

architecture



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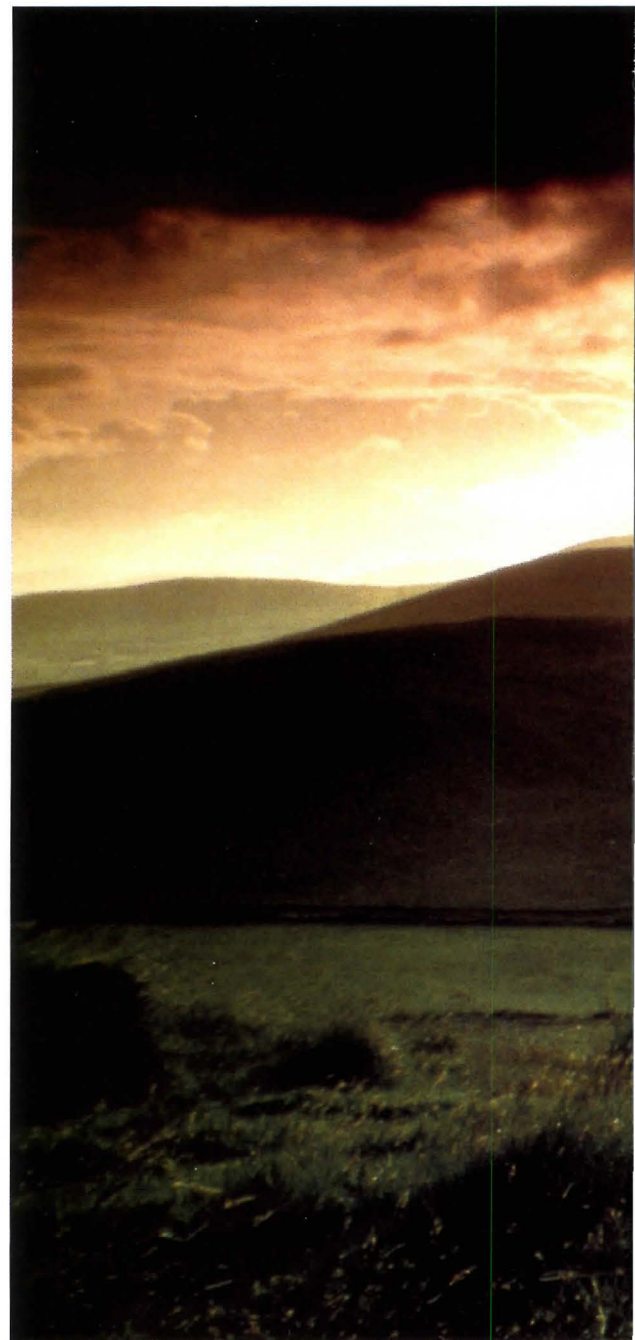
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BY REED KROLOFF

LET'S GIVE SAM MOCKBEE THE GOLD MEDAL

The notion of “ethical practice” reappeared not long ago as a topic of debate in architectural circles. With the psychological wounds of the early 1990s salved by Clinton-era prosperity, architects began looking beyond the bottom line for guidance on how to build better professional lives. The events of September 11, 2001, gave painful impetus to the process.

As with so many things, the search might have begun in the profession’s own backyard, for no one offered a greater model of ethical practice than architect Samuel Mockbee, who died at age 57 on December 30, 2001 (page 23). Mockbee already owned a wall full of local, state, and national design awards in 1993 when he, along with then-Auburn University School of Architecture head Dennis Ruth, founded the Rural Studio, a design-build program based in Greensboro, Alabama. At a time when most schools were lost in solipsistic architectural theorizing, Mockbee proffered a quiet, humane, and more critically grounded vision that architecture was, fundamentally, a quest to improve the human

condition. For him, that meant working with students to create innovative, often dramatic, yet always affordable houses for the impoverished residents of rural Hale County. It was a mission he articulated in near religious terms. “What we build are shelters for the soul,” he once remarked, “as well as homes for bodies.”

Mockbee recognized that his career choice was not for everyone (and it was a choice; he ultimately left his influential practice with partner Coleman Coker to devote his full energies to the Rural Studio). Of the many stories recounted about this humble but self-aware man with the sly-fox sense of humor, I particularly like the one where he was presented with a recent book on significant late 20th-century architects. “Hmmm,” he mumbled respectfully, running his finger down the table of contents, past I. M. Pei and Richard Meier. “Of course,” he intoned with just the right amount of mock seriousness for Frank Gehry. And then, as he arrived at the Rural Studio listing, a broad wink. “Oh those fellows,” he drawled, “Don’t they do houses for poor people?”

In 2000, Mockbee received a MacArthur Foundation “genius” grant, which he of course dismissed as “some sort of mistake. Haven’t they seen my grades?” Perhaps not. But the folks at MacArthur were wise not to define the term too narrowly. Mockbee’s genius may not have been bookish, but it was easy to read: He was an applied ethicist of the first order, a man who set an elegant, measurable standard by which we all can evaluate our professional—and personal—intentions.

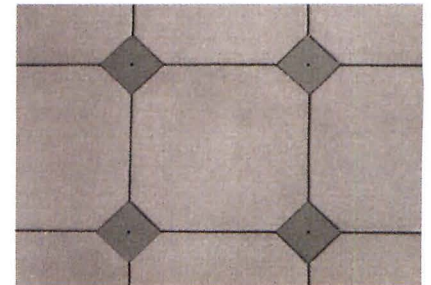
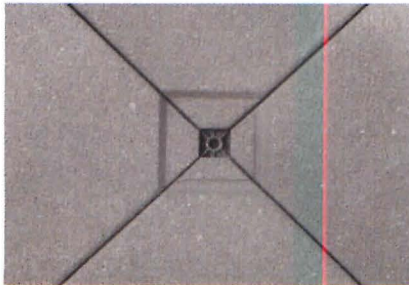
Award-winning designer, teacher, humanitarian, “genius,” Sam Mockbee exemplified what it means to be a great architect. Kudos to the MacArthur Foundation for their timely recognition of his contributions to society. The architecture profession’s honors will have to come posthumously. Since the Pritzker Prize is awarded only to living architects, the AIA should immediately award Mockbee the Gold Medal—the Institute’s highest honor—for 2003, and present it to his wife Jacquelyn in a double ceremony with this year’s winner Tadao Ando (December 2001, page 84) at the annual meeting this May in Charlotte, North Carolina. Ando would recognize and appreciate the gesture. Furthermore, since the AIA wouldn’t need to convene its board of directors in Washington, D.C., to consider a nominee for next year, the tens of thousands of dollars saved could be donated to the Rural Studio, helping to preserve Sam’s legacy for years. E-mail AIA CEO Norman Koonce (nkoonce@aia.org) to register your support. Pledge a few dollars of your own to the Rural Studio while you’re at it (www.arch.auburn.edu/ruralstudio).

Sam Mockbee pointed us all toward the moral center of this profession, and demonstrated just how rewarding the journey there can be. Thanks, Sambo. You were a gentle and effective guide. We miss you already. ■



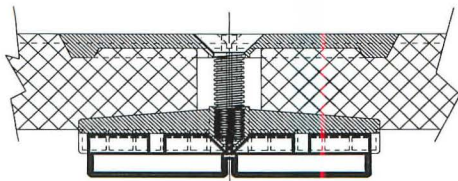
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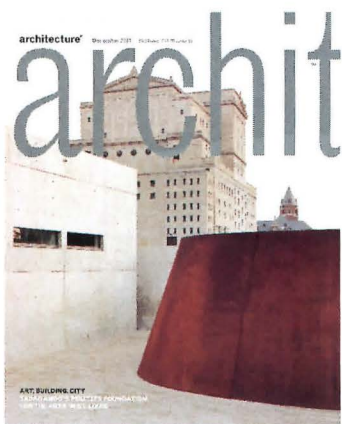
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> letters



PROFESSIONAL SLACKERS

I am sorry to hear that the accreditation cycle of professional degree programs has been extended from five years to six (December 2001, page 20). The idea that it is “lessening the burden” should be stated, “increasing the slack.” Having attended two accredited schools during my career as a student, I have also had the pleasure of going through the accreditation process twice. Here is the problem, the reason why it is such a “burden”: these programs are given entirely too much time between reviews, waiting until the last minute to prepare and fix problems. What is a shame to me is that the faculty of the schools put on such a show for

the accreditation boards every five, excuse me, six years, when they should be doing it every year for the students in order to improve and maintain education standards.

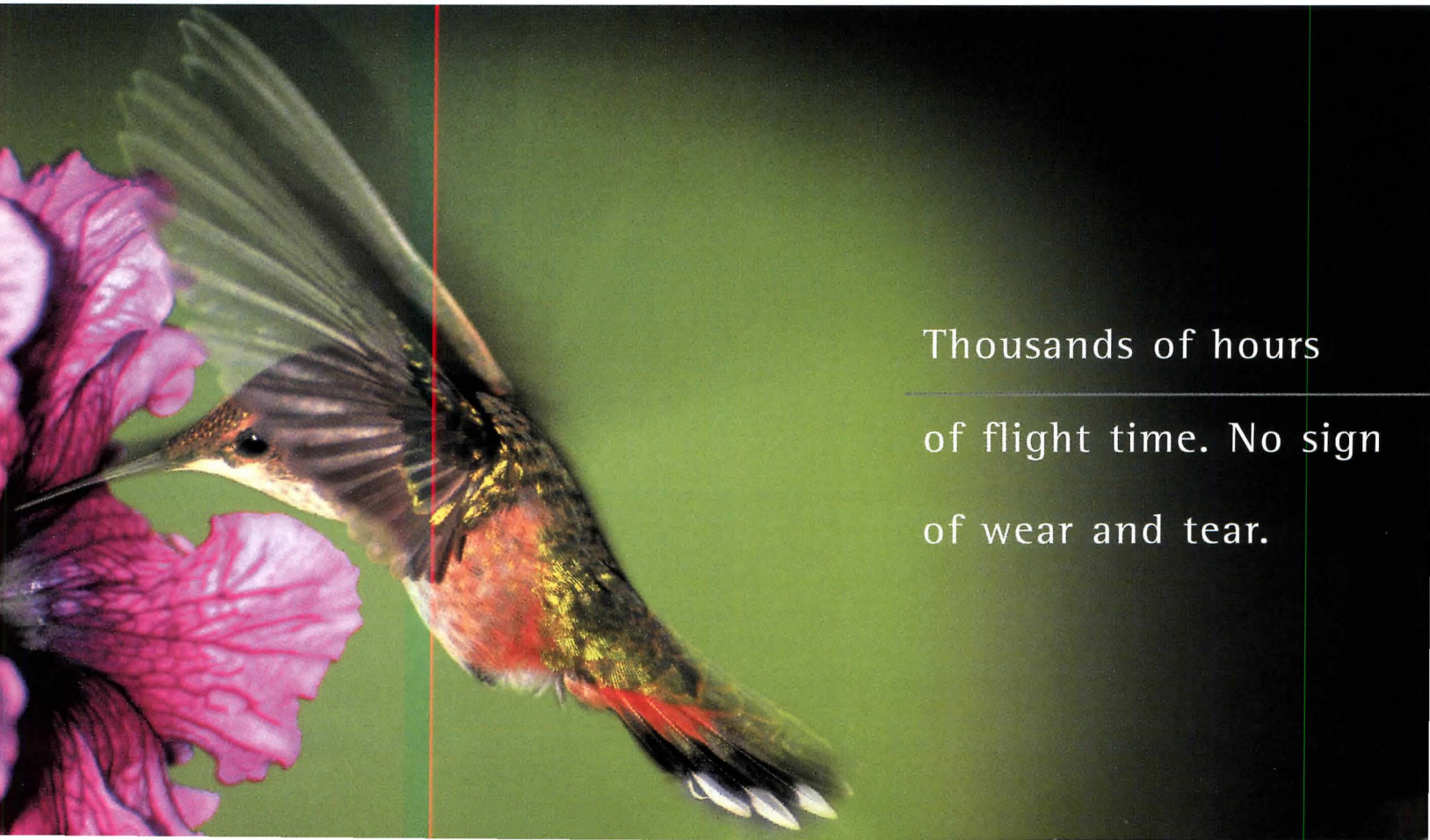
Julie C. Michiels
via e-mail

SPRAWL DEPRESSES, STUNTS

Eric Fredericksen’s article on USA Today’s and the Brookings Institute’s sprawl studies was interesting—and I was totally blown away (December 2001, page 48). As my sense of disorientation began to wear off, however, it was replaced with a feeling of depression. These reports appear to pro-

vide a bit of relief to any would-be sprawl supporters out there. The U.S. is a world leader in many wonderful areas, but quality built environments is not one of them. Presumably, many readers of this publication would agree. This shortfall is not due to lack of design talent or innovation. It’s due to a ridiculous and consistent “bottom line,” more-space-at-the-expense-of-quality mentality. This throwaway value system is what sprawl is all about.

Sprawl is not just a mathematical calculation—it’s a frame of mind. Though density is certainly an important consideration, it is not the only—nor the most important—factor. A city can be very dense and still be a disaster. How



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many people can ride their bike to work? How many people are willing to give up square footage on their new pseudo-mansion in order to build it to last a century? The answer to these questions in most areas of our country is "not many." Until the answer to these questions is "everyone," our cities will continue to suffer.

Though this report is interesting, and may help us determine some of the factors to better urban density, I think the message we need to get across to our society is less analytical and more spiritual: A city can be as dense as you want to make it, but without thoughtful planning and a public desire for quality in our built environment, it's still a sprawling, wasteful,

culturally stunting way to live.
Ted Redmond
Minneapolis

AIA A-OKAY

I have just read the letter from Mr. David Echt in your January issue regarding his obvious disdain for the AIA. Although I respect his opinion I have a slightly different view. First, the AIA, like anything worthwhile, is worth what you put into it. I suspect that Mr. Echt is waiting for the architectural community to come to him rather than the other way around. To many a young architect who asked, "What does the AIA do for me?" I have consistently replied, "I could not have practiced for 40 years with-

out it." The AIA has given me knowledge, broadened my outlook, exposed me to the community as a professional, and has allowed me to meet and become friends with some of the brightest and most unselfish people in this country.
Vel Hawes
Dallas

BRAVO, ANDO

The Pulitzer Foundation for the Arts is stupendous! Ando is to modernism what Schinkel was to classicism (December 2001, page 86). While Schinkel successfully adapted classical architectural pieces to fit the programs and sites of his projects, Ando uses the simple vocabulary of first

generation modernists (in this instance Mies Van der Rohe and Louis Kahn) and reinterprets the parts to fit a new program and site in St. Louis. And he does it masterfully.

Benjamin Schreier
Boca Raton, Florida

CORRECTIONS:

The façade detail section of the Herz Jesu Kirche was incorrectly labeled "bell tower" (November 2001, page 90).

In November's "Specifications," the upper portion of the columns in the photographic illustration should have been attributed to Edelman Metalworks (page 129).

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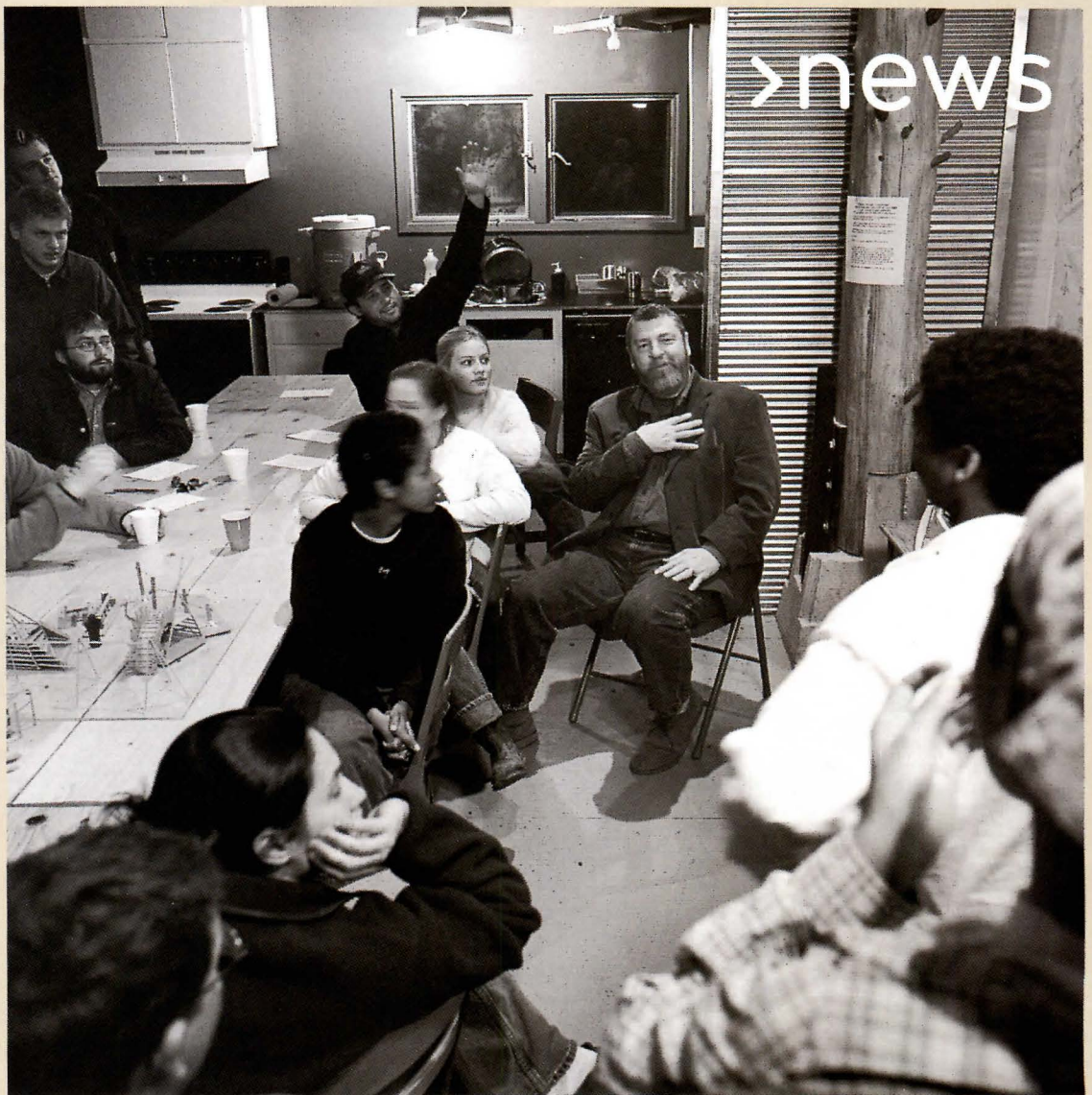


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Architecture Loses Its Conscience: Samuel Mockbee Dead at 57

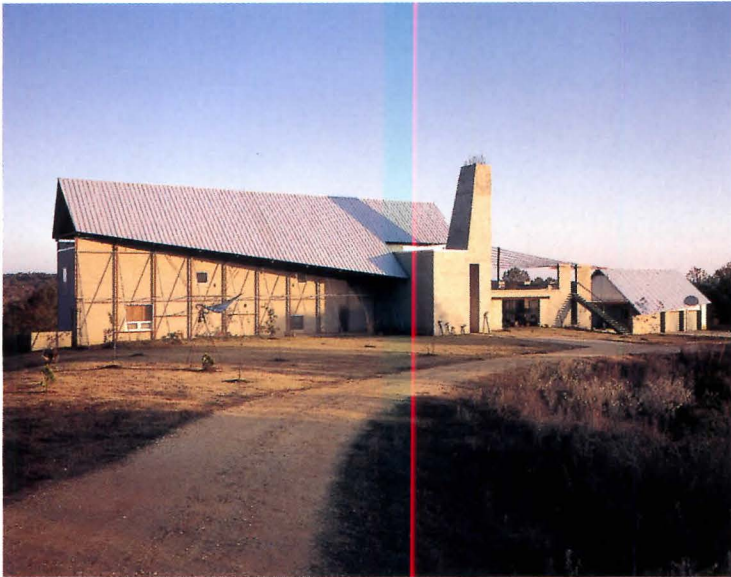
> IN MEMORIAM Architecture lost one of its heroes on December 30, 2001, when Samuel Mockbee died in Jackson, Mississippi, of complications from leukemia.

Mockbee, whose work dignified this profession by demonstrating its power to improve lives, was an inspiration to many.

Born in Meridian, Mississippi, on December 23, 1944, to a fourth-generation Mississippian who sold shoes door to door, Mockbee loved to draw at an early age. By 10, he knew he wanted to be an architect. He served in the army from 1967 to 1969, and went on to graduate from Auburn University's College of Architecture, Design, and Construction in 1974. Three years later, he and architect Coleman Coker founded Mockbee/Coker Architects. The

practice quickly established itself as a leading voice in a movement that would later be identified by historian Kenneth Frampton and others as "critical regionalism," a marriage of modernist rigor and localized building traditions. Mockbee/Coker's work was widely published, and the firm won many local and national design awards.

In 1991, Mockbee returned to Auburn as a professor. Two years later, he and Dennis Ruth, then-head of Auburn's architecture school, founded a design-build program that brought students from the Auburn campus to Hale County, Alabama, one of the



Samuel Mockbee teaching at the Rural Studio in February 2001 (preceding page). Mockbee/Coker's Cook House (above left), in Oxford, Mississippi, for which the firm won a National AIA Honor Award in 1994. Yancey Chapel (above right), in Hale County, Alabama, with walls made of discarded tires, designed and built by Rural Studio students and completed in 1995.

nation's most intractably impoverished locales. Utilizing donated and scavenged materials and student labor, the Rural Studio, as the program became known,

designed and constructed buildings ranging from houses to chapels to community halls, all of which exhibited a formal exuberance rarely associated with low-cost architecture. In all, more than a dozen projects were completed under Mockbee's direction (January 1997, page 49; August 1997, page 88; May 2000, page 194), and the program inspired a return to hands-on studio experience in professional programs across



the country. More importantly, it brought new dignity, hope, and security to a struggling community.

Despite his natural modesty, Mockbee earned even greater renown for his work with the Rural Studio. In June 2000, the MacArthur Foundation, one of the nation's leading philanthropies, took note of his work and awarded Mockbee a "genius" grant, one of only three ever given to an architect out of some 600 recipients.

By then, a battle with leukemia had cost Mockbee, once a bear of a man, some of his physical strength. But he rallied, rededicated himself to the studio, and was the subject of a one-man show at the Max Protetch gallery in New York last year. Mockbee is survived by his wife Jacquelyn Johnson Mockbee, three daughters, and a son. Auburn vows the Rural Studio will continue in his memory.

REED KROLOFF

Banana Republic at Big Dig

> INFRASTRUCTURE As if a tremendous leak in its Fort Point Channel weren't problem enough, Boston's Big Dig is also proving to be a financial sinkhole. The \$14.5 billion highway, tunnel, and bridge project is now \$1.2 billion over budget, and securities-rating agencies Moody's and Fitch have both downgraded the financial outlook of the overseeing Massachusetts Turnpike Authority.

Frustrated by mounting costs and citing their October 30, 2001, vote to postpone a toll

increase planned since 1997, Governor Jane Swift suspended Turnpike Authority Board Vice Chairman Christy Mihos and Director Jordan Levy in November.

The U.S. Department of Transportation Inspector General's Office, meanwhile, has begun preliminary meetings that may lead to an audit of project consultant Bechtel/Parsons Brinckerhoff, which was responsible for reviewing and compensating cost overruns.

Turnpike Authority General Counsel Peter Pendergast explains that Bechtel/Parsons' "documentation supporting the payments was insufficient." Moreover, they have been accused by the Turnpike Authority of negligence in pursuing cost recovery from designers and contractors for mistakes. Construction of

the Big Dig began in 1991; only \$30,000 of the presumed \$1.2 billion in cost overruns has been recovered for the state of Massachusetts.

Pendergast fears that Swift's firing of Mihos and Levy will put authority back in the hands of Bechtel/Parsons by leaving the helm unmanned. This, he worries, could lead to further unjustified overrun payments that the state is owed but can't collect.

Regardless, the governor's office seems confident about the firings and the future of the Big Dig. Swift's spokesman Jim Borghesani commented that with the directors' termination, cost recovery "in fact will most likely work better because there will be more efficient management and more intelligent management on the Turnpike board." **DAVID SOKOL**

Brownfields of Gold

> LEGISLATION In mid-January, President Bush signed the "Small Business Liability Relief and Brownfields Revitalization Act," legislation encouraging development on brownfield sites. The bill grants exemptions for small businesses from the so-called Superfund liability—a category of the most contaminated sites that was classified in 1980 by the EPA. It also provides federal seed money to aid states in cleaning up sites.

The legislation provides \$200 million annually to states for the next five years, a small appropriation considering it could affect up to half a million sites nationwide, as estimated by the bill's sponsor, Representative Paul Gilmore (R-Ohio). Roger Platt, senior vice president and counsel for the Real Estate Roundtable, a Washington, D.C.-based lobbying group representing more than \$250 billion worth of property, calls it "a great



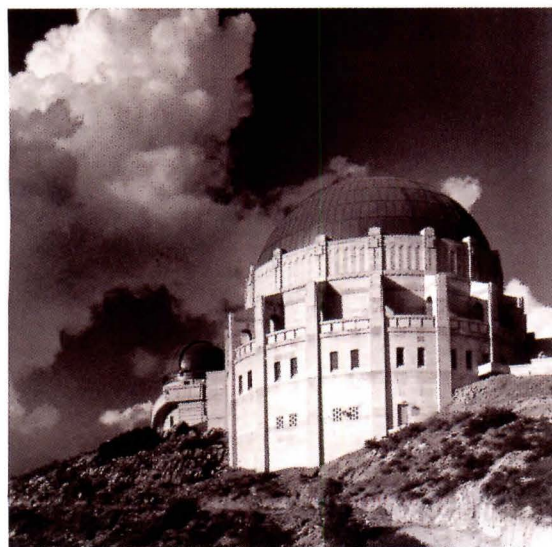
piece of legislation that will encourage cleanup and use of sites that otherwise would lay idle."

Platt's endorsement of the act echoes a similar statement by the American Institute of Architecture.

Environmental groups, such as the Sierra Club, however, are concerned about the law. With the new Superfund liability exemption, small businesses wishing to develop on brownfields are now required to meet state standards, which vary across the

country. "While it will help battle sprawl," says Ed Hopkins, director of environmental quality for the Sierra Club, "it is a rollback of federal legislation that leaves states to their own devices to devise cleanup standards."

ALAN G. BRAKE



Hollywood Facelift

> PRESERVATION One of film's great architectural stars—appearing in dozens of movies, from *Rebel Without a Cause* to *The Amazing Colossal Man*—the Griffith Observatory on the cliffs of Mount Hollywood has been closed until 2004 for much-needed restoration. With the world's most peered-through telescope, the Griffith receives 1.8 million visitors annually. The exterior will receive cosmetic changes, including a newly polished copper dome and a fresh coat of paint. Major surgery will take place on the interior, doubling the size of the city-owned facility. Additions include a new subterranean exhibition hall and a 200-seat auditorium named after donor Leonard Nimoy. **AGB**

BUZZ

Rumor has it that **Eric Owen Moss** has been named the new director of **SCI-ARC**.

Green Thumb, a Washington, D.C.-based organization that trains and places older people in jobs, has named America's oldest worker: **Harold H. Fisher**, a 100-year-old architect who works every day as president of Harold H. Fisher & Associates, in Grosse Pointe, Michigan.

And the **Millennium Dome** commission goes to...**Terry Farrell & Partners**. The firm's master plan for the reuse of the structure and the surrounding area (called the Dome Waterfront) includes 5,000 homes, an **HOK**-designed 20,000-seat arena, offices, parks, and retail. The redevelopment will reportedly create 20,000 jobs. Farrell's mixed-use project won over proposals to turn the Dome into a biotech research center or a sports academy.

According to the AIA Risk Management Committee, the National Society of Professional Engineers, and the American Consulting Engineers Council, premiums for **liability insurance** may rise 10 percent during 2002.

Jones Studio (Phoenix) has been chosen to design the \$6.6 million expansion of the **College of Architecture, Planning, and Landscape Architecture** at the **University of Arizona in Tucson**. The architects will also design (in association with **Gensler**) a \$58.7 million Mediated

Making the Grade: Survey Ranks Schools, Graduate Performance

> **EDUCATION** Counsel House Research/Greenway released its 2001 "Top Design Colleges and Universities" survey late last year. Conducted for the Design Futures Council, a Washington, D.C.-based think tank that addresses trends and issues within design, architecture, and engineering, the study surveyed 3,000 designers and architects. It appears in *DesignIntelligence*, as well as the *Almanac of Architecture and Design's* Third Edition. Some highlights:

Top 15 Ranking: For best preparing students for the profession of architecture, Cornell University came in first place in 2001, for the third year in a row. The University of Cincinnati moved up to third place, from sixth in 2000, while Yale University dropped from third to 10th in the last two years.

Salary: The average starting salary for the majority (49 percent) of architecture students graduating in 2001 was in the range of \$30,000–34,999.

Skills: When asked to name up to three skills their newly graduated employees lacked, only 2 percent of respondents picked design and research skills, as well as "relationship between design and technology." Ninety percent of the respondents cited "building/structural knowledge," while 78 percent selected "oral and written communication skills." New graduates, however, seem to be paying attention in their professional practice courses—only 3 percent of architects thought the graduates needed to improve their project-management skills.

The survey is a good way to judge how programs emphasize traditional professional skills, says Frederick Steiner, dean of the School of Architecture at the University of Texas at Austin: "It's sort of a customer satisfaction survey; from that perspective, it's successful." However, it omits other assets that cannot be easily quantified. "One would hope that other factors would be considered too," says Steiner. "Where are they (the graduates) going to be in five years? Are they talented designers? Are they going to change the direction of architecture?"

SARA MOSS

*Architectural copper has many colors,
but only one name. Revere.*



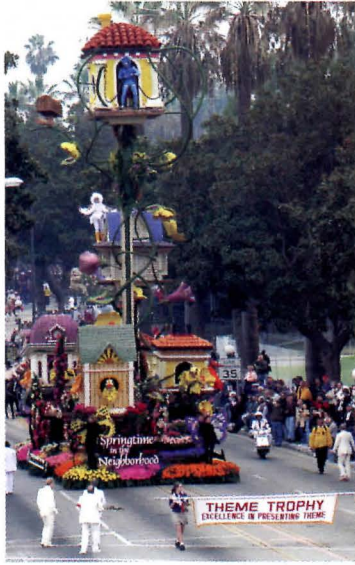
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> PARADES The National Association of Home Builders took a break from work to appear in the 113th Tournament of Roses Parade in Pasadena, California (left). Every New Year's Day before the Rose Bowl, the event is watched by an estimated 350 million television viewers. This year's theme was "Good Times." The NAHB's float, built by Festival Artists of Azusa, California, was titled "Springtime in the Neighborhood." Bungee jumpers dressed as birds learning to fly perched in fruit-, flower-, and vegetable-covered birdhouses, one as high as 48 feet. The float traveled the 5 1/2-mile parade route with 52 other floats and with Grand Marshal Regis Philbin, and it snagged the Theme Trophy. **SM**

BUZZ

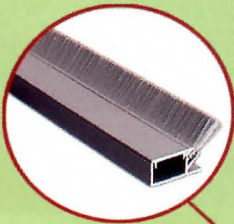
Classroom/Social Sciences Building for **Arizona State University** in Tempe, Arizona.

Nicholas Grimshaw has been knighted by the **Queen of England**.

Landscape architect **Arthur Edwin Bye, Jr.**, known as A. E. Bye, died on November 25, 2001, at the age of 82. Bye was a 1993 recipient of the American Society of Landscape Architects' Gold Medal.

Everything Comes Up Roses for NAHB

The Hidden Beauty of PEMKO



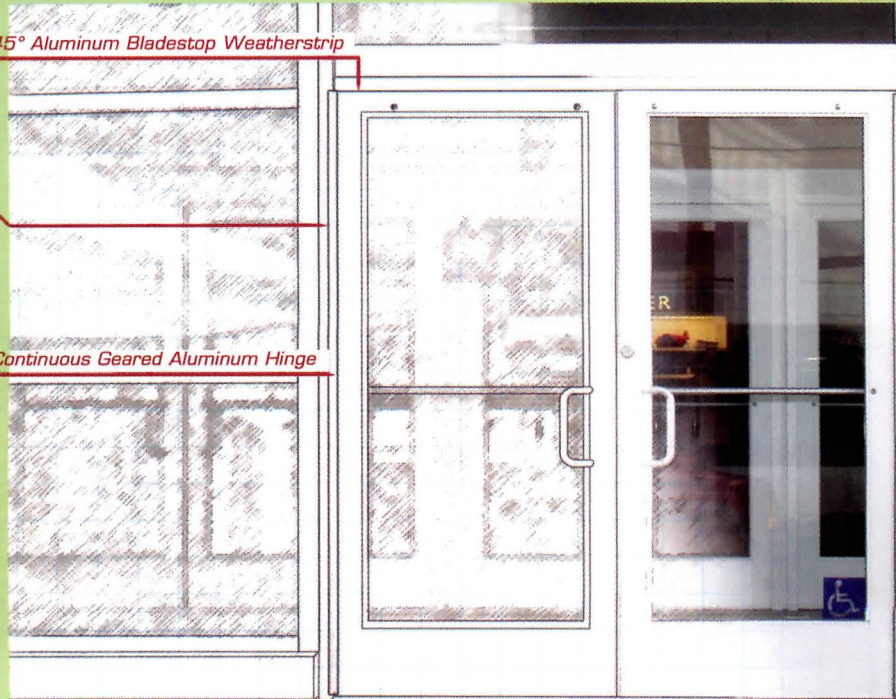
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• Durable

• Aesthetic



viewing platform on Fulton Street on the east side of Liberty Plaza, they at least have somewhere to go. Designed in collaboration by Rockwell Group, Diller + Scofidio, and Kevin Kennon, the platform is a simple ramp structure of unfinished wood and plywood over scaffolding. Wide boards serve as both guardrails and sites for scribbling messages. Not quite touristy, not quite sacred, this pragmatic temporary intervention is, uncomfortably, the hottest ticket in town.

ERIC FREDERICKSEN

Public Viewing

> CITY

WORLD TRADE CENTER VIEWING PLATFORM / FULTON STREET, NEW YORK CITY

Like it or not, the streets around the World Trade Center site have been drawing masses of onlookers ever since the atrocity. With the late-December opening of a



Stained Glass

> BOOK

"THE GRAY CLOTH AND TEN PERCENT WHITE"
BY PAUL SCHEERBART
TRANSLATED AND WITH
ILLUSTRATIONS BY JOHN A.
STUART / MIT PRESS

In 1914 Paul Scheerbart published *Glass Architecture*, a utopian manifesto on that most modern of building materials. Admired by

Walter Gropius, called "the only poet in architecture" by Bruno Taut, Scheerbart imagined humanity transformed by an environment that glittered like "brilliant and enamel."

In the same year, Scheerbart published a novel which lampooned the ideals of his own polemical writings. Recently translated into English for the first time by John A. Stuart, the director of the graduate program in architecture at Florida International University, *The Gray Cloth and Ten Percent White* follows fictional Swiss architect Edgar Krug and his American wife Clara around the mid-20th-century world as Krug builds grand environments out of colored glass. The book's title comes from a clause in the couple's wedding contract wherein Clara agrees to wear nothing but gray clothes trimmed with white, to complement

the brilliance of her husband's buildings. The clause, which may allude to Adolf Loos's satirical fable "The Poor Little Rich Man" or to Frank Lloyd Wright's practice of designing dresses for several of his Chicago clients, gains Krug infamy, and then a slew of jobs. Mirroring our contemporary architectural elite like a fun-house mirror, Krug is commissioned to build a signature museum to house a lackluster collection, which is then heisted by cloaked thieves, leaving the building happily empty.

In *Glass Architecture*, Scheerbart writes that enclosures were the site of culture, and that "if we wish to raise our culture to a higher level, we are forced for better or for worse to transform our architecture." In *The Gray Cloth*, Scheerbart shows that even in the most edifying buildings, the human comedy finds a home.

ALAN G. BRAKE

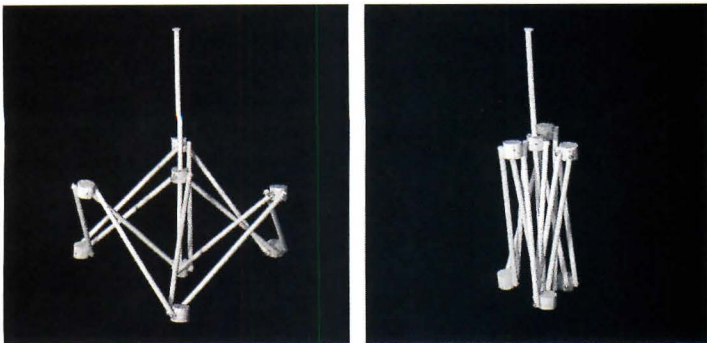
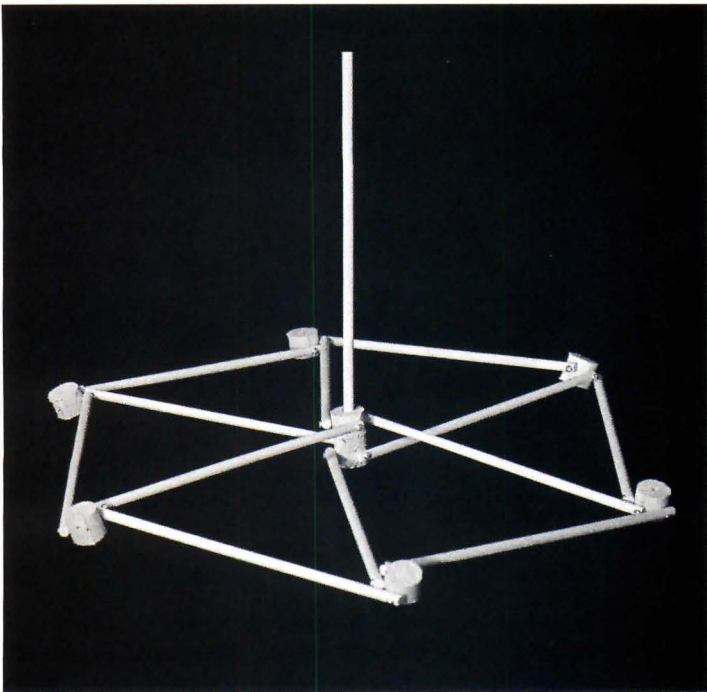
It's a Cave, It's a Womb...

> EXHIBIT

ERIC OWEN MOSS
"THE CATERPILLAR"
LOS ANGELES COUNTY MUSEUM OF ART / THROUGH SEPTEMBER 8

Kids describe Eric Owen Moss's walk-through environment in the children's galleries of the Los Angeles County Museum of Art as a "cave" or a "tree." Adults compare the 36-foot-long tubular hallway to an "intestine" or a "womb." In fact, it's a "Caterpillar." The curators of LACMA's *Seeing* exhibition commissioned Moss and eight L.A. artists to design temporary installations incorporating works from the museum's collection in ways that would appeal to both children and grownups. Moss—an architect known for his love of low-cost solutions and creative geometries—came up with a whimsical proposal: a sheath of see-through cardboard honeycomb stretched over a series of circular ribs. The installation presents four Mesopotamian cylinder seals set in mirrored, lighted bowls in the structure's plywood base—many visitors miss them entirely. The moving legs of people passing through the elevated tube are supposed to evoke a caterpillar's feet. It seems a bit abstract for the kids, but it's still "very cool," one youngster allowed. **ANDRAS SZANTO**





Folding Space

> BOOK

"SANTIAGO CALATRAVA'S CREATIVE PROCESS"
EDITED BY ALEXANDER TZONIS AND LIANE LEFAIVRE
BIRKHÄUSER

In *On the Foldability of Frames*, Santiago Calatrava's 1981 doctoral dissertation for ETH Zurich, equations and photographs of wood study models (above) reveal the genesis of the architect's later full-scale built work: elegant, highly engineered structures that often expand and collapse. A

volume of this previously unpublished academic work, along with a volume of Calatrava's sketches, has been assembled and recently published by Birkhäuser. The set, coedited by *Architecture* contributing editor Liane Lefaivre, is available in the U.S. this month.

SARA MOSS



Kaleidoscope Telescopes

> OBJECT

KALEIDOSCOPE HOUSE / BOZART TOYS / WWW.BOZART.COM

In October 2000, Bozart Toys introduced the Kaleidoscope House, a modernist dollhouse designed by artist Laurie Simmons and architect Peter Wheelwright. Its chic, translucent sliding walls, whose colorful hues change as they overlap one another, plainly assert that it is the most modern dollhouse on the block. Bozart's latest offerings aim to keep it that way.

While the Kaleidoscope House brings modern design to children who don't like Victorian frippery, it also follows the buying habits of many full-scale modern families. The house is more than a shell: It can be purchased with modish occupants and miniature replicas of modern furniture by Dakota Jackson and Ron Arad, 1:12 scale reproductions of art by Simmons and Cindy Sherman, and throw pillows by Judy Ross.

In 2001, a year after the initial house hit the scene, a second round of furniture by Jasper Morrison, Karim Rashid, and others was introduced—apparently, even inanimate modernists must redecorate. And this month, the Kaleidoscope family can expand

their manor with a pool pavilion and a copy of Marc Newson's 021c concept car for Ford (which can perhaps drive the Kaleidoscope family to a tiny furniture fair). Possibilities for the future include a country house and a studio. There, a tiny teenager might someday start a garage band and rebel against all this good taste.

KIERA COFFEE



{ "What is the victory of a cat on a hot on it, I guess, as long as she can..." }



tin roof? I wish I knew. Just staying }
– Margaret, Cat on a Hot Tin Roof

HE MADE HIS TIN ROOF IMMORTAL. NOW WE'VE DONE THE SAME FOR HIS FRONT PORCH.

When the great playwright Tennessee Williams wrote *Cat on a Hot Tin Roof*, he created formidable, enduring roles. But, when the Columbus, Mississippi, Chamber of Commerce decided to restore his birth home, one thing was clear – Williams' front



{Tennessee Williams' home ~ Columbus, Mississippi}

porch hadn't been built of the same stuff as his characters. Restorers looked into possible materials. Most would require aggressive maintenance, something the Columbus Chamber of Commerce really wanted to avoid. Enter Tendura®.

In the name of durability, many architects have foregone the romantic authenticity of traditional wood, compromising with cold alternatives. Stone. Brick pavers. Tile. Now, with Tendura, there's a durable alternative so like the original wood it's being used in restorations throughout the country. TenduraPlank® is a composite lumber that combines the warmth of wood with the

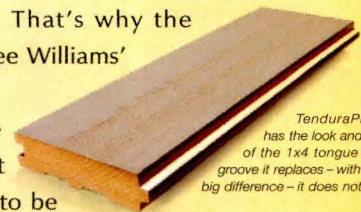


Because it is made from by-product sawdust, no trees are timbered just to make TenduraPlank.

durability of plastic. It comes with a factory-applied primer and can be installed using the same tools as classic tongue and groove. With the look and feel of traditional lumber, it has heart. Warmth. And – with a warranty that lasts for as long as you own the home –

it's a wise choice. A TenduraPlank porch lives a long, long time. That's why the restorers of Tennessee Williams' home chose it.

People say the kitchen is the heart of the home. Used to be the tongue-and-groove front porch was its soul. It was where we thought, planned, and dreamed. Where the drama that is our lives took place. With TenduraPlank, the traditional wood front porch is back. With the warmth and tradition of simpler days, but the timelessness of great theatre.



TenduraPlank has the look and feel of the 1x4 tongue and groove it replaces – with one big difference – it does not rot.

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EXHIBITIONS

> BALTIMORE

Mechanical Form/Mechanical Vision 20th-century visual works influenced by the Machine Age, at the Baltimore Museum of Art, through April 7 (410) 396-7100

> CHICAGO

Mies in America the blockbuster show travels to the Chicago Museum of Contemporary Art, opens February 16 (312) 280-2660

> DENVER

U.S. Design 1975-2000 a general survey of American architecture and graphic and industrial design, including Mark Mack's Roger Thomas House in Las Vegas (below), at the Denver Art Museum, opens February 23 (720) 865-5000



> FRANKFURT

Frequencies [Hz]: Audiovisual Spaces installations by contemporary artists that address the relationship between sound and image, at the Schirn Kunsthalle Frankfurt, through April 28 (49) 69 29 98 820

> HARTFORD, CONNECTICUT

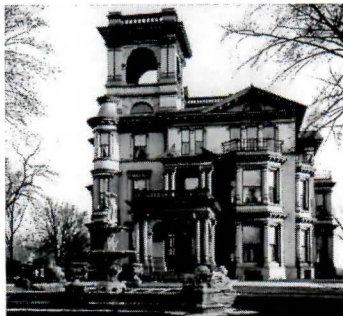
UN Studio/MATRIX 146 work by Ben van Berkel and Caroline Bos, architects of the Wadsworth Atheneum Museum of Art's future renovation and expansion, at the Atheneum, opens February 16 (860) 278-2670

> LOS ANGELES

Urban Innovations: Shrine to Junipero Serra submissions by Frank O. Gehry & Associates; Venturi, Scott Brown & Associates; Santiago Calatrava; Morphosis; and Rafael Moneo, from the competition for the Cathedral of Our Lady of the Angels, the inaugural exhibition at the Architecture and Design Museum, through March 21 (213) 620-9961

> MILWAUKEE

Gone but Not Forgotten photographs of and artifacts from turn-of-the-century Milwaukee mansions, now demolished, at the Captain Frederick Pabst Mansion, through April 7 (414) 931-0808



> NEW YORK CITY

2001 Making New York History Awards Exhibition the Skyscraper Museum honors extraordinary local building renovations of the past six years, at Steelcase, opens February 4 (212) 968-1961

Renewing, Rebuilding,

Remembering urban reconstruction projects in Berlin, Beirut, Oklahoma City, Kobe, and Manchester, England at the Van Alen Institute, opens February 12 (212) 924-7000

> OMAHA

Tools as Art: The Hechinger Collection paintings, sculpture, and other works that feature tools as their subject, at the Joslyn Art Museum, opens February 16 (402) 342-3300

> PHOENIX

Secret World of the Forbidden City: Splendors from China's Imperial Palace over 300 artifacts from the Qing dynasty court, at the Phoenix Art Museum, through April 7 (602) 257-1222

> PROVIDENCE

Selections from **In Response to Place: Photographs From the Nature Conservancy's Saving the Last Great Places** 12 contemporary photographers rethink portraying the wilderness, at the Rhode Island School of Design Museum, opens February 22 (401) 454-6500

> ROTTERDAM

Clip City: Space, Architecture and the City in Music Clips excerpts from music videos that portray the metropolis, both virtual and real, at the Netherlands Architecture Institute, through April 14 (31) (0) 1044 0 1200

> TOLEDO, OHIO

The Alliance of Art and Industry: Toledo Designs for a Modern America locally manufactured industrial objects of the 1930s, at the Toledo Museum, opens March 24 (419) 255-8000

> WASHINGTON, D.C.

On Track: Transit and the American City film, music, cartoons and artifacts—including a re-created 1910 streetcar—that trace the development of modern transportation, at the National Building Museum, through October 27 (202) 272-2448

Christo and Jeanne-Claude in the Vogel Collection drawings, collages, and photographs of four decades of work, at the National Gallery of Art, through June 23 (202) 842-6353

> WILLIAMSTOWN, MASSACHUSETTS

Arctic Diary: Paintings and Photographs by William Bradford depictions of Greenland by the 19th-century Arctic explorer, at the Sterling and Francine Clark Art Institute, opens February 17 (413) 458-2303



CONFERENCES

Design and Manufacturing in the Digital Age Conference speakers include William Mitchell, Greg Lynn, and Sulan Kolatan, at the University of Pennsylvania, March 22-23 www.gsfa.upenn.edu/ddrl/symposium

Beyond Sprawl: New Domestic Topographies conference on Los Angeles housing; participants include Thom Mayne, Dana Cuff, and Michael Bell, at the Southern California Institute of Architecture, Los Angeles, March 23 www.sciarc.com

Fourth Annual National Green Building Conference sponsored by the National Association of Home Builders at the Westin Hotel, Seattle, March 24-26 www.nahbr.org/gbc2002

2002 Philadelphia Furniture & Furnishings Show residential and institutional furniture, lighting, and decorative art, at the Pennsylvania Convention Center, April 19-21 www.pffshow.com

COMPETITIONS

AIA Photography Competition 2002 sponsored by AIA St. Louis and open to all architects registered in the United States. Registration and submission deadline March 1 (314) 231-4252

The Journal of Architectural Education is calling for submissions of teaching and design work by design professionals that addresses the issue of surface. Registration and submission deadline March 1 www.flashgun.com/JAE

Ceramic Tiles of Italy Design Competition 2002 sponsored by Assopiastrelle (the Association of Italian Ceramic Tile Manufacturers) and the Italian Trade Commission, invites architects to submit projects of different types that make use of Italian ceramic tile. Submission deadline March 15 www.italiatiles.com

Rome 2001—New Urban Scenes International Ideas Competition for future development of Rome, sponsored by the Rome Architects Association and xpspace.net. Registration deadline March 19 www.xpspace.net



> RENZO PIANO BUILDING WORKSHOP AND FOX & FOWLE ARCHITECTS, THE NEW YORK TIMES HEADQUARTERS BUILDING

In 1904, when a local New York newspaper opened a new headquarters for itself on a triangular plot at the intersection of Broadway and Seventh Avenue, the city responded by changing the name of the area to Times Square in honor of the new tenant. In 2005, the *New York Times* will move into its third building in the area, this one designed by Renzo Piano Building Workshop and Fox & Fowle Architects, on Eighth Avenue between 40th and 41st streets. The paper will be using its name to pull the boundaries of Times Square several blocks south to a scruffy and nondescript lot that faces the Port Authority bus terminal.

Piano's building does not, however, bring any of the retro flash that has become de rigueur for new projects in the area. The architect has chosen to speak to the *Times*, not to Times Square. According to Piano, a central goal for the 52-story building was to make it as open and transparent as possible, ostensibly to embody the symbiotic relationship of a city to its newspaper; the building's formal simplicity derives from the

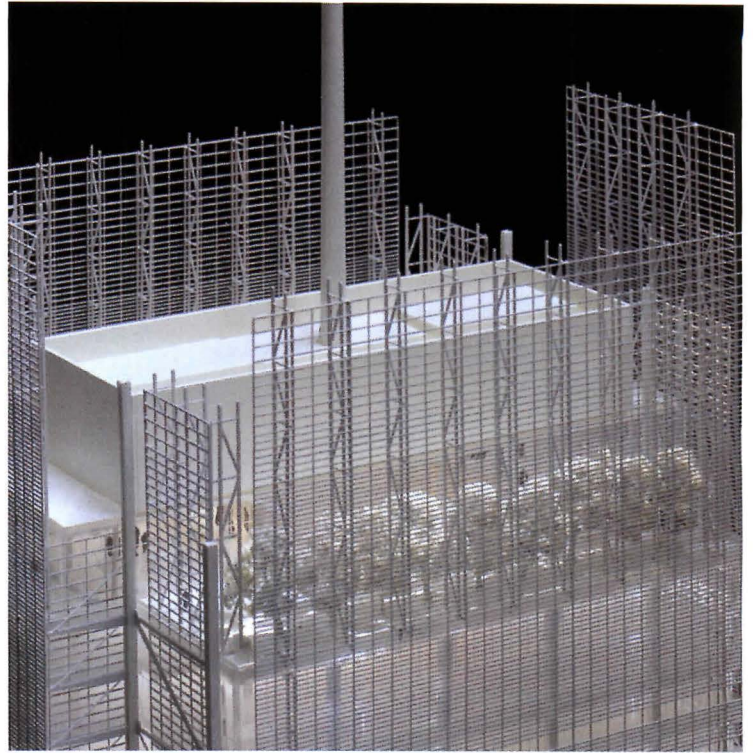
straightforwardness of the city's street grid. Beneath the tower, a base holds the lobby, an auditorium, shops, and a public garden on the ground floor, as well as the 3-level newsroom that starts on the second level. The garden has a doppelgänger on the roof of the tower, though this one is reserved for the tenants of the upper 21 floors, which are controlled by Forest City Ratner and ING Bank, the *Times*'s development partners in the project.

The 1.54-million-square-foot building's most noteworthy feature is undoubtedly its combination of clear glass curtain walls and a scrim of 1 5/8-inch white ceramic tubes. Hanging 2 feet outside the curtain wall, the scrim acts as a sunscreen. There is thus no need for tinted or fritted glass, which allows the building to seem more open and take on the color of the light outside. Such adaptability is what appeals to Piano about New York, too: "[The city's] poetry is in its capacity for change," he says. Times Square, in particular, will undoubtedly keep changing, so perhaps Piano's building is more site-specific than he lets on.

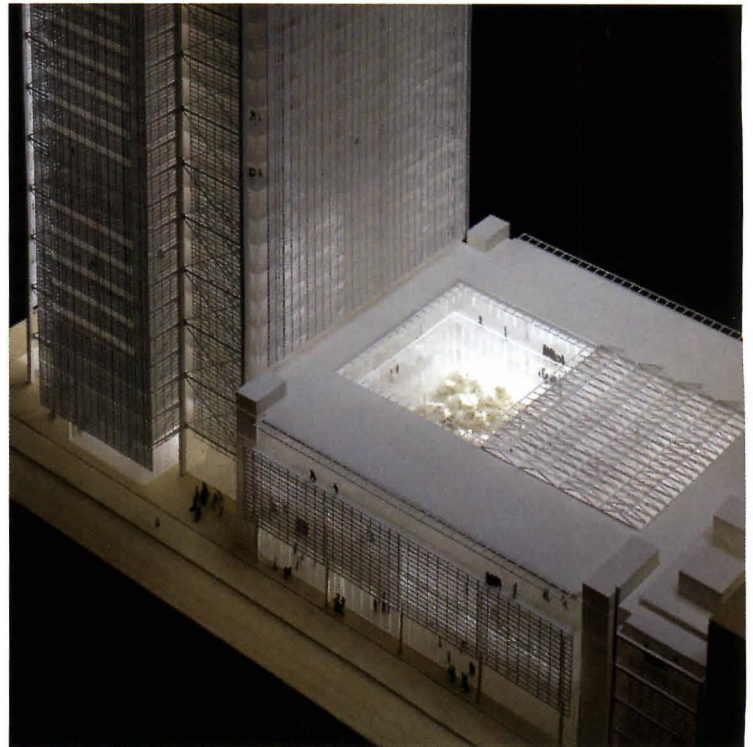
ANNE GUINEY



Eighth Avenue façade between 40th and 41st streets



Roof garden and ceramic scrim



View of the garden in the base

SOMETHING OLD, SOMETHING NEW...



TITE-LOC

Metal Roofing Panels

New from Petersen Aluminum are two structural standing seam roofing profiles. Old is the brick Service Net building, originally constructed in 1893 as a manufacturing plant for passenger rail cars. The structure was renovated in 2000 to serve as offices for Service Net, an underwriter of extended warranties. The standing seam roof was chosen to highlight the brick tower and mirror the corrugated metal walls used as office dividers throughout the interior. The architecture firm of Johnson Romanowitz designed the exterior and 45,000 s.f. of interior space. The roofing contractor, Brasch-Berry Co., Inc., installed the interstate blue Tite-Loc Plus panels.

These new roofing profiles, Tite-Loc and Tite-Loc Plus, have been designed for structural and architectural metal roofing applications and are available in a variety of materials including 22 and 24 gauge steel and aluminum. Both profiles feature factory-applied hot melt sealant to insure weather tight performance. Panels are corrective-leveled during fabrication to provide superior panel flatness. Both profiles feature our PAC-CLAD® Kynar 500 finish, available in 30 standard colors on steel and 22 standard colors on aluminum.

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Sending Reinforcement

A new piece of U.S. legislation aims to bring building safety to Latin America.

BY ANNE GUINEY

> **CODES** “When a building collapses in Ecuador, most people say ‘Es el deseo de Dios—it’s God’s will,’” says New York City architect Steven Forneris. “Well, God doesn’t construct faulty buildings, we do.” Forneris is passionate about building codes in Central and South America, a topic he freely admits is his primary one these days. In the last year, he has become a one-man code-advocacy group, trying to make buildings in Ecuador a bit better able to withstand God’s will. His fellow employees at Lee Timchula Architects smile at his proselytizing, but recognize its genesis: Forneris lived and practiced in Guayaquil, Ecuador, for eight years, and so has an informed opinion of the general state of building safety there. He tells stories of malls whose major

doors open inward, of magazine ads for “seismic-proof” steel. The situation, he notes, is pretty grim.

And it could get much worse. In 1999, the RADIUS Project Guayaquil (Risk Assessment Tools for Diagnosis of Urban Areas Against Seismic Disasters), a joint venture of the City of Guayaquil, a Palo Alto-based nonprofit called Geohazards International, the United Nations, and the Catholic University of Guayaquil, released an exhaustive study of the city’s building stock, seismic risk, and disaster preparedness. The report stated that within the next 50 years, there is a 50 percent chance that an earthquake of 8.0 or higher on the Richter scale will strike within 125 miles of the central city, and that 26,000 people would die, with another 53,000 requiring

hospitalization. These numbers are estimates based on the history of seismic events in and around Guayaquil, and an assessment of everything from the location of firehouses to the dimensions of high-rises.

During his time there, Forneris asked about codes, but nobody seemed to know anything about them. When he finally tracked one down, he found that it was a 1979 translation of a Universal Building Code from the United States, with no local modifications. On returning to the U.S. a year ago, he started talking to friends and old professors, and called up the major code-writing organizations—the International Code Council, for example—to see if they were interested in the problem. They were. Last spring, armed with support from both the ICC and architects, engineers, and contractors in Ecuador (where he still

The town of Pujilli, Ecuador, experienced an earthquake of magnitude 5.7 in March 1996. Seismic disasters in the country have laid bare a national need for improved building standards.

>features

has ongoing projects), he took his case to Congress.

The result of this activism is the Program to Improve Building Construction and Practices in Latin American Countries, currently an amendment of the United States Foreign Relations Authorization Act. Sponsored by Senator Christopher Dodd (D-Conn.) and Representative Rosa De Lauro (D-Conn.), it is a modest bit of legislation that qualifies more as a friendly gesture than as foreign policy. It calls for the translation into Spanish of a model code or codes from an unspecified American code-writing organization, and then the distribution of 5,000 sets of these codes to architects, engineers, contractors, universities, and other interested parties in Ecuador and El Salvador. (Forneris's work in Ecuador and the recent catastrophic earthquakes in El Salvador drove the choices.) There is also a "train the trainer" component, so that proper techniques for the implementation of these codes can be spread, along with the copies of the codes themselves. While as of this writing the legislation has not been passed, staffers in Senator Dodd's office were confident that it would be, and that the program would become law. The amendment's language makes clear that adoption of building codes in the foreign countries is strictly voluntary, and not tied to continued aid for their governments.

In addition to the obvious humanitarian intent of the legislation, there are financial motives as well. The United States spends a great deal in relief—\$200 million on El Salvador alone over the last 20 years—to help rebuild after earthquakes and other natural disasters. Thus, if fewer buildings collapse and there are fewer resulting

deaths, then Congress can appropriate less money for relief in the future. The chilling statistic cited by Senator Dodd in his statement on the legislation is that the cost of funding the translation and training for two years—\$3 million—is less than the U.S. government spent on the body bags, tents, and first aid sent to El Salvador last year after two major earthquakes.

For many supporters in Washington, code translation is a straightforward answer to a huge problem. By providing a proven model building code to countries without one, they believe, construction quality will improve, and the death toll in the case of disaster will shrink. However, as even Forneris will admit, the issue is not just access to good building codes, but their application and enforcement. And this is a problem that may prove much more intractable.

Building codes in Central and South America certainly do exist, but unlike in the U.S., they tend to be applied spottily and may not always be current. (According to Sergio Barrueto of the ICC, until last year, Buenos Aires was using a building code based on German standards from the 1930s.) There are up-to-date codes floating around, says engineer Walter Mera, from the Catholic University of Guayaquil: "I hadn't seen an actual Ecuadorian code until about two years ago, but some designers here do take [U.S. codes] into consideration."

The Ecuadorian code mentioned by Mera was the first new development since the 1979 translation of the UBC. In 1996, then-President of Ecuador Sixto Durán-Ballén ordered an update of the old codes. The first chapter of the Ecuadorian Code of Construction, on seismic regulations, was released with some

fanfare in 1999. However, there was still no way of making sure that it would actually be used. For all intents and purposes, there just isn't any enforcement. Adherence to building codes is taken on by individual architects and contractors as they see fit—a far cry from the high-powered and highly regulated American real-estate environment.

Jaime Argudo, an engineer with Mera at the Catholic University and a member of the RADIUS team, explains that an enormous amount of the construction in Ecuador (and much of Latin America) is informal; by his estimation, only about 25 percent of the buildings in Guayaquil are built with any input by an architect or engineer. "The problem is not just one of updating old codes, but also enforcing them." He explains that most engineers do use some form of seismic code—often the 1997 edition of the UBC—but that engineers generally only get hired to work on high-rise buildings. Mera says that the average house is one or two stories and built out of hollow brick by a local mason with no formal engineering education or incentive to refer to codes; this does not mean it is poorly built, it simply means it was not designed with earthquakes in mind. Between the extremes of the one-family house and the high-rise is a large and dangerous gray area.

If enforcement is really the issue, then it follows that the Ecuadorian government would be a natural player. However, a surprisingly diverse group of people think that regulation is not the way to go: Argudo, who helped write the chapter of the Ecuadorian Construction Code, is joined by Patrick Bredthauer of Cemento Nacional, Ecuador's largest construction materials supplier, and

by Forneris in preferring a voluntary approach. Bredthauer, who supports the U.S. code proposal, and whose company manufactures products that comply with California's seismic standards, jokes, "If we started fooling around with the government, it would take 20 years and the code would need updating again!" Whether or not governmental inefficiencies would indeed grind the process to a halt, many people see compelling legal reasons to keep the codes within the private sector. As it is, architectural liability in Ecuador falls under the jurisdiction of the criminal courts, not the civil ones. Theoretically, substandard design is already a cause for jail time. However, it generally takes a crisis to set the mechanism of enforcement into action, and by then it is too late. Thus, the notion of instituting an additional code that does not address the lack of an infrastructure of enforcement and inspection strikes a lot of people as ludicrous. Mera and Argudo feel that the culture of construction, especially in the informal sector, must change through reaching out to smaller contractors and local governments and educating them. And the Dodd and De Lauro legislation could help to do just that.

In Ecuador, where labor is still cheaper than building materials, it's hard to be upbeat about improving building safety. Argudo, who is a supporter of Forneris's initiatives and the Congressionally funded program, tries to be optimistic: "It will be very nice for the universities and the others in the 25 percent of building projects that use engineers, if the codes are translated and distributed," he says. However, without spreading that information widely, he cautions, "the rest of the country will not be affected." ■



Code translation and training for two years costs less than the U.S. government spent on the body bags, tents, and first aid sent to El Salvador last year after two major earthquakes.

Designated Countries:

Ecuador

Population: 12.4 million
 Urban population: 64.3%
 GDP (US\$): 19 billion
 Foreign investment (US\$): 690 million
 Aid per capita (US\$): 11.70

Major disasters:
August 1998 Earthquake kills three and injures 50 in seaside resort area, and prompts calls for improved building code.

March 1996 In Pujili, near the capital city of Quito, earthquake kills 15 people and injures more than 100.

March 1987 Earthquake leaves at least 20,000 people homeless, prompting a loan of US\$50.8 million from the International Monetary Fund.

El Salvador

Population: 6.2 million
 Urban population: 46.3%
 GDP (US\$): 12.5 billion
 Foreign investment (US\$): 231 million
 Aid per capita (US\$): 29.70

Major disasters:
January–February 2001 Two earthquakes kill more than 1,100 people and destroy nearly 150,000 houses. The United States Agency for International Development appropriates \$58.2 million in relief over two years.

October 1998 Hurricane Mitch causes flooding and landslides in El Salvador, killing 374 persons and displacing 55,864.

October 1986 Earthquake kills more than 1,500, and national newspapers call for greater control over building practices.

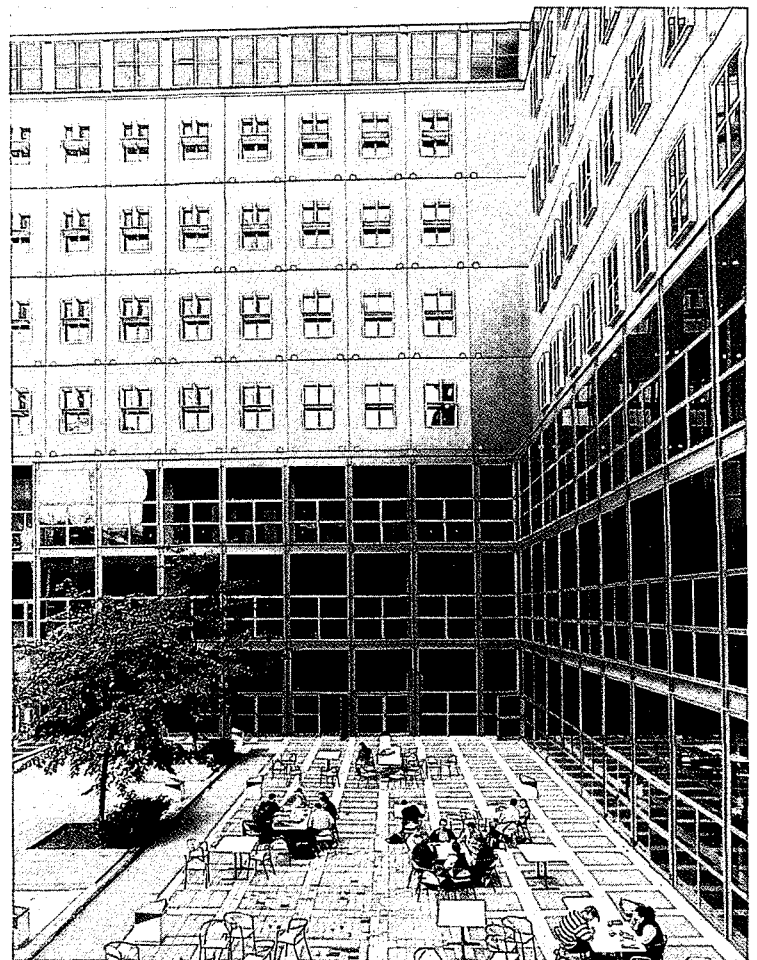
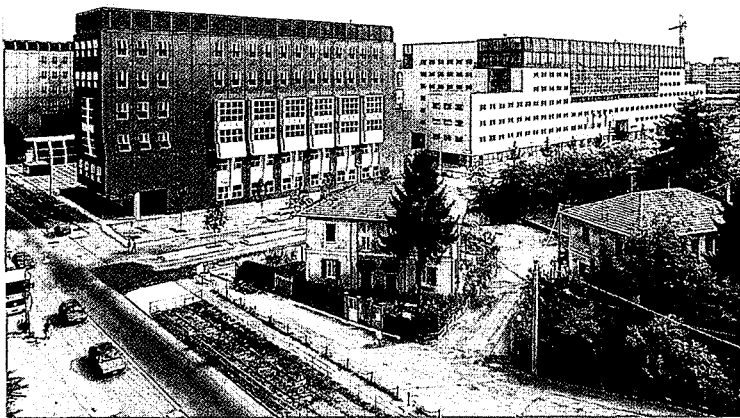


The Modular City

Vittorio Gregotti's vast new Milanese development, La Bicocca, is an object lesson in restraint and rationalism.

BY RICHARD INGERSOLL / PHOTOS: TONI NICOLINI

> **URBANISM** As an educator, editor, columnist, author, and principal of one of the largest firms in Italy, Vittorio Gregotti reigns as the central figure in Italian architectural discourse of the last 30 years. Nearing completion after more than a decade of construction, a 20-block district within the city of Milan, known as La Bicocca, will serve as a major testament to Gregotti's ideals for the European city. The quintessential public intellectual, Gregotti has always aspired to an architecture of civic proportions. Unfortunately the high visibility of his works, such as the infamous Z.E.N. public housing on the edge of Palermo, has lent itself to a backlash against contemporary architecture in Italy. To blame the architect for the social failure of a never-completed and poorly managed housing project, however, is a bit like blaming the doctor for a patient's disease. As opposed to the typically awkward and isolated pieces of modern architecture that have proven to be monumental eyesores in Italy, Gregotti has succeeded in producing a modern fabric for the city. Through the coherent repetition of rational compositions and details, Gregotti establishes a system that guarantees a sense of urban structure. His vision is comprehensive and territorial, requiring the sort of long-term commitment that the fractious Italian government can rarely provide.



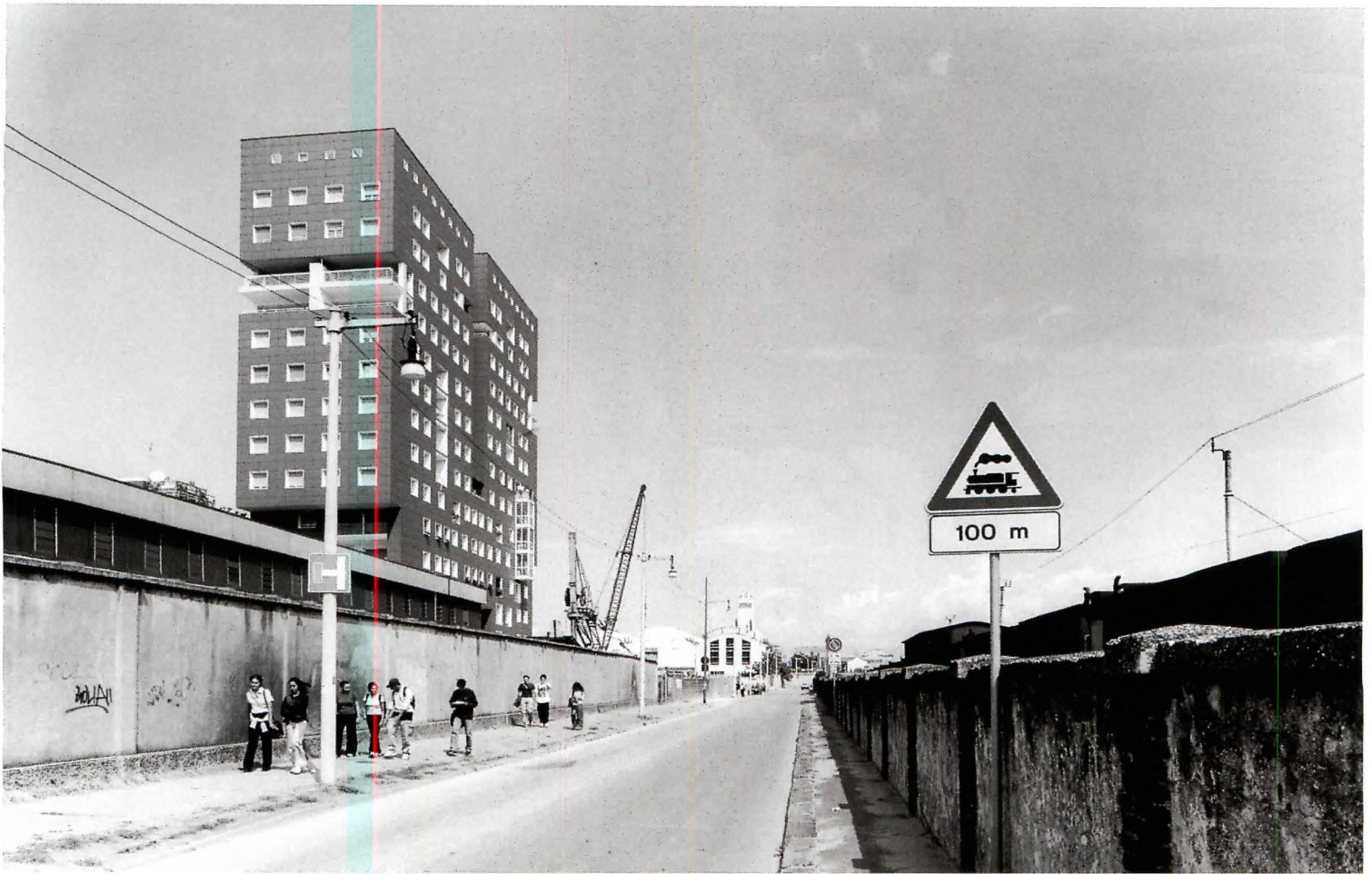
La Bicocca takes its name from a Renaissance villa on the northeastern outskirts of the historic center of Milan. During the first decade of the 20th century, the Pirelli Tire Company established its factory compound in this prime industrial periphery, taking advantage of the rail lines to nearby Monza. Although La Bicocca was historically on the edge of the city, after a century of metropolitan growth it now occupies a central position in *la città diffusa*, a greater megalopolis that sprawls 31 miles from Milan to Como. Inspired by the various Silicon Valley-type technological parks in other prosperous countries, Pirelli decided to transform its obsolete industrial district into a mixed-use urban development. The majority of new buildings at La Bicocca are devoted to scientific research facilities, including public initiatives like the National Research Center, the University of Milan's science and humanities faculties, and private-sector corporations Pirelli and Siemens. About a third of the remainder is a mixture of affordable and middle-income housing, and a tenth will serve as offices and commercial spaces. The final ingredient, a new opera house to be used for the next few years while La Scala is under restoration, opens this Spring.

La Bicocca is similar in area (7.5 million square feet) to several other

In photographer Toni Nicolini's documentation of life in La Bicocca, students, employees, and residents gather in large courtyards at the centers of various blocks. Students chat in the square of the Seconda Università di Milano (facing page), and families negotiate the broad pedestrian boulevard bisecting a cooperative housing development (above left). Another court allows for outdoor study at the university's science department (above right). University housing (top left, at left) sits next to a possible employer of graduates: a research facility for Siemens (top left, at right).

contemporary postindustrial renewal sites in Europe, such as the Canary Wharf area of the London Docklands or the Vila Olímpica in Barcelona. The careful mix of public and private services with housing, and the absence of speculative office towers will help the new district avoid being typecast as a corporate ghost town, as occurred at Canary Wharf. La Bicocca remains unique in that almost the entire urban and architectural scheme has been entrusted to a single office's command. Gregotti's master plan for the site was selected in 1986 over those of 18 high-profile international firms. Of the 20 component parts of La Bicocca, only one, the DeutscheBank Headquarters, was assigned to an architect outside of Gregotti's office: Gino Valle. Consequently, La Bicocca has a high degree of cohesion and stylistic unity from one block to the next, re-creating the homogeneity of the European perimeter block found in the much-admired

>features



late 19th-century metropolitan extensions of Paris, Vienna, and, for that matter, Milan. What differs in this urban pattern is the lack of congestion. Gregotti's urban vision favors the perimeter block as the semantic basis for generating good streets and blending into the city's grid, while at the same time he insists on opening up the center of the blocks to create lower-density green spaces and to allow greater access to services. Each block offers a hard edge to the street, but is perforated by large, arched gateways and other openings, allowing fluid pedestrian connections through spacious inner courts. A central spine of linked courts equipped with gardens and fountains extends for seven blocks through the length of the district, providing a privileged pedestrian itinerary, while the grid of streets outlined by perimeter block construction serves cars, public transit connections, and bicycle paths.

To assist orientation, the buildings conform to an implicit color code. The offices and research buildings are gray and white, the two university blocks are brick red, and the housing ranges from earth tones to yellow. None of the new buildings in La Bicocca overpowers the others in monumentality, but two are allowed to rise above the eight-story norm in height: the preserved cone of the Pirelli factory's cooling tower, which will

The twin towers of La Bicocca's cooperative housing development serve as a visual gateway for railway passengers entering the district from the north.

eventually be wrapped in a scaffold of offices for Pirelli's headquarters, and the 16-story twin towers of the co-op housing project, which present a formidable gateway image to those entering the city from the north by train or car. Public parks gird the edges of the revitalized district, giving it a clear boundary as a separate district within the metropolis. The dense, gridded factory compound that once was used by 35,000 workers per day will now, with generous courtyards, serve a mixed population of over 60,000 residents and commuters.

Gregotti's architecture resorts to a kit of parts and details repeated throughout the district: deep eaves set off by dark reveals, a grid of I-beams marking entries and cornice lines, T-shaped sun-breakers on square windows, two- and three-story bow windows supported by a single steel bracket, opaque glass panels dividing balconies, and the universal grid of concrete panel construction. Strict bilateral symmetry and modular composition are observed throughout, while different methods of eroding volumes and juxtaposing independent planes

continued on page 88

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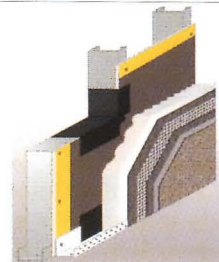
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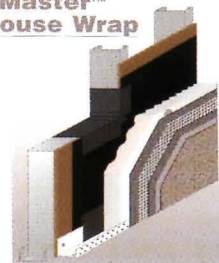
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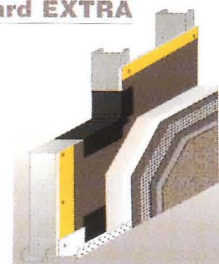
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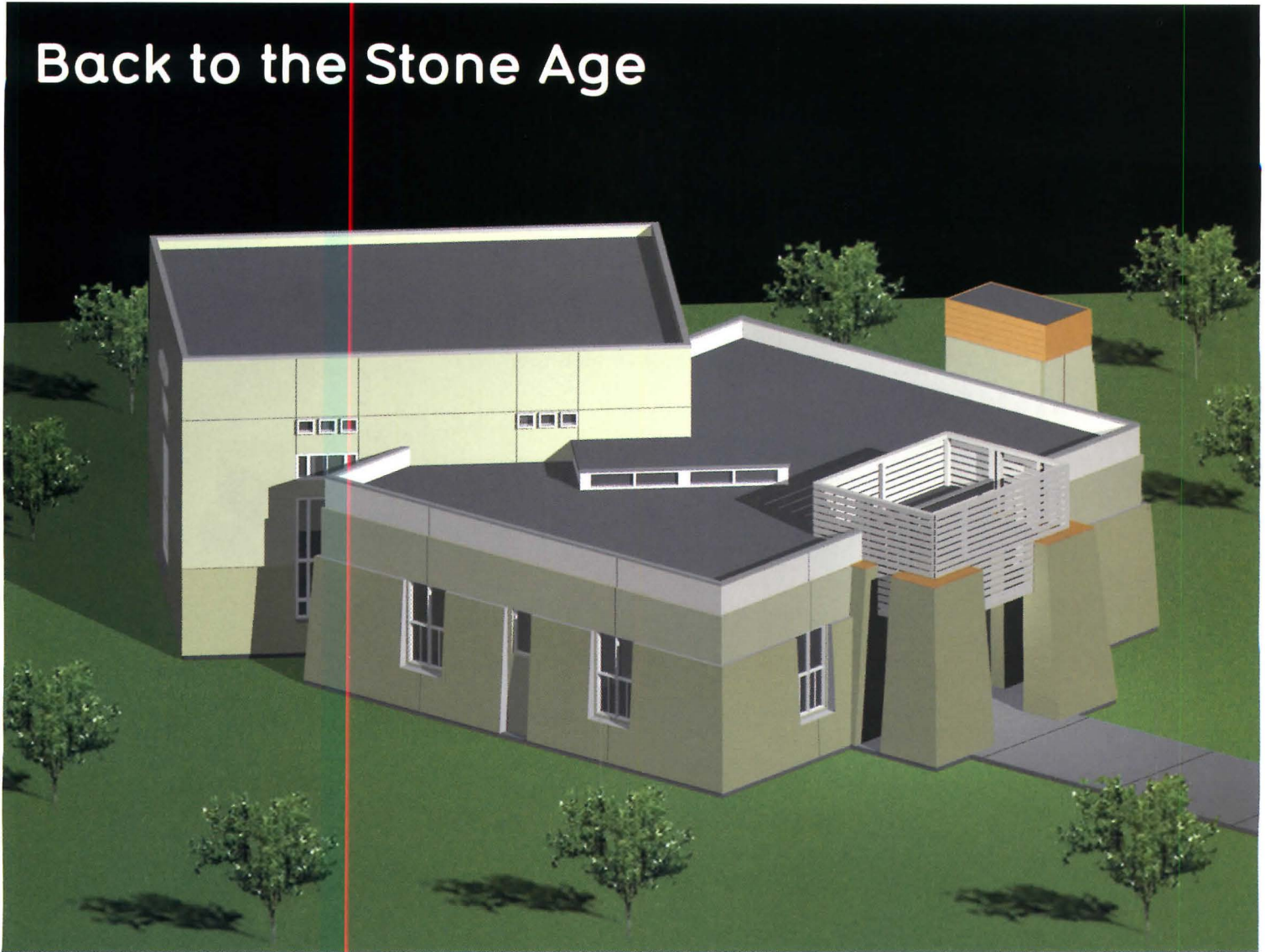
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Back to the Stone Age



Kava Massih Architects designed a new children's hospital building without any metal—and in an earthquake zone.

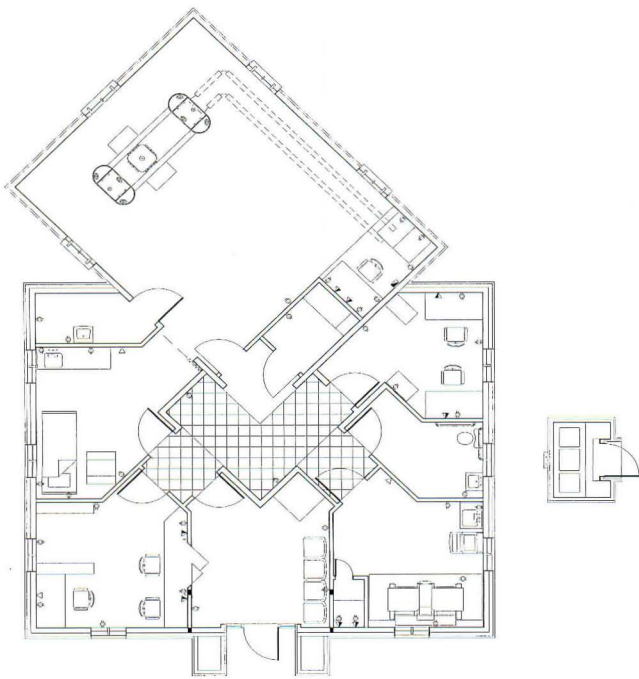
BY CAROLYN JONES

> TECHNOLOGY The building looks simple enough: a small bungalow with sand-colored walls. Surrounded by trees, it blends in nicely with the 1920s Mediterranean-style hospital buildings around it. But beneath the plaster walls, the new Health Sciences Building at Children's Hospital in Oakland, California, is nothing like its neighbors. In fact, there's nothing in the world quite like it.

When it is completed in June, the building will house an extremely valuable and sensitive piece of medical equipment: an iron-testing machine, one of only three in the world. Known as a ferritometer, the machine measures iron content in patients' livers and spleens, and detects corresponding blood disorders.

The 15-foot-high ferritometer can't be anywhere near metal that contains iron. Its key component is a 2-inch magnet, cooled to minus 452 degrees Fahrenheit. The magnet is so sensitive that any kind of magnetic vibration, even one caused by wind or someone walking by outside with a hammer, will skew test results, says Dr. Robert Fagaly, vice president of Tristan Technologies, manufacturer of the ferritometer.

The building is situated away from the street, in a quiet spot surrounded by a garden. To protect it from even the smallest seismic or magnetic



Ground-floor plan

The straightforward plan of the Health Sciences Building (above) masks the intricacy of its details (right), for which the architects had to come up with new and imaginative uses for hard-to-find, nonmetal materials.

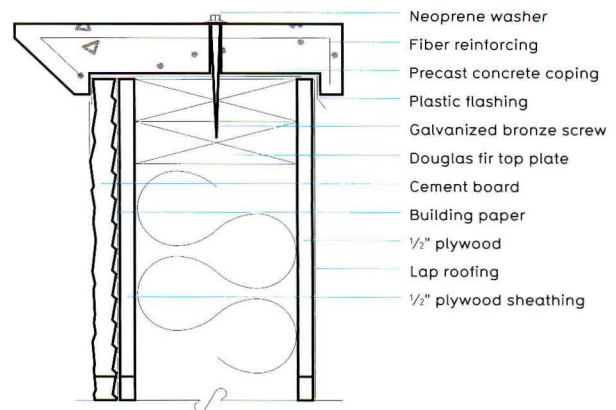
vibrations, the machine sits on its own 3-foot-thick slab. But the biggest challenge was designing a building—1,860 square feet and 10 rooms—with almost no metal. In the heart of an earthquake zone.

“When they said it couldn’t have any iron-bearing metal, I thought, well, it’s either going to be a very high-tech building or the lowest-tech building ever, either Stone Age or aerospace,” says architect Jerry Mastora, a principal at Kava Massih Architects in Berkeley, which has done numerous other projects for Children’s Hospital. “But the realities of either would be hard to implement in California.”

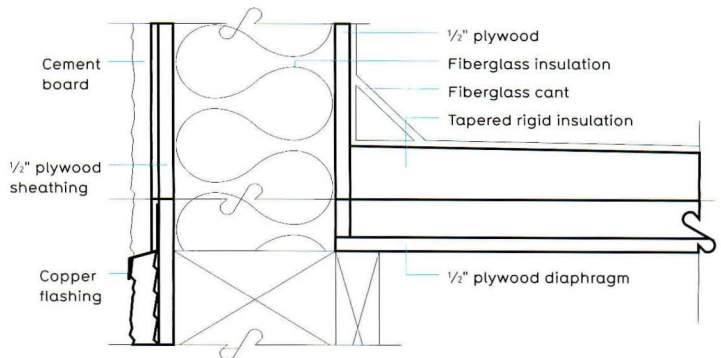
In the end, after months of testing and failure, the building will be a little bit Stone Age and a little bit aerospace. Mastora met seismic standards as well as the strict metal-free requirements using wood, plastic, cement, and creativity.

The design process involved learning the limits of the ferritometer, and the demands of seismic safety. At first, the designers looked at using stone, cement block, and other structural materials, but those wouldn’t meet seismic codes (the building is near the Hayward fault, one of the Bay Area’s largest). They then turned to space-age options like titanium and aluminum, but learned that any metal, even nonferrous metal, can create a magnetic field that offends the \$1.5 million ferritometer.

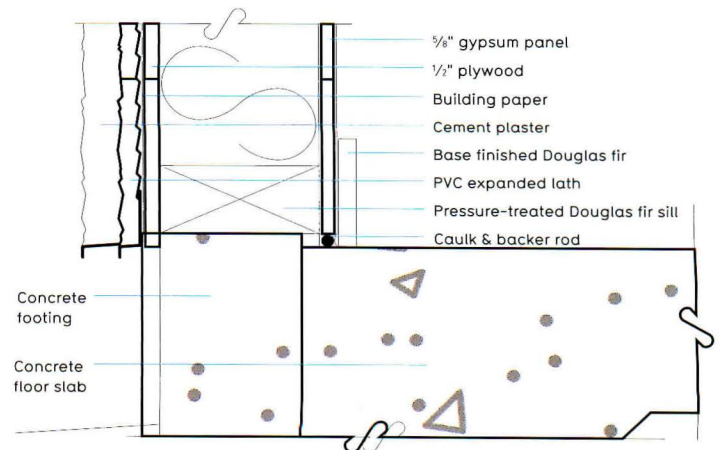
The solution came down to placement. By consulting with a low-



Exterior wall at parapet



Exterior wall at roof



Exterior wall at foundation

>features

temperature physicist from the University of California at Berkeley and talking to the operators of the world's two other ferritometers (in Germany and Italy) the designers learned that certain metals, placed correctly, were acceptable. For example, a patient with a pacemaker couldn't use the machine, but dental braces didn't seem to have an effect. Or a straight pin held a few feet away might be okay, but a chunk of steel 10 feet away would be a disaster. The designers decided to keep any use of metal to a minimum and opted for wood-frame construction.

A tight budget squeezed options further. The hospital hoped the building would cost \$300,000; Mastora thought it might be about

\$500,000; and the construction bids ranged from \$750,000 to almost \$1 million, not including landscaping. The budget has yet to be finalized.

The design also had to be relatively simple. Too outlandish and local contractors willing to do such a small building might balk at the unusual materials and details.

Then things got complicated.

Practically everything else in the building—hold-downs, straps, nails, laths, screws, nails, ductwork, mechanical units, concrete reinforcing and flashing—are all usually made of steel. The designers had to find cheap, nonmetallic alternatives.

In the end, the anchor bolts used to attach the building to its

foundation and much of the door hardware are carbon fiber. The screws are made of bronze (small and nonferrous, they go undetected by the machine). The rebar is fiberglass, and the mesh that affixes the plaster to the interior walls is plastic. These applications were extremely unusual, and the materials were hard to come by. The engineers finally found what they needed in catalogues and on the Internet.

Where material technology couldn't help, the design team relied on creativity. For example, there's no such thing as a non-metal condensing unit, so the designers separated the metal fan units from the rest of the HVAC system and placed them in a separate

building. The ductwork is PVC and the air grilles will be custom made of wood.

Construction is scheduled to begin this month, and the first patients—with blood disorders like thalassemia, sickle cell disease, and hemochromatosis—are scheduled for treatments in June.

The building even manages to feel inviting. Instead of the fluorescent lights and low ceilings one usually associates with clinics, the building has ceilings up to 20 feet high and large clerestory windows in the center, so all 10 rooms will be filled with natural light—Stone Age technology at its finest. ■

Carolyn Jones is a reporter for the [San Francisco Chronicle](#).



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WHAT IS A MUSEUM?

Whale ribs, the hand of a mermaid, the Passion of Christ carved on a plum pit, the robe of the king of Virginia: These were among the oddities that Londoners of the 1630s could see for a sixpence at the house/museum of John Tradescant and his son. The Ark, as it was called, was arguably history's first explicitly public museum, and went on to become the kernel for the Ashmolean Museum at Oxford University. In it, Tradescant claimed that he wanted to show "all things strange and wonderful."

Today, the number of museums has exploded — Las Vegas alone has more than 30, ranging in subject from celebrity

wigs to modern masters. And there are as many approaches to presenting ideas and artifacts as there are museums. London's Victoria and Albert Museum is a gorgeous attic of empire; exhibition designer Ralph Appelbaum seems to hold that all knowledge is experiential, and that to understand an idea, one must be able to squeeze it and smell it. The Milwaukee Art Museum, by Santiago Calatrava, is so astonishing a building that visitors may have only the haziest memory of what they saw inside. The only constant may be every museum's impulse to present the strange and wonderful.





Howard W. Cannon Aviation Museum (facing page) / Level two above baggage claim in the main terminal at McCarran International Airport / Admission: Free / Contact: (702) 455-7968

Casino Legends Hall of Fame (above) / Tropicana Resort and Casino, 3801 South Las Vegas Blvd. / Hours: Open daily 7 a.m. to 9 p.m. / Admission: \$4 / Contact: (702) 739-2222 www.tropicanalv.com

A BUSINESS

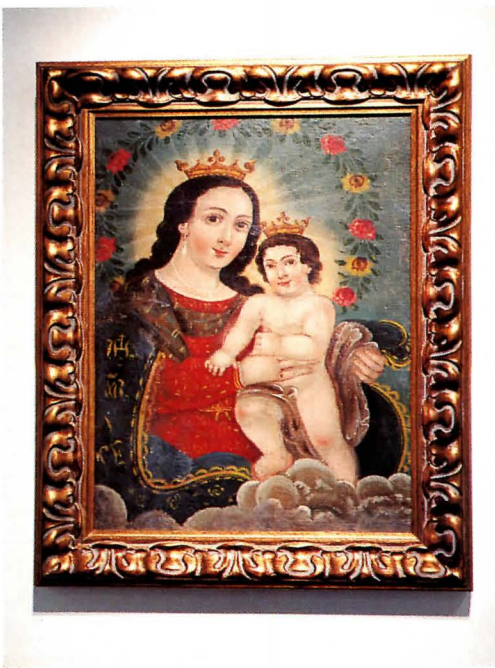
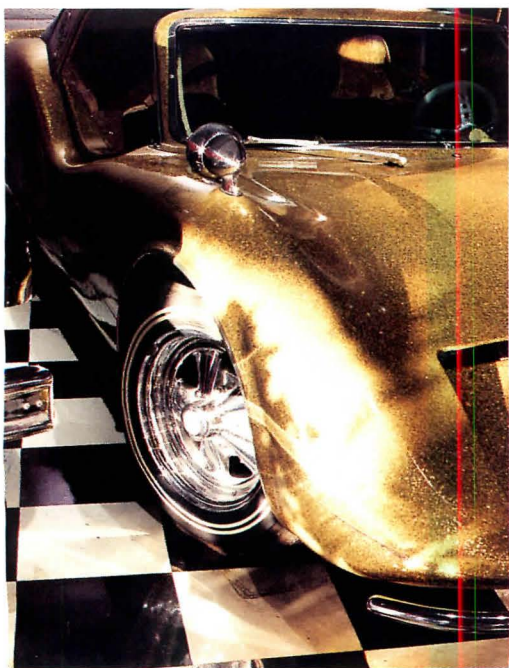
Picasso and Braque, Siegfried and Roy: In contemporary Vegas, there's no difference. It's all part of the show. By Jacob Ward / Photography by Katharina Bosse

Seated at a bar in Las Vegas's Treasure Island Resort & Casino while two full-size galleons battled just outside, a group of New York artists were discussing the latest addition to the Strip: the Guggenheim Las Vegas, which sits inside the Venetian Hotel and Casino.

"If only it was set apart," one woman said, gesturing in frustration at the slot machines, the cocktail waitress, the galleons. "It bothers me that the same money

that goes into all this will be going into the museum." The rest of the table nodded in agreement.

In fact, the new museum owes its existence to an alliance with the Strip, the casinos, the whole glitzy business. In the last decade, Las Vegas has undergone a change in its understanding of how to draw gamblers to the tables, and first on the list was expanding the town's entertainment options beyond buffets and Barry Manilow.



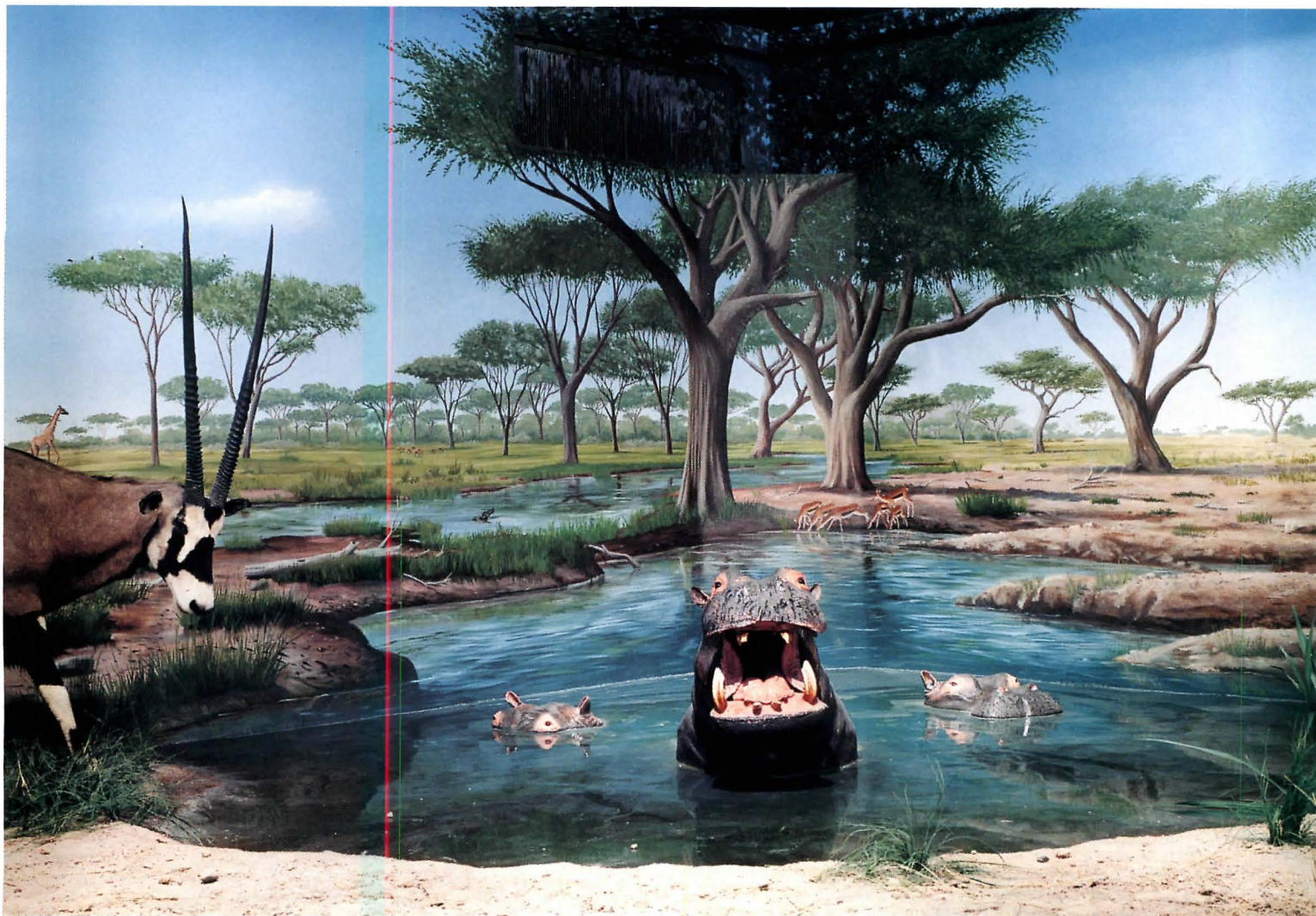
The Wynn Collection of Fine Art (above) / 3145 Las Vegas Boulevard (Located off the lobby of the former Desert Inn) / Hours: Open daily 10 a.m. to 5 p.m. / Admission: \$10 / Contact: (702) 733-4100

Liberace Museum (far left) / 1775 East Tropicana Avenue / Hours: Open Tuesday through Saturday 10 a.m. to 5 p.m., and Sunday from 1 p.m. to 5 p.m. / Admission: \$8 / Contact: (702) 798-5595 / www.flatwaremedia.com/liberace/museum.cfm

Las Vegas Art Museum (left) / 9600 West Sahara Avenue / Hours: Open Tuesday through Saturday 10 a.m. to 5 p.m., and Sunday 1 p.m. to 5 p.m. / Admission: \$3 / Contact: (702) 360-8000

Guggenheim Las Vegas Museum at the Venetian (facing page; see page 45 for more information)





Las Vegas Natural History Museum / 900 North Las Vegas Blvd. / Open daily 9 a.m. to 4 p.m. / Admission \$5.50 / Contact: (702) 384-3466 / www.lvnhm.org

As a result, casinos are investing in new museums – not just novelty showcases, but curated exhibition spaces.

Las Vegas was already full of museums before the trend began. A few are set apart from the gambling world, and would fit in any major city – an aviation museum, children’s museum, and natural history museum among them. But the vast majority were born out of Las Vegas’s razzle-dazzle, and depend on a steady stream of gamblers to break even. These museums embrace the mercenary pedigree of the city, and their collections aim for crowd-pleasing indulgence. Some are stand-alone institutions, such as the Celebrity Wig Museum, which recently completed a special exhibit of Raquel Welch’s collection. Other museums are simply themed appendages of the gaming floor: The Tropicana Resort & Casino maintains a gallery of gambling greats at its Casino Legends Hall of Fame.

Then, in October 1998, the Bellagio’s owner, Steve Wynn, tied art and gambling together in a new way when he

opened the two-room Bellagio Gallery of Fine Art, featuring selections from Wynn’s \$300 million collection of paintings by Monet, Picasso, and Renoir, among others. Its admitted purpose was to attract high rollers to the casino, but to everyone’s surprise the gallery drew as many as 15,000 visitors a day at \$12 a pop in its first few weeks. When the Guggenheim Museum was first conceived, the Bellagio’s success thrilled the museum world. Columnists and critics from coast to coast hailed Las Vegas as a golden opportunity, and its casinos as the perfect source of patronage.

Guggenheim director Thomas Krens created an alliance with Venetian owner and Wynn rival Sheldon Adelson, who agreed to front all building and curatorial costs in return for the Guggenheim’s star power and spectacular permanent collection. The deal was that the museum and the hotel would split proceeds once the Venetian had recovered its costs – a traditional arrangement between



Elvis-A-Rama Museum / 3401 Industrial Road / Hours: Open daily 10 a.m. to 7 p.m. / Admission: \$9 / Contact: (702) 309-7200 / www.elvisarama.com

performer and venue.

When the Guggenheim hired Rem Koolhaas and OMA, there was much self-congratulatory talk of bringing art to the masses, and the Guggenheim Las Vegas, along with a sister project – a one-room space featuring works from the Hermitage Museum in St. Petersburg, Russia – opened to great fanfare last September. The museum then planned shows for the Guggenheim Las Vegas that it felt would play well there: *Art of the Motorcycle* kicked things off, with sponsorship from BMW and an exhibition design by Frank Gehry, followed by an exhibition of greatest-hit paintings from the permanent collection, titled *Easy Fun*, which is planned for this spring.

The Guggenheim Las Vegas is faring no better in the current economic downturn than the casinos or the strip clubs, and, should the time come, the casino will no doubt shut the venture down with the same kind of business efficiency as it would any failing restaurant or musical.

Sources within the Guggenheim say that by the end of 2001, attendance at the Las Vegas museum was down by 30 to 40 percent since its opening, with weekend visitors numbering around 4,000. Meanwhile, the Bellagio has cancelled a show of paintings from the Detroit Institute of Art, and the MGM Grand has called off its plans to stage an Alexander Calder exhibition.

But the genius of the arrangement in Las Vegas is that by contrast with its ventures in Berlin, Bilbao, and Venice, the Guggenheim has insulated itself against loss. And for the Venetian, the venture is a small, calculated risk: The casino can always reuse the space later. The Guggenheim must make money, and it is the very lack of separation between art and commerce that makes that happen here. A gambler within the Venetian can wander, drink in hand, not 50 steps from the blackjack table before he has a chance to put his winnings into the maw of art, marked clearly overhead. ■

AN ICON

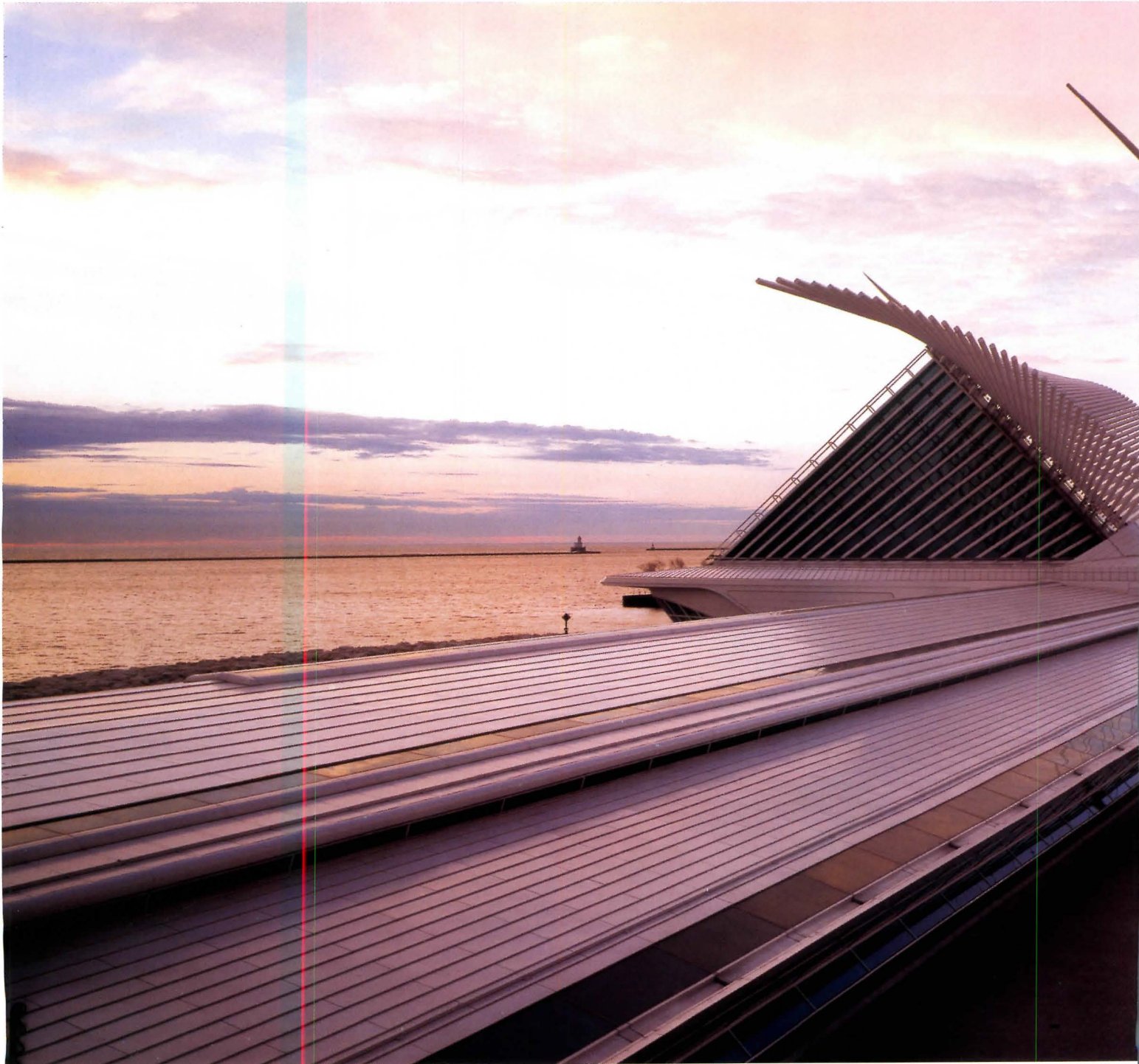
Santiago Calatrava's soaring Milwaukee Art Museum embodies a city's aspirations.

By Joseph Giovannini / Photography by Timothy Hursley

Milwaukee Art Museum / 700 North Art Museum Drive, Milwaukee

Hours: Tuesday through Sunday 10 a.m. to 5 p.m., and Thursday 10 a.m. to 8 p.m. / Admission: \$6

Contact: (414) 224-3220 / www.mam.org





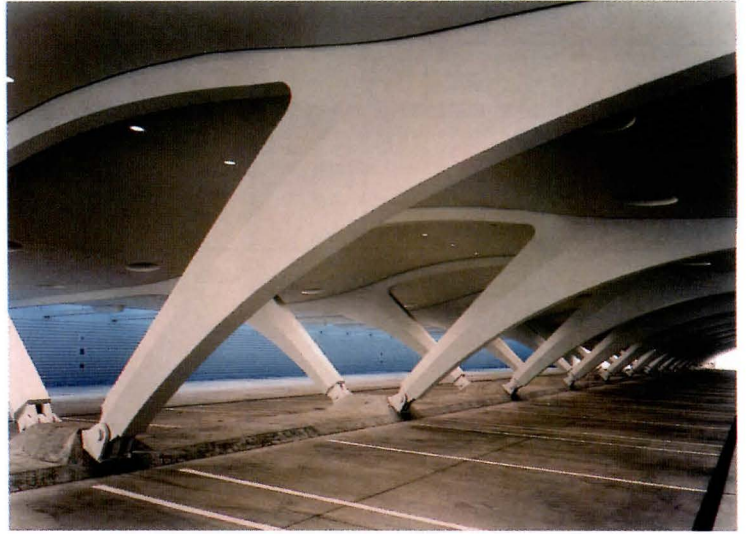
With its two angled masts suspending a monumental glass dome and bridge from fanning webs of cable, the entrance pavilion to the new Milwaukee Art Museum seems spectacular enough. But at the push of a button, a pair of huge sunscreens lifts off the sides of the elliptical dome and gradually spreads until it achieves full reach, looking like an eagle poised to land, wings feathering to a point. Designed by Santiago Calatrava, the screens consummate the vista at the east end of Wisconsin Avenue, the town's main thoroughfare, like the Victory of Samothrace at the top of the heroic flight of stairs at the Louvre. When it's flying, Calatrava's building is an event that captivates citizens, who actually stop and watch from overlooks along the city's Lake Michigan waterfront. Like the Guggenheim in Bilbao, this is a building that entrances, breathing new life into an older metropolis. Calatrava is making Milwaukee famous again.

Many buildings imply motion, but though they may look dynamic, they do not actually move. Calatrava, however, has been studying the geometry of building movement since his doctoral thesis in engineering on the foldability of space frames, and in Milwaukee, he has turned the idea into a form of urban ballet. He deliberately sited the spectacle at the terminus of Wisconsin Avenue in order to reconnect the city to its abandoned waterfront. For his first museum and first American building, the Spanish-born architect inflated architectural rhetoric and scale to create a dramatic figural form that would anchor one pole of the city while establishing a presence on the vast lake beyond.

The museum was originally located in the basement of Eero Saarinen's 1955 War Memorial, before Milwaukee architect David Kahler extended it east toward the lake in 1975. The identities of the memorial and museum have always been muddled, and in response to director Russel Bowman's desire to give the museum an independent identity, Calatrava relocated the entrance from the back side of the existing building to a position a full city block south. Calatrava hyphenated his new entrance with a long, low wing that houses a temporary exhibition space, an auditorium, museum shops, and two long sculpture galleries.

Calatrava is both an engineer and an architect, but he is also a sculptor whose abstract artworks adhere to the modernist tradition of reductive purity typified by Constantin Brancusi's work. Calatrava belongs to the current generation of masters who





The Milwaukee Art Museum originally occupied the basement of Eero Saarinen's 1955 War Memorial (facing page, left, at left). Calatrava's vaulted temporary exhibition wing leads to the new entrance in the winged Quadracci Pavilion (facing page, right). Pedestrians coming from downtown Milwaukee reach the museum's front door via a crosswalk (above left). Drivers leave their cars in a spectacular underground garage (above right). Most of the museum's galleries are located in a waterfront wing designed in 1975 by local architect David Kahler (facing page, bottom, at right).

hybridize disciplines – the way architect Peter Eisenman imports philosophy, and Frank Gehry imports art. Calatrava, however, is unique because he bridges three fields: He sculpts, engineers, and designs, producing works of unusual disciplinary integration and scope.

As a spectacular landmark, the wings and dome tie the waterfront to the city visually, but Calatrava makes the physical connection from the high ground to the water with a long narrow footbridge asymmetrically suspended from one of the masts by a web of cables. As in many of his European structures, he shapes the cast-in-place concrete bridge in smooth, organic curves that diagram the flow of forces. The bridge leads to the museum entrance's nose – or rather its beak, since in profile, the southern façade resembles the flanks of Saarinen's birdlike TWA Terminal at John F. Kennedy Airport. With his light yet monumental forms, Calatrava here achieves the critical mass necessary to lure people from the city to an entrance that resituates and redefines the museum. From the bridge, a double stairway and an elevator lead down to the foyer, and an Alexander Calder mobile hovers over a circular stairwell leading to a 100-car garage. (Visitors who drive to the museum park in what may be the most beautiful garage in the world, with its lithe, white structural concrete ribs supporting the ceiling like vaulting in a Gothic cathedral.)

Wisconsin is Frank Lloyd Wright territory, and as Wright did in houses like Wingspread just down the coast in Racine, Calatrava bursts space open just beyond the foyer. The structural lines of the reception area under the great glass dome angle obliquely so that you feel as though you are falling up. The hall's glazed

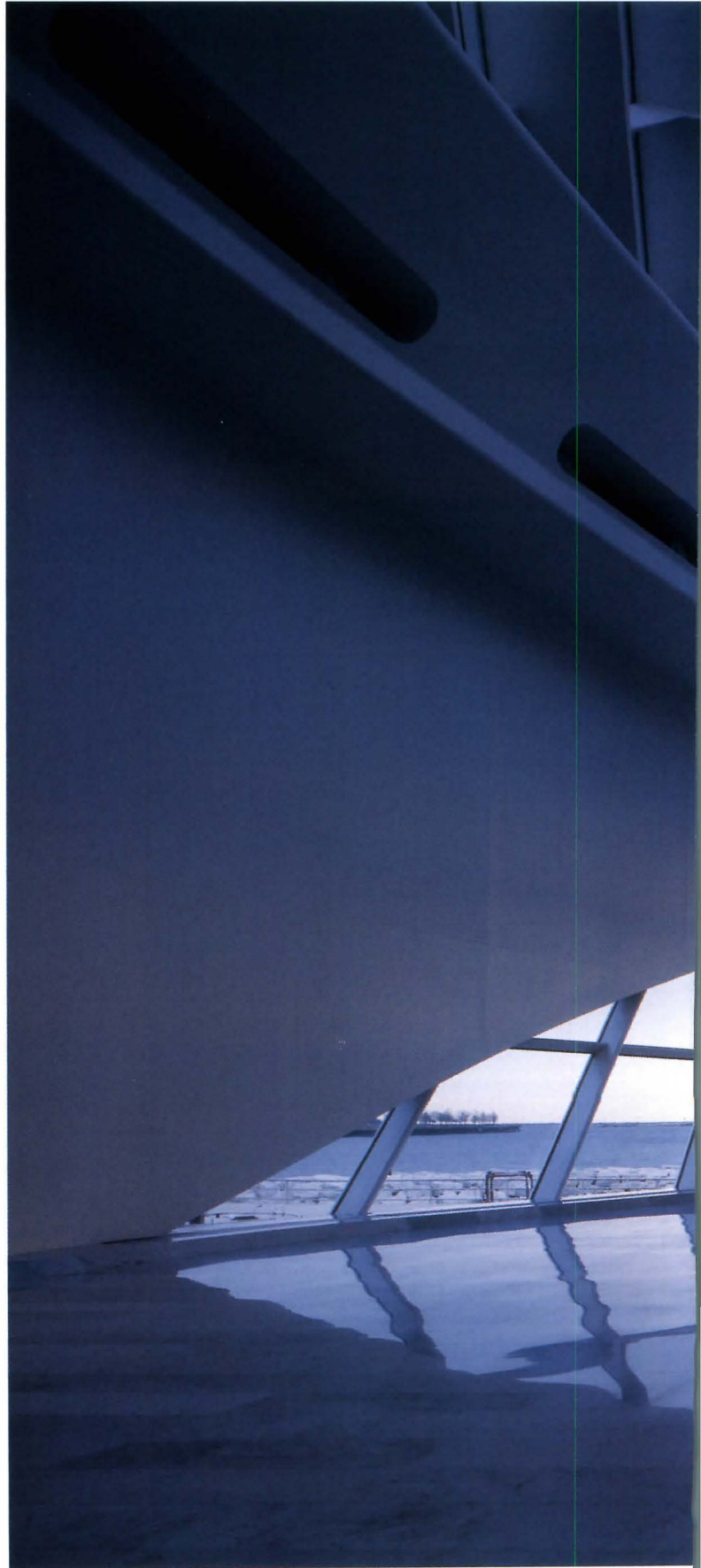
prow points to Lake Michigan, offering a conquering view commensurate with the vast scale of the Great Lake. Calatrava divides the museum functions north and south of this transept. The service core to the right, with the kitchen, bathrooms, and restaurants, forms a circular apse in what emerges as a cathedral plan (though the program is not really sufficient to counterbalance the mass of the gallery wing to the north).

The structure to the left of the transept inaugurates a visit to the museum proper. Incandescent white interiors and natural light glowing on pristine curves are bounded front and back by long, archetypal sculpture galleries – “as in the Louvre or the Prado,” says Calatrava. The tall space between the galleries is subdivided, loaflike, along its length into the temporary exhibition hall, a museum shop, and the auditorium. Calatrava structures this wing not with a grid of columns but with arching ribs that bifurcate like wishbones, extending into the basement parking and up to the roof. Each pair of skeletal arches defines a bay and, in the two long, outlying galleries, frames a sculpture; hidden sources of light wash the wall surfaces in between, beatifying the artworks, like in the side altars of a baroque church. The whole wing acts as a link connecting the new entrance hall to the lowest floor of the existing museum (itself reorganized and refurbished).

The engineering may be elegantly acrobatic, but the floor plan has the straightforwardness of a traditional European cathedral – two side aisles and a central nave lead up to and from the centralizing dome over the cross-axial transept. Arches organize the spaces, and the architect fits the program neatly into the structure. Yet the disparity between the plan's



An Alexander Calder mobile hangs in the entrance foyer of the new wing (top), above a circular opening in the floor that brings daylight to the basement parking garage entrance. Just past the foyer rise the crisscrossed ribs of the Quadracci Pavilion's skylight (above). An arced, glazed opening at the west end of the room frames spectacular views of Lake Michigan (right).







Between the Quadracci Pavilion and Kahler's earlier gallery block run two parallel corridors that double as sculpture halls (facing page and above left, top to bottom). They sandwich an auditorium, museum store (top right), and temporary exhibition space (center right). Kahler's permanent exhibition galleries have also received a facelift (bottom right).



simplicity and the complexity and intensity of the section creates a conceptual warp within the 40,000-square-foot addition. Why does an engineer so inventive with structure fall back on a plan without comparable spatial invention? The plan expresses no movement, just a sense of organization. And why is it symmetrical?

"Why not?" responds Calatrava. "I wanted to achieve great clarity in the plan. The first problem was to address the connection to the city. The second was creating a sectional structure that defines the form, and then the functional needs that define the plan. The pulsation of space is given by the section." With its overly simplified plan and clear hierarchy of parts (the central space, ancillary wings, regularly ribbed structure), the entire three-dimensional composition of the building is classically ordered and surprisingly unevolved – out of sync with the more sophisticated engineering of, say, Calatrava's bridges.

For all the structural pyrotechnics, Calatrava has created a closed formal container that does not open

easily to the site or even within itself to its own interior spaces. The building's containing skin is not more conceptually advanced than the boxlike galleries within. In the context of its traditional plan, the engineering seems reduced to decoration. The dialogue between disciplines within Calatrava's practice has not equally advanced each individual discipline. Traditional typological thinking holds back the engineering and the sculpture.

Still, it is hard to argue with the sheer joy this exuberant museum has stirred in Milwaukee. The whole building, even given its conceptual shortfall, is worth its flying roof. With a fairly simple mechanism, Calatrava has brought real movement to architecture. With his inventiveness as an engineer and talent as a sculptor, he has not only reclaimed the waterfront, but rejuvenated the city. For architecture, he has opened up a major subject about transformability and time: The building is an event, bravely raising the curtain on the notion of the city as urban performance. ■

WHAT HE SAYS IT IS

How Ralph Appelbaum built a monopoly in the field of exhibition design.

By Bradford A. McKee



and as museums have Appelbaum and his firm would enjoy.

New York firm, Ralph Appelbaum Associates, to thank for making prospects in the field bigger and better. Yet they complain about his increasing boundlessness — he does exhibits, he does interiors, he does architecture — and worry that he's unstoppable. They *should* worry.

Since he opened RAA in 1978, Appelbaum has taken the bobby pin out of the bun, as it were, and made museums sexy again. He has been particularly successful in jazzing up museums of science, history, and culture — the kind of dowdy old burgs that up through the 1970s were dying slow deaths in the backwaters of popular life. Over the past two decades, those same institutions have become tourist destinations for millions of people, who then spend billions of dollars in surrounding communities. Appelbaum has had much to do with that renaissance. He became the go-to guy for museum design not so much as a designer but as a dramaturge. By mixing the didactic material of museums with a good story line and a lot of flashy modern hardware, he all but invented "edutainment."

That term makes a lot of highbrows arch higher, but, for the most part, it's been magic for Appelbaum's clients. Among his better known are New York's American Museum of Natural History, where the firm designed exhibition spaces for the Hall of Biodiversity, the Hall of Planet Earth, and the Rose Center for Earth and Space (with the Polshak Partnership); the American Folk Art Museum in New York (with Tod Williams Billie Tsien & Associates, page 76); and his most highly regarded commission, the United States Holocaust Memorial and Museum in Washington, D.C. (with James Ingo Freed of Pei Cobb Freed & Partners). "You could make a strong argument that Ralph is the best exhibition designer working in America," says Peter Prichard, president of the Newseum, a museum of media history in Arlington, Virginia, owned by the Freedom Forum, a foundation attached to the Gannett Corporation. At the very least, Appelbaum's the busiest.

"He's a visionary," Prichard continues. Without Appelbaum, he says, the Newseum today might be a two-room display on the 19th floor of an office tower. Appelbaum showed the foundation's board that it could be a much splashier event downstairs on a semipublic mezzanine. The Newseum shows the development of modern media since the days before cold type, in displays spread beneath lighting worthy of Ridley Scott and arresting supergraphics (the word "CENSORED" appears on a gigantic screen, blacking out broadcast news images). Since the Newseum opened in 1997, it has had two million visitors, and its board recently re-upped with Appelbaum for a new home in a Polshak-designed building across the Potomac River in Washington, D.C. "We always thought journalists would be interested in the Newseum, but we didn't know whether a poet would be," says Prichard. "Ralph helped us realize that we had a story to tell. He gave us ideas of where to start

Architects, of course, would like to find themselves doing that work, but fear that Appelbaum is manipulating the development process of museums to their exclusion. But in many ways, that process has spontaneously reformed along the coordinates of Appelbaum's successes. That may be a coincidence, but it probably isn't. His firm's promotional literature offers museum planning and program development, space planning, publication and promotional design, media development and theater design, and museum retail and restaurant design.

"We like to go first," says Appelbaum, sitting in a cozy parlor overlooking the Potomac from the Freedom Forum's Arlington headquarters. He looks barely fatigued between multiple trips to Taiwan and Spain and Charlottesville, Virginia. His grayish hair and beard are neat, his taupe suit is smooth, and he is very much open for business at teatime on a Thursday. If his firm gets to the client first, he explains, "we can think about the big pieces from the start — the audience, institutional marketing, and public relations — and make the museum a relevant player in the community."

Yet, architects who have worked with RAA (some of whom are stars and for uncomplicated reasons wish not to criticize him on the record) say that if Appelbaum gets to the client first, it becomes much easier for him to unload his share of the project's liability onto them. "He takes no liability. Zilch," says one New York architect. "So it's very profitable. And it's hard to dislodge them just because we believe the architecture and the exhibition should be one thing."

Appelbaum is known to take fees equaling 25 percent of his construction costs, whereas many architects are lucky to reap 10 percent of theirs. Although some architects resent RAA for this disparity, others — particularly smaller offices — are willing to live with it to secure help with the parts of a commission they're not set up to handle. "We worked well together," says architect Tod Williams about the American Folk Art Museum commission. "But for them it was a small project. For us, it was a big project." Another architect finds Appelbaum's heavyweight status paradoxical: "It's kind of like competing with Ove Arup," this architect says. "You bring them to the table and win the job. And then you can't shake them loose."

There is a compliment buried in there somewhere. Alongside the envy and derision of Appelbaum, architects, like everybody else, credit the guy for his organizational brilliance. In exhibition design, "I think he's the best there is," says an architect who also had sharp words about Appelbaum. "He made the field for himself. He's got people, including architects, filmmakers, and writers, on his staff who really think thoroughly and broadly. He's raised the benchmark [for museum design] and is able to respond at a big scale really quickly."

the Peace Corps in Peru. When he returned to New York, he organized small folk-life exhibitions, collaborating with artists and architects. In the 1970s, he worked for the firm of Raymond Loewy, the legendary industrial designer who created such American standards as the Coca-Cola bottle and the Greyhound bus.

He came into his own at a propitious time, which complicates the myth that Appelbaum actually started the industry over which he now nearly presides. He didn't launch a revolution so much as he sewed the flag and sold it. Museum directors in the U.S. had been searching for ways to engage the public since the 1950s. By the 1970s, they were taking heat both from educators to conform to new national standards for the teaching of history, social studies, and science, as well as from boards and communities to replicate what was happening in shopping malls and movie theaters.

"Those pressures brought directors to the point of farming out designs and giving more authority to the firms designing them," says Robert Sullivan, associate director for public programs at the Smithsonian Institution's National Museum of Natural History, in Washington. "That evolved to the soup-to-nuts approach, where you farm out the writing and the curatorial work to firms like Ralph's, who want to take control of content." By embracing architecture and interior design on one flank of exhibition projects and the work of curators and image brokers on the other, Appelbaum cannily became a museum impresario by proxy, a carnival barker for culture.

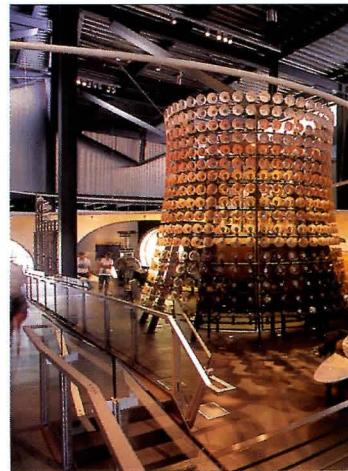
Appelbaum would rather have control of the viewer than merely the content. Visitors to his museums become part of his performance art, executing walk-on roles with at times crushing verisimilitude: At the Rose Center, they become earthlings. At the Museum of African American History in Detroit, visitors become slaves. At the Holocaust Museum in Washington, most famously,

"dynamic struggle" to assemble, recalls Raye Farr, then director of permanent exhibitions who now runs the museum's film archive. "Our founding director [Shaike Weinberg] would slam his fist down and say that design was not going to lead this exhibition," recalls Farr. "Sometimes it did." Appelbaum also felt handicapped by Freed having designed the museum before Appelbaum came on board. Freed "really wanted his building to be the memorial, which it is, and didn't want an exhibition to muddle it up," Farr says.

Appelbaum's design is especially powerful because it personalizes the vast destruction of the Holocaust. From hundreds of family photographs of the dead in a skylit *Tower of Faces* to a collection of 4,000 shoes Appelbaum recovered on a trip to Poland, "Ralph saw that the environmental presence of [Holocaust] sites had to be incorporated into the museum," explains Farr. "They flow together in this semidarkness that creates a separation from the normal world and lets you go back in time." Visitors leave the museum feeling both larger and smaller than when they entered.

Such potent affect is not simply design work, it's *gesamtkunstwerk*, and it takes the talent of a polymath. And because it enriches museum-goers and makes Appelbaum's clients exceedingly happy, architects and their counterparts in the museum design process will have to be content working around him, because Appelbaum is not going to go away. If he is ruthlessly capitalizing on the desires of museum directors and curators, who can really blame him?

Only his competitors in what he calls the "experience economy," where "people who win create the most powerful memories," can. His genius was to seize on reality a good generation before "reality TV" did. When someone enters an Appelbaum museum, he wants them to "walk out transformed," he insists. "Transcendent would be better, but transformed would be enough." ■



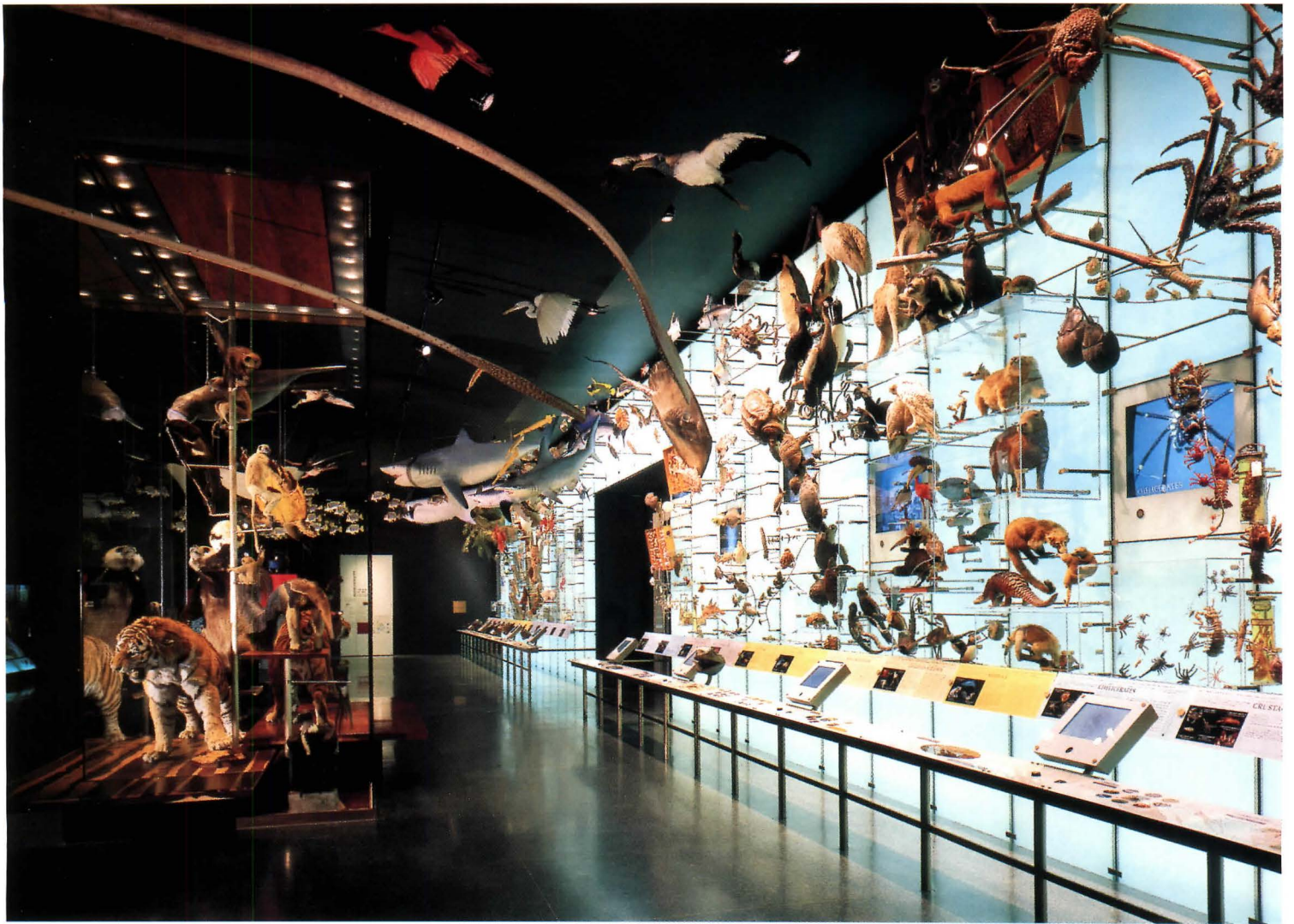
United States Holocaust Memorial Museum, Washington, D.C. 1993 (left)

Rose Center for Earth and Space at the American Museum of Natural History, New York City. 1999/2000 (center)

The New Corning Museum of Glass, Corning, New York. 1999/2000 (right)

Hall of Biodiversity at the American Museum of Natural History, New York City. 1998 (facing page, top)

The Newseum at the Freedom Forum, Arlington, Virginia. 1997 (facing page, bottom)



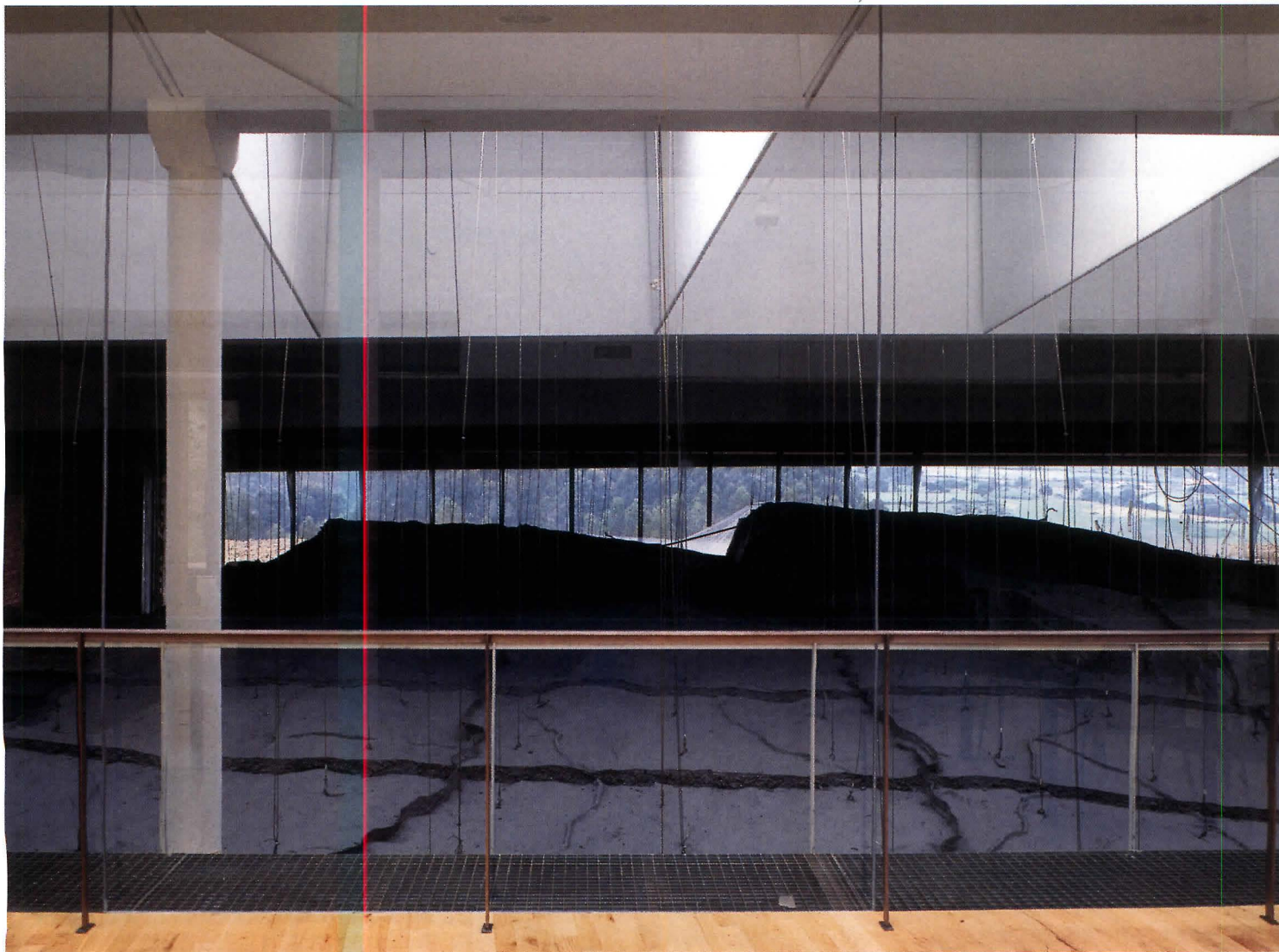
A CONTAINER

Juan Navarro Baldeweg designs a sophisticated shelter for a facsimile cave and its Paleolithic paintings. By Amanda Schachter

Altamira Museum and Research Center / 39330 Santillana del Mar, Cantabria, Spain

Hours: October through May: Tuesday to Sunday, 9:30 a.m. until 5 p.m. / June through September: Tuesday through Sunday, 9:30 a.m. to 7:30 p.m. / Sundays and Holidays, 9:30 a.m. to 5 p.m. / Admission: \$2.15 adult / Contact: (+34) 942-818-005 / altamira@museo.mec.es

An exact replica of a cave covered in Paleolithic paintings of bison (facing page) is the centerpiece of Juan Navarro Baldeweg's Altamira Museum and Research Center. The facsimile is hung from the ceiling with steel cables (below), its exterior shell visible from a balcony in the research center's library and reading room.



Visitors to the Altamira Museum and Research Center in Cantabria, Spain, a recently inaugurated building designed by Juan Navarro Baldeweg, are confronted with two examples of a similar artistic impulse, albeit separated by more than 10,000 years. The Altamira Museum houses a full-scale replica of a nearby cave whose walls are covered with one of the earliest records of figurative painting, images of bison that are believed to have been created between 16,000 and 9,000 B.C. The facsimile cave, carefully lit, labeled, and suspended inside Baldeweg's container, becomes as much a figure of its original as the bison on the walls. The museum and

the Paleolithic cave painters in Cantabria both try to capture the infinite, elusive outdoors within the closed space of form.

The Altamira Museum lies low atop a hill reached by a meandering road, in a rural area dotted with grazing animals. The building emerges from the landscape, the ground's rock outcroppings becoming the hewn stones of a retaining wall and of the façade of the building, which is sunk slightly below ground level. The museum is divided into two main rectangular volumes that hinge at the entrance. The western half is the research center, comprising the neo-cave (as Baldeweg calls it), a library, laboratory,

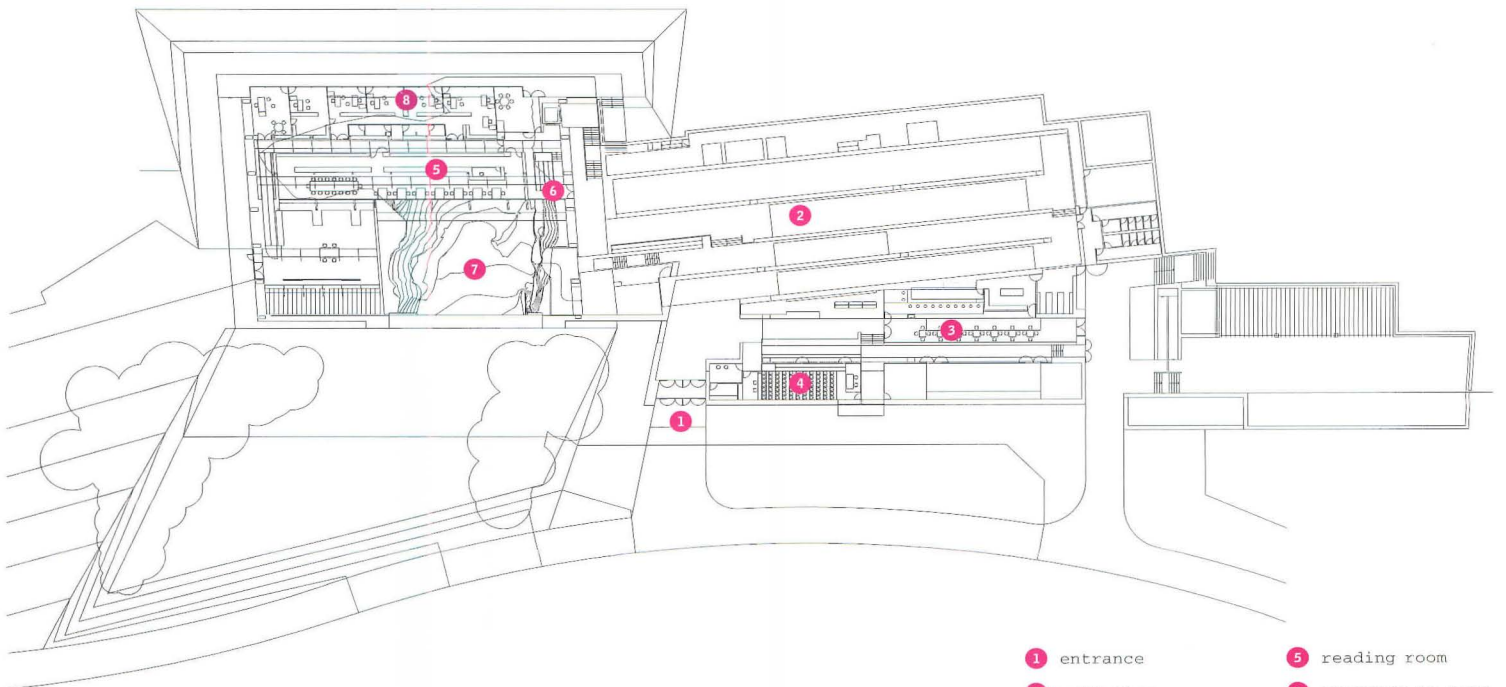
and administrative offices. A saw-toothed, turf-covered roof admits light to a lecture room, workshop, café, bookshop, and exhibition halls that make up the museum to the east.

Though the neo-cave is the focus of the research center, one enters through the museum, via a gangplank that descends from ground level. This path then flattens to become a viewing platform from which the museum-goer can behold the horizon of the prehistoric painter. The cave's opening faces the rural hillside as a buried, open mouth, separated from the outdoors only by a continuous, darkened glass curtain wall. Like Schinkel's project for the Schauspielhaus, which





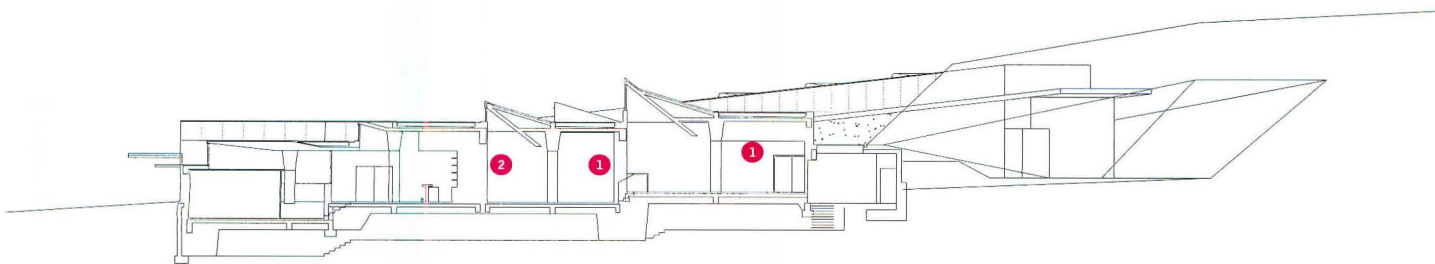
Baldeweg's building is divided into two roughly rectangular volumes, the western of which houses the cave and research center, and the eastern the galleries, café, and museum store. Visitors enter at the hinge point of the two volumes (above, at far right) and can go left into the research center, or right into the galleries (above). Baldeweg has wryly given researchers in the center's reading room (facing page, top) a view of the cave's lumpen foam exterior. A switchback ramp (facing page, bottom left) located next to the enclosed reading room (facing page, bottom right) provides access to the cave.



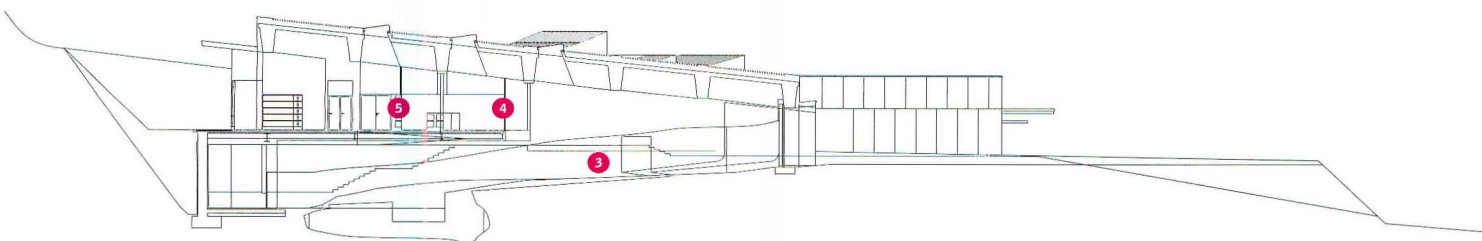
Ground-floor plan 129' V

- | | |
|--------------|--------------------|
| 1 entrance | 5 reading room |
| 2 galleries | 6 entrance to cave |
| 3 café | 7 cave |
| 4 auditorium | 8 offices |





Section through galleries 15'



Section through cave and research center 15'

- 1 galleries
- 2 café
- 3 cave
- 4 reading room
- 5 offices

Altamira emerges from the rocky hillside, its turf-covered roofs almost level with the surrounding landscape (facing page, bottom). The ground's datum line is marked on the gallery wing by the transition from stone cladding to yellow aluminum sandwich panel. And unlike the wing that holds the caves and research center, which has a slightly sloped roof, the galleries are illuminated with north-facing skylight windows (facing page, top).

presented Berlin as a panoramic proscenium backdrop to a public just entering from the street, the museum acts as a filter between two landscapes: the outdoors beyond the building and the outdoors embedded within it.

From the research library, the curtain is pulled aside, so to speak, and the illusion that the neo-cave's near-perfect realism creates immediately crumbles. The view from the library's interior window is onto the cave's backside, which dangles like a marionette from the ceiling's deep beams. It is an impossible scene – the exterior of something, which in nature would never have an outside –

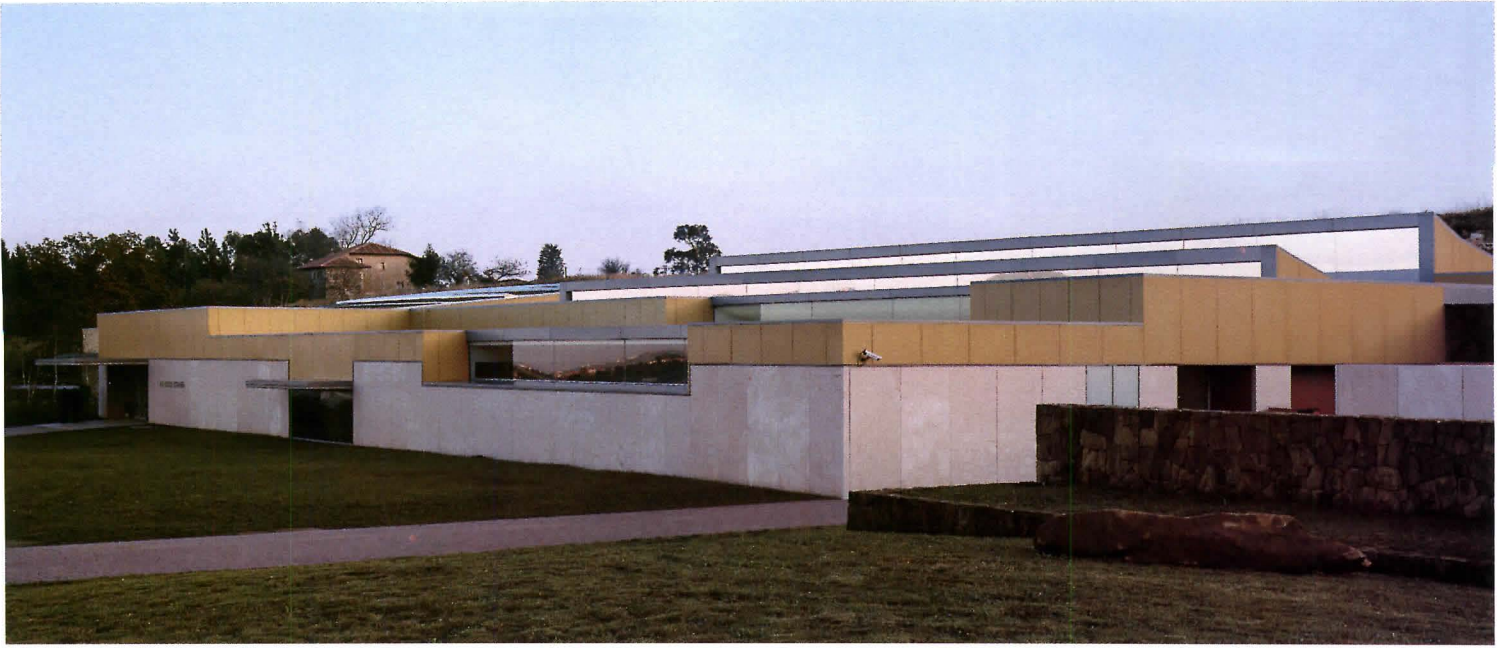
seemingly continuous with the rocky landscape that is visible through the proscenium window.

For Baldeweg, the artistic endeavor implies a delight in the natural world that allows the real and imaginary to intermingle. The double act work here in Altamira – the cave's actuality and the dream of what it once was, or the bison and its invocation by a cave dweller – mirrors what is essentially the double act of the artist. As he or she brings the outside indoors, the artist simultaneously projects his or her understanding onto the environment, amplifying its reach. ■

Amanda Schachter is a writer and architect living in Madrid.

ALTAMIRA MUSEUM AND RESEARCH CENTER, SANTILLANA DEL MAR, CANTABRIA, SPAIN

CLIENT: Ministerio de Cultura, Fundación Macelino Botin, Disputacion Regional de Cantabria, Ayuntamiento de Santillana del Mar, Ministerio de Economía y Hacienda **ARCHITECT:** Navarro Baldeweg Associates, Madrid – Juan Navarro Baldeweg, Jaime Bretón Lesmes, Eduardo González Velayos (project directors); Daniel Dellbrück, Andrea Kaiser, Andrés Jaque Ovejero, Miguel Bernardini Asenjo, Marcello Maugeri, Sibylle Streck (project team) **ENGINEERS:** MC-2 Julio Martínez Calzón (structural); ARGU Ingeniería y Servicios (mechanical) **CONSULTANTS:** CEP Ibérica (quality control); José Manuel Sánchez Alciturri (geotechnical) **GENERAL CONTRACTOR:** NECSO Entrecanales y Cubiertas **COST:** \$7.5 million **PHOTOGRAPHER:** Duccio Malagamba



AN ARCHIVE

London's venerable Victoria and Albert Museum spruces up its exhaustive collection of premodern British design. By Diane Ghirardo

Victoria and Albert Museum / Cromwell Road, South Kensington, London

Hours: Open daily 10 a.m. to 5:45 p.m.; 10 a.m. to 10 p.m., Wednesdays and the last Friday of the month. Admission: Free

Contact: (+44) 207-942-2000 / www.vam.ac.uk

Among the exhibits in the V & A's new British Galleries is one devoted to the England's 17th-century Stuart dynasty and its extravagant baroque court (below). A portrait of an English gentlewoman, Margaret Laton, hangs alongside the actual jacket she wears in the picture (foreground). The Stuart exhibit also incorporates a copy of the famous *Triple Portrait* of Charles I (background), showing the king's head from different angles. The original is in the Royal Collection at Windsor Castle, and was commissioned as the model for a bust by the Italian sculptor Gianlorenzo Bernini.

The renovated galleries incorporate five period rooms, including this 1877 anteroom from the Grove, a country house outside of Birmingham (facing page). The architect, John Henry Chamberlain (1821-1883), was a fervent Gothic Revivalist and follower of art and architecture critic John Ruskin.



For those troubled by the matter, it will be reassuring to learn that the term "British design" is not an oxymoron. The reconfigured collection in the "British Galleries 1500-1900" at the Victoria and Albert Museum in London confirms a long and distinguished tradition of design excellence, as does the remarkable new configuration of the 36,600-square-foot exhibition space by designer Casson Mann and architect GA Associates. Contained within two levels of the museum's venerable 1862 South Kensington building, the architecture of the new galleries cleverly adds several layers between the exhibits and noisy, dirty, and heavily trafficked Cromwell Road. New panels of glass and wood buffer both natural light and street action without entirely banishing them – a far happier solution than the windowless boxes of most decorative arts displays.

The typical endless trudges through sequences of rooms dedicated separately to china, silver, books, glassware, furniture, and fabrics ad infinitum are also gone but not lamented. For the new scheme, curator Christopher Wilk assembled everything in chronological order, in spaces dedicated to the Tudor, Stuart, Georgian, and Victorian eras. Rather than celebrating only famed individual designers, the galleries dedicate extensive space to the products of some of the nation's most prolific and accomplished manufacturers: Wedgwood (china), Spitalfields (silk), Mortlake (tapestry), and Liberty (fabric). Abundant rarities will satisfy even the most recondite tastes, from Joseph Paxton's first conceptual sketch of the Crystal Palace (which, as the venue for the 1851 Great Exhibition, was the source of the original collection) to 16th-century hangings



The country house was at the center of British cultural patronage. The 18th-century actor David Garrick and his wife Eva installed this Thomas Chippendale bed at their villa in Hampton, Middlesex (below left). James Wyatt designed the 1794 Strawberry Room for Lee Priory in Kent (below right). Having seen an earlier version in the possession of Napoleon's empress, Josephine, the sixth Duke of Bedford commissioned Antonio Canova's 1817 *The Three Graces* for the sculpture gallery of his country seat, Woburn Abbey (bottom right).

The rococo never really took hold in England the way it did in France, but the style stuck around long enough to produce masterpieces like the Music Room from Norfolk House, now installed in the British Galleries, and this over-the-top mantelpiece of circa 1750 (facing page, at left). Connoisseurs of the 18th century generally preferred the classical sobrieties of sculptor Antonio Canova, architect Robert Adam, and painter Canaletto, who collaborated with two other Italian painters on *An Allegorical Tomb in Honor of John, Lord Somers* (facing page, at rear). The picture is one of a series of 24 "Monuments to the Remembrance of a Set of British Worthies," made for sale in the English market.



embroidered in a prison by Mary Queen of Scots. Architects will be especially drawn to material on neo-classicists Robert Adam and William Chambers.

Diverse educational enterprises tucked into the galleries provide an even more direct experience of British design. Videos illustrate objects such as a 17th-century lock being fabricated or used, while activity spaces permit visitors to weave a tapestry, assemble an 18th-century chair, or thumb through facsimiles of relevant books. A remnant of the demolished 18th-century Norfolk House, its rococo Music Room (one of five complete and refurbished period rooms), will host concerts once again.

Buried within the historical sequence of the objects on view is a subsidiary theme related to tastemakers: Who shaped taste in the different eras? Over the span of

400 years, the aristocracy yielded primacy to the greater numbers (and often wealth) of the middle classes, just as the trajectory of design shifted from individual craftsmanship to mass manufacturing. In 1525, Henry VIII sat at a walnut- and oak-lined writing desk decorated with painted and gilded leather (now on display) and wrote with a feather pen; by the end of the 19th century, clerks sat at factory-produced desks and transcribed their labors with one of the era's technological advances, an Empire typewriter. One hopes that other curators will learn from this keen balance of educational opportunity nested in elegant display. So yes, Virginia, the new British Galleries at the V & A merit a visit. ■

Diane Ghirardo is the author of Architecture After Modernism (World of Art, 1996).



A DESIGN PROBLEM

Tod Williams and Billie Tsien discuss their approach for the American Folk Art Museum. An interview by Ned Cramer / Photography by Michael Moran

American Folk Art Museum / 45 West 53rd Street, New York City

Hours: Open Tuesday through Sunday 10 a.m. to 6 p.m., and Fridays 10 a.m. to 8 p.m. / Admission: \$9. Free admission Fridays from 6 p.m. to 8 p.m. / Contact: (212) 265-1040 / www.folkartmuseum.org

The American Folk Art Museum is small by museum standards, with a building of only 30,000 square feet. It may seem even smaller come 2005, when its neighbor on Manhattan's West 53rd Street, the venerable Museum of Modern Art, opens its 600,000-square-foot addition and renovation by Yoshio Taniguchi. Yet the Folk Art, like David to MoMA's Goliath, has its slingshot ready. There's the superb collection, of course, with 22 paintings by the reclusive Henry Darger – illustrations for his 15,145-page unpublished novel, *The Story of the Vivian Girls, in what is Known as the Realms of the Unreal, of the Glandeco-Angelinnian War Storm, Caused by the Child Slave Rebellion*.

In the end, however, the museum building itself (which opened in December) may prove the institution's greatest advantage. Within the tiny, 40-by-100-foot

site, architects Tod Williams Billie Tsien and Associates have conceived a world as engrossing as Darger's Realms of the Unreal: galleries, offices, a shop, and an auditorium on eight levels (two of them underground), behind a folded façade of panels cast in tombasil, a white-bronze alloy. The architects impart a sense of expansiveness on the interior by emphasizing, paradoxically, its density. Alternative staircase routes and openings in walls and floors successively disclose new spaces, without once revealing the overall organization of the building in section or plan. A rich and rigorously applied material palette – including concrete, reclaimed wood, fiberglass, and Italian *pietra piesantina* – links the design to craft traditions in a contemporary manner. As Principal Billie Tsien says, "It's a small building that feels big."

What do you want museum-goers to get out of a visit to the building?

TOD WILLIAMS: I want them to want to be there. I want them to go back because they are curious not only about what they see in the building but about the building itself.

TSIEN: The most powerful folk art is both common and magical at the same time, and to me the building also feels common in certain ways and then in others quite magical.

WILLIAMS: Folk art is small and intimate, a product not of a concept that could be executed by multiple people, like contemporary art, but by an individual.

As much an object made by hand as the objects it contains.

TSIEN: That was important – that you sense people made it. Of course, people make all buildings, but sometimes buildings have a sort of seamlessness. You don't sense the person behind the tools.

WILLIAMS: There's an intensity to the way in which it's made. It's different from that of a craft piece, which is maybe less about

the act of making than about the need to make in order to communicate, to record. We wanted the building to be something of real value. We felt that it needed to be made of material that felt like it deserved to be there, and have a weight and permanence to it.

TSIEN: We're not interested in nostalgia. We looked at materials that make sense, that are commonly made, but thought about them differently. We didn't ask some metalsmith to mix up a batch of special metal for the façade panels. We looked for an alloy that comes in ingots, that you buy and it's always the same mixture, and you just melt it. Then there's that different way of fabricating it [see page 91].

That's the magic in the common.

TSIEN: Right. It isn't about trying to find the one perfect craftsman who makes the one perfect thing.

Where else does the magic happen?

WILLIAMS: For me, it's when the big concrete wall appears in front of you on the second floor. The wall

seems overwhelming. Also, when you confront the enormity of the big stair, and the small stair. Or the incredible vertical shaft through the building. Or the slots of life outside as you look through the corner windows. What is it for you?

TSIEN: When we were out there peeking around the corner. We were coming back from somewhere, and we said, "Let's go see people go by the Folk Art Museum." It's a sort of secret pleasure...

WILLIAMS: They were touching the building.

TSIEN: I loved that moment. I can imagine being a really old, old lady, and nobody knows who designed the building, and I sneak around the corner and have pleasure in watching people come to the building. Then we were standing up on the mezzanine looking down and people would walk in and stand there for a few minutes looking up.

One of the most remarkable things about the museum is the variety of spatial experience within such limited physical boundaries. There

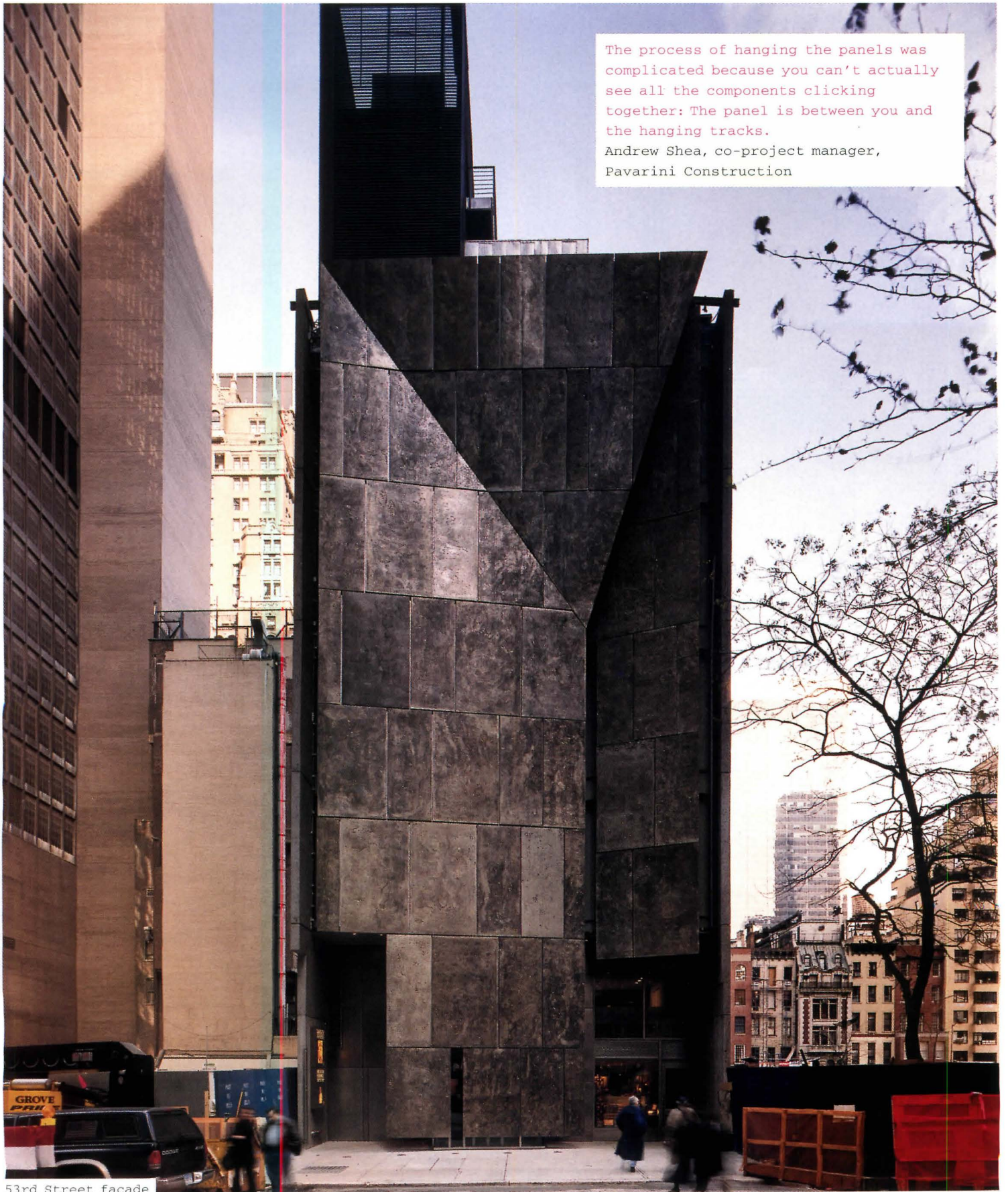
We have a building people are not going to tire of: You can't understand it all at once. It was worth sacrificing a little exhibit space; actually, it was absolutely necessary.
Stacy Hollander, director of exhibitions



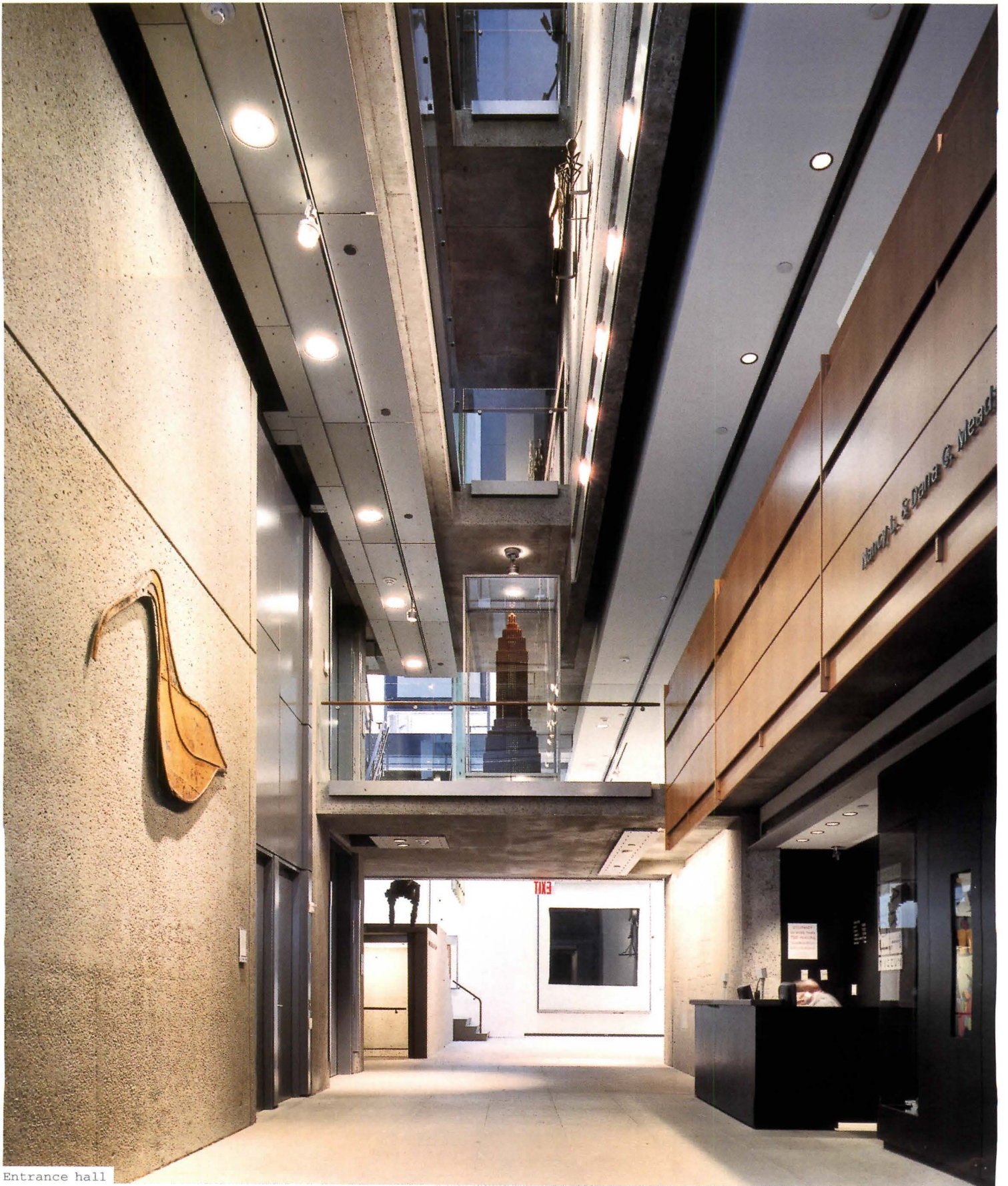
Fourth-floor gallery

The process of hanging the panels was complicated because you can't actually see all the components clicking together: The panel is between you and the hanging tracks.

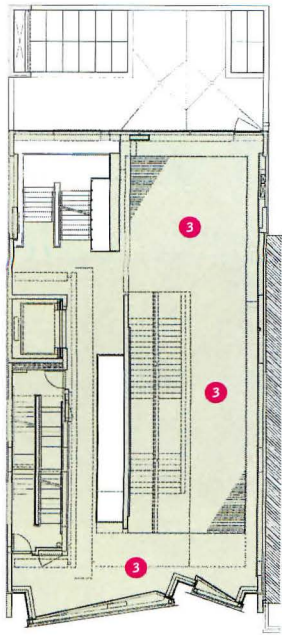
Andrew Shea, co-project manager,
Pavarini Construction



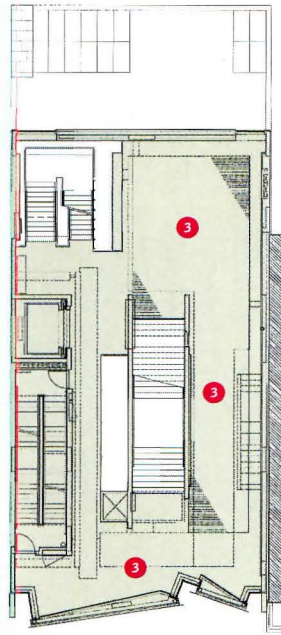
53rd Street façade



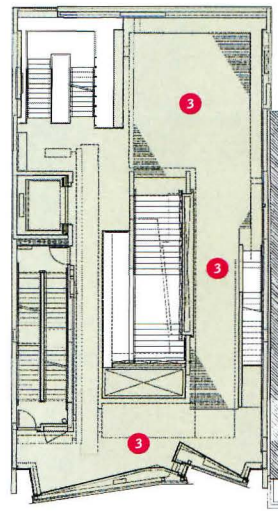
Entrance hall



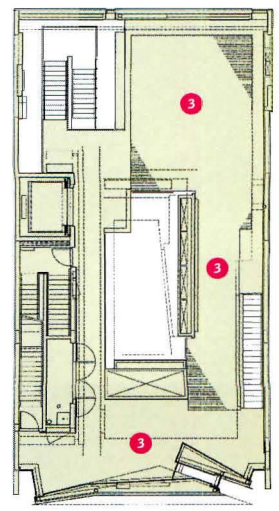
Second-floor plan



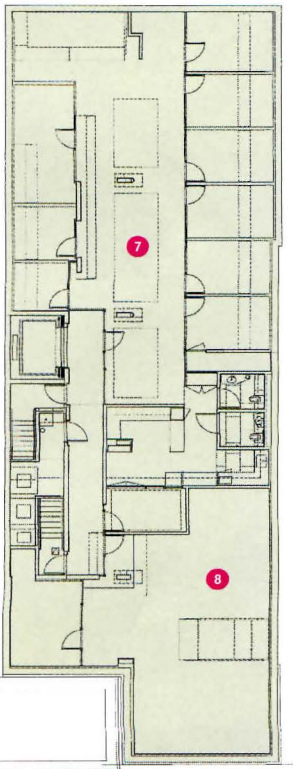
Third-floor plan



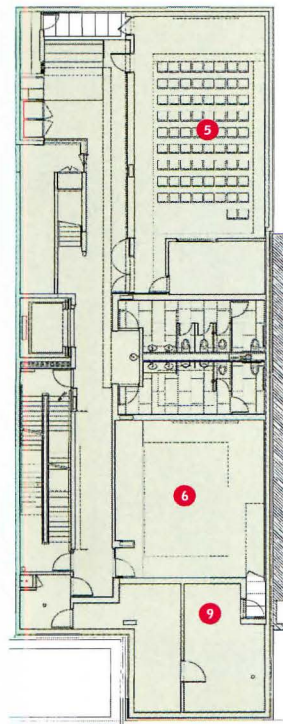
Fourth-floor plan



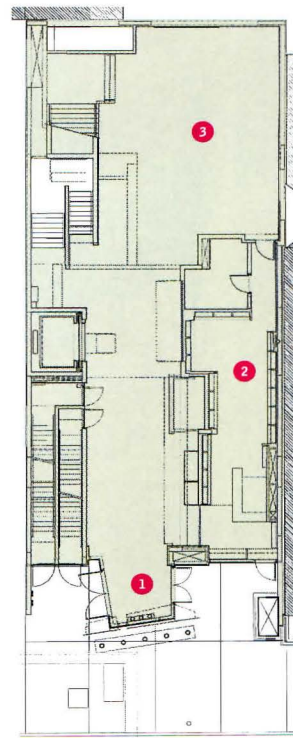
Fifth-floor plan



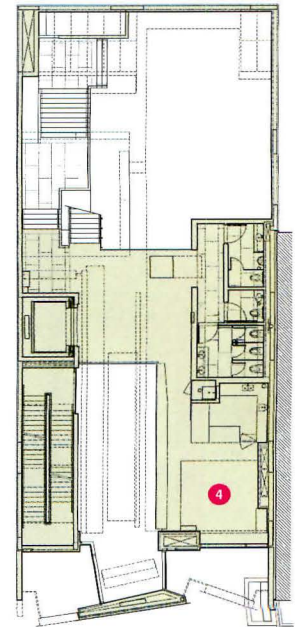
Subbasement plan 11' 8"



Basement plan



First-floor plan



Mezzanine plan

- | | | |
|-----------|--------------|--------------|
| 1 lobby | 4 café | 7 offices |
| 2 store | 5 auditorium | 8 library |
| 3 gallery | 6 classroom | 9 mechanical |

THE AMERICAN FOLK ART MUSEUM, NEW YORK CITY

CLIENT: The American Folk Art Museum – Gerard C. Wertkin (director); Riccardo Salmons (deputy director) **ARCHITECT:** Tod Williams Billie Tsien and Associates Architects, New York City – Matthew Baird (project architect); Phillip Ryan, Jennifer Turner, Nina Hollein, Vivian Wang, Hana Kassem, Kyra Clarkson, Andy Kim, William Vincent, Leslie Hansen (project team) **ASSOCIATE ARCHITECT:** Helfand Myerberg Guggenheimer Architects, New York City – Peter Guggenheimer, Jennifer Tulley, Jonathan Reo (project team) **ENGINEERS:** Severud Associates (structural); Ambrosino, DePinto & Schmeider (mechanical) **CONSULTANTS:** Gregory Romine (curtain wall); Renfro Design Group (lighting design); Ralph Appelbaum Associates (exhibition design); Pentagram (graphic design); Tallix (bronze panel foundry) **GENERAL CONTRACTOR:** Pavarini Construction **COST:** Withheld at owner's request



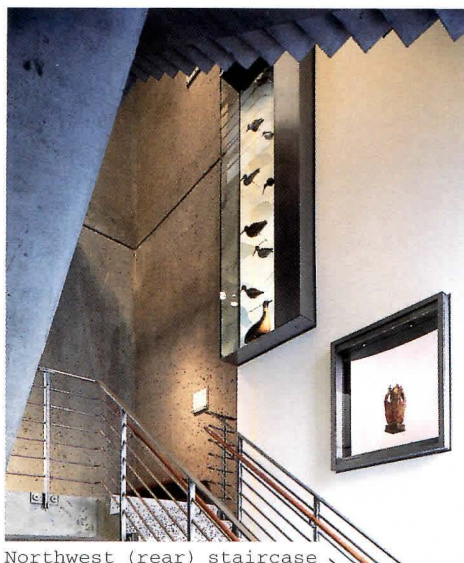
Ground-floor gallery



Staircase in ground-floor gallery



Fourth-floor atrium



Northwest (rear) staircase



East staircase on fifth floor

are amazing moments of expansion, and then incredible compression, different stairs, small and large openings looking across slots of space. How did you design all this? With models? Drawing in section? In plan?

TSIEN: By model. But I think Tod was the only person who ever really understood all the vertical, the sectional connections of the space. I know I didn't. I think it was inside his head.

WILLIAMS: I felt I could see it pretty closely. I drew a very careful stair section. And then other people looked at it, and once they began to accept it, they helped me understand it more and more. I often worry that I overdid it. I constantly worry that the tread-to-riser ratio is just too tight.

Well, they're comfortable to walk; I can vouch for that.

WILLIAMS: I didn't think of people principally walking up. I thought about there being alternative routes so that any person would feel that they needed to go back to understand the route that they had taken, and ultimately to make that particular journey their own.

The museum is on such a sensitive site. It's across from Eero Saarinen's CBS Building; eventually it's going to be flanked on

both sides by Taniguchi's addition to MoMA. And there's the public plaza across the street, so you'll always be able to look at the museum from a distance.

WILLIAMS: Oh, and let me tell you, MoMA definitely wanted us to move the building and trade them for another site further west or off the block altogether. We felt that having the plaza was really exceptional, and we did in fact design the façade, as we believe, to take advantage of the position. It's only the second time that we've dealt with a façade that's bound by adjacent structures. In general we're not very façade-driven. The façade is not the first thing we try to define; it's really the interior.

TSIEN: It's such an interesting street, because there are a number of important buildings along it. I suppose that we looked forward not only to joining them, but to differentiating ourselves – probably because of Tod's and my personalities not being so social. I mean, here we are eating Chinese food.

WILLIAMS: It's a little like being in a subway car. I mean, if you look at individuals' faces, they're remarkable: each one of them worth thinking about. But you see them briefly – just like many buildings in Manhattan. One of the difficulties and the great powers of this

city is that so few buildings stand out from the landscape of the city's street façade. We did want our building to stand out. It's a small building and we wanted it to have some power. We wanted it at the same time to be settled within the block. At the moment [before the MoMA addition goes up], we're seeing it as an object, not as we'd envisioned it. I'll be very curious to actually see it as part of the city fabric. That may make it less important as an object, and in fact for many people it may disappear. But that is actually exciting for me. It's as though this person on the subway has been pulled out into a kind of prominent social position, and it's great that the light is shining on them, but they're very soon going to be slipped back into their seat on the subway and the train will be off.

TSIEN: I wouldn't say the museum is façade-driven either, but a huge amount of effort went into the façade, because it needed to be the face of the museum.

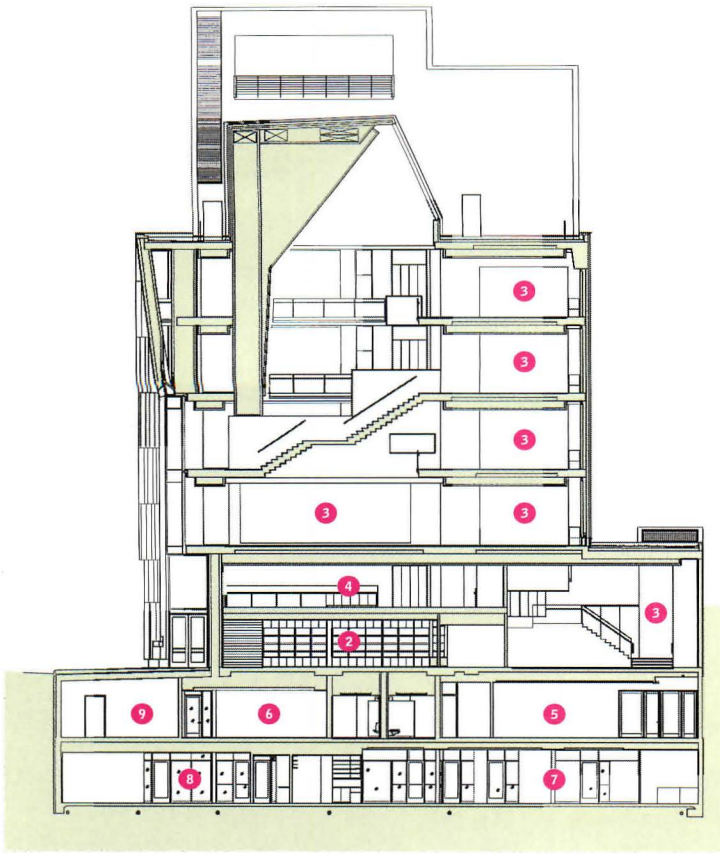
What does it say?

WILLIAMS: The façade? Well...

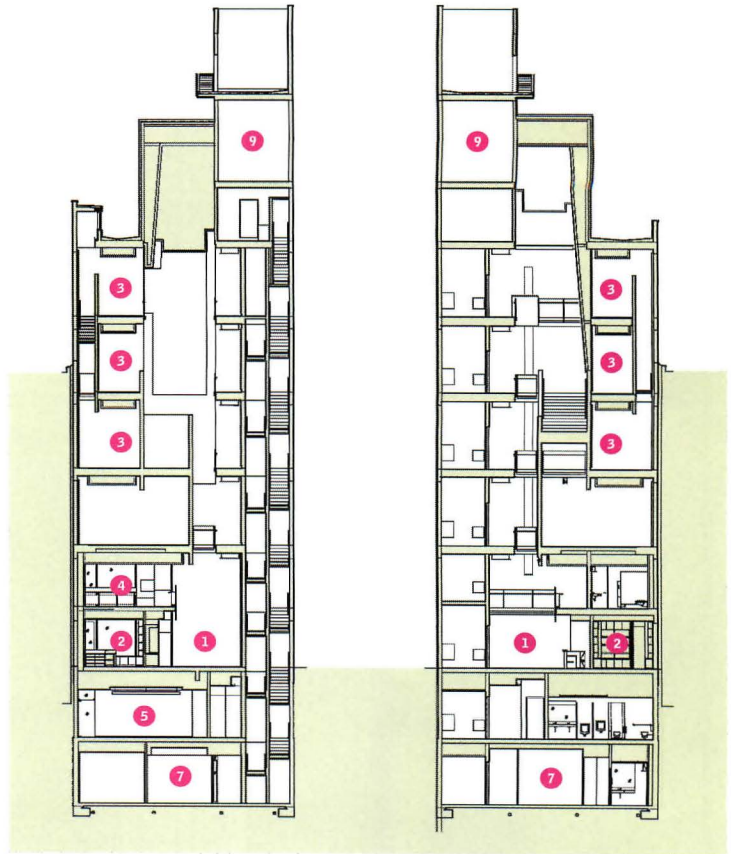
TSIEN: It says, "Look at me." [Laughs.]

WILLIAMS: But appreciate the wrinkles, more than just the shine.

TSIEN: Maybe it's, "Look at me: I'm not what you think I am." ■



North-south section 11'

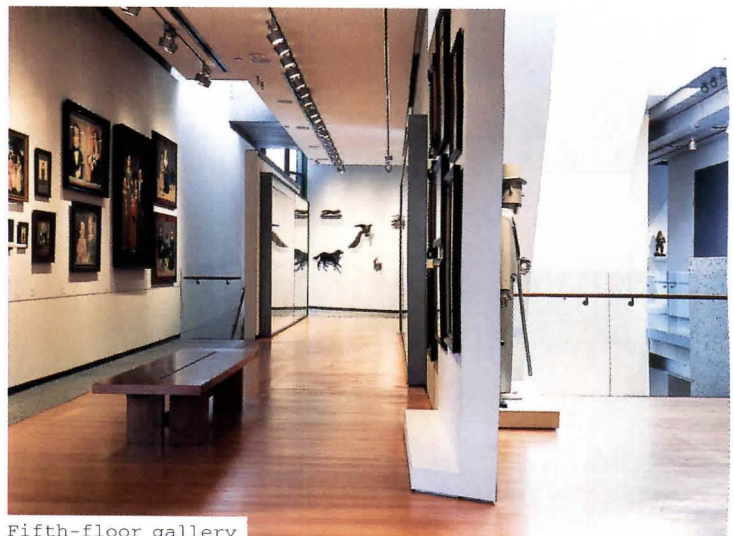


East-west section, looking south (left) and north (right)

- | | | |
|-----------|--------------|--------------|
| 1 lobby | 4 cafe | 7 offices |
| 2 store | 5 auditorium | 8 library |
| 3 gallery | 6 classroom | 9 mechanical |



Front gallery on fourth floor

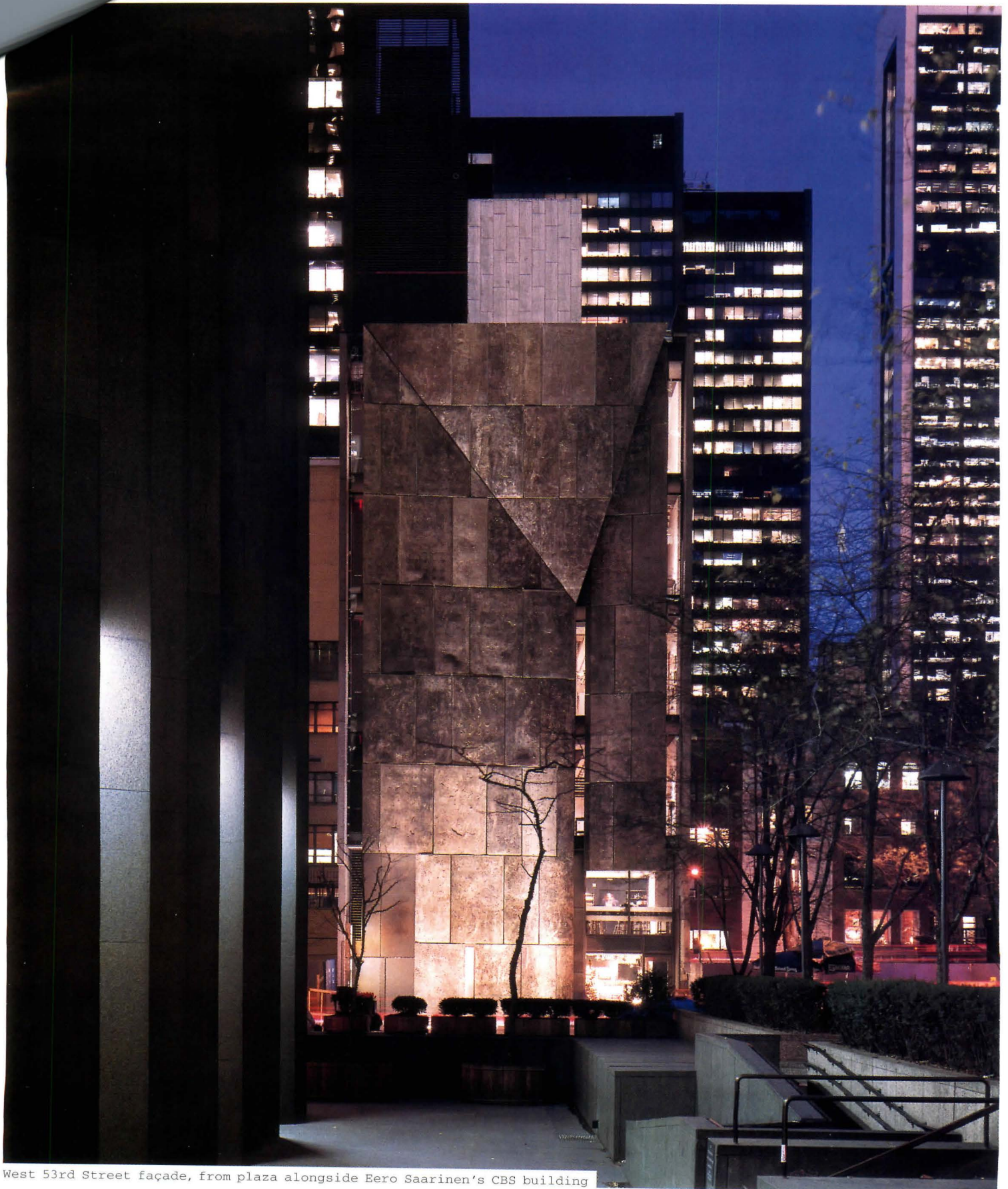


Fifth-floor gallery



There is nothing typical about this building. The slab on each floor is 16 inches thick, sculpted on the bottom to allow light trays. The beams pass around the holes in the floors.
Ed Messina, structural engineer, Severud Associates

Front gallery on second floor, overlooking mezzanine



West 53rd Street façade, from plaza alongside Eero Saarinen's CBS building

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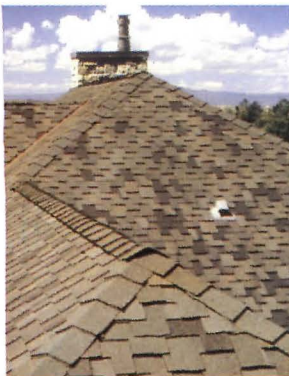
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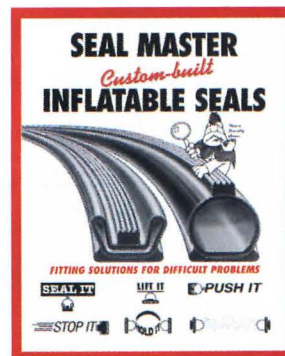
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Circle 108.

Copper Development Association



This comprehensive resource contains technical discussions, sample projects, details and specifications on the application of architectural copper products. Details are Auto-Cad®-compatible for easy importing, or printable as PDF documents. Specifications are CSI and AIA MasterSpec®-formatted. Copper alloy color charts, along with supplier, manufacturer and contractor databases included. \$20. Call Copper Development Association: 888-427-2411.

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Heat-N-Glo's Crescent is the first fireplace specifically designed with the kitchen in mind. It boasts a beautiful arched front design and its optional door features a functional flip down warming shelf. For more information call Heat-N-Glo at 888-427-3973.

Circle 105.

>features

The Modular City / continued from page 38

establish variety, giving a local identity to each block.

The faults of La Bicocca appear when one looks closely at the buildings. The architecture seems to have been designed at a scale of 10,000 to 1, with primary concern for the play of volumes from block to block but with scarce attention paid to interior spaces and human-scale details. There are no shops provided on any of the streets, since all of the commercial activity was planned for a shopping center at the core of the project, posing a great limitation on the urban life of the district.

Overall, the effect of La Bicocca brings to mind Otto Wagner's hyperrational concept of the *Grosstadt* (published in 1910), an infinitely expandable city made of discrete districts for 100,000 inhabitants. Wagner's claim to modernity is not in style but in his embrace of func-

tional criteria—transportation, hygiene, and parks in particular—as the primary concern of urbanism. Wagner's proposal for an anonymous fabric of perimeter blocks with uniformly scaled buildings relieved at regular intervals by "air pockets"—large landscaped esplanades that allow the city to breathe—is also the essence of Gregotti's scheme.

La Bicocca, with its conventional streets and unconventional "air pockets," offers a lesson in urbanism to the rest of Italy, which has undergone a series of pathetically uncoordinated urban expansions during the last 30 years. It demonstrates on a formal level the virtue of following architectural rules that are consistent from overall plan to the organization of individual buildings. The generosity of the urban spaces and the flexibility of modular panel construction promise that the evolving needs of life will be able to adjust to this noble frame and mitigate its current inadequacies at human



Near a corner of the university square, skyways preserved from former Pirelli factory buildings on the site connect the units of the humanities department.

scale. Neither an overdetermined atmosphere of simulated historical places nor an alienated architectural expression of modernity, La Bicocca presents a credible pattern for the future of the modern city, an armature on which urban life can grow and change. ■

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143	Invisible Structures, Inc	www.invisiblestructures.com	87				
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105	Heat-N-Glo	www.heatnglow.com	87				
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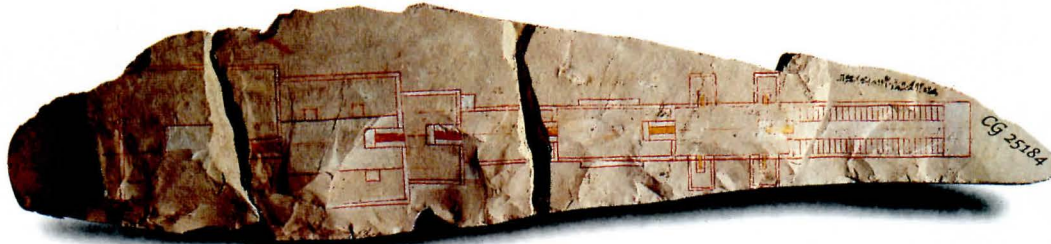


Arab Republic of Egypt
Ministry of Culture

Under the Patronage of UNESCO
Supervised by UIA - Union of International Architects

The Grand Egyptian Museum

International Architecture Competition



P24

Ostrakon with a Plan of a Royal Tomb
Painted Limestone, Length 83.5 cm

Valley of the Kings,

Tomb of Ramesses IX (KV 6)

Late Twentieth Dynasty (11th Century BCE)

G. Daressy's Excavations (1888)

One of the estimated 140,000 artifacts currently
in the collection of the Egyptian Museum, Cairo.

Image from "Treasures of the Egyptian Museum"

© 2000 Whitestar S.r.l. - Vercelli, Italy

The American University in Cairo Press

Photography by Araldo De Luca

Invitation to Contact

This is an open invitation to architects and consultants from around the world to engage in a challenging act of creative design that stipulates a unique architecture and state-of-the-art museum complex for the long anticipated Grand Egyptian Museum. Egypt, the centre of civilisation, art, and culture, offers its unique site neighbouring the Pyramids of Giza as a genius loci for such a cultural and architectural challenge that best addresses the world's Third Millennium and Egypt's Seventh Millennium.

Challenge

First Phase - 7 May to 17 August 2002. Twenty winners will be announced October 2002 and will pass on to the Second Phase. Second Phase - November 2002 to March 2003. Winners will be announced June 2003.

Organisation

Regulated in accordance with the Revised Recommendations of the International Competitions in Architecture and Town Planning, adopted by the General Conference of UNESCO in 1978. Official language of the competition and all related correspondence will be English. Official measurement system will be Metric.

Jury Members

Architects:

Dr. Salah Zaki (Egypt)

Dr. Galal Abada (Egypt)

Mr. Peter Cook (England)

Mr. Teodoro Gonzales (Mexico)

Mrs. Gae Aulenti (Italy)

Mr. Jong-Soung KIMM (Korea - UIA representative)

Egyptologists:

Dr. Gaballah Ali Gaballah (Egypt)

Mr. Sergio Donadoni (Italy)

Museologist:

Mrs. Françoise Cachan (France)

Deputy Jury Members:

Dr. Fayza Haikal (Egypt)

Mr. Arne Eggebrecht (Germany)

Ms. Ana Maria Zahariade (Romania - Deputy UIA representative)

Technical Committee Coordinator:

Dr. Yasser Mansour (Egypt)

Prizes

First Phase: Twenty winners will receive a prize of \$10,000US each. Second Phase: First prize: \$250,000US

Second prize: \$150,000US

Third prize: \$100,000US

A sum of \$200,000US will be distributed among Honourable Mentions based on the discretion of the jury.

The Grand Egyptian Museum

International Architecture Competition

Coordinator: Dr. Yasser Mansour

Al Remayah Square, Pyramids, Giza, Egypt

Tel: (2) 02 386 59 17

(2) 02 386 59 11

Fax: (2) 02 386 58 71

Email: gem1@idsc.net.eg

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Registration

From 7 January to 7 April 2002. Registration may be made by mail, e-mail, web site online form, fax, or in person at the Giza address. Fees for registration are \$300US + \$50US for international shipping and handling, to be paid by bank transfer to the below address. Bank charges to be paid by applicants. The registration fees are non-refundable under any circumstance.

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Application

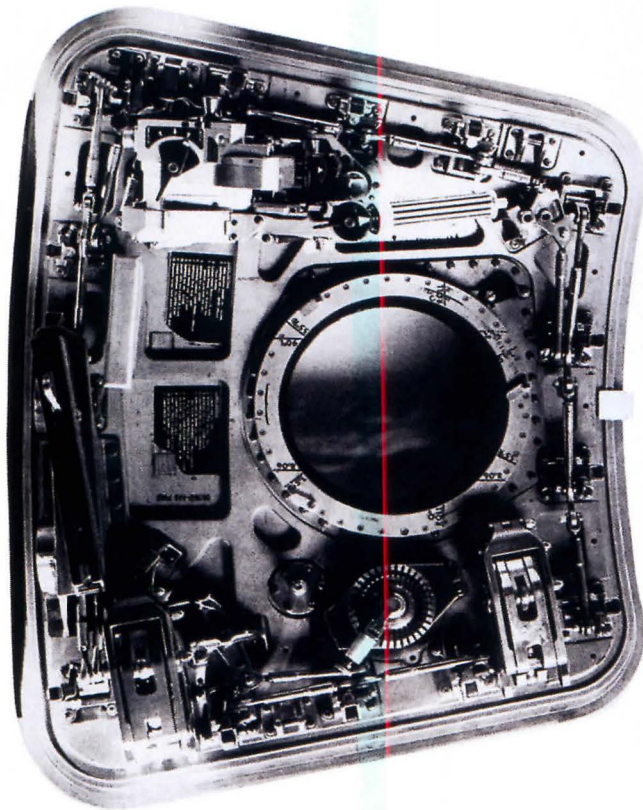
Applications for registration must arrive no later than 18:00h (+2 GMT) on 7 April 2002. Applications are to be accompanied by:

- Complete registration form with name, address, and country of origin of the architect or team of architects applying.
- Documentative evidence of the architect's or team leader's right to exercise the profession in his or her own country.
- Copy of bank receipt confirming fee payment.

Competition Brief and all related documents will be delivered during the month of April 2002 to the exact address of the registered participants. All correspondence and inquiries should be addressed to the Technical Committee Coordinator at the Giza address and/or e-mail address. Deadline for submission of the First Phase documents (two copies) shall be 12:00h (+2 GMT) 17 August 2002 at the Giza address.

Emblem of Eternity

circle 228 or www.thru.to/architecture



PHOTOS: STEVE PYKE

Photographer Steve Pyke vividly remembers, as a boy, watching Neil Armstrong and Buzz Aldrin's legendary 1969 moon landing on television. In 1998, Pyke resurrected this memory by initiating a series of astronauts' portraits that included Aldrin. While photographing these men, Pyke turned his lens toward inanimate objects used on the moon voyages, objects he often found in astronauts' homes. In collaboration with London's Royal College of Art, Pyke has made photoetchings from the negatives of these space-age still lifes.

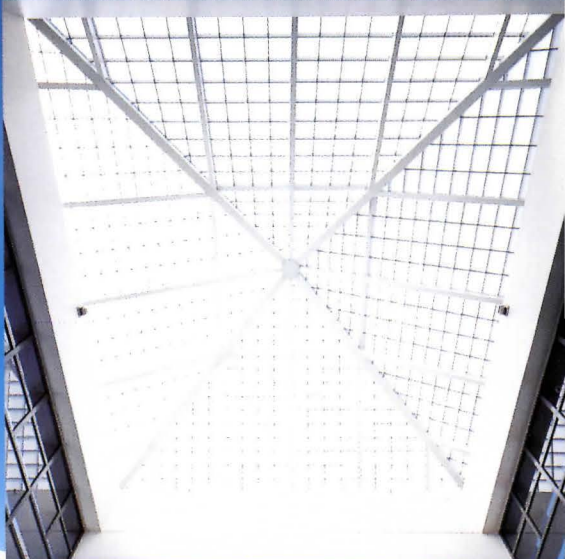
In Pyke's pictures, the objects appear out of context, dreamlike—among them, a case for transporting moon rocks (above right), three headless Apollo fire suits, and a spacecraft's jettisoned hatch door (above left). Resting in empty photographic space, their purposes long-since served, they exude something otherworldly. "The object is no longer a wheel, a pen, a hammer," Pyke says. "It has been to the surface of the moon."

Beneath their stark utility, these objects symbolize a long, strange journey. Still, their former usefulness radiates nostalgia. Whether hammer or moon rock, they are bittersweet in their metamorphosis from apparatus to artifact. **SARAH PALMER**

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