

The Gutter, Revealed 38 From Death Star to Wellness Center 59
A Measure of SmartGeometry 30 The King of Competitions 17

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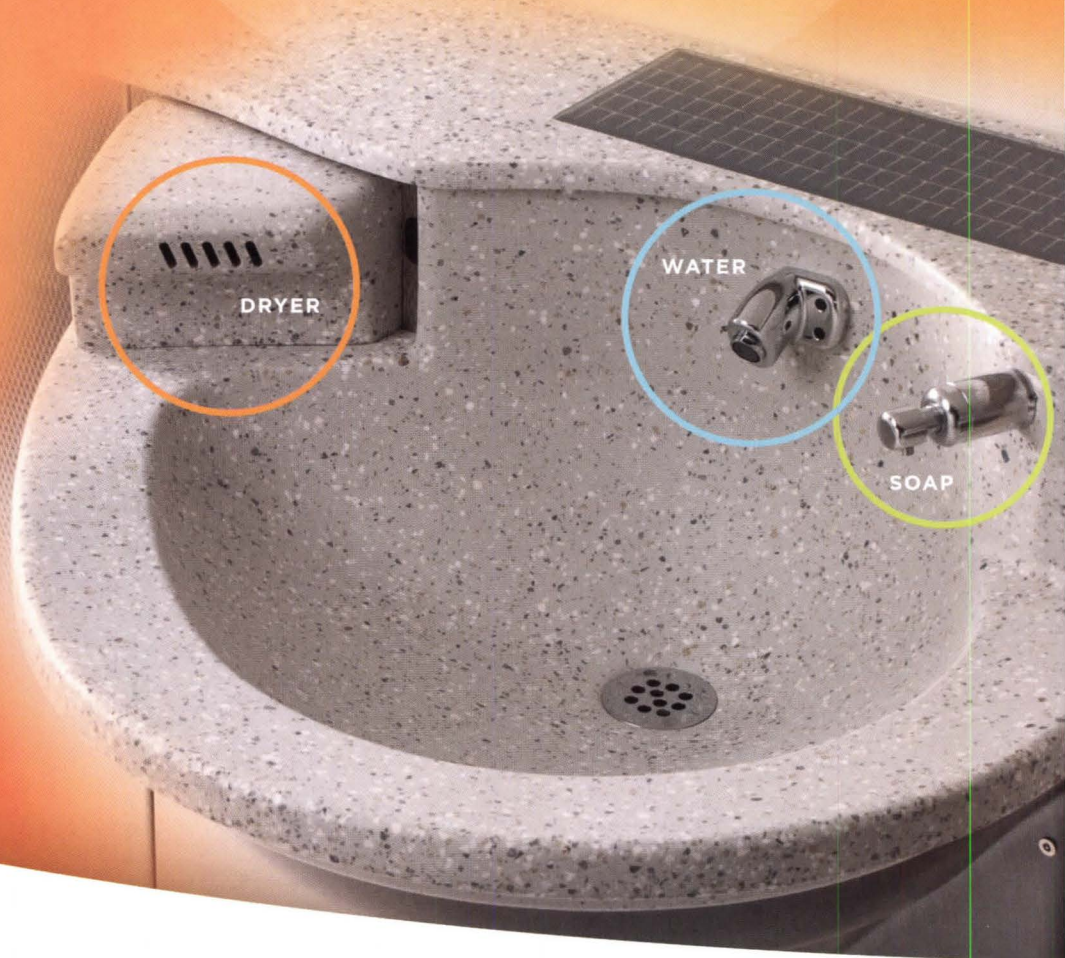
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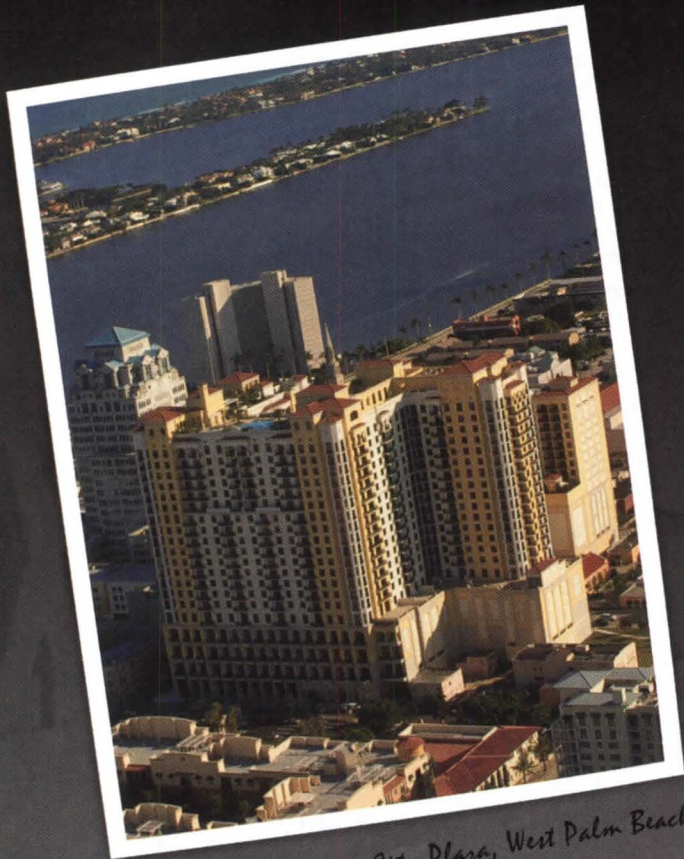


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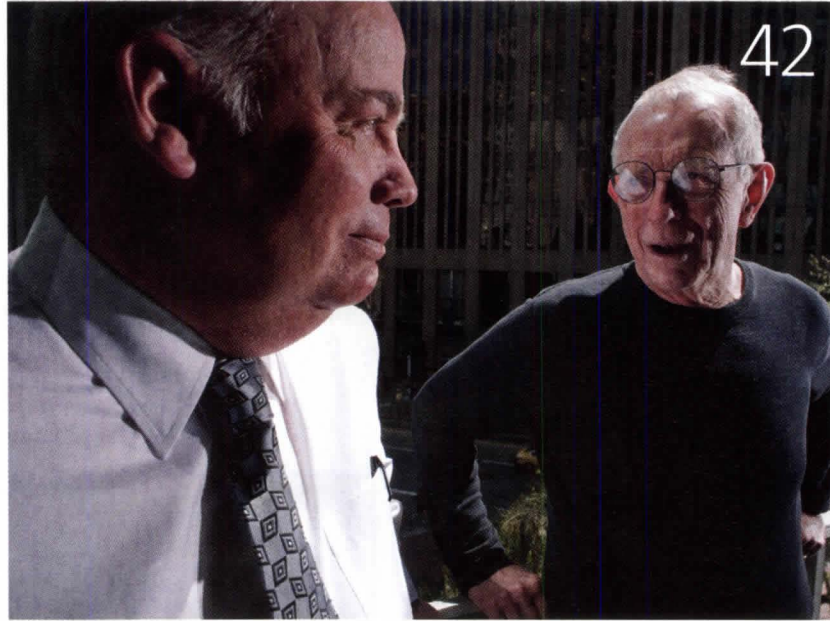
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CONTENT



BERNARD ANDRÉ

59



NOAH KALINA

42



PETER WILSON

65

FEATURES

42

The Architect 50

ARCHITECT inaugurates a new annual firm ranking. Because the biggest aren't always the brightest, we ranked firms not according to revenue or number of employees, but according to their profitability, commitment to sustainability, and caliber of design. Profiles of the Top 5, data on the Top 50, and a list of those who came in 51 to 100 round out the report. AMANDA KOLSON HURLEY, WITH NEIL KARLIN AND ELDA VALE

BUILDINGS

55

National Museum of African American History and Culture

The winning design (by the team of Freelon Adjaye Bond/SmithGroup) and those of the closest competitors. KATIE GERFEN

59

Marin Health & Wellness Campus

On a site formerly occupied by George Lucas' Industrial Light & Magic, RMW Architecture & Interiors has created a welcoming space for low-income patients. SAM LUBELL

65

St. Louis Gateway Transportation Center

KAI Design & Build had a difficult task: To design a train, bus, and light rail depot that stretches under four highway overpasses. BRADFORD MCKEE

69

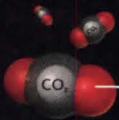
Francis Parker School

Lake|Flato Architects took full advantage of San Diego's magnificent climate to tie together the indoor and outdoor spaces for the middle and upper school campus of an independent K-12 school. BAY BROWN

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CITY INVOLVED
NOT A STATION
BUT THE
"AMSHACK,"
A MODULAR
NUMBER
HIDDEN UNDER
THE FREEWAY
LIKE A SET FROM
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BRADFORD MCKEE, on what
KAI Design & Build had to work
with when designing the St.
Louis Gateway Transportation
Center, page 65.

ON THE COVER
WILLIAM RAWN.
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CONTENT

Right Rest stops in Norway aren't merely places to stretch your legs on a long trip—they're architectural destinations of their own.

Far Right Waugh Thistleton Architects colored the exterior of their wood-frame high-rise to play against the patterns of the nearby shadows and trees.



COURTESY VEGAR MOEN



WILL PRYCE

FRONT

- 10 **Dialogue** Seeking Bottom
- 13 **Contributors**
- 14 **News**

BUSINESS

- 17 **Best Practices** Get in the Game
The current culture of design competitions.
EDWARD KEEGAN
- 18 **Strategy** Owning It
The positives and negatives of employee ownership. ETHAN BUTTERFIELD
- 21 **Local Market** Meridian, Idaho
Idaho's third-largest city is becoming a hub for new business. MARGOT CARMICHAEL LESTER

TECHNOLOGY

- 23 **Detail** Murray Grove
Waugh Thistleton Architects designs a nine-story wood-frame building. KATIE GERFEN
- 26 **Specialist** Art and Architecture
For Guillaume Paturol, creating architectural renderings is an art. JOHN GENDALL
- 28 **Eco** Road Rage
The stimulus money going to highways will prop up an already-failed system. LANCE HOSEY

- 30 **Research** Parametric Pieces
A report on two compelling student research projects presented at this year's SmartGeometry summit. BRAULIO AGNESE
- 32 **Products** Lighting
We shine a light on the newest and coolest in lighting fixtures and sensors. JENNIFER LASH

CULTURE

- 35 **Books, Objects & Exhibits**
Urban China in the U.S., Wright's interiors, architectural rest stops in Norway, and more ...
HANNAH MCCANN
- 38 **Crit** I Was The Gutter
After years of speculation, the co-creator of this infamous blog is ... MARK LAMSTER
- 40 **Screen Grab** freegreen.com
By giving away house plans, FreeGreen hopes to affect public thinking about sustainable design.
BRAULIO AGNESE

PAST PROGRESSIVES

- 80 **1954** Modernist Homestead
The fate of Eliot Noyes' house in New Canaan, Conn., is up in the air. JOHN MORRIS DIXON

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AFTER WATCHING BUILDERS AND BANKERS DO BACKFLIPS FOR TWO YEARS, NOW THE ARCHITECTURE PROFESSION GETS TO DO A FEW OF ITS OWN.

SEEKING BOTTOM

READY FOR SOME GOOD NEWS? The AIA's March 2009 Architecture Billings Index offered a soupçon of hope after months of force-fed misery. Apparently the decline in billings is slowing. Not that we're seeing a recovery, mind you, but *decline is slowing*. And even more promising: Inquiries to firms about potential projects attained their highest score in more than a year (56.6; scores over 50 show positive growth).

Other nonresidential construction indicators aren't so bullish, and if you've got the stomach, they're worth some regular attention. Ivy Zelman, a notoriously gloomy analyst known in the housing industry as "Poison" Ivy, is predicting the worst nonresidential construction decline in modern U.S. history. The FMI Construction Outlook, First Quarter 2009, says "nonresidential construction will plummet and begin at least three years of contraction." That's an estimated 12 percent decline in 2009 and a 13 percent decline in 2010. Bottom? 2011. Recovery? 2012. Ouch.

I never thought I'd be hoping so hard to hit rock bottom. Why? Recovery typically follows. The rule of thumb about nonresidential construction is that it lags behind the larger economy by about 18 months. So after watching builders and bankers do backflips for two years, now the architecture profession gets to do a few of its own. Foreclosures aren't just for McMansions anymore. The Hancock in Boston was sold in a March

foreclosure auction for \$660 million. The previous owners paid roughly double that amount for the 60-story tower in 2006. And General Growth Properties, the nation's second-largest mall owner, filed for Chapter 11 bankruptcy protection in April.

According to FMI, the American Recovery and Reinvestment Act of 2009—aka the stimulus—isn't going to inject enough adrenaline into the system to prevent a decline, though its \$17 billion for building construction will help. FMI predicts a 7 percent drop in construction in 2009, but the number would have been 10 percent sans stimulus. More opportunity may come via the America's Better Classrooms Act, a bill folded into the stimulus package to provide \$25 billion for zero-interest school construction bonds.

The news may seem schizophrenic—doom-and-gloom here, cautiously optimistic there—but it's essential to keep paying attention, no matter how painful it may be. Firms like the ones who've ranked in our inaugural ARCHITECT 50 (page 42) thrive in part because they absorb the most up-do-date information about the marketplaces they serve. Follow the data to find the dollars, my friends. On that path lies recovery.

Reel Crane

LETTERS

AUTHOR, AUTHOR

I can't be the only person to notice the obvious graphic connection between Terreform 1's cover [March 2009] and the drawings of Archigram. I didn't see that influence (or ripped off source, depending on your view) credited anywhere. However, I found the white-on-black text areas so unpleasant and difficult to read that maybe I missed it. How about white-on-gray?

Steve Walle

Starck Architects, San Diego, Calif.

I am the founder and President of Terreform, Inc., a nonprofit (501(c) 3) devoted to research and activism in the cause of just and sustainable cities. We were incorporated and received our federal nonprofit status in 2005 and began operating under the name Terreform (my own coinage) in 2006. We are currently involved in a number of projects, including "New York City (Steady) State," an alternative master plan for New York based on the proposition that the city can become completely self-sufficient. A number of researchers are involved in this project and are examining such areas as air, water,

food, waste, manufacture, climate, and building, in order to test the limits of urban autonomy. We are also engaged in a study of upper Manhattan growing out of the debate over the Columbia University expansion, in research on the "greening" of Gaza, in studies of urban mobility ("Mass Movement"), and other projects.

Mitchell Joachim was my student at Columbia over a decade ago and has intermittently worked in my professional office, Michael Sorkin Studio. In the latter part of 2006 he returned to the studio at my invitation to become Executive Director of Terreform. One of the projects undertaken at that time was the New York 2106 Project, in which we were invited to participate by The History Channel, and for which we won the Infiniti award. This project was done under my direction and Joachim was one of a large number of people who worked on it. He remained at Terreform through 2007 and invited his friend Maria Ailova to collaborate with us. Although he participated in several Terreform projects—including the design of its original website, which he has now appropriated along with our URL—Joachim spent less and less time with us and

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15 KW	\$109,500 \$7.30/W	3,000 SQ.FT. \$36.50/SQ.FT.
30 KW	\$219,000 \$7.30/W	6,000 SQ.FT. \$36.50/SQ.FT.
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more and more on teaching and self-publicity, which came to be something of an embarrassment. In early 2008, Joachim rented space in Brooklyn and—without notice to me—began to work independently and was joined by Ailova.

To my chagrin and consternation, Joachim and Ailova have been practicing under the name “Terreform 1.” The majority of projects on the Terreform 1 website are, in fact, projects from the Michael Sorkin Studio and are presented without attribution. Although Joachim worked on many of these projects over the years, his relationship to them was as a freelancer, and he neither initiated nor designed them, although he is the author of a number of the specific images presented. Virtually all of these projects have been published (and, of course, most were done on commission and under contract) and the claim of authorship by Terreform 1 (or Joachim) is as galling as it is outrageous. The projects done by Michael Sorkin Studio include: the Houses at Coorg, Almere Hout, Bucharest 2020, Zha Bei Masterplan (including the Pudong tower), and Chungcheong New City. Projects from Terreform include both New York 2106 and the Green Brain. The Terreform 1 site has also included the text “Cities from Scratch”—authored by me and posted unattributed. In addition, Joachim represents a number of the collaborators in Terreform over the years as having worked for Terreform 1.

Terreform formalizes a mode of practice that I have been engaged in for decades. Many who know my work are aware of its long basis in “unsolicited” planning and architectural proposals, its experimental social, morphological, and environmental orientation. Joachim’s parroting of the very language of Terreform’s project is mystifying and seems only to be explicable psychoanalytically. I have repeatedly asked Joachim to cease the transparent appropriation of the name Terreform and to stop posting projects of Michael Sorkin Studio or Terreform as his own. Because of a long and familial association I have not sought legal redress—as if this were a cure for Joachim’s apparently Oedipal rage—but am prepared to do so if this outrageous and unethical behavior does not cease. I believe that Joachim has sufficient talent and intelligence to succeed on his own but feel that his phenomenal hunger for celebrity has clouded his ability to see clearly the despicable and dishonest character of what he is doing. He risks becoming the Bernie Madoff of architecture.

Michael Sorkin

Terreform Inc., New York City

YOU MAKE WHAT?

I usually enjoy reading your publication, but I do have a concern regarding your 2009 Salary Survey [April 2009, page 82]. I have never understood why it is beneficial to publish the terribly low salaries that architects receive. Many companies use this information to pigeonhole candidates into low salary bands.

Alex Weiner

Heery International, Chicago

PLANE READING

I find ARCHITECT magazine interesting and provocative. Articles on everything from the manufacture of brick to tips on how to survive the current economy go way beyond the glossy photos of (frankly) irrelevant projects. And project construction details even! I look forward to each issue and read it cover to cover (one of very few). I hope you do not go to an electronic version only. I enjoy the hard copy and usually read the magazine on my flights across the country. So, keep up the good work.

Harry J. Hunderman

Wiss, Janney, Elstner Associates, Northbrook, Ill.

PARADIGM SHIFT

Your letter in this month’s ARCHITECT [“Heroes, Not Stars,” March 2009, page 10] really nailed the current climate among architects. We are seeing a return to the collaborative spirit that makes the industry so special and innovative.

David Rockwell

Rockwell Group, New York City

CORRECTION: In the April 2009 issue, “Greensburg, Truly” (page 72) misspelled the last name of University of Kansas professor Dan Rockhill. It also incorrectly said his Studio 804 design/build program is at Kansas State University. We deeply regret the errors.

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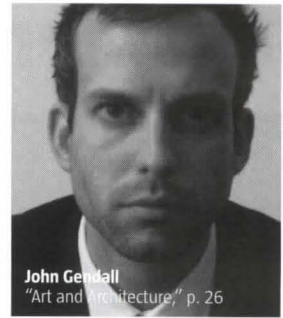
John Gendall

New York-based writer John Gendall contributes regularly to ARCHITECT. For the Specialist department, he covers experts who have a particular, precise focus, and whose contributions to architectural design are crucial—but may remain unnoticed. This month, he presents By-Encore, an architectural visualization firm based in Brooklyn. For the story, he spent a rainy morning in March at By-Encore's office, talking to the partners about their work, qualities of sunlight, Picasso's *Guernica*, and the nature of contemporary design.

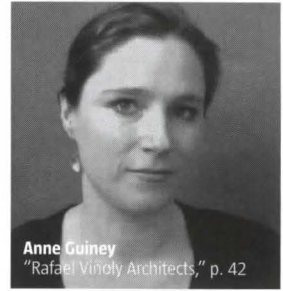
Gendall also writes for *The Architect's Newspaper*, *Architectural Record*, and *Harvard Design Magazine*. He was a contributing author to *The Phaidon Atlas of 21st Century World Architecture* (2008). Having studied architectural history and philosophy at the Harvard Graduate School of Design, he now teaches literary and critical studies at the Pratt Institute in New York and the history of ancient and classical architecture at the New Jersey School of Architecture.

Anne Guiney

Anne Guiney is a writer and editor who focuses on architecture, urbanism, transportation, and design. She served as an editor at *The Architect's Newspaper*, *Architecture*, and *Metropolis*, and is currently working on a series of projects about the intersection of architecture, politics, and policy. She studied Afro-American history at Harvard and became interested in architecture while volunteering at the Dudley Street Neighborhood Initiative, a not-for-profit housing group in Boston. After a year of making models at William Rawn's office, also in Boston, she concluded that her talents were not those of a designer and has been happily writing ever since.



John Gendall
"Art and Architecture," p. 26



Anne Guiney
"Rafael Vinoly Architects," p. 42

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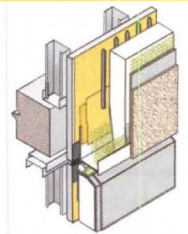
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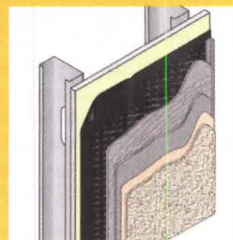
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BUSINESS



TEXT BY EDWARD KEEGAN
PHOTO BY AJ MAST

→ BEST PRACTICES

Get in the Game

YOU WON'T WIN EVERY DESIGN CONTEST, BUT PARTICIPATION OFFERS ITS OWN REWARDS.

G. STANLEY COLLYER is the founder and editor of Louisville, Ky.-based *Competitions*, a quarterly print journal and website (competitions.org) that provide information about the myriad design opportunities available to practitioners of architecture, landscape architecture, and public art. Collyer was working as a journalist and tour guide in Berlin during the 1980s when he was introduced to the European system of architectural competitions by some friends. He returned to the United States at a time when the National Endowment for the Arts was investing

public dollars in design competitions, so he founded a nonprofit—Competition Project Inc.—and started publishing the magazine in 1991 to promote the idea that had fascinated him in Europe.

How is the scene different than 20 years ago?

There are more competitions. And you find Americans entering foreign competitions in greater numbers.



Competitions founder and editor G. Stanley Collyer notes that many firms in Europe and Australia tell him a majority of their business comes from architecture competitions. He's not so sure that's a possibility in the U.S., where the regular turnover of elected officials means interruptions in development continuity.



What effect can winning a competition have on an architect's career?

Competitions often give a boost to somebody's career. Helmut Jahn and Ralph Johnson won competitions that led to promotions within their firms. Bilbao made Frank Gehry's reputation. Having a Bilbao means you never have to enter another competition for the rest of your life.

Is that a general rule?

Some people keep entering them. Richard Rogers and Cesar Pelli still enter invited competitions, but they didn't grow up in the United States. They have a different attitude towards competitions.

What's the European process?

Major projects are by law the subject of competitions. The system has changed in different countries over the years. In France in the late 1980s, they were doing almost 1,000 competitions a year, but they decided architects should get paid for some of this work, so they started limiting that. If there's an invited competition, they invite one young firm that had submitted a portfolio to an album competition. The invited system has taken over in the large projects, but there are still a number of open competitions. European architects tell me that 75 percent to 80 percent of their business comes from competitions.

Why enter?

It isn't that you might win. If it's open, the probability is small. Investigate an area where you haven't been before and do research. Find something that's interesting to you. This is a time to build your portfolio.

How much detail should you show?

It's about the way the building works, not so much about every nut and bolt. Pelli once told me, "Whatever it takes."

Do you think the recession will affect competitions?

You won't see more competitions, you'll see a greater number of participants. You need clients, and there aren't too many with projects and money. The downturn in the early 1990s didn't stop competitions or construction. In some cases, it enabled projects to come in under budget.

What are the biggest problems?

Too many people in this country run competitions under the assumption this will help them raise money for the project. Some competitions are well run, but they're all over the place.

Should you consider who's on the jury before entering?

I wouldn't say not to enter. It's more important on an invited competition, and most young architects don't have the résumé to be short-listed for something like that. But I know architects who said they wouldn't enter a competition if one particular juror was on the panel.

Do you think the stimulus will create competitions?

A competition isn't shovel-ready. □

→ STRATEGY

Owning It

TEXT BY ETHAN BUTTERFIELD

WEIGHING THE PROS AND CONS OF EMPLOYEE OWNERSHIP.

MOST DESIGN FIRMS in the United States—95 percent of them or more—are owned and controlled by an individual or a small number of them, says Hugh Hochberg of management consultancy The Coxe Group. What about the other 5 percent?

Some firms are owned by a large group of employees; others are owned by the entire staff in an employee stock ownership plan (ESOP). ESOPs, which were created by federal legislation in the 1970s, now number more than 11,000 in the United States. Here's how they work: **A firm sets up a trust and makes contributions to it, and stock is allocated to individual employees based on tenure, pay, or some other criterion.** The firm's contributions to the trust are tax-deductible, within certain limits; likewise, employees don't pay tax on allocations to their ESOP accounts until they receive distributions (usually but not always upon retirement), according to the nonprofit National Center for Employee Ownership.

Boston's Goody Clancy became an ESOP in the early 1990s as the original generation of owners moved out of the business. Now all 112 employees own the firm, which is governed by a board of seven principals who also control the most stock—though **by law, no one can own more than 10 percent of the firm's shares.** The board makes all company decisions together, says Geoffrey Wooding, a Goody Clancy principal. "We govern by consensus, kind of like running Switzerland," Wooding explains. "There is no titular head. We've done it this way for a number of years, and it works for us."

Another attraction of expanded ownership is that it may help firms keep experienced employees by tying their financial success to that of the company over the long term. CO Architects in Los Angeles, an 85-person firm that is owned by about 20 of its employees (and is therefore not an ESOP proper), has a stock ownership plan that offers major benefits to employees who stay with the firm and cash out at the age of 62.

CO's shareholders do not have to retire at age 62, but they do have to start selling their shares back to the company for book value. After four yearly sales have purged them of all their holdings, the now former shareholders are also paid four years' worth of goodwill payments based on how much the value of their stock increased during their tenure. If a shareholder leaves the company before age 62, the goodwill payments are reduced, explains managing principal Scott Kelsey.

For a company to become more broadly owned, there must be a plan in place years ahead of a transition, giving employees time to buy in and accumulate company stock. Often the switch is prompted by a leadership transition. As owners grow older and face retirement, they want to maximize their profit by selling back shares while also ensuring the firm's continuation.

The poor economy could see more firms exploring the ESOP option, especially if small groups of high-level employees can't raise the necessary cash for buyouts as senior owners retire. Although employee-owned companies are thought to have a performance edge, **Hochberg cautions that pride in indirect ownership may not be equivalent to the pride of a direct owner,** and that if firms expand ownership too far, nonleaders could wind up in leadership roles. Hochberg predicts, "The stronger, healthier firms out there are going to be pretty much the same—in terms of staff to owner ratio—coming out of this recession as they were going into it." □



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→ LOCAL MARKET

Meridian, Idaho

TEXT BY MARGOT CARMICHAEL LESTER

1. City Hall

ARCHITECT: LCA Architects, Boise. **COMPLETION:** 2008. **BRIEF:** 100,000-s.f. municipal building should receive LEED Silver certification.

2. Complex Care Hospital of Idaho

ARCHITECT: The Estopinal Group, Jeffersonville, Ind. **COMPLETION:** 2008. **BRIEF:** 60,000-s.f. acute-care hospital anchors the health, science, and technology corridor.

3. Main 5

ARCHITECT: CSHQA, Boise. **COMPLETION:** TBD. **BRIEF:** Mixed-use residential project will reuse downtown's Double D Seed & Feed building; seeking LEED certification.

4. VengaWorks Venture Centers

ARCHITECT: Erstad Architects, Boise. **COMPLETION:** 2008. **BRIEF:** 15,700-s.f. building contains flexible, furnished workspaces along with retail and conference space; seeking LEED Gold certification.

POPULATION/EMPLOYMENT

More than 73,000 people reside in Meridian, up 13.1% from 2007; February 2009 unemployment was 7%.

OFFICE MARKET

Average asking rate, 1Q 2009: \$17/s.f., full-service gross, on 9% vacancy.

RESIDENTIAL MARKET

February 2009 median home sale price in Ada County: \$180,900.

MARKET STRENGTHS

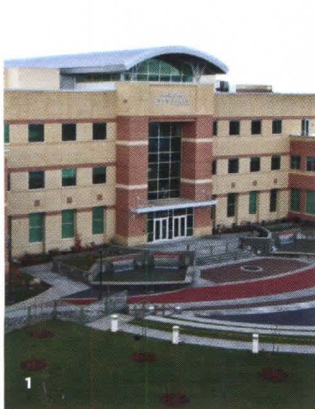
- Location at center of Treasure Valley
- Exceptional parks and recreational amenities
- Cheaper than nearby Boise

MARKET CONCERNS

- Infrastructure, particularly roads
- Sprawling exurbs
- Higher demand for services

FORECAST

"The [city's] explosive growth, the demographics of our population, and our location in the center of the Treasure Valley are the key items that make Meridian interesting, provide us our strength, and also create our challenges," comments CSHQA principal Craig Slocum.



1



2



3



4

ONCE BUCOLIC DAIRY LAND, Meridian has become Idaho's third-largest city and is a thriving business hub. The most recent trend in its transformation is a corridor approach to development.

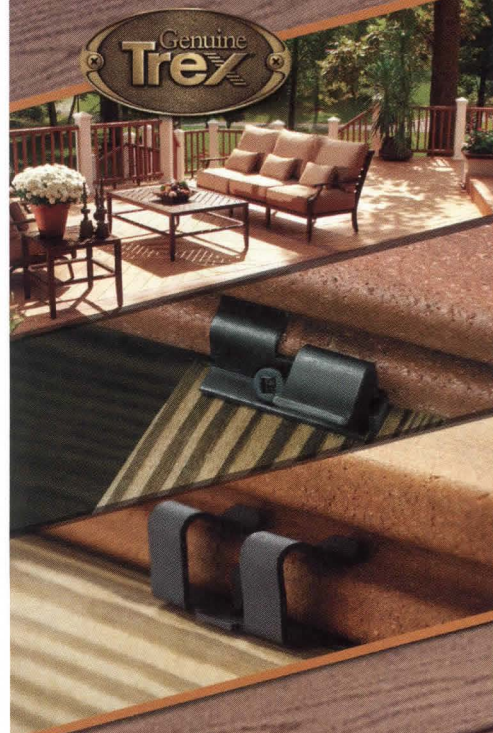
"The concept formed in the last couple years through the mayor's vision and existing anchor businesses," explains Josh Grant, a member of the city's Economic Excellence Team. Developer buy-in and collaboration also were critical in moving the concept forward. The 1,800-acre health, science, and technology corridor—which includes a new 60,000-square-foot acute-care hospital (No. 2, above) and Idaho State University's Meridian campus—is the first. "The city has a vision that includes several other corridors currently being researched to identify viable industry clusters," Grant says.

Another key to re-envisioning Meridian is reviving the city's core. "As development has occurred, it has taken place outside of downtown," says Craig Slocum, principal architect with CSHQA in Boise and chairman of the Meridian Development Corp. (MDC). "One of the challenges that Meridian faces is maintaining—or re-creating—its downtown."

To that end, a new City Hall (No. 1, above) was built to consolidate many of the city's services, draw people back to the area, and spark redevelopment. Already, new projects are springing up in its wake. Says Slocum: "The MDC and the city are committed to creating a vibrant, walkable downtown." □

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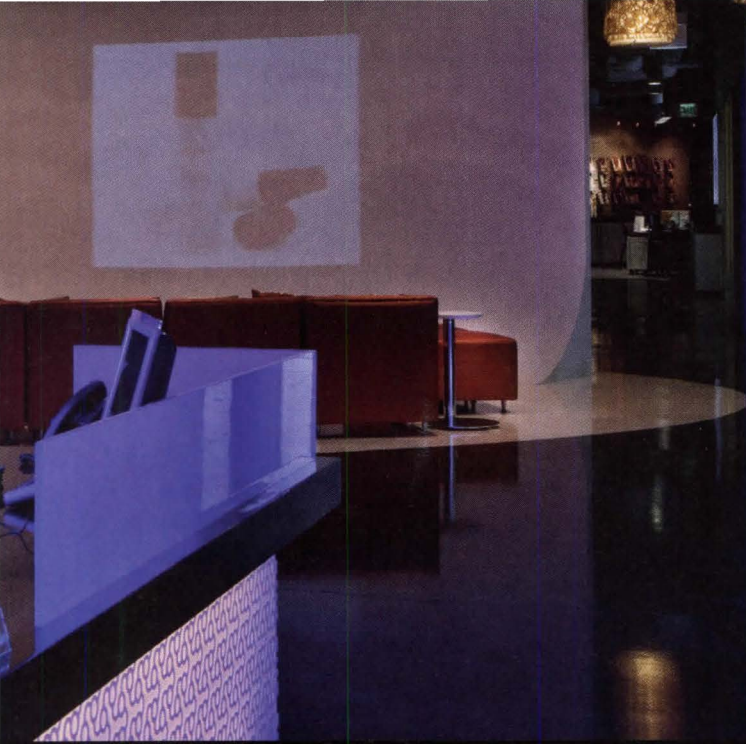
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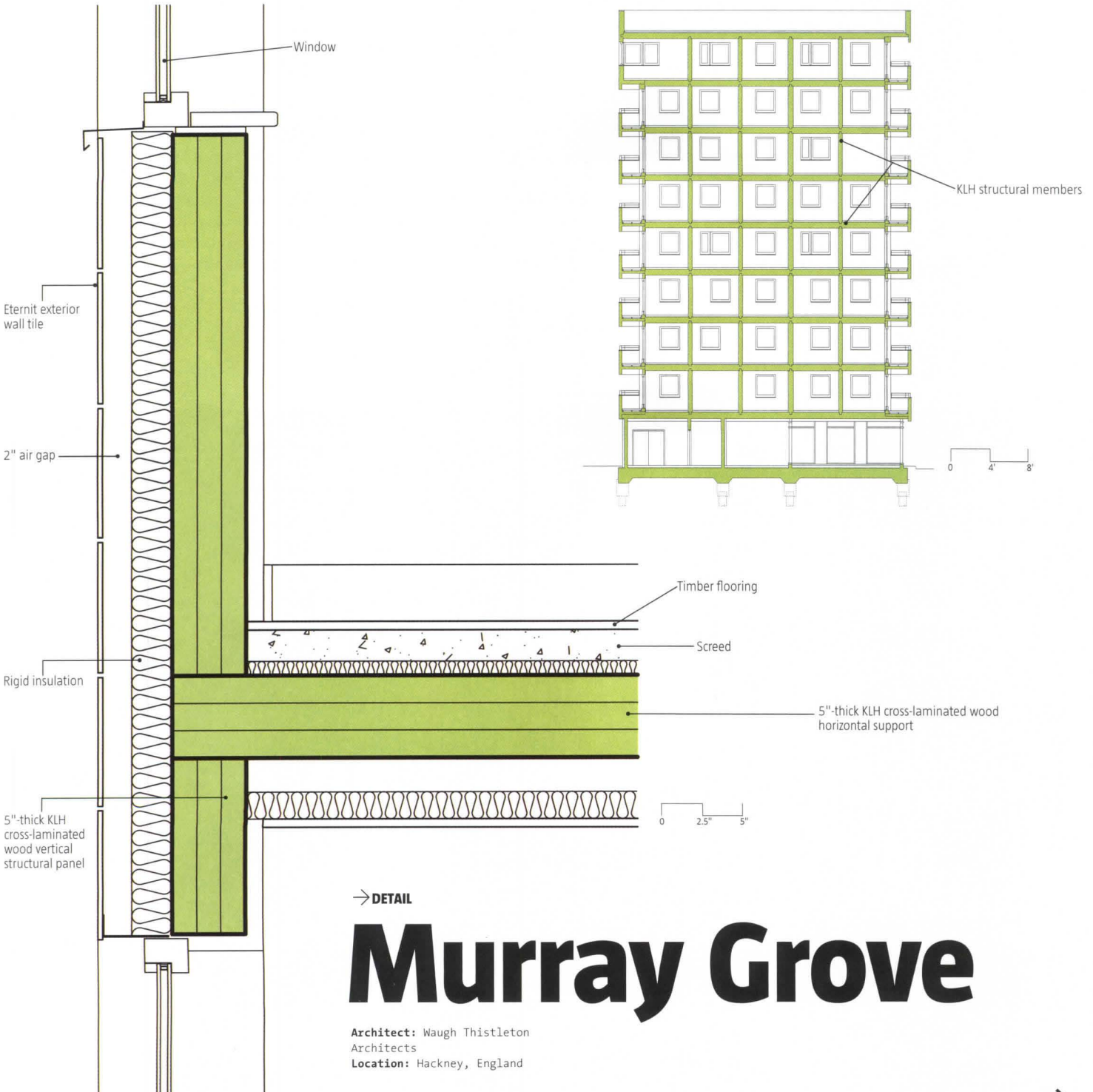
INSIGHT



TECHNOLOGY

Floor Section at Exterior Wall

Building Section



→ **DETAIL**

Murray Grove

Architect: Waugh Thistleton Architects
Location: Hackney, England



TEXT BY KATIE GERFEN



IT IS HARD TO IMAGINE a wood-frame building without a veritable puzzle of cross-bracing. But Waugh Thistleton Architects accomplished it with Murray Grove, a multifamily building in the London borough of Hackney. The firm designed the nine-story structure using a cross-laminated timber product from KLH, an Austrian company—the result being, the architects say, the world’s tallest modern wood-frame residential building.

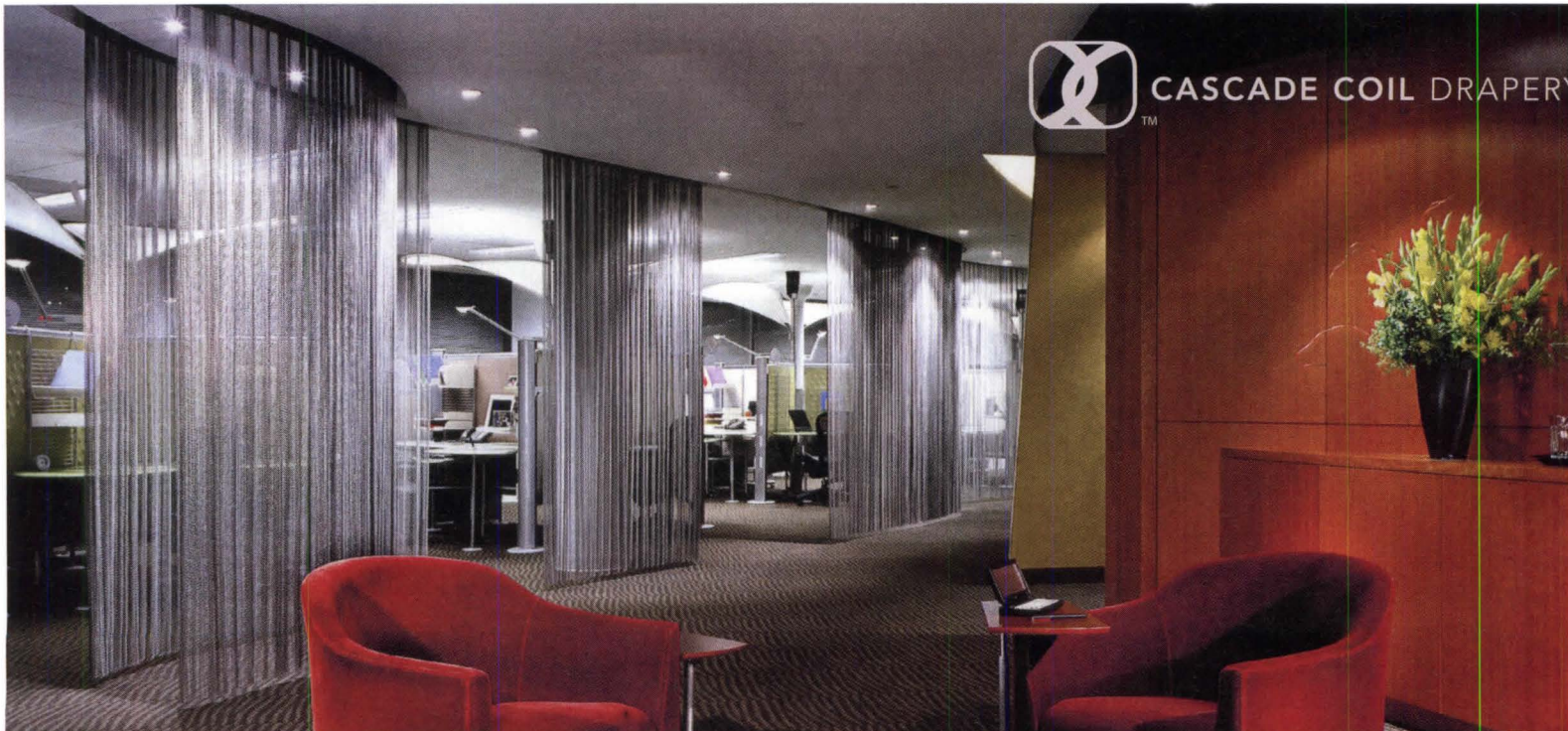
KLH’s system of horizontal beams and vertical structural wall boards is manufactured from spruce grown in sustainable forests. The spruce strips are stacked crosswise three layers thick and glued together. For Murray Grove, Waugh Thistleton used KLH’s product to create a right-angled matrix in which the structural walls differ in placement on each of the nine floors. Larger apartments are located on the lower floors and smaller ones on the upper floors, allowing for the structural walls to be carefully placed to minimize the load on each individual wooden beam. Thanks to the material’s integral cross-lamination, the loads are transferred both vertically and horizontally without cross-bracing.

KLH was nothing new to the architects. “We had used KLH four years earlier on an extension of a

three-story building in London,” says partner Anthony Thistleton. “Since then, we have been looking at other uses of the material.” The Murray Grove project provided the right opportunity. Not only did KLH allow the architects to push the envelope in terms of the height of a wood building, it also helped the project meet the city’s renewables target for new construction: The team proved that the carbon saved through the use of KLH’s product was equal to the amount saved by putting a wind turbine on the roof for 210 years.

Another unanticipated benefit was that the use of timber sped up the construction process, allowing the entire structural frame to be completed by four people in 27 days, using little more than a portable crane and handheld electric screwdrivers. “One of the main issues on site was that we had to keep accelerating the schedule,” says Thistleton. “In a concrete building, running the electrical requires a couple of guys with a great hydraulic drill burrowing into the concrete. They can only work so long each day. Our electrical fix was supposed to take eight weeks. It took three.”

The new building system is not without its drawbacks—flat owners will need to consult an engineer before cutting a door between rooms—but Waugh Thistleton plans to keep using KLH, next time in an even taller building. □



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The patterning of the tiles on the exterior of the building is based on the play of shadows on the site from surrounding buildings and trees. The tiles are a fake slate product that uses wood pulp as one of the main ingredients. Ceramic tiles, Anthony Thistleton notes, would have used as much carbon to fire as the project saved by using the cross-laminated timber that holds the building together.



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TEXT BY JOHN GENDALL
PHOTO BY SIOUX NESI

Architectural renderer Guillaume Paturel (pictured here with his son, Camille) has rebranded himself over the years; previous incarnations include Graphic Work and Louis & Fils. These days he works under the name By-Encore.

→ SPECIALIST

Art and Architecture

EACH BUILDING TELLS A STORY. ILLUSTRATOR GUILLAUME PATUREL ENSURES IT'S EFFECTIVELY CONVEYED.

DESPITE WHAT SOME ARCHITECTS might wish, image is frequently everything. In a discipline predisposed to the visual and in an age saturated with design confections, a high-quality rendering can help a project stand out from a crowded field. Achieving this goal is the task of Guillaume Paturel, the director of By-Encore, a Brooklyn, N.Y.-based architectural visualization firm.

For even for the most complex project, renderings can communicate the essence of the design concisely. In this capacity, they become powerful—and persuasive—tools. Calling them “absolutely essential,” Roger Soto, a senior vice president at HOK and the design director of its Houston office, says, “You must have quality renderings in order to compete effectively.”

Or, as Paturel simply puts it, “Renderings win competitions.”

Their benefits extend beyond the competitive edge, though. Sudhir Jambhekar, a senior partner at New

York-based FXFowle Architects, has worked with Paturel on more than 15 projects. “Clients expect visualization. They want to see what the buildings look like,” he says. But renderings also offer the designers themselves a chance to examine a project. “Internally, we study the project, test our own ideas, see if what we have designed is right,” Jambhekar notes, adding, “I would recommend highly that visualization is done by outside consultants. It brings in a different perspective, and it frees up valuable time for design.”

Yet not all renderings are created equal. The best communicate “more than just the raw realism of a project,” says Soto. “They have a story to tell. They should capture the spirit of a site.” This is where hiring a specialist such as By-Encore is critical. Colin Montoute, a senior designer at FXFowle, says the firm is “exceptional



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at creating context, understanding ... the place in which the architecture sits." Jambhekar agrees: "The sky is not the same in New York as it is in Dubai. The blueness is very different. By-Encore captures that."

For Paturel, architectural renderings are an art. As such, they should not just meticulously convey a project's program and design elements—they should also convey light and shadow, what he calls the "heart" of a project. And Paturel aims to convey a single message with each image. "You have to show just one thing, whether it's one building, one aspect of a building, or one effect," he explains. "When you look at a rendering and you understand quickly what's happening, then you've got it."

Likening renderings to film, Paturel underscores the importance of frame and shot. "The most important thing is the point of view," he says. "I find the place to establish the perspective." This, he suggests, is key to a quality rendering. Drawing a distinction from physical models, which lay projects bare and allow anyone to view them flexibly, Paturel cites the rendering's capacity to dictate perspective. "You have to control what the person sees," he explains. "I want you to look in this direction in this particular moment."

As with many fields, architectural visualization has undergone systemic changes because of technological advances. "When I first started, for about eight years, I worked with pastels and collage," says Paturel, who studied architecture in his hometown of Marseilles, France. With a passion to create images, the young artist started a firm in Paris in the mid-1990s, working with a kit of now-outdated tools. Seven years ago, however, Paturel turned to digital technologies—primarily Autodesk 3ds Max and Photoshop—and has used them ever since to execute renderings.

The artistry, however, remains. "The tools today are very powerful, but you have to know how to use them well," says Paturel. "If you buy a great guitar, that doesn't guarantee you'll be able to play beautiful music. Even though I do all my work on computer, that early experience was very valuable."

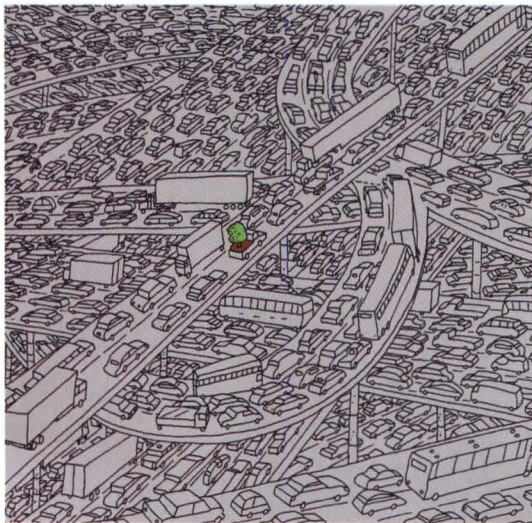
Over 15 years, Paturel has rebranded himself periodically (previous monikers have included Graphic Work and Louis & Fils), and he has maintained a presence in France and New York for several years. When he relocated to New York in 2007—his office currently has fewer than a dozen employees—he created By-Encore to reflect this new shift.

And his clients couldn't be happier. "There is a definite artistry in what By-Encore does," says HOK's Soto, "with the way they manipulate light, express materials, do the entourage,"—the people that appear in renderings—"and with the views they select. They don't just inform," he concludes. "They seduce."

But despite the technology available to Paturel and the expertise he possesses, it still comes down to the product itself. "The best way to do a nice rendering is to have a nice building," says Paturel. "It's very difficult to make a good rendering with bad architecture." □



Road Rage



TEXT BY LANCE HOSEY
ILLUSTRATION BY PETER ARKLE

THE HIGHWAY PLAN FAILS AN ALREADY FAILED SYSTEM.

THE \$27 BILLION in the stimulus package earmarked for roads represents the largest investment in the federal highway system since its creation half a century ago, and billions more have been proposed. *Time* magazine calls the plan, which will revamp and expand much of the nearly 50,000 miles snaking from coast to coast and border to border, one of "10 Ideas Changing the World Right Now." Yes, but is it change for the better?

On the plus side, the project will create jobs overnight and repair damaged roadways, possibly reducing traffic-related injuries and fatalities. On the downside, it's a quick fix that could make things worse in the long run.

Transportation accounts for 70 percent of U.S. oil consumption and is our second largest source of CO₂ emissions, due to tailpipe exhaust and the industrial production of cement and other materials. More paving, more carbon. Runaway roadways destroy habitats, sever migratory routes, disrupt water systems, aggravate soil erosion, and raise temperatures by fueling heat-island effects. According to the National Oceanic and Atmospheric Administration, the amount of concrete already in place, if collected in one surface, would cover an area the size of Ohio. Shall we pave over

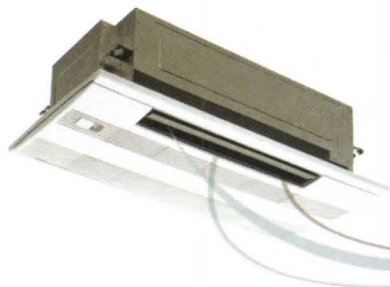
Indiana while we're at it?

The government believes that highway growth will aid commuters, but commuters don't agree. A recent National Association of Realtors poll found that 75 percent of respondents prefer improving public transportation and reshaping communities to reduce car dependence, while only 21 percent want new roads. Yet many cities are slashing transit budgets and expanding freeways. In a survey published in January, the U.S. Public Interest Research Group discovered that most states plan to devote little of the stimulus funding to public transit—17 percent, on average, though many will allocate less than 1 percent, and possibly nothing at all.

Pouring money into pavement merely preserves a failed system. The stimulus road plan may create jobs temporarily, but focusing on public transit could generate even more jobs for a longer period while stimulating human and environmental health and giving commuters what they want. The billions being spent to pave over the problem could be spent solving it. □

Next month: How our highways are literally killing us.

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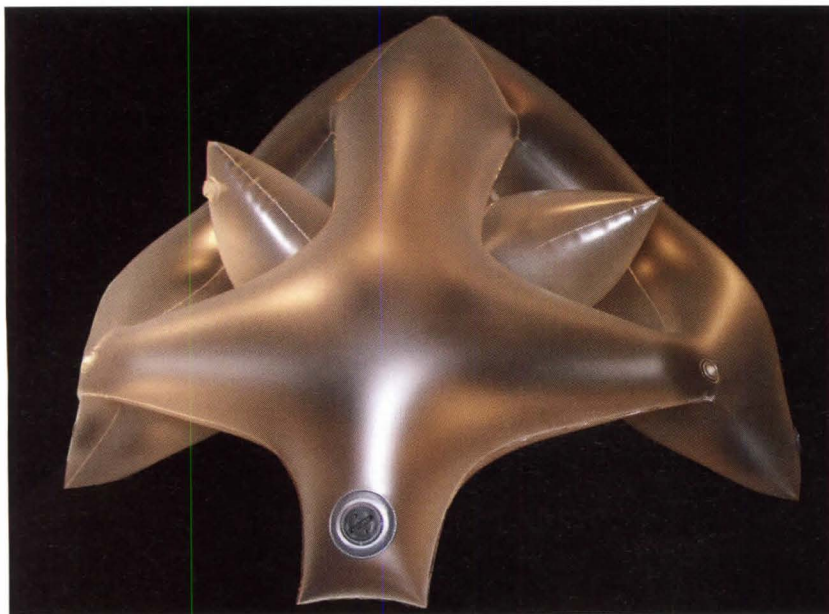
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→ RESEARCH

Parametric Pieces

TEXT BY BRAULIO AGNESE

THE ARCHITECTURAL GEEKFEST THAT WAS THE 2009 SMARTGEOMETRY SUMMIT AND CONFERENCE—HELD IN LATE MARCH AND SPONSORED BY BENTLEY SYSTEMS—OFFERED ENOUGH COMPUTATIONAL AND PARAMETRIC DESIGN PRESENTATIONS TO FILL A WHOLE ISSUE. BUT WE FELT THE TWO RESEARCH PROJECTS SHOWN HERE WERE ESPECIALLY INTRIGUING. FOR A COMPLETE ARCHIVE OF THE 2009 EVENT, GO TO SMARTGEOMETRY.ORG.

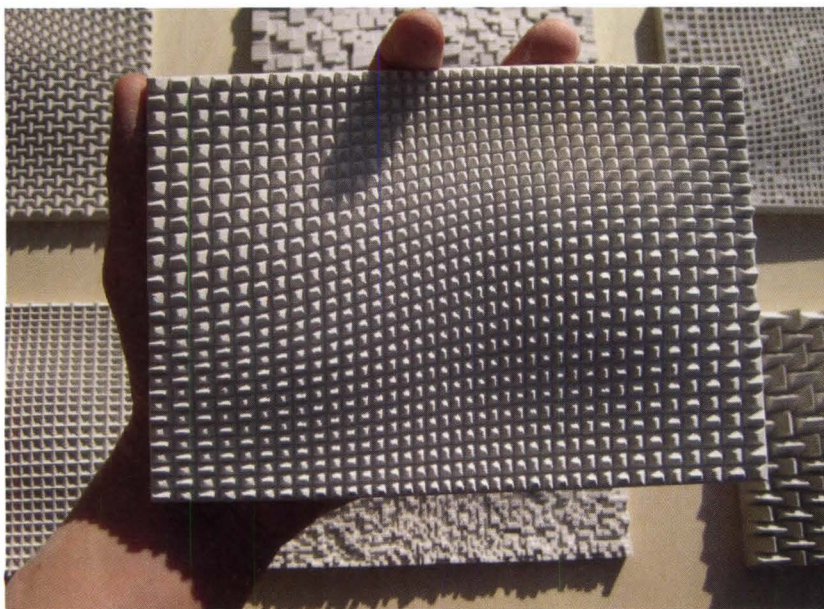


Adaptive Pneumatics

Mehran Gharleghi and **Amin Sadeghy**, graduate students in the Emergent Technologies and Design program at London's Architectural Association (AA), are investigating a modular façade system that is both adaptable—i.e., capable of responding to climate and other conditions—as well as structural.

Each system component—the initial focus of Gharleghi and Sadeghy's research—opens and closes on its own via a pneumatic “muscle” that is triggered by internal pressure; the pressure increases or decreases depending on the amount of direct sunlight the component receives. (A prototype component is shown at left.) Thus the system potentially can help regulate an interior environment through active natural ventilation.

The next phase of the research, says Gharleghi, involves physical experiments with large systems of components—which, in theory, piece together to create a façade of any desired size—“to scrutinize performance ... under real circumstances.” Gharleghi and Sadeghy's research has garnered two awards from the AA's Fabrication Cluster.



Parametric Acoustic Surfaces

An architect who has logged time at Foster + Partners and Buro Happold, **Brady Peters** is currently a Ph.D. candidate at the Royal Danish Academy of Fine Arts School of Architecture's Center for Information Technology and Architecture (CITA), where he also works. His research, begun last year, focuses on acoustic surfaces.

The purpose, says Peters, “is to create tools and solutions that enable acoustics to become an architectural design problem.” By combining computer-based acoustic simulation with new parametric modeling techniques, Peters is developing complex surfaces—suitable for walls, ceilings, and floors—that, “through their shape and material, can be part of an acoustically well-balanced space.” Early results include surfaces that act as absorbers, as diffusers, and as reflector/absorbers. (The photo at left shows several of these surfaces at a 1:25 scale.)

Peters' research is being done in partnership with associates at CITA, construction consultancy Grontmij|CarlBro, and architecture firm JJW Arkitekter, and he was awarded a research grant from the RealDania foundation.

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TEXT BY JENNIFER LASH

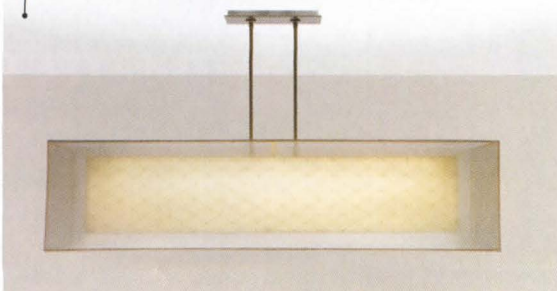
Monoline Line Voltage Track System and Fixtures are the latest market introduction from **Juno Lighting Group's** Alfa brand. The SP95MLU (shown) is a fully adjustable line-voltage directional spot fixture that uses a 50W-maximum GU10 MR16 halogen lamp. The hardware is available in three finishes: vintage bronze, satin nickel, or white, and shade finishes include amber, blue, clear, frost, vintage bronze, satin nickel, and white. The fixture has a lens holder that can accommodate one lens accessory if desired. • www.junolightinggroup.com • Circle 100

→ PRODUCTS

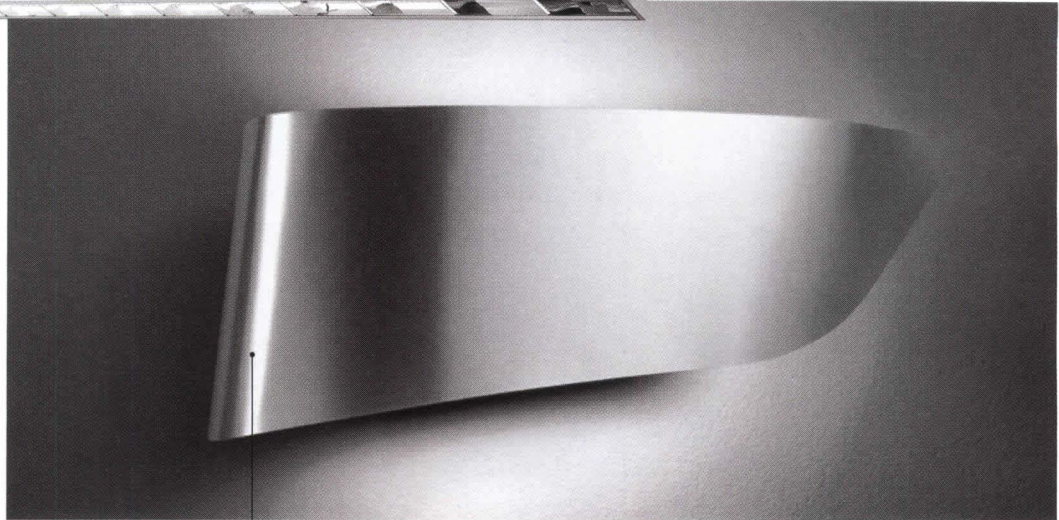
Lighting

The **Wireless Occupancy Sensor** from **Lutron** is designed for easy installation in offices, classrooms, or rooms of a house where automatic lighting shutoff is desired. The sensor has front-accessible buttons and user-replaceable batteries, which the manufacturer says are designed to last up to 10 years. As many as 10 dimmers or switches can communicate with the sensor via radio frequency. • lutron.com • Circle 101

The **Shaper Fabriqué Series** is a new line of commercial and residential pendants from **Cooper Lighting** that has a choice of up to 14 fabric types and colors for its fixture shade. The shades are designed to have minimal or no visible hardware or structural trim. The family of luminaires is available in different shapes (cone, cylinder, drum, and square) and a variety of finishes, including natural aluminum, chrome, and copper. • cooperlighting.com • Circle 102

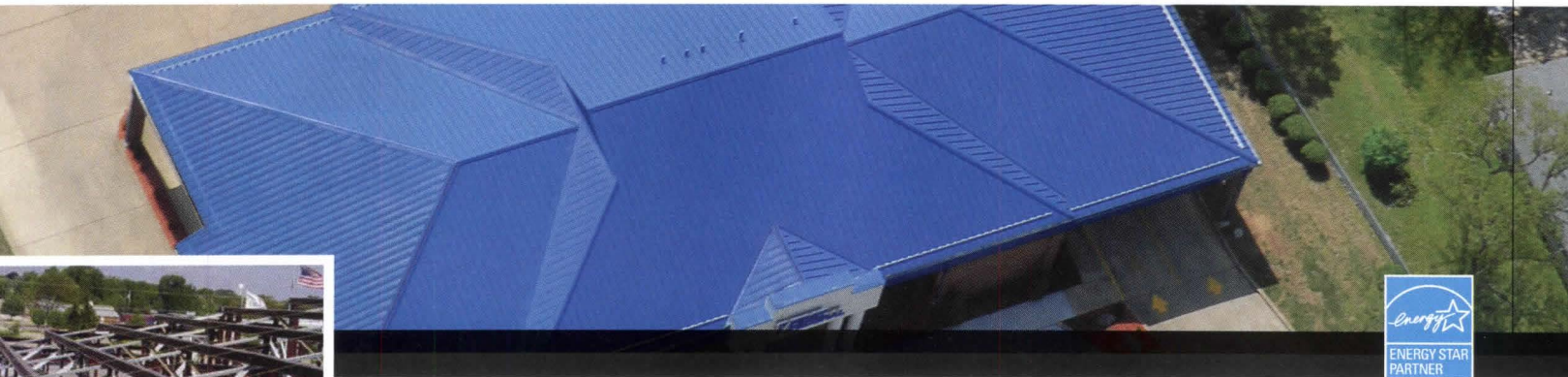


The **Linear System** is the latest offering from **Sistemalux**. Available in three configurations (wall, pendant, and pendant with track), Linear System can be combined with the company's projectors for applications such as museum and office lighting. All fixtures can be lamped with T5 fluorescents as well as LEDs in both 3000K and 4000K color temperatures. • sistemalux.com • Circle 103



Eurialo is a wall lamp by **Artemide** made from molded aluminum. Designed by Pio and Tito Tosso, the luminaire provides both indirect and direct lighting. Halogen and fluorescent lamps can be used with the fixture, which is available in two finishes: aluminum and polished white. • artemide.com • Circle 104

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Current course materials can be found online from the following companies:

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EnergyPeak
Follansbee
Fypon
greenscreen
James Hardie
JELD-WEN, Inc.
Kolbe Windows & Doors
Lafarge
Lasco Bathware
LG HI-MACS
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Maple Flooring Manufacturers Association
Marble Institute of America
MFMA
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Woodharbor Doors & Cabinetry

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CULTURE



→ EXHIBIT

Rigorous data meets bold graphic design in *Urban China*, a monthly Chinese magazine devoted to urbanism (each issue explores a single, thoroughly researched theme) that has remained, since its launch in 2005, relatively unknown in the West. Now making an appearance at UCLA's Hammer Museum after a six-week stint at New York's New Museum, the magazine goes live and off the page. **Urban China: Informal Cities** includes a wall graphic of images and numbers, a database of photographs (such as the curtain of flattened cans, above), reclaimed construction materials as part of the exhibition's "built environment," and a few back issues of the magazine, too. Through July 19; hammer.ucla.edu



→ **FILM**

When filmmaker Kendall Messick was growing up in suburban Delaware, he learned that a neighbor kept a movie theater in his basement, complete with marquee, ticket booth, projector, and organ. Its name: the Shalimar. Its creator: Gordon Brinckle. "The beauty and graciousness of the past ... [just] isn't anymore," Brinckle says in Messick's 31-minute documentary, *The Projectionist*, part of a larger project about Brinckle, who died in 2007, and aimed at preserving the Shalimar. \$29.95; theprojectionist.net

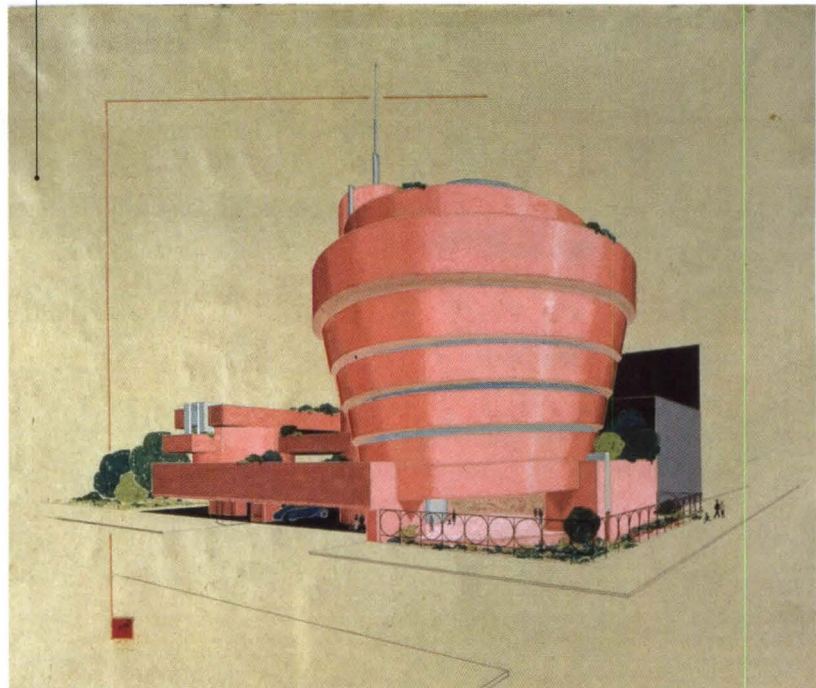


→ **BOOK**

Back in print after nearly a decade: Paul Virilio's *Bunker Archeology*, originally published in French in 1975 after appearing in an exhibition at the Pompidou Center. (The first English edition came out in 1994.) The urban theorist presents his 124 duotones of abandoned World War II-era German bunkers along the coast of France and muses on oppression, destruction, and the notion of fortress. \$45; Princeton Architectural Press; papress.com

→ **EXHIBIT**

Along the spiral ramps of Frank Lloyd Wright's Guggenheim Museum, which turns 50 this year: a study of freedom in the architect's interior spaces. *Frank Lloyd Wright: From Within Outward* includes original drawings and newly commissioned models and digital animations for 64 of the master's projects, some built, some not—and several, alas, demolished. May 15 through Aug. 23; guggenheim.org



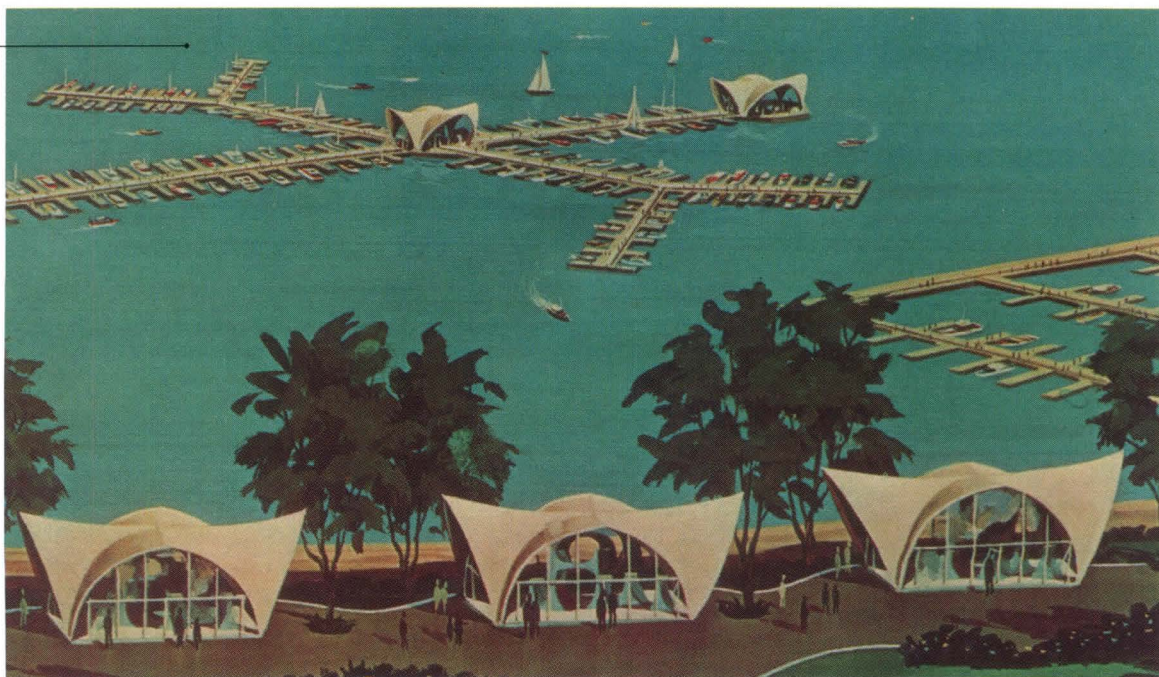


→ EXHIBIT

In Norway, rest stops offer extra comfort as architectural landmarks, since the government began commissioning the projects from leading international architects and landscape architects. Experience them through models, photos, and a viewing chamber showing a film that winds along Norway's roads and bike paths in **Detour: Architecture and Design Along 18 National Tourist Routes**, at the National Building Museum in Washington, D.C. Through May 25. nbm.org

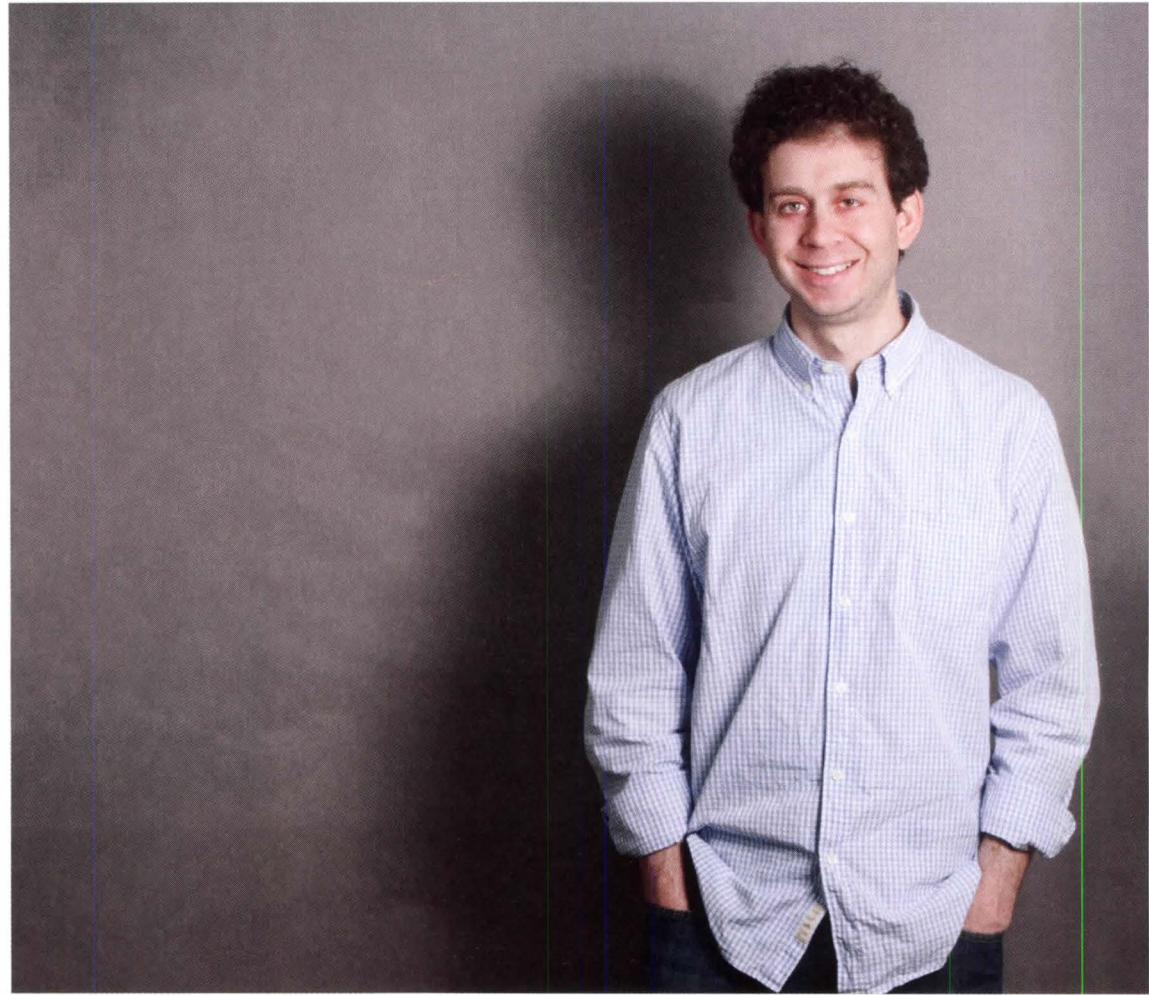
→ EXHIBIT

One of the many odd remnants of New York's 1964 World's Fair is a pair of open-air fiberglass pavilions on the waterfront near the Mets' new Citi Field. In **The Candela Structures: A New York City History Mystery**, an exhibit at Brooklyn's The City Reliquary Museum & Civic Organization, journalist Paul Lukas and architect Kirsten Hively unearth the strange story behind the structures and expose some of the myths that have developed about them over the past decades. Through June 28. candelastructures.org • HANNAH MCCANN



→ CRIT

I Was The Gutter



TEXT BY MARK LAMSTER
PHOTO BY MATT GREENSLADE

Mark Lamster is the author of *Master of Shadows*, a political biography of the painter Peter Paul Rubens to be published this October by Nan A. Talese/Doubleday. He blogs at marklamster.com.

IT HAS NOW BEEN MORE than four years since I wrote the introductory post to The Gutter, the anonymously authored blog that promised “ill-mannered commentary on the architectural arts.” Over its tumultuous 18-month run, The Gutter fully delivered on that pledge, leaving no corner of the design establishment unscathed. There are days, even now, when I’m tempted to resuscitate it; days when I open the morning paper, or rather surf through what remains of it, to find some bit of starchitectural excess praised beyond reason or measure. The impulse might also be set off by some jargon-fueled missive from the halls of academe, or perhaps the latest outrage perpetrated in the name of development.

Mostly, however, I’m glad The Gutter is dead, though I will admit that it was fun while it lasted, or at least at the beginning. I will not soon forget a meeting just

after the launch, when a prominent design-world figure, noted especially as an essayist, praised writing he had no idea was my own. That was quite a compliment—I’d never had my own words unknowingly quoted back to me—and I felt guilty for not coming clean. Maintaining anonymity became an increasingly frustrating obligation as The Gutter’s identity seemed all that anyone wanted to talk about, especially after *The New York Times* dispatched a reporter to out the author—she came up empty, prompting considerable mockery on the site, the *Times* already being a favorite target.

Anonymity was not something I was then prepared to sacrifice. At the time, I worked as an editor of minor prominence at a publishing house, Princeton Architectural Press, and had no interest in compromising my employer, my colleagues, my books, or the authors

I represented. The design historian Steven Heller recently condemned the practice of anonymous blogging as “cowardly,” and though that is undeniably true, it seems to me that in hierarchical systems where power is disproportionately wielded by the few over the many, those who would expose hypocrisies and speak unspoken truths merit some protection against professional retribution. That, in any case, was how I justified my secret. From a self-serving perspective, anonymity only enhanced the site’s cachet.

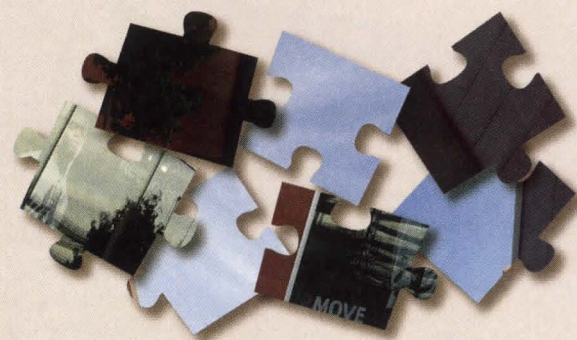
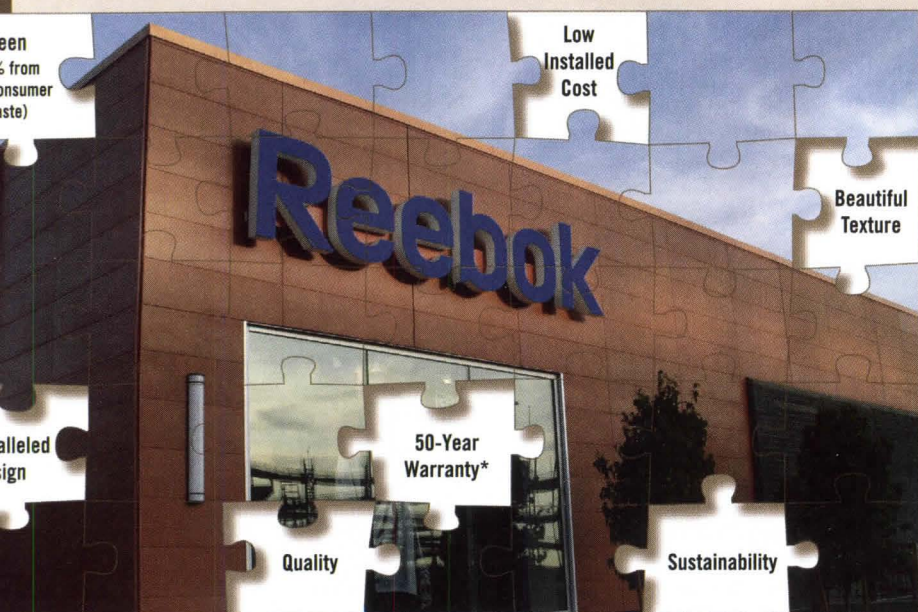
The Gutter, as I envisioned it, was to be a voice of corrective reason, an alternative to an architectural press besotted with and compromised by its relationship to its subjects, and it would speak with gossipy glee in a tone that was at once knowing, bemused, and outraged. For a few months, I think, it even lived up to that vision. In time, though, it morphed into something else: given over to personal rather than just professional gossip, increasingly and inscrutably self-referential, with the imperial tone of a debauched queen. It was brilliant at times, but too often mean rather than witty, prurient rather than incisive. This, perhaps, is one of the dangers of the blog as a medium. The compulsion to publish virtually unedited material on a constant basis can too easily engender a blurring of the line between what should and should not remain private. After one particularly outrageous post, I chose to walk away from the site entirely. My decision to quit, however, did not mean the end of The Gutter.

The truth, of course, was that The Gutter was written by more than one person, and by the time of my departure I was hardly a presence on

the site at all, and hadn’t been for months. Though I had drawn up the original plan—the provisional banner is saved on my hard drive—there were two of us working in close collaboration from the start. This fact made it exponentially more difficult to determine The Gutter’s identity. Buoyed by a tip line, it seemed that we were both everywhere and nowhere at once. The writing, coming as it did from multiple authors, could not be systematically analyzed. To this day, no one has determined the authorship of the site. Looking back now at some of the early posts, even I can’t tell who wrote them.

That changed as the voice of the site became progressively more idiosyncratic and unhinged, but to suggest that my departure from The Gutter was purely a matter of “creative differences” would be disingenuous—there were no fights, no angry words of recrimination spoken over a project gone sadly, terribly awry. I was not pleased by the direction the site had taken, but I had neither the time nor the energy to reorient it or to build it into something greater. This was an opportunity lost, for The Gutter was ahead of its time and a harbinger of things to come. The singular authority of the entrenched media was slipping away, drowned out by the myriad voices of a far more democratic medium. It is no small irony that I reveal my identity in the pages of this magazine—whose very existence was first reported by The Gutter a full year before its first issue hit the stands—at a time when the future of print media seems very much in question. Survival, I think, depends on channeling some of the energy and honesty, if not the bile, of the online world. Which may be why the editor of this magazine has a blog. □

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freegreen.com

GIVING IT AWAY TO BRING GREATER CHANGE TO THE SUSTAINABILITY MARKET.



TEXT BY BRAULIO AGNESE
PHOTO BY TRACY POWELL

FreeGreen founders David Wax (left) and Ben Uyeda have been involved in sustainable design since their days at Cornell, when they worked on the school's entry in the 2005 Solar Decathlon, a biennial U.S. Department of Energy competition.

WHEN YOUR INTERNET BUSINESS MODEL is giving away plans for green homes, a recession doesn't change the bottom line. And, notes Ben Uyeda, chief architectural officer of Charlestown, Mass.-based FreeGreen, it helps keep the competition away.

But income isn't why Uyeda and CEO David Wax—who also founded the for-profit design firm ZeroEnergy Design, a separate venture, with three others—launched FreeGreen (freegreen.com) in March 2008. (The site accepts paid placements from product manufacturers, but only to cover operating expenses.) Nor, ultimately, is it the need to see any of their nine house designs built—though that would be nice, of course, and FreeGreen does offer customization and consulting services for a fee. Instead, say Uyeda and Wax, the fundamental goal is to have an impact on public thinking about sustainability via well-designed, freely available architectural media.

"Throughout my education, not once did we design a single-family home," says Uyeda, a Cornell University M.Arch. (ZeroEnergy's founders, all Cornell graduates, met on the school's 2005 Solar Decathlon team for the U.S. Department of Energy competition.) He notes that single-family houses are by far the most common structures, but architects create less than 5 percent of them. So designers may talk about the need to be sustainable, says Uyeda, but "we're not even affecting the most common building type." Whether people use FreeGreen's plans—now downloaded more than 21,000 times—in part or in whole, as inspiration or as is, he says, the company is getting "innovative building practices into the mainstream market."

With obvious delight, Wax cites an example of what he and Uyeda are trying to accomplish. "There's a high school teacher in Connecticut who has downloaded our plans and uses them in his introduction to architecture class," says Wax. "That excites me almost as much as if I were to tell you we've built 21,000 homes." □

LINKS

frontporchrepublic.com/?p=707

Front Porch Republic is an online publication dedicated to the idea that "scale, place, self-government, sustainability, limits, and variety are key terms with which any fruitful debate about our corporate future must contend." In the explanatory essay "A Republic of Front Porches," contributing editor Patrick Deneen, professor of political theory at Georgetown University, discusses how "the forces that led to the decline of the porch as a place of transition between the private and the public realm have eviscerated both those domains of their capacity to educate a citizenry for self-government."

wtclogo.com

Architecture as graphic design: For nearly 30 years, Minoru Yamasaki's World Trade Center towers dominated the Manhattan skyline, both in reality and as part of many, many Big Apple business logos. This site is dedicated to preserving the memory of such logos before they, too, disappear.

design-politics.blogspot.com

Maia Small, a partner at Pawtucket, R.I., architecture and urbanism firm Thurlow Small Architecture, blogs about "critical issues surrounding the transformation of the public environment."

flickr.com/groups/architectureofauthority

The National Building Museum has created "Architecture of Authority," a Flickr group for people to share images of "the powerful spaces around you." The group was launched in conjunction with an NBM exhibit of the same name that features the photography of Richard Ross. The exhibit ends on Aug. 16.

weathertap.com

Does your job require you to know what Mother Nature is up to, whether in your backyard or at a project site elsewhere in the country? WeatherTAP could be your new favorite tool. A subscription-only service (\$6.95 a month, \$73.95 a year), WeatherTAP says it offers "the most current weather, faster," thanks to near-real-time updates: every six minutes, as opposed to the industry average of 20 minutes.

ARCHITECT brandLEADER

THE RESULTS ARE HERE... See Which Suppliers Your Colleagues Choose To Use First Annual Brand Preference Study Celebrates Market Leaders

This year, ARCHITECT conducted its first brand preference survey to determine how its readers—your colleagues—rate the industry's foremost suppliers. Over 700 brands within 41 product categories were rated through an extensive mail survey of randomly selected readers, conducted by an independent research firm.

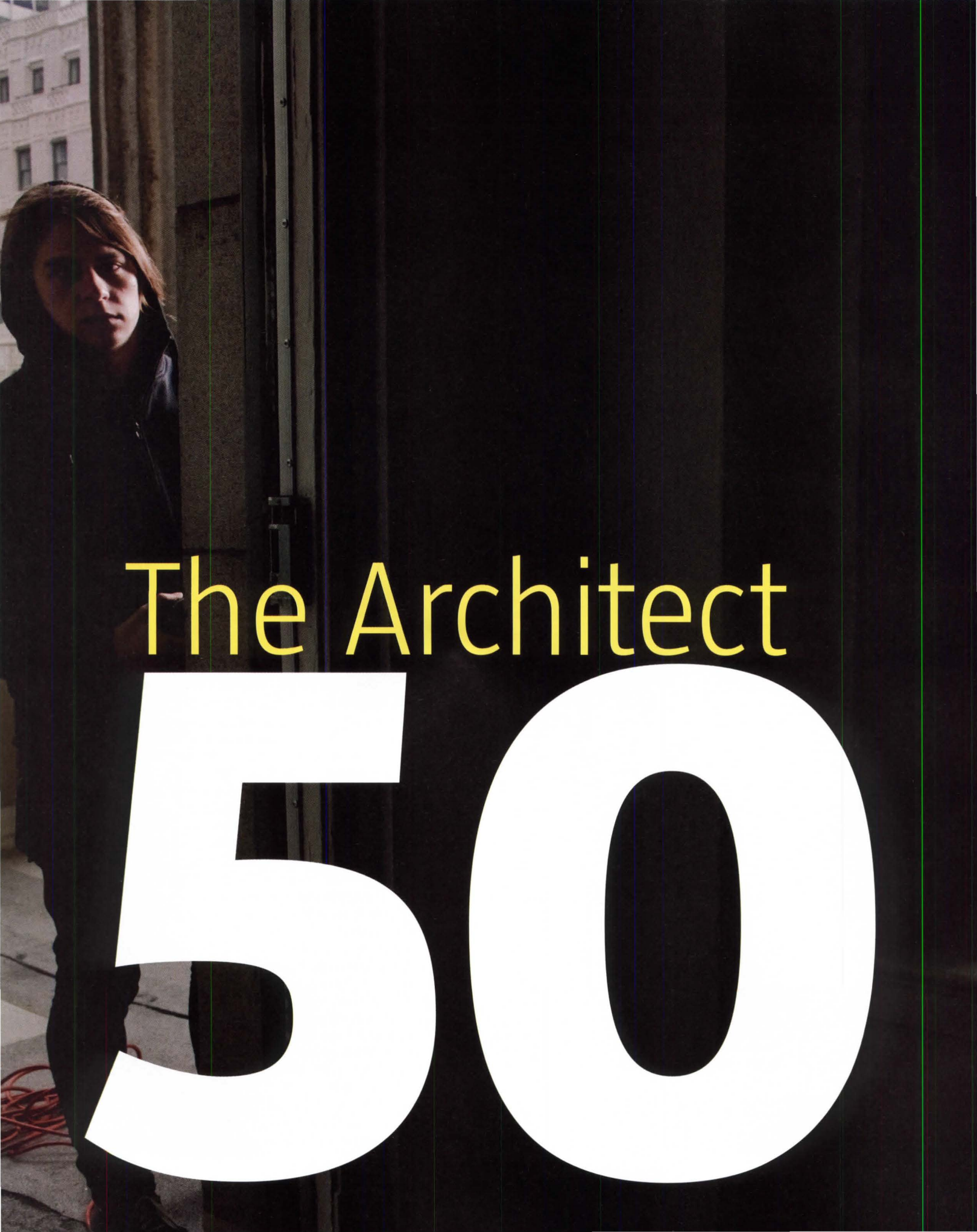
Specifically, the survey wanted to determine which brands were most familiar, specified most frequently over the past 2 years, used most and were the best quality among all product categories.

The listing below represents the third and final installment of a three part series. For full results of the study, please refer to the January 2009 issue.

Thanks to all for participating. Don't forget to contact each manufacturer directly if you would like to obtain further information on the winning products.

Product Category	Brand Familiarity	Brands Speced/Used in Past 2 Years	Brands Speced/Used the Most	Highest Quality Rating
GLASS	PPG Industries	PPG Industries	PPG Industries	PPG Industries
GLAZED CURTAIN WALLS	Kawneer	Kawneer	Kawneer	Kawneer
GYPSUM BOARD	Georgia-Pacific	United States Gypsum	United States Gypsum	United States Gypsum
HARDWARE/LOCKSETS	Schlage Lock Co.	Schlage Lock Co.	Schlage Lock Co.	Hafele America
HVAC	Carrier	Carrier	Trane	Trane
INSURANCE	Aflac	Victor O. Schinnerer C N A	Victor O. Schinnerer C N A	Victor O. Schinnerer C N A
LAMPS/LIGHT SOURCES	Philips Lighting	Philips Lighting	GE Consumer & Industrial Lighting; Philips Lighting	Philips Lighting
LIGHTING FIXTURES: INDOOR: ARCHITECTURAL- TECHNICAL	Lightolier	Lightolier	Lightolier	Louis Poulsen Lighting
SOLID SURFACING	DuPont Corian	DuPont Corian	DuPont Corian	DuPont Corian
SYSTEMS FURNITURE	Steelcase	Herman Miller	Steelcase	Herman Miller
WINDOWS: VINYL	Andersen Windows; Pella Corp.	Andersen Windows	Andersen Windows	Pella Corp.

SURVEY METHODOLOGY: A random survey sample of 3,500 architects and designers readers was selected by Hanley Wood and Readex from the domestic circulation of ARCHITECT. Seven versions of a 4-page, mail questionnaire were designed by Hanley Wood and Readex. Data was collected from June 20 to August 4, 2008. The survey was closed for tabulation with 1,242 usable responses (a 35% response rate). The margin of error for percentages based on all 1,242 usable responses is $\pm 2.8\%$ at the 95% confidence level.



The Architect

50

EDITED BY AMANDA KOLSON HURLEY
RESEARCH BY NEIL KARLIN AND ELDA VALE
PORTRAITS BY NOAH KALINA

A NEW ANNUAL RANKING OF THE TOP U.S. FIRMS (NOT JUST THE BIG ONES, MIND YOU).

THE LARGEST FIRMS. THE GIANTS. THE TOP 100, 200, 500.


If you're a regular follower of architectural media, you're no stranger to their ever-proliferating firm rankings—rankings that are usually based on the size of a workforce or on annual revenue. Why would ARCHITECT throw its hat into this already crowded ring?

Simply put, because size is just one, not-terribly-revealing measure of an architecture firm. We designed the ARCHITECT 50 quite simply to promote a more well-rounded definition of success. The criteria for inclusion comprise a trifecta of critical goals for every practice: profitability, sustainability, and design quality.

A cynic might say that, by scoring firms based in part on profitability (i.e., revenue per number of employees), we reward scrooges who run their offices like sweatshops. Au contraire: We see profitability as an essential counterweight to the “big firms” tilt of most rankings, a way to recognize practices of any size whose good works rest on a bedrock of financial health. That's no small feat in these economically troubled times.

Is it possible to excel in all three categories, to make money by designing beautiful, green buildings? Yes, as you'll see from the scores in our lists of 1–10, 11–30, and 31–49. (A three-way tie prevented us from ending with a perfect 5-o.) However, we also rank the top 10 scorers in each individual category (see tables on p. 51). There's not much overlap among them, meaning that a perfect score is not yet in sight.

Maybe next year. Maybe your firm?



Yes, SOM made the list, coming in at No. 2. But as partner Gary Haney says, “Frankly, we aren't the biggest anymore.” Five of the firm's leaders gathered for a photo shoot on the roof of their New York building.

1-10

Rank	Firm	Revenue per employee	Sustainable practices	2008 awards
1	WILLIAM RAWN ASSOCIATES • Boston • Founding partner: William Rawn • 2008 revenue: \$10–\$14.9 million • Mid-sized WRA designs mostly for elite Northeastern colleges and universities (like Yale) and cultural institutions. The firm nabbed an AIA Honor Award in 2008 for the Williams College '62 Center for Theatre and Dance.	143	150	127
2	SKIDMORE, OWINGS & MERRILL • Chicago • 39 partners and directors • 2008 revenue: \$200 million or more • The firm that created the glass skyscraper is still innovating, now with the aid of BIM. Among other honors, SOM received a citation in ARCHITECT's 2008 R+D Awards for its planned renovation of the Inland Steel Building.	147	96	166
3	HOK • St. Louis • CEO: Patrick MacLeamy; chairman: Bill Valentine • 2008 revenue: \$200 million or more • The green giant can boast a slew of recent LEED projects and a new, notable partnership with the Biomimicry Guild. Now that HOK Sport—rebranded Populous—has gone its own way, will HOK be able to hold on to its top-five place?	147	133	86
4	RAFAEL VIÑOLY ARCHITECTS • New York • Founding partner: Rafael Viñoly; vice president: Jay Bargmann • 2008 revenue: \$100–\$199.9 million • The Uruguay-born architect kept a high profile in 2008, with the opening of the well-received Curve theater in Leicester, England, and of the expanded Brooklyn Children's Museum.	200	96	60
5	PERKINS+WILL • Chicago • President and CEO: Phil Harrison • 2008 revenue: \$200 million or more • Established in Chicago in 1935, Perkins+Will has extended its reach to more than 40 countries. Business enterprise is complemented by design prowess and serious green credentials: The firm just reached the milestone of 1,000 LEED APs.	147	170	33
6	GWATHMEY SIEGEL & ASSOCIATES ARCHITECTS • New York • Partners: Charles Gwathmey, Robert Siegel • 2008 revenue: \$15–\$19.9 million • Recent work includes a renovation of and addition to Paul Rudolph's A&A Building at Yale. The firm's Central Park South apartment building won an AIA Honor Award (for interiors).	200	43	100
7	BWS ARCHITECTS • Tucson, Ariz. • Principals: Dave Burns, David Wald-Hopkins, Robin Shambach • 2008 revenue: \$5–\$9.9 million • Under-the-radar BWS has extensive experience in library and school design. Its Applied Research and Development Building at Northern Arizona University received LEED Platinum certification.	200	110	33
8	DLR GROUP • Omaha, Neb. • Managing principals: Dale Hallock, Bryce Pearsall, Griff Davenport, Jon Pettit • 2008 revenue: \$100–\$199.9 million • Now in its fifth decade, Omaha's DLR works out of 15 offices around the country and specializes in the K–12, justice, higher education, and corporate office/retail sectors.	200	70	47
9	HDR ARCHITECTURE • Omaha, Neb. • President: Merle Bachman • 2008 revenue: \$200 million or more • The architecture division of A/E giant HDR has carved an enviable niche as a healthcare leader, with clients including Johns Hopkins University School of Medicine, Baylor Regional Medical Center, and the Department of Veterans Affairs.	147	130	33
10	BLT ARCHITECTS • Philadelphia • Name principals: John Thrower, John Bower; managing principal: Michael Prifti • 2008 revenue: \$30–\$39.9 million • This Philadelphia firm has a knack for interiors and hospitality design. In 2008, it won an IIDA award (Penn./N.J./Del. chapter) for its Venice Lofts project in Philly's Manayunk district.	187	86	34

Scoring

Firms' scores were calculated based on the online surveys they completed. The highest possible score in the revenue per employee and sustainable practices categories was 200; in awards, it was 260. (So a "perfect" score would be 660.) Each piece of relevant data was assigned a points value: For example, firms got 35 points if 60 to 79 percent of their employees were LEED accredited. For more information, see the Methodology box on page 53.



Founding partner William Rawn

1 WILLIAM RAWN ASSOCIATES

THE STORY OF HOW William Rawn became an architect will sound familiar to most other architects—at least the beginning of it. As a child in Pasadena, Calif., Rawn showed artistic talent and enjoyed building models and imaginary towns. As an undergraduate at Yale, he sat in on an art history course taught by Vincent Scully and was inspired.

So he went off to law school and became an attorney.

"Your parents push you in directions they think [are] best," Rawn says with hindsight. At Harvard Law, he was able to fit in three for-credit courses at the Carpenter Center for the Visual Arts before graduating with a J.D. in 1969. While working for a law firm in Washington, D.C., he started making limited-edition silkscreens, which were soon carried by the prestigious Pace Gallery in New York. That helped Rawn make up his mind to pursue design and go to architecture school.

"I took the attitude that if I didn't like it, I could always go back [to law]," Rawn remembers. "Within two months, it was clear that I was probably a better architect than lawyer, and much more passionate about it." He received an M.Arch. from MIT in 1979.

Three decades later, Rawn's eponymous Boston firm, founded in 1983, has racked up nine national AIA Honor Awards—including one in 2008 for the interior of the '62 Center for Theatre and Dance at Williams College. William Rawn Associates has become the go-to design architect for elite universities and liberal arts colleges such as Yale, Stanford, Amherst, and Swarthmore. But two major civic projects that are in the works—a 100,000-square-foot facility for the Cambridge Public Library, and a federal courthouse for Cedar Rapids, Iowa—indicate that the firm

is held in high regard off campus, as well.

Along with Rawn—who is the firm's the sole owner, for now—two principals, Douglas Johnston and Clifford Gayley, and a senior associate, Samuel Lasky, share leadership responsibility. All four are designers, and only Lasky teaches, a little: "By any standard, we are totally focused on the practice," Rawn says.

Long ago, Rawn and his senior colleagues made it a rule not to handle more than five or six projects in schematic design and design development at any one time. This way, he says, all projects enjoy the close involvement of two senior designers. It works financially, too, by promoting efficiency: Going to every client meeting with your co-designer means you don't repeat yourself or go down blind alleys, Rawn argues. (This efficiency, plus some major awards, launched the firm of 30-plus people into our top spot, above firms 20 times its size.)

WRA has lost only one project due to the sour economy: "We're very, very lucky," Rawn says. Its early, award-winning work in affordable housing should stand it in good stead during an era of tight budgets. And so should Rawn's inside knowledge of what makes colleges and universities tick—in the mid-1970s, he was assistant chancellor for physical planning and community affairs at U. Mass-Boston.

For the moment, Rawn is savoring the diversity of projects that have recently come his way, including his first cemetery and first synagogue. "As a lawyer, I would never have gotten to do these kinds of things. [Architecture] is still a generalist profession, and that may fade away—but I hope not." AMANDA KOLSON HURLEY

11-30

Rank	Firm	Revenue per employee	Sustainable practices	2008 awards
11	KLINGSTUBBINS • Philadelphia • Senior principals: Bradford White Fiske, Robert Hsu; national managing principal: Michael Lorenz • 2008 revenue: \$100–\$199.9 million	200	96	7
12	CO ARCHITECTS • Los Angeles • Managing principal: Scott Kelsey • 2008 revenue: \$30–\$39.9 million	187	90	20
13	GENSLER • San Francisco • Chairman: Art Gensler; executive directors: Andy Cohen, Diane Hoskins, David Gensler • 2008 revenue: \$200 million or more	147	80	67
14	RBB ARCHITECTS • Los Angeles • CEO: Joseph Balbona; president: Deneys Purcell • 2008 revenue: \$30–\$39.9 million • This 57-year-old, healthcare-focused firm prides itself on client satisfaction: More than 90 percent of its work is for repeat clients. RBB's replacement hospital for Mercy Medical Center Merced, a \$247 million project, is expected to open later this year.	187	72	33
15	SB ARCHITECTS • San Francisco • President: John Eller • 2008 revenue: \$30–\$39.9 million	187	103	0
16	GOODY CLANCY • Boston • Principals: J. Carroon, R. Chandler, D. Dixon, R. Goldstein, J. Goody, R. Pelletier, D. Spillane, G. Wooding • 2008 revenue: \$20–\$24.9 million	120	126	40
17	GOOD FULTON & FARRELL • Dallas • President: Lawrence Good; managing principal: Duncan Fulton • 2008 revenue: \$20–\$24.9 million	120	60	93
18	BNIM ARCHITECTS • Kansas City, Mo. • Name principals: Bob Berkebile, Tom Nelson, David Immenschuh, Steve McDowell • 2008 revenue: \$20–\$24.9 million	30	123	120
19	NBBJ • Seattle • Managing partners: Scott Wyatt, Steve McConnell, James Jonassen, Jay Halleran • 2008 revenue: \$100–\$199.9 million	80	116	73
20	HEERY INTERNATIONAL • Atlanta • Director and CEO: James Moynihan; president: William Heitz • 2008 revenue: \$200 million or more	147	86	27
21	STUDIOS ARCHITECTURE • San Francisco • CEO: Todd DeGarmo; Chairman and founding principal: Erik Sueberkrop; president: Thomas Yee • 2008 revenue: \$30–\$39.9 million	47	106	107
22	EINHORN YAFFEE PRESCOTT ARCHITECTURE & ENGINEERING • Albany, N.Y. • CEO: Tom Birdsey • 2008 revenue: \$50–\$69.9 million	80	140	40
23	COOPER ROBERTSON & PARTNERS • New York • Managing director: David McGregor; founding partners: Jaquelin Robertson, Alexander Cooper • 2008 revenue: \$20–\$24.9 million • Cooper Robertson had a great 2008, netting both an AIA Honor Award for its renovation of Manhattan's Zuccotti Park and a ULI award for the downtown district of Val d'Europe near Paris.	30	116	113
24	ZIMMER GUNSUL FRASCA ARCHITECTS • Portland, Ore. • Managing partner: Robert Packard; partner in charge of design: Robert Frasca • 2008 revenue: \$25–\$29.9 million	15	160	80
25	ANSHEN + ALLEN • San Francisco • Chairman: Roger Swanson; president: Felicia Cleper Borkovi; managing principal: Todd Tierney • 2008 revenue: \$70–\$99.9 million	113	86	53
26	FRANK HARMON ARCHITECT • Raleigh, N.C. • Principal: Frank Harmon • 2008 revenue: \$1–\$2.4 million	100	120	33
26	LORD, AECK & SARGENT • Atlanta • Founding principals: Larry Lord, Antonin Aeck, Terry Sargent • 2008 revenue: \$30–\$39.9 million	47	113	93
28	A.C. MARTIN PARTNERS • Los Angeles • Chairmen: Christopher Martin, David Martin; president: Kenneth Lewis • 2008 revenue: \$10–\$14.9 million	67	96	87
29	PAYETTE • Boston • President: James Collins • 2008 revenue: \$50–\$69.9 million	80	96	73
30	MARNELL CORRAO ASSOCIATES • Las Vegas • CEO and chairman: Tony Marnell II • 2008 revenue: \$30–\$39.9 million	187	60	0



Left to right: SOM partners T.J. Gottesdiener, Carl Galoto, Gary Haney, Anthony Vacchione, and Mark Regulinski

SKIDMORE, OWINGS & MERRILL

AWARDS ARE NOTHING NEW to Skidmore, Owings & Merrill (SOM). In fact, SOM has the distinction of being the only firm to win the AIA's Architecture Firm Award twice, first in 1962 and again in 1996. Two awards received in 2008—a P/A Award for the Al Sharq Tower in Dubai and an Urban Land Institute award for Beijing Finance Street, a massive mixed-use development—did much to cement SOM's place in the top five of the first ARCHITECT 50.

Founded in 1936, SOM long ago secured its place as one of the world's leading multidisciplinary design firms. In addition to setting the standard for the modern skyscraper in 1952 with Lever House in New York, the firm reshaped the skyline of its hometown Chicago with icons such as the 100-story John Hancock Center and the 110-story Sears Tower. Today, amid innumerable corporate firms with three- and four-letter names, SOM spells blue chip like no other.

SOM maintains offices in New York, Chicago, San Francisco, Washington, D.C., London, and Shanghai—along with small outposts in Los Angeles, Abu Dhabi, and Dubai. "We are an old-fashioned partnership," says Gary Haney, a design partner in SOM's New York office who sits on the executive committee that runs the business of the firm worldwide. "Over the years we have looked at corporate structures and other things, and always come back to enjoying the idea

of independence. So that's fundamental."

One SOM tenet is a strong commitment to sustainability—to this end, the firm has partnered with Rensselaer Polytechnic Institute for a new research initiative, The Center for Architecture Science and Ecology. The firm is also a BIM pioneer, utilizing that technology in 85 percent of projects. And design remains a top priority in its culture.

"Frankly, we aren't the biggest anymore," Haney says. "What differentiates us is [that we] work at a very large scale with a very high level of design." To reinforce that position, nine years ago the firm launched the *SOM Journal*, a periodic design review of its own projects, chosen by an external jury of architects and scholars and edited by outside writers. One unanticipated result: Landing a project in the journal has stirred fierce interoffice competition.

Until now, profitability was not a concern for SOM, whose gross revenue in 2008 exceeded \$380 million. "This year is going to be a lot less," Haney says, noting that the economy forced staff reductions of about 25 percent firmwide. Still, as SOM retrenches, Haney says he has gained a new appreciation for the value of architectural staff. "There's a very high level of skill and training required to produce architecture today. So you need to be really careful about just cutting, cutting, and cutting." **VERNON MAYS**

31-49

Rank	Firm	Revenue per employee	Sustainable practices	2008 awards
31	FENTRESS ARCHITECTS • Denver • Founding principal: Curtis Fentress • 2008 revenue: \$50-\$69.9 million	80	106	60
31	RICHÄRD+BAUER • Phoenix • Principals: James Richärd, Kelly Bauer, Stephen Kennedy • 2008 revenue: \$2.5-\$4.9 million	100	66	80
33	WILLIAM MCDONOUGH + PARTNERS • Charlottesville, Va. • Founding partner: William McDonough; director of practice: Kevin Burke • 2008 revenue: \$5-\$9.9 million	86	158	0
34	HMC ARCHITECTS • Ontario, Calif. • President and CEO: Randy Peterson; chairman: Kevin Wilkerson • 2008 revenue: \$70-\$99.9 million	113	77	53
35	GOETTSCH PARTNERS • Chicago • Partners: James Goettsch, Steven Nilles, James Zheng • 2008 revenue: \$20-\$24.9 million	120	90	33
36	SHW GROUP • Plano, Texas • CEO: Gary Keep; COO: Kyle Bacon • 2008 revenue: \$70-\$99.9 million	113	86	40
37	SERA ARCHITECTS • Portland, Ore. • Chairman: Bing Sheldon; president: Donald Eggleston • 2008 revenue: \$5-\$9.9 million	40	140	60
38	POLSHEK PARTNERSHIP ARCHITECTS • New York • Nine partners • 2008 revenue: \$40-\$49.9 million	60	106	73
39	CUNINGHAM GROUP ARCHITECTURE • Minneapolis • President: Timothy Dufault • 2008 revenue: \$25-\$29.9 million	37	120	80
40	HGA ARCHITECTS AND ENGINEERS • Minneapolis • Chairman and CEO: Daniel Avchen; COO: Stephen Fiskum • 2008 revenue: \$100-\$199.9 million	80	70	86
41	PLATT BYARD DOVELL WHITE • New York • Principals: Charles Platt, Ray Dovell, Samuel White • 2008 revenue: \$5-\$9.9 million	86	96	53
42	HKS • Dallas • Chairman and CEO: H. Ralph Hawkins; executive vice president: Nunzio DeSantis • 2008 revenue: \$200 million or more	147	80	7
43	LITTLE DIVERSIFIED ARCHITECTURAL CONSULTING • Charlotte, N.C. • CEO: Phil Kuttner; president and COO: John Komisin • 2008 revenue: \$50-\$69.9 million	80	80	73
44	ELKUS MANFREDI ARCHITECTS • Boston • Name principals: Howard Elkus, David Manfredi • 2008 revenue: \$40-\$49.9 million	60	86	86
45	SMITHGROUP • Detroit • Chairman: David King; president and CEO: Carl Roehling • 2008 revenue: \$100-\$199.9 million	80	65	86
46	KTGY GROUP • Irvine, Calif. • CEO: Tricia Esser; chairman: Stan Braden • 2008 revenue: \$40-\$49.9 million	60	77	94
47	KAPLAN MCLAUGHLIN DIAZ • San Francisco • President and CEO: Roy Latka; chairman: Juan Diego Perez-Vargas • 2008 revenue: \$50-\$69.9 million	80	96	54
48	THE JERDE PARTNERSHIP • Los Angeles • Chairman: Jon Jerde; partners/directors of design: John Simones, David Rogers, Tammy McKerrow • 2008 revenue: \$25-\$29.9 million	147	43	40
49	PERKINS EASTMAN • New York • Founding partners: Bradford Perkins, Mary-Jane Eastman • 2008 revenue: \$100-\$199.9 million	80	70	80
49	STEVENS & WILKINSON STANG & NEWDOW • Atlanta • Principals: Ron Stang, Bill Clark • 2008 revenue: \$20-\$24.9 million	120	70	40
49	TRO JUNG BRANNEN • Boston • CEO: Robert Hoye • 2008 revenue: \$50-\$69.9 million	80	70	80



Chairman Bill Valentine (left) and CEO Patrick MacLeamy

HOK

WITH A STAFF of approximately 2,200 spread among 24 offices around the world, HOK would seem to be architecture's Bigfoot. But a recent evolution that stresses the growth of individuals and the firm's long-time dedication to sustainable design belie easy categorization.

George Hellmuth, Gyo Obata, and George Kassabaum founded HOK in St. Louis in 1955. They divided the traditional responsibilities of a partner in three ways: Hellmuth led marketing efforts; Obata, design; and Kassabaum, operations. Previously, Hellmuth had worked for a Detroit firm whose fortunes rose and fell with those of the automotive industry, an experience that led him to establish diversity of work as the guiding principle for HOK.

In HOK's first decade, its roster of services grew to include engineering, planning, and interiors. Regional growth came during the 1960s as the firm won jobs in San Francisco, Dallas, and Washington, D.C., and established offices in those cities. And sector-based practices started as "focus groups," on the model of the Kansas City sports venue office that opened in 1983. HOK currently works in some 16 sectors.

Chairman Bill Valentine describes the firm's structure as a circle connecting each person to everybody else—but which they can take shortcuts across to more closely collaborate with each other. "Our relationships change daily," he says. In the past five to seven years, the

firm's leadership has made a more conscious commitment to making sure its vast network of people is drawn close together. Vice chairman Clark Davis says, "It's not uncommon for us to have professionals from three or four offices working together on the same team, sharing their expertise."

Now recognized as a green leader, HOK took an interest in sustainable design 15 years ago—before green had any particular cachet. "We're proud HOK people were involved in the founding of USGBC and LEED," Davis says. And HOK continues to grow, even in these difficult economic times. An office in India opened in 2008, and one in Denver earlier this year. There's been subtraction, too: The Kansas City-based partners in HOK Sport Venue Event bought their way out of the mothership at the end of 2008, relabeling themselves Populous. While the loss of that lucrative 25-year old division might be expected to drive firm revenue down for 2009, Davis claims it will have little impact on HOK's other practice areas. "And we'll collaborate with them when it makes sense," he says.

As for the firm's future: "People assume there's some grand, detailed plan for growth, but it's more an openness to opportunity," Davis observes. Valentine, a 47-year veteran, agrees: "We've always really wandered around." EDWARD KEEGAN



Founding partner Rafael Viñoly

RAFAEL VIÑOLY ARCHITECTS

THE FINANCIAL MARKETS were not the only business sectors to experience what Alan Greenspan called “irrational exuberance” over the last few years: The architecture world had a bubble of its own, characterized by rock star designers with global practices that produced breathtaking forms at a breakneck pace.

The work of Rafael Viñoly and his eponymous 200-person firm certainly has its share of glamour (and has received the awards to prove it). But despite its namesake’s considerable renown, the firm has never fit comfortably into the starchitecture category—or any other, for that matter. Despite its offices in New York, London, and Los Angeles, Rafael Viñoly Architects (RVA) is not a standard corporate practice producing respectable office towers, hospital wings, and college buildings; nor is it, as the most profitable of the ARCHITECT 50, a specialty boutique firm with rarified aesthetics and an air of academia.

Viñoly already had a large practice in Buenos Aires when he decided to resettle in New York in 1979, but in many ways had to start afresh when he founded the new firm four years later. His first major project in New York, the John Jay College of Criminal Justice (1988), was followed a year later by a career-making commission for the Tokyo International Forum in Japan. In 2000, the Van Andel Institute for Cancer Research

opened in Grand Rapids, Mich., the first of many scientific and medical research facilities RVA has since designed.

With current projects ranging from a glassy office tower in London to a police precinct stationhouse on Staten Island, N.Y., and an expansion of the Cleveland Museum of Art, RVA has managed to bridge the gap between rigid categories by trying consciously to avoid them.

“The pendulum swing between architects seeing themselves as artists or as technicians exacts a high price on the profession,” Viñoly says. “Architects do architecture, which is a very complex thing in itself.”

Striking the balance between firmness, commodity, and delight is no easier now than it was in Vitruvius’ day, but for Viñoly, a place to start is with an understanding of what the profession can and should do: “Architects have the capacity to redefine the program, to advance the aspirations of a given set of requirements. If you ignore those requirements to satisfy an aesthetic agenda—not that you shouldn’t have one—you end up with an object of consumption.”

Although it’s hard today to find anyone willing to defend such objects, that may end when the recession does. Until then, the firm will be busy with civic and institutional projects, and Viñoly’s pragmatic approach to design seems as rational as it gets. ANNE GUINEY

TOP 10: PROFITABLE

Rank	Firm	Revenue range	Revenue/employee score
1	RAFAEL VIÑOLY ARCHITECTS (4) • New York	\$100–\$199.9 million	200
2	BWS ARCHITECTS (7) • Tucson, Ariz.	\$5–\$9.9 million	200
3	GWATHMEY SIEGEL & ASSOCIATES (6) • New York	\$15–\$19.9 million	200
4	DLR GROUP (8) • Omaha, Neb.	\$100–\$199.9 million	200
5	KLINGSTUBBINS (11) • Philadelphia	\$100–\$199.9 million	200
6	BLT ARCHITECTS (10) • Philadelphia	\$30–\$39.9 million	187
7	CO ARCHITECTS (12) • Los Angeles	\$30–\$39.9 million	187
8	RBB ARCHITECTS (14) • Los Angeles	\$30–\$39.9 million	187
9	SB ARCHITECTS (15) • San Francisco	\$30–\$39.9 million	187
10	AGUIRRE RODEN (73) • Dallas	\$30–\$39.9 million	187

TOP 10: SUSTAINABLE

Rank	Firm	% LEED projects (2008)	% LEED APs on staff	Green practices (out of 6)
1	PERKINS+WILL (5) • Chicago	60–79	60–79	6
2	ZIMMER GUNSUL FRASCA (24) • Portland, Ore.	40–59	60–79	6
3	WILLIAM MCDONOUGH + PARTNERS (33) • Charlottesville, Va.	100	40–59	5
4	WILLIAM RAWN ASSOCIATES (1) • Boston	40–59	40–59	6
5	RNL (66) • Denver	40–59	40–59	6
6	EINHORN YAFFEE PRESCOTT (22) • Albany, N.Y.	20–39	40–59	6
7	SERA ARCHITECTS (37) • Portland, Ore.	40–59	20–39	6
8	HOK (3) • St. Louis	40–59	40–59	5
9	HDR ARCHITECTURE (9) • Omaha, Neb.	20–39	20–39	6
10	WWCOT (72) • Santa Monica, Calif.	20–39	20–39	6

TOP 10: AWARD-WINNING

Rank	Firm	2008 award of note
1	SKIDMORE, OWINGS & MERRILL (2) • Chicago	Urban Land Institute Award for Excellence, Asia-Pacific
2	WILLIAM RAWN ASSOCIATES (1) • Boston	AIA Honor Award for Interior Architecture
3	BNIM ARCHITECTS (18) • Kansas City, Mo.	4 AIA Kansas design awards
4	COOPER ROBERTSON & PARTNERS (23) • New York	AIA Honor Award for Regional and Urban Design
5	STUDIOS ARCHITECTURE (21) • San Francisco	2 AIA Washington, D.C., awards
6	GWATHMEY SIEGEL & ASSOCIATES (6) • New York	AIA Honor Award for Interior Architecture
7	MACHADO AND SILVETTI ASSOCIATES (79) • Boston	Maine Statewide Historic Preservation Honor Award
8	POLK STANLEY ROWLAND CURZON PORTER (88) • Little Rock, Ark.	AIA Honor Award for Architecture
9	KTGY GROUP (46) • Irvine, Calif.	NAHB Multifamily Pillars of the Industry finalist, 4 projects
10	KANNER ARCHITECTS (62) • Santa Monica, Calif.	AIA Honor Award for Architecture



President and CEO Phil Harrison

PERKINS+WILL

“JUGGERNAUT” MAY BE TOO STRONG a word, but the growth of Perkins+Will over the last two decades has certainly seemed unstoppable. Since 1995, the firm has mushroomed in size, from two offices to 21 and from about 300 employees to more than 1,600. An M&A spree a few years ago resulted in Perkins+Will enfolding Vancouver’s Busby + Associates Architects and New York’s Guenther 5, among other practices. Such acquisitions have enabled the parent company to deepen its expertise in certain project types, while geographic expansion has let the architects work in closer proximity to—and collaboration with—their clients, says Phil Harrison, the firm’s president and CEO.

Established in Chicago in 1935 by Larry Perkins and Philip Will, the firm quickly made a national name for itself in education and healthcare. But by the mid-1990s, with offices only in Chicago and New York, Perkins+Will found itself doing many projects in association with other architects, and in need of stronger skill sets in certain areas (like interiors). Strategic growth “has led us to do higher-value design,” Harrison says.

Harrison’s own rise has tracked with the overall growth of the firm. Now 44, he joined Nix, Mann and Associates “more or less straight out of graduate school” at Harvard, where he’d imagined himself joining a *boutique firm*. After Perkins+Will acquired Nix, Mann in 1995, Harrison started taking on national responsibilities for science and technology

work ... and the rest is history. Harrison describes his job as “creative problem solving,” adding, “I think it’s important that our firm is driven by qualitative factors—design excellence and environmental responsibility. That leads to our [financial] success.”

According to Harrison, the firm’s decentralized structure avoids the downsides of a traditional “hub-and-spoke” organization, in which the spokes are likely to underperform the hub. With corporate officers and design principals like Ralph Johnson and Allison Williams spread around the country, Perkins+Will ensures that employees can get face time with them while preserving the character of each office. “You end up having common threads between projects, but distinct voices,” Harrison says.

Perkins+Will recently counted its thousandth LEED-accredited staff member, a big milestone for a firm that’s intent on greening the built environment. (So much so that it reached the ARCHITECT 50’s No. 1 spot for sustainable practices.) Following a recent staff reduction of 2 or 3 percent, the firm is “staying level” in terms of personnel, Harrison says, while trying to meet the increasingly high expectations of clients, who may now insist on LEED Gold or integrated project delivery.

“I think the relevance of design in our society is growing, as we’re more densely populated and living in cities,” Harrison observes. “The role of the design professional is more important.” AMANDA KOLSON HURLEY

(52–100)

Rank Firm

52	MHTN ARCHITECTS • Salt Lake City
53	HGA ARCHITECTS AND ENGINEERS • Minneapolis
54	FXFOWLE ARCHITECTS • New York
55	FLAD ARCHITECTS • Los Angeles
56	GUND PARTNERSHIP • Cambridge, Mass.
57	SVIGALS + PARTNERS • New Haven, Conn.
58	OFFICE DA • Boston
59	HARLEY ELLIS DEVEREAUX • Detroit
60	RIOS CLEMENTI HALE STUDIOS • Los Angeles
61	ARROWSTREET • Somerville, Mass.
62	KANNER ARCHITECTS • Santa Monica, Calif.
63	EPSTEIN • Chicago
64	EHRlich ARCHITECTS • Culver City, Calif.
65	CANNON DESIGN • Grand Island, N.Y.
66	RNL • Denver
67	ASTORINO • Pittsburgh
68	LEERS WEINZAPFEL ASSOCIATES • Boston
69	HANBURY EVANS WRIGHT VLATTAS + CO. • Norfolk, Va.
70	ELLERBE BECKET • Minneapolis
71	EWINGCOLE • Philadelphia
72	WWCOT • Santa Monica, Calif.
73	AGUIRRE RODEN • Dallas
74	CHO BENN HOLBACK + ASSOCIATES • Baltimore
75	SHOP ARCHITECTS • New York
76	DESIGN COLLECTIVE • Baltimore

Rank Firm

77	BRPH • Melbourne, Fla.
78	RDG PLANNING & DESIGN • Des Moines, Iowa
79	MACHADO AND SILVETTI ASSOCIATES • Boston
80	WORTHGROUP ARCHITECTS • Denver
81	CSD ARCHITECTS • Baltimore
82	ROBERT A.M. STERN ARCHITECTS • New York
83	ROSS BARNEY ARCHITECTS • Chicago
84	JCJ ARCHITECTURE • Hartford, Conn.
85	COOPER CARRY • Atlanta
86	DESTEFANO AND PARTNERS • Chicago
87	GOULD EVANS • Kansas City, Mo.
88	POLK STANLEY ROWLAND CURZON PORTER ARCHITECTS • Little Rock, Ark.
89	MORRIS ARCHITECTS • Houston
90	NAC ARCHITECTURE • Seattle
91	KA ARCHITECTURE • Cleveland
92	TVSDESIGN • Atlanta
93	RATCLIFF • Emeryville, Calif.
94	EL DORADO ARCHITECTS • Kansas City, Mo.
95	ASHLEY MCGRAW ARCHITECTS • Syracuse, N.Y.
96	LAKE FLATO ARCHITECTS • San Antonio
97	BALLINGER • Philadelphia
98	BEATTY HARVEY & ASSOCIATES ARCHITECTS • New York
99	SSOE • Toledo, Ohio
100	MOSELEY ARCHITECTS • Richmond, Va.

Methodology

How were the ARCHITECT 50 firms identified and ranked? Firms' scores were based on an online survey that one or more of their employees completed. Our initial goal—to get hundreds of leading firms to participate—required a multi-pronged approach. First, the editors of ARCHITECT put together a “core list” of firms we thought deserved consideration, based on their standard of work and (yes) their inclusion in other industry rankings. This list had 229 firms.

To cast the net wider, we invited 16,000 randomly chosen subscribers to our e-newsletter to take the survey. And we placed an ad in our December 2008 issue inviting readers to do the same. By these two methods, we identified another 520 firms, for a total of 749. The survey was open from Dec. 16 to March 13 and offered the incentive of a \$2 donation to Architecture for Humanity per each completion. (The donation will be made in June.)

Foreign-based firms, engineering-led firms, and sole-proprietor firms were eliminated (sorry, folks!), and before long, we had 334 firms, then 165. The ARCHITECT 50 was drawn from this last group of 165. The editors made valiant attempts to verify survey data with the communications

departments of all 165 companies, but it's possible that a few eluded us.

These 165 companies were then ranked on three variables: revenue per employee (based on 2008 gross revenue), sustainable practices, and 2008 awards. Each variable drew on objective information supplied via the online survey; in the case of awards, firms could be given a limited number of additional points after review by an editor.

For the revenue per employee variable, we simply divided revenue (survey respondents indicated a revenue range) by employees (also given as a range). For sustainable practices, we used several variables from the survey, such as percentage of LEED projects in 2008 and green policies, to come up with an overall score.

As for awards, we compiled a list of as many as we could think of, then gave a points value to each one, according to its prestige (as we perceived it). Foreign awards were not considered, nor were “top firm” accolades in other publications.

Research for the ARCHITECT 50 was conducted by the indefatigable Neil Karlin, principal of the research consultancy Karlin Associates, in consultation with the magazine's editorial staff.



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TEXT BY KATIE GERFEN

NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE

WASHINGTON, D.C.
FREELON ADJAYE BOND/SMITHGROUP

The National Museum of African American History and Culture, a new Smithsonian venue led by museum director Lonnie Bunch, is expected to open on the National Mall by 2015. The museum will feature exhibits about major periods of African-American history including slavery, the Civil Rights Movement, and the Harlem Renaissance. The institution is already building its collections, and has possession of 5,000 H.C. Anderson photographs and negatives from civil-rights-era Mississippi.

THE ARCHITECTS from Freelon Adjaye Bond/SmithGroup had just 55 days from the notification that they were invited to the juried second phase of the competition for the Smithsonian's National Museum of African American History and Culture until the submission deadline. That's not a lot of time for four firms to come together, gel as a team, and create a winning conceptual design for a new museum on the National Mall. "It was all hands on deck, with strong design leadership in David Adjaye," says Philip Freelon, president of The Freelon Group.

What made that deadline feasible was a series of strong central ideas that served as a rallying point for the design. "A classical tripartite column with a base, a shaft, and a capital was a beginning," Freelon says. "There are parallels in Yoruban art and architecture

where the column are posts, and also in a human figure with a crown on its head. Our design is an abstraction of those ideas." It was important to the team, says Davis Brody Bond Aedas principal Peter Cook, to represent both African and African-American influences. "We also looked at the notion of the front porch, which can be a place of welcome, togetherness, and family," he says.

Now that the competition has been won, the team must turn from concept to reality. "The design idea took form very quickly," says Freelon. The architects will revisit and reform their central concepts in a final design that will develop over several years. With a scheduled completion date of 2015 for the museum, there is less of a rush. For now, the team is taking a deep breath and enjoying their moment of victory.

1. A central public space between galleries will allow groups to gather, relax, and discuss the exhibits they have seen. This is one area in the museum where the architects explored the workings of the traditional front porch, which symbolizes community and welcome in African-American culture. Not that the space looks like a porch. "We don't believe that the themes need to be quite so literal," says Philip Freelon.

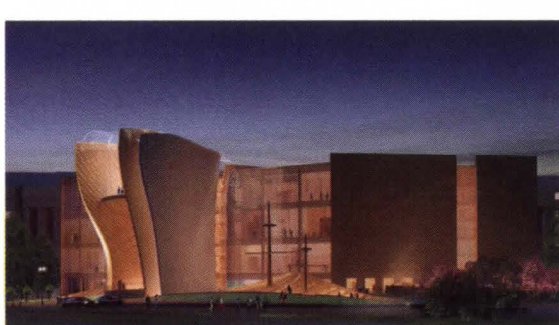
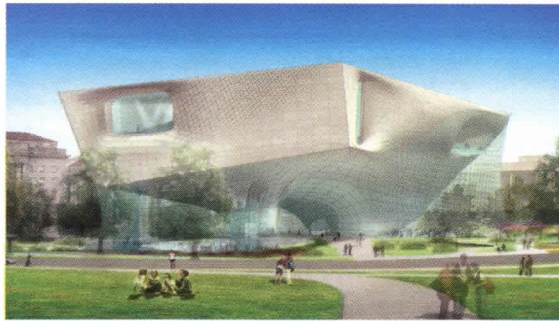
2. A canopy shades the Mall-side approach to the museum, but the lobby proper is flooded with light from a double-height glazed atrium. "As you move through the building, your eye is often drawn upward toward the sky," says Peter Cook. The uplifting effect is quite deliberate. "It isn't traceable to one thing," he says. "But you get the feeling that the building is majestic and celebratory."

3. A site plan shows the location of the new museum, located on the north side of the National Mall, between the American History Museum (another member of the Smithsonian family) and the Washington Monument.



Six architectural teams—including winners Freelon Adjaye Bond/SmithGroup—were selected from a field of 22 RFQ respondents to enter the design phase of the competition. Each of the six teams created feature design concepts and models that were on view in an exhibition at the Smithsonian for several weeks before the jury selected the winner. The other five finalist submissions are shown here.

1. Devroux & Purnell Architects/Planners and Pei Cobb Freed & Partners
2. Diller Scofidio + Renfro in association with KlingStubbins
3. Foster + Partners/URS
4. Moody Nolan in association with Antoine Predock Architect
5. Moshe Safdie and Associates in association with Sulton Campbell Britt & Associates





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TEXT BY SAM LUBELL
PHOTOS BY BERNARD ANDRÉ

MARIN HEALTH & WELLNESS CAMPUS

SAN RAFAEL, CALIF.
RMW ARCHITECTURE & INTERIORS

Marin County is an enclave of the rich and famous, but the new Marin Health & Wellness Campus focuses on providing health and family services for low-income residents. Bright colors, landscaping, and abundant daylight welcome visitors to a complex where consolidated city and community services are available with extended hours that accommodate work schedules.

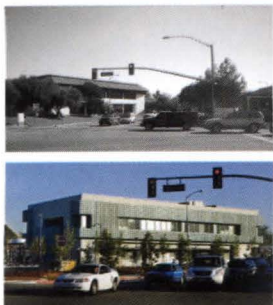
GEORGE LUCAS' Industrial Light & Magic (ILM) has provided special effects for some of the major adventure movies of our time, including *Star Wars* and *E.T.* But when the company left its long-term lease on a collection of three warehouselike offices and model shops in San Rafael, Calif., it set the stage for perhaps an even more impactful production: Those nondescript buildings were bought by the county and turned into the Marin Health & Wellness Campus, a collection of public health facilities for the wealthy area's low-income residents.

Owned by the county of Marin, the recently completed, \$28 million project unifies public health facilities—including mental and physical health clinics, a conference center, and youth and family services—that previously had been scattered around the city.

In order to break down the mass of the ILM buildings, while at the same time creating a sense of unity, San Francisco-based RMW Architecture & Interiors created a campus of five buildings arranged on 5.8 acres of gardens and paved plazas. Curved trellises connect the buildings and help take the edge off of what was previously a boxy composition of spaces.

The architects also took the edge off the original buildings themselves, literally. "There was nothing precious about them," says RMW principal Bart McClelland. "We didn't feel bashful about lopping off the end of a building." To make the environment more approachable and habitable, they added massive windows to the once-closed façades and skylights to the once-solid roofs. To unite the buildings with a common identity, the architects replaced the existing roofs with green prepatinated copper sheets and projecting sunshades. To give visual prominence to the central reception and conference facility, they created a two-story glass atrium that rises above the mostly single-story complex. The goal was to make these public spaces light and airy, McClelland says, and the push for still-pending LEED Gold certification—with its premium on daylighting—helped.

The campus itself feels more like a little community than a health center. Farmers markets are held in the plaza, and movies are projected on the walls in the summer—something the former tenants know a little something about. Maybe, just maybe, an Indiana Jones marathon is in the works.



The campus' relationship with the surrounding streetscape has changed dramatically since RMW's overhaul. The original tilt-up, peaked-roof structures (top) have been reclad in patinated copper and the roofs flattened (above), creating a much more dynamic street presence.

1. The main reception space serves as a bridge between the campus and San Rafael, the seat of Marin County. Entrances are set into glass walls on either end of the space. Clerestory windows and porthole skylights—in a ceiling clad with Ceilings Plus metal perforated tiles in a wood finish—introduce even more daylight.

2. The tenants relocated from largely closed-plan environments to a much more open-plan space. Standard-sized cubicles were used in offices in all five buildings to ensure that as departments grow and shrink over time, the furnishings can be reused.

Project Credits

Project Marin Health & Wellness Campus, San Rafael, Calif.

Client County of Marin

Architect RMW Architecture & Interiors, San Francisco—Bart McClelland (principal-in-charge); Stephan Ciulla (director of architectural design); Joseph Pirrone (project manager); David Jaehning (senior architectural designer); Ron Aguila, Terry de la Cuesta (senior interior designers); Jeemin Bae, Wonson Shortes (architectural job captains); Vishal Turkar (architectural designer); Kaoru Shimada (interior designer); Felice Rosario (project administrator); Gloria Rasmussen (specifications and quality assurance)

Structural Engineer Paradigm Structural Engineers

M/E/P Engineer Guttman & Blaevoet

Civil Engineer CSW/Stuber-Stroeh

Geotechnical Engineer TRC

Landscape Architect Royston Hanamoto Alley & Abey

Signage Consultant Square Peg Design

General Contractor Dome Construction

Construction Manager NOVA Partners

Size 73,000 square feet (gross)

Cost \$28 million



Site Plan



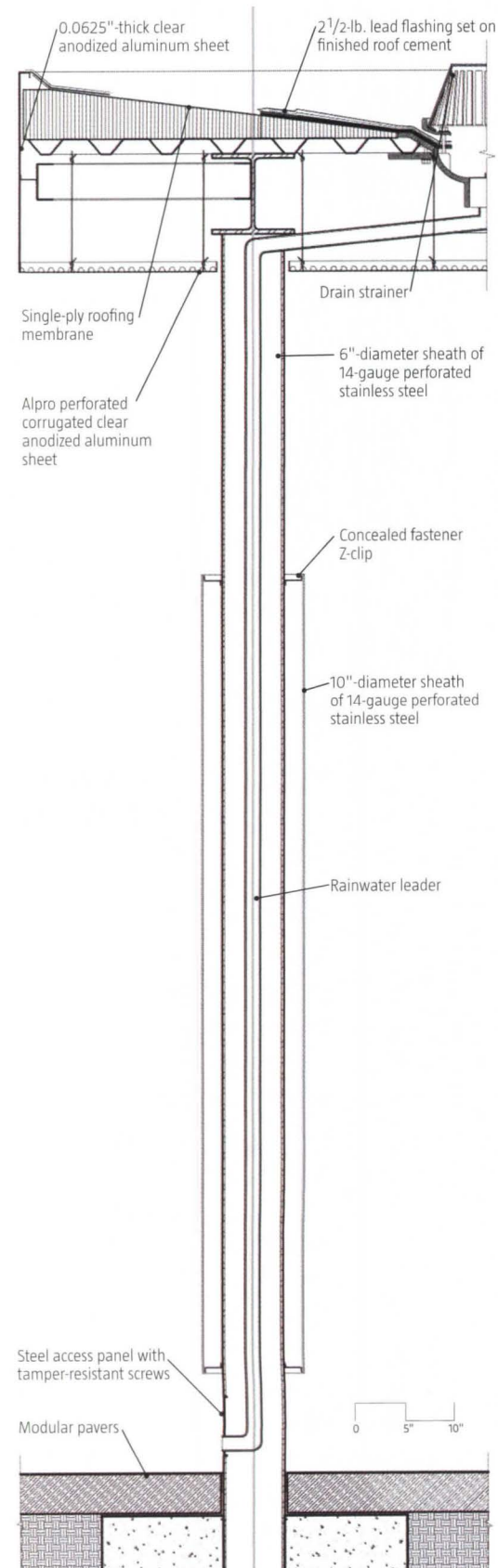


While Lucas' company is known for creating drama on screen, its offices didn't exactly live up to this standard. The three original structures were featureless, tilt-up concrete warehouse buildings (above) sitting in the middle of a sea of parking lot. Inside, the greatest highlights were the artistic scrawlings on the walls. "It was an archaeological dig," says RMW director of architectural design Stephan Ciulla. "We found remains from before *Star Wars*. Years of posters and storyboards and characters. It looked like a fraternity house: There were posters on the wall and a lot of graffiti that the CG guys had left behind—glitter pen sketches on concrete walls."

1. The plazas and gardens create a community gathering space that has uses far beyond the realm of healthcare. Farmers markets, movie showings, and public art displays invite area residents to interact with the campus even when they aren't there for an appointment.

2. The main reception lobby is differentiated by a raised and canted roofline clad in the same patinated copper that appears elsewhere on the campus. Greenscreen trellis panels are attached to the courtyard walls so that—in time—the walls will be vegetated, furthering the idea of a community green space. Circulation from main reception to the public health clinic is delineated by a curving covered walkway—one of several on site—lined with brightly painted columns encased in perforated metal jackets.



Trellis Column Section**TOOLBOX****Glazing**

Viracon

viracon.com

A key element in RMW's transparency-intensive design strategy, Viracon VE 1-2M Low-E Glazing is clear, high performing, and, the architects point out, not too reflective. The glazing also helps the campus buildings to adhere to California's Title 24 regulations and to be considered for a LEED Gold rating.

Soffit Panels

Alpro Acoustical Systems

alproacoustics.com

RMW specified Alpro's corrugated soffit material for the complex's covered walkways because it looked high end but was actually economical. The medium-sized perforation pattern (Pattern J) chosen for the soffit panels complements the perforations on the stainless steel jackets on the walkways' painted columns.

Ceiling Grid

Ceilings Plus

ceilingsplus.com

To help minimize interior noise, the architects sought a ceiling product that was warm and inviting but also durable and low maintenance. They ended up choosing a perforated metal panel with a wood veneer, part of Ceilings Plus' Illusions line, which is fabricated using CNC equipment to create custom shapes.

Copper Paneling

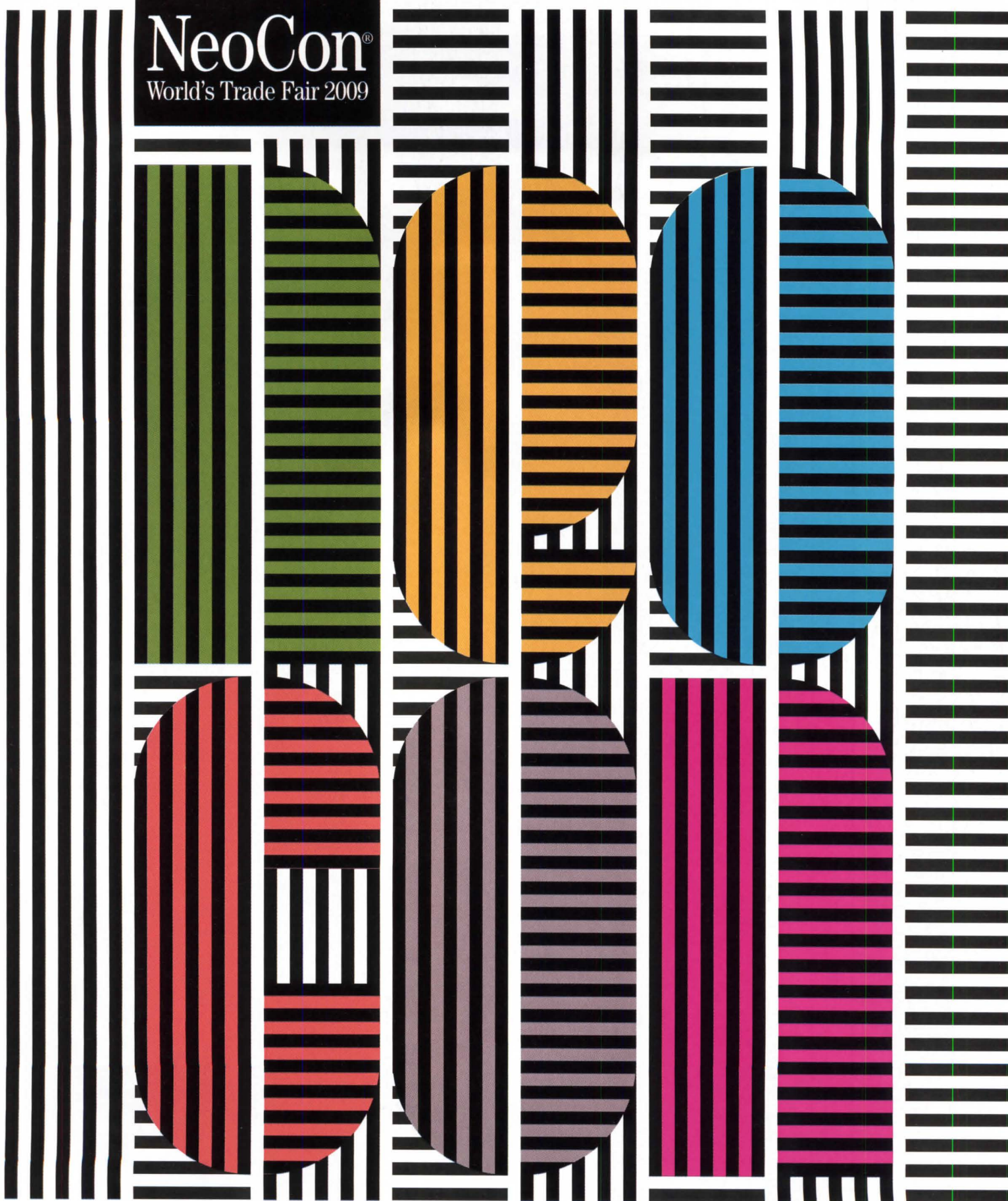
Revere Copper Products

reverecopper.com

Revere's EverGreen prepatinated architectural sheet copper provided a greenish patina that would normally take years to form. Prepatination also makes the surface environmentally friendly: It reduces the possibility of toxin runoff to virtually zero—an especially vital factor, given the facility's location less than a mile from the East Bay.

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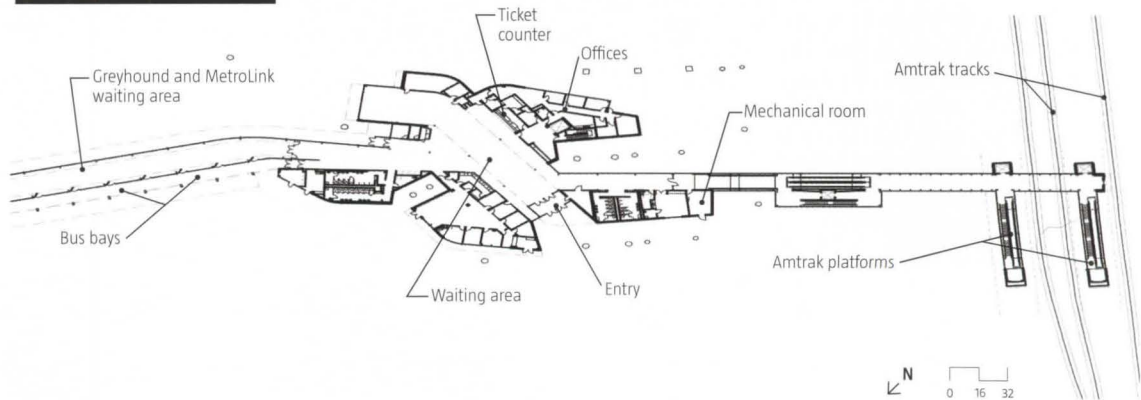
→ BUILDING
1 2 ③ 4

TEXT BY BRADFORD MCKEE
PHOTOS BY PETER WILSON

ST. LOUIS GATEWAY TRANSPORTATION CENTER

The new Gateway Transportation Center in downtown St. Louis combines Amtrak, Greyhound, and MetroLink train services into one 35,700-square-foot building which had to be worked into an oddly shaped site underneath—and around the support columns of—the Interstate 64 overpasses (at bottom, above).

ST. LOUIS
KAI DESIGN & BUILD



DIGNITY HAS BEEN RESTORED to the rails in downtown St. Louis. For more than 25 years, until recently, boarding Amtrak in the city involved not a station but the “Amshack,” a modular number hidden under the freeway on what looked like a set from *The Wire*. You would buy your ticket and pray the wait wouldn’t be long. Then you had to make your way through a treacherous gravel yard to reach your train. All along, there was a wonderful Romanesque train station nearby: Union Station, opened in 1894, was once the world’s biggest and busiest station. It closed in 1978 and reopened in 1985 as a hotel and shopping mall, but—this is the sad part—without trains. In 2004, the local *Riverfront Times* reported that the Amshack was “thought to be the oldest temporary depot in the world.”

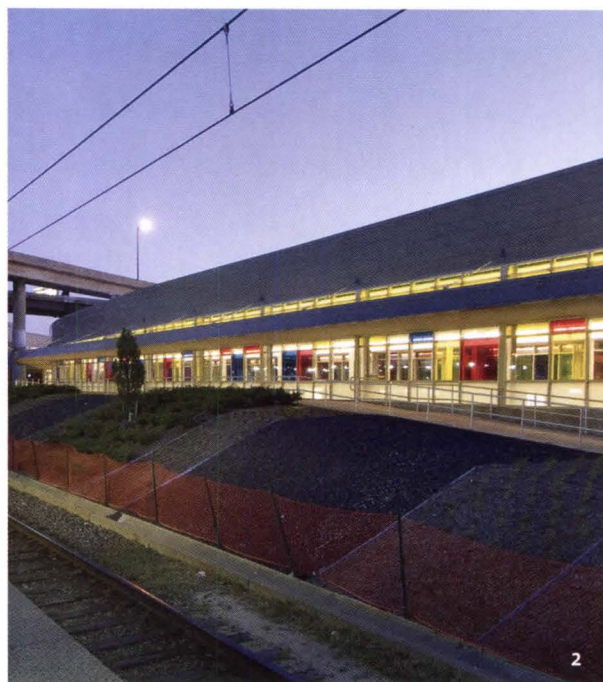
How far things had fallen in the way of railroad romance. But they have now swung upward again with the completion of the St. Louis Gateway Transportation Center, a new downtown depot built to serve Amtrak. It’s not Union Station’s limestone castle, but, with 16 trains a day, St. Louis can live with less, and these days, two platforms serving four newly built tracks is enough. More important than capacity are the connections. The Gateway Center, which cost \$27 million, gives Amtrak passengers a modern portal but also direct access to MetroLink, the local light rail system, and to Greyhound buses.

Fitting these functions together on the site that was available took surgical skill, because Metro, the local transit authority, owned only one parcel downtown where all three transit systems met. It happens to be directly beneath four overpasses of Interstate 64, so the 35,700-square-foot building appears to have been slipped—or poured—around several of their columns.

“It wound up being a very curvilinear project because of all the site constraints,” says Melissa Kreishman, the project architect at KAI Design & Build, a St. Louis firm that led the Gateway station’s design. The building stretches 700 feet, with angled façades and windows laminated in syncopated Mondrian-like colors to suggest the notion of movement. Along the north wing are Greyhound’s operations, including 10 bus bays and turnaround space. At the far northern end is a sidewalk crossing to MetroLink trains and the MetroBus station. The south wing extends an enclosed skywalk over the Amtrak lines and down to the two platforms. Between the wings lies the main ticketing and waiting area, with a broad view north toward downtown.

There were constraints on the ground but also from above: There is constant highway noise to keep out and huge loads of plowed snow that may crash onto the building from the overpasses. So the building needed a certain amount of armor for the harsh environment.

“It was not easy squeezing the project onto that site,” affirms Tom Behan, the city’s chief construction engineer. “But it’s now a whole lot neater than what was there.”





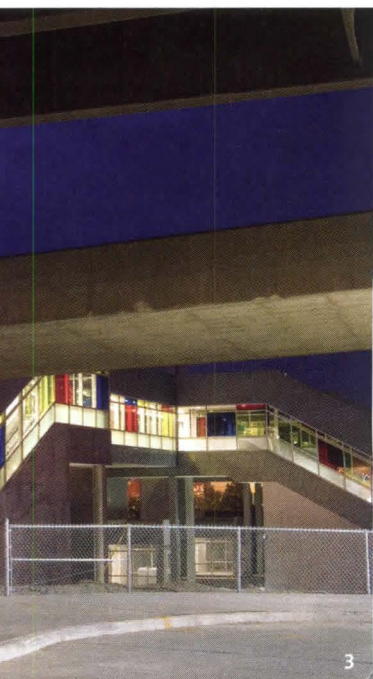
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1. A 1984 mural by artist Richard Haas on the nearby Sheraton St. Louis City Center hotel overlooks the Gateway Transportation Center's north wing, which incorporates 10 canopied bays for Greyhound buses. The exterior is clad in zinc panels from Rheinzink, which can withstand the grit and chemicals that the highway overhead will shed onto the building.

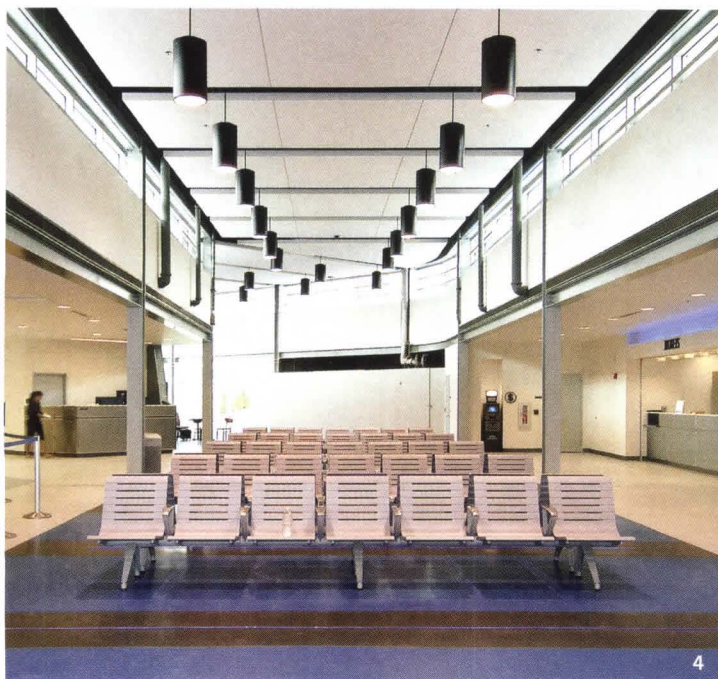
2. On the opposite side of the building from the Greyhound bus bays are the tracks for Metrolink, St. Louis' light-rail transit system. Color laminated films on 2-inch-thick insulated glass units from Alpen Energy Group—which are used throughout the project—play well against the interlocking zinc wall panels and add a bit of whimsy to the façade. The insulated glass helps keep out noise from trains, buses, and the overpasses.

3. A skywalk on the building's southern end snakes up and over the Amtrak train tracks. Enclosed staircases lead passengers down to the platforms.

4. The clerestory-lit ticketing hall is a simple but resilient interior with durable Nora rubber floor tiles that will withstand high traffic. Combining Greyhound, Amtrak, and Metrolink into one complex streamlines transit operations for downtown St. Louis, but will mean intense wear and tear on the building itself.



3



4

Project Credits

Project St. Louis Gateway Transportation Center, St. Louis
Client City of St. Louis
Architect KAI Design & Build, St. Louis
Interiors KAI Design & Build
Lighting Light Solutions
Structural, Civil, and M/E/P Engineer Jacobs
Plumbing/Fire Protection KAI Design & Build
Landscape Design SWT Design
General Contractor K&S Associates
Size 35,700 square feet
Cost \$27 million

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TEXT BY BAY BROWN

FRANCIS PARKER SCHOOL

SAN DIEGO
LAKE|FLATO ARCHITECTS

The new campus for San Diego's Francis Parker School takes advantage of the warm climate with outdoor quads, open-air circulation, and lots of operable windows—so when the students do have to be indoors, they can still have access to natural light and breezes.

BUILDING 1 2 3 ④

WHEN GREG PAPAY first saw the Francis Parker School's upper school campus in San Diego in 2002, he saw a collection of disparate buildings that had accrued organically over 40-odd years. Today Lake|Flato Architects' new middle and upper school campus for this K-12 independent institution interweaves indoor and outdoor spaces in a celebration of nature.

"It was criminal in San Diego that they were not taking advantage of the weather," says Papay, Lake|Flato partner and the design architect of the three-phase, 122,000-square-foot project. "With the new campus, the school wanted something environmentally appropriate."

The master plan for the 20-acre site includes six classroom buildings, a science center, a commons building, a library, a lecture hall, and administration, arts, and music buildings. The design capitalizes on the climate and the irregularities of the site by integrating four courtyards into the built campus.

The classroom design invites the outside in. Inspired by the lower school campus a few miles away—a 1912 Craftsman-style complex—the new spaces are quite ethereal in contrast, but they do pick up some of the vocabulary of the founding structures. Expansive pocket doors, for instance, slide open 15 feet, inviting students to look outside. "The school's philosophy of education is such that the teachers aren't freaked out if the kids are not looking directly ahead," Papay says.

While not LEED certified, the new buildings reflect this progressive school's belief in sustainability and are a model for energy savings. Aggressive ventilation, the use of tilt-wall construction with 2 percent flyash content, and extensive daylight modeling enabled the design team to create a complex that bests California's Title 24 energy performance requirements by 33 percent. For the first two phases, this resulted in the very tangible reward of more than \$45,000 from the local utility. Ongoing savings are much more substantial, with estimates at more than \$250,000 or \$300,000 over the first decade for the project's initial two phases. The third and final phase is currently under construction.

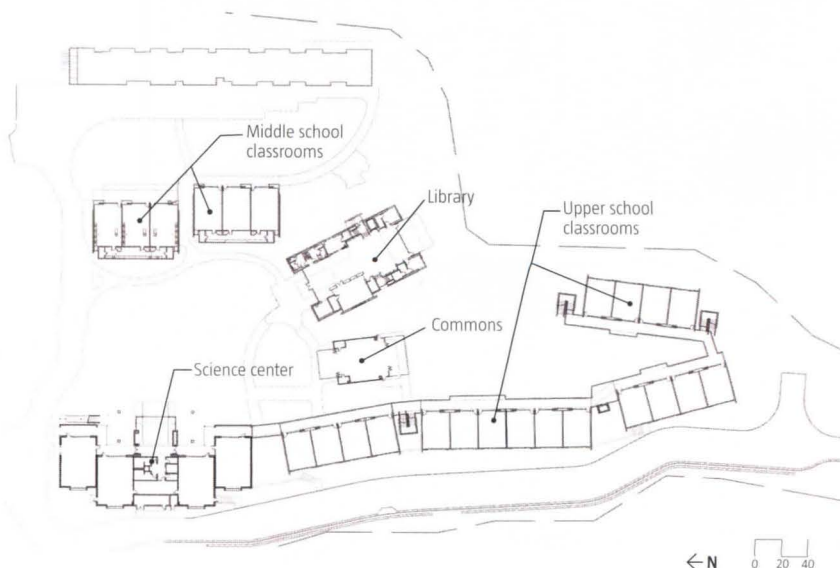
Large and strategically placed windows capture natural breezes. The school opted to include air conditioning at the last minute—when the construction documents were almost complete—but rarely chooses to use it and the complex largely functions through passive sources. The thickness of the tilt walls—7 to 9 inches of concrete—creates a heat damper, delaying the effects of both hot and cold.

Overhangs and sunshades diminish the heat impact in the classroom buildings, yet, because they are single-loaded, light still penetrates a full 15 feet on either side. The architects also convinced the skeptical client to build to two stories to gain more natural light and ventilation.

Stacking the classrooms this way also enabled them to use less land, much of which was steep or oddly shaped, so every bit counted. In addition to landscaping along pathways, the school created demonstration gardens to teach the kids about agriculture, and to grow food for their cafeteria. Experientially, it is not the energy savings, the use of recycled materials, or the farm-to-table approach that is striking, but the overall embrace of the natural landscape.



Site Plan





1. The two-story upper school classroom buildings have structures of concrete colored with locally sourced aggregates. Cantilevered sunshades protect the second floor walkways from periodic rainfall.

2. The classrooms in the science center feature sliding glass walls that open the rooms to the outdoors. The school's casual teaching style means that the views are not seen as a distraction to learning.



Project Credits

Project Francis Parker School, San Diego

Client Francis Parker School

Architect Lake|Flato Architects, San Antonio, Texas—Greg Papay (design partner); Joe Farren, Brandi Rickels (project managers); Tana Anderson, Betsy Holt Johnson, Laura Kaupp, Lewis McNeel, Kristin Wiese, Vicki Yuan (project team)

Construction Manager

HR Weatherford Co.

General Contractor Rudolph & Sletten

Structural Engineer KPFF Consulting Engineers

Electrical Engineer ILA Zammit Engineering

Mechanical Engineer SC Engineering

Civil Engineer RBF Consulting

Landscape Architect Ivy Landscape Architects

Code Consultants Schirmer Engineering Corp.

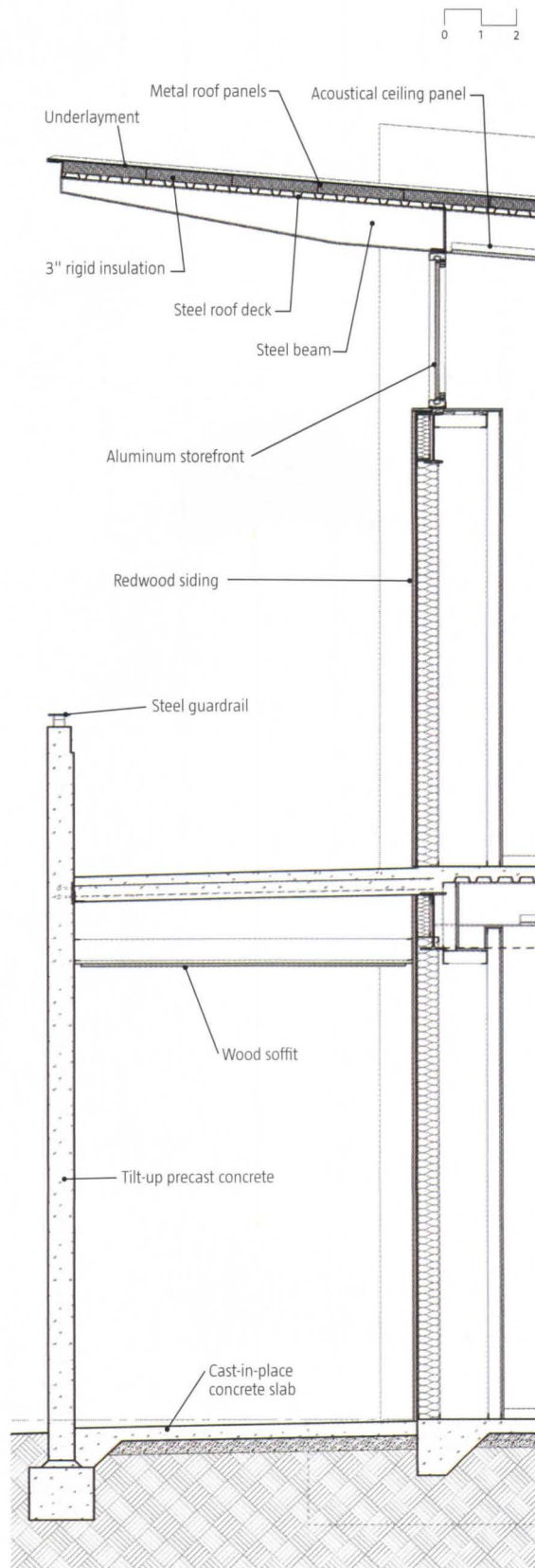
Size 122,000 square feet (all three phases)

Cost \$48.8 million (all three phases)





Wall Section at Exterior Circulation Balcony



1. While most of the canopies on campus incorporate metal panels, the canopy at the entry to the science center is made from recycled crushed glass encased in stainless steel mesh and a metal frame. The resulting planks are then placed on the same steel canopy system that supports the other sunshades.

2. Roughly 75 percent of the buildings' envelopes consists of concrete with embedded recycled colored glass. The balance is clad in an extremely durable South American redwood from a sustainably managed forest. Underneath, steel moment framing allows for flexibility, should the school's needs change. The framing, metal roofing, copper soffits, and aluminum windows have between 60 and 80 percent recycled content.

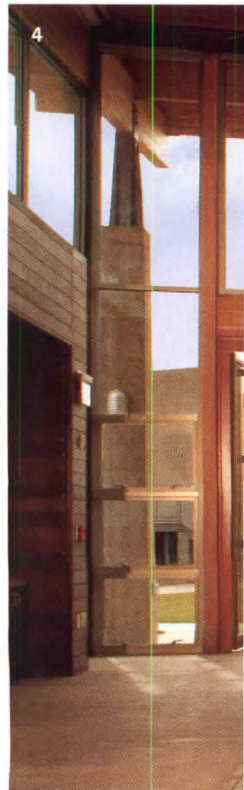
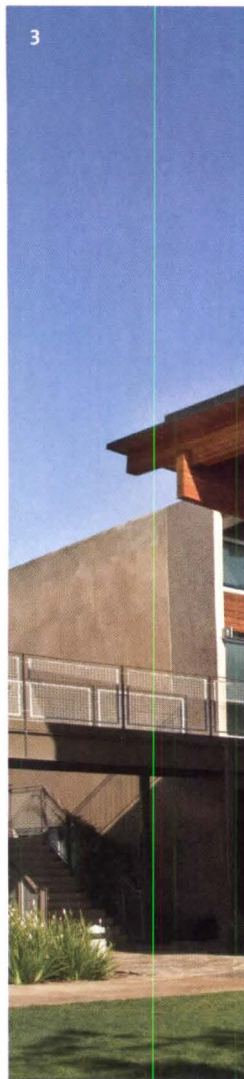
3. In addition to exterior hallways on the classroom buildings, the campus also makes extensive use of footpaths and outside seating areas, such as this one in front of the library.



1. The library building is centrally located between the upper school and middle school quads. The building uses a material palette similar to that of the classroom buildings, but its peaked wooden roof differentiates it from other buildings on campus.

2. The library has a glazed double-height lobby that allows daylight to penetrate deep into the interior. As in the classroom buildings, students can find a quiet place to do their work while still maintaining a visual connection with the outdoors.

3-4. The commons is another indoor/outdoor space on campus. This single-story building has a flexible interior that can be used for meetings, special events, and other activities when the entire upper school student body needs to gather. The sustainably grown wood of the interior and the exterior siding adds to the green cachet, but the client decided not to pursue FSC certification—which demands that a chain of custody be established for the wood on its journey from tree to construction site—because of the expense.



TOOLBOX

Tilt-Wall Concrete Panels

Vulcan Materials

vulcanmaterials.com

Locally sourced cement and aggregate contribute to the rich colors of the tilt-up concrete panels. Contractor Rudolph & Sletten performed the panel forming, concrete placement, and panel lifting and setting.

Recycled Glass

American Specialty Glass

americanspecialtyglass.com

Recycled glass was integrated into the project in three areas: as “aggregate” in select areas of the tilt-up concrete panels, where the glass was ground smooth like terrazzo; as a lens, wrapped in a stainless steel mesh, hanging directly underneath industrial fluorescent fixtures; and as a canopy at the entry to the science gallery.

Brazilian Redwood Siding

Atessco

atessco.com

The buildings’ redwood siding comes from a sustainably managed forest in Brazil. It visually recalls the redwood and western red cedar that clads so many coastal California structures, with the added benefit of exceptional durability. The siding is eight times harder than redwood or western red cedar, important for a school environment. It is also decay, insect, and fire resistant.

Aluminum Sliding and Pocketing Doors

Fleetwood

fleetwoodusa.com

Lake|Flato incorporated sliding and pocketing door systems in all 43 classrooms and labs. The doors promote natural ventilation, allow views out, and admit daylight. The school’s original 1912 classroom structures also used pocket doors to take advantage of San Diego’s benevolent climate.

Ceiling Panels

Hunter Douglas

hunterdouglas.com

Hunter Douglas’ large-scale Techstyle ceiling panels float between exposed steel beams in the classrooms, adding to the clean, loftlike look of the spaces. They have strong light reflection and acoustical properties, allowing the ceiling to diffuse both reflected daylight and indirect artificial illumination.



hanley▲wood

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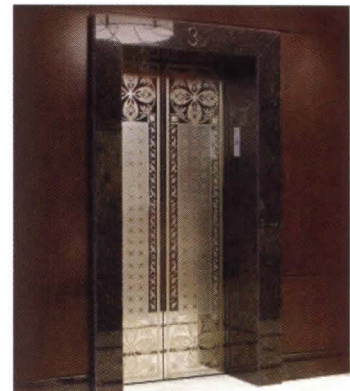


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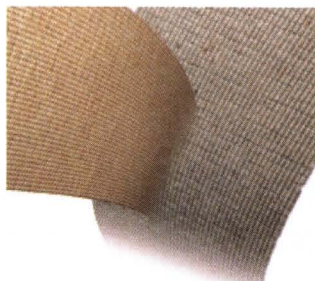
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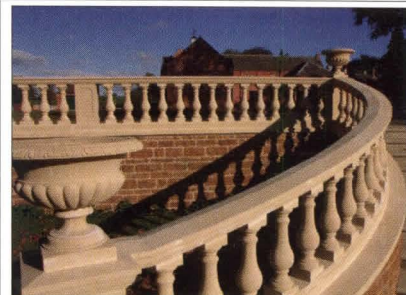


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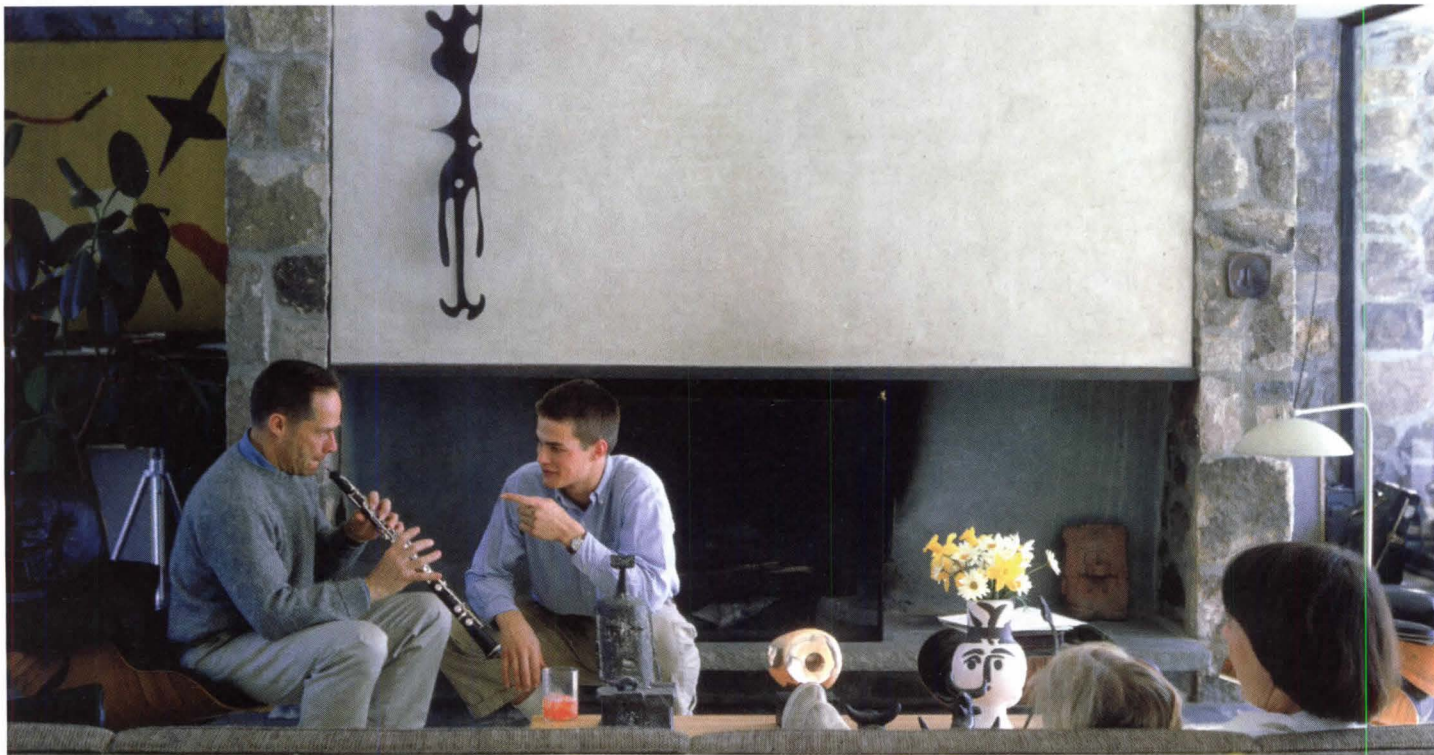
TEXT BY JOHN MORRIS DIXON

→1954 P/A AWARD WINNER

MODERNIST HOMESTEAD



ELIOT NOYES' NEW CANAAN, CONN., HOUSE, A WINNER IN THE VERY FIRST P/A AWARDS, IS INTACT AND ADMIRED BUT FACES AN UNCERTAIN FUTURE.



1954 P/A Awards Jury
Victor Gruen
George Howe
Eero Saarinen
Fred Severud

THE VERY FIRST P/A Awards issue, January 1954, included a house that perfectly embodied its time. In singling it out for an award, the jury praised its “extreme simplicity and refinement.” Designed by Eliot Noyes for his own family (above), the house comprised two equal glass-walled volumes flanking a central open court, with matching fieldstone walls bookending the entire structure. Built just as submitted, the house survives virtually unchanged, and has been listed on the National Register of Historic Places.

Noyes had been the first of the “Harvard Five” architects to locate in New Canaan, Conn., a town that looks idyllic but is well-linked to Manhattan by parkway and railroad. Noyes had built a house there in 1947, but with four children the Noyeses needed something

larger. Notwithstanding the architect’s high-design focus, this house had to be more family-friendly than the nearby Glass House, completed in 1949 by Philip Johnson, another of those Harvard architects. Yet Noyes’ uncompromising plan requires a walk across the central courtyard—under a roof but otherwise exposed—from the living areas to the bedrooms.

Noyes’ widow moved out of the house last year, and its further survival presents a challenge. Preserving it as a museum, like Johnson’s Glass House, is unlikely. According to Noyes’ architect son Frederick, the intention is to sell the house to sympathetic buyers. The family is now drafting covenant restrictions requiring the next owner to maintain the house’s “major features”—including its open-air core. □

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