAL RECORD. It immediately brought into question our coverage of Record Houses. Throughout its more than 50-year history, RECORD has written about the single-family house, for many of the reasons that we have written about all iconic architecture—as subjects of invention or fancy as well as shelter. Set in the landscape, tied to the automobile, the houses rarely exhibit relationships to other buildings and rarely expand beyond a single, social unit to include what we now label “multifamily.” Solo expressions of what Aalto called a “paradise,” they represent a small, shared set of dreams, by clients and their designers.

Although my university conversation suggests that we are entering a fresh scenario, a period where the rules, and the economics, of the game have changed, in this issue of ARCHITECTURAL RECORD, we unapologetically gather up iconic houses of the immediate past couple of years—when the icon clearly ruled. From little houses to the bodacious, they fairly jump off the page and computer screen, insistent and reminding us to pay attention: Design at Work. We can admire, even lust after them, as objects of desire and as representations of idealized form and fantasy, constructed for real people. Still, we must wonder what our ideal forms of shelter will consist of next year and decades hence, as our sensibilities and worldview shift with the next batch of student architects. I suggest a long lunch and conversation.

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## Letters

### Survival strategies

Congratulations to Suzanne Stephens for her feature, "Architectural Firms Adapt to Tough Times." It hasn't been easy for most of us. However, in our firm's case, after having gone on a four-day work-week to preserve our staff, we now, after procuring a few new projects, find ourselves fortunate enough to be back on a full five-day week. Our calculation paid off, and (for the moment, at least) we think we did the right thing in holding on to some very talented people.

*Peter Samton, FAIA  
New York City*

### A critical issue

I am reading the March issue of Record on "Surviving the Recession," and it is one of the best that I can remember. Thank you!

*John Sorrenti, FAIA  
Mineola, New York*

### New York's MAD-ness

For a semester at the University of Michigan, my classmates and I tackled 2 Columbus Circle as an academic design problem. Later, I walked past this peculiar building for three years each day on my way to and from work.

For the much-anticipated Museum of Arts and Design [February 2009, pages 80 and 84], I watched the scaffolding go up and come down.

Yikes. We are by now all familiar with the challenges and the excuses that have been thrown at this project. Fred A. Bernstein's ambivalent shrug and Suzanne Stephens's cheeky schadenfreude do architects a disservice.

When the task at hand is to design a museum on the edge of Central Park, the question Bernstein should be asking is, "Should we be grateful for anything but a great building?"

*Peter H. Warren, AIA  
Mem. his*

I am glad the renovation of the Museum of Arts and Design was

so controversial. This is what good architecture is all about. There needs to be a dialogue between the past and the present as well as courage in the face of criticism in our work. This project would have been difficult for anyone, but Allied Works was up for the challenge. As for the "H" created by disrupting Cloepfil's parti, it will probably prove to be one of the facade's most endearing, iconic features (like it or not, Brady I agree with Fred A. Bernstein that everyone should "lighten up," and whether you think it was the right intervention or not, this is a great story about architecture.

*Ste. hen Korbich  
Portland, Oregon*

Suzanne Stephens's brilliant article on the Museum of Art and Design has to be the final word on this subject. Fred A. Bernstein's companion piece suggesting critics "lighten up" is well taken. I am even willing to see the humor in the "HI." However, visiting a museum and writing your impression is one thing, living with it every day is another. My office is on Columbus Circle. Every morning, as I approach, my heart sinks seeing the facade that "still looks drab" and thinking about what might have been at such an unparalleled location.

*Garo Gumusyan, AIA  
New York City*

### PORRPTIONS

The credit in the March Interiors section [page 114] for the Bernhardt Showroom in Chicago should have listed the project as the work of DMJM Rottet. Lauren Rottet's new firm, Rottet Studio, was not founded until May 2008. Image credits for the January story "Three Buildings, Three Different Approaches" were incorrect: Page 108 credits should be, "Courtesy SOM (this page and opposite, top), Tipping Mar (opposite, bottom)"

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AR | RECESSION REPORT

## The architect is in: An unemployed designer gets creative

By Brian James Barr

At the farmers' market in Seattle's Ballard neighborhood, people can't help but ask John Morefield what he is selling. "We're selling architecture!" he answers. "Have questions about your house? Kitchen too small? Bathroom not working? Drop a nickel into the cup."

Architectural advice is an unusual service to be hawking at a Sunday market known for its organic produce. Then again, these are unusual times, and Architecture 5¢ is just one man's way of weathering the economic crisis.

Inevitably, passersby see the 27-year-old Morefield behind his plywood booth, built to resemble Lucy's psychiatry stand from the Peanuts comic strip. Intrigued, they slow down out of curiosity, and Morefield explains his mission. More often than not, the person actually has a project they have been mulling over, such as remodeling their kitchen or adding a cantilevered deck. They drop a nickel into Morefield's tin cup and he tells them if it's feasible. If they are serious about moving forward, they jot down their e-mail address so Morefield can follow up with a proper appointment. People can also seek advice through his Web site, [www.Architecture5cents.com](http://www.Architecture5cents.com).

Morefield's idea has brought him a fair amount of media attention, from local new outlets to National Public Radio. In an interview with RECORD, Morefield explained how the recession has allowed him to transform a clever gimmick into entrepreneurship.

**Brian James Barr:** Tell us a little about Architecture 5¢ and how it developed?

**John Morefield:** I was laid off twice

last year and decided to go at it on my own. Frankly, there are no jobs out there anyway. I worked at the Pike Place Market selling fruits and vegetables one summer when I was in architecture school and fell in love with farmers' markets. So, when it came time to drum up business for my own design firm, a farmer's market seemed an obvious choice.

**BJB:** How much actual business have you been able to generate?

**JM:** Everyone asks, "Well, this is great and all, but are you getting work?" Yeah, I am. My plate's almost full. The projects are all small, and they're fast. I'm not nailing two-year-long gigs. I mean, I had an entire project that was budgeted for under \$200; all it involved was just sitting in this couple's condo with a cup of coffee and redesigning some things and finalizing their drawings. They DIY'd the rest of it. But then I had a project that involved designing an entire 3,000-square-foot addition for a house. Those people had found me through the local media, and they told me, "We wanted an architect, but we didn't know where to look."

**BJB:** An architect I know was venting about the misconception that hiring architects is something only the wealthy or upper middle class would do. Are you looking to change that perception?

**JM:** I read a statistic that only 2 percent of the homes in the United States are designed by architects. Developers and contractors are doing most of the homes. If I can change that, and we can get to a point where architects are



After getting laid off, John Morefield set up an advice booth at a farmers' market in Seattle.

designing homes for the middle class again, that would be amazing. We'd have better design all around.

**BJB:** Because you only charge a nickel, have other architects criticized you for devaluing the profession?

**JM:** Yeah, the impression they get is that I'm only charging 5 cents for architecture. But I'm not issuing legal drawings from this booth or from my Web site. The nickel is just my way of starting conversations with potential clients. Every architect has had those times at parties, where a friend of a friend comes up and says, "Oh, you're the architect. I have a question for you." I'm doing the same thing, only I'm collecting a nickel for it and donating it to the local food bank. At the end of the

day, that nickel will hopefully turn into a client that will be on a normal, billable rate.

**BJB:** Obviously, you're not the only architect in Seattle – or the U.S. – to have been laid off. What are some of your fellow architects doing to get by?

**JM:** I know some in Seattle who are working at Starbucks and Crate and Barrel. I've heard stories of architecture students heading straight into food service after graduation. The market is so thin right now, and the pool of talent is so

large. It's unfortunate that we've got recent graduates with no professional experience doing battle in the job market against 15-year veterans who need work just as badly.

**BJB:** Besides using the booth to hustle up work in lean times, do you have a larger goal for Architecture 5¢?

**JM:** My goal is to take the booth to a national level and have Architecture 5¢ Manhattan, or Boston, or some smaller neighborhoods like the Bronx. And the online system I've set up of communicating with clients and just using the booth as an overall marketing approach seems easily replicable. Of course, there's a lot that goes on in the back end that makes it look simple on the front end.



## AR RECESSION REPORT

### How will historic buildings fare during economic downturn?

Years ago, the Garrett-Dunn House, a 19th-century Italianate structure in Philadelphia credited to the architect Thomas Ustick Walter, designer of the U.S. Capitol dome, was slated for demolition. Despite its dilapidated condition, preservationists succeeded in getting the house listed on the city's historic register and convinced a developer to incorporate the house into a condominium project. While it wouldn't be preserved in a technical sense, the landmark would live on.

Zip forward to 2008: As the economy began to stumble, the developer defaulted on loans for the property and the project skidded to a halt. Today, the empty house is surrounded by a chain-link fence, its fate uncertain.

Like most sectors related to architecture, historic preservation has been hit hard by the economic downturn. Newspapers around the



country are peppered with reports of preservation and renovation projects that are up in the air, and firms that specialize in historic buildings say they are struggling like everyone else.

Robert Chattel, AIA, principal of the Los Angeles firm Chattel Architecture, which focuses solely on preservation planning and consulting, says a number of his projects are stalled. Recently, his five-person firm was about to begin work on a report assessing earthquake damage to Frank Lloyd Wright's 1921 Hollyhock House, which is owned by the city of Los Angeles. "Just as we were about to sign the contract," Chattel says, "we were told to stop work." Turns out the grant money for the project, from

the California Cultural and Historical Endowment, had been frozen due to the state's budget shortfall.

Similar stories are told by Richard Southwick, FAIA, director of historic preservation at New York's Beyer Blinder Belle, known for restoration work on high-profile buildings such as Grand Central Terminal. "Our restoration projects have not been immune from market forces," he says, noting that the recession is forcing some of his clients to reshift their priorities. For example, Southwick says a "significant museum in the New York area" hired his firm for a major restoration project. "But instead of doing the whole project at once," he says, "they're going to do it in phases while

### The fate of the Garrett-Dunn House in Philadelphia is uncertain.

the fund-raising continues." Some government restoration projects are now being redefined as "infrastructure or security upgrades" in order to get funding, he adds, and job creation has become as important as the restoration work itself.

Preservationists do see a possible silver lining in all of this: Historic buildings once threatened by new construction may escape the wrecking ball. "There's probably no better friend to historic preservation than a good recession," says Robert Musgraves, executive director of the nonprofit Historic Denver, noting that downturns tend to slow development projects, if not bring them to a standstill.

Indeed, the teardown trend has nearly ground to a halt in many historic neighborhoods, says Adrian Scott Fine, director of the National Trust for Historic Preservation's northeast field office. "The current disastrous real estate market could be good for preservation," she says, "because it allows communities to be proactive and ready if and when the market returns and teardowns start up again." *David Hill*

### Wright landmark gets a modern pavilion by Mori

In 1992, a group of residents in Buffalo, New York, banded together to restore a notable landmark: the Darwin D. Martin House complex (1903-1905), regarded as one of Frank Lloyd Wright's most celebrated

residential designs. Now, 17 years later, the group, officially known as the Martin House Restoration Corporation (MHRC), is seeing the light at the end of the tunnel, with the property entering its final phase

of restoration work, and with the completion of a new visitor center designed by the New York-based architect Toshiko Mori, FAIA. Officially called the Eleanor and Wilson Greatbatch Pavilion, the center opened to the public on March 18.

The 7,775-square-foot structure sits adjacent to the historic complex comprising the Darwin Martin House, the George Barton House, a pergola, conservatory, carriage house, and gardener's cottage. Mori confesses that it was one of her most difficult projects. "How do you build so close to Frank Lloyd Wright?" she says.

Her goal was to establish a separation from Wright's buildings while picking up essential cues from his design. For instance, one of the pavilion's four sides is a concrete wall that evokes Wright's elongated custom bricks. The other sides are glass, providing unencumbered views of

the property. "Toshiko's pavilion is entirely deferential, but also completely contemporary," says MHRC executive director Mary Roberts.

Meanwhile, the Martin House itself is undergoing the last phase of a major restoration overseen by Buffalo-based Hamilton Houston Lownie Architects. Having reconstructed demolished elements, along with restoring all exteriors, work is now under way on interiors, furniture, and the landscape.

The MHRC hopes to complete the project by 2011 and has raised \$39 million of the estimated \$50 million it needs. The economic downturn has made fund-raising more difficult, Roberts says. "We have a leg up, though," she adds, "since we are already three-fourths done, and since the importance of these cultural sites provides evidence as compelling economic investments." *John Gendall*



The Darwin D. Martin House complex in Buffalo has a new visitor center.

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## Record News

### Herzog & de Meuron tapped for bank headquarters in Madrid

A wheel-shaped tower rises out of a "carpet" of low-rise offices and gardens in Herzog & de Meuron's design for the new Madrid headquarters of BBVA, Spain's second-largest bank.

With more than 800,000 square feet of office space for 6,500 employees, construction of the building will begin this year on a 22-acre site in the city's northern suburbs. The project is scheduled for completion in 2013.

In their project brief, the architects describe the complex as an inward-looking "oasis." A linear structure composed of three-story buildings, alleyways, and irrigated gardens is laid over the entire site, following the topography. In the center of this structure, they have cut out a disc-shaped section of the low-slung building and stood it on end to create a 23-story tower that gives the project a presence on Madrid's skyline. The tower rises from the circular plaza of its original footprint, where the main entry and communal facilities are located.

The architects defend the mazelike plan as a way to foster interaction among workers: "People walk instead of taking elevators; they meet and talk to one another." The transparency of the glazed office areas "generates a sense of community," while "the relatively small units permit employees to identify with their particular group." The

strategy also allowed the architects to absorb four preexisting, yet partially completed office buildings into the design.

BBVA will seek LEED certification for the project, which incorporates natural ventilation, shading overhangs, photovoltaic cells, and water recycling. The green corridors will be covered with retractable

skylights during the winter to create a greenhouse-like environment. BBVA estimates that these measures will reduce energy consumption by 30 percent. The character of the gardens will vary throughout the complex: Plans call for a stand of plane trees, a stone garden featuring Japanese scholar trees, avenues of poplars and cypresses, and oaks in the main plaza.



Herzog & de Meuron have designed the new Madrid headquarters of BBVA.

Herzog & de Meuron was chosen for the project in a limited competition last June, in which second and third prizes went to Zaha Hadid and Madrid architect Rafael de La-Hoz. BBVA revealed the Swiss architects' proposal in December, after obtaining a city zoning variance for the proposed tower. The bank has financed the operation with the 2007 sale of four Madrid buildings, including its current landmark headquarters, designed by Madrid architect Francisco J. Sáenz de Oíza in 1981. *David Cohn*

### Holl wins half-million-dollar Spanish prize

The first edition of the BBVA Foundation's Frontiers of Knowledge Prize in the Arts, sponsored by the Spanish bank BBVA, has been award-



Holl founded his firm in 1976.

ed to American architect Steven Holl.

The 400,000 euro prize (roughly \$500,000), whose announcement surprised even Holl, is another sign of the apparent good health of the Spanish banking system, following the BBVA's recent announcement of a new headquarters building by Herzog & de Meuron (featured above).

The jury cited for distinction "the humanistic values that Steven Holl has preserved in his work, promoting social and cultural fundamentals without sacrificing his continual presence in the architectural vanguard." It praised "the quality of his realized work, which has evolved a personal language and a recognizable identity." The

prize is one of eight 400,000 euro awards recognizing "fundamental advances" in the basic sciences, the social and natural sciences, the arts, and technology.

Born in 1947, Holl is the author of projects such as the Linked Hybrid complex in Beijing, the Simmons Hall dormitories at MIT, the Bloch Building at the Nelson-Atkins Museum in Kansas City, and the Kiasma Contemporary Art Museum in Helsinki. He teaches architecture at New York's Columbia University.

According to a jury member, Holl was nominated for the prize by the Nelson-Atkins Museum, and competed with nine other finalists. The jury was headed by Reinhard Brembeck, a German music critic, and included the composers Luis de Pablo and Helmut Lachenmann, the

Spanish architects Antón García-Abril and Ramón Sanabria, and the British art critic Richard Whitehouse, among others.

Steven Holl told RECORD, "I am amazed and shocked to receive this award, as I wasn't even aware of being nominated for it." He plans to put the money toward his firm's pro bono projects and cited the Youth Wellness Center in Bremerton, Washington.

Holl added that he felt especially honored "to receive an award that lays such importance on the interrelation of the arts. I believe the relationship of all the arts becomes especially [evident] in architecture, and it is in architecture that it finds its fullest expression."

Holl will travel to Madrid for an awards ceremony sometime this spring. *David Cohn*

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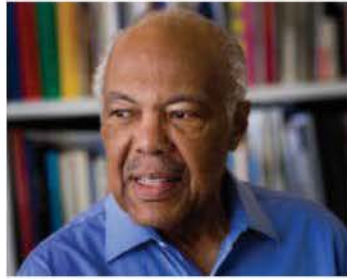
## J. Max Bond, Jr., influential architect, dies

J. Max Bond, Jr., FAIA, one of the nation's most influential African-American architects, succumbed to cancer on February 18. He was 73.

The partner at New York-based Davis Brody Bond Aedas was widely regarded as a mentor, a voice of social responsibility in practice, and a magnetic presence. "In a sense, we all got robbed, including Max, because he was young," says firm partner Steven M. Davis, FAIA. "There was a lot left to do and a lot we wanted to do together, that we would have done together."

At the time of his death, Bond was overseeing the museum component of the National September 11 Memorial and Museum. Davis also notes that Bond was particularly excited about a forthcoming submission in the Smithsonian's competition to design the National Museum of African American History and Culture, calling the project "the culmination of everything he had done professionally."

Defying racial barriers in a profession comprising approximately 1 percent African-Americans, Bond entered architecture after earning bachelor's and master's degrees from Harvard. One of his early projects was the passively sustainable Bolgatanga Regional Library in Ghana, which is still operating today. In 1970, he and Donald Ryder established the firm Bond Ryder & Associates. Two decades later, it merged with Davis, Brody & Associates, where Bond became a partner in 1992.



**Bond was a leader and mentor.**

Bond's many accomplishments include the completion of the Martin Luther King, Jr. Center for Nonviolent Social Change in Atlanta in 1981, and service on the New York City Planning Commission from 1980 to 1986. As an impassioned educator, he held chairman and dean roles, respectively, at the Columbia University Graduate School of Architecture, Planning and Preservation and at City College's School of Architecture and Environmental Studies in New York.

Bond is survived by his wife, sister, and brother, as well as two children and three grandchildren. He also leaves behind scores of architects who claim him as a significant force in their lives. Key among them is Peter D. Cook, AIA. "He gave me so many opportunities to stand up, to fall down, to shine, to sit in the background, to travel to mundane places and to travel to exciting places, to do all the things that a good architect should be able to do," Cook says. "There were times when I messed up, and he worked with me to figure out solutions. And it was that caring attitude that carried the day for me."

Plans for a memorial service are under way. It is tentatively scheduled for early spring. *David Sokol*

**The Birmingham Civil Rights Institute (left), in Alabama, is one of Bond's many notable projects.**



## Earl Flansburgh, prominent Boston architect, dies

On February 3, Earl Flansburgh, FAIA, died from complications resulting from a protracted battle with Parkinson's disease. He was 77.

Flansburgh received his bachelor's degree from Cornell in 1953 and his master's degree from MIT in 1957. He went on to practice architecture in the Boston area for more than 45 years.

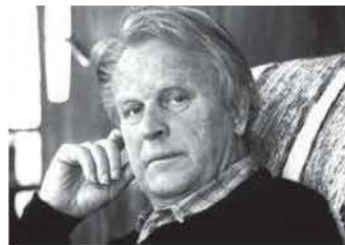
His firm, Earl R. Flansburgh + Associates (ERF+A), founded in 1963 and since renamed Flansburgh Architects, has completed some 250 projects for educational institutions. These include the Cornell University Campus Store (1971), the William Kent Elementary School (1971), and the Boston College Library and Academic Wing (1997).

During his venerable career, Flansburgh was involved with several groups advocating for architecture, among them the Boston Society of Architects (BSA), for which he served as president in 1981. He was awarded the BSA Award of Honor in 1999.

According to Nancy Jenner, BSA director, Flansburgh "was a very generous man. He was a big supporter of young professionals, and especially of women architects." Early on in his career, Flansburgh hired and promoted female architects, Jenner says, and "he supported their firms once they moved on." Andrea Leers, FAIA, and Jane Weinzapfel, FAIA, whose firm Leers Weinzapfel Associates won the AIA's 2007 Firm of the Year award, both started their careers at ERF+A.

Flansburgh is survived by his wife, Polly, Hon. AIA, and two sons. *Sebastian Howard*

## Sverre Fehn, 1997 Pritzker winner, dead at 84



**Fehn worked primarily in Norway.**

Sverre Fehn, 84, the Norwegian architect who fused Modernism with traditional Scandinavian forms and materials, died on February 23. He was the recipient of many high honors, including the 1997 Pritzker Prize.

After graduating from the Oslo School of Architecture in 1949, Fehn joined a group of designers devoted to finding a uniquely Norwegian expression of Modernism. In 1954, he formed his own practice, Ark Sverre Fehn, in Norway, where the majority of his work was built. Fehn also taught architecture from 1971 to 1995 at his alma mater.

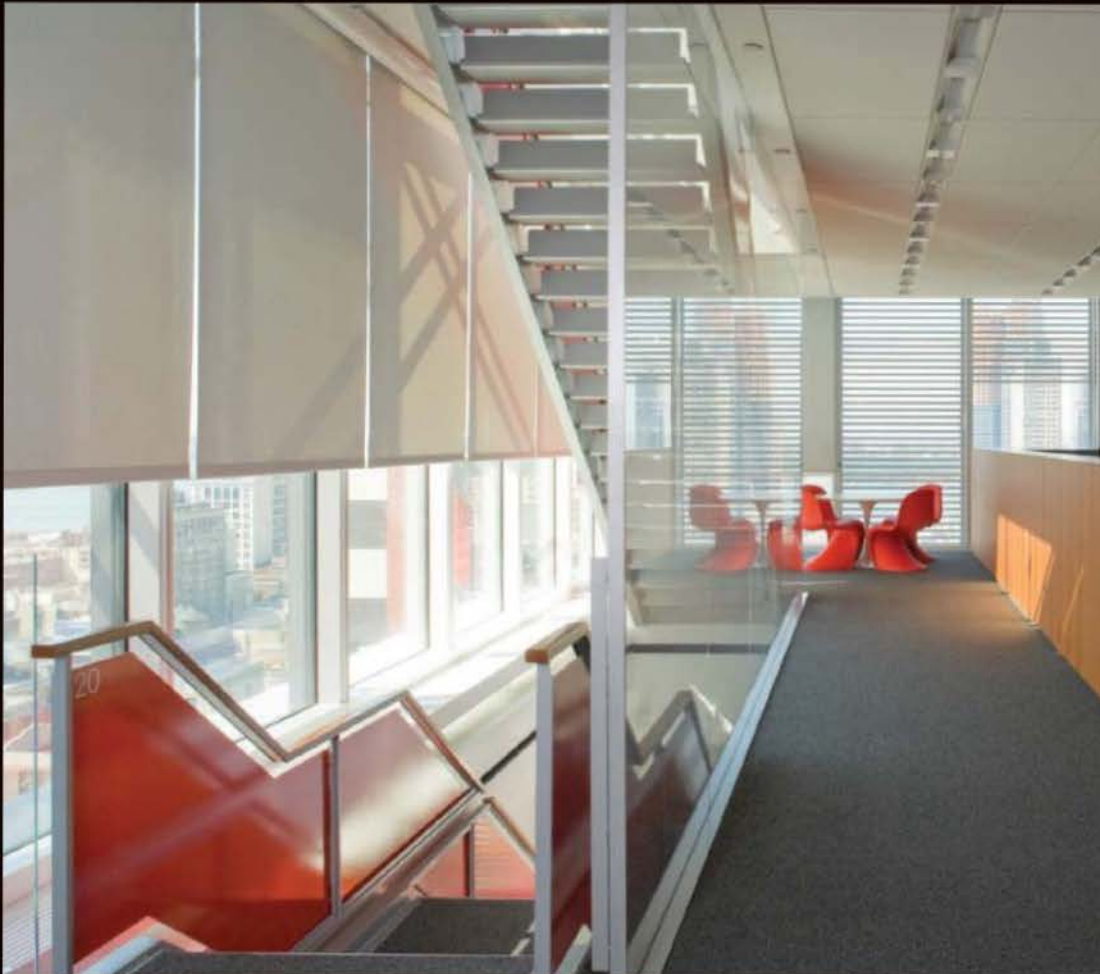
Fehn gained international attention for his design of the Norwegian Pavilion at the 1958 World's Fair in Brussels, and again four years later

for his Nordic Pavilion at the Venice Biennale. In an interview with RECORD in 1997, Fehn stated, "I was always called a Modernist. I tried to run away from it all my life, but didn't succeed." While he worked briefly for Jean Prouvé and was influenced by Le Corbusier, Fehn's use of earthy materials, particularly wood and rusticated stone, set his work apart from other Modern masters.

Despite acclaim, relatively few of Fehn's designs were actually built. Among his completed projects, Fjaerland's Glacier Museum (1991) – an angular composition in cement, glass, and timber that sits at the base of snow-capped mountains in Norway – is perhaps the best known. Bill Lacy, FAIA, former executive director of the Pritzker Prize, says Fehn didn't have a large office and was practically a "one-man show." "He was not prolific," Lacy adds, "but he put his heart and soul into each project."

Fehn is survived by his son and four grandchildren. His final project, the Norwegian Museum of Architecture in Oslo, opened in 2008. *Sebastian Howard*

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### Parsons students transform a rooftop in the Bronx

This spring, students from Parsons The New School for Design will put the finishing touches on bronXscape, a rooftop garden and kitchen in the Bronx for young adults transitioning out of foster care. Completed under The Design Workshop, the school's elective design-build studio course, the project tops a new building run by the Neighborhood Coalition for Shelter, a nonprofit organization that will provide low-income housing and education for 46 residents.

The project presented numerous challenges from the beginning: The roof wasn't designed to carry much weight, so structural elements could only touch load-bearing walls; materials would have to be hoisted directly to the roof from the street; students were

required to navigate New York City's sometimes bewildering permit process. "It was a classic New York project," says David Lewis, workshop director and principal at Lewis.Tsurumaki. Lewis. "It involved a tight schedule and basically pulling favors to do something that's relatively straightforward."

The challenges did little to deter the 15 graduate students. After developing individual proposals, participants combined their ideas into a single scheme through a series of meetings with the client and school critics. The 4,500-square-foot space includes a covered pavilion for food preparation and communal meals, a tool shed, a greenhouse, open-air planters, green walls, and benches. The pavilion's frame also supports a net-metered photovoltaic array that will produce more energy than residents can use as well as a rainwater collection system.

The students then worked



The project was designed for the Neighborhood Coalition for Shelter.

with steel, polycarbonate, and black locust wood to manufacture the vast majority of the structure in a Parsons studio. "We had time in the studio to figure out how things were going to be connected, so we could refine it as we went," says student Jon Schramm.

Prefabrication – and the on-the-fly ingenuity it allowed – ended up being vital to the project's success. After the students' initial application for a building permit was denied, they

received final approval less than three weeks before the end of the course.

The Design Workshop is now in the process of selecting its next project. However, even free design services can be a tough sell in the current economic climate. "Nonprofits are not immune from the economic challenges," notes Lewis, "and construction projects have been postponed for that sector as well." *Tim McKeough*

### SU names winners of "green home" competition

On January 22, the Syracuse University School of Architecture revealed the winners of its competition "From the Ground Up: Innovative Green Homes." The three winning teams, selected by an 11-person jury, are Architecture Research Office (ARO), with Della Valle Bernheimer,

both based in New York; Cook + Fox Architects, also of New York, with Terrapin Bright Green, a sustainability consultant; and the Philadelphia firm Onion Flats.

The competition invited designers to conceive a single-family home embodying progressive sustainability tactics that could be built for \$150,000. More than 50 designers responded to the open call for concepts. Each winning proposal will be constructed by the nonprofit group Home HeadQuarters, in the Near Westside, one of the poor-

est neighborhoods in Syracuse.

Mark Robbins, dean of the SU architecture school, says the competition extended from a university initiative to help improve the Near Westside. That commitment already spawned a local design-build workshop put on by the architecture school, as well as a Gluckman Mayner–designed renovation of an old warehouse that now contains classrooms, a cafe, and an art gallery.

The winning plans offer different approaches to affordable, sustainable housing. ARO and Della Valle Bernheimer claim that their R-House, for example, can be heated with the amount of energy used to run a hair dryer. The building's most salient green feature is its adherence to German Passivhaus criteria, which Jared Della Valle, AIA, says "utilizes a well-insulated envelope, airtight construction, an efficient small heating system, controlled ventilation, and windows that optimize solar gain."

Cook + Fox, in its Live Work Home proposal, envisions a flat-roofed, one-story structure that

contains a prefabricated furniture system that can be reconfigured for live and work formats. It employs passive heating, thanks to a tight building envelope achieved via structural insulated panels working in concert with a heat recovery ventilator.

The third winning entry, Ted by Onion Flats, devotes a portion of its budget to a Grade 1 insulation package and to a solar heating array mounted on the three-story house's roof. An interior atrium stacks heat and amplifies natural ventilation.

Although the "From the Ground Up" building sites are still being determined, the organizers certainly have wider deployment in mind. "It seems to me that Syracuse is a great example of a postindustrial city, and there are many cities both in the Rust Belt and across the country that have urban neighborhoods near downtown that have suffered the same disinvestment and shrinking population," Robbins says. "My sense is that what we learn from working in this community is generalizable to many places in the country." *David Sokol*



- (1) **Live Work Home, by Cook + Fox;**  
 (2) **Ted, by Onion Flats;** (3) **R-House, by ARO and Della Valle Bernheimer.**



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## Record News Online

Below is a roundup of stories recently posted to our online news section. Read the full stories, along with daily headlines and breaking news, at [architecturalrecord.com/news](http://architecturalrecord.com/news).



UNStudio, the Amsterdam-based architecture firm headed by Ben van Berkel, is embarking on its second project in New York City. In late January, the Battery Conservancy announced that the firm will design a new **public square and pavilion for Battery Park**, located in the southern tip of Manhattan. Named the New Amsterdam Plein & Pavilion (above), the project is scheduled to be completed this fall. *Tim McKeough*

Every year, Material Connexion adds 600 new materials to its library (below). In 2008, about 250 of those new materials had sustainable attributes – a 50 percent increase over 2007. This is but one



example of the outright **growth in the marketplace for sustainable materials**. While difficult to quantify, anecdotally it appears that the recession has not stopped professionals working in design and construction from specifying green materials, which as a group are still perceived to cost more than their conventional counterparts. *David Sokol*

Underwriters Laboratory, the 115-year-old product safety and certification organization, is joining a long list of industry players offering services for **verifying sustainable product claims** and certifying compliance with existing standards. Its new division, UL Environment, promises to help cut through the thicket of sustainability claims with an Environmental Claims Validation service. *Ted Bowen*

For design students in New York, Christmas comes in April. That's when SpecSimple.com, a New York-based company that operates an online direc-

tory of design products and services, distributes free swatches, material samples, brochures, finish cards, and other goodies to local schools. Now in its 10th year, the **Save a Sample! Box-A-Thon is gearing up** for what it hopes will be a record amount of donations and deliveries. *David Sokol*

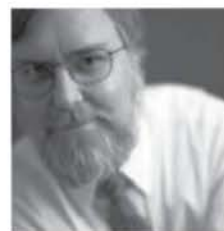
For the reopening of the BMW Museum in Munich last summer, the upscale auto manufacturer dusted off its **GINA Light Visionary Model**



(right), a concept it began toying with in 1999. The car's signature element is its namesake skin made of polyurethane-covered Lycra. In mid-December, 13 students at the Harvard Graduate School of Design concluded an upper-level studio in which they imagined deploying GINA at an architectural scale. The program was sponsored by the global architecture firm RMJM. *David Sokol*

Over the last decade, the green building industry has risen on the tide of a culturewide trend toward sustainability, and many believe it will **continue to prosper despite the recession**. "I think there's a very compelling argument that the economic environment we're going into right now will only enhance the value of doing green," says Guy Geier, FAIA, senior partner of FXFOWLE. Still, while it may not be slowed by the downturn, many say the green-building movement will need to adapt to the new economic reality. *Anya Kaplan-Seem*

Proponents of green buildings have a long list of persuasive arguments they use to convince clients and developers that green is the way to go: Your employees will be healthier, happier,



and more productive! You will use less water and energy, benefit your local environment, and promote global environmental responsibility! You will save money over the long term! But with the U.S. economy in shambles, the question looms: **How will the recession affect the green-building market?** In our Newsmaker section, RECORD puts the question to Peter Morris (above), principal of the international construction consultancy Davis Langdon. Morris heads up the firm's research initiatives. *Anya Kaplan-Seem*

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CIRCLE 21

## Record News Online

The National Council of Architectural Registration Boards will be under new executive leadership in 2011. Lenore Lucey, FAIA, has announced that she will **leave her post as executive vice president of NCARB** on July 1, 2011. NCARB represents the architectural registration boards of all 50 states, the District of Columbia, and three U.S. territories, and serves 105,000 registered architects. It oversees the Architect Registration Examination and Intern Development Program, and certifies credentials. Lucey (above) has most notably led the organization through a complex transformation from a paper-based system to a computer-based one. *Bruce Buckley*



On February 26, the AIA announced that it has elevated **112 association members to its College of Fellows**, an honor that recognizes architects who have made a significant contribution to the profession and to society. Architects who have been AIA members for at least 10 years are eligible; fewer than 2,800 of the association's 86,000 members are fellows. The AIA also announced the names of its nine 2009 Honorary Fellows, a distinction bestowed upon noted architects who are neither U.S. citizens nor U.S. residents. All of the new fellows will be honored at an investiture ceremony on May 1 at Grace Cathedral in San Francisco, during the AIA national convention. *Jenna M. McKnight*



The AIA's Architectural Billings Index (ABI) **rose slightly in February, to 35.3**, after dipping to 33.3 in January, an all-time low. The February inquiries score was 49.5. The index, one of the profession's leading economic indicators, reflects a nine- to 12-month lag time between architectural billings and construction spending. *Jenna M. McKnight*

In an effort to assist its members during these troubled times, the AIA has **added 15 "economic survival" sessions** to the program lineup for the

2009 national convention. The association also has invited representatives from federal agencies to advise members on the stimulus package and getting government work. The convention will be April 30 to May 2 in San Francisco. For more information, visit [www.aiaconvention.com/](http://www.aiaconvention.com/). *Jenna M. McKnight*

Weeks after the federal government enacted the \$787 billion economic stimulus bill, two students at the Columbia University Graduate School of Architecture, Planning, and Preservation, Wayne Congar and Troy Therrien, convened **an open ideas competition – dubbed "Imagining Recovery"** – devised to integrate design into the conversation of how and where stimulus dollars should be spent. The competition is open to everyone, regardless of age, nationality, or profession. Submissions are due on April 29 – the 100th day of the Obama Administration. For information, visit [www.imaginingrecovery.com](http://www.imaginingrecovery.com). *Aleksandr Bierig*

The MacArthur Foundation recently announced that it is injecting **\$32 million into the preservation and creation of affordable housing**. Citing a net loss of one million affordable homes in the past decade, the organization is giving \$1 million to \$5 million grants to programs in 12 different states. Many of these programs work hand-in-hand with the U.S. Department of Housing and Urban Development, which recently received an infusion of funds via the American Recovery and Reinvestment Act. *Cody Adams*

On March 5, the eight recipients of the **2009 AIA/ALA Library Building Awards** were announced. The biennial awards, presented by the American Institute of Architects and the American Library



Association, recognize exemplary library projects (Minneapolis Central Library, above) designed by architects licensed in the U.S. Recipients will be honored during the ALA annual conference in Chicago on July 13. *Jenna M. McKnight*

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# The emerging architect

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### design

#### Rodriguez Studio

Designing the lines, then coloring within them

Carlos Rodriguez's life promised to settle down when, after a peripatetic youth latched to his father's Air Force service, he entered Cornell's five-year undergraduate architecture program. But as it turned out, his first foray into architecture proved more confounding than a childhood spent skipping from Puerto Rico to Wichita to Madrid and back. "There were no right answers, and I felt frustrated," Rodriguez remembers, and in his fourth semester he switched to accounting.

Rodriguez later reentered architecture, graduating from Cornell with his B.Arch. in 1998. Since then, he has pursued a practice not as strictly regulated as ledgers and tax law, but one in which an array of design directions is held in check by series of parameters.

That would explain why Rodriguez mastered lobbies. Working at both the Washington, D.C., branch of Gensler as well as Kohn Pedersen Fox's New York office between 1999 and 2004, he was consistently tapped to design entryways from Beijing to the Big Apple. "It's a complex program in a small space," Rodriguez says. "There are numerous considerations that other spaces don't have to take into account, such as security checkpoints."

While working in New York, a classmate of Rodriguez's then-girlfriend (today the pair is married) hired the young architect to renovate a 3,200-square-foot loft in Manhattan's Tribeca neighborhood. What started as a fun sideline with a licensed-architect friend ultimately inspired Rodriguez to found his eponymous studio in 2004. "I really enjoyed being at KPF, but there's something about the gargantuan scale of the projects that wears you down."

In that project, called W/G Loft, Rodriguez highlighted the original features of the second-story apartment, leaving a brick wall and old ceiling timber exposed and inserting modest additions like a low dining-room storage partition, as well as transforming a roof setback into a terrace. For the

#### Reservoir Viewfinder House, Westchester County, New York, 2011

*Magnificent views and a wooded site guided the design of this remodel of a 4,400-square-foot residence on a hill facing the Croton Reservoir.*



#### Casa Dos Caras, Old San Juan, Puerto Rico, 2009

*An 18th-century building kept its historic face, but the interior was transformed into an open, Modern dwelling, complete with skylights to bring sunlight into the inner core of the space.*





**Cream, New York City, 2008**

*This flagship boutique for a women's luxury label stands in sharp contrast to its unremarkable neighbors. Inside, the space provides a taut, planar background to the flowing lines of clothing on display.*

1,100-square-foot Z Loft, a second home renovation not far from W/G, Rodriguez went further, taming a labyrinthine plan without covering original brick walls or removing pressed-tin ceilings.

These commissions also inaugurated what Rodriguez calls a "material-driven phase" in his studio's development. It is another take on parametric design. "Rather than introducing something new to make a space special," he says, "we strip things back. We see how that archaeology can play into a design, not hide it or impose something on it." Rodriguez has applied that perspective to Cream, an Upper East Side women's clothing boutique in which a faceted storefront window looks into more exposed brick and a row of rafters. And whereas historic preservation regulations require that Rodriguez's forthcoming expansion of his parents' home, Casa Dos Caras, in Old San Juan, Puerto Rico, retain all traces of the original building, a new skin and sectional incisions for a home in Croton, New York, will make it seem entirely transformed even though the plan remains largely unchanged. "There's always some sort of exuberance and subversion of the expected," he says of his approach, "but it's certainly not formal manipulation for formal manipulation's sake." *David Sokol*

[View additional images online.](#)

# work

**The University of Washington**

Landscape architecture design/build

The University of Washington's landscape architecture students are putting their studies into practice with a number of nonprofit projects as a part of its design-build program. The program, which was born as a summer class in 1995 by Professor Daniel Winterbottom, is now a requirement for third-year students. During the 10-week class, 12 to 14 landscape architecture students work together to design, plan, and construct a project within an underserved community. The idea of the program is to combine theory with practice.

"The intention was to bring together design and construction," says Winterbottom. "We are constantly evaluating design and how it comes to function in the built world."

One ongoing project the students are working on is a play garden with some built spaces in Guatemala City. The goal of this effort, a collaboration with social services nonprofit Safe Passage, is to transform part of a garbage dump into a garden and park for children in Zone 3 of the city – a neighborhood without access to public services. Many of the residents are displaced civil war refugees from other parts of the country, who now live on what they can scavenge and sell from the dump.

"These kids have almost no access to nature or education," said Winterbottom. "We want to create a safe environment where these kids can be kids and also learn. The goal was to turn garbage to garden."

The master plan for this effort has four phases that support two existing K-12 and administrative buildings by Safe Passage. Three of the phases have been completed. Phase one, which included an entry courtyard, won an ASLA Student Award in 2006. Since the garden was first planted, it has bloomed into a jungle, returning in some ways to its native state. Phase two, completed in December 2007, involves a play garden and structure, which students spent three weeks designing and six weeks building. The third phase, an outdoor classroom, was designed and built by students in the winter 2009 session. "The outdoor classroom at the main building will be a space used by three of Safe Passage's programs. It will also be a retreat and a place the children can socialize and study in a quiet green space," says Winterbottom. Finally, phase four will be a community garden with outdoor lockers.

Other design-build projects on the boards include work in Mexico, Bosnia, and Japan. But not all are so far from home. Many of the projects are right in the university's backyard. Students in the landscape-architecture program recently completed a garden at Fircrest School just north of Seattle, a school for developmentally disabled children. The program has also worked on various parks projects in Kings County in Seattle, in partnership with Starbucks.

"We partner with the community as we work on the design to create a therapeutic environment for the people that live there," says Winterbottom. *Dianna Dilworth*



*The students turned part of this Guatemala City dump into a play garden for children (above). The raised play structure weaves through a grove of eucalyptus trees, and includes slides and bridgeways that lead to a series of play spaces.*



*Over 20-weeks, University of Washington students created a therapeutic garden for the Fircrest School, a residential habilitation center north of Seattle. The garden includes activity zones with playgrounds, plantings, and shade, storage, and seating structures.*

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CIRCLE 25

# Making monuments right before an era comes to a close

## Critique

By Robert Campbell, FAIA

There are a number of Campbell's Laws of Architecture; they tend to take the form of paradoxes.

Campbell's First Law, for example, states: "The faster the means of transportation in any society, the larger will be the portion of the average citizen's life that is spent in getting from one place to another."

Peasant's walk to the fields? Twenty minutes. Commute from the suburbs? Fifty minutes. Plane to the coast? Six hours. Rocket to the moon? Four days. As the world becomes more accessible, we access it more, and we waste more time doing so.

Okay, here's Campbell's Second Law: "With every advance in technology, there is a corresponding loss of sensory experience."

Again, we can take transportation as an example, although just about anything will do. You're on a horse, your butt is sore, it's raining, you're sneezing from hay fever, a highwayman waits behind a tree – you're experiencing the world with all your senses. Then technology advances and creates the railroad, where the world resembles a visual film strip, unspooling itself past the frames of the windows. At least you can still sense the lurch and whistle of the train. But then in an airplane, you're confronted with an actual film, a further step removed from sensory experience. Finally, on the space ship, you don't even have gravity.

This law works with writing, too. As I type this, I'm reminded that I miss the sociable clatter of keys and bells

*Contributing editor Robert Campbell, FAIA, is the Pulitzer Prize-winning architecture critic of the Boston Globe.*



and the smell of the ribbon of my old typewriters. Would I go back? Of course not. But I've traded away experience in order to gain convenience. So often, that's what technology accomplishes.

The particular Campbell's Law I want to discuss today, though, is the Third. It runs as follows: "A society will create its most monumental buildings when the society and its culture are about to disappear. They will be the product of a last desperate effort to impede the forces of decay."

My favorite example of this law has always been the Alhambra Palace in Granada, Spain, which may be my all-time favorite building. It was erected by the Moors just in time for the Spaniards to drive them out of the country. Banister Fletcher calls it "the last purely Muslim building in Spain." I just looked it up and discovered that the Moors kept it longer than I thought, nearly 100 years. But

throughout that time, the borders of Moorish Spain were shrinking until Granada and its palace had become a Muslim island in a Christian sea.

I thought I'd invented the Third Law for myself, but I find in this week's *New York Review of Books* a quotation from the great American theologian Reinhold Niebuhr. It seems Niebuhr got there first. He wrote: "One of the most pathetic aspects of human history is that every civilization expresses itself most pretentiously, compounds its partial and universal values most convincingly, and claims immortality for its finite existence at the very moment when the decay that leads to death has already begun." Yikes!

Should we worry? Are any aspects of our own culture claiming immortality through the creation of pretentious architectural tombstones?

The Third Law isn't nearly as universal as the first two, but it does suggest some possibilities. One thinks,

**The Moors built the Alhambra in Granada as they were losing control of Spain to the Christians.**

for example, of the magnificent railroad stations that were built as late as the 1930s in far-flung American cities like Buffalo and Cincinnati, just as rail was, you'd think predictably, about to give way to the car and the plane. Or think of the imperial architecture of Britain, in London and New Delhi,

as the Empire began to weaken in the early years of the 20th century.

Or to come closer to the present, it's interesting to someone who, like me, dabbles in journalism to notice that at least three monuments to that profession have recently arisen in the U.S., at the very moment when we're all abuzz with predictions of the forthcoming demise of the newspaper and the radical reconstruction of other forms of journalism.

The three are the Newseum in Washington, right across the mall from the Capitol, by Polshek Partnership; the New York Times tower in Manhattan, by Renzo Piano; and the Hearst Tower a few blocks away, by Foster and Partners.

I like the Times building and dislike the Hearst, but they're both, certainly, signature works of architecture you could accuse of expressing our civilization "most pretentiously," especially given that both the *Times*



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## Critique

and Hearst's *San Francisco Chronicle* are deep in debt. As for the Newseum, I'm not sure it would have occurred to anyone to build a museum of journalism when newspapers were still hot stuff. When a culture is thriving, it's too busy to build monuments because it's having too much creative fun doing whatever made it a culture in the first place. It's when things start to slide that you get the backward look.

I don't want to press this point too hard, but I'll throw out one more suggestion. Much of the world has been building art museums in recent decades with a passion that rivals the cathedrals of the Middle Ages in Europe. Yet I think it's entirely fair to say that there has never been a time when people were less certain of what constitutes good art, or less sure whether any such thing is actually being produced today. Are we asking our museums to be themselves works of art because we lack confidence in the



Polshek's Newseum opened as newspapers face threats to their survival.

quality of the things inside?

Essayists are allowed to follow their thoughts wherever they lead, so let me change the subject. I mentioned the Alhambra as a favorite building. That raises a whole other question, probably unresolvable, which is how much of our appreciation of a work of architecture depends on the circumstance in which we first saw it.

It was February or early March when I first visited Granada, the air clear and bright. My then wife and I were traveling around Europe on a fel-

lowship from Harvard. We registered at a *parador*, a beautiful monastery converted into a hotel, on the hill a few steps from the Alhambra. It was late in the day and my wife said she wanted to rest, so I walked over to the Alhambra myself. If my memory isn't playing a trick, I was the only tourist in the building for the next 45 minutes. As I walked freely around, I was struck by an aspect of the Alhambra which now reminds me of the kind of place envisioned in the 1984 classic *Collage City*, by Colin Rowe and Fred Koetter.

Those authors propose a city in which formal, symmetrical public spaces are placed among what otherwise is an intricate, unpredictable world of narrow lanes and changing levels. The Alhambra is famous for its ornamental detail, but what electrified me was the experience of moving among its spaces, both indoor and out, as they opened out or tightened up. As I did so, the sun was slowly setting, deepening the ambers and pinks of the walls. A light rain, almost a mist, began to fall. Surfaces grew reflective and the water features seemed to connect with a larger life.

I never want to go back, because I know the Alhambra can't again be that same building. It wasn't, even, on the following morning. I remember, by way of warning, a disastrous attempt to revisit another loved locus, the Italian village of San Gimignano, some years after my first time there. It was so full of tourists – okay, people like me, I recognize – that it felt like crowding myself into a subway at rush hour. The experience of place was no longer attainable. ■

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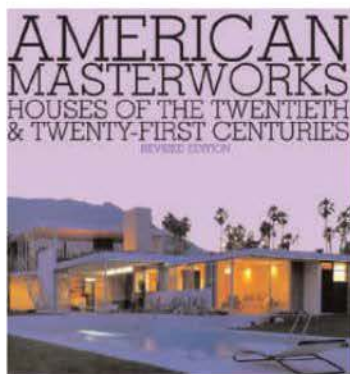
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CIRCLE 28

# Making waves with houses big and small

## Books

**American Masterworks: Houses of the 20th and 21st Centuries**, edited by Kenneth Frampton and David Larkin, text by Kenneth Frampton. New York: Rizzoli, 2008, 384 pages, \$85.



This volume revises and expands the comely *American Masterworks: The 20th-Century House*, first published in 1995, showcasing 34 residences regarded by the editors as high points of 20th-century Modernism. With the addition of 11 eye-catching houses, including Peter Bohlin's 1996 Ledge House in Maryland's Catoctin Mountains and Zoka Zola's 2002 Pfanner House in Chicago, architectural historian and educator Kenneth Frampton and designer and editor David Larkin bring the 21st century into view. An argument can be made that the stunning contributions from 26 photographers justify the hefty purchase price.

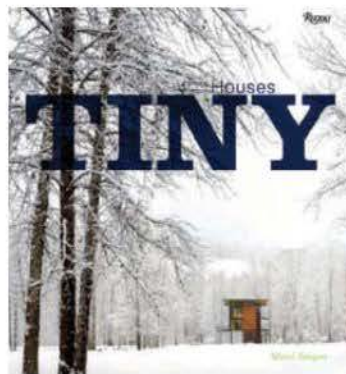
But *American Masterworks* is hardly a comprehensive survey. Frampton's taste strongly tilts toward California Modern – streamlined, austere, and angular. Paradoxically, his baroque descriptions, often tilting toward opaque academese, seem out of sync with

his spare architectural preferences.

Frampton reduces Modern residences to concrete actualizations of purely formal aesthetic principles. He describes Sea Ranch on the Northern California coast as "this Gaston Bachelard-like retreat." Does this make the architecture like a self-made French philosopher – or like a space for imaginative reverie? And unless you're familiar with German philosophy, you will probably be stymied by how a house designed by Michael Graves exemplifies "the cult of *Selbstbildung*." More troublesome are some important gaps in the text. For example, Frampton doesn't mention that Steven Holl's 1992 Stretto House in Dallas was designed with the musical program of a particular Bella Bartok composition in mind. Also omitted is the fact that Eisenman's House Number 6 of 1972 in Cornwall, Connecticut, originally called for a master bedroom to be split down the middle. And none of Wright's Prairie Style houses are included. If you share Frampton's view of 21st-century Modernism as variations on a theme by Richard Neutra, this book will be deeply satisfying. If not, buy the original U.K. paperback that features an apt abridgement of the original text. *Norman Weinstein*

**Tiny Houses**, by Mimi Zeiger. New York: Rizzoli, 2009, 240 pages, \$30.

*Tiny Houses* immediately calls to mind another work with the same title, a 1987 pattern book of 41 quirky spaces interlaced with author Lester Walker's personal observations. The project that



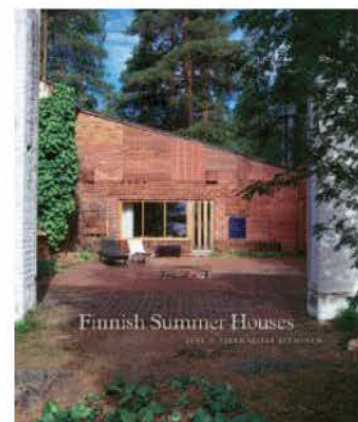
underpins both his and Zeiger's recent effort is Henry David Thoreau's cabin on Walden Pond, the self-constructed building whose relationship with nature – ensconced in windblown trees and invaded by small creatures, yet located on the edge of town – still captures a certain American ideal. Zeiger's *Tiny Houses* makes an obligatory reference to that 1845 touchstone in its description of German product designer Nils Holger Moormann's 2006 reinterpretation, a 74-square-foot freestanding tool shed that, except for a small ladder-accessible slot meant for sleeping, does not shelter humans.

Zeiger's 35 other selections are less outrageous proposals for small-scale living. They range from economical urban compositions – such as a lancet arch – shaped volume sporting attenuated, fun-house proportions and translucent plastic skin in Tokyo and Parasite Las Palmas, a chartreuse rooftop addition in Rotterdam – to essays in rural isolation, such as Delta Shelter, a well-known Tom Kundig house raised on stilts in Washington's Methow River valley, and prefabricated residences and concepts. (All are described in efficient summaries that

will appeal to daydreaming consumers but may disappoint fans of *loud paper*, the saucy, sharp-eyed blog that Zeiger founded as a zine in 1997.)

It would be wrong to infer too many similarities between *Tiny Houses* and the precedent set by Walker. The designs in Zeiger's volume encourage readers to reach for their wallets rather than tool belts. But Zeiger's survey updates Thoreau's legacy for a postindustrial present. To achieve a sense of expansiveness, her structures exploit sunlight, views, or outdoor space, and their very modesty represents a less wasteful, more respectful relationship with the planet. Homes that are both Lilliputian and earnestly sustainable, such as Steven Holl's photovoltaic-clad, rainwater-collecting Turbulence House in Abiquiu, New Mexico, transport Thoreau's ecological standard into the 21st century. *David Sokol*

**Finnish Summer Houses**, by Jari Jetsonen and Sirkkaliisa Jetsonen. New York: Princeton Architectural Press, 2008, 1992 pages, \$50.



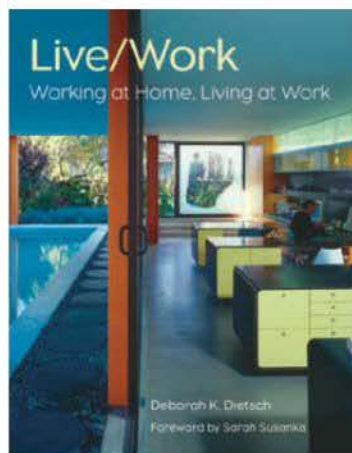
## Books

For nature worshipping Finns, a cottage by the lake or the sea is a necessity. The retreat in the woods or on an island achieves extra import when it is an architect's own place of refuge. The relaxed summer cabin is as personal and revealing as a poet's diaries or a painter's sketches.

Architect/photographers Jari and Sirkkaliisa Jetsonen – along with four classes of summer students from Tulane University – have documented and photographed a score of vacation houses by leading Finnish architects over the past century and a half. *Finnish Summer Houses* is a record of their work.

The book's chronological treatment and an introductory essay will help the reader unfamiliar with Finnish architecture, although most architects have a passing acquaintance with Alvar Aalto (whose experimental house at Muuratsalo graces the cover), Lars Sonck, Eliel Saarinen, and maybe Juhani Pallasmaa, Aarno Ruusuvuori, and Reima Pietilä. Kaija and Heikki Siren's late 1960s meditative chapel by the sea at their summer place is one of the classic images of Modern design in Scandinavia.

The summer homes range from traditional log houses and English Arts and Crafts-inspired cottages to the barest of functionalist boxes made of steel and plastic sheeting. The clarity of northern light reveals some hitherto unknown treasures, such as Aino Aalto's 1926 Villa Flora in Alajarvi, with its turf roof and Classical columns, and Railii Pietilä's 1985 smoke sauna in Tenhola, with its badger-paw hinges. Most of all, this remarkably varied yet consistently strong architectural collection speaks of modesty and a sacred respect for the land. Erkki Kairamo's 160-square-foot cottage, for example, is on a treeless island, at the mercy of nature. Thus, its design is reduced to bare essentials – with all the purposefulness and beauty of a fisherman's dory. *William Morgan*



### **Live/Work: Working at Home, Living at Work,**

by Deborah K. Dietsch, Abrams: 2008, 320 pages, \$35.

The economic crisis has only hastened the trend toward working at home, which began with the computer revolution of the 1990s and by 2005 had enabled 5.75 million people to work at home full time, according to the federal government's American Housing Survey.

This attractive and handy little book shows how to do so effectively and in style. "Successfully working at home," the author argues, "requires more than a desk shoved into an extra bedroom, a laptop opened on the dining table ... It demands the same attention to design as is paid to 'real' offices and work spaces in commercial buildings."

Former *Architecture* magazine editor Deborah Dietsch describes 30 attractive and original home-and-office arrangements, mostly designed by architects or artists of various kinds. She shows how a variety of different families and individuals have created places to work within or adjacent to their homes – either under one roof or in nearby buildings.

Although the book is short and stocky (8 by 6 inches and 1 inch thick), the format resembles a magazine. Numerous photographs, long captions, and floor plans describe each project, accompanied by "Lessons Learned." Dietsch promotes the idea

of flexibility – spaces that can serve more than one purpose or change over time – but emphasizes the importance of creating places specifically designed for the occupant's work life and personal style.

Because each space is tailor-made, few can be easily copied. And the projects are more high-styled and Modern than the average telecommuter is likely to want, so this is really not a "how-to" book. But architects will revel in MIT architecture dean Adele Naude Santos's conversion of a historic bronze foundry in Somerville, Massachusetts, into a colorful home and sensuous office space. They will envy the lap pool next to Clen Irani's home-based architecture studios on a canal in Venice, California. And they may find inspiration in Mark McInturf's cluster of shingle-clad buildings beside the Potomac River and C&O Canal in Bethesda, Maryland. *Jayne Merkel*

### **Ghost: Building an Architectural Vision,**

by Brian MacKay-Lyons. New York: Princeton Architectural Press, 2008, 224 pages, \$35.

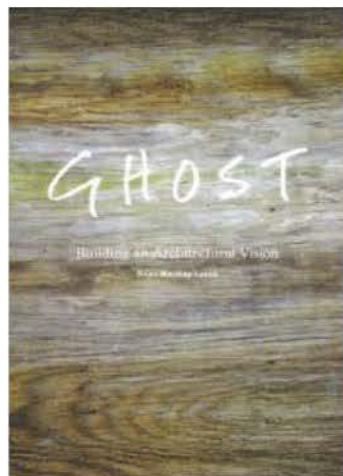
Since 1994, Brian MacKay-Lyons has been organizing a two-week design-build workshop primarily for architecture students on the craggy coastline of southwestern Nova Scotia. After nine design labs, ending in 2007, he has produced an unusual and rich documentation of the sessions where essays by visiting critics alternate with MacKay-Lyons's own "back stories" on the social and cultural history of the area. Settled by the French

after Samuel de Champlain sailed into its waterways in 1604, the hilly coastal land was taken over in the 18th century by the British, who chased the French out, and gave land grants to the Germans, Dutch, and Swiss. MacKay-Lyons, whose family had once lived in the area, bought a 1750s farmstead more than 25 years ago, and started accumulating land for the workshop, which attracts students mainly from the U.S. and Canada.

The design lab was dubbed "ghost" for at least two reasons. First, the structures erected during the two-week sessions are celebrated at an evening event where they are lighted from within so they glow like apparitions on the land. Second, since the architecture intentionally makes use of materials and construction akin to the farm houses and fishing structures in the Upper Kingsburg area, it functions as a ghostly reminder of this legacy. In the first five Ghost labs, the structures were temporary (becoming ghosts themselves), but the last four resulted in permanent buildings, including the Shobac Cabins/Cottages and Studio [RECORD, January 2009, page 124].

As the book explains, the critics, academics, and magazine editors, such as Kenneth Frampton, Peter Buchanan, Juhani Pallasmaa, Thomas Fisher, and Robert Ivy (editor of RECORD), are paired each year with visiting practitioners, such as Rick Joy, David Miller of Miller/Hull Partnership, Ted Flato of Lake/Flato Architects, Wendell Burnett, and Marlon Blackwell. They, along with MacKay-Lyons and members of his Halifax firm, MacKay-Lyons Sweetapple Architects, tap the expertise of builder Gordon MacLean and structural engineer Michel Comeau in guiding the students through the short, intense process.

The book – with its photographs and drawings as well as aperçus and information – brings into sharp relief, in Pallasmaa's words, this "primordial encounter of land, water, air, and fire at the Ghost site ... combined with its thick sense of local history and the feeling of shared purpose brought about by collective work." *Suzanne Stephens*



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# It's a very good time to develop your firm's collaboration skills

## Practice Matters

By Andrew Pressman, FAIA

Intensification of collaborative practices within the office may result in novel outcomes that can significantly enhance cost-effectiveness as well as project quality. During a challenging period in which a paucity of work may leave key employees with increased amounts of downtime, there is an opportunity to examine, hone, and reflect on the art of multidisciplinary collaboration and teamwork. The acquired and polished skill sets will update the firm's process patterns and ultimately confer an advantage in the marketplace in terms of appealing to prospective clients who are increasingly sophisticated because of the budgetary accountability they face.

Describing the process Monty Python used to develop comedy sketches, John Cleese said, "The really good idea is always traceable back quite a long way, often to a not very good idea which sparked off another idea that was only slightly better, which somebody else misunderstood in such a way that they then said something which was really rather interesting." Implicit in this funny account is that knowledge is freely exchanged, misinterpreted, and somehow becomes synergistic. Constructive and inspiring conversations are occurring, and a self-reinforcing mutual respect, trust, and appreciation are arising from the associated creativity. The serious and sometimes accidental business of generating a good idea is enjoyable

*Contributing editor Andrew Pressman, FAIA, is an architect and the author of numerous books on practice. He resides in Washington, D.C.*

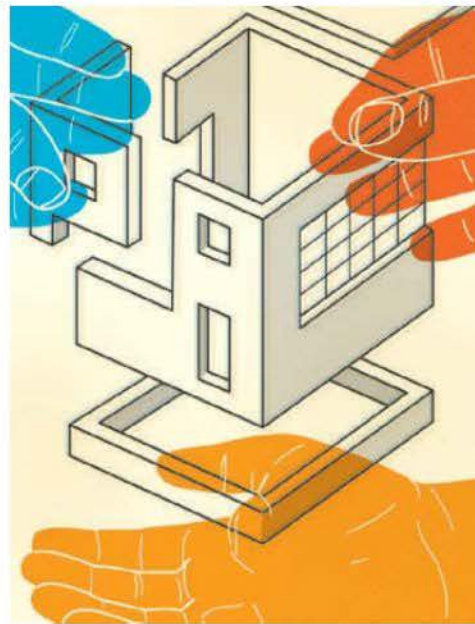
for a skilled yet diverse team.

The ability to work effectively in teams has become increasingly important because of the complexity of projects requiring expertise from a variety of specialties, the speed with which they must be completed, and demands for better building performance. With the recent release of new documents related to integrated project delivery and building information modeling, the AIA has begun to address contractual and process issues that have heretofore impeded the best possible collaborative environment for multidisciplinary participants. There could be no better time for seizing the opportunity to establish and fine-tune the notion of team practice and collaboration.

Len Charney, head of practice at the Boston Architectural College, considers teaching collaborative behavior essential to advanced design studios as well as in practice. He is leading a number of Boston architectural firms in a collaborative inquiry initiative to learn more about project-delivery processes. With the promulgation of powerful new software tools, according to Charney, architecture firms acknowledge that they need to become more team-oriented, but they often don't know how. He aptly summarizes the emerging issue: "It's not technology, it's psychology."

### Fostering collaboration

Collaboration can range from a casual comment over the phone or a napkin sketch that triggers new ideas to a formal work session that includes well-choreographed brainstorming toward creation of various alternative



**As projects become more complex, good teamwork takes on greater importance.**

work session requires talented people who are empowered to make decisions on behalf of their firms and who are unafraid to push disciplinary boundaries. Recounting one such session, David Altenhofen, AIA, technical design principal at RMJM Hillier, comments that each member must feel free to present ideas even if they are out of

solutions to vexing problems. Scott Simpson, principal and senior director at the Cambridge, Massachusetts, office of KlingStubbins, elaborates: "Collaboration is an attitude more than a process. Participants assume that each member of the team has something valuable to offer, and that by using many brains synergistically rather than working in 'silos,' overall outcomes will be dramatically improved. In a collaborative effort, it is understood that different points of view add richness and depth to the project, but this means that ego must take a back seat." The great caveat, of course, is that the work is indeed amenable to a team approach and that an individual could not better or more efficiently execute it. It must be recognized that some challenges are best met by one good performer.

A productive, collaborative

the participant's area of expertise; for example, when a structural engineer makes aesthetic suggestions, or when the builder makes suggestions regarding plumbing. Integrated designs cannot evolve successfully without the participation of all relevant disciplines.

Attitude is critically important. Everyone on a team has an obligation to strive for the group's success. Roger Goldstein, FAIA, principal at Goody Clancy, believes that attitude has more to do with building trust than anything else. He says, "Being respectful of peoples' contributions, even if you disagree or think some ideas are not worthwhile, helps on the trust dimension," and inevitably will reinforce the habit of vocal contribution.

Although there are no formulae for working well together, collaborative performance can be cultivated in a number of ways. Richard Hackman,

## Practice Matters

a Harvard professor and guru of successful group process, suggests that having an ennobling theme for the work will increase the likelihood of the group's effectiveness. A lofty, overarching objective "energizes team members, orients their attention and action, and engages their talents." In architecture, this translates generally to understanding that architecture is a profession and as such, no matter how mundane a project may seem, the work is transcendent because it provides a professional service, which is truly distinctive in society. It translates specifically to doing excellent design work as defined by a firm's mission and project-specific circumstances. Creatively and cleverly framed design challenges, proffered at every phase of a project, are intrinsically motivating and lead to higher productivity and quality.

Building trust, goodwill, and respect among all the multidisciplinary players is also essential to integrated project delivery. How do you do that? "Transparency, openness, and a willingness to share information," states Jim Summers, an associate in the Boston office of Burt Hill, "will enable the change of focus from individual to project." Their team members will spend a significant amount of time together to understand a clear scope of responsibilities, design objectives, degree of risk, and bottom line; this "fleshing out" is part of the discovery process resulting in a contract that supports a unique work flow. Summers is amazed at "the soft skills you need to work through that process and come to an agreement," and this is even before the project itself starts.

There is consensus that there is nothing better than face-to-face sessions to foster collaboration and meaningful relationships. Socializing can also help a group to coalesce into a team. Other mechanisms to facilitate the work range from sophisticated software for BIM and video- or teleconferencing to simple donuts and coffee. Thick markers and large sheets of newsprint or a whiteboard are stan-

dard. Architects have a huge advantage in working collaboratively because they can use the language of drawing as a means to create with others – and let's not forget, architects like to play.

### Leadership and ego management

Orchestration of a collaborative work session usually involves a complex and subtle manipulation on the part of leadership so that the inevitably talented and distinctive personalities that make up a team may interact positively and productively. Management of healthy egos is a priority because it is not always realistic, possible, or even desirable to follow the conventional wisdom that egos must be checked at the door. Participants must believe they can do the impossible.

Trust and goodwill are, in practice, subservient to and a product of protection by the team leader of the self-esteem and respect of the individuals on the team. A great leader should be able to reference one individual's excellent comments and how they may complement another's, and in this way, promote, even coerce, collaboration. Self-conscious but genuine appreciation of the contributions of each team member bolsters confidence and is crucial to sustaining effective and efficient process and outcome. A specific invitation to each team member to modify, challenge, even offer starkly contrasting alternatives to the consensus goes a long way in supporting a team's capacity to drive an evolving synthesis of ideas.

It behooves the leader to simultaneously encourage individual participation and "foster an environment where the team owns ideas, rather than each member owning his or her own," says Morris A. Nunes, a Fairfax, Virginia, attorney who represents practices and privately held businesses. He underscores that the team should be coached, nurtured, and incentivized as a team. Nunes claims that Ben Franklin's famous quote, "We must all hang together or we shall surely hang separately," should be a constant refrain.

A team leader or champion must be identified early on, and it must be agreed that final authority rests with that individual. Sarah Harkness, one of the original partners of The Architects Collaborative with Walter Gropius, has quoted Gropius's proclamation that to "safeguard design coherence and impact, the right of making final decisions must be left exclusively to the one member who happens to be responsible for a specific job, even though his decision should run counter to the opinion of other members." The point is that one way to avoid the cliché "a camel is a horse designed by committee," is to have a leader who makes informed decisions after listening to, understanding, and appreciating the perspectives of all team members. This is consistent with the notion articulated in *No More Teams!* by Michael Schrage: "Collaboration does not curtail the architect's overarching vision. Collaboration becomes a medium that makes the vision possible."

Some degree of hierarchy and authority is necessary even in the most democratic collaborative groups. There must be a distinct leader who keeps the team focused and directs decision-making. Free-form approaches may waste precious energy, time, and money, and in the long run, may sow the seeds for further anarchistic impediments. However, there is certainly a light touch to leading teams at Gensler. Jordan Goldstein, AIA, managing director of the Washington, D.C. office, describes its team leaders as "facilitators and conductors of the larger symphony, which includes the design team, client, contractor, consultants, and vendors." The leader is frequently the one who initiated the client relationship. He says that Gensler aims to have horizontal team structures in which every team member is contributing to decision-making so that it is not being delayed by levels of internal bureaucracy.

Leading by example – demonstrating how to be a good team member and team leader – is an important ingredient for success. Nunes succinctly underscores the message: "The overall tone must be set from the top and must be lived and embraced

day-to-day as part of an organization's culture. When an organization's leaders are successful in inculcating that spirit, teamwork becomes second nature."

### Team composition and size

Team-size matters – and typically varies as a function of project scale, complexity, and phase, ramping up from preliminary design to construction documents, becoming smaller during construction. In general, the larger the team, the more time-intensive and difficult it is to manage relationships, performance, and the quality and coordination of the collective work product. Mentoring is certainly more challenging with large teams, claims Roger Goldstein, as "younger staff feel like small cogs in a big machine, dissociated from the essence of the project." His firm mitigates the fragmentary nature of this situation by having each person take responsibility for all consultant coordination related to their domain, with oversight by the project manager.

The most effective teams are composed of highly competent individuals with at least a modicum of interpersonal skills and a balanced mix of personalities and passions. At Gensler, team leaders staff their projects with a combination of junior and senior people from multiple disciplines so there is a range of voices around the table. That, together with launching projects in a charrette fashion, amounts to a bit of "design combustion that focuses the team around a shared vision for success and innovation," asserts Jordan Goldstein. After design direction is addressed, frequently there are "breakout sessions by trade to do deep dives into more intricate design issues." Moreover, participation by everyone in the charrette activity itself contributes to motivating the team.

Charles Darwin was wise when he said, "In the long history of humankind, those who learned to collaborate and improvise most effectively have prevailed." Learning to collaborate effectively under the spiritual and substantive guidance of a real leader – with the right attitude, compelling goals, talent, and commitment – will ensure that a firm evolves to provide great service, innovation, and design. ■



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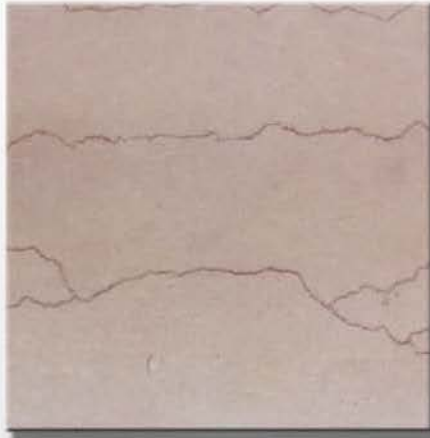
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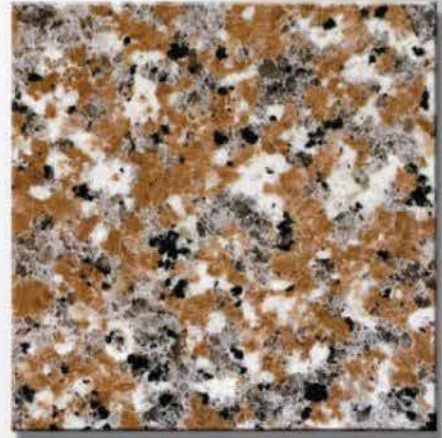
## Six Regions to Admire



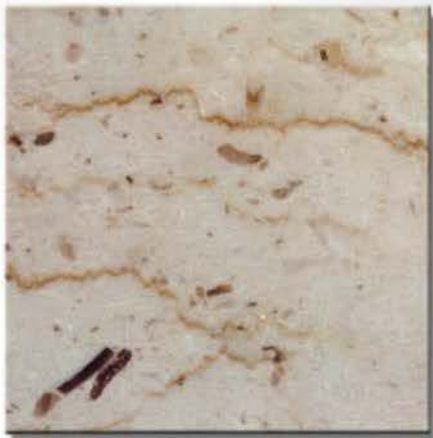
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# Trade Show Review Stockholm • Stockholm Furniture Fair

Scandinavian design, known for its clean lines and economic use of materials, also draws heavily upon **craft techniques and a sense of individuality**. All these strands were on show at the Stockholm Furniture Fair, where colorful, multifunctional products had their day in the wintertime sun. *Julie Taraska*

**1 Work it out** The Playns system of adjustable-height work tops and privacy screens permits individual or collaborative work at the same station. The units can stand alone or be combined, with a pair requiring four legs rather than eight. Vitra, New York City. [www.vitra.com](http://www.vitra.com) **CIRCLE 200**

**2 Panoramic panels** The Soundwave Village acoustic panels, designed by Mårten Claesson, Eero Koivisto, and Ola Rune for Offecct, feature peaks and valleys inspired by aerial photographs of Beijing's Forbidden City. The panels muffle noises over 500Hz. Apartment Zero, Washington D.C. [www.apartmentzero.com](http://www.apartmentzero.com) **CIRCLE 201**

**3 Glimmer and shine** With its shimmering strands of woven vinyl, the Twilight floor covering from Bolon is sophisticated enough for residential use, but durable enough for hospitality. Bolon's U.S. distributor, Mats Inc., will coordinate the end user with a facility that can fully recycle the product. Mats Inc., Stoughton, Mass. [www.matsinc.com](http://www.matsinc.com) **CIRCLE 202**

**4 Perfectly unpolished** The Raw chair's rough-hewn look is no affectation: Each piece is carved freehand with a band saw. Available in two versions for residential and commercial applications, and in four colors. Muuto, Copenhagen, Denmark. [www.muuto.com](http://www.muuto.com) **CIRCLE 203**

**5 Booked up** Designed by Ole Jensen, the spring-green pine Collect bookcase, measuring 55" high x 55" wide x 15" deep, is part of Normann Copenhagen's first-ever furniture collection. Normann Copenhagen, Copenhagen, Denmark. [www.normann-copenhagen.com](http://www.normann-copenhagen.com) **CIRCLE 204**

**6 Lighting the way** For Wastberg's w084t halogen task lamp, designer Ilse Crawford chose birch arms, iron wing nuts and hardware, and an innovative blend of glass, chalk, and plastic for the shade. Design Within Reach, San Francisco. [www.dwr.com](http://www.dwr.com) **CIRCLE 205**



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# ENVIRONMENTAL SPECIES of NORTH AMERICA



fig. I.  
AQUA-ROC  
[running bond pattern]



fig. II.  
DRAINSTONE  
[herringbone pattern]



fig. III.  
TURFSTONE  
[stack bond pattern]



fig. IV.  
ECO-DUBLIN  
[herringbone pattern]



fig. V.  
SUBTERRA  
[stack bond pattern]

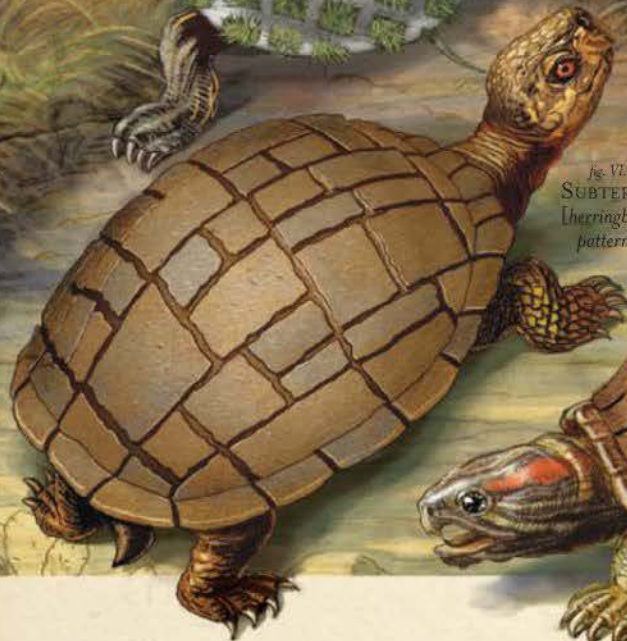


fig. VI.  
SUBTERRA  
[herringbone pattern]



fig. VII.  
AQUA-ROC  
[herringbone pattern]



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# Snapshot



The copper-clad weekend house awaits its owner. When occupied, it opens onto the landscape (below).

## A step up from camping

By Aleksandr Bierig

A young graphic designer working at the Sydney-based architecture firm Casey Brown came to his boss Rob Brown around 2002 with the dream of building “a little bit of architecture.” “He didn’t have any money or land,” Brown recalls. “I said, ‘Go away, and when you get either of those, come back to us.’” By 2007, the would-be client had secured 2,000 acres of land 300 miles west of Sydney, next to his parents’ farm, where he grew up. Memories of his childhood, when he would steal away to the countryside to camp out for the night, inspired his vision for a dwelling just one step up from a tent. Completed in 2008 for about \$165,000, the result is a timber-framed, copper-clad box with a loft for sleeping. Just 10 by 10 feet in plan, it stands 20 feet tall, surveying the empty, endless landscape like a watchful sentry.

When the owner arrives from his parents’ farm, usually on horseback and carrying enough food for the weekend, the hut is awakened with a hand-crank connected to cables that open three of the four exterior walls, revealing glass louvers and a recycled ironwood interior. This transformation draws in the surroundings: lichen-covered granite and petrified tree trunks that extend to the distant hills. If it sounds impossibly romantic, that’s because it is. Designed and prefabricated in Sydney before being transported to the site and assembled by members of the Casey Brown firm, it’s an unabashedly stylish update of Thoreau’s cabin at Walden Pond: The house has no electricity (though it could easily be outfitted with a rooftop solar panel), uses a small wood furnace and gas stove, and collects rainwater in a large metal cistern. The idea of “a return to nature” is all but driven into the ground these days, but here is a small attempt to do so, at least for a couple days each week. ■



PHOTOGRAPHY: © PENELOPE CLAY





# RETREATS IN **THE LANDSCAPE**

Three small-scale structures offer places to get away from daily distractions



At the back of the 2.2-acre property (opposite) is nestled a copper-clad studio with a writing desk in a cantilevered alcove at the rear (this page).

## PRIVATE LIBRARY AND WRITING STUDIO

Long Island, New York  
Andrew Berman Architect

By Suzanne Stephens

From the tree-lined road shading houses of different historic styles in a picturesque village on Long Island's South Shore, a freestanding study for an art historian looks quite unprepossessing. The cottage, which also includes a film-screening area for her husband, a businessman, is nestled at the rear of a grassy 2.2-acre property. Although it is difficult to see the studio from the street

past the trees and the vegetable garden, the studio's prowlike front hardly resembles the American residential architecture surrounding it. A discreet but unfamiliar-looking object, the studio's angular walls and sloped roof, both clad in copper, converge on a tall, narrow door some 12 feet in height.

As it turns out, however, this retreat is actually more like a tree house than a cottage: Entering the small, high vestibule, one immediately confronts a narrow wood stair leading up to the second-level work space. At the rear of this loftlike expanse, the historian's desk looks out through a 16-by-7-foot window directly onto a grove of trees with a stream in the near distance.

Andrew Berman, AIA, the New York architect who designed the cottage, saw the

door as a threshold, while the window in the study signified one's arrival. "As you go from the vertical entry to a horizontal aperture," Berman says, "the building becomes a volume describing the transition."

Berman, who in 2003 designed the Center for Architecture for the New York Chapter of the American Institute of Architects, demonstrated in that project his feeling for the interpenetration of space and light and the way its occupants would move through the building. The clients for the Long Island retreat were impressed by the center, and continued to follow the young, Yale-trained architect's career. (They aren't the only ones interested: The Architectural League of New York chose Berman's firm as one of its "Emerging Voices" for its 2009



From the vestibule, a stair of Douglas fir (left) angles up to the sitting room and study. There, a skylight slices through the roof at a height 17 feet from the floor (above right).



FLOOR PLAN

1. Library
2. Kitchen
3. Dumbwaiter
4. Bath

Spring lecture series.)

In filling out the three-dimensional space between the tall, narrow entry and the elevated, expansive window, Berman designed a V-shaped wedge and appended it to a more or less trapezoidal form. Where the sloping roofs of the two meet, he placed a transverse skylight to act as a hinge element. "The amount of daylight entering the second level is such a welcome surprise," says the client, who uses the work space only during the day. At night, the sitting area at the opposite end of the room functions as a screening room for films.

In order to create the structure for the geometrically eccentric house, Berman had a series of five steel portal frames shop-built, and then erected on the site in a day. "I

thought we were building an airport," quips the husband. At the rear of the cottage, where the study juts into the trees, Berman cantilevered the space 14 feet at a height of 9 feet above the ground. Then he filled in the spans between the frames with wood studs, insulated the house, and sheathed the interior generously in Douglas fir. The exteriors are clad in flat-seam copper, which is patinating naturally. "I wanted copper after having visited Herzog & de Meuron's de Young Museum in San Francisco," says the art historian. For his part, Berman desired all the surfaces of the building to be clad in the same material to erase the distinction between the roof, walls, and soffits. Copper fit the bill, according to Berman, because it patinates gradually over time and seems to change color and reflectiv-

ity depending on the light.

Although the house is small (850 square feet for the library and associated spaces; 300 square feet for the mechanical room and potting shed at grade), zoning required that any cottage on a discrete piece of property in the village be treated as a full house with a kitchen and two bathrooms. On top of that, the house had to pass close inspection by a very protective architectural review board for the town, even though it wasn't in the historic district. "It was a struggle that went on for months," says the art historian. "They thought it looked too Modern." After the too-Modern house was finished, and landscaped by Eleanor McPeck with John Beitel, however, she felt vindicated. "The neighbors have been congratulating us," she says. "They find it beautiful." ■



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CIRCLE 34



## SWAMP HUT

Newton, Massachusetts  
Moskow Linn Architects

By Jane Kolleeny

The simplicity of the “swamp hut” belies its multifaceted origins. Conceived in 1990 by Keith Moskow, AIA, of Moskow Linn Architects, the initial version consisted of a prefabricated prairie cottage planned to be built in a wheat field in Kansas for his in-laws. Inspired by the natural surroundings as well as a boat trip taken with the same in-laws, the house, Moskow says, was “designed to

float lightly upon the land, the structure – elevated on 4-by-4 inch posts – would be moored in the stubble of an empty wheat field.” But the project was never built.

In 1997, Robert Linn joined Moskow’s Boston firm as a business partner, and together the young designers reimagined the house. “Because it was conceived as a kit of parts, it could be assembled in a number of configurations to fit differing sites and programs,” says Linn. They developed a prototype for an Architecture for Humanity competition for transitional housing in Kosovo made of Red Cross supply crates; then they created a concept for ecoresort housing to be built on the coast of Peru. The architects, anxious after years

to finally make the house a reality, put an ad in the local paper on Martha’s Vineyard to attract a buyer for a “think house.” Alas, with no identifiable client, Moskow and Linn decided to build the project for themselves and their families and friends on a tiny piece of land, the only legally buildable portion of a 10-acre parcel of wetlands in Newton, Massachusetts. It had been handed down to Moskow’s siblings by his grandparents, who had farmed the land in the 1940s.

Completed in the summer of 2008 for \$22,500, the hut consists of four A-frame, 8-by-12-foot structures. The complex took three months to build and is fully off the grid, used mostly as a warm-weather hide-away for the architects’ families and friends.

Sleeping huts covered with translucent fiberglass are positioned so that one can look from the hut on the east side (far right) through to the hut on the west (near right).



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## SWAMP HUT

The four buildings are clustered around a central outdoor deck with a fireplace. The dining hut occupies the south side of the deck to take advantage of views of the woods and the pathway of the sun, since its plywood A-frame roof has no walls and is open to the sky. The so-called “cleansing” hut contains a pantry, storage, and composting toilet. It is situated on the north side of the deck, and is covered with an aluminum roof. The two sleeping huts on the east and west sides of the deck are sheathed in translucent fiberglass.

Though conceived to be flat-packed and loaded onto a truck for delivery, Swamp Hut’s remote location didn’t allow vehicular access, so the architects used off-the-shelf

plywood for construction. With some help from a carpenter friend, they built most of the project, carrying all the materials by hand from the street onto the site. They used the scrap wood from construction for the dining table, benches, and shelves, with the leftover wood used for the fire. Additional rudimentary furnishings consist of four cots in the sleeping huts and four chairs placed around the campfire. The architects, who also cleared the tangled site themselves and dug the foundations with shovels, considered the adventure similar to Thoreau’s on Walden Pond. That said, “Walden Pond is considerably nicer than our swamp,” kidded Moskow.

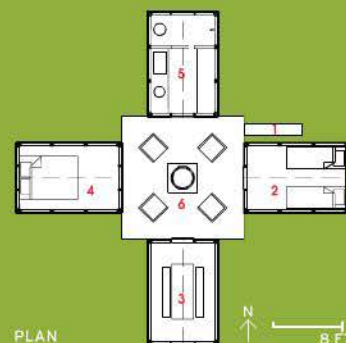
While the rooftops of nearby houses

can be viewed in winter through the dense brush at the urban retreat, the site remains ostensibly private, framed in hemlock, beech, and cedar trees with tangled wisteria vines shrouding the assemblage in the summer. Abundant wildlife takes refuge in the woods here, including deer, woodchuck, and numerous species of birds.

Since the parcel is surrounded by development – Newton South High School borders it on two sides, with suburban houses on the other two – the privacy and charm of the project is unexpected. Every time the architects go to the camplike setting, they are able to summon up their childhood memories in this enclave while roasting marshmallows around the open fire. ■

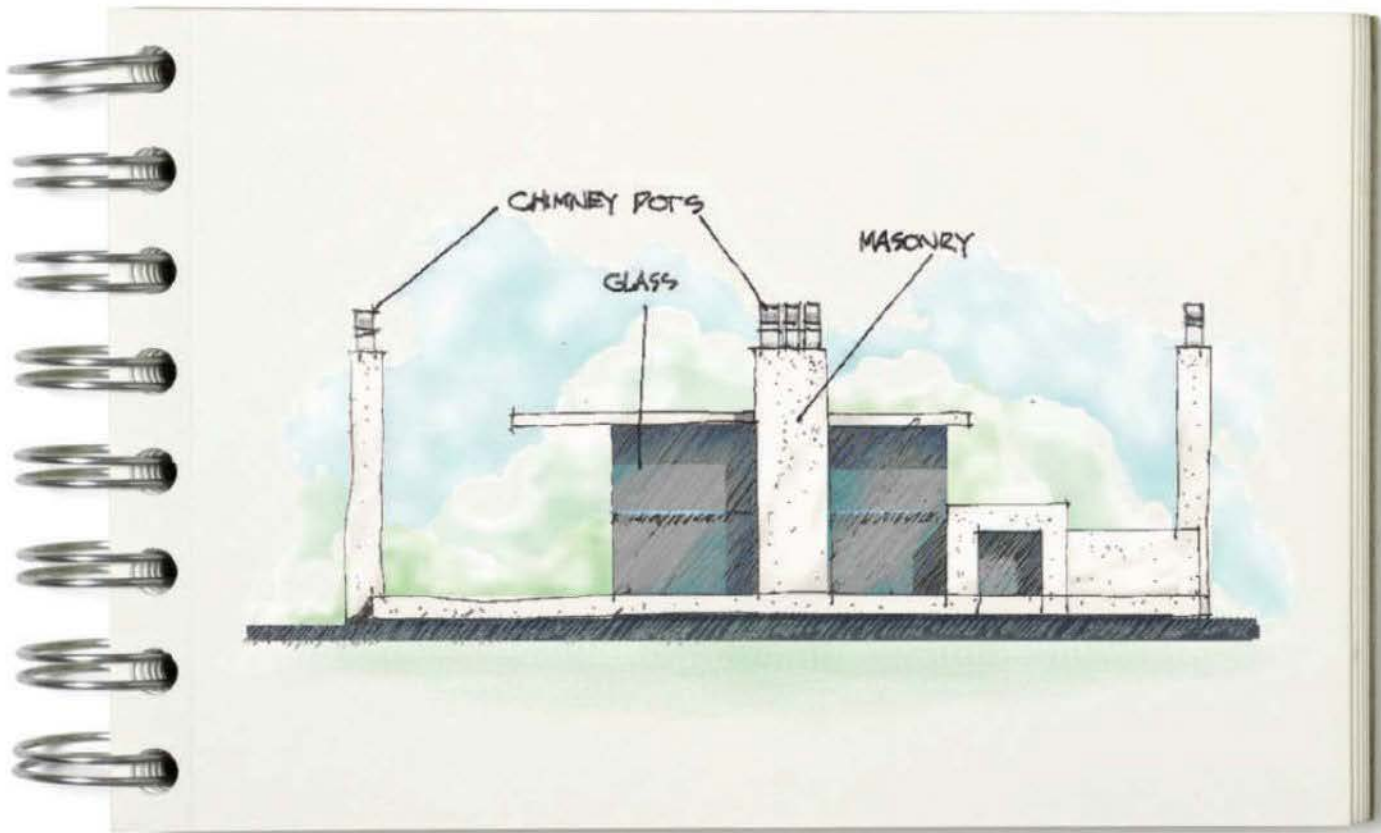


1. Bridge to hut
2. Sleeping hut east
3. Table hut
4. Sleeping hut west
5. Cleansing hut
6. Central deck



The dining hut (above) is on the south side of the complex, where all four structures surround a fireplace on the central deck (left). The hand-excavated site is surrounded by 10 acres of wetlands (right).





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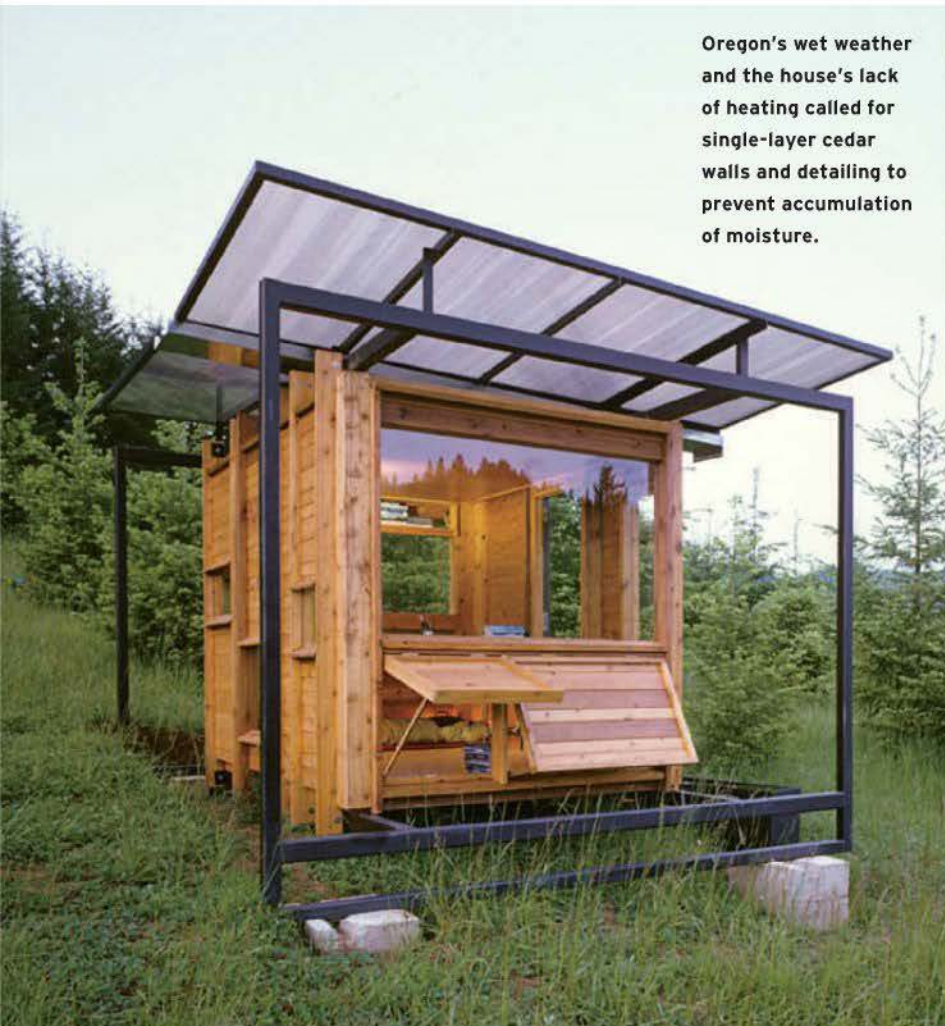
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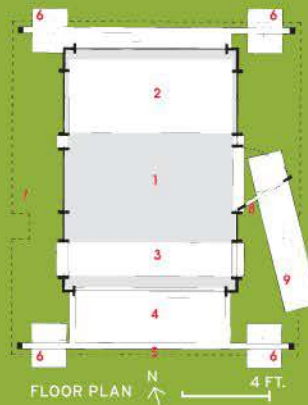




Oregon's wet weather and the house's lack of heating called for single-layer cedar walls and detailing to prevent accumulation of moisture.



1. Main room
2. Bed
3. Work counter
4. South window
5. Steel frame
6. Concrete pads
7. Roof/rain gutter
8. Front door
9. Water basin



## WATERSHED HOUSE

Wren, Oregon  
 FLOAT Architectural  
 Research and Design

By Cody Adams

In designing a studio for a philosophy professor and writer in Oregon's Willamette Valley, Erin Moore, of FLOAT Architectural Research and Design in Eugene, wanted to create a structure that would leave no permanent mark on the lush natural landscape. Her client had one additional request – that she hear the sound of falling rain on the roof.

Moore designed the retreat, dubbed "Watershed House," for several acres of the client's property designated as part of a watershed ecological restoration project. She approached it as a test case for a structure that would not require major excavation or

road access. More important, the component parts of the studio would be fully recyclable and detachable, allowing the building to be completely dismantled and reused when its natural life cycle ended.

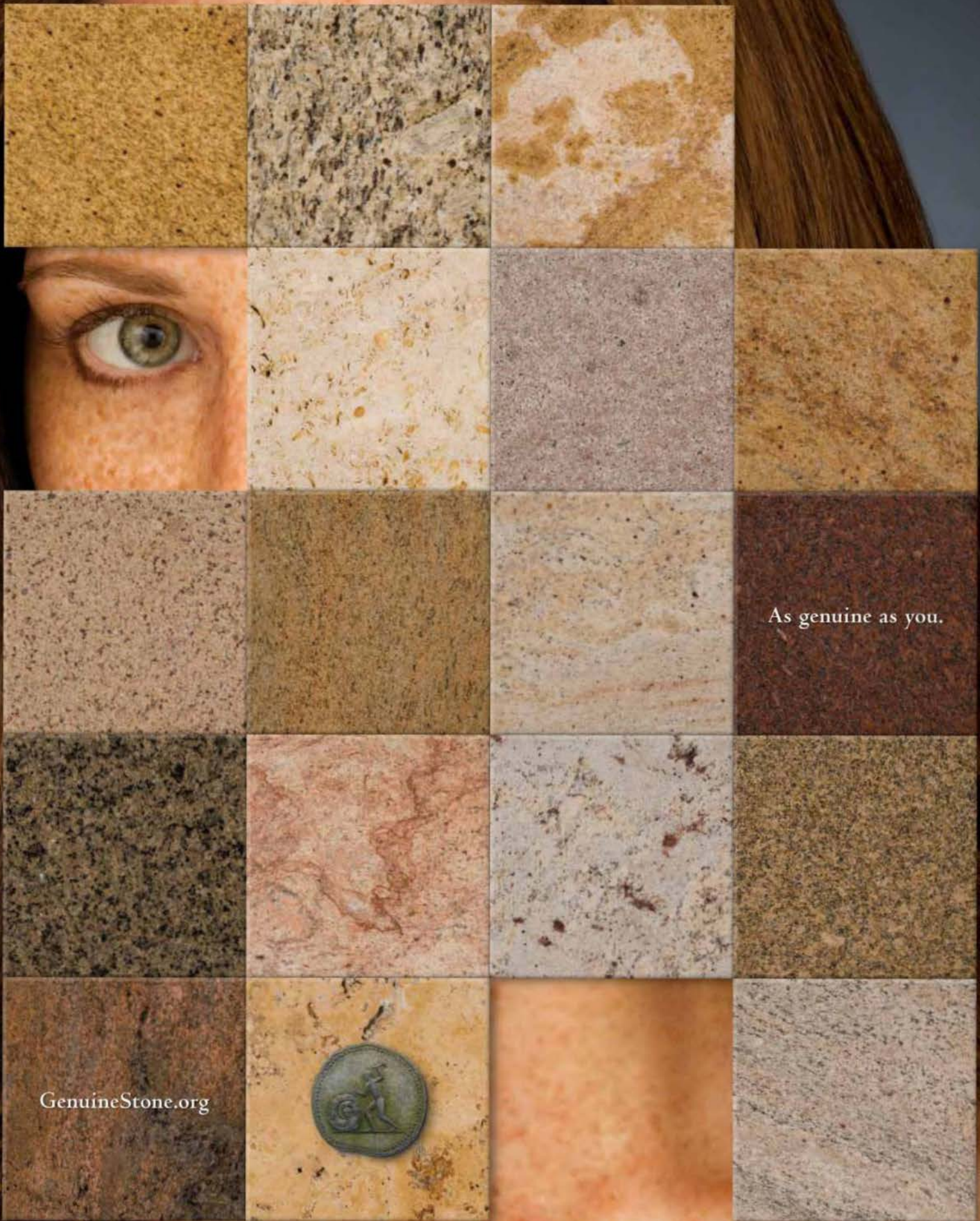
The resulting building contains just one, 100-square-foot room, with a writing desk and several cabinets for storage space. No electrical, plumbing, or heating systems are included; the studio relies entirely on passive solar heating and ventilation for its occupant's needs. Although the Willamette Valley is fairly temperate, Moore claims these passive systems have surpassed expectations, providing adequate heat even in last winter's unusually harsh conditions. The largest window, which faces south, is shaded in the summer but admits ample light and heat in the winter.

The architect built the one-room studio using a prefabricated steel frame, which rests on a foundation composed of four concrete pads. Because the design philosophy called for as much flexibility as possible to dismantle

or replace prefab components, few fixed fasteners were used. Instead, Moore floated the window glass, sills, headers, and tongue-and-groove planks into dado channels. The floor rests on the steel frame, buffered by rubber car-engine mounts.

The roof is made of a polycarbonate diaphragm that is translucent but still helps offset heat gain. A generous overhang protects the walls from Oregon's notorious rainfall. And, as a unifying aesthetic feature, the roof channels rainwater into a freestanding, partially covered basin that serves as a reflecting pool and the front step.

While FLOAT won't know for years if the studio successfully fulfills its environmentally harmonious, footprintless, sustainable intentions, the goal of integrating the hut with the ecosystem has exceeded expectations. The water basin attracts wild turkeys, songbirds, and deer; the roof provides a hangout for swallows; and a gopher snake now lives underneath the house. ■



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CIRCLE 38

  
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# BLURRING THE BOUNDARIES

**VILLA 1**  
Ede, the Netherlands,  
Powerhouse Company

## AS WE KNOW TOO WELL, ARCHITECTURE IS A SLOW PROFESSION.

The projects selected for Record Houses 2009 were conceived, budgeted, and (we hope) paid for in the halcyon days before we had heard the term "The Great Recession." Not surprisingly, RECORD's editors discovered a variety of design ideas in this year's submissions, compelling us to take a parting look at the rich harvest from this era of abundance. To present the diversity of projects on these pages, we did not make sustainability the leading priority, as we had with Record Houses 2008. For that, we want to direct attention to our sister publication, *GreenSource*, and its first annual issue on residential architecture (January/February 2009).

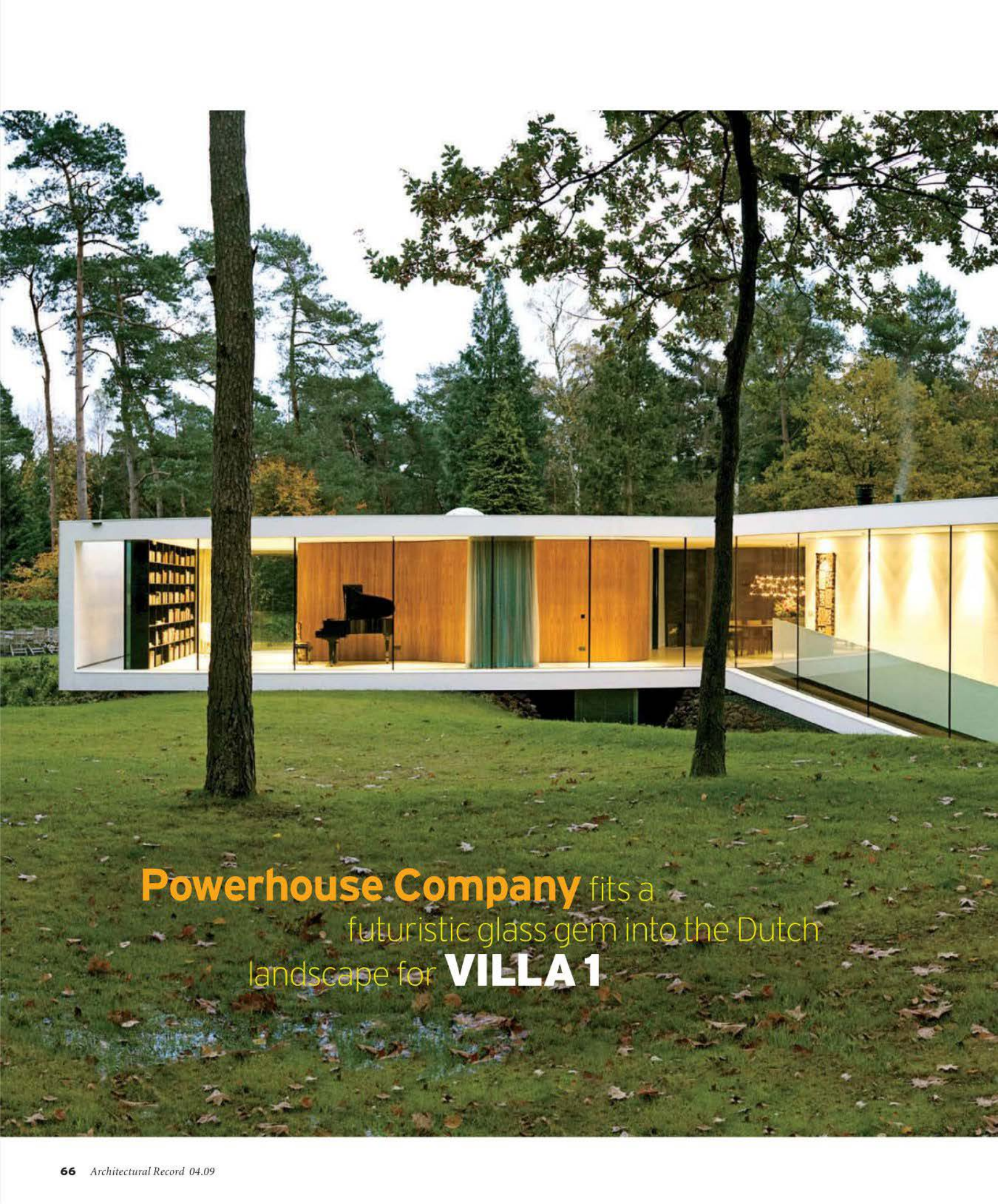
The following eight selections for Record Houses 2009 offer intriguing ways to imaginatively integrate outdoor and indoor spaces that could affect future thinking about residential design. Regardless of their location or size, all of the solutions employ inventive architectonic means to bring space, light, and view into the precincts of the private house.

Two residences in urban settings, one in Oita,

Japan, another in Chicago, investigate puncturing the enclosing planes of the house to create private and semi-private spaces within their inner sanctums. Three other residences – in Kuala Lumpur, New York State, and the Netherlands – partially submerge living quarters in the earth, with singular above-ground forms offering multiple perspectives of the surrounding landscape to their inhabitants. In three more houses, located in New York, California, and Spain, architectural elements and apertures ingeniously frame views and incorporate outdoor areas within the boundaries of these domestic domains.

The integration of outdoor and indoor spaces in residential design is not new: It especially concerned early Modern architects, who made the open plan, the outdoor ramp and roof, and sliding glass panels intrinsic to their legacy. These recent efforts elaborate creatively on those notions, exploring various architectural possibilities – from the minimal to the flamboyant – with an optimism that may take a while to return. *Suzanne Stephens*

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**Powerhouse Company** fits a futuristic glass gem into the Dutch landscape for **VILLA 1**



Molded to the terrain, Villa 1's travertine-clad steel structure wraps around its sinuous, glass-enclosed upper level.

**By Tracy Metz**

In a densely inhabited country like the Netherlands, it is not easy to find a secluded spot for a private residence. But that was just what a client was looking for when he commissioned a new home in the town of Ede from Powerhouse Company, the young firm of Nanne de Ru and Charles Bessard, based in both Rotterdam and Copenhagen. The house, which was the firm's first project, is called, appropriately, Villa 1.

Secluded though it may be, it has certainly not gone unnoticed. It received the AM NAI Prize of the Netherlands Architecture Institute for architects under 40, the Dutch Design Award for its interior, and was nominated for the European Union Prize for Contemporary Architecture Mies van der Rohe Award. And indeed, even though it is sequestered away in the woods, how could a building like this remain

*Tracy Metz is an Amsterdam-based journalist and a RECORD international correspondent.*

anonymous? It has a swoopy Pussy Galore-meets-Mies quality that is “super-cool.” At the same time, it is crafted with such attention to material and detail that it is utterly tactile.

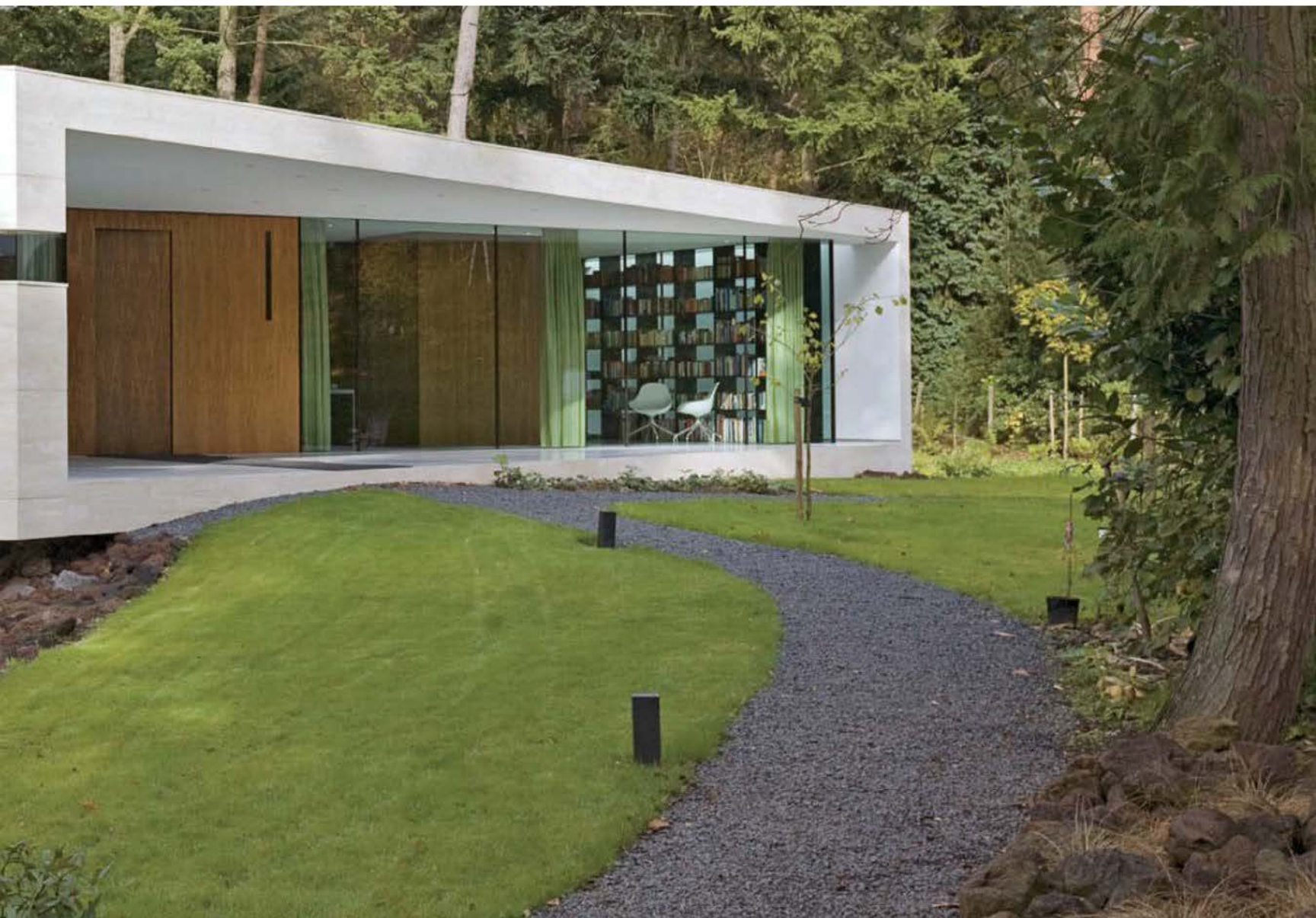
The design was inspired by a small drawing created by the client when he was a young boy—a few straight blue lines sketched on yellowed paper. “When I was thirteen, I made this sketch of the house that I would build someday,” he says. “Now I have it.”

The architecture was also influenced by the site, which had a small weekend house on it at the time it was purchased. Local zoning stipulated that any new building be no larger than the existing structure, which was about 2,153 square feet. The municipality, however, was willing to overlook the space below grade and allow a basement. So the architects were able to more than double the size of the new house to about 5,167 square feet divided over two levels—one subterranean, the other airy and at grade, with curved glass walls, which seems to hover just



PHOTOGRAPHY: © CHRISTIAN SCHAULIN.  
EXCEPT AS NOTED; © JEROEN MUSCH (OPPOSITE, TOP)

The kitchen sits above the garage and offers bucolic views through a glass-enclosed slice in its facade (below). From the south and west, the house curves to display the studio, facing a terrace with a narrow pool open to the sky, and the living room behind a movable stone wall (right).







A sitting area bridges the studio and living room in the west wing (top left). In the east, a music room adjoins

the library (top right). A structural bookcase supports the glass wall above the master bedroom

and patio (above). Two side doors open into the studio, at right, or lead up to the central hall, at left (opposite).

above the ground. All the columns but one are hidden from sight, reinforcing the sense of a floating, transparent volume.

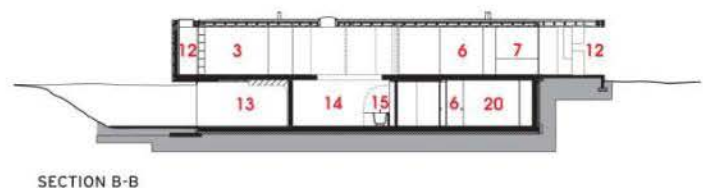
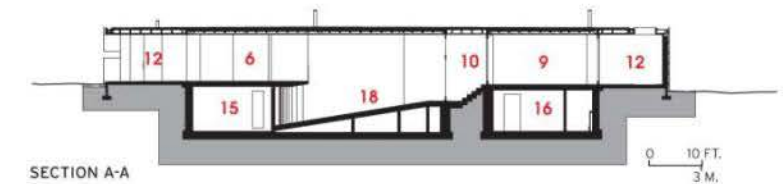
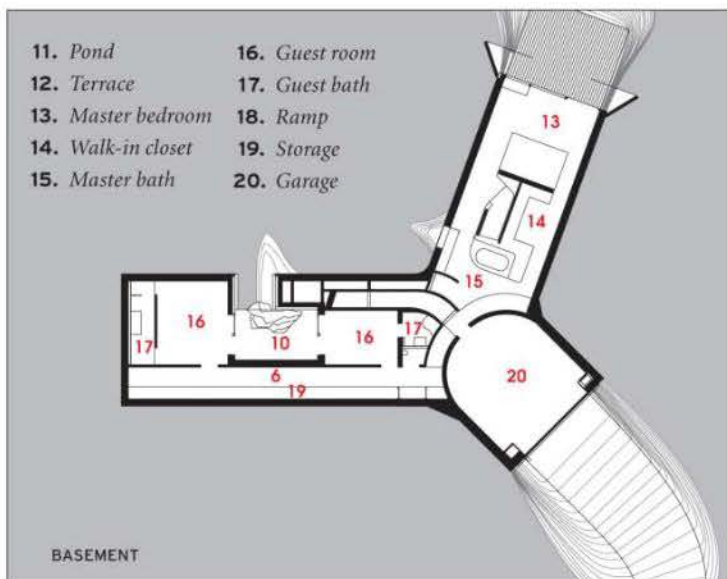
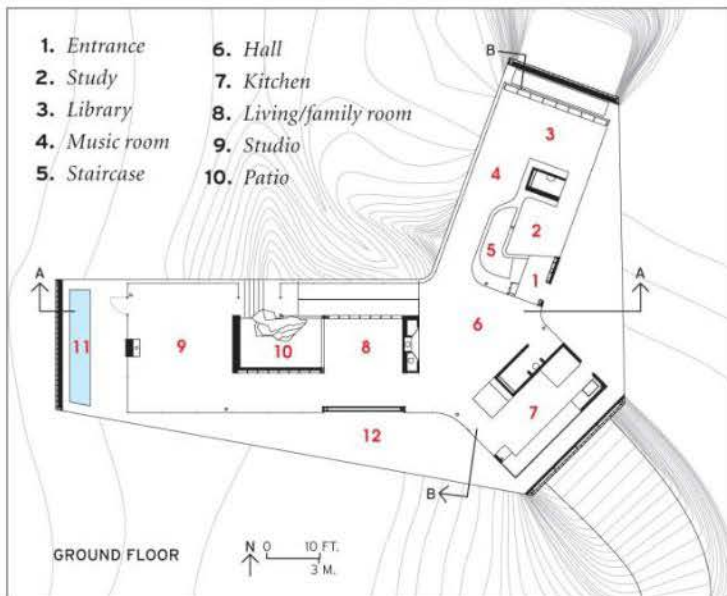
The travertine-clad steel structure extends out to about 16 feet beyond the glass curtain wall that surrounds the interior. Wrapping around the kitchen above the garage, it is intersected by a horizontal, slitlike window so that from the inside, occupants can always enjoy the view to the southwest. “Everything—the shape and the overhang of the roof, the positioning of the building—was determined by the orientation to the sun,” says de Ru. “It allows generous light in the winter and shades the rooms in the summer in order to keep the house from overheating.”

This relationship to daylight resulted in the unique plan of the house, roughly the shape of a Y with a short stem. On the ground floor, the study faces north, the living room faces south, and the kitchen (at the base of the Y’s stem) gets light from the east, west, and south. These “wings” meet at the heart

of the house, the combined entrance hall and dining room with a dining table and a fireplace. The wing to the left has a large studio at its far end. Here the roof and the outer wall extend past the glass box, forming a partially enclosed terrace punctuated by a narrow reflecting pool under an open skylight.

Separated from the studio by a small patio, the living (aka family) room seems to be the most enclosed space in the house—that is, until what looks like a stationary green marble wall slides soundlessly open to the terrace beyond. Lighter than it appears, the massive double-layer sliding door, measuring about 13 feet long by 9 feet high, is made out of aluminum honeycomb panels covered with a .08-inch-thick stone veneer from Pakistan. Stone veneer reappears in the kitchen, where the walls are covered in a rare Norwegian slate with granite flecks.

In the study wing opposite, an ingenious undulating wood structure covered in American walnut (vener again, and obtained from one single tree) organizes closets, a small



bathroom, a fold-down guest bed, a niche for a small desk, and the hidden entrance to the stairway down to the bedrooms. Here, too, the roof and the outer wall extend past the glass box. But, as there are no columns on this side of the house, the glass wall required stabilization. To remedy this without compromising the pure aesthetic of the design, the architects devised a structural-steel bookcase weighing about 10,482 pounds, thoughtfully configured so that there is just enough space behind the bookcase to be able to clean the glass wall.

Below grade—the private area of the home—the master suite opens out onto a generous, split-level deck equipped with a spa tub. Two guest bedrooms and baths in the opposite wing receive daylight from the sunken patio between the living room and studio upstairs. Adjacent to both, a long hallway features approximately 66 feet of continuous built-in storage. Finally, at the far end of the lower level, the garage is a high-tech tour de force sheathed in corrugated-aluminum

wall panels fitted with vertical fluorescent tubes, with a ceiling of shimmering, quivering plastic foil overhead.

Its jazzy looks, luxurious materials, and fine details are in themselves enough to make this house stand out. But it is not just about superlative style and comfortable appointments. What makes this house truly noteworthy is the symbiosis between form and function, the way the aesthetic springs from design rigor and the conditions of the site. This is modernity for a new millennium. ■

**Project:** *Villa 1, Ede, the Netherlands*

**Architect:** *Powerhouse Company—Nanne de Ru, partner in charge; Charles Bessard, designer; Nolly Vos, Alexander Sverdlov, Wouter Hermanns,*

*Anne Luetkenhues, design team*

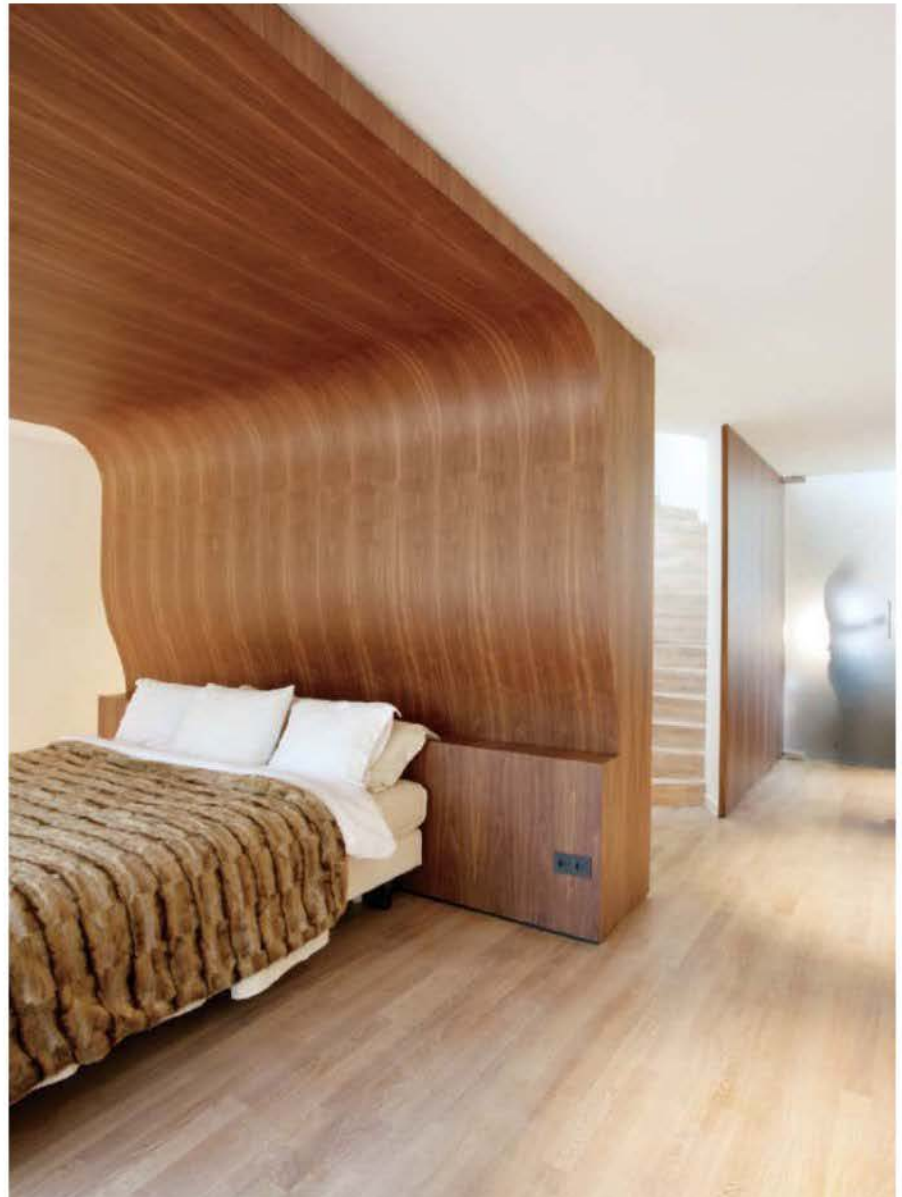
**Engineer:** *BREED ID*

**SOURCES**

**Cladding:** *Stone Panels Inc.*

**Glass:** *Glassimpex (curtain wall)*

**Sliding wall/door:** *Salco BV*



PHOTOGRAPHY: © JEROEN MUSCH (TOP LEFT AND RIGHT)



A sliding wall opens the living room to the outdoors (opposite, top left). Interior finishes include an

American walnut unit that provides privacy in the master suite (opposite, right). The kitchen is faced with

Norwegian slate (opposite, bottom left). The terrace wraps around three sides of the house (above).

# Marmol Radziner

connects California's  
landscape and architecture  
in the **VIENNA WAY**  
**RESIDENCE**

By Clifford A. Pearson

**D**uring its 20 years of designing, renovating, and building houses mostly in Southern California, Marmol Radziner + Associates has soaked up a rich tradition of Modernism and interpreted it in a series of projects that engage nature as an instrument of architecture. Channeling the spirits of Wright, Schindler, and Neutra, Leo Marmol, FAIA, and Ron Radziner, FAIA, have created buildings that embody the easy-living ideal we thought disappeared from sunny California with the onslaught of sprawl and McMansions. The Vienna Way Residence, which Radziner designed for himself and his family, distills this legacy of graceful indoor-outdoor living to its let's-have-breakfast-by-the-pool essence. Visiting it in February makes even the most die-hard New York editor contemplate moving west.

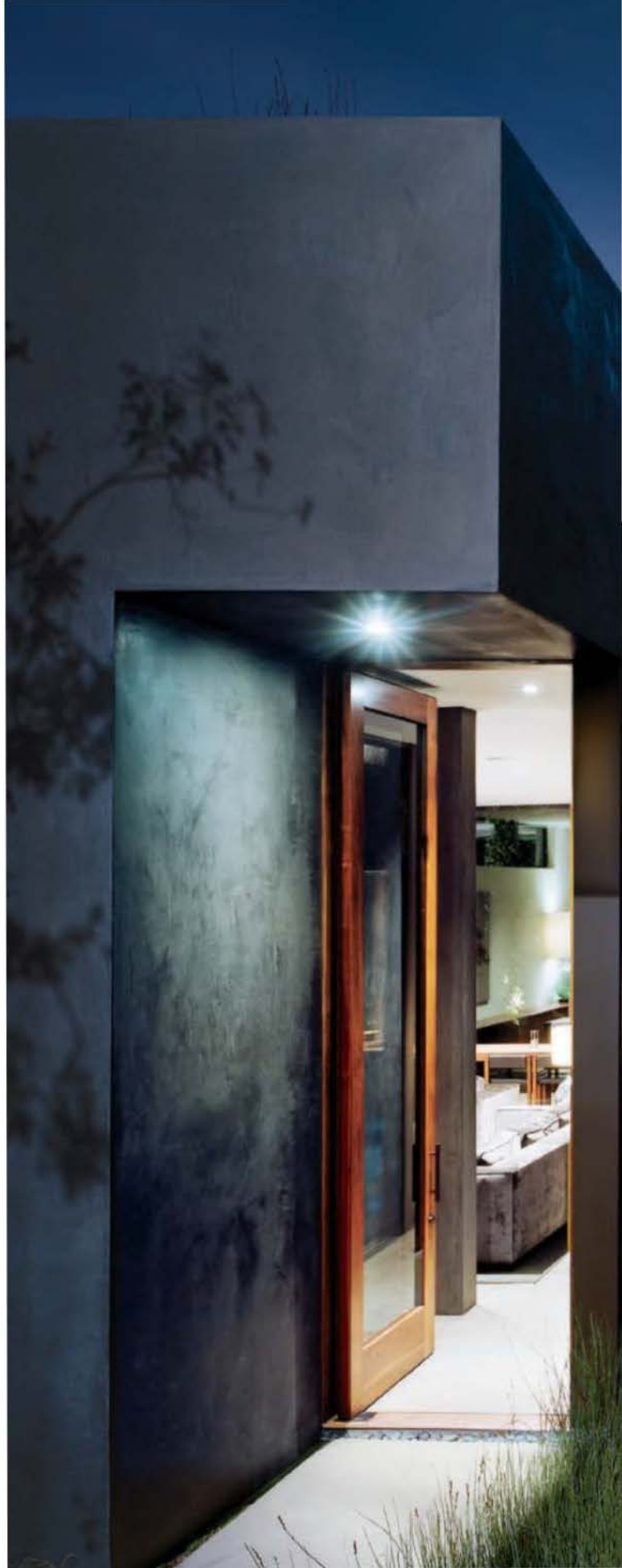
Radziner, who grew up in the Silverlake and Encino areas of Los Angeles, found the large (65-by-175-foot) lot on Vienna Way in Venice, California, just a block and a half from the house he had finished for his family in 2002. Although his wife, Robin Cottle, and their two children loved the old house, Radziner saw the big lot as a chance to push his ideas of weaving indoors and out even further than before, and honing the “conceptual clarity” of the architecture.

He sliced the property lengthwise into thirds, placing a one-story wing along the south edge and a two-story wing along the north. In the middle, he built a sunken kitchen pavilion connecting the two wings and laid out a sequence of outdoor elements that includes a lap pool and a garden planted with wetland species such as wild grasses and sycamores. Sliding the one-story wing toward the street, he put the public rooms—entry, living, and dining—here, while reserving the two-story wing for more private spaces: a family room and Cottle's office on the ground floor, and bedrooms above.

To maintain privacy from the neighboring houses on either side, the Vienna Way Residence presents mostly solid, plaster elevations on the north and south with

**The swimming pool fits flush with the living room wing and the kitchen pavilion to create a seamless connection between indoors and out.**

PHOTOGRAPHY: © JOE FLETCHER





Sliding doors and glazing on multiple sides naturally ventilate the house (right), while green roofs on the kitchen and living room wing reduce heat loads. Landscaping also shades rooms in the summer (below).





By dropping the kitchen three steps down, Radziner made it feel embedded in the landscape. American walnut on the ceiling and cabinets adds warmth to the space (left and below).







**The living room (left) opens to the pool but has only a clerestory window where it faces a neighboring house. The two wings of the house turn to a central strip of landscaping (drawings, below, and photo, opposite).**

only bands of clerestory windows to bring in light. The two wings, which are each just one 18-foot-room wide, open to the pool and garden running up the middle of the lot. Floor-to-ceiling glass, much of it sliding panels, makes the interiors feel like extensions of the outdoor spaces. Blurring the distinction further, a pair of outdoor rooms—one tucked behind the dining room and the other in front of the family room—offer covered but not enclosed spaces for eating or relaxing, complete with outdoor fireplaces. Yellow-tinted skylights deeply recessed in the roof above the outdoor dining room cast a warm, golden glow even on a cloudy winter day.

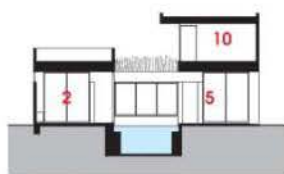
The kitchen pavilion, set a few steps below the house's two wings, seems to float in the landscape—looking to the pool in front and the garden in the back. Radziner eliminated all high cabinets to keep the views uninterrupted, and wrapped the cupboards, counters, and even the ceiling with black American walnut to add warmth to the room. "The kitchen is the hub of the house," explains Cottle, a graphic designer. "I can see everything from here." While the two wings are wood-frame structures, the kitchen works as a steel cage resisting sheer forces and holding all of the pieces together.

Marmol Radziner builds about 80 percent of its projects, serving as general contractor and fabricating most of the building components in its own shops. So in addition to being both the client and the architect, Radziner oversaw construction. "The control is nice," says Radziner. "It allows us the chance to get real clarity of purpose and design. The budget provides the constraints, forcing us to make choices."

At 4,100 square feet, the Vienna Way Residence is about 1,500 square feet bigger than the family's last house, and Cottle at first feared it might be too extravagant for them. "But once we moved in, the scale felt right, and each room has its own particular relationship with the outdoors," she says. "Proportion and rhythm are critical to Southern California homes," explains Radziner. "They're not about symmetry. They're about movement—horizontal space pushing out."

Having renovated or expanded a number of classic Midcentury Modern houses in California—including ones by Wright, Neutra, Schindler, and May—Radziner has learned from the masters. The sunken kitchen at the Vienna Way Residence was inspired by the sunken garden at Schindler's Kings Road House in West Hollywood, says Radziner. And from Neutra's Kaufmann House in Palm Desert, he borrowed the idea of creating tension between the horizontal and the vertical. "When Neutra built the house in 1946, there was nothing there, just flat desert. But he created sharp edges and boundaries with the architecture," says Radziner. "I tried to do that here in Venice." ■

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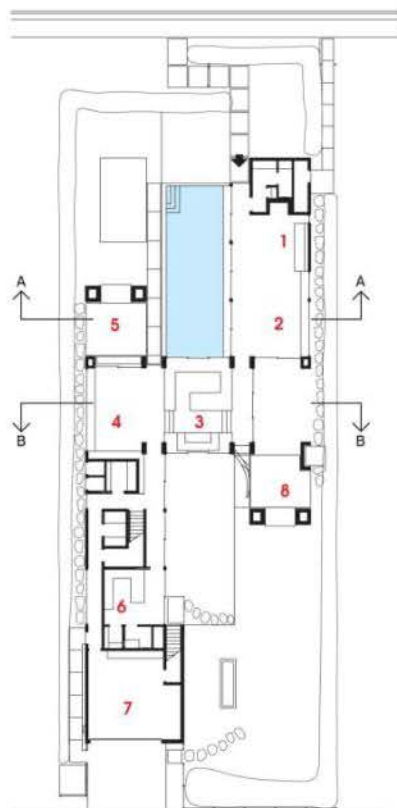


SECTION A-A



SECTION B-B

0 10 FT.  
3 M.



FIRST FLOOR

→N 0 10 FT.  
3 M.

1. Living
2. Dining
3. Kitchen
4. Family



SECOND FLOOR

5. Outdoor living
6. Office
7. Garage
8. Outdoor dining
9. Bedroom
10. Master bedroom

**Project:** Vienna Way Residence, Venice, California

**Architect:** Marmol Radziner + Associates—Ron Radziner, FAIA, Leo Marmol, FAIA, Robert Tsurimoto Kirsten, Ryan Robinett, Gordon Scott, project team

**Structural engineer:** C.W. Howe

**General contractor:** Marmol Radziner + Associates

**SOURCES**

**Sliding doors:** Fleetwood

**Green roof:** American Hydrotech





Due to periodic flooding, the three living pavilions rest on a platform over the site, a former garden.

Carlos **FERRATER** draws on Spain's  
Modern and vernacular traditions for  
the weekend **HOUSE FOR  
A PHOTOGRAPHER II**

By David Cohn

**O**n the Costa del Azahar, 135 miles southwest of Barcelona, the Modernist summer house has a distinguished pedigree all its own. With its masonry construction, angled roofs, and organic cluster of one-room pavilions, architect Carlos Ferrater's weekend house for a couple in Alcanar adheres partly to a tradition dating back to the first beach houses of José Luis Sert in the 1930s, and renewed by José Antonio Coderch in the 1950s and '60s. Sert, in such works as his 1935 weekend houses in Garraf, explored a rugged Mediterranean alternative to the machine aesthetic of Northern European Modernists. Coderch reinvestigated the trend with his 1952 Ugalde House, where he used vernacular construction methods to create a fusion between the wild

coastal landscape and his abstract, fluid forms.

In Alcanar, Ferrater has created his own particular interpretation of this tradition in a home he built for his brother, José Manuel Ferrater. He describes the locale, with its fertile gardens, orchards, and rice fields, as "the perfect union between nature and agriculture. And I think architecture, at least here, is born from this symbiosis." To illustrate this observation, he points to his treatment of the former garden that the house occupies. In keeping with current Spanish coastal zoning, the house is set far back from the water, and because of periodic flooding, its pavilions stand on a platform 20 inches above the ground. Ferrater has framed the long space between house and shore with low concrete walls (which divert floodwaters without blocking views), and populated its sandy, gravel floor with stately rows of palms. "It's a way of replicating the agricultural order with a very architectonic

*David Cohn is RECORD's Madrid-based international correspondent and the author of Young Spanish Architects, published by Birkhauser.*



The living area, at right, and art studio, at left, frame the visitor's approach to the house.

salon," he explains. "Those palms, planted in formation, are like the rows of lettuce and tomatoes next door."

For the house itself, Ferrater struck a similar balance between architectural grandeur and the informality of weekend living. The three pavilions, housing, respectively, a living-dining-kitchen area, a master bedroom, and an artist's studio with a sleeping alcove for guests, scarcely occupy 1,000 square feet of floor area, yet their ceilings reach up to 16 feet high—taller than their modest width in many places.

Ferrater has shaped the pavilions for both functional reasons and to add to the complexity and richness of their sculptural forms. He arranged them around a central outdoor living space where access to all three is concentrated (insects and summer showers are not a problem in this semi-arid climate). This space is protected from the northern winds of the *mestral* by the rising profile of the bedroom pavilion,

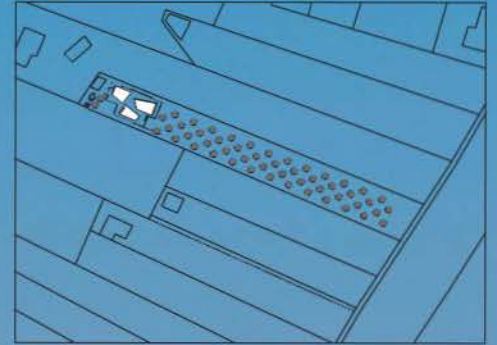
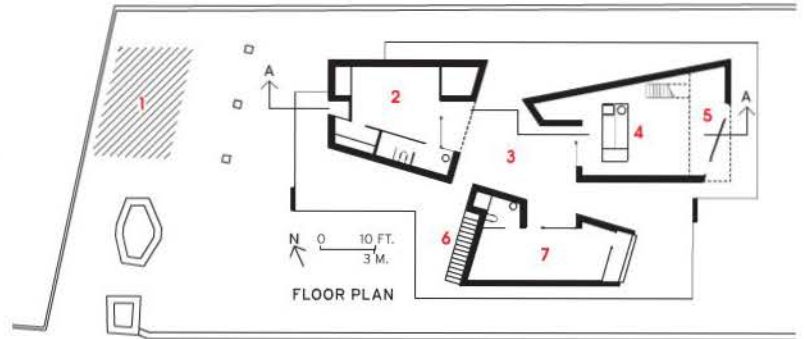
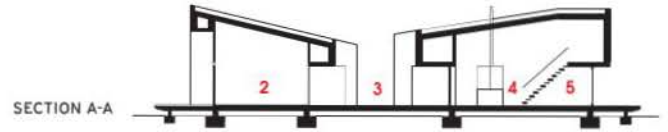
while the roof of the art studio to the south descends to create a mix of sun and shade. The position and shape of the pavilions direct the views between them, as well as the route of access from the front of the house. Their large, glazed openings offer alternative glimpses through the complex; the converging angles and rising roof of the bedroom pavilion, for example, focus views to the lemon tree behind it. Around the central space, Ferrater organized the openings orthogonally and gave them a uniform height of 7 feet, to create a sense of human scale and unity.

These doors are deeply recessed in the volumes, creating useful service spaces inside the perimeter walls. Ferrater also activates the upper spaces of the interiors: The high viewing slot of the bedroom is lined with bookcases, and a concrete shelf across the front of the living room, raked with light from the clerestory, displays a selection of volcanic rocks and



1. Existing shed
2. Master bedroom
3. Courtyard
4. Kitchen
5. Living room
6. Stair to roof
7. Painting studio

Outdoor spaces are key to the design, including a court (left), and a fore-court between house and sea filled with palms, on a lot 820 feet long and 60 feet wide (plan, right; site plan and view, below).



The caretaker's shed for the former garden is the center of another outdoor living area (right). Light filters into the studio through a perforated wall and a chain curtain that defines a sleeping alcove for

guests (below left). Ferrater activates the pavilion's upper spaces with a library area (right) over the bedroom area (below right) and a display shelf with clerestory lighting in the living room (opposite).





sculptures from Southeast Asia. The couple collected most of the furniture on their travels, including sofas from Indonesia, fabrics from Thailand, and miniature benches and chairs from Africa—“no designer furniture,” Ferrater notes.

Ferrater worked with a small local builder on the house. Like Sert and Coderch before him, the architect used traditional construction techniques, such as shallow brick roof vaults known as “*bovedillas*,” although he mixes these with concrete slabs and lintels as needed. The crisp stucco finishes of the masonry exteriors emphasize purely formal qualities, but in the interiors, he exposes the patterned texture of the low-fired hollow brick of the walls and ceiling vaults, painting them white. Floors are terrazzo, and the planks of the exterior platform are of board-formed precast concrete, owing to its resistance to moisture. An exterior stair at the back of the studio leads up to a lookout and so-

larium on the roof, which was finished with precast-concrete tiles made on the site.

Ferrater likes to say that the house is a kind of portrait of his client and his lifestyle. But like the vernacular techniques he uses, these concerns are also the raw material for the more personal creative project of his design, which comes to focus around the sophisticated formal play between the pavilions. Architecture is born from its circumstances, as he observes, but it can also dignify and transcend them. ■

**Project:** *House for a Photographer II*,  
Alcanar, Spain

**Architect:** Carlos Ferrater,  
with Carlos Escura

**Client:** José Manuel Ferrater

**Contractor:** Construcciones PG98

**SOURCES**

**Metalwork:** Talleres  
Pimar, S.L.

**Curtains and awnings:**  
Industrias BEC



# Allied Works Architecture explores hierarchies of viewing in a New York **DUTCHESS COUNTY GUEST HOUSE**

By Suzanne Stephens

**N**ot surprisingly, enlisting dramatic means to frame the landscape has obsessed any number of architects over the centuries. Windows, colonnades, arcades, loggias, and pergolas all represent architectural interventions that heighten the perception of the landscape for its observers.

While early Modernists, such as Le Corbusier, Rudolph Schindler, and Richard Neutra, demonstrated how linear structural elements could achieve this framing effect with a minimum of materials, Brad Cloepfil, of Allied Works Architecture, takes this impulse to an even more abstract level. For a 1,300-square-foot guest house in Dutchess County, New York, he designed a linear, 8-by-8-inch square-tube steel frame to contain the single-story volumes of a two-bedroom cottage, and continued it outdoors to demarcate the forest setting. Cloepfil enclosed the walls of the structure with santos mahogany and clear low-E glass so that the building fits chameleonlike into its thicket of oak, hickory, and birch trees. Mahogany continues on the roof plane as well, since it will be visible from the main house (also designed by Cloepfil) being built on a hill to the west.

The clients, a married couple who collect art, wanted the guest house to be somewhat near their weekend home, yet still afford all parties a sense of privacy. Perched on a small rise, the rectilinear structure's living and sleeping areas face east, where they overlook a meandering creek.



The guest house (opposite) sits on 350 acres of forested land, perched above a meandering creek (site plan, left).

PHOTOGRAPHY: © HÉLÈNE BINET (THIS SPREAD)





# RECORD **HOUSES**

1. Entrance hall
2. Living/dining
3. Kitchen
4. Bedroom
5. Master bedroom
6. Bath
7. Deck

**Steel framing elements (right and below) demarcate the bays of the house in an interlocking cantilever system.**



FLOOR PLAN

N ← 0 10 FT.  
3 M.





By conceiving the guest house as a series of six rectilinear bays, four of which are 23 by 21 feet, the other two, 23 by 13 feet, Cloepfil and his team from his New York City office created an open, boxlike steel frame that rests on poured-in-place-concrete foundation walls. The frame acts as a continuous interlocking cantilever that runs along the ground and roof, with seven columns placed at diagonally opposite corners of each bay, to allow views to open up from within. This perceptual exercise can be read most clearly at the terminating bays, which are not enclosed: The frame adjoining the north end of the living room hovers above the grassy ground, while at the south end, the cantilevered outdoor frame adjoining the master bedroom delineates an imaginary ceiling. The ground cover, a thick growth of ferns and grasses, installed by landscape architect Michael Van Valkenburgh Associates, provides the “carpet.”

Detailing the joints of the steel frame and wood panels for moisture and extreme temperatures proved “intense,” in the words of the lead architect for the project, Kyle Lommen. Since the steel frame would be exposed outside, the architects needed to avoid thermal transfer and condensation within. They designed the columns so they are not contiguous but have a thermal break, preventing cold temperatures from being conveyed to the interior. With the horizontal beams that run on the floor and ceiling, the architects had to devise strategies for heating the structure inside so there would be no thermal bridging, and hence no condensation.

The attention to craftsmanship that extends throughout the guest house can be seen in the design of the oak cabinetry, which, along with the house’s simplicity, scale, and size, handsomely evokes its early Modern architectural predecessors. The choice of materials, such as slate and mahogany floors, and the interiors by Lisa Frazar Design, provide a calm setting for the art on display, which includes paintings by Mel Bochner and Adam McEwen. A concrete entry bridge by Lawrence Weiner sets the tone for the experience.

But it is the framing of the views that rivets the ob-

**Steel framing creates a canopy for the open space adjoining the south end of the house (above left). The entrance vestibule (above right) opens into the living room, with north and east views (right).**



server’s attention. Not only is the natural setting delineated—as would be expected—by virtue of expansive glass panels held within mahogany mullions, but the exterior steel framing elements limn smaller glimpses of nature. The hierarchies of private, semi-private, semi-open, and open spaces become so integral to the perceptual experience that no matter where you are sitting in the house, you have the view, as well as the view within the view. ■

**Project:** Dutchess County Guest House, New York

**Architect:** Allied Works Architecture—Brad Cloepfil, AIA, principal; Kyle Lommen, project lead; John Clappi, Dori Raskin, project architects

**Interior designer:** Lisa Frazar Design

#### SOURCES


##### Windows and doors:

Dynamic Architectural Windows and Doors

**Paint (steel frame):** Thamac Paint  
**Membrane roofing:** Liquid Plastics (Decothane)

##### Paints and stains:

Benjamin Moore

 To take a video tour of Dutchess County Guest House, go to [architecturalrecord.com](http://architecturalrecord.com).

Studio **GANG** transforms a  
former stable on a tight Chicago lot  
into the **BRICK-WEAVE**  
**HOUSE**

A fabriclike brick screen (this page and opposite) surrounds a front garden. It incorporates a system of columns, anchors, and ladder joists reflected in its alternating closed and open courses.



By Joann Gonchar, AIA

It is not often that a firm will have a skyscraper and a two-bedroom house under way simultaneously. But such was the case in the office of Chicago-based Studio Gang, where for a time architects were working on both the 82-story Aqua, a mixed-use tower now almost topped out in the downtown Loop, and a just-completed house for two advertising executives in the city's West Town community area.

For the architects, the attraction to the smaller project was the opportunity to think about materiality at an intimate scale, along with the challenge of working with an existing structure, says Studio Gang principal Jeanne Gang, FAIA. The house, which sits on a dense urban block with a pleasing jumble of one-, two-, and three-story homes built in different eras, incorporates parts of a late-19th-century former horse stable.

David Hernandez, who lives in Gang's radical reinvention of the original brick-and-timber structure with his wife, Teresa Surratt, bought the property in the mid-1990s while he was still single. He had plans to one day rehabilitate the dilapidated two-story building, but when he and his wife seriously began to consider major construction about 10 years later, they discovered that restoration was unrealistic. The original facade had been damaged by the installation of a veneer of cast stone decades earlier, and the building suffered from water infiltration and general neglect.

Surratt and Hernandez ruled out re-creating the old building as "Disneyland-like," but they hoped to reuse much of the original structure, in large part to preserve its generous, almost-zero-lot-line footprint. If they had completely demolished the stable, they would have had to comply with zoning regulations requiring a setback from the street, explains Hernandez.

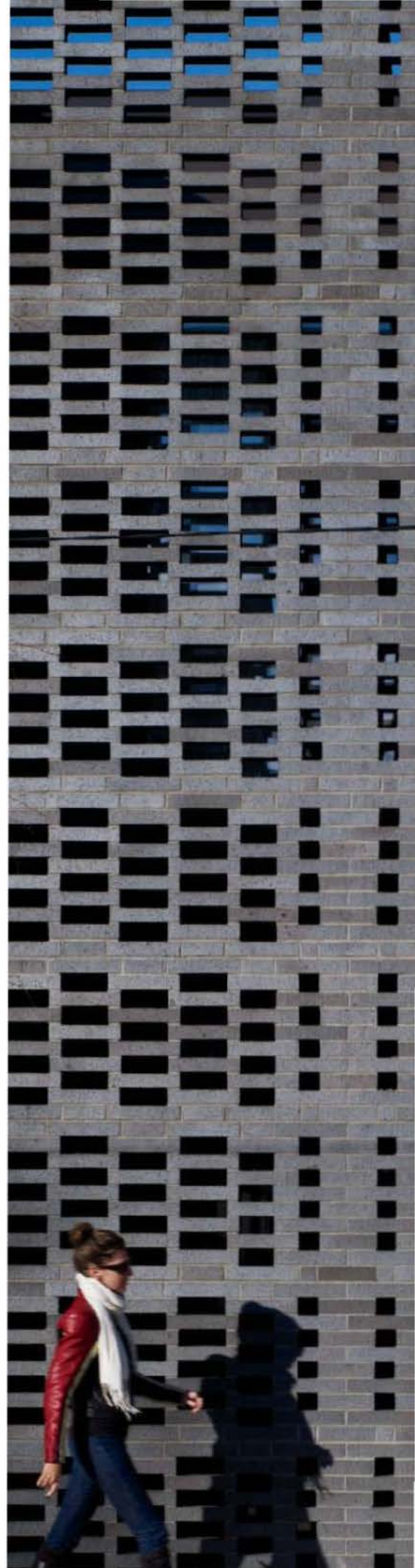
Gang saw the old stable's volume as the starting point for the project. However, she envisioned replacing its street facade with a small garden surrounded by a "brick-weave" screen on two sides, in order "to lighten its presence," she says.

For the house proper, Gang and her team developed a scheme that would incorporate about 30 percent of its perimeter walls. The architects had at first planned to make use of more of the original structure, but during construction, they encountered unexpected deficiencies, including previously hidden, charred roof joists and walls without foundations.

With a construction budget of only \$140 per square foot, Surratt and Hernandez sometimes had to make tough decisions, choosing, for example, to forgo expensive finishes and make a 44-foot-long storage wall from Ikea cabinets instead of custom millwork. The strategy allowed them to invest in more important elements, such as the front facade's meticulously detailed masonry veil. The single-withe screen wall, which is given lateral stability by a steel frame and a custom-designed anchor system, shades the floor-to-ceiling window walls beyond and also provides visual privacy. Within the garden and on the adjacent exposed concrete floor of the house's interior, the screen creates a constantly changing play of light and shadow.

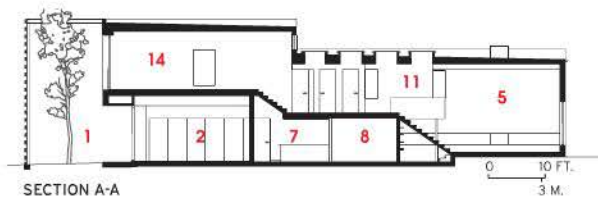
Behind the brick screen, Gang amplified the vertical spaces of the long, linear, 3,250-square-foot dwelling by manipulating ceiling heights and floor levels. For instance, a compressed hallway, which doubles as a simple kitchen, leads from the dining area at the front of the house and dramatically opens

PHOTOGRAPHY: © STEVE HALL/HEDRICH BLESSING





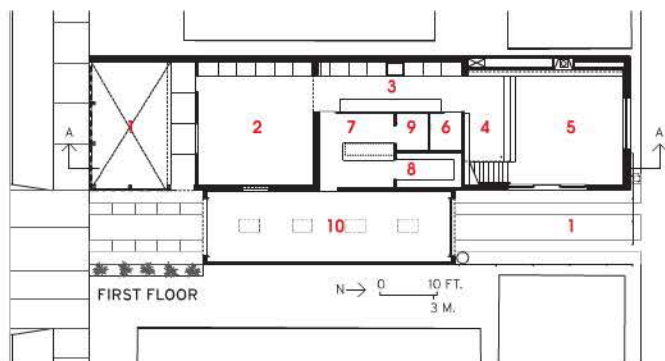
The brick-weave screen creates a dynamic play of light and shadow on the walls and floor of the dining area (above and far left, with garage beyond). A compressed hallway (left), which doubles as a kitchen, dramatically opens to a double-story living room (opposite, top).



SECTION A-A



SECOND FLOOR



FIRST FLOOR

- |                |                    |                   |
|----------------|--------------------|-------------------|
| 1. Garden      | 6. Half bathroom   | 11. Loft          |
| 2. Dining room | 7. Laundry room    | 12. Guest bedroom |
| 3. Kitchen     | 8. Storage         | 13. Bathroom      |
| 4. Library     | 9. Mechanical room | 14. Bedroom       |
| 5. Living room | 10. Garage         |                   |

A flight of steps connects the living room (below) with an open loft (bottom). From the stairs' base, occupants can catch a glimpse of the master bedroom, at the front of the house.



to a double-story, daylight-filled living room at the rear.

From the living room, already a few risers up from the rest of the ground floor, a set of steps leads to an open loft and a guest bedroom. A second short flight connects these spaces to the master bedroom, which overlooks the walled garden. Skylights, windows, and clerestories illuminate the upper levels, “grabbing” sunlight from different directions, explains Gang.

This sensitive handling of daylight, especially notable given the tight urban lot, along with the positioning of openings and the control of the sequence of rooms, gives occupants an awareness of multiple spaces from almost every location in the house. According to Gang, these strategies “create opportunities for the eye to escape.” But they also endow the house with a spatial richness and expansive quality that belie the building’s humble origins. ■

**Project:** *Brick-Weave House, Chicago*

**Architect:** *Studio Gang—Jeanne Gang, FAIA, design principal; Jay Hoffman, Margaret Cavenagh, Beth Kalin, Mauricio Sánchez, Miriam Neet, project team*

**SOURCES**

**Brick:** *Endicott Clay Products*  
**Masonry anchors:** *Hohmann & Barnard*  
**Glazing:** *Arcadia*  
**Skylights:** *VELUX America*  
**Exterior lighting:** *Bega*





By Josephine Minutillo

**A**s you approach Thomas Phifer and Partners' house in upstate New York, the long, steep climb up a winding country road ends not with a dramatic structure, nor a sweeping panorama; its denouement is merely a prelude to the multifaceted spatial sequence to come. Everything about this rural retreat—whose design and construction has spanned a decade—is deliberate and unhurried, a jarring contrast to the frenzied lifestyle of the Manhattan-based family that escapes here on weekends.

Phifer, AIA, also based in Manhattan, is very familiar with this region of New York. Since work began on this residence, his firm completed two other houses in the area [RECORD, April 2003, page 140; April 2004, page 122]. But this last one most fully engages its natural surroundings. According to the architect, "The design is all about a choreography on the site." Phifer was inspired by the simple way nearby Shaker houses frame views, and by the Classical grandeur of Monticello, Thomas Jefferson's hilltop estate in Virginia, but the most striking reference is to a more recent landmark—Louis Kahn's Salk Institute in La Jolla, California (1959–65).

Taking his cue from the Salk, Phifer arranges two

objects, or series of objects, on opposite sides of a level, grassy courtyard, creating perspectival views of the Hudson River Valley beyond. On one side sits a tall glass pavilion containing the public areas of the house. Its freestanding presence on the promontory is both majestic and ephemeral when contrasted with the insular bedroom cabins across from it, embedded into the hillside much like the Franciscan monastic complex in Assisi, Italy, that inspired Kahn's masterpiece.

Situated atop the highest ridge of the rolling, 200-acre property, this arrangement is only one of many moves in Phifer's well-orchestrated dance. Before arriving at that courtyard, which serves as a green roof to the house's lower level, a smaller entry court, or car park, greets visitors slightly downhill. Floating above its graveled surface is the cantilevered yoga studio-cum-bedroom (via a Murphy bed) of the guest house. Set back in the original design, the cantilever is not an aggressive one. Instead, the room is gently perched upon a low, north-south running wall, affording incredible views of the meadow to the east and pine forest beyond, and creating an idyllic spot for practicing yoga, an integral part of the family's quiet weekend getaways.



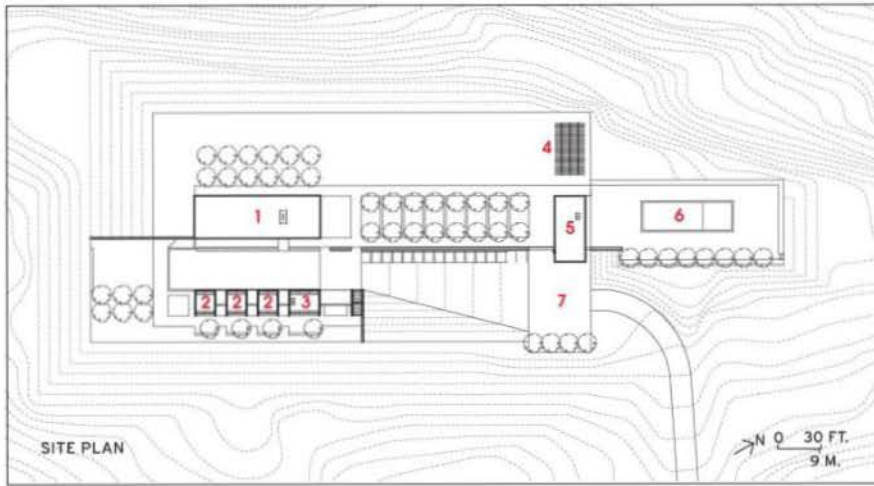
Thomas **Phifer** and Partners keeps in step with nature by orchestrating a skillful series of moves atop a scenic ridge for its

## **UPSTATE NEW YORK HOUSE**

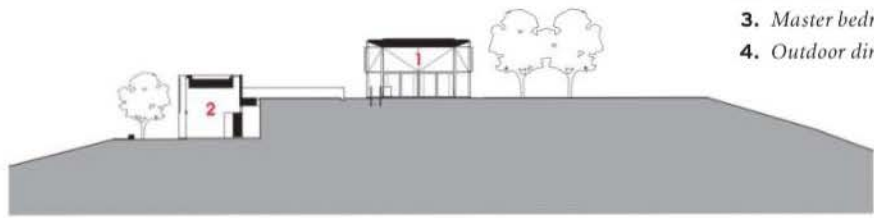


The pavilion faces the four bedroom cabins across a flat court. The weathering steel walls of an outdoor staircase

resemble the mahogany walls of the adjacent cabins. Mirrored panels enclose the master bedroom's chimney.

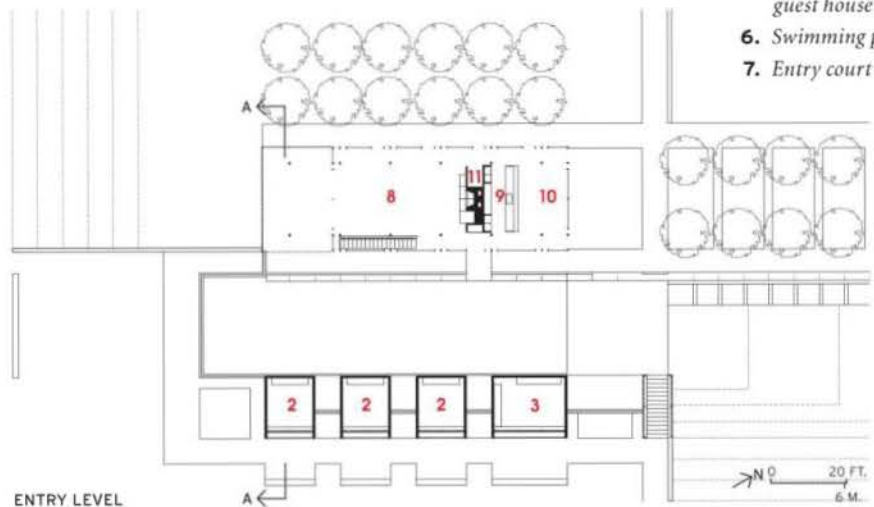


- 1. Pavilion
- 2. Bedroom
- 3. Master bedroom
- 4. Outdoor dining



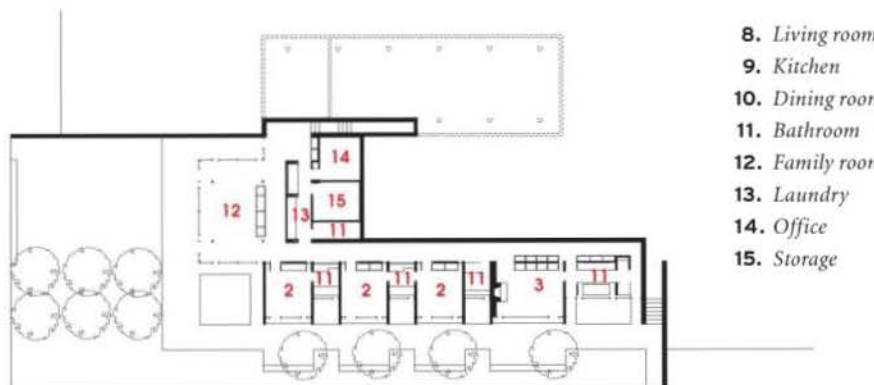
SECTION A-A

- 5. Yoga studio/  
guest house
- 6. Swimming pool
- 7. Entry court



ENTRY LEVEL

- 8. Living room
- 9. Kitchen
- 10. Dining room
- 11. Bathroom
- 12. Family room
- 13. Laundry
- 14. Office
- 15. Storage



LOWER LEVEL



PHOTOGRAPHY: © SCOTT FRANCES



Like the east and west walls of the pavilion, the upper portion of the glazed, east-facing walls of the bedroom cabins feature fixed, horizontal louvers to block the sun's glare (above). The yoga studio greets visitors at the entry court, where it is perched atop a weathering steel spine wall that leads uphill to the pavilion (left).



The glass pavilion houses the more public spaces. The living room (top) is separated from the kitchen

and dining area (above) by an anigre-clad box that contains bookshelves and a powder room. Each of the tall

bedroom cabins opens out to a small, paved terrace (right). A trellis shades the outdoor dining table (opposite).





The wall acts as a spine that bisects the site and fixes the architectural elements to it. Its deep red patina is a product of the weathering steel that clads it, a material Phifer says “comes from the land,” and one that is, from a distance, indistinguishable from the mahogany that covers the steel frame of the glazed surfaces, and the solid walls of the bedroom cabins that protrude from the earth to face the pavilion. The tall, glass walls of the cabins, four in total, face east to views of the meadow, allowing the morning sun to bathe the sleeping quarters.

Between each of the bedroom cabins is a bathroom that opens out to an individual bamboo garden. The repetitive succession culminates at one end with the large master bedroom suite, and at the other with a family room, the cozy main space of the lower level, where office, laundry, and storage space is also located. The continuous wall of the long corridor between is covered with photographs belonging to the family’s vast art collection, which includes large sculptural pieces scattered throughout the property.

Inside the glazed pavilion itself are the kitchen, living room, and dining room. The simple interior palette is dominated by rich, mahogany floors. But here more than anywhere the

focus is outside. The 15½-foot-tall glass walls feature slender steel columns, bolstered by diagonal bracing within the upper half, where fixed, horizontal louvers block the sun’s glare along the east and west elevations. At eye level, views are unimpeded. To the south and west the earth drops off, allowing sweeping vistas of the valley. To the north, an allée of London plane trees draws the eye to a trellised outdoor dining area just behind the guest house. Less formal outdoor gathering spots include a terrace under the pavilion’s large, south-facing overhang.

Emerging from that winding road, the experience of the house unfolds gradually like a slow, ordered path of discovery—for city dwellers, a peaceful walk in the woods. ■

**Project:** *Upstate New York House*

**Architect:** *Thomas Phifer and Partners—Thomas Phifer, AIA, principal; Stephen Dayton, project partner; Andrew Mazor, project architect; Len Lopate, Joseph Sevene, John Reed, Andrew Deibel, design team*

#### **SOURCES**

**Weathering steel wall cladding:**

*Berger Iron Works*

**Glass:** *PPG Industries*

**Metal louvers and trellis:**

*Unicel Architectural*

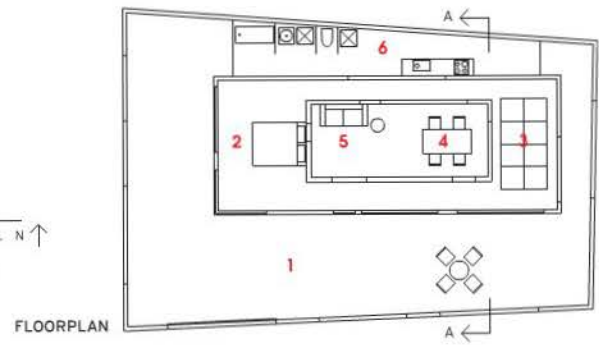
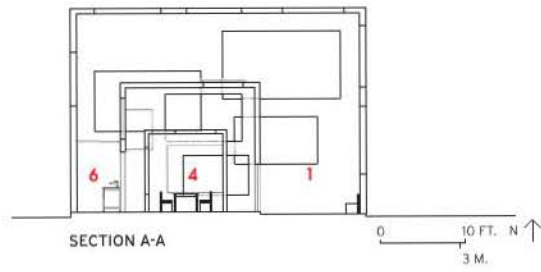
**Green roof:** *Hydrotech*

**Stains:** *Sikkens (exterior)*

**Sou Fujimoto** subverts common notions  
of inside and out, public and private, solid  
and void in Japan for the **N HOUSE**



1. Garden
2. Bedroom
3. Guest
4. Dining
5. Living
6. Kitchen





By Naomi R. Pollock, AIA

**A**tidy package with a porous wrapping, N House is a set of three nesting boxes that span the scales of city and domicile. Instead of sharply dividing private and public domains, the white shells contain a gradation of progressively more intimate spaces. Balancing solid surfaces and large openings, the boxes provide protection from prying eyes while promoting good neighborly relations.

Located in a quiet residential enclave in Oita, a city of about 12,000 on Japan's southern island Kyushu, N House was designed by the Tokyo-based architect Sou Fujimoto [RECORD, December 2007, page 102]. The project started as the renovation of a 30-year-old home that faced a street slated for widening, and which no longer met the needs of its owners, a retired couple ready to downsize. In response, Fujimoto padded the front of the house with a layer of space and a louvered wall that would both open and close it to a garden in front. Though the clients decided to rebuild entirely, the architect held on to this idea.

Expanding the concept to meet the project's revised scope, Fujimoto envisioned covering the entire 2,550-square-foot site with a semipermeable shell that would incorporate exterior space and relax the rigid boundary normally drawn between house and street. "This idea confused inside and outside in a positive way," explains Fujimoto. However, readying this ambiguous space for everyday living took a little soul-searching even for Fujimoto, whose quirky plans typically grant clients plenty of leeway to use his buildings in different ways. In deference to the pitched-roof homes nearby, Fujimoto thought fleetingly of inserting a conventional house form. But the single-story, box-in-a-box scheme won out. This strategy rooted the house in the city's concentric organization, with webs of pedestrian passageways inside a network of narrow streets within a crosshatch of wider thoroughfares and so on. And internally, it yielded a compact but multilayered plan determined largely by the relative size and position of each box.

Measuring 1,895 square feet, the biggest box shelters an L-shaped yard that includes parking for two cars and a wood deck. The 635-square-foot middle box covers a donut-shaped space with the entry foyer out front, a sleeping area on one side, and a tatami-floored guest area on the other. The 195-square-foot innermost box serves as a combined living-dining room. Farthest from the street, the kitchen, toilet, and bath fill out a narrow band at the back of the largest box.

Using cardboard models, Fujimoto designed the boxes in tandem. He simultaneously considered their three-dimensional massing and the composition of their two-dimensional planes. Though legal restrictions fixed the size

*Naomi R. Pollock, AIA, is RECORD's Tokyo-based correspondent.*

PHOTOGRAPHY: © IWAN BAAH



A living/dining room occupies the innermost box (this spread). The house picks up the scale, if not the form, of its suburban neighbors (previous spread).





of the 24-foot-high outer box, Fujimoto trusted his eye to find the right proportions for the inner boxes. Decreasing their ceiling heights to 14 and then 9 feet created increasingly more humanly scaled spaces. And putting one volume inside another divided the floor area into corridors and rooms.

What gives N House its distinctive character, though, are the 44 rectangles cut from its three shells. Though the number of openings per envelope varies, the ratio of enclosure to exposure looks the same on every roof or wall surface. Fujimoto achieved this effect by specifying three different size openings per box, all of them golden rectangles. When it came to positioning the openings, sunshine and sight lines guided the architect. He aligned some to frame views of the sky while editing the intense Kyushu sun. Others he overlapped to reveal only oblique glimpses of the street. Within the house, where privacy was not a concern, the apertures link rooms and turn the interior into a single, loftlike space that opens to the deck and looks up toward the treetops while being shielded from overexposure in each direction.

To Fujimoto, the openings are integral parts of the walls and roofs. “They’re simply empty,” he explains. Though they allow the passage of light, views, and in some places even people, they are neither doors nor windows. Only the middle box has sealed openings— $\frac{3}{4}$ -inch-thick fixed glass sheets and wood-framed, operable windows that allow cross ventilation. And only at the most private and public places, the toilet and the two entrances from the street, did the architect provide solid doors.

Not surprisingly, the holes complicated the structural design. While separate systems support each box—reinforced concrete for the two larger shells and a timber sandwich of wood frame and panels for the smallest—all required bolstering at weak points, such as wall bases. At the same time, Fujimoto eliminated overhead beams. And by reducing roof dimensions to match the thickness of the walls, he reinforced the house’s boxy character. Devoid of detail and coated uniformly with textured acrylic, the house’s outward appearance masks these maneuvers. “When our house was finished, some neighbors thought it was a library or public building,” says the client. The bold white box certainly has a strong presence on the street. But its large openings prevent it from being overbearing, and share the glorious views of the sky with everyone who passes by. ■

**Project:** *N House, Oita, Japan*

**Architect:** *Sou Fujimoto*  
*Architects—Sou Fujimoto,*  
*Yumiko Nogiri, project team*

**Engineer:** *Jun Sato*  
*Structural Engineers*

#### **SOURCES**

**Paint:** *SK Kaken*  
**Exterior uplift:** *MaxRay*  
**Garden lighting:** *Endo*  
**Toilet and bath:** *TOTO*

By punching openings in the roof (opposite, top) as well as the walls, Fujimoto created ambiguous spaces, such as the enclosed garden (right). Rooms seem to float inside the various boxes (opposite, bottom) and often the best views are up to the sky.



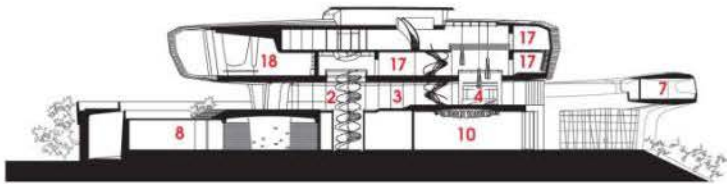
The house, with living quarters for three generations of a family plus a floor for business entertaining (right), occupies a small, landscaped site. The tubular structure relies on post-

tensioned concrete floor slabs, sheer walls, steel trusses, and wide-flange beams. Walls contain conduits for tension cables that tie the cantilevered structure to the ground.



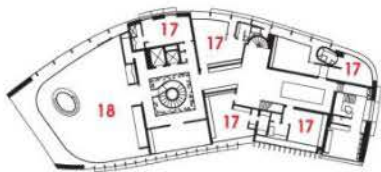
Agence **Jouin Manku** combines the  
exotic and the organic in its design for  
Kuala Lumpur's **YTL RESIDENCE**



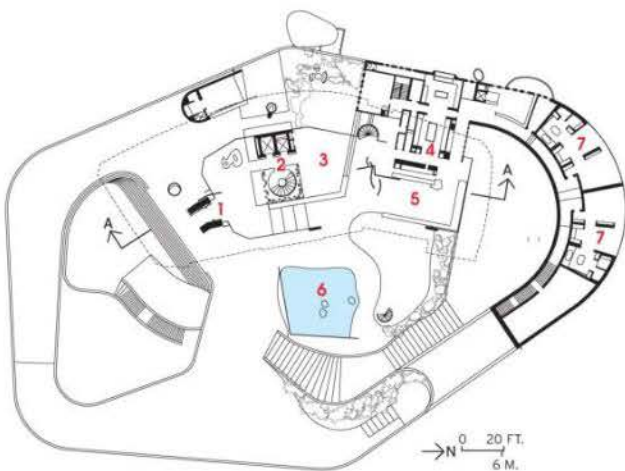


SECTION A-A

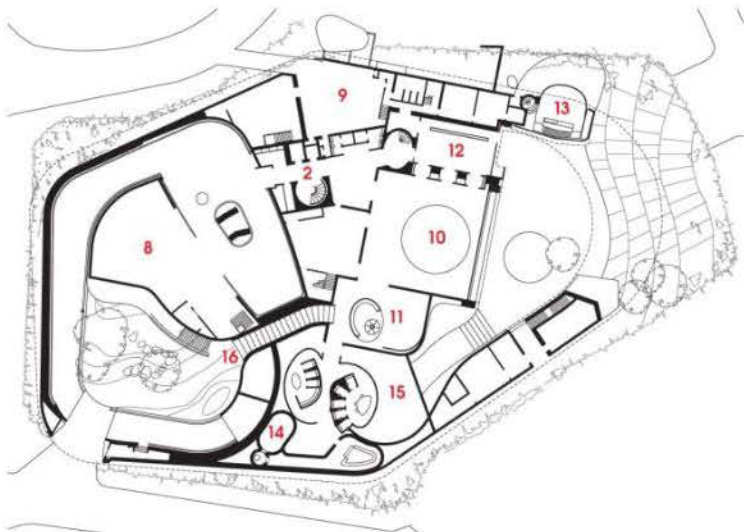
- |                   |                       |                       |
|-------------------|-----------------------|-----------------------|
| 1. Entrance foyer | 7. Guest rooms        | 13. Chapel            |
| 2. Stair/elevator | 8. Parking            | 14. Wine cellar       |
| 3. Living area    | 9. Staff parking      | 15. Storage           |
| 4. Kitchen        | 10. Ballroom          | 16. Pedestrian tunnel |
| 5. Family dining  | 11. Prefunction lobby | 17. Bedroom suite     |
| 6. Pool           | 12. Formal dining     | 18. Library           |



SECOND FLOOR



MAIN FLOOR



LOWER FLOOR



## By Philip Jodidio

Is this the moment to build a 32,292-square-foot private house? In all fairness, the house in Kuala Lumpur, which was completed in 2008 after five years of design and construction, was born of headier times. The client, Yeoh Seok Hong, wanted to accommodate three generations of his Chinese-Malaysian family, which numbers eleven persons, in a house also designed for business entertaining. It is named the YTL Residence for the client's father, 80-year-old Yeoh Tiong Lay, founder of the YTL Group, a company that specializes in the management of regulated utilities and infrastructural construction projects.

The YTL Residence is located in the residential Daramsara area of the Malaysian capital, where it occupies 95 percent of a hilltop site with a view of the city center and Cesar Pelli's 88-story Petronas Towers (1998). Unusual in both size and form, the house marks a significant feat of collaboration that encompasses architecture, engineering, interior design, and landscaping.

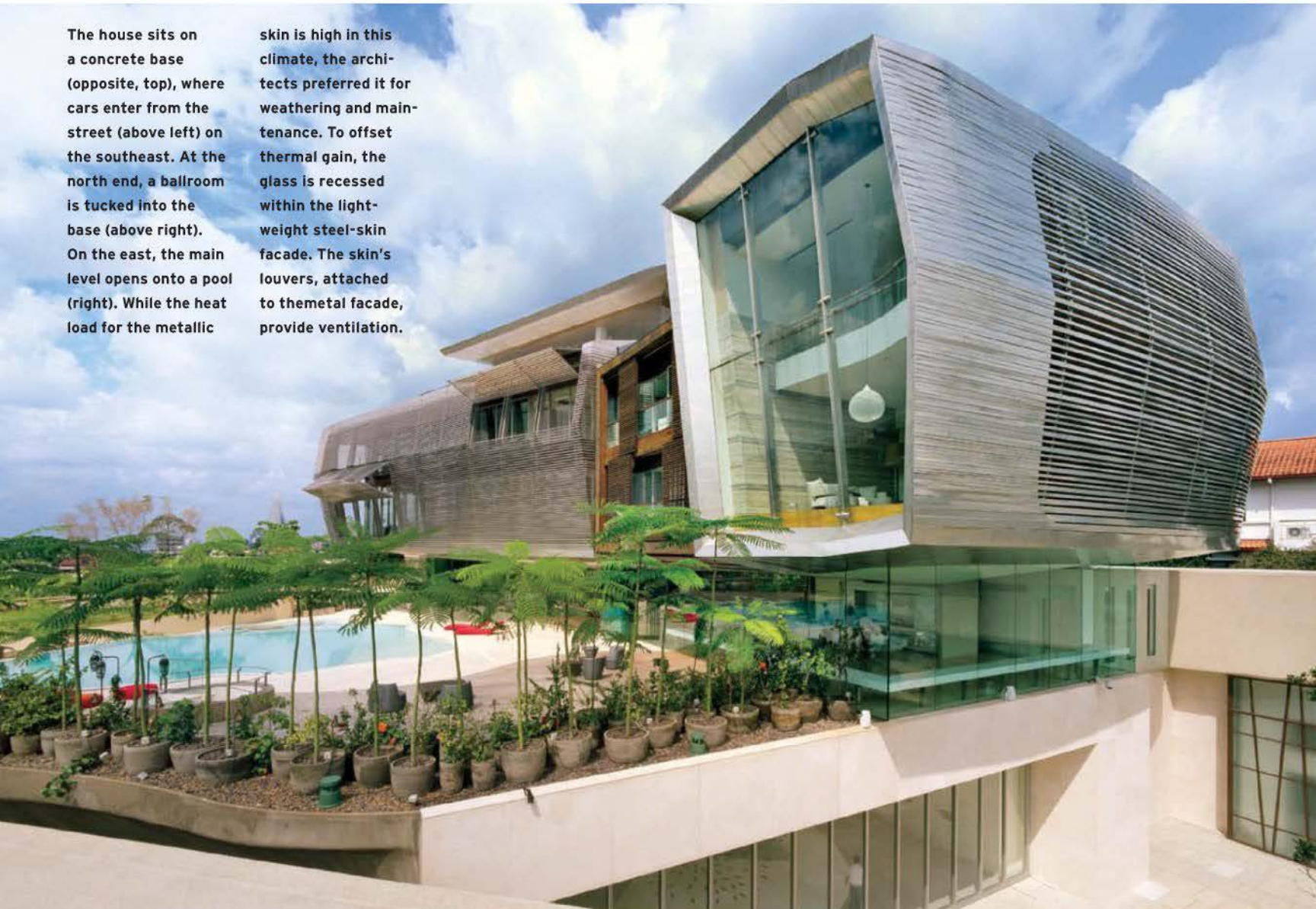
The client knew of the French designer Patrick Jouin from stays at the Plaza Athénée Hotel in Paris, where he and his father admired Jouin's interiors for the restaurant and bar. Jouin, formerly a designer with Philippe Starck's Paris studio, and his recent partner, Sanjit Manku, a Canadian-trained architect who had previously worked for Yabu Pushelberg, hoped the family would share their commitment to Modern architecture, since Daramsara is filled with all sorts of "neo"-style architecture from around the world. They found Yeoh and his wife Kathleen were not only keen on having a Modern house, but desired a spectacular one that would demonstrate the construction know-how of the YTL companies. Even though Jouin and Manku had not designed a house before, the Yeohs were not

*Philip Jodidio is the author of more than 50 books on contemporary architecture, including Green Architecture Now! (Taschen).*



The house sits on a concrete base (opposite, top), where cars enter from the street (above left) on the southeast. At the north end, a ballroom is tucked into the base (above right). On the east, the main level opens onto a pool (right). While the heat

load for the metallic skin is high in this climate, the architects preferred it for weathering and maintenance. To offset thermal gain, the glass is recessed within the light-weight steel-skin facade. The skin's louvers, attached to the metal facade, provide ventilation.







worried: The head of architecture for the construction arm of the YTL Group, Baldip Singh, and the chief of its civil engineering department, Lee Hang Meng, would be playing key roles in building the house. Yeoh himself is an engineer who remained closely involved with the structural aspects of the project.

Unlike many Asian cities, Kuala Lumpur still has a great deal of tropical vegetation, which landscape designer Sophie Agate Ambroise and her firm, *Officina del Paesaggio*, carefully studied—planting both the exterior band of land that surrounds the high walls of the house, the lush inner courtyard at the street level, and the upper gardens near the swimming pool. Jouin and Manku designed the residence so that the more public spaces for guests—a ballroom, a formal dining room that seats 30 people, a large parking garage, a wine cellar, and a chapel—are located on the lowest level, separated from the family spaces above. The main floor for the family itself contains a living room, dining room, and kitchen, but is certainly spacious enough to receive guests. It features a 16-foot-high ceiling and a glazed wall facing east toward downtown Kuala Lumpur. Many of the main level's glass walls slide back to allow cool breezes to enter the interior, although air-conditioning in this hot climate is still necessary.

The two upper floors include a total of nine bedrooms, with one suite for Yeoh Tiong Lay and his wife and a double-height library, and a second suite for Yeoh Seok Hong and his wife, along with bedrooms for the family's seven children.

In arriving at the design of this organically shaped house, Jouin states, "We were searching for a spatial and formal language as dramatic as the landscape itself. While we didn't want to create a village house or a traditional tropical house, we thought it should be truly based in the particular spatial character of the natural environment."

The structure, a hybrid of reinforced concrete, steel, and wood framing, was complicated by the biomorphic shape





The open main level includes the kitchen with a nyatoh-wood ceiling (opposite, left) and a family dining area adjoining the pool (opposite, right, and this page, left and below). The living area is defined by two spiraling stairs and the elevator core (left). Forty percent of the ground floor glazing is operable so that breezes from the garden, augmented with fans, can cool the house when the temperatures allow.





A bedroom in the upper elevated portion of the house is protected from glare by chengal-wood louvers (far left). The prefunction area in the lower level (left) accommodates guests for business entertaining. The double-height library for the family (below) is located above the main living floor in the bent tubular structure containing the bedroom levels.

as well as the program. The lower level of the house is contained within a poured-in-place-concrete base on which the main level sits and the upper levels are balanced. Three concrete core units at particular points—the main entrance, the elevator core, and the kitchen—support the dramatically cantilevered upper volume containing the two bedroom levels. Jouin conceived the body of the house “as a carapace that protects the private spaces.” A metallic skin wraps around the cantilevered form in a way that gives the house something of an alien presence in the midst of the much less inventive architecture of the neighborhood. Jouin explains, “My work often has a sensual shell, with a good deal of attention focused on the skin.”

Because of the landscaping, the house blends into its natural setting in spite of occupying a vast proportion of the site, which is about 1 acre in size. As the visitor ascends from the automobile entrance at street to the living and family dining area a floor above, he or she has the impression of being simultaneously outside and inside the house. The integration with the outdoors recalls the work of Frank Lloyd Wright, yet at the same time its openness and its elevation off the ground relates it to certain traditional Malaysian architecture. It is an original attempt to define a new residential architecture for a tropical climate, if at a scale few may find feasible to emulate. ■

**Project:** YTL Residence, Kuala Lumpur, Malaysia

**Architect and interior designer:** Agence Jouin Manku—Patrick Jouin, Sanjit Manku, principals

**Architect of record:** YTL Design Group

**Contractor:** YTL Construction Group

**Landscape architect:** Sophia

*Agate Ambroise/Officina del Paesaggio*

#### SOURCES

**Metal louvers:** Swissprof (Roofinox cladding)

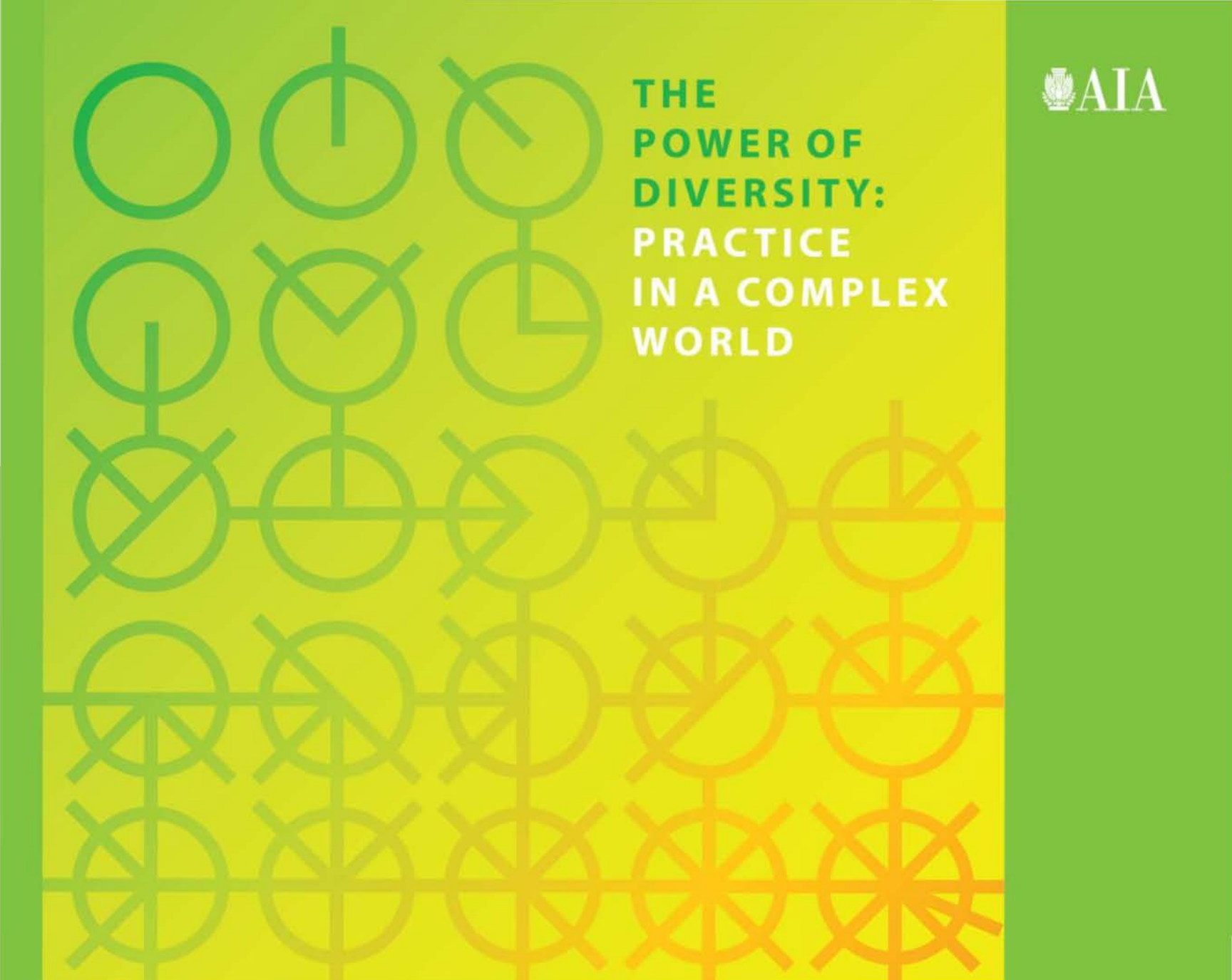
**Living room furniture:** Mobilian Italia; B&B Italia; Cassina

**Carrara marble kitchen counter:** Milano Marble Design





The spiraling staircase of petal-shaped teak treads (above) leads from the kitchen area on the main floor to the bedrooms.



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An aerial photograph of a dense urban skyline. In the foreground, a white building with a grid-like facade cantilevers significantly over its neighbors. To the left, a tall, dark glass skyscraper stands prominently. In the background, the Empire State Building is visible on the left, and a building with a large clock face is visible in the center. The scene is set against a clear blue sky with some light clouds. The white building's facade is composed of a grid of white panels with small, dark rectangular openings. The cantilevered portion extends several stories above the base building. The surrounding buildings are a mix of heights and architectural styles, including older brick buildings and modern glass structures. The overall scene captures the verticality and density of a major city center.

23 East 22nd Street  
grows out of its  
33-foot-wide lot  
to cantilever more  
than 30 feet over  
its neighbors. One  
Madison Park, a glass  
tower by the same  
developer, is located  
just north of it.

# Tall Buildings Push Limits by Stepping Up, Not Back

**A NUMBER OF STRUCTURALLY INNOVATIVE TOWERS DEFY CONVENTION, AND GRAVITY, BY GETTING BIGGER AS THEY GET TALLER**

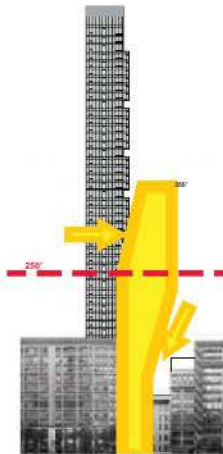
By Josephine Minutillo

Since the dawn of the skyscraper, architects have been preoccupied with going higher. In the mid-to-late 19th century, advances in steel construction and elevator technology allowed buildings to soar into the air—usually going straight up, or sometimes tapering back a bit at the top. While some recently completed and still-under-construction buildings are currently vying for the title of “World’s Tallest,” these days—with less emphasis on achieving great heights—architects are exploring new directions.

One such architect, not surprisingly, is Rem Koolhaas. His Office for Metropolitan Architecture (OMA) has designed a striking—some might say audacious—residential tower for Manhattan’s Flatiron district. When completed (current plans have the project moving forward), it will be OMA’s first building in New York City, the setting for Koolhaas’s 1978 classic book, *Delirious New York*. In it, Koolhaas celebrates the early-20th-century drawings of Hugh Ferriss, which illustrate the possibilities for skyscrapers following the landmark 1916 Zoning Law that created New York’s pervasive setback buildings.

Koolhaas’s building at 23 East 22nd Street also refers to Ferriss’s work, though in an unexpected way. “This is a typical New York building, but turned on its head,” says Jason Long, the project architect based in OMA’s New York office. Growing out of a narrow lot, the building rises straight up for several stories, then swells at its midsection, tapering back again at the top. “The shape of the building derived from two acts of kindness,” Long explains. The stepped condition of the cantilevering midsection allows sunlight to continue to reach the roof garden of the neighboring building. By tapering at the top, the building does not impede downtown views from inside One Madison Park, a much taller tower by the same developer, Slazer Enterprises, currently under construction on 23rd Street. (The two buildings will share an entrance lobby and amenities.)

The 355-foot-tall OMA building would tower over its neighbors on 22nd Street, a mostly residential block lined with a mix of 10- to 12-story structures and smaller town houses in the shadow of the Flatiron Building. The original motivation for the growth spurt in the OMA building’s midsection was to provide a good mix of apartment units—a total of 18 luxury units, including several duplexes and terraces—with varying floor plans and ceiling heights. OMA’s initial design included a much more dramatic cantilever. Working from the earliest stages of design development with structural engineers at WSP Cantor Seinuk, however, OMA modified that element so that the cantilever became more gradual. The first cantilever, on the seventh floor, where the building sets back slightly, is the greatest, at 10 feet 5 inches, with successive ones above it stepping out at every other floor for a



OMA’s project puts a modern twist on New York’s historic setback buildings (above). It shifts to maintain light and views for neighbors (left).

total overhang of 30 feet 8 inches above the adjacent five-story town house to the east. (The developer purchased air rights from a number of nearby properties.)

Spanning 10 floors of the 24-story building, the cantilever resembles an inverted staircase. At such a scale, the daring design is impressive, but the concept is an ancient one. In a corbel, which predates vaults, a block or brick is partially embedded in a wall, with one end projecting out from the face. The weight of added masonry above stabilizes the cantilever and keeps the block from falling out of the

## CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month’s ARCHITECTURAL RECORD/AIA Continuing Education article. To earn one AIA learning unit, including one hour of health, safety, and welfare credit, turn to page 122 and follow the instructions. Another opportunity to receive Continuing Education credits in this issue can be found beginning on page 127.

## LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Describe current trends in the design of tall buildings.
2. Identify the various forces that act on buildings.
3. Describe various structural strategies used for cantilevers.
4. Describe the advantages of steel and concrete in structural design and their various applications.



wall. The same theory holds true for this building, though steel plates are added at each of the cantilevered floors to counter overturning due to lateral, or wind, forces. In the absence of such forces, the building would be completely stable without additional support because of plans to use post-tensioning cables to anchor it into the bedrock.

The primary structure of the building, however, is not steel but concrete. The facades are composed of 12-inch-thick, high-strength structural concrete and act as sheer walls (thinning out to 10 inches above the 21st floor). The structural strategy can alternately be described as a tube with punched-out window openings or a series of stacked Vierendeel trusses that form a tube. “The structure fits nicely

with the architecture,” explains Silvan Marcus, C.E.O. of WSP Cantor Seinuk. “Because the floor area is so small, putting the structure in the perimeter keeps the interiors free of columns. It also suits the architects’ desire for varied fenestration.”

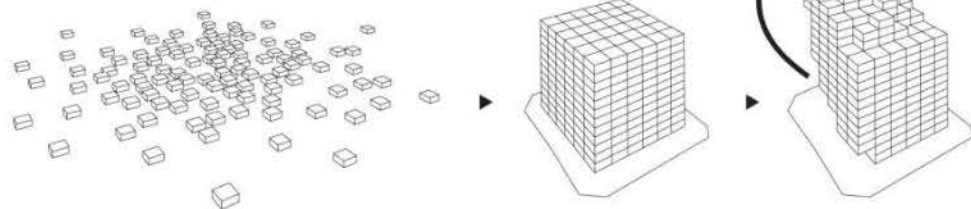
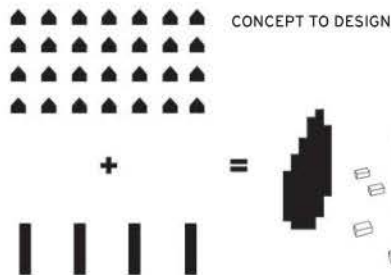
In fact, the vertical window openings, which mimic those of nearby buildings, play a significant structural role. The size of the openings correlates to moments of stress. In areas under greatest stress, the window spacing is modified to provide increased structural area and rigidity, supporting the building like a structural corset. In the tower’s midsection, where the forces generated by the cantilevers are greatest, openings are smallest. There, ceiling heights are also at their lowest at 11 feet. Where forces are minimal, as at the top of the building, ceiling heights increase to 15 feet, and openings get bigger, creating loftlike interiors. All of the forces from the upper part of the building travel down the east and west side walls to the building’s base, where a 46-foot-tall, column-free screening room for the Creative Artists Agency is located. The box-in-box construction at the base acoustically isolates the screening room from the apartments. Adds Long, “In some ways, the base is more complicated structurally than the cantilever above.”

A similarly stepped building is planned—and was recently approved for construction by the local municipality—for Rødovre, a suburb of Copenhagen. Facing fewer site restrictions in terms of lot size and adjacent buildings than OMA’s tower, Sky Village—as the mixed-use building is being called—steps out in more than one direction. Designed by Rotterdam-based MVRDV and its Danish codesigners, AD-EPT, the 380-foot-tall “stacked neighborhood” features a combination of apartments, offices, retail, and parking.

The basic design starts with a square grid of 36 units, or pixels, each two stories tall and measuring 25½ feet wide by 25½ feet long, a



23 East 22nd Street’s facade acts as a structural corset, with compression forces greatest at the middle (above). At the building’s base is a 46-foot-tall, column-free screening room (above right).



The concept for the Rødovre skyscraper incorporates the typologies of the small, nearby buildings into that of towers to create a vertical village made of individual, stacked pixels. The initial cube opens up at the base to create pedestrian access to street crossings. Pixels are rearranged to



dimension arrived at for its flexibility for use as a suitable parking grid, housing unit, and office type. The four central pixels make up the core. Surrounding pixels are removed and stacked on top of each other in

**WE'RE VERY FOND OF LEGOS AND USE THEM IN THE OFFICE FOR CONCEPTUAL DESIGNS. WE TRY TO BUILD THE SAME WAY."**

various configurations, though no single floor comprises all 36 pixels. The building gets "fattest" about a third of the way up, where floors contain up to 26 pixels. "We're very fond of Legos and use them in the office for conceptual designs," says Anders Peter Galsgaard, one of the Copenhagen-based engineers. "We try to build the same way."

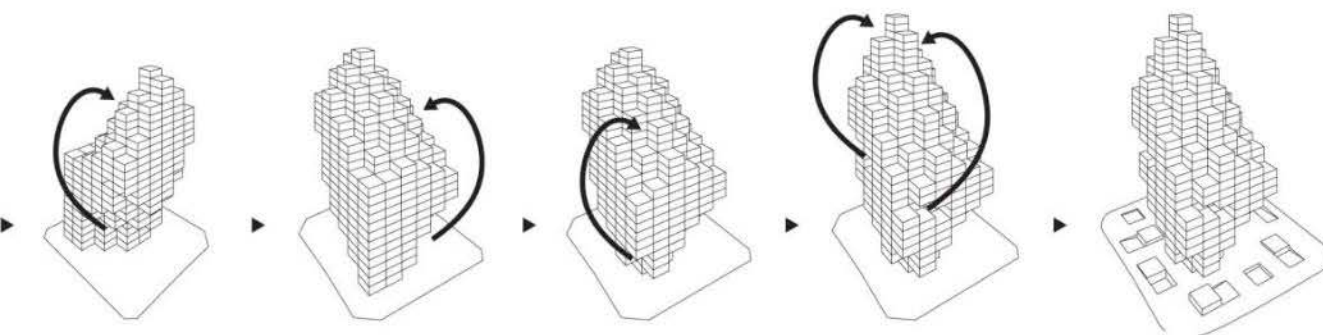
Galsgaard also likens the structure to a Christmas tree, with a very stiff base, in this case consisting of two levels of underground parking, and a main trunk, the cast-in-place concrete core made up of elevators, stairs, and shafts. The pixels, which have a column at each of the corners and diagonal bracing on two sides, will hang from the core from steel trusses rather than cantilever in the traditional sense. According to Galsgaard, "Hanging the pixels this way creates a lot of compression in the core, so even under very high wind loads there is very little tension, which allows us to use steel more efficiently."

The shape of the 380-foot-tall volume—described by the engineers as "not exactly optimal in terms of aerodynamics, but not bad either"—was derived from a variety of considerations. Wind forces in Denmark are mainly from the west, and are also much stronger than those from the east. By hanging more units facing west, they are essentially leaning into the wind, thus optimizing the structural design.

While the designers took into account the impact of wind loads, programmatic considerations heavily influenced the final form. By varying the infill, a mix of offices and apartments are created. Stacking more units toward the north, a taller building emerges with sunnier, south-facing terraces and views to Copenhagen. The designers wanted to minimize the impact of shadows on the surrounding low-rise houses without blocking views on the street level. By pulling away most of the pixels on the ground floor, an open outdoor plaza is created, with some space kept for lobbies and shops. Using identical pixel-unit sizes for cut-outs in the ground, the plaza achieves the same qualities and character as the rest of the tower, as if the tower were emerging from the ground.

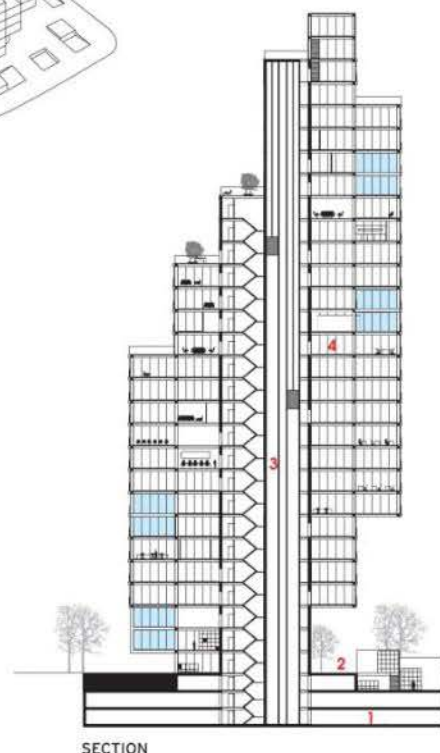


ARCHITECTURAL TECHNOLOGY



- 1. Underground parking
- 2. Plaza
- 3. Core
- 4. Pixel units

create terraces, mostly south-facing, and to bring daylight into the building. An outdoor plaza is created by projecting the grid onto the ground level. Some pixels are pushed down into the plaza, and others are lifted up to form shops, playgrounds, and seating areas.





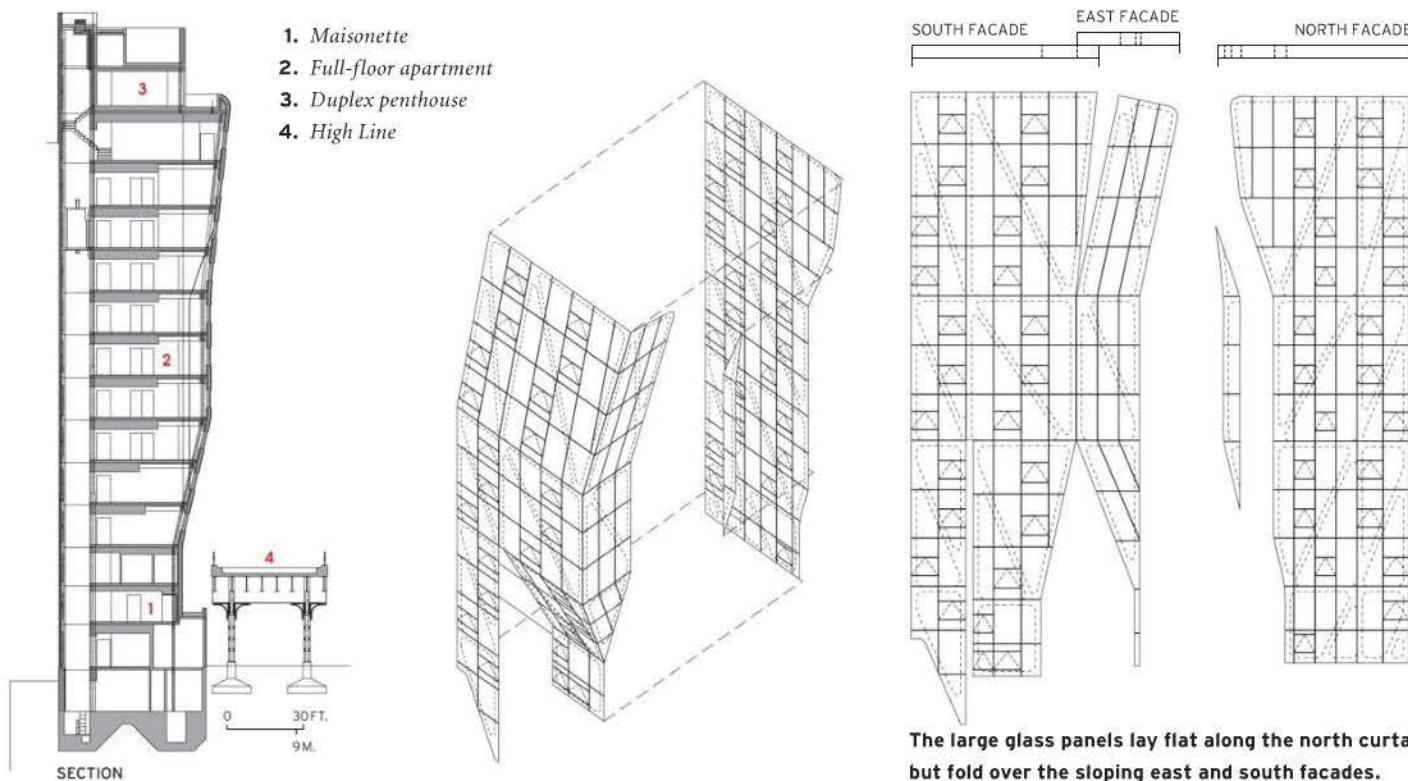
**HL23 rises out from under Manhattan's High Line, a former elevated railway currently being transformed into an urban park (left).**


For another New York building, now under construction and moving forward, Los Angeles-based Neil M. Denari Architects used a different approach. Rather than stepping up, the reverse-tapering form of HL23—a 14-story residential building on New York City's West Side—gradually slopes out. “We didn’t want a Cartesian stepping like a wedding cake,” says

Denari, whose design was inspired instead by a prism.

Denari, like OMA, was faced with a narrow Manhattan lot, which was further constrained by the presence of the High Line—a 22-block-long former railway that rises almost 20 feet above grade—immediately adjacent to it. But unlike OMA's tower a few blocks east, which is completely (and surprisingly) as-of-right, Denari's building—his first ground-up design—required a number of waivers. “There were a lot of restrictions for this site, but the developer was not interested in conforming to the building code,” Denari admits. “He really wanted to push boundaries.” Fortunately for both the architect and the developer, the city was behind the project, particularly because of its relation to the High Line, which is currently being transformed by Diller Scofidio + Renfro and Field Operations from its disused state into a nearly 7-acre, elevated urban park.

Denari's project also takes a much different structural approach than 23 East 22nd Street. “Because the building is wider at the top than at the bottom, there is a natural instability,” explains Stephen DeSimone, president of DeSimone Consulting Engineers, who is working with Denari. “By using steel—which is a much lighter building material—you automatically reduce the effect of the building wanting to topple over.” So, unlike 23 East 22nd Street, which can be described as a brute-force solution with its thick concrete walls, HL23 is made up of slender structural members, including canted steel columns (at a maximum 24-degree angle and located mostly along the long, steel-clad eastern facade) and diagonal bracing (composed of 8-inch pipes and forming a tripartite composition on the glazed north and south elevations).





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The building reaches overall stability only upon completion of construction. Throughout the construction process, guy-wires provide supplemental bracing. They will stay in place until the concrete slabs are poured. Because of the small building footprint, concrete is not used in the elevator core. Instead, a steel plate acts as a sheer wall to take horizontal and twisting loads—the first time such an assembly has been used in a residential building in New York City, according to the engineers.

**Patterned steel panels clad the long, sloping east facade, creating dynamic visual effects above the High Line.**

The structure is also integral to the envelope, and was designed at the same time, with facade consultant Front, to avoid any “reverse engineering,” as Denari puts it. The sloping east facade, which cantilevers a total of 14 feet 6 inches over the High Line (it is set back 8 feet from the High Line platform at the second floor), features custom-designed stainless-steel panels with small window openings. The north and south facades feature extra-large glass panels measuring up to 11½ feet tall.

As construction progresses, an independent contractor lasers the structure to produce surveys on an ongoing basis. “This building is closer to a Swiss watch than most buildings,” says Denari. “Ambitions are higher and tolerances are smaller. None of the steel can be even slightly out of place.”

Though the forms of each of these buildings are new, the technology that makes them possible is not. And while they seem to push the limits of structural engineering, they have only just begun to scratch the surface of what’s possible for 21st-century buildings. ■

For this story and more continuing education, as well as links to sources, white papers, and products, go to [architecturalrecord.com/tech/](http://architecturalrecord.com/tech/).



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### INSTRUCTIONS

- Read the article “Tall Buildings Push Limits by Stepping Up, Not Back” using the learning objectives provided.
- Complete the questions below, then fill in your answers on the next page.
- Fill out and submit the AIA/CES education reporting form on the next page or take the test online at [continuingeducation.construction.com/](http://continuingeducation.construction.com/) to receive one AIA learning unit.

### QUESTIONS

1. New York’s iconic setback building form was a result of which?
  - a. limitations in steel construction
  - b. masonry load-bearing walls
  - c. zoning regulations
  - d. opposition to the Flatiron Building
2. The greatest individual cantilever in 23 East 22nd Street is which?
  - a. 30 feet
  - b. 33 feet
  - c. 10 feet
  - d. 355 feet
3. In 23 East 22nd Street, the series of projections, stepped progressively outward with increasing height, is most similar to which?
  - a. a battlement
  - b. a buttress
  - c. a corbel
  - d. a cornice
4. Which of the following statements is true for 23 East 22nd Street?
  - a. compression forces are greatest at the top of the building
  - b. the structure is located in the perimeter of the building
  - c. the steel frame construction allows column-free interiors
  - d. window openings are largest at building areas under greatest stress
5. The core of the Rødovre skyscraper is made of which?
  - a. post-tensioning cables
  - b. cast-in-place concrete
  - c. steel columns
  - d. steel plates
6. Which of the following does not play a structural role in the Rødovre skyscraper?
  - a. the underground parking
  - b. the positioning of units facing west
  - c. the elevator core
  - d. the dimensions of the pixel units
7. In the Rødovre skyscraper, how many of the floors contain the full 36 pixel units?
  - a. 3
  - b. 2
  - c. 1
  - d. 0
8. Which buildings use steel diagonal bracing to provide additional structural support?
  - a. 23 East 22nd Street and Sky Village
  - b. 23 East 22nd Street and HL23
  - c. Sky Village and HL23
  - d. all of the above
9. For the engineer of HL23, the advantage of steel is which?
  - a. it is lighter
  - b. it is heavier
  - c. it works better under compression
  - d. it is cost-efficient
10. Which building’s structure can be described as a tube?
  - a. 23 East 22nd Street
  - b. Sky Village
  - c. HL23
  - d. none of the above

## AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION



049EDIT1

**Program title:** "Tall Buildings Push Limits by Stepping Up, Not Back," ARCHITECTURAL RECORD (04/09, page 116).

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| 5. a b c d | 10. a b c d |

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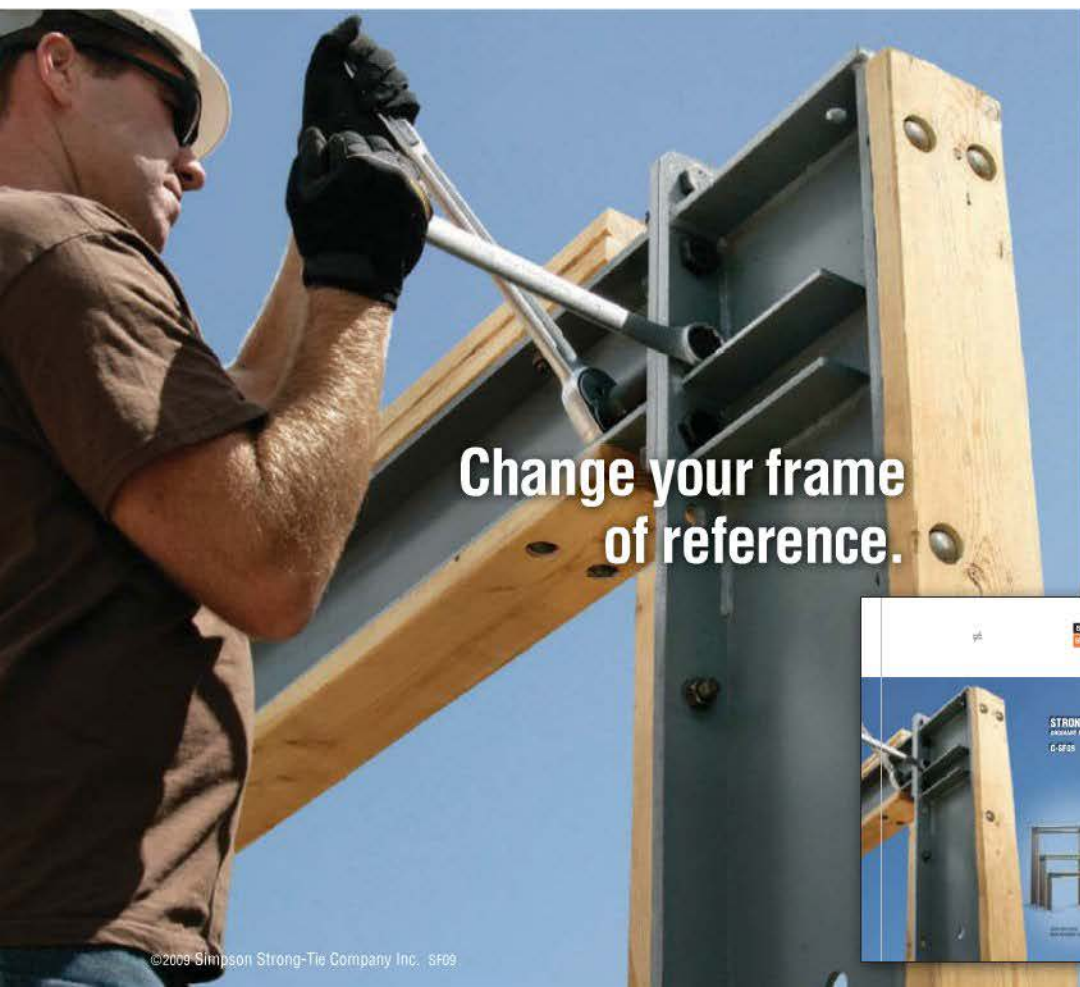
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# Tech Book Review

Three new books offer inspiration and practical advice for integrated, high-performance design. *B.J. Novitski*

## **Integrated Design in Contemporary Architecture**, by Kiel Moe.

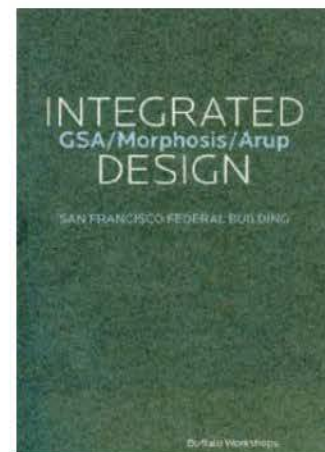
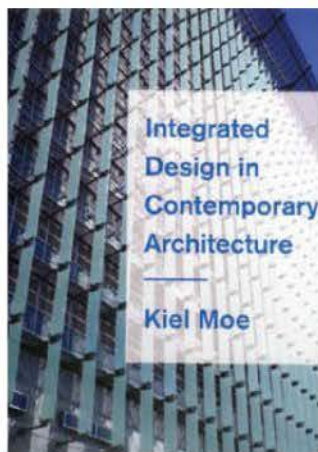
New York: Princeton Architectural Press, 2008, 208 pages, \$65.

## **Green Building Through Integrated Design**, by Jerry Yudelson.

New York: McGraw-Hill GreenSource, 2009, 261 pages, \$65.

## **Integrated Design: GSA/Morphosis/Arup: San Francisco Federal Building**, edited by Brian Carter.

Buffalo, New York: School of Architecture and Planning, SUNY Buffalo, 2008, 88 pages, \$16.50.



It has become increasingly clear that high-performance design depends on an integrated design process. This is because sustainable, high-performing architecture is not achieved by tossing together a collection of green technologies but by the interaction of many technologies and ideas across disciplines and throughout the chronology of design/construction/operation. This is easy to say, but far harder to implement. Three new books present a rich introduction to integrated, high-performance design. They differ from each other – ranging from the inspirational to the practical – but in combination, they paint a clear picture of what these terms really mean for practitioners.

*Integrated Design in Contemporary Architecture*, by Kiel Moe, is a beautifully illustrated collection of 28 case studies, well documented with coffee-table-quality photographs and useful, detailed diagrams. Moe, an assistant professor of architecture at Northeastern University, conveys a sense of complexity that derives from both the visible and nonvisible drivers of design. Visible, for instance, are the dynamic and articulated building envelopes that “selectively capture and channel various forms of energy between the interior and exterior.” Not necessarily visible in the final form, he points out, is the social integration required

within the design team. “Thus, the role of the architect has clearly shifted from individual master to strategic organizer of manifold, often disparate forms of knowledge and processes.” Moe argues that complexity in integrated architecture is not manifested in complex form so much as in “an idiosyncratic assemblage of theoretical, practical, ecological, economical, political, social, and cultural parameters that presuppose the design and performance of architecture.”

Moe’s careful selection of diverse building types and North American climate zones makes his book useful as well as inspirational. One example is the Lavin-Bernick Center for University Life at Tulane University in New Orleans, by Vincent James Associates Architects with James Carpenter Design Associates and Transsolar Energietechnik. Significantly, the daylighting and climate experts are listed as part of the architect team instead of as consultants. The project embodies modern equivalents of vernacular technologies, in shading devices, low-energy fans, and vegetated surfaces to replace much of the air-conditioning conventionally used in this hot, humid climate. With porches, canopies, shades, and porous surfaces, the envelope is “not a line but a gradient of social and climatic intensities.” Mixed with the beautiful photographs are diagrams showing the all-important

siting, air flow, light distribution, and curtain-wall construction details.

Once inspired, a practitioner will ask: How is this really accomplished? In reply, Tucson, Arizona-based engineer Jerry Yudelson offers *Green Building Through Integrated Design* as a practice manual, packed with actionable information and showing the design process from many professional points of view. In lengthy quotes from architects, engineers, and building owners, he gives firsthand accounts of innovative teamwork. In this, the meatiest of the three books, the author specifies the characteristics of high-performance buildings, explains LEED categories in detail, and offers no-nonsense descriptions of collaboration at each design phase. Uniquely qualified, with degrees in both engineering and business administration, and a nationally recognized expert in green design, Yudelson describes the barriers perceived by clients and presents a business case for building green. The book includes an extraordinary, 400-item list of questions to consider at successive design phases. Only a fraction of buildings initially registered in the LEED database actually succeed in achieving certification. His advice can help firms reverse this trend. Don’t look for glossy photos here; instead, you will find eminently practical diagrams, data, and ideas.

The third book is a monograph that details the integrated design process of a single building from three points of view. The San Francisco Federal Building was a close collaboration between the owner, the U.S. General Services Administration (GSA); the architecture firm Morphosis; and the engineering firm Arup. The architect in this case may indeed be the “strategic organizer,” but the important role of the GSA in establishing green standards and siting within the community is an object lesson in architect/client relationships. Equally important is the early collaboration between architect and engineer, facilitated by a shared digital 3D model. The performance of the building’s intricate skin depends on climate studies and structural contributions from the engineers simultaneously with the architect’s design of the sunscreen. The same model was given to fabricators to inform construction. Both building and process are thoroughly documented in photos, drawings, and diagrams.

Collectively, these three books provide a multilayered education in integrated, high-performance design, appealing to both the right and left sides of a designer’s brain. These are not recipes for success – every project is different. But witnessing the process of successful design teams demonstrates that integrated, high-performance design is indeed within reach. ■





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# Essential Zinc: Building For The Future

Low-maintenance zinc gains popularity for buildings that last

Provided by Umicore Building Products

By Janet Zaso

Zinc building products, including roofing, cladding and rainwater systems, are enjoying new popularity in North America due to recognition of product quality and its long-lasting, low-maintenance benefits for owners. From the distinctive look of the University of Cincinnati campus housing to the curves of the University Town Center in Hyattsville, Maryland, zinc roofs and wall cladding are now being specified for commercial, public and residential projects.

Design professionals have long recognized the durability of buildings in European cities such as Paris, where the beautiful patina of zinc roofs has crowned the city since the days of Napoleon III in the late 1800s. Today many of the city's rooftops are still over 80 percent zinc and some have been around for more than 100 years.

Stateside, zinc is relatively new to the market and is popping up across the country. Its rise in popularity can be attributed to more building professionals discovering the metal's distinct advantages for design flexibility and life-cycle return on investment. In addition, the positive environmental aspects of zinc are becoming better understood. New Jersey architect Dean Marchetto of Dean Marchetto Architects PC summed up why he thinks zinc popularity is on the rise: "Zinc is a natural material that lasts forever, requires no maintenance, has superior aesthetic qualities with a natural patina, it's affordable, easy to bend and shape, and it's green."



Photo courtesy of Umicore Building Products

Tangeman Hall at the University of Cincinnati in Cincinnati, Ohio.  
Architects: GBBN Architects & Gwathmey Siegel & Associates

## CONTINUING EDUCATION

Use the learning objectives below to focus your study as you read **Essential Zinc: Building For The Future**. To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit, answer the questions on page 131, then follow the reporting instructions or go to [ce.ArchitecturalRecord.com](http://ce.ArchitecturalRecord.com) and follow the reporting instructions.

### Learning Objectives

After reading this article, you should be able to:

- Describe the types of building applications suitable for using zinc materials.
- Discuss and dispel some misconceptions about building with zinc roof systems and walls.
- Identify some specific installation requirements for zinc roof systems and walls.
- Explain the positive environmental impacts of zinc.

## THE VISUAL ALLURE OF ZINC

While two-thirds of the zinc sold worldwide is for flashings and rainwater goods (gutters, downspouts and accessories), zinc roofing systems and cladding are the attention-getters. The material is suitable for a full range of applications from conventional gables, eyebrows and mansards, to more contemporary curved walls, roofs and sun shading devices. The metal has been used for building envelopes for over 150 years and is distinguished by its beautiful patina characteristic that many building professionals are starting to understand.

The gray-colored zinc patina develops over time as the material weathers naturally; it is a process similar to the way copper turns brown then green. With zinc, the patina is actually a layer of zinc hydroxy-carbonate that develops — typically over 2 to 5 years — as the material is exposed to carbon dioxide in the air. The time it takes for the patina to emerge depends upon environmental factors such as air quality. In areas with a higher concentration of

pollution, the patina appears more quickly. Likewise, zinc used in interior applications will rarely, if ever, develop a patina. Once formed, however, the layer is compact and insoluble to rainwater which thereafter controls the rate of corrosion. This patina is said to be a self-healing protection for the zinc. If it becomes scratched or is removed, it will naturally redevelop from continued exposure to rainwater and carbon dioxide. The scratch would appear as a shiny area while healing. Once the patina develops, the zinc has a uniform and consistent color of gray for its lifespan.

Zinc manufacturers today offer pre-patina materials (also called pre-weathered) with a dark gray look that is very true to the dull gray that all zincs eventually acquire after natural weathering. They also offer factory-applied transparent coatings that include subtle blues, red and greens. Over time these materials will all develop the natural gray zinc patina. The length of time for this to happen, however, still varies with air quality. Typically, these factory-applied colors will last up to 30 years before gradually changing to the natural gray patina.

Architect Bruce Norelius of Elliott Elliott Norelius Architecture in Maine said the firm began researching zinc after becoming interested in materials being used in Europe. They've used zinc now in several projects where it compared favorably to other metals. "Zinc has very little reflectance. Here in a coastal area by the water, people are conscious of that. Zinc has that low reflectivity and beautiful appearance that gets better with time."

**Overall costs for maintaining the product, when factored by its years of longevity, actually yield a more favorable return on investment for owners when compared to other materials.**

Located at number thirty on the Periodic Table, zinc is an essential element. The zinc metal used in building products is an alloy that meets the European standard EN 988. While the U.S. doesn't have a similar standard, most of the zinc building materials sold here adhere to EN 988. The standard dictates the dimensional tolerances of the metal — such as thickness, width, length, spherulicity and flatness — and also dictates the level of trace elements that are contained in the mix. These elements are copper (0.08 – 1.00 percent), titanium (0.06 – 0.20 percent) and aluminum (less than 0.015 percent), all of which contribute to the unique characteristics that distinguish zinc EN 988. The copper slightly increases the mechanical resistance of the alloy, where as the titanium provides increased "creep resistance." Creep is an occurrence in which the zinc will actually become thicker at the bottom of a roof than at the top as it ages. It actually "creeps" down the roof over time. Titanium helps protect the zinc against creep. Design professionals can confirm with a supplier that the material specified conforms to EN 988.

Beyond the patina, zinc manufacturers are educating building professionals about other misunderstandings related to the product. First, while it is true that the initial cost for zinc building products is higher compared to other choices, overall costs for maintaining the product, when factored by its years of longevity, actually yield

a more favorable return on investment for owners when compared to other materials. Second, building professionals experienced at using copper sometimes assume zinc is a similar metal and fail to take into consideration its specific installation needs, therefore some avoidable problems have been a deterrent to the use of zinc. A poor installation can result in corrosion and improper adjustments for the metal's expansion and contraction. Finally, a perception that zinc is not environmentally friendly is being reevaluated. Some of the ways zinc contributes to sustainable building include recycling and recycled content, low or harmless levels of leaching into adjacent soil and the low embodied energy requirements needed for manufacturing. These advantages will be explained further in this article.

### FLEXIBLE ZINC

Architectural metals such as stainless steel, copper, aluminum and zinc bend to accommodate curves, textures and other design elements, thereby providing architects with more options for creating unique building forms. Zinc contributes to the architectural styles possible today, a trend seen in such projects as Will Bruder's Nevada Museum of Art in Reno and the entrance to The Centers for Disease Control in Atlanta.

According to Dean Marchetto, "[Zinc] has qualities that lend itself to a modern aesthetic. It can be shaped into a variety of patterns, tiles, sheets and panels which offer architects almost unlimited opportunities in terms of the way it is applied to a building façade or a roof."

A perception that zinc is hard to work with and install is being overcome through manufacturers' efforts to explain the product's specific needs. Many manufacturers work with building professionals during construction to advise on installation, and many strongly recommend or even require training prior to installation.

One aspect of working with zinc is the metal's expansion and contraction. Zinc will move approximately one inch in thirty feet and so the design must be engineered to meet this thermal movement. To accommodate, a combination of sliding and fixed clips must be installed in zinc roofing and wall systems. Fixed clips alone will not allow sufficient expansion and contraction. The sliding clips, however, consist of two-parts in which one part can slide to accommodate thermal movement.

Temperature is another misunderstood aspect of working with zinc and is particularly important when bending the material on site. The metal is malleable but can become cold and brittle at lower temperatures. Therefore, zinc should not be folded when the metal is at temperatures of less than 45 degrees. Crazeing, which is seen as long wrinkles in the material, can occur if this happens. When working in temperatures below 45 degrees, installers must use a heat gun to warm the material to the right temperature for bending and installation. Therefore, it is important to factor temperature into construction scheduling when planning to bend or fold the material on site. Once the material is installed correctly, however, low temperatures do not cause problems because accommodations have been made for thermal expansion and contraction of the metal. Pre-manufactured wall panels and flashing limit the need for bending zinc on the job site. When bending zinc is necessary, installers



typically use a heated enclosed area inside the building. This is a standard technique used with all metals in regions with very low temperatures.

## BASICS OF ZINC ROOF SYSTEMS

Zinc roofing systems can be successfully installed on warm and cold roof applications. The term “cold roof” used here refers to one with a ventilated substrate rather than a reflecting “cool roof,” although some zinc roofing may also have this characteristic. Cold roofs are typically seen in residential homes with gable roofs and involve a roof ventilation system in which air is introduced at the eaves and ventilated at the ridge. Warm roofs are more typical on commercial buildings, although many residential projects today are turning to warm roofs for their energy efficiency and other benefits such as cost and aesthetics. Typically the layers of a warm roof include a metal deck, a vapor barrier and a layer of rigid insulation that’s on top the rafters rather than between or below them.

Because a warm zinc roof doesn’t have the same air ventilation system as a cold one, and because zinc metal will corrode if moisture isn’t wicked from it, proper detailing will avoid roofing failures.

Correct installation of a zinc roofing system is essential for protecting the metal against corrosion. Corrosion can be seen visually as a white chalkiness on the metal surface. Typically, the causes of zinc corrosion are water from condensation adhering to

the back of the panel or standing water on the surface due to a lack of slope. Zinc corrosion can also be accelerated by salt spray, acid rain and construction dust, such as masonry dust. Even with these atmospheric conditions, however, zinc roofs and walls have been successfully installed in most climates across the United States. Often success is determined by good communications between the builder and manufacturer to assess and accommodate any environmental factors.

Generally, one of three approaches is used to prevent zinc corrosion from moisture. Skip sheathing is the oldest method and involves placing pine boards beneath the zinc roofing. The boards are spaced apart so that when condensation on the back side of the metal drips off, it will drip behind the pine boards where it can dry from air flow behind it — essentially a cold roof. This approach is still followed in Europe in some places and contributes to the longevity of some European buildings. Another method for protecting against condensation is installing a drainage mat beneath the zinc roofing. The newest protection against corrosion is a special backside polymer coating. The coating is often between 30 microns and 60 microns thick and protects the zinc metal from coming into contact with moisture from condensation. The first generation coatings were white colored, but today gray coatings can be found to aesthetically match the natural patina color of zinc.

What about protecting zinc from corrosion due to sodium in salt spray? Sodium can alter the chemical patina process and result in a lighter or streaked color. Therefore, in seaside locations, zinc products may need regular rinsing with fresh water. According to a spokesperson from Umicore, a producer of zinc worldwide, “Zinc is a natural material and may vary in color from panel to panel. It may also vary in color uniformity within the same panel. Although Umicore (uses) its best efforts to provide a uniform color for each order, it cannot warrant, either expressly or impliedly, that all panels will be free from variation in color.” In dry coastal climates, Umicore expects that pre-patina material will not retain its original color and hue.

Besides warm versus cold roof considerations, zinc is suitable for all types of roofing applications. Depending upon the length and slope, a zinc roof with a length exceeding the maximum length for one panel will require transverse seams, which are those joints that run perpendicular to the roof slope between the top and bottom of one metal panel.

Standing seam and batten seam roofs are also suitable for zinc applications. In a standing seam roof, the long seams on adjacent zinc panels are bent up, overlapped or even folded to prevent moisture from getting in and to “seam” the panels together. When working with zinc in this manner, the height of the seam is typically one inch, however the height can go to a one-and-a-half inch seam for snowy areas or low slope (1:12) roofing applications.

Batten seam roofs can be adapted to complex domes, and experienced installers need only simple tools for the work. The installer fastens a strip or bar to the structural deck and the zinc roofing panels are attached to it. When working with zinc, if the batten cap (the top of the seam) is to be bent downward, the legs of the cap must be bent at an angle less than 90 degrees. The angle is important to accommodate for thermal expansion and contraction

of the metal. A straight 90 degrees could not allow enough play for this movement. The proper leg angle is a common mistake made by inexperienced installers. In some cases the leg is not bent down at all, but is simply capped off.

## ZINC CLADDING AND RAINSCREEN

Zinc rainscreen applications are increasingly popular with design professionals. As with a masonry rainscreen, flashing and weep holes need to be provided at the base, as well as the head details, of the exterior wall. An advantage with zinc wall construction is that it doesn't require caulking in the joints or adjacent to the connecting panels. Successful rainscreens keep water from penetrating the wall system, by allowing it to flow down and off an outside wall surface and by wicking away any moisture that does penetrate the wall system before it causes decay and corrosion. This system utilizes an air cavity between the wall and cladding to produce a type of chimney effect that provides air flow and improves energy efficiency. The wall behind the rainscreen is water resistant. Some water will get past the zinc surface and is planned for in the rainscreen design. The flow of air in the cavity between the rainscreen and the wall, allows for the evaporation of water that penetrates the zinc surface wall panels. Additionally, the cavity between the rainscreen and the building wall is drained at the bottom, thus allowing any moisture that gets between the rainscreen and the wall system to both evaporate and drain at the base and head details of the wall.

Flatlock and interlocking panels are two common styles of zinc cladding. For rainscreen applications, flatlock panels are attached to a substrate, and their corners are actually open in order to allow condensation to drain or dry. Flatlock panels are often designed in a running bond pattern as well as stacked bond pattern, a fact that's also true for interior applications. Diagonal diamond shaped patterns are also being used. The size of the patterns will depend on which panels are selected. Interlocking panels are mounted on hat channels placed either vertically or horizontally. These provide the required air flow as well as ability for water and condensation to weep out either at the base of the walls or at fenestration head details.



Bloorview Kids Rehab hospital in Toronto, Canada includes interior walls of zinc flatlock shingles. The hospital also has a zinc roof.  
Architect: Montgomery Sisam. Installer: Flynn Canada

For walls, standing seams — either vertical or horizontal — are popular styles for zinc applications. Often, manufacturers will recommend a single lock versus double lock for the seam because this allows for using a thicker gauge material than typically used for a roof. While a double lock standing seam roof might use a 0.7 mm thick zinc, the single lock standing seam allows for increasing that to 0.8 mm on walls. According to Umicore, design professionals should refer to the manufacturer regarding product thickness for zinc projects because it will vary depending on the panel and sought-after aesthetic.

“[Zinc] can easily be used for flashing details on façades and roofs made from zinc panels and shingles, according to Dean Marchetto. “This allows the designer flexibility to design a façade detail in which the flashing can become part of the designed pattern, all in the same material and color.”

Textural walls are another application of zinc that is gaining attention for both interior and exterior walls. Corrugated material is perhaps one of the oldest wall cladding applications, one that has a familiar look in rural and marine settings. Exterior corrugated zinc cladding requires a few extra considerations. First, when panels are laid in a shingled style or separated by a reveal, that reveal must include a drainage system behind it. Reveals can be detailed in a similar fashion to a rainscreen system and mounted on galvanized steel hat channels.

## LOW MAINTENANCE MEETS LONGEVITY

An assessment of zinc's potential for a favorable return on investment requires examining more than just material purchase and installation costs. In the case of zinc, these upfront costs are typically higher compared to other choices of material. However, compared to similar metal choices, zinc is priced lower than copper, stainless steel, lead-coated copper and zinc-coated copper. As for installation costs, zinc is comparable to other metals such as stainless steel and copper and is more expensive than painted metal. However, some zinc products, such as pre-formed shingles, cost no more to install than other similar choices. More notable is that zinc is cost effective when the total service life and maintenance costs of the product are considered.

Zinc roofs have been used in Europe since the late 1800s and historical results point towards a high rate of longevity. Today's metal alloy has been standardized and improved and, presumably, is an even more durable product than what was installed years ago in Europe. In the U.S, zinc is newer to the market and less long-term data is available. While the longevity of a properly-installed zinc roof will vary depending on such factors as climate and pollution, a zinc roof can have a service life of 60 to 100 years. Comparatively, an asphalt roof has a life expectancy of 18 to 25 years. For wall applications, the service life is even longer due to less exposure to weathering. In fact, some estimates indicate zinc walls can last 300 years.

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1. **What type of zinc application has the highest sales worldwide?**
  - a. roof systems
  - b. cladding
  - c. rainwater goods and flashings
  - d. walls
2. **Which statement is true about the natural patina of architectural zinc?**
  - a. The patina forms over time at a rate that depends on climate and pollution.
  - b. The patina requires special maintenance to maintain its beauty.
  - c. If the patina becomes scratched, a manufacturer will have to restore it.
  - d. All of the above
3. **Which trace elements exist in the zinc alloy specified by the standard EN988?**
  - a. titanium and iron
  - b. aluminum, titanium and iron
  - c. copper, nickel and aluminum
  - d. copper, titanium and aluminum
4. **What are the reasons for zinc gaining in popularity among building professionals?**
  - a. beauty of the patina and malleability of the metal
  - b. long life span
  - c. low maintenance
  - d. All of the above
5. **Which is not a method for protecting a zinc roof from corrosion?**
  - a. skip sheathing
  - b. using panels that have a backside polymer coating
  - c. creep resistance
  - d. installing a drainage mat
6. **Which statement is true about zinc rainscreen applications?**
  - a. The material requires caulking.
  - b. Water is weeped at the base of the wall.
  - c. An air cavity is not necessary between the rainscreen and wall.
  - d. None of the above
7. **When installing a batten seam roof with a batten cap, how should the legs be bent and why?**
  - a. at 90 degrees for optimum strength
  - b. at less than 90 degrees to accommodate thermal expansion and contraction
  - c. at more than 90 degrees to accommodate thermal expansion and contraction
  - d. They should not be bent at all.
8. **Under favorable conditions of climate and low pollution, what is the average life expectancy of a zinc roof?**
  - a. 300 years
  - b. 25 years
  - c. 40 years
  - d. 60 to 100 years
9. **Which is a true statement about the recycling cycle for zinc scrap?**
  - a. Today there are not many uses for recycled zinc and so demand is low.
  - b. The zinc from galvanized steel cannot be recycled.
  - c. 90 percent of the zinc used worldwide is recycled for additional use.
  - d. Rolled zinc produced today does not contain any recycled zinc.
10. **Which metal requires the least embodied energy to produce?**
  - a. zinc
  - b. aluminum
  - c. steel
  - d. copper

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# Product Focus **Cladding/Facades**

This month we focus on the variety of materials available to protect and identify your projects, ranging from a **coral-inspired stone veneer to an advanced facade system** that integrates technologies from four manufacturers. *Rita Catinella Orrell*



The two-story LivingHomes show house, designed by KieranTimberlake on the floor of this year's Builders' Show (far left and above), features panels in wood grain, medium brown, and light green. A private home in Aspen, Colorado, showcases EcoClad panels in black alongside real cedar shingles (left).

## Recycled paper-based exterior siding material has a strong debut despite economy

Attendees at this year's Builders' Show in Las Vegas and TED Conference in Long Beach, California, got a first look at EcoClad, the industry's newest green siding offering. The material was chosen by prefab developer LivingHomes for its show house designed by the Philadelphia-based architecture firm KieranTimberlake.

Four and a half years in development, EcoClad exterior siding is the latest introduction from Klip Bio Technologies (known as Klip Tech), a Washington State-based manufacturer of sustainable materials for countertops, tabletops, flooring, and specialty surfacing.

Klip Tech first entered the surfacing market with RampX, a

skateboard ramp surfacing made from recycled paper and water-based resin. Soon after, the company developed PaperStone, a recycled-paper countertop product that was sold in 2007.

Klip Tech president Joel Klippert wanted to create a sustainable exterior cladding for residential and commercial applications that would be competitive with European rain-screen systems. EcoClad is made from a fifty-fifty blend of FSC-certified postconsumer recycled office paper and wood fiber, and plantation-grown bamboo fiber, bound together by a 100 percent water-based copolymer resin. VOC- and benzene-free, EcoClad can contribute to seven different LEED credits.

A long R&D process was needed to get the product's UV-resistance proven and tested, says Klippert. Offered in 4' x 8' panels, the siding comes with a 10-year warranty, is Class-A fire rated, and is offered in 10 stock wood grains, five stock matte colors, and custom colors.

According to LivingHomes' project architect Amy Sims, the material is dense and cuts well, but "you get a sharp angle, so you have to sand that edge to give it a slight radius." She adds that since Klip-Tech sells the panels and not a complete rain-screen system, specifiers have more flexibility with how to use the product.

Manufactured entirely in the U.S. in Tacoma; Scranton, Pennsylvania; and Madison, Wisconsin, EcoClad is

offered at a price point ranging from \$9 to \$19 per square foot, which appeals to architects pricing products from abroad, says Klippert. The current economic slowdown has also given professionals more time to research new materials, he adds, "helping us to get people to stop, look, and listen to our product."

"Although we didn't intend to be more cost-competitive than the European products," Klippert notes, "that's what we have turned out to be." Klip Bio Technologies, Payallup, Wash. [www.kliptech.com](http://www.kliptech.com) **CIRCLE 210**

For more information, circle item numbers on Reader Service Card or go to [architecturalrecord.com/products/](http://architecturalrecord.com/products/).



## Products Cladding/Facades



◀ **Smarter facade** At last year's Greenbuild show in Boston, Kawneer displayed an advanced facade that integrated the manufacturer's energy-efficient 7500 Wall, thermally broken 512 Ventrow ventilator, and a modified version of the 1600 sunshade and InLighten light shelf, along with Mechoshade's motorized shading system and light shelf louver, Viracon's VE1-2M triple insulating glass, and Suntech's See Thru solar panel. Kawneer, Norcross, Ga. [www.kawneer.com](http://www.kawneer.com) **CIRCLE 211**

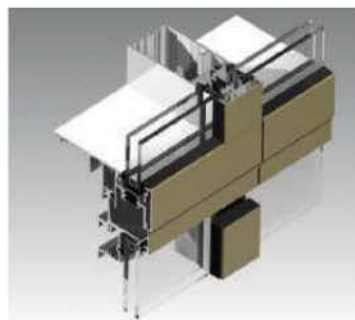


▲ **Seaside stone** CoastalReef, the latest architectural stone veneer offering from Eldorado Stone, features saw-cut lines and a flat, smooth surface that is heavily textured to evoke the look and feel of coral. Ideal for projects with a contemporary, coastal style, CoastalReef is available in assorted square and rectangular shapes in tan/yellow or white/cream blends. The stones are 4" to 12" in height, 4" to 16" in length, and 1/4" thick. Eldorado Stone, San Marcos, Calif. [www.eldoradostone.com](http://www.eldoradostone.com) **CIRCLE 212**



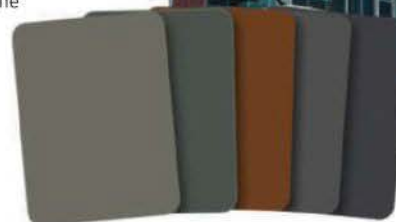
▲ **On the road** The Sunrise Mainline Toll Plaza, located on Florida's Sawgrass Expressway, was designed to be a "showcase toll plaza" by the Orlando-based design and engineering firm RS&H. The plaza utilizes approximately 11,000 square feet of Pac-Clad .032" corrugated-aluminum panels surrounding 5,400 square feet of custom-perforated and spray-coated .125 plate aluminum, fabricated by Allied Architectural Metals, Petersen Aluminum, Elk Grove Village, Ill. [www.pac-clad.com](http://www.pac-clad.com) **CIRCLE 213**

▼ **Copper cladding** More than 33,000 square feet of .063 aluminum Dri-Design copper anodized panels complement a curved glass facade and masonry accents for the new, 47-story Parkview East condominiums in Chicago designed by Solomon Cordwell Buenz. The patented Dri-Design wall-panel system is a dry joint, pressure-equalized rain-screen system. The copper panels feature a hard finish and will not patinate. Dri-Design, Holland, Mich. [www.dri-design.com](http://www.dri-design.com) **CIRCLE 214**



▲ **High-rise system** Wausau's new 6250i-HRX curtain-wall system is designed specifically for the floor-to-floor spans and loads of high-rise construction such as condos, hotels, and apartments. The HRX system is available as conventional curtain wall or window wall or as a composite system that passes in front of floor slabs with minimal clearance between the face of spandrel glass and the concrete slab. Wausau Window and Wall Systems, Wausau, Wis. [www.wausauwindow.com](http://www.wausauwindow.com) **CIRCLE 215**

► **Metallic fiber cement** Utilizing a new finishing technique, Nichiha's Illumination Series panels offer the luminescent look of metal at a significantly lower installed cost, according to the manufacturer. Made with 20 percent postconsumer recycled content, the 5/8"-thick fiber-cement-siding panels measure 18" x 6' and come in five shades. A patented hidden clip system does not require special tools or labor for installation, and the panels can be installed on substrates including CMUs, metal studs, and pre-engineered metal buildings. Nichiha USA, Norcross, Ga. [www.nichiha.com](http://www.nichiha.com) **CIRCLE 216**



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# Product Briefs IBS Review

Although this year's International Builders' Show in Las Vegas **drew a third fewer attendees than last year's**, the show still saw the introduction of a range of **innovative products** as the industry tries to make itself more environmentally friendly. *Aleksandr Bierig*



◀ **Sleeker handrail** Kohler introduced an integrated shower handrail that avoids the bleak institutional look of most grab bars. The Belay is recessed into the wall, creating an easily manageable gripping surface that blends into the clean lines of a bath or shower. It comes in one, two, or three wall configurations in standard 30" or 54" lengths that can be cut down to size. Finishes are etched or polished silver, etched or matte nickel, and bronze. Kohler, Kohler, Wis. [www.kohler.com](http://www.kohler.com)

**CIRCLE 217**

▶ **Innovative venting** Jenn-Air introduced two new takes on kitchen ventilation at the show. The company claims to have introduced the industry's first ductless downdraft stove top, which uses a powerful filter to capture smoke and steam without requiring the major construction of adding ductwork, so it can be installed almost anywhere, including high-rise apartments and condos. The company also debuted a sleek, wall-mounted perimetric vent hood that pulls air in around its picture-framelike glass surface (shown). It is made from a high-gloss, angled panel, with stainless-steel trim. Jenn-Air, Benton Harbor, Mich. [www.jennair.com](http://www.jennair.com) **CIRCLE 218**



▶ **Space-saving panel** ECO-heater's electric panel unit provides a safer and greener version of a space heater, according to the manufacturer. The 23 $\frac{3}{4}$ " wall-mounted square uses convection technology (90 percent from the panel back and 10 percent from the front) to heat a room up to 10' x 12' without fans, warming the cold air pulled through its bottom vent. ECO-heater claims the device uses 75 percent less energy than conventional space heaters. ECO-heater, Alexandria, Va. [www.eco-heater.com](http://www.eco-heater.com) **CIRCLE 220**



▶ **Flexible heating** In response to volatile oil prices, Harman, a division of Heath & Home Technologies, has created the HydroFlex60 wood pellet boiler. The compact device is designed to work in conjunction with existing furnaces and hot water heaters, allowing homeowners to adjust the amount of heating capacity the boiler takes on. According to Harman, this can save up to \$1,500 a year in heating costs, if oil prices return to the high levels seen in 2008. Harman, Halifax, Penn. [www.harmanstoves.com](http://www.harmanstoves.com) **CIRCLE 219**



▼ **Disappearing act** The new NanaWall VSW65 is a sliding glass door system that allows an exterior wall to open completely to its surroundings. The VSW65 achieves a streamlined appearance through its use of a single-track sliding system, where panels can be stored in a pocket closet or next to the opened area. The wood-framed doors are custom-designed to the size and number of panels needed, with a maximum size of 4' x 9' 10". NanaWall, Mill Valley, Calif. [www.nanawall.com](http://www.nanawall.com) **CIRCLE 222**



◀ **Solar-powered entry light** Exterior entryway lighting can be achieved easily and off the grid with ODL's Solar Entry Light (shown). A solar panel collects enough energy during daylight hours to power four bright LEDs for up to 12 hours of continuous use. The light can be easily installed for any number of entry locations – front door, garage entry, or on a child's playhouse. ODL also introduced a solar-powered dimmer for its Tubular Skylight. The dimmer allows users to control the amount of natural light let in, and is charged by a solar panel inside the skylight. ODL, Zeeland, Mich. [www.odl.com](http://www.odl.com) **CIRCLE 221**

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CIRCLE 48

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Fly ash also enhances the environmental performance of concrete. Mining and manufacturing of natural raw materials can be reduced along with decreasing greenhouse gas emissions. In fact, using a ton of fly ash can save almost a ton of CO<sub>2</sub> emissions from being introduced into the atmosphere. In addition to concrete, fly ash is used in mortars, stuccos, paints, artificial stone, carpets, ceiling tiles, soil cement, pervious concrete and a variety of other building materials.

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CIRCLE 50

# Dates & Events

## New and Upcoming Exhibitions

### Eric Owen Moss: The Sky is Open

#### Los Angeles

April 3 - May 17, 2009

Eric Owen Moss is the director of SCI-Arc and principal and founder of Eric Owen Moss Architects, Culver City. At SCI-Arc Gallery. Visit [www.sciarc.edu](http://www.sciarc.edu).

### Winners of the 2009 Design Awards and Building Type Awards

#### New York City

April 23 - June 30, 2009

AIA New York's annual Design Awards Program recognizes excellence in architectural design by New York City architects and for work in New York City. The purpose of the awards program is to increase awareness of outstanding design and to honor the architects, clients, and consultants who work together to improve the built environment. The AIA New York's Building Type Awards is a collaborative program with the Boston Society of Architects (BSA) that honors excellence in architectural design for specific typologies. This year, achievement in Health Facilities and in Housing was recognized. At the Center for Architecture, 536 LaGuardia Place. Visit [www.aia.org](http://www.aia.org).

### Design for a Living World

#### New York City

May 14, 2009 - January 4, 2010

This traveling exhibition features objects created by leading designers and made from sustainable, natural materials. At the Smithsonian's Cooper-Hewitt, National Design Museum. Call 212/849-8300 or visit [www.cooperhewitt.org](http://www.cooperhewitt.org).

## Lectures, Conferences, and Symposia

### Daniel Burnham: Architect, Planner, Leader

#### Chicago

April 10, 26, May 8, 24, 2009

Created for the centennial celebration of the 1909 Plan of Chicago, this walking tour explores Burnham's career using examples of his work in the Loop. Participants will learn about Burnham's impact on the architecture and planning profes-

sions as well as his unique ability to work with creative talent and community leaders to accomplish great feats. Call 312/922-3432 or visit [www.architecture.org](http://www.architecture.org).

### Gulf Coast Green 2009 Symposium and Houston Green Expo

#### Houston

April 16 - 19, 2009

The Gulf Coast Green 2009 Symposium is targeted to design and construction professionals within the Gulf Coast region. This year's symposium explores sustainable principles and practices at a community scale. Following the GCG Symposium will be the 2-day Houston Green Expo, free and open to the public on April 18 and 19 at Reliant Park. For more information, visit [www.gulfcoastgreen.org](http://www.gulfcoastgreen.org).



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#### Information Sessions:

Tuesday, April 14, 6–8 p.m.

Wednesday, June 17, 6–8 p.m.

Please call for locations and to RSVP.

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## Dates & Events

### Sustainable Engineering and Danish Architecture

#### New York City

April 21, 2009

One of the three Nordic Sustainability and Design Lecture Series with Flemming Kristensen, president and C.E.O. of Leif Hansen Consultants & Planners A/S. Mr. Kristensen will explain issues to be considered when designing buildings today and in the future, while addressing some of the differences between typical present-day Northern European and American approaches to architecture. At Scandinavia House. For more information, call 212/879-9779 or visit [www.scandinaviahouse.org](http://www.scandinaviahouse.org).

### The City College of the City University of New York Spring Lecture Series

#### New York City

April 23, 2009

The spring lecture series includes Lauretta Vinciarelli on "Not Architecture but Evidence that It Exists" and Teddy Cruz on "Practice of Encroachment." In Shepard Hall in the ground-floor Lecture Hall. For more information, call 212/650-7312.

### Form Follows Fancy in New Architecture

#### New York City

April 23, 2009

Two of today's best-known international architects, César Pelli and Paul Tange, bring their insights from opposite points around the world. At Japan Society. For more information, call 212/715-1258 or visit [www.japansociety.org](http://www.japansociety.org).

### Urban Renaissance Manchester Conference

#### An International Conference

April 23 - 26, 2009

This international conference will focus on regeneration in the context of Manchester, England. Speakers will give an overview of regeneration and master-planning, which will include Victorian development, the post-war plan, and more recent master-planning strategies. For more information, visit [www.aiauk.org](http://www.aiauk.org).

### Symposium on Building Envelope Sustainability: The Future Is in the Balance

#### Washington, D.C.

April 30 - May 1, 2009

This symposium is intended for any building design professionals – architects, engineers,

consultants, building material specifiers, and contractors – interested in finding out how they can contribute to a more sustainable built environment. Energy consumption, life-cycle assessment, recycling material, and green roofing are a few of the topics that will be covered. At the Marriott Wardman Park Hotel. For more information, please call 800/828-1902 or visit [www.rcifoundation.org](http://www.rcifoundation.org).

## Competitions

### Accessible Design Awards

Deadline: April 14, 2009

The focus is on new or renovated buildings or other facilities that are accessible by persons of all abilities; designers, clients, community groups, public agencies, and anyone else in the world may submit specific access solutions located/built in Massachusetts. Visit [www.architects.org/awards](http://www.architects.org/awards).

### Urban Design Awards

Deadline: April 16, 2009

Urban design projects, community master plans, placemaking projects, and time-limited installations located anywhere in the U.S. are eligible; the project authors may be design teams anywhere in the world. Visit [www.architects.org/awards](http://www.architects.org/awards).

### John M. Clancy Award for Socially Responsible Housing

Deadline: April 23, 2009

Any public- or private-sector multifamily project anywhere in the U.S. that provides shelter for low- and/or moderate-income residents may be submitted by any individual or group. Visit [www.johnclancyaward.org](http://www.johnclancyaward.org).

### Intersections:

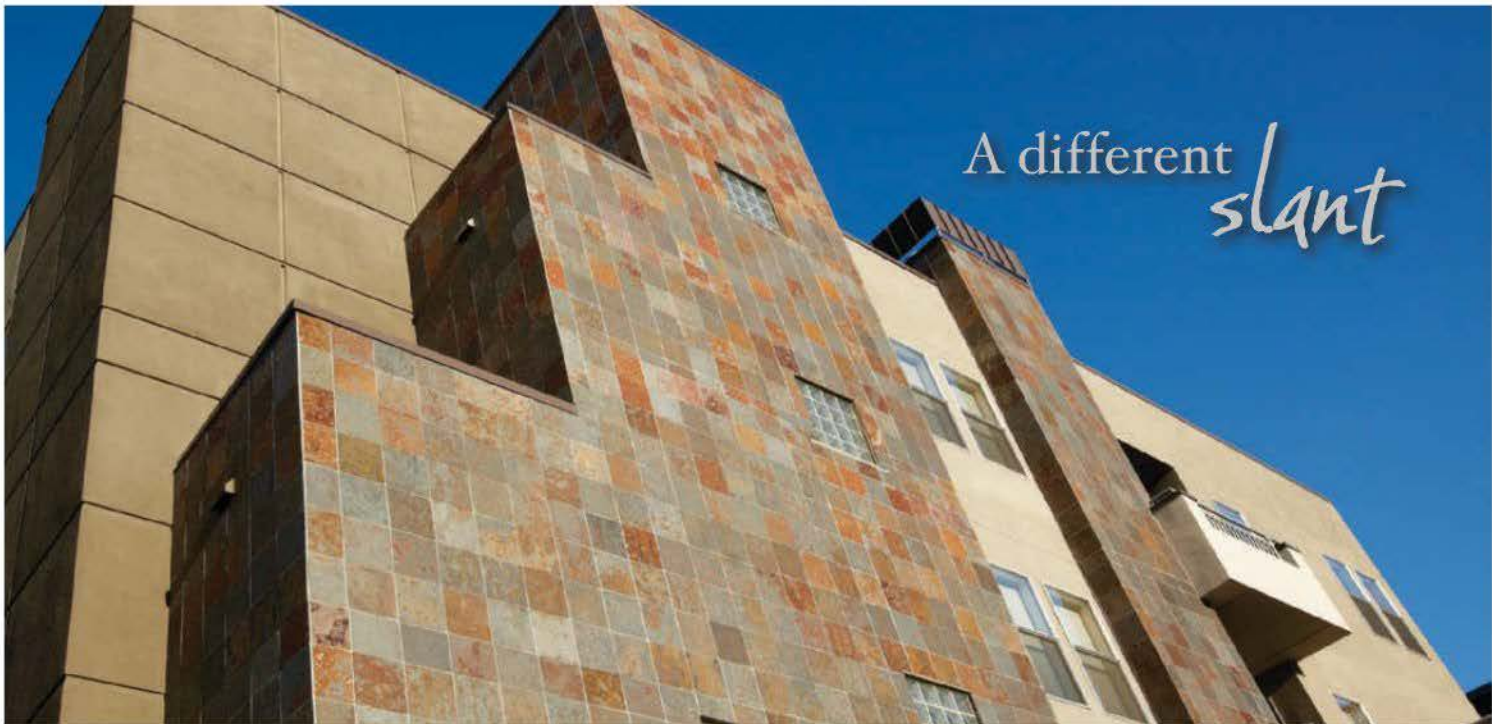
#### Grand Concourse Beyond 100

Deadline: May 1, 2009

This international ideas competition seeks bold visions from architects, planners, artists, designers, students, area residents, and others that illustrate and describe how the Bronx and the Grand Concourse can evolve in the next few decades and cope with pressing needs for housing, green space, and transportation. Winning proposals will be exhibited at the Bronx Museum of the Arts in the show opening in November 1, 2009. Visit [www.GrandConcourse100.org](http://www.GrandConcourse100.org).

### Call for Proposals to Improve Public Space

Deadline: May 1, 2009



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## Dates & Events

New York City community groups and public agencies are invited to submit proposals for research, design, and planning projects that will improve public space in New York City and benefit from private-sector expertise. Visit [www.designtrust.org](http://www.designtrust.org)

### **2009 Open Architecture Challenge: Classroom**

*Registration Deadline: May 1, 2009*

*Entry Deadline: June 1, 2009*

The 2009 Open Architecture Challenge invites the global design and construction community to collaborate with primary and secondary school teachers and students to create safer, healthier, and smarter learning environments. It is the first large-scale initiative to improve the design of classrooms around the world. Visit [www.openarchitecturechallenge.org](http://www.openarchitecturechallenge.org).

### **Promosedia International Design Competition 2009:**

#### **Caiazza Memorial Challenge**

*Deadline: May 5, 2009*

An ideas-for-chair-design competition. For further information, visit [www.promosedia.it](http://www.promosedia.it).

### **9th Annual Steel Design Student Competition**

*Submission Deadline: May 20, 2009*

This program will offer architecture students the opportunity to compete in two separate categories and is intended to challenge the students, working individually or in teams, to explore a variety of design issues related to the use of steel in design and construction. Call 202/785-2324 or visit [www.acsa-arch.org](http://www.acsa-arch.org).

### **2008-09 Green Community, International Student Design Competition**

*Submission Deadline: May 20, 2009*

The competition offers students the opportunity to think critically about their communities looking to a sustainable future. Locate a site in your local area, identify the barriers and strengths to living sustainably, and develop a proposal to create a flourishing and sustainable community using the tools of the environmental design disciplines: architecture, landscape architecture, and urban planning. Call 202/785-2324 or visit [www.acsa-arch.org](http://www.acsa-arch.org).

### **The ASLA 2009 Student Awards**

*Entry Deadline: May 29, 2009*

The American Society of Landscape Architects (ASLA) awards program honors the best in land-

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CIRCLE 58

## WHAT'S HAPPENING UNDER THE EAST RIVER?

### THE EAST RIVER NEW YORK, NEW YORK

The Roosevelt Island Tidal Energy project is testing submerged hydropower turbines in the East River. Currently the project powers two buildings; but, when the full array of turbines is installed, enough clean energy will be generated to power more than 7,000 homes. The result is a new, invisible, and sustainable energy source that does not harm the river environment.



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## Dates & Events

scape architecture from around the world, while the student awards program provides a glimpse of the future of the profession. Visit [www.asla.org](http://www.asla.org).

### **Women In Design Network (WID) Annual Exhibit and Awards Program**

*Exhibit entries and award nominations details are available June 1.*

Built, unbuilt, and student work in all design disciplines are invited; the design team must include a woman designer, planner, engineer, project manager, researcher, artist, or student. Visit [www.architects.org/wid](http://www.architects.org/wid).

### **Going with the Grain: Design an Object Using Sustainable Wood**

*Deadline: June 2, 2009*

The "Going with the Grain Challenge" is to design an original and compelling object that can be made from a single sheet of FSC-certified plywood measuring 4 feet by 8 feet by 1 inch. All are welcome to enter, including furniture designers and manufacturers, architects, and industrial designers. Visit [www.design21.cmail.com](http://www.design21.cmail.com).

### **The 4th Nitori One-House Total Coordination Competition 2009**

*Entry Deadline: June 20, 2009*

*Submission Deadline: June 30, 2009*

In this competition, Nitori invites the public to propose totally coordinated designs of fabrics, furniture, and interior accessories. The competition aims to commercialize excellent designs and sell them at Nitori stores as well as identify up-and-coming designers. Visit [www.nitori.co.jp/english/contest2009/](http://www.nitori.co.jp/english/contest2009/).

### **Pamphlet Architecture 30 Competition: Investigations in Infrastructure**

*Deadline: July 1, 2009*

At a time of new government leadership committed to investing in the United States' infrastructure, architects, engineers, and artists should propose new directions for transportation, energy, and agriculture at a continental scale. In this spirit, no visionary dimension is too large, no inventive proposal too ambitious to consider. Projects designed for countries other than the United States should be generalized enough to be applicable. Visit [www.pamphletarchitecture.org](http://www.pamphletarchitecture.org).

*E-mail information two months in advance to [elizabeth\\_broome@mcgraw-hill.com](mailto:elizabeth_broome@mcgraw-hill.com).*

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WR | NEW

## Specialty Doors

▲ Interior sliding glass doors and stainless steel German made hardware. Together at last.

## Product Application:

- Offices
- Condos
- High-end houses

## Performance Data:

- Weight Capacity: 550 lb.
- Silent and smooth

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SNAP 150

## DOORS, WINDOWS

## EUROPEAN GLASS WALL PARTITIONS &amp; GLASS DOORS

\$\$\$ | NEW

## Avanti Systems USA

▲ Innovative architectural Glass Wall and Glass Door Systems available for high-end applications.

## Product Application:

- USS Intrepid Sea-Air-Space Museum, New York, NY
- UFC Headquarters, Las Vegas, NV
- Brown University, Providence, RI

## Performance Data:

- Relocatable, dry-jointed partitioning glass walls
- Freestanding Glass Walls, LCD Glass Walls & Doors

www.avantisystemsusa.com  
877.282.6843

Contact: Stephen Mordaunt  
on sweets.com



SNAP 151

## DOORS, WINDOWS

## FIRE-RATED VERSION

G | NEW

## Technical Glass Products

▲ Technical Glass Products offers a valuable course for AIA HSW credit: "Burning Issues: Understanding Today's Fire-Rated Glass and Framing."

## Products featured:

- FireLite® family of fire-rated glass ceramics
- Pilkington Pyrostop™ safety-rated glass firewalls

## Also contains:

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- Recent code changes and how they impact design

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SNAP 152

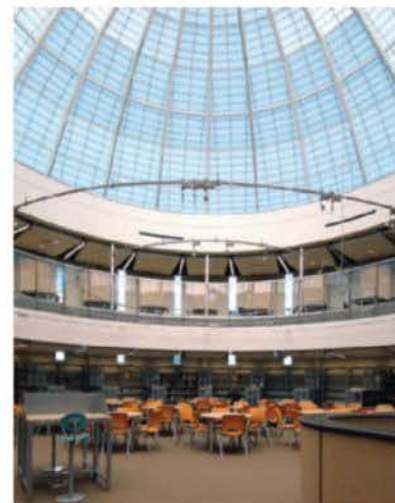
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## NEXT-GENERATION DAYLIGHTING

## Structures Unlimited, Inc.

▲ Natural daylight in any enclosed space has long been proven to have positive effects on the health and well being of all living things. Structures Unlimited, Inc. provides the ultimate daylighting solutions through the use of large, structural skylights. Highly insulating up to R-20, diffuse-light-transmitting panels eliminate glare and shadows while reducing lighting and HVAC costs. Manufactured in the U.S.A. to meet or exceed all local building codes. Potential LEED™ contribution up to 19 points.

www.skylightinfo.com  
800.225.3895  
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SNAP 153

## ELECTRICAL, LIGHTING

## ARCHITECTURAL CEILING FANS &amp; LIGHTING

G

## G Squared Art

▲ San Francisco ceiling fan, GOOD DESIGN Award winner. Quiet, powerful, reliable, an energy saver.

## Performance Data:

- Suitable for sloped ceilings up to 29 degrees, can be used on 8 ft. ceilings or on cathedral ceilings with optional downrods up to 6 ft. long
- Lifetime warranty

www.g2art.com  
877.858.5333

Contact: Sheila Ginsberg



SNAP 154

## ELECTRICAL, LIGHTING

## LED LIGHTING SYSTEMS

WR | G | NEW

## Sternberg Lighting

▲ UNRIVALED™ decorative outdoor LED lighting provides energy savings in excess of 50%.

## Product Application:

- University of Notre Dame, Notre Dame, IN

## Performance Data:

- Approximately 70,000 hours of system life (16 years)
- Energy consumption can be reduced by over 50% with comparable photometric performance.

www.sternberglighting.com  
800.621.3376

Contact: Peter Schreiber  
on sweets.com



SNAP 155

## ELECTRICAL, LIGHTING

## LED SOURCE

\$\$ | G | NEW

## Teka Illumination

▲ Wall or path, BKSSL™ technology, long life, significant energy reduction, exceptional thermal management, LED source

## Product Application:

- Architectural lighting
- Interior design
- Landscape design

## Performance Data:

- Exclusive 360 side-emitting 1.12 watt LED with BKSSL technology
  - Wall and path luminaires constructed from pure copper and brass
  - Also available in LV G4 Xelogen 10 or 20 watts, 20,000 or 10,000 hour rated life, 100 or 250 lumens
- www.HighLightSeries.com  
559.438.5800  
Contact: Becky Carlson



AIA Booth # 1617

SNAP 156

## ELECTRICAL, LIGHTING

## BIG IMPACT, SMALL FOOTPRINT

\$\$ | G | NEW

## B-K Lighting

▲ Compact, powerful with BKSSL Technology, 2-in. dia., non-visible mounting hardware, 360 rotation.

## Product Application:

- Architectural
- Interior design
- Landscape design

## Performance Data:

- 360 side-emitting LED, 1.12 watts 70 lumens, 35,000 rated hour life
- Invisible mounting hardware, 360 faceplate rotation for unlimited aiming options

www.mini-ilume.com  
559.438.5800  
Contact: Becky Carlson



AIA Booth # 1617

SNAP 157

## INTERIOR FURNISHING, FINISHES

## FLOORS OFFER A CHOICE OF TOPPINGS

WR | G

## Action Floor Systems

▲ Combine a hard maple court surface and seamless synthetic surface for a surrounding running track.

## Product Application:

- Neenah High School, Neenah, WI
- Oconomowoc High School, Oconomowoc, WI

## Performance Data:

- Comprehensive selection of engineered wood subfloor systems
- Action's Herculan synthetic floors are solvent-free from bottom layer to top coat.

www.actionfloors.com  
800.746.3512

Contact: Tom Abendroth  
on sweets.com



SNAP 158

## INTERIOR FURNISHING, FINISHES

## LIFE'S ALL ABOUT CHANGE

\$\$

## Walker Display

▲ Walker Display provides an efficient system for exhibiting artwork anywhere.

## Product Application:

- Residential or commercial use
- Office buildings, shopping malls, airports, restaurants, hospitals etc.
- Schools, libraries, museums, galleries etc.

## Performance Data:

- Versatile art hanging system
- Interchangeable for easy adaptation to various projects
- Not limited to art hanging

www.WalkerDisplay.com  
800.234.7614

Contact: Richard Levey



SNAP 159

## INTERIOR FURNISHING, FINISHES

## LOCKERS - SHELVING - STORAGE PRODUCTS

WR | G

## Republic Storage Systems, LLC

▲ High-quality products, along with top service in the industry, equal success for your project.

## Product Application:

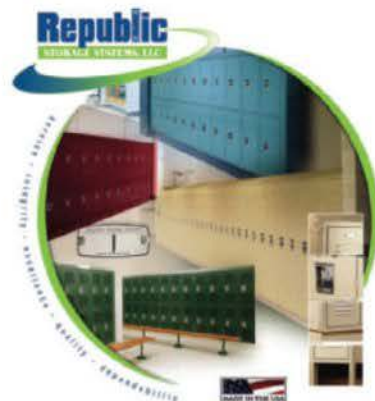
- Hilton Hotels, New York, NY
- Locust Grove Middle School & High School, Locust Grove, GA
- Kaiser Permanente

## Performance Data:

- Full loop, 5 knuckle hinges are double-riveted to door and welded to side frame.
- Republic's unique, long-life, double channel lock bar and latching system

www.republicstorage.com  
800.477.1255

Contact: Cathy Maxin  
on sweets.com



AIA Booth # 2446

SNAP 160

## INTERIOR FURNISHING, FINISHES

## ORNAMENTAL PLASTER CEILING TILES

G

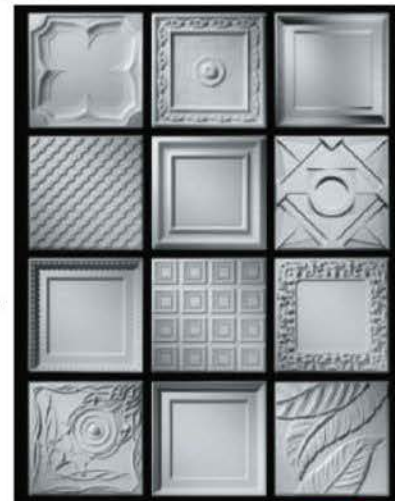
## Above View Mfg., By Tiles, Inc.

▲ Ornamental plaster ceiling tiles fabricated from a non-toxic, non-combustible, proprietary composition

## Performance Data:

- The tiles drop into any standard 15/16-in. T-Bar grid system.
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SNAP 161

## INTERIOR FURNISHING, FINISHES

## POLISHED CONCRETE - THE GREEN CHOICE

\$ | G

## L&amp;M Construction Chemicals

▲ FGS PermaShine Dry Concrete Polishing, along with L&M's Vivid Dyes, delivers green, sustainable floors that are performance- and design-oriented.

## Product Application:

- Educational facilities: K-12, college
- New and existing buildings
- Commercial, government, grocery and retail

## Performance Data:

- CHPS / LEED-Schools Certified; GREENSPEC Listed
- Safe, high-traction floor as rated by NFSI

www.lmcc.com  
503.288.3097

Contact: Peter Wagner  
on sweets.com



AIA Booth # 6854

SNAP 162

## INTERIOR FURNISHING, FINISHES

## STAINLESS SHEETS &amp; TILES

\$\$ | G

## Millennium Tiles LLC

▲ Stainless sheets or tiles from Millennium Tiles LLC in various colors ensure elegance that endures.

## Performance Data:

- Whether you cover walls or roofs, you can be sure that color will not fade for the life of the stainless.
- Design limits are set only by your imagination.

www.millenniumtiles.com  
262.723.7778

Contact: Walter Hauk



AIA Booth #6559

SNAP 163

## LANDSCAPING, SITEWORK

## EXTERIOR &amp; INTERIOR GREEN WALL SYSTEMS

\$\$ | G | NEW

## Tournesol Siteworks LLC

▲ VGM modular greenwall panels make greening buildings simple. Rely on them to make buildings green.

## Product Application:

- Roof garden & roof equipment screening
- Softening parking structures & building facades
- Structuring space in public areas

## Performance Data:

- Attaches with a stainless frame & rail system
- 4-in. & 8-in. planting depth, installed by local contractors

www.tournesolsiteworks.com  
800.542.2282



AIA Booth # 228

SNAP 164

## LANDSCAPING, SITEWORK

## RETAINING WALL SYSTEMS

NC | NEW

## Belgard Hardscapes

▲ BelAir Wall™: perfect for residential and light commercial retaining and free-standing wall construction.

## Product Application:

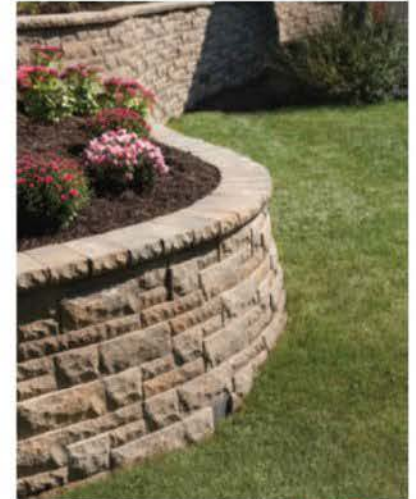
- Outdoor living environments: kitchens, pools & patios
- Walkways, curbs & driveways
- Retaining walls

## Performance Data:

- Permeable product selection

www.belgard.biz  
877.235.4273

Contact: Ken O'Neill



SNAP 165

## MATERIALS

## IDEAS MATERIALS SOLUTIONS

NEW

## Reynolds Polymer Technology, Inc.

▲ Create a perfectly chill setting with the new and stunning acrylic R-Cast Ice.

## Product Application:

- Blå Lounge Bar at the Radisson SAS Hotel, Bucharest, Romania

## Performance Data:

- R-Cast acrylic has 17x greater impact resistance than glass and 4x greater resistance than concrete.
- Add illumination to enhance effect.

www.reynoldspolymer.com  
800.433.9293

Contact: Julie Hober



HD Expo Booth #7134

SNAP 166

## MATERIALS

## ARCHITECTURAL NATURAL STONE

\$\$\$ | G

## Vermont Structural Slate Company

▲ Quarrier and fabricator offering select slates, quartzites, sandstones, limestones, marbles, granites and basalts.

## Product Application:

- Rutland District Courthouse, Rutland, VT
- Architect: Timothy D. Smith & Associates
- Unfading Green Slate wall panels, natural cleft finish

www.vermontstructuralslate.com  
800.343.1900

Contact: Craig Markcrow



SNAP 167

## MATERIALS

## BAMBOO PLYWOOD &amp; FLOORING

\$\$ | G | NEW

## Smith &amp; Fong Co.

▲ Plyboo. The world's first FSC-certified bamboo plywood and flooring. Also available urea formaldehyde-free.

## Performance Data:

- LEED Credit MR 6: Rapidly Renewable Materials
- LEED Credit EQ 4.4: Low-Emitting Materials

www.plyboo.com  
866.835.9859



AIA Booth # 2339

SNAP 168

## MATERIALS

## CARVED METAL PANELS

\$\$\$ | G | NEW

## The Gage Corporation, Int.

▲ Each sheet of GageCarve® is individually crafted of .125-in. or .160-in. 50% recycled aluminum.

## Product Application:

- Elevator doors, Fisher Island, FL
- Column covers, Bank of America, Charlotte, NC
- Elevator panels, Parc 55 Hotel, San Francisco, CA

## Performance Data:

- Class A ASTM E-84
- Anodized for interior and exterior application

www.gagecorp.net  
800.786.4243, 608.269.7447  
Contact: gage@centurytel.net



SNAP 169

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## BUILDING WITH BRICK OR STONE?

## CavClear

▲ CavClear systems help protect masonry wall integrity by controlling moisture and eliminating mortar bridging.

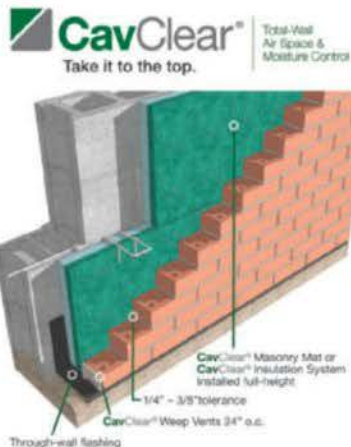
## Product Application:

- Langston Hughes Elementary School, Chicago, IL
- Villanova University School of Law, Villanova, PA
- Steven Potter Office Building, Crowley, TX

## Performance Data:

- 1-in. minimum completely clear wall air space
- No mortar bridging in any area of wall cavity

www.cavclear.com  
888.436.2620



SNAP 170

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## FIBERGLASS-FACED GYPSUM SHAFTLINER

## Temple-Inland

▲ GreenGlass® Liner Panels from Temple-Inland® deliver the superior mold and moisture resistance of fiberglass facers plus an unmatched 90% recycled content that can contribute valuable credits in environmental rating systems such as LEED and the NAHB National Green Building Standard. Plus, GreenGlass liner panels are U.L. approved for use in multiple 2-hour shaft and area separation wall assemblies and are available in a 2-ft. width, 1-in. thickness and lengths of 8 ft., 10 ft. and 12 ft.

www.GreenGlassInfo.com  
800.231.6060



SNAP 171

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## INSULATED COMPOSITE PANEL

WR | G

## Mapes Architectural Panels, LLC

▲ Mapes Industries insulated composite panels improve the energy efficiency of any glazing project.

## Product Application:

- The Signature at MGM Grand, Las Vegas, NV
- Yankee Stadium, New York, NY
- Alexander Graham Middle School, Charlotte, NC

## Performance Data:

- R-Values up to 27.75
- Specialty designs, impact resistance and fire-rated

www.mapes.com  
800.228.2391  
Contact: Jay Marshall  
on sweets.com



AIA Booth # 5061

SNAP 172

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## METAL WALL &amp; ROOF SYSTEMS

G

## Fabral

▲ Fabral's product line is architecturally appealing and consistent with green building guidelines.

## Product Application:

- Kress Center, University of WI, Green Bay, WI (pictured)
- Lynx Regional Center, Orlando, FL
- Coleman Park, Nashville, TN

## Performance Data:

- Many panels can be tapered or curved and are available unpainted or finished with high performance Flurobond™ coating.
- Finish and weather tightness warranties available

www.fabral.com  
800.477.7796  
Contact: Donna Berryhill  
on sweets.com



AIA Booth # 3959

SNAP 173

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## TERRA COTTA CERAMIC RAINSCREEN CLADDING SYSTEM

WR | G

## Boston Valley Terra Cotta

▲ TerraClad is a natural terra cotta product formed into a high performance ceramic rainscreen panel.

## Product Application:

- Arizona Disability Service Campus, Phoenix, AZ
- Betchler Museum, Charlotte, NC
- Colburn School of Performing Arts, Los Angeles, CA

## Performance Data:

- LEED points for recycled content & regional material use
- Available in louvers, baguettes and panel sizes, all in an infinite color palette

www.bostonvalley.com  
888.214.3655

Contact: Gretchen Krouse



AIA Booth # 5246

SNAP 174

## ROOFING, SIDING, THERMAL &amp; MOISTURE PROTECTION

## WALL SEAL WATERPROOFING SHEET MEMBRANE

\$ | G | NEW

## Noble Company

▲ Wall Seal is a reliable alternative to liquid membranes for shower walls.

## Product Application:

- Shower walls

## Performance Data:

- Moisture Vapor Transmission ASTM E96, rated less than 1.0
- Passes ANSI A118.10 for shear, breaking, and seam strength

www.noblecompany.com  
800.878.5788

Contact: Anne Rodriguez



Coverings Booth #4433

SNAP 175

## SPECIALTY PRODUCTS

## ARCHITECTURAL METAL

\$\$\$ | G

## The Gage Corporation, Int.

▲ GageMetal® is an innovative collection suitable for walls, elevators and column covers.

## Product Application:

- Elevator doors, 200 Brickell, Miami, FL
- Atrium, Celebrity Genesis, Atlantic Ocean
- Column covers, LeMeridian Hotel, Delhi, India

## Performance Data:

- Class A ASTM E-84
- Durable stainless steel, cost effective aluminum

www.gagecorp.net  
800.786.4243, 608.269.7447

Contact: gage@centurytel.net



SNAP 176

## BENT TO STRAIGHT GLASS RAILING

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## Glass and Glass

▲ Unique Flextech Frameless System, from radius to straight glass handrail with no other components

## Product Application:

- Trump Towers, Miami Beach, FL
- Latitude Condominium, Miami, FL
- Grimpa Restaurant, Miami, FL

## Performance Data:

- ANSI Z97.1 CPSC 16 CFR 1201 (FBC)
- Concent. Load test, deflection 1,500-in., 800 lb.

www.glassandglass.com  
305.416.5001

Contact: Rolando Serra



SNAP 177

## SPECIALTY PRODUCTS

## COLUMNS, BALUSTRADES AND CORNICES

## Architectural Columns &amp; Balustrades by Melton Classics, Inc.

▲ Melton Classics provides the design professional with an extensive palate of architectural columns, balustrades, cornices, and millwork. They invite you to call their experienced product specialists to assist you with the ideal products for your design, application and budget. Columns are available in fiberglass, synthetic stone, GFRC and wood. Their 80 plus durable maintenance free balustrades feel substantial yet have reduced weight. Also, ask about their low maintenance fiberglass and polyurethane cornices and millwork.

www.MeltonClassics.com  
800.963.3060

Contact: Mike Grimmitt  
on sweets.com



SNAP 178

## SPECIALTY PRODUCTS

## STORAGE &amp; FILING PRODUCTS

WR | G | NEW

## Aurora Storage Products

▲ New from Aurora Storage Products: Times-2 Elite and E-Office Electric Mobile for storage and filing.

## Product Application:

- Multimedia storage
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## Performance Data:

- Limited lifetime warranty
- Made in USA by USGBC member

www.aurorastorage.com  
800.877.8456

Contact: Susan Niemiec  
on sweets.com



AIA Booth # 4278

SNAP 179



## SPECIALTY PRODUCTS

## SAUNAS

WR

**Finlandia Sauna Products, Inc.**

▲ They manufacture authentic saunas, no infrareds. They offer precut packages, modular rooms and heaters.

**Product Application:**

- Any available space
- Residential or commercial
- New construction or remodeling

**Performance Data:**

- Uses 1-in. x 4-in. paneling
- Markets four all-clear western softwoods

www.finlandiasauna.com  
800.354.3342

**Contact:** Tim Atkinson or Reino Tarkiainen

 on sweets.com



SNAP 180

## SPECIALTY PRODUCTS

## CREATIVE SIGNAGE

**Dale Travis Associates**

▲ Founded in 1969, Dale Travis Associates, Inc., a creative signage company, caters to architects, designers, and corporate facility managers nationwide. Their projects range from museums, such as the Hayden Planetarium, the Folk Art Museum, and the Morgan Library in New York, to all 550 offices of UBS around the country. Pictured: Curved aluminum letters.

www.daletravis.com  
212.243.8373



SNAP 181

## SPECIALTY PRODUCTS

## TRANSLUCENT ROOF &amp; WALL PANEL SYSTEMS

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**CPI Daylighting Inc.**

▲ CPI is a world class leader in the design and manufacture of translucent insulated skylights.

**Product Application:**

- Provides glare-free diffused natural light
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www.cpidaylighting.com

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AIA Booth # 2350

SNAP 182

## DOORS, WINDOWS

## TRANSLUCENT SKYLIGHTS &amp; CURTAINWALL

28PP | PDF | G

**Major Industries, Inc.**

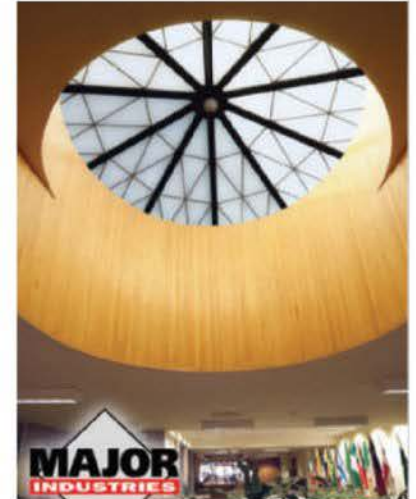
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888.759.2678



AIA Booth #651

SNAP 183

## SPECIALTY PRODUCTS

## HAND DRYER

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**Dyson B2B, Inc.**

▲ Dyson's technology makes the Dyson Airblade™ hand dryer faster and more hygienic than any other.


**Products featured:** The Dyson Airblade™ hand dryer uses up to 80% less energy than warm air hand dryers.

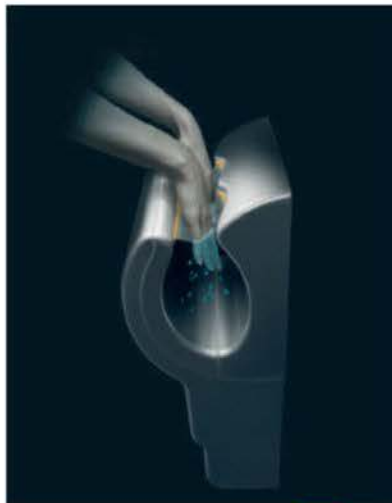
**Also contains:**

- Qualifies for LEED credits
- CAD, Revit and Sketch-up drawings

www.dysonairblade.com  
888.DYSON.AB

**Contact:** Anita David

 on sweets.com



AIA Booth #2351

SNAP 184

## SPECIALTY PRODUCTS

## MONUMENTAL STAIRWAYS &amp; RAILINGS

10pp | G

**Couturier Iron Craft, Inc.**

▲ Couturier Iron Craft is a manufacturer of stairway and railing systems for custom specifications.

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**Also contains:**

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- Specs

www.couturierironcraft.com  
800.670.6123

**Contact:** Timothy Couturier



SNAP 185

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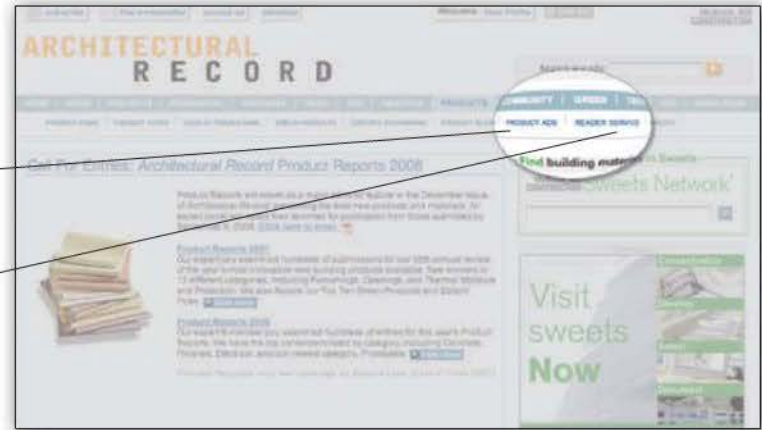
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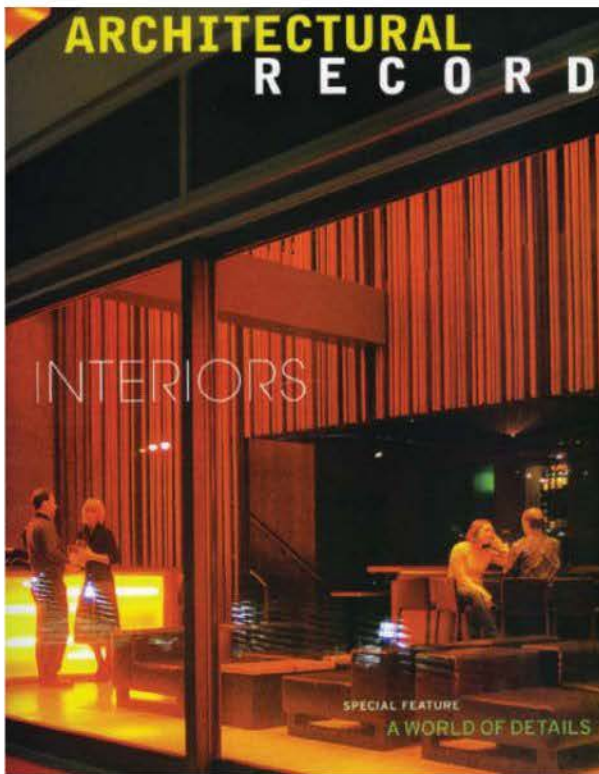
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# 2009 Record Interiors

For instructions and to download the entry form visit [architecturalrecord.com/call4entries](http://architecturalrecord.com/call4entries). Submissions must be postmarked no later than April 30, 2009.

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*Mohamad Farzan, AIA — Member Since 1986*



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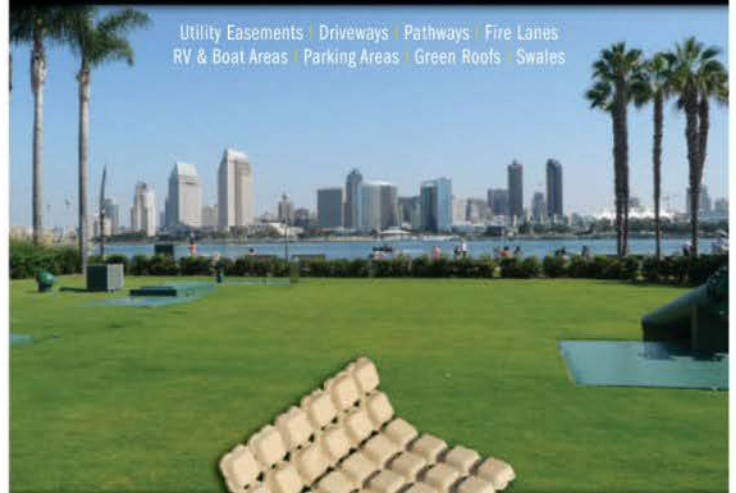


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(clockwise from top left) Photo by Miguel Quismondo. Courtesy Alberto Campo Baeza; © Adrian Smith + Gordon Gill Architects; © Eduard Heuber; Courtesy of Andropogon Associates.

**ALBERTO CAMPO BAEZA**  
April 8, 2009

**ANDROPOGON ASSOCIATES**  
April 16, 2009

**ADRIAN SMITH +  
GORDON GILL ARCHITECTURE**  
May 18, 2009

**DEBORAH BERKE**  
June 1, 2009

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# Notice of AIA Candidates and Convention Business Items

## Candidates for Institute Offices

Elections for the Institute's 2010 First Vice President/2011 President-elect, two 2009–2011 Vice Presidents, and 2009–2011 Treasurer will be held at the AIA 2009 National Convention and Design Exposition, which will take place April 30–May 2, 2009, in San Francisco.

If no candidate for First Vice President or Treasurer obtains a majority of the votes cast during the initial round of voting on April 30–May 1, a run-off election will take place on May 2, 2009. The following members have declared themselves candidates for national office (with candidates to be certified no later than February 27, 2009):

### For 2010 First Vice President/2011 President-elect

Clark D. Manus, FAIA (*AIA San Francisco*)

Miguel A. Rodriguez, AIA (*AIA Miami*)

### For 2009–2011 Vice President (two will be elected)

Dennis A. Andrejko, FAIA (*AIA Buffalo*)

Mickey Jacob, FAIA (*AIA Tampa Bay*)

Peter G. Kuttner, FAIA (*Boston Society of Architects/AIA*)

Anne Laird-Blanton, AIA (*AIA San Francisco*)

### For 2009–2011 Treasurer

David J. Brotman, FAIA (*AIA Los Angeles*)

John W. Rogers, AIA, ACHA (*AIA Cincinnati*)

## Proposed Bylaws Amendments

The AIA Board of Directors is sponsoring several amendments to the Institute's Bylaws, and those amendments are scheduled for consideration by the delegates at the annual business meeting in San Francisco on May 2, 2009. Bylaws amendments require approval by an affirmative vote of no less than two-thirds of all votes accredited to be cast at the meeting.

### Bylaws Amendment 09-A—Participation by Board Members at Board Meetings

This amendment would authorize members of the Board of Directors to participate in meetings of the Board by conference telephone or similar equipment.

### Bylaws Amendment 09-B—Public Membership

This amendment would create a new class of Public Membership for architecture clients, benefactors, members of the general public, and others who care about the architecture profession and believe in the mission of the Institute.

### Bylaws Amendment 09-C—AIA International Membership

This amendment would eliminate the current International Associate membership category, and create an AIA International Member category for architects who are licensed only outside the United States.

### Bylaws Amendment 09-D—Associate Members as Regional Directors on the Institute's Board of Directors

This amendment would authorize Associate members to serve as Regional Directors on the Institute's Board of Directors.

### Bylaws Amendment 09-E—Members Emeritus

This amendment would revise the eligibility requirements for Emeritus membership.

## Resolutions

The delegates at the AIA 2009 National Convention and Design Exposition will be asked to consider resolutions, which require approval by a majority vote of the delegates present and voting. The deadline for submitting resolutions was February 27, 2009.

For candidates' statements and the full text of the proposed Bylaws amendments and resolutions, visit the AIA Web site at [www.aia.org](http://www.aia.org).

# Reader's Gallery

To share images in our galleries, visit [architecturalrecord.com](http://architecturalrecord.com) and click on Community.



**Derek Lepper** shot this photograph of a Cape Dutch–style house while driving east from Cape Town, South Africa, to Plettenberg Bay. “In the middle of a vast landscape, this typical, whitewashed colonial house said so much. Someone had carefully built a home on a massive, open, rugged plain, yet they had decided to build in the style that was deeply embedded in their historical psyche—somewhat too like a national flag being plunked onto the land,” he says. “I framed the photograph to show just how isolated and incongruous it is.” A Vancouver, British Columbia–based photographer, Lepper shared the image in ARCHITECTURAL RECORD’s online Vernacular Architecture gallery.

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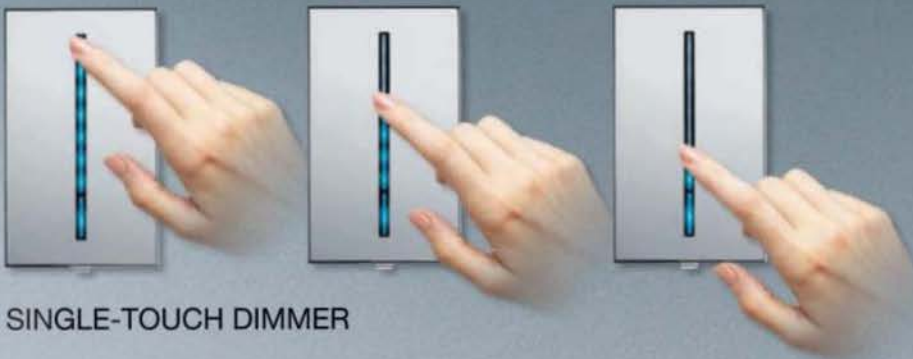
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