CEILING SYSTEMS

[Between us, ideas become reality.]
Dear readers:

Thanks for your letters and e-mail regarding our new look and reinvigorated focus on architecture as process. Based on your broad spectrum of viewpoints and anecdotes, it's clear that when it comes to architectural process, every practitioner has a unique personal history.

In our multifaceted, broad-based discipline, "process" can include many different elements. As editors, we're forced to prioritize—just as in architectural design, space is always limited. Sometimes the project or practitioner tells us, in ways both subtle and clarion, where to focus; at other times, we impose our private hierarchy to pick and choose process subjects.

When confronted by the choices that make editing a challenge, I often think back to the second architect I worked with, a fellow who had just opened his own office. My recollections of that experience seem to add clarity and a dose of rigor to my editing decisions.

I was Phil's first hire. This was ideal for me, a newly minted liberal-arts graduate who had majored in architecture, because I got to do a little bit of everything. I helped him with business development; Phil was young and brash, so when he tapped out his close referrals, we actually advertised in the home section of the local newspaper. (It was 1986, and we got plenty of rabid calls from architects who saw this as a breach of ethics. How times change: Today, dermatologists star in their own infomercials.) Phil would hand me contracts and say, "Take these to our client to sign." Interesting meetings ensued: One time, a grocery supplier lectured me on how he bought entire truckloads of cucumbers on a handshake, sight unseen, so why should he sign this?

More important to me at the time, I got to manage entire projects from beginning to end—and even make my own mistakes. (The work was mostly residential renovations, gut-rehabs of brownstones, and storefront redesigns. Our biggest fish was two full floors of the Empire State Building.) Thrilled by even the smallest jobs, I pawed over a lot of history doing those field measurements and reports, and was fully absorbed as I worked out designs in plan and elevation. Phil was great at making tight spaces work, often elegantly. We developed a lot of details of our own, mostly for built-ins, and we looked back at the work of the masters to build upon their breakthroughs.

The size of the projects didn't matter; they were complex and gratifying enough to turn me on and even scare me once in a while. I inspected concrete pours and represented our work to community groups and a local landmarks commission. I learned how important it is to have tight, reciprocal relationships with good contractors and fabricators. (Often, one phone call before pencil hit Mylar was enough to set us on the right course.)

Phil and I grew together, and we quickly developed a positive studio culture and a pretty efficient way to deliver projects. We hired a second architect, a fellow from Baton Rouge, Louisiana. Things were good. Phil was a hot designer in certain circles and a successful businessman, and he shared generously: He usually bought lunch, he gave me some nice hand-me-down duds, and he promised me 5 percent of profits in lieu of a raise he couldn't swing at the time. It was the praise he offered, however, that kept me working incredibly hard.

Feeling the need to learn how larger projects were detailed and built, I eventually left to join a large international firm. It wasn't easy to leave. I thought Phil still owed me money, and he was sure he didn't, but one thing was clear: There was so much I had learned, and so much I didn't know.

Looking back, I wish I had thanked Phil more. The work I did later was much narrower—design development and construction documents. When I worked with Phil, he gave me exactly what I needed: a broad-based start and a thorough understanding of the architectural process. Today, when I'm weighing news reports, building projects, and technical subjects for coverage in the magazine, Phil is there, encouraging me to keep a balanced outlook, take calculated risks, and uphold high standards of professionalism.

WANTED: WORLD-CLASS PROCESS How do you make your work the best it can possibly be? What have you learned from mentors and colleagues? We'd like to hear about it. Please send your "process brief" and supporting documents to my attention at Architecture, 770 Broadway, New York, New York, 10003.
The longest-running architecture awards program in the United States—and the only program honoring unbuilt work—enters its 51st year. As in past years, a five-member jury of distinguished, independent professionals will recognize unbuilt projects demonstrating overall design excellence and innovation. All entries must be commissioned by paying clients for execution. Judging will take place in September 2003. Winning entrants will be notified in October 2003 and their projects published in the January 2004 issue of Architecture.

SUBMISSION
DEADLINE: AUGUST 26, 2003

1 Who Can Enter
Architects and other design professionals practicing in the United States, Canada, or Mexico may enter one or more submissions. Proposals may be for any location, but work must have been directed and substantially executed in offices in those three countries.

2 Real Projects Only
All entries must have been commissioned for compensation by clients with the authority and the intention to carry out the submitted proposal. A project designed for a competition is eligible if it is the one proposal the client agrees to make available further information and publication-worthy graphic material as needed by Architecture.

7 Publication
Winners of P/A design awards or citations grant Architecture first publication rights for their winning projects while under construction or when complete or substantially complete (at Architecture’s discretion). Publication may not coincide with building completion, but Architecture retains first publication rights to the project for up to one year from its completion.

8 Award
P/A award- and citation- winners will be announced at a celebration in New York City in January 2004. Winning projects will be exhibited at that event, and may subsequently travel as a curated exhibition. Winners may be asked to submit a summary presentation for exhibition and travel purposes.

9 Binders
Entries must consist of legibly reproduced graphic material accompanied by adequate explanatory text in English. All entry material must be firmly bound in binders no larger than 17 inches in one dimension only, to a maximum of 11 by 17 inches (9 by 12 inches preferred). Avoid fragile bindings, and any materials which may endanger jurors (such as sharp metal edges). Supplementary documents, such as research reports or urban-design appendices, may be bound separately as part of the same entry. Slides should be submitted only as supplemental material. Video-cassettes, CD-ROMs, models, and any unbound material will not be considered.

10 Project Facts Page
To ensure clear communication to the jury, the first page of each entry binder must list project facts under the following headings: Location, Site Characteristics, Zoning Constraints, Type of Client, Program, Construction Systems, Funding, and Schedule. This information must include square footage, cost, and, where possible, specific materials. All project facts should fit on one page.

11 Documenting the Process
Entries should document the design process, as well as its result. Architecture encourages entrants to include copies of preliminary sketches, alternative preliminary schemes, information on context, precedents for the design, and excerpts from working drawings.

12 Research Behind Projects
We encourage including records of any research performed in support of projects entered.

13 No Original Drawings
Please do not send original drawings; Architecture accepts no liability for submitted materials.

14 Anonymity
To maintain anonymity in judging, no names of entrants or collaborating parties may appear on any part of the submission except on entry forms. Credits may be concealed by tape or other simple means. Do not conceal identity or location of projects.

15 Entry Forms
Each submission must be accompanied by a signed entry form. Reproductions of the form are acceptable. Complete the entire form and insert it intact into an unsealed envelope attached to the binder’s back cover.

16 Photocopy
Please enclose one bound set of 8½-by-11-inch photocopies of your entry. The first two pages should be copies of your entry form and the Project Facts Page, in that order. Secure the photocopies inside the back cover of your binder.

17 Entry Categories
Identify each submission on its entry form by type. (See facing page.) Mixed-use facilities should be classified by the largest function.

18 Entry Fees
An entry fee must accompany each submission. The fee is $100 for Architecture subscribers; the nonsubscriber fee is $135, which includes a one-year subscription to Architecture. Each entry after the initial entry is $100. Make check or money order payable to Architecture. Canadian and Mexican entrants must send drafts in U.S. dollars. Fee must be inserted in an unsealed envelope with the entry form (see item 15).

19 Return of Entries
Architecture will return entries ONLY if they are accompanied by a self-addressed, stamped envelope. Architecture assumes no liability for loss or damage.

20 Entry Deadline
Deadline for sending entries is August 26, 2003. All entries must show a postage date as evidence of being in the carrier’s hands by August 26. Hand-delivered entries must arrive at Architecture’s editorial office (address above) by 5 p.m. EST on August 26. To ensure timely receipt, Architecture recommends using a carrier that guarantees delivery within a few days.
### THE FIFTY-FIRST ANNUAL P/A AWARDS

**DEADLINE: AUGUST 26, 2003**

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| CU CULTURAL | ID INDUSTRIAL |
| ED EDUCATIONAL | RC RECREATIONAL |
| GV GOVERNMENTAL | RL RELIGIOUS |
| HM MULTIFAMILY HOUSING | UD URBAN DESIGN |
| HR HEALTH-RELATED |  |

I certify that the parties credited executed the submitted project and that it meets all eligibility requirements (1-6). I understand that Architecture may disqualify any entry that fails to meet submission requirements (9-20). If this entry wins an award or citation in the 51st Annual P/A Awards, I grant Architecture sole first publication rights to the project during construction or when fully complete, the choice of which is at Architecture's discretion (7-8). Signer must be authorized to represent those credited.

**Signature**

**Name**

Architecture will feature the winning entries in its January 2004 issue and will provide information on winning entries to local and national media.

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**RE-REVISITING RUDOLPH**

Congratulations on “Rudolph Revisited” (June 2003, page 42). Having grown up with the Sarasota school of architecture during the early 1960s, the son of an architect, I attended Paul Rudolph's Riverview High School and visited the Cocoon House and the Rudolph and Twitchell Houses. In the mid-1980s, my firm renovated the two-story portions of Rudolph's Sanderling Club-house. While one might agree with the article's subtitle that Rudolph's later work was more “evolutionary,” I believe his early work was nothing less than revolutionary, some of modern architecture's most inspiring residential projects.

**Michael Holliday**  
Santa Barbara, California

Mark Alden Branch is off base when he labels Rudolph's mid-career work “brutalist” and speaks of “Corbusier-inspired 1960 forms.” What most influenced the Yale Art and Architecture Building was Frank Lloyd Wright's Larkin Building. “Brutalism” was a term used by a small coterie of European architects in the 1950s and popularized by critic Reyner Banham in *The New Brutalism*. His leading example was a Miesian steel-and-glass school in England by Alison and Peter Smithson. Banham considered brutalism less a style and more an ethic, a search for truth in architecture, uncontaminated by inauthentic expression or decorative artifice. Whether intentionally or not, Rudolph's works always displayed unbrutalist, personal stylistic flourish and mannerisms.

**G. Mackenzie Gordon**  
Lakeville, Connecticut

I enjoyed your article on Rudolph, but it didn’t mention that the Kentucky-born architect spent a large part of his adolescence in Athens, Alabama, where his father taught at the local college and where he designed two houses: the Martin House (very much in the vein of his Florida houses) and the Wallace House, a modern expression of an Old South antebellum home that was featured on the cover of *Life* magazine. Also not mentioned: Rudolph's Tuskegee Chapel, and at least two buildings in Auburn.

**Frank Orr**  
Nashville

I cannot remember when turning a page in a magazine—or any publication, for that matter—transported me the way your June issue did when I reached page 41. There I was, an architecture student at the University of Florida in 1960, absolutely wearing out double-zero Rapidograph pens doing those damn fine line-ink Paul Rudolph renderings during one of a number of all-nighters. I can vividly recall the profound impact this rendering style had on the entire school. Out went watercolor and ink, no more casein and ruling pen, forget pencil renderings as well as pastels, even on black illustration board. India ink ruled!

**George G. Demmy**  
Pensacola, Florida
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National recognition may help save the acclaimed 1962 Eero Saarinen-designed TWA terminal, an emblem of 1960s jet-set cool with its swooping lines and mod décor, from having its wings clipped. Planned expansions at New York City's John F. Kennedy International Airport threaten to ruin this modern masterpiece by demolishing portions and wrapping a new terminal around the landmark. Recognizing the potential loss, the National Trust for Historic Preservation included the building in its annually published list, "America's 11 Most Endangered Historic Places." The inclusion of the TWA terminal "highlights the growing concern that landmarks of the recent past are disappearing before they are widely appreciated," says Dwight Young, spokesman for the National Trust.

This is the National Trust's 16th annual roundup of threatened districts, structures, and parks across the nation. "The list serves two major purposes," explains Young. "One is to sound the alarm bell, but it's equally important to galvanize support, particularly at the local level." Young also notes, however, that a site will not be listed unless there is already strong local support for its preservation. Nominations are solicited every year, mostly from the general public. This year's 11 sites were chosen from approximately 90 nominations. Also included is the only remaining inland U.S. Marine Hospital in Louisville, Kentucky, designed by Robert Mills in 1851.

Architect Doug Michels, a cofounder of Ant Farm and P/A Award winner, died in a climbing accident in Australia on June 12.

After receiving an architecture degree from Yale University in 1967, Michels started Ant Farm, an art and design collective that focused its efforts on making work with an irreverent social and political agenda. In addition to his post-Ant Farm design work—including a 1996 proposal for The National Sofa (conceived with architect James Allegro) in Washington, D.C.—he taught at the University of Houston, Rice University, Texas A&M, and UCLA. The half-buried, graffiti-riddled tail-finned cars of Cadillac Ranch (below, top left) in Amarillo, Texas, Ant Farm's now-iconic 1974 comment on America's automobile culture, were painted black shortly after Michels' death. An Ant Farm retrospective (1968-1978), including the video Media Burn (1975) and projects like Pillow (1970, below, bottom left) and House of the Century (1973, below, right), is to open at the Berkeley Art Museum in Berkeley, California, early next year. Katherine Shana Lack

Doug Michels, 1943-2003

An interactive database on the National Trust's website (www.nationaltrust.org) offers information and updates on the 146 historic places it has named as endangered since 1988. In those 15 years, only one—the Mapes Hotel in Reno, Nevada—has been demolished. Katherine Shana Lack
Think it’s a coincidence that Americans have gotten fatter, lazier, and more likely to suffer lung disease and diabetes since sprawl began consuming the continent in the 1960s? Hardly. The federal government’s top environmental epidemiologist says that America’s suburban development has afflicted the average citizen with a “syndemic” of mental and physical problems in a car-driven culture that has forgotten how to exercise.

In June, Richard J. Jackson, director of the National Center for Environmental Health at the Centers for Disease Control and Prevention in Atlanta, told a group at a Congress for the New Urbanism symposium in Washington, D.C., that many of Americans’ ailments—from obesity to diabetes, asthma to depression, and even motorist and pedestrian deaths—can be traced back to the nation’s patterns of suburban development since 1960.

Compelling data has emerged that pins certain health declines among Americans to sprawl, Jackson told the audience. He cited a Congressional Research Service study that shows on-road vehicles accounting for 58 percent of carbon monoxide and other smog-producing emissions. Smog, in turn, caused more than 6 million asthma attacks in one summer (1997) alone. Sprawling development encourages sedentary living habits, which, in turn, are largely to blame for the nation’s epidemic of obesity. By 1999, 61 percent of American adults were overweight or obese, and the prevalence of childhood obesity had doubled over 1976 figures. Obesity is related to a number of health problems.

Jackson urged architects and planners to concentrate on ways to increase urban density. Development has been growing only less dense; meanwhile, the U.S. population is set to double before 2100. "We’re not planning for that kind of growth," Jackson said.

In related news, a new book, Health and Community Design, was just published by Island Press. Bradford McKee
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Sculptor Isamu Noguchi’s Shin Banraisha, a room and sculptural garden installed at Tokyo’s Keio University, has been “destroyed,” according to the late artist’s foundation. Designed in 1952 in collaboration with architect Yoshir Taniguchi—father of Yoshio, who is designing the addition to Manhattan’s Museum of Modern Art, currently under construction—the spaces were built in honor of Noguchi’s own father, a prominent Japanese poet and instructor at the university.

Technically, the ground-floor room and garden were dismantled and put in storage for later reinstallation on an upper floor of a new law school building, but the foundation and other advocates are condemning its removal. By its displacement the work is devalued, they argue, prompting the now ubiquitous question of what is appropriate preservation. The foundation contends that, as a site-specific work, to alter it in any way would inevitably change its original concept, compromising the contemplative nature of the room and garden.

“All options were not exhausted for the new building. Cost was the reason not to build around and preserve the work,” says Isaac Shapiro, president of the Isamu Noguchi Foundation, which was party to an unsuccessful lawsuit intended to stop the removal.

Bay Brown

While it may not be for everyone, the neoclassical design for the Nashville Concert Hall does meet the aesthetic preferences of Tennesseans. After being granted a site near the more contemporary architecture of the Country Music Hall of Fame and Gaylord Entertainment Center, the Nashville Symphony polled Tennessee citizens for their design biases via a web-based survey. Questions ranged from the style of architecture (65 percent voted for traditional over modern) and design goals (world-class acoustics won over high-quality architecture) to preferred materials and positioning on the site. The survey also asked respondents to rank features like ergonomic seating, legroom, and clear sightlines, and to specify their favorite after-concert activities.

Michael Buckland, director of communications for the symphony, notes his organization did not expect the survey to dictate the new design; David M. Schwarz of Washington, D.C., who is known for his historicist aesthetic, was already selected as design architect at the time of the poll.

The survey, however, “revealed priorities that were helpful, like parking and relationship to restaurants,” says Buckland. And it provided reassurance that the hall would receive a warm welcome when it opens in 2006.

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Responding to the nightclub fire that killed 100 people last February in West Warwick, Rhode Island, the state has instituted a law requiring clubs that accommodate more than 150 people to install fire sprinklers by July 2006.

The nineteenth-century Mariinsky Theater in St. Petersburg will enter the twenty-first century with French architect Dominique Perrault's winning design for a giant glass and marble cocoon addition. Mariinsky director, Valery Gergiyev, was forced to call an international contest after the original design by Eric Owen Moss was met with public controversy.

The University of Tennessee demoted architecture dean Marleen Kay Davis. According to a report in the Tennesseean, Chancellor Loren Crabtree cites budget overruns and staff conflicts as reasons for the demotion. Davis plans to appeal the decision. An anthropology professor was installed as interim dean.

New York City has committed $15.75 million to redevelopment efforts for the High Line, a 1.5-mile elevated rail structure located on its West Side. Redevelopment, however, is contingent on several approvals, including a late-July hearing with the federal Surface Transportation Board.

The Jean Nouvel-designed Guggenheim planned for Rio de Janeiro has been rejected by a Brazilian court, following public argument that the city could not afford the $250 million project. The city's mayor, Cesar Maia, may decide to appeal the decision. Meanwhile, Zaha Hadid's design for a Guggenheim in Taichung, Taiwan, was unveiled in July, and is awaiting approval by the museum's foundation.

A Texas couple won the Target stores' "Club Wed" Michael Graves Dream House sweepstakes. Couples that listed with the store's bridal registry were automatically enrolled in the drawing for the prize, a house designed by the celebrity architect valued at $260,000.

New York City approved a bill to design and install "street furniture," including public toilets and newsstands. The city plans to hire a private company to design, build, and maintain the structures, with a uniform look.

The National Building Museum, the organization based in Washington, D.C. and devoted to education concerning the built environment, recently announced the appointment of Chase W. Rynd as museum president. Previously founding director and CEO of the Frist Center for Visual Arts in Nashville, Rynd will spearhead efforts to establish the museum more firmly as a national cultural leader, according to museum chair Carolyn Schwenker Brody.

In replacing longtime museum president Susan Henshaw Jones, Rynd has big shoes to fill. Jones, who stepped down last July, greatly expanded the museum's exhibition schedule, visitor traffic, and global reputation since joining the institution in 1994. The prestigious exhibits, lectures, and awards programs organized by Jones during her tenure have allowed the museum to become a bellwether for the profession, offering such cutting-edge fare as last year's Big and Green exhibit on sustainable design, lectures by speakers including Frank Gehry, Jane Jacobs, and Tadao Ando, and awards like the Vincent Scully Prize, given annually in recognition of professional excellence.

Rynd, who began his career in international economics and finance before transitioning to the arts community, hopes to expand the museum's reach by drawing a larger popular audience. "We are all affected by the built environment," Rynd explains. "There is a huge constituency that doesn't understand what we do" in the building industry and professions. Rynd, who will begin intensive strategic planning with his staff and board in the fall, is very confident about these efforts: "The museum is like a good building," he says. "There is a terrific foundation, and I have an opportunity to build on it."

"[He] has wide-ranging experience in museum administration combined with public education in the arts," says architect Robert A.M. Stern, the museum's vice chairman. "The importance of education and outreach has never been clearer than it is today, when we are in the midst of complex public discussion about responsible building and urban development." Julia Mandell
The lay of the land is nothing more than a starting point.

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Brazilian architect Jorge Jáuregui's Favela-Bairro introduces the barest elements of an urban plan into shanty towns in Rio de Janeiro, including new service buildings (top left and right), a skateboarding park (above left), and a soccer field (above right). Other programs include a samba school, a healthcare facility, a laundry, and community centers.
The World Trade Center reconstruction has given architects an opportunity to rethink the value and challenges of public space in New York City's financial district, but many of these issues have worldwide relevance as well. Michael Sorkin—architect, critic, and director of graduate studies in urban design at the City College of New York, in Manhattan—defines the three most pressing issues for public space today as security, globalization, and privatization. "The introduction of ever-greater possibilities for surveillance robs public space of one of its principal components, free gathering; the production of a global public, which can be approached in the same way all over the planet, has led to a whole series of surrogate public spaces like airports and shopping malls," he contends. "And privatization of places that used to be called public has implications for the control of public space: who can use it, and what you can do there."

In an increasingly urban world, public space is vital not only to political well-being, but to the infrastructural, social, and spiritual health of our multiplying cities. In 2000, according to a study by the Population Reference Bureau (an independent, nonprofit organization), 47 percent of the world's population was living in urban areas. By 2030, this figure is projected to reach 60 percent, with no sign of slowing down.

This summer, Van Alen Institute in Manhattan—a think-tank devoted to the exchange of ideas on public architecture—unveiled Open: New Designs for Public Space. The exhibition profiles 20 international case studies, most of which have yet to be completed. The show grew out of the World Trade Center discussion, says Van Alen director Raymond Gastil, and was conceived as a second chapter to the institute’s 2002 exhibition Renewing, Rebuilding, Remembering, which looked at how different cities have dealt with catastrophe. With Open, Gastil and curator Zoë Ryan, a program associate at the institute, take a broader look at public space—from an 11-mile network of pedestrian and bicycle paths carved into the informal shanty towns of Bogotá by local firm MGP Arquitectura y Urbanismo, to a massive, wacky-looking, ultramodern culture hub on the historic harbor of Liverpool by London-based Alsop Architects. The show pursues the idea that common threads can be found in a diverse array of projects, and that these threads can be applied to discussions about the World Trade Center site, as well as public places throughout the United States. During its opening, large crowds of people swarmed the exhibition, giving the gallery itself the feeling of a public space—an effect that was enhanced by a local hot-dog vendor hired to hand out street food at the building’s entrance. The show is on view through October in the Van Alen gallery, and will then travel to cities both in the United States and abroad.

**TRANSIT AND SPACE**

A number of projects in the show involve transportation, including the Chungmuro Intermedia Playground, a nonprofit, digital-media learning center located in a subway station in the film-industry district of Seoul, Korea. Initiated as part of a city-run program for the development of underused public spaces, the center was designed by New York City- and Seoul-based Cho Slade Architecture, with local architect Kwang-Soo Kim, and opened in 2002. It inhabits a 210-foot-long space in the station’s circulation area, leaving a still-ample commuter corridor adjacent to it. Surfaced in mirror and glass that produce a kaleidoscopic effect, the center’s walls enclose a lounge, video viewing area, study rooms, an editing suite, and

UN Studio’s Ponte Parodi turns a pier in the harbor of Genoa, Italy, into a cultural hub. A section (top), bird’s-eye view (above left), and a cutaway (above right) illustrate what the firm’s principal Ben van Berkel describes as a “three-dimensional” piazza, with various levels and ground planes animated by interior and exterior programs.
exhibition spaces. "The project could be very relevant [elsewhere],," believes architect James Slade, adding "there are spaces similar to this in other cities that have a lot of unused space."

Another transportation-centered project incorporates Ponte Parodi, an 1886 pier in the harbor of Genoa, Italy, designed by engineer Adolfo Parodi. In 2001, Amsterdam's UN Studio won an international competition to transform it into a social and cultural hub and link it to the rest of the city. Architect Ben van Berkel and his partner Caroline Bos envisioned a "three-dimensional" piazza, in which the ground plane is landscaped into various levels, inhabited by a range of uses. Employing their method of "deep planning," the pair first analyzed existing circulation patterns emanating from neighboring sites—the harbor is the city's entry point for cruise ships and ferries, and a university lies nearby—and strategically located new points of access to channel the traffic flow. The project will include sporting facilities, exhibition areas, movie theaters, nightclubs, shops, restaurants, an auditorium, and offices.

"There is a direct connection between projects like the World Trade Center and the Ponte Parodi project," says van Berkel. "I'm interested in the industrial model of Manhattan's harbor areas, which is also to be found in the way harbors are organized throughout the edges of rivers in Europe. Today, you have to work in a new way to connect these areas to the rest of the city."

On a very different scale, architect Jorge Jáuregui has introduced the beginnings of urban planning into over 20 favelas, or shantytowns, in his native Rio de Janeiro, through a series of subtle interventions. The undertaking, called the Favela-Bairro Project, is a city-run nine-year project, for which Jáuregui won a competition in 1995. The program's goal is to integrate the favelas with the rest of the city by introducing infrastructure—roads and footpaths—and facilitating services, such as water, power, and communications. The architect's approach focuses on the favelas' existing potential, rather than starting a new layout from scratch, by introducing elements such as plazas for public gathering, community centers, a samba school, a healthcare center, and a skateboarding park. Jáuregui believes that his design process—which includes extensive meetings with residents and consultations with experts from various fields—could be translated to projects such as the World Trade Center. "Public space today is the number-one factor of urban regeneration," he states. "There are public spaces that have a 'symbolic extension.' This is the case with Manhattan as a whole, and in particular with the vacuum left by the twin towers. New York is a 'world place,' and in this sense it belongs to humanity and not only to New Yorkers."

PUTTING IDEAS TO WORK

"The important role for an exhibition like this, which is showing mostly high-end public space, is to raise people's expectations for what is possible in the public realm," says Sorkin, who participated in a series of roundtable discussions in connection with the exhibition. While the show has been generating conversation among a steady stream of visitors from various sectors, one hopes that the dialogue will not be limited to high-profile developments like the World Trade Center site, but that the smattering of smaller-scale, socially conscious projects like Favela-Bairro and the Bogotá cycling path will also inspire consideration of needy areas worldwide.
TEN YEARS AFTER

The threat of losing HUD’s Hope VI program is prompting much-needed reforms. by Bay Brown

Ten years after its creation, the Hope VI public housing program administered by the U.S. Department of Housing and Urban Development (HUD) is at risk of having its funding eliminated. Currently, the Bush administration’s proposed 2004 budget calls for the end of Hope VI, but there are Senate and House members on both sides of the aisle that oppose its elimination and are proposing bills accordingly. Ironically, the threat of losing the program may result in jump-starting reforms—if funding for it is secured—that will create a revamped program.

Hope VI annually awards about $575 million in grants to public housing authorities across the country to pay for demolishing failing public housing projects, rehabilitating old units, building new units, relocating residents, and providing community and support services. The program was conceived in 1993 in response to congressional findings that 86,000 dwellings nationally were “severely distressed,” meaning they were either uninhabitable or nearly so. As a result, the program called for the demolition of much of this housing—typically high-rise, superblock projects similar to the infamously imploded Cabrini Green towers in Chicago. With the goal of promoting livability and a sense of community, Hope VI has encouraged lower-density, mixed-income developments with nearby services like schools, stores, parks, and community centers.

“Hope VI has focused attention on places that have been warehouses for the poor,” says Nicolas Retsinas, director of Harvard University’s Joint Center for Housing Studies in Cambridge, Massachusetts. Retsinas lauds the program’s goal of creating mixed-income developments at a scale that can foster community.

In a 2002 HUD study of eight Hope VI sites, most residents reported improved living conditions; many of those surveyed had either found homes in the demolished building’s replacement development, other public housing, or private market-rate housing. But, according to HUD, 15 percent of the residents suffered worse housing conditions than they did before entering the program. Moreover, 34 percent of the families in the study could not be located, causing alarm as the authors of the study surmised that the most difficult to find are typically the worst off. Overall, housing advocates criticize the program because it simply does not replace demolished units with the same number of new units.

IMPLEMENTING REFORMS

Sheila Crowley, president of the National Low Income Housing Coalition (NLIHC), is confident that Congress will reauthorize Hope VI for 2004. In addition to calling for the reauthorization of the program through 2005, Representative Melvin Watt, a democrat from North Carolina, has introduced a bill that aims to minimize the displacement of existing residents, while Representative James Leach, a republican from Iowa, has asked that 5 percent of Hope VI funds be linked to the revitalization of “Main Street” commercial areas in small towns.

“These bills are a step in the right direction, but they don’t go far enough,” says Crowley. NLIHC calls for additional provisions including: All residents of developments targeted for Hope VI will have the right to live in it after the units have been redeveloped; and a Hope VI project will not result in the reduction of the number of affordable housing units in that jurisdiction.

PARTICIPATORY PLANNING

A fundamental precept of Hope VI is that for redevelopment to be successful, existing residents must be consulted throughout the process. Because a reduced percentage of residents of demolished housing projects can be accommodated in the typically smaller replacement developments, the federal government is making promises it cannot keep, says Crowley, thereby promoting long-term disengagement and distrust. She adds that these bad feelings can take a generation to overcome, as happened when people were permanently displaced with 1960s urban-renewal projects; hence, Hope VI must become more expansive.

Retsinas likewise sees resident buy-in as critical to success, citing the Orchard Gardens Hope VI development in Boston’s Roxbury section as a good model. Designed by Boston-based Domenech Hicks & Krockmalnic Architects (DHK), which has worked on several Hope VI sites across the country, the complex consists of 466 new or rehabbed units within brightly colored build-
ings with peaked roofs that embrace the local New England tradition of wood framing. Located on and around the former Orchard Park public housing site that was once physically, socially, and economically isolated from the rest of the community, streets have been rerouted through the 20-acre development in an attempt to reanimate it. In addition to providing a K-8 school, Orchard Gardens offers other support services that promote self-sufficiency, such as child care, career development, and programs for the elderly. The phased redevelopment began in the mid-1990s and is due to be completed this September with the opening of the school.

The low-density (20 units per acre), neo-traditional design and planning principles of Orchard Gardens suggest a New Urbanist design approach, but Alberto Cardenas, senior associate with DHK, says the project simply reflects sound planning principles like walkable neighborhoods, in which the street is the generator of urban life. "Hope VI has provided the only new thinking in affordable housing in decades," argues Cardenas. "Older public housing was built according to an inferior standard of livability; it was built to be separate from the city in no-man's land." For Cardenas, the superblock provided no demarcation between public and private. "You know where the door and the street are with Hope VI," he adds.

Because Hope VI projects tend to serve mixed incomes and have a lower densities than the housing they are replacing, they have been responsible for the reduction in the number of available public housing units, but there are few who believe it is the design that is at fault for the program's shortcomings.

"One of the principal positive attributes of Hope VI has been the enormous progress in design; it has shown that public housing can be attractive," says Crowley. "But it is expensive to accommodate all residents. So the question is, 'Is there the public will to support this?'" While every resident may not be accommodated on a particular redeveloped site, they still need to be housed in new or renovated units that also have access to healthcare, jobs, and transportation. And this can be costly, explains Crowley.

Since Bush's February proposal to eradicate Hope VI, Congress has shown increasing support for the program. But in the face of massive tax cuts, the president's budget resolution still bodes ominously for public housing as a whole, suggesting that at the least, funding for Hope VI may be drastically reduced. And if the program is maintained, other public housing programs may suffer in its stead. Many architects hope that these developments do not lead to a national divestment in public housing, undoing much of the progress of the past decade.
Wellness centers are not new, but the future of this typology has yet to be diagnosed. Even its definition varies among healthcare architects, with the only common credential being "preventive care." "Different organizations put different combinations of services together," says Kirk Hamilton, founding partner of Houston-based Watkins Hamilton Ross Architects and a board member of the Pleasant Hill, California-based Center for Health Design, a nonprofit organization promoting life-enhancing healthcare environments. In its classic form, he explains, the wellness center looks and feels like a health club, but the species has evolved to include a mix of facilities and services.

"The skinniest versions are health libraries; the largest version looks like a YMCA," says Hamilton. Within this continuum, a wellness center—which is usually associated with a hospital or healthcare organization—may include any combination of the following: fitness; rehabilitation; nutrition and lifestyle counseling; sports medicine or other ambulatory medical services; and alternative therapies, such as chiropractic care, acupuncture, massage, and hydrotherapy. Even the true spa model—which traditionally involves costly pampering in glamorous surroundings—is increasingly part of the genre's offerings.

The incorporation of such services illustrates a change in the guiding principles of these facilities. Thomas Seymour, CEO with Peoria, Illinois-based Phillips Swager Associates, started doing wellness centers in the early 1980s. He has seen the typology shift from "a place for people to exercise" to something more. "Now it's wellness in the sense of mind, body, and spirit," he explains. The growth in the number of facilities suggests this approach to healthcare is well established: Cary Wing, executive director of the Washington, D.C.-based Medical Fitness Association, notes that in 1994, her organization identified 200 centers. By 2000, that number had grown to 550.

MAKING A MARKET
Seymour points to another important motivation behind today's wellness centers: "Medical providers are using these services as an entrance to ambulatory care." As the healthcare industry becomes increasingly competitive, hospitals scrambling for patients have begun to see such facilities as a marketing opportunity. "If people are there learning how to maintain their health, hopefully that establishes a relationship; so if they require care, they'll select that hospital," says Robert Ladau, principal with AHSC Architects in Tarrytown, New York.

While the managed-care model first seen in the 1980s was founded on the idea that keeping people well saves in healthcare costs down the road, in Hamilton's experience "most hospitals see little or no reimbursement for the wellness side of the equation" from insurers. For that reason, Seymour encourages his clients to govern these ventures with a retail philosophy. "The most successful ones are based on a membership that pays monthly dues—revenue that is not dependent on a third-party reimbursement," he says.

Experts agree that wellness centers need to make money. The jury, however, is out on whether that means wellness facilities will be incorporated into the hospital environment or define themselves as separate entities. Neither Seymour nor Hamilton sees a benefit to the former route. Seymour has witnessed a blurring of the line between sick and well members, but he doesn't believe wellness centers will necessarily become part of hospitals. "The question is where is it convenient for your market," says Seymour, referencing his retail philosophy. Hamilton agrees, because the perception of hospitals as places of wellness, rather than a sickness, is a bit of a stretch: "I'd rather not go to a hospital five times a week for my exercise."

Ladau, on the other hand, expects these services to be folded into the hospital setting for reasons of publicity, finance, and convenience. "It's increasingly difficult for practitioners to operate out of isolated offices; they are consolidating into medical groups, which hospitals are trying to attract, so that the hospital becomes the centroid of satellite facilities," he says. In this vein, Modern Healthcare recently reported on a young but growing trend: luxury spas inside hospital walls.

Regardless of whether your next facial or aerobics class is at a nearby hospital, the preventive-care-center typology is alive, well, and expanding—and will continue to be as the population ages and definitions of what constitutes healthcare broaden.
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PANAMA: IN THE ZONE

The Panama Canal Zone is open for development, and ecotourism is the name of the game.
by Julia Mandell

In 1999, after almost 100 years of occupation, the United States handed over the Panama Canal Zone to the Panamanian government. Along with one of the most important waterways in the world, the Panamanians gained control of the lands surrounding the canal, 360 square miles of virgin rainforest stretching from the Atlantic to the Pacific. The U.S. government, which ran the canal as a military operation, isolated the area from the rest of the country, restricting Panamanian access and constructing neatly manicured towns of tropical French Colonial architecture for U.S. employees and military personnel. Now, with the Americans gone, the Panamanians are taking advantage of their new acquisition, pursuing future development with a focus on ecotourism, a cultural phenomenon closely tied to environmental conservation.

The former Canal Zone, which is less than 10 minutes by car from downtown Panama City, is a potential goldmine for the country’s economy. The Interocianic Regional Authority, known as ARI, which manages the lands, has been working to attract investors and developers since the 1999 handover. Entire towns, unchanged for 50 years, are being sold for residential and institutional reuse, as are acres and acres of open rainforest land.

CAPITALISM, UNCHECKED

As Costa Rica has shown, ecotourism sells, but it takes sophisticated planning and often a large initial investment. Part of the expense is for high-quality design. “In Hong Kong, if developers don’t go out and hire Norman Foster to design their buildings, most likely they’re not going to lease a square meter,” says Gustavo Arango, an architect based in Panama City. Arango thinks Panamanian developers have not embraced signature architecture because their market has not become globally competitive yet.

While it may have the third-largest banking district in the world, Panama also has a disorganized third-world government that does a poor job of regulating business practice, say many architects and urban planners. Zoning laws are rarely enforced, and the influence of family connections and bribery overrides the rulebooks, a situation that is common knowledge. As a result, Panama City is a study in haphazard development, with wildly twisting streets and small bungalows nudged up against gleaming glass towers. Left unchecked in the former Canal Zone, unharnessed capitalism would wreak havoc on the rainforests and the nascent ecotourism industry that proponents hope will save them.

GEHRY FLIES SOUTH

There are signs, however, that some clients are seeking high-quality work. Frank Gehry, collaborating with graphic designer Bruce Mau, has designed the Panama Museum of Biodiversity, a small building at the Pacific mouth of the canal intended to proclaim the country’s preeminence as an ecological and evolutionary crossroads. The museum will sit on the Amador Peninsula, a string of four connected islands that act as a physical connection between the former Canal Zone and the city. Amador is easily accessible to the city, sitting just to the north of the Casco Viejo historic district. As such, it is the first focus of development efforts and a clear reminder of the potential impact this development could have on Panama City’s vibrant cultural and physical complexity in a variety of ways.

Local artist Brooke Alfaro produced a video performance in the notorious slum of Barraza, in which two opposing gangs sing the same rap song in separate video recordings, projected in tandem on the walls of the very buildings the gangs have polarized through violence. The Egyptian conceptualist Ghada Ahmer invited Panamanian bus painters, purveyors of an important aesthetic subculture, to paint billboards that question aspects of Panamanian life. The work was so provocative that a few of the billboards were stolen, including one in front of the Ministry of Finance that drew attention to sticky-fingered public servants.

While the curators are hoping to impact the art world, they may change the architectural landscape as well. Ramón Zafrani, a young Panamanian artist and architect, is seeing more interest in his architectural practice because of his success as an urban conceptual artist. More than a marketing strategy, Zafrani’s dual foci inform each other: Art that deals with urban issues inspires fresh approaches to architectural design.
all of Panama City: Aside from the biodiversity museum, which is scheduled to open in 2006, Amador is already the site of a number of projects, mostly Disneyesque restaurants and hotels. By bringing in Gehry, the museum’s founders hope to create a “Bilbao effect,” to jump-start ecotourism. “We want it to be an education for Panamanian architects and builders,” says Dr. Rodrigo Eisenmann, president of the Panama City-based Amador Foundation, the project’s nonprofit developer.

So far, the high-profile design of the museum has not sparked major changes, but slowly Panamanians seem to be getting the picture; some new projects that are on the boards demonstrate the U.S. influence, high-style branding, and the ecological orientation that the biodiversity museum is promoting. Arango’s firm is designing houses for a beach community west of Panama City with environmentally sensitive land planning by EcoPlan, a Florida-based landscape architecture firm. Two young U.S.-trained architects, Ramón Zafrañi and Gilberto Gaurdia, of the Panama City-based firm Fémur, are designing trendy high-rise apartment buildings and restaurant interiors in Panama City. As for interior areas in the former Canal Zone, Raúl Arias, an ecotourism entrepreneur who has a successful bird sanctuary adjacent to the canal (April 1999, page 136), has discussed expansion projects with New York City-based designer Lindy Roy.

When economic forces converge and tourists begin to flood in, Panama is likely to change, but whether the country will become a carefully designed eco-mecca or an overdeveloped tourist trap remains to be seen.

**THE FINE PRINT, WRIT BY OWNERS**

Advice to the architect opening a new practice: Get a lawyer.

While this may strike some as obvious, many first-time proprietors are surprised that they need legal help at all, let alone ongoing review. Yet, perennial business hazards now include more legal landmines, thanks to new and exotic contract documents created over the last few years primarily to promote owner interests. While some of the standard forms may serve the architect’s needs well, others are practically toxic.

High on the must-avoid list are contract forms introduced by the Atlanta-based Construction Owners Association of America (COAA) three years ago. “Those documents are so bad for the design professional, there’s nothing you can do to make them work,” says Joseph H. Jones Jr., director of risk management for insurer Victor O. Schinnerer, Chevy Chase, Maryland. “So don’t use them.”

Another owner group—McLean, Virginia-based Associated Owners and Developers (AOD)—debuted its own standard contract in 2000, and others will be released this year. “Their view is, ‘It’s our project and our money, so we should be able to control it,’” observes Mark Friedlander, chair of the construction-law group at Schiff Hardin Waite, a Chicago law firm. “In their zeal to protect the...
Owner-favoring groups offer various rebuttals. "We view ourselves as giving the owner’s perspective to the dialogue," says Jack Mumma, a COAA board member and contract administrator at Michigan State University, noting that public agencies and private companies like State Farm use the COAA documents. "Besides, all experienced owners modify the AIA documents." Even Alexandria, Virginia-based Associated General Contractors (AGC)—which reviews and endorses AIA agreements—introduced a design-services document in 1998 as an antidote to contracts that owners saw as "overly insular of the design professional’s interests."

The COAA and AOD efforts also reflect owner resentment of contractual protections for designers against project risks. Unfortunately, say experts, much of the new contract language flies in the face of case law. For example, says Suzanne H. Harness, AIA contract-documents counsel, "those owner documents attempt to put contractual liability on the architect for which, in many cases, the architect can’t get insurance. They also try to protect the owner from risks they traditionally assume, such as time frames for giving notice of claims, which are possibly unenforceable."

Other groups have had more success at propagating model contracts that boost the owner’s leverage. The reason? They better reflect the realities of project delivery and established precedent, say legal savants. One example is the McLean, Virginia-based Construction Management Association of America's 1988 agreement for construction management (CM) at-risk, which was "written for owners, because owners wanted them, and because they wanted to take control of the construction process," says executive director Bruce D'Agostino. Also, the Design Build Institute of America (DBIA), Washington, D.C., created its own documents in 1998 in response to design-build forms written by the AIA (A191) and the AGC. "The DBIA documents were very heavily favorable to the owner," says Michael Loukakis, president of the law firm Wickwire Gavin of Vienna, Virginia, and a DBIA board member. Yet, in both cases, the groups’ forms are the most frequently used.

The AIA is currently revising its design-build and CM agreements for publication later this year, says Harness, in part to make them more appealing to owners. The owner groups cite financial motivations, noting that document sales are a major source of revenue for the AIA. For example, the association will unveil new contract software next month modeled after popular fill-in-the-blanks programs like TurboTax, which will cost AIA members $779 for an annual license.

While the program promises plenty of convenience, it doesn’t come with a built-in lawyer, cautions Schinnerer’s Jones: "The software is secondary to the content." C.C. Sullivan

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BARKOW LEIBINGER ARCHITECTS | CORNELL UNIVERSITY SCHOOL OF ARCHITECTURE, ART, AND PLANNING | ITHACA, NEW YORK

After Steven Holl and Cornell parted ways last summer over disagreements about revisions to Holl’s project (September 2002, page 22), the university chose the young Berlin-based firm Barkow Leibinger to design Milstein Hall, which will house most of the architecture school. A portion of the architecture program will remain in Sibley Hall, the main building for Cornell’s School of Architecture, Art, and Planning.

Barkow Leibinger has designed a three-story building to house studios, galleries, an auditorium, and a shop, which will sit parallel to the domed beaux-arts Sibley, connected by a second-floor pedestrian bridge. Milstein mediates between the geology of the Fall Creek gorge and the formal architecture of Sibley and the Cornell arts quad. The building’s steel frame is varying set with glass and local bluestone, which continues the horizontal stratification of the canyon wall it overlooks. The design suggests a more playful version of Mies’s starkly elegant Illinois Institute of Technology, but here the building’s three floors are compellingly cantilevered to break out of the box, and the coolness of the dark steel is tempered by the earthy bluestone.

In plan, Milstein mirrors Sibley and extends its eastern length to East Avenue, a major campus artery, to define a new entrance to the arts quad from the north campus. At the west end of the new building, a double-height auditorium opens to a terrace overlooking Lake Cayuga and the majestic gorge. Two floors of loftlike flexible studio spaces are placed above a ground floor containing faculty and graduate-student office space and the shop. Construction is expected to begin in fall 2004. Bay Brown
At once restorative and modern, New York City-based Garrison Architects' design for the renovation of the beaux-arts Slocum Hall, home of Syracuse University's School of Architecture, expands research, studio, and office facilities, adds a new auditorium and gallery, and upgrades the building's information-technology infrastructure. Moreover, the school occupies all 100,000 square feet of the 1918 building, not just the fourth floor, as was the previous arrangement. The university hopes that, when complete, the renewed architecture school will serve as the crossroads between the School of Visual and Performing Arts and Link Hall, home of the university's engineering program.

The project centers on the restoration of an external monumental entry stair and an internal atrium, both of which had been altered by previous renovations. Review spaces, an exhibition gallery, a reading room, and faculty offices are placed around the atrium to encourage intellectual and artistic exchange. Opening the atrium space permits the building to return to its original, energy-efficient design, allowing for the distribution of natural light and ventilation. The new external entry stair and modification of north and south entries improves accessibility.

The glass-enclosed auditorium is a "pearl dropped into the heart and soul of the building," says firm principal Jim Garrison. The double-height gallery accommodates digital media, with images projected onto the translucent glass walls of the auditorium above, creating a dynamic display of physical and digitized objects. Construction will start next summer. Elizabeth Donoff
In a country where architectural subjects, when covered at all, are typically relegated to the real estate sections of newspapers and glossy features in fashion magazines, it is refreshing to find what seems like miles of column space given to Zaha Hadid's first major U.S. work, the Lois & Richard Rosenthal Center for Contemporary Art in Cincinnati. In publications of all stripes and from a variety of locales across the nation, the coverage has been beyond any architect's wildest dreams. Accolades have included "titillating architectural experience," "beautiful, edgy, and gracefully pugnacious," and "suavely managed bundle of energy." Hadid's design has been compared to the work of Kasimir Malevich, El Lissitzky, Hans Hoffman, George Balanchine, Marcel Duchamp, Antonio Sant'Elia, and Erich Mendelsohn, as well as specific projects, such as Eero Saarinen's TWA terminal, Paul Rudolph's Art & Architecture Building, and Marcel Breuer's Whitney Museum of American Art. There have even been expressions of outright giddiness: "the most important American building to be completed since the end of the cold war." The press has spoken. In the months since its opening at the end of May, the center has become a landmark. What's all the fuss about?
DELIRIOUS CINCINNATI
With her first major U.S. project, the Lois & Richard Rosenthal Center for Contemporary Art, Zaha Hadid shakes up a midwestern downtown. **BY ABBY BUSSEL | PHOTOGRAPHS BY ROLAND HALBE**
On a downtown corner adjacent to commercial buildings, a block-long parking garage, and a performing arts center, Hadid abstracts the bustle of the neighborhood (previous pages), transforming sidewalk into lobby floor into back wall into one continuous concrete surface (above).
Ramped steps, with intentionally low risers and deep treads, speed movement up and down the dizzying circulation core. Each ramp is of equal length; only their ends are unique, tailoring them to individual portal conditions through which they seem to bust their way at various angles.
Each steel ramp was fabricated off site by a manufacturer of roller coasters and lowered into place by a crane after the main structure was complete (left). While the galleries are sealed off from natural light, with the exception of those in the "Unmuseum," the circulation core reconnects visitors to the city through east-facing glazed walls; glazed ceilings and other devices create four individually controlled climate zones (right).
Galleries converge in the circulation core, where, as elsewhere, materials are left rough to emphasize craftsmanship and texture (left). Right, top to bottom: Lobby walls merge interior and exterior; basement-level stairs are compressed; varied acoustic conditions include a gallery with a metal ceiling and another open to the atrium; an office terrace frames the city.
It's a good time to be Zaha Hadid. Rave reviews in newspapers and magazines from coast to coast and across the pond have delivered her Lois & Richard Rosenthal Center for Contemporary Art, the new home of the Contemporary Arts Center (CAC), directly into the architectural canon. (The project even landed her in talk-show host Charlie Rose's exclusive guest chair.) She's got 65 staffers and about a dozen projects in her office, including the Price Tower Arts Center in Bartlesville, Oklahoma, where Hadid is adding a low-alung addition to Frank Lloyd Wright's only built tower. And she won this year's Mies van der Rohe Prize for a park-and-ride station in France (September 2001, page 136).

All the commotion is no surprise, given Hadid's illustrious career since winning the competition for the Peak 20 years ago. The real surprise is the visceral urbanity she has brought to bear on a narrow corner site in a nascent cultural district of downtown Cincinnati, a place both worlds away from and perfectly suited to the architect's uncompromising vision for a dynamic built environment. She has captured the rhythm of this heartland city and released it skyward in a series of irregularly shaped, stacked, and interlocked galleries and a near-breathless circulation core. While the Cincinnati project has been compared to works by many of the profession's elite, both past and present, this is a building as original as they come. Influences are evident, particularly to Marcel Breuer's Whitney Museum of American Art in New York City, but what matters most is that the CAC's new building realizes, with some minor miscues, the promise of motion and movement long held captive in Hadid's paintings, computer-generated drawings, and models. This is a building engaged with its city.

Just north of the Ohio River, downtown Cincinnati offers the messy incongruities of many cities; its beau-arts and art-deco delights sit somewhat uncomfortably between glamour-free glass towers. A block south of the new center is Fountain Square, a popular, if bland, stretch bordered by one of the city's skywalks. The center is the solid to the void of this public plaza. It has both the gravity of the prewar stock and—set on parallelogram-shaped columns and above a glass base—the lightness of the glazed skyscrapers.

**SIDEWALK SEDUCTION**

The CAC is a 63-year-old, noncollecting institution with a provocative curatorial agenda (its 1990 Robert Mapplethorpe show caused a memorable ruckus) that was disengaged from the public in its former home above a Walgreens drug store in a nondescript tower. No more. The 87,500-square-foot building draws on the city and all five senses. It understands Jane Jacob's vision of the street as primary urban generator, but takes it further. Here, the sidewalk literally slips into the building, laying the ground plane for the entrance lobby floor before peeling up from street-level to become the backdrop to Hadid's circulation core. She calls this flow of poured-in-place concrete an "urban carpet." The metropolis is drawn inside, but also not left behind. Draped in clear glass, the double-height lobby frames street life. Hadid and project architect Markus Dochantschi have made a building that looks at the city as much as it expects the city to look at it.

The transparency of the lobby's street walls serves as a giant welcome sign, befitting an institution with civic ambitions and a stated dislike of ivory-tower posing. Museum offices—typically relegated to windowless back rooms—are given front-row seats on the urban stage, behind the vertical jag of blue glass on the south façade. Most enlightened, the top floor is occupied by the "Unmuseum," a children's education center with city views to the east and south.

**MOTION STUDIES**

By transforming the ground plane into the equivalent of a 10-story wall, Hadid's "urban carpet" upends the city, stirring it like a Tom Collins cocktail and reordering it in a Piranesian dreamscape of stepped black-steel ramps that zigzag scissorslike through six levels of galleries and offices. With their uncommonly short risers, the steps have a gravitational pull that activates the architect's essential desire to "unlock the city" in all its urgent vibrancy. Similarly, the use of compression and expansion strategies intensifies the relationship between art and viewer.

The galleries, too, are objects in motion. From the ramped atrium precinct—skylights and windows draw natural light through it—a dizzying collection of what Dochantschi calls "cracks and gaps" are created by gallery volumes that slip and slide past one another, framing interior vistas. The visual spectacle of the atrium is not a gratuitous gesture, but a sensible way to provide the CAC with unconventional exhibition spaces and sightlines. "We wanted to give the curators and the artists a catalog of spaces," explains Dochantschi, adding that the variety of spatial dimensions, configurations, and acoustics is "not a reaction to the white cube, but is simply providing a platform for [curatorial] flexibility."

Back outside, on the corner of Walnut and Sixth Streets, the volumes of Hadid's irregularly shaped galleries morph into boxy outcroppings above the sidewalk. Clad in precast concrete and black anodized-aluminum panels, this cubist collage of a façade, like the inverted zigurat of Breuer's Whitney, approximates the cacophony of the streetscape in a call-and-response only few can master.

**Center for Contemporary Art, Cincinnati**

- **client** | Contemporary Arts Center—Charles Desmarais (director); David P. Crafts (owner's representative)
- **architect** | Zaha Hadid Architects, London—Zaha Hadid (principal); Markus Dochantschi (project architect); Ed Gaskin (assistant project architect); Ana Soto, Jan Hüben, David Gerber, Christos Passas, Sonia Villaseca, James Lim, Jee-Eun Lee, Oliver Domeis, Helmut Kinzler, Patrik Schumacher, Michael Wolfson, David Gomersall (project team)
- **architect of record** | KZF Design, Cincinnati—Donald L. Curnett, Mark Stedtfeld, Dale Beeler, Amy Hauck-Hamilton, Deb Lanius, Brady Hartmann (project team)
- **construction manager** | Turner engineers | THP Limited (structural); Heapy Engineering (M/E/P); KZF Design (civil) consultants | Ove Arup and Partners (acoustic); Steven R. Keller & Associates (security); Charles Cosler Theater Design (theater); Office for Visual Interaction (lighting)
- **area** | 187,500 square feet
- **cost** | $35.6 million

**Specifications**

- **concrete** | formwork I Baker Concrete Construction precast concrete I Concrete Technology structural concrete I Hilltop concrete admixtures
THE LITTLE HOUSE IN THE BIG WOODS

A Minnesota sauna by David Salmela pays tribute to Finnish culture and American fantasy with mathematical precision.

by Julia Mandell | photographs by Peter Bastianelli Kerze
For a Finnish-American architect in northern Minnesota, designing a sauna is not dissimilar to a devout Catholic designing a church. According to Arnold Alenan, a landscape historian with Finnish roots at the University of Wisconsin, the sauna has long played a central role in both Finland and the Lake Superior region of the United States, housing rituals of cleanliness and health as well as childbirth and burial. “It is an absolutely essential part of every Finnish household to have access to a sauna,” says Alenan, adding that before the advent of running water, farmsteads included a two-room log sauna structure. Many still do.

David Salmela, of Duluth, Minnesota, is a Finnish-American architect who has designed one of these sacred spaces. Salmela's Emerson Sauna sits in a stand of trees between the main house and the lake of a private estate near Duluth, a small, playful building that is so evocative it is almost guaranteed to garner a reaction. The 428-square-foot two-room structure, built of brick and wood, calls up a number of references with its abstracted geometry and clever deconstruction of a traditional American vernacular.

RITUAL VARIATION

The building also pays tribute to its traditional typology. Most Finnish saunas are pitched-roof log cabins, containing a dressing area and a steam room. Typically, they are set apart from other buildings to protect against fire, and they are often near a lake to facilitate what Salmela believes is the most important part of the sauna experience: plunging into cold water following a session in the steam room.

Salmela’s sauna is also near a lake, with a pitched wooden roof set above the steam room and dressing area, but this is where exact replication ends. To accommodate American modesty, which has led assimilated Finnish-Americans to shy away from post-sauna skinny-dipping, a cooling porch is nestled into the pitched roof, where less adventurous bathers can go to cool down. Open-air on either end, the cooling porch provides a simple spiritual experience as bathers are lifted into the trees. This aspect of the porch allowed Salmela to heighten the physical state that comes with the sauna experience, making a strong connection with the natural surroundings that accompany the ritual.

THE SHAPE OF THINGS

Formally, the building’s most obvious conceit is of a diminutive cottage with its roof pushed forward, as if a giant had tapped it with his finger. Upon closer examination, this smart sectional move actually has a sophisticated logic to it, in which two equal and opposite volumes create rotational symmetry. Likewise, the cantilevered roof structure allows the building’s physical forces to rotate around a central point where the two volumes meet, creating conceptual, formal, and structural continuity.

In discussing the sauna’s sharp geometry, Salmela speaks of his love for the International Style and his fascination with the interplay between nature-bound regionalism and industry-loving modernism. The finished form, however, evokes not so much Scandinavian modernism as it does the work of Aldo Rossi, the Italian theorist and architect who saw architecture as a reliquary for memory, history, and imagination. By abstracting well-known forms, Rossi generalized their meaning and heightened their power—as Salmela has done in Duluth—creating blank canvases on which to project the ideas, fantasies, and memories such forms call to mind.

The Emerson Sauna is a fairy tale, astorybook American building with its pitched roof, extra-high chimney, and row of square windows. The form recalls multiple typologies: The roof evokes wooden farmhouses, while the brick portion ignites imagery of early American industry—steam and all.

The rotational symmetry of the sauna in section (above) is supported by structural engineer Bruno Franck’s idea to cantilever the pitched roof, which contains a cooling porch. Laterally placed 2-inch-by-6-inch boards are tightly fastened together, allowing them to cantilever out 5 feet beyond the curved shower wall without sagging. The relationship between the main house and the sauna (facing page, top) is one of inversion: The sauna’s structural purity and natural materials stand in contrast to the more traditional Minnesota vernacular and modern whiteness of the house.
Material and texture are the focus of the minimal interior spaces (above), resulting in a steam room evocative of a Vermeer painting (above, right). The grass roof atop the steam room (below, right) intensifies the cooling porch’s connection to nature, while the perfect alignment of the chimney and cooling porch exemplifies theorist Colin Rowe’s “phenomenal transparency” (below, left), in which the geometric interplay between foreground and background creates a tension between 3-D and 2-D perception.

Emerson Sauna, Duluth, Minnesota

client | Peter and Cynthia Emerson
architect | Salmela Architect, Duluth, Minnesota—David Salmela (principal); Souh Yahn, Keo Boun Pheng, Tia Salmela (project team)
landscape architect | Coen + Partners, Minneapolis
engineer | Carroll Franck & Associates—Bruno Franck (principal)
general contractor | Rod & Sons Carpentry
masonry contractor | Johnston Masonry
area | 428 square feet
cost | withheld

Specifications

wood windows | Loewen
hardware | Rocky Mountain
downlights | Halo
specialty lighting | Lucifer
plumbing | Duravit
1 outdoor shower  
2 dressing room  
3 shower area  
4 toilet  
5 steam room  
6 cooling porch  
7 grass roof  
8 chimney
DENTSU DEMATERIALIZED

Jean Nouvel creates an ethereal tower for the Tokyo headquarters of advertising giant Dentu. by Michael Webb
A dot-matrix pattern developed by graphic designer Hiroshi Maeda dresses Dentsu Tower's glass skin, tinting the curtain wall in shades of gray. The technique contributes to the sense of dematerialization architect Jean Nouvel sought with his bowed design.

It's hard to make an impression on the Tokyo skyline. Banal or misshapen towers, often top-heavy with glaring neon signage, push up singly or in clusters, craving attention, but are inevitably diminished by the sprawling horizontality of this metropolis. The few that do make a mark—like the new Mori Tower by Kohn Pedersen Fox in Roppongi and the neo-Stalinist pile of Kenzo Tange's Tokyo Municipal Building—strain hard for effect. So it is cause for celebration that Jean Nouvel has created a beautiful tree in this straggly urban forest. His first completed high-rise is a masterpiece that stands out from its neighbors.

Designed as the corporate headquarters of Dentsu, the world's fourth-largest advertising agency, the building is located in Shiodome, a 30-million-square-foot office development that occupies the former rail yards between Ginza and the Hamarikyu waterfront park on Tokyo Bay. The building's completion was intended to correspond with the company's 100-year anniversary, becoming in the process a potent symbol for Dentsu's next 100 years.

HIGH-RISE DISSOLVED

The tower is an exemplar of Nouvel's pure, crystalline architecture, which strives to break free from weight and mass. His Arab Institute (1987) and the Cartier Foundation (1994) in Paris, like the Galeries Lafayette in Berlin, demonstrated the potential of these ideas. The Tour Sans Fin, an unrealized circular tower he proposed for La Defense at the edge of Paris, was to become more transparent the higher it rose, appearing to melt into the air at the top. The tower's title was a nod to the repetitively angled column that Constantin Brancusi built in his native Romania in 1937; in the sleek form of the Dentsu tower, rounded but sharp-edged, Nouvel evokes the sculptor's bronze birds, abstract yet expressive, polished yet full of inner strength.

The tower's bowed plan was shaped by a desire to provide as many as possible of the 6,000 Dentsu employees with a view of the park and water to the south. Conversely, the curved form and vaporous skin help reduce the impact of the building on the park, which is cherished as one of the few green spaces in central Tokyo. The Obayashi Corporation, which served as architect-of-record, contractor, and engineer, collaborated closely with Jean Nouvel Architecture and project architects Francoise Raynaud and Olivier Touraine to develop a structure that would combine an airy elegance with maximum resistance to the typhoons and seismic shocks that afflict Tokyo. Shunji Kawase, the chief architect of Obayashi, and his engineers urged that the north face be flattened, in order to provide greater structural resilience, and to place concrete blocks, mounted on rollers within a shallow container, on the roof to dampen the swaying produced by earthquakes or high wind.

Elevated walkways wrap around the base of the 60-story Dentsu building and the towers that flank it, providing access to Shimbashi.
Nouvel’s bowed plan was intended to help reduce the building’s impact on a nearby park, while simultaneously providing as many employees as possible with a view of the green space, one of few in Tokyo. Dentsu is part of a growing office development called Shiodome.

station and the Yamanakacho line, a driverless monorail that links the city center to new developments around Tokyo Bay. From the front seat of this train, the tower looms up to fill a rider’s field of view before the line veers off to the side. The one knife-edge corner at Dentsu is transparent at the tip, evoking Mies van der Rohe’s Friedrichstrasse project—and its early iteration of the curtain-wall tower. Dentsu morphs swiftly from a blade to a sheer, bowed plane that is dematerialized by light, vanishing into the sky.

MATERIAL MATTERS
The impeccably detailed curtain wall contains clear tempered glass that was fabricated by Saint Gobain in France and Veglar in Germany, fritted in Austria, and bent in Newcastle, England, and Venice, Italy. The ceramic dot-matrix pattern, which becomes denser toward the extremities, was developed by Hiroshi Maeda, the Paris-based graphic designer. Nouvel specified 11 subtly graduated tones of glass, which range from clear white at the extremities of the bow to gray at the center. The shifts of pattern and tone on the convex façades are almost imperceptible, but contribute to the sense of dematerialization, from both near and far.

Nouvel likens his glass entry canopy to a noren—the slit curtain that hangs at the entry to a Japanese restaurant. In a site-specific art installation, motion sensors embedded in a glass panel across from the main entrance register every arriving vehicle in a surge of light. The reception area contained within the bow is paved in gray Indian granite, and the backlit glass ceiling casts a soft glow across the brushed-stainless-steel cladding of the two rounded service cores and banks of local elevators. Glass-enclosed express elevators set against the flat north wall serve four sky atria—at levels 6, 14, 25, and 36—as well as the rooftop restaurants. Thus the building is divided into five vertical sections.

At the outset of this project, Nouvel emphasized that “architecture begins with the pleasure of living,” and explained that the tower would feature thermodynamic façades and natural ventilation to ensure climatic comfort at all times. The combination of air vents and the dot-matrix patterning on the glass reduce energy costs by an estimated 30 percent, while cutting glare and averting heat build-up around the perimeter. Each of the multistory atriums dramatically reveals the massive steel frame that underpins the taut skin; however, as on the façade, the curved walls dissolve in reflections and the play of light so that even the structure seems weightless. These lofty volumes would overpower conventional art works, but sound sculpture installations enhance their sensory appeal.

In his first major Japanese building, Nouvel has captured the spirit of Zen, direct yet subtle, disciplined but intangible, a world apart in which nothing is quite what it first appears to be.

Michael Webb is the author of 21 books, most on architecture and design, and writes on those subjects for the New York Times, Domus, and Architectural Review.

Dentsu Tower, Tokyo

client | Dentsu design architect | Ateliers Jean Nouvel, Paris—Françoise Raynaud, Olivier Touraine (project architects); Didier Brault, Philippe Bona, Mia Hägg (team) architect of record | Obayashi, Tokyo general contractor | Obayashi engineer | Obayashi consultant | Hiroshi Maeda (graphic design) area | 2.5 million square feet
The lobby is paved with Indian granite, a material strong enough to withstand the daily traffic of 6,000 Dentsu employees. The brushed-stainless-steel elevator bank and glowing reception desk, meanwhile, create an ethereal quality reminiscent of the building's exterior.

1 elevator lobby
2 sky atrium
3 elevated walkway
4 entry
DOWN BY THE RIVERSIDE

Long-neglected urban waterfronts are being put back to work worldwide. On the Thames, a new pier by Marks Barfield Architects links the two Tates. BY CATHERINE SLESSOR
Traditional pontoon construction involves welding steel plates together to form a floating box, but at the Millbank Millennium Pier a continuous surface of steel plates integrates ramps, steps, and pontoon shelter (above). An extra long brow (facing page), fixed-gradient ramps, and a stair on the pontoon maintain a one-in-twelve gradient for disabled access throughout the Thames’s 20-foot tidal range.

Historically, the Thames has played a major part in London’s evolution as a trading center, but these days most of the craft plying up and down the river’s turbid waters contain tourists snapping the sights. The river is increasingly a vital part of the city’s life once again, with a new generation of riverside development and river crossings in the works. Among them is Millbank Millennium Pier, a stone’s throw from the original nineteenth-century Tate Britain museum and the last of a group of piers built to connect high-profile attractions in Central London with funding from the Millennium Commission.

Designed by Julia Marks and David Barfield of Marks Barfield Architects (MBA) along with project architect Steven Chilton, the new pier forms the embarkation point of a recently launched riverboat service linking the Victorian-era Tate on the north bank of the river with its funkier cousin, Herzog & de Meuron’s Tate Modern, on the south bank. A sleek catamaran embellished with colored spots by British artist Damien Hirst whisks cultural tourists from Tate to Tate in a mere 18 minutes. Due west of MBA’s best-known project, the 450-foot-high London Eye Ferris wheel on the south bank of the Thames, the pier presented the firm with another engineering challenge, albeit on a much smaller scale.

Seen from the river, the sharply angular form of the pontoon resembles a piece of origami bobbing serenely on the water. Its folded, battleship-gray steel-plate structure shelters an elegant larch-lined cabin. The complex and unexpected geometry of the 130-foot-long structure was developed in collaboration with engineers at London-based Beckett Rankine Partnership using digital design techniques originally developed for computer games. Once the final configuration of continuous folded planes was established, the flat plates were welded together at a Thames estuary shipyard and the completed pontoon pulled by tugboat about 25 miles upriver to its Millbank site.

The pontoon is linked to the embankment by an enormous Warren-truss gangplank. Random braking adds interest to what would otherwise have been an overbearingly large structure. Nearly 200 feet long, the steel walkway, or brow, is the second longest on the Thames, its length necessary to compensate for the river’s 20-foot tidal variation and to maintain a suitable gradient for disabled access.

Despite the apparently conventional relationship between gangplank and pontoon, Marks Barfield was determined to rethink the principles of river pier design. Pontoons are typically moored to a vertical pole, or “dolphin,” but with extreme tidal conditions, such structures can be intrusive. At Millbank, low-slung radial arms project from the pontoon like giant insect legs at the water’s surface to secure the pier. These are attached at their inner ends to stub piles, with the bearing connection between the pile and radial arm located at midtide level to minimize the system’s visual impact. Though they are regularly submerged by the tide, the rubber bearings are virtually maintenance-free and immune to silt and grit pollution.

At about $3 million, the cost of the Millbank Millennium Pier was surprisingly low, but produced a vibrant addition to the life of this river city. A final flourish is provided by British artist Angela Bulloch’s kinetic light installation, which is inserted into the pier’s superstructure. Chartreuse and blue fluorescent tubes bathe the pier in colored light, depending on the state of the tide, while preprogrammed pinpricks of white light flicker seductively—a clever reference to the camera flashes of tourists that illuminate the London Eye—spotlighting the city’s latest attraction.
Visitors navigating a switchback ramp (facing page, bottom left) from the brow to the waiting area are offered broad views of the Thames, the city's north and south banks, and the London Eye, the giant Ferris wheel designed by pier architects Marks Barfield. Slats of larch wood 2 inches thick line the ceiling and walls of the waiting room (facing page, top). The pontoon structure was fabricated at a shipyard (above and left) in the Thames estuary and pulled by tugboat (right) to its Millbank site.
Millbank Millennium Pier, London

client 1 London River Services
architect 1 Marks Barfield Architects, London
lead designer 1 Beckett Rankine Partnership, London
consultants 1 Loren Butt (environmental services engineer); River & Marine (steel fabricator); DAL (specialist lighting supplier); Phillipsons Contracts (M/E contractor)
artist 1 Angela Bulloch
contractor 1 Mowlem

cost 1 $2.98 million
The waterfront calls for an open mind. In major cities that were once or still are world ports, from Rotterdam to Yokohama to New York, the call is especially intense. Still flowing with the give-and-take of goods, people, and cultures, today’s most successful waterfronts offer the experience and articulate the values of an open society, in which ideas are exchanged freely, transparent transactions are valued, and people are free to come and go.

Cities accommodate this exchange by designing and building docks, parks, memorials, transportation hubs, and plants for power and waste. Open-minded societies design waterfronts that accept change, recognizing in a pragmatic way that all cities and societies can be improved and thrive on continuous reinvention of their physical and cultural expression. In cities worldwide the waterfront has to serve as front yard and service alley, cultural stage and civic space, playground and profit center. In short, it is the paradigmatic site for the future of public life.

From Barcelona to Seattle, there is increasing evidence that creative talents can join with a city’s communities and leadership to redesign and renew its public realm, from the scale of the sidewalk to the scale of the region. Architecture and design in these cities is seen as a valid cultural expression, integral to a city’s experience and growth—not marginalized as a bit of necessary decorating after the planners, finance committees, and political actors have made all the decisions.

REIMAGINING THE THAMES
London has undertaken a relentless program to remake its waterfront. Its first forays into reconstruction in the late 1980s and early 1990s included the thick towers of Canary Wharf, warehouse conversions, and the rare elegant modern move, such as Norman Foster’s 1991 raised office and residential block on the south bank near Battersea Bridge. Yet, these efforts pale when compared to the work that was first imagined in the 1980s but not executed until the latter half of the next decade.

London has long benefited from the presence of architects of stature, not only Norman Foster, but also Richard Rogers, who in the 1986 New Architecture: Fosters, Rogers, Stirling exhibition at the Royal Academy envisioned the Thames as a steel-and-glass–bordered ribbon of modernity running through the city. With 1993 legislation assigning a quarter of the national lottery income to cultural projects, the establishment of the Millennium Commission in 1994, and the 1997 election of Tony Blair, a charismatic leader determined to put his mark on the capital, London was poised to build its new identity.

Although Rogers’s Millenium Dome was a high-profile programmatic failure, the London Eye, another temporary project completed in 2000, has been a great popular success. While it does not engage the waterfront directly, the giant Ferris wheel is a formidable waterfront building. Lifted hundreds of feet above London, “passengers” cannot help but see the river city that Rogers has long wanted them to see. A competition-winning scheme for an open-ended millennial project, the Eye was conceived, programmed, and designed by Marks Barfield Architects. Theirs is a design engaged—not as an afterthought but as integral to reimagining the city. Whether or not the London Eye survives, the architects’ approach is permanently visible on the Thames in the Millbank Millennium Pier, a waterfront building at work.

Another working icon is the 10-story Greater London Authority (GLA) building, completed in 2002. Just like the Houses of Parliament, the symbolic importance of being on the river is vital to London’s local government. As with the Eye, in Norman Foster’s glazed, egg-shaped structure there is a clear ideology of the importance of views, with “London’s Living Room”—an observation venue and space for meetings, press conferences, and on Saturdays, the general public—on its top floor. And as with seemingly every new project along the Thames, the Herzog & de Meuron-designed Tate Modern of 2000, a converted power station, has become not only a building to look at but also a building to look from, with a café above the turbine hall looking across the river to St. Paul’s Cathedral.

AN INFLUENTIAL MODEL
Not every speculation is a good idea, and not every large, intensely designed waterfront project is brilliant, but London’s recent history of design should serve as an influential model for major waterfront redevelopment. The city’s revival was aided not only by $8 billion in public and private funds, but also by a simple big idea: London’s north and south banks needed to be tied together by the animated, open space of the Thames.

Raymond W. Gastil is executive director of Van Alen Institute, a New York City-based institution dedicated to improving the design of the public realm. This article was adapted from his book Beyond the Edge: New York’s New Waterfront (Princeton Architectural Press, 2002).
“Full of elemental power” was Erich Mendelsohn’s description of the grain elevators he encountered on his travels in North America in the 1920s. Le Corbusier deemed them the “magnificent First Fruits of the new age” in his 1923 Vers une architecture. Mikko Heikkinen and Markku Komonen are part of a long tradition of modernist architects deeply affected by the purity and functionalism of industrial structures, but they are among the few, surely, to have worked directly with grain-storage buildings. In Helsinki, the conversion of a 1934 grain silo and vegetable warehouse into office space (a transformation that many of the industrial buildings along the city’s waterfront are now undergoing) was a fitting commission for local firm Heikkinen-Komonen, whose architectonic work is as inventive, unassuming, and direct as the industrial architecture of a century ago.

The architects found the job gratifying for an added reason: The client, Senate Properties, is the government agency responsible for developing and managing the property assets of the Finnish state (like the U.S. General Services Administration)—and the force behind some of the country’s most ambitious works of public architecture. A consistent patron of Heikkinen-Komonen’s work, Senate has commissioned 10 previous projects from the firm, including the Finnish embassy in Washington, D.C. But the silo conversion was the first in which Senate would be both the architects’ client and end-user.

**INDUSTRIAL REINVENTION**

“Working with old buildings requires a different type of exploration, a different process of invention,” says Komonen. This particular project was complicated by the fact that it involved not only the renovation of the old structure, but the construction of an addition, which would house another public agency, the National Research and Development Center for Welfare and Health. The addition is a low-key building that—in material, massing, and detail—respectfully references the brick warehouse portion of the original structure to which it is attached. The new construction is clad in a custom brick that was specified to resemble (but not duplicate) the color and dimensions of the original bricks. The architects wanted the Welfare and Health offices to rely on natural light as much as possible, but they also understood that large windows would appear at odds with the smaller openings of the original structure. They devised a method of screening each window—an aluminum grille, painted brick-rust to blend with the masonry façade. Light filters through the screen, while the exterior of the new building maintains visual continuity with the old.

At only 66 feet wide (constrained by the width of the original brick warehouse and the size of the lot), the Welfare and Health structure is necessarily simple: Offices line both long sides of the building, which is cut longitudinally by an eight-story “canyon” with concrete walls painted bright green. The canyon brings daylight into the depths of the building, while uniting occupants visually. (One complaint employees had about their previous workplace was that they felt cut off from each other.) At one end of the canyon is a monumental spiraling staircase, sheathed in a transparent metal cage hung from the ceiling. The architects chose metal mesh to keep the space open. A glass elevator in the middle of the canyon follows the same desire.

On the opposite side of the building is an opposite kind of stairwell: enclosed, with treads of heavy, solid, cast-in-place concrete. This staircase, which has the same diameter as the light, hanging metal stair, mediates between the old and new buildings. The stair’s slow spiral was designed to address a specific problem: to connect the nine floors of the new building with the eight floors of the old. With the height of the risers constant, the length of the steps varies according to where the landings need to be. The stair is not only a clever way to sew together two different buildings, but a homage to the brutally functional language of the silos.

Heikkinen-Komonen’s nearby Lume Media Center (a renovation and an expansion of an old ceramics factory for a media school) necessitated similar surgical acts (December 2000, page 104). From these experiences, the architects have learned that “you have to use the power of the old structures, not fight against it,” says Heikkinen. “It’s a bit judo. You have to use the physical force of the opponent to your advantage.”

For its renovation and addition to a Helsinki warehouse for the Finnish government, Heikkinen-Komonen was encouraged to preserve the grain silos that grace the original building because of what the Helsinki City Museum calls their "importance in the townscape" (above). Seven of the twelve silos were reinvented as elevator banks, a spiraling staircase, and restrooms. While windows were enlarged to admit natural light, the architects protected the façade's original appearance by partially covering the openings with brick-colored aluminum screens (below).
Work-weary employees can access the outdoors through a roof terrace with sea views (above). Inside, the office plan in the old building incorporates elements of its original calling as an industrial facility—mushroom-shaped columns, which were sandblasted and left exposed (below).
In contrast to the brutal industrial tradition of the old building, the new one incorporates a delicate glass elevator (above) and a lithe, contemporary stairwell of transparent metal mesh (below). Visual openness was important to employees, who in previous digs, felt cut off from each other.
Senate Properties and National Research and Development Center for Welfare and Health, Helsinki

client | Senate Properties architect | Heikkinen-Komonen Architects, Helsinki—Mikko Heikkinen and Markku Komonen (principals); Janne Kentala (project architect for Welfare and Health offices); Markku Puumala (project architect for Senate Properties) interior designers | Heikkinen-Komonen Architects (Senate Properties); Engel Suunnittelupalvelut (Welfare and Health offices) engineers | Insinööritoimisto Mikko Vahanen (structural); Insinööritoimisto Olaf Granlund (electrical) consultants | Maisema-arkkitehdit Byman & Ruokonen (landscape); Insinööritoimisto Olaf Granlund (lighting); Akukon (acoustical); SCC Viatek (geotechnical) project manager | Engel rakennuttamispalvelut general contractor | SRV Viitotieto area | 312,000 square feet cost | $49 million

Specifications
structural system | Lohja Rudus, Normek Group, Piilisen Betoni masonry | Muurausliike P. Syrjänen metal/glass curtainwall | Eristysliike Ahola concrete | Sierak, Proppa built-up roofing | Icopal, Etelä-Suomi windows | Fenestra (wood); Forssan teräsrenka, Jalora Planarian (steel); THT-Rakente (aluminum); Saint-Gobain, Pilkington (glass) doors | Forssan teräsrenka (metal); Viitakosken Puu (wood); THT-Rakente (sliding) fire-control doors/security grilles | Saajos locksets | Abyo suspension grid | Sisärenka Nurmesjärvi paneling | Elam Trading floor/wall tile | Tiileri carpet | Upofloor raised flooring | Kontva office furniture | Mobel, Isku reception furniture | Mäntylä Esko Puuseppäliike kitchen | Futuro Kalusteet elevators | Thyssen hissit
The new building is split longitudinally by an eight-level “canyon,” in which conference and break rooms and a transparent elevator shaft are located. The canyon helps filter natural light from above to the floors below. Leaf-green walls distinguish this common amenity from other spaces.
Case in point.

The University Library at Case Western Reserve University didn't have a problem putting the extra space to good use. With Spacesaver's high-density mobile storage system, they were able to double their shelving capacity in the same amount of space. And they were pretty pleased with the results...a beautiful, efficient design. Not to mention economical, too. When limited storage space presents a design challenge, look to the experts at The Spacesaver Group to be your partner in innovative thinking. We have the know-how and the product solutions to help you get it right. Give us a call at 800-492-3434. We're up to the challenge.
CONCRETE, EXPOSED!

Gerner Kronick + Valcarcel, Architects | Post Luminaria | New York City
by Anna Holtzman

Perhaps not since I.M. Pei's 1961 Kips Bay Towers has Manhattan seen a new cast-in-place exposed-concrete high-rise. While this mode of construction—favored by modernist masters like Le Corbusier—is still popular in Europe, Americans have resisted it in recent years, says New York City-based architect Randy Gerner, because they often have to build quickly. It takes time to prepare and properly inspect formwork; rushing the process will result in a surface riddled with air bubbles, or "honeycombs."

Gerner—with his office Gerner Kronick + Valcarcel, Architects—has brought the construction method back to Manhattan with a 20-story residential high-rise several blocks south of the Pei building. Approached by the Clarett Group, the project's developers, Gerner was challenged to design a luxury building on a budget. The first sweeping money-saving strategy he employed was to eliminate cladding, making the building's bare, cast-in-place concrete structure its façade.

FUNCTIONAL AESTHETICS

Still confronted with the costliness of carefully preparing a smooth, attractive finish, Gerner's solution was to embrace the honeycombs, camouflaging them with an all-over rough surface, which he created with textured, rubberized form liners. While customizing the form liners constituted an added expense, the addition was minor compared to what brick veneer, for example, would have cost. "Exposed concrete makes so much sense," Gerner says. "It is inherently waterproof, and makes a beautiful façade." The only additions to the otherwise structural façade were the window modules and louvered panel covers for heating/cooling units. Last fall, the building won a Corbetta merit award from the Concrete Industry Board for its economic and aesthetic use of structural concrete.

AN URBAN "GLASS HOUSE"

Other factors also affected the building's outward expression. Due to New York State's strict energy codes, which allow limited area for uninsulated windows, many apartments in the city have little light. Gerner worked from inside out, considering the interior experience of his apartments before their exterior expression, and decided on floor-to-ceiling windows and wall-to-wall glass for expansive views and lots of natural light. "I love Philip Johnson's Glass House," he explains, "and wanted that amount of light in an urban context."

In order to get away with so much glass and still comply with energy codes, he insulated some of the window panels with three panes of glass, including one frosted layer sandwiched between two clear ones. On regular double-pane panels, clear glass is surrounded by a border of frosted glass. This also saves energy, while simultaneously diffusing and spreading light deep into the interior spaces, much the way a lampshade diffuses and extends the glow of a light bulb, says Gerner. The effect is directed outward in the evening, when the building glows like a lantern. In fact, the building's name, Luminaria, refers to the ethereal Mexican Christmas lanterns made of a candle placed in a paper bag.

Almost every building in New York City has a party wall with an adjacent building, which, for fire-safety reasons, must have minimal window openings. On most of these façades, it appears as though the architect has given up in frustration, leaving the wall undesigned. The Luminaria has two party walls: a western wall that is exposed above the second story, and a southern wall exposed above the sixth floor. Not content to let these walls be his building's ugly ducklings, Gerner came up with a strategy to preserve the look of the rest of the building, without straying from its functionalist design ethic. Using the same structure as the building's other walls, he sealed 90 percent of the party-wall windows with inexpensive, fireproof gypsum board, but to protect the gypsum from decay he covered it with glass.

Gerner considers the inhabitant's experience to be a priority, and if user response is any indicator of success, then his design has hit the nail on the head: Every one of the building's rental units have been snapped up by New Yorkers eager for a bit of sky in a renewing neighborhood.
Post Luminaria, New York City

client | The Claret Group
architect | Gerner Kronick + Valcarcel, Architects, New York City—Randolph Gerner (principal-in-charge); Silke Rapelius, Eric Mullen, Jutta Petrat, Aaron Portnoy, Douglas Inglis, Joseph Barbagallo, Tara Oxley (project team)
interior architect | Gerner Kronick + Valcarcel, Architects, New York City
engineers | Cantor Seinuk Group (structural); I.M. Robbins (M/E/P) consultants | Milrose Consultants (codes, expediting); Israel Berger & Associates (exteriors); R. Hough, (concrete); Robert Schwartz & Associates (specifications)
construction manager | Bovis Lend Lease
area | 154,000 square feet

photographs by Paul Warchol

Specifications
metal/glass curtain wall | Fulton Windows
metal doors | Long Island Fire Doors
wood doors | Mensch Millwork
locksets | Schlage hinges
concrete floor slab | Long Island Fire Doors
triple glazing | cabinet hardware
double glazing | Spectrum
louvered HVAC unit cover

1 terrace
2 tenant recreation area
3 apartment
4 concrete floor slab
5 triple glazing
6 double glazing
7 louvered HVAC unit cover
HOME TURF
For many architects, the studio is a canvas on which to announce the philosophy and personality of one’s firm.

BY EMILIE W. SOMMERHOFF

DELLA VALLE + BERNHEIMER
Della Valle + Bernheimer’s first project upon moving into its new space in Brooklyn, New York, was to design and build the office. With an open 2,400 square feet of sparse detail and a view of Manhattan, the straightforward space directs attention to a chalkboard-enclosed box, the inside of which contains a shop; the outside is used for drawing and as a focal point for group meetings. “It’s a tool to do our work,” says Jared Della Valle, who founded the studio with partner Andrew Bernheimer in 1996. “It fits our philosophy. We try to solve the problem by solving the problem; there’s never an esoteric meaning behind things. We needed something we could work on, a way to communicate ideas to each other, and a shop—those things ended up being the same thing.”

The list of suppliers is equally uncomplicated. Besides a Saarinen chair and an Eames table, “if you want a spec, it’s Benjamin Moore Chalkboard Paint,” says Della Valle. And besides the shop, there are no enclosed spaces. “Andy and I don’t hide our offices. This is not a hierarchical space.” While indicative of the kind of firm the principals want it to be, the partition-free space also follows on Della Valle’s belief that architecture firms require more “community-based workspace” than other professions.

AIDLIN DARLING DESIGN
“Organized chaos” is how Joshua Aidlin, of Aidlin Darling Design in San Francisco, describes the culture and space of the design firm he owns with architect David Darling. Within its 1,900 square feet of space in a former sewing factory, the firm has incorporated design studios, a gallery, a conference room, and a wood shop. Though a trained architect, Aidlin began as a furniture designer and fabricator, hence the shop; when Darling joined in 1998, the team established an architecture firm. While they no longer fabricate actual furniture, they do design and build models. “In solely using the computer, you become too distant from the materiality of how you build. Our shop allows us to create the real thing in real scale. There’s immediacy to what you’re building.”

Everything in the space is “homegrown.” The firm designed and built the studio with friend and architect Christian Dauer of CR Dauer Architects, much of it with wood recycled from projects in demolition. The sliding closet door was recovered from a den, the shelves from stair treads; both are Douglas fir. The chairs came from an old church. New elements are also economical by nature: Mylar sheets form the translucent backdrop behind the shelving, and the floors are painted plywood.

Originating with half the current space, the firm has slowly expanded, “moving walls as we went,” says Aidlin. A central spine...
bisects the office, bringing visitors straight into the studio. There is no reception area.

"It speaks to the informality of our office," he says. "It's all handmade and very intimate; it grew out of the way we work with people."

WATSON TATE SAVORY ARCHITECTS

Many architects think of their studios as a chance to create a living example of the solutions they are trying to sell to their clients. Like other industrial neighborhoods, the Congaree Vista section of Columbia, South Carolina, is quickly becoming a new commercial district. Watson Tate Savory's own adaptive reuse of a warehouse in the area provides a case in point for the firm, which has recently found itself doing several renovations in the neighborhood. "We were trying to show that simple geometries and materials could delicately offset a utilitarian warehouse box in a way that made it aesthetically rich," says firm principal Thomas Savory. "Historic preservation is often best served by contemporary intervention."

The architecture firm left the structure's brick walls virtually untouched, grime and all: "We started cleaning the walls in the gallery," recalls Savory. "The brick was painted a semigloss white; we liked the soot better." Clerestory windows with a corrugated metal roof replaced the building's dirt-stained wire-glass skylights. Ductwork and conduit were left exposed. The simple 3/4-inch birch-veneer plywood workstations, custom designed by Watson Tate Savory, were purposefully held away from existing surfaces—"to let the new and old systems articulate themselves."

In designing their own offices, architects face a special challenge, believes Savory. "When you are your own client, the spectrum is wide open; it requires that you understand your shared language and sensibility in a way that you want to express to others. You have no excuse for it not to be clear."

ROSS BARNEY + JANKOWSKI

While the offices of Ross Barney + Jankowski (RBJ) were also once a warehouse, the firm was not challenged to start from raw concrete and brick; the space had belonged to Chicago architect Harry Weese since the 1960s. Many of his enhancements—a three-story skylighted atrium and an angled stair connecting the third and fourth floors—were retained. "We loved a lot of it," says Carol Ross Barney. "Harry built this wonderful little room for a diazo machine; we kept stuff like that as historical relic."

However, like any other firm, RBJ believed its office should express its own philosophy of collaboration and its ideas about workspace productivity. Structurally, RBJ did very little: A new stair was installed to connect the fourth and fifth floors, pulling visitors from the reception area on the fifth floor down into the studio. Grating treads on the stair maximize daylight penetration. Office partitions were demolished, both to make way for more group-oriented workspace and to help bring natural light into the interior.

Collaboration and productivity are further explored with four spaces that can be used as either traditional conference rooms or project workrooms. "A project can move in and stay there for a period of time, with its history and artifacts," says Ross Barney. "It's like giving the project a desk." Each room has an overhead projector and a computer connected to the server. The largest can be divided up with four translucent-fiberglass sliding doors. Currently RBJ is experimenting with different furniture solutions for these rooms. "We want to see what types of spaces work particularly well. It might be that different spaces work at different times."
Have Laptop, Will Travel
Technologies both old and new allow a small, multidisciplinary practice to work on a global scale. by Thomas Fisher

While the computer industry keeps our profession dazzled with the latest high-end equipment or high-speed software, some firms have used low-tech means to affect a revolution in architectural practice. A prime example of that is LEAD, a firm with offices on two sides of the Atlantic—in Minneapolis and in Husnes, Norway, and with four partners of different nationalities—Ali Heshmati, an Iranian; Gretha Rød, a Norwegian; Christine Bleyhl, an American; and Malini Srivastava, an Indian. The ethnic diversity of LEAD reflects the geographical diversity of their work, ranging from projects in the United States to others in Norway and Iran, and it has led to disciplinary diversity, ranging from architecture and performance art to teaching and writing. All of this finds its reflection in the firm's name: LEAD stands for Laboratory for Environments, Architecture, and Design.

Keeping this wide-ranging, four-person firm connected is what Heshmati—who, along with Bleyhl and Srivastava, teaches at the University of Minnesota's College of Architecture and Landscape Architecture—calls “light technology.” “A couple of decades ago,” he says, “it was impossible to think about a practice of our size doing work in different parts of the world in a truly collaborative way.” And yet between the old-tech (overnight couriers and telephones) and the relatively low-tech (the Internet and e-mail with PDF, Zip, and AutoCAD files), the firm makes it work. In fact, LEAD has produced 12 projects since its founding in 2001.

A DIGITAL DIVIDE
This low-tech approach reflects the three principles that guide the transatlantic firm's work: “Appropriate technology, the aesthetics of necessity, and doing more with less,” says Heshmati. “Digital technology allows for shorter construction-document time, shorter construction time, mass customization, touching the earth lightly, less construction waste, and the total reuse of building materials,” he adds breathlessly. “But most of those who pioneer digital technology today do so for formal and heuristic ends. I am tired of looking at very traditional buildings in new clothing. For us, technology, design, and building process must be integrated.”

“Too often,” adds Bleyhl, “firms acquire digital tools and then ask themselves what to do with them. We do the reverse, seeing what we need and then acquiring the tools.” Key to the firm's work, for example, is research, a “problem-identification phase,” says Srivastava, “that takes us often to the library. Have laptop, will travel.” With two partners in each of the two offices, however, they do not do everything remotely: “We still need face time,” says Heshmati, who travels often between the offices.

GLOBAL NOMADS
The nomadic quality of their practice has influenced their work as well. Their 2002 design for a chiropractic clinic in Minneapolis includes an interior of demountable stretched-fabric walls that reduced costs, lessened the use of construction and building materials, and turned the partitions into glowing daylit surfaces. Even more nomadic was the firm's entry for the international competition for Athens Olympics structures. Rather than designing new buildings or open spaces, LEAD proposed a series of suitcases full of “props” that ordinary people could use to adapt the existing urban open space in Athens for athletic or other community activities. A third project—a 2001 competition-winning bridge over a highway in Missouri—gives animals safe passage by providing them a place to cross underneath the pedestrian walkway. The bridge also acts as an arbor, with plants rooted in the bridge deck itself, climbing up and over the walkway. In this way, the project, which awaits funding, links (rather than separates) human and animal ecologies.

In studying and presenting its work, the firm uses a range of media: digital photography, and image scans, as well as Photoshop collages combining Illustrator, PowerPoint, Word, and AutoCAD. LEAD also has a range of collaborators on many of its projects—former students, fellow teachers, other architects, public artists, and performance artists—all of whom can easily plug into the networked structure of the firm. “We have a collaborative, antiheroic model,” says Heshmati, “Many firms are based on authority and repression. LEAD's culture is against that.” That openness, fluidity, and refusal to obey traditional boundaries or definitions may be the most important effect of computers, helping us not just to practice in new ways, but to see the world and our profession from a more humble and sustainable perspective. In this, LEAD has taken a leading role.
Architects with growing international practices often feel like they need to be in two places at once. To collaborate effectively—and to keep clients content without busting the travel budget—firms now employ an array of off-the-shelf and subscription-based solutions. At Kohn Pedersen Fox (KPF), the technology mantra is similarly pragmatic. Associates share CAD files between London and New York City offices by means of a wide-area network and dedicated T-1 lines, says firm principal and director of information technology, James R. Brogan. Clients, consultants, and contractors log onto a Linux-based file-transfer-protocol (FTP) site for submittals and proposals.

To speed daily communications, however, three ready-made products are central to how KPF makes its global practice work. One is a "virtual private network," or VPN, which allows secure connections between the two main offices and with remotely located employees. Integral to the VPN is a firewall—a network...
security device positioned between an organization’s internal network and the Internet—that can protect up to 100 employees and enable concurrent communications among up to 105 corporate sites or remote staffers. Brogan says his firm’s IBM ThinkPads are outfitted with encrypted VPN connections. He calls the technology “hypersecure”—even banks use it—and so KPF’s two main offices and remote employees increasingly use the system to share e-mail, file services, and intranet work.

Another workhorse is a novel “web-conferencing” service that Brogan says is ideal for international collaboration. Participants can share real-time files, view PowerPoint presentations, produce sketches, mark up CAD files, and discuss their work, all from remote locations. (The easy-to-learn technology can also record meetings, adding the bonus of potential legal recourse.) KPF has its own website (http://kpf.webex.com) where “attendees” log onto virtual meetings, says Brogan, and the firm pays a monthly fee according to the number of concurrent connections used. “We just jumped on this in going to Asia,” says Brogan, “but it could work for local projects as well.”

For e-mail on the fly, Brogan has invested in pager-sized handhelds that feature full alphanumeric keyboards. KPF’s current wireless fleet operates on the data-only Mobitex network, a reliable service created for pagers in North America. An upgrade is planned, however, to a newer handheld device that works with a fast-growing international cellular-phone network called GSM; it allows both voice and data communications. The new hardware and operating system are slightly different, but they still integrate directly with e-mail software, such as KPF’s old faithful, Microsoft Exchange. The handheld system makes a copy of the e-mail, compresses it, sends it to proprietary servers, and then transmits it to the subscriber’s device. “It’s critical to the folks who are traveling so much,” says Brogan, “and those who are working 24 hours a day on Asian projects.”

**Standard Issue**

The word “bible” may be a bit strong, but *Architectural Graphic Standards*—now in its 10th edition—has been the go-to resource for architects since 1932. Ever envious, interior architects have longed for a similarly definitive reference tool for space planning and design. Not a moment too soon, John Wiley & Sons offers *Interior Graphic Standards*, a sweeping 700-page treatise on selection, specification, and detailing for interior environments. Are corresponding CD-ROMs and online tools in the offing?

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If there's an elevator in your next building, please don't include a machine room in the design. As went the white-gloved attendants who politely asked, "Floor, please?" so will the machine room go—that mysterious box, that wart on the roof of many buildings, that place we draw but hardly ever visit. When ThyssenKrupp (www.thyssenkrupp elevator.com) introduces its Isis elevator system in October, it will mean that all four major U.S. makers—including Kone, Otis, and Schindler, which just debuted its own design in May—will offer a machine-room-less lift of some kind.

Manufacturers, it seems, are hell-bent on making the "motor room" a relic, and the advantages for architects and their clients are easy to imagine. First, you can spend the $50,000 for constructing the room and its M/E/P feeds on something else (titanium doorknobs, perhaps?), and in some cases add another full floor instead of just a mechanical penthouse. OK, now both designer and developer are smiling. Next, spend the untold thousands that would have gone toward hiding the machine-room cube on a more sincere gesture. (Those rooftop crowns tend to get VE-ed to death anyway.)

Also on the plus side, these systems are among the most efficient ever unveiled, they require little or no dirty oil, and—if we're to believe the shills—they don't necessarily cost more.

HIDING THE MACHINE
The trick behind the products is to hide the guts of conveyance variously in the hoistway, between floors, or in a small penthouse, supported by the elevator rail or a cross-beam. Each brand offers its own riffs on the theme: Otis (www.otis.com), for example, has a special coated belt that replaces the common steel ropes, and Schindler (www.schindler.com) employs a small but powerful and efficient "permanent-magnet" gearless motor. Most codes require a separate room for the controller, but that usually fits in a closet-sized space near the hoistways.

Machine-roomless traction systems offer the advantages of hydraulic elevators without the cost and risk of drilling a deep cylinder hole. The best applications are currently in the 7- to 10-stop range.

Most of the innovations migrated from Europe, where acceptance of machine-roomless systems was propelled by older apartment buildings (and their older occupants) that needed to squeeze in space for a new shaft. In 1998, Kone (www.kone.com) was the first to proffer machine-roomless systems in the United States, modifying its European machinery for our larger capacities, higher speeds, and more stringent building codes.

ASIAN OFFERINGS
Then came the deluge. Asian manufacturers followed suit: Mitsubishi Electric (www.mitsubishielectric.co.jp) launched its attractive Elenssa line, Hitachi (www.hitachi.co.jp) unveiled its UAX, and Hyundai its Space Saver.

The ultimate confirmation of the machine room's demise, however, came when Access Industries (www.dreamelevator.com), a division of ThyssenKrupp, launched the machine-roomless Lev and started marketing it to homebuilders—and even consumers—"to conserve valuable living space in your home." Now we can expect clients (and maybe even their kids) to wonder why we ever topped our creations with a box for machinery. C.C. Sullivan
Security credentials, such as keys and proximity cards, easily pass from person to person, for intents both nefarious and innocuous. Our unique physical traits, on the other hand, are nontransferable, making biometric security a seductive idea in a paranoid age of global terror. Yet, despite well-publicized installations by airports and government agencies, biometrics are just emerging from their “proof-of-concept” stage, and the weak global economy has slowed many system rollouts in the public sector. According to consultancy ePolymath.com, biometrics accounted for only about 6 percent of all security hardware and software sold in 2002.

That could change, however, as “single-point” biometrics become more popular. "Stand-alone units can provide positive identification and secure access control for small facilities," says Martin Huddart, general manager of IR Security & Safety Americas (www.recogsys.com). "And data can be managed effectively by using a personal digital assistant."

Resisting this idea, though, are many makers and "integrators" of large, networked security systems. "Biometrics have been used as just a single-point system, but that's useless," says Oliver Tattan, CEO of Daon (www.daon.com), which recently supplied a biometrics system for London City Airport. “It’s like putting a door in the middle of a plain; people just walk around it.”

Still, it’s easy to envision small-scale, specialty deployments for computer rooms, hospital pharmacies, and casino cash booths. The question is will biometrics become ubiquitous, found in homes and convenience stores alike? Will it overcome the growing backlash against the loss of privacy?

Probably, and for two reasons: The technology is blossoming, and people are demanding safer buildings. New and inexpensive devices are rampant, like "Puppy," the tiny fingerprint reader sold by Sony (www.sony.com/puppy) for a mere $135 that connects to a computer. Also, worries about the loss of personal privacy are less of an issue for small-scale private uses; civil libertarians aim their wrath at broad government initiatives, like the British proposal for biometric passports and the U.S. Enhanced Border Security Act of 2002. Plus, end-use groups actually want biometrics in the public sphere: A recent survey of globetrotting executives by the Geneva-based International Air Transport Association found that 81 percent “wanted to see advanced biometric technology at airports.” (About a third of those polled also asked for reinforced cockpit doors.)

The world’s biggest airports are responding: Amsterdam’s Schiphol recently introduced iris scanning by Joh-Enschede (www.joh-enschede.nl), and London’s Heathrow, New York City’s Kennedy, Washington’s Dulles, and Tokyo’s Narita airports are considering similar schemes. But hand-geometry systems are more popular. The “2002 World Biometric Report” by consultant Frost and Sullivan showed that hand readers had almost half of the market, while eye scanners took 15 percent.
"Everyday tools and spaces that no longer exist attain a kind of dusty nobility," writes Billie Tsien, introducing this volume of photography by Mireille Roddier. The objects of Roddier's nostalgia are the remaining, now-defunct communal washtub houses scattered across rural France, dating from the twelfth to twentieth centuries. **Anna Holtzman**

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**EXHIBITION**


In their annual summer "Urban Beach Warm-Up" series, P.S.1 Contemporary Art Center and the Museum of Modern Art in New York City have hit upon a brilliant scheme for promoting the work of young architects: They build a structure in P.S.1's courtyard in Queens and throw a rockin' party every weekend. This year's competition-winning structure, by Tom Wiscombe of Emergent Architecture, is inspired by tension structures like sails and kites that are traditionally found at the beach and interact with dynamic forces like wind and sunlight. Wiscombe's fractured metal-mesh pavilion does not itself interact with ecological forces, however, and is more reminiscent of space-age architecture than traditional nautical technologies. Lit at night with red lights and glowing wading pools, the lanternlike canopy and interconnected platforms seem straight out of Ridley Scott's sci-fi classic, *Aliens*. Not necessarily beachy, but a great place for a party. **Julia Mandell**

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**BOOK**

*Lavoirs* | Mireille Roddier | Princeton Architectural Press

"Everyday tools and spaces that no longer exist attain a kind of dusty nobility," writes Billie Tsien, introducing this volume of photography by Mireille Roddier. The objects of Roddier's nostalgia are the remaining, now-defunct communal washtub houses scattered across rural France, dating from the twelfth to twentieth centuries.

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**BOOK**


An unsung hero of modern architecture, Eero Saarinen finally gets his due. No comprehensive monograph of the architect's work has been published until now, and Antonio Román's book, lavishly illustrated with Ezra Stoller photographs, is the first of three titles to be published on Saarinen over the next year. Rather than approach the designer's work in purely formal terms, Román examines his projects with a case-study format, applying analytical categories to the investigation—diversity, style, subjectivity, creativity, dwelling, building, and socializing—in order to understand Saarinen's creative process. The result is an informative discussion that highlights the essence of Saarinen's brief but prolific career: his deference to stylistic classification, belief in technical progress, and investigation of architectural form. Such varied projects as the TWA terminal at New York City's Kennedy Airport, the Gateway Arch in St. Louis, and furniture designs for Knoll serve as strong testament to the creative rigor of his design process. This monograph allows the reader a chance to become reacquainted with Saarinen's legacy and to celebrate it. **Elizabeth Donoff**
EXHIBITION  Serpentine Gallery | Oscar Niemeyer | London | Through September 14  
For the past three summers, the Serpentine Gallery has invited internationally renowned architects, including Zaha Hadid, Daniel Libeskind, and Toyo Ito, to create a temporary pavilion on its grounds in London's Kensington Gardens. This year's choice is Oscar Niemeyer, arguably the preeminent Brazilian architect of the twentieth century, who masterminded the city of Brasilia and, at age 95, continues to practice with expert assiduousness. The Serpentine Pavilion, in collaboration with José Carlos Suárez and Arup, is no exception. Niemeyer's striking, deceptively simple structure resembles a slouching Bedouin tent fabricated in reinforced concrete, steel, and glass, partially open at its sides, combining a sense of airiness and transparency. Raised 5 feet from the ground, the main space houses a café with furnishings designed by Niemeyer himself. He also designed fixed seating for the lower floor, which is partially submerged below ground and acts as an educational and entertainment facility for the public both day and night. Judith Peyton Jones, the Serpentine's director, traveled three times to Brazil to convince Niemeyer to take on the project, his first in Britain. It was clearly worth the trips. David Bussel

TELEVISION  History Detectives | PBS | Mondays at 8 pm throughout 2003  
Is architectural history ready for prime time? Only on public television, of course, which last month premiered "History Detectives," a fast-paced series that taps into everyman's curiosity about old things—"Antiques Road Show," anyone?—and penchant for murder-mystery drama. While its gorier subjects will pull in the crowds (the bullet that struck down Bonnie and Clyde!), the show offers several archi-mysteries: Is the 1915 Al Ringling Theater in Baraboo, Wisconsin, the oldest movie palace in the land? Why was a Japanese house in Gilroy, California, part of the San Francisco World's Fair? And was that mock Tudor in Akron, Ohio, an original prefab Sears House? A team of gumshoe geeks—including Columbia University architecture professor Gwendolyn Wright—employs library research and scientific tests to crack the code. C.C. Sullivan

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An uninspired new use—or even demolition—may be in the cards for Houston's most visible icon, if the city fails to remember its own tradition of inventive planning and design. by Larry Albert

What's a big city to do when its most famous symbol outlives its original purpose? Thirty-eight years after the Harris County Domed Stadium opened as the world's largest air-conditioned expanse, Houston's "Eighth Wonder of the World" now waits in limbo. Three years ago, a $300 million deal with a local energy company renamed it the Reliant Astrodome—just as it became clear that the stadium would have no steady tenants to rely on. The Astros and Oilers had already left, and the annual Houston Livestock Show and Rodeo had signed on for a new home built just door for the Houston Texans, an NFL expansion team: Reliant Stadium, a retractable-roof venue that makes the Astrodome look puny. Today, between high-school football games and awards luncheons, the Astrodome's 9 acres of enclosed space sit vacant.

Unfortunately, the nonprofit management corporation the county has charged with finding a future for the dome has so far displayed little understanding of the importance of its task to Houston's image, treating the property instead as if it were merely a development parcel with a curious history and a complicated set of contractual constraints.

"It's an aging building that is not generating revenue, and in Houston that means 'Bring In the bulldozers,'" says Lynn Edmundson, acting executive director of Historic Houston, a preservation organization. Despite rumors of impending demolition, plenty of people want to preserve the Astrodome. Figuring out what to do with it instead is the problem. The struggle over the dome's fate will be much more than a simple redevelopment or preservation battle, because the city's image is at stake.

THE IMAGE OF A CITY

The irony of the dome's status as city icon is lost on most Houstonians, perhaps because the planning concept it represents has succeeded so well. Long before the former marshlands and forests at the city's outer edges came to be paved and planted with generic big-box superstores, drive-up industrial warehouses, and gated apartment compounds, the Astrodome, surrounded by a featureless sea of parking, must have seemed fresh and new.

Outrageous presumptions about the future, however—and the bluster to make them real—have distinguished Houston development ever since two brothers began selling swampland near Buffalo Bayou in the 1830s. That same bravado (and federal funding) later gave the city a manmade port dredged 30 miles inland and turned a hurricane-ravaged oilfield into NASA's manned-spaceflight headquarters. For observers who still didn't get the point, the Astrodome expressed this same vision: The future belonged to those who would use technology to invent their own environment.

A FALSE START

If ever there were an opportunity for a city to reinvent itself on a grand scale, the Astrodome provides it for Houston—again. (Two years ago, in an ideas charrette sponsored by the Rice Design Alliance, a nonprofit dedicated to improving Houston's built environment, a colleague and I proposed one such reinvention: an air-conditioned pedestrian city inside the dome—an Astrocity—with schools, parks, Starbucks, office space, and residences.)

There's nothing out of the ordinary about the rushed request for proposals issued by the Harris County Convention and Sports Corporation in June (with an early August deadline)—and that's the problem. Because it seeks to identify a redevelopment team and new use simultaneously, the RFP instantly shuts out concepts not attached to development experience and dollars—and shuns qualified developers who haven't magically come up with the "right" use. In a county where tearing down old buildings has long resembled a public sport, few in the design community have taken this search seriously.

In response to criticisms of the process, County Judge Robert Eckels—who, as presiding officer of Harris County Commissioners Court, has purview over the corporation—has been downplaying its deadlines and requirements. This despite the fact that corporation chairman Mike Surface says he expects to receive only two or three serious responses.

"We truly want ideas that will help it maintain its status as an international icon," Eckels claims. But the request that was issued seems to preclude the possibility of thinking big.

WHAT'S THE BIG IDEA?

For Houston, the trouble with unimaginative Astrodome redevelopment proposals is that it would be too tempting to view them as the city's comeuppance. A second career as just another giant mall, food court, amusement park, entertainment complex, hotel, or multiplex would mark a sad fall for a former wonder of the world.

Generating a workable redevelopment idea for the dome that is big enough to recapture the world's imagination requires a process that is also distinctly out of the ordinary. A smart search would incorporate aspects of both ideas competitions and juried design competitions, and it would include early feasibility studies and healthy doses of public input. The show-me-themoney attitude the management corporation is taking should be part of the game plan, but it shouldn't be the only play. And the process needs to be guided by an organization that can look out for the city's interests. What's more important for Houston than saving the Astrodome is learning how to restore the inventive spirit that created it.

Larry Albert is an architect at Murphy Mears Architects in Houston.
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