

ARCHITECTURAL RECORD

Out There...

**Architecture Outside
the Centers of Fashion**

Interview with SAM MOCKBEE

America's Best Managed Firms

MARKETING COMES OF AGE

plus **Record Lighting**

TRENDS IN K-12 SCHOOLS

Inside and at www.architecturalrecord.com

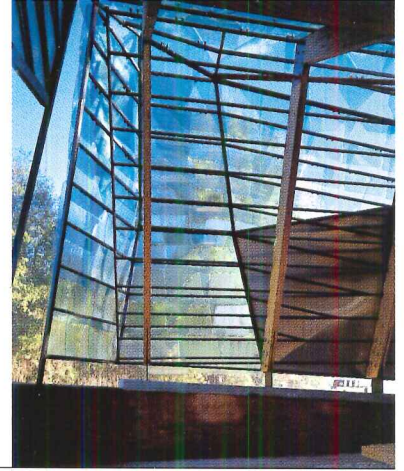
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A lot of people think today's technology

ARCHITECTURAL RECORD

02.2001



On the Cover: Keenan TowerHouse in Fayetteville, Ark. Photograph by Timothy Hursley
Right: Rural Studio's Masons Bend Community Center in Hale County, Ala. Photograph by Timothy Hursley

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WWW * You can find these stories at www.architecturalrecord.com, including expanded coverage of the work of the six "Out There" architectural firms featured in our Project section this month.



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Editorial

By Robert Ivy, FAIA

Not so very long ago, a group of architects gathered outside the boardroom of a community college. They chatted about the weather, coughed, and shuffled their feet as, one by one, they were called in to interview for a new dormitory. Tugging at his bow tie, one experienced fellow with little new work haughtily declared that this was his first interview—a comment that raised eyebrows and provoked commiseration about the rate of change. When a young designer, called in before the screening committee, hefted a Carousel projector into full view, ten jaws dropped. Architecture has never been the same since.

Although the slide projector remains, we've become much more savvy about marketing in the last 20 years. Think how the "gentleman's" profession has changed: RFPs, RFQs, newsletters, brochures, Web sites, digital presentations, increasing specialization. Not to mention the rise of the marketing professional, a subject that we take up with surprising results in a new series debuting in this issue (see "Marketing: The Unsung Heroine of Successful Architectural Practice," page 66).

Yet despite these advanced tools, we remain remarkably naïve about some elementary facts. Rarely trained to appreciate marketing in school, saddled with a negative perception of the discipline, many of us continue to believe that if we do a good enough job, then we will inevitably win honor awards, achieve publication, and attract clients. Lured by the laudable goal of achieving a repeat clientele, we may fail to realize that we have to earn that status, year after year. Too many of us could not define the differences between marketing, public relations, and sales.

We often try too hard. With the best intentions, we bring our strong wills and specialized skills to the marketing arena, expecting that organization, analysis, and design finesse should be enough to win clients. We second-guess the people we hire, overcredit their presentations, and won't let them go to do their work. But effort and all-nighters won't necessarily pay off in a more competitive world.

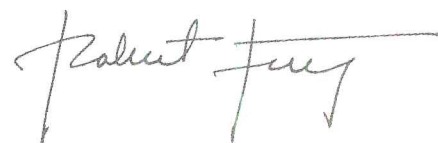
Certain firms and key individuals have been the exceptions. Arthur

Gensler and Gene Kohn and Bob Hillier, architects who have built strong practices, are legendary for their marketing skills. Large multidisciplinary firms like DMJM and HOK know their own strengths, understand what their clients need, and make it their business to bring the two together. Alarmingly, so do large international consulting organizations, which directly compete for architectural commissions.

To the current generation of architects, large and small, here is a wake-up call: Our clients are increasingly sophisticated consumers. Software now allows grocers and big-box retailers, for example, to identify their customers' buying habits, precisely profiling their preferences and charting their purchasing patterns over time. By contrast, rather than listening to our customers, architects often push their own accomplishments out at clients, citing voluminous projects and awards, with little consideration for what the client is looking for—an arrogant and outdated attitude.

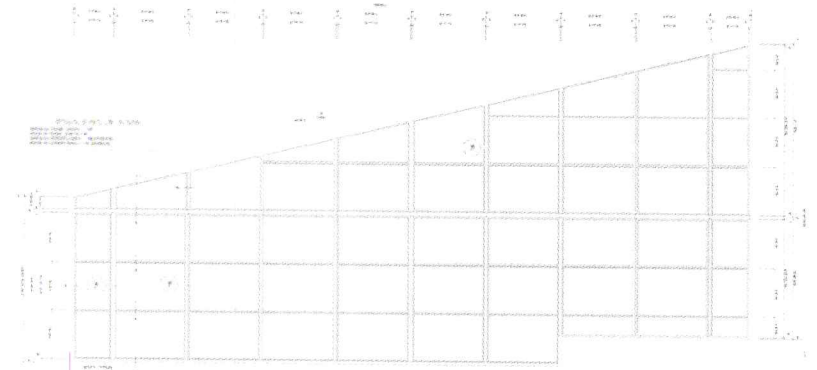
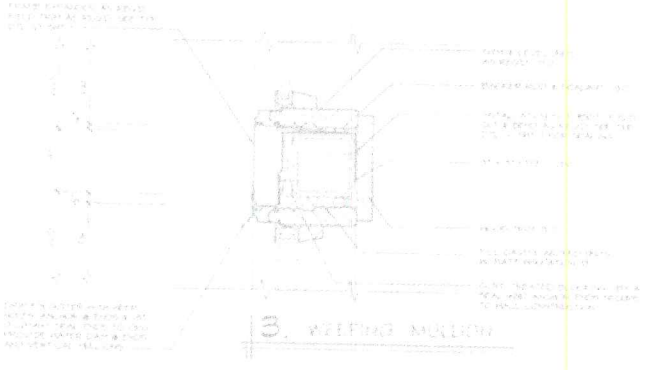
At a time when architects decry the public's lack of appreciation of our value, when we could improve the built environment in powerful ways, we need to learn how to sell. Confronted with clients who are bombarded with information and opportunities, we must take the first step in our marketing education by learning how to listen. Then when we speak, through any medium, our story should be powerful, directed, and effectively communicated.

What do our clients need? What can we offer them? Only by being able to answer those two questions, with great precision and force, will we continue to win the commissions we seek. Otherwise, like the generation that preceded us, we may find ourselves sitting outside, shuffling our feet, and tugging at our bow ties, waiting for a door that may never open. Obtaining work is the fundamental step toward making further choices: Get the job!





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Letters

The city without walls

I was surprised by Alex Marshall's article in the December 2000 issue [Critique, page 57]. He believes cities are shaped by their dominant transportation systems. Talk about stating the obvious! Any geography textbook, such as *Geography: Realms, Regions, and Concepts*, by H. J. de Blij and Peter O. Muller [John Wiley & Sons, 2000], explains that very nicely. It also explains "the Recreational Automobile Era (1920–1945) . . . marked by the initial impact of cars and highways that steadily improved the accessibility of the outer metropolitan ring, thereby launching a wave of mass suburbanization that further extended the urban frontier." In other words, at the same time that New York City's marvelous subway system was being built, cars were filling the gaps between the lines as the "first" wave of automobile suburbs were built. Public transportation could get you into Manhattan and back out again, but for everything else, you needed a car. Anyone who sees the years before World War II as a car-free paradise is mistaken.

Likewise, his characterization of Europe seems off-kilter. Europeans may be buzzing around in high-speed trains, but they also brought us the autobahn, the Porsche, the Volkswagen, and the Volvo. In England, the motorways and major "A" roads have construction and traffic jams as nasty as anything seen in the States.

With all that as a given, it doesn't surprise me that his solution to our problems—stop building roads—also seems wrong. This would lead to the same problem faced in the 1920s: gaps between the lines, which something has to fill if people live and work there.

Could the future be one in which the cars and public transportation used for long, regular trips

combine with shared cars used by both motorists and transit users (assuming they are still separate groups with no overlap) as an "in case" for short trips? What will cities look like if, instead of responding to one system, architects have to deal with three? I find the idea interesting, and more likely than a world where public transportation somehow supplants cars in "denser cities."

Then there is the question of how desirable density is to the people who live in cities. The *New York Times* has reported that with more people living, working, and vacationing in Manhattan, it is more crowded than at any time since the 1960s. Perhaps that is why Moshe Safdie wrote in *The City after the Automobile*, "Diverse environments and lifestyles require opportunities for choice," and "only a variety of great concentrations strongly and permanently joined with expansive areas of dispersal will create for us the . . . city we desire for our present and future." Safdie seems to recognize that while a hyper-dense downtown may be a nice place to visit, not everyone will want to live there.

—Michael J. Gallagher
Cortland, N.Y.

A personal touch

Thank you for the excellent article, "Challenges for the Digital Generation" [DECEMBER 2000, page 166]. There is one manifestation of the digital dynamic that wasn't mentioned in your piece, however, and that is the techno backlash inherent in most clients' demands. You reference the expansion of clients' expectations of what we can do technologically, but this is matched by similarly high demands for major amounts of personal touch in service delivery. This may well be one of the hobgoblins of the "established firm" that will just cling for a while,

but it would appear to me that the true tipping point for such firms will only happen when the clients they seek give technological content as high a priority as emotional content in the design process—no matter what tech level it attains. I suspect this is as true now as it was in the heady days of the breakthrough of blueprinting, or the shift to the parallel edge, and will probably remain so. The staff with the highest rewards and responsibilities in design firms are those who check most of their tech skills at the door and work the human dynamic of sales, personal communication, and profitability to the max.

I look forward to the day when the PIC and the PC are more or less interchangeable. In the meantime, architects need to pay as much attention to the digitalization levels of their clientele as they do to the computerization of their profession.
—Chris Williams
Glastonbury, Conn.

Mind the gap

In your editorial titled "The Chasm" [DECEMBER 2000, page 21] you made reference to a seismic rift between the two generations of architects, which was heightened by digital technology. Fundamentally, I agree with your article but also believe there is an underlying erosion of the chasm, which is caused by the fact that developing architects do not have the proper knowledge of how buildings go together.

I believe we will always have a generation gap between those coming out of school and the veteran architects who have been through the trials of day-to-day experiences implementing projects. I came through school during the time when computers were just being incorporated as a design tool and saw the actual crossover from drawings on boards to draw-

ings on computers. I think the crossover took significant time and investment of architects and firms, but this transition in technology has paid off by giving architects more time to put toward other aspects of the projects or the ability to take on more projects. But even through this technological transition there has always been, as you mentioned in your editorial, the old guard of architects who mentored the younger, developing architects by watching how they developed details and by helping them understand how those materials go together. This mentoring and education is vital to the existence of the architect and his/her status as "master builder." If we continue to rely on computers to understand how materials go together, then will not the computer and the contractor become the master builder and the architect become just the facilitator who places bits of information into the computer?

To realize a project, there needs to be some emphasis on understanding the business of architecture, the contractual relationships, the liability of what the contract documents say or show, and the way these aspects interact. The Construction Specifications Institute has taken a large step in helping developing architects understand these relationships through their certification programs. I hope that universities will look at this as a basis to begin an educational revival of the business of architecture, for it is the university's charge to prepare architectural students not only to design but also to implement the design.

—R. Todd Johnson, AIA
Director, Construction Contract Innovation Team (C2IT)
Little & Associates Architects
Charlotte

Letters

Riftless in the heartland

As a full-fledged member of the "techie" generation you described, I enjoyed your editorial on the "chasm" between the vellum/mylar generation and the digital generation [DECEMBER 2000, page 21]. I think that as technology changes and evolves more quickly these days, there is a real danger for young architects (and even some older architects) of getting too caught up in the latest tools for improving *how* we produce, at the expense of *what* we produce. Fortunately, the recent digital revolution has helped facilitate greater communication in both directions between computer-savvy young architects and their analog coworkers. This new dynamic should allow previously technophobic architects to creep into the 21st century while still passing on the insights of their experience to the latest techno-

centric generation. I hope this bridging of the "chasm" will keep us focused on what is important, our "love of making things, real or virtual, drawn or imagined or built."

—Jonathan Taylor
Gastinger Walker Harden Architects
Kansas City, Mo.

Corrections

In our December 2000 article on the AIA/HUD Secretary's Housing and Community Design Awards 2000, Orchard Gardens, by Domenech Hicks & Krockmalnic Architects, and Vermont Village Plaza, by Solomon E.T.C. Architecture and Urban Design, appeared with their photos switched. At right are the correct photos and credits. In the November 2000 issue, the article about Autostadt [page 148] should have credited Alfredo Arribas as associate architects. Please E-mail letters to rivy@mcgraw-hill.com.



Project: Vermont Village Plaza, Los Angeles

Architect: Solomon E.T.C. Architecture and Urban Design—Dan Solomon, FAIA (principal); Anne Torney (project architect); John Maloney (architect); Marcos Ancinas, Owen Kennerly, Thai Nguyen, Martha Martinez, Gabriel Ruspini, Jose Villegas, (project team)

Contractor: Windjammer Construction

Landscape architect: GLS Landscape

Project: Orchard Gardens, Roxbury, Mass.

Architect: Domenech Hicks & Krockmalnic Architects—Fernando J. Domenech, Jr., AIA, Alberto Cardenas, AIA, Marya Piasecki

Client: Madison-Trinity Ltd. Partnership, Adams-Orchard Ltd. Partnership, Boston Housing Authority

Engineer: Judith Nitsch Engineering (civil); Weidlinger Assoc. (structural); SAR Engineering (MEP)



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Glassy, open Clinton Presidential Center to “put things in the light”

According to his architects, Clinton is extremely sharp and a quick study, has a strong interest in contemporary design, and believes that new buildings should contribute positively to their surroundings. After touring presidential libraries with his architects, James Polshek, FAIA, and Richard Olcott, FAIA, of the New York-based Polshek Partnership Architects, Bill Clinton had firm ideas about his own library. He envisions a vibrant place—accessible, highly visible, and mutable—that would contribute to Little Rock’s effort to bring life to the long-ignored banks of the Arkansas River.

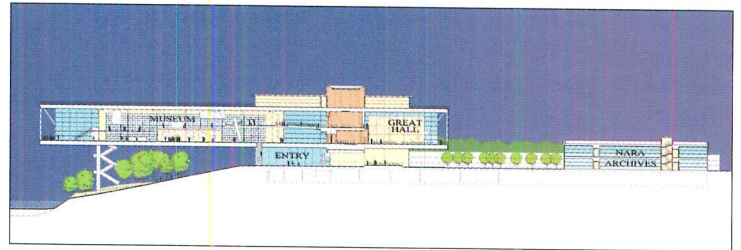
The design for the William J. Clinton Presidential Center, which will include the presidential library and archives, may be the antithesis of some of its peer facilities. For starters, there will be no monumental, hermetic structure with an “awe-inspiring space in which little happens,” Olcott says. “Ironically, the

president wanted to ‘put things in the light.’”

Polshek Partnership designed an elevated, rectangular glass volume that projects over the riverbank. “Dark” spaces for the archives are mostly subterranean, so the center will read as a sleek glass box. The building’s transparency and daylight spaces are designed to serve as very public invitations.

To help cool the structure, the design team turned to a Southern tradition: A contemporary version of a veranda wraps around the volume. Multifunction gathering spaces and large, open exhibit areas will also offer outdoor access. Even the exhibits will be a departure—they are slated to be interactive and nonlinear, and they will change over time.

The 27.7-acre site includes a new public park—a component that Clinton wanted from the outset. It’s within walking distance of downtown, and the abandoned Rock



The Clinton Presidential Center will project over the Arkansas River.

Island Railroad Bridge will become a pedestrian path across the river. The site is expensive and difficult to develop, but Clinton avoided the suburban, stand-alone building approach. “He sees this as a living thing,” Olcott says. “It was important to him that his base of operations be part of the city.”

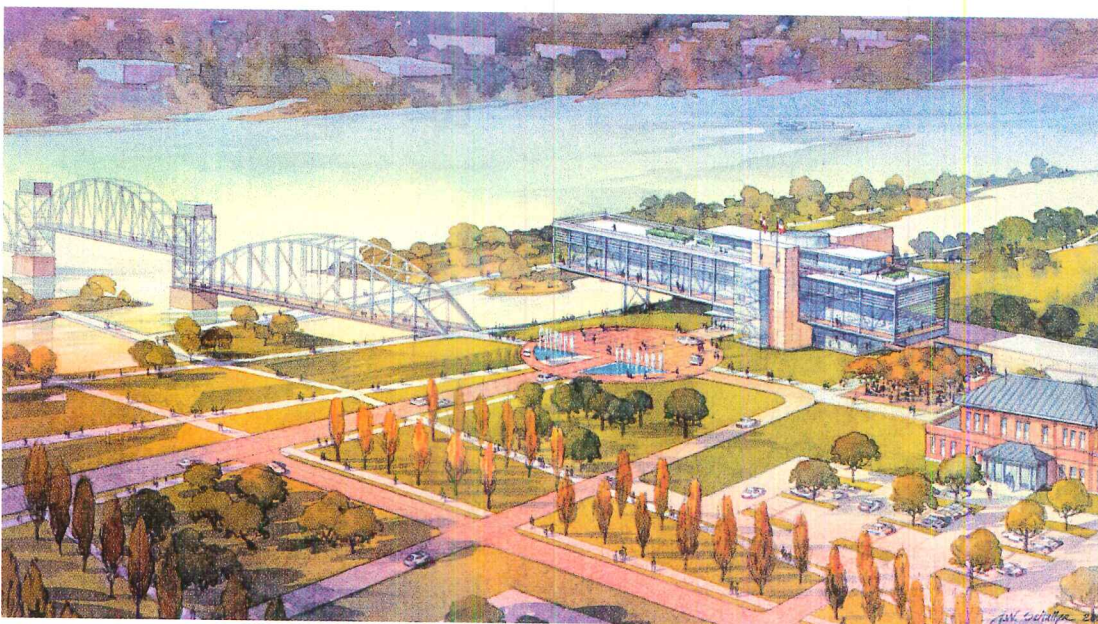
Groundbreaking is expected this year but will likely be delayed. Building costs have ballooned from initial estimates of \$80 million to between \$125 million and \$150 million. The Clinton Foundation continues fund-raising.

Kira L. Gould

LAND DISPUTE DELAYS CLINTON LIBRARY

A dispute over 2.9 of the 27.7 acres needed for the William J. Clinton Presidential Center has delayed the project. Real-estate developer Eugene Pfeifer III has been fighting Little Rock’s effort to take his 2.9 acres through eminent domain. Pfeifer has claimed that the city cannot take property through eminent domain for a presidential library. Pfeifer has lost one court battle but is appealing.

A November 2000 ruling by Pulaski County Chancellor Vann Smith stated that Little Rock could seize Pfeifer’s property through eminent domain and that Pfeifer needed to prove that there was “fraud, bad faith, or a gross abuse of discretion” when the city board approved the resolution to create the site. “The Court finds that an acceptable use of the park can include structures such as a library, educational facilities, archives, and other similar structures.” The ruling allowed the project architects to move forward with final drawings. KLG and John E. Czarnecki, Assoc. AIA



Anchoring a public park, the William J. Clinton Presidential Center will be near a pedestrian bridge over the river.

Record News

OFF THE RECORD

Whitney Museum adjunct curator **Michael K. Hays** has announced that a **John Hejduk** retrospective show, *Sanctuaries*, is planned for this year at the Whitney.

One of the sisters in a new sitcom called *Three Sisters* has an architect husband. This prompted **Linda Stasi**, TV critic for the *New York Post*, to write, "Another freaking architect! You would think by watching TV that there are so many architects working in America that we all should get one."

Robert A. M. Stern, FAIA, has been selected to design an \$11 million educational and visitors center for the Mark Twain House in Hartford.

Juan Navarro Baldeweg has won a competition for the Canal Isabel II Theater in Madrid.

As of mid-January, Cornell University was considering seven firms for a building for its architecture department. The list was expected to be narrowed to four from the following: **Peter Zumthor, MVRDV, Steven Holl, Tod Williams + Billie Tsien, Rafael Vinoly, Morphosis, and TEN Arquitectos (Enrique Norten).**

A truck smashed and destroyed a 91-year-old iron-and-glass pergola, a national historic landmark, in Seattle's Pioneer Square on January 15. The Victorian-style structure was originally a cable car stop and entrance to an underground rest room. Restored in 1972, the pergola was designated a landmark in 1977.

Swanke Hayden Connell Architects has opened a Paris office. **OWP&P** has opened an office in Phoenix, its first outside of the Chicago area.

Three Rivers Stadium, home of the Pittsburgh Steelers and Pirates for three decades, is scheduled for an implosion on February 18.

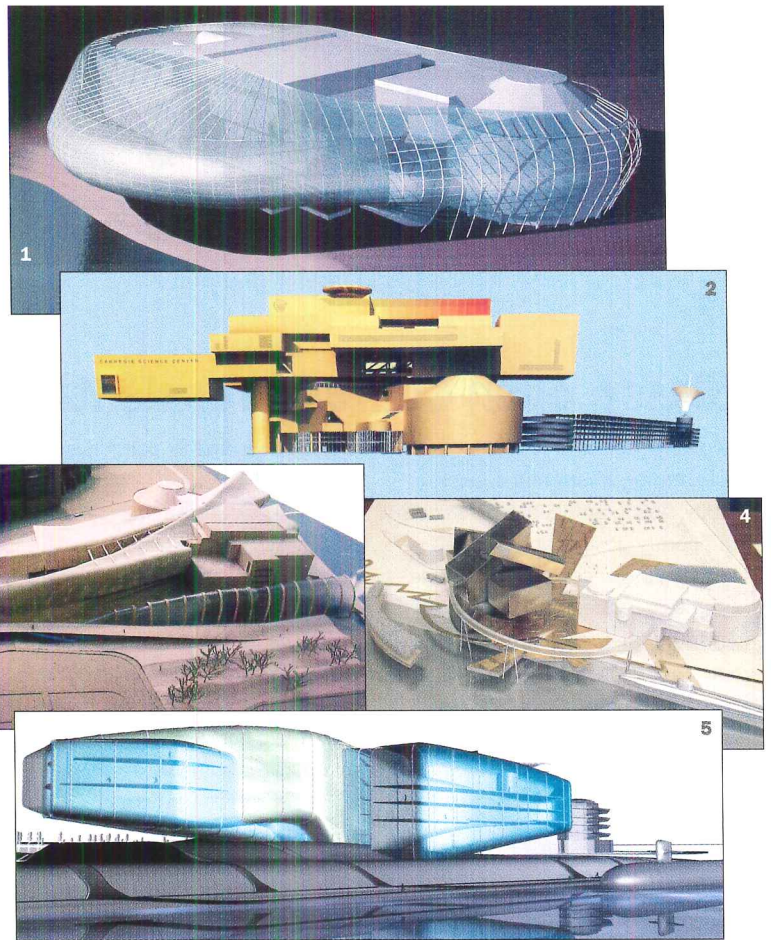
Five compete for science center

The Carnegie Science Center has unveiled schemes by five competing architects for what it hopes will be "the magnetic symbol of the future of Pittsburgh." Designs by Peter Eisenman, Daniel Libeskind, Jean Nouvel, Bernard Tschumi, and UN Studio (Ben van Berkel) were made public in January for a \$90 million addition to the existing Carnegie Science Center and a master plan for the surrounding 13 acres, which will include a Discovery Park. A winning architect for the 160,000-square-foot addition is expected to be chosen in early March.

Eisenman's design draws the river into the site through a tapered channel, and his addition nearly consumes the existing building.

Libeskind calls his addition, which has intersecting glass and metal geometric volumes piled along the river edge, "Dynamix."

Built primarily on top of the existing building, Nouvel's design has rectangular stacked volumes,



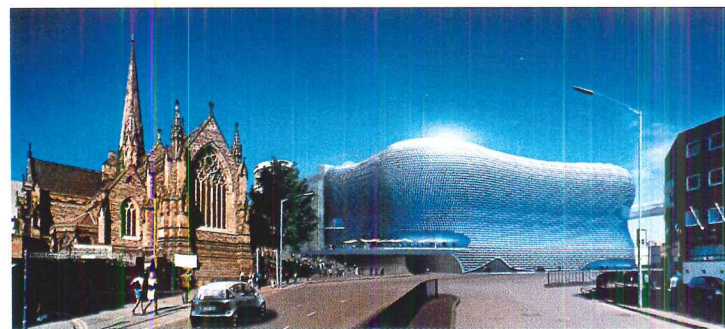
Carnegie Science Center proposals by Bernard Tschumi (1), Jean Nouvel (2), Peter Eisenman (3), Daniel Libeskind (4), and Ben van Berkel (5).

including a portion that cantilevers over the river.

Tschumi calls his blob that wraps around the existing museum "a smooth polished metal shape . . . as if from outer space."

The cantilevered structure by van Berkel, clad in blue, green, and yellow glass, is intended to be symbolic of how "science liberates."

For more information, visit www.carnegiesciencecenter.org. *JEC*



Selfridges store to land in Birmingham

The innovative, curvaceous form of the Future Systems–designed Selfridges department store in Birmingham, England, promises to be a leap forward in the often drab world of retail architecture. Birmingham Selfridges has received planning permission, despite opposition from local con-

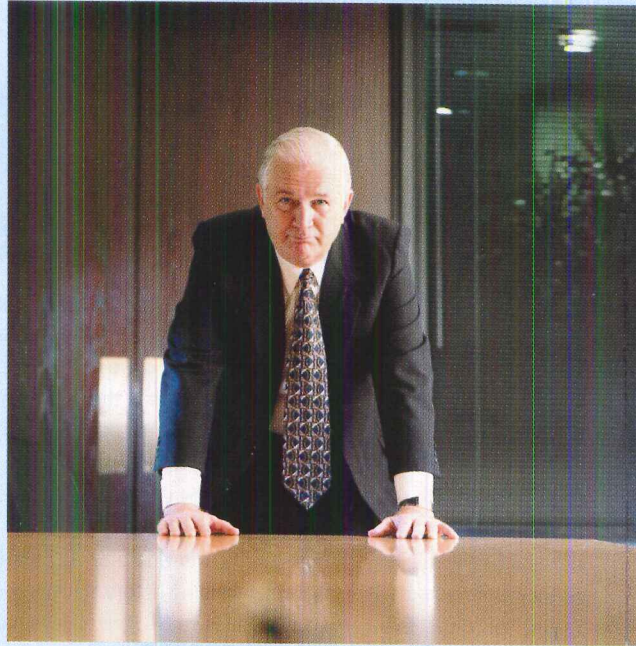
servation groups, such as the Victorian Society, and is due to open in fall 2003.

The store will include beauty, fashion, and home departments, as well as food halls on four floors; it will be clad in thousands of colored ceramic tiles. The futuristic element of this shimmering skin, which

appears inflated against the building's bulbous shape, is integral to the scheme's appeal. The decision to opt for such a witty design is in keeping with the visionary business strategy of the store's American founder, Harry Gordon Selfridge, who sought to combine shopping with entertainment.

The 250,000-square-foot Future Systems project is part of a \$60 million investment by Selfridges for Birmingham regeneration, which includes renovation of the adjacent Bull Ring shopping center. Future Systems has designed public spaces that will link the store with its surroundings, and the store itself will be a public gathering space with restaurants and cafes. *Laura Iloniemi*

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Record News

OFF THE RECORD

The University of Minnesota is in a "quiet" fund-raising stage for an addition by **Frank O. Gehry, FAIA**, to his Weisman Museum on campus.

Gehry is in interesting company on the cover of the December 2000 issue of *Los Angeles* magazine, which featured 40 figures who embody the L.A. of the last 40 years, including **Dr. Dre, E.T., Charles Manson**, and the Aris glove that did not fit.

The \$1.2 billion **Millennium Dome** [DECEMBER 1999, page 78; NOVEMBER 2000, page 40] closed on New Year's Eve. The dome and surrounding land will be sold for new development.

Montreal-based firm **Saucier +Perrotte** has been selected to design a home for the Perimeter Institute for Theoretical Physics in Waterloo, Ontario. The building will open in 2002.

RoTo Architects of Los Angeles, in collaboration with **Studio Points** of Boulder, has been chosen for the 20,000-square-foot Museo de las Americas building in Denver. Construction begins this spring.

HOK is designing the \$21 million National History Museum of the Adirondacks in Tupper Lake, N.Y.

The team of **Arup**, architect **Llewelyn Davies**, and **Speedwing** has won a competition for a new terminal at Chongqing Jiangbei International Airport in China. The \$300 million terminal project will begin this spring.

From a pool of 16 firms, three finalists—**Barton Myers & Associates**, **Skidmore, Owings & Merrill**, and **van Dijk Pace Westlake Architects**—were selected for a \$35 million visual and performing arts center in Tempe, Ariz.

Lohan Associates will design a \$190 million skyscraper, at least 40 stories tall, in Chicago for Buck Co.

Friends work to save High Line structure

A new nonprofit group called Friends of the High Line has a plan to turn an abandoned 1930s elevated rail platform in Manhattan's Chelsea District into a 1.3-mile pedestrian promenade. Under current Rails-to-Trails legislation, the group proposes an adaptive reuse of the platform for a public walkway that would afford unique views of New York as well as commercial space.

The 30-foot-wide High Line was originally built to carry freight from the rail yards near 34th Street south to and through warehouses. It operated until 1980.

The Friends' plan is modeled after Paris' popular Promenade Plantée, a converted rail line with landscaped public gardens and artisans' shops that "puts us all to shame," says Hugh Hardy, FAIA, a Friends member and principal of Hardy Holzman Pfeiffer Architects. "It would be absurd not to use this extraordinary resource. Once it deteriorates to the point of having to be rebuilt, then it's too late."

New York City, however, does not agree, citing safety issues and exorbitant costs as significant obstacles to reuse of the line.



The High Line was built to carry freight from the rail yards (above) in Manhattan to warehouse buildings (left). Out of operation since 1980, the elevated platform offers superb views of city.

Several owners of easements along the High Line have been lobbying to dismantle the structure for almost a decade, and they say they are nearing an agreement to share the costs of demolishing the platform, currently owned by CSX Corporation.

Nevertheless, a number of high-profile arts-and-entertainment figures, including actors Kevin Bacon and Kyra Sedgwick, fashion designer Todd Oldham, and architects Richard Meier, FAIA, Steven Holl, AIA, and James Polshek, FAIA, have expressed their advocacy for the promenade plan. In another show of support, the nonprofit Design Trust for Public Space

announced that it has selected the Friends as a 2001 project partner. As a result, the trust will provide the funding and professional design leadership needed to determine both the positives and the pitfalls of saving the structure.

The trust usually works only with groups that have clear control of the spaces they seek to improve. In this case, says Andrea Woodner, codirector of the trust, "We were convinced by the strength of their voice, their credentials, and their lobbying position that there was a good likelihood that implementation will take place."

Jessica Dheere

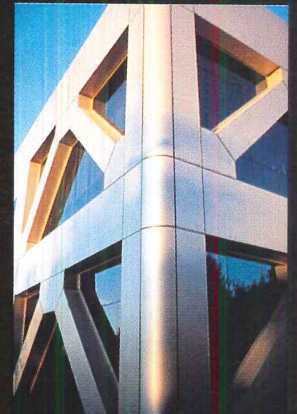
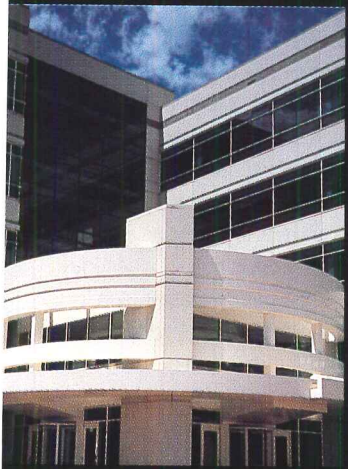
Pritzkers hire Lord Norman Foster for 60-story Chicago tower

Pritzker Prize-winning architect Lord Norman Foster has been hired by the billionaire Pritzker family to design a 60-story office tower in downtown Chicago. The skyscraper will be anchored by the headquarters of the Pritzkers' hotel company, Hyatt Corporation, and the Pritzker Organization.

This will be Foster's first building in Chicago. No drawings have been unveiled. Construction is expected to start before the end of 2001, with completion scheduled for summer 2004. The \$350 million Chicago project is being co-developed by the Pritzker-backed Higgins Development Partners LLC and another Chicago developer, the Prime Group Realty Trust. Chicago-based Hyatt Corp. will lease one-third of the office space in the 1.2-million-square-foot tower, which will replace a parking lot at the northeast corner of Wacker Drive and Monroe Streets.

With the selection of Foster, four Pritzker Prize-winning architects now have projects under way in Chicago. Frank Gehry, FAIA, has designed a band shell, concert seating area, and pedestrian bridge for Lakefront Millennium Park along the downtown shoreline; Rem Koolhaas' scheme for a campus center at the Illinois Institute of Technology has been unveiled; and Renzo Piano is working on an Art Institute of Chicago expansion that has yet to be unveiled.

The Foster project also raises the possibility that Chicago's construction boom finally will produce a building worthy of the city's vaunted tradition of innovation. "We are thrilled about the prospect of developing a cutting-edge office tower in Chicago," said Penny Pritzker, president of Pritzker Realty Group. Blair Kamin



A Panel Discussion

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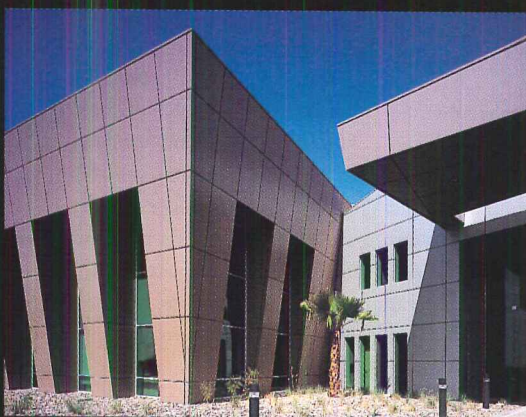
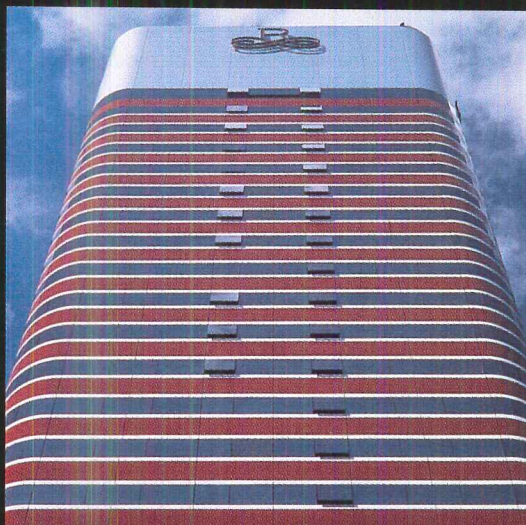
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CIRCLE 19 ON INQUIRY CARD





Restoration of Rudolph's Yale A + A Building to honor original plan and corduroy walls

The Art + Architecture Building at Yale University, Paul Rudolph's controversial 1963 masterwork, is poised for a major reappraisal. An architect will be selected within months to restore the building to its original state, after more than 30 years of ill-conceived modifications.

"The A + A was the Guggenheim Bilbao of its day," says Robert A.M. Stern, FAIA, dean of the Yale School of Architecture, himself a 1965 graduate of the school when Rudolph was dean. "It was one of the most examined and debated Modern buildings of the early

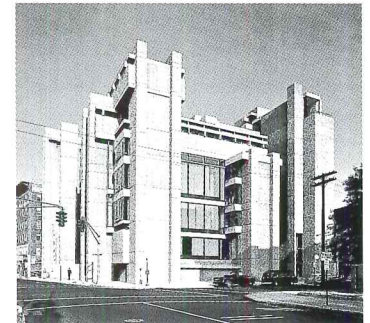
1960s, a point of pilgrimage for architects. But after many interventions over the years, it's become a lost treasure."

Since its debut, the A+A has prompted polarized opinions in the architectural community. Featuring an imposing Brutalist concrete facade, ridged concrete "corduroy" walls, 37 level changes within seven stories, and balconies pinwheeling around two double-height open spaces, the building was hailed for pointing toward a new direction for Modernism, while also reviled for impractical spaces that seemed insensitive to student needs. In 1969 a fire gutted the interior, and later alterations inserted a warren of rooms and additional floors, obscuring the original design. Last summer, an interim restoration offered glimpses of a Rudolph revival. The double-height gallery and studios were returned to their original scale and finishes.

The three-year restoration, beginning this year, will be funded by a \$20 million gift from Sid R. Bass, the Texas billionaire and 1965 Yale graduate, who commissioned a residence and two office buildings from

Rudolph. Besides reclaiming Rudolph's original design, the Yale project will also overhaul the mechanical system, convert a penthouse into an entertainment venue, and include an expansion to the north of the A + A building.

The work is part of a decade-long, \$250 million master plan by Polshek Partnership Architects, to enlarge and refurbish the Yale arts area complex. The art school's new Holcombe T. Green Jr. Hall, designed by Deborah Berke, opened last fall. A new building to house the art history department, arts library, and digital media center will be part of the expansion. *William Weathersby, Jr.*



The interior in 1963 (left) of Yale's Art + Architecture Building (above) will be restored to Paul Rudolph's design.

AIA announces winners for Collaborative Achievement, Kemper, Jefferson, and Young Awards

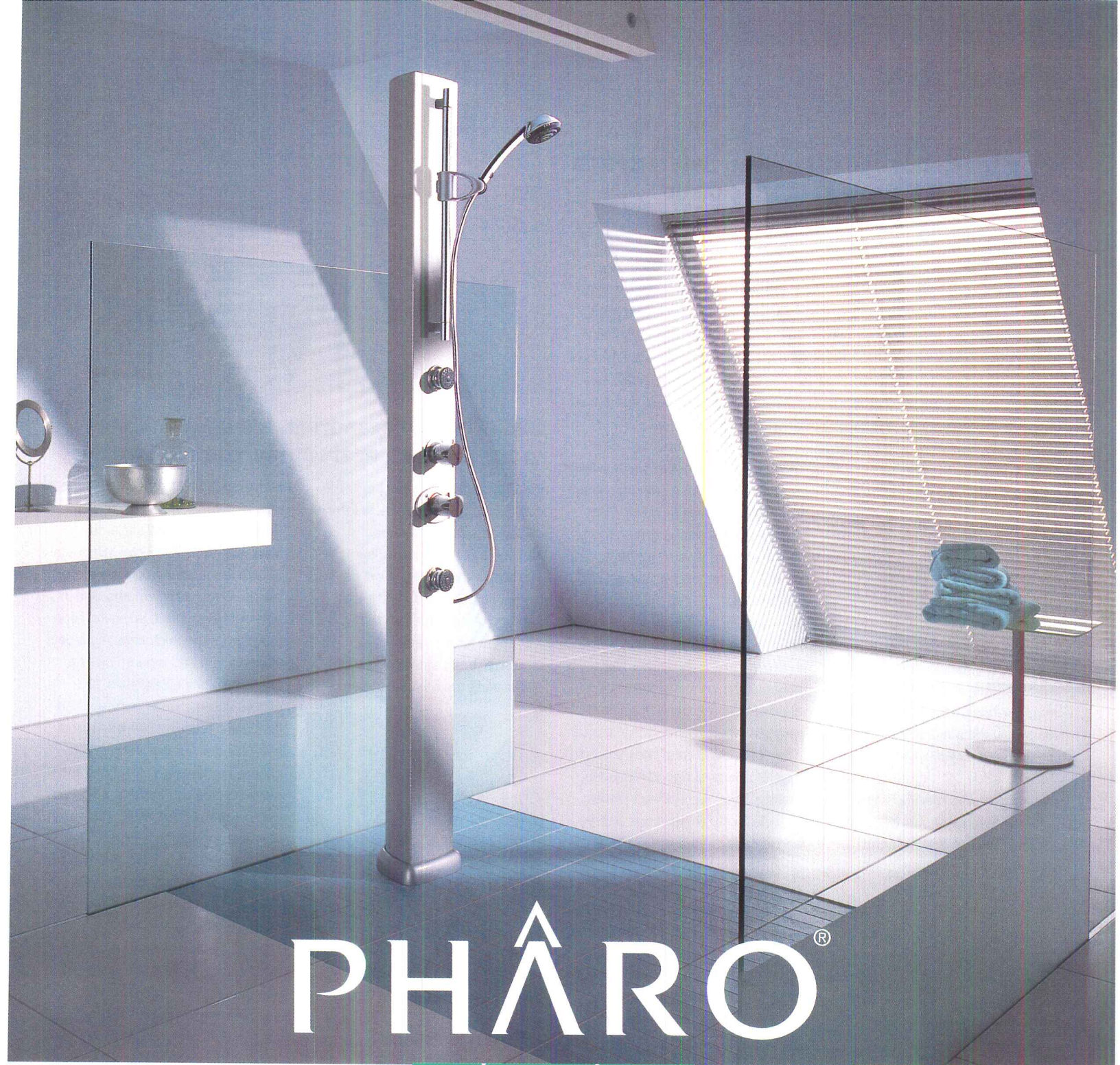
The American Institute of Architects (AIA) announced, on January 25, the 2001 recipients of four awards—Institute Honors for Collaborative Achievement, Edward C. Kemper Award, Thomas Jefferson Award for Public Architecture, and the Whitney M. Young Jr. Award.

Vernon L. Mays, Jr., and John R. Stilgoe both won the Institute Honors for Collaborative Achievement for their writing and scholarship. The Institute Honors for Collaborative Achievement recognizes distinguished achievements of allied professions, clients, organizations, and others who have advanced the architectural profession or had a beneficial influence. For the past 10 years Mays has been editor of *Inform* magazine, published by the Virginia Society of the AIA, and has written for a number of national publications. Stilgoe, the Robert and Lois Orchard Professor of the History of Landscape at Harvard University, teaches the history of the built environment that is not shaped by design professionals.

Charles Harper, FAIA, of Wichita Falls, Tex., was named recipient of the Edward C. Kemper Award, which honors an architect who has contributed significantly to the profession through service to the AIA. Harper has been a leader in the AIA's Regional and Urban Design Committee and in numerous disaster-relief efforts. He has assisted in disaster recovery and advocated better and smarter approaches to rebuilding after the wildfires in Los Alamos, N.M. (2000), hurricanes in the U.S. Virgin Islands (1998) and Dade County, Fla. (1998), and the oil spill near Valdez, Alaska (1990).

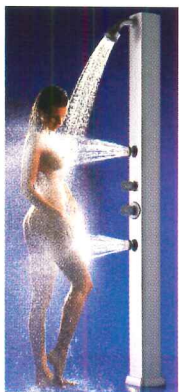
Recipients of the Thomas Jefferson Awards for Public Architecture are Terrel M. Emmons, FAIA, and Stroud Watson. Emmons was honored in the category for public-sector architects who manage or produce quality design within their agencies, and Watson won in the category for public officials or other individuals who have furthered the public's awareness and/or appreciation of design excellence. Emmons is the associate director for professional services at the National Park Service Headquarters, and he recently served as chief architect and associate director for engineering for the Naval Facilities Engineering Command. Watson is an architecture professor at the University of Tennessee and director of Riverfront/Downtown Planning & Design Center in Chattanooga, Tenn. Under his leadership, the center provides design guidance and coordination for public and private urban projects.

The Whitney M. Young Jr. Award honors an architect or related organization that has significantly contributed to social responsibility. Young challenged architects to assume professional responsibility with regard to current social issues. This year's recipient of the award, Cecil A. Alexander, FAIA, has promoted stronger race relations in Atlanta. Alexander was co-founder, with Young, of *Resurgens Atlanta*, a group of civic and business leaders dedicated to improving race relations. For 38 years, Alexander was principal with Finch, Alexander, Barnes, Rothschild, and Paschal, and he is now with Alexander-Weiner Architects. *JEC*



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Record News

All in the family for \$83 million Safdie design of Roosevelt College at UC-San Diego

While growing up, Taal Safdie enjoyed visiting the architecture firm of her father, Moshe Safdie, FAIA. Little did she know that the two of them, and her future husband, Ricardo Rabines, would one day collaborate professionally.

Together, Taal, Moshe, and Ricardo are designers of Eleanor Roosevelt College at the University of California, San Diego—the largest single construction project in UCSD's history, both in funding and



Moshe Safdie, FAIA (left), his daughter Taal Safdie (center), and son-in-law Ricardo Rabines (right) collaborated on Roosevelt College.

footage. Not only did Roosevelt College make history at UCSD, it also marked the first time the Safdies worked together on a building project.

Construction on the \$83 million project began in November after a two-year design process and will be complete in 2002. Moshe Safdie and Associates of Boston is the architect of record for the pro-

ject, while Taal and Ricardo's firm, Safdie Rabines Architects, of San Diego, is the associate architect.

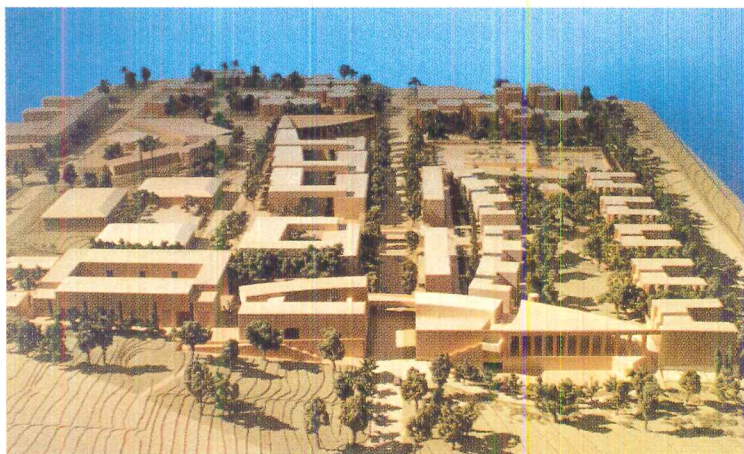
The college's buildings will be clad primarily in stucco and glass. The design includes a dining hall and the International House, both of which will feature glass walls, concave roofs, and exposed, curved wooden ceiling beams.

The buildings open up to terraces with views of the ocean, which is also visible from all the apartment and residence-hall terraces. "The campus feels like a garden—everything is surrounded by gardens, patios, and lots of courtyards," Taal Safdie says.

A major design challenge was unifying the 11-acre site that is split in two segments by a road. "We adopted various strategies to create a sense of college, one of which is having a large green space in the tradition of Harvard Yard," Moshe Safdie says. Buildings surround the green, making it the heart of the campus.

As for family relations, everyone is happy about this collaboration. As Taal Safdie says, "It worked out great."

Rabines considers the timing perfect: "It was the right project at the right time." And Moshe Safdie sums it up: "It's worked out beautifully. We all enjoyed working together." *Susan R. Bleznick*



Bibliotheca Alexandrina, the largest library in the Mideast, nears completion in Egypt

Hieroglyph meets microchip in the design of Egypt's grand new temple of learning, the Bibliotheca Alexandrina. When it opens in Alexandria this spring, it will be the largest library in the Middle East and one of the largest in the world, with room for 4 million books.

The library stands on a site overlooking the Mediterranean

two years behind schedule. Its most striking feature is a circular roof, tilted at a 16-degree angle and sweeping from 33 feet below grade to 105 feet above ground. The roof, made of modular elements clad in anodized aluminum, takes its inspiration from the microchip. Alphabets from ancient and modern civilizations, including hieroglyphs, are etched into the walls' two-ton granite blocks, recalling Egypt's ancient monuments. A partly submerged sphere on the edge of the entrance plaza houses a planetarium and science center, linked to the library by a pedestrian bridge.

At more than 800,000 square feet, the library is Snøhetta's largest project in size and "in terms of cultural impact and political complexity," says Snøhetta architect Craig Dykers. It is also the firm's first experience with double-curved, color-impregnated, precast concrete panels. Hamza Associates of Egypt is Snøhetta's partner on this project.

The United Nations Educational, Scientific, and Cultural Organization and several countries have contributed to this Egyptian government project and have pledged assistance in providing books and equipment. Approximately two-thirds of the books will be purchased and the rest donated. Although the library will be large, its collection will pale in comparison to the U.S. Library of Congress' 18 million books. *Esther Hecht*



The interior (above) of the Bibliotheca Alexandrina (top) in Egypt.

where part of the famed Library of Alexandria is said to have stood. According to legend, the old library contained all the knowledge of the ancient world and was where scholars calculated the Earth's circumference.

The new library was designed by the Norwegian firm Snøhetta, which won a competition of 524 entries. The building is an 11-story elliptical cylinder, half of which is below ground. The \$200 million project (\$30 million over budget) was 10 years in the planning and is now

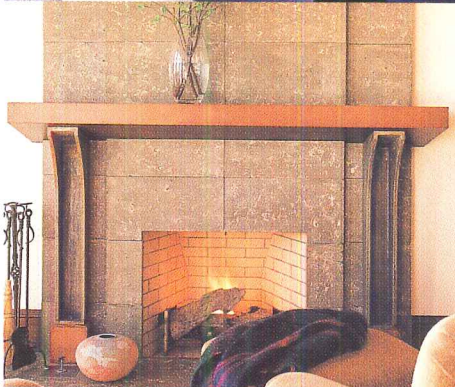
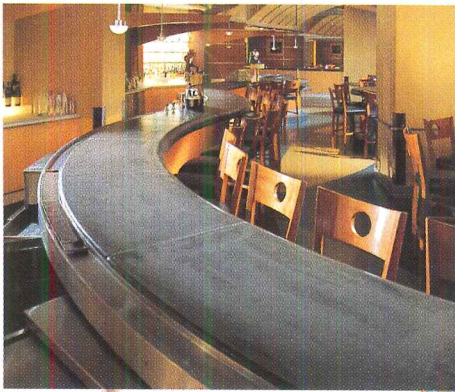
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CIRCLE 22 ON INQUIRY CARD

Record News

Plan outlines where to place D.C. memorials and museums

Recent debate over the design and placement of the World War II Memorial in Washington, D.C., illustrated how contentious proposals for building on the Mall can be. Since 1791, 154 memorials and 74 museums have been built in the capital and nearby northern Virginia. In December, a federal task force unveiled a draft Memorials and Museums Master Plan that recommends sites for the placement of the next 102 memorials and monuments in Washington, D.C. Most of the recommended sites are dispersed through the city, away from the Mall.

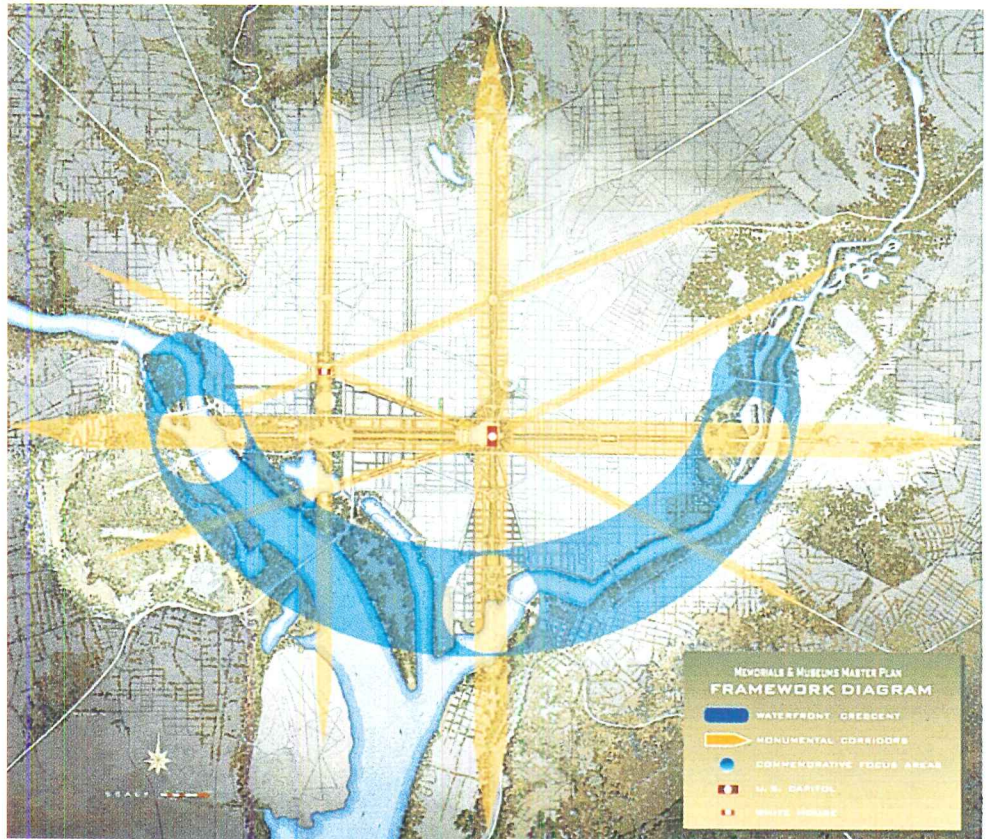
The plan, which will now be finalized (a public comment period closed on January 31), prescribes 19 "prime sites" for the most significant structures. Eighty-three additional sites are identified along primary corridors throughout city neighborhoods that rarely benefit from tourist dollars. The task force—comprised of members of the National Capital Planning Commission (NCPCC), the Fine Arts Commission, and the National Capital Memorial Commission—chose 94 public and 8 private sites for their symbolic and visual importance after reviewing an initial 402 locations.

A "no-build" zone called the Reserve is recommended to protect open space on the Mall, from the Capitol to the Lincoln Memorial. "We were responding to pressure for commemorative works on the Mall," said Margaret G. Vanderhyde, chair of the Joint Task Force on Memorials. "For the Reserve, we're saying 'no more.' That's essentially a completed work of art."

The Potomac and Anacostia Rivers provide a framework for the plan, which attempts to reconnect Washingtonians and visitors to the underused riverfronts. About one-third of the sites are located along the U-shaped "Waterfront Crescent" formed by the rivers. "That we haven't engaged the waterfront is just a crime," said Michael Winstanley, AIA, design director for Leo A. Daly, the architectural firm that prepared the plan for the task force.

The plan reinforces L'Enfant's 1791 plan of grand avenues and the McMillan Commission's 1901 plan, which created the Mall's sweeping green lawn and the expansive greensward linking it to the Potomac River.

Visit www.ncpc.gov for more information on the plan and recommended sites. *Barbara J. Saffir*



Many of the proposed memorial and museum sites are along major streets (yellow) or the rivers (blue).

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CIRCLE 24 ON INQUIRY CARD

Record News



Court decision: Victory for developers and environmental destruction?

A U.S. Supreme Court decision limiting the federal Clean Water Act will likely clear the way for development of once-protected land.

In a January 9 decision, the court ruled that the Clean Water Act does not authorize the federal government to regulate the dredging and filling of isolated ponds and wetlands not connected to a navigable body of water. The court leaves the regulation to states. Because few states regulate these isolated bodies of water, environmentalists are wary of the potential for the filling and development of approximately 8 million once-protected wetlands. The National Association of Home Builders (NAHB), though, applauds the decision, calling it "a major legal victory for home builders and other private property owners."

The 5-4 decision, by the same Supreme Court lineup that stopped manual recounting of votes in Florida, ruled in favor of the petitioner, Solid Waste Agency of Northern Cook County,

and against the United States Army Corps of Engineers. The ruling allows the waste agency to fill the site of a former mine that now has a number of shallow ponds that are migratory habitats for birds. The decision nullifies what was known as the migratory bird rule, which provided jurisdiction over isolated waters that were or could be used by migrating birds.

Chief Justice William Rehnquist wrote for the majority, "Permitting the [government] to claim federal jurisdiction over ponds and mud flats . . . would also result in a significant impingement of the states' traditional and primary power over land and water use."

NAHB, which filed friend-of-the-court briefs on behalf of the solid waste agency, called the ruling a "triumph for landowners."

Environmental advocates, however, warn the decision will allow filling and development of natural isolated wetlands that function as bird habitats and as part of a filtration system for rainwater reaching rivers and lakes. Carol M. Browner, the Clinton administration's head of

the Environmental Protection Agency, which administers the Clean Water Act with the Army Corps of Engineers, told the *New York Times* that the ruling would "make it even more difficult to effectively protect against the loss of wetlands."

A state's power to regulate isolated wetlands may, in some cases, be tied to the ability for the Army Corps to regulate. That's the case in Wisconsin, for example. "If the Corps doesn't have jurisdiction, we have no way of regulating those wetlands or the activities that impact them," Franc Fennessy, executive assistant to the Wisconsin Department of Natural Resources Secretary, told RECORD. "In a worst-case scenario, 4.18 of the 5.3 million acres of wetlands in Wisconsin are no longer protected."

The Army Corps of Engineers is expected to develop a definition of protectable wetlands.

The United States has about 105.5 million acres of wetlands, less than half of what existed in the 17th century. JEC

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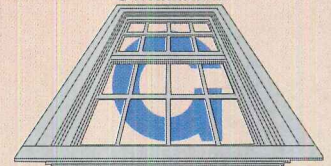
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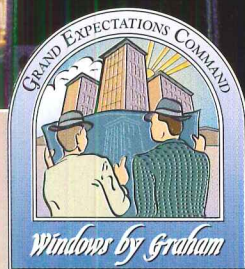
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Record News

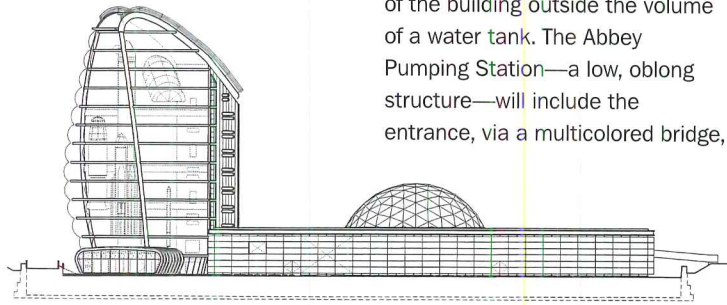
Is it rocket science? Grimshaw's National Space Science Centre in Leicester to open

Britain's first center of space science is nearing completion in the eastern Midlands city of Leicester. Designed by Nicholas Grimshaw and Partners, the \$20 million National Space Science Centre—part research institute and part visitor attraction—will open in March on the site of former water tanks on the north bank of the River Soar.

A transparent rocket tower defines the visitor-attraction end of

the scheme. The cone-shaped tower structure is composed of welded tubular girders clad with a skin of ETFE foil, a material lighter than glass. It will house a collection of mounted space-exploration equipment, including rockets, missiles, and satellites. Visitors will get a close-up view of the rockets, some nearly 100 feet tall, on a series of four viewing platforms.

The tower is the only element of the building outside the volume of a water tank. The Abbey Pumping Station—a low, oblong structure—will include the entrance, via a multicolored bridge,



and a center for education and research affiliated with the University of Leicester. A 200-seat geodesic planetarium—the Space Theatre—will include public programming. Parts of the tank's external wall will be retained in Grimshaw's building envelope.

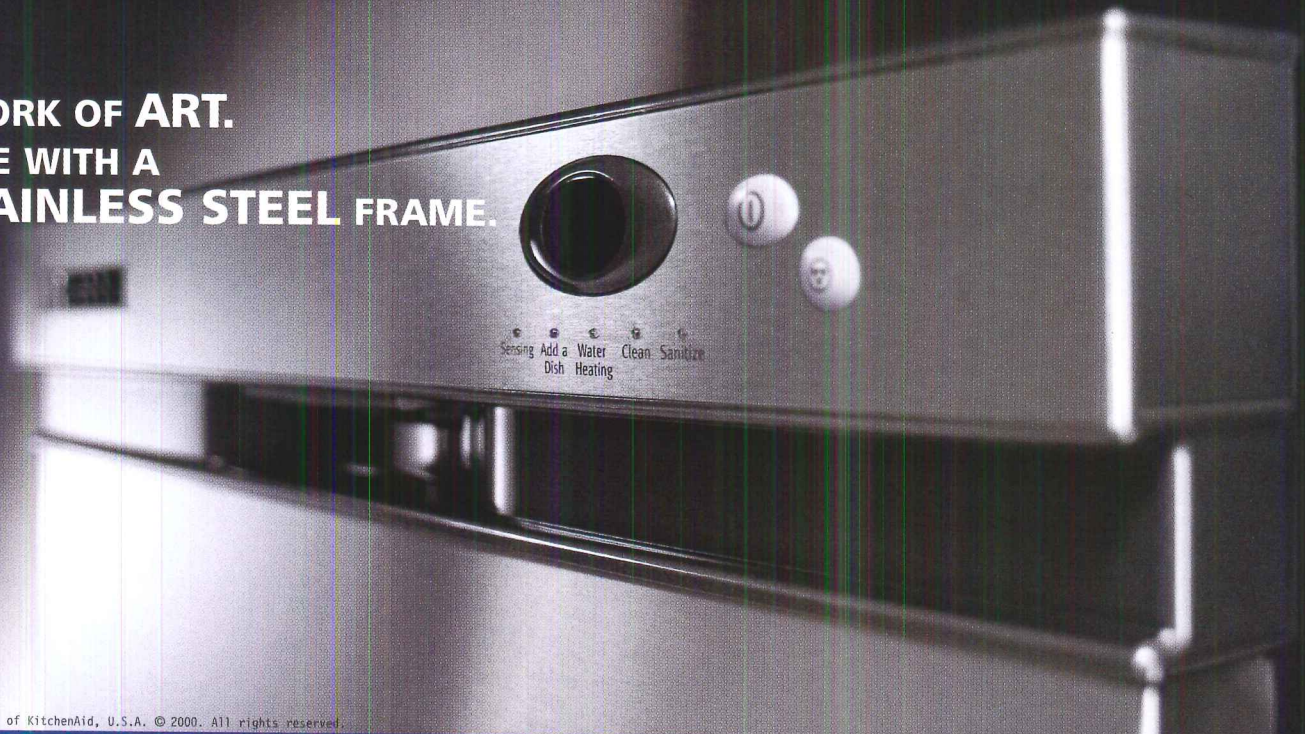
Thanks to funds from Britain's national lottery, the face of the country's cultural infrastructure has been radically enhanced over the past 12 months. The National Space Science Centre is the first of four national lottery-funded Millennium attractions by Grimshaw to be completed. The Eden Project—the world's largest artificial bioclimatic environment, housed in a series of Buckminster Fuller-inspired geodesic zones—will open in April 2001 in an abandoned Cornish tin mine. His other



The National Space Science Centre will display rockets in a tower clad in ETFE foil.

Millennium projects are an addition to the Roman baths in Bath, to be complete in 2002, and Millennium Point, which is an event center in Birmingham that will open this fall. *Adam Mornement*

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CIRCLE 26 ON INQUIRY CARD

Clinton honors nine federal projects with Presidential Awards for Design Excellence

At Washington's Constitution Hall on December 20, then President and Mrs. Clinton honored nine projects with the Presidential Awards for Design Excellence. The fifth quadrennial awards honor the best federal design in architecture, urban design and planning, historic preservation, interior design, engineering, and graphic design.

The winners are: U.S. Census Bureau National Data Processing Center, Bowie, Md., by Davis Brody Bond and Tobey + Davis (now the Smith Group); U.S. Port of Entry, Calexico, Calif., by Dworsky Associates (now CannonDworsky); Grand Central Terminal, New York City, by Beyer Blinder Belle Architects & Planners; Interstate 70, Glenwood Canyon, Colo., by Gruen Associates; NASA's Mars Pathfinder

Mission; Franklin Delano Roosevelt Memorial, Washington, D.C., by Lawrence Halprin; National Park Service Park Cultural Landscapes Program, by National Park Service Cultural Resource Stewardship and Partnerships; Westside MAX Light Rail, Portland, Ore., by Parsons Brinkerhoff Quade & Douglas, Zimmer Gunsul Frasca, Otak, Inc., BRW, Inc., and LTK Engineering Services; and the Mayors' Institute on City Design, which was established by the Design Arts Program of the National Endowment for the Arts (NEA) to educate mayors on design.

Vincent Scully, the Sterling Professor Emeritus of the history of art at Yale University, chaired the jury that selected the nine recipients from 35 finalists. The group of 35 had been recommended to receive Federal



Westside MAX Light Rail won a Presidential Award for Design Excellence.

Design Achievement awards by four juries led by architect James Polshek, FAIA, landscape architect George Hargreaves, engineer David Billington, and graphics artist April Greiman. Juries reviewed 338 submissions.

Administered jointly by the U.S. General Services Administration and the NEA, the Presidential Awards for Design Excellence are the only government-wide recognition of excellence in federal design. JEC



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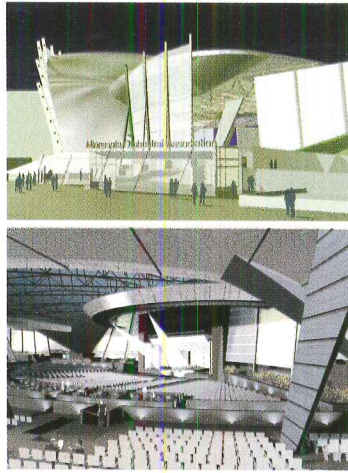


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News Briefs

Minnesota Orchestra cancels plans for amphitheater

Minneapolis-St. Paul is one of the country's largest metro areas without an outdoor amphitheater, and it will likely keep that distinction for a couple more years. An outdoor amphitheater for the Minnesota Orchestra Association (MOA), designed by Hodgetts + Fung Design Associates of Los Angeles and Hammel Green and Abrahamson (HGA) of Minneapolis, will not be built. The orchestra had planned to break ground this spring on its 19,000-seat, \$40 million amphitheater in Brooklyn Park, Minn., a suburb of the Twin Cities. But on January 4 the orchestra announced that it had gained no significant donor and the cost increase beyond the \$40 million estimate had essentially killed the project. The Hodgetts + Fung/HGA team had designed an elliptical



Plans cancelled for amphitheater (above) by Hodgetts + Fung and HGA.

amphitheater with covered seating for 6,500 people, and a lawn for an additional 12,000. A competing outdoor amphitheater is proposed for a former landfill in Burnsville, Minn., but site remediation must precede construction. *Bob Dillon and JEC*

Gehry to develop college master plan

The Art Center College of Design has selected Frank O. Gehry, FAIA, to develop a master plan for a major expansion at its Pasadena campus, to include a library, technical skill center, and fine arts studios. The master plan will be complete by summer, and schematic design of the various components will follow. The college says this expansion could take up to 10 years.

Saints depicted in City of

Angels Los Angeles visual artist J. Michael Walker wants to transform his city's bus stops into a civics lesson. With an innate curiosity for the history of place, Walker has researched the origin of all 78 Los Angeles streets that are named after saints. With his research in hand, Walker designed 6-by-4-foot prints that illustrate the history of

24 of the individual streets, such as Santa Monica Boulevard and Santa Fe Avenue. For the first 24 prints, he received nominal seed money, \$6,500, from the City of Los Angeles Cultural Affairs Department and an additional \$4,200 from private donations. The prints, which tell the story of the street's namesake with some local history, appeared in city bus shelters for six weeks last fall and, then, on exhibit at a Highland Park, Calif., gallery through December. Walker's plan is to create prints for another 24 streets in each of the next two years until he has a collection that he will call "All the Saints of the City of the Angels."



Print on display on Santa Monica Blvd.

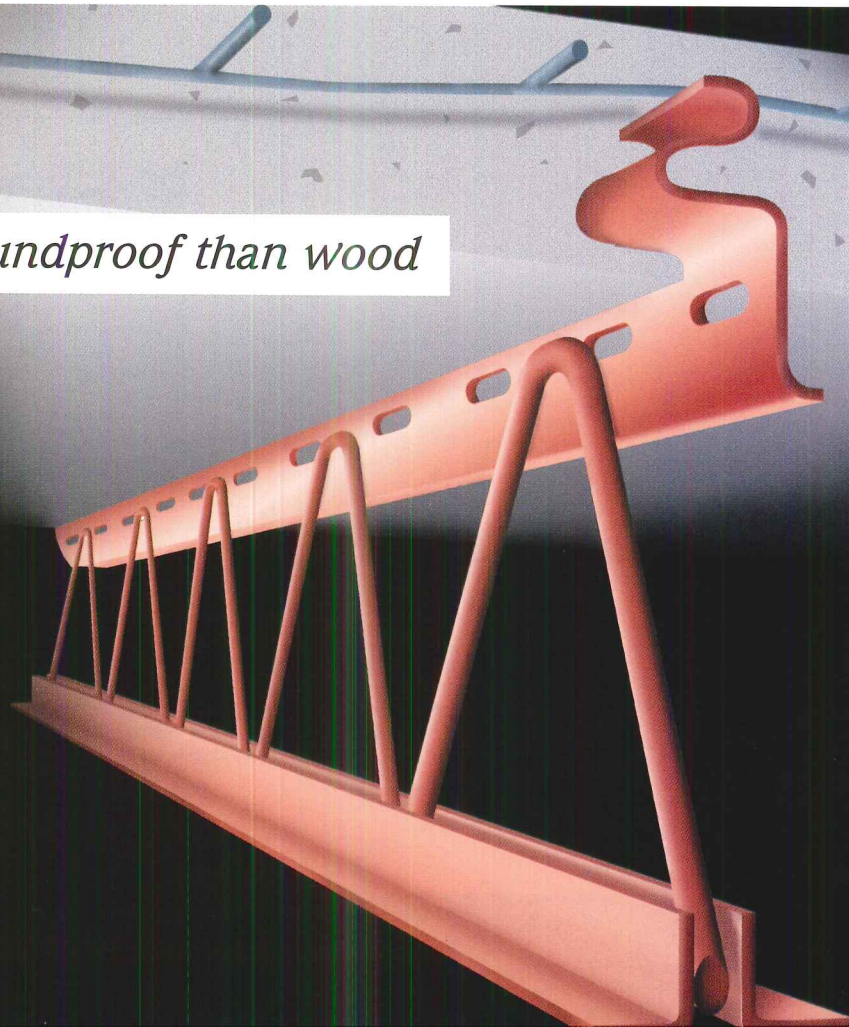
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News Briefs

Venturi, Scott Brown honored by France On January 18, His Excellency François Bujon de l'Estang, ambassador of the Republic of France, conferred upon Robert Venturi, FAIA, the medal of Commandeur of the Order of Arts



The Toulouse project (left) by Venturi, Scott Brown.

and Letters and upon Denise Scott Brown, FAIA, the medal of Chevalier of the Order of Arts and Letters. Venturi and Scott Brown were honored for their design of the Hôtel du Département de la Haute-Garonne in Toulouse, France.

Lapidus dead at 98 Overflowing with kitsch, his hotels can be described as "unusual" or even "gaudy." Once derided for his showy buildings, Morris Lapidus was ultimately hailed for being Post-modern before Postmodernism was even coined.



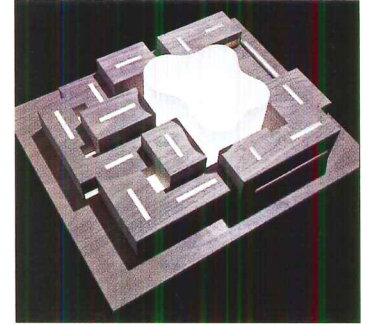
Lapidus died January 18 at age 98 at his home in Miami Beach. He is best known for his design for retail and more than 200 hotels, including Miami Beach's Fontainebleau, Americana, and Eden Roc. Having created a lobby in his own "modern French-château style," Lapidus himself called the 1954 Fontainebleau "the world's most pretentious hotel." His hotels were crowd pleasers, though they were the antithesis of the contemporary

stripped-down Modernism of Mies van der Rohe. Rather than conforming to prevailing architectural trends, Lapidus defined his own style. He retired in 1984 but continued to work in recent years in collaboration with Miami architect Deborah Desilets. Lapidus was honored in 2000 with an American Originals award, in the inaugural National Design Awards by the Smithsonian's Cooper-Hewitt National Design Museum.

L.A. Children's Museum chooses architects for two projects The Children's Museum of Los Angeles selected architects in January for two new museum

buildings: Morphosis for the museum's downtown site and Angéllil/Graham/Pfenninger/Scholl for its San Fernando Valley location at Hansen Dam. The structures will likely be at least 60,000 square feet and run between \$40 million and \$60 million each. Short-listed firms for the two projects included Chu + Gooding Architects, Hodgetts

+ Fung Design Associates, Jones Partners Architecture, Eric Owen Moss Architects, and Randall Stout Architects. Thom Mayne, AIA, principal of Morphosis, said, "This is a dream assignment for Morphosis."



City of Cultures by Chipperfield.

Chipperfield wins competition for Madrid museum London-

based David Chipperfield has won a competition to transform an industrial block in Milan into the Ansaldo City of Cultures Museum. Chipperfield will insert a transparent central atrium with curving forms into a complex of existing and new rectilinear buildings. *David Cohn*

3

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Furthering the lessons that landscape architects offer in the war on sprawl

Critique

By Calvin Platt, FAIA

In her critique "Sprawl Has Turned the World Inside Out" [AUGUST 2000, page 55], Suzannah Lessard makes the provocative assertion that landscape architecture is "perhaps better equipped to come to grips" with sprawl than other professions.

As Lessard points out, landscape architects are trained to work in both the natural and man-made worlds and think on a regional or metropolitan scale. Because they deal with landscapes that mature and change over time, they also have a long-term perspective that architects and developers often lack. It is their job to forecast the long-term impact of a single project on surrounding uses and on the environment. Thus, they can predict what will cause sprawl to spread and what will help stop it in its tracks.

Architects, planners, developers, politicians, and landscape architects must work together using the weapons—the natural systems most threatened by sprawl—to turn the world the right way around again. Lessard's column, while insightful, did not go far enough. She did not provide the key landscape-architecture-based strategies that will help tame sprawl.

Fix roads and highways first

Many architects and planners are so focused on projects that they ignore the basic generators of sprawl—our roads and highway

Calvin Platt, FAIA, is chair of the SWA Group, an international landscape architecture, planning, and urban design firm in Sausalito, Calif.

corridors—which open previously unavailable land for development, as well as damage existing communities and topography along their routes. The use of landscape architecture principles can help create roadways that minimize sprawl.

First, rather than accepting the traffic engineer's focus on the shortest, easiest distance between Point A and Point B, new roads can be designed to preserve existing topography. The George Washington Memorial Parkway in Washington, D.C., shows that roadways can carry large volumes of traffic while preserving environmental features along their routes.

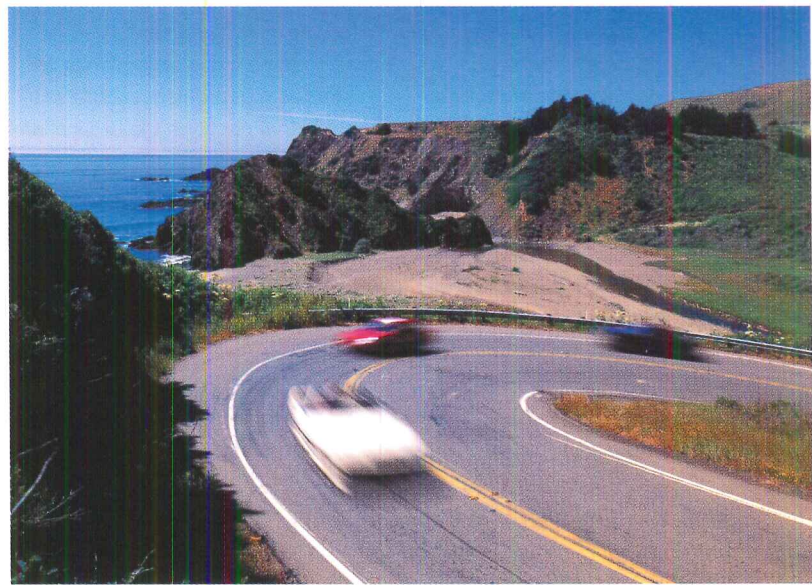
Second, streets and highways must define and strengthen both new and existing communities by reclaiming their traditional role as multipurpose public realms that serve pedestrians and vehicular traffic while attracting high-quality development. For example, dozens of new Main Streets and town centers have been built (or are being built) in post-World War II suburbs that were originally developed around shopping centers and highways. These new Main Streets are narrow enough to slow through-traffic. Their sidewalks are wide and handsomely landscaped to attract pedestrians to local shops and restaurants.

Third, architects and planners can use landscape architecture tools to help transform existing roadways and encourage reinvestment—particularly higher-density development—along their routes. Development that might have gone

to a greenfield site would thus be redirected into the existing community, improving property values and the quality of life while slowing sprawl. The Houston Green Ribbon freeway project, for example, which broke ground in February 1999, is using extensive landscaping to screen the edges of its expressway

every region's remaining natural systems—valleys, rivers, mountains, forests, wetlands, and prairies—as well as man-made landscapes such as farms, timberlands, vineyards, and groves.

Landscape architects use advanced technologies, such as high-resolution satellite imagery and



Roads such as the Pacific Coast Highway (above) can be designed to preserve existing topography while carrying large volumes of traffic.

lanes and adjacent frontage roads. These improvements will encourage quality infill development along freeways, which will help reduce sprawl.

Work regionally

Sprawl knows no man-made boundaries. It leaps over jurisdictions, even state lines, with impunity. To combat sprawl, architects and planners must therefore work regionally, and they must start by using landscape architecture tools to identify

Geographic Information Systems (GIS), and they work with biologists and other environmental scientists to create comprehensive natural analyses. With this information, we can understand large land areas and their capacity to support growth. In collaboration with landscape architects, architects and planners can then identify where development can and cannot safely occur.

We must also weave networks of protected open space throughout

Critique

our metropolitan areas to surround, limit, direct, and define development and to reestablish the traditional distinctions between the man-made and natural environments. In metropolitan Atlanta, for instance, the Trust for Public Land has initiated a campaign to transform the polluted, development-riddled Chattahoochee River basin into a 180-mile-long “ribbon of green” stretching from the north Georgia mountains to Columbus, Ga. This linear natural system will reduce water treatment costs, create greater Atlanta’s first metropolitan-scale park, help define a development path, and limit sprawl in an already sprawl-riddled area.

Networks of open space do not have to be greenfields. Swaths of largely abandoned inner-city neighborhoods, derelict factory or warehouse districts, and unused railroad lines and railyards can all

sides, forests, river basins—that are immediately recognizable, easy to protect, and hard to jump. Natural growth boundaries, which can become parts of federally mandated habitat conservation areas, are also more popular politically than arbitrarily drawn lines. Because people can use such natural systems for recreation and appreciate their role in environmental protection, they are more likely to support such boundaries. And popular support becomes vital when sprawl-oriented developers and politicians argue to breach a boundary—as is now happening in Portland, Ore.

Some metropolitan areas are blessed with dramatic natural features that can form the basis of an



Platt asserts that growth boundaries do not have to be bodies of water or dense wooded area. They can be farmlands or open spaces (above) of historic or cultural importance.

IT'S NOT ENOUGH FOR WELL-INTENTIONED ARCHITECTS AND DEVELOPERS TO BUILD A SEASIDE HERE AND A KENTLANDS OR CELEBRATION THERE, AND CLAIM VICTORY.

be converted into natural resources that bring new life to our cities and help redirect development inward.

Rethink growth boundaries

Urban growth boundaries—often in the form of greenbelts—are widely considered to be one of the most effective weapons in the war against sprawl. In theory, they not only help stop sprawl but also encourage infill development, lessening the need for outward growth.

But sometimes that isn't how they work in the real world. In Ottawa, development has jumped that city's growth boundary on all sides. Why? Because the Ottawa greenbelt is an artificial line, based on property boundaries.

To succeed over the long term, urban growth boundaries must be based on natural systems—hill-

urban growth boundary. San Francisco, for example, has its Bay, the Pacific Ocean, several mountain ranges, and an inventory of protected land, including the Golden Gate National Recreation Area. But even cities in the Plains States have environmental systems, such as farmland or open spaces with historic or cultural significance, that can be incorporated into an urban growth boundary. The master plan for the new 2,000-acre community of Green Meadows, outside Des Moines, identified agricultural areas and permanent wetlands, created a greenbelt framework of those lands, and within it laid out a mixed-use community.

Work locally

Architects and planners must also battle sprawl on a project-by-project

basis. Unlike development patterns of the last 50 years, the scale and character of new residential and commercial development should be determined by open space and natural systems—the work of landscape architects—not vice versa. Like a mini greenbelt growth boundary, open space should be used as the edge to any development, giving shape and definition, as well as a sense of entry and identity.

When master-planned communities are designed properly, they can be good models because they typically set aside 20 to 50 percent of their sites for open space. This permanently protected land forms the backbone of the community, encouraging higher-density development. It can also create edges that separate the community from other developments and help stop sprawl. In addition, open space recreational corridors, such as bikeways or hiking trails, can connect neighborhoods within a community while linking the community to a regional open space network. Connection, particularly on a pedestrian level, is the antithesis of sprawl.

Not only can natural systems be used to direct and limit sprawl, they can also provide some of our basic infrastructure, reducing infrastructure costs, preserving farmland and wildlife habitats, and creating permanent open space. Prairie Crossing, Ill., an environmentally

sensitive 667-acre community north of Chicago, used a system of swales, restored prairie, and man-made wetlands and lakes to reduce the cost of the community's stormwater management development by \$1 million and to provide the community with permanent open space.


In his 1998 bestseller, *A Man in Full*, Tom Wolfe described a drive through the easternmost reaches of San Francisco Bay Area suburbia: “He had driven through that whole area, from Vine Hill, where he lived, on east to Pittsburg and beyond, and it was now one vast goulash of condominiums and other new, cheap housing. The only way you could tell you were leaving one community and entering another was when the franchises started repeating and you spotted another 7-Eleven, another Wendy's, another Costco, another Home Depot. The new landmarks were not office towers or monuments or city halls or libraries or museums but 7-Eleven stores.”

It's not enough for well-intentioned architects and developers to build a Seaside here and a Kentlands or Celebration there, then claim victory, when just outside the limits of their well-planned town lies a vast sea of cheaply built mini-malls, car dealerships, and big-box retailers, surrounded by acres of asphalt parking lots. Their project may win one battle, but not the war. ■



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CIRCLE 31 ON INQUIRY CARD

Positioning your firm to just say no

Practice Matters

By Herb Nadel, FAIA

DEPARTMENTS

Most architects compete so hard for work that it seems only a handful actually get to choose their projects and their clients. These are the stars, people like Richard Meier, FAIA, Cesar Pelli, FAIA, Renzo Piano, and Norman Foster, whose personal architectural styles have won them so much acclaim they are inundated with requests to design projects around the world and who can afford to turn down work.

Actually, even less known firms, large or small, can decide what kinds of work they will do. The key lies in strategic business development, rather than the kind of short-term thinking that considers only the profit to be gained from each new project. Taking any job that comes along simply to make money may be fine for architects who are just starting out, but in the long term it can diffuse your firm's energies and resources and keep you from devoting them to getting the kind of work you want.

Developing a business strategy

Many of these ideas seem simplistic on the surface, but in the race to stay ahead, they are often forgotten. Begin simply by determining whether the firm should grow, or if you and your partners are happy with your income and comfortable with the current number of employees. No matter what

Herb Nadel, FAIA, is president of Nadel Architects, a 200-person West Los Angeles firm that designs commercial, multifamily, industrial, and public buildings, as well as interiors.

people tell you, bigger is not necessarily better. Large firms have certain advantages, such as offering more services, but they also have more complex management issues, as well as increased payrolls and overhead expenses. This exercise is a good starting point for other planning activities, such as creating budgets for marketing and hiring.

Next, look at which market sectors your firm is engaged in. Are you and the other members of the firm really interested in doing this kind of work? How profitable is it? Can your firm establish local or regional dominance designing these types of buildings? Is the work compatible with your staff's talents? Once you have decided that the firm's future lies in continuing to do the same types of building, you should move to protect this niche by establishing a reputation as the "go-to" firm for that kind of work in your region. You will effectively limit the number of future competitors.

Protecting your market sectors goes hand in hand with building and retaining client loyalty, one of your firm's greatest assets. Sometimes retaining that loyalty may mean taking on jobs that are not challenging as design problems, that might normally be too small for your firm, or that might not be profitable. Even the firms that are already able to pick and choose their work have to consider that if they turn a job down, the client will be forced to go to another architect and will perhaps

stay with this new firm. Consider that the small jobs are often great training opportunities for younger staff members. By the same token, when other competitive firms turn down work for these reasons, this can create an opportunity for your firm to show what it really can do.

Change or diversify your work

Niche positioning can be great, but your strategic-planning process may indicate that too much of your firm's income comes from within one sector of the market. If, over the last few years, your firm specialized in offices for dot-coms, for example, it may have done well last year only to be suffering now. Remember, you can only say no to jobs that are on the table.

Or, if you've found yourself designing offices because your firm hasn't acquired enough experience to move into the more specialized work that you prefer, it is also hard to say no to the work you already do well. Diversifying or changing the building types requires attempting to determine which market sectors will be profitable in the years ahead. This requires research and will demand marketing [see "Marketing: The Unsung Heroine of Successful Architectural Practice," page 66 in this issue], as well as the help of someone who keeps a close eye on the economy and reports on the construction market. If you decide to diversify, you will need to identify key clients and market to them.

Consider a new territory

You may also want to assess whether it is worth the risks involved in opening or acquiring an office in a different geographic area.


Geographic diversification will certainly help the firm grow, if you have decided that this is desirable, and it will limit the impact of regional overbuilding or local economic downturns that might occur in the area where your established office is located. California architects, for example, might spend extra time and money to secure a project in a nearby state or even in Mexico or the Pacific Rim. Obviously, expansion to another location is fraught with many issues that are not within the scope of this article. In any case, it should not be done without heavy market research, together with an assessment of the potential for economic growth in the new region and the method of managing the new branch.

Build up your firm's talent

Whether you're thinking of going into new market niches or opening a new location, you will need to hire additional staff. The decision to hire specific individuals can go a long way to helping establish credibility in your firm's ability to design a different type. If you are opening an office in another community, new employees can help you develop relationships with key individuals and understand local laws and customs.

Growth may seem counterintuitive to "just saying no," but only by managing your firm's options can you join the ranks of the firms that choose which jobs they do. ■


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Snapshot



By Ingrid Whitehead

Bringing new meaning to the words “temporary shelter,” the Ice Hotel Québec, located 7.5 miles from Québec City, is a winter wonder. At 10,000 square feet, and constructed entirely of 4,500 tons of packed snow and 250 tons of ice, this frozen cathedral is a cold-bed-and-hot-breakfast straight out of a Nordic fairy tale.

The Canadian counterpart to a 10-year-old phenomena in Jukkasjärvi, Sweden, the Ice Hotel Québec boasts ceilings as high as 16 feet, walls covered with original artwork, two art galleries (all the artwork is made of ice), a movie theater, and even an Absolut Ice Bar, where the gloved bartender serves up chilled vodka drinks in glasses made of ice. There are six rooms, sleeping up to 22 people, and the grand hall—with its majestic ice columns, shimmering carved wall, and delicate ice candelabra—can hold up to 400 people for parties and special events.

A symphony of frozen music: Canada's Ice Hotel



Snapshot



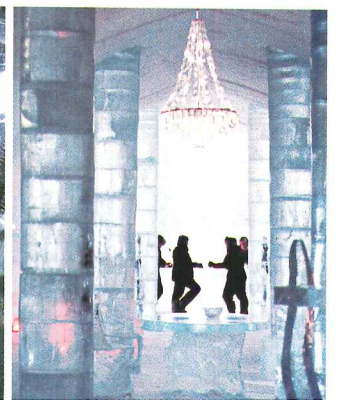
Special events indeed. Businessman Jacques Desbois saw the commercial potential in building such a structure after witnessing the huge success of the Swedish ice hotel. Desbois, who operates Canada's only commercially built igloo villages, enlisted a team of sponsors and businesses to carry his vision further, eventually gaining the support of the Société des Établissements de Plein Air du Québec (SÉPAQ), an organization that manages parks for the government of Québec. Desbois also convinced Québec's Office of Tourism and Conventions, among other tourism groups, to support the endeavor. He then brought in two architecture firms, Thermeca Interior Services and Émile Gilbert & Associates Architects, to make the frozen palace a reality.

The five-week-long construction process began with iron molds sprayed with packed snow. When the snow was shaped appropriately, the molds were removed. In the same way an igloo holds its shape, the Ice Hotel keeps its structure without the use of any artificial freezing—it's a chilly 27 degrees Fahrenheit all the time, and the ice fireplace (complete with ice deer-head above) won't keep you warm, just delighted. Fiber-optic and electric cables run through the ice walls, and even rain won't melt the mighty structure.

Guests sleep on beds made of blocks of ice covered with wood pallet, deerskins, and sub-zero-quality sleeping bags. There are no showers, but portable bathrooms are located in an adjoining structure, and a building nearby, with a restaurant and the regular kind of furniture and food, also has toilet facilities.

For \$100 a night (\$150 Canadian) it's a novelty not without its charm. And there's only three months to enjoy it—by the end of March, the hotel will melt away, not to be rebuilt again until next year's bitter, but beautiful, Canadian winter. ■

The Ice Hotel Québec (previous page and above), which opened last month and will melt by the end of March, features six rooms and sleeps up to 22 people. Each of the rooms has an individual theme, such as the Dali room and the wave room. The Swedish version of the hotel (below) is located 100 miles north of the Arctic Circle.



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CIRCLE 36 ON INQUIRY CARD



Lessons from America's Best-Managed Firms

PART 1

Marketing: The unsung heroine of successful

By Jane Kolleeny and Charles Linn, AIA

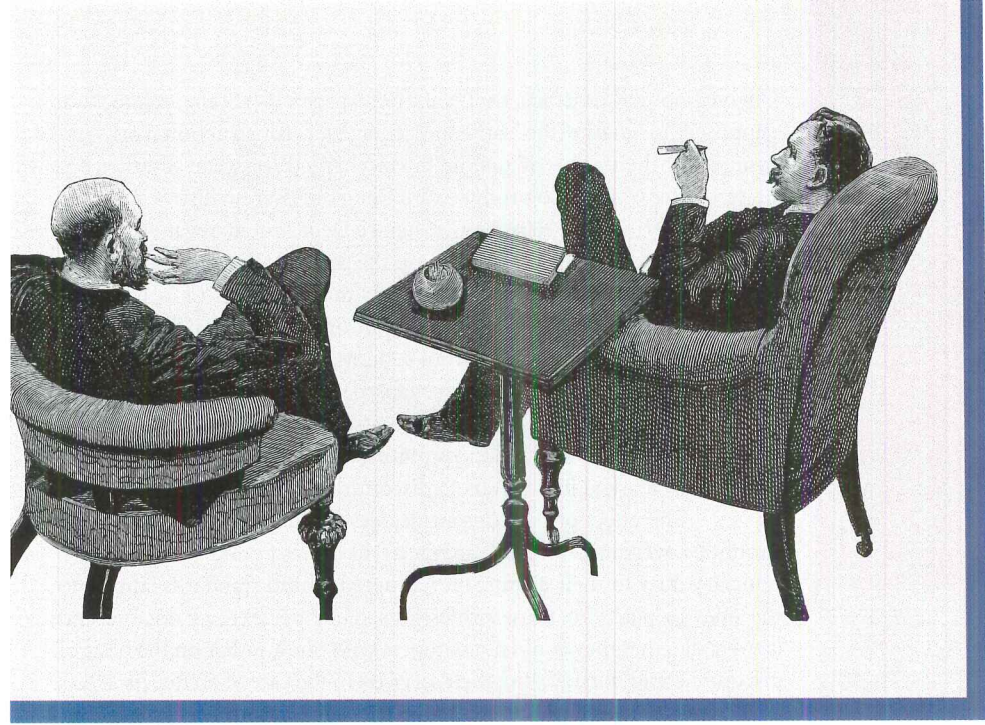
It's the stuff of night sweats. You've grown from one to 25 employees in the last 15 years without even a brochure. You do good work, but few beyond your peers have ever heard of you. Regular clients bring the firm steady assignments, but what if you lost one active job? There are no prospects in sight. You'd have to lay off five loyal people who helped build the business and depend on it to support their families. You're far too busy to hang out at the golf course, hoping to turn up new work. But isn't that where new clients come from? You have no stomach for schmoozing. What you really want to do is design buildings.

Should you expand your marketing effort? Find a PR consultant? Develop a marketing plan, hire a designer for your Web site or a business development director? Do you invest a substantial chunk of money into this? If so, where do you find the best candidates, and what exactly should you expect of them? How soon can you expect results? How can you develop a strategy that will take your firm where you want it to go? Prospects used to land on the doorstep. Now you have to spend half your time developing them. Where do you turn?

The evolution of architectural practice—from an anti-competitive, “may-the-best-man-win” culture to one in which firms have to go out and win new projects, promote their designs, and also market their firms—was one of the most important changes in our profession during the 20th century. But many architects still do not completely acknowl-

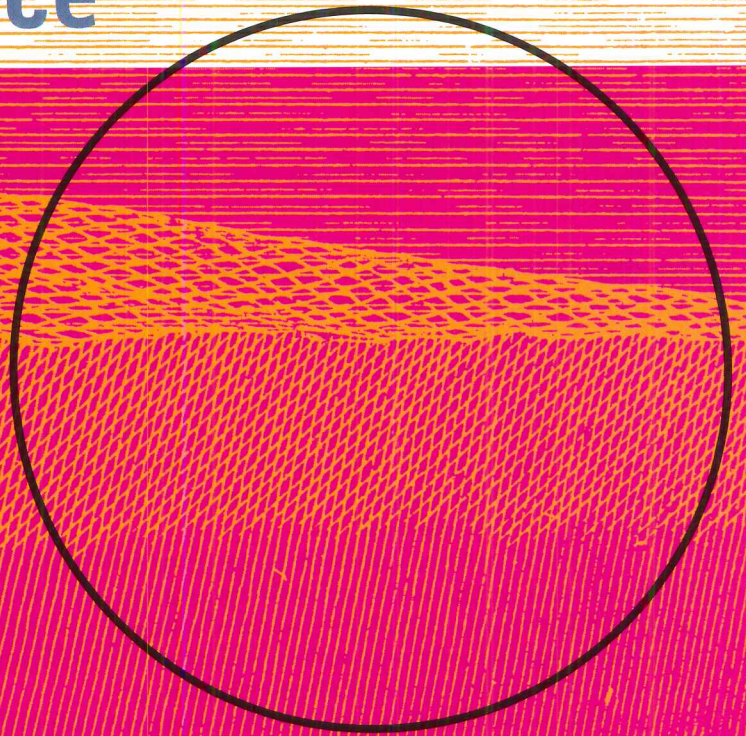
edge that they need marketing, although in this new century, marketing will continue to be more fully adopted by practitioners of architecture, and a plethora of marketing activities will be conducted over the Web. Unfortunately, little in the education of most architects ever gave them even the most basic understanding of how to sell what they do.

In this first of three articles on marketing architectural services, we will examine why architects are relative newcomers to the field of marketing, look at the cultural clash between architects and marketing people, and explore the gender issues that have emerged during the evolution of this discipline—a little discussed but important factor. The second article will focus on the various ways in which firms can organize their marketing efforts, discuss the components of a complete marketing program, and examine innovative practices used by some of the best-managed firms. The third article will look to the future of marketing. It



architectural practice

ARCHITECTS USED TO FIND NEW PROJECTS USING THE OLD-BOY NETWORK. EVEN THOUGH THERE IS MORE COMPETITION THAN EVER, SOME ARE STILL RELUCTANT TO ABANDON THEIR SEINES FOR DISCIPLINED, MODERN MARKETING.





HISTORICALLY, MARKETING WAS NOT ONLY LOOKED DOWN UPON, IT WAS FORBIDDEN. THE FIRST PRINCIPLES OF PRACTICE ADOPTED BY THE AIA IN 1909 BARRED ARCHITECTS FROM USING EVEN THE SIMPLEST FORMS OF MARKETING.

will examine the views of young practitioners, look at where education is headed, and assess the techniques architects are using to take marketing to the Internet.

The origins of our humble, self-deprecating nature

Historically, marketing was not only looked down upon, it was forbidden. The first Principles of Practice adopted by the American Institute of Architects in 1909 barred architects from using even the simplest forms of marketing. They could not advertise—defined as paid publicity—or even put their names on a sign in front of one of their buildings during construction. They could not offer free services, such as proposals or sketches. They could not take part in any competition unless it was conducted under the AIA's guidelines.

While an architect could advertise by paying for a line in the Yellow Pages, any “exaggerated or self-laudatory language” in brochures or press releases was against the rules—and that discouraged most architects from hiring public-relations staff. Press releases of today would have been grounds for censure by the standards of 50 years ago.

Prior to 1970, the greatest impediment to competition between firms, and therefore the greatest deterrent to marketing, was the rule that prohibited a firm from knowingly competing with another by offering to charge less for the same work. This rule was reinforced by the requirement that fee schedules, promulgated by the AIA, were to be used to determine what firms could charge for work [see “Why Architects Don't

Charge Enough,” RECORD, OCTOBER 1999, page 110]. Every architect was supposed to charge the same percentage of construction cost—the assumption being that if one architect charged less than another, the underbidder would also produce a building of lesser quality.

During the 1960s the U.S. Justice Department began to investigate the ethics of many professions on the grounds that rules against fee negotiations, such as those established by the AIA, were a form of trade restraint. As a result, the AIA signed a pair of consent decrees. In 1972 it agreed not to restrict members from submitting price quotes for services. In the 1990 decree, which has since lapsed, the AIA promised to refrain from adopting policies or bylaws that restrained members from submitting competitive bids, price quotations, discounts, or free work. Meanwhile, it asked its chapters to discontinue using fee schedules.

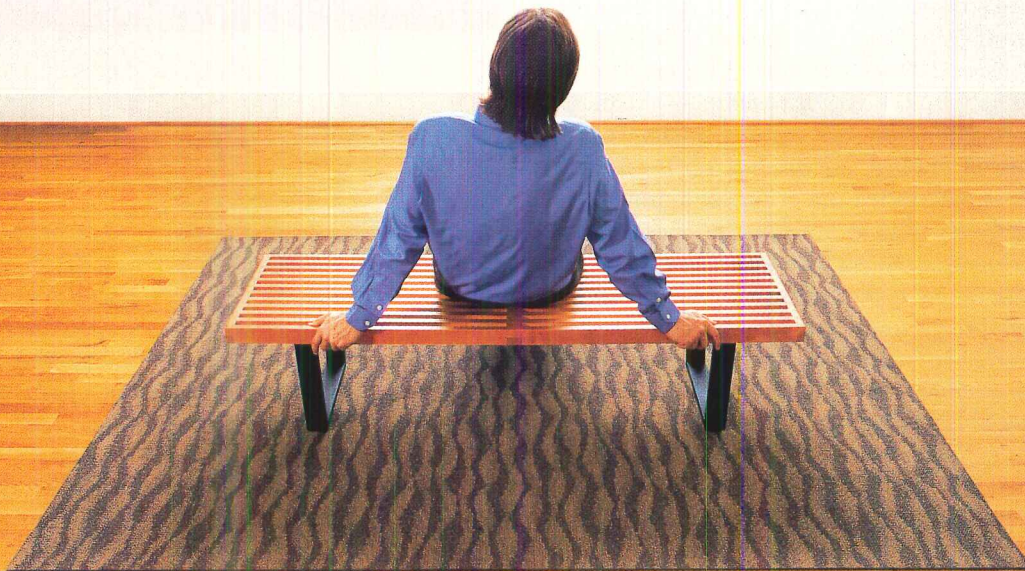
The effect of the consent decrees on both fees and marketing cannot be overstated. Because architects, like doctors and lawyers, have a fiduciary duty to their clients, they adopted ethical standards similar to the ones in place for those professions. They decided, as doctors and lawyers did, that they could not compete with one another on the basis of price and could not advertise their services. In the case of architects, it was as if Starbucks were forced to charge the same amount as Folgers but could not state why their brand was unique.

But when the consent decrees allowed firms to compete with one another for work, the AIA's position changed. Architects could openly compete and were allowed to market their services. Yet, freed from the strictures of the ethics codes in the 1970s, many architects still didn't overcome their reluctance to sell themselves.

Shortages of work during the recessions of the late 1970s, late '80s, and early '90s, combined with significant changes in client culture, forced architects to take marketing seriously. According to Cynthia Kracauer, managing principal at the New York office of Swanke Hayden Connell Architects (SHCA), “There was a sea change in the manner in which architects were selected for major commercial projects. In the past, selection was the purview of the company owner, CEO, or chairman—a component of the old boy network. Today, the facilities professionals select architects. This has made the formal, professional marketing effort crucial for success. But there still is an inherent distaste for this turn of events among the more traditional practitioners.”

Today architects are actively engaged in marketing and are spending money on it. According to the AIA's recently published *Firm Survey 2000/2002*, in 1999 architects spent on average 7.5 percent of their expenses on marketing. Small firms (up to 50 employees) spent between 4.2 and 7.1 percent; large firms (50 and over) spent between 7.1 and 8.2 percent. That is an impressive sum, considering that larger firms report three-quarters of their billings are from repeat work, and smaller firms report two-thirds. While larger firms tend to get more repeat work than smaller firms, they are also far more likely to get new work through the more formal “request for proposal/request for qualification” method than smaller firms, which tend to rely more on referrals.

Since marketing as a mainstream function of architecture is relatively new to the profession, the differences among its distinct elements can be quite foggy to architects. It's no wonder. In the best case, marketing is still only touched on in the professional practice courses offered at architectural schools. According to Barry Alan Yoakum of PSMJ (Professional Services Marketing Journal) Resources, “Virtually 100 percent of architects' training focuses on doing projects. Their number one strength—solving project problems—creates their number one weakness—not equating clients with ‘relationships’ and failing to understand clients' businesses.” These relationships don't grow on trees; they have to be cultivated—and this is the purview of marketing.



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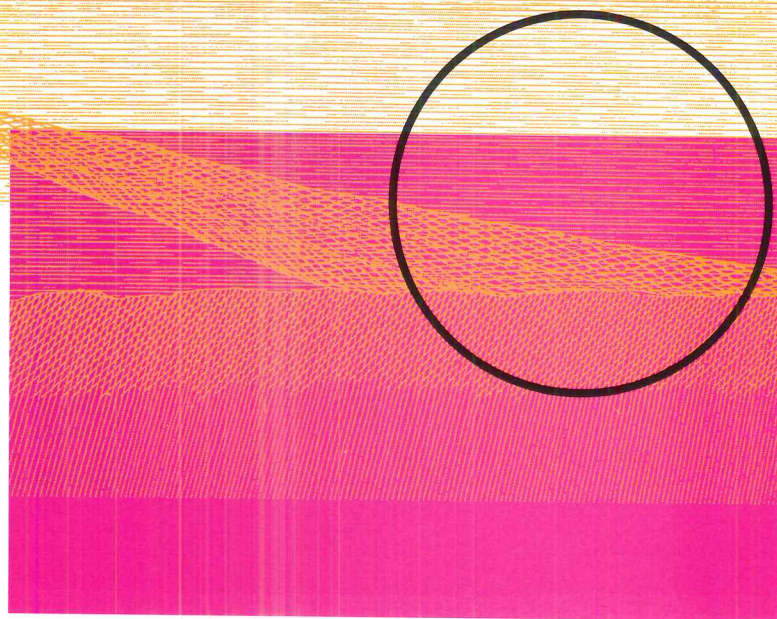


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CIRCLE 37 ON INQUIRY CARD

THE PRINCIPALS OF THE FIRM DEFINE THE DIRECTION AND GOALS FOR THE MARKETING AND BUSINESS DEVELOPMENT EFFORT. YET MANY ARE ILL-EQUIPPED TO DO THIS WITHOUT RECEIVING PLENTY OF INPUT FROM SEASONED MARKETING PROFESSIONALS.



By definition, the marketing of architectural services includes all the activities required to create a “brand” for the firm and then to position the firm to attract the clients and projects it needs to achieve its practice goals. Branding means establishing a firm’s identity and remaining true to it in as many ways as possible. As Craig Park wrote in his article “Brand Equity,” published in the June 1999 *SMPS Marketer*, “The brand of a firm is the sum of all its measurable and visceral characteristics—the ideas, values, philosophy, features, and history that make it unique. The firm’s brand image represents all internal and external assets—the name, iconography, literature, signs, vehicles, and culture of a firm.” Richard Staub, a marketing consultant in New York, explains that positioning can then “take the brand and make it suitable for a particular market.”

Ironically, architects are in the business of creating brands for their clients—they design spaces geared toward communicating the client’s specific message to the world. In fact, there is a trend today among architects like Rem Koolhaas to emphasize the architect’s role as a branding guru who takes the *raison d’être* of clients and shapes it into tangible forms and messages. Given that architects have this skill, it would seem they would grasp the importance of successfully communicating their own image to their clients and to the public. But often they don’t, or their reluctance to do so makes them resist examining what makes their firm different. In any case, the value of understanding and reinforcing the firm’s brand cannot be overstated. “Being able to clearly show how a client will derive greater value from your services than from those of your competition is fundamental, and yet most firms do not understand how to explain what makes them unique,” says Richard Burns of PSMJ Resources.

Good intentions, mixed results

Although most firms have attempted to develop marketing to some extent, the results are often disappointing. In the worst-case scenario, architects often simply don’t understand why they need marketing. “They think that if they put out a quality product, the world will beat a path to their door,” says Mark Zweig, president of ZweigWhite, a management consulting firm serving the design professions. He points out that a commercial may run hundreds of times during the course of a television ad campaign. Zweig isn’t suggesting that architects market their services the way Madison Avenue markets soap. He is simply noting that many architects don’t understand that they cannot rely on their reputations alone to communicate all-important messages about their skills and the quality of their work.

Sometimes architects expect instant results and will often prematurely blame the marketing professional when they don’t occur. When it comes to new prospects, a long lead time—sometimes years—elapses between the initial contact and a tangible result.

Hugh Hockberg, president of the Coxe Group, a management consulting group for architects, believes these efforts sometimes fail

because architects expect marketers to be the deal-closers between the firm and the client. But, as he sees it, marketers mostly serve to position the firm, providing the support required to put the architects exactly where they need to be in order to convince a client to hire them. Then the architects step forward and complete the dialogue using their personal and technical skills, thereby “closing” the deal. Not all firms follow this model, but such fundamental misunderstandings about who does what is a sure sign that a marketing effort is in trouble.

There are also cases where architects hire people to set up marketing departments and then turn their backs on them. “The principals of a firm define the direction and goals for the marketing and business development effort. If the principal does not own this effort, everybody fails,” says Joy Fedden-Habian, herself an architect and a PR consultant in New York. Yet many architects are ill-equipped to establish these goals without receiving plenty of input from seasoned marketing professionals.

Just the opposite can also be true. Some architects have a difficult time accepting the contributions of others to their “art.” In many cases they founded their firm and defined its philosophy. They find it hard to believe that anyone could promote it better than they. They may feel that marketers are less professional, their credentials less quantifiable, their skills more vague. A high percentage of marketing professionals worked their way up from being administrative assistants or took other, more circuitous career routes than architects. “Many architects, whose path to their position was more direct, have a level of distrust toward those whose education was less formal,” says Maxine Leighton, a marketing principal at Beyer Blinder Belle Architects. The marketing professional is probably less senior, more focused on the business aspects of the firm, and perhaps less tuned to the subtleties of design. But both can wield considerable power over the firm’s destiny.

No amount of marketing will fix poor-quality services, however. An architect may be a brilliant designer, but if he or she is unable to retain clients due to an inability to bring projects in on time, to stay within the budget, or to get along with clients, marketing efforts will be in vain. According to the AIA’s *Firm Survey 2000/2002*, in 1999 firms reported between 66 and 75 percent of billings from repeat work. There is no



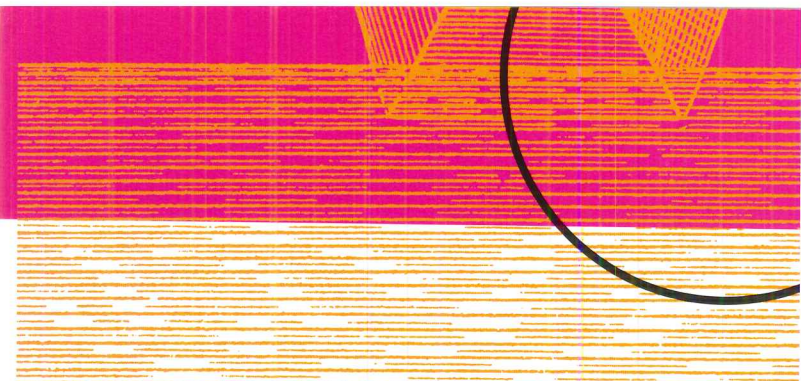
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CIRCLE 38 ON INQUIRY CARD



WHILE 60 PERCENT OF MARKETING PEOPLE IN FIRMS ARE WOMEN, FEW MAKE IT TO THE TOP. ONLY 16 PERCENT OF MARKETING STAFF AT PROFESSIONAL FIRMS ARE AT THE PRINCIPAL OR VICE-PRESIDENT LEVEL. OF THESE, 84 PERCENT ARE MEN.

underestimating the value of cultivating positive relationships with existing clients. A firm's failure to secure repeat business is often due, not to the fault of the marketing department, but to the firm's inability to live up to its own promises.

There are distinct differences between marketing and business development, or "sales staff," and if the architect is not aware of them, he or she may hire the wrong person for the wrong job. "I perceive the greatest downfall of firms to be the continual insistence upon lumping everything having to do with promotion, sales, marketing, presentations, and communications into one department—often one person—called 'marketing,'" says Joy Fedden-Habian. "The person who assists with proposals and presentations, keeps the slide library together, writes press releases, and organizes the firm's holiday party is simply not going to be able to steer an effective business development program as well."

Mars versus Venus, and the opportunity gap

One fact that almost no one talks about is that the majority of people who market the work of this mostly male profession are women. As of September 2000, 60 percent of the Society for Marketing Professional Services (SMPS) members were women. Why?

Karen Courtney, a registered architect, interior designer, MBA, and 15-year marketer currently with NBBJ in Seattle, says, "The graduates I have hired for marketing positions have mainly come from journalism or communications backgrounds. My guess is that there are more women than men in these college majors." Others speculate that women gravitate naturally toward roles that involve interpersonal skills, no matter what industry they work in. Lisa Jenkins, director of communications for SMPS, backs this point of view: "Women are communicators, and communication is at the core of marketing and business development."

Mark Zweig believes the large number of women in marketing is due to the way marketing positions at architecture firms have evolved. "The first marketers at architectural firms were initially hired as administrative support staff, and they typically were women. As time went on, they gained experience, took on the task of preparing proposals, and eventually became what are now known as marketing coordinators." He's quick to add that the job requirements have changed since the creation of the first

marketing departments at architectural firms: "The skill levels and professionalism of marketing staffs have escalated over the past two decades."

But while most marketers are women, very few make it to the top. According to the *SMPS 2000 Salary Survey*, only 16 percent of marketing staff at professional services firms are at the vice president or principal level, and of these, 84 percent are men. Though it's easy to point to gender as a cause of the historically uneasy relationship between architects and marketers, this explanation is too simplistic. There are some extremely successful firms where women marketers have been made principals. Even the corporation laws that exist in some states and that make it unlawful for nonregistered personnel to become firm partners do not completely account for the high percentage of men who are both principals and marketers.

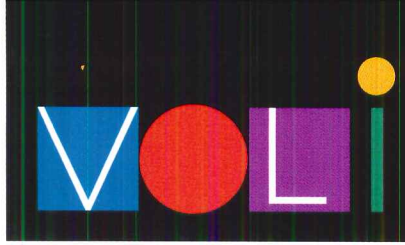
According to Chicago-based RTKL's Lisbeth Quebe, who has 30 years of experience in architectural firms, including 15 as a principal: "In an architecture-driven firm, it's difficult for engineers, interior designers, and graphic designers to achieve equal footing with the architects. It's even more difficult for people without a project focus, the so-called support personnel—those in marketing, finance, human resources, and administration—to advance. When there is a ceiling on the number of leadership positions, the revenue-producing staff and especially the rainmakers will get preferential treatment. It takes a firm with some vision to see that the rainmakers and the revenue generators are made far more effective by association with an exceptional partner in marketing."

RECORD interviewed a number of marketers, mostly female and mostly nonarchitects, who have been made principals in their firms. Many of them feel their firms consistently integrate marketing with other business goals. Maxine Leighton considers herself fortunate to work for a firm that does not view marketing as an appendage. "My promotion to an associate partner, though I am not an architect, is indicative of how the firm understands and respects the role of marketing. It is a perspective that begins at the top of the organization. The firm sees marketing as an extension of its identity rather than as something that obscures its talents. It took a lot of work on my part to sow the seeds for this understanding and for this respect to develop."

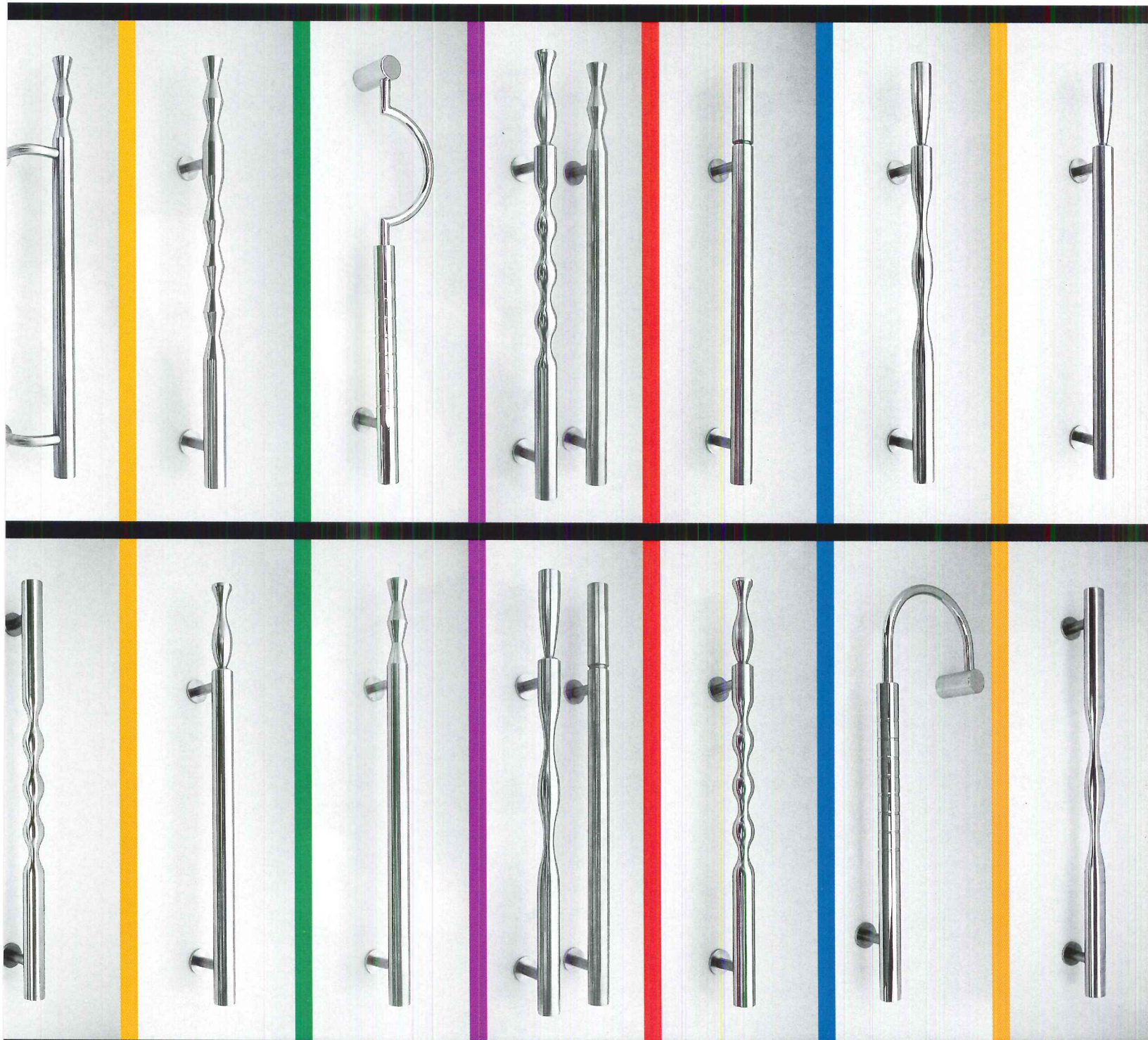
Knowing how effective and valuable the marketing efforts of women can be, Richard Hayden, principal of Swanke Hayden Connell Architects, decided to turn the gender gap to the firm's advantage. Knowing that women communicate well and are effective marketers, he has supported the promotion of five women (four of them architects) to the position of principal at SHCA since 1999. All are active in marketing. Before this development, there had only been one female principal in the firm's 93-year history. Firms that fail to learn from this example may be missing a great opportunity.

More to come

Architects see themselves as artists whose projects accomplish specific creative, technical, and functional goals. Marketers, on the other hand, are more likely to use their skills in a variety of different industries or settings to achieve a wide range of goals. This culture-clash issue also deserves more scrutiny if architects want to continue to market their services more effectively and more comfortably. Clearly, the architect's relationship with those who market services is still evolving. But one thing is sure: In an increasingly complex marketplace, a world driven by appearances and fast response time, marketing is here to stay. In part two next month, we will examine the organizational choices firms grapple with in the marketing arena, detail the elements that make up a complete marketing plan, and review strategies of some well-managed firms that have achieved remarkable success in marketing. ■

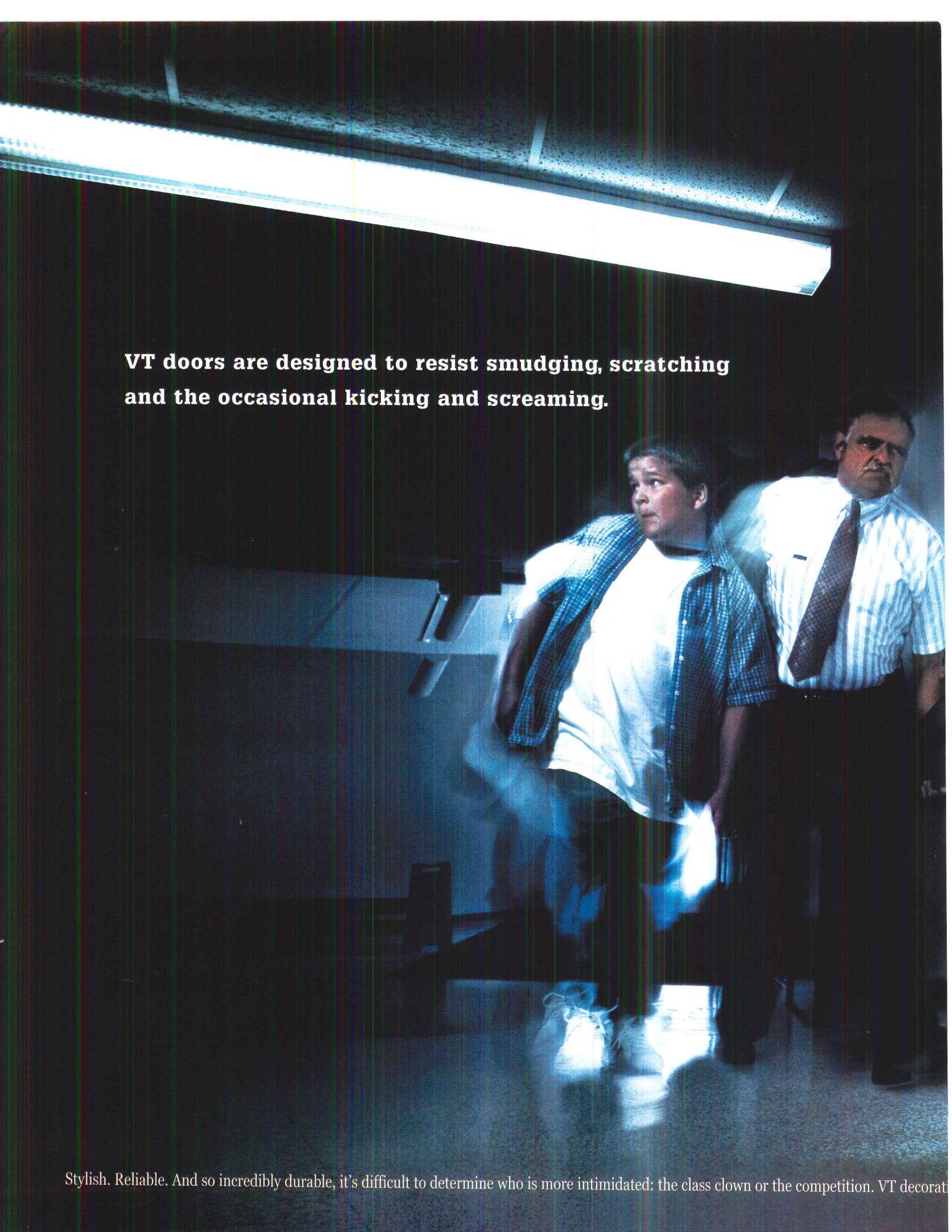


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CIRCLE 40 ON INQUIRY CARD



The Hero of Hale County **Sam Mockbee**

By **Andrea Oppenheimer Dean**

This is the eighth year that Samuel Mockbee and his architecture students at Auburn University have been designing and building striking houses and community buildings for impoverished residents of Alabama's Hale County. In some ways, the place has changed little since James Agee and Walker Evans went there in 1936 to document the lives of poor white sharecroppers. The 1990 Census shows per capita income still averaging no more than \$8,164, and 1,700 families still living in substandard houses. Most of the Rural Studio's clients are African-Americans, "left behind by Reconstruction," as Mockbee says. Many live in unheated, leaky shacks without plumbing in Masons Bend, a little settlement of about 150 people tucked into a bend of the Black Warrior River at the end of a winding dirt road about 10 miles from Greensboro, the county seat.

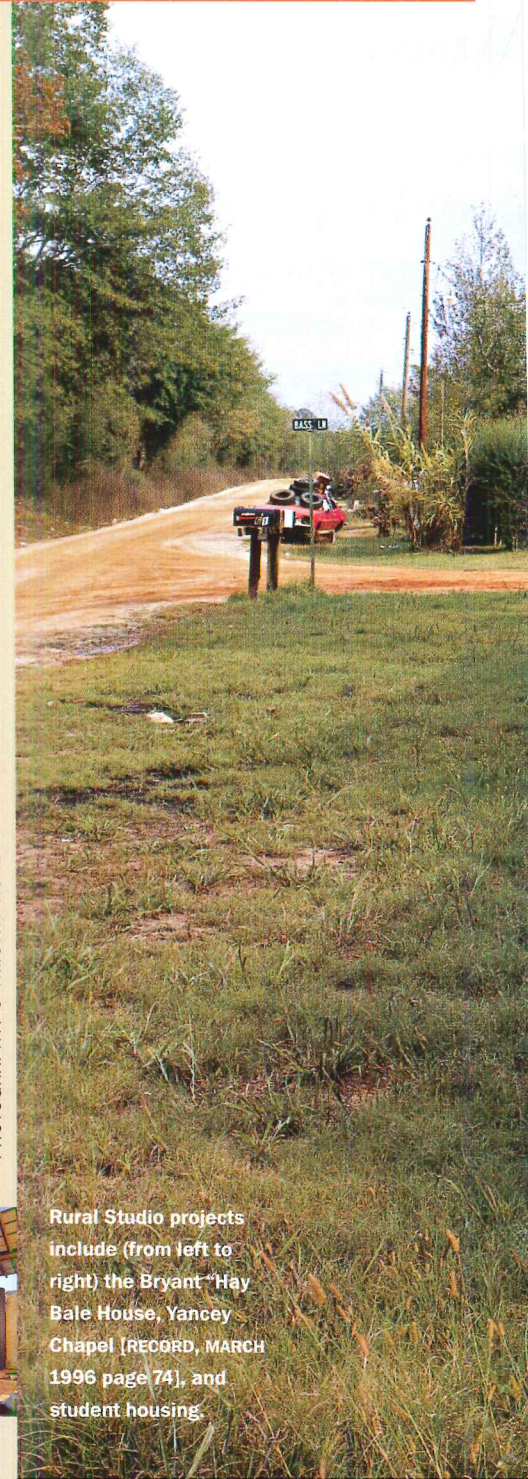
In addition to being a social welfare venture, the Rural Studio—*Taliesin South*, it's been called—is also an educational experiment and a prod to the architectural profession to act on its finest instincts. In June, Mockbee learned he had been awarded a MacArthur "genius grant." Not long afterward, speaking in the deep drawl of his region, the burly, bearded sixth-generation Mississippian had the following conversation with contributing editor Andrea Oppenheimer Dean:

ARCHITECTURAL RECORD: What will you do with \$500,000?

SAM MOCKBEE: It'll allow me to take care of my family and get way out on the edge in my work and maybe do something that most people would think I was crazy to do, follow my instincts, let a project evolve, and con-

Contributing editor Andrea Oppenheimer Dean, together with photographer Timothy Hursley, is working on a book about the Rural Studio.

WWW For additional images of the Masons Bend Community Center, go to Interviews at www.architecturalrecord.com



PHOTOGRAPHY: © TIMOTHY HURSLEY



Rural Studio projects include (from left to right) the Bryant "Hay Bale House, Yancey Chapel [RECORD, MARCH 1996 page 74], and student housing.

FEATURES

Masons Bend Hale County, Ala.

Masons Bend is not a trailer park. But most of the residents live in trailers—beat up and rusty ones at that. The hamlet, home to four extended African American families, lies in Hale County near the Black Warrior River, in the old cotton belt of western Alabama.

On a triangular patch of land, next to the dirt road that serves as the hamlet's arterial, stands a dramatic sculpture of

glass and aluminum, cypress and steel, and rust-red earth. This is the Masons Bend Community Center, designed and built as a thesis project by a team of fifth-year students at Auburn University's Rural Studio—Adam Gerndt, Forrest Fulton, Dale Rush, and Jon Schumann, supervised by professor Bryan Bell. The cost was approximately \$20,000, paid

continued on page 80



centrate on it. More than likely it'll be for the Rural Studio.

AR: *Any ideas what the project might be?*

SM: You know the profession's IDP internship development program? It is a well-intended program, but most interns dread it. I would like to offer architecture graduates an opportunity to come down to the Rural Studio as intern architects, under my stamp.

One idea is to also ask something of the premier architects in America, the Frank Gehrys, the I.M. Peis, the Richard Meiers, and Michael Rotondis. I'd like to ask each to design a cottage for a family that's living down here in a cardboard shack. I'd take their sketch and get four intern architects to build the house. Masons Bend, Alabama, would become like Seaside, Florida, but I'd be doing this for the poorest one percent of Americans.

I'd find the money to build these houses—we build them for \$30,000—and make sure the workmanship is up to par. That's the sort of thing I'm thinking about.

AR: *You've stayed close to your Southern roots. Can you get an appropriate design from an architect who isn't rooted in place?*

SM: I'm not going to say that someone like Frank Gehry can't build something beautiful in a culture and place he doesn't know well. For the rest of us mere mortals, the best way to make real architecture is by letting a building evolve out of the culture and place.

I don't want to be pigeonholed as a regionalist, yet I am, and I certainly don't want to get marked as a local colorist. I pay attention to my region; I keep my eyes open. Then I see how I can take that and,

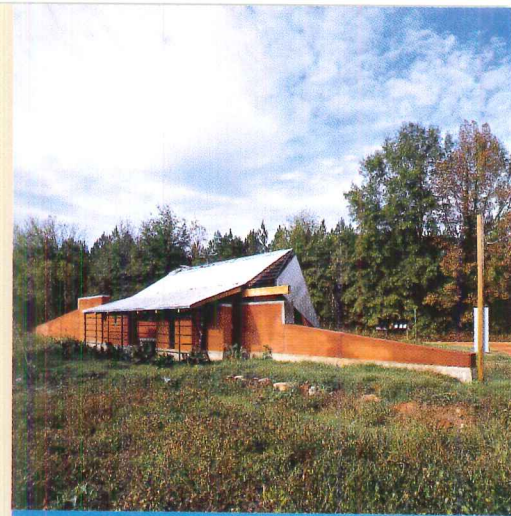
“THERE'S A GLUTTONOUS AFFLUENCE AROUND, STAGE-SET DESIGN THAT'S BEYOND THE APPROPRIATENESS FOR THE CLIENT, THE PROGRAM.”

using modern technology, reinterpret certain principles that are going to be true 200 years from now. I want the work to be looked at as contemporary American architecture, and, in that sense, it has to have a certain honesty to it. That's what's wonderful about the really great American architecture, its honesty.

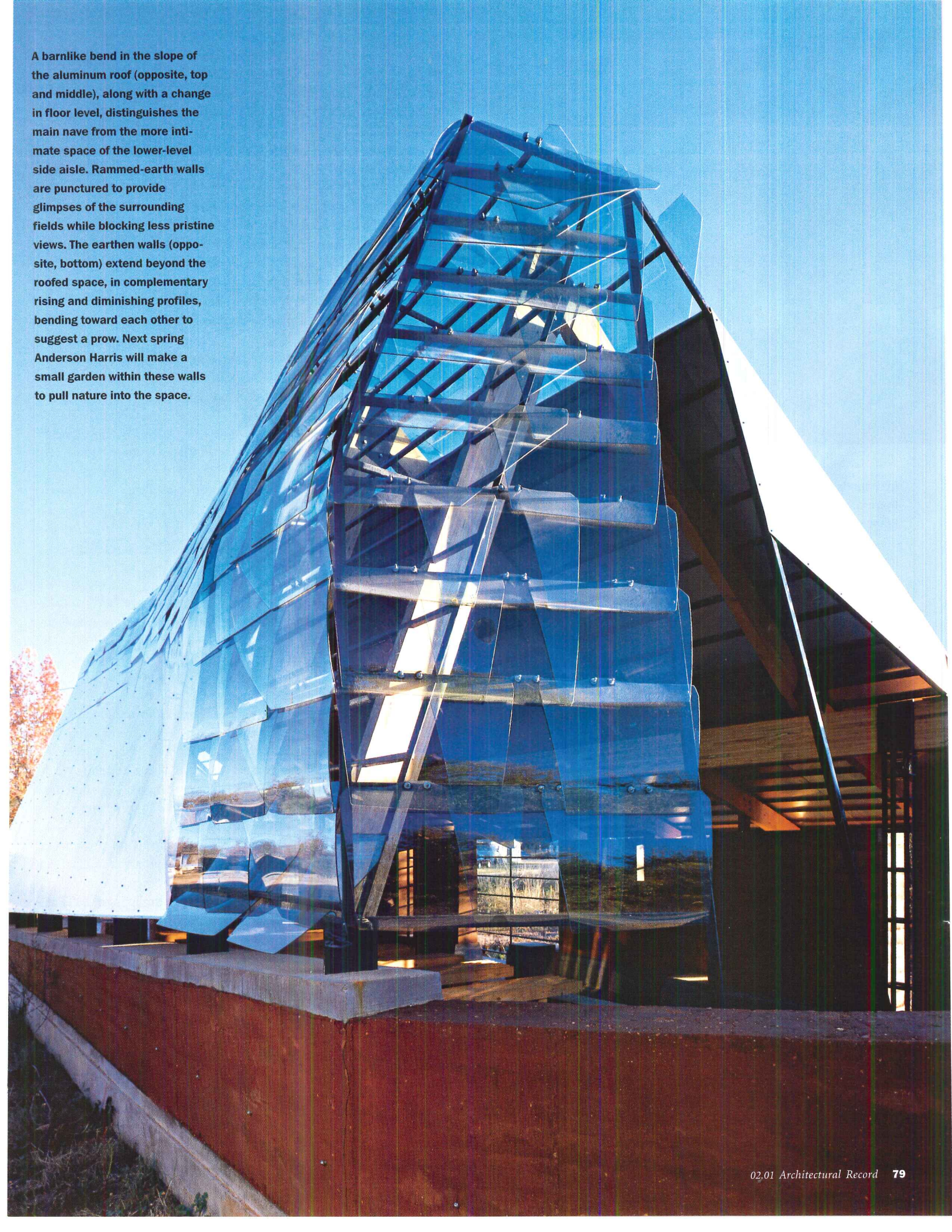
AR: *What do you mean by dishonesty in architecture?*

SM: There's a gluttonous affluence around, stage-set design that's way beyond the appropriateness for the client, the program, and it's all because a client or a developer has the money to build it. Alberti talked about choosing between fortune and virtue. The profession is becoming more a part of the corporate world while corporations (citizens of no place or anyplace) are more and more resembling nation-states. Every piece of architecture should express some moral. If it has moral merit, it deserves the title of 'architecture.' For me, the professional challenge, whether I am an architect in the rural American South or the American West, is how to avoid becoming so stunned by the power of modern technology and economic affluence that I lose focus on the fact that people and place matter.

These small projects designed by students at the Rural Studio remind us of what it means to have an American architecture without pretense. They remind us that we can be awed by the simple as much as by the complex, and if we pay attention, they will offer us a simple glimpse into what is essential to the future of American architecture...its honesty.



A barnlike bend in the slope of the aluminum roof (opposite, top and middle), along with a change in floor level, distinguishes the main nave from the more intimate space of the lower-level side aisle. Rammed-earth walls are punctured to provide glimpses of the surrounding fields while blocking less pristine views. The earthen walls (opposite, bottom) extend beyond the roofed space, in complementary rising and diminishing profiles, bending toward each other to suggest a prow. Next spring Anderson Harris will make a small garden within these walls to pull nature into the space.





from funds donated by the Potrero Nuevo Fund of San Francisco.

The building is processional in outline, gathering the community within arms of rammed earth, funneling them through a slender entrance sheltered by a fold of aluminum, and delivering them into a space that leads the eye through a fish-scale-glass membrane to the sky and trees beyond.

The community center represents an expansion of the initial program of the Rural Studio, which began to build houses for the poor of Hale County in 1993, under the direction of Auburn professors Samuel Mockbee and Dennis K. Ruth. Two levels of architectural education occur at the Studio. Instructor Steve Hoffman is in charge of the second-year program, in which students reside at the studio complex for a semester, contributing to the design and construction of projects that evolve through several semesters. Professor Andrew Freer directs the thesis work of the fifth-year students, who form teams, devise projects, and design and build them within their residency of a full academic

The main nave (above), with its gravel floor, cypress benches, and raised speaker's podium, is a decidedly less intimate space than the lower-level side aisle, which has smooth floors of black concrete.

year. "The students hardly have a budget to speak of, and their technical ability is limited to some degree," explains Mockbee. "So they have to be very careful about picking their projects."

Gerndt says his team decided to explore architecture at the community level, rather than do an individual house. "But in order to devise an architectural solution for a community we weren't part of, we worked finishing another house first. We sort of went undercover in the community to develop a program, talking to the adults, playing with the kids. We came up with health care, education, recreation, worship—they were praying in a trailer—and a stronger sense of place."

The centrally located site, where the property lines of three founding families meet, was originally occupied by an engineless school bus that had served as a dwelling. "So we used

AR: You say you've been cursed and blessed to be a Southerner. How so?

SM: I grew up in a segregated South, in a very humanly warm environment, and had a wonderful education. But looking back on it, I know it was probably at the expense of the black community. I realize some of the things I'd been taught are wrong. The blessed part is that as an artist or an architect I have the opportunity to address wrongs and try to correct them.

AR: So the Rural Studio is your way to redress wrongs?

SM: We're excluding a whole army of people who've been excluded forever. These people down here are left over from Reconstruction; we need to reinstitute Reconstruction. W.E.B. Dubois said it 100 years ago: Reconstruction was prematurely stopped. He said that would be the big challenge of the 20th century; now we're in the 21st and we still have the problem and we're still ignoring it and they're still invisible.

AR: What about the profession? What's happened to its social conscience?

SM: Everyone's too busy trying to make a living. We have to be more than a house pet to the rich; we need to get out of that role.

AR: Have your students had any problems learning to work with poor clients?

SM: No. However, most of our students come from affluent families. For the most part, they haven't experienced this sort of poverty. They've seen it, but they haven't crossed over into that world, smelled it, felt it, experi-

"EVERYONE IS TOO BUSY TRYING TO MAKE A LIVING. WE HAVE TO BE MORE THAN A HOUSE PET TO THE RICH."

enced it. They come with abstract opinions that are fairly quickly reconsidered once they meet the families and realize that they're really no different from other American families. It's good to see these white middle-class students working hard all day trying to win the respect of people they wouldn't even acknowledge on the street before.

AR: How important is the building process as an educational tool?

SM: It's valuable but not totally necessary. What's important is that students understand the process. It's the same regardless of whether they're building a little bitty studio for a basket weaver or a large building. We do preliminary sketches, schematic designs, and foundation designs and then we go out and start digging the foundations. Everything then happens on-site. It's how architects worked 100 years ago.

What's important is that for young architects this experience takes it out of the theoretical and makes it real. They start to understand the power that architecture has and the responsibility they have to the creative process and how that manifests itself in something physical. That's what architecture is. It's not paper architecture. No one loves to draw and paint more than I do. But it's important that students learn that drawing on paper and building models is not architecture.

AR: This is the Rural Studio's eighth year, and it has built more than 13 projects. Why haven't other schools adapted the model for their own use?

SM: I don't think the 100-plus architecture schools across the country realize how alike each program is, how interchangeable their curricula and faculty are. I've spoken at most of them. The faculty are usually all dressed in black. They all seem to say the same things. It's all become redundant and very stale, unimaginative. What's ironic is that you hear professors talk about how out of the box we need to be, how risk-taking is part of being an architect, yet the faculty is often guilty of sitting on

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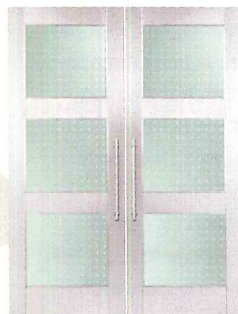
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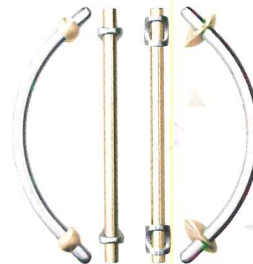
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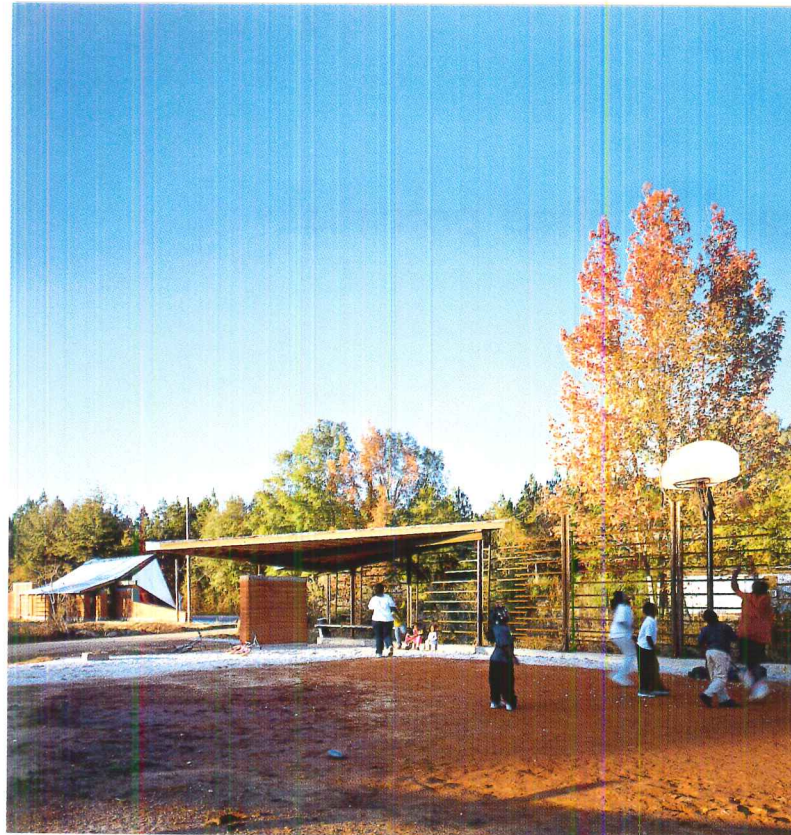
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their hands. If architecture is going to nudge, cajole, and inspire a community or to challenge the status quo into making responsible environmental and social-structural changes now and in the future, it will take the “subversive leadership” of academics and practitioners to keep reminding the students of architecture that theory and practice are not only interwoven with one’s culture but have a responsibility for shaping the environment, breaking up social complacency, and challenging the power of the status quo.

The Rural Studio is not an easy curriculum to run. It’s a 24/7 obligation. During the week, I’m in Newbern living with students in a

“THEORY AND PRACTICE HAVE A RESPONSIBILITY FOR SHAPING THE ENVIRONMENT AND BREAKING UP SOCIAL COMPLACENCY.”

house built in 1890. If you’re going to do this you gotta pack your bags, kiss your wife good-bye, and go to war. If you’re not willing to do that, at least get out of the way and let the rest of us march on through.

AR: *It’s unusual to really integrate teaching with practice as you’ve done.*

SM: I’m not an academician, but I am an educator. I’m an architect and I’m also a painter. It’s all part of the creative act. That is my passion—to be responsible to the creative process. I enjoy certain technical ability, natural ability, and I get to use it. It’s what all architects have and want to use. We’re living the myth. I was willing to take that jump in the dark, as I like to say, and it’s not going to be fatal. ■

a comparable footprint 15 by 30 for the community center, to keep the same scale,” Gerndt says.

A generic gathering place with no mechanical systems fit the budget. “The front wall serves as a transit stop for the book-mobile, a computer lab on wheels, a healthcare bus, and Meals on Wheels,” Fulton says. The interior is used for meetings, as well as spiritual space for group services and private meditation. “For the kids, it’s like someone put in a jungle gym,” Schumann says. “They play there after school.”

Budget also determined material choices. “We wanted a monumental, be-here-forever architecture to visually anchor the community,” Fulton says. “That suggested rammed earth [a mixture of local fill dirt, cement, and a polymer preservative compressed into wooden forms], which is cheap.” Fulton says the students debated “whether to design to the Rural Studio aesthetic of vernacular forms, rusted tin, or go more contemporary. Sambo [Mockbee] encouraged us to do something new, so we brought in aluminum and glass.”

The site, which was once occupied by an engineless school bus that served as a dwelling, is now a gathering place for the community.

The team cut down cypress trees, milled them into planks, and then had the planks glue-laminated into beams to support the aluminum roof. The tube steel uprights and trellis were scrap donated by a local firm, which the students sanded to remove rust, then painted black. The glass scales were once side windows in 1989 GM cars, which Schumann and a friend hauled from a salvage lot in his native Chicago.

“For the people of Masons Bend, everything is multipurpose. Nothing is specialized,” says Gerndt. “A bus can be recycled into a house; the kids play in the road. So we used recycled materials for a multipurpose space, to reflect the ethos of the community.”

The bare bones of Hale County are not an undiscovered country. In 1936 *Fortune* magazine assigned writer James Agee and photographer Walker Evans to document the daily lives of

white tenant farmers in the Deep South. Agee and Evans spent six weeks of the long, hot summer with three Hale County families, sharing their food, sleeping in their cabins. *Fortune* publisher Henry Luce ultimately rejected their material as too supportive of the need for the New Deal. In 1941 their work was published, in a much expanded version, as *Let Us Now Praise Famous Men*.

Ironically, and unintentionally, Agee’s highly wrought, exhaustive prose and Evans’ cool photographs combine to distance their subjects, as if the artists were looking through a time lens at the Bronze Age. This “undefended and appallingly damaged group of human beings” living an “unimagined existence” seem so far removed from 20th-century American experience that no intervention seems possible. Mockbee and the Rural Studio are about

exactly the opposite. Mockbee encountered the still desperately poor people of Hale County and intervened with an architecture carefully calibrated to the needs of its users, yet delivered on a high plane of formal quality. In the process, he and his students have woven themselves into the fabric of the community. When asked if the families of Masons Bend ever question the contemporary design values—the butterfly roofs and fish-scale glass of the Rural Studio’s architecture, Mockbee explains, “We’d already won the trust of the Harris family, who own the land, by the time we did the community center. So there wasn’t any learning curve for the community. The people of Masons Bend aren’t afraid of the honesty of what’s being built, and they aren’t concerned about putting up facades. Just like a blues singer, they can’t afford not to be honest.” *Christine Kreyling*

Out There...

Practicing Architecture Outside the Centers of Fashion

At a time when fashion rules, architecture and architects seem to be orbiting the fashionable. To pick up a recent architectural journal, ours included, it might seem that everything built, or worth writing about, emanates from New York or Los Angeles (or London or Amsterdam or Berlin or Tokyo). Obviously, that is not the case. The majority of architects lives and practices out there, in the towns and cities across America—away from the hype, far from Wilshire Boulevard or midtown Manhattan.

In fact, architects like Marlon Blackwell in Fayetteville, Ark., wake up every day, meet with clients, listen to their hopes and dreams, work with local building officials and bankers and contractors, and get things built.

Sometimes astounding things. Every day sophisticated people like Ray Huff, a modernist in historical Charleston, S.C., shake hands with the mayor, eat with the building committee of nearby small towns, and get on with making architecture.

How do they do it? They find inspiration in the people they work with. They find beauty and peace and knowledge in the landscape. Like Ray Huff or Marlon Blackwell, they teach at local universities, finding stimulation and challenge in the young people in their

THIS YEAR'S GANG OF SIX FIRMS OFFERS AN INTRIGUING LOOK AT WHERE ARCHITECTURE IS BEING DONE. THINK OF IT AS A SCENIC DRIVE THROUGH GOD'S COUNTRY.

charge. They attend lectures and symposia at schools and professional organizations like the AIA, sharing ideas and work. They read the journals voraciously and are often able to quote chapter and verse on who is doing what, where. They travel regularly to those fashion centers, where they stop by the museums and the new buildings and the offices they once worked in, greeting the friends and teachers they might have left behind.

In a way that their urban peers rarely enjoy, they build. Brian Mackay-Lyons gets students out onto the land, lifting and nailing and making things. Sam Mockbee, the godfather of Out There, has turned rural America into a beneficent laboratory for architecture students, allowing them to rub shoulders with actual clients and to go to work for them. Rather than waiting, they are doing.

This month, RECORD presents a geographically dispersed, selective sampling of projects and people along less traveled roads. As the work of this talented group of architects demonstrates, the results of operating in smaller towns and cities can be rewarding: Each architect represented in the pages that follow has developed an inventive architecture, enriched by place. The work of this unusual group doesn't look like it emerged from the latest computer rendering, but has an authenticity borne of texture and memory and allusion that is personal if not idiosyncratic. The styles vary from vernacular essays to straight-up Modernist to found art to the cosmic; it may veer from fashion. It should not be ignored. ■

WWW For more information on the six firms profiled in the following pages, including more of their work, pictures, drawings, and statistics, go to www.architecturalrecord.com



Marlon Blackwell Arkansas

Architect/firm: Marlon Blackwell, Fayetteville, Ark.

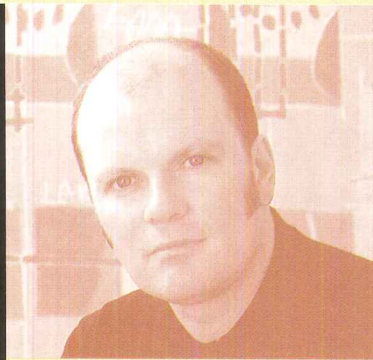
Date founded: 1988

Design staff: 1

Current projects: Gentry City Center, Gentry, Ark.; Tyson-Combs Shotgun Club, Fayetteville, Ark.

Completed projects include: In Fayetteville, Ark.—Keenan TowerHouse, Terminella Office Building (associated with Foster Witsell, Evens, Rasco), Farah Residence, Cozart Office Building (joint venture with Cromwell Architects-Engineers), Flynn/Schmitt BarnHouse; in Cashiers, N.C.—Moore HoneyHouse, June Moore Residence
Academic activities: Taught numerous design studios and classes at institutions in the U.S and Mexico, including MIT, Dalhousie University in Nova Scotia, University of Arkansas, and Syracuse University

“I’D LIKE MY WORK TO SHOW THAT AN ARCHITECTURE OF THE HIGHEST ASPIRATIONS IS POSSIBLE.”



Brian Mackay-Lyons Nova Scotia

Architect/firm: Brian MacKay-Lyons, Architecture Urban Design, Halifax, Nova Scotia

Date founded: 1985

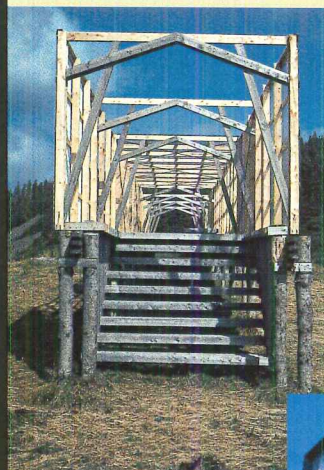
Design staff: Varies from 6 to 8

Current projects: Eco Forestry prototype, N.S.; Dormitory, Marlboro College, Marlboro, Vt.; Messinger House, Upper Kingsburg, N.S.; Bergel House, Port Hebert, N.S.

Completed projects: Howard House, West Pennant, N.S.; Addition, School of Architecture, Technical University of Nova Scotia, Halifax; White-Leger House, Bayfield, N.S.; Yawkey Cottage, Blanche Peninsula, N.S.

Academic activities: Professor of architecture at Dalhousie University (recently joined with T.U.N.S.); Bullock Chair, Texas A&M; visiting professor, Harvard GSD

“MY PROJECTS BENEFIT FROM BEING SMALL AND INEXPENSIVE.”



Ray Huff & Mario Gooden South Carolina

Architect/firm: Huff + Gooden Architects, LLC, Charleston

Date founded: 1997

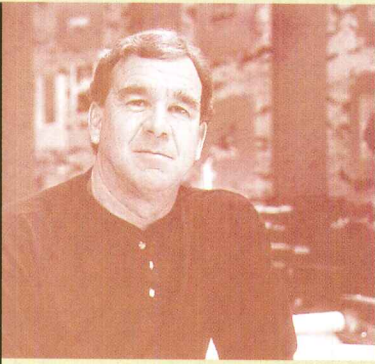
Design staff: 4

Current projects include: In Charleston, S. C.—Mary Ford Elementary School; Herbert Hasell Aquatic Facility; Museum of History & Science; St. Stephen United Methodist Church, Orangeburg, S.C.

Academic activities: Ray Huff—professor of architecture at Clemson Univ. Architecture Center, Charleston; previously visiting professor at Yale Univ. School of Architecture; director of Clemson Univ. Architecture Center. Mario Gooden—professor of architecture at Univ. of Florida, Gainesville; previously visiting professor at Univ. of Arizona, Tucson; SCI-ARC; and Clemson Univ. Architecture Center; adjunct asst. professor at Columbia University

“WE SEE MODERN ARCHITECTURE AS AN INTERPRETATION AND TRANSLATION OF CULTURAL AND GEOGRAPHICAL SITUATIONS.”





Bart Prince
New Mexico

Architect/firm: Bart Prince, Albuquerque

Date founded: 1973

Design staff: 3-4

Current projects include:

Lever/Morgenthaler Residence, Malibu, Calif.; Skilken Residence, Columbus, Ohio; Whitmore Residence, Santa Fe; Parsifal Townhomes, Albuquerque; Groves Residence, Laguna Beach, Calif.; Quemazon Townhomes, Los Alamos, N. Mex.; Unitarian Church, Rio Rancho, N. Mex.

Completed projects: Numerous projects in Calif., N. Mex., Ariz., Hawaii, Idaho, and Ohio

Academic activities: Taught design studios at Miami University, Oxford, Ohio; University of North Carolina, Charlotte; University of Oklahoma; University of New Mexico

“I WORK FROM THE INSIDE OUT TO SHAPE SPACE IN AN INTERESTING, FUNCTIONAL, AND UNUSUAL WAY.”



Elizabeth Wright Ingraham
Colorado

Architect/firm: Elizabeth Wright Ingraham Architects, Colorado Springs, Colo.

Date founded: 1983

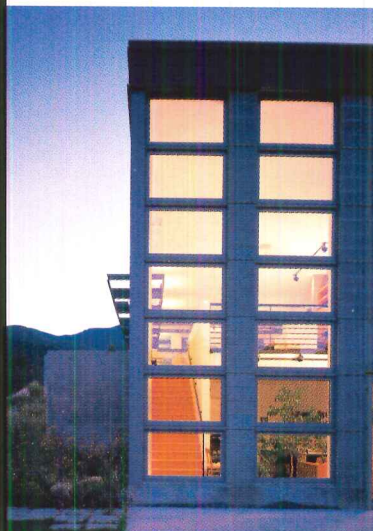
Design staff: 2

Current projects: Technics Laboratory, Wright-Ingraham Institute, Running Creek Field Station, Colorado Springs; Senior Housing, Pueblo, Colo.

Completed projects: Vista Grande Community Church, Colorado Springs; Cole Heights House, Colorado Springs; various houses and retrofit projects

Professional activities: President-elect, AIA Colorado; board of directors, Colorado Community Design Network; dean's advisory board, Department of Architecture and Planning, University of Colorado

“I WANT TO CREATE A STRONG AESTHETIC PRESENCE USING STRUCTURAL PRINCIPLES AND ENVIRONMENTAL SENSITIVITY.”



Frank Harmon
North Carolina

Architect/firm: Frank Harmon Architect, Raleigh

Date founded: 1981

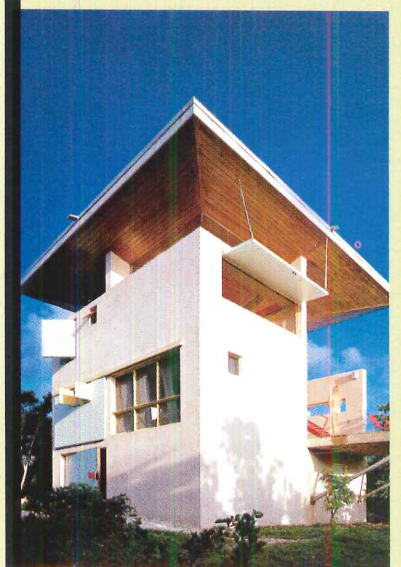
Design staff: 10

Current projects: Visitors Education Center for the North Carolina Botanical Garden, Chapel Hill; Penland School of Crafts Iron Studio, Penland, N.C.; Plymouth Light House, Plymouth, N.C.; Rosenthal-Herschfield Residence, Hillsborough, N.C.

Completed projects: North Carolina Pottery Center, Seagrove, N.C.; North Carolina Farm Bureau Administration building, Raleigh; Walter B. Jones Center for the Sounds, Columbia, N.C.; North Carolina Estuarium Washington, N.C.

Academic activities: Associate professor, College of Design at North Carolina State University; columnist for *The Independent* newspaper

“LIKE A POET USES COMMON WORDS TO CREATE WONDER, WE USE COMMON MATERIALS TO CREATE BEAUTY.”



The client wanted a tree house like the one he remembered from his childhood, but Blackwell persuaded him to build a house in the trees instead.



Marlon Blackwell's elegant and poetic style uplifts the Arkansas hills

By David Dillon

Marlon Blackwell was born in Germany, grew up in Florida and the Philippines, studied architecture at Auburn, worked in Boston, taught at Syracuse, and in 1992, at the age of 35, migrated to Fayetteville, Ark. It's understandable that someone who has moved so often might finally decide to settle in and stay put; but why Fayetteville, a sleepy university town on the road to nowhere?

"Because I can get things built here" is his response. It is a pragmatic answer and Marlon Blackwell is a pragmatic architect, an anatomist of the ordinary and the everyday, a detail guy for whom touch comes before form. He enjoys dealing directly with contractors and craftsmen, and can drive to most of his projects in 30 minutes. He likes teaching and is fascinated by the Ozarks with their blend of old farmland, new trailer parks, and shopping malls. It's the perfect test of the hypothesis that good architecture can happen anywhere.

"There are too many architects on the road these days," he insists, "and it shows up in their work. I realized I couldn't just keep on moving. I had to get to know a place and allow it to shape what I do."

Marlon Blackwell's work grows unmistakably out of its place, though without the sappy scenography often associated with regionalism. He's attuned to what his architect friend Chris Risher calls "local form"—form that emerges from existing conditions, however mundane, rather than from back issues of architecture magazines. Like a guerrilla, he operates just below the radar, exploring the dark corners, taking nothing for granted.

One example is the Moore HoneyHouse in Cashiers, N.C. Blackwell invigorated the practice of beekeeping by designing an elegant 8-by-24-foot wooden box with a honeycomb wall of steel and faceted glass that functions like an elongated vitrine. Jars of golden honey sparkle in light that changes with the seasons and the time of day. This intricate element, primarily voids yet load-bearing, highlights Blackwell's interest in the wall as both a boundary and a threshold.

The Flynn-Schmitt BarnHouse in Washington County, Ark., is a more ambitious example of the same attitude. The first floor is a combination stable and garage for the owners' vintage cars, while the living quarters stretch across the second floor like an elevated trailer home. The primary facade consists of wood and concrete block, with the paddock fence continuing across the front to create a layered effect. The other surfaces are treated plywood and agricultural metal panels, which explains the \$40-per-square-foot construction cost and the look of inevitability.

The ordinary and the poetic achieve their most refined synthesis in the Keenan TowerHouse, an 82-foot aerie overlooking Fayetteville. The steel superstructure is similar to a fire tower, framed at the bottom with beveled oak slats that recall the textured bark on native trees and covered above with white metal panels that resemble corn husks. Visitors ascend an open staircase to a spare, almost Miesian living area with panoramic views. Above is a deck for dining and sunbathing, where the sky becomes the focus

Contributing Editor David Dillon is the architecture critic for the Dallas Morning News and the author of six books, most recently The Architecture of O'Neil Ford: Celebrating Place (University of Texas Press).





Keenan TowerHouse Fayetteville, Ark.

The TowerHouse sits on a rolling 57-acre site surrounded by native hickory and white oak trees (previous page). The combination of wood and white metal panels (below) connects the tower to both natural and industrial landscapes. The edges of the oak fins (opposite, top) have been beveled to catch light and enhance shadows. Guests pass through a modular steel doorway (below) to a courtyard of creek stones and pecan shells (opposite, left) and climb an open staircase (opposite, right) to the living area. The basic structural system is similar to a fire tower. Guests climb a narrow interior staircase to the living space (next spread), which offers panoramic views of the horizon. On the roof deck (next spread) views are carefully controlled by the size and placement of the openings.

Credits/sources

Project: Keenan TowerHouse, Fayetteville, Ark.

Architect: Marlon Blackwell, AIA, project designer; Meryati Johari-Blackwell, Dianne Meek, Phil Hatfield, assistants

Owner: James Keenan

Engineer: Joseph Looney & Associates

General contractor: Razorback Ironworks & Pizzini & Don Lourie

Steel: A & S Windows

Metal doors: Wesche Company

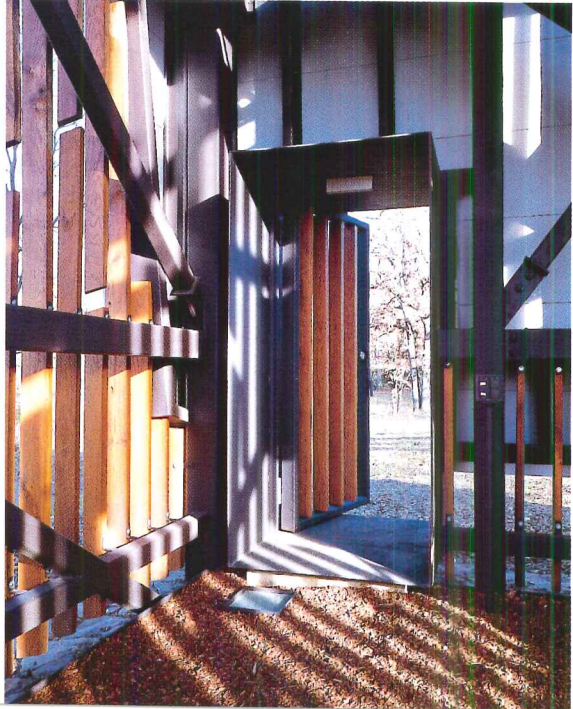
and views of the landscape are carefully framed.

The TowerHouse was too bold for some townspeople, who tried to stop its construction. But as Blackwell points out, it is only one of a dozen towers around town used for everything from water and communications to grain and cement. Viewed in this broader context, the TowerHouse becomes a refinement of the local vernacular.

Marlon Blackwell's romance with Fayetteville hasn't blinded him to the fact that it is also a cultural backwater with a Wal-Mart sensibility. Big and cheap and lots of it is the program for much of what gets built there. Yet he reminds himself that Fay Jones, Edward Durrell Stone, and others managed to create distinguished architecture out of such conditions. "All these new typologies prevent me from idealizing the landscape," he explains. "I stand in the middle of town and see mid-rise buildings, highways, feed mills, relay towers, and mountains. The line between city and country is blurred, and the whole idea of identity is in flux. For an architect who likes to read between the lines, that can be a huge advantage." ■

www For more information on Marlon Blackwell and his work, go to Projects at www.architecturalrecord.com





PHOTOGRAPHY: © TIM HURSLEY

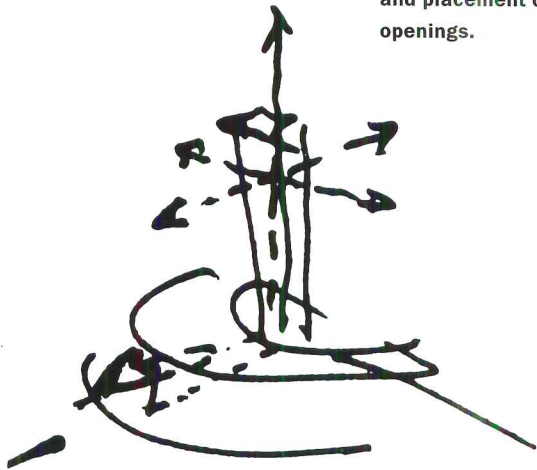


“I’D LIKE MY WORK TO PROVIDE MATERIAL EVIDENCE THAT AN ARCHITECTURE OF THE HIGHEST ASPIRATIONS IS POSSIBLE FOR ANY PROGRAM AND IN ANY PLACE.”





On the roof deck views are carefully controlled by the size and placement of the openings.





The Moore HoneyHouse in Cashiers, N.C., is a project with a mundane program—beekeeping—and it could have ended up as little more than a roadside display.



Moore HoneyHouse Cashiers, N.C.

The HoneyHouse (opposite) consists of an 8-by-24-foot hive box with a hovering carport for the owner. Both structures are constructed of tongue-and-groove pine boards and tubular steel. The house is set on concrete blocks (left) to protect the honey from insects. The display wall (bottom) is an intricate assemblage of steel and angled glass which, depending on the season and the time of year, appears transparent, translucent, or opaque. Because of local labor problems, the steel elements had to be fabricated in Arkansas and transported to North Carolina. Construction took three weeks.

Credits/sources

Project: Moore HoneyHouse, Cashiers, N.C.

Architect: Marlon Blackwell, AIA, project designer; Meryati Johari-Blackwell, Dianne Meek, Phil Hatfield, assistants

Owner: June Moore

Engineer: Joseph Looney and Associates, Structural Engineering

General contractor: Razorback Ironworks & Pat Meek

Steel: A&S Windows

Lighting: Stonco (ambient)

Sink: American Standard

Locksets: Schlage





Flynn-Schmitt BarnHouse Washington County, Ark.

The BarnHouse occupies a thickly wooded site at the edge of an escarpment. The primary facade (left) consists of wood and concrete block, with the grid serving as an extension of the paddock (bottom right). The living area (bottom left) is long and linear, like a house trailer, with sloping plywood ceiling and tall clerestory windows that offer sweeping views of the surrounding landscape. The lower floor (opposite) has the spare, utilitarian feel of a garage or storage shed, with concrete floors, block walls, and tall ceilings. A horse stable is attached to one end. The entire space is connected to the living area by tall narrow windows.

Credits/sources

Project: Flynn-Schmitt Barnhouse, Washington County, Ark.

Architect: Marlon Blackwell, AIA

Owner: George Schmitt

Engineer: Joseph Looney and Associates, Structural Engineering

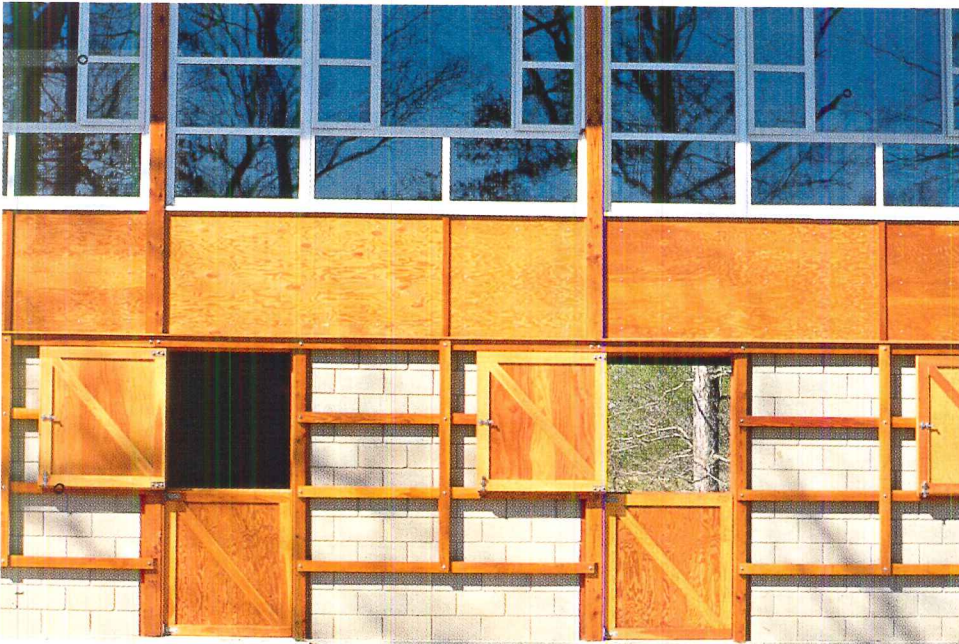
General contractor: Tubb Robinson

Metal siding: Vicwest Steel

Aluminum: EFCO Windows

Plastic laminate: Formica

Lighting: Lightolier (interior ambient); Stonco (exterior)



The basic form of the Flynn-Schmitt BarnHouse in Washington County, Ark., derives from the vernacular pole barn, with tall vertical elements supporting a simple shed roof.



Brian MacKay-Lyons sharpens up the vernacular forms of Nova Scotia

By Suzanne Stephens

He is considered a leading proponent of regional, vernacular design, yet is innovative and edgy enough to be part of last year's "Emerging Voices" series organized by the New York Architectural League. His architecture is a clean and crisp retooling of the regional forms and construction techniques seen in the boats, barns, and sheds indigenous to Nova Scotia. It may seem strange to seek a timelessness and find one's architecture is of the present moment, or to look to the local and arrive at the universal: "Irony is the first principle of life," MacKay-Lyons explains. "You can start from there." Ironically, he started off wanting to be a drummer. But the recognition that he could draw changed things. Moreover, the 46-year-old architect was steeped in the vernacular tradition: He grew up in Arcadia, near a village where French ancestors on his mother's side settled almost 400 years ago.

For a while MacKay-Lyons stayed in this maritime province. He got his B.Arch. at the Technical University of Nova Scotia in 1978, where he met and subsequently opened an office with one of his professors, Larry Richards. Then, in 1980, he went to UCLA to get an M.Arch., studying with, and working for, Charles Moore. Moore's pioneering community participation workshops were to influence MacKay-Lyons when he returned to Nova Scotia in 1983 after a stint in Sienna with Giancarlo de Carlo. Besides Moore and de Carlo, MacKay-Lyons overtly acknowledges the influence of Louis Kahn, Mies, and Wright.

While residential projects have been the staple of MacKay-Lyons' 15-year-old practice, in 1993 he turned the difficult corner of going from small-scale to large-scale work. First he designed an addition to the Technical University of Nova Scotia's architecture school, then, in 1999, he completed Dalhousie University's Faculty of Computer Science.

MACKAY-LYONS WAS STEEPED IN THE VERNACULAR, GROWING UP WHERE HIS ANCESTORS SETTLED IN THE 1600S.

Yet simple, well-articulated houses remain a *specialité de maison*. Indeed, MacKay-Lyons and computer scientist Andrew Rau-Chaplin are working on an Internet-based residential architectural service, "LaHave," that incorporates three types of software for design generation, visualization through modeling, and production of working drawings. It could spawn a "quadrillion" houses according to his principles, MacKay-Lyons conjectures.

Another visionary project is the prototype design for the Eco Forestry Shed. Placed in a forest, the shed could accommodate drying and milling of the cut wood, which would then be moved to the construction site without having to go to a factory. "We'd just use the computer," says MacKay-Lyons. "Later the shed would become a cabin for eco-tourism."

It may seem odd that the proponent of a regional vernacular and a timeless tradition seeks to be closely linked to the new economy. But then that is what irony is all about. ■

WWW For more information on Brian MacKay-Lyons and his work, go to Projects at www.architecturalrecord.com

Ghost Upper Kingsburg Nova Scotia

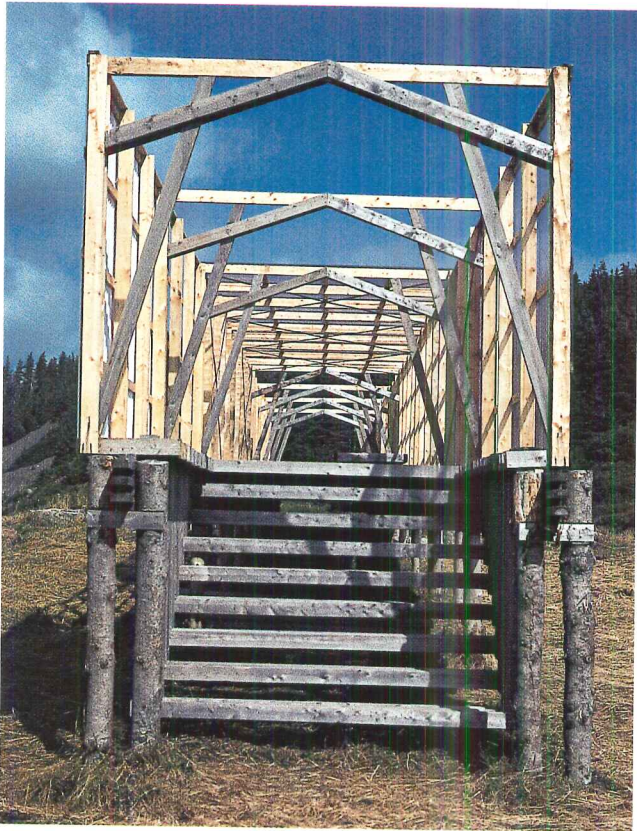
On the "Back 40" of Brian MacKay-Lyons' weekend farm, he and his architecture students from the Technical University of Nova Scotia built a wind tube structure in 1997. It had no "real" function except to give the students a three-dimensional visual understanding of wind shear and other lessons about working with the landscape and local technology. The "ghost" was also commemorative: Built on the ruins of a 400-year-old village, its translucent plastic panels provided projection screens for a tribute to the village matriarch, Beulah Oxner. The wind tube has a standing foundation of wood logs found on the property, topped by a platform of two-by-fours on a 12-foot grid with double studs every 12 feet and single studs every four feet. Bays are given braced or rigid connections to withstand the wind; horizontal one-by-threes provide strapping (or "whalers") to give vertical support to the polycarbonate panels.

Credits/sources

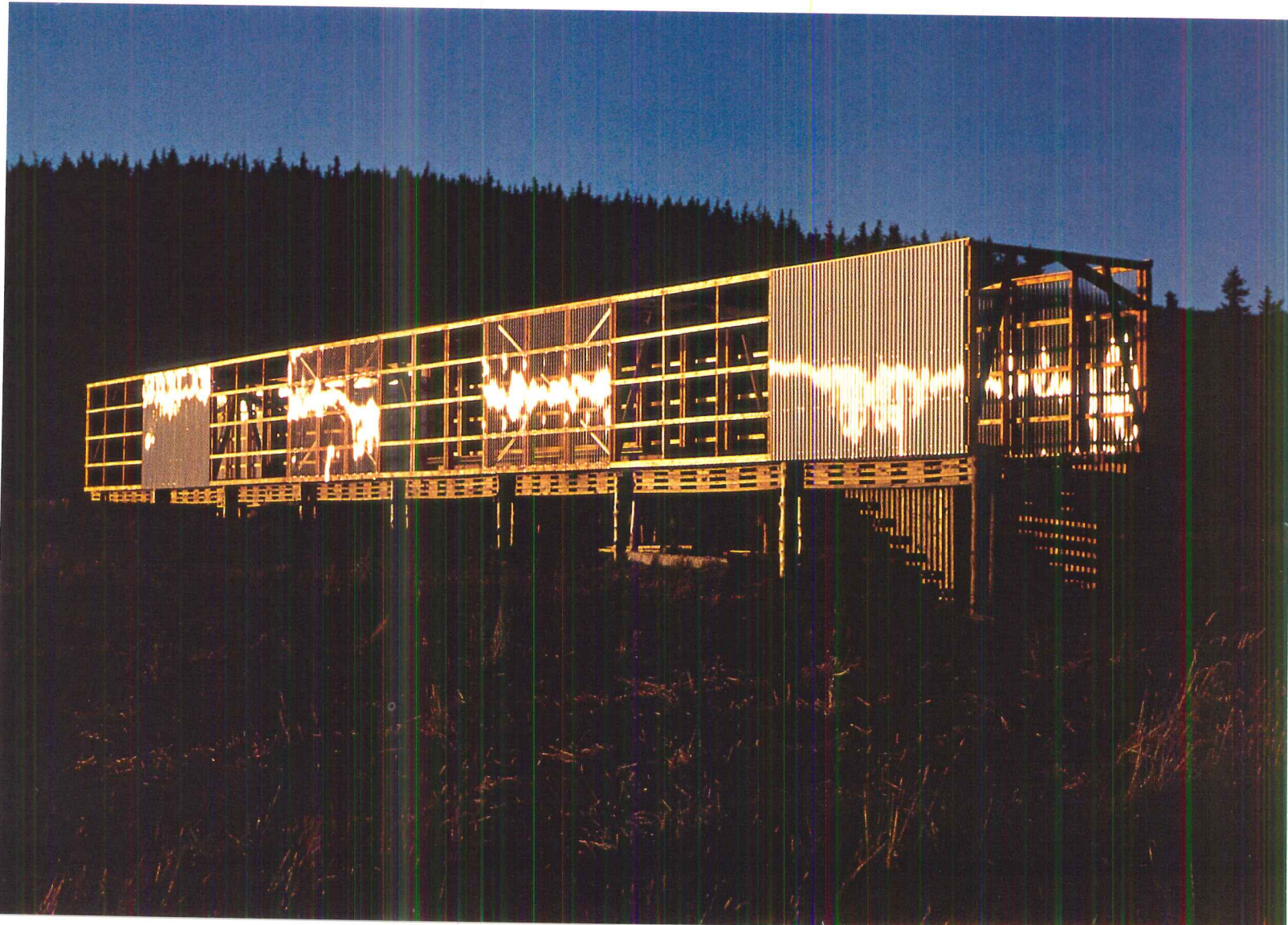
Design/build team: Brian MacKay-Lyons, Mehira Ebdel Aziz, Ben Duffell, Mike Farrar, Nicola Grigg, Ron Isaac, Viktoria Mygoro, Richard Nowlan, Trevor Thimm, Krista Wuerr

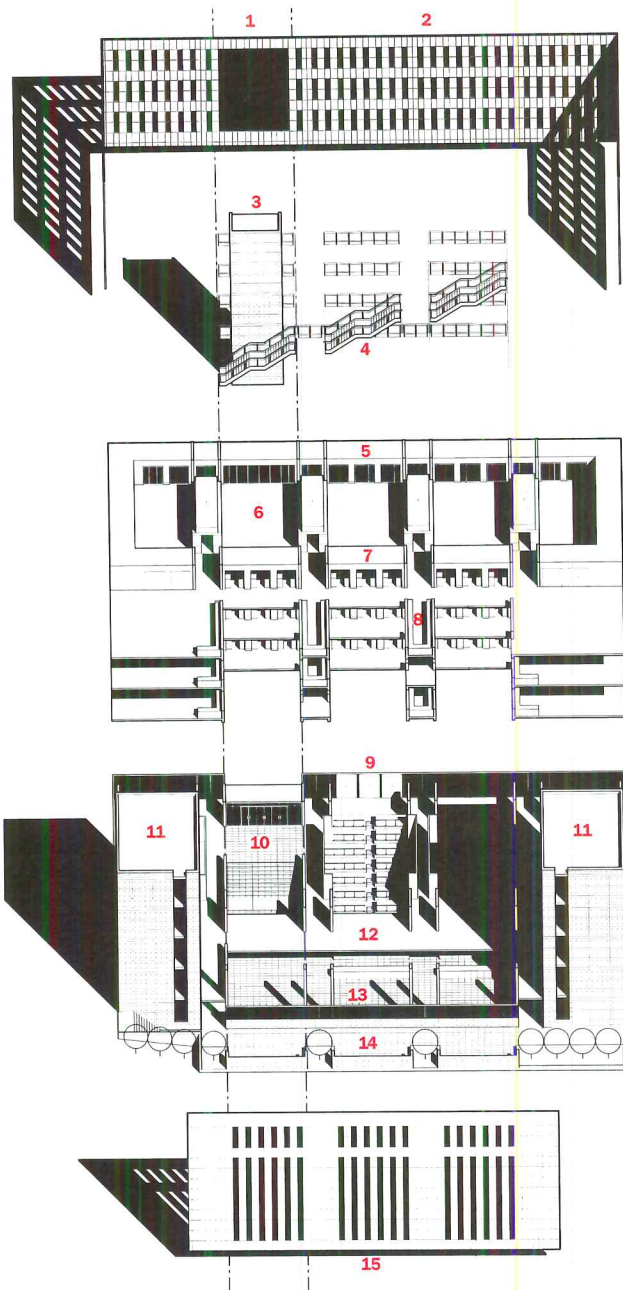
Lumber: Nova Scotia Building Supplies

Polycarbonate: Vic-West



The design/build team of students and professor Brian MacKay-Lyons (right above) erected the wind tube tunnel. Dimensioned lumber and polycarbonate panels rest on a log base.





1. Enter
2. North wall
3. Elevator
4. Atrium stairs
5. Offices
6. Lab spaces
7. Student cubicles
8. Study bridges
9. Theater
10. Lobby
11. Core
12. Atrium
13. Cyber cafe
14. Gardens
15. South wall

Dalhousie Faculty of Computer Science Halifax

A 1991 master plan for Dalhousie University in Halifax that MacKay-Lyons took on (with Charles Moore, Giancarlo de Carlo, William Mitchell of MIT, and Atilio Gobbi) in 1998 resulted in a 65,000-square-foot computer science building for the campus, which is now part of Technical University.

The poured-in-place concrete structure (above) has a matte-finished zinc curtain wall that is reminiscent of Kahn's Mellon Center at Yale: The opaque, planar wall seems to float above the butt-jointed, glazed, and recessed base. Inside spaces open up dramatically because of the stair hall (opposite, bottom left) and the adjoining five-story atrium (opposite, top). Served and servant spaces are based on a "tartan grid" plan, with alternating 30-foot and ten-foot bays.

Credits/sources

Design architect: Brian MacKay-Lyons, principal; Talbot Sweetapple, project architect

Architect and prime consultant: Fowler Bauld & Mitchell Architects, George Coteras, project architect

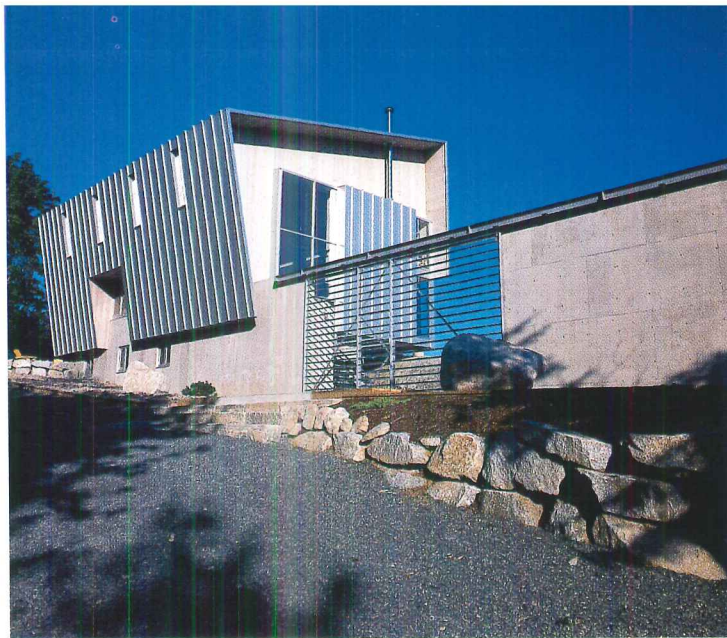
Consultants: William Mitchell (special consultant); Campbell Comeau Engineering (structural); Morris and Richards (mechanical and electrical)

Zinc panels: Rheinzinc

Curtain wall system: Alumacore



PHOTOGRAPHY: © JAMES SIEVEES



Kutcher House Herring Cove, Nova Scotia

Perched on a 100-foot-long granite outcropping, this year-round house for a psychiatrist, a social worker, and their children embraces panoramic views of the Atlantic. MacKay-Lyons designed the long, rectilinear house so that one enters from the rear (above) and at one end, first walking through a portal onto the terrace, where suddenly the water view opens up.

The enclosing roof adopts an angular, hooded shape with a standing-seam folded metal skin cladding the structure's purlins and trusses. The open, rectilinear plan stretches 40 feet for the main living, dining, and kitchen areas, book-ended by two large fireplaces. The water's horizon line, seen through the expanse of sliding glass panels, is echoed in the 22-foot-long kitchen counter, while the rear, north wall is closed off by wood and a low concrete base wall. Interior support is provided by five pairs of steel I-columns, plus Douglas fir fins for wind bracing.

Credits/sources

Architect: Brian MacKay-Lyons, Rob Meyer, Trevor Davies (project team)

Structural: Campbell Comeau Eng.

Roof material: Galvalum

Roof system: Engelert

Glass curtain wall: Alumacore

Glass: Southshore Glass



The house rests against a granite outcropping; stairs lead up to an elevated living room with an expansive view of the ocean.

Huff + Gooden shapes a socially vital Modernism in traditional South Carolina

By Lynn Nesmith

Architects Ray Huff and Mario Gooden are inspired, not daunted, by the traditions of Charleston, S.C. Local residents have long maintained that the Cooper and Ashley Rivers form the great Atlantic Ocean. Yet by other accounts, the vortex of contemporary architecture is at the convergence of the Hudson and East Rivers (apologies to L.A.). But geographical parameters are changing: Top commissions are no longer the exclusive domain of big-city firms, and architects Ray Huff and Mario Gooden, both South Carolina natives, are finding the climate of this southeastern city conducive to the way they want to practice.

In 1980 Huff returned to Charleston from Clemson, S.C., to establish a small office. After completing a B.Arch. in Clemson, he'd practiced there for eight years. "Though the country was in a recession, we had institutional and public work, and managed to do okay," he recalls.

With a population near 80,000, Charleston is hardly a major metropolis, yet few American cities are more urban and urbane. Drawing on this strength, Clemson University's architecture school, with the College of Charleston, established an urban studio in historic Charleston in 1988 and named Huff director.

When Gooden came to the program in 1991 as a visiting faculty member, Huff recognized talent and hired him as an employee. After completing an M. Arch. at Columbia University and working for architects Zaha Hadid in London and Steven Holl in New York, Gooden returned to South Carolina in 1997 to form Huff + Gooden Architects. At 35, Gooden comes across as intellectually agile and confident, complementing Huff's more professorial demeanor. Apparently the combination is working.

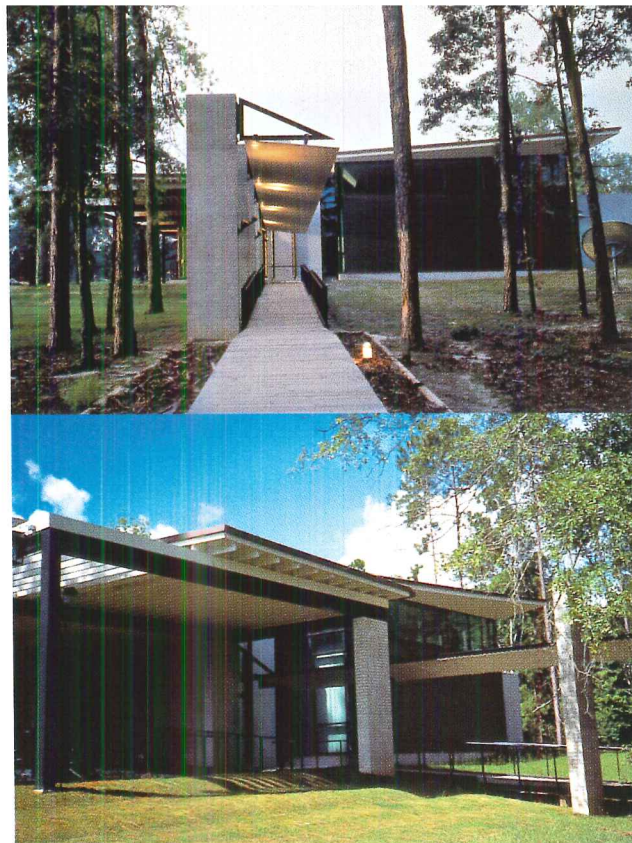
The practice is a collaborative partnership. Huff and Gooden share design, management, and client-presentation responsibilities. Though one partner oversees each project, the entire four-person firm, like an atelier, is involved in discussing, developing, and realizing a design.

Charleston may not be famous for embracing contemporary architecture, but Huff and Gooden fearlessly call themselves Modernists. "We have a solid base here with the kind of projects that are dear to us," says Huff of an architecture that gives something back to the community, including urban and rural public schools and churches around the state. The practice responsibly engages debates on the role of architecture, as well as on social and cultural issues. And both partners remain connected to a more global architectural community through teaching in major architecture schools across the nation.

The firm's principals both happen to be African-American, but they eschew defining their partnership as such. "We oppose labels," Gooden asserts, preferring to let the work characterize the practice. Huff adds, "We belong to Charleston's minority group of self-avowed Modernists."

Though they don't consider themselves Regionalists, both architects consciously decided to practice outside a major metropolis. "I wanted to remove myself from the din of other voices," says Gooden. "Charleston allows us to establish our own voice. Now we can turn up the volume." ■

WWW For more information about Huff and Gooden and their work, go to Projects at www.architecturalrecord.com



1890 Conference Center Elloree, S.C.

Sited on the grounds of the historic Camp Harry Daniels, this 270-acre campus—which includes a lake, nature trails, cabins, meeting rooms, and playing fields—provides a conference venue for South Carolina State University. The cabins, nestled in a dense forest, sleep 32 people, while the meeting facility can accommodate 350. The main meeting room opens to spectacular views overlooking a lawn that slopes down toward the lake. Like much of Huff + Gooden's built work, this project, dating from 1996, was completed when Gooden was Huff's employee, before they'd formed an official partnership.

Credits/sources

Architect: Ray Huff Architects—Ray Huff, principal-in-charge; Mario Gooden, project designer; Jerry Ballinger, project architect; Forrest Hooker, project team

Engineer: Stevens & Wilkinson, Inc.

General contractor: Florence Builders

Canopy: Sequentia
(corrugated fiberglass)

Storefront: Kawneer (aluminum)

Waterproofing: Thoroseal

Beach Residence Sullivan's Island, S.C.

When commissioned to design a new beach house to replace a structure destroyed by Hurricane Hugo, Huff and Gooden diverged from the prevailing vacation-home typology. They created a house with three main components: a latticed wooden screen or "scrim," a concrete cube containing the living areas, and a linear bedroom wing. One enters from the ground floor and moves between the screen and cube before stepping into the house proper. The arrangement erases indoor/outdoor divisions, creating comfortable spaces suited to the climate and setting. This contemporary composition with in-between places abstractly recalls traditional Charleston houses without stooping to the level of pastiche. Sited on axis with World War II bunkers, the house also echoes the stance and spatial arrangements of those military structures. Structurally, the screen stands on exposed grade-beam pads, which visually ground the latticed wall, while the raised cube appears to float on exposed pilings. This unusual condition minimizes damage from storm surges.

Credits/sources

Architect: Ray Huff Architects—Ray Huff, principal-in-charge; Mario Gooden, project team

Interior designer: Karen Everhart

Engineer: Shoobred Engineers (structural)

General contractor: Trudeau Construction Company

Windows: Caradco (casement)

Lattice: Farmed redwood

Wood trim: Cedar

Cladding: James Hardie Building Products (cementitious fiberboard)





Murray-LaSaine School, Charleston

This elegant addition to the Murray-LaSaine Elementary School is a freestanding four-classroom annex that was designed to accommodate future expansion. A heavy wall at its outer edge is punctured by exaggerated openings that would easily allow for air-conditioning feeds and the symmetrical placement of a twin four-classroom building in the future. A walkway covered by curved corrugated-steel panels links the addition to the preexisting school building.

Credits/sources

Architect: Ray Huff Architects—
Ray Huff, principal-in-charge;
Mario Gooden, Jerry Ballinger,
Ron Delaney, project team

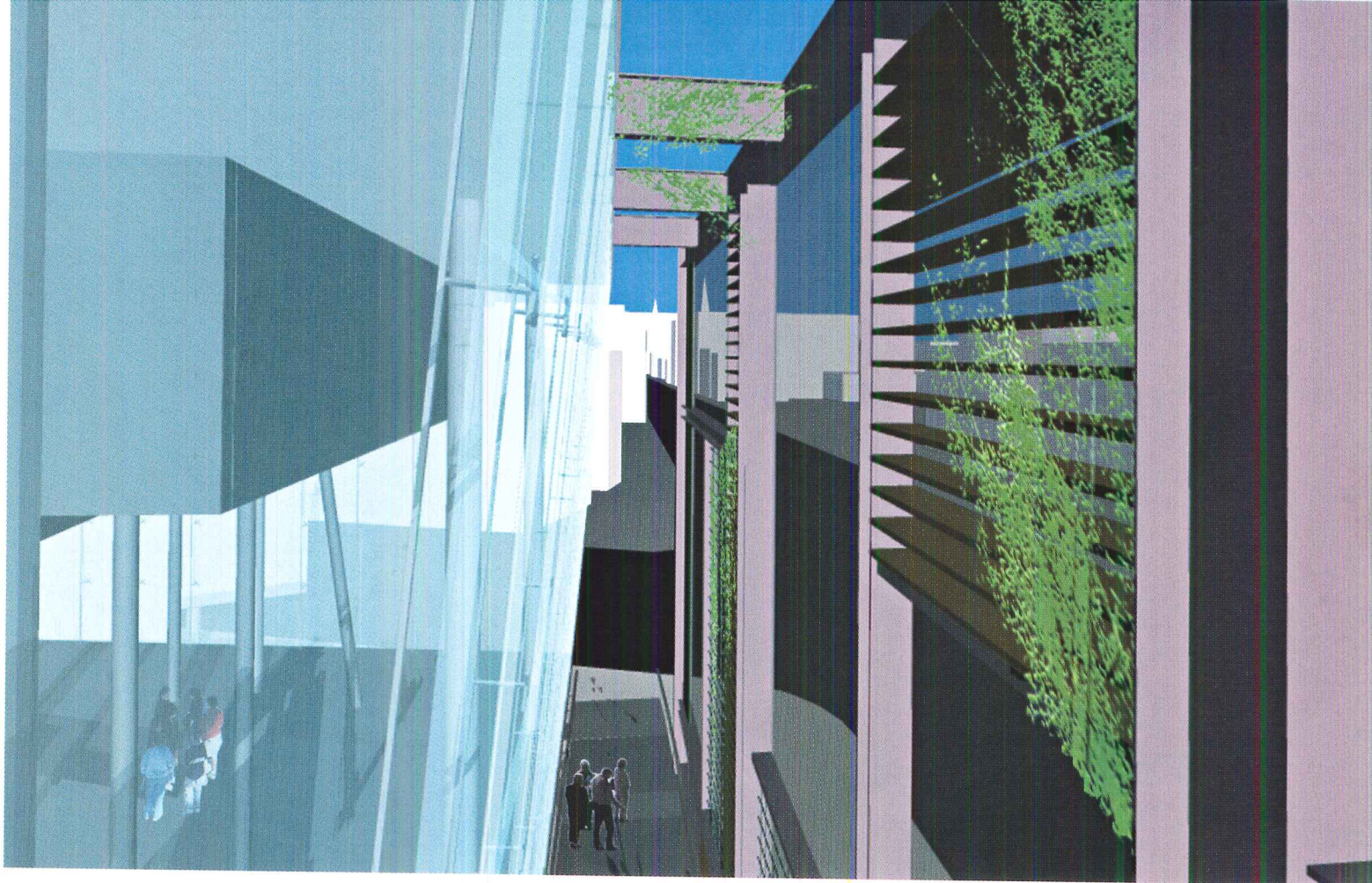
Engineer: Engineering Surveying
& Planning (structural); Orbital
Engineering (mechanical and electric)

General contractor: Florence Builders

Glass block: Pittsburgh Corning

Clerestory: Kawneer
(aluminum framed)

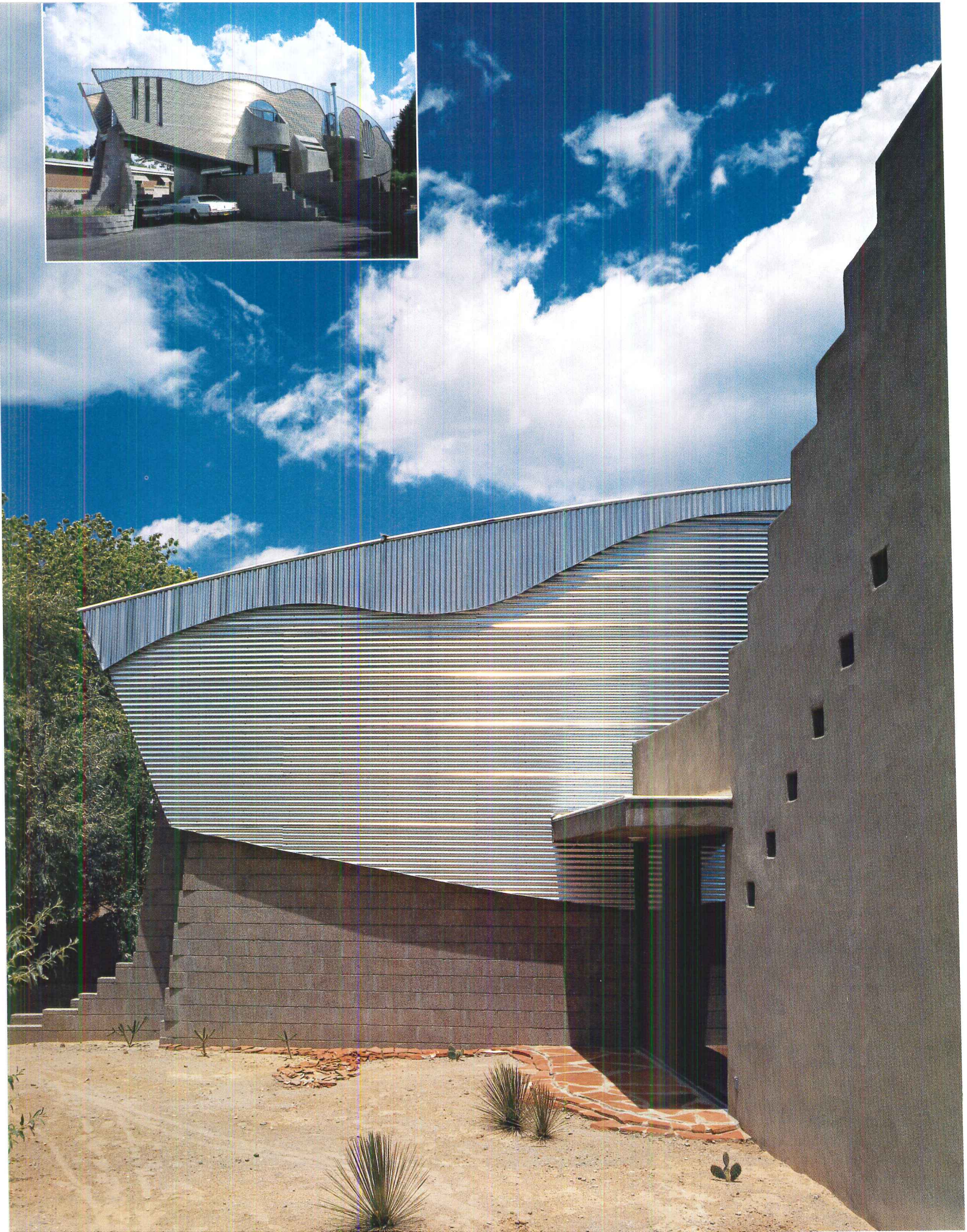




History & Science Museum Charleston

Yet unbuilt, this project proposes an electronic-age museum in the urban and architectural context of Charleston. Designed in response to a request for proposals—calling for an educational program on a 1.25-acre site—this museum of history and science relies entirely on non-object-based exhibits, presenting only virtual imagery. At the same time, however, it was also envisioned as a real building (visitors inhabit it physically, rather than merely click onto its digital displays from home computers), prompting its designers to investigate the architectural and experiential implications of a space with exclusively electronic displays. Accordingly, Huff + Gooden's strategy, using spatial layering, tilting, and "choreography," considers the building's exterior and interior landscapes—its urban, spatial, and tectonic conditions—as well as its cultural setting.





Bart Prince stirs up a sense of wonder in a vast Southwestern landscape

By Christopher Curtis Mead

The architecture of Bart Prince invites rhetorical excess. Instantly recognized yet unfamiliar, its sculpturally suggestive, structurally theatrical forms resist description through ordinary words. Buildings are likened to sharks and spaceships in the hope that frenzied metaphors might express our wonder that something as mundane as a house could ever look so exotic. Curious people cluster outside my Prince-designed home on weekends, pointing and commenting. Wondering what it is like to inhabit such a place, they assume that this radical architecture requires equally eccentric habits of living.

Frank Lloyd Wright's Prairie houses provoked similar responses a century ago, and for the same, finally ordinary reason that they expressed the social realities and constructional possibilities of their time free of any fictional pretense to past conventions. Prince just as matter-of-factly grounds his projects in the present specificities of site, client, program, budget, and materials. Results that strike us as surprising are to him simply the logical consequence of dealing with a project's constraints without any preconceptions beyond an open mind and an eye on current needs and opportunities.

A fourth-generation New Mexican, Prince works at the margins of fashion. In New Mexico's vast landscape, the natural continuities of mountain ranges and desert plains cut across the legal abstractions of modern borders and the physical traces of successive peoples who have settled the land. As J.B. Jackson observed in *A Sense of Place, A Sense of Time*, New Mexico is "the place where we see most clearly the impact of time on a landscape." This variability of place corrects, in Prince's view, the common perception of New Mexico as a singular land of enchantment characterized by its tradition of flat-roofed adobe buildings. The regional myth that has turned Santa Fe into the adoboid simulacrum of a rural village for New Age refugees from Hollywood or Manhattan is not for him. At home in Albuquerque, he lives in a present of automobiles, sprawl, strip malls, fast food, and popular entertainment. Like Bruce Goff, with whom he apprenticed after studying architecture at Arizona State University, Prince challenges the timid orthodoxies of respectable taste by engaging in his work the vernaculars of contemporary society.

Prince creates a stubbornly individual architecture that comments on the particulars of its place in time as much as in space. His work is an anomaly in our age of publicity, when differences of history are homogenized into the spectacle of Las Vegas and when architecture aims at the glossy imagery of reproduction. Prince never repeats a design—each is a unique solution to the infinite problems of creating a place. Instead, he organizes every site into spaces of experience that make us newly aware of what it means to inhabit the world. ■

Author of The Architecture of Bart Prince: A Pragmatics of Place (Norton, 1999), Christopher Mead is professor of Architecture and of Art History at the University of New Mexico, and president of the Society of Architectural Historians.

For more information about Bart Prince and his work, go to Projects at www.architecturalrecord.com

Mead-Penhall Residence Albuquerque

Rising diagonally above its neighbors on a suburban lot, the Mead-Penhall Residence is sheltered behind a northwest facade turned protectively to the street (below and opposite). Concrete block, 2x6 timber framing, plywood sheathing, stucco finish, and corrugated sheet metal make the most of a tight budget. The main spaces pool upstairs in a single volume, extending 100 feet and shaped in plan and elevation by a gentle arc that modulates the interior into different living areas. With walls of rough-sawn cedar plywood and a ceiling measured by plywood truss joists, this navelike room radiates outward to the horizon.

Credits/sources

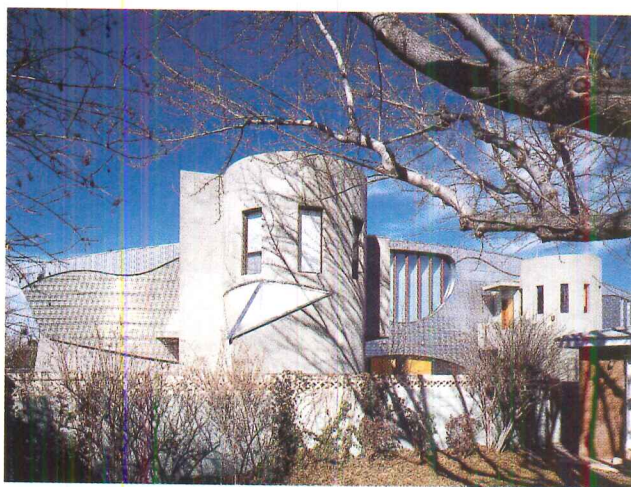
Architect: Bart Prince, principal-in-charge; J. Kory Baker, documents

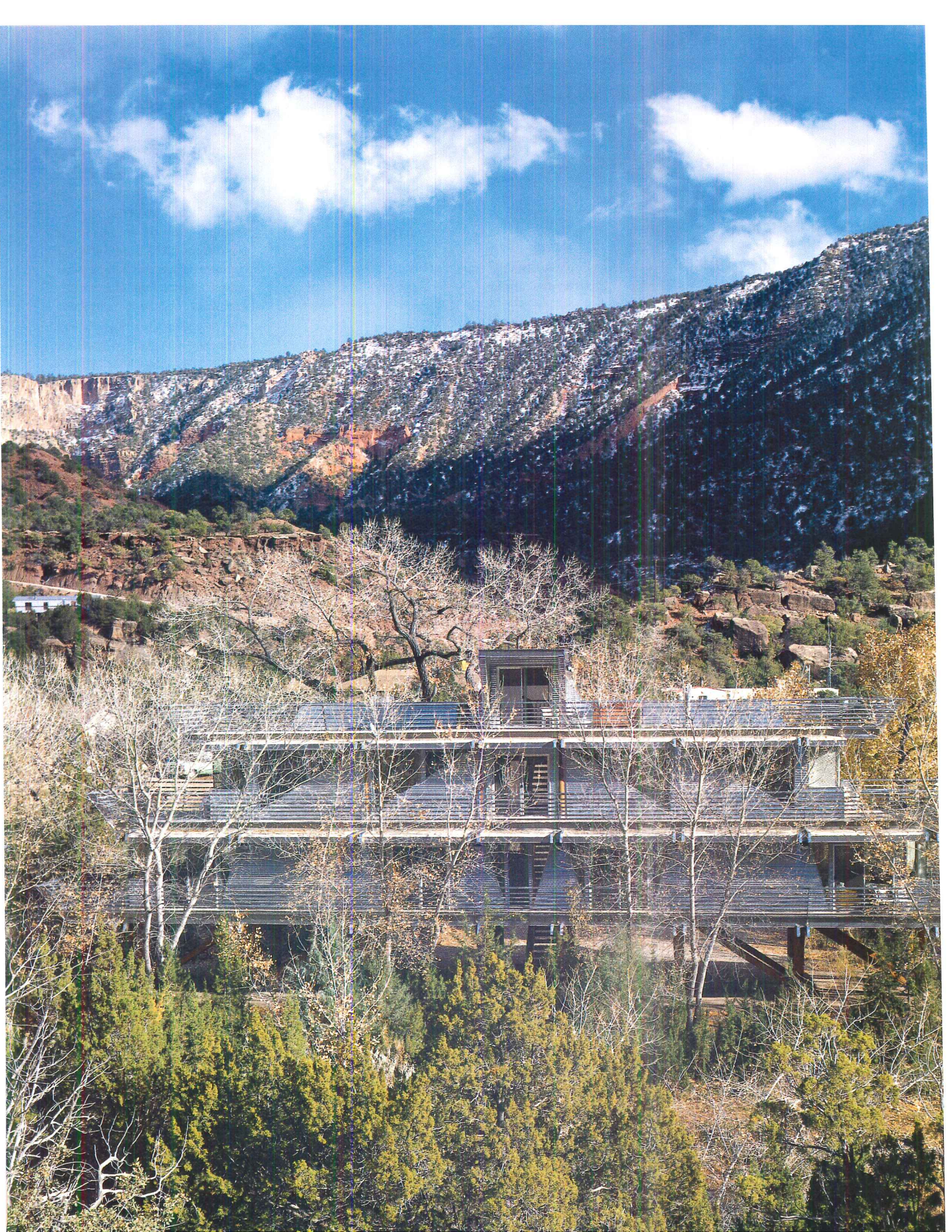
Owner: Christopher Curtis Mead/Michele M. Penhall

Engineer: Augie Mosimann, Engineering Associates

General contractor: Owner, with Martin F.M. Grummer, project manager

Metal siding: Barnmaster Co.







Borden-Wiegner Residence Jemez Springs, N.M.

The Borden-Wiegner Residence rises beside the Jemez River in a twisting valley edged by sandstone cliffs climbing to a brilliantly blue New Mexican sky. Because it stands in a flood plain, the house, like a stranded ark, is hoisted 15 feet above the riverbanks on untreated telephone poles. Glulam beams bolted to this frame hold trays of living space that angle outward past walls of Exolite and corrugated sheet metal to balconies with balustrades assembled from metal studs. A sketch in light dappled by cottonwoods and aspen, this product of industry makes an eloquently visual homage to the beautiful site.

Credits/sources

Architect: Bart Prince, design/principal-in-charge; J. Kory Baker, construction documents

Owner: Robert Borden/Kathleen Wiegner

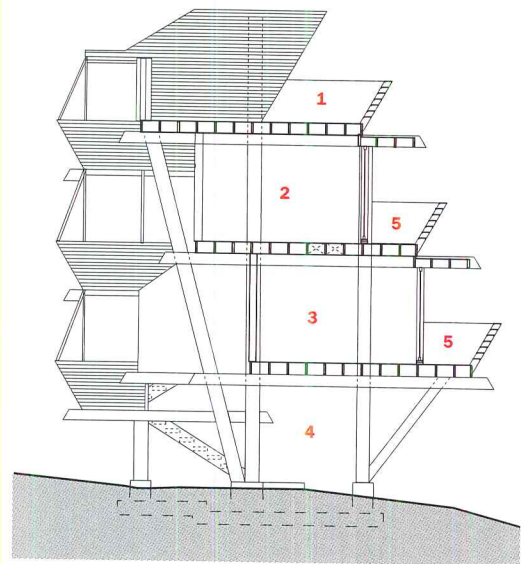
Engineer: Engineering Associates

General contractor: Duramax Construction

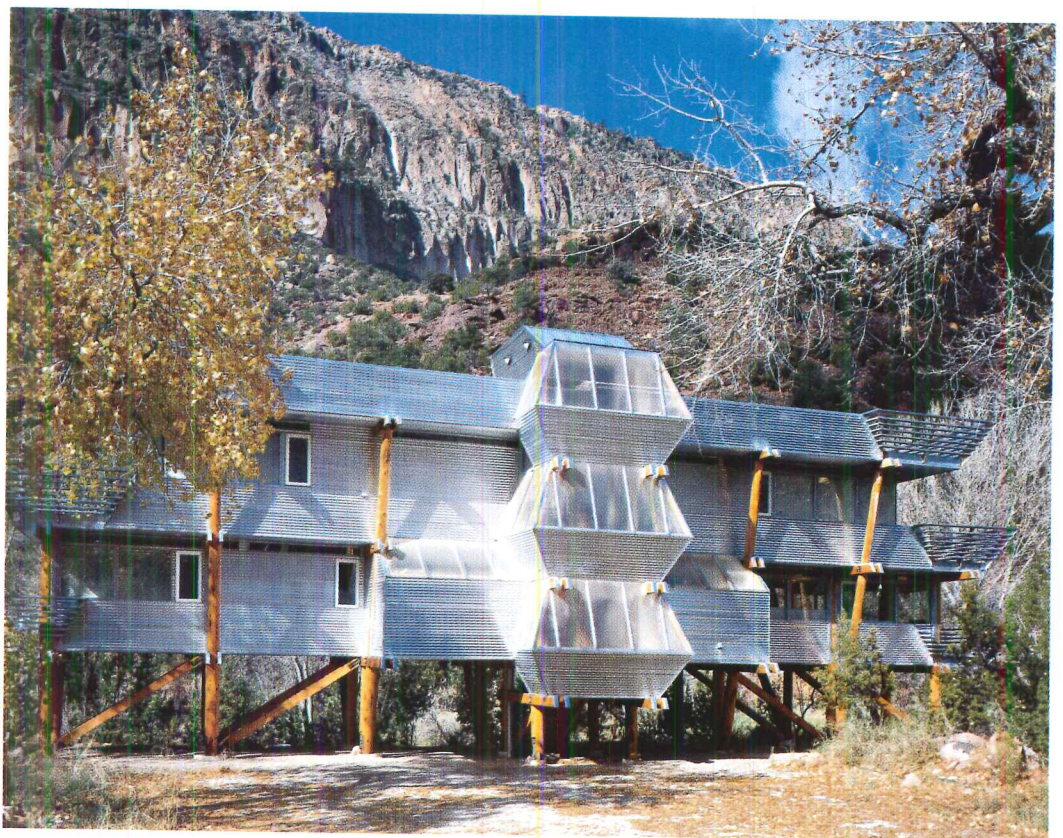
Roofing: J.P. Stevens Membrane/Lone Mountain Contracting

Metal siding: Barnmaster Co.

1. Roof deck
2. Master bedroom level
3. Main level
4. Open through
5. Deck



SECTION



La Casa Pueblo West, Colo.

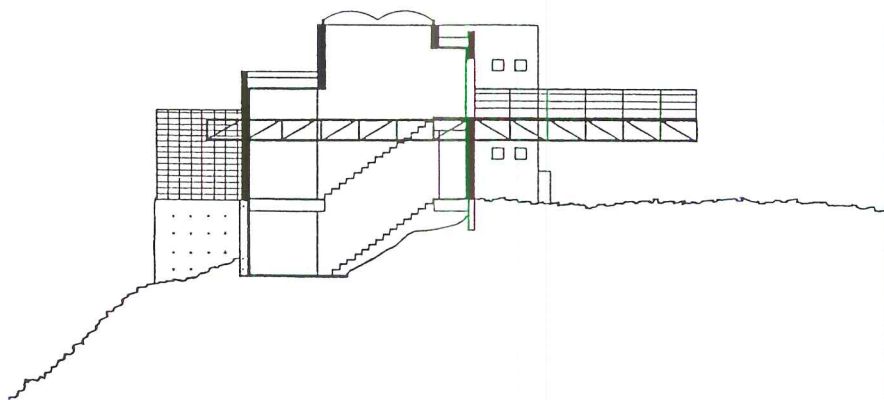
Elizabeth Wright Ingraham sees La Casa as an “intervention” on the landscape, not a “statement.” The 5,017-square-foot house sits on a soaring cliff outside Colorado Springs, where winds have been clocked at 110 miles per hour. The continuous erosion of the cliff forced Ingraham to place the house back from the edge, but she recaptured the drama of the steep drop with a 27-foot skywalk cantilevered from the second floor. The skywalk is supported by a 58-foot steel truss that pierces the house and adds drama to an otherwise simple plan. The owners, two doctors, can enter the house from the garage through a protected glass-block-lined corridor. Glazed concrete-block walls, concrete terraces, and radiant-heated floors insulate the interior against the extreme temperature changes throughout the day. A rooftop entertainment deck over the study keeps parties free of the rattlesnakes ruling the natural terrain.

Credits/sources

Architect: Elizabeth Wright Ingraham, principal; Joseph Miller, production

Glazed structural block: Spectra Glaze





Elizabeth Wright Ingraham reaches out to the landscape with rugged forms

By Cynthia Davidson

Hers was an auspicious beginning. Born in a room over the garage in her grandfather's home and studio in Oak Park, Ill., Elizabeth Wright immediately entered a world of architecture. The daughter of architect John Wright and granddaughter of Frank Lloyd Wright, Elizabeth at first wanted to become a physicist. But at 14 she gave up trying to master the concept of infinity and chose, instead, to study and build finite space, to become an architect. "How very original," her mother said upon hearing the news.

Elizabeth Wright Ingraham is a maverick, despite her architectural pedigree. Today, at "seventy-something," she is still working from her own home and studio in Colorado Springs. Her most recent projects, La Casa and the Solaz house, each won Colorado AIA Design Awards, and she was just elected the Colorado AIA president 2002. It is, she says, "a little bit of a pulpit," from which she plans to do a little preaching to the unconverted. "I'm fed up with the public image of architects. Architects have a good reputation but no one uses them. Architecture can lift the spirits of a whole town, can give you a sense of the future." And then, emphatically, "It's not an old blanket that you drag around."

That blanket was certainly discarded by her oldest daughter, Catherine Ingraham, who began her teaching career in comparative literature and gradually turned to architectural theory, taking the Wright lineage in a whole new direction (she is now chairman of graduate architecture at Pratt Institute). Elizabeth never dragged the Wright legacy around either, but rather built on what she learned at home to make her own mark.

She first studied at Berkeley and then transferred to the Illinois Institute of Technology, when it was still Armour Tech. Mies van der Rohe was the new director, and Elizabeth one of the three female students. During World War II she worked for the Public Works Administration in Puget Sound and headed up a joiner shop; when the war ended, she worked in the Oakland planning department. After marrying architect Gordon Ingraham, she moved back to Chicago and in 1947 got her Illinois license. Gordon worked for the imaginative Modernist George Fred Keck and Elizabeth for Fischer & Fischer, who experimented with prefabricated panels. With the postwar housing demand, architecture in



Chicago was booming, but the young Ingraham couple was drawn to the West, "hunting for the pot of gold at the end of the rainbow." They finally settled in Colorado Springs, population 29,000, opened Ingraham and Ingraham, and immediately attracted work. Later, Elizabeth watched the bulldozers excavating tons of earth for the Air Force Academy. It was "a job grandfather tried to get," she said, "but he didn't understand the politics of it."

The academy was only the first of many changes in Colorado Springs. As the population grew (it's half a million now) and development spread, Elizabeth changed too. In 1969, as a working mother with four children and a pending divorce, she founded the not-for-profit Wright-Ingraham Institute because, in short, "Architecture had gone to hell." The institute was housed in wood-and-canvas structures on a 640-acre campus called Running Creek Field Station—an environment reminiscent of the tents at Taliesin West—and offered graduate students a program in ecological and environmental studies, "everything they weren't being taught in school." Ingraham ran the institute for 11 years, putting it "on hold" when the ideas it embodied seemed to have run their course. "The issue is still education," she says today. "You can't make decisions without it." And Running Creek is still there, waiting to be reactivated at the right moment.

In 1983 she returned full-time to practice and opened Elizabeth Wright Ingraham Architects, "just in time for the recession." She laughs a survivor's laugh: The downturn was also an opportunity for study and travel. But she didn't wander far from her early interest in solar energy, block construction, and prefabrication, all evident in the sustainable architecture she builds today.

Though her life has been infused with architecture from the start, her philosophy now comes not from architecture but from the writer George Bernard Shaw, who said that one's life belongs to the whole community. He wanted, Elizabeth says, to be thoroughly used up when he died. It is a compelling idea, and one that clearly appeals to Ingraham as she embarks on the next, political phase of her architectural career. A little passionate preaching for architecture is certain to be on her agenda. ■

Cynthia Davidson is former editor of ANY magazine. Her critique of the Chancery of the Italian Embassy in Washington, D.C., appeared in the November RECORD.

WWW For more information on Elizabeth Wright Ingraham and her work, go to Projects at www.architecturalrecord.com

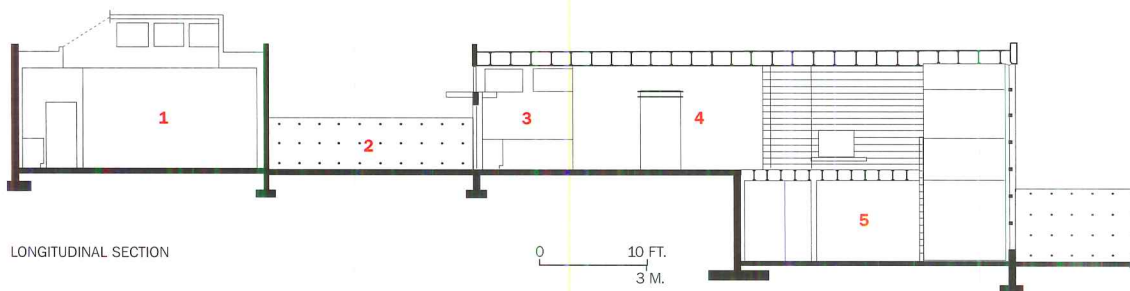
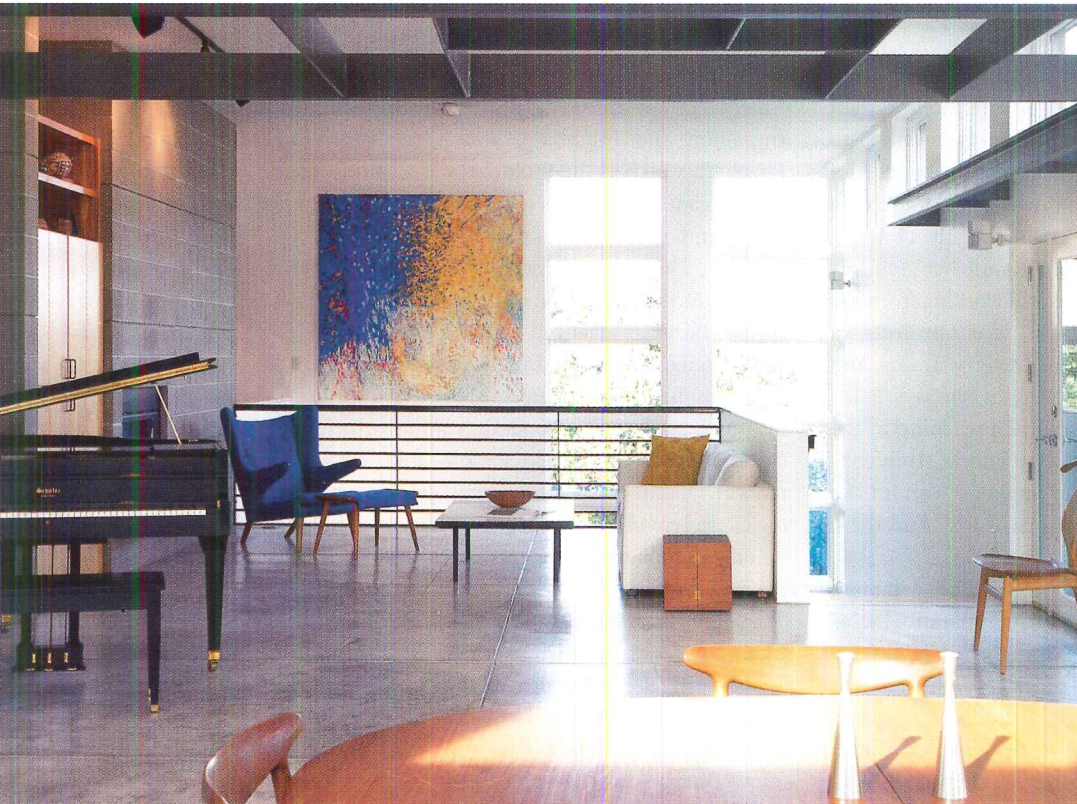


Solaz Manitou Springs, Colo.

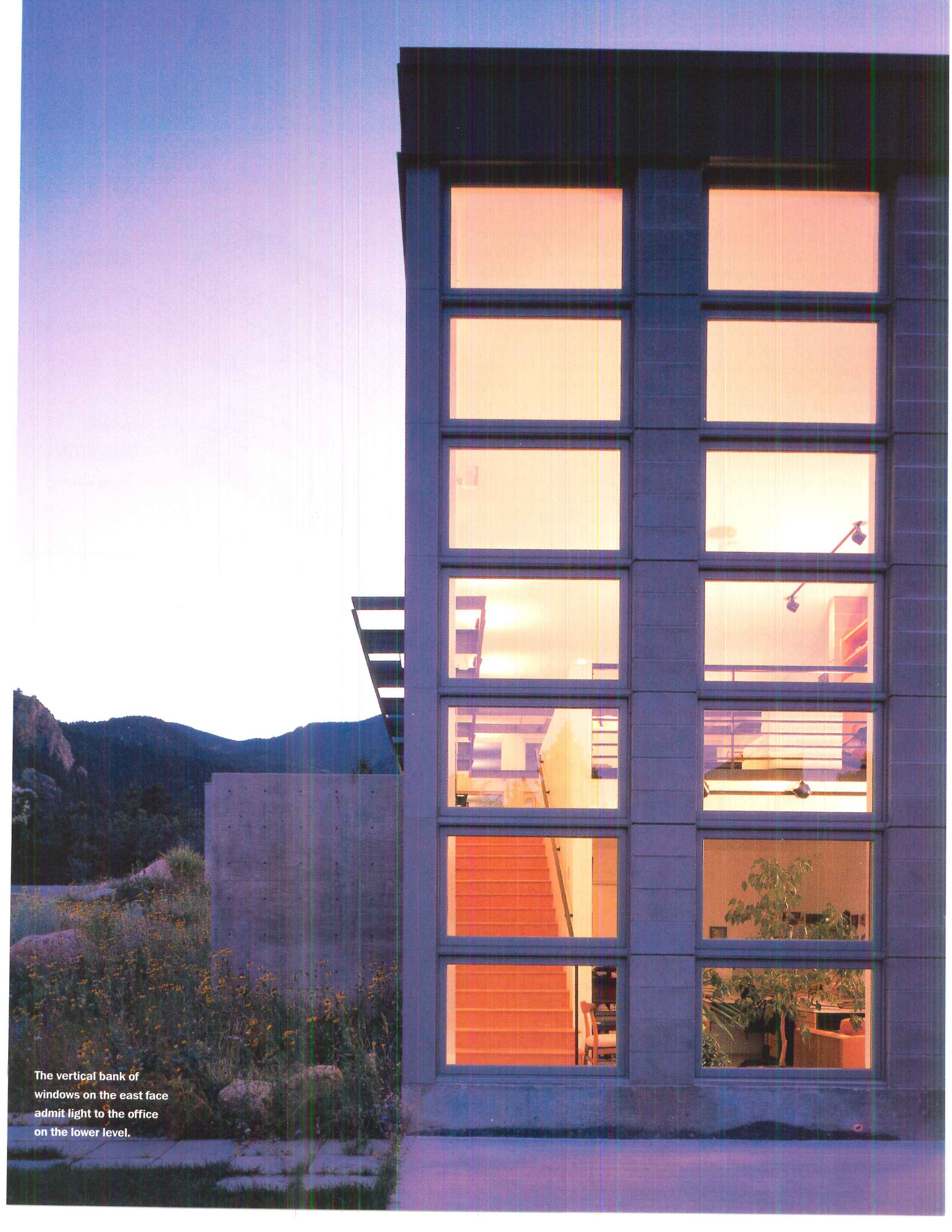
Sustainable architecture that weathers the elements and is easy to maintain is one of Ingraham's priorities. Solaz, a residence and artist's studio for a professional couple, nestles into a hillside beside a tall stand of oaks where it cannot easily be seen from the road. The 3,200-square-foot dwelling is built primarily of durable, unfinished concrete-block walls with a standing-seam metal roof that barely overhangs the facade. To add visual interest, Ingraham penetrated the two long facades with steel brise-soleils that cast shadows inside and out, and support lighting fixtures within. A protected concrete courtyard connects the studio and garage with the house and then flows into a raised terrace along the southeast elevation. The slope of the natural terrain exposes the house as it drops away, allowing a lower-level guest-and-office suite to be inserted underneath the living room (left) and master bedroom.

Credits/sources

Architect: Elizabeth Wright Ingraham, principal; Joseph Miller, production
Consultants: HCDA Chris White (structural engineers); Gernot Heindrichsdorf (landscape)
Windows and glass doors: Marvin
Wood doors: Weyerhaeuser



1. Studio
2. Courtyard
3. Dining room
4. Living room
5. Office



The vertical bank of windows on the east face admit light to the office on the lower level.

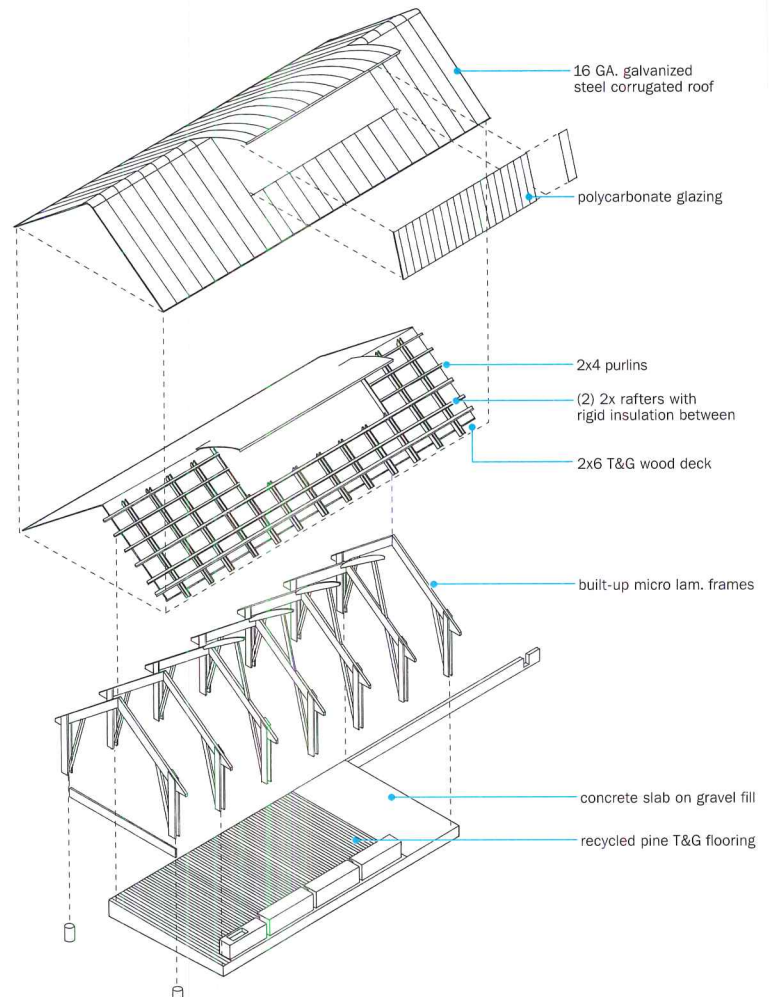
Frank Harmon crafts elegant buildings with simple materials and careful details

By Sara Hart

Frank Harmon's portfolio might be regional, but he draws on influences and experiences beyond his native North Carolina. Although he started his architectural training at North Carolina State University (NCSU) in the 1960s, he moved to London to submerge himself in the city's rich cultural landscape and to spend a year at the Architectural Association (AA). "The AA was the center of the architectural world at that time. Jim Sterling taught there. It was very exciting," recalls Harmon. One year abroad turned into 11 (interrupted by a brief return to New York in the early 1970s to work for Richard Meier), and he started his first practice there.

His decision to return to his home state in 1981 was based on a desire to live and work there, not a retreat from the competition and rigors of New York or London. In fact, Harmon's career disproves the conventional wisdom that challenging commissions and enlightened clients exist only in sophisticated metropolitan centers. "We are selective about which commissions we take. We prefer those projects no one else wants. Either the site is too difficult, or there are other restrictions," he explains. As a result, Harmon's portfolio is filled with comparatively small projects in which he has achieved a remarkable refinement with the humblest materials—plywood, plastic, and corrugated metal.

The projects shown here—the Wainwright Studio in Durham, N.C., and the Taylor House in the Bahamas—are examples of both challenging commissions and enlightened clients. The studio client was a marine biologist who had been a pioneer in biomechanics and the analysis of structure in nature. Now retired, with the opportunity to focus his artistic interests on sculpting, the client asked Harmon to create a space that com-

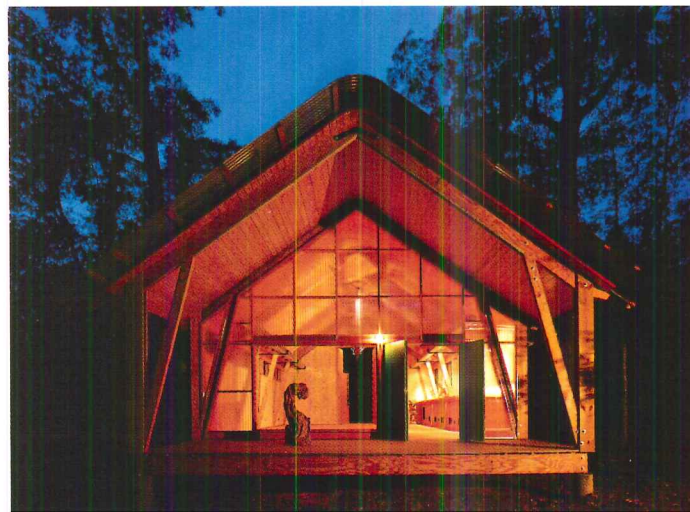


HARMON'S PORTFOLIO IS FILLED WITH SMALL PROJECTS IN WHICH HE HAS ACHIEVED A REMARKABLE REFINEMENT WITH THE HUMBLEST MATERIALS.

mented on the craft of construction and that echoed the chiseled nature of his sculptures. Not content to just design a rustic shelter, Harmon upped the stakes by asking the client to allow a team from his office to build it. "Having been a professor himself, he knew the educational value of learning from doing, so he agreed," says Harmon.

Similarly, the materials for the Taylor House came from the local Bahamian hardware store, and again Harmon's architect-as-artisan philosophy compelled him to combine them in unfamiliar ways—cantilevered roof trusses, epoxy-coated hurricane doors.

It's not often practical to build what one designs, but the occasional foray into the construction process has given Harmon a trust in wholesome materials and confidence that he can use them to make elegant spaces. The result is a vernacular modernism as slyly sophisticated as any found in New York or London. ■





A large window and a covered porch (below and opposite page) offer views from the studio to the wooded hillside. The roof has a 2-inch-by-6-inch tongue-and-groove

deck. The 16-gauge corrugated, galvanized metal that the architect specified for the roofing material is the same as that used to make curved forms in highway culverts.



Wainwright Studio Durham, N.C.

A team from Harmon's office designed and built this 1,188-square-foot sculpture studio over the period of a year.

The structure is constructed of built-up frames of microlaminated wood with a 2-by-6-inch tongue-and-groove roof deck. The exterior is clad in galvanized metal. An overhead crane rail (right and below) runs from outside down the center of the studio, allowing the artist to maneuver the one-ton logs from which he chisels large works. Polycarbonate glazing diffuses the northern light and creates a softly lit environment for sculpting.

Credits/sources

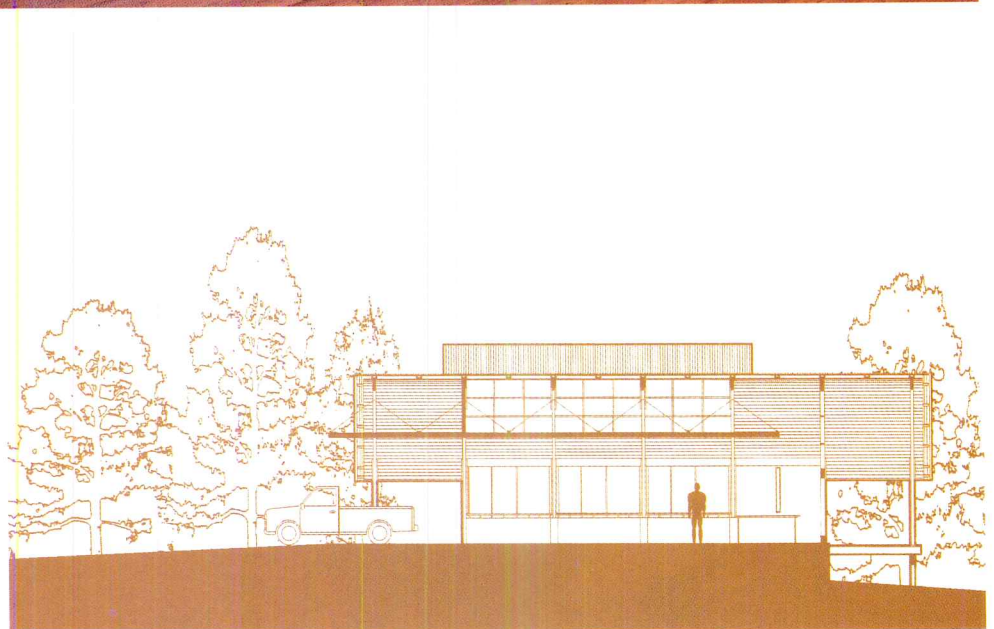
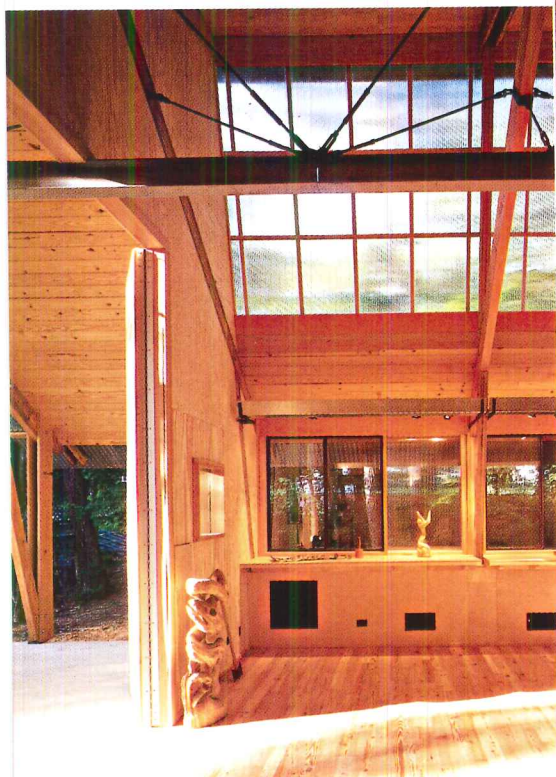
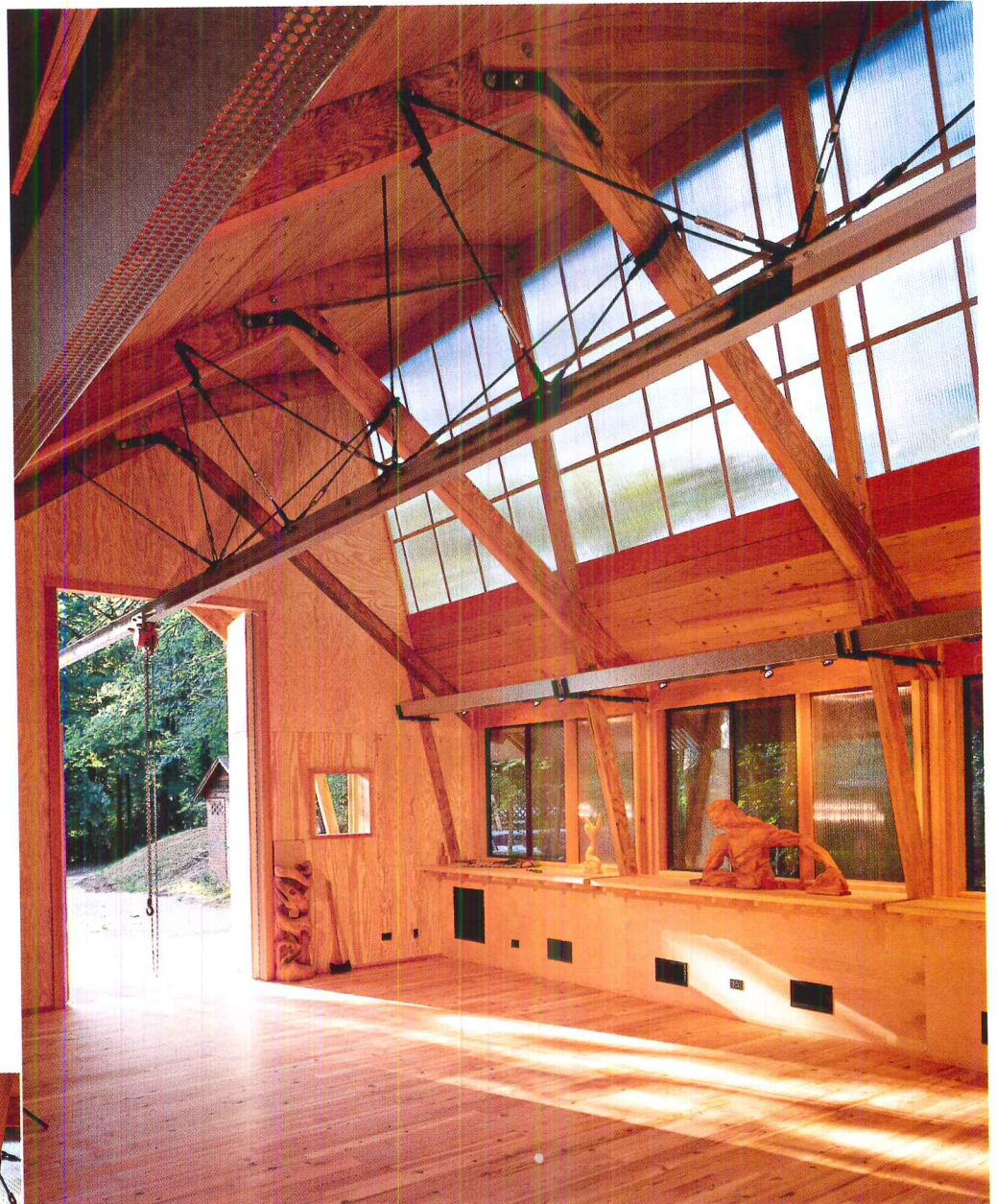
Architect: Frank Harmon, FAIA, principal; Vincent Petrarca, Robert Wagner, Aaron Brumo, Michael Beaman, design team

Construction team: Vincent Petrarca, Robert Wagner, Aaron Brumo, Michael Beaman, Anthony Jenkins

Corrugated metal: Contech

Polycarbonate glazing: Polygal

Continuous gear hinge: McKinney Hinges





Taylor House Scotland Cay, Bahamas

The clients wanted a simple house in which to spend six months of the year. The house is located on a small island, 30 minutes by boat from Marsh Harbor on Great Abaco.

In 1999 Hurricane Floyd pounded the Bahamas, causing extensive damage to the cay. While the storm erased all the landscaping from the property, the house itself withstood the 145-mile-per-hour winds undamaged. Because the water-collection system, which is required by law, was placed within the house, it remained protected from the elements, thus ensuring safe drinking water for the clients at all times.

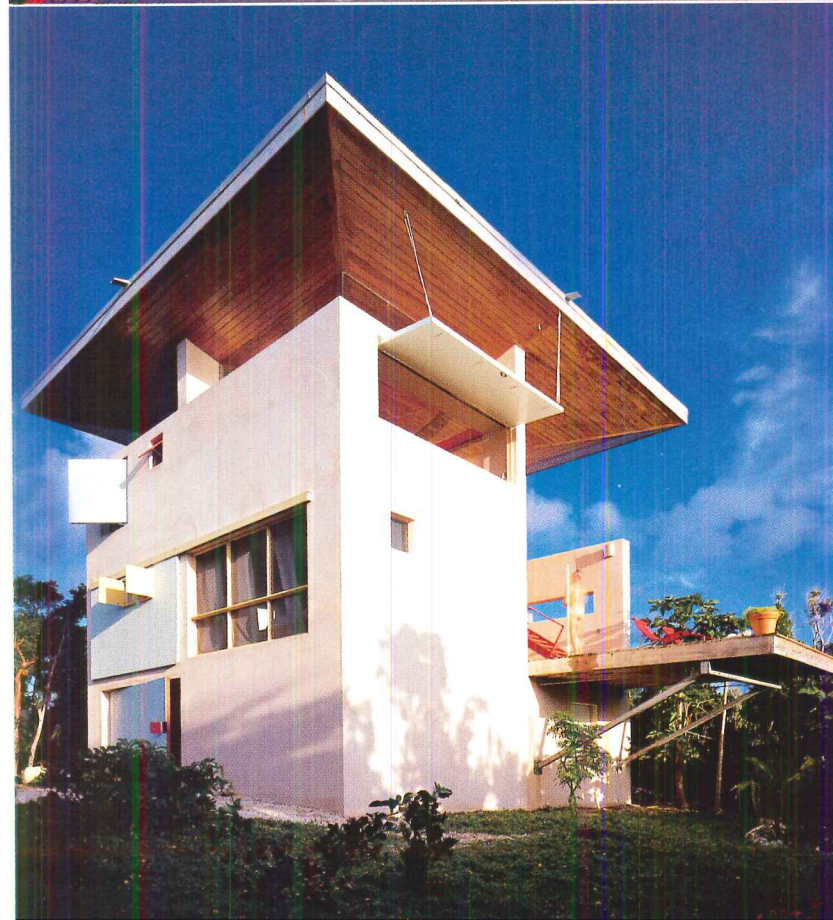
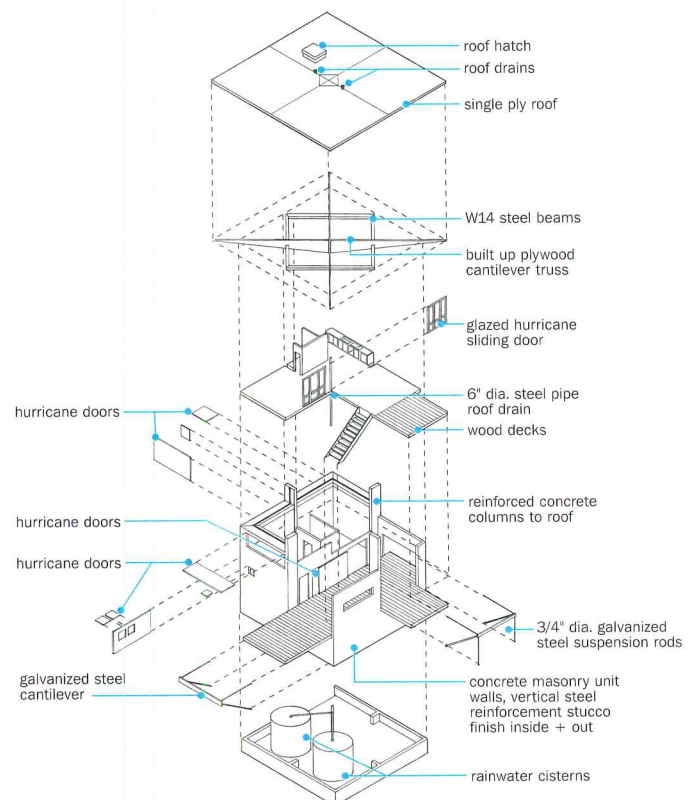
The shell is concrete and stucco with cantilevering roof trusses of marine plywood and treated lumber. Epoxy-coated hurricane doors seal all the openings.

Credits/sources

Architect: Frank Harmon, FAIA, principal; Vincent Petrarca, on-site project manager; Quan Banh, Janice Hocking, interior design

Roofing: Sarnafil

Hardware: Richards-Wilcox



The bedroom suite is located on the middle level. Stairs lead to an indoor/outdoor living area with magnificent views. The underside of the inverted roof is clad with cypress.







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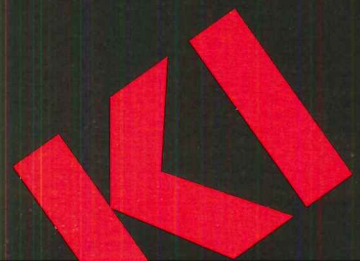
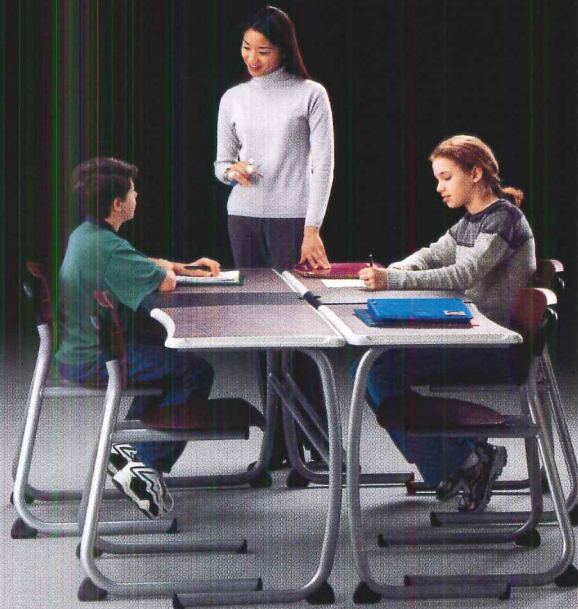
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Los Angeles

Making a silk purse out of a sow's ear, Daly, Genik converts an abandoned shopping center into an innovative charter academy.



2.

Palo Alto, Calif.

Simon Martin-Vegue Winkelstein Moris uses architecture to create a sense of community at a suburban Jewish day school.



3.

West Hartford, Conn.

An addition and renovation by Herbert S. Newman and Partners brings light, air, and a little jazz to a relic of the Brutalist past.



4.

New York City

A library addition by 1100 Architect acts as a conduit to a private school's varied past while also reaching out to its urban setting.

By Clifford A. Pearson

When two students at Columbine High School in Littleton, Colo., went on a rampage on April 20, 1999—killing 12 of their classmates, one of their teachers, and then themselves—they forced the nation to take a hard new look at its schools. What had gone so horribly wrong in Littleton, at this model of suburban, middle-class education? Experts and commentators pointed fingers in many directions—from the busy parents of the young killers to the morbid Goth music popular among the killers' clique. Some educators wondered whether the sheer size of the school, with its nearly 2,000 students, contributed to a sense of alienation felt by the kids.

"Who ever thought it was a good idea to put 2,000 kids together in one place to learn?" asks Steven Bingler, AIA, founding principal of Concordia Architects in New Orleans. "All of the research shows that students learn better in smaller schools," says Bingler, who has worked as a special consultant to the Office of the Secretary of the U.S. Department of Education. Although there are some economies of scale to consolidating so many students in one place, the strategy also has many costs—some clear (such as the need to bus kids long distances) and others less obvious (such as the reduction in parents' involvement in school activities because they too have to drive long distances to attend meetings or functions).

Because the large sites needed for big schools are usually far from a town's center, these institutions can contribute to urban sprawl and create a sense of isolation from daily community life. "After Columbine, a lot of people asked themselves, 'Why are we still building these monsters?'" exclaims Bingler. "We're spending \$18 billion a year on K-12 schools and we're making some gross errors."

Sticking with a sinking ship or reinventing it?

Some architects are responding to criticism of large schools by designing them as clusters of smaller academic "houses" or by providing breakout spaces for small-group learning. Bingler, though, characterizes such strategies as "rearranging chairs on the deck of the *Titanic*." Instead, he recommends scrapping the "factory-model school" and replacing it with smaller, neighborhood schools that reach out to their surrounding communities and share libraries, auditoriums, and recreational facilities with the public at large. Sharing can happen both ways: A school can open its facilities after school hours to everyone who lives in the area, or it can use existing resources nearby. When schools are located downtown or in higher-density areas, such sharing becomes more feasible and can save money by reducing duplication of resources. A good example of this kind

NEW: For 10 more school projects, go to Building Types Study at www.architecturalrecord.com. The monthly expanded Web BTS features project descriptions, photographs, drawings, statistics, and links to people and products.

of project is the Interdistrict Downtown School in Minneapolis [NOVEMBER 1999, page 114]. Designed by the Cunningham Group, the 520-student, K–12 school takes advantage of its center-city location by using its neighbors' facilities—such as the gym at the YMCA, the theater at the MacPhail Center for the Arts, and all the books at the public library. Why build an auditorium when there is a professional theater nearby that's dark during most of the time that students are at school?

Connecting schools to their communities is a critical part of educational strategy in the post-Columbine era. In Los Angeles, Marmol Radziner + Associates is taking a community-focused approach to its design for a new pre-K–12 charter school in a tough neighborhood. Set on a tight 3.9-acre site, rather than a sprawling campus, the Accelerated School of South Central Los Angeles (TAS) will face directly onto two city streets and rise four stories. Its rooftops and terraces will be playgrounds and dining spaces. In a city “that has always had the luxury of horizontal development,” TAS will be “a vertical campus,” says Leo Marmol, AIA, one of the firm's principals. Similar schools in Los Angeles typically have about 3,000 students, says Marmol. TAS will have 870 students when its new facility opens in 2003 and will welcome the public to use its library, gym, and auditorium. Designed to be a community hub for adults as well as children, TAS will even include a teacher-training program to be run by Cal State LA. “We want the school to serve as a central plaza for the neighborhood,” states Marmol. To reduce costs and encourage an ethic of recycling, the architects are converting two warehouses on the site.

For community schools to succeed, the community needs to be involved from the beginning—contributing to programming, planning, and design. “Years ago, I would get a call from a school principal or dis-

trict official and he would say, ‘We need a new elementary school with 25 classrooms. When can you get it for us?’” recalls Michael E. Hall, AIA, chief marketing officer for Fanning/Howey Associates, an Ohio-based architecture and engineering firm that specializes in educational facilities. “Now, there are all sorts of stakeholders whose input is essential. It's the biggest change in school design,” explains Hall. Parents, teachers, students, administrators, and neighbors now participate in the process. Although it adds a lot more time to the front-end phases of the process, such input, says Hall, is generally positive. “The schools are better, they fit into their communities better, and they're better accepted by everyone.”

In the Tenderloin district of San Francisco, the vision for a new kind of school began with the community itself. A rough-and-tumble

AFTER COLUMBINE, A LOT OF PEOPLE ASKED, “WHY ARE WE STILL BUILDING THESE MONSTERS?”

area best known for the drifters, drug addicts, and poor immigrants who live there, the neighborhood had no school until its residents took matters into their own hands. They organized themselves, hired AIA Gold Medalist Joseph Esherick to work as their architect, and eventually convinced city voters to pass a bond measure to finance the Tenderloin Community School. The 66,000-square-foot facility they built is a remarkable institution, combining medical and dental clinics, a family-counseling center, adult-education programs, a shared garden, and a community kitchen along with a preschool for 50 three- and four-year-olds and a 540-student K–5 school. Taking advantage of existing institutions, the school brought in the University of California's medical and dental schools to operate the health clinics and a local culinary academy to run the community kitchen. Most of the community functions are



Built in 1973, Columbine High School was typical of its era: sprawling and anonymous.



Designed by Marmol Radziner + Associates, the Accelerated School of South Central Los Angeles will address its corner location with a sleek facade of translucent polycarbonate panels and glass (left) and use rooftops and terraces for recreation, eating, and gathering (above).





The Tenderloin Community School in San Francisco by Esherick Homsey Dodge & Davis echoes the city's history of bay-windowed buildings.

on the ground floor, so they are visible from the street and can stay open when other parts of the school are closed. But the community spaces and the school share a common entry and are integrated as much as possible, says Jennifer Devlin, senior associate at Esherick Homsey Dodge & Davis.

Changing times are forcing educators to try new ways of putting together school projects. In Pomona, Calif., the local school district is taking an entrepreneurial approach to creating a \$25 million, K–9 community school, acting almost as a private developer would, says Brian Dougherty, FAIA, a partner at Dougherty + Dougherty Architects, the firm that is designing the project. Not only is the district assembling funding from a variety of local, state, and federal sources, but it is hoping the school will act as a catalyst for redevelopment in the area. Instead of starting from scratch, the school district will convert four empty office buildings and an old shopping center into a school called the Village @ Garey and will include community programs such as health clinics and outreach services. “We want to retain some commercial uses at the shopping center, such as a Kinkos and a drug store,” which would complement the educational and healthcare functions of the project, says Dougherty, whose firm has been involved in the project from the beginning. “The

architect’s role is changing with these projects,” states Dougherty. “Now we’re serving more as strategic partners, helping the school district make the best use of its resources and drawing up ideas.”

As enrollments rise, private schools, too, are expanding and reinventing themselves. Greenwich Academy in Greenwich, Conn., for example, is building a new upper school that will weave together architecture and landscape. Designed by Skidmore, Owings & Merrill, the project features a strikingly Modern series of clear glass boxes set within more solid buildings. The expansion should be finished in mid-2002.

What the numbers say

With the baby boom generation now sending its own children off to school, K–12 enrollment hit a record high of 53 million in 2000 and is projected to grow by another half million in the next five years. While the elementary-school population peaked last year at 35.2 million and is projected to slip slightly to 34.4 million by 2006, the number of students in junior and senior high school will grow from 17.8 million in 2000 to 19 million in 2006. According to the F.W. Dodge division of the McGraw-Hill Companies, 68.9 million square feet of elementary-school space was

TODAY ARCHITECTS ARE STRATEGIC PARTNERS TO SCHOOL DISTRICTS, HELPING THEM BEST USE THEIR RESOURCES.

built in 2000, while 22.2 million square feet of junior high school buildings and 79.1 million square feet of senior high schools were constructed. After the baby boomers went to college in the 1970s, the need for K–12 schools dropped precipitously, and many municipalities shed themselves of properties or converted them to other uses. That scenario is not expected to be repeated in the current decade, thanks to immigration and boomers’ tendency to stretch their biological clocks to their limits.

In this past year’s presidential and congressional campaigns, many candidates spoke of improving education. But as the projects shown here demonstrate, some educators and architects are already exploring new directions for our nation’s schools, rethinking basic concepts, and reconnecting schools to their surrounding communities. ■



Now under construction, SOM's new upper school for Greenwich Academy in Connecticut has five disciplinary clusters set between a lake and green fields.

Camino Nuevo Academy

Los Angeles

1

DALY, GENIK ARCHITECTS TURNS AN ABANDONED MINI-MALL INTO A CHARTER SCHOOL AND HELPS REVIVE A NEIGHBORHOOD IN THE PROCESS.

By Alice Kimm, AIA

Project: Camino Nuevo Charter Academy, Los Angeles
Client: Pueblo Nuevo
Architect: Daly, Genik Architects—Kevin Daly, principal-in-charge; Chris Genik, consulting principal; Robert Edmonds, job captain; Scott Allen, Alice Park, George Tolosa, Jared Ward, project team
Engineers: William Koh & Associates (structural); Retrofit Service Co. (HVAC); Briggs Electrical (electrical)
Landscape designer: Mia Lehrer & Associates
General contractor: Miller Contractor Company

Size: 11,300 square feet; 260 students
Cost: \$1.1 million

Sources

Artificial wood lattice: Nexwood Synthetic Lattice

Elastomeric roofing: Dex-o-Tex

Steel windows: Miller Metal Specialties

Aluminum windows: Fleetwood

Floor and wall tiles: Armstrong

Interior ambient lighting: Prudential

Downlights: Lightolier

www

For additional school projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com

Program

In 1992 an Episcopalian priest named Philip Lance left his Beverly Hills parish and moved to the MacArthur Park area of Los Angeles, one of the poorest neighborhoods in the city. Lance founded Pueblo Nuevo, a community group dedicated to improving local economic and social conditions. Camino Nuevo Charter Academy is one of its achievements.

With the help of EXED, a charter school developer, and Paul Cummins, a school specialist, Lance took over an abandoned mini-mall down the street from Pueblo Nuevo's offices and turned it into an elementary school designed by Kevin Daly and Chris Genik. The school serves 260 students in kindergarten through fifth grade from a series of classrooms and linked outdoor spaces that embrace an active courtyard.

Design solution

According to Anita Landecker, executive director of EXED, Camino Nuevo is "special because it is the result of a truly grass-roots effort. It took what was a blight in the neighborhood and transformed it." Working with a very tight \$1.1 million budget and a simple program, Daly, Genik stripped the existing

Alice Kimm, AIA, is a partner in the Los Angeles firm John Friedman Alice Kimm Architects.



building (a two-story wood-frame structure on top of a concrete basement garage) and reconfigured the interior into 12 classrooms with patterned vinyl-tile floors and colored exterior walls.

Because the second-story walkway that wrapped around the strip mall's parking lot was too narrow for a school, Daly, Genik widened it and introduced a curving lattice element and new stair that animate what is now the courtyard facade. More than just an exterior corridor, the new walkway expands at points to form outdoor rooms and waiting or lounge areas. At eight feet high, the lattice works as a sunscreen and prevents balls and other flying objects from damaging second-floor windows. Formally, it has the power of a recognizable architectural icon.

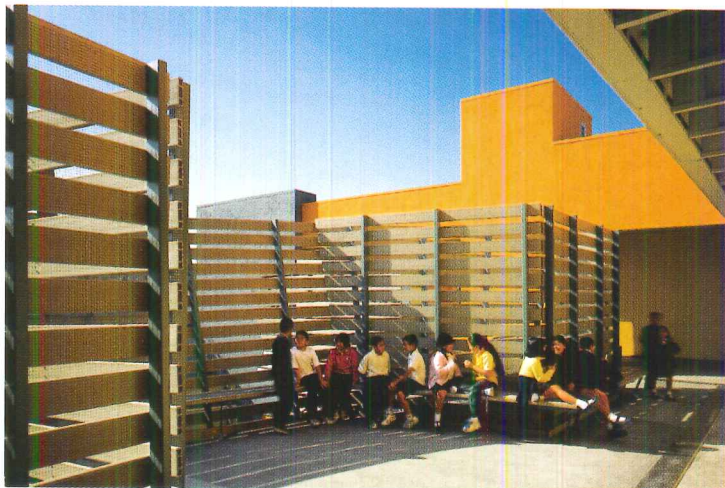
The lattice, which informs so much of the building's identity, is made of a recycled material that is a mixture of reclaimed plastics and cellulose fibers composed of sawdust and rice hulls. The material looks like wood but resists moisture, bacteria, and termites.

The school's street facade is a play of planes that push in and out and work with planted areas to activate the sidewalk. The smoothly stuccoed and windowless wall hides a new bathroom wing. Although a block of rest rooms seems an odd way of addressing the school's street edge, the architects designed it as a faceted, sculptural element that engages the public realm.

The architects converted the old mini-mall's parking lot into a multisloped courtyard that serves as the school's playground, assem-

The main public facade of the school (opposite) combines a sense of security and lively engagement with the street. Inside the courtyard, the architects turned an outdoor stair into a key sculptural element.





bly area, cafeteria, and multipurpose space. They also added a concrete amphitheater at one edge of the yard and planned the entire outdoor area so students and staff can bring out tables, basketball hoops, and flagpoles at a moment's notice. "The courtyard is

very active, almost always in use," says Daly. One of the most enduring contributions to the neighborhood is the life-affirming sound of children playing.

Daly comments: "Whereas our other projects spill into the city fabric in small ways that can have a

big impact, here it was the opposite; we wanted this to be a shade garden to serve the social program of dropping off and collecting kids."

Educational approach

Most students at Camino Nuevo are the children of recent immigrants who speak little English and move frequently. As a result, many students attend the academy for only a year or two. The school seeks to acclimate these children with a literacy program that challenges them to become fluent in English quickly. The school's academic year is an intense, longer-than-average 200 days. While the student body turns over rapidly, the school itself is meant to be a stabilizing force within the neighborhood. It aims to equip its students to deal confidently with the outside world.

Commentary

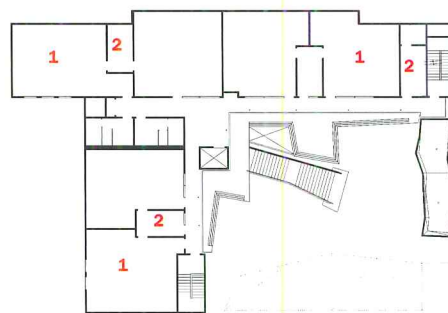
At 11,000 square feet, the project is quite small. Its modesty, noted in light of the powerful effect it has had on the neighborhood, shows how meaningful architecture can be, even if it isn't monumental or expensive. The building repairs a rift in the city fabric left by the abandonment of an unappealing mini-mall. Furthermore, its sequential and transparent layering—from the public sidewalk, into the courtyard, up the stairs, into the interstitial exterior "rooms" along the upper walkway, and finally into the classrooms—promotes social interaction.

By reworking a strip shopping center into a school, Daly, Genik has captured the potential of a generic building type, transforming it into a vibrant institutional and cultural facility. ■

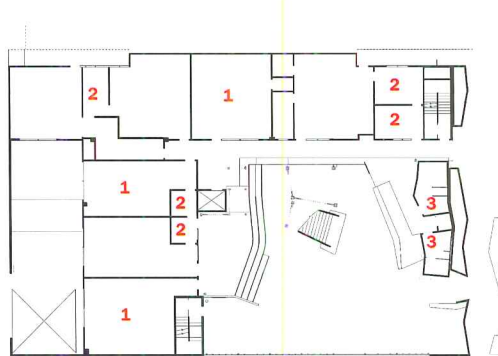


Daly, Genik converted retail space into 12 straightforward classrooms (above). Aside from teaching, most activities at the school—including eating, playing, and

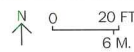
socializing—take place outdoors, either in the school's central courtyard (top and opposite top) or in the widened walkway on the second level (opposite bottom).



SECOND FLOOR



FIRST FLOOR



- 1. Classroom
- 2. Office
- 3. Toilets

Mid-Peninsula Jewish Community Day School Palo Alto, California

2

SIMON MARTIN-VEGUE WINKELSTEIN MORIS DESIGNS A SCHOOL THAT TAKES ADVANTAGE OF THE TEMPERATE CALIFORNIAN CLIMATE.

By Lisa Findley

Project: Mid-Peninsula Jewish Community Day School
Palo Alto, Calif.

Architect: SMWM (Simon Martin-Vegue Winkelstein Moris)—Cathy Simon, FAIA, partner-in-charge; Bill Bondy, AIA, Phred Starkweather, AIA, Doug Hoffelt, AIA, Thomas Lumikko, Michael Bautista, Jim Koentopp, AIA, project team

Engineers: Nishkian & Associates (structural); Guttman & Blaevoet (M/E/P); Sandis Humber Jones (civil)

Consultants: CTLK (landscape); Wilson, Ihrig & Associates (acoustical); Architectural Lighting Design (lighting);

General contractor: W.L. Butler

Size: 23,000 square feet; 240 students

Cost: \$4.7 million

Sources

Curtain wall: Silicon Valley Glass

Mineral-fiber siding: Hardiplank

Metal roofing: BHP

Skylights: Kalwall

Acoustical ceilings: Armstrong

Markerboards and chalkboards: Greensteel

WWW

For additional school projects

and more information on the people and products involved in this project, go to Building Types Study at

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Program

Reinforcing a sense of Jewish identity among the children of mostly affluent families in Silicon Valley was one of the key goals of the newly founded Mid-Peninsula Jewish Community Day School in Palo Alto, Calif. But rather than emphasize religious symbolism, the school wanted to bring students closer to their Jewish heritage by creating a sense of community. The job of expressing this community architecturally in a 240-student, K-5 school was given to the San Francisco-based firm Simon Martin-Vegue Winkelstein Moris (SMWM), due, in part, to the firm's extensive track record with other private schools in the area, including the University High School, the Urban School, and the Lick-Wilmerding School [RECORD, OCTOBER 1997, page 122].

Drawing on its K-12 experience, SMWM designed a 23,000-square-foot, \$4.7 million day school for Mid-Peninsula that would fit on a tight 1.5-acre site along a busy street, while also coping with vocal neighbors, a low density allowance, and Palo Alto's strict design-review process. After construction began, a shooting at a Jewish daycare center in Los Angeles added security as a critical concern.

Contributing editor Lisa Findley writes about architecture and teaches at the California College of Arts and Crafts.



Design solution

The question of style arose early in the design of the building. The conversation was not about finding a "Jewish" style, but rather responding to a desire by some of the client group for a reference to the Spanish Revival buildings of Stanford University's nearby campus. SMWM successfully argued that such a style, built within the project's budget with today's technology and craft, would seem flimsy and fake.

So instead of imitating a particular style, SMWM took advantage of the mild climate of northern California to shape the building in a way that would enhance its sense of community. To that end, the building wraps around a multiuse courtyard with classrooms opening onto 20-foot-wide covered walkways that gather circulation and views onto

the grassy central play area.

Generous porches connect the classrooms directly to the courtyard. A curving roof on the kindergarten and first-grade wing, kept at one story to appease nearby homeowners, seems to protect the younger students, while a larger curving roof on the school's two-story wing suggests a grander scale appropriate for an institution of learning. The larger roof also shelters a walkway on the upper floor that serves as an important social space for the kids. Double columns and exposed steel beams supporting the second-story walkway illustrate the structure, showing students how the building was put together, while also breaking down the scale of the building.

The building also engages children with a dynamic main stair rising from a curvilinear platform,

For security reasons, access to the school is limited to a gated entry beyond a wooden canopy (bottom and left in photo below). Covered walkways on the courtyard side provide space for play (opposite).



The main stair has a landing designed as a “crow’s nest” where kids can watch all the action in the courtyard (right). A one-story wing houses younger students (below), while both wings have classrooms with cross ventilation and plenty of daylight (opposite).





nicknamed the “lily pad,” where students can sit and hang out. Another favorite place for students to play is the stair’s midlevel landing, whose form echoes that of tree houses and crow’s nests and whose marine-plywood guardrail has cutouts that let kids spy on friends and teachers.

The large daylight classrooms are a teacher’s dream, with ample storage built into almost every wall, yards of pin-up space, and a sink in each room. At the intersection of the two classroom wings is a spacious light-filled art and music room. Due to the low floor-area ratio allowed by the site’s residential zoning, the library had to be pushed into a basement level. However, large light wells, along with built-in furnishings and lively colors, dispel any feeling of being underground.

Administrative offices overlook the steel-gated entry area, providing security where it is needed most. On the other side of the main entry, a Biblical Garden with plants cited in the Old Testament adds a softer touch.

Out front, a parking lot and mature trees buffer the building from the busy street, while large bay windows projecting from the classrooms reduce the bulk of the facade. SMWM specified a vivid yellow for the metal panels sheathing the front bays and for metal elements on the courtyard side of the school. According to SMWM’s principal-in-charge, Cathy Simon, FAIA, the color,

criticized by some of the neighbors as too garish, has become, for the children, an emblem of the school.

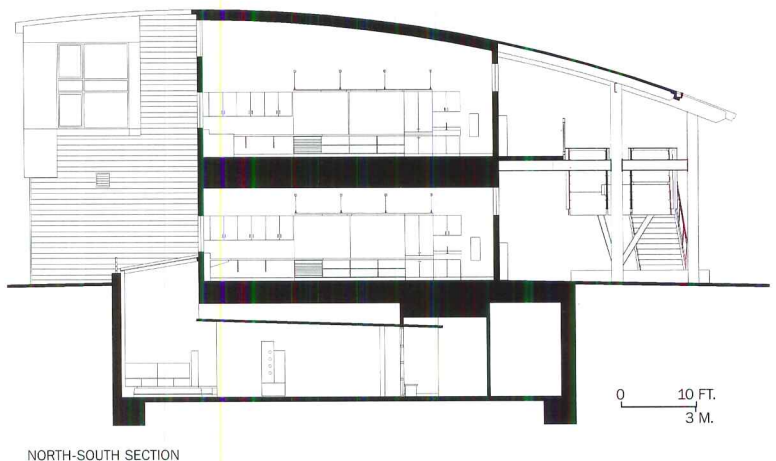
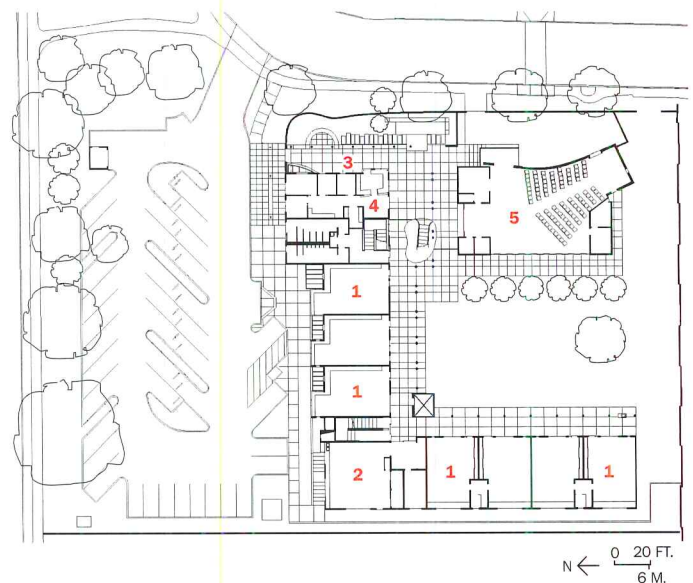
Educational approach

While the building program may be similar to other small private schools, the educational approach of this progressive Jewish school combines religious and secular studies in a demanding schedule. Students spend 30 percent of their seven-hour day studying Hebrew and Judaica, with the balance devoted to nonreligious subjects.

Commentary

The Mid-Peninsula Jewish Community Day School is not flashy or trendy architecture. Instead, it impresses users and visitors with careful planning and well-detailed contemporary materials. The building itself offers an education in how buildings are made: its exposed structural connections, for example, teach simple statics, while its bay windows show how seemingly repetitive elements can actually have small, intriguing differences. The \$200-per-square-foot building is designed to delight children—even the emergency-exit stairs, which are enlivened with daylight, dashes of color, and slots between runs that let students see who’s coming. While responding to children’s need to run up stairs, spy on each other, and have fun, this building never talks down to students. Instead, it treats them with respect. ■

1. Classroom
2. Arts
3. Biblical garden
4. Administration
5. Assembly (unbuilt)



NORTH-SOUTH SECTION

William Hall High School

West Hartford, Connecticut

3

HERBERT S. NEWMAN AND PARTNERS' ADDITION AND RENOVATION HEALS ARCHITECTURAL WOUNDS FROM A PREVIOUS ERA.

By Elizabeth Harrison Kubany

Project: William H. Hall High School addition and renovation
West Hartford, Conn.

Client: Department of Community Services, Town of West Hartford

Architect: Herbert S. Newman and Partners—Herbert S. Newman, FAIA, Richard Munday, AIA, James Reilly, Mai Wu, Stephen Weeks, AIA, Joseph Huether, AIA, Carl Wies, AIA, Rupinder Singh, Nancy Restivo, Joseph Ferucci, Lindsay Suter, AIA, Joseph Rufrano, Jeffry Boyd, Gwen Emery, George Barnes, project team

Engineers: Van Zelm Heywood and Shadford (M/E/P); Barnhart, Johnson, Francis and Wild (structural)

Consultants: Carl Rosenberg (acoustical); Strong Cohen Graphic Designers (signage)

Size: 20,000 square feet (new); 250,000 square feet (renovated); 1,500 students

Sources

Curtain wall: Vistawall

Acoustical ceilings: Armstrong

Cabinetwork: Conco Woodworking

Carpeting: Karastan

Downlights: Lightolier

WWW

For additional school projects

and more information on the people and products involved in this project, go to Building Types Study at

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Program

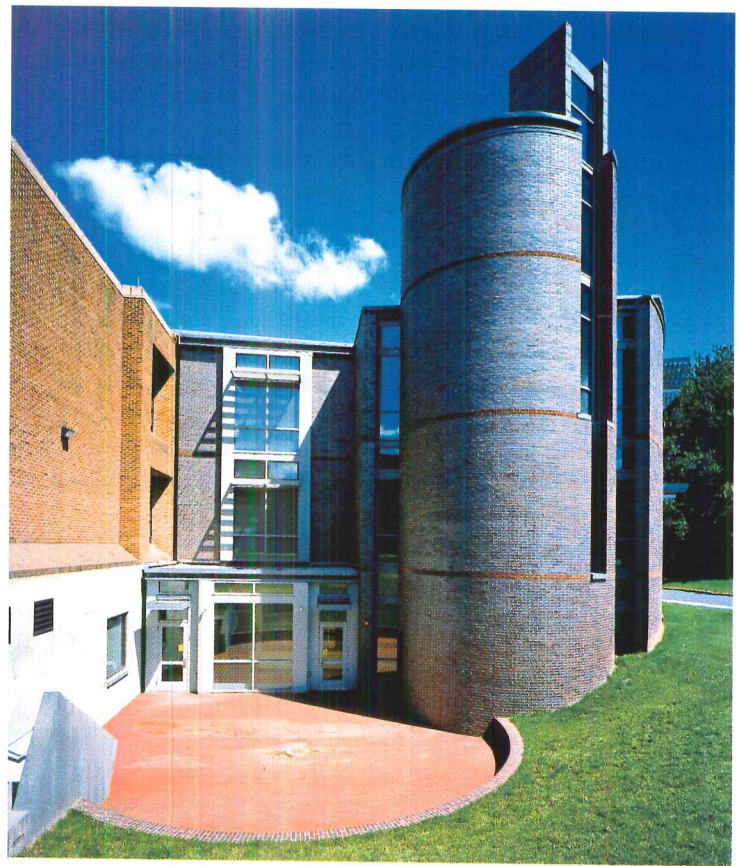
Brutalism was the style of choice for institutional buildings in 1970, when William H. Hall High School in West Hartford, Conn., opened its doors. Like other buildings of this period, Hall High had elevations with small windows (to cut energy costs) and deep floor plates with large areas far from daylight and natural ventilation. In its banality and coldness, the school sent a negative message about the experience of learning.

So when West Hartford's Department of Community Services hired Herbert S. Newman and Partners to renovate Hall High, it asked the architects to change the dark and brooding building into a different kind of place. With enrollment projected to grow from 1,200 to 1,500 students and changes in curriculum planned, the existing 250,000-square-foot building needed to expand as well.

Herbert S. Newman, FAIA, says the project's goal was "a transformation that would give the students a sense that the town cared for them. The clients wanted to demonstrate that a school building can be architecture and that architecture and the physical environment can play a role in helping one learn."

Design solution

The architects located the project's 20,000-square-foot, three-story addition on the northeastern corner of the existing building, where it



would front the main access road to the school. Although not at the school's main entrance, the addition has a high public profile. "By making the addition clearly visible to everyone who enters the site, we tried to create the sense that something new and exciting is happening at the school," explains Newman.

With its curved form and looming stair tower, the addition acts as a foil to the horizontal mass of the old building. The curved stair tower

rises eight feet above the rest of the addition and the existing building to mask a tangle of mechanical equipment on the roof. At night, when it is lit, the tower's lead-coated copper lantern acts as a beacon.

In contrast to the almost windowless existing building, glazing is generous on the addition's northern elevation and, to a lesser extent, on its eastern facade. The architects designed the bright, airy spaces here as art studios, general classrooms,



While the existing building (left in photo left) kept windows small to reduce energy costs, the new 20,000-square-foot addition features generous glazing to enliven learning spaces. A curved stair tower (opposite) adds a vertical element to the strongly horizontal composition.





Spaces in the new building include art studios, general classrooms, and state-of-the-art science laboratories such as the one below.

- | | |
|-------------------|----------------------------|
| 1. Classroom | 7. Large-group instruction |
| 2. Faculty center | 8. Administration |
| 3. Library | 9. Auditorium |
| 4. Pupil services | 10. Music |
| 5. Gymnasium | |
| 6. Computer lab | |

and science laboratories. Providing more daylight was a driving force behind the reorganization and renovation of the existing building. (Budget constraints limited renovations to just portions of the old building.) At strategic locations the architects punched new window openings into the old building and moved offices and teaching areas into these spaces. They also shifted pupil services and guidance areas from dark areas of the building to redesigned spaces in prime locations. The library, which had been difficult to access from parts of the building, also got extra space and a more prominent entrance.

For the addition, the architects specified materials that were compatible with, but not identical to, those in the existing building. For example, rather than the terra-cotta brick of the 1970s buildings, the architects used an aubergine-colored brick veneer with horizontal lines of terra-cotta running through it. Since the bricks are glazed, they shimmer like the building's lead-coated copper-roof copings. The whole simultaneously complements and defies the monotonous expanse of the old Brutalist structure.

Educational approach

Although the primary purpose of the new building is to provide needed extra space, it also accommodates one curriculum change—the creation of discipline-based resource rooms where students go to study a particular subject and work closely with faculty who teach this subject.

Commentary

Unlike the 1970s Brutalist building, which sent a negative message, Newman and Partners' addition does the opposite. As project manager Richard Munday, AIA, explains, "In creating spaces of varying architectural character and in assembling normal building materials in a way that is different from what the students are used to, we've tried to create a building that teaches kids about a larger culture and greater possibilities in the world." ■





All of the classrooms and spaces in the addition enjoy plenty of daylight and views. In renovating the old building, the architects tried to bring sunlight into spaces that had once been dreary.

Little Red School House

New York City

4

1100 ARCHITECT GIVES A SMALL PRIVATE SCHOOL A MORE PUBLIC FACE WHILE ADDING A NEW LIBRARY AND RENOVATING EXISTING BUILDINGS.

By Clifford A. Pearson

Project: Little Red School House addition, New York City
Client: Little Red School House and Elisabeth Irwin High School
Architect: 1100 Architect PC—David Piscuskas, AIA, Juergen Riehm, AIA, partners-in-charge; Carmen Lenzi, project manager; Bobby Young, Erica Friedland, project team
Engineers: Robert Silman Associates (structural); Cosentini Associates (mechanical/electrical/plumbing)
General contractor: Scordia & Diana Associates

Size: 10,000 square feet (new); 20,000 square feet (renovated); 450 students
Cost: \$2.9 million

Sources

Brick: Marsailles Brick
Storefront curtain wall: Kawneer
EIFS: USG
Aluminum windows: Winco
Glazing: Viracon
Skylights: Supersky
Metal doors: Acme
Cabinetwork: ISI Millwork
Wood-slat ceiling in cafeteria: Rulon
Ambient library lighting: Delray
Library stack lighting: Lightolier

WWW

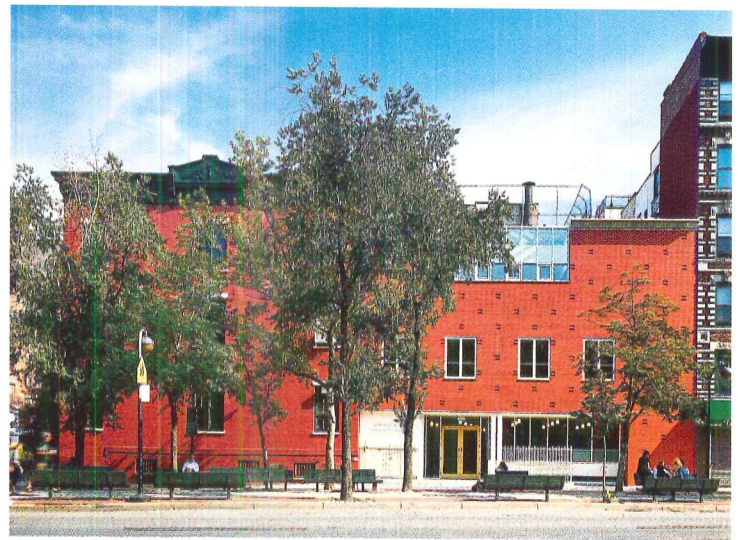
For additional school projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com

Program

From the street, it looks like a neatly packaged addition to an urban school that had grown piecemeal over the years. But the new 10,000-square-foot building, with its glass-fronted library on the ground floor and skylit art room on the top, is really just the tip of a programmatic iceberg. Because the addition connects two existing structures built at different times and with different floor heights, it must negotiate seven different levels and tie everything together.

Planning the project required rethinking nearly every aspect of the Little Red School House's lower- and middle-school campus, says David Piscuskas, AIA, one of the partners in charge of the project for 1100 Architect. "We reshuffled the whole deck of cards," states Piscuskas, who happens to be the parent of a former student. "We found new homes for everything," including the school's cafeteria, administrative offices, and support spaces. The \$2.9 million project involved renovating 10,000 square feet in each of the two existing buildings, as well as erecting the new building. It also resulted in a more prominent public face for the school and a new entry plaza that better connects the school with its neighborhood.

Before initiating the expansion, "we'd run out of space," states Andrew McLaren, director of Little Red School House and Elisabeth



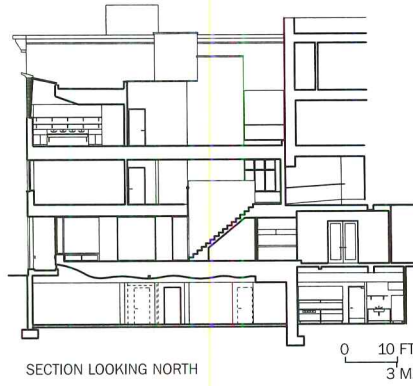
Irwin High School. Little Red, which occupies simple, residentially scaled buildings in Greenwich Village, comprises kindergarten through eighth grade, while its sibling institution, Elisabeth Irwin High School, occupies separate facilities a few blocks away. Enrollment at Little Red had grown in recent years, exerting pressure for more space and better facilities. And because the existing buildings were connected only at their lower two levels, movement between the lower and middle schools was often circuitous.

Design solution

Instead of merely adding more space behind the existing buildings, 1100 Architect designed the new structure to reorient the school from its traditional front on Bleecker Street to a new entry and plaza on

Sixth Avenue. Not only did this shift give the school greater visibility in the neighborhood but it also provided a more generous drop-off and pick-up area where parents could sit and chat in the new landscaped plaza. Although the architects specified red brick as a link to the older buildings, they recessed some of the bricks and used generous glazing to announce a new, more open and modern attitude. "It's both an addition and a stand-alone building, if that's possible," explains Piscuskas. It also mediates between the older school buildings and a flamboyant Italianate building to the south.

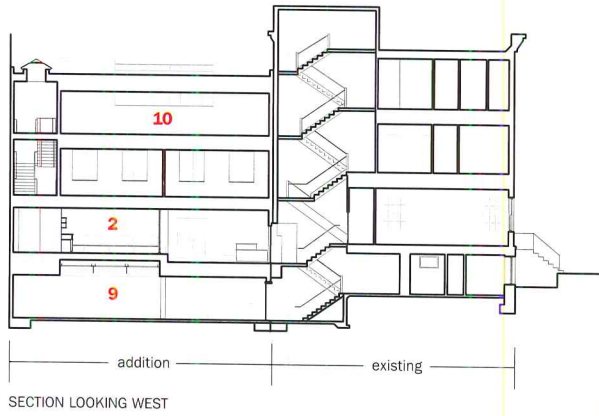
The ground floor of the new building now serves as the main entrance to the school with a spacious, daylight lobby and security desk. A new library, set a couple of feet above the fray, looks onto the lobby



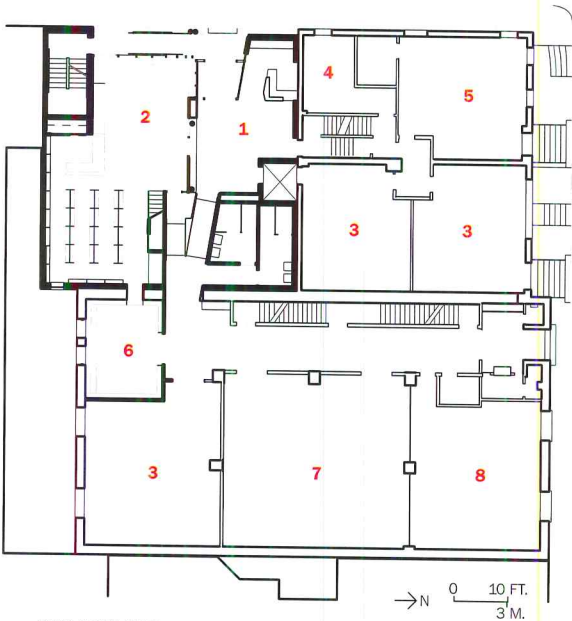
SECTION LOOKING NORTH

The addition fronts Sixth Avenue with a new entry plaza (opposite and below) and includes a skylit art room on the top floor (left) and a new lobby and library on the ground floor. A subtly animated brick facade “mediates” between an Italianate apartment building (right in photo opposite) and the old school (left in photo).





- 1. Lobby
- 2. Library
- 3. Classroom
- 4. Office
- 5. Science
- 6. Reading
- 7. Auditorium
- 8. Music
- 9. Cafeteria
- 10. Art



FIRST FLOOR PLAN



behind a glass wall. Raising the library separates it from the rush of students and allows daylight to flow into a new cafeteria below.

“Everyone is asking, ‘What is the role of the library in schools today?’” says Piscuskas. Although digital technologies are changing the ways students learn, libraries are still important social and data hubs. So 1100 Architect gave the one at Little Red a prominent location and made it a focal point for the school. “We wanted everyone to see it as they enter the school,” says Piscuskas. The two-story library has bookshelves and comfortable chairs on the main level and a computer lab on its mezzanine.

To connect all three of the school’s buildings was one of the project’s toughest tasks. “What made everything work,” explains Piscuskas, “was locating the new floors at a landing level” between those of the unmatched older buildings. As a result, students have to go just half a level up or down to get to either of the older buildings.

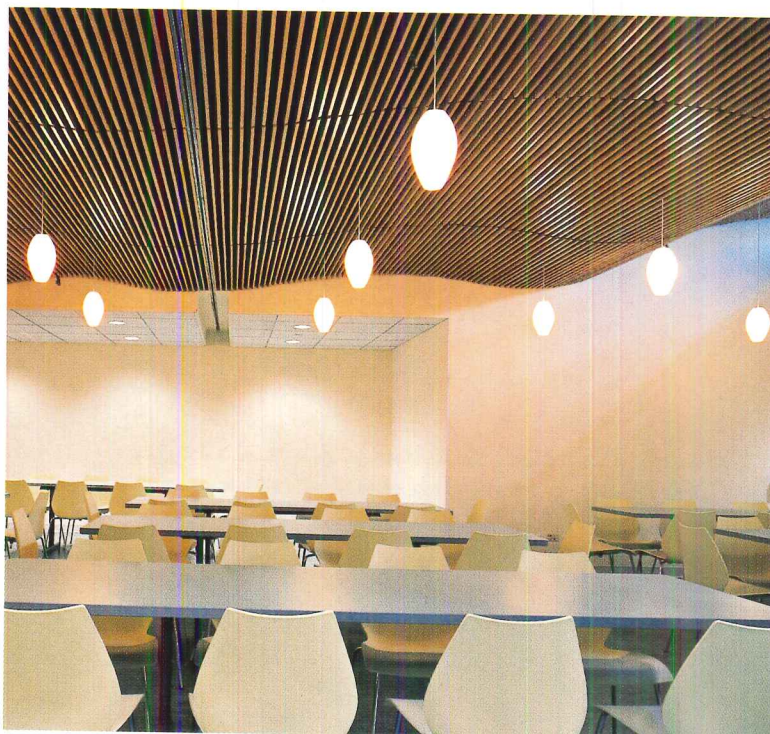
Educational approach

Founded in the 1920s by progressive educator Elisabeth Irwin, who was a friend of the philosopher and educator John Dewey, Little Red School House offers “student-centered learning,” says McLaren. The school, which has a reputation for social activism, encourages students to express themselves individually.

Commentary

The most impressive aspect of the project is the way it makes three buildings work as one. The light and connections are the most pleasing elements of the project, says McLaren. “And these are a good encapsulation of the spirit of progressive education and progressive architecture,” he adds. Also remarkable is the elegant use of blond wood and clean lines, which give the school a modern Scandinavian look. No cloying colors or “playful” mosaics here. “We didn’t want to condescend to the kids,” says Piscuskas. “It’s an adult building scaled to children.” ■

The new cafeteria (right) is in the basement, but a rolling wood-slat ceiling and a long clerestory window along Sixth Avenue enliven the space. As seen from the new lobby, the library (above right) has a lounge area fronting the street and reading areas in the back.



A new era in school construction begins

ARCHITECTS HAVE A LOT OF WORK AND A GREAT DEAL TO LEARN AS THEY REPLACE THE NATION'S DETERIORATED SCHOOLS WITH INNOVATIVE, AGILE ONES FOR A GROWING POPULATION OF STUDENTS.

By Sara Hart

Over the next 10 years, thousands of new schools will need to be built and thousands more renovated and expanded. In a 1995 landmark report, the General Accounting Office (GAO) estimated that \$127 billion will be needed just to improve the condition of existing schools. As far as new construction goes, 2,400 new public schools will be necessary by 2003 to accommodate rising enrollments and to relieve overcrowding, and thousands more will be needed in future years, according to the 1999 *Baby Boom Echo Report* released by the U.S. Department of Education's National Center for Education Statistics (NCES).

To call this a national crisis does not overstate the situation. To then imagine that this crisis and will continue to be a huge boon to the architectural profession is a reasonable deduction. Architects take heed, though. The clients in this case—communities, educators, state and federal authorities—see this crisis as an opportunity to rethink the ways in which children are taught and the physical spaces in which they spend a good portion of their lives for 12 years. Suddenly, it seems, everyone is interested in school design and is asking the question: If information technology is revolutionizing education, what kind of environments will be needed to support the revolution?

Several recently completed projects illustrate how some architects are reinventing a design model that hasn't changed in 50 years. The Centennial Campus Middle School (CCMS) in Raleigh was 12



Centennial Campus Middle School in Raleigh is designed around "academic houses."

CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 226 and follow the instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Describe how school design can support the new information technology.
2. Explain the concept of space agility.
3. Explain why traditional school design will need to change.

years in the making from concept to occupancy. It's the first in the nation to combine the resources of a public school system, a land-grant university, and an advanced research and development community known as the Research Triangle. Located on the 1,200-acre Centennial Campus of North Carolina State University (NCSSU), the school constitutes the first phase of a collaboration between the university and Wake County's public school system. (The second phase, which will start construction in a year, will be the addition of the Partners-in-Schools Research and Development Center run by NCSSU's Department of Education to conduct site-based research, teaching, and software development and testing.)

A joint venture such as this, while beneficial to all in the end, is initially a great deal more complicated than other kinds of projects. In this case, specialists at NCSSU's College of Education envisioned a school where innovative teaching practices and methods would be introduced, but they were stumped by how to do this using the traditional architectural model, which seemed hopelessly obsolete. They realized that architectural issues would have to be addressed simultaneously with programming and technological requirements. Programming coordination was not conducted by county or university administrators, but instead by a professor of architecture at NCSSU, Henry Sanoff. Sanoff has written extensively about integrating educational programming with architectural design. After several months of intense study and col-

WWW For this story and more continuing education, as well as links to sources, white papers, and products, go to www.architecturalrecord.com



**Centennial Campus Middle School
Raleigh**

Architect: Boney Architects

Design team: Katherine Peele, AIA (principal), Franklin B. Swanson, AIA (project architect), David Reeder, CSI (construction administration)

Estimated cost: \$13,500,000

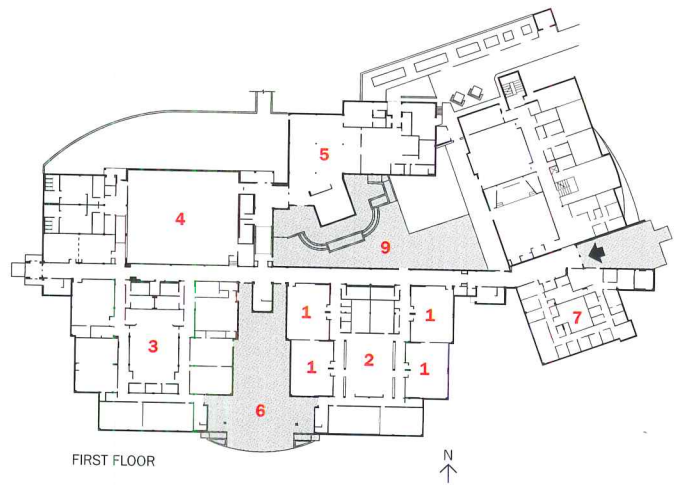
Engineer: Morrison Engineers PLLC (structural), Cheatham & Associates, P.A. (mechanical/plumbing), Dewberry & Davis (electrical), McEvoy Engineering (utilities), LandDesign (landscaping/civil)

Completion date: August 2000

This unique middle school resulted from a collaboration between a public school system and a state university. The 132,000-square-foot facility is divided into three “academic houses” of 200 students. The next phase will house university research and pilot programs.



SECOND FLOOR



FIRST FLOOR

- 1. Team classrooms
- 2. Group meeting rooms
- 3. Performing arts
- 4. Gymnasium
- 5. Lunchroom
- 6. Outdoor classroom
- 7. Administration
- 8. Media center

laboration, he presented a program flush with design elements, including relational diagrams and recommendations for integrating current teaching practices and emerging technologies.

Sanoff’s plan was then given physical form by the Raleigh office of Boney Architects, a 78-year-old firm with a portfolio of 1,500 educational facilities in North Carolina. Katherine Peele, AIA, the design

“BY COMPARTMENTALIZING THE SCHOOL INTO ‘ACADEMIC HOUSES,’ YOU GET THE FEELING OF A SMALL SCHOOL.”

principal for CCMS, follows all the trends in education and was aware of the complexities created by a partnership such as the one between NCSU and the local school system. “It’s still difficult to hammer out an agreement acceptable to all parties,” she says. “There are often conflicting agendas regarding costs, usage, and maintenance. In the case of CCMS, the school owns the building, and the university owns the land.” Although it’s apparently a productive relationship, Sanoff’s plan required the approval of no fewer than 100 specialists, administrators,

and educators from the county and the university. And yet, the trend is real. Boney has several other projects on the boards in which school systems are pooling their resources by partnering with local parks and recreation departments, public libraries, performing arts organizations, and even health clinics.

Size matters

How big is the ideal student body? Research conducted during the past 40 years has determined that an ideal school has 200 to 250 students. These findings go against the standard method of assigning square footage per student and allowing the number of students to swell into the thousands. “Of course, 200 students per school is economically unrealistic,” explains Sanoff. “However, by compartmentalizing the school into what some now call ‘academic houses,’ you get the feeling of a small school.” Boney developed three such houses for CCMS, one for each grade, with classrooms that can expand or contract and with activity rooms of varying sizes. This reflects a major departure from the typical corridor double-loaded with identical rooms.

Ray Bordwell, director of educational facilities and research at

West High School, Aurora, Ill.

Architect: Perkins & Will

Design team: Gaylaird Christopher, Steven Turckes, AIA (principal), Peter Brown, John Dale, Ryan Hollien, Courtney McLeod-Golden, Dennis Roney, Richard Ruck, Karen Pottebaum, David Powell, Kimberly Brown, Keith Krenick, Jeff Olson, Hans Thummel, John Jackowski, John O'Neil

Estimated cost: \$25,000,000

Engineer: ALTA Engineering (structural)

Consultants: The Concord Group (cost estimating), Commercial Kitchen Design (food service consultant)

Completion date: August 2000

This renovation and expansion of West High School provides major upgrades to the 30-year-old structure, including expanded community facilities, state-of-the-art technology system, and



diversification of learning environments. The 86,000-square-foot addition includes a center for technology-based learning (below) and a Health Sciences Academy.



Perkins & Will in Chicago, distinguishes between flexible and agile spaces. Flexible spaces are little more than the traditional rectangle fitted out to accommodate more technology. This is a situation in which technology has no effect on design. “An agile space, on the other hand, can be dramatically reconfigured to accommodate new learning methods—smaller groups enjoying self-directed learning, for instance,” he

ARCHITECTS MUST CONVINCE AUTHORITIES TO DISREGARD ARBITRARY SQUARE-FOOTAGE-PER-STUDENT REQUIREMENTS THAT INHIBIT CREATIVE PROBLEM SOLVING.

explains. “There’s now a need for larger spaces and smaller spaces, not a sameness of spaces. Can I open the wall and engage the hall? Is there a quiet but public space where I can sit with others and plug in a laptop? Can the lunchroom that’s only used for two periods a day be adjacent to the library so activities can mix?”

While some spaces become agile, others may eventually disap-

pear altogether. At the Harold G. Fearn Elementary School in West Aurora, Ill., Perkins & Will eliminated the sacrosanct symbol of knowledge and learning—the library—at least in its traditional form. Book collections and other educational materials, including laptops, will be distributed from mobile units to “classroom clusters” (another version of “academic houses”). A media specialist (formerly known as a librarian) operates from a central circulation desk, supplying the carts with materials that meet specific needs of students in each cluster.

Boney has responded to similar programmatic requirements for other school projects. “We’ve been asked to downsize certain spaces, especially libraries,” Peele explains. “Libraries no longer need the same stack space. There’s no need to store past issues of periodicals if they’re online. We’re doing a school now with a very small library, but we’ve provided mini-media centers in each of the two wings.”

No more lecturing

Sanoff sees technology as having a somewhat subservient role in education. He argues that technology serves new teaching practices, not the other way around. Regardless of hardware and software availability, few

1. Special education
2. Kindergarten
3. Administration and media center
4. Multipurpose
5. Media resources
6. Reading
7. Art
8. Classroom clusters



Harold G. Fearn Elementary School, Aurora, Illinois

Architect: Perkins & Will

Design team: Steven Turckes, AIA (principal), Gaylaidr Christopher, Peter Brown, John Dale, Binh Wonh, John Jackowski

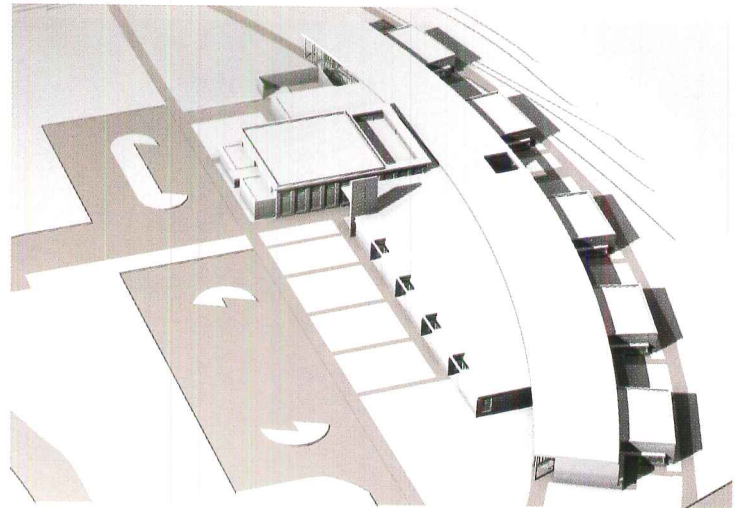
Estimated cost: \$7,250,000

Engineer: Mechanical Services Associates (MEP); Terra Engineering (civil); Thorton-Tomasetti Engineers (structural)

Consultants: A.J. Maggio Co. (contractor), The Concord Group (cost estimating)

Completion date: July 2001

Harold G. Fearn Elementary School is being developed in a new residential neighborhood in Chicago's western suburbs. Designed for 600 students, the 58,000-square-foot facility will complete the second phase of a new 30-acre campus that includes a middle school and athletic facilities maintained by the North Aurora Parks Department. Twenty student teachers from Aurora University will occupy offices in the school and use the facilities for practice teaching and as a demonstration site for exploring innovative teaching methods.



educators today advocate the heretofore-unchallenged prescription of having all students doing the same thing at the same time. Team teaching and small-group activities are the preferred methods of teaching.

"Classrooms need more corners," says Sanoff, "so that several activities can go on simultaneously." He insists that an L-shaped classroom is optimal for the kind of agility Bordwell advocates. "It's more

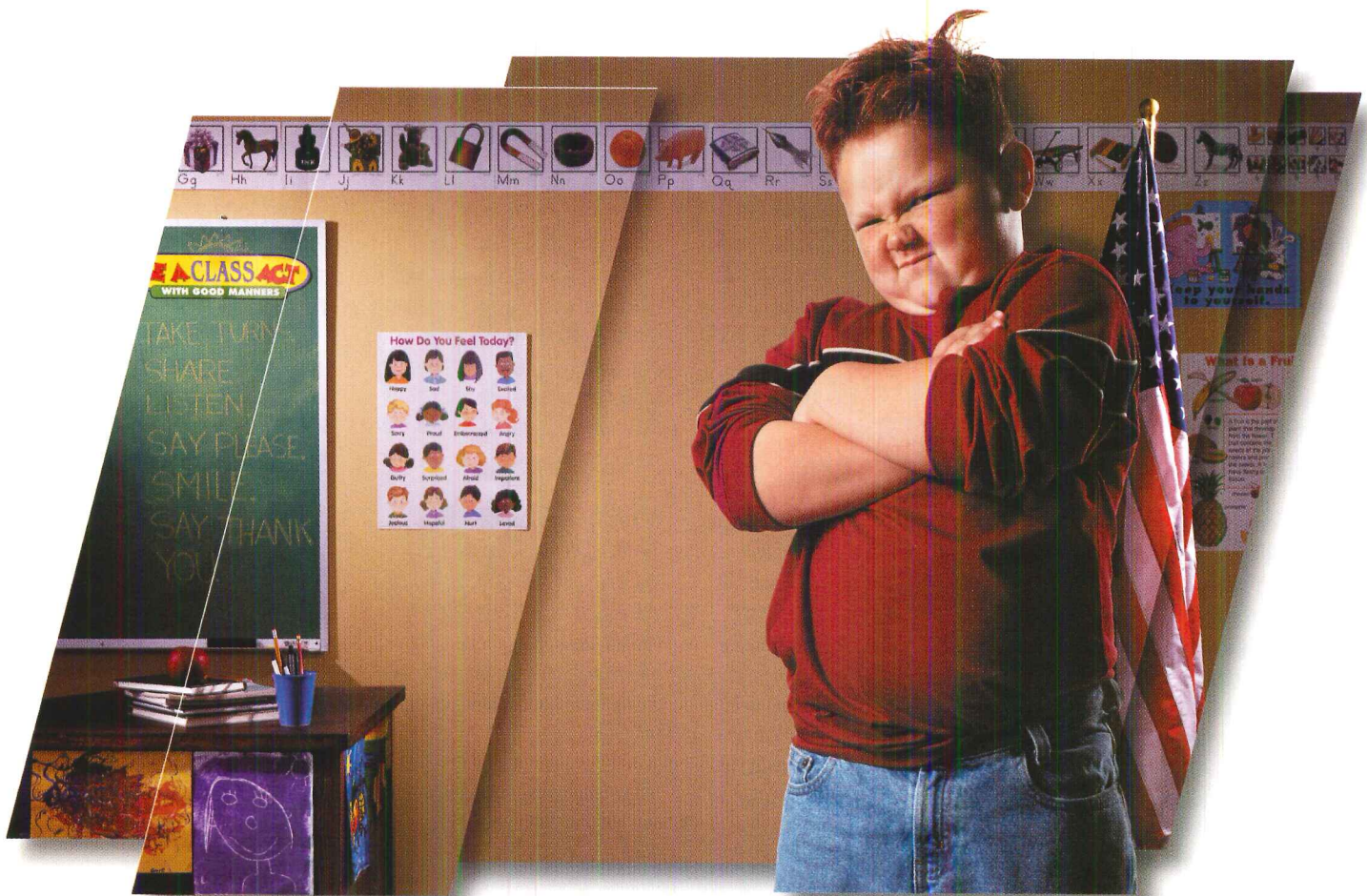
SANOFF ACKNOWLEDGES THE INTERNET WILL HAVE A TREMENDOUS EFFECT ON TEACHING, AND NEW DESIGN STRATEGIES WILL BE BY-PRODUCTS OF THIS.

effective and allows the space to be divided into two perpendicular rectangles," Sanoff explains. "The goal is to create a geometry that accommodates different activities."

Unfamiliar with Sanoff's theories, Steven Turckes, the Perkins & Will principal for the Harold G. Fearn Elementary School, discovered the L shape by looking back 60 years to the first school Larry Perkins

designed (in collaboration with Eliel and Eero Saarinen). Opened in 1940, Crow Island School in Winnetka, Ill., used L-shaped classrooms with extensive built-in storage units to supply group activities. Recognized as ahead of its time by decades, the school ranked 12th in a 1956 RECORD poll surveying the most significant American buildings, and it ranked first among schools of the previous 100 years. Turckes' updated version takes four L units and gathers them into a cluster. Each unit has a "wet" area with counters and sinks for art and science projects, as well as an open learning area with movable partitions connecting it to the adjacent cluster. All four spaces offer direct access to the outdoors.

Again at West High School, Perkins & Will departs from the old model with a radically different addition to a 30-year-old school. "This is a late 1950s factory-model school with double-loaded corridors lacking physical connection between subjects," says Turckes. Then he echoes Sanoff and Peele by acknowledging the need for spaces that can accommodate a more interdisciplinary approach to learning. The new wing houses a technology center on the ground floor and a health sciences academy on the second level. The tech center supports the



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CIRCLE 52 ON INQUIRY CARD

academy with hardware and software for simulating experiments and learning science, but it also has a CAD lab connected to a fabrication shop and a video production lab. Such diverse activities need agile spaces, so the architects created large spaces surrounded by smaller ones, which can be reconfigured with sturdy, dense panels that lock together.

Sanoff, as both scholar and practitioner, has intriguing predictions for the future of education. He acknowledges that the Internet will have a tremendous effect on teaching and that new design strategies will be by-products of this. “Teachers will not be required to be experts in many fields. The experts are on the Internet,” he insists. “The teacher’s role

DEVELOPING A COOKIE-CUTTER PROTOTYPE TO BE REPEATED OVER AND OVER WILL NOT BE AN ACCEPTABLE OPTION.

will evolve from giving information [from behind a lectern] to facilitating students working in groups doing different things.” Teacher teams at CCMS have private offices and individual workstations, so they can do their own research and monitor class Web sites, not just grade papers.

Although the information-technology juggernaut has fueled a sweeping sea change in teaching practices, architects should not underestimate the impact that community involvement will have on the front end of the design process. The development of a cookie-cutter prototype to be repeated over and over will not be an acceptable option, as these architects have demonstrated. For the first time in nearly two generations, architects have the opportunity to reinvent one of any nation’s most vital building types. ■

Numbers tell an alarming story

The U.S. Department of Education has an extensive Web site (www.ed.gov) with links to dozens of agencies and hundreds of reports. A sampling of department statistics are listed here. Links to Web pages devoted to school construction and design are listed on the RECORD Web site at www.architecturalrecord.com.

quate conditions for life-safety features, roofs, and electric power. Forty-three percent of the schools reported that at least one of six environmental factors was in unsatisfactory condition. About one-third (36 percent) of schools indicated that they used portable classrooms.

- The National Center for Education Statistics (NCES) reported in 1999 that America’s schools are wearing out. The average public school is 42 years old, and school buildings begin rapid deterioration after 40 years.
- NCES also reported that approximately one-fifth of schools indicated less than ade-

- The proportion of teachers using the Internet in teaching continues to climb along with school connectivity—from 65 percent in 1998 to 85 percent in 2000.
- Last September, 53 million children entered public and private elementary and secondary schools in the United States—the highest enrollment in U.S. history and a net increase of 8 million school children in the last 15 years.



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article “A new era in school construction begins” using the learning objectives provided.
- ◆ Complete the questions below, then check your answers [page 226].
- ◆ Fill out and submit the AIA/CES education reporting form [page 226] or file the form on ARCHITECTURAL RECORD’s Web site at www.architecturalrecord.com to receive one AIA learning unit.

QUESTIONS

1. Why do the traditional school design concepts of double-loaded corridors need to change?

2. What is an agile space?

3. How is the physical space of school libraries changing?

4. What is the concept behind replacing rectangular classrooms with L-shaped ones?

5. How is new information technology changing the role of teachers?

Digital Architect

Self-Service Design

By Jerry Laiserin, FAIA

A current fad among computer cognoscenti involves comparing and contrasting today's technology with that predicted in the 1968 film *2001: A Space Odyssey*. The filmmakers pictured computers of the future as fully sentient entities, possessing enough artificial intelligence (AI) to think independently and converse with humans in natural language. The reality of today's actual computer technology falls far short of that cinematic vision, and the term "artificial intelligence" and its close kin, "expert system," have both fallen out of fashion, largely because they failed to live up to the initial hype. However, the underlying intent—to deliver machines capable of solving problems by mimicking human inductive and deductive reasoning processes—not only endures

retail chain, the budding convergence of AI and the Web is rapidly blossoming into a self-service digital alternative to many procedural, repetitive design tasks, with higher-level design services soon to follow. The implications of these services on the design profession could be profound. Architects need to understand the phenomenon in order to recognize and prepare for both the threats and opportunities it represents.

Thinking machines

Broadly speaking, efforts to apply AI techniques to "creative" problem solving can be divided into two approaches. In generative or rules-based systems, the computer is fed information about relationships among entities and constraints (for

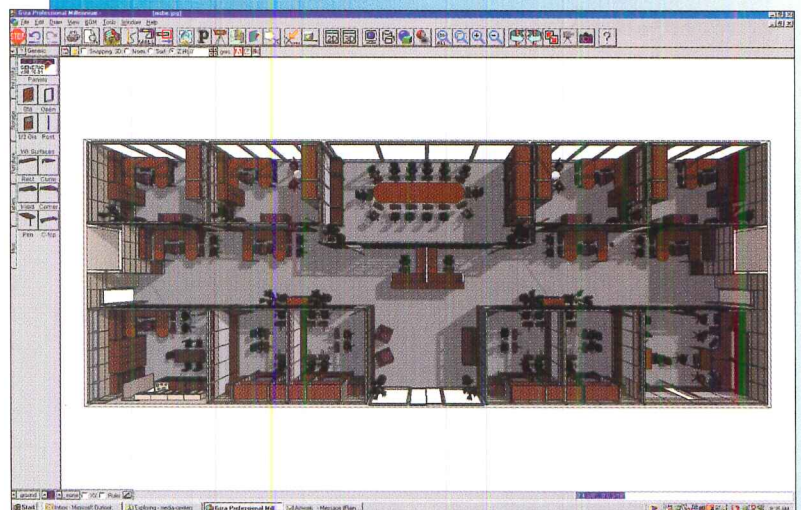
relationships among rooms (for example, terminating the axis of a suite enfilade in either a window or a hearth). Stiny and Mitchell's work served as background to Yale art historian George L. Hersey's 1992 software program, *Possible Palladian Villas*. Similar principles are embodied in software like winSABA, a stacking and blocking algorithm for Windows, developed by computer scientist Robin S. Liggett, who

The other principal approach to AI in design also is rules-based but derives configurations from preprogrammed collections of specific components, rather than generating new arrangements from more general rules. Often called configurators, these programs work like a kit of parts—one with so many pieces that no human could possibly reach an optimal solution. Such software was originally devel-

THE CONVERGENCE OF AI AND THE WEB IS BLOSSOMING INTO A DIGITAL ALTERNATIVE TO MANY DESIGN TASKS.

but is enjoying a resurgence on the Internet, where thousands of non-experts regularly seek access to expert answers. Whether the problem at hand is the optimal layout of a ceiling tile grid, the most efficient arrangement of office cubicles, or a suitable site adaptation for a national

example, the number of classrooms to be added to a school, and the maximum square footage available at the site), and then let loose to calculate solutions that best match the problem criteria (much like IBM's chess-playing machine, Deep Blue). New compositions and design alternatives can thus be generated by using such systems. As early as 1975, CAD theorists George Stiny and William J. Mitchell, both then at UCLA and now both at MIT, reformulated Andrea Palladio's design principles into a grammar, or set of rules, for generating villa plans and elevations. This Palladian grammar included rules for the acceptable sizes and proportions of rooms, or for



Giza represents a new class of self-service design applications—here, office design, with interactive Internet capabilities.

Contributing editor Jerry Laiserin, FAIA, provides strategic consulting services to architects and their technology providers.

WWW For a list of vendors involved in self-service design, and more information on technology for architects, go to Digital Architect at www.architecturalrecord.com

teaches in UCLA's Department of Architecture and Urban Design. While large design firms—such as SOM, with its Building Optimization Program (BOP)—have had in-house capabilities like this for decades, the commercial availability of tools like winSABA now make it possible for would-be design clients to perform a significant portion of predesign services for themselves.

oped by computer manufacturers to ensure that their hardware system orders were filled with all necessary components (for example, if a customer ordered a printer with built-in stand, the software excluded a separate printer stand but included the special cable for that printer). Configurator systems can be applied to directly comparable problems, such as resolving the myriad options

Digital Architect

in an office systems furniture order, or they can be extended to such tasks as deriving complete designs and equipment plans for complex surgical suites in healthcare facilities.

Architecture without architects

From an end-user perspective, neither the specific AI heritage nor the design provenance of any tool is as important as the results that can be achieved with that tool. Office design Web sites like Giza.com allow users to conduct self-service design tasks that range from initial space planning, through furniture selection and configuration, to 3-D renderings. Although designers themselves can and do take advantage of such services on behalf of their clients, the real significance of intelligent services like Giza.com is the potential for prospective clients to use these services on their own—without the intervention, participation, or fee of an architect or interior designer.

Similarly, healthcare administrators now can avail themselves of free departmental planning services and equipment configurations at Neoforma.com, again without seeking early-phase advice from an

SAVVY ARCHITECTS ARE BRINGING RULE-BASED SYSTEMS IN-HOUSE TO OFFER ENHANCED SERVICES TO OTHER CLIENTS.

architect specializing in health care. Neoforma isn't capable of designing an entire hospital, and some of the configuration options are limited to the specific offerings of the equipment manufacturers who sponsor the site. But the service does portend an erosion in the perceived value of a portion of some architects' services.

Architects R Us?

A few savvy architects are bringing systems like these in-house to offer enhanced services to their clients at lower cost, and in some instances at no cost. Designers at Little &

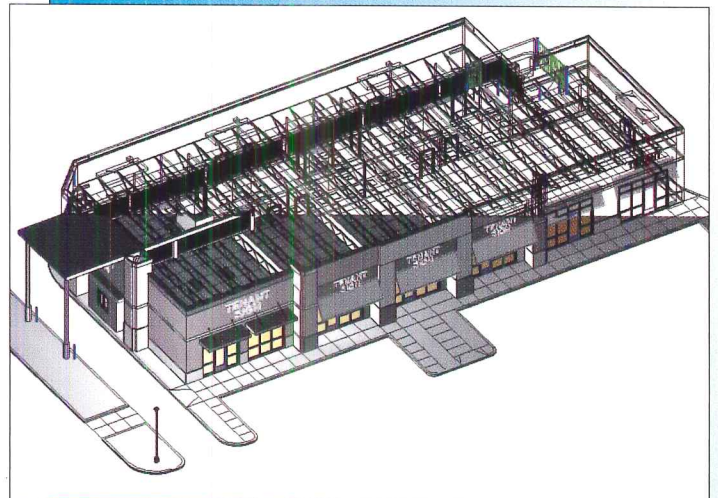
Associates, a 600-person multi-discipline A/E firm with headquarters in Charlotte, N.C., use computers and CAD in sophisticated but still conventional ways to design a wide range of building types, from international banking headquarters buildings to college and university facilities. Little has a significant specialization in what the firm calls roll-out retail—large, multi-location building programs for chain-store merchants such as Wal-Mart, Home Depot, and CVS. For these clients, a key design goal is brand identity and consistency of the shopping experience across hundreds, even thousands, of stores. On the other hand, a key goal for the architects assigned to these projects is designing tens of millions of square feet of retail space annually in the most efficient and uniform manner possible, while accommodating a wide range of regional and local plan variations and specific site adaptations. Little's solution, according to Senior Associate Jim Gleeson, AIA, has been to develop in-house configurator programs, or software wizards, which calculate and produce

fully detailed drawings from a comprehensive set of prototypical options for each big retail client.

Once all the possible prototype variations and the rules for configuring them have been programmed by designers, the software produces the final design. Until recently, this final configuration process remained in the hands of architects, not clients, in part because of the complexity involved in extracting specific configurations from a complete set of prototype variations all collapsed into a single AutoCAD 2-D file. However, Little recently has begun exploring the possibility of enhancing the con-

figuration process through the use of next-generation CAD tools, such as Autodesk's Architectural Desktop, Graphisoft's ArchiCAD, or Revit Technology's eponymous software. Because such software embodies AI-like rules-based behavior in their intelligent 3-D objects, firms like Little can offer more powerful configurator services that can be easily manipulated directly by their clients.

educational facilities. The second level allows the client to move parts of the school plan, editing different configurations until the design output is suitable for use as the basis for preparing construction documents (CDs), a level-three service. While level three requires an architect to produce the CDs for a professional fee, THG intends to offer the first two levels of service—the



Technologically aggressive firms such as Little & Associates use software tools like Revit to help clients configure multiple model variations from prototypical kits of parts.

Design online

Take the free, self-service capability that Web sites like Giza or Neoforma offer without architects, combine it with the client-driven configurator services provided by A/Es such as Little, and the end result would be very much like SchoolBlueprints.com, a new design service under development by The Hillier Group (THG), a 450-person architectural firm based in Princeton, N.J. An online tool for school superintendents or other decision makers to cost-effectively design a school on their own, SchoolBlueprints will be available at three levels of service. The first level allows input of simple parameters, such as "K-5 school for 300 students," from which the software calculates a list and arrangement of recommended rooms and room sizes, based on THG's experience in designing K-12

equivalents of programming and schematic design—at no charge. THG's director of corporate communications, Cecily Laidman, notes that users will have the option of bringing their free SchoolBlueprints designs to any architect for CDs, although THG expects to garner a fair share of that fee-generating service for itself.

While the computer systems that power Giza, Neoforma, or SchoolBlueprints are not capable of truly independent thought or emotional response, as the fictional HAL was in the film version of *Life* in 2001, it is clear that technology in the world of design services in the real 2001 is taking its first steps beyond computer-aided design and into the realm of computers as designers. As these services evolve, they will—and should—become fodder for future exploration and discussion among architects. ■

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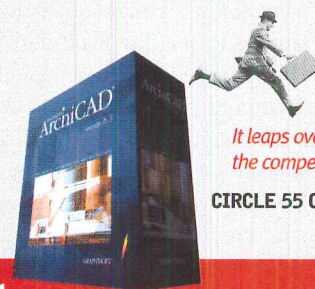
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CIRCLE 55 ON INQUIRY CARD

Virtual building modeled and rendered in ArchiCAD by Mr. Peter Bach and Mr. Peter Hadadi.

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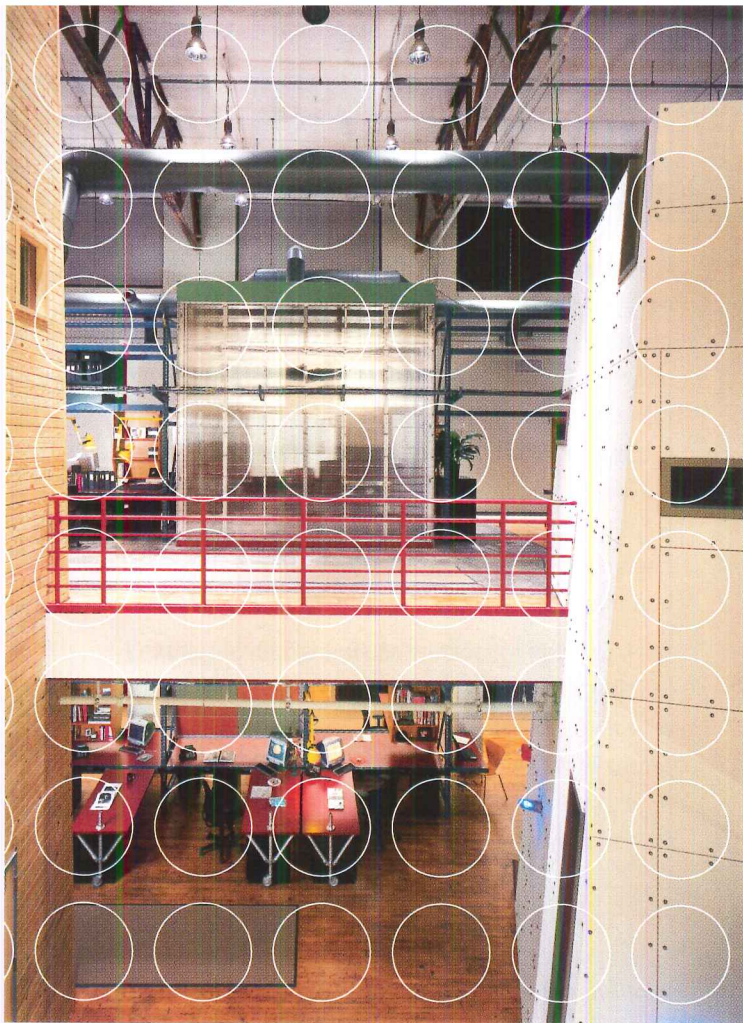


PHOTO: OXYGEN MEDIA; ARCHITECTS: FERNAU & HARTMAN; PHOTOGRAPHER: T. WHITNEY COX

ARCHITECTURE MATTERS IN THE NEW ECONOMY

GOOD DESIGN IS GOOD BUSINESS Design Strategies for the New Economy

A conference presented by Architectural Record, Business Week and the National Building Museum in association with The American Institute of Architects.

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Use the learning objectives below to focus your study as you read **Architecture Matters in the New Economy**. To earn one AIA/CES Learning Unit including one hour of health safety welfare credit, answer the questions on page 170 and follow the reporting instructions on page 226. Or use the Continuing Education self report form on *Record's* Website, www.architecturalrecord.com.

LEARNING OBJECTIVES:

- To discuss the relationship between business and architecture.
- To discuss the needs of information technology companies in their workplaces.
- To describe how work environments can be designed to encourage collaboration.

Creative management practices and creative architectural solutions go hand in hand to achieve successful businesses. As companies change their operations and practices to respond to new market forces, globalization and technological changes, the design of their facilities must respond to these new challenges as well.

On November 17, 2000 during a stimulating afternoon symposium, leading architects and top business executives discussed case studies illustrating the two-way influence between design and new economy dot-com companies. A concluding session showcased and celebrated the 10 winning projects in the 2000 *Business Week/Architectural Record Awards*, demonstrating that "good design is good business."

When one building of a new corporate campus for Sun Microsystems was ready for occupancy, an engineer at the company proposed a test to the site's designers to see how well they had understood the organization's needs. If he could walk from his car in the parking lot to his office without bumping into a single co-worker, he explained to the architects, then the design had failed. Apparently what Sun employees require is an environment where interaction is the rule.

This working exchange between the computer company and the architectural team who created a new workplace for its fast-growing organization was recounted by one of the team members during a symposium held at The National Building Museum in Washington, D.C. last November. Two other companies, Oxygen Media and Eisner Communications, joined Sun to discuss their own recently completed office design projects.

Clearly there was a distinct trend toward open, flexible, informal work environments that encouraged collaboration.

Nowhere to be seen was the traditional industrial plan with its bunkered offices and 90-degree cubicles. Instead, workplaces were built on a hierarchy of group activity. Sun's parking lot, for example, surrounds the entire site, making it impossible for employees to enter or exit their buildings without coming into contact with the rest of the organization. At Oxygen and Eisner space was devoted to communal areas. Workstations surrounded them. Everyone used them.

What's significant about the design direction taken by Sun, Oxygen and Eisner is that all three organizations are notable players in the new information-based economy. Sun is the technology giant behind Java. Oxygen produces Websites and television programming for women and also publishes Oprah magazine. Eisner is the second-largest

advertising firm in Baltimore.

According to Herbert McLaughlin, master architect on the Sun project and a principal at Kaplan, McLaughlin and Diaz in San Francisco, research done by his firm backs up this new scheme in work facilities. "E-culture has completely redefined the attitudes toward the workplace," he said. "There is a real interest in detail, variety, community and work. It's seen as enjoyable, continuous and transportable."

Community. Openness. Fun. If these are the characteristics businesses are requesting for the 21st century office, architects are going to have to start finding a way to build them in. This is the challenge of designing in the new economy.

Approximately 500 business executives, architects, and students gathered at the symposium in which Oxygen, Eisner and Sun participated to hear what solutions they had divined.

The event was part of an afternoon conference, "Good Design Is Good Business," presented by *Business Week*, *Architectural Record* and the National Building Museum in association with the American Institute of Architects, it was also in honor of the 2000 *Business Week/Architectural Record* Design Award winners. It was the fourth year that *Business Week* and *Architectural Record* conducted the affair, which celebrates the relationship between business and architecture.

At this latest function there was a deliberate focus on solutions

for creating space in the midst of rapid technological change.

"What we are trying to do is catch the tenor of the times and trying to understand phenomena that are unfolding around us with almost lightening speed," Bob Ivy, editor-in-chief of *Architectural Record*, explained to the audience. "We are here to find out where we are."

Sun, which employs about 40,000 people worldwide, represented a very large-scale project for the symposium's purpose. Three buildings plus cafes, homes and drop-in centers are planned for their subject location in Newark, California. "The principle of the site plan was to encourage both discovery and community," commented McLaughlin while displaying slides of the campus' prototype. "The idea was to create spaces that everybody could possess or feel a sense of possession."

Unlike Sun, Oxygen and Eisner did not have an entire campus or building with which to craft the flexible open environment needed to support the innovative process of their workers. So for them, the furniture system became a very important piece of architecture in creating the interactive workplace their employees needed.

Oxygen converted the top two floors of an old cookie factory in the meat-packing district of New York City for 600 employees, and Eisner renovated 55,000 square feet of an old furniture factory in Baltimore's Little Italy for its 300 workers.

A NEW STANDARD IN OFFICE DESIGN

Oxygen built workstations with skateboard wheels and mounted them on a tire track system. Because of the way it looks, the architect, Richard Fernau and Oxygen's co-founder and CEO Kit Laybourne called the construction a zipper. The desks are able to glide thus giving workers the ability to align themselves according to how they are working. "There are moments when they are in the zone and completely buffered," explained Laybourne. "And then there

are times when they are working in groups. It's amazing to make that into one workstation, but we solved it."

"Most major companies need furnishing to be reconfigured easily," observes Mark Schurman of Herman Miller. "With the ongoing rate of technological change, and the rate of employee movement within facilities, flexibility is very important."

Herman Miller along with Milliken

Carpet and Bentley Systems, Inc. sponsored the conference. It was Herman Miller who first ignited the office design revolution with an earlier emphasis on efficiency and collaboration.

Back in 1968 they introduced office furniture as a system of freestanding pieces, which were then adapted by designers and manufacturers to create the ubiquitous cubicle. Up until then, the typical American office was arranged in one of two ways. A large room with employees' desks lined up in neat rows with the boss' office situated at some omnipresent angle, or merely a series of private offices.

The cubicle basically placed each worker in a box with no top. The idea was to give individuals privacy without the high cost of erecting architectural walls while at the same time encouraging communication made easy by the low height of the panels. Since its inception, the "cube" has become a generic term for any multi panel ceilingless unit, which separates one worker from another. That's how revolutionary it was. Try to imagine the modern office without it.

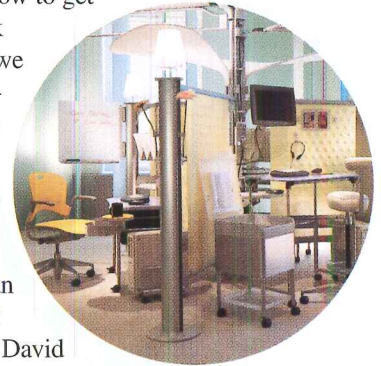
Designers and manufacturers have been

envisioning such a workplace and have been creating new office systems to put into it. "The first thing we did was begin to think about how to get

people to work together, when we began to recognize the changing dynamic of the workplace about five years ago" said the former Chairman of the Board at Herman Miller, David Nelson, said about the company "How do you free people from a cube that's isolated from others?" he asked the audience.

Compartmentalization certainly must be abandoned as an office design approach for businesses in the new economy. Instead the project team nature of today's workplace demands that an emphasis be placed on connectivity. The furniture system can do that as long as it enforces the organic personality of the office.

The workstation, for example, should function as an extension of an individ-



How do you
free people
from a cube
that's isolated
from others?

ual's body. An employee should be able to see and speak to a co-worker with a simple adjustment of posture or a tilt of the head. Learning and collaboration, in other words, should be at each worker's fingertips. The zipper that Oxygen used allows employees to participate in a tete-a-tete by gliding up to another worker. The employee and the workstation are one. The cubicle continues to be a design reference point, however. By widening its angles and using more translucent materials for panels, manufacturers have been able to introduce systems that fit into the open flexible environments desired by the knowledge worker.

People are no longer interested in being someone else at work. They need space that expresses who they are.

This flexibility applies to more than

just the vast physical range a system gives an employee. It also directly relates to how easily the construction can be reconfigured. Market forces and technological change are scrambling workers within different industries on a day-to-day basis. The office system should be just as interchangeable.

Some features of the newer designs include small parts and pieces and lightweight materials that make reconfiguration easy and inexpensive.

While office design has increased emphasis on group activity, there is still, as Oxygen's Laybourne pointed out, a desire on the part of employees to work without distraction at some point.

During the question-and-answer period at the conference, audience members peppered the presenters with inquiries about balancing this need for public and private space.

The conflict can be settled acoustically or visually. Visual solutions are

efficient for the new workplace, because office system features like fabric color schemes and canopies can easily define an individual space.

The visual details help personalize it as well.

"There is a blurring now between worklife and homelife," observes Herman Miller's Schurman. "People are no longer interested in being someone else at work. They need space that expresses who they are."



TECHNOLOGY OFFERS ALTERNATIVES FOR EXPRESSING COMPANY IMAGE

This need for self-expression also has a macro side.

Before introducing Ground Zero, an ad agency that received a BW/AR award, Julie Eizenberg, a competition judge, asked the audience, "If you were looking for an advertising agency, wouldn't you want to find one that really could brand itself and create a compelling customer experience?"

When you walk into a space, without verbal prompts you should grasp the essence of what a company is about.

Brand identity, after all, has not been lost in the new economy. "It's more important than ever," says Bill Erwin, corporate design manager of Milliken Carpet. "Everything is moving so fast these days that company's need to have a strong image. Even the competition for talent can be supported with strongly branded work spaces."

For Eisner its image as a top-notch advertising firm was just as important as creating an office its workers would want to come to every morning. The place they

took over, The Bagby Building, was a Baltimore institution. They enlisted Gensler Architecture, Design & Planning Worldwide to help them put their fingerprint on it.

"They realized that design can make a big difference in the success of their organization," said Diane Hoskins, managing principal

at Gensler's Washington, D.C. office.

"Their goal was to create a brand factory. The space would be a way for Eisner to communicate and express themselves to their clients and visitors. From a design standpoint, that meant pushing to the edge with new kinds of spaces and new geometries in the design."

They used scaffolding extensively to delineate brand teams, which created an urban village atmosphere. The building's loading dock was converted into a garden. Other areas were transformed into interstitial getaway spaces. A freight elevator, for example, was filled in with glass block and furnished with elegant chairs and a table. It serves as a respite, according to the designers, to restart creative engines. The boiler room became Eisner's family room complete with divan and a coffee table.

"When you walk into a space, within seconds, without verbal prompts, you should grasp the essence and culture of the company," says Milliken's Erwin. "Branding needs to be focused and very strong to accomplish the proper identity."

There can be no doubt when walking into Eisner's offices that they are open to fresh ideas and in the business of creative thinking. Imagine how reassuring that is to a potential client.

What are the alternatives for companies trying to maintain an overall image with much more emphasis being placed on the individual worker? How do you wrap up so many brilliant singular expressions into one distinctly recognizable brand? Eisner is an exceptional example. They hired one of the world's leading design firms, and devoted a lot of



resources to their renovation.

“We let the inner discipline of branding ourselves from the inside out take hold,” said Steve Eisner, president and CEO of the company. “When it was full steam ahead, we didn’t compromise on a partner.”

One element available for designers of any sized project is the floor plane. Every space is designed from the floor up. Whether it’s an airport or a 500-square-foot dot-com, flooring is a variable that can tie up a myriad of individual parts into one cohesive image.

Consider carpeting. Once used as a very minimal finish, it now can be adapted for dramatic impact. Computer-driven technology is available to create custom patterns that can flow from an executive’s imagination or be taken from a photograph.

The traditional graphic tufting does not allow this literal brand expression. “Tufted designs in carpet have reached a plateau.

Everyone’s carpet has started to look the same,” observes Erwin. “Designers now are striving to work with materials that have mass customization abilities. This enables them to transcend sameness,” says Erwin.

As with any digital platform this technology is speedy. That’s important for projects with short timeframes as most are today. The time line for the Sun project was 11 months and Oxygen had about ten to get their office ready.

Speed. Flexibility. Openness. The challenges of designing in the new economy are simply a reflection of the market itself.



TECHNOLOGY FOR DESIGNING IN THE NEW ECONOMY

The company executives and architects who comprised the design teams of Sun and Oxygen were associates who had built productive working relationships on other projects. They trusted each other’s judgement. All three companies including Eisner literally worked side by side throughout their project life cycles.

Certainly, e-mail was exchanged, and Internet services jointly used. Discussion did not focus on this aspect of working partnerships. A few years ago it would have been hard to imagine such architectural presentations without the mention of the design and collaborative activities made possible by Internet technology. Perhaps it’s a good sign that the technology is so firmly integrated into the industry that it’s not spoken of as something new. It makes good sense since architecture is rooted in communication anyway.

All of the project teams presented compelling cases of designing for the new economy, but they did not elaborate on designing inside the new economy. However, some of the award winners spoke about using online services that located design software and project extranets at one Website address. That’s certainly worth talking about.

Manufacturers have progressed from making architects, engi-

neers and designers more efficient in just creating drawings to also facilitating collaboration throughout the life of buildings. Key motivations behind this current technology was that the data that went into the original drawing could be kept useful in digital format, updated during construction and then used by the owner/operator for the rest of the building’s existence. It’s a matter of engineering information management.

One Internet-based system widely employed by some of the awardees actually managed architectural and engineering information – not just as drawings, but as a virtual model of a facility. All the information about a building or project was stored in one database instead of multiple discrete computer files. It also addressed the problem of change management. Everyone involved in a project had access to the same information at the same time, and incompatible versions of computer files were eliminated. Since the system was Web-based, it provided access to communication, collaboration and commerce for all.

E-culture has redefined more than just the office. It has redefined they way the office is designed.



MILLIKEN & COMPANY

Milliken is a 135-year-old international textile and chemical firm with more than 16,000 associates and 65 manufacturing facilities worldwide. Its headquarters are in Spartanburg, South Carolina. Milliken Carpet’s computer-driven Millitron Imaging System for carpet tiles was introduced in 1973.

BENTLEY SYSTEMS, INC.

Founded in 1984, Bentley Systems provides technology for operating permanent assets such buildings, roadways, utilities and telecommunications. Its headquarters are in Exton, Pennsylvania. Its Viecon network integrates communications, collaboration and commerce for engineering/construction/operations networks, Bentley products were used by some of the winners of the last year’s *Business Week/Architectural Record* Design Awards.

HERMAN MILLER, INC.

Herman Miller, headquartered in Zeeland, Michigan, has been designing and distributing interior office furnishings since 1923. Its newest innovation in office systems is Resolve, which was introduced in 1999 and has received international design recognition, including Gold in the Annual IDSA/*Business Week* Design Awards.

LEARNING OBJECTIVES:

- To discuss the relationship between business and architecture.
- To discuss the needs of information technology companies in their workplaces.
- To describe how work environments can be designed to encourage collaboration.

INSTRUCTIONS:

Refer to the learning objectives above. Complete the questions below. Then turn the page upside down and check your answers. Fill out the self report form on page 226 and submit it or use the Continuing Education self report form on *Record's* web site - www.architecturalrecord.com - to receive one AIA/CES Learning Unit including one hour of health safety welfare credit.

QUESTIONS:

1. What are the current office character trends that relate to architectural design?

2. What changes are being made in office cubicle design?

3. What is the concept behind the new office environments?

4. How can flooring take advantage of new technology and create individualism for companies?

5. How is a worker's sense of privacy maintained in this new atmosphere?

6. Why is this new trend in collaboration taking place now?

1. Office character now tends toward collaboration and flexibility. At one time offices consisted of a large room with rows of desks. Then office cubicles were designed to give workers privacy so they could be more productive. Now the nature of project teams demands that people work together instead of in isolation. The trend is towards open, flexible, informal work environments that encourage collaboration.

2. Office cubicles are no longer used to separate workers in neat rows with square corners. The workstation needs to function as an extension of an individual's body. Cubicles are still the reference point for design, but the angles can be widened and materials can be more translucent and lightweight for ease in reconfiguration.

3. The concept of these new office workspaces is to create an environment that stimulates innovation, creativity, and a sense of possession for the workers. The distinction between worklife and homelife is blending and workers are allowed spaces to express themselves.

4. Most offices use carpeting for floor covering. Computer driven technology can create custom patterns for a company and give a dramatic impact and corporate identity.

5. Sometimes employees need to work without distraction. This can be accomplished acoustically and visually through the use of fabric and canopies. Companies are also allowing workers to individualize their workstation through selection of color and visual details.

6. Collaborations are much more possible now because of the technology available. The internet and its ability to send instant communication, pictures, and drawings to another location allows collaborations to work.

ANSWERS:



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Creative Uses

A field of color-washed towers beams WELCOME TO LA to airport travelers • Norman Foster's bank tower in Frankfurt is wrapped with a new light plan designed by artist Thomas Emde

A mile-long gateway of internally illuminated pylons adds a light show to the LAX itinerary

An expansive municipal project puts the phrase "Welcome to LA" in a new light. The gateway to the Los Angeles International Airport (LAX) has been enhanced with a one-mile-long installation of pylons animated by a kinetic display of light and color. Part of a \$112 million enhancement program, the project enlisted a long roster of collaborators headed by principal designer Ted Tokio Tanaka Architects and project consultant Nadel Architects. Comprising 26 pylons and a 32-foot-high LAX sign, the artwork features environmental graphics by Selbert Perkins Design Collaborative and illumination by Moody Ravitz Hollingsworth Lighting Design. Artist Paul Tzanetopoulos mapped out the color variations of the choreographed light show, while Lighting Design Alliance developed the lighting concept.

Dubbed the Psychedelic Stonehenge by local residents, the field of lights is visible from 30,000 feet in the air and remains illuminated from dusk until dawn. The light show displays more than 300 color variations orchestrated into a looping, three-hour program.

"The initial design concept called for concrete towers that would be externally lit," says principal lighting designer Dawn Hollingsworth. "During design development, the program shifted to internally illuminated glass pylons. It became a stronger design statement, and easier to create uniformly glowing forms. An added benefit is how the glass panels shift hues in the daylight."

The seismically engineered pylons wrap cylinders composed of translucent, tempered glass panels around steel-truss support frames. Eleven towers run along the Century Boulevard median approaching the airport, ascending from 25 to 60 feet in height to evoke an aircraft



The LAX Gateway project encompasses 26 pylons lit by automated luminaires and PAR cans fitted with metal halides.

taking flight. The installation culminates at the intersection of Century and Sepulveda Boulevards with a 560-foot ring of 15 towers, each 12 feet in diameter, with an average height of 100 feet.

Although programmed via DMX controls to perform light changes in tandem, the Century and Sepulveda towers are illuminated differently, based on their varying sizes and site conditions. The Century towers are illuminated with 264 outdoor fixtures modeled on theatrical PAR

cans, topped with weatherproof color scroller/faders. Two overlying strings of gels mix light to create hundreds of deeply saturated colors. The PAR fixtures use 150-watt, metal-halide lamps with a color temperature of 4000K.

For the larger Sepulveda towers, 480 automated luminaires employ internal, glass dichroic lenses to mix the color effects. The fixtures house metal-halide lamps with a color temperature of 5900K.

Each fixture has a 45-degree

beam spread, requiring eight fixtures along each staggered vertical level of the pylon to create an even 360-degree glow of light. Fixtures are focused upward to avoid hot spots along the exterior.

In addition to the towers, Hollingsworth illuminated the oversize LAX sign with 100-watt metal-halide floodlights. New landscaping, including palm trees along airport access routes, is enhanced by in-ground and ground-mounted PAR30 metal halides. *Nayana Currimbhoy*

The translucent Commerzbank Tower lights up the night sky with a yellow glow

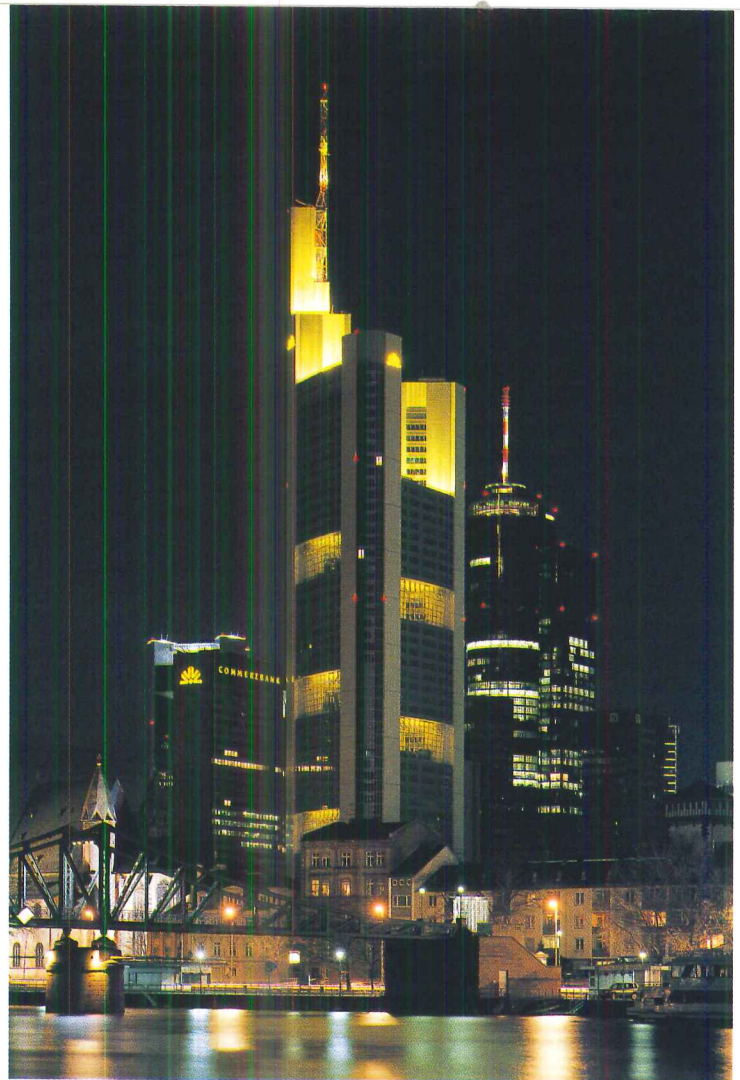
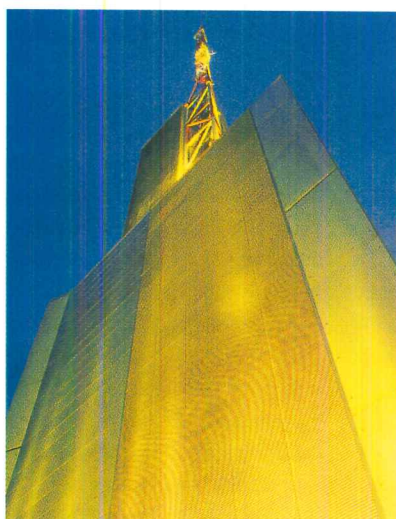
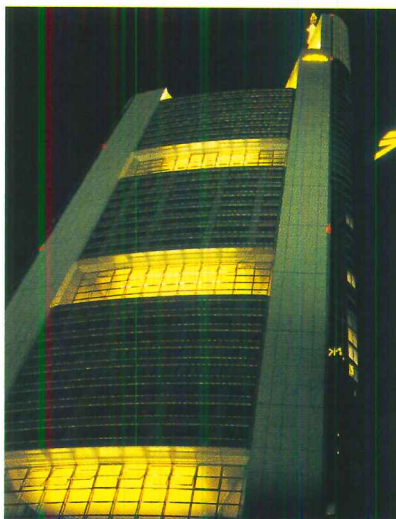
Designed by Lord Norman Foster and Partners and completed in 1997, the Commerzbank Tower dominates the skyline of Frankfurt, in the heart of the city's financial district. With its triangular footprint and architectural design incorporating four-story-high interior gardens spiraling around a central ventilating atrium, the 53-story building has spurred debate regarding its ecologically sensitive advancement of the skyscraper form [JANUARY 1998, page 68]. While its naturally ventilated skin, column-free floor plates, and gardens in the sky have been cited as Foster's ingenious solutions supporting office work, the tower's after-hours image has remained muted. Now an exterior illumination plan conceived by artist Thomas Emde heightens the tower's nighttime profile.

Emde, a Frankfurt-based painter, earlier won a competition for a site-specific work to enhance the public spaces of the banking headquarters. His large-scale acrylic painting *The Great Clouds* dominates the building's lobby. In 1999 Emde was commissioned by Commerzbank management to design lighting that would elevate the transparent glass skyscraper as an enhanced corporate icon. In

recent years Emde's interest in color and site-specific work has led him to investigate electric light as a new medium. For Commerzbank and other recent illumination projects, Emde collaborated with lighting designer Gunther Hecker, lighting planner Ralf Twuwen, and project manager/art consultant Peter Fischer, operating under the umbrella name Blendwork. The team combines experience lighting concerts, television productions, and fine-art environments.

"When Commerzbank opened, there was originally a plan to illuminate the facade of the building using enormous light sources mounted some distance away from the building," says Fischer. "That plan was never implemented, so the look of the building at night had varied, depending upon which lights within the office tower remained illuminated. Our concept was to light the building using some sources projected from the inside to emphasize the structure's transparency."

The design team envisioned lighting that would call attention to the tower's signature element—nine 46-foot-high gardens staggered along the three elevations. "We wanted the gardens, which are visible in daylight only as recesses, to project a primary



Metal-halide luminaires delineate the interior gardens and perimeter structural columns (details, below) of Frankfurt's Commerzbank Tower (above).

presence at night," Fischer says. "When backlit, the glazing that fronts the gardens frames the wonderful shapes of the plantings and trees."

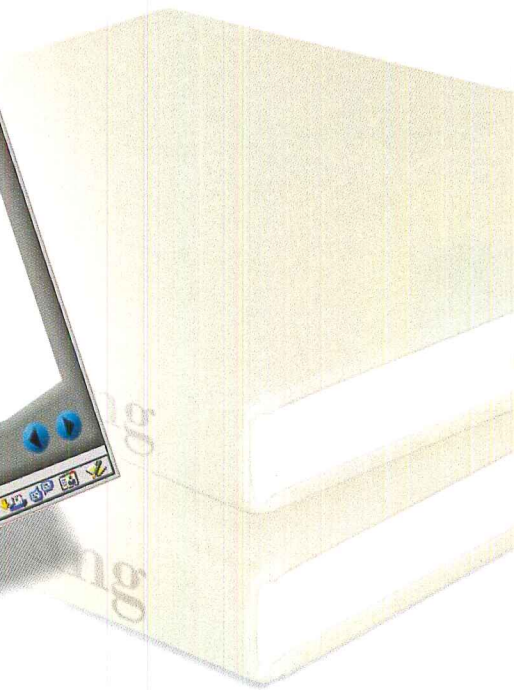
In each garden location, the white ceiling is used as a reflective light surface. Six fixtures designed by architect Renzo Piano each house 150-watt halogen metal-halide lamps in every garden. The uplights are mounted with five-inch custom metal rods from the perimeter windows at a height of 32.8 feet. Yellow dichroic glass filters were color-matched to the bank's signature hue.

Balancing the illumination of the gardens, an array of 72 fixtures is mounted atop four roof sections to highlight the structure's upper floors and spire. Set within metal

cages mounted next to rooftop maintenance mechanisms, 400-watt metal-halide lamps cast light upward along the massive composite concrete-and-steel columns at three corners of the building. The narrow-beam fixtures are set two to three feet from the edges of the roof levels to create overlapping hatches of light along exterior wall surfaces. The outdoor fixtures are fitted with cross-bar louvers to control the directional lighting. Additional 150-watt metal halides are used for short-throw fill light. By highlighting the support structures as well as the interior gardens, the lighting underscores the dynamic nature of Foster's design.

William Weathersby, Jr.

WWW For a look at another recent Blendwork lighting project, the NASPA bank building in Wiesbaden, Germany, go to Projects at www.architecturalrecord.com



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Lighting, furnishings, and wall panels designed by South Park Fabricators enliven the lobby waiting area of the Foote, Cone & Belding advertising agency in San Francisco. An armature of phenolic panels within a steel frame is backlit by fluorescents.

A West Coast design firm fabricates custom lighting and architectural forms

By **Leanne B. French**

Larissa Sand, principal of South Park Fabricators, says the best part of her job is watching design objects take shape in her on-site workshop. Forging the connection between materials, craftsmanship, and architecture, her self-styled atelier in the heart of San Francisco's South of Market district is part design and architecture firm, part fabrication shop. It has gained a reputation for projects that showcase finely tooled custom components, including inventive lighting fixtures.

"Lighting is the emotional side of a space," Sand says. "One's perception of a room is guided by lighting. Using illumination in less traditional ways—to light a bar top from below, outline a bench, or backlight a translucent wall—we can dramatically animate space."

The firm's custom lighting fixtures often integrate light with mechanical and sometimes kinetic elements. The corporate logo in an advertising agency's lobby, for example, is uplighted by halogen spots shining up through a trough of agitated water. Custom pendants designed for a bistro filter light from incandescent bulbs through tinted liquid suspended in glass flasks. Three of Sand's lighting fixtures are going into commercial production and will be available through the 100 Watt lighting showroom in New York City. Sand will also exhibit her designs at the International Contemporary Furniture Fair at the Jacob K. Javitz Convention Center in New York, May 19–22.

Sand's curiosity about materials and industrial design is shared by a like-minded staff of four designers and six fabricators who collaborate on the design and construction of interiors, facades, furniture, and lighting fixtures. Now a turnkey design firm, South Park was launched a decade ago when Sand met her future husband, Jeff Sand. A native Californian, he was running a shop building fixtures, furniture, and art pieces. Larissa, a transplant from the East Coast, saw a "Sputnik-like" espresso machine he had designed and thought it was "the best design I had seen since moving to California."

With her background in art and architecture—undergrad degrees from Brown and the Rhode Island School of Design and a masters from Berkeley—and his experience in product design, they began building furniture and then fixtures for restaurants, offices, and residences. In the mid-1990s, Jeff founded a company based on his designs for snowboarding fittings, but he remains a consultant to South Park.

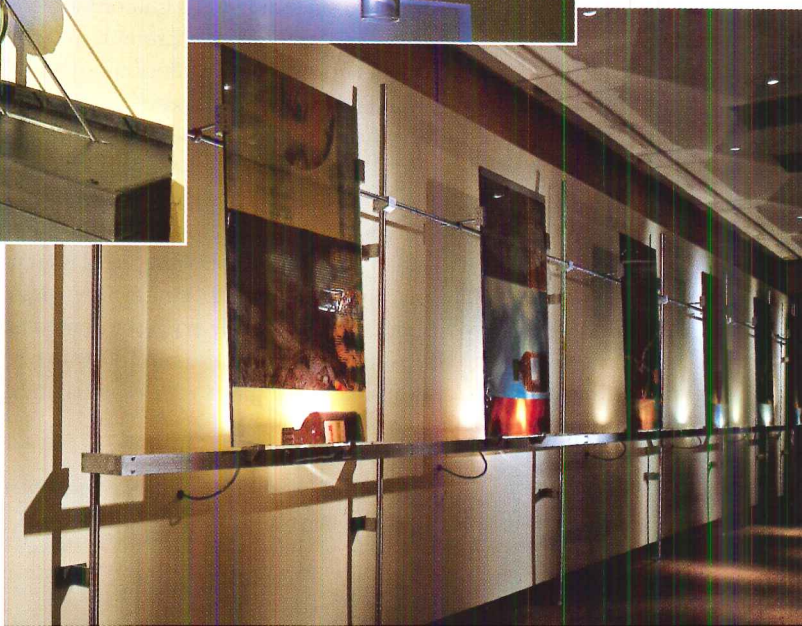
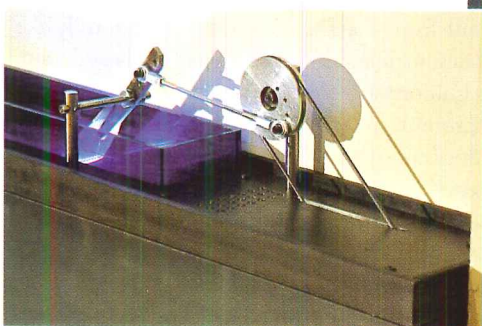
While Larissa wielded a welding torch herself on early projects, today she sticks to sketching and designing on the computer, overseeing machining by her staff. "Our lighting pieces are developed through partial mock-ups in full-scale, trying out varied techniques." When working with new materials, Sand also consults with outside craftspeople and specialty shops. "You hang out with artisans and learn how they want to build things." ■

Leanne B. French, a freelance writer and editor based in New York City, specializes in architecture and entertainment design.

PHOTOGRAPHY: © CESAR RUBIO



The onyx panels of the reception desk are backlit by 120-volt string lights (above). A custom fitting agitates a water trough (below left), filtering halogen uplighting. Sculptural pendants (right) house T10 lamps. Graphic art displayed in a corridor is spotlighted with bi-pin halogens (below right).



Lighting shapes the redesigned lobby of an advertising firm

In the redesigned lobby of the Foote, Cone & Belding advertising agency, natural materials, electronic media, and integrated custom lighting are combined to reflect FCB's image as an established yet progressive firm.

A sculptural reception desk constructed of onyx, mahogany, and steel is lit from within by 120-volt string-light fixtures. On the wall behind the desk, the agency's logo signage is illuminated by flickering blue light from below. PAR30 halogen spotlights are set within a steel-plate box. "The lights shine up through a trough of water that is agitated by a motorized paddle," explains Sand, "so the illumination on the sign subtly shifts."

Custom pendants feature incandescent T10 lamps set inside sand-blasted glass cylinders suspended by an assemblage of stainless steel and aluminum scaffolding.

In a guest waiting area, video monitors are inset in a steel-framed wall of backlit phenolic panels. "We wanted to surround the cool glow of the monitors with a warmer, luminous surface," Sand says. "There are many types of phenolic, but the material selected has an amber quality. When we tested mock-ups, we discovered that illuminating the panels unevenly with fluorescents created a graphic, sunburst effect. It was a happy accident that transformed the space."

Project: Foote, Cone & Belding, San Francisco

Interior and lighting designer: South Park Fabricators—Larissa Sand, David Battenfield, Lynn Schwarzhoff, Michel Ramirez

Design consultant: Frank Neidhart

Sources

Reception desk lighting: WAC Lighting

Custom pendant glass: Weinstein Glass Studios

Fluorescent backlighting: American Fluorescent Corp.

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CIRCLE 61 ON INQUIRY CARD





Custom fixtures and furnishings enhance a Spanish restaurant

When designing the B44 Catalan Bistro—from neon-illuminated facade to custom interior furnishings and light fixtures—Sand wanted to bypass the rustic clichés of some Americanized Spanish restaurants to achieve a more urban, offbeat environment. Hard materials, including slate, steel, wood, and glass, are warmed by the glow of fluid, colorful lighting.

An interior wall suspends glass-and-steel panels within a steel framework. The bar is composed of bird's-eye maple, honed slate, and etched blue glass panels. Blue-gelled string lights below the slate bar top emphasize its structural components. Behind the bar, concealed halogens skim the surface of the rough concrete wall to accentuate its texture. Ambient light filtered through colored glass and gels washes wall surfaces in contrasting hues of blue and tangerine.

Custom-designed pendants, inspired by scientific equipment, create points of incandescent light overhead near the bar. "I was studying science catalogs, looking at Bunsen burners and beakers for inspiration, but I couldn't find a way to tint Pyrex glass to create the look



of the pendant I had sketched," says principal designer Larissa Sand. "Then my husband and design partner, Jeff, and I were having a drink at a bar and he came up with the idea of using colored liquid to surround filament bulbs within glass tubes."

Tinted with water-soluble dyes mixed on site for the right intensity, the liquid is contained in flasks supported by a ring collar and three screws and resting on a steel base. An inner glass sleeve protects the incandescent T10 bulbs. Additional track lighting in the dining area is equipped with 50-watt MR16 halogen fixtures.

Project: *B44 Catalan Bistro, San Francisco*

Architect, lighting designer: *South Park Fabricators—Larissa Sand, Jeff Sand, David Battenfield, Lynn Schwarzhoff*

Sources

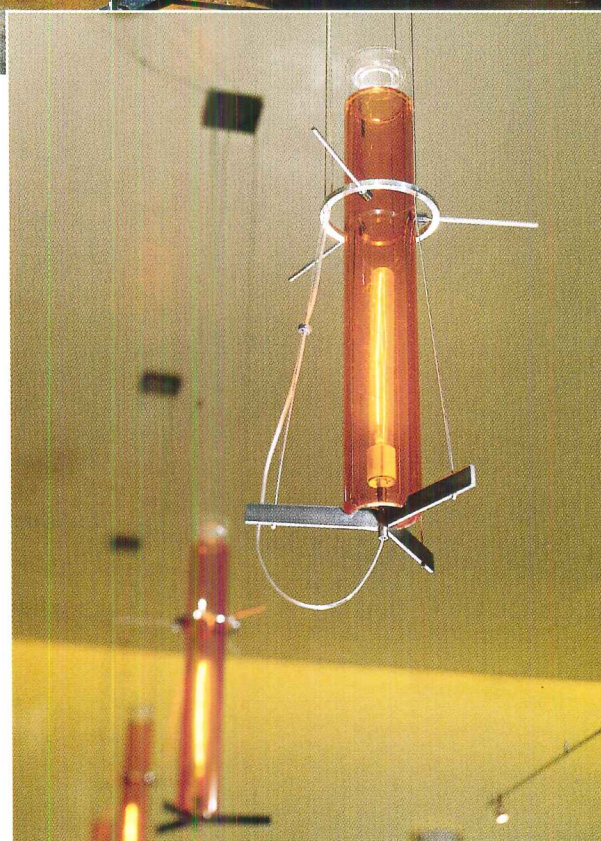
Track lighting: *Translite*

Bar and bench lighting: *WAC Lighting*

Pendant glass: *Weinstein Glass Studios*

Halogens: *Philips Lighting*

Fluorescents: *Osram*



Pendants designed by Larissa Sand were inspired by scientific beakers (above and top). Neon is reflected in the facade's steel-framed armature of clear and tinted glass panels (inset left).

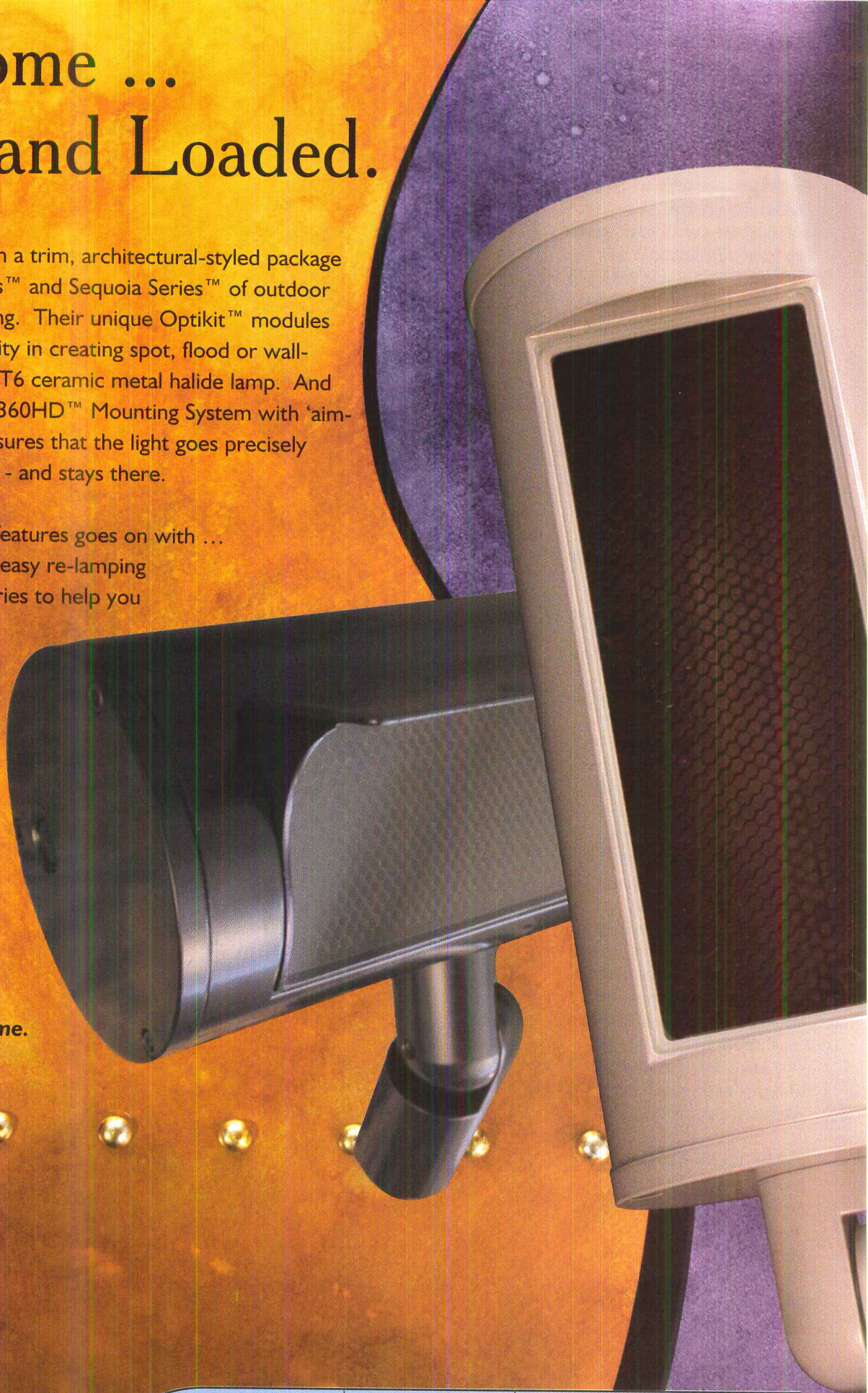
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CIRCLE 62 ON INQUIRY CARD

An entry framework of bronze fittings greets loft residents

For the Marquee Lofts, an upscale condominium complex housed on the upper floors of a former Cadillac showroom building built in San Francisco in 1921, David Baker & Associates Architects commissioned South Park Fabricators to design and build a residents' entry facade, awning, and lobby that would simultaneously reflect the building's industrial past and upscale present.

To distinguish the facade, South Park Fabricators decided to experiment with solid aluminum bronze as a framework for glazing. "We selected a bronze that wasn't too expensive and relatively easy to weld," Sand says. The new steel-and-laminated-glass awning is illuminated by stainless-steel-encased marine lights specified by David Baker & Associates.

Bronze is repeated as a signature element in the lobby. The chandelier designed by Sand incorporates a plate of onyx resting on an egg-crate-like grid of bronze. Ceiling-recessed, narrow-focus spotlights graze the onyx from above. A downlight component features MR16 fixtures hung from the chandelier grid by cables.

Sconces also feature onyx panels held in bronze fittings, which shield clear 40-watt incandescent bulbs. "The idea was to use refined materials joined by mechanical fasteners, albeit bronze fasteners," says Sand. "This was our way of relating to the historic building while addressing contemporary opulence."

Project: *The Marquee Lofts, San Francisco*

Architect: *David Baker & Associates Architects*

Lighting designer: *South Park Fabricators*

Interior finish, millwork designer: *Pacassa Studios*

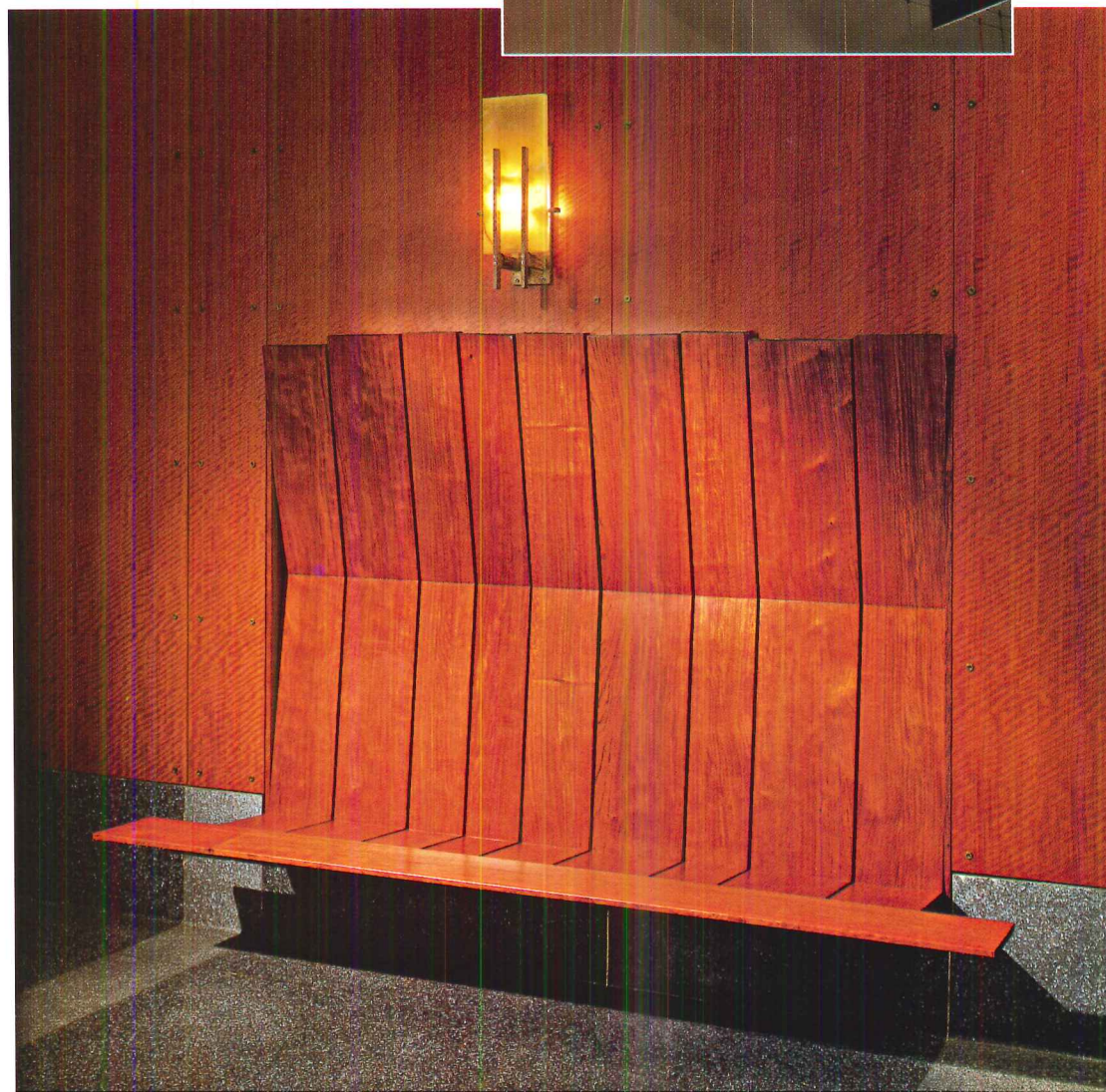
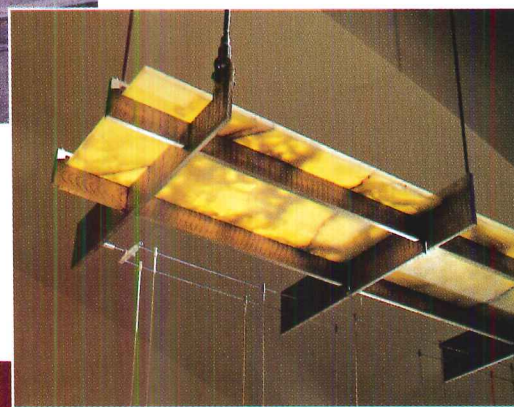
Sources

Awning lights: *Bega*

Spotlights: *Halo*

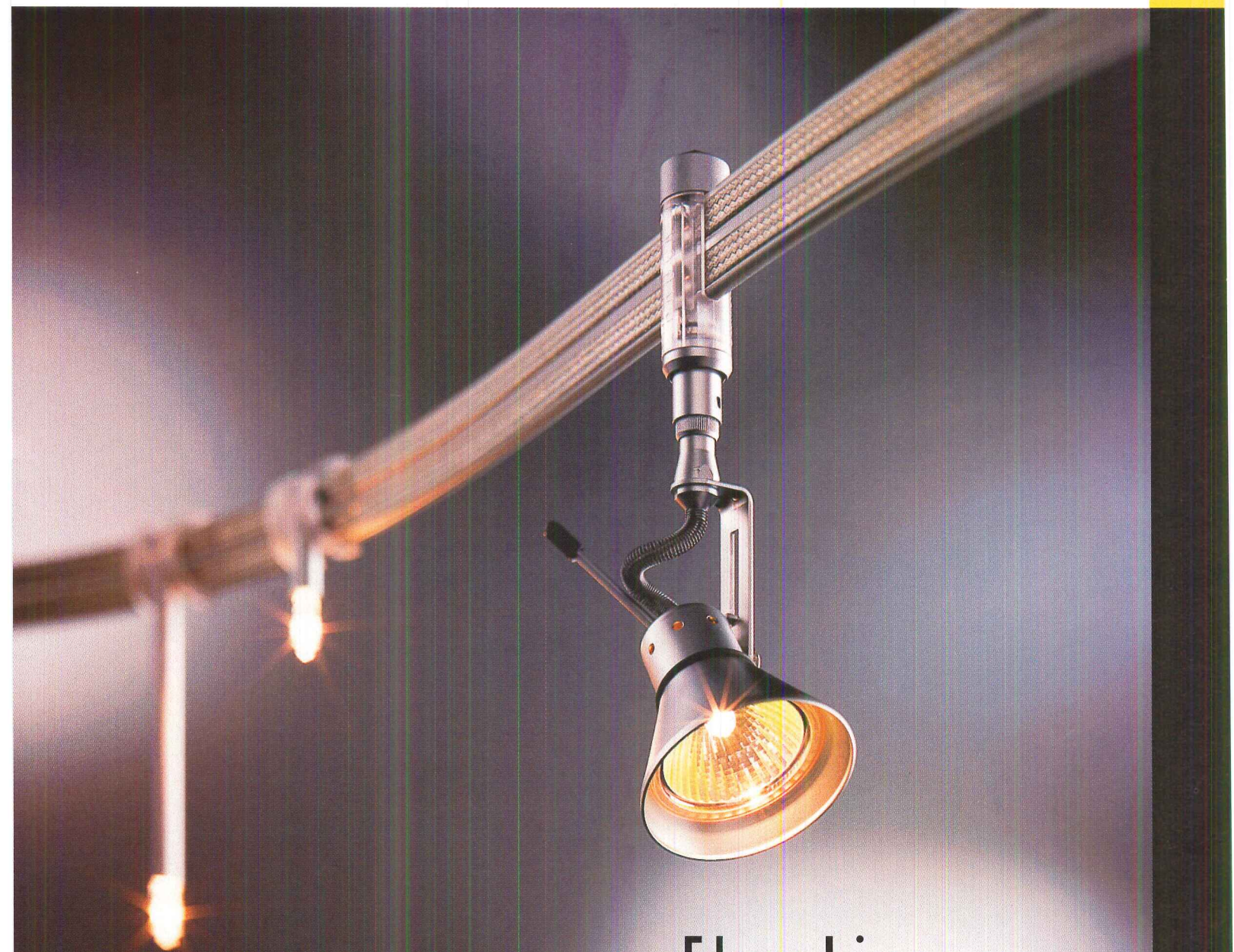


The new entrance of the Marquee Lofts features an aluminum-bronze and glass facade and steel-encased marine lights (left). The onyx panel of a chandelier (inset) serves as a diffusing lens for ceiling-recessed, narrow-focus spots. An incandescent sconce provides ambient light (bottom).



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CIRCLE 63 ON INQUIRY CARD

The atrium skylight is backlit with blue-gelled metal-halide fixtures to enhance its nighttime look. Columns fronting the eight levels are backlit with PAR20 fixtures.



Varied lamp sources create layers of light to enhance the public spaces of a new hotel

By William Weathersby, Jr.

The public spaces of a hotel anchored by a towering atrium might not suggest areas designed at an intimate scale. At the Tribeca Grand Hotel in New York City, however, Bogdanow Partners Architects has shaped inviting lobby venues that thread through a central eight-story volume without overpowering patrons with a monumental sense of verticality. The 10,000-square-foot lobby was designed to serve multiple functions—lounge, waiting room, bar, restaurant, and meeting place—with guest rooms stacked around the perimeter of the triangular building. Guests are cued to the various uses of the lobby by the furniture arrangement, changes in scale and floor surfacing, and especially by lighting. Focus Lighting's layered illumination plan defines different activity zones by varying light levels and colors while accentuating details and tactile surfaces.

After the success of their first New York hotel venture, the Soho Grand Hotel, entrepreneurs Leonard and Emanuel Stern of Hartz Mountain Industries decided to build a second property only four blocks away. The Tribeca Grand pays homage to the early-20th-century brick warehouses and factories of the district with cage-enclosed elevators, ironwork details, and wood flooring. "The atrium also recalls the interiors of classic historic buildings like the Brown Palace Hotel in Denver and the Bradbury Building in Los Angeles," says principal architect Larry Bogdanow, AIA. "Designing the lobby required a balance between acknowledging the towering volume and creating spaces where guests would want to linger. Lighting helps to frame vistas and set up vignettes throughout the vast space."

"Our chief assignment was calling out all the warm details that envelop the space," says principal lighting designer Paul Gregory. "As you look up or across the room, there are sparkles and highlights and pockets of colored light that direct your eye."

Entering the hotel, guests are greeted by a lighted screen in the registration area. "The screen creates suspense by blocking the first glance into the hotel and momentarily concealing the central atrium space," says Gregory. A water feature planned for the entry was eliminated during design development due to cost considerations, so light instead creates a waterlike effect. The semicircular screen is composed of 10 panels, each measuring 2½ feet wide. Each panel is frontlit by a custom wave projector

Based in Westport, Conn., RECORD contributing editor William Weathersby, Jr., frequently writes about lighting and architecture.

Project: Tribeca Grand Hotel, New York City

Owner: Hartz Mountain Industries

Architect: Bogdanow Partners Architects—Larry Bogdanow, AIA, principal-in-charge; Tom Schweitzer, project manager; Brian Slocum,

Randi Halpern, Kelly Crowder Taylor, project team

Lighting designer: Focus Lighting—Paul Gregory, principal lighting designer; Brett Anderson, project designer; Sepp Spenlinhauer, assistant designer



The atrium lobby of the Tribeca Grand Hotel (above) is a crossroads that serves multiple public functions. Track lighting above the bar enhances a trussed glass canopy. Theatrical fixtures cast patterns along the circulation pathways.



with white light, which is filtered through textured glass discs that slowly rotate. MR16 fixtures fitted with blue dichroic lenses accent the front of the screen, while 40 50-watt PAR20 medium-flood lamps provide a blue color wash on the back of the screen.

A curved ramp sweeping into the atrium meets ADA guidelines while providing a processional route for arriving guests. Sections of art glass embedded in the floor along the pathway are lit with LEDs. The LED “brick lights” are housed in custom fixtures, shielded by art-glass covers grouted in place over the fixtures.

For a base layer of light that subtly delineates the atrium structure, columns edging the balconies on each of the eight floors are accented with illumination. A panel of acrylic fabric and resin mounted on the interior face of each column is backlit with a PAR20 lamp housed in a custom steel-mesh casing. When viewed from the ground-floor lobby, the columns take on the look of continuous beams of light.

Aware that the stacked guest-room corridors would be visible from the atrium, Gregory and colleagues Brett Anderson and Sepp Spennlinhauer were concerned that dimly lit hallways would make “the edges of the atrium drop off into darkness,” Gregory says. Instead, the design team addressed the corridor ceilings as an opportunity to create a visual frame for the perimeter of the lobby. Coffers in the hallway ceilings contain concave perforated acrylic panels. In the center of each panel, an MR16 accent spot illuminates an acrylic panel suspended below the arch to provide sufficient ambient light without exposing a light source. Each coffer is lit with linear fluorescents wrapped in color sleeves: Deep amber on the ground floor progresses in small color steps to a light amber on the eighth floor. “The color gradations direct the eye and add a layer of

A stylized fireplace features paraffin-burning lamps set behind glass lenses (below). Lintels and wood panels above the fireplace are grazed

by ellipsoidal reflectors. Neon inset in the bartop uplights patrons (above). Floor lamps and MR16s are ambient sources.



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Job: Karl Traeger Elementary School
Architect: Potter Lawson Architects
Photography: Bob Freund

EDUCATIONAL SPACES

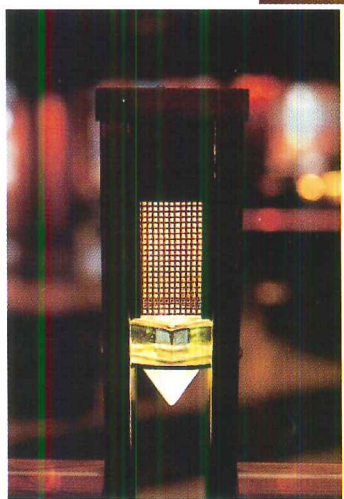
Job: Kentucky State University
Architects: TBS Architects
Photography: Walt Roycraft

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CIRCLE 65 ON INQUIRY CARD

The chandelier and six sconces in the private dining room are wired to 15 24-volt flicker modules to simulate candlelight (right). Throughout the lobby, custom newel-post lanterns employ ships' prisms to reflect light from A-lamps (below).



unexpected visual interest," Gregory says. At the top of the atrium, a frosted-glass skylight is lit from above by 20 roof-mounted 1000-watt metal-halide fixtures fitted with deep blue gels.

The owners and architects issued a mandate to keep the columns and railings bordering the atrium free of lighting fixtures focused down on the lobby, Gregory says. To provide general lighting at the atrium floor level, theatrical fixtures were mounted to the skylight trusses. Because fixture

THE PUBLIC SPACES USE LIGHTING TO FOCUS VIEWS AND SPOTLIGHT MATERIALS

clutter was a consideration, custom I-beam clamps were fabricated to support the fixtures, each clamp featuring a one-foot-long arm that can be rotated to move the fixture around truss crossmembers. "This placed the fixtures in good positions for throwing light eight floors below and ensured that they could be easily maintained from the upper-level walkway," Gregory says. The ellipsoidal reflectors are fitted with pattern projectors to cast plays of shadow and light upon pathway pivot points. Additional fixtures graze wood millwork throughout the lobby.

To anchor the north wall of the lobby, Bogdanow envisioned a hearth that might evoke the look of a lodge hotel from earlier in the century. Because an open fireplace or the use of gas jets was against fire code in such a public atrium, he collaborated with Gregory to design a stylized version that employs paraffin lamps. Measuring 22 feet long and 16 feet high, the "fireplace" contains 66 lamps fueled by a liquid paraffin pump behind dichroic glass lenses. A backdrop of metallic-fin-

ish tiles catches the flickering light.

Glass-enclosed elevators in the atrium sparkle from within. For an inventive chandelier, Gregory used ships' prisms—solid green-glass pyramids of a kind once used to light lower decks of ships before electricity. Light directed into the prism is reflected at a 90-degree angle. Five groups of six prisms cover the ceiling of each elevator cab, with the center prism in each group pointing downward. A single A-lamp source above each grouping creates a field of sparkles. Ships' prisms, with A-lamp uplighting, also serve as jewel caps in newel posts throughout the lobby.

A triangular bar area adjacent to the atrium sits beneath a truss-and-glass canopy, which is illuminated by MR16 track lighting. A run of neon is inset into the bartop to uplight patrons. And adding definition to the streetside windows, AR70 fixtures graze metallic-fiber draperies. ■

Sources

Recessed downlights: Edison Price, Nulux, Atlantic

Accent lighting: RSA, Lumiere, BK Lighting

Track lighting: Juno

Linear light strips: Litelab, Belfer, Lucifer

Fluorescents: A&L Lighting, PMC Fluorescent

Theatrical fixtures: Electronic Theatre Controls

Decorative fixtures: EgoLuce, Flos, Terzani, Originals 22, D'Lights, House of Troy, George Kovacs, Limburg

LED fixtures: Holly Solar Enterprises
Flicker-effect generators: Magic Gadgets

Dimming and controls: Strand

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Soothing the pain of soaring power prices

DEREGULATION OF ELECTRIC UTILITIES HAS CAUSED POWER PRICES TO GO HAYWIRE. CURTAILABLE RATES MAY HELP YOUR CLIENTS TURN THIS SOURCE OF PANIC INTO ONE OF PROFIT.

By Lindsay Audin

The booming economy, which has become more and more based on electronics, has pushed electric load levels to unprecedented heights. Coupled with the fact that fewer new power plants are coming on-line, the boom has challenged the electrical generation and transmission systems to match power supply with customer demand, lest the U.S. plunge into darkness. When the margin between supply and demand becomes tight and, as has been case recently, when there is effectively no competition between wholesale electric power suppliers, they can essentially charge whatever price the market will bear.

A typical electric bill is actually the sum of many separate charges, including the cost to generate, transmit, locally distribute, and meter that power. When utilities are “deregulated,” they sell their generating plants to unregulated companies called independent service operators (ISOs), which in turn compete with one another for consumers’ business. Deregulation was supposed to spur competition between ISOs, driving down the price of electricity. In most states, the cost of the generation portion of the bill represents about 30 to 50 percent of the total, with the rest covering the cost to transmit, distribute, and meter the power—aspects of the bill that remain regulated—with the utility company still acting as the delivery agent for the power.

Deregulation has worked well in states where there is enough spare generation to ensure competition, even when some plants are out of service, weather is severe, or a power line goes down. But when power supply fails to keep up with demand, as has been occurring in California recently, there is effectively no competition: All local power plants must be in operation, and often power must be imported from out of state. At such times, prices charged by those new power-plant owners are unconstrained, which means the cost of electricity can go through the roof.

In California, things began to unravel last summer. High temperatures occurred across the whole West, highlighting a fact not unknown to smart power marketers, that California needed to import nearly 25 percent of its power from other states. Very high prices for natural gas, which fuels many power plants, exacerbated the situation—Platt’s recently reported that natural-gas prices effectively increased fourfold since January 2000. The resulting wholesale prices for power were then either passed on to consumers, as occurred in the San Diego area, or were temporarily absorbed by local utilities, as occurred in areas served by Pacific Gas & Electric and Southern California Edison. Only

Lindsay Audin is the president of Energywiz, an energy and technology consulting firm (www.energywiz.com).

consumers in areas served by municipal utilities that generate their own power, such as Los Angeles and Sacramento, escaped skyrocketing electric power prices.

Curtailable rates to the rescue

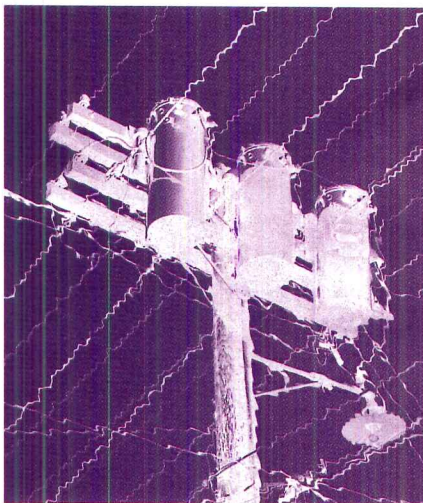
As a result of this fiasco, new forms of cooperation between suppliers and customers have been created. One, curtailment, has taken the form of direct payments to customers who cut back power use upon request. While the lexicon of “interruption” versus “curtailment” has yet to be precisely nailed down, a curtailable electric rate reimburses a customer who chooses to reduce a portion of the load when asked; an interruptible rate is lower at all times but mandates heavy penalties for those who fail to cut back when called upon to do so. The less onerous curtailable option is now spawning a variety of new electric rates, user management software, and demand-side management services.

Those curtailable rates typically pay customers at least \$.30 to \$.40 (and sometimes over \$1.00) for each kilowatt-hour (kWh) they do not use during a curtailment period, when the utility companies are approaching peak-load conditions. Since a failure to curtail does not result in any penalty, such new rates offer a low-risk opportunity for customers to get money back by managing their demand on an as-needed basis.

One way to reduce load is through the selective shutdown or dimming of lighting. While most lighting loads are too critical to be interrupted, some may be dimmed, briefly shut off, or switched over to existing backup generators. Here are a few examples: Decorative or window-display lighting, signage, and open multilevel parking structures can be shut down during daylight hours. Lobbies, hallways, and atria, especially those that receive daylight, are good candidates for shutdown, or at least load reduction. Some office, warehouse, and ambient (not task) lighting may be dimmed somewhat without impacting productivity or safety.

A quick calculation reveals the value of such systems. Let’s say your present on-peak cost for power (including peak demand charges) is \$.15/kWh. Reducing load by 100 kW would save \$15 per hour. If employed 10 times a year to reduce peak demand for 8 hours at a time, a load-reduction system would save about \$1,200 a year (or about \$12/kW). Operating under a typical curtailable rate, however, that same system could cut annual electric bills by \$4,400 or more (or about \$44/kW).

While insufficient to quickly recoup the cost of replacing constant-wattage electronic ballasts with dimmable units, the refunds may be enough to justify several energy-saving options. Control and ballast



options include: area-wide dimming systems for HID lighting; the choice of dimmable fluorescent ballasts, instead of standard electronic ballasts, for an already-planned upgrade; installation of powerline carrier (PLC) controls on nonessential lighting circuits, such as window-display lighting for stores; installation of step-dimming ballasts in hallways and stairwells, with occupancy sensor override for areas with security problems. One simple solution is to circuit 30 to 50 percent of fixtures in hallways for selective shutoff. Switchgear, which runs safety lighting during the brief interruption that occurs when the generators are being started up, should also be added.

How can a client participate?

Most curtailable load programs feature the following requirements:

- *A minimum defined-load reduction*—a commitment by the customer to reduce by a minimum amount, usually at least 100 kilowatts.
- *Time restrictions*—the client must be able to reduce loads between 9 A.M. and 10 P.M. on any day of the week.
- *Rapid response time*—curtailment must occur within several hours of receiving a call to do so.
- *Access to communications*—someone must be able to receive and act upon the type of signal sent by the utility or ISO and activate the metering system that measures, records, and reports loads before and after curtailment. This notification may be sent by a beeper, radio, or E-mail.

Examples of such programs may be found at the Web sites of several utilities. See Alliant Energy at www.alliantenergy.com, Consolidated Edison at www.coned.com under tariff Rider U. To see details on an ISO's program, log onto at www.pjm.com.

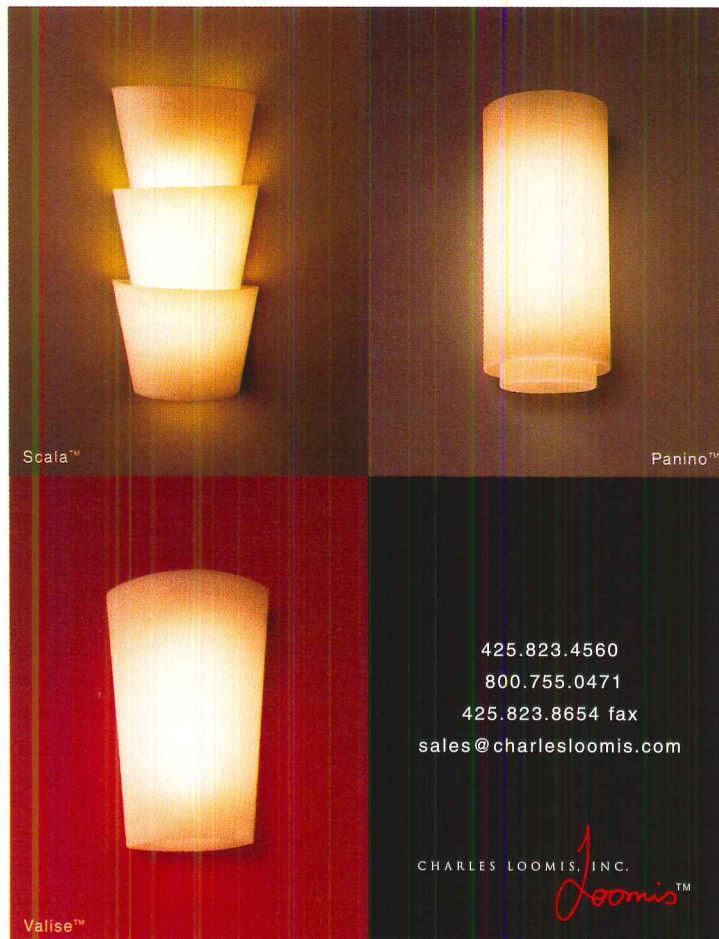
There are more than a few "devils in the details" of load curtailment, and some thought is needed to deal with them. In at least one case,

a utility thought it could ask customers to switch loads on and off in 10-minute intervals. This is obviously unacceptable for lighting systems.

Seventeen curtailments were called for in California during the summer of 2000. If a system is fully automated, so many calls would not be a problem, but asking a facility manager to scramble and personally activate the curtailment system is often asking for trouble: If curtailments are not fully automated, facility managers need to be ready and able to receive curtailment calls. Your clients will need to know whether there is sufficient staff to execute the curtailment and whether their communications equipment is reliable enough to keep this option from becoming a burden. Several controls firms and software vendors are now assisting utilities and customers to automate the handling of curtailments. For further details, see the September 2000 Tip of the Month at www.energybuyer.org.

And what happens after one installs the new controls, meters, and software necessary to manage a curtailment but, due to cool weather or increased capacity, there are not sufficient curtailments to pay for these improvements? It seems unlikely to happen in the immediate future, but it is proper to warn your client that this is within the realm of possibilities.

"Pay me to cut back" programs already exist in California, Wisconsin, Iowa, Minnesota, Illinois, New York, and Oregon. Both the PJM ISO and the New England ISO have initiated programs for curtailments at the wholesale level, which will filter down to customers at the option of their local utilities. This practice is likely to spread wherever the margin between supply and demand is tight or narrowing. To find out if a curtailable rate option is available in your area, call your local utility. While others may continue to see price volatility only as a source of problems, here is a chance to make it a source of profit. ■



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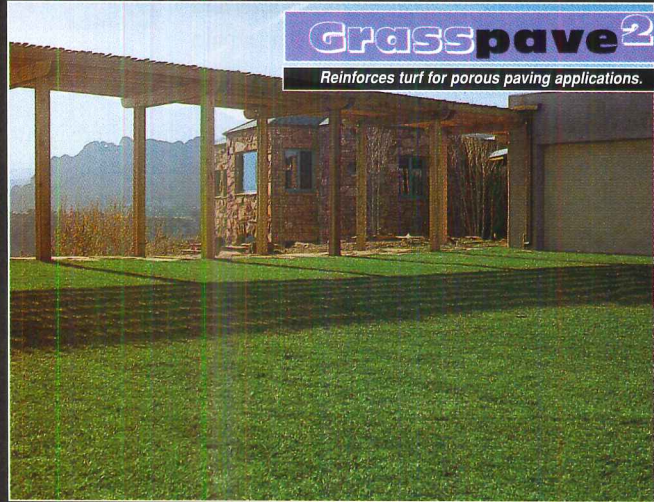
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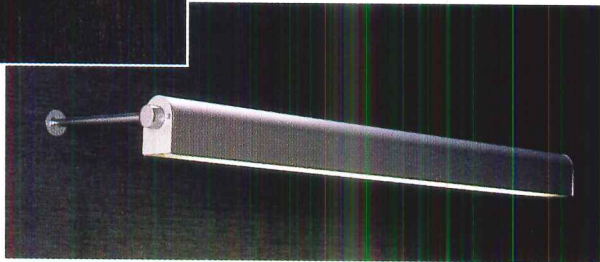
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Lighting Briefs



◀ New kid on the lighting block

Tsao Designs is one of the first four subsidiaries of Varon Lighting, a new lighting fixtures manufacturer based in Wauconda, Ill. Tsao Designs, offerings include the G-7 collection of half-cylindrical wall sconces with molded sand-etched glass (left) and the Taskmaster Series 310 linear hard-wired task and accent lighting fixtures (below). 203/966-9559. Tsao Designs, New Canaan, Conn. **CIRCLE 200**



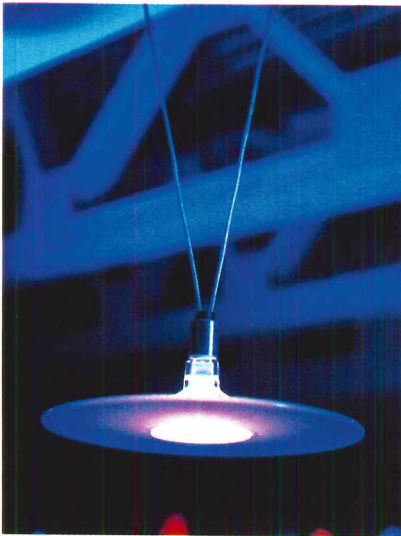
▶ For the vertically challenged

The Vertical Surface Illuminator (VSI) is a new method of illuminating large wall surfaces from that same surface. VSI delivers a narrow 180-degree band of light from a precise, patented optical system. More than 95 percent of the candlepower distribution is within 15 degrees of the surface being illuminated, resulting in low glare and minimal light pollution. The same size luminaire can be equipped with either a 70-watt or 150-watt ceramic metal-halide T6 lamp. 805/684-0533. Bega/US, Carpinteria, Calif. **CIRCLE 202**



◀ Just hanging around

Häfele America Company's low-voltage halogen lighting system features lights that attach to rails or cables, allowing for the easy adjustment to highlight the area in need of illumination. A variety of lights and accessories in the system can be configured in various angles and curves for both residential and commercial applications. 336/889-2322. Häfele America Co., Archdale, N.C. **CIRCLE 204**



▼ Putman floor and table

The *Compas dans l'Oeil* table and floor lamps are French designer Andrée Putman's third collaboration with Baldinger. The lamps provide soft reading and ambient light through a lined, perforated-metal shade. A compass-inspired knob allows the direction of the light to be adjusted, and the base contains a compartment to hold a pen or paper. The stem and base are finished in satin nickel; the adjustment comes in a satin brass or satin nickel finish. 718/204-5700. Baldinger Architectural Lighting, Astoria, N.Y. **CIRCLE 201**

▶ Landscape luminaire

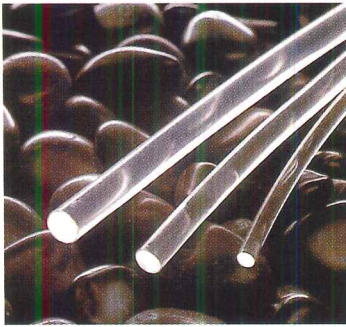
Ceillo pole- and surface-mounted low-voltage accent luminaires provide evenly distributed, low-glare accent illumination for outdoor building entryways, perimeters, gardens, and pathways—or they can accentuate architectural and landscape features. The cylindrical housing has a narrow base and a broad lamp head. 714/668-3660. Architectural Landscape Lighting, Santa Ana, Calif. **CIRCLE 203**



▲ Up, down, any which way

Updown is a light system using an energy-saving fluorescent T26 tube with a 58-watt, 36-watt, or 18-watt bulb. Updown consists of a lamp element with optional reflectors and diffusers. The light can be directed as required. Available as a steel-cable suspended lamp with an aluminum tube or as a ceiling and wall lamp, it is suitable for an individual monitor workstation, retail environments, or residential settings. The ends of the two diffuser options can be covered with color clips to achieve color effects. 41/56/618/7373. Belux AG, Wohlen, Switzerland. **CIRCLE 205**

Lighting Briefs

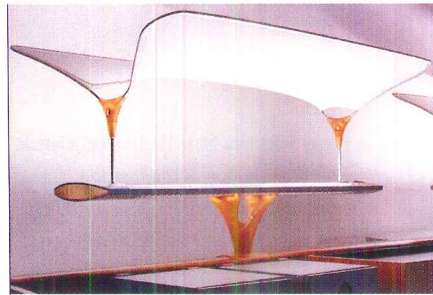


▲ Magic wand

Compared with standard-core plastic fibers, Venture Imagine MagiCore solid-core plastic fibers give up to 30 percent more space through which light can travel and a 33 percent higher angle of acceptance. As a result, 76 percent more light will pass through solid-core plastic fiber than standard core. The light cables are available with diameters of 5, 8, 9, or 16 millimeters. 800/451-2605. Venture Lighting, Solon, Ohio. **CIRCLE 206**

▼ Small packages

A new line of high-efficiency, thin-profile electronic ballasts are designed for one- and two-lamp operation with models available for T5 and T5/HO lamps ranging from 14 to 54 watts. The lamps feature a small cross-sectional area and low one-inch profile height for flexible fixture design. T5 and T5/HO applications include indirect, pendant mount, wall mount, surface mount, cove, undercabinet, and task lighting. 615/316-5146. MagneTek, Nashville. **CIRCLE 207**



▲ Light with Lycra

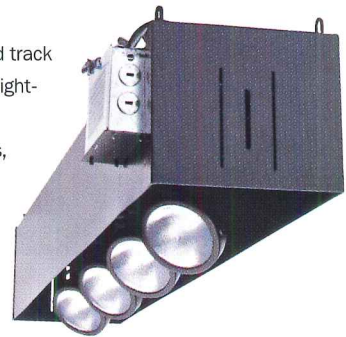
The Spectrum lighting fixture was designed by Axis Lighting and Fahrendorff Design as a part of SMED

International's new Switch line of furniture. The Spectrum features curved polycarbonate supports and details and an organic-formed Lycra fabric reflector that delivers ergonomically correct, glare-free lighting. The stretch reflectors allow for indirect illumination of

spaces with unfinished or dark ceilings or for an accent on an interesting architectural detail. 800/263-AXIS. Axis Lighting, Montreal. **CIRCLE 208**

► Recessed and track combo

The Slot offers a combination of recessed and track lighting that provides multiple-aiming accent lighting. The recessed housing easily drops into suspended two-by-four-foot T-bar grid ceilings, or it may be used in most other types of ceiling construction. The easy-to-install enclosure offers a clean, flush appearance that reduces clutter. 847/559-5500. Con-Tech Ltd., Northbrook, Ill. **CIRCLE 209**



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digital wide forma

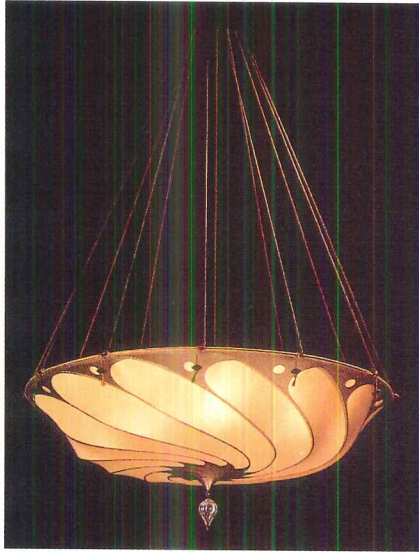
The wide-body with the wide range of features. The Ricoh FW7030D. Multiple copies at a fast speed of 15.7 fpm. It features R/E from 25 to 400% up to 400 dpi, 32-level grayscale, positive-negative reverse, mirror image and much more. A controller software option provides full network connectivity.

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Lighting Briefs

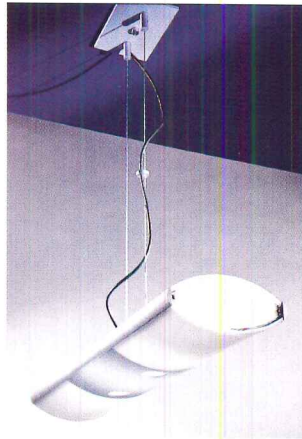
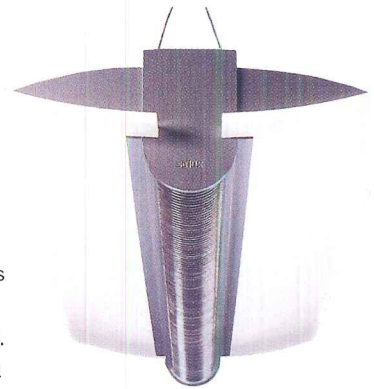
► Venetian-inspired chandelier

Fortuny lighting was produced by Venetian craftsmen working with renowned designer Mariano Fortuny, who perfected the technique of stretching delicate silk over forged brass frames. Once the shape of the chandelier is established, each piece is then hand-painted with traditional Italian and Ottoman designs and finished with beaded ornaments, Murano glass drops, or fine silk tassels. The Semplice Scudo Saraceno chandelier, a contemporary addition to the collection, is crafted in the same style but painted in a simple, spare spiral. The new chandelier, as well as other Fortuny lighting, is available in the United States through the Stephanie Odegard Company. Each piece is one-of-a-kind and takes approximately 10 weeks to complete. 212/545-0069. The Stephanie Odegard Company, New York City. **CIRCLE 210**



► Winged pendants

The Aura series of direct/indirect luminaires uses a new technology of glowing translucent wings made of a scratch-resistant, multilayered acrylic material that achieves an even glow throughout the form. Both the Aurea (shown) and Aureaus luminaires are pendant-mounted using T5 technology. 800/SELUX-CS. Selux Corp., Highland, N.Y. **CIRCLE 211**



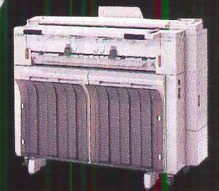
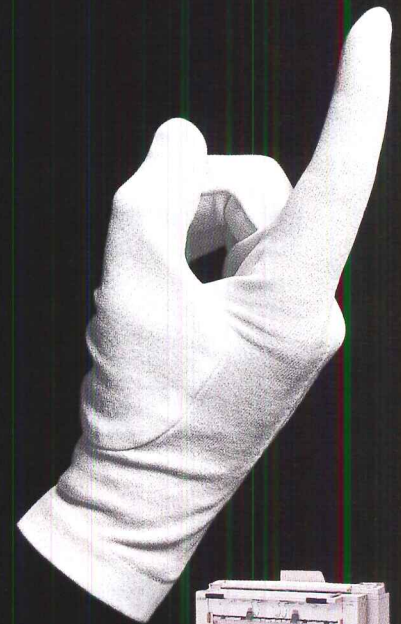
◀ Slumped and seeded glass

The 801 pendant's two MR16 lamps set in the center metal panel provide bright, directed downlighting, and the 60-watt incandescent and 13-watt fluorescent lighting options on either end allow for specific-use options. The fused, seeded, and slumped decorative glass completely diffuses the light and evenly illuminates. Standard metal choices include satin silver and satin bronze. A wall sconce and table lamp are also currently available. 800/978-8828. Neidhardt, Redwood City, Calif. **CIRCLE 212**

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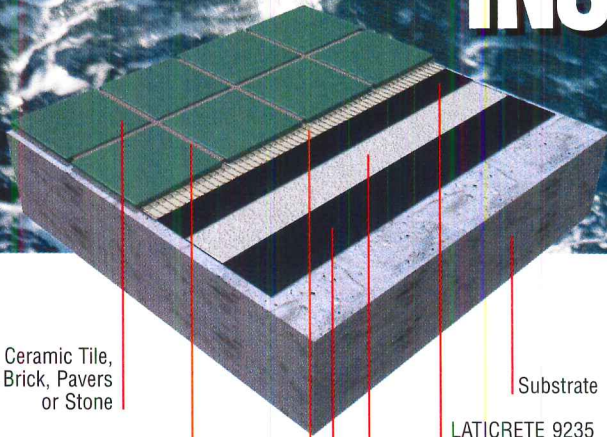


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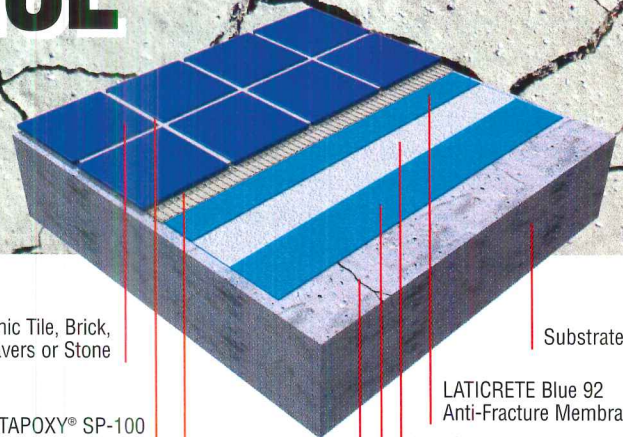
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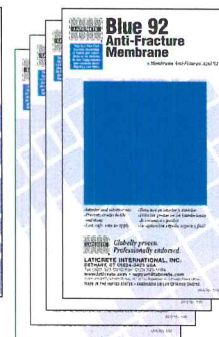
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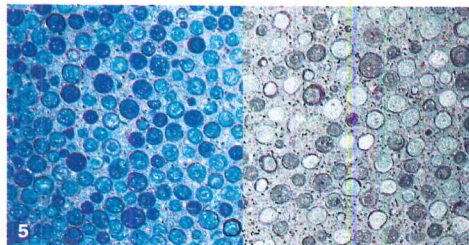
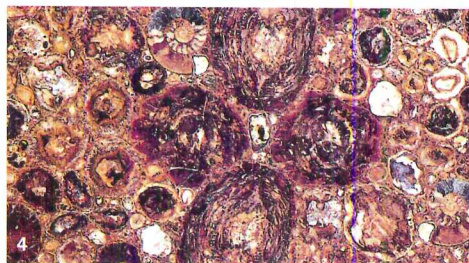
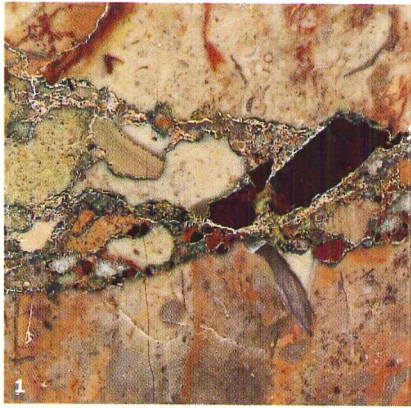
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New Products

It might be misleading to put **tile and stone** in a new products section. After all, stone, as well as the minerals and clays used to make tile, precedes man, let alone man-made structures.

But **new fabrication techniques** and lessons learned through trial and error keep the topic as new as any. Here are offerings from around the world. *Rita F. Catinella*

In October, RECORD attended both Cersaie, the largest exhibition of ceramic tile and bathroom furnishings, held in Bologna, and Marmomacc, the international exhibition of marble, stone, and technology, held in Verona. Standouts among the usual offerings were 3-D cladding tiles that created shadows, elaborate glass tiles, and technologically improved "self-cleaning" tiles. The stone show's high points included stunning marbles from around the world, terrazzos using unusual materials, and selections of reclaimed Jerusalem stone.



The world as your palette: Colorful stone from Ireland to Israel

1. Marbre du Boulonnais comes from the Boulogne region of France. Special features of the marble include shells and crystalline veins. 510/782-3000. Stone Selection, Hayward, Calif. **CIRCLE 213**
2. Irish Connemara Green offers elements of translucent apple green color in a wild variegation of dark and pale shades of green. 39/045-6836611. Antolini Luigi & C. Spa,

Sega di Cavaion, Italy **CIRCLE 214**
3. Sky Blue Marble from Argentina is a rock of medium hardness that strikingly mimics a blue sky with ribbons of clouds. 54/351-4941851. Campa Srl, Córdoba, Argentina. **CIRCLE 215**
4. Modern techniques are used to fabricate slabs of precious minerals combined with rare petrified wood and fossils, dating back over 240

million years. 972/9954489. Petrified GemWorks Ltd., Herzelia, Israel. **CIRCLE 216**
5. Ipar's unusual heavy-duty terrazzo flooring features water-jet-cut circles in pastel colors. The flooring is made of cement, globular granulates, and siliceous and quartz-based hard aggregates. 39/035-940246. La San Giorgio, Bergamo, Italy. **CIRCLE 217**

Mistakes to avoid if specifying stone

The biggest mistake architects make in specifying stone is not reviewing enough samples to understand the range of veining, color, and texture. Another problem is specifying a material for an inappropriate application. For a few applications (curtain walls, for example), there are specific guidelines that have been developed; however, for many types of installations, there are no yes-or-no guidelines. A way to begin the process is to ask the following questions: What are the characteristics of the stone? Has it been tested? (If it hasn't, the architect needs to employ a laboratory to determine whether the stone can handle the loads occurring where it will be used, and to help determine the appropriate substrata and method of mounting.) Where has it been used before? What is its chemical composition? In what size is it available? In what country is it quarried and fabricated? How efficient is the transportation system in that country? Is the quarry open year-round?

Thanks to Robin-Holt Henry, AIA, of Associated Imports in Seattle for her suggestions.

New Products

TILE GLOSSARY:

Abrasion resistance

The degree to which a floor tile's surface will withstand the wear of foot traffic.

Aggregate

A mixture of diverse minerals or other loose materials in a cementing agent.

Clinker tiles

Natural clay tile, generally extruded, with properties similar to red stoneware.

Crazing

A fine, hairline cracking that sometimes appears on the glazed face of a tile.

Curing

A process allowing new tile installation to set.

Double-fired tiles

Glazed tiles produced by an initial firing of the shaped tile body, followed by a second firing once the glaze or decoration has been applied.

Impervious stoneware

Dust-pressed ceramic tiles with water absorption levels of less than .5 percent. Often specified for exterior installations; also known as fully vitrified stoneware or porcelain stoneware.

Majolica tiles

Tiles composed of raw materials that produce a yellow-pink body with a relatively high water absorption level.

Monocottura tiles

Tiles produced by the single-firing method.

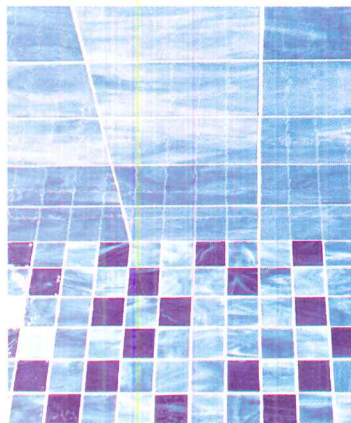
Thin-set installation

Alternative to thick-set installation, thin-set uses a bond coating less than 1/8 inch. Requires a level surface.

Adapted from the Italian Ceramic Tile Dictionary. To order, call the Italian Trade Commission, Ceramic Tile Dept. at 212/980-1500.

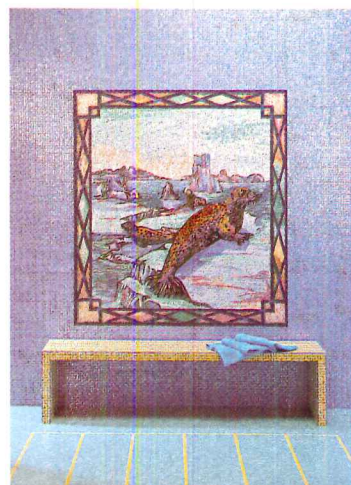
▼ Liquid glass

Vitrum Liqua glass tiles, part of the Vitrum family from Ceramgres, are available in 11 colors that can be broken down into different combinations to create four looks: Fiume (green), Sea (dark blue) Smoke (light blue/gray), and Earth (yellow/brown). The High Tech line of Vitrum in various textures is also available. 39/063-660422. Ceramgres, Carbonera, Italy. **CIRCLE 218**



▼ Iridescent mosaics

The colors in the Iridium Mosaic Collection include iridescent greens, blues, coppers, purples, pearls, and oranges. Iridium Mosaics (below) were part of the Mosaic Promotions County Century City project in South Africa. In this project, artwork was hand-cut, chip per chip, in the Italian factory and put together on site. 39/054-4451340. Sisis, Ravenna, Italy. **CIRCLE 220**

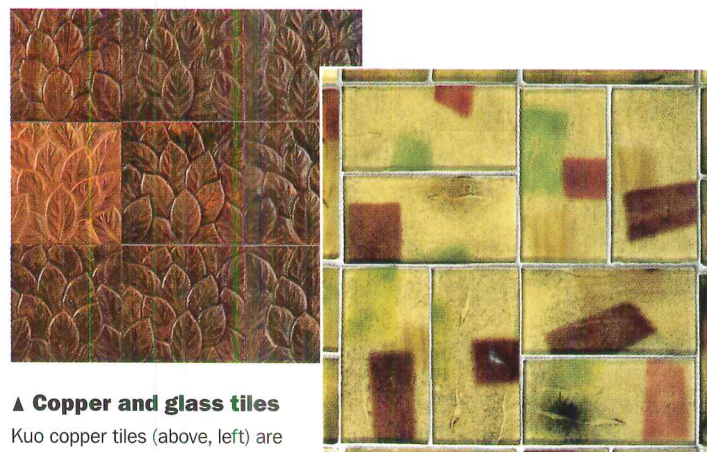


▲ Rainbow brights

The Fire collection from Maestri Majolicari (above) was among the many new series of tile at Cersaie that mixed shades to create rich color fields. Companies such as Appiani, Saicis, Gabbianelli, and Cerdomus displayed mottled bottle blues, greens, and soft yellows alongside bright oranges and reds. In addition, matte blacks and shimmering grays made a comeback and were often enhanced by metallic and glass accents. 212/980-1500. Italian Trade Commission, New York City. **CIRCLE 219**

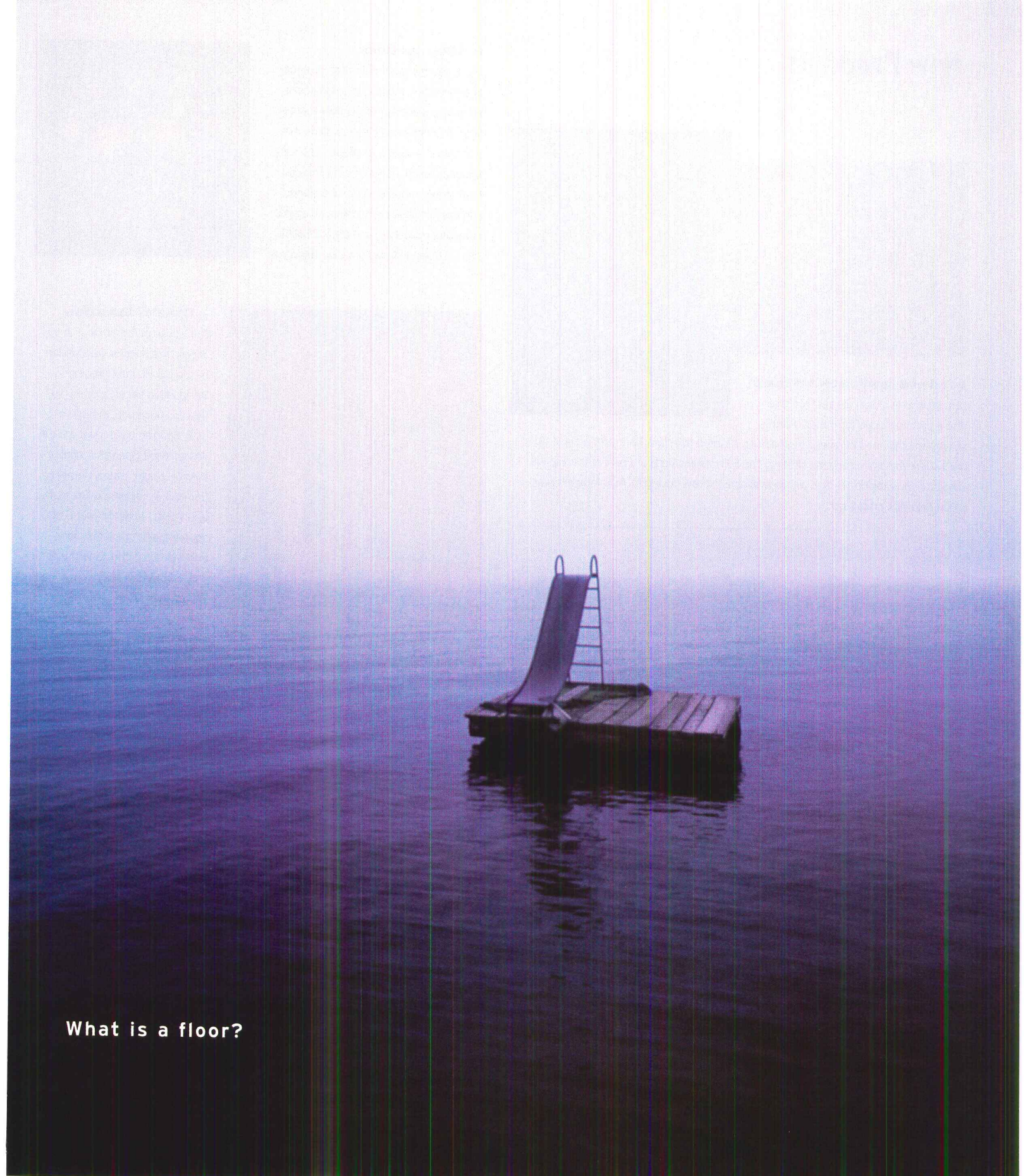
► Vitrified stoneware

Factory is a white-body vitrified stoneware tile with a choice of two graphic textured surfaces: Roll (shown) and Wire. Factory complies with high standards in frost resistance and hardness, and a special thick silk-screening process ensures abrasion resistance. The tile can be used indoors or out. 39/059-778411. Ceramiche Ascot, Solignano, Italy. **CIRCLE 221**



▲ Copper and glass tiles

Kuo copper tiles (above, left) are created through the process of "hand-chasing" which shapes and forms the metal without fundamentally altering its nature. In chasing, work begins with mallet blows at the center of the sheet of metal, continuing out to the edges, never striking the same spot twice. This hardens the metal, making it less plastic. The metal is then heated and worked until properly formed. Ann Sacks also offers the Illume glass tile collection (above, right). The Crosshatch pattern, for instance, comprises three layers with glass powder "painted" on each and fired. It is then fused together in yet another firing, giving the tile overall texture and depth. 503/281-7751. Ann Sacks, Portland, Ore. **CIRCLE 222**



What is a floor?

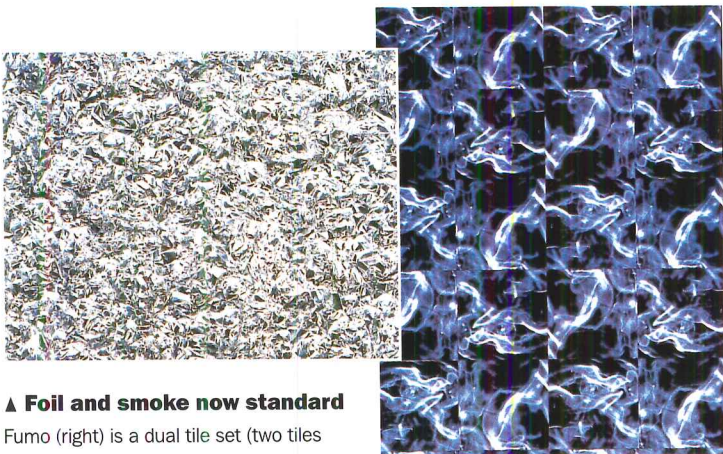
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New Products

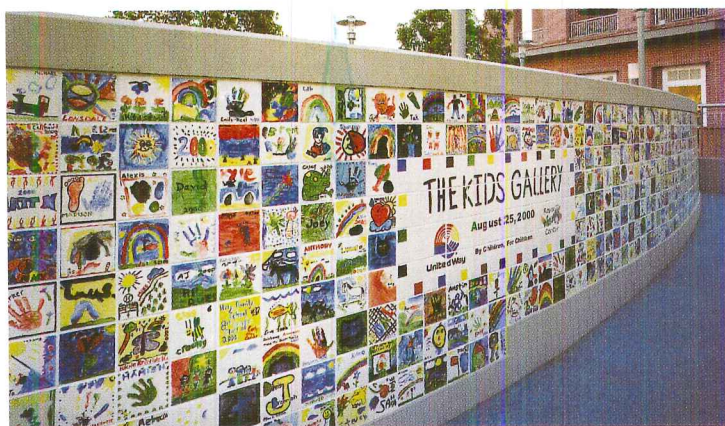
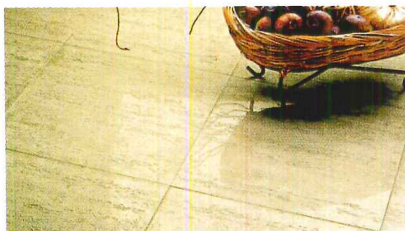


▲ Foil and smoke now standard

Fumo (right) is a dual tile set (two tiles that repeat in the pattern) that creates an illusion of plumes of smoke on the floor. Created by Adam Tihany for a cigar store, the pattern is now a standard offering. The Foil designs (left) are part of the Vignelli collection for Imagine Tile and will be available in May. 800/680-TILE. Imagine Tile, Bloomfield, N.J. **CIRCLE 223**

► Brazilian flooring

The Roman Travertino series of unglazed porcelain was created in collaboration with Brazilian architect João Armentano. Available in a 16-by-16-foot format, the collection features natural, matte, and polished finishes. The series offers a natural palette and is highly resistant to traffic and climactic changes. The tiles, which are similar in appearance to natural stones, can be used in high-traffic areas such as airport and hotel lobbies, shopping centers, retail stores, and supermarkets, as well as all residential applications. 972/481-7854. Elaine Ceramic Tiles, Dallas. **CIRCLE 225**

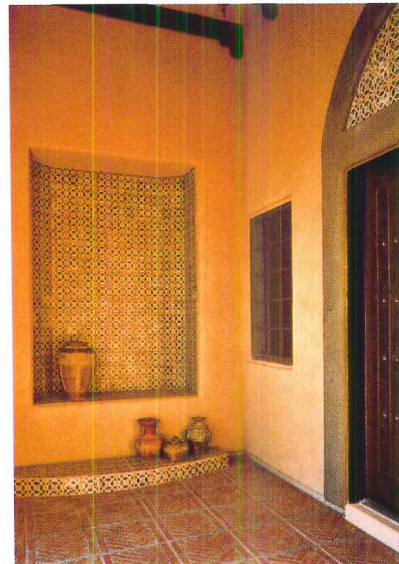


▲ Wall of fame

More than 2,800 local schoolchildren each contributed a hand-painted ceramic tile to the Children's Wall in the new Roseville, Calif., shopping center. Twenty thousand square feet of Italian tiles and thin-brick veneer were specified with an installation system including waterproofing/crack isolation membrane, latex bonding mortars, and latex grouts from TEC. 800/323-7407. TEC Specialty Products, Palatine, Ill. **CIRCLE 228**

► Stone mosaics

Using the centuries-old art of Byzantine and Florentine mosaic, in a composite technique, Lodestar offers floor medallions, tabletops and bases, wall murals, and tiles in a variety of shapes and sizes. Materials used include marble, natural hard stones, and semiprecious stones, such as serpentinite, sodalite, dolomite, quartzite, malachite, and onyx. 212/755-1818. Lodestar, New York City. **CIRCLE 224**



◀ Casa of tomorrow

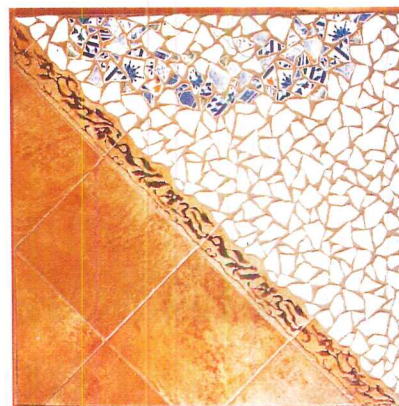
The House of Tomorrow II, in Las Vegas, was built for \$1.3 million by the U.S. Home Corporation. Designed in the style of an old Spanish hacienda, the home uses Spanish tile throughout the design. Eight Spanish manufacturers—Diago, Inalco, Keraben, Pamesa, Porcelanosa, Salon, Tau, and Venis—donated over 5,000 square feet of the latest floor- and wall-tile products to the project. 305/446-4387.

Tile of Spain Center, Trade Commission of Spain, Coral Gables, Fla. **CIRCLE 226**

► Timely terrazzo

The DuPage County Veteran's Memorial, designed by Wight & Company, of Downers Grove, Ill., is a bonded rustic terrazzo design in five colors. The inner circle of the design was ground and polished, with the outer circle remaining rustic terrazzo.

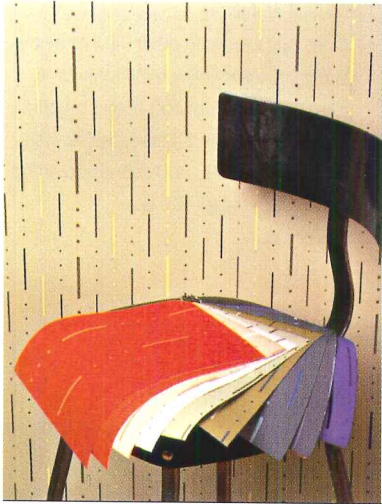
The logo work had to be laid exactly so that the sundial would accurately indicate not only the time, but the hours until sunset, the day, and the month. 773/471-0700. National Terrazzo & Mosaic Association, Chicago. **CIRCLE 227**



◀ Gaudi tiles

This new collection of glazed porcelain tile from Italy was inspired by Spanish architect Antonio Gaudi. Manufactured by Rex Ceramiche Artistiche, the line includes four color-glazed porcelain tiles with up to 15 different glazes per tile. The mosaics and solids can be used on indoor or outdoor floors or walls. 800/222-1068. Hoboken Floors, Wayne, N.J. **CIRCLE 229**

Product Briefs



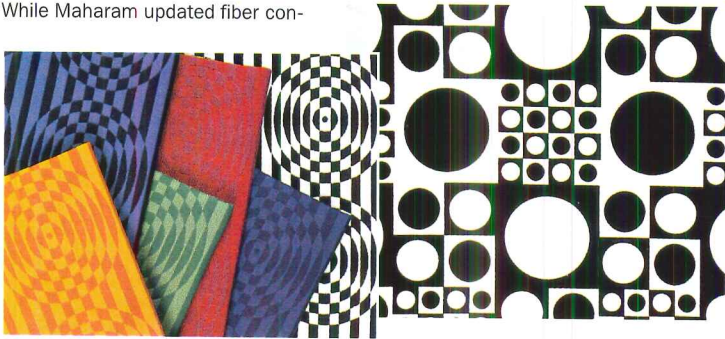
◀ Laurinda's new line

Linework, a collection of five mid- to large-scale designs, was inspired by architectural graphics that were transformed by Laurinda Spear, FAIA, into 54-inch-wide, type I and II contract wallcoverings. Visibly influenced by Spear's home base of Miami, the collection includes Palmrail, an undulating design resembling a stylized palm frond, and Rain (shown), featuring a stripe of dots and dashes available in several bright colorways. 800/347-0550. Wolf Gordon, Long Island City, N.Y. **CIRCLE 230**

▼ Updated op art

Maharam has reissued two of Danish designer Verner Panton's geometric patterns from the sixties, Geometri (bottom right) and Optik (bottom left). Panton is the subject of a current retrospective at the new Vitra Design Museum in Berlin. While Maharam updated fiber con-

tent and construction to make Panton's work suitable for a wide range of commercial applications, the color combinations are exactly as Panton conceived and named them. 212/614-2988. Maharam, New York City. **CIRCLE 232**



▼ Colorful rubber flooring

Noraplan Mega is designed to soften the signs of normal traffic in contract applications. Mega offers a smooth nonglare finish, slip resistance in compliance with ADA guidelines, stain- and wear-resistance, and the exclusive Nora Cleanguard features for easy maintenance. Flecks and clusters of color create a three-dimensional pattern in a range of 15 colors, including Sunshine, Blue Marble, and Rain Forest (shown).



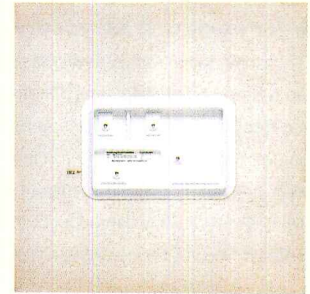
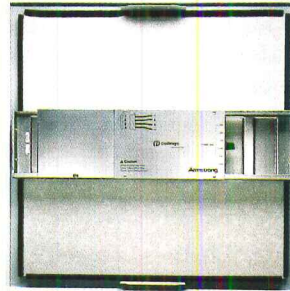
The Noraplan system is available in rolls and tiles. 800/332-NORA. Freudenberg Building Systems, Lawrence, Mass. **CIRCLE 233**

Product of the Month i-Ceilings

The new ceiling systems from Armstrong, named i-Ceilings, look just like ordinary ceiling panels but invisibly integrate sound and wireless systems into the ceiling plane.

The wireless system features a special antenna panel (bottom right) that has a suite of antennae embedded in the ceiling panel to enable in-building wireless connectivity for voice and data. The

system helps increase employee mobility and workplace effectiveness, providing clearer wireless telephone connections and easier access to the Internet and data networks. The sound system's sound panel (below left) delivers sound masking, paging, and music simultaneously as one speaker. 717/397-0611. Armstrong World Industries, Lancaster, Pa. **CIRCLE 231**



▲ Traditionally styled television cabinet

The Grand TV Cabinet, part of the new Barbara Barry collection for Baker, comprises three individual pieces, each crafted from mahogany solids and veneers and offered in Baker's Java finish. The Grand Armoire houses a big-screen television and has details such as hand-painted, gilded decoration in Barry's signature X design; a flowing, scalloped top; and simple, carved feet. Two side cabinets fitted with brass latticework fronts can be partnered with the Grand Armoire, used individually, or grouped together. In addition, the collection includes a dining table inspired by 1940s French Art Deco, a Sofaback Etagerè, and an ottoman designed with a complementing removable tray. 616/361-7321. Baker Furniture, Grand Rapids, Mich.

CIRCLE 234

Product Briefs



▲ Table for eight without reservations

The Quickly folding table from Lamnhults folds and unfolds in seconds. Quickly is easily handled by one person, and, for even easier installation, the designers created a wagon that transports up to 15 tables at a time. The table comes in five sizes and features a frame of powdercoated or chromium-plated steel tubing, and a surface of birch, beech, or laminate. With a special device that links multiple tables and a detachable modesty panel, Quickly can adapt to a variety of working environments. 800/668-9318. The ICF Group, Valley Cottage, N.Y. **CIRCLE 235**



◀ High-impact corner guards

The BluNose high-impact corner guard has a vinyl retainer that is nearly four times stronger than the company's continuous aluminum retainer and nearly six times stronger than other vinyl retainers. The lightweight yet durable retainer is manufactured from 100 percent regrind and is available in 54 standard, as well as custom, colors. 800/222-5556. InPro Corporation, Muskego, Wis.

CIRCLE 236

▶ Universal designed bath

Hewi seat and grab bars are made of durable, easy-to-grip nylon material that is nonporous, bacteria-resistant, shock-free, and able to maintain a moderate temperature. The tub seat, made of nylon slats that allow for drainage, attaches to the wall and folds up for easy storage. The grab bars come in standard and custom sizes and configurations. 717/293-1313. Hewi, Lancaster, Pa. **CIRCLE 237**



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Product Briefs

▼ Aluminum and solid-surface offerings

The traditional design of the Plainwell bench is now available in an all-aluminum style (right). The powdercoated bench has shaped, extruded aluminum straps, secured to cast-aluminum end frames, and it coordinates with the metal and glass found in urban areas. Marneaux solid-surface tables (below) have tabletops made from Avonite Formstone, a 100 percent acrylic resin solid-surface material. Weather, harsh chemicals, and UV rays have virtually no effect on the stonelike tabletops, which are available in seven standard and several optional colors. 800/521-2546. Landscape Forms, Kalamazoo, Mich. **CIRCLE 238**

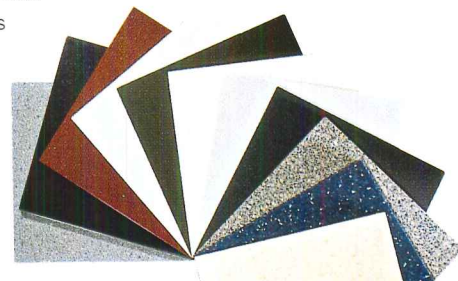


► East meets West

Eleven new colors of DuPont Corian represent a fusion of Eastern and Western design principles. The colors are divided into three collections representing high-tech culture (Anthracite, Blackberry Ice, Bronze Patina, and Winter Frost), humble rural settings (Beige Fieldstone, Gray Fieldstone, Linen, and Macadam), and ancient dec-

orative traditions (Atlantis, Pompeii Red, and Riviera Mist). 800/4-CORIAN.

DuPont Corian, Wilmington. **CIRCLE 239**



◀ Form and function

Retrospect is a group of three Postmodern designs of Ultron VIP nylon. Function is small-scale and minimalist, Form (shown) is multi-dimensional and medium-scale, and large-scale Mode features a field of wide vertical stripes crossed with horizontal bands of color, creating an interplay of squares, stripes, and rectangles. 800/257-7429. Shaw Industries, Dalton, Ga. **CIRCLE 240**



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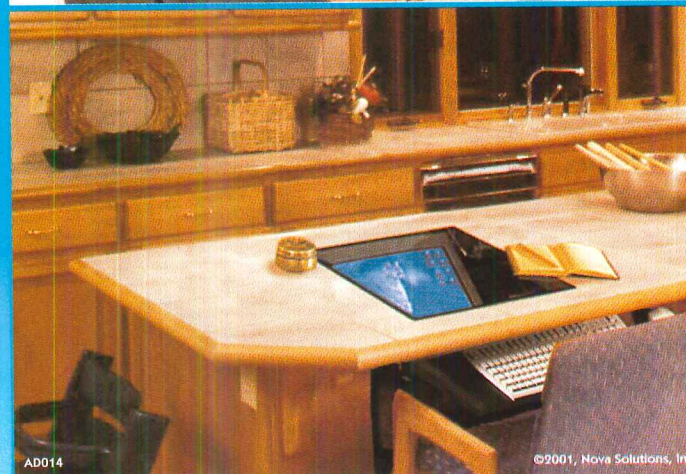
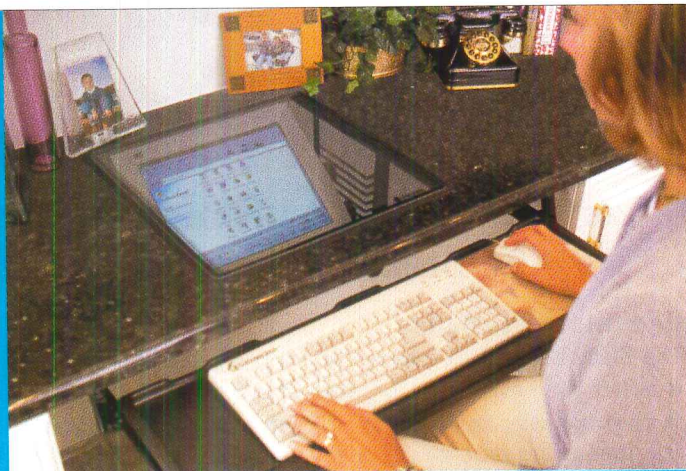
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Product Briefs



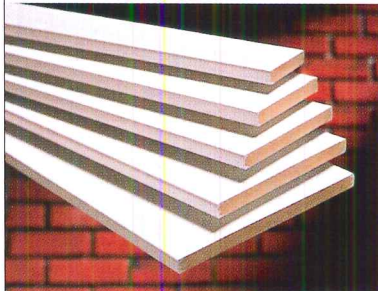
▲ Resin-based panel finish

Nestled in the Appalachian foothills in northeastern Tennessee, Bristol Dragway features 30,000 square feet of 22-gauge steel Planewall panels from CMP. PPG Industries, based in Pittsburgh, supplied a Kynar 500 resin-based finish that coats the panels. Atofina Chemicals is the only manufacturer of the Kynar 500 PVDF resin used in the project. 215/419-7000. Atofina Chemicals Inc., Philadelphia.

CIRCLE 241

▼ Rot-resistant trimboard

Royal Wood Trimboard, a wood-plastic composite, blends a solid UV-stabilized polymer cap to a foamed core material made from wood fibers, additives, and thermoplastic resins. The result is a straight board that can be cut, nailed, and installed like wood but that doesn't rot, absorb moisture, delaminate, or split. The trimboards are intended for nonstructural, exterior trim for single-family, multifamily, and light commercial buildings. 602/272-4200. Precision Composites, Phoenix. CIRCLE 242



▲ Tie it all together

Preceding the flood of fashion designers who also design for the home, men's tie designer Audrey Buckner decided to create a fabric collection for upholstery and wall-coverings back in the late 1980s. Buckner was inspired by client requests for other applications for her fabrics, as well as by the lack of tailored fabrics that would cater to both men and women. Her newest design, "Oh Baby," is a flannel-finished alpaca that is naturally water resistant, stands up to 30,000 double rubs, and comes in 12 colorways (it is not guaranteed against fading). The fabric, made in Peru of 50 percent Alpaca and 50 percent wool, passes California Flammability Bulletin 117 SEC E. 212/581-1150. Audrey Buckner, New York City. CIRCLE 243

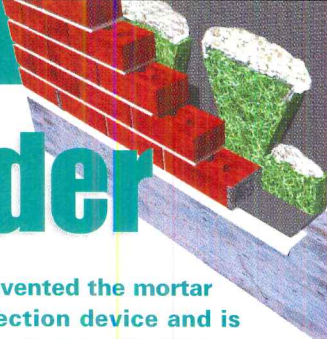
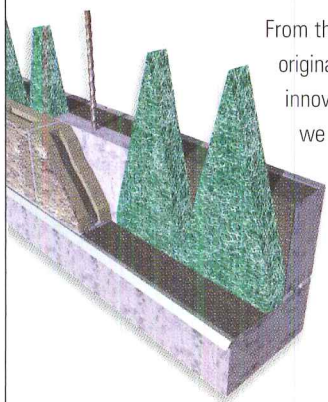
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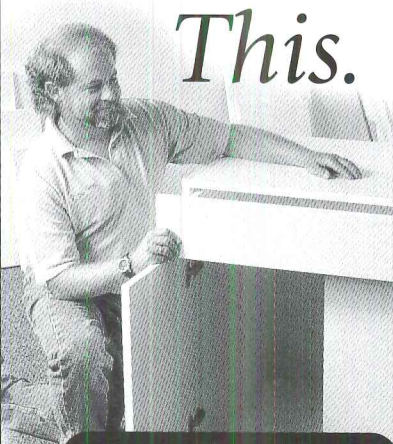
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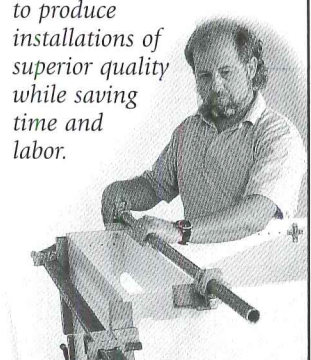
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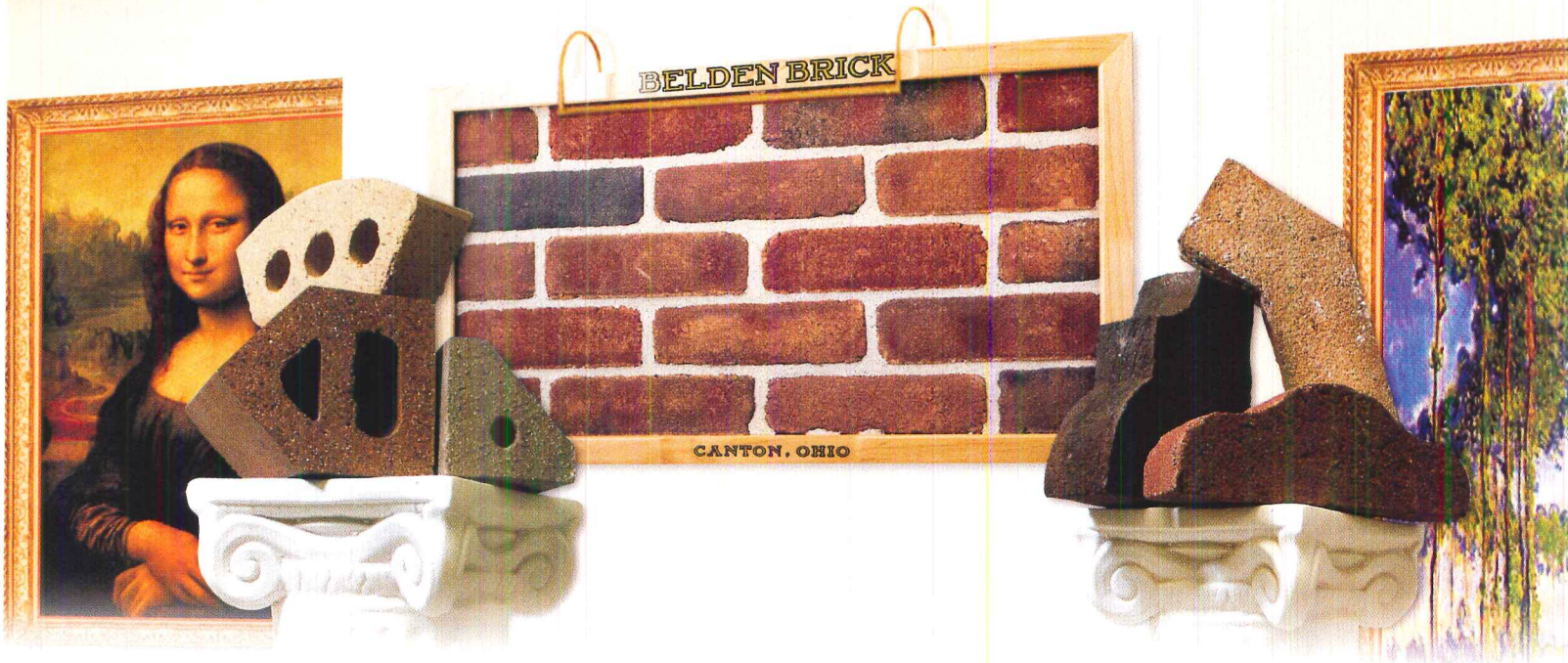
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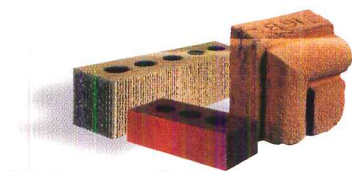


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Perhaps your artistic vision has led you to seek the impossible – a place where no brick has gone before. Belden Brick has made hundreds of different shapes to provide special structural details, and regularly gets requests for custom brick designs. So if it is the impossible you seek, chances are that Belden can make it reality.

Product Briefs



◀ Why wait for vintage?

The original designs for the Lobby Collection of aluminum seating were influenced by waiting-room furniture found in barbershops and doctors' offices throughout America. Made of aluminum framing, the loose-cushioned sofa and chair are available with wooden arm caps in three finishes: black, natural, and brown. 800/668-1020. Sonrisa Furniture, Los Angeles. **CIRCLE 244**



▲ Getting a drink with fewer spills

Unlike the standard bubbler with push-button access on top of the sink, which might be out of reach for some schoolchildren, the remote bubbler can either be mounted on the top of a counter or attached to the front of a cabinet. Special tubing allows the bubbler, designed to prevent accidental injury, to be located up to 20 inches away from the push button. 630/574-8484. Elkay Manufacturing Co., Oak Brook, Ill. **CIRCLE 245**

▶ Hand-carved hardwood moldings

White River has added Authentic Handcarved Woodcarvings to its product line. The 45 profiles include scrolls with centers, swags, scrolls, centers, drops, corners, corbels, capitals, and rosettes. Each full-thickness, solid-wood piece is hand-carved and accepts any finish, including stains. The pieces can be used to embellish mantels and surrounds, ceilings, wall panels, doors, cabinets, or stairs. 800/558-0119. White River Hardwoods-Woodworks, Fayetteville, Ark. **CIRCLE 247**



▶ Clean enough to eat off

Polysafe Astral features the new Supratec system, developed in partnership with DuPont, that can be quickly mopped clean using nontoxic solvents. Polysafe Astral is offered in 12 new colors and contains Polyflor's Bioguard bacteriostat for enhanced hygiene protection. 800/852-8292. Bonar Floors, Newnan, Ga. **CIRCLE 246**



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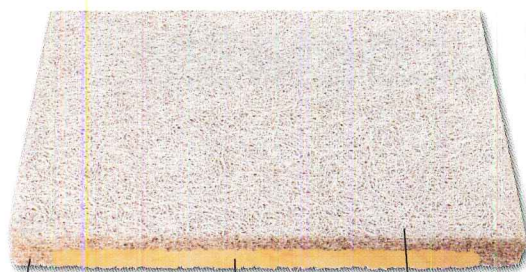
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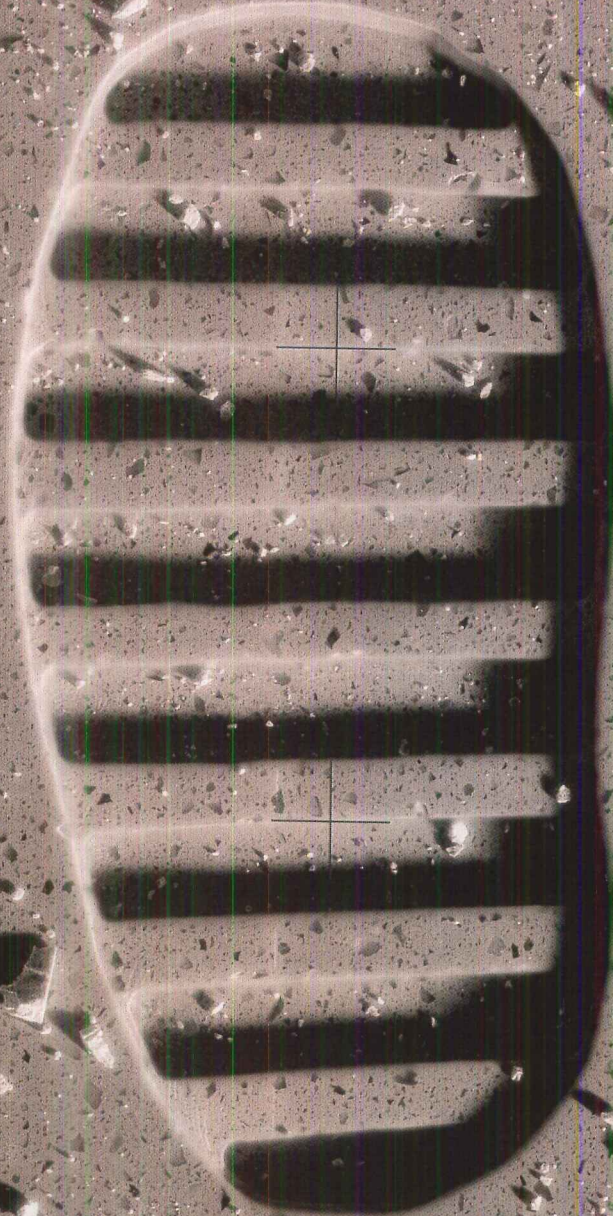
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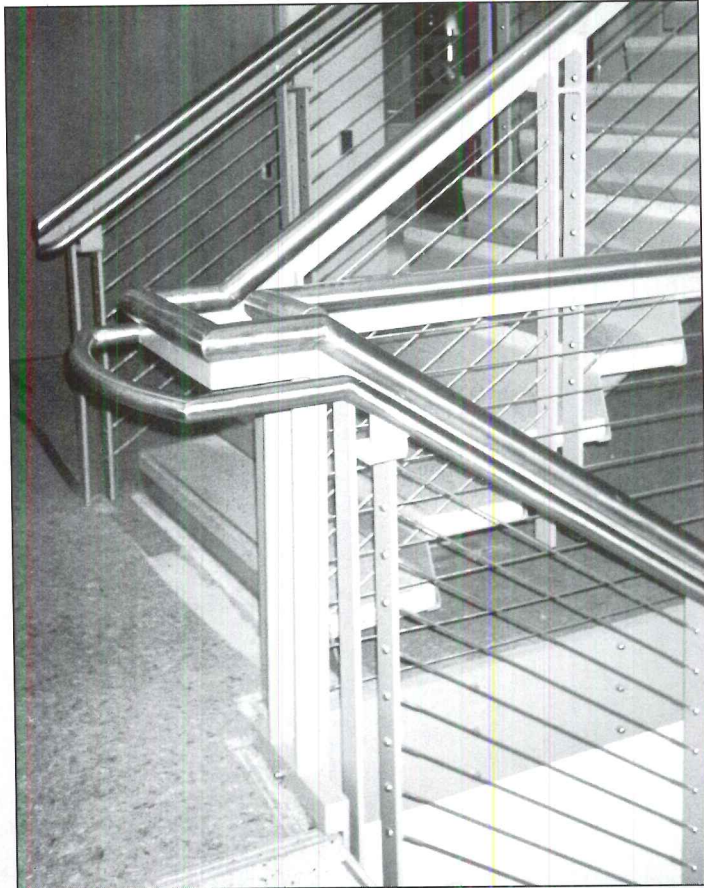
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Product Literature

Hardwood doors/entryways

Chautauqua Woods has released a color product catalog featuring solid hardwood doors and entryways. The catalog shows single and double doors, sidelights, transoms, and numerous standard and fully custom leaded-glass designs, crafted in the in-house, art-glass studio. 716/366-3808. Chautauqua Woods, Dunkirk, N.Y.

CIRCLE 248

Vinyl flooring folders

Parterre Vinyl Flooring Systems is launching new architect folders and chain sets that complement its recently introduced product catalog. 888/338-1029. Parterre Vinyl Flooring Systems, Brooklyn, N.Y. CIRCLE 249

Modern furniture catalog

The "Inspiration" catalog from Fritz Hansen features new furnishings such as the VicoLounge seating collection and the Plano table series. +44/020 7837 2030. Fritz Hansen A/S, London.

CIRCLE 250

Metal panel CD

Met-Tile and Curveline have published a CD describing the two companies' metal panel products and services. The new

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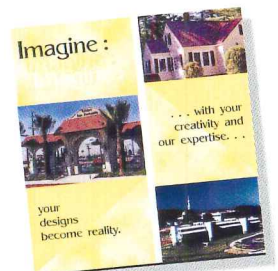
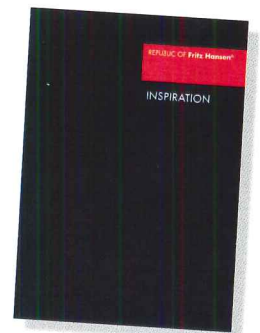
electronic catalog provides information about Met-Tile "tile panel" roofing and about the Curveline service center, which specializes in a patented method for curving profiled metal roofing, wall, and decking panels. 800/899-0311. Met-Tile/Curveline Inc., Ontario. CIRCLE 251

Lighting catalog

The new 2001 catalog from Ruud Lighting offers 240 pages of products and services. 800/236-7000. Ruud Lighting, Racine, Wash. CIRCLE 252



Chautauqua Woods



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Product Literature

Decorative lighting

Meyda Tiffany has introduced two new catalogs that feature new lamps, lighting fixtures, fireplace screens, stained-glass windows, and furniture. The two catalogs supplement the firm's 244-page catalog. 800/222-4009. Meyda Tiffany, Yorkville, N.Y. **CIRCLE 253**

Landscape furnishings

Dura Stone's new 32-page color catalog includes dozens of new items and has complete ordering information on planters, bowls, trash receptacles and urns, tree grates, bollards, tables and benches, balustrades, pools and fountains, columns and posts, signage, and more. 800/821-1120. Dura Art Stone, Fontana, Calif. **CIRCLE 254**

Ceiling selection

The 2000/2001 Ceilings Systems catalog is an easy-to-use reference for specifying USG ceiling products. 800/USG-4YOU. USG, Chicago. **CIRCLE 255**

History of color

Pittsburgh Paints 30-minute *Voice of Color* video provides factual information about the scientific and psychological basis for color. It details and illustrates

the history of color, the use of color as an expressive tool, and the effect of light on color. "The Voice of Color" is the sixth course offering of PPG's continuing education services for members of the AIA and earns one AIA credit. 888/PPG-SPEC. PPG Industries, Pittsburgh.

CIRCLE 256

Hardwood over concrete

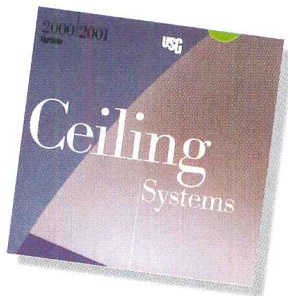
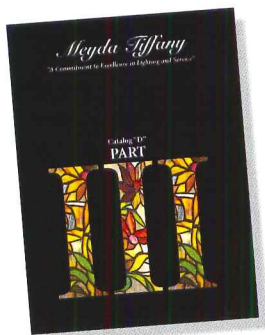
The Hardwood Council offers a how-to guide on installing hardwood flooring over a concrete slab in its *Tips & Techniques* brochure No. 1. The guide covers keys to managing natural expansion and contraction in hardwood products. 412/281-4980. The Hardwood Council, Oakmont, Pa. **CIRCLE 257**

HVAC handbook

The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) has published the 2000 ASHRAE handbook, *HVAC Systems and Equipment*. 800/5-ASHRAE. ASHRAE, Atlanta. **CIRCLE 258**

Lighting-controls catalog

Tork offers a new selection guide for specialized lighting controls. 914/664-3542. Tork Inc., Mount Vernon, N.Y. **CIRCLE 259**

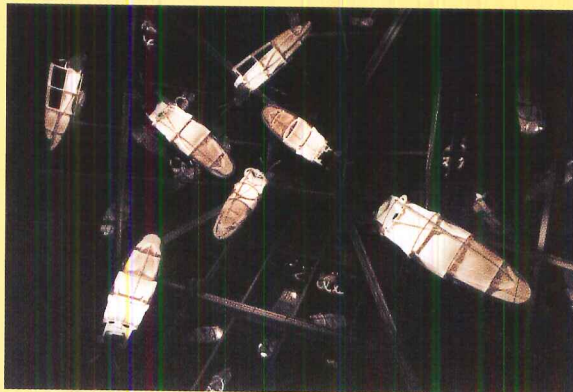


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Liberty Science Center and GPU Energy are pleased to announce the winners of their SolarScapes competition.

This competition represented an opportunity for the art and design communities to submit proposals for the commission of two large-scale solar art projects for Liberty Science Center, in Liberty State Park, New Jersey.



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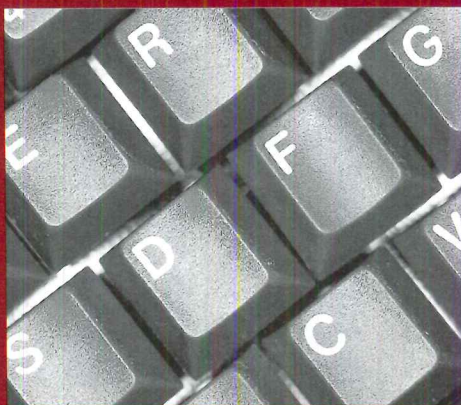
The SolarScapes competition was made possible through the visionary sponsorship of GPU Energy, with guidance from ASCI (Art & Science Collaborations, Inc.).

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Dates & Events

Calendar

Before + After

Denver

January 26–February 23, 2001

An exhibition featuring 20 projects from national submissions. Co-curated by ML Robles and Barbara Ambach and reviewed by guest jurors Daniel Libeskind, Harry Teague, Clark Stevens, and Elizabeth Wright Ingraham. At the Colorado AIA. Contact 303/443.1945.

New New York 2

New York City

January 18–March 14, 2001

An exhibition that highlights significant recent architecture commissioned for cultural, and other, facilities in New York City. At the Architectural League of New York. Contact 212/753.1722 or see www.archleague.org.

Form and Function: Beyond Brancusi, Sculptures by John Safer

Washington, D.C.

February 7–March 3

A showing of American sculptor John Safer's work in brass, steel, and Lucite will be kicked off with a discussion, entitled "Form and Function: An Artist and an Architect Discuss Design," between the artist and L. William Chapin, FAIA, President/CEO of the American Architectural Foundation Arts Society of the International Monetary Fund. Contact Linda Byron, 202/623.7718.

Building Futures Council (BFC) Meeting to Highlight Environmental Challenges Marco Island, Fla.

February 8–9

Topics include a forum on the EPA's innovative "Project XL" and "eXcellence and Leadership," a national pilot program that allows state and local governments and businesses to work with the EPA to develop innovative strategies for environmental and public health protection. Contact 202/785.6426 or see www.the.bfc.org.

Worksppheres

New York City

February 8–May 8

An exhibition that examines the role of design in developing solutions for the workplace of the

future. Six international design teams were commissioned to create concepts for new work environments and tools. Museum of Modern Art. Contact 212/708.9750 or see www.moma.org.

Building Envelope Contractors Conference

Las Vegas

February 11–13

Features include a discussion about the coming age of 'e-construction.' Sponsored by GANA. At the New York-New York Hotel and Casino. Contact 785/271.0208 or E-mail gana@glasswebsite.com.

Libeskind Lecture on the Jewish Museum in Berlin

Dallas

February 15

Architect Daniel Libeskind to speak on this project at the Dallas Architecture Forum.

Contact 214/740.0644 or see www.dallasforum.org.

Shaping the Great City: Modern Architecture in Central Europe, 1890–1937

Los Angeles
February 20–May 6

An exhibition that explores the origins and development of modern architecture in Central Europe before and after World War I, a time of dramatic social and political change. At the J. Paul Getty Museum. Contact 310/440.7360 or see www.getty.edu.

Cities in the Third Millennium Melbourne, Australia

February 26–March 2, 2001

The sixth World Congress of the Council on Tall Buildings and Urban Habitat will feature more than 80 local and international speakers and a large exhibit. Call 613/9682.0244 or see www.icms.com.au/tbuh.



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CIRCLE 88 ON INQUIRY CARD

Dates & Events

The Architecture of R.M. Schindler MOCA at California Plaza, Los Angeles

February 25–June 3

First major survey of this century's most innovative Vienna-born Modernist. For information call 213/626.6222 or see MOCA-LA.org

Construction and the Internet Beverly Hills, Calif.

March 8–9

A conference on the relationship between construction and the Internet. At the Beverly Hilton Hotel. Contact Meredith Arbus at 416/216.5481 or at mereditha@marcusevansto.com.

Aluminum by Design: Jewelry to Jets

New York City

March 20–July 15

This exhibition explores how aluminum has inspired innovation in design, including works by such visionaries as René Lalique, Jean Prouvé, Ludwig Mies van der Rohe, Russell Wright, Charles and Ray Eames, and Gio Ponti. At the Cooper-Hewitt. Contact 212/849.8400 or see www.si.edu/ndmdummt.

Symposium on Asia-Pacific Architecture Honolulu

April 5–April 7

The fourth international symposium is entitled "Sensible Design and Smart Practice," and the theme is "Technology, Innovation, and Entrepreneurial Design Practice: New Paradigms for a Changing Global Economy." At the University of Hawaii School of Architecture. Contact 808/956.7084, E-mail archsymp@hawaii.edu.

Competitions

Spectrum International Ceramic Tile Design and Prism International Natural Stone Design Competition

Deadline: February 15

Projects may be entered in residential or commercial categories and can be new installations or renovations. Cash prizes from \$1,500 to \$10,000. Contact 877/566.0600 or see www.coverings.com.

The Architectural League of New York, City Limits 2000– 2001 Young Architects Forum

Deadline: February 14, 2001

Open to designers 10 years or less out of undergraduate or graduate school. Winners receive \$1,000 cash prize, exhibit their work and present lectures during the spring at the League in New York City. Contact 212/753.1722 or see www.archleague.org

The Second Annual Dryvit International Competition

Deadline: March 1, 2001

Commercial or residential buildings featuring a Dryvit exterior on at least 75% of the project are eligible. The winner will receive a cash prize and the work will be published in RECORD in July 2001. Contact 800/556.7752 or see www.dryvit.com.

National Trust/HUD Secretary's Award for Excellence in Historic Preservation

Nomination Deadline: March 1

This award is presented to individuals and organizations whose contributions demonstrate outstanding achievement in historic preservation. For submission information go to <http://www.huduser.org/research/nthp2000.html>

National Preservation Honor Awards

Nomination Deadline: May 1

Eligible candidates have completed an outstanding preservation project in the past three years. Contact Susanna French at 202/588.6125.

ANNOUNCING... The Wood Design Awards

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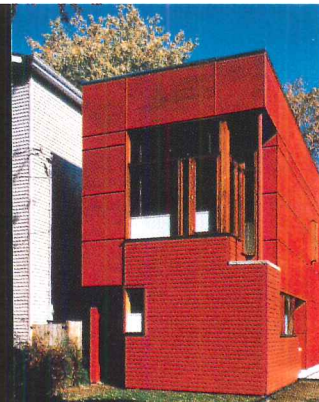
One Program – the first to recognize and award excellence in the architectural design of residential and non-residential buildings and interiors, new and remodeled, from both the U.S. and Canada, where wood is a significant component – is up and running.



1998 Merit Award; Fisher Science and Academic Center, Great Barrington, MA; Bohlin Cywinski Jackson
photo: Matt Wargo.



1998 Honor Award; Clarke House, Chesapeake, MD; Hugh Newell Jacobsen, FAIA.
photo: Robert C. Lautman.



1998 Honor Award; Craven Road House
Toronto; Shim-Sutcliffe Architects
photo: Michael Awad.

The Wood Design Awards combines the highly successful programs formerly offered by the American Wood Council and Canadian Wood Council. Winning projects will be publicized in the media, in a special edition of Wood Design & Building magazine, on the Wood Design & Building web site and at Wood Solutions Fairs.

For complete details, registration and entry forms, visit the Wood Design & Building web site (www.wood.ca) and click on The Wood Design Awards logo, or call 1 [800] 520-6281. Submissions are due May 18, 2001.

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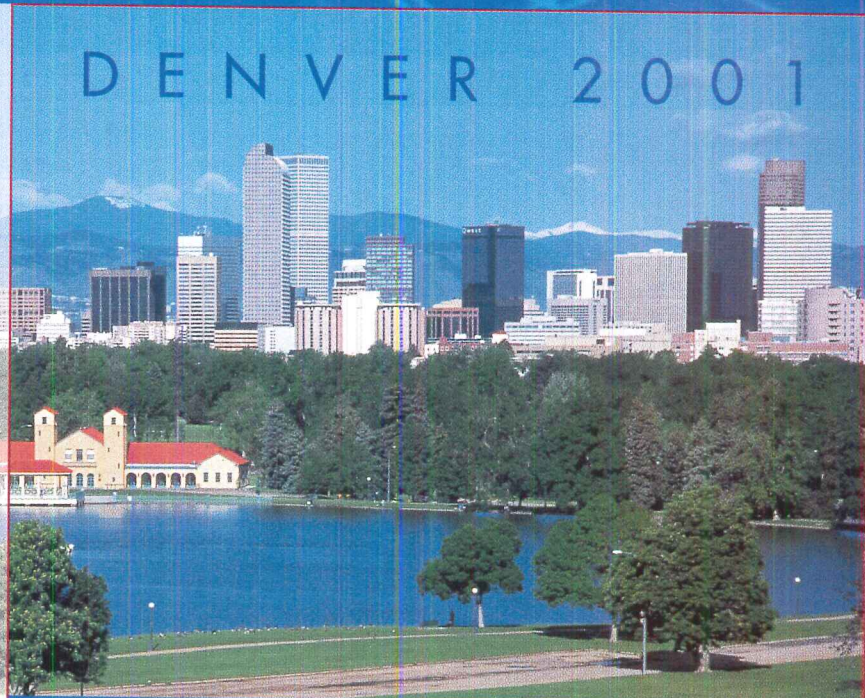
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-Registration deadline is April 20, 2001.

Please print or type clearly.

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For more information contact
Convention Hotline: 202-626-7395 Email: aiaexpo@hhcc.com

Please complete to help the AIA plan future conventions.

Title/Job Function (check one)
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 BD Interior Designer/Space Planner
 BE Draftsperson
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 BG Specifier/Cost Estimator
 BH Landscape Architect
 BI Facility Manager
 BJ Administrator/Office Manager
 BK Educator/Student
 BL Other

Buying Influence
 EA Final Decision
 EB Specify
 EC Recommend
 ED No Role

Location of Firm's Work
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 FC National
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Type of Firm
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Reasons for attending the AIA Convention (check three that are most important to you)
 AA Complete continuing Education Requirements
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 AC Networking with Colleagues
 AD General Session Topics and Speakers
 AE Convention City
 AF Delegate to AIA Business Sessions

Firm Employees (all offices)
 DA 1
 DB 2 - 9
 DC 10 - 49
 DD 50 - 100
 DE More than 100

Have you attended past conventions?
 HA Yes year _____
 HB No



Clodagh has one name and you won't forget it

Interviewed by Rita F. Catinella

Named after a river in her native Ireland, Clodagh opened her New York-based architectural and design studio in 1983. The firm provides an array of services for architecture, interior design, product design, and even feng shui consultation. Current projects include the home for the CEO of Elektra Entertainment and a spa in Kiawah Island, S.C. Her sensitive use of materials and sensual designs have drawn the attention of many high-profile clients, including Robert Redford, who recently had Clodagh renovate his duplex penthouse. Total Design, Clodagh's first book, hits stores this spring.

Q: *Why do you go by one name?* I realized when I left school that I might get married and change my name, but my first name, which is unusual, would never change. Also, people liked it, and I'm a minimalist, so since I was 16 I've been using one name. *You hold an open house at your showroom every week. Why?* When I first came here, the design community was very open and helpful, particularly people like Adam Tihany, who just opened up his Rolodex to me. So when I moved to a larger studio I thought that maybe this would be a way to be open to the community. People can look at our materials library, hang out and talk with us, and artists can come in and show their work in a nonthreatening way. My theory is that there is enough work for everybody, and I don't feel competitive about our resources.

Was branding yourself and your firm intentional? Absolutely intentional.

When I was in fashion I started licensing my designs and I became aware of the importance of a name that actually meant something that was recognizable. When I came here it was fully with the intention of building up a name for life-enhancing, environmentally sensitive design.

Can you explain your philosophy of Total Design?

It incorporates all of the senses and elements, feng shui, color, and sounds. It's being aware of everything, and how the body reacts in a space. And that's what we try to do with our projects. We try to lead but are not didactic. Total Design is showing people that a home office in a bedroom is not a good thing to have, or that an overscaled table in a small place might be great for them. Challenging convention is a large part of what we do. ■

Photograph by André Souroujon

WWW For this and other interviews, go to Interviews at www.architecturalrecord.com

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