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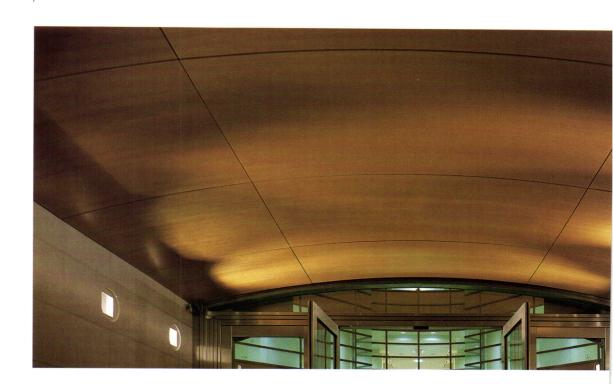
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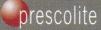


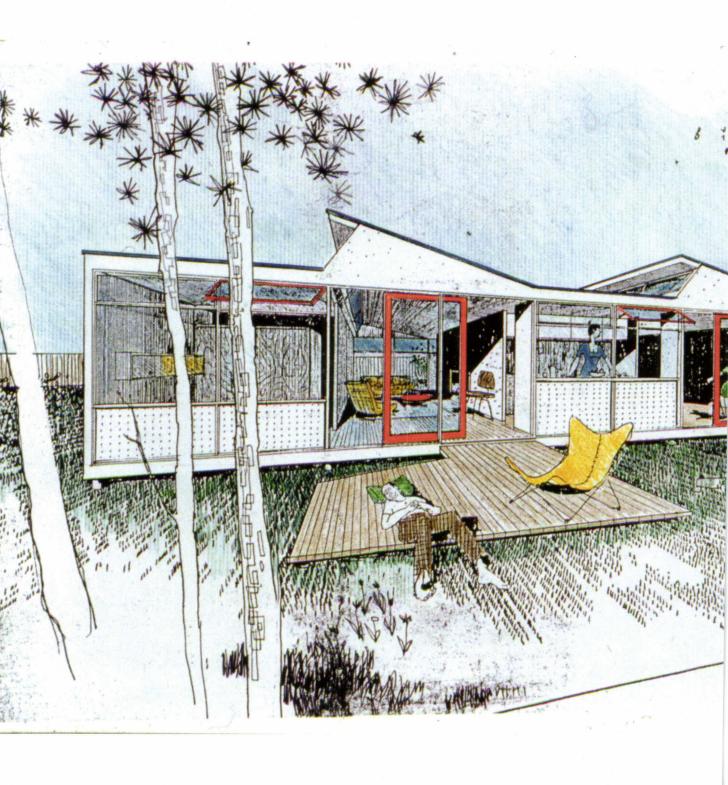


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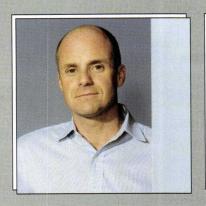
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Ralph Rapson designed the Greenbelt House in 1945 for *Arts & Architecture* magazine's Case Study House program. The architect's intention was to build the 1,800-square-foot design on an urban lot, with a central, glass-roofed landscaped interior flanked by two pavilions.



WANTED: THE NEXT PHILIP JOHNSON

BY C.C. SULLIVAN

Help wanted. Perennially undervalued profession combining art and science has immediate opening for a high-profile tastemaker, critic, and cultural icon. Must be quick-witted, convincing, and controversial. Résumé ideally demonstrates potent influence over corporate titans and the media elite, as well as political and cultural institutions. Novel eyewear optional. Please submit application in writing to powers-thatbe as soon as possible. This is a critical position on which the very success of our profession hinges. Equal opportunity employer.

We need another Philip Johnson! Is there another U.S. architect who can fill this critical role? Fortunately, our country is full of great designers. But have we got even a single opinion-former out there? Can any architect claim to have, say, President Bush's ear? (Or Laura Bush's, for that matter?)

Unfortunately, no one can. And the passing of Philip Johnson after a long and distinguished career (see page 24) reminds us that our profession dangles perilously between a kind of corporate hyperspecialization and a highly generalized, low-liability irrelevance. What we need right now is another global spokesman like Johnson who not only understands the import of architecture in society but who can also foresee new artistic movements and promote them with shameless vigor.

As the venerable Ada Louise Huxtable eulogized in the Wall Street Journal recently, Johnson's greatest legacy is not so much in his built works, but rather in "his proselytizing zeal for new work that pushes concept and practice beyond existing limits, his driving belief in architecture as the defining art of the present and the past." Johnson embraced his role as dean and godfather fully yet often self-mockingly and with good humor, and he always focused on the big aesthetic picture. This led many critics to fault him for emphasizing style over function, a charge to which he responded famously in Chicago in 1992: "I'm only interested in the cutting edge of architecture."

While most American buildings are functionally passable, the majority betray our national noncha-

lance about their roles as public art and as nurturing environments. "All great architecture," said Johnson in 1975, "is the design of space that contains, cuddles, exalts, or stimulates the persons in that space."

More than sculpture, far more than machines for living, architecture is what transforms mere buildings into lasting, powerful agents of cultural change. And that's why we need another tastemaker—a supercritic and superpatron—who can tell the powerful, rich people and groups that pull the trigger on construction projects whether they are contributing to a better world or are merely exacerbating the problem.

Philip Johnson, you'll be hard to replace.

SAVE THE GUTHRIE!

Considered the birthplace of the regional theater movement, the Tyrone Guthrie Theater in Minneapolis was built by Walker Arts Center patrons and other donors in 1963 (see page 44). Not only a stunning sculptural ensemble on the outside, the auditorium designed by Ralph Rapson also contains ground-breaking features within: The first asymmetrical, semicircular thrust stage and house ever built, with an intimate blurring of its balcony and orchestra levels. More important, the theater—named for the eminent Broadway director—helped its host city earn renown as a cultural hub.

As Jean Nouvel's uniquely "tattooed" replacement for the Guthrie sets to open this spring (see page 58), the Walker and local arts patrons should reconsider their desire to discard the original Guthrie and make way for birch trees and sculpture. The Walker has lots of open space already, and the theater could still serve its arts programming nicely. And Minneapolis has lost too many distinguished buildings to shortsighted reasoning. Minnesota's Historic Preservation Office has deemed the original theater of "exceptional significance"; the National Trust for Historic Preservation listed it among America's "11 Most Endangered Historic Places" in 2002.

I agree. Rapson's Guthrie is well worth saving.

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letters

The P/A Awards and the city

Kudos to the P/A Awards jury for jumpstarting the great American debate on urbanism [January 2005, page 21]. The design of objects may finally give way to the design of places, and the shift from figure to fields and patrons to people might bring some welcome balance to cities and towns. But while L.A. Now is an impressive study, the megastructures with flying parks in "Diurnal City" are inhumane, even scary. "ElastiCity" has some promising kinship to New Urbanism's "Transect," although smoothly curving all building tops to conform seems overly ambitious in a city that rarely even aligns cornices. Still, on behalf of those who embrace the urban principles of New Urbanism but bemoan its architectural styles, thanks for bringing on the debate.

Douglas S. Kelbaugh

Ann Arbor, Michigan

As it gets to the heart of the winning submission, L.A. Now is an anagram for "no law."

Jim Ulmer

Beverly Hills

Aspiring to sprawl

Joel Kotkin implores opponents of sprawl to embrace suburbia and apply lessons from the faltering realm known as the city [January 2005, page 72]. Design professionals are wise to come to terms with suburban growth, but their integrity will be tested when it comes to alliances they choose in this arena. One need not embrace what one acknowledges. For example, the author cites the "universal aspiration" to "own a piece of land," but the forms it engenders are greatly open to interpretation. The low density of Frank Lloyd Wright's Broadacre City is not viable today. Perhaps contempt and condemnation aimed at unbridled sprawl is counterproductive, but the greater issue is our tenuous claim to existence. The current rate of consump-



01 2005

tion in the United States may be another "universal aspiration" for developing countries, but it is certainly not a viable one.

Bill Berry

San Francisco

Joel Kotkin's Protest is clearly aimed at the architectural academy, where there is little tradition of research and a corresponding lack of appreciation for empirical data; positivist thinking, therefore, is absent from discourse, and myth is allowed to replace reality. That the general public prefers the suburbs to the inner city is clearly depicted by census data, growth patterns, and social preferences, and the vast majority of Europeans choose suburban living. Another myth—one that Kotkin does not rebuke—is the idea of a suburban "loss of community": If one were to measure "neighborhood or community cohesion," you would find that suburbs typically rank higher in activities such as participation in voting and little leagues, knowledge of neighbors, church attendance, and school volunteerism. So why not join the suburban social movement? Unfortunately, as long as myth and delusion prevail, reality will wait until the first child arrives.

Roger J. Tijerino, Ph.D. Hammond, Louisiana

Send letters to Architecture, 770 Broadway, New York, NY 10003

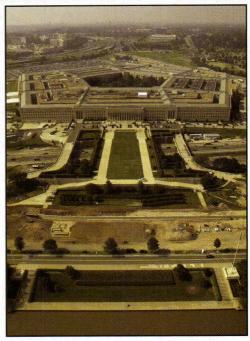
TOP: ANDY DUNAWAY, COURTESY DEPARTMENT OF DEFENSE; RIGHT: KARL LINN; BOTTOM RIGHT: EVVY EISEN

ROADS-NOT HOMES-IN FEDERAL BUDGET

Horizontal construction—roads, mainly—will fare much better than the vertical kind next year, based on President Bush's proposed federal budget for 2006. The plan includes a generous \$284 billion in transport spending even as it cuts or eliminates dozens of other government-funded building initiatives, including housing.

While reductions will be felt in such sectors as aviation (down 17 percent), corrections (10 percent), and new construction by the General Services Administration (also 10 percent), the deepest cuts by far are planned for the Department of Housing and Urban Development (HUD): The agency could lose as much as a quarter of its \$30 billion budget and see most of its programs moved to the departments of Labor or Commerce—a move that many critics say dooms HUD by making it compete for limited resources.

According to housing advocates, the White House hopes to slash HUD's \$8 billion community branch, eliminating programs for rural housing and economic development. The Community Development Block Grant (CDBG) program, which last year paid for clinics, recreation centers, day-care facilities, and housing totaling \$4.7 billion, faces a cut of 50 percent, and all CDBGs would be folded into the Commerce Department. President Bush also tries again to eliminate HOPE VI, a popular program that turns rundown housing into mixed-income communities. (Ironically, the HUD budget would actually increase Section 8 vouchers, which the White House proposed to cut by billions of dollars in last year's budget.)



It's the consolidation of HUD's programs into other agencies that most worries housing advocates like Congressman Barney Frank of Massachusetts, who says that the moves hide more "substantial budget reductions." Not only that, says Sheila Crowley, president of the National Low Income Housing Coalition, the 2006 budget masks even deeper long-term cuts enabled by a revision last year in how Congress calculates funding for public housing. **C.C. Sullivan**

KARL LINN, 1923-2005

Influential landscape architect Karl Linn died at his home in Berkeley, California, on February 3. He was 81. Linn's most famous projects include his collaboration with Mies van der Rohe on New York City's Seagram Building (1958), and his work with Philip Johnson to create the interior greenspaces of the Four Seasons restaurant in the same structure (also 1958). Beyond the designs of such rarified settings, Linn devoted much of his career to creating and maintaining green spaces for inner-city areas, founding the widely replicated Neighborhood Renewal Corps in Philadelphia in 1961.

Linn arrived at his profession in a circuitous manner. Born in Germany in 1923 to Jewish parents, he fled the country with his family during World War II and studied agriculture and psychoanalysis before beginning his 50-year-plus design career in the 1950s. Viewing landscape architec-



ture as a healing craft, he encouraged his students at the School of Fine Arts at the University of Pennsylvania, at MIT, and later at the New Jersey Institute of Technology, to get involved in his urbanrenewal efforts. Linn's meticulous documentation of his projects—he visited and photographed each work once every decade—will be archived at the University of California at Berkeley College of Environmental Design. **Katie Gerfen**







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VERDOPOLIS STARTS OFF SUSTAINABILITY SEASON

Green building is in. And the more than 50 conferences dedicated to the subject each year attest to its importance in the design community. But is another conference on the subject necessary? Leslie Hoffman, executive director of Earth Pledge, a New York City-based nonprofit organization, says yes.

Hoffman's group ran "Verdopolis," a three-day event that was held in Manhattan last month. Contrary to the trend of focusing such events on specialized niches such as clean energy or daylighting, this new event took a cross-platform approach, looking at the interconnectedness of environmentally friendly practices in building, health, fashion, and economics.

Focusing on an overall philosophy rather than a specific goal, Earth Pledge and the event's corporate sponsors (Steelcase, Bosch, and Deutsche Bank, among others) came together to create a forum for ideas.

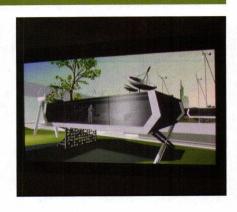
The diverse activities attracted nearly 700 attendees. Events included

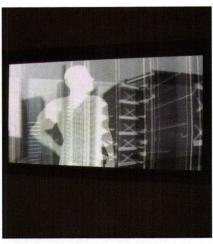
E>The American Academy of Arts and Letters elected eight new members last month, including two architects and one landscape architect. Maya Lin, the architect of the Vietnam Veteran's Memorial in Washington, D.C. (1982); James Stewart Polshek, of New York City's Polshek Partnership; and Laurie Olin, of the Philadelphia-based landscape architecture firm Olin Partnership, will be inducted in May.

- The AIA and the U.S. Environmental Protection Agency have signed a memorandum of understanding, uniting the two groups in the cause to promote development that sustains the environment. The signing took place on February 10 at the AIA's Grassroots Leadership and Legislative Conference in Washington, D.C.
- Architect Margie Ruddick is merging her Philadelphia-based firm with Wallace Roberts & Todd, a planning and design practice, and will serve as a principal in the firm's Philadelphia office, one of six branches located around the country.

"Future Fashion" (a catwalk show for which 35 designers created clothes out of sustainable materials such as bamboo and fabric made from cornstarch), "FutureCity," a multi-media exhibition by Chicago-based MVMT and the San Francisco office of IDEO on the future of the green metropolis (right), and a leadership summit with various sessions, including how green building can improve worker well-being and be more economical over time.

Verdopolis is the first of a flurry of such conferences across the United States. March alone sees the National Green Building Conference in Atlanta, from the National Association of Home Builders and focusing on the residential market, and Building Energy 2005 in Boston, with an emphasis on sustainable building processes. The largest green building conference in the country, the U.S. Green Building Council's Greenbuild, is slated for November 8-11 in Atlanta. **Katie Gerfen**





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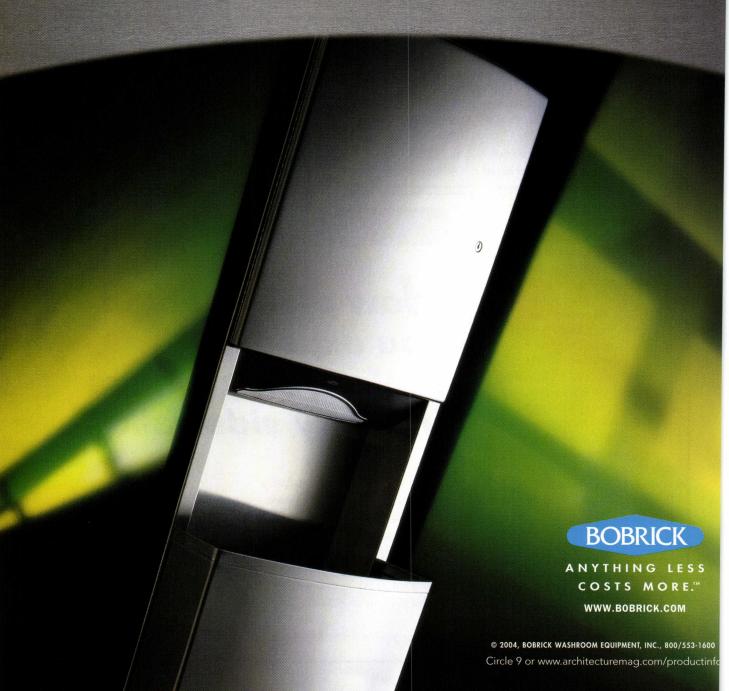
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DOCTOR SAVES DEATH-ROW DOME

Oklahoma City's "Gold Dome," a geodesic structure built by Citizen's State Bank in 1958 and saved from the wrecker's ball by a local optometrist in 2003, reopens this month after a twoyear renovation. Dr. Irene Lam bought the building from Bank One following public outcry over the bank's decision to demolish the dome and build in its place a smaller branch office and a Walgreens drugstore. Added to the National Trusts' "11 Most Endangered Places" list three years ago, the building has been on the National Register of Historic Places since 2003.

Originally designed by local firm Bailey Bozalis Dickinson Roloff and rehabilitated by Mike Kertok, an architect based in Norman, Oklahoma, who specializes in historic preservation, the bank retains its wooden teller booths, vault doors, deposit boxes, and terrazzo floor.



It also has its original ceiling—a second, aluminum-paneled dome suspended from the roof dome that's long been hidden above a hung ceiling. The building now houses 16,500 square feet of retail and office space, including Dr. Lam's practice. Abby Bussel

AEROGELS ON THE RISE

In January, a substance called "Nanogel" was highlighted as one of the best solutions to improving thermal and acoustic insulation in daylighting applications at Bau 2005, a biennial construction expo in Munich hosting 200,000 visitors from around the world. Manufactured in Frankfurt, Germany, by Cabot, Nanogel is an example of an emerging class of translucent material made of silica aerogel, a lightweight and highly porous foam that is 90 percent air. Discovered by American chemist Samuel Kistler in the 1930s, aerogels did not find widespread commercial use



until a few years ago; now building product companies including Kalwall, GE Advanced Materials Structured Products, Westcrowns, and Scobalit are using Nanogel to make skylights, curtain wall, and glass block. Alex Wilson, executive editor of Environmental Building News, says that while aerogel-based products exhibit insulation values of up to R-8, they have yet to gain a foothold in construction because they are relatively expensive and translucent rather than transparent, limiting their range of uses. Wilson speculates that aerogel will find greater acceptance only "when we begin to value energy conservation more highly." Anna Holtzman

In other AIA news, the institute has awarded the Thomas Jefferson Award for Public Architecture to Charles Atherton of Washington, D.C., Carol Ross Barney of Chicago, and Diane Georgopulos of Boston. In the public officials category, Atherton was chosen for his commitment to the excellence of architecture during his 44 years as secretary of the Commission of Fine Arts. Ross Barney was recognized for her work as a private-sector designer of public-sector buildings (September 2002, page 86) including the new Oklahoma City Federal Building. Georgopulos, a public-sector architect, was selected for her work coordinating the renovation and design of over 1,800 units of housing in the Boston area.

→ The Harvard Design School has a new dean: Alan A. Altschuler, a professor of urban policy and planning in the university's Graduate School of Design and Kennedy School of Government, has been officially appointed to the post after serving as acting dean since July of last year.

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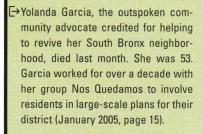
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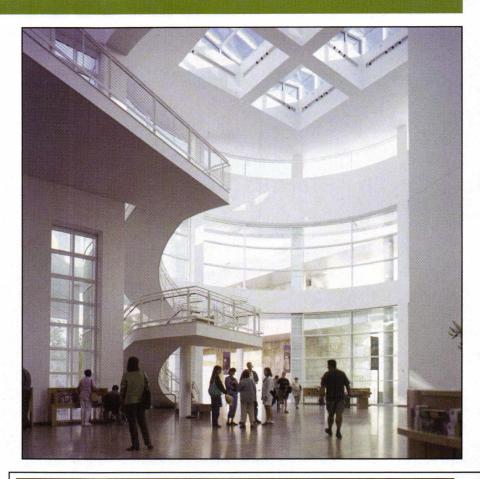
GETTY CENTER INAUGURATES NEW LEED RATING

The Getty Center, designed in 1997 by Richard Meier & Partners for a hilltop site in the Santa Monica Mountains, has been awarded the first "LEED-EB" certification since the rating, which stands for Leadership in Energy and Environmental Design for an Existing Building, was officially launched last year. The new designation, created by the U.S. Green Building Council (USGBC) Washington, D.C., is achieved when building operations and systems are upgraded but the majority of the interior and exterior structure remains unchanged. The museum increased its energy and water efficiency in order to help achieve the rating, a decision that is also helping the Getty Center cut operating costs and voluntarily meet the standards of California's Green Building Action Plan, a new rule that aims to cut energy consumption in state-owned buildings by 20 percent over the next decade. Katie Gerfen



E>The online education and discussion group Architecture Radio (architecture-radio.org) is releasing video recordings of lectures from the ACA-DIA Digital Fabrication Conference, which was held in Toronto last November. The videos are being released incrementally, one posting a month for February, March, and April, and will include segments on digital fabrication and systems-built housing. Other Architecture Radio content includes the 2005 lecture series of the San Francisco chapter of the AIA.

School awarded the Veronica Rudge Green Prize in Urban Design to the Syrian city of Aleppo for reviving its 5,000-year-old city center.



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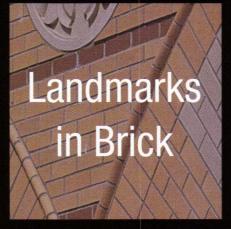
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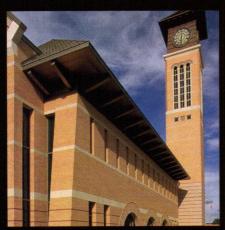
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THE TRANSIT-VILLAGE TIMETABLE

Will our nascent transit boom spark new building projects? It's just a matter of time. by Bradford McKee

In January, about a year after Houston's new light-rail commuter line opened for business, the *Houston Chronicle* ran a story handicapping the potential for new development along its seven-mile length. One local activist said he was "incredibly disappointed" by the lack of construction, and the story's reporter noted that the area surrounding the line "looks much as it did before the line was built."

A revelation? Scarcely. Architects and developers familiar with transit projects are hardly surprised by Houston's slow start. Most new systems begin with a whimper and catch on gradually as daily riders learn to change their commuting habits. If Houston's light rail had prompted a huge wave of development during its first year, it would have been a marked exception. And it would be an even greater exception if in five years the line still had not sparked development activity—or if in 15 years speculators could still find a range of available parcels along the line on which to build. Around the country, the lure of abandoning cars for efficient transit is proving irresistible.

In seemingly every other U.S. metropolitan area beyond a certain size, new mass-transit systems are rolling out where none had been before, from heavy-rail commuter trains and subways to light rail and trolleys. And though some of these rail systems are still in their formative stages or just attracting decent numbers of riders, inevitably development is following them. City neighborhoods are slowly filling in with new housing and businesses, and distant suburbs and exurbs are planning town centers around new or revived rail lines and stations.

RIDERSHIP ON THE RISE

It would be hard to argue that commuters are abandoning their cars in droves, but they seem increasingly eager to reconfigure their lives around public transit. In the late 1990s, ridership grew nationally by an estimated 20 percent; the last decade has seen about \$250 billion spent on public transit. Demographic trends sug-



The New Urbanist stranglehold on transit-village design is finally waning. More contemporary ideas include RTKL Associates' mixed-use Downtown Plano, with light-rail service to Dallas (above), and Kanner Architects' Metro Hollywood, with low-income housing and retail over a subway stop (below).



gest more riders to come, as transit proves popular among young singles, couples without children, and seniors.

"Conservatively, demand is going to double in the next 20 years," says Shelley Poticha, president of Reconnecting America, a transit advocacy group in Oakland, California. "We're talking about 8 million new households that are going to want to live near transit."

In various stages, that scenario is playing out in Houston and also Dallas, Miami, Minneapolis, Seattle, Denver, and St. Louis. Several of Chicago's western

commuter suburbs are re-emphasizing the rails in new town plans. A study of transit-oriented development (TOD) released last year by the federal Transportation Research Board found major transit activity either planned or under construction in all but three of the nation's 30 largest metropolitan areas.

And the public is willing to pay. In November, voters in the Denver area approved a 0.4-cent tax increase to help fund 119 miles of light-rail and commuter lines on six new routes by 2017. In Austin, Texas, voters that day gave the go-ahead



Red Line boogie-woogie: Arquitectonica's scheme for the Los Angeles Metro's Wilshire/Vermont Station organizes a middle school, 450 apartments, underground parking, and street-level shops around a busy plaza.



for the Capital Metropolitan Transportation Authority to begin building a 32-mile commuter rail line on existing tracks from the town of Leander into the capital's downtown. The Austin City Council is now writing development guidelines for districts around planned transit stations.

State governments, too, are promoting development around transit: New Jersey assists in funding and coordinating eligible projects in 14 state-designated "transit villages." A coalition called Envision Utah promotes transit and TOD in a 10-county area including Salt Lake City. In addition, Massachusetts and Pennsylvania have begun state initiatives to promote investment around transit.

BIG STAKES IN L.A. AND DALLAS

Los Angeles has perhaps the country's most serious TOD efforts underway. The city's Metropolitan Transit Authority (MTA) has engaged developers for about \$2 billion of housing, offices, stores, and public services. Most of the new construction takes place around Metrorail stations on land that the MTA leases to developers. Special zoning districts surrounding the rail lines call for higher den-

sities than are allowed otherwise.

At the Hollywood/Western station, local firm Kanner Architects just completed 60 units of affordable housing under the program, for which St. Louis developer McCormack Baron Salazar received 2,500 applications. Arquitectonica is working with Los Angeles developer Urban Partners on a project at the Wilshire/Vermont station that includes 449 apartments and a public middle school for 840 students. Outside the Wilshire/Western station, Los Angelesbased Archeon Group is designing 187 apartments with street-level retail shops.

"Ten years ago, people were saying, 'Why isn't anything happening?'" says Carol Inge, a planning officer at the MTA. "Now we can't even keep up with it."

The suburbs north of Dallas, along the Dallas Area Rapid Transit (DART) system's Red Line, are racing to keep up with each other. Around the Mockingbird Station, new development and rehab projects are creating a town center with more than 300,000 square feet of commercial space and loft apartments. Dallas's transit-related boom resounds along the line out to Richardson and to Plano, where a new

downtown centers on 40 acres skirting a station that opened in 2002.

The intensity and success of development around transit has everything to do with the level of coordination by local and regional governments. Los Angeles's MTA follows a centralized "joint development program," whereas Dallas's DART planning has been somewhat more random and developer-driven.

INSTITUTIONAL INFLUENCES

"One thing you learn the hard way is that [building light rail] is profoundly influenced by the local institutional structures: how strong the transit provider is, and how united the people in the region are around transit," says Mark Garner, a project coordinator for the Hiawatha Line in Minneapolis, which opened last year and spurred 3,000 housing units nearby. "You've got everything from transit-planning heaven in Portland, [Oregon], and very sophisticated efforts in San Diego, to a city like Dallas, where the public-sector side is totally disorganized."

The most frequently cited example of smart TOD is the Rosslyn-Ballston corridor along three miles of the Orange Line in Arlington, Virginia, part of Washington, D.C.'s Metrorail system. For more than a decade after the line opened, officials struggled to sort out ownership of land so as to encourage specific types of development near the line's five stations. Today, that stretch of subway boasts 20 million square feet of offices and stores along with 20,000 units of housing.

Even given such success stories, many jurisdictions prohibit the higher-density developments that would make budding transit villages work best. And density alone will not forge a thriving transit district: It has to have the right combination of uses and must also, ultimately, become an appealing place for people to live, because solid residential activity turns otherwise lifeless office- and retail-only districts into full-time urban centers.

"The political campaigns are about traffic congestion and finding alternatives to being in your car," says Poticha of Reconnecting America. "But a big part of it is making centers in places that never had town centers, and using that as an organizing principle for growth."

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THE WRIGHT WAY OR THE HIGHWAY

To become more relevant—and profitable—the Taliesin Foundation may undergo a radical remake of its mission. by Lawrence W. Cheek

"Truth against the world," the family motto that Frank Lloyd Wright forged into his own larger-than-life persona, has doggedly endured as the unspoken operating principle at Taliesin and Taliesin West for the nearly half century since the master's death. But in the last two years, worldly troubles have all but unraveled the school and design enterprises that have soldiered on under the Wright name.

Taliesin Architects, the successor to Wright's old firm, was dissolved in 2003; the dozen practicing architects still living at the two Taliesins in Spring Green, Wisconsin, and Scottsdale, Arizona, now work as individual firms. With no architectural revenues coming in, operating expenses—particularly building maintenance and renovation—have far outstripped income from tours and licensing agreements. Last year, two successive CEOs of the Frank Lloyd Wright Foundation departed, as did the dean of the Frank Lloyd Wright School of Architecture, and none of the positions have yet been filled. Enrollment has shriveled to 10 apprentices, fewer than half the normal complement, and the school is facing an accreditation review this month.

"We are at a moment that is [simultaneously] urgent and opportune," says Vernon Swaback, an architect who is both a Taliesin insider and outsider. Swaback began his apprenticeship with Wright in 1957, stayed for 22 years in the communelike fellowship, and then started a private practice in Scottsdale. Last year, he was elected chairman of the foundation board, and he launched a study that recommended a sweeping change in the mission and operation of the Taliesins: engaging the world instead of holding out against it. The board adopted the sonamed "Vision 2010" program in December; the fellowship members, who must approve all changes to the Taliesin bylaws, are now considering the proposal.

A MISSION RECAST

Under the new program, the Taliesins would become centers for scholarship, symposiums, and outreach, exploring issues of the twenty-first century in architecture, environment, and community with the goal of contributing to a more sustainable planet. As Swaback sees it, these are logical extensions of Wright's life and work. For example, he said, Taliesin should be publishing books as influential as Sarah Susanka's popular series, *The Not So Big House*.

To open itself to such change, the Taliesin community would be expanded—not with more disciples of Frank Lloyd Wright but instead through alliances with universities, government agencies, and industry. Although daily life for the residential fellows would continue much as it is today, outsiders coming to symposiums would stay at the Taliesins and participate fully in the community life rather than scattering to motels in Spring Green or Scottsdale.

And the riches of the Frank Lloyd Wright archives would be showcased for visitors in new buildings that demonstrate principles of sustainability—and that avoid recycling Wrightian style.



If adopted, Taliesin's new mission would end the controversial "Legacy" program, which licenses unbuilt Wright designs to outside clients. Last year, for example, the spire for the 1957 Arizona State Capitol proposal rose in a Scottsdale commercial development.

Visitors would see a distinct division between the historical Wright—the drawings, furnishings, and buildings—and the new ideas emerging from the Taliesin think-tank. The foundation plans to look for contributions to fund the new buildings.

While opening itself to the outside world, the foundation would also suspend its "Legacy" program—which has resurrected and realized 15 unbuilt Wright designs for outside clients since 1969—except for projects already in the pipeline. Swaback is not convinced that Wright's projects can retain their "integrity and authenticity" when transplanted to a different site and adapted to modern requirements. However, the licensing of Wright designs for stained glass, bookends, and sculptures would continue. A vital revenue stream, licensing earned the foundation \$850,000 last year. (Tours and bookstore sales produced another \$3.5 million.)

LIVING IN THE PAST

Since Wright's death in 1959, the architecture practice and school—and their defensive posture toward the design world at large—have persisted almost unchanged, as if the Taliesins

were living dioramas. Even though Wright regularly and colorfully berated apprentices who mimicked his style in their own projects, Taliesin Architects generally continued in that vein for more than 40 years. Their original designs have not enhanced Wright's reputation. One former Wright disciple now practicing elsewhere admits that, "We have more clients who are concerned about my background with Wright than clients who come to us because of it."

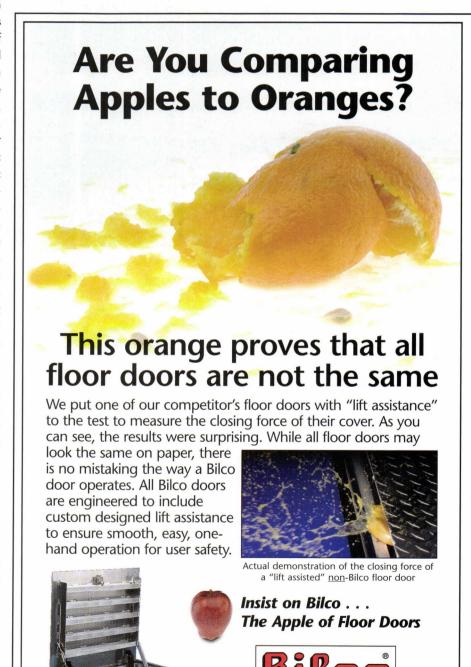
The school is also controversial, although many architects applaud its hands-on approach. "The early-on experience of building your own space is incredibly valuable," contends John Meunier, former dean of the architecture school at Arizona State University. Regardless of accreditation, the

learn-by-building approach will remain its philosophical heart. But change is already in the air. For instance, a tour of the apprentice-built shelters sprinkled through the desert behind Taliesin West yields some surprises. A decade or two ago all were reliably Wrightian, but today they are far more diverse. One is a strawbale-and-mud-plaster structure with a flying tensile-fabric shade; another looks like an acrylic Conestoga wagon poised on four slender columns with a particleboard drawbridge. One apprentice who spoke on the condition of anonymity said the school has been "the best experience of my life," but then added that he might leave the program. "As a student, I want to learn from a leader. But the people who have stayed here in the fellowship are followers. If you're going to be a leader, you leave."

The Legacy program, too, has been met with increasing skepticism-and even legal action, as was the case with the Monona Terrace convention center in Madison, Wisconsin, which Wright designed in 1938 as a municipal government complex. Four lawsuits tried to block its construction, primarily on environmental grounds, Madison group called "It Ain't Wright" argued that the realization was a distorted reflection of the architect's intentions. In 2002, the 125-foot spire from Wright's unbuilt 1957 design for the Arizona State Capitol was constructed in a Scottsdale commercial strip. It is certainly an intriguing sculpture, but one far removed from its intended setting and meaning. (Wright's 1947 Tucson Daylight Bank will be built beside the spire this year if its developer can secure financing.)

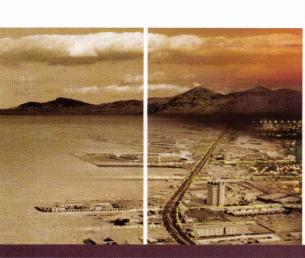
Despite the controversies, the fact that the Taliesin community even exists nearly half a century after its founder's death is a remarkable achievement—and if it can become a center for engaging environmental issues, so much the better. "Frank Lloyd Wright believed the architect should have a hand in shaping nature," notes Swaback. "That's a noble notion." If the ideas that emerge from Taliesin's recast mission are provocative, that would be perfectly in tune with its heritage. Nobody loved to prick the world's conscience more than Wright.

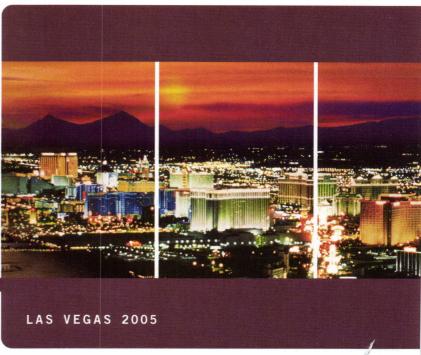
Lawrence W. Cheek is the author of a book on Wright's life and work in Arizona (Rio Nuevo Publishers, fall 2005).



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AD MEMORY by Anna Holtzman

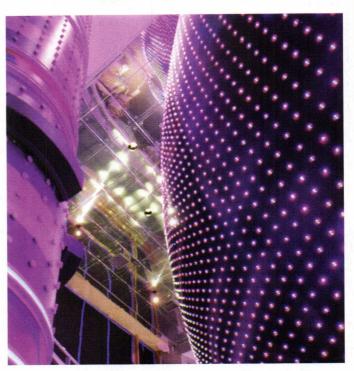
"The book will kill the building," Victor Hugo famously wrote in *The Hunchback of Notre Dame*, meaning that the advent of the printing press would herald the death of architecture as the primary medium of communication. More than five centuries after Gutenberg's invention, and roughly a decade into the age of the Internet, it appears that we're coming full circle: Printed media, television, and web content—by their very overabundance—may be killing themselves, leaving architecture to emerge, once more, as the most powerful communication tool.

Marketing experts today refer to physical places that communicate a company's or institution's identity as "branded environments." While the idea is nothing new—think of symbolic structures such as Gehry's Guggenheim in Bilbao, the ubiquitous McDonald's arch, or even the iconic identity of Egypt's pyramids—both architects and marketing firms are becoming increasingly savvy about how to use buildings to portray a brand. On why branded environments are gaining momentum, Alan Adamson, of branding firm Landor, offers, "The tipping point was about ten years ago," when print, television, and electronic media reached a critical saturation point. He maintains, "It's more difficult to grab somebody's attention when they're getting bombarded from 1,200 directions, and to really break through and make a connection, you need to go from virtual to physical space." As a result, branding agencies are crossing over into architectural territory—and design companies are capitalizing on the trend as well.

THE PLAYERS

The setups at such firms vary. Eva Maddox Branded Environments and Studio 585 are both subsidiaries of traditional architecture firms—Perkins+Will and Gensler, respectively—and both groups employ a mix of architects and communications specialists. Kahler Slater Architects, a 100-person firm with offices in Milwaukee and Madison, Wisconsin, has a multidisciplinary staff of designers and marketers. According to Chicago-based Eva Maddox, whose clients are often hospitals and schools, attributes such as green design strategies and nurturing interiors contribute to the perception of an institution's cultural mores. For projects such as Chicago State University and the Swedish Covenant Hospital in Cincinnati, Maddox's team took an integrated approach, having a hand in everything from structure to environmental graphics. Studio 585, which has staff members in cities across the United States and in London, has designed prototype retail environments for Design Within Reach and Volkswagen, among others. However, the firm is also involved with brand strategy, naming, brand identity, and print materials, as for the furniture company Allsteel.

Jack Morton Worldwide and Arnell Group, both pri-



Manhattan's NBC Experience Store, by Jack Morton Worldwide, gives a physical presence to the TV network.

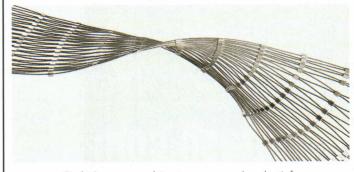
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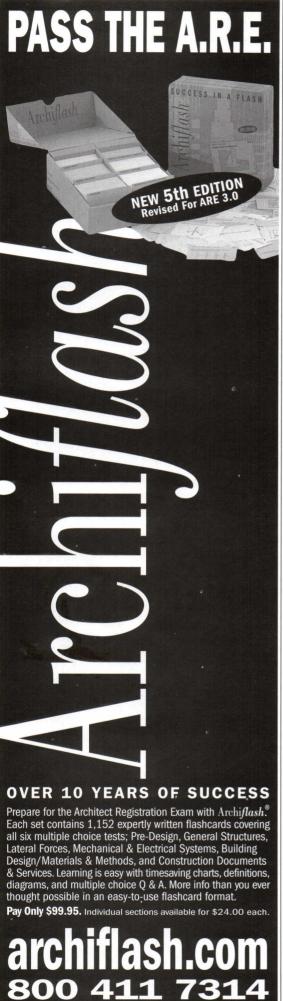
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marily marketing firms that are headquartered in New York City, employ full-time architects and designers in addition to branding and advertising experts. Other agencies, such as Futurebrand (a subsidiary of advertising giant McCann Erickson, with an environmental design department based in London) rely on outside architecture firms to execute their visions. Leaning toward a more theatrical approach than Maddox or Studio 585, Jack Morton's environmental-design division, led by designer Erik Ulfers, created a new flagship store for Home Depot in Manhattan that incorporates what Ulfers calls an "urban theater" on the street level: a section of a model apartment in which actors carry out home renovations in view of customers and passersby. Arnell Group's flagship Reebok store in Philadelphia—which looks more like a museum of athletic shoes than a retail space—complements their television advertising campaign for the sneaker company.

HISTORY OF A TREND

Those who have been involved with branded environments since the term was coined say that the idea has reached maturity over the past decade. States Maddox, "I became fascinated with [branding] back in 1975. But we only 'came out of the closet' [with branded environments] about 10 years ago." For a long time, she explains, "In the architectural profession, the word 'brand' was taboo, because it was a commercial idea." Today, she says, ideas about branding have become more sophisticated. "I think we're past the concept of the McDonald's arch: it's sort of a stick-on label," she contends. "The future of brands is multidimensional and holistic," with graphics, structure, floor layouts, and interiors all integrated into what Maddox refers to as the "social identity" of a corporation or institution.

Peter Arnell, founder of Arnell Group, links his fascination with branded environments to the post-modern era. "There was this huge throwback to the days of Frank Lloyd Wright and the Bauhaus, when the architect had a hand in all aspects of design," he relays. (Arnell is himself a



Marketing firm Arnell Group designed this store-cum-museum for Reebok, in addition to creating TV ads for the sneaker maker.

trained architect who once worked for Michael Graves.) Today, he says "We're going through a cycle in which architecture is back in a huge way because of the economy." He contir ues, "We find that clients who hav spent billions of dollars over the year on instant and rather short-terr expenditures in traditional media such as billboards and print, are now looking toward long-term, sustair able, powerful ad memory," in th form of permanent structures. Tyin the branded environment trend t more ephemeral cultural phenomena Ulfers suggests that the emergence "guerrilla, or grassroots marketing interactive video and compute games, and recent iconic museum such as Bilbao and the Getty Cente have spurred advertiser interest physical, interactive environments.

As with Hugo's fatalistic pro nouncement about the printing pres pundits during the dot-com boo proclaimed that Internet shoppir would wipe out bricks-and-mort retail stores. However, branded en ronments are showing that graph and structural expressions of inform tion work best in cooperation, rath than in competition, with one anoth-Both architects and communicatio specialists agree that we've only se the beginning of this trend, and th the fields of architecture and brandi will continue to merge. Put succinc by Arnell, "Architecture and desiare clearly the future of branding

Anna Holtzman

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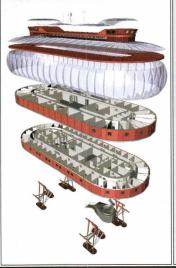
From a field of 86 entrants in an international design competition, three interdisciplinary teams have been shortlisted for a research station in Antarctica that, according to its government client, the British Antarctic Survey, is "functionally efficient yet an aesthetically stimulating place to work." The Halley VI—destined for a 500-foot-thick ice shelf some 10,000 miles from the United Kingdom—must withstand winds of up to 80 knots and temperatures as low as minus 40 degrees Fahrenheit. All three finalists developed mobile, podlike schemes that sit on tall, slender legs to keep the station from being buried by snow (as the first four Halleys were), while minimizing the structure's impact on the landscape. Strategies for solar and wind power, zero carbon-dioxide emissions, and resource recycling are incorporated into the designs.

The team led by engineer Buro Happold and architect Lifschutz Davidson of London calls for a trio of two-level linear "craft" on adjustable stainless-steel legs, linked by bridges. The engineers at FaberMaunsell (along with climate experts from U.S. sister company DMJM) with Hugh Broughton Architects of London envision space-stationlike modules clad in prefabricated and preglazed aluminum exterior panels and set on ski-based feet, so the station can be pulled by bulldozer should relocation be required. Like the other two finalists, a "walkable building" proposed by Hopkins Architects and Expedition Engineers, both based in London, can be moved to safer ground as the ice shelf "calves" over time, breaking off into icebergs. A winner will be selected in September and the Halley VI Research Station is slated to be ready for occupation by its 50 residents in 2008. **Abby Bussel**









The three finalist proposals for the British Antarctic Survey's research station are by FaberMaunsell and Hugh Broughton Architects (top row); Hopkins Architects and Expedition Engineers (middle row); and Buro Happold and Lifschutz Davidson (bottom row).





SAIA BARBARESE TOPOUZANOV | UNIVERSITY OF QUEBEC BIOLOGICAL SCIENCES PAVILION | MONTREAL

While traipsing perilously through tired metaphorical turf—the DNA strand—the design for a new life-sciences building at Montreal's University of Quebec actually finds fresh terrain. An abstracted, flattened double helix rendered in colored brick and curtain wall enlivens the façades of this major addition along the edge of the compact urban campus. And the internal circulation, like the structure's stepped massing, spirals upward, impelled through a wide porte-cochere and spun around the building's light-filled courtyard. Featuring a botanically inspired planting pattern, the courtyard is wrapped in seamless tinted glass; a greenhouse tops the lower western face. For all of its energetic inspiration, the result seems a becalming addition to the science campus' master plan of new construction and renovations. Also a candidate for LEED certification, the 375,000-square-foot Biological Sciences Pavilion opens in September at a cost of \$62 million. **C.C. Sullivan**





classic details



modern installation

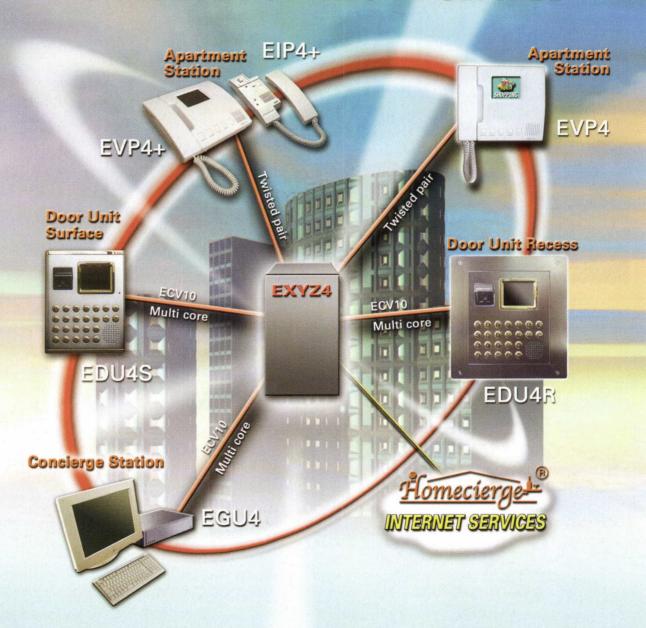
As a result of the September 11th attack on the World Trade Center, the intricate facade of NYC's 90 West building suffered severe damage. Searching for a way to minimize equipment & scaffolding needs as well as compress the renovation schedule, the design & construction team contacted KEPCO+. After an intensive design build collaboration, a unique panel system was engineered that allowed an integration of both the new & restored granite. Through the use of modern methods, the intricate facade of this century-old building was restored to its original grandeur.





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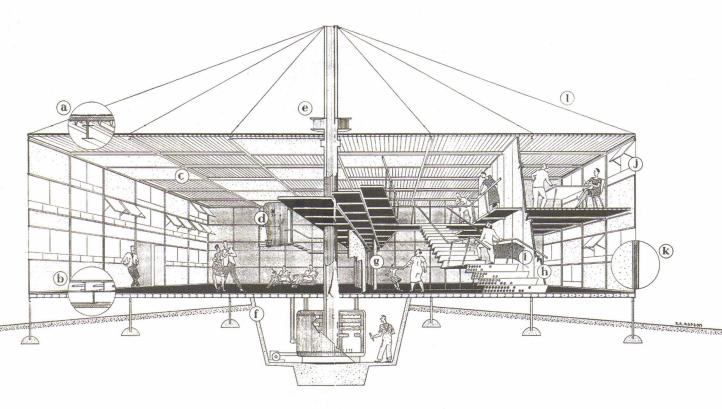


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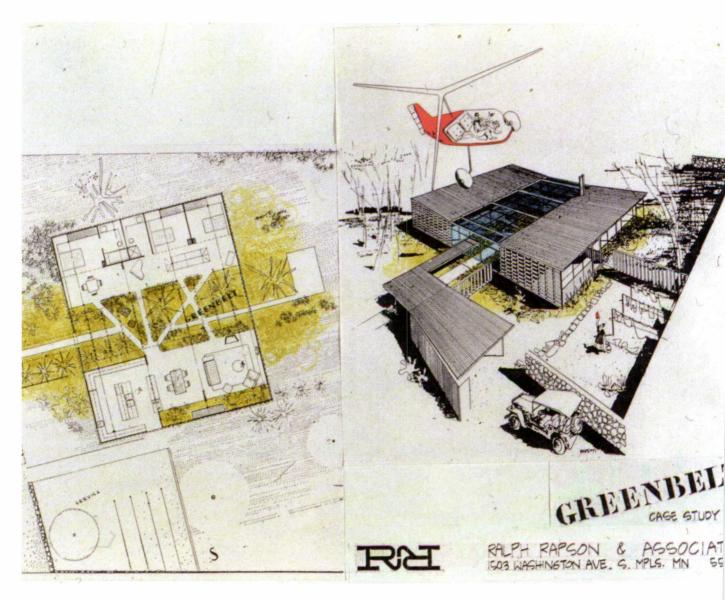
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CENTER STAGE

In the foreword to Ralph Rapson: Sixty Years of Modern Design (Afton Historical Society Press, 1999), former Rapson student William Pedersen of Kohn Pedersen Fox writes: "When I study Ralph's architectural perspective drawings, what is most immediately striking, along with the confidence of line and composition, is the exuberant disposition of people who inhabit them. All are arranged like actors on a stage, involved in a range of activities. But rather than playing a role in a single plot, they seem to be performing in multiple scenarios. The architecture always provides them with a supportive framework."

And Rapson's work has done so for some seven decades. From "Demountable Space" (above), a 1940 design in collaboration with Eero Saarinen for U.S. Gypsum, to the prefabricated, faceted-glass conservatory for the University of Minnesota that is now on his desk, the architect has focused his efforts on the habitability of modern spaces using an economy of means.

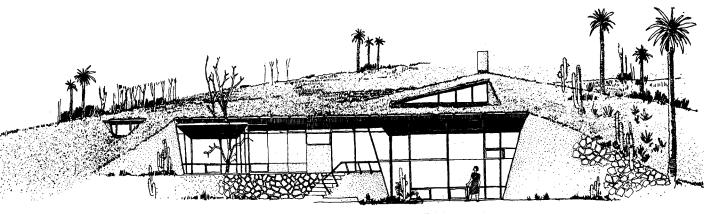


One of the advantages of a long and successful working life is that you get to see yourself rediscovered. That is certainly true of Ralph Rapson, who at 90 still has his own office, which he runs with his son Toby in Minneapolis. A peer of legendary figures—Alvar Aalto, Laszlo Moholy-Nagy, Eero Saarinen, Charles Eames, Kevin Lynch—Rapson has become a legend in his own right. The last of the Case Study House architects still practicing, he has designed some of the iconic modern buildings and furniture of the twentieth century, ranging from U.S. embassies in Sweden and Denmark (both 1954) to major buildings in Minnesota, such as the Tyrone Guthrie Theater and the Pillsbury House, and innovative furniture for Knoll, all the while heading up the architecture school at the University of Minnesota, where he was dean for 30 years.

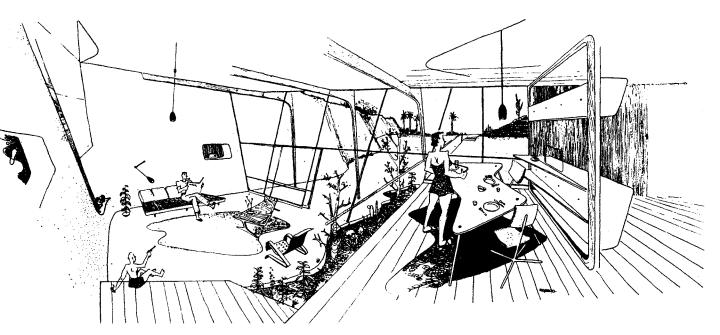
Despite this remarkable career, the Michigan-born Rapson retains his Midwest modesty. He has an office on the second floor of an old brick storefront at the edge of the university campus. Sitting at a small conference table there with me and Dan Avchen, a former Rapson student and a partner at local firm Hammel, Green and Abrahamson, the architect reviewed some

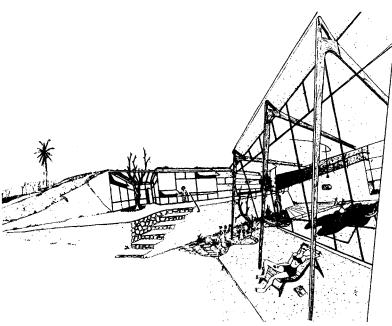
RAPSON RULES

The 90-year-old architect Ralph Rapson continues to practice, as the profession rediscovers the ideas and ideals of his seven-decade career. BY THOMAS FISHER



ELEVATION





With the Greenbelt (facing page) and Cave (this page) houses, Rapson merges land and building.

of his work and reflected on its meaning for a younger generation of designers who have shown a revived interest in many of the things—low-cost housing, lightweight structures, socially responsible design—that he himself, in his ninth decade, still pursues.

A CASE STUDY CONTINUED

For example, Rapson recently updated the Case Study house that he originally designed for John Entenza, the editor of Arts & Architecture magazine, in 1944. "I told John I wanted to do an urban house," Rapson recalls. "He had mixed feelings, but said go ahead. I wanted to wall in the site and have the house look inward. It became two pavilions—a living and a sleeping pavilion—connected by a glassed-in area. John wasn't able to find anyone interested in putting up money for an urban house, so the house didn't get built." The "Greenbelt" house, known as Case Study No. 4, was constructed 45 years later inside the Museum of Contemporary Art in Los Angeles as part of an exhibi-

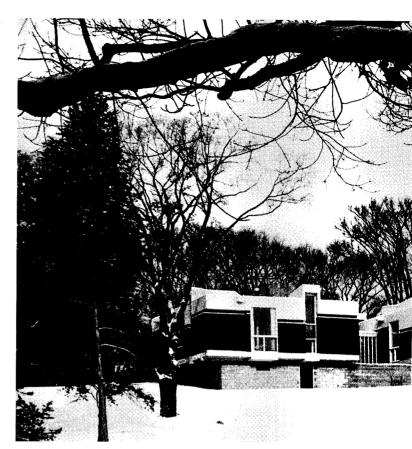
HOTOS: BALTHAZAR KO

tion on the Case Study program. "As I was doing the working drawings for the exhibit house, I didn't see one single thing I wanted to change," he says. "There were things that I wished had happened. Entenza's dream was that mass production and prefabrication would take over residential housing. It didn't happen."

But the Greenbelt has finally become a reality through a prefab-house competition sponsored by a San Francisco-based consumer magazine. "Dwell picked up [on] the idea of the Case Study program, with an emphasis on prefabrication. I saw the notice in the magazine and I dropped the editor a note telling her that it was a great idea, and she wrote back and said that since I was a part of the original case study program, would I like to enter. So we did. I went through hundreds of studies, but I kept coming back to the Greenbelt as an idea, so we modified it, with a two-story version and a one-story version, each with four or five different exterior expressions." Although that design didn't win, North Carolina developer-client Nathan Wieler, for whom the magazine built the winning project, decided to put Rapson's proposal into production. "Nathan put the design on the web and got calls from all over the country from people wanting to build it," he notes.

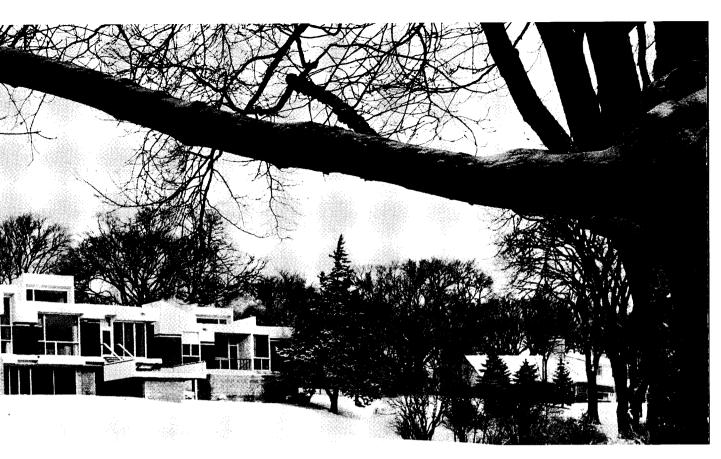
Rapson's focus on affordable housing predates the Greenbelt project. "In the late 1930s, David Runnells and I designed an earth-sheltered house we called the Cave House," he explains. "We also entered another competition with a fabric house, where I made the ill-advised comment that no longer would the architect be necessary because people could simply go to the hardware store, buy their fabric, and roll out their house. Charlie Eames was on that jury, and said that we were thrown out of the competition for that particular comment." To this day, however, Rapson's interest in affordable housing continues. "I enjoy low-income housing almost more than anything else, partly because it is so vitally important. There is a mistaken notion that low-income housing should be low-cost housing. It takes a lot of beating, so using the cheapest materials possible is a problem."

Social commitment also drove much of Rapson's work, most clearly in the large, federally funded Cedar-Riverside housing complex (1962-1973) across the street from his office. "The basic concept of Cedar-Riverside was to have an integrated and diverse population, economically, socially, and ethnically. We were never able to convince [the Department of Housing and Urban Development] that we could put low income and high income in the same building. We had hoped to mix groups on the same floor, but the federal government wouldn't buy it. So we had students in one building, elderly in another, higher income in one and lower in another. Originally it had 30 percent subsidized housing [units], but it's now around 55 percent. The government helps pay the rent and gives the building owners 10 percent above that for providing the housing, so it makes sense. Slowly the higher-





Designed for a family on a lakefront site in Wayzata, Minnesota, the Pillsbury House (top) was organized as a series of brick-and-concrete pavilions linked by partially glazed bridges. Carved ceilings with multiple light scoops, and an abundance of wall niches for the owners' art collection, articulated interior spaces (above, facing page). Built in 1963, the award-winning house lived a short life; it was demolished by new owners in 1997 despite calls to preserve the work by the local press and architectural community.





income tenants have moved out. There are still a lot of students and younger people living there, but it doesn't have quite the diversity we had hoped for."

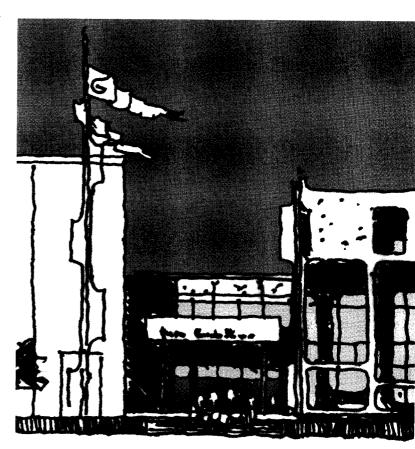
DRAWING ON THE PAST

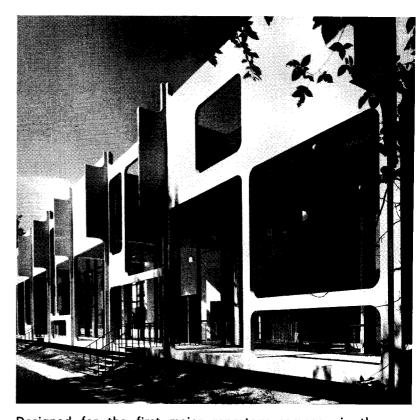
Of course, for an architect, having a long life can mean seeing some of your work demolished, as has happened with Rapson's Pillsbury House (1963) in Wayzata, Minnesota, which was razed in 1997. The same fate may be imminent for his Guthrie Theater, completed that same year and soon to be replaced by a Jean Nouvel design (see page 58). A preservation campaign has arisen to save the Guthrie, a testament to public sentiment for Rapson's work. "I grew up with the idea that the unity of a building was basic, rather than using every material you could think of," he explains. "While I find much of the architecture of today to be very exciting, the computer has made it almost too easy to push and distort forms. Rem Koolhaas's library in Seattle, for example, seems to strive too hard to be unusual and different. I still like to look at a plan and see my way through it immediately. The clarity of the plan and structure are important. It makes me think of Aalto's question: 'What the hell is wrong with the post and beam?""

Rapson might ask the same question about drawing in our computerized era. "You don't have to draw well to be a good architect, but it certainly doesn't hurt. There is something between the mind, the fingers, and the heart that doesn't quite come off when using the computer. That isn't to deny the benefits of the computer; it is a tremendous tool. But watching it in my own office, I'm bothered by the fact that there is no record of a design's development, unless you print out every step of the way. It used to be that we could bring out thousands of sketches of evolutionary steps, and you lose that with the computer."

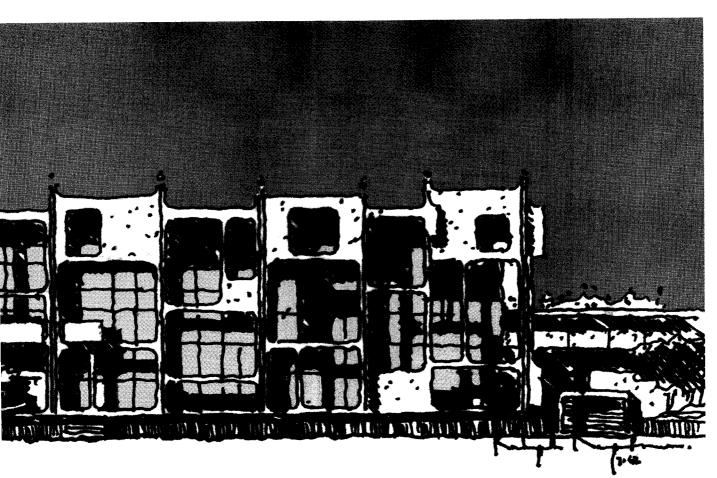
Drawing, indeed, distinguished Rapson's legacy at the University of Minnesota. "We had a great exchange with MIT and Harvard, and word always came back that the Minnesota students could draw circles around everyone else," he says. "There wasn't a Minnesota dogma about design, so much as about drawing and the rigor of the work, some of which I attribute to the School of Architecture building itself. All the drawings were put up around the courtyard where everyone could see them. At most schools, you didn't know what was happening in other studios, but the openness of our building allowed everyone to see what each other was doing."

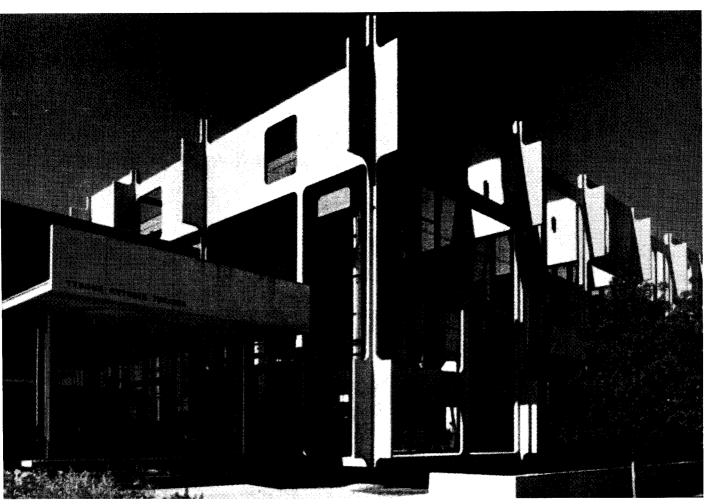
The way architecture is taught and practiced has certainly changed since Rapson designed his first house in 1935, but he continues to produce a remarkable array of buildings: a house in Costa Rica, an embassy in Moscow, a hotel in northern China. "A lot of people must think I'm either dead or not practicing," he has said, although nothing could be farther from the truth.





Designed for the first major repertory company in the Midwest, the Tyrone Guthrie Theater (1963) was conceived as both an architectural and theatrical experiment, with a thrust stage, asymmetrical "ski-slope" seating, and a stage-like double façade. The building faces an unknown future, as a replacement by Jean Nouvel opens this spring.







a delicate imbalance

RICHARD MEIER'S LATEST MUSEUM TRANSFORMS THE LANGUID ROMANTICISM OF BADEN-BADEN.
BY PAUL BENNETT | PHOTOGRAPHS BY ROLAND HALBE

At first you don't notice Richard Meier's new museum for the Baden-Baden art collector, Frieder Burda. You are strolling down the Lichtentaler Allee, a nineteenth-century greenbelt through this compact Black Forest metropolis, and it is easy to lose yourself in the swaying oaks and towering magnolias that dapple the green lawn. The Oos River trickling by lulls you into Arcadian reverie. You're feeling neoclassical. And then it appears: a sparkling, pristine white box with precise linear form. It explodes between the trees like a small bomb, boldly at odds with the picturesque landscape yet somehow in dialogue with it—an interplay between the rational and the romantic.

The son of a local publishing magnate, Frieder Burda began collecting modern paintings in the 1970s and quickly amassed a world-class collection of Picassos, Polkes, and Pollocks spanning the twentieth century. About ten years ago, Burda decided to make his treasures available to the public. When the local government of Baden-Baden offered him a site along the city's central park and next to a public art museum, the search was on for an architect who could make Sammlung Frieder Burda (the Frieder Burda Collection) come to life.

The choice of Meier was partly an obvious one, given the architect's deep roots in twentieth-century modernism and his firm's impressive résumé of museums, including such notables as the High Museum in Atlanta (1983), the Museum of Modern Art in Barcelona (1995), and the Getty Center in Los Angeles (1997). But the Burda collection, springing from the tastes and proclivities of a single person, has a distinct personality. The museum, therefore, needed to be uniquely fitted to the works of art—of which there are 1,000 in total, on constant rotation.

"It has real scale," remarks Klaus Gallwitz, the museum's



Baden-Baden's newest museum achieves a sterile harmony with its surrounding park, and also with the adjacent Staatliche Kunsthalle (obscured here by trees), at least in size and proportion. This tenuous unity, both formally and institutionally, is symbolized by a pedestrian bridge linking the two.

curator, as he strolls through one of the large, light-filled galleries. "It's a real environment." An art historian who has lived his professional life among paintings and sculpture, Gallwitz intends "real" to mean appropriate to art. Art scaled. To this end, the building is divided into four galleries, two small and two large, that respond to a natural division of canvas sizes in the collection. The levels are connected by a long ramp cantilevered out into an empty, glass-surrounded void in the southeast corner of the building—a light well that fills the center of the museum with abundant natural illumination.

THE MATERIALITY OF LIGHT

Meier has written and spoken at length about light as a material in his work, on par with stone, glass, and other physical things. This is certainly the case at the Sammlung Frieder Burda. The south face of the building is almost completely glazed, the east face substaintially, and the west and north partially. Employing louvers on the south face, screens on the eaves, motorized shades over all large windows, and strategically placed walls and half-walls throughout, Meier and his team battled with the thorny problem of bringing enough

light into the museum to make a difference while also ensuring that no direct sunlight falls on any artwork.

"I don't know any artist who works in a hermetically sealed space," says Meier. "Paintings are usually created in natural light—certainly these all were. So, the best museums should be illuminated largely by sunlight."

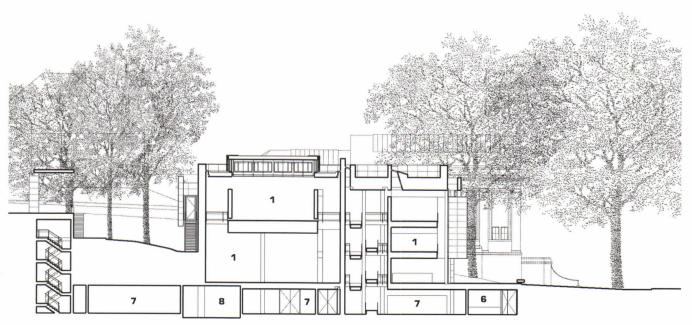
According to project architect Stefan Scheiber, the big challenge was dealing with heat gain and finding the right glass-and-shade combination to insulate the building without affecting the quality of daylight. Instead of choosing a dark, well-insulated glass, Meier's team went with an industry-standard, light-colored German glass that has an ultraviolet filter, known generically as Sonnenschutzglas. They then designed a complex system of partial and complete sunshades that are controlled by roof-mounted automatic sensors that raise and lower the shades as the sun intensity changes. "You can imagine that we were haunted by the 50-lux rule," says Scheiber, referring to the standard maximum luminance (about 4.6 footcandles) for light-sensitive materials such as watercolor paintings.

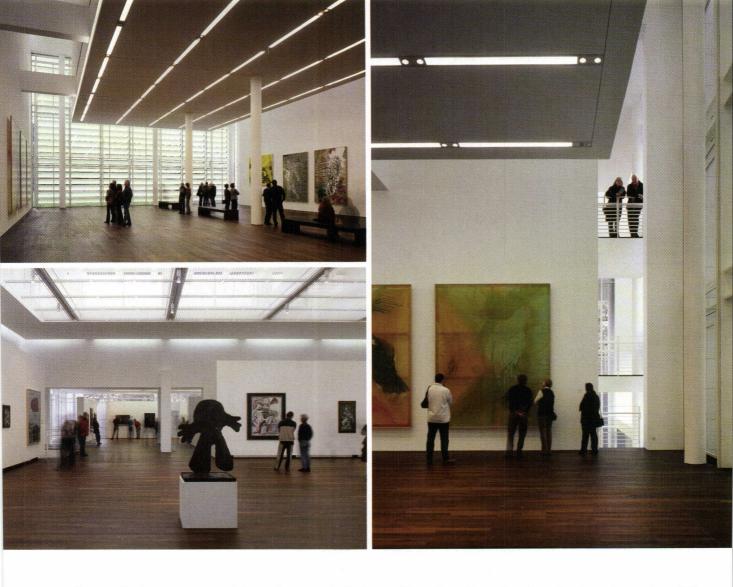
In addition, all artificial lighting was fitted to a sensor sys-





The museum is divided into four galleries, two small and two large, to accommodate the collection's canvas sizes. The levels are connected by a long ramp cantilevered out into an empty, glass-surrounded void in the southeast corner of the building—a light well that fills the center of the museum with abundant natural illumination.

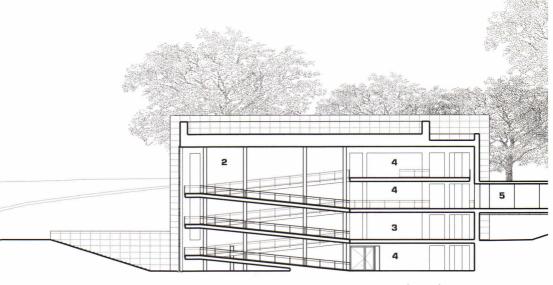


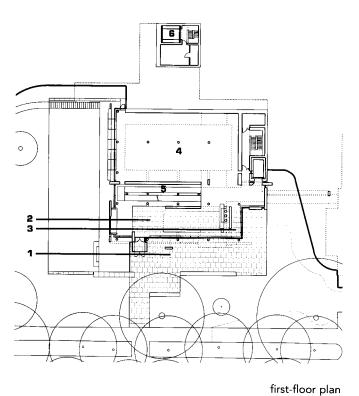


Upper-floor galleries are accessed from the ramp hall via a bridge that allows for views back to the park and the lower level (facing page). The museum's main gallery is covered by an opaque roof animated by clerestory light, while the recessed floor plate brings natural light down into the lower levels. "Smoked-oak" flooring adds an earthy contrast to the building's white wall planes and machinelike glazing.



- 2 circulation ramps
- 3 reception
- 4 gallery/circulation
- 5 pedestrian bridge
- 6 shop
- 7 storage
- 8 mechanical





- **1** entry
- 2 lobby
- 3 reception
- 4 gallery

- - upper-floor plan ______ 30′ ∋
 - 5 ramp
 - 6 freight elevator
 - 7 pedestrian bridge below
 - 8 open to below

tem so that as natural lighting changed in quality, so too would the interior fixtures to compensate. "If the day becomes cloudy then the artificial light will come on—at first very subtle, but then stronger," says Peter Kruse, the local architect. "In fact, on very gray days, the lights are programmed to shift from white to a slight yellow."

The presence of so much sunlight made cooling the building a significant issue; at the same time, Meier's minimalist aesthetic offered the designers few options for storing the building's mechanical systems. Many hours were spent detailing this problem: adding cooling coils on the reverse faces of gallery walls, feeding narrow ducts through the ceiling space, and hiding as much as possible in the floors. "When I come into this building now," remarks Kruse, "I'm always aware that there's a city's worth of mechanicals stuck into every recess."

As an average visitor, of course, you have no awareness of the hidden M/E/P workings. Instead, you're focused on the art and architecture. A monumental painting by Anselm Kiefer greets you at the entry; and then a beguiling sequence of large-scale Picassos and tiny Gerhard Richters, all artfully arranged by Gallwitz, lure you in. As you move, you become aware of Meier's rationalist rhythms: the very precise spacing of columns and sizing of the rooms in discernable proportional relations.

RATIONALIST RHYTHMS

"It was marvelous to see the building without art," says Gallwitz. "It's a work unto itself." Indeed, architecture fans could easily find distraction in the Picasso room by discovering the mathematical interplay between the grids, columns, and louvers on the south wall.

Beyond light, the idea of connection underlies much of the design. The site chosen for the Burda collection sits just yards away from the state art museum, Staatliche Kunsthalle, a late nineteenth-century neoclassical building designed by Hermann Billing and Wilhelm Vittali. The Kunsthalle was actually one of the first naturally illuminated museums in the world, and was thus revolutionary for its time. While Meier has employed natural light in several of his other museums, he admits that part of the inspiration for its prevalence here was to connect his museum with the Kunsthalle.

BRIDGING TWO ERAS

The two institutions, while separate, will mount some shows in collaboration; to physically symbolize and manage this marriage, Meier designed an enclosed glass bridge from one building to the other. As it happens, the Kunsthalle was never finished: It is missing its south wing, which would have occupied the footprint of the new galleries. So, despite its stylistic departure, Sammlung Frieder Burda serves to spatially complete the Kunsthalle and establish a clear dialogue across the history of twentieth-century architecture. The same kind of dialogue—contrasting, conflicting, illuminating—takes place between Meier's austere detailing and the verdant surroundings of the park: English landscape gardening meets the New York Five.



Inside and out, the composition carefully considers not only proportion but also how to admit the most sunlight without compromising the art works (and viewing) within. On the south face, louvers help advance both goals.

"The relationship to the Kunsthalle was very important," says Meier. "Each institution is independent, but they are tied together—literally, by location, landscape, and this bridge. So, we made important decisions based on this."

One such decision—and one that illuminates Meier's strong presence during the design phase of his firm's projects—revolved around the placement of the entry for the Sammlung Frieder Burda. This was originally placed at the north end of the east face, balancing with the entrance of the Kunsthalle. But, after much debate, Meier spearheaded a movement to place it at the far end of this face, completely opposite to where one would assume it should be. While it may not be neoclassically proper, the placement works very well, and the entrance piazza is clear and uncluttered.

Modernism, and Meier by extension, has been much faulted for being anticontextual and for promoting the abstract over the concrete. But at Sammlung Frieder Burda, museumgoers are treated to a deeper study in how Meier—and modern architecture—can make very strong connections to surrounding context through contrast, tension, and imbalance.

A former editor of *Landscape Architecture*, Paul Bennett is an author and critic based in Rome.

Frieder Burda Collection Museum, Baden-Baden, Germany owner and client: Stiftung Frieder Burda [Frieder Burda Foundation | architects: Richard Meier & Partners Architects, New York City—Richard Meier (principal in charge); Bernhard Karpf (design partner); Stefan Scheiber (project architect); David Robins (designer); James Luhur, Sudipto Ghosh, Annie Lo, Anne Strüwing (project team) associate architect: Peter W. Kruse Freier Architekt landscape architect: Bernd Weigel engineers: Schumer + Kienzle (structural); Geyer-Hettler-Joswig (geotechnical); Schneider, Ebinger, Früh Ingenieurgesellschaft (mechanical); b.i.g. Bechtold Ingenieurgesellschaft (electrical) consultants: Lothar Rudolph, Berater f. Fassadentechnik (façade); Zumtobel Staff (lighting); Müller BBM Munich (acoustics) project manager: Heinz Lehmann, Ingenieurbüro für Bauwesen area: 21,500 square feet cost: \$20 million

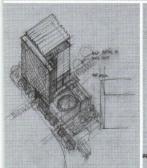
Specifications and Suppliers

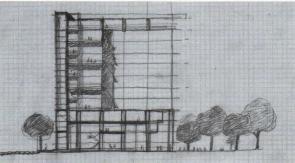
metal cladding: aluminum panels with white enamel coating smoked-oak flooring: Bauwerk stone: sanded Zimbabwe granite glazing: UV-coated glass door hardware: FSB toilets: Duravit/Starck faucets: Dornbracht lighting fixtures, controls, and exit signs: Zumtobel Staff with Richard Meier & Partners Architects HVAC system: Keifer

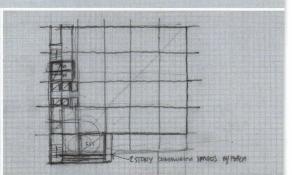


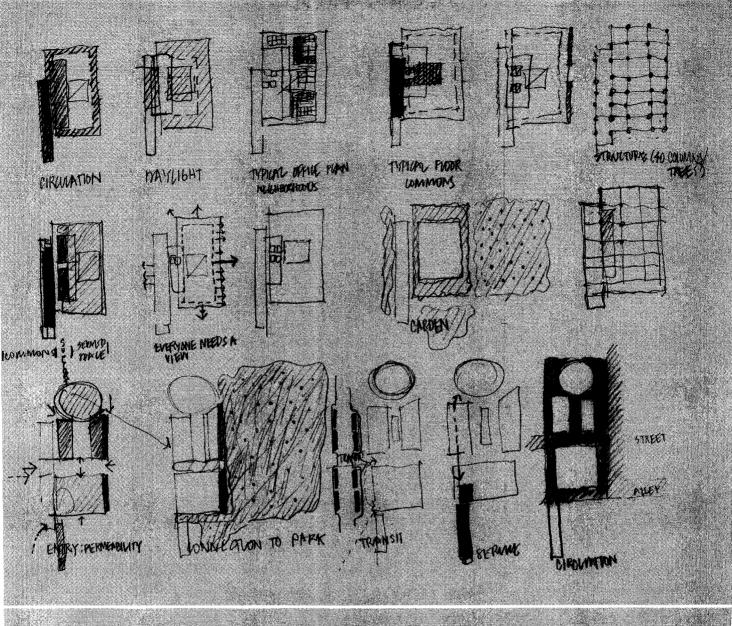
CLINICAL TRIAL

A new nursing school by BNIM and Lake/Flato projects an unusual image for Houston's medical center. By LARRY ALBERT | PHOTOGRAPHS BY HESTER + HARDAWA

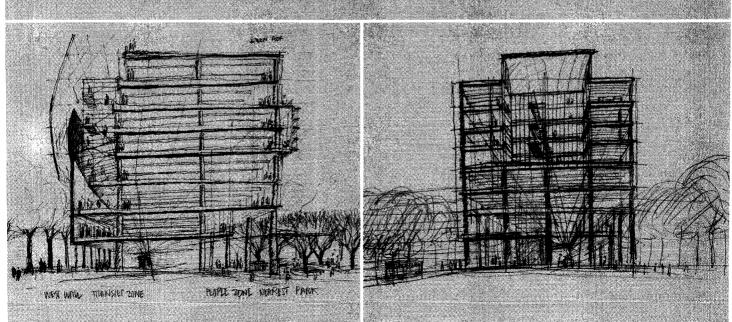


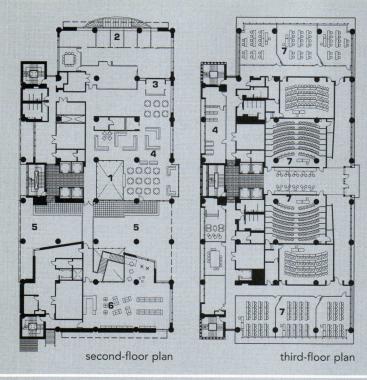


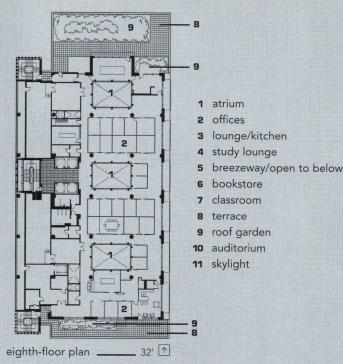




As sustainable as it is quirky, the University of Texas's \$41 million, eight-story school of nursing is an unusual presence in Houston's Texas Medical Center (facing page). Numerous studies contributed to its idiosyncratic exterior and differentiated interiors (above). The resulting assemblage employs reclaimed bricks, extensive daylighting, a gray-water system, and operable windows. Atriums, balconies, a breezeway, and two roof gardens provide respite and interest for the school's 800 students and faculty members (below).







With 26 million square feet of space, more than 100 buildings, and 45,744 parking spaces, the Texas Medical Center is the world's largest medical complex—and it aims to stay that way. New construction has added a million square feet to Houston's largest employment center for each of the last several years; within a decade, the campus will double in size.

A frenzied zone of medical construction in the nation's energy capital makes a provocative site for a grand green experiment in healthcare-education design. And the new School of Nursing and Student Community Center for the University of Texas Health Science Center at Houston strikes

an odd presence amid a landscape dotted with hovering skywalks and gargantuan parking structures.

From afar, the 194,000square-foot building looks like a four-story box with a jagged hat, perched on concrete columns above three lower floors of highly differentiated

underbelly. The box and its recessed top floor, wrapped with a rainscreen of recycled-aluminum panels, contain administrative and faculty offices and one level of student lab space. Strip windows and panels milled from old cypress logs reclaimed from the Mississippi River bottom cover the upper part of the belly, a two-story platter of classrooms and public spaces for students. Reclaimed brick, cypress panels, and a loud sandstone—all selected for their tactile qualities—sheath the structure's bottom floors, which contain communal spaces for the Health Science Center's five other schools as well, including an auditorium and cafeteria. Stairways and peripheral spaces, finished in corrugated aluminum over a brick base, hug the sun-drenched western edge like a saddlebag.

Standing on tiptoes like this is the right thing for a build-

ing in a flood-prone district to do. But it also seems to make sense for an interloper determined to infect the world's largest medical center with alien design principles.

SECOND CHANCE

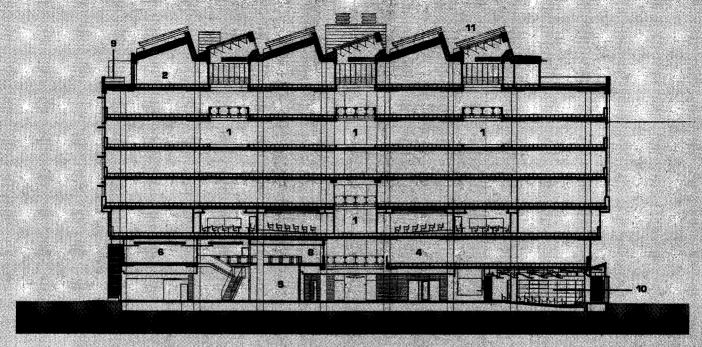
When BNIM Architects, based in Kansas City, and Lake/Flato Architects, from San Antonio, began work on their design in 2000, it marked the client's second go-round on the project. A 1996 competition, which featured entries from Steven Holl, TEN Arquitectos, Machado and Silvetti, and Lake/Flato, settled on Patkau Architects of Vancouver as the project design-

er, but the firm resigned three years later, after an impasse over costs.

Working closely with a large team of consultants, the BNIM-Lake/Flato team tried to make each design element serve multiple purposes. A careful tour of the building provides a catalog of many of the team's

SIG

environmental strategies. Distinct window arrangements on each façade—including protective perforated-aluminum baffles on the west side and a projecting grid of light-distributing sail-cloth on the east—document the design team's thoughtful daylight modeling, all to minimize heat gain and maximize natural light, reducing in turn the need for heat-inducing electrical fixtures. Demountable partition systems and a raised floor show off the administrative levels' flexibility. A row of cisterns along its main façade reveals the school's gray-water strategy: Toilets and landscape irrigation use rainwater collected from the roof. The structure's concrete frame is a slightly warmer color than usual because a high concentration of fly ash, a byproduct of coal burned in nearby power plants, lessens the need for Portland cement in the mix. An empty steel grid on



north-south section _____18'

the roof's western edge waits for the photovoltaic cells that might be added someday. Operable windows and adjustable floor vents in the underfloor cooling system provide occupants personalized climate control, but also attest to the ways the building's engineers challenged local convention.

By arranging the service cores along the west side of each floor, the architects made the best of the site's unfortunate north-south orientation, allowing simple rectangular floorplates to face tree-covered Grant Fay Park, directly to the east. Corner exit stairs are open to the outdoor air, stand in front of an elevator for a moment, and the light-filled central stair beckons.

"What students say they love about the building," says Patricia Starck, dean of the school, "is the light and the openness. Even if they're in a lab practicing clinical skills, they can look up and see trees. They just love that."

Three skylit atriums direct diffused daylight to the eighth through sixth floors; their tops, canted to the south, give the roof its sawtooth profile. A bright double-height space on the third and fourth floors marks the entrance to the class-room facilities and leads to a small dramatic balcony at tree-top level. From the school's front entrance, a two-story "dog run" allows direct access to the park and funnels cooling breezes to an outdoor-seating area.

CONSERVATION AND COST

The building is expected to receive LEED "gold" status from the U.S. Green Building Council for its use of nontoxic, recycled, and local materials; its conservation of construction resources; and its reimagining of a wide range of standard practices. These strategies were mandated by the client, which also wanted energy costs 70 percent below those of its own adjacent School of Public Health. Adding to the challenge, the school was willing to pay only a 5 percent premium over standard construction costs for these features.

The client envisioned a building modeled after the pro-

fession of nursing itself. BNIM's Steve McDowell calls it "a healing building, but also a teaching building"—one that can explain its own benefits to visitors.

This kind of concern for the health of buildings and the larger environments that produce them may represent the future, but so far in the medical center, it is an anomaly. Many area workers—and even students in the school—are unaware of the building's energy-saving and sustainable aspects. By the time the school opened to classes this past fall, budget cuts and reassignments had dissolved the original client team that pushed for this new approach. If this building is to serve as a model or inspiration for greener development here or in similar schools elsewhere, its innovations will have to speak for themselves.

Houston-based architect Larry Albert is a visiting critic at the Rice University School of Architecture.

School of Nursing/Student Community Center, Houston client: The University of Texas Health Science Center at Houston architect/interior designer: BNIM Architects with Lake/Flato Architects landscape architect: Coleman & Associates lighting designer: Clanton Associates engineers: Carter & Burgess (M/E/P); Epsilon Engineering (civil); Rolf Jensen (fire, codes); Jaster-Quintanilla (structural); Ferguson Consulting (electrical, security) consultants: Supersymmetry (energy efficiency); Center for Maximum Potential Building Systems, Rocky Mountain Institute, BNIM Elements (sustainability); Arup (envelope); Apex Busby (cost) suppliers: Vistawall (curtain wall); ProClad (metal panels); Frenchman's Lumber (sinker cypress); American Hydrotech (garden roof); Viracon (glass); Vistawall (skylights); Kaswell (travertine and mesquite flooring); Interface AR (access flooring) construction manager: Jacobs/Vaughn area: cedits and specifications at



Distinctive window arrangements mark each façade, including perforated-aluminum baffles on the west (above right) and a projecting grid of sailcloth banners on the east (above left). An ample breezeway connects the building to an adjacent park (facing page). Several atriums and glass partitions help distribute illumination from skylights into offices, shared spaces, and a laboratory (below left and right).





BUILDING BODY ART

Three new Minneapolis structures show off their skins.

by Thomas Fisher

In this era of tattoos and piercings, it makes sense that architects, too, would look to the skins of their buildings as expressive surfaces. Three current constructions in Minneapolis exemplify this: Jean Nouvel's Guthrie Theater and Cesar Pelli's Minneapolis Library, both done in conjunction with Architectural Alliance, and Herzog & de Meuron's Walker Art Center addition, executed in association with Hammel, Green and Abrahamson.

The Guthrie Theater and the Minneapolis Library explore different forms of architectural tattooing. The Guthrie uses enlarged photos from its classical dramatic productions as painted images silk-screened onto the midnight-blue metal panels that clad the complex. The tableaus indicate the locations of the three performance halls within the mass of the building, while expressing the inner life of the place. Half a mile away, the library has large-scale, abstracted patterns of snow, water, birch trees, and prairie grass fritted onto its multistory glass walls, which provide solar control and reflect the nature that surrounds the city in every direction.

The Walker addition, in contrast, represents a kind of architectural piercing. The large, dented box encloses galleries, a theater, and a restaurant, and has a weather wall of metal panels incorporating a rainscreen of double-layered, expanded-aluminum mesh. These panels are stamped into a crumpled pattern to capture the sunlight, with internal illumination creating a glow at night. Irregular openings perforate the panels to provide directed views of the city. Here, the expression comes not in recognizable surface imagery, but in manipulating the surface itself.

Why have buildings begun to embrace body art? Adornment of human skin has long been a sign of social status, a way of indicating a person's place in a community. The Minneapolis buildings—all major civic structures—use the adornment of their skins in a similar way: to express their importance and uniqueness in the city. Body art also represents a kind of sublime beauty, a pleasure reached through the infliction of pain. Piercing evokes that pain most directly, as does the skin of the Walker addition, with its scrunched and cut surface. Tattooing, itself not a painless process, often expresses something lost-but-not-forgotten, like the ghostly images of past theatrical productions on the façade of the Guthrie or of the once-pristine landscapes on the exterior of the library.

Social historians may long debate the reasons for the current interest in body art, but architectural historians will certainly look to these three structures as a watershed in the influence of decorated flesh on buildings.



WALKER ART CENTER EXPANSION HERZOG & DE MEURON WITH HAMMEL, GREEN AND ABRAHAMSON

"The idea of cutting folded paper to make dolls," explains project architect Thomas Gluck, of Herzog & de Meuron's Minneapolis office, drove the cladding design of the irregularly shaped, boxlike addition (top left) to the Walker Art Center's 1971 complex by Edward Larrabee Barnes, opening this spring. The architects looked at various materials copper, aluminum, polycarbonate, slumped glass, Tefloncoated fabric—to create a rainscreen wall (bottom left). But full-scale mock-ups showed they couldn't get enough tension in the fabric, so they returned to metals, this time looking at metal mesh, crumpling it and pulling it apart. "The large-scale kinks gave it life," says Gluck. The final design has 3-foot-9-inch-square panels of anodized aluminum, 8 inches deep with two layers of mesh (bottom right); the outer layer is stamped in a randomized pattern with identical edges so that the panels can be installed in any direction. Irregular cuts in the units provide views out of large, slightly unaligned, trapezoidal windows (top right). T.F.

Walker Art Center Expansion, Minneapolis

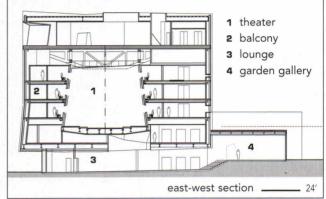
client: Walker Art Center client representative: Tegra Group design architect: Herzog & de Meuron, Basel, Switzerland-Jacques Herzog, Pierre de Meuron (principals); Nandini Bagchee, Carlos Bautista, Andrzej Egli, Christine Binswanger, Raphael Forny, Thomas Gluck, Nahyun Hwang, Adrian Kast, Martin Krapp, Rebecca Lowry, Florian Marti, Roberto de Oliveira, Peter Sigrist, Charles Stone, Mathis Tinner, Thomas de Vries (project team) architect of record, engineer, landscape architect: Hammel, Green and Abrahamson, Minneapolis—Dan Avchen, John Cool, Linda Morrissey, Leigh Rolfshus, Eric Hoffman, Eric Johannessen, Eric Amel, Ryan Bicek, Greg Haley, Tyson McElvain, Grant Reiling, Matt Kreilich, Steve Dwyer, Patrick Thibaudeau, Annette Hardy, Dave Galey (project team) consultants: Front (façade) general contractor: M.A. Mortenson cost: \$38.2 million area: 172,220 square feet

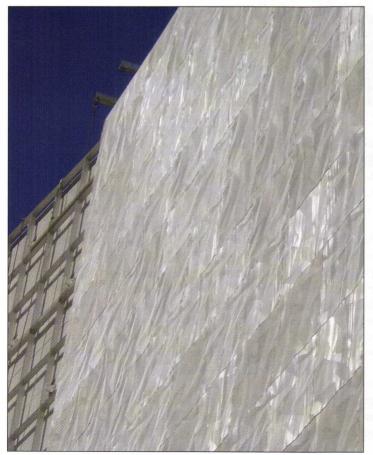
Specifications and Suppliers

exterior metal panels: M.G. McGrath exterior wall system: Minuti-Ogle curtain wall/glazing: Interclad/UAD











RTESY HERZOG & DE MEURON



GUTHRIE THEATER JEAN NOUVEL WITH ARCHITECTURAL ALLIANCE

Jean Nouvel wanted to evoke industrial materials for the new Guthrie Theater, located in a former milling district overlooking the Mississippi River and set to open in 2006. "We looked at custom roll-forming sheet metal," says Scott Sorenson, project designer at Architectural Alliance, "but 2-foot corrugations demanded steel too thick to roll, while brake-pressing steel required welded reinforcement and was too expensive." The architects also looked at a rainscreen of stamped galvanized steel before Nouvel rethought the building's skin as expressive of the theater. "Images on the façade recall the tradition of Renaissance frescos," says Tom DeAngelo, a partner and principal at Architectural Alliance. The design team considered laseretching oxide-coated stainless steel, resist-etching anodized aluminum, even dichroic paints, but all proved too costly or unworkable, so they settled on a standard insulated steel panel with a midnight-blue, metal-flaked painted surface, and white, pixelated images silk-screened on top.

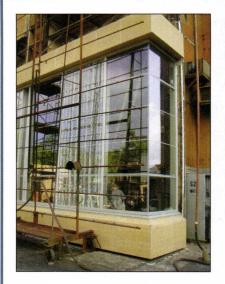
The lobby walls have similar images, inkjet-printed onto sheets of translucent paper, and hung like tiles. **T.F.**

Guthrie Theater, Minneapolis

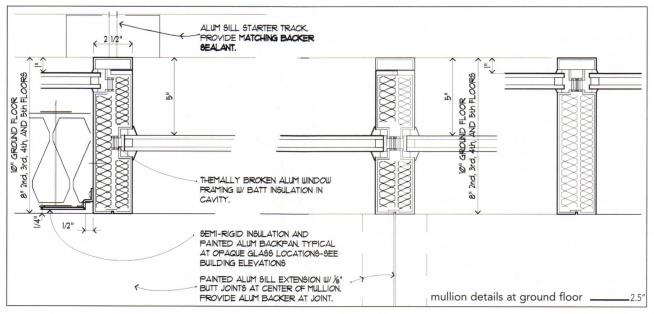
client: Guthrie Theater design architect: Ateliers Jean Nouvel, Paris—Jean Nouvel (principal); Brigitte Métra, Bertram Beissel (project leaders); Vincent Laplante, Nathalie Sasso, Eric Stéphany, Anna Ugolini, Damien Faraut, Michel Calzada, Athina Lazaridou-Faraut, Edwin Herkens, Julie Fernandez, Yann Salmon (project team) architect of record: Architectural Alliance, Minneapolis—Thomas DeAngelo (principal); Robert Zakaras (project manager) engineers: Ericksen & Roed (structural); Michaud & Cooley (M/E/P); Van Sickle Allen/Pierce Pini (civil) project manager: Keewaydin Group general contractor: McGough Construction area: 275,000 square feet cost: \$95.6 million

Specifications and Suppliers

metals: American Structural Metals, Danny's Erection, Crown Corr, Centria, Copper Sales **curtain wall:** Harmon, Wausau **exterior graphics:** Artistic Screening







MINNEAPOLIS CENTRAL LIBRARY CESAR PELLI & ASSOCIATES WITH ARCHITECTURAL ALLIANCE

Long fascinated with the aesthetic of translucency, Cesar Pelli has wrapped all four sides of his new Minneapolis Central Library with fritted glass in multistory patterns that filter light into the north-facing reading rooms, control solar gain on the east and west façades, and disguise the mostly opaque south service areas. "We abstracted pixelated images of nature as a veil around the building," says Pelli of the project, which is set to open in 2007. "An image of water faces north to the Mississippi, birch trees to the east, prairie grass to the west, and snow to the south. We discovered that anything smaller than 1/8-inch pixels looked messy on the interior." To create a flush surface, the designers held the horizontal mullion behind the glass and added horizontal pinstripes in frit to create a regular rhythm, while varying the depth of the glazing in the vertical mullions to create the sense of sliding panels. Clear-glass curtain wall wraps the atrium under a winglike roof. T.F.

Minneapolis Central Library, Minneapolis

client: City of Minneapolis Library Board design architect:
Cesar Pelli & Associates, New Haven, Connecticut—
Cesar Pelli (principal); Fred W. Clarke, William Butler (project team) architect of record: Architectural Alliance, Minneapolis—Tom Hysell (managing principal); Peter Vesterholt (principal-in-charge); Nina Ebbighausen (project manager) landscape architect: Coen + Partners, Minneapolis engineers: Thornton-Tomasetti (structural); Erickson Ellison & Associates (M/E/P); SRF Consulting Group (civil) lighting designer: Cline Bettridge Bernstein graphic design: Larsen Design + Interactive construction manager: Mortenson/Thor

Specifications and Suppliers

curtain wall: Mero Structures fritted window wall: HKL Cladding concrete: Graham-Penn steel: Logan Steel metals: MK Metals stone: Vetter Stone roofing: Galvalume glazing: Eckelt (curtain wall); Viracon (window wall) cladding: HKL Cladding Systems, MK Architectural Metal, MERO Structures

HEART TRANSPLANT

With context-sensitive detailing, a new insertion elevates the brick-and-limestone palette of the University of Kentucky.

by C.C. Sullivan

Tackling both physical and historical legacies, a new engineering building at the University of Kentucky restores the court and common space lost when the school, located in Lexington, demolished a richly detailed, fortresslike quadrangle designed in the 1930s by noted architect and brick mason Ernst Johnson. The newcomer's successful placement and contemporary detailing, argues university architect Warren Denny, successfully resurrects this important quad. "The new courtyard is open and inviting and connects well with other outdoor spaces," extols Denny.

Even better, contend Denny and local critics, is the design's contemporary riffs on the university's built heritage, admired for its skilled **brick-and-limestone** craftwork in a range of neoclassical styles. For example, the new Ralph G. Anderson Mechanical Engineering Building defers to the scale of the Romanesque Miller Hall (1898), and its large windows echo a nearby classical revival library built in 1929. But the overall composition, by Anshen+Allen's Jeff Logan, contrasts the existing stock most directly in the way materials are used.

Most of the brick principal façades make it clear that this is no load-bearing system but rather a very contemporary cladding. **Aluminum reveals** carefully incise the smooth planes, adding depth, shadow, and interest; the metal finish is dark charcoal with the brick and light gray on the limestone.

Offset by strip windows is a seemingly floating limestone wall facing the quad, with its celebratory **double-pediment roof** rendered as thin and flat as possible, heightening its audacity. The roofline also creates a sense of scale for the quad, as well as an edge and a focal point—although it is not an entrance—and its symmetry is powerful. It is oddly referential, too, suggesting the university's built tradition going back to its Shaker origins. (The enclosed roof also houses all of the mechanical penthouses for the laboratories, its stacks clad in brick as if they were oversized chimneys.)

The clever massing and placement of the building in its tight historical milieu turns both wings of the facility into individual objects—the smaller mass holds offices; the larger contains labs and classrooms—connected by a double-height **glass-walled lobby**. The atrium, an enclosed gap, allows the two masses to be read separately even from inside, where their interior walls are clad in brick and stone. The real success of the new building, however, is in the proportions and detailing of the façades. The result is rich, without being ornate, and strikingly contemporary, save for one or two overly literal moments, such as the **limestone arches** on the prominent arcade.

In fact, says Denny, the strongest endorsement for this present-day hybrid has come from the school's more tradition-minded leaders. Alumni and administrators have been pleased recently by such classically inspired works as Robert A.M. Stern's health building but also put off by more exuberant cam-









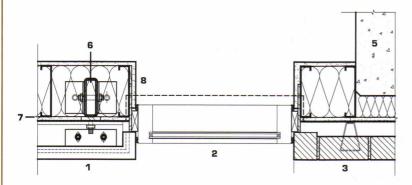
Amid historic and more recent buildings (top), the new labs and classrooms occupy two masses linked by a glass-walled lobby, creating campus paths, edges, and open spaces. A prominent limestone wall (second from top) formally announces the engineering quad. pus arrivals, like Venturi, Scott Brown & Associates' vibrantly patterned biomedical labs. Even more than those high-profile works, both of which opened last year, the Anderson engineering labs "have been received well by those people who would have rather replicated the oldest buildings nearby," says Denny. "Its detailing and careful crafting raise campus awareness of appropriate architectural expression—and help move us away from past conservatism."

Ralph G. Anderson Building, Lexington, Kentucky

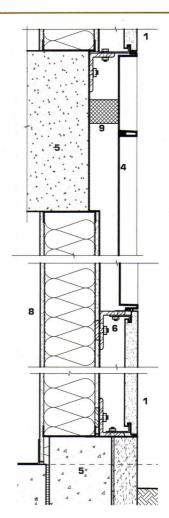
client: University of Kentucky architect: Anshen+Allen Architects, San Francisco—Greg E. Blackburn (principal), Jeff Logan (design principal) associate architect: Taylor-Whitney Architects, Lexington, Kentucky structural and M/E/P engineers: Taylor Consulting Engineers, Arup general contractor: Whittenberg Construction area: 117,000 square feet cost: \$20.6 million

Specifications and Suppliers

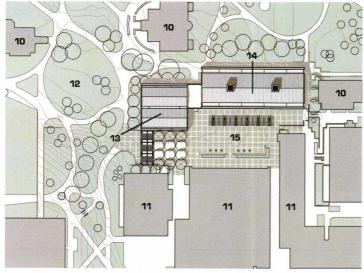
brick: Cushwa/Redland Brick Indiana limestone: Burkett Masonry aluminum panels: Cay Architectural Products curtain wall, windows: Kawneer standing-seam steel roof: Metal Sales low-e tinted glazing: Arch Aluminum & Glass



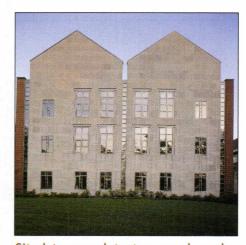
limestone wall at brick end-condition, plan



limestone wall details, section ______6



site plan ______ 75'



Sited to complete two quads and a plaza (left), the new building features a prominent limestone wall (above).

- 1 limestone cladding
- 2 metal window wall
- 3 brick veneer
- 4 aluminum panel
- 5 cast-in-place concrete slab/column
- 6 steel tubes and brackets
- 7 gypsum sheathing/moisture barrier
- 8 gypsum-board finish
- 9 firesafing
- 10 circa-1900 campus building

- 11 existing building
- 12 existing quadrangle
- 13 new office building
- 14 new classrooms/labs
- 15 new plaza



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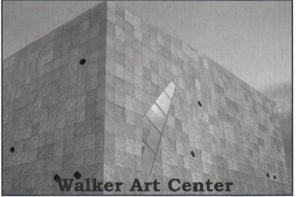
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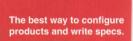
Architect Herzog & de Meuron Fabricator/Installer M.G. McGrath Completion: Spring 2005



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INSTANT GRATIFICATION

Visual documentation devices can help identify problems during building construction.

by Eileen McMorrow

Mobile phones and digital cameras are the among the most valuable tools for architects working in the field. They are followed in popularity by personal digital assistants (PDAs), tablet PCs, and for some, laser measuring devices. The ability to record site conditions, download the images to a computer or PDA, and then e-mail them to colleagues and consultants, has affected the speed at which architects can resolve problems during the construction phase.

Furthermore, digital cameras are an apt method of visual communication between project architects and contractors. "It keeps all parties informed in a way that never happened 10 years ago," says Jim Fair, a principal at AHSC in Tarrytown, New York. "In our healthcare practice, where technical expertise is being applied to different areas, we use the images to make changes and then email drawings to FTP sites," access points for transferring files over the Internet.

Redwood City, California-based DES Architects + Engineers uses digital cameras, printing out the pictures and annotating them to supply the contractor with field adjustments or punch-list items. "It saves drawing time and the pictures show a wealth of adjacent information which sometimes helps to solve the problem," says job captain Byron Wong. "I have had several questions come up in the field, and the contractor was able to photograph the conditions and send the images, allowing me to make better assessments of the challenges," notes Marie Hoke, principal of WHR Architects in Houston.

Jamie Machado, a principal with the Machado Architectural Group in Wappingers Falls, New York, carries a **Sony T-1** (sony.com) digital camera. "I



PDAs like the Palm Treo (above) are increasingly useful tools for architects who want to stay connected in the field. Site images and details can be e-mailed back to colleagues in the office, cutting down on time lost in transit.

love it. It's super sharp and it offers a big screen—the things I need the most. The camera also accepts a voice message to send along with the image."

PHONE CAMERAS IN A CRUNCH

Architects disagree on mobile phones that take and transmit digital photos. For most, the resolution leaves much to be desired. "Camera phones are not effective for architecture," states Machado. "You need sharpness."

On the contrary, Dan Ortiz, senior associate at DES, thinks every architect's cell phone should contain a camera: "That way you always have access to a camera, so you can communicate instantly, around the nation or the world, based on your telephone."

PDAs are making inroads with archi-

tects, too. Some love the **PalmOne Treo** (palmone.com) because it is a phone, e-mail conduit, calendar, and address book. Further, it synchronizes with a desktop computer wirelessly, points out Susan Eschweiler, a principal at DES. "The Treo also has a camera built in, but the quality is not good enough to use, so I carry an ELPH digital camera." from **Canon** (canon.com).

THE CUMBERSOME TABLET P.C.

"I also have a tablet PC, but I have found that the battery life is not very good, so you can't depend on it to last through long meetings without being plugged in," adds Eschweiler. "I thought I would use the tablet a lot, but it turns out that I am now a typist rather than a writer." Other architects find the products cumbersome, but some concede they are useful for transmitting field sketches. Westlake Reed Leskosky principal Ron Reed also finds his 10inch screen tablet to be cumbersome and slow, but he uses it in the field to sketch a condition or note a problem and send it back to the office.

When it comes to laser measuring devices, architects agree they are not always accurate. "In demolition sites, where it may be dark, a laser device may be off by as much as a foot. It has been wrong 20 percent of the time, so I always double check with the tape," says Machado. "It's also not good when measuring empty space, such as from a wall to a railing; it only reads solid objects." Proponents of the tools, however, find the devices save a lot of time when doing as-builts.

Cameras, tablet PCs, and laser tools have made the architect's job in the field easier. Connectivity and the ability to send information instantly from the field wirelessly is the next likely advancement in handheld devices. And it looks like it's coming soon.

Eileen McMorrow publishes the online facilities management journal *McMorrow Report*.

FOR INFORMATION ON TOOLS FOR THE FIELD, CIRCLE 125 ON PAGE 73.

→ Field Gadgets Galore

- ∃ product: Cyber-shot DSC-W5
- web: sony.com
 web



The "credit-card" style Cyber-shot W5 digital camera combines a traditional rangefinder with features such as a 2.5-inch LCD screen, area multipoint auto focus, auto-focus illuminator, and multipattern measuring. The W5 includes 32 megabytes (MB) of built-in flash memory, providing room for additional photographs should the user be without a memory stick. E.M.

- ∃ product: TC1100 Tablet PC
- ∃ manufacturer: Hewlett-Packard
- web: hp.com



The next-generation TC1100 has a lightweight design and a long battery life. Integrated wireless capabilities facilitate communication outside the meeting room. With 32 MB of dedicated memory, system memory up to 2 gigabytes (GB), and a secure digital slot for removable media, users can easily swap files between handhelds, notebooks, and cameras. E.M.

- ∃ product: SmartTool



This handheld electronic level with an instant digital readout assists in measuring the slopes of surfaces. SmartTool digitally displays slope percentage and pitch to 1/10 of a degree in accuracy. E.M.





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- □ product: Accolade
- ∃ manufacturer: Pratt & Lambert

Pratt & Lambert's new Accolade line of paints for interior and exterior applications consists of a 100-percent acrylic formula enhanced by titanium-dioxide pigment for bright, clear colors. The exterior paints come in an eggshell or semigloss base, while the interior coatings are available with a flat, velvet, satin, or semigloss finish.

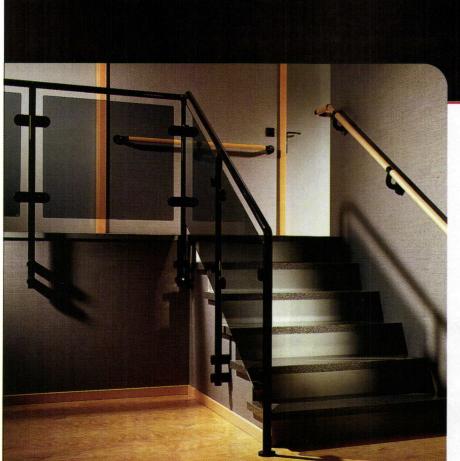


- ∃ product: Charleston, Mount Vernon
- ∃ manufacturer: Duron
- ∃ web: duron.com

Two new color palettes from Duron were inspired by the historic homes of Charleston, South Carolina, and by George Washington's Mount Vernon estate. The Charleston exterior coatings are available in acrylic low-luster, acrylic gloss, acrylic semigloss, alkyd/oil gloss, and alkyd/oil primer, while the interior coatings come in latex flat, latex semigloss, and oil semigloss. Mount Vernon coatings come in low-luster and semigloss.



FOR INFORMATION ON COATINGS. CIRCLE 126 ON PAGE 73.



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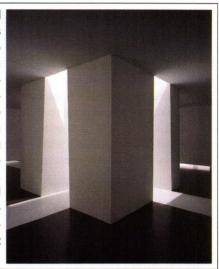
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EXHIBITION

Peter Eisenman: Barefoot on White-Hot Walls | MAK | Vienna | Through May 22 Peter Eisenman's self-curated retrospective of his

complete architectural designs, built and unbuilt, covers everything from House IV to the Memorial to the Murdered Jews of Europe, the latter to be officially unveiled in May in Berlin. The installation, also designed by Eisenman with Sol Lewitt-like precision, embodies his career-long obsession with what he calls the "Cartesian diagram." It is also in keeping with the "anti-spectacular" position he has chosen to take post-9/11. The display is made up of thirty 3-foot-high white cubes, arranged in an orthogonal grid formation, on top of which rests a white suspended ceiling covering the entire installation. Each box contains part of the exhibition: In one there is a documentary film about the architect's teachings, another bears his graffiti signature, and others house white building models. For all the whiteness, the space is dark and feels compressed and eerily foreboding. The catalog, with contributions by architects Greg Lynn and Karl Chu, among others, places Eisenman in a lineage of theorists such as Rowe, Terragni, Derrida, and Deleuze; it also contains a highly intelligent analysis—again, by Eisenman himself—of each of his designs. **Liane Lefaivre**



Chicago Architecture: Ten Visions | Art Institute of Chicago | Through April 3 Chicago Architecture: Ten Visions is a show in search of an idea. There is not so much as a whispered tête-à-tête, let alone a dialogue, among the speculative works of the nine architects and one interior designer on display—which are meant to predict the future of Chicago's built environment. The work is not uninteresting, but it ranges in content, scale, and ambition from a reimagined swath of the city to artist-wannabe installations and a few contributions that have nothing to do with architecture. The most compelling projects include Jeanne Gang's four proposals for sustaining urban life around a gargantuan baseball stadium; Douglas Garofalo's interpretation of the physical outcome of ambitious urban-policy recommendations published in 1999 by a business leadership organization; and Ralph Johnson's elemental transformations of the office tower, the airport, and public spaces brought on by the

information age (below).

Sadly, the show was compromised from the start by its curator and installation designer, Stanley Tigerman, who saw it appropriate to include among the ten at least three of his own personal and business relations. One cannot help thinking that relationships with the curator do more to explain the content of the exhibition than any curatorial theme or vision. **Cheryl Kent**





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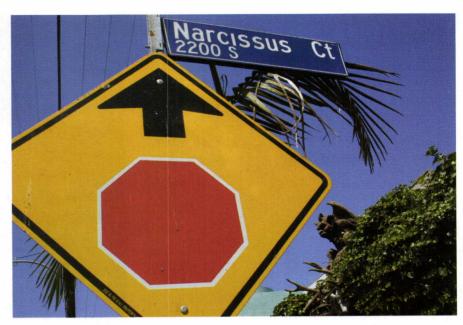
BY FRANK CLEMENTI

Landing at Eero Saarinen's TWA Terminal as a child of nine, I immediately but casually equated it with other thrills, such as speed and music. I recognized that it was exceptional, but I was amazed that form could reach through space and be so exhilarating. This is when I began to think that buildings might be my expressive medium. I thought they could move people. I wanted to make things that, while recognizable, could trigger the chill of unfamiliar enjoyment. This physical reaction is, in simple terms, my definition of Beauty. I strive to produce work that has this effect.

Now, however, architects mostly use words to understand form. We look at pictures of buildings and talk about those pictures. It has gotten so that almost every discussion about architecture now employs justifications for form. Words like value, efficiency, and appropriateness remove us from concepts of delight and inspiration—and, yes, Beauty.

Architecture now references itself almost exclusively, like the annoying acoustic phenomenon of feedback. This architectural feedback reinforces signals we've already seen, rendering a tonal squall and preempting richness.

At the same time, we've been conditioned to embarrassment over the discussion of Beauty. You can't bring it up without prompting rolled eyes or covered grins. Even 15 years ago, when cultural critic Dave Hickey declared that the issue of the nineties would be Beauty, he was confronted with a silenced audience. It was as if the notion of Beauty was suspended in mid-air, no one knowing when to acknowledge the impropriety of allowing it to be party to the discussion of aesthetics. The evaluation of Beauty takes risk and engagement. It requires us to stop hiding



behind the cloak of reason for fear of subjective critique.

How did Beauty fall from grace? Is Beauty a childish indulgence? Is our puritanical background so influential that it can vilify even the pleasures of life? Or, have we merely agreed to disagree? After all, beauty is allegedly in the eye of the beholder, and our egalitarian society is without the requisite tasteful aristocracy. So as a result, we are each entitled to our own determination of Beauty, resulting in a factored denominator. OK, so maybe we let the market decide? Beauty can't be measured, so let's measure what its artifacts sell for.

All of this leads to dysfunctional conditions that produce more layers of abstraction separating us from the vis-

Mow did Beauty fall from grace? Is Beauty a childish indulgence?

ceral effects of Beauty. We instead need to deal with Beauty directly, and not through rationalization. We need to overcome our prudish aversion to sensuality, our security with the utilitarian, and our misplaced frugality.

Dialectic may be adequate for historians, critics, analysts, and lawyers. But we shouldn't be co-opted into thinking that talking about art is more important than making it. Architects already look to other architects and the increasingly inbred press for inspiration and validation. This is a problem. If architecture is based only on precedent, then we further marginalize

our medium and ensure the stagnation of an art form that will be at best merely recognizable and comfortable.

Beauty is not comfortable; it reaches out from across the room and triggers an ecstasy of painful recognition and desire. It attenuates the recognizable and conventional, skirting the sensational to achieve a deep identification and understanding. While we exalt it as exquisite, Beauty rarifies the mundane from within.

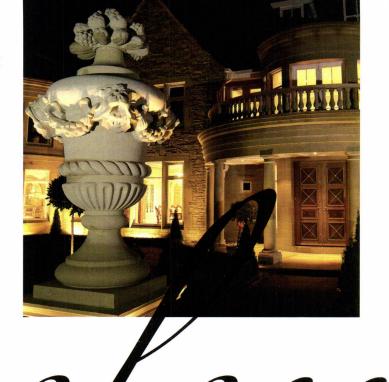
For example, Andy Warhol's *Brillo Boxes* revealed enough beauty that I routinely make deliberate trips down the detergent aisle in my supermarket, beginning an open-ended chain reaction of new inspiration and exploration. Photographers adopt similar methods, allowing them to transform the recognizable into the sublime.

Beauty isn't created, it's indicated; it hides in plain sight. Beauty is visceral. No reasoned critique can hold a candle to the simplest episode of axiomatic Beauty. Reason, on the other hand, is a means for justification leading to closed chains of influence. This suggests that we shouldn't try to create Beauty, but rather acknowledge it and begin to see it. And as architects, it means that we look not within architecture for a generative inspiration, but outside of it.

Frank Clementi, principal at Rios Clementi Hale Studios, Los Angeles, teaches at the Art Center College of Design and is a visiting critic at SCI-Arc. He cofounded notNeutral, which explores contemporary ornament.

I leaned against one of the great columns absorbed in legendary ideas & quite transported, by the Harmony which filled the place.

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