

Architecture® August 2001 \$8.95 usa \$11.00 canada

architecture

ASHTON RAGGATT MCDOUGALL
FRANK O. GEHRY
PUGH + SCARPA
STUDIO WORKS
ZIMMER GUNSUL FRASCA

ANDREW ZAGO
A PAVILION IN DETROIT

[Between us, ideas become reality.™]



Not seeing is believing.

What you never thought possible now is. A clean, sophisticated ceiling plane with virtually no visible grid. Our Vector™ ceilings feature a unique, patented edge detail that is installed on a standard 15/16" suspension system, making them ideal for new construction as well as renovation projects. And they're available in a range of material options to meet your design needs. Like Optima, Ultima,™ WoodWorks™ and MetalWorks™ Vector. To find out more about the newest look in ceilings, call 1-877-ARMSTRONG and mention Dept. 11J or visit www.armstrong.com. Because with Vector, all you see is ceiling.





The Odds are Against You in Nevada (Surprise)

By Reed Kroloff

Not long ago, I helped judge a competition for a new school on the outskirts of Las Vegas, Nevada. Somehow, without knowing the competitors' identities, we selected only out-of-state architects as finalists.

This infuriated some local firms, who complained to the Nevada State Board of Architecture, Interior Design, and Residential Design (NSBAIDRD). Petty? Yes. Unusual? No. Sadly, states sometimes interpret practice statutes not only as measures to protect public safety, but as instruments to guard the interests of local practitioners as well. In this case, one of the winners, licensed in New York, failed to line up a local partner before the competition deadline. Some boards might have allowed him to continue, provided he secure local representation. Most simply would have disqualified him. Not Nevada. NSBAIDRD not only voided the architect's entry, but is now pursuing him on charges of attempting to practice there without a license.

He's not the first. Several years ago, the city of Las Vegas invited Los Angeles-based Craig Hodgetts and several other local and out-of-state architects to participate in a design charrette for a homeless shelter. Sensing danger, the Nevada board's marshals rode in, aiming to close the charrette down. Failing that, they hauled Hodgetts up to Reno, threatened to get him censured in California, and in his words, "basically told me never to come back to Nevada."

I could continue: Las Vegas American Institute of Architects chapter president Eric Strain recently was advised by NSBAIDRD that if an ideas competition he had proposed—for an imaginary project on an imaginary site—drew any out-of-state entries, they'd

go after him personally. But in a place where one wanders from Venice to Paris merely by crossing a street, the outrageous hardly needs further contextualizing.

These examples may seem ludicrous, but this is serious business: If the board has its way, the architect from the competition I juried may face criminal, not civil, charges. Craig Hodgetts recalls NSBAIDRD this way: "These people were scary."

Practice statutes are hard-won pieces of legislation that not only protect public safety, but confer professional status as well; without them—and their vigorous enforcement by the profession and its regulatory agencies—architecture would be only a trade. Nevertheless, NSBAIDRD, to put it politely, is pursuing its duties more enthusiastically than necessary. Indeed, someone less charitable than I could interpret their actions not as reflecting legitimate concerns about professional competency, but as strong-arm tactics applied to restrain interstate trade.

The board's cheerful administrator Betty Ruark assures me that is not the case. But there is no rational explanation for why an architect licensed in one state should not be able to participate in a competition in another, much less be prosecuted for trying: Competitions are not practice. According to former NSBAIDRD member Robert Fielden, however, Nevada interprets participation in a competition as an attempt to market oneself as an architect. And of course, without a license to practice there, that's illegal. "We've had real problems with unlicensed practice here. We need to be vigilant," Fielden explains, and he's right.

But where do we draw the line? What happens if a famous architect lectures in Nevada about her work? Couldn't that be construed as marketing? Should she be censured? And what about the thousands of Web sites that advertise architectural services without regard to location? Will NSBAIDRD sue every architect in the country, if need be?

Perhaps. But here are some alternatives. First, NSBAIDRD—and other, equally aggressive boards—must learn to distinguish between the letter and the intent of the law: Practice statutes are not meant to limit creativity or professional dialogue. Second, the National Council of Architectural Registration Boards should *develop uniform standards to help states adjudicate these situations*. Architects have it tough enough already. Our professional and regulatory organizations shouldn't make matters worse. ■

AIGA

Elevate, Provoke, Ignite

AIGA National Design Conference 2001

September 23–26, 2001
Marriott Wardman Park Hotel,
Washington, D.C.
To register and for full conference
information, visit www.voice.aiga.org
or call 212 807 1990.

Join 2,000 of the world's most engaged and motivated designers for an intellectual protest march, a stirring of the soul to action, a rough-and-tumble engagement of the visual arts to practical problems.

For three life-changing days in September, issues-oriented designers, photographers, illustrators, activists, politicians, utopians, rabble-rousers and graphic guerrillas will descend on the nation's capital to debate the moral, social and political dimensions in their work.

Meet new friends and collaborators, get practical tools for instigating change, learn how to lobby and be inspired by the passion and conviction of world-class speakers moderated in fast, furious succession by Peabody Award-winning journalist John Hockenberry.

Don't come expecting the usual show-and-tell portfolio shows. "Voice" is the congress that brings together instigators like Ken Garland, author of the original "First Things First" manifesto in 1964, and Kalle Lasn, the media provocateur behind *Adbusters*; *No Logo* author Naomi Klein; *Lifestyle* concealer Bruce Mau, activist illustrator Sue Coe and legendary "antiwar" photographer James Nachtwey; artist Alfredo Jaar and MIT Media Lab visionary John Maeda; *McSweeney* editor and designer Dave Eggers and "Beatkit" inventor Shawn Wolfe.

Member \$725
(AIGA members visit www.voice.aiga.org
for details on a special discount).
Nonmember \$900
Student member \$350

Maxey Address
Samuel Antupit
Dana Arnett
Stuart Bailey
Tina Baine
Jonathan Barnbrook
Stefanie Barth
Burkey Belser
Michael Blerut
Peter Bil'ak
Andrew Blauvelt

Nicholas Blechman
Steve Brodner
Class Action
Sue Coe
Robbie Conal
Siân Cook
David Crowley
Dan the Automator
Gideon D'Archangelo
Chris Dixon

William Drenttel
Dave Eggers
Experimental Jetset
Mario García
Ken Garland
Joanne Leigh George
Carin Goldberg
Fernando Gutiérrez
Allan Haley
Peter Hall
Sylvia Harris

Luke Hayman
Jaime Hayon
Steven Heller
Julie Hirschfeld
John Hockenberry
Terry Irwin
David Isay
Alfredo Jaar
Natalie Jeremijenko
Judy Kirpich

Naomi Klein
Kalle Lasn
Brenda Laurel
Golan Levin
George Lewis
Luba Lukova
John Maeda
Saki Mafundikwa
Roger Mandle

Bruce Mau
Geoff McFetridge
Andrea Moed
Clement Mok
Jennifer Morla
James Nachtwey
Emily Oberman
Chris Pullman
RTMark
Mark Randall
Joan Raspo

Susan Roth
Ben Rubin
Stefan Sagmeister
Louise Sandhaus
Paula Scher
Sam Shelton
Mike Simons
Brian Smith
Loretta Staples
Bill Stumpf

Ward Sutton
Teal Triggs
Bruce Turkel
Masamichi Udag
Jop van Benneke
Julia Whitney
Lorraine Wild
Shawn Wolfe
Margaret Young
Bob Zeni

voice



TO OPEN:
Press thumb-
nail firmly on
DOT in center. Lift
tab and pour.
TO CLOSE:
Simply snap
tab shut.

Sure Fire™ Starter

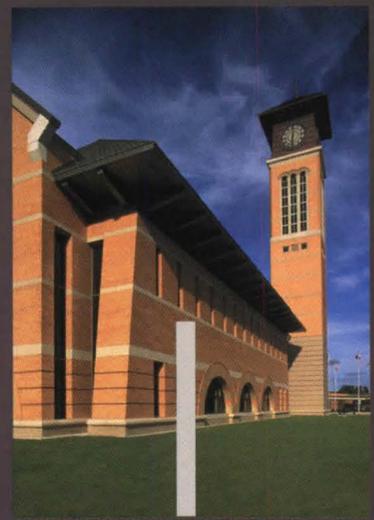
nton, Ohio
) 456-0031
w.beldenbrick.com
SO 9000 Registered Company

Bring it to Life.

Belden Brick gives you
the colors, textures, sizes and shapes you need
to make your dream a reality.

Colors

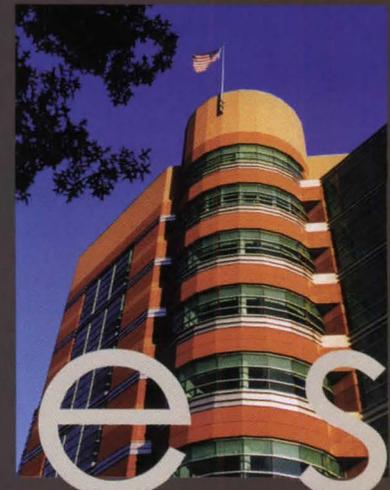
Belden Brick is available in a world of colors including soft whites and creams, buff and dusty tans, delicate pinks and cinnamon reds, chocolate browns, pewter grays and coal blacks. So many colors to choose from your options are truly endless.



Colors

Textures

Belden Brick offers thirteen different textures that range from silky smooth to rugged randomly textured finishes. Each texture can make its own distinctive contribution to the visual impact you seek.



Textures

Sizes & Shapes

Multiple sizes mean lower wall costs. With as many as sixteen different sizes to choose from Belden has the size you need. Plus, Belden has made thousands of special shapes to provide special details for individual projects. Need an "impossible" shape for your project? Then Belden Brick and learn how the impossible can become reality.



Sizes & Shapes



Mo' Better Critics

Yes, indeed, we need "more-better" critics of architecture (June 2001, page 23).

If we are to listen to the late great Alvar Aalto, the critic, publication, and editor probably ought to be very long-lived. The wily old Finn told us that buildings ought to be designed so as to become beautiful ruins, and that only after 50 years of use might they truly be judged.

The "multicritical" article on Deborah Berke's new facility at Yale is but a beginning in such a judging process (June 2001, page 90). One hopes *Architecture* will return to see how this work has served its inhabitants. How theory, practice, and, above all, use and habitation, may be tallied.

As some writers in your previous issue pointed out, architecture, architects, and critical points of view go in and out of fashion with alarming speed. I find it interesting that the Yale Art & Architecture Building, controversial but praised at its beginnings, then quickly made a sitting duck in the pomo critics' shooting gallery, is still used as some sort of lurking *bête noire* in the essays of two of the critic/observers of the still-fresh Art and Theater complex.

A Penn-trained architect/historian colleague of mine made the observation in 1971 that Paul Rudolph's buildings, like those of feisty Victorians like Frank Furness, would someday be rediscovered, restored, and come back into favor.

Always leaps and bounds ahead of the critics, Yale architecture students in fact began that process of rediscovery in 1988, by creating a course to analyze and understand the A & A, a studio which brought Paul Rudolph back for his last teaching stint in his building.

I hope that future issues will give "multicritical" follow up on the work led by Dean Robert Stern and David Childs of SOM in the restoration of the A & A, together with like coverage of the planned expansion by Richard Meier.

Jeremy Scott Wood
Weston, Massachusetts

Get Over It

While I cannot defend the insensitively proposed building next to Miami's Atlantis, I must disagree with Beth Dunlop's premise for attacking it (June 2001, page 136). If we are to build cities, we must acknowledge the fact that cities are the product of a society of adjacent buildings built under various conditions over time. To say that an existing building cannot coexist with newer ones is not necessarily a deficiency of the new. It is quite true that iconic object buildings such as the Atlantis need lots of room to breathe. Yet the Atlantis is a narrow building on a narrow lot. Something is inevitably going to be built next door. Should not the Atlantis have acknowledged its urban situation long before? Not getting along with your new neighbors is quite a far cry from the tragedy of Penn Station.

Jason R. Chandlet
Coral Gables, Florida

Post-Etymologism

In his exculpatory remarks in *Architecture* (May 2001, page 154), Robert Venturi speculated about when he first heard the term "post-modernism." He cited his teacher Jean Labatut at Princeton and/or Walter Gropius as potential sources. The more likely, though indirect, source was Joseph Hudnut, dean of

Harvard's Graduate School of Design and the man who brought Gropius to Harvard to chair the school's Department of Architecture. Hudnut coined the term "Post-Modern" in an article on domestic buildings published in *Architectural Record* in May 1945. It was part of his evolving critique of modern architecture and his call for a return to the lessons of history. By this time an ideological split had started developing between Hudnut and Gropius, but Gropius would certainly have been aware of the article as it criticized the kind of strict functionalism associated with the German architect.

Hudnut's essay was reprinted in his own anthology *Architecture and the Spirit of Man* in 1949, and subsequently in Lewis Mumford's *Roots of Contemporary Architecture* in 1952. Although most people who later used the term "postmodern" were unaware of this essay, Hudnut prefigured their basic criticisms of modernism, identified with the International Style, by attacking its core—a reductive Functionalism that at times removed cultural, spiritual, and emotional identifications from design.

Anthony Alofsin
Austin, Texas

CORRECTIONS

The winner of the Rudy Bruner Award was the Village of Arts and Humanities, not the Village of Arts and Crafts (June 2001, page 59).

The Massachusetts Museum of Contemporary Art was designed by Bruner Cott & Associates; SOM was responsible for a master-plan study (June 2001, page 33).

WE WANT TO HEAR FROM YOU!
Send your letters to the editor to: *Architecture*, 770 Broadway, New York, NY 10003. Or fax to: 646/654-5817. Or e-mail us at: info@architecturemag.com. Include your name, address, and daytime phone number. Letters may be edited for clarity or length.

**Last Call for
Development Loans**
page 33

**D.C. Metro Chooses
Canopy Design**
page 33

**Savannah Preservation
Ordinance Questioned**
page 35

Holl in One
page 36



Full Tilt

Centuries after Pisa's tower began to list, engineering has stabilized the endangered icon.

Technology It may not be straight, but the Leaning Tower of Pisa is finally safe to climb again. On June 16, engineers breathed easy and Pisans rejoiced as the 180-foot tower reopened after being closed 11 years for repairs. Over the past decade, engineers scrutinized the tower's problems while trying to come up with a solution to the lean, which was increasing every year.

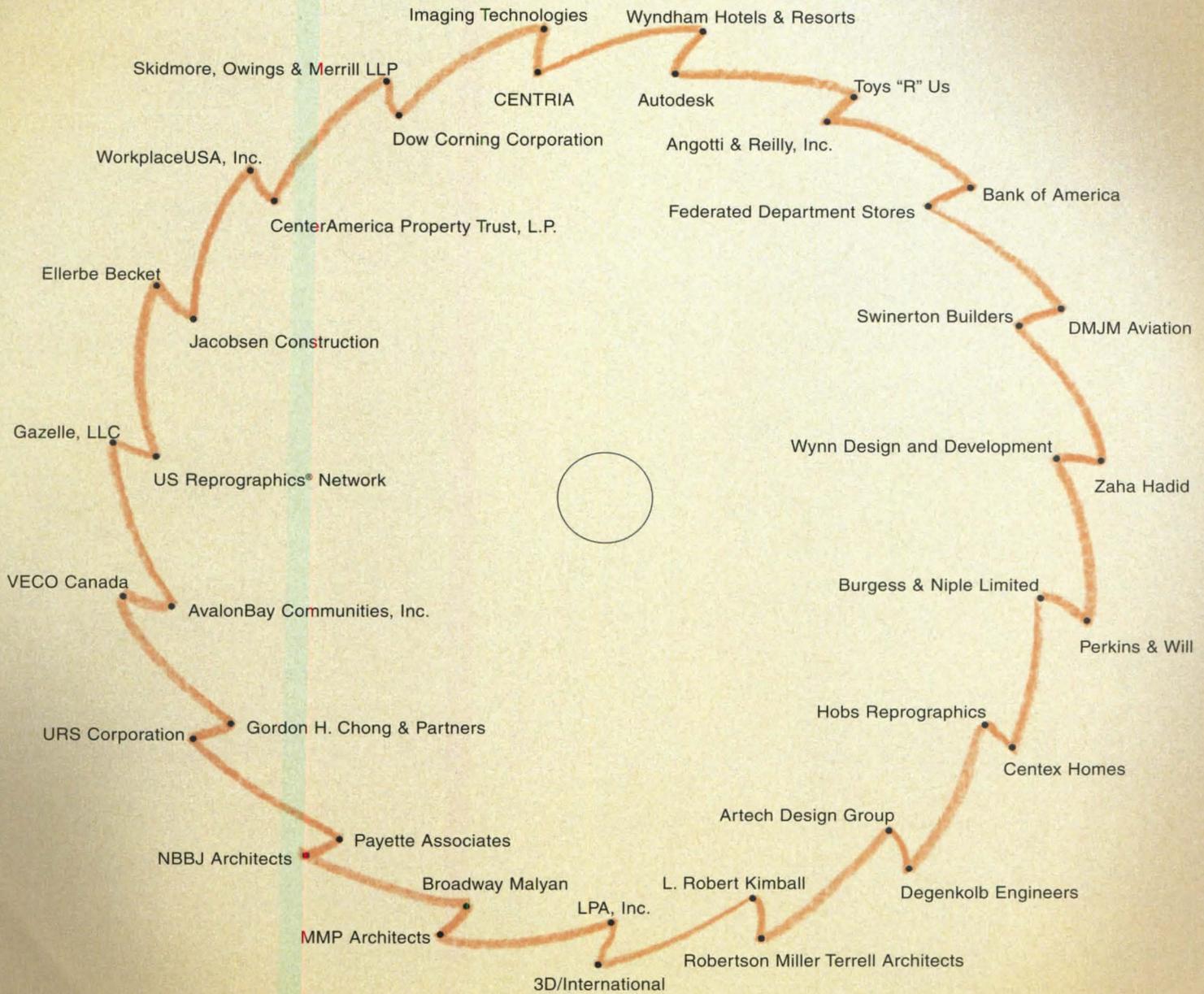
The tower's crooked history includes many misguided stabs at fixing a structure bent on remaining tilted: It has endured the addition of a bell tower in 1360, the creation of a walkway that undermined its foundation in 1838, and the lobotomizing of its base in 1934, when 361 holes were drilled and filled with mortar, which only caused it to lean more.

In what they now refer to as the "Black September" of 1995, engineers froze the ground to install steel cables as part of a restoration effort. This caused the tower to sink into the earth and lean as much in one night as it normally would in a whole year.

Fifteen commissions have been created and disbanded in the past century alone to study the problem. Government disinterest and squabbling about what solution to try kept the project in limbo. Nobody, however, ever seriously suggested *righting the structure completely*.

Crowds gathered in front of the leaning tower and the Duomo in Campo dei Miracoli in Pisa, Italy, for the official ceremony marking the end of restoration.

What's the connection?



buzzsaw.com
an Autodesk® venture

Online collaboration and printing solutions. Manage your projects with confidence.
www.buzzsaw.com

A Tower of Troubles

Unstable soil has caused the Leaning Tower of Pisa to tilt southward since the 13th century. Engineers concluded in the early 1990s that the lean was creating dangerous stress on the masonry and posed the threat of collapse. Since 1993 workers have stopped the tilt and pulled the tower back nearly 16 inches—enough, they say, to buy 300 years of stability. Here's how the tilting occurred and what's been done about it.

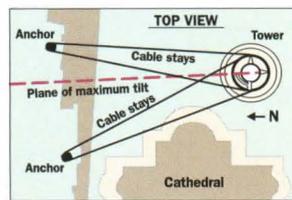
It leaned north, then south

Work began in 1173 but stopped five years later when a northward tilt was noticed. Engineers overcompensated for the tilt when work resumed in 1272 and the tower began leaning south. It was finished in 1370. By 1817, the tilt had reached 5 degrees. Attempts to repair the lean in 1838, 1934 and during the 1960s and '70s only increased it.

Anchor cables

Steel cables with weights were added in 1998 to stabilize the structure while excavation work was done. Each cable was about 335 feet long and able to bear up to 150 tons. (They were never fully tensioned.) All were removed last month.

Note: Distances and some engineering elements are conceptual and not to scale.



Lead weight

Up to 830 tons were applied to the base as counterweight. The weight was removed by January.

Extraction tubes

Soil is extracted through casings.

Excavation

Southward tilting of the tower has caused a lifting of the north side of the foundation. About 1,760 cubic feet of soil have been extracted by drills from beneath this side, through a row of 41 angled holes, allowing some settling to occur, moving the tower nearly 16 inches upright.

Before 1993
14°9' off center, about 5.5°

Today
13°5' off center, about 5°

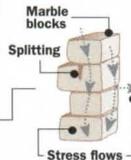
Tilting off center

Upright position

Tower height
180 ft.

Masonry stresses

The tower is a hollow cylinder with a covering of marble block walls. Fine wires wrap the second story, the point of maximum stress, to prevent buckling of masonry. (See below)



Rotation point

Foundation

Sand layer
Clay layer

Foundation instability

Compression in the clay layer beneath the south side of the tower has caused it to tilt in that direction, rotating around a point one story above.

Sources: John B. Burland, Imperial College, London; Paolo Heiniger, Manager, Tower of Pisa Project Consortium; Opera Primaziale Pisana.

Buzz

London's **Millennium Dome** might become a biomedical research center. The Wellcome Trust, a medical charity, is in negotiations with the British government to purchase the building. The contents of the Dome, including **Zaha Hadid's** Body Zone installation, face demolition.

Frank O. Gehry has been hired to plan 60 acres and design at least four buildings of a complex in the Playa Vista area of Los Angeles. The project, a media and technology campus for the entertainment industry, is on the former site of the proposed Dreamworks SKG headquarters.

A winged statue of St. Michael that sits atop Norway's Gothic **Trondheim Cathedral** was apparently modeled after **Bob Dylan's** likeness. The sculptor, Kristofer Leirdal, admitted recently that he chose the rock leg-end to represent the archangel when he fashioned the sculpture in 1969.

The **World Monuments Fund** and American Express have awarded grants totaling \$1 million to 12 historic sites that appear on the "2000 Watch List of 100 Most Endangered Sites," including the Valley of the Kings, in Luxor, Egypt, the Puerto Plata Lighthouse in Puerto Plata, Dominican Republic, and the historic district of Lancaster County, Pennsylvania. For more information, go to www.worldmonuments.org.

Soup to Nuts: The **Eurostar** train system will get an aesthetic overhaul, thanks to its new artistic director, **Philippe Starck**. The French designer will oversee a \$50 million redesign of its 36 train interiors, as

The final \$40 million plan called for returning the tower, on which construction began in 1173, to its angle of 184 years ago—one half a degree straighter—by removing soil from the high side of the foundation so that it would settle into the ground. John Burland, a geotechnical engineer involved with the project, used a system of removing soil through 41 diagonal boreholes with an Archimedes' screw (a type of corkscrew usually used to raise water) that reduced the tower's tilt without changing its appearance. Ultimately, 1,760 cubic feet of soil were hauled off.

"We came across this method of soil extraction 18 months ago," says Burland, a professor at Imperial College in London. And while he rediscovered the process recently, a British engineer had used it in 1832 on a church steeple in northern England.

Beyond its iconic status, Burland says that the lurching sensation caused by climbing the tower is too enjoyably bizarre: "As you climb, you get this funny feeling," he says. "The gradient changes and you get thrown about from north to south. It's almost like being in a ship at sea." *Lauren Wolfe*

SCRAPES, ABRASIONS, DENTS AND DINGS.



**A WALLBOARD SO TOUGH
IT SHOULD BE INSTITUTIONALIZED.**

TOUGHROCK Abuse-Resistant Wallboard.

ToughRock Abuse-Resistant Gypsum board stands out among competitive products as the best all-round product for abuse resistance on the market today. Independent tests show ToughRock beats the competition by a long shot in overall performance. That means high-traffic areas such as schools, hospitals, public housing, dorms, assisted living facilities and office buildings can maintain a quality image for longer than ever before. Superior strength. Superior performance. ToughRock Abuse-Resistant Gypsum Board. Another superior product from G-P Gypsum, the industry leader in innovative gypsum solutions. For more information about ToughRock or other quality G-P Gypsum products, call 1-800-225-6119 or visit our Web site at www.gp.com/gypsum.

G-P Gypsum 
a Georgia-Pacific company

 **TOUGHROCK**

© 2001 G-P Gypsum Corporation. All rights reserved. TOUGHROCK is a trademark of G-P Gypsum Corporation.

circle 85 or www.thru.to/architecture

Last Call for Development Loans

Economics At the end of June, the Federal Deposit Insurance Corporation (FDIC) issued a stream of warnings to the nation about the endurance of United States banking institutions in the face of an economic downturn. Banks are beginning to grow anxious about their loan businesses, and commercial real estate (CRE) lending has become a serious concern.

According to the FDIC's semiannual review of emerging banking risks, delinquent real estate construction and development loans rose by 21.3 percent, or \$263 million, in the first quarter of this year versus the previous quarter.

The FDIC's review suggests that the tap of commercial development money has been open for too long, and those architects dependent on commercial projects will have to quickly adjust. The FDIC review identified dozens of cities in which loan

delinquency has been on the rise.

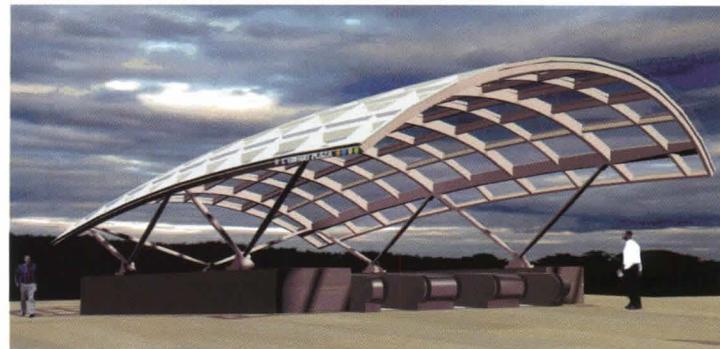
Even where these conditions have spelled disaster in the past, few lessons have been learned. Although excessive commercial building was a major cause of Texas's last major banking downturn, in the late 1980s, real estate loans made up 56.5 percent of the Dallas area's total bank and thrift loan portfolio last year—the highest level since 1988. Meanwhile, CRE loans made up 28.2 percent of the region's loans last year, almost twice the national average.

Kermit Baker, chief economist of the American Institute of Architects, points out that for architects, adjusting may be simply a matter of shifting regional focus. "In past downturns, maybe I'd want to get into institutional or residential markets," he says. "Here, it may just involve hooking up with a partner in a hotter area." *Jacob Ward*

D.C. Metro Chooses Canopy Design

Design After an embarrassing false start last fall, the Washington Metropolitan Area Transit Authority has selected a new design for a prototypical canopy to cover escalators at 46 of its Metrorail stations throughout the Washington, D.C., area. From a national competition that drew 167 designs, Metro's board selected a gently curving steel-and-glass canopy designed by architects Lurie & Chenoweth/Houghton of Silver Spring, Maryland. The rhythm of the canopies' lights derives from that of the coffered concrete ceilings that Chicago architect Harry M. Weese originally created for Metro's renowned subway station interiors.

The canopies will help to protect subway escalator shafts from rain and snow, which cause frequent mechanical trouble. Late last year, Metro announced it would



build canopies designed and professed by local architect Arthur Cotton Moore (December 2000, page 134). The scheme called for Moore's signature curly waves to billow up from the Metro escalator shafts. Other architects in Washington, D.C., outraged that Moore had been selected to alter the stations without a more formal public process, demanded that Metro open up the design to a competition. Metro officials capitulated

and selected the new design from among four finalists (one of which was Moore) on July 12.

The design team worked with the Boston office of engineer Ove Arup & Partners to produce a prototypical rectangular steel-tube framed canopy with flush glazing. The prototypes are expected to cost an average of \$300,000 each. Metro has budgeted a total of \$27.2 million for the entire undertaking. *Bradford McKee*

well as its terminals, signage, staff uniforms, and food.

Not For Sale (anymore): **Alvar Aalto's Kaufmann Conference Center** interior will stay in its original building in New York—809 United Nations Plaza.

Eyebeam Atelier has announced the finalists for the design of a new museum complex in New York City: **MVRDV** (Rotterdam), **Diller + Scofidio** (New York), and **Leeser Architecture** (New York).

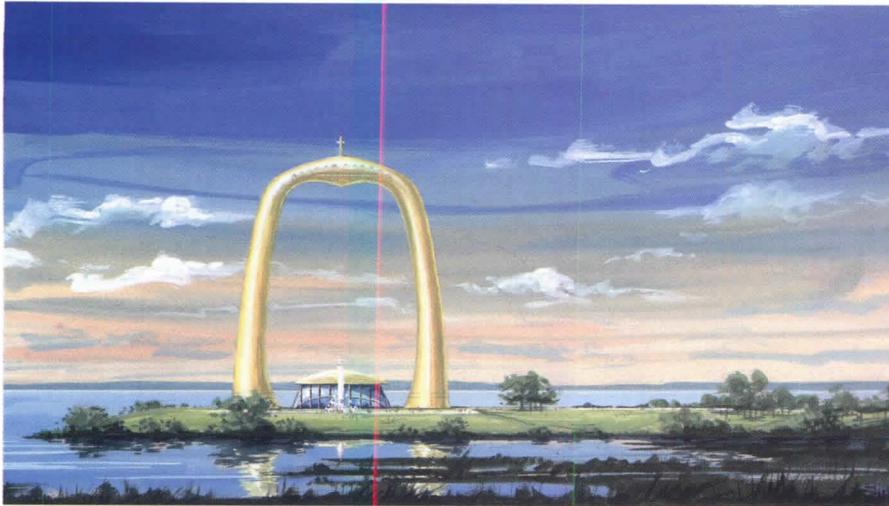
More than 80 members of the House of Representatives are lobbying to add another element to the Capitol rotunda in Washington, D.C.: a sculpture depicting minority women. If approved, it would be commissioned and built in two-and-a-half years.

The Queen of England has knighted another architect: **Terry Farrell** (UK), who designed the M16 Building in London. Farrell joins the likes of **Norman Foster**, **Richard Rogers**, and the late **James Stirling**.

So Long, Dream Team... **Herzog & de Meuron** and **OMA** have left the Astor Place Hotel project in New York. **Frank O. Gehry** is working with Ian Schrager to develop a new scheme.

The committee for the **Minneapolis Central Library** has announced its shortlist: **Gwathmey Siegel & Associates**, New York, with **Bentz/Thompson/Rietow**, Minneapolis; **Cesar Pelli & Associates**, New Haven, Connecticut; **Rafael Viñoly Architects**, New York; **RSP Architects**, Minneapolis, with **Hardy Holzman Pfeiffer**, New York; **Ellerbe Becket**, Minneapolis, with **Meyer Scherer Rockcastle**,

Thorn in My Shrine



Amazing Grace? A proposal for a 700-foot (and politically charged) shrine has Buffalo, New York, divided.

Inspiration Taller than Saarinen's 630-foot St. Louis Gateway Arch, the proposed "Arch of the Triumph of the Immaculate Heart of Mary and International Shrine of the Holy Innocents" has Buffalo, New York, divided. Both a tribute to the Virgin Mary and a pro-life shrine, the arch would rise 700 feet into the air at an unspecified site, making it the world's largest monument. Laurence Behr, a Buffalo attorney who saw the arch and its design in a dream and is spearheading its funding, believes it will help revitalize the city and inspire Catholics. "This city is hungry for something great," says Behr. Buffalo was the site of the 1998 murder of Dr. Barnett Slepia, a physician who performed abortions; some residents contend the proposed arch will polarize the community. "Given the violent history of the right-to-life movement in Buffalo," says Eric Sutherland, an assistant professor of architecture at the State University of New York at Buffalo, "the proposal is an aggressive political thrust." *Alan G. Brake*

Redefining the Practice of Architecture

Vital information.

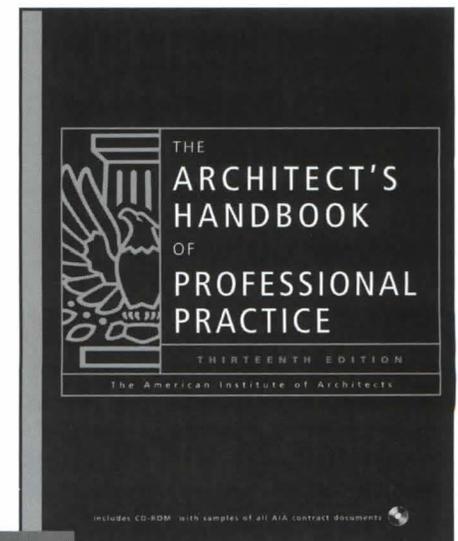
Authoritative coverage.

User-friendly format.

Transform your business—with the revolutionary new edition of the AIA's definitive guide to architectural practice.

From working with clients to developing added-value services, the new *Handbook* covers everything you need to design, build, and maintain a successful practice in today's market.

Includes CD-ROM with samples of 75 AIA contract documents



ISBN 0-471-41969-9 | Available wherever books are sold or call 1-800-225-5945 to order

WILEY
Independent Thinkers

Preservation

Savannah Ordinance Questioned

The end may be nigh—for 210 Whitaker Street in the heart of Savannah, Georgia's Historic District. So says a sign outside announcing the 142-year-old building's impending demolition on May 10, 2002, to make way for Sunday school classrooms for the nearby Independent Presbyterian Church.

The preservation movement got started early in Savannah: The Historic Savannah Foundation was founded to protect the city's rich architectural history nearly a decade before Penn Station was demolished. The city's 1973 preservation ordinance vests the power to designate historic buildings with a Board of Historic Review, which approves demolition and new construction in the city's historic center.

However, an escape clause in the ordinance allows property owners to override the board's rejection of demolition plans by simply waiting 12 months.

Somehow, in the 18 years since the law's inception, not a single listed historic building has been lost. But the Independent Presbyterian Church's expansion plans threaten to bring that remarkable record to a close. In May, the Historic Review Board turned down the church's request for a demolition permit. But the scarcity of developable real estate in Savannah's historic district leaves the church little choice.

While changes to the preservation ordinance have been discussed for years, the impending demolition of 210 Whitaker seems likely to incite action from preservationists. Richard Mopper, a real estate agent, developer, and former member of the board that voted against the demolition, warns, "We have to see the law changed in Savannah, because the value of dirt is so high that the value of architecture is [by comparison] insignificant." *Andrew Cocke*

Minneapolis; **Will Bruder Architects**, Phoenix, with **Hammel Green & Abrahamson**, Minneapolis; **UN Studio van Berkel & Bos**, Amsterdam, with **Fox & Fowle Architects**, New York.

Happy birthday to **Philip Johnson**—he turned 95 last month.

OMA/Rem Koolhaas will design the new conference center for the city of Cordoba, Spain.

California gets its first new major power plant in 13 years. The Sunrise Power Plant, located in Kern County, along with two more plants that will open soon in the northern region of the state, will boost the power supply by a much-needed 3,000 megawatts.

How would you feel if someone copied your designs?



You work so hard to be original, you'd be outraged if someone stole or copied your drawings. It's true of Autodesk® software, too. We work hard to develop the best design tools for you. And using an illegal copy is theft. But you can do something about it. Call 1-800-NO COPIES* or visit www.autodesk.com/piracy to report pirated Autodesk software. You'll feel a lot better.

autodesk®

SONY
making business pleasure

Simply Beautiful. On or Off.

The Sony VPL-FX50 is more than a styling tour de force; its graceful balance and elegant symmetry are integral to the projector's outstanding performance. Its ultra-low profile allows the VPL-FX50 to hug the ceiling, while the center-mounted, power shift/zoom/focus lens and wireless networking capability enable you to install the



projector exactly where it looks and performs best. Housed under the sleek, flowing hood is Sony's 3-panel LCD technology, delivering XGA resolution and 3500 ANSI Lumens* for breathtaking picture quality.

Leave it to Sony to build a projector that looks this beautiful, even before you turn it on.

Call for free Architects and Designers Bid Specs CD-ROM



1-800-472-SONY ext. FX50 or www.sony.com/displaysystems

©2001 Sony Electronics Inc. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Sony is a trademark of Sony. *ANSI lumens is a measuring method of the American National Standards Institute 177.228.

Holl in One



Laurels Just as the AIA Gold Medal and the Pritzker Prize guarantee induction into the pantheon of architectural fame, now there is another way in. In a five-part series on "America's Best" in various fields, *Time* magazine dubbed Steven Holl "America's Best Architect" in its July 9 issue.

Why was Holl chosen? "Because his buildings epitomize an architecture alert to emotional needs and the spiritual properties of space," writes *Time* staffer Richard Lacayo. "We were looking for someone acknowledged by peers in the field," Lacayo told *Architecture*. "Someone whose work is original, pleasing and deeply satisfying."

"Then we sat down and considered the question of Frank Gehry," Lacayo recalled. While Gehry's work is distinctive, broader lessons can be gleaned from Holl's work, Lacayo says. Holl's fundamental use of space and light as elemental materials to be shaped, rather than merely molding steel and glass, sets him apart from other architects, according to *Time*.

While the *Time* staff may endorse Holl, its readership is dubious. On the *Time* affiliate Web site, CNN.com, a Quick Vote survey asks: "Do you agree with our choice for America's Best Architect?" With 377 votes cast for 'no' and 208 votes in the affirmative, the majority—at 64 percent—demurred.

Holl himself recognizes the ambiguity such an "honor" implies: "Kevin Roche sent me a note the next day that says fame is a wild animal. He's right." *Bay Brown*

Richard Rogers has been awarded a Praemium Imperiale Award for lifetime achievement. **Ellsworth Kelly** and **Stephen Sondheim**, among others, were also recipients. The arts prize, one of the world's largest at \$128,000, is in its 12th year.

Antoinette Downing, a preservation advocate who played a key role in saving historic Providence, Rhode Island, died in May at the age of 96.

Aaron Green, a San Francisco-based architect who worked closely with **Frank Lloyd Wright** in the 1940s and '50s, died in June at the age of 84.

Marco Zanuso, the Italian architect and industrial designer best known for his Olivetti factory in Argentina, died last month at the age of 85.

Success Story.

It's always the same story – traditional butt hinge and pivot reinforcements fatigue, causing doors to sag or to bind and eventually to fail. PemkoHinge™ continuous geared hinges replace this problem with a guaranteed successful solution:

The architect of this new high school chose PemkoHinge™ for its quality, clean aesthetics, and smooth-acting functionality.

The contractor loves the ease of installation and the "Life of the Opening" guarantee.

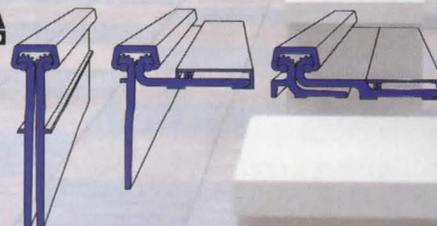
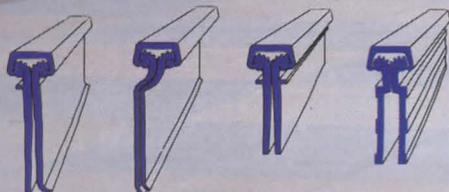
The school district and facility manager appreciate the durability, safety, privacy and security provided by PemkoHinge™.

ASK FOR IT BY NAME.



P.O. Box 18966, Memphis, TN 38181
Ph: (901) 365-2160 or (800) 824-3018
Fax: (901) 365-1354 or (800) 243-3656

P.O. Box 3780, Ventura, CA 93006
12251 East Coast Dr., Whittier, CA
Ph: (805) 642-2600 or (800) 283-9988
Fax: (805) 642-4109 or (800) 283-4050



The traditional metal roof
...a distinctive soft, dull look

TCS II[®] and TERNE II[®] for non-reflective metal roofs

If you're looking for the elegant, distinctive look of a traditional metal roof, a Follansbee metal roof is the right choice.

Take a TCS II roof. The patina it forms as it weathers is non-reflective, blending in perfectly with its surroundings to an attractive earth-tone gray. TCS II is installed by roofing craftsmen in the traditional manner, thus giving it a distinctive look not created with the installation of preformed systems.

And TERNE II. Since it must be painted after installation, you can choose the finished color you want. The Follansbee RAPIDRI[®] acrylic painting system gives you the look of the "old tin roof," a tradition in metal roofing that's been around since early in America's history.

Choose either TCS II or TERNE II for your next project. Their elegant and quiet contribution to the beauty of a structure isn't possible with other types of roofing systems.

We would like to send you substantiating information. Call us toll-free at 800-624-6906.



Trinity Cancer Center
Steubenville, OH
Architect: Architecture
Louisville, KY

Preucil School of Music
Iowa City, IA
Restoration work by:
Cornerstone Restoration
Iowa City, IA



FOLLANSBEE[®]
FOLLANSBEE STEEL • FOLLANSBEE, WV 26037
FAX 1-304-527-1269

Visit us on the Website:
www.follansbeeroofing.com

Our E-Mail address:
folrfg@lbcorp.com

circle 28 or www.thru.to/architecture

NEW VERSION
3.8

formZ

your vision and talent...our toolZ... 3 dimensions...one reality

Thom Mayne, Principal of Morphosis: "One of the most significant benefits derived from the integration of computer technology in the design studio is the ability to create both presentation material and construction documents out of the same epigenetic material. The 3D model utilizing **form•Z** is the initial departure point of the design process. A continual refinement of the 3D model both informs the design and brings another level of precision and coherence to the project. It's a tool which assists us greatly with the issues of simultaneity, which might be seen as the consistently singular issue of the 20th century."

Office building in Malibu, California, by Morphosis, Santa Monica, California.



autodes^{ss}ys INC



2011 Riverside Drive • Columbus, Ohio 43221 • phone: (614) 488-8838 • fax: (614) 488-0848 • email: formz@autodes^{ss}ys.com • www.formz.com

circle 53 or www.thru.to/architecture

Calendar

Exhibitions

Chicago

2001: Building for Space Travel at the Art Institute of Chicago through October 21 (312) 443-3600

Los Angeles

Walker Evans & Co.: Works from the Museum of Modern Art through September 16 and **The American Tradition & Walker Evans: Photographs from the Getty Collection** through October 28, both at the Getty Center (310) 440-7360

In Between: Art + Architecture, Part Three at the MAK Center for Art and Architecture through September 2 (323) 651-1510

What's Shakin': New Architecture in LA at the Museum of Contemporary Art opens September 16 (213) 621-2766

New York City

Dancing on the Roof: Photography at the Bauhaus (1923-1929) through August 26 and **A Century of Design, Part IV: 1975-2000** through January 6, 2002, both at the Metropolitan Museum of Art www.metmuseum.org (212) 535-7710

P.S.1/MoMA Young Architects Program: Proposals From the Competition through the end of August and **Mies in Berlin** through September 11, both at the Museum of Modern Art (212) 708-9400

Mies in America at the Whitney Museum of Art through September 23 (212) 570-3676

Frank O. Gehry Retrospective at the Solomon R. Guggenheim Museum through August 26 (212) 423-3500

Philadelphia

Kahn at 100: Silence and Light marking the centenary of Louis I. Kahn's birth, at the Kroiz Gallery in the Architectural Archives at the University of Pennsylvania through September 15 (215) 898-8323

Pittsburgh

Landscapes of Retrospection: The Magoon Collection of British Drawings and Prints, 1739-1860 and **Still Rooms and Excavations: A Photographic Installation** by Richard Barnes both at the Heinz Architectural Center, Carnegie Museum of Art through September 2 (412) 622-3172

Salem, Massachusetts

Secret World of the Forbidden City: Splendors from China's Imperial Palace at the Peabody Essex Museum through September 23 www.pem.org (978) 745-9500

San Diego

Torolab: Laboratorio of the Future in the Present at the Museum of Contemporary Art Downtown through September 25 (619) 234-1001

Sweet Briar, Virginia

Ralph Adams Cram at Sweet Briar: Dreams and Reality at the Anne Gary Pannell Art Gallery at Sweet Briar College opens September 21 (804) 381-6100

Washington

The Architecture of R. M. Schindler through October 14, 2001 and **William Price: From Arts and Crafts to Modern Design** opening August 21, both at the National Building Museum www.nbm.org (202) 272-2448

Conferences

Design on the (Green) Edge at the University of Kentucky in Lexington on September 20 (859) 257-8427

Four Landscape Design Portfolios Lecture Series by the New York Botanical Garden at the Urban Center in New York City on October 1, 15, 22 and 29 www.nybg.org/edu/conted (718) 817-8743

Re-inventing the Discourse: How Digital Tools Bridge and Transform Research, Education, and Practice in Architecture at the State University New York, Buffalo October 11-14 www.ap.buffalo.edu/2001acadia



Located in modern-day Turkey, the ancient Hellenic city of Antioch lay buried for over 1,000 years—from the time of its destruction until its excavation in the 1930s. Conceived by Alexander the Great, it was founded after his death circa 300 B.C. by Seleukos, one of his generals, and later became a capital of the eastern Roman Empire. Three hundred Antioch mosaics uncovered in churches, baths, and houses include the well-known *Drinking Contest of Herakles and Dionysos* (above). Many of these pieces, along with Roman sculpture and coins from the site, can be seen in **Antioch: The Lost Ancient City**, now at the Baltimore Museum of Art from September 16 through December 30. For more information call (410) 396-6310.

Beyond Sprawl: New Strategies and Prototypes for Housing Los Angeles at SCI-Arc on November 17-18 www.sciarc.edu 213 613 2200

AIGA National Design Conference 2001 at the Marriott Wardman Park Hotel in Washington, D.C.; September 23-26 www.aiga.org/content/cfm (212) 807-1990

Integrating Differences: Theories and Applications of Universal Design at the Fashion Institute of Technology on October 18-20 www.fitnyc.edu/universaldesign

Competitions

49th Annual P/A Awards sponsored by *Architecture*. Deadline August 27 (646) 654-5765 (see page 17)

The First Bienal Miami + Beach 2001 E-Competition: Possible Futures invites submissions of unbuilt work from architects and students. Deadline for registration September 15 www.fiu.edu/~bienal/futures-en.html

Mid-Career Grants by the James Marsden Fitch Charitable Foundation; submission deadline is September 1 (212) 691-3229

International Design Competition for a New Tomihiro Museum of SHI-GA in Azuma Village, Japan. Registration August 1-October 31 www.vill.seta-azuma.gunma.jp/html/tomihiro.htm

The City of Wildwood, Missouri invites design submissions for a new bicycle and pedestrian overpass. Deadline is October 12 www.cityofwildwood.com

Timely steel sidelites will change your frame of mind.



Prefinished. Precise. Preferred. Let there be light!

Prefinished sidelites by Timely reflect the essence of good design—they're beautiful and practical. In color and style, their casings match those of Timely prefinished steel door frames. Eight stocking and 28 custom polyester finishes, plus unlimited custom color matching, assure design flexibility and desired color coordination.

Faster, more efficient installation is assured as well.

Since Timely sidelites are prefinished, the hassle of jobsite painting is eliminated, and sidelites can be installed over finished walls at any point during construction. There are no costly delays because special fabrication is unnecessary. Fire-rated up to 60 minutes, these sidelites meet Timely's widely recognized high standards of quality....by design.

See your Timely distributor for further information, or visit us at our website or call our Marketing Services Department.

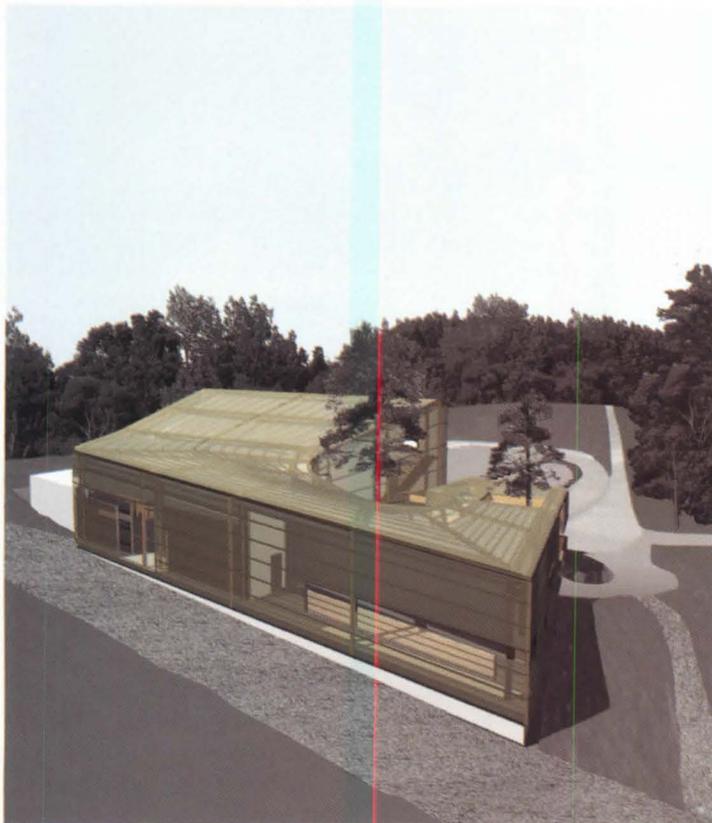


TimelyTA-28 aluminum casing.

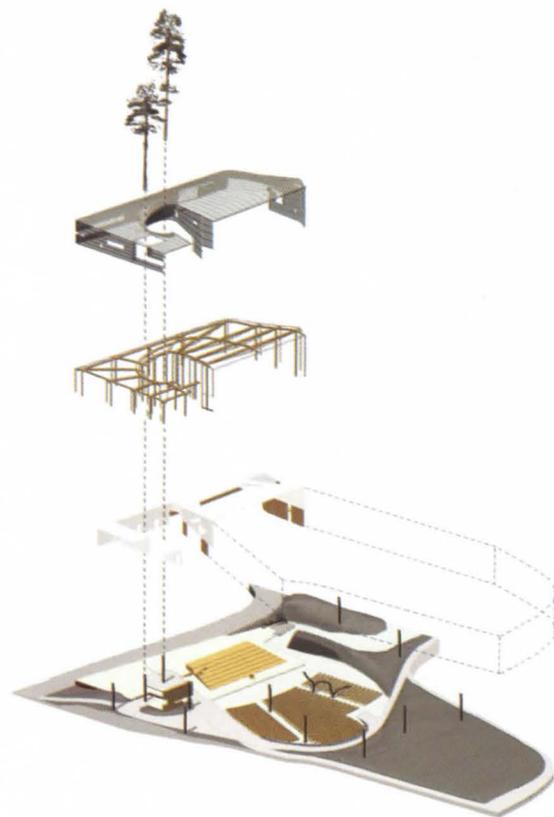
TIMELY
PREFINISHED STEEL DOOR FRAMES
A DIVISION OF S.D.S. INDUSTRIES, INC.

Timely Corporate Offices: 10241 Norris Ave., Pacoima, CA 91331-2292 / 818-492-3500 / 800-247-6242 / Fax 818-492-3533
Eastern Distribution Center: 9782 Interocean Drive, Cincinnati, OH 45246 / 513-682-9600 / 800-346-4395 / Fax 513-682-4102

www.timelyframes.com



Ojai Libbey Bowl, Ojai, California



Exploded axonometric

On the Boards

Hanrahan Meyers Architects

Ojai Libbey Bowl
Ojai, California

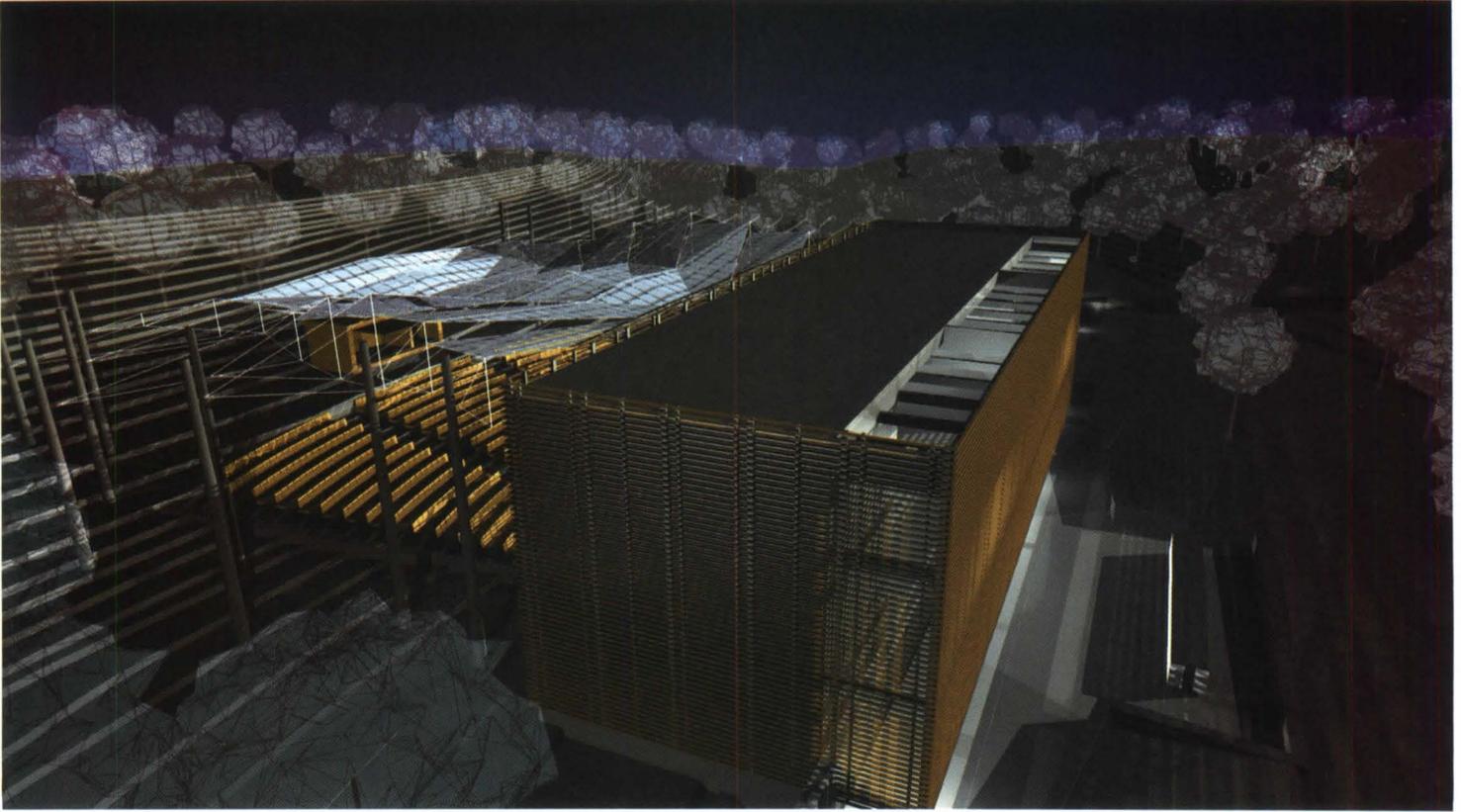
Resolution: 4 Architecture

Nature's Theater
Saluda Shoals, South Carolina

"It's just a shed," Eero Saarinen is reported to have said in disgust when he was asked to modify his design for a covered performance space on the grounds of Tanglewood, the summer home of the Boston Symphony Orchestra. His dismay aside, the name stuck, and the Koussevitzky Shed has become a beloved venue. Two similar structures are currently in the works. Hanrahan Meyers Architects have designed the Ojai Libbey Bowl, in Ojai, California, which will serve as the summer home of the Los Angeles Philharmonic; and this spring, Resolution: 4 Architecture won an open competition for Nature's Theater, an amphitheater in a cultural park just outside Columbia, South Carolina.

Because the Hanrahan Meyers project is for the Los Angeles Philharmonic, acoustics

drove the entire process. The firm collaborated with Nagata Acoustics, which is also working with Frank Gehry on Disney Hall, on the band shell's double-layered design—the inner layer, of concrete and wood, is for acoustical purposes, the outer, of translucent fiberglass panels, is for shelter and aesthetics. A second important consideration was tree preservation. Principal Victoria Meyers says that when she was told that any scheme that required cutting down trees would never get by the local board, she took the advice literally. The only way to make the structure big enough to accommodate a full orchestra was to wrap it around two existing trees. So they did. All of the service areas and mechanicals are stashed in a spur off to the side of the main stage; the open-air space in between serves, literally, as a green room.



Nature's Theater, Saluda Shoals, South Carolina

Resolution: 4 Architecture's brief was more general than that of Hanrahan Meyers, but with no less of an emphasis on nature. The new Saluda Shoals Park was conceived as an open-air venue for the performing arts, so the amphitheater had to both accommodate as many kinds of performance as possible and incorporate the landscape. The firm's response was an airy box with slatted cedar walls set at the edge of a rise; a delicate awning of polycarbonate panels offers the audience some shelter from the rain. Principal Rod Luntz explained that the approach to the amphitheater, which requires visitors to cross a small footbridge over a stream, was devised to increase one's sense of being in the woods. Both projects are scheduled to begin construction in 2002, and both offer an elegant rebuttal to Saarinen's critique of a simple shed.
Anne Guiney



North-south section

© 2001 Autodesk, Inc. Autodesk is a registered trademark of Autodesk, Inc. in the U.S. and other countries.



iDesign *SUDDENLY NO PROJECT IS TOO BIG TO BE BEAUTIFUL.*

At many of the world's largest, most complex projects, form and function have come together in a most natural way. As a result, more and more AEC and building design professionals are staying on budget, on schedule, and on vision. Autodesk's collaborative software tools, and our approach to iDesign, help ensure that relevant, reusable design data remains accessible from concept through construction. Need to go big? See what iDesign can do for you: www.autodesk.com/snowflake.

autodesk®

practice

The reprography business has transformed itself from a paper-based industry of tinkers to a digital industry of network engineers.

Business, page 50

Disney's contractor estimates that tunnel-form construction is only cost-effective for projects of at least 2,000 rooms.

Technology, page 52



Metro Crusader

Martha Welborne convinced transit-hostile Los Angeles to adopt a new high-speed bus system. **Bradford McKee** traces her route to success.

Mass Transit At first, Martha Welborne didn't mean to change the pace of transit in Los Angeles. She was just talking casually at a barbecue when the idea came up.

In the summer of 1996, Welborne was at a cookout hosted by her friend Jamie Bennett. At the time, Bennett was preparing to go to Curitiba, Brazil, to attend a board meeting of the W. Alton Jones Foundation, an environmental philanthropy in Virginia where Bennett is a director. It happened that Welborne, an architect and planner, knew a bit about Curitiba, a city of 1.6 million. She mentioned that she'd met the city's former mayor, Jaime Lerner (now governor of Parana state). She had also studied the innovative transit system that Lerner, an architect, helped establish there. It's a network of rapid buses that behave like trains, and, Welborne suggested offhand, it might transplant well to gridlocked Los Angeles.

Curitiba's transit system combines the best features of rail and bus. Five major express lines, all color-coded and served by numerous neighborhood routes. Los Angeles' new Metro Rapid buses are already packed with residents and tourists alike, and the city has passed a measure to expand service.



borhood “feeder” lines, run like spokes outward through the city from its center. Another layer of “interdistrict” buses connects the radiating spokes of each express route. In all, the system serves an area with a radius of about 18.6 miles.

The express buses occupy dedicated lanes running down the center of the street, with cars relegated to the outer lanes. The largest buses—80-foot-long articulated vehicles—hold 250 people. Traffic signals give them priority, so they whisk along and stop every mile or so at tubular terminals where passengers stand, already having paid their fares. When the bus stops, five large doors open simultaneously, and a floor plate lowers to cover the gap between the bus and the platform. Passengers move on and off in 15 seconds; disabled riders enter the car easily at any door. During rush hour, a bus comes every 70 seconds. During off-peak times, it comes every two minutes.

If Bennett didn’t appreciate the notion before he left, he did once he saw Curitiba’s buses. “He came back from this trip and said, ‘Everybody [on the Jones Foundation board] agreed you’re right,’” recalls Welborne, whose sober mien and direct diction can make even an outlandish-sounding idea seem inevitable. Bennett then asked Welborne to

submit a proposal for a grant to study the idea of putting a Curitiba-like bus system on the boulevards of Los Angeles.

At that time, both Welborne and the city’s transit system were at a crossroads. She had previously worked as a principal at Sasaki Associates in Watertown, Massachusetts, and in 1996 was growing restless managing the shrinking L.A. office of Skidmore, Owings & Merrill. L.A.’s Metropolitan Transit Authority (MTA), meanwhile, had a couple of problems of its own. It was in hock for up to \$7 billion for 60 miles of ill-managed subway construction, even as local politicians fought over whose districts would get the last few miles of track. And in October 1996, a federal civil-rights lawsuit by the local Bus Riders Union brought a court order for the MTA to improve its bus service to minority passengers throughout the city.

One-third of all passengers were previously home-to-work motorists who are now leaving their cars at home.

“I thought, well, the city does need to know about this idea,” says Welborne. The rapid-bus concept, she emphasizes, was hardly new at the time. The MTA, like many regional transit authorities, knew of the idea’s success in North American cities like Pittsburgh and Ottawa. But nobody was out building political support for the idea among the mayor and L.A. County’s board of supervisors. So she decided to apply to the Jones Foundation for a grant.

When she began the project, strangers may have underestimated Welborne’s tenacity. To some of the people who would later become her close colleagues—particularly at the MTA—Welborne seemed to come from nowhere with a radical if not crackpot idea. It was technically viable but politically unlikely. In preparing her grant proposal, she asked planning faculty and students at the University of California, Los Angeles for help. “Half of them thought I was a housewife,” she remembers.

But by May 1997, she had won a \$75,000 grant, quit SOM, and boarded a plane to Curitiba with a well-placed delegation of seven transit officials she’d assembled—among them, Gordon Linton, then head of the Federal Transit Administration (FTA); and James de la Loza, executive officer for regional transportation planning at the MTA, who would later work closely with Welborne for the agency.

Curitiba’s bus system, wired finely into the city, sold itself to Welborne’s group. “It was a very important trip,” she says. “We were so excited when we left.” De la Loza sketched possible L.A. bus routes in a note pad on the flight home.

After the trip, the MTA began studying rapid buses for its own system. “We wanted to see if there was any additional technology we could use to improve the general concept,” de la Loza explains. “We needed a bus focused on speed. With speed comes efficiency and greater customer satisfaction.”

Welborne began wooing Richard Riordan, then mayor of Los



Angeles. (The L.A. mayor sits on the 13-member MTA board and also appoints three other members.) Welborne practically moved in with MTA staff to promote the specific features that make Curitiba's system superb—chiefly, the dedicated rights-of-way, the prepayment of fares, the wide side doors on buses, fewer stops, and more frequent service.

"I kept plugging away for the dedicated lanes," Welborne says. But accommodating them on major streets is "the toughest nut to crack," she adds. They displace two outer lanes from the street, usually parking lanes, which motorists and business owners will fight to retain. In planning sessions she lost that debate. Now Welborne concedes that MTA staff were right to move forward without dedicated lanes. "Every increment counts," she says.

Welborne returned to Curitiba in January 1999 with 24 people, including Riordan, and two of the five L.A. County supervisors who sit on the MTA board. The group met Jaime Lerner, who explained the development of Curitiba's system since its first north-south line opened with two terminals in 1974. "The secret is simplicity," Lerner told his guests. "We were never afraid to propose simple solutions."

Riordan proved susceptible to Curitiba's message and to Lerner's

Martha Welborne (above), seated on board one of the buses she helped bring to Los Angeles, found that mass-transit planning is as much about politics as it is about design. Yet, in a city famous for its car culture, the rapid buses (facing page) have met with enthusiasm from both riders and officials.

charisma. "[Lerner] started drawing on this board, and everybody's jaw just dropped," Welborne says. "Then *our* mayor started drawing. It was really cool. It was instrumental in getting the whole movement going."

Welborne also kept pressing the idea on FTA head Linton, and the rapid bus system's potential began to dawn on him. Many cities face a long wait for federal money for commuter- or light-rail systems, because congressional funding does not keep up with demand (see page 48). As a result, transportation officials across the country are searching urgently for ways to move millions of people less expensively. After travelling to Brazil with Welborne, Linton helped organize a consortium that now counts 17 metropolitan transit agencies interested in rapid buses.

The cost of building rapid-bus systems comes in well below that of building rail routes. By one estimate that Welborne cites, a subway costs \$300 million per mile to build. Light-rail costs \$75 million per mile. But a full-service busway like that found in Curitiba costs \$20 million.



Politics

Washington Puts on the Brakes

When Secretary of Transportation Norman Mineta was confirmed earlier this year, it seemed possible that the federal contributions to public transportation made during the Clinton years might continue. Mineta was secretary of commerce under Clinton, after all, and was involved in creating the ISTEA and NEXTEA initiatives, which created new funding for alternative transportation systems.

But in his first months in office, Mineta has devoted most of his time to either highway maintenance and safety, or to the record level of delayed air traffic. If he spends time on public transportation at all, it likely won't be until after the October 1 deadline for approving next year's budget. And at that point, President Bush's budget plan hits the Department

of Transportation (DOT) with the biggest single cut of any cabinet agency—a loss of \$2.1 billion, or about 12 percent of its current budget. Mineta doesn't call it a cut—he points out that much of current spending is for one-time projects. Democrats, for their part, have sworn to fight Bush's budget plan. But it seems likely that the DOT will feel a squeeze.

The budget cuts will come at a tragic time. The DOT is currently monitoring 10 demonstration Bus Rapid Transit projects around the country—from Boston to Honolulu—all of which, like Los Angeles' Metro Rapid system (see page 45), seek to prove that high-speed buses in dedicated lanes are a cheap, reliable alternative to both cars and light rail. But without the federal funds to help put these systems in place permanently, proving their potential may have to wait at least another budget cycle. *Jacob Ward*

Rapid buses are not always cheaper than rail service to install, however, contends William Millar, president of the American Public Transportation Association, in Washington, D.C. Millar, formerly general manager of the Port Authority of Allegheny County, Pennsylvania, notes that the last busway completed in Pittsburgh (part of a hugely successful 16.1-mile bus system that relies on dedicated lanes) cost \$326.8 million for 6 miles—but the conditions were unusually difficult. "Some systems require very large civil structures to make them work," Millar says.

Of course they may, replies Welborne, but the point is that, generally, per dollar, a city can build more rapid-bus capacity than any other type of system. Rapid-bus lines can be built more flexibly than light-rail and can move nearly as many people if pushed to their full scale.

The MTA opened two demonstration lines on June 24, 2000. Under the logo "Metro Rapid," one line runs along Wilshire Boulevard from Whittier Boulevard in Montebello to Ocean Boulevard in Santa Monica; the other travels along Ventura Boulevard from Universal City to Warner Center.

Without a dedicated lane, the Metro Rapid pilot buses seem much like conventional express service, except that their floors are lower and they make infrequent stops every mile or so. The buses cruise along fairly quickly, with timed traffic signals keeping lights green along each route. At peak rush hour on Wilshire *continued on page 111*



Existing and Proposed Metro Rapid routes

- Metro Rapid phase 1
- Metro Rapid phase 2
- Transitways - existing
- - - Transitways - under study
- Metro Rail - current
- · · Metro Rail - future
- + + + + Metro Link

Rapid-bus service in Los Angeles as proposed to the MTA (above), includes two phases of Metro Rapid bus service (the first phase involves lines along Wilshire and Ventura Boulevards) alongside other existing and future metro transit services.

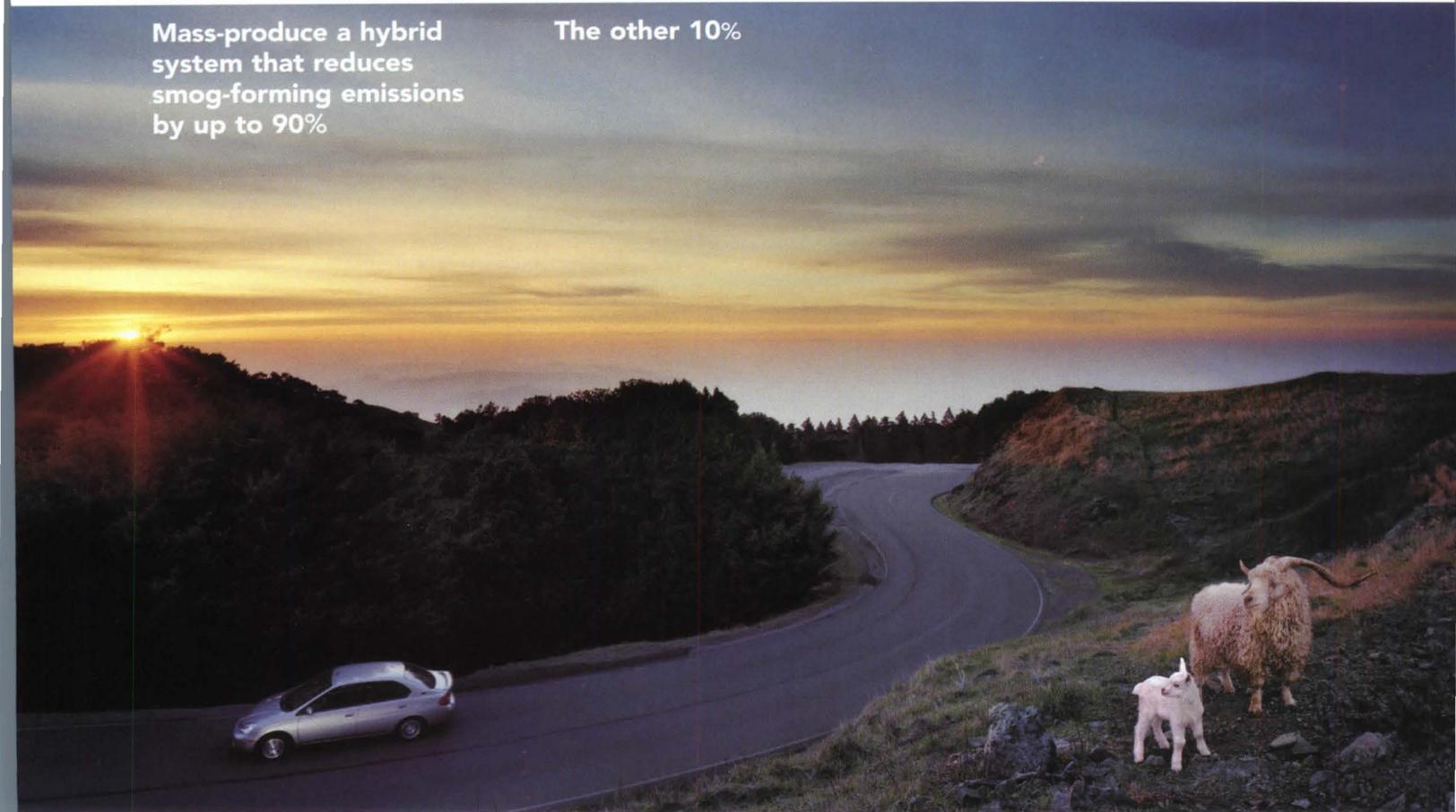
TODAY

Mass-produce a hybrid system that reduces smog-forming emissions by up to 90%

TOMORROW

The other 10%

TOYOTA



In 1997, Toyota was the first car company in the world to mass-produce a hybrid vehicle. By combining gasoline and electric power, the Prius reduces smog-forming emissions*, cuts gas consumption in half, and, in short, has revolutionized the way cars affect our environment.

Even so, we're not resting on our laurels. The Toyota Hybrid System is being further refined, to make it cleaner and more efficient. And we're continuing to search for even greener forms of transportation.

The next step? A hydrogen-powered fuel cell vehicle whose only emission is pure water. And beyond that, who knows. But no matter what fresh alternatives are discovered in the future, they won't be found overnight. They'll be the result of 90% perspiration. And 10% inspiration.

www.toyota.com/tomorrow

*Based on measurements of hydrocarbons and oxides of nitrogen. Compared to the average car. ©2001

The Remote Printer

Making blueprints used to be a messy process, but **Jacob Ward** discovers that reprography is now the most technologically advanced business around.

Business Aside from booksellers and travel agents, probably no one has seen the Internet change their business as dramatically as reprographers have. The people who print and process blueprints used to be a down-home crowd—fastidious folks churning out rolls of blueprints using nothing but ammonia and light.

But all that has changed. The reprography business has transformed itself from a paper-based industry of tinkerers to a digital industry of network engineers, and both new and established technology companies are fighting to dominate the market.

Take John Zanotti, for instance. In 1980, Zanotti and his wife Janet founded Fast Print, a traditional blueprinting business, in Phoenix. “At that time,” Zanotti says, “you could get a new blueprint machine for \$8,000 to \$12,000, and a used one for half that for parts, and that was all you needed.” Zanotti began serving architects and engineers in the Phoenix area, establishing himself as a diligent and reliable printer, and slowly grew his business.

“It was very simple and very inexpensive,” Zanotti says. “But it was very labor-intensive. Running roll-stock paper, you had to have someone hand-trimming it at the other end of the machine. You needed someone else feeding the machine. And if someone needed 50 sets of 150 originals, you had to put all 150 through the machine 50 times.” The work was dizzying, and the firm was capable of producing only 25 to 30 plots a day.

As technology progressed, Zanotti found himself in the middle of a balancing act: how to use new digital processes for greatest efficiency, while making sure each new investment paid for itself. The first turn of the wheel came in the middle of the 1980s, when Xerox Corporation came out with its first line of plain-paper copiers. The enormous and expensive machines could do reductions and enlargements, and Zanotti and the rest of the industry began using the machines to blow up certain diagrams piecemeal and splice them together. But the machines were slow, and ammonia blueprint machines remained the backbone of the business.

In the early 1990s, Zanotti realized that transferring files over dial-up modems could be an incredibly cost-effective way of moving information from a client into his print house, and so he took the initiative. “When we started doing file transfer, we were supplying our customers with the modems ourselves, at no charge, just to get them going,” he says. “We felt we had to prepare ourselves.”

Then, six years ago, Zanotti says, his industry was transformed. “The advent of high-speed digital printers changed everything,” he says. These “multifunctional high-baud printers could do many things a blue-printer couldn’t do. That was when we could justify the new costs.”

Four years ago, Fast Print went completely digital (the ammonia blue-

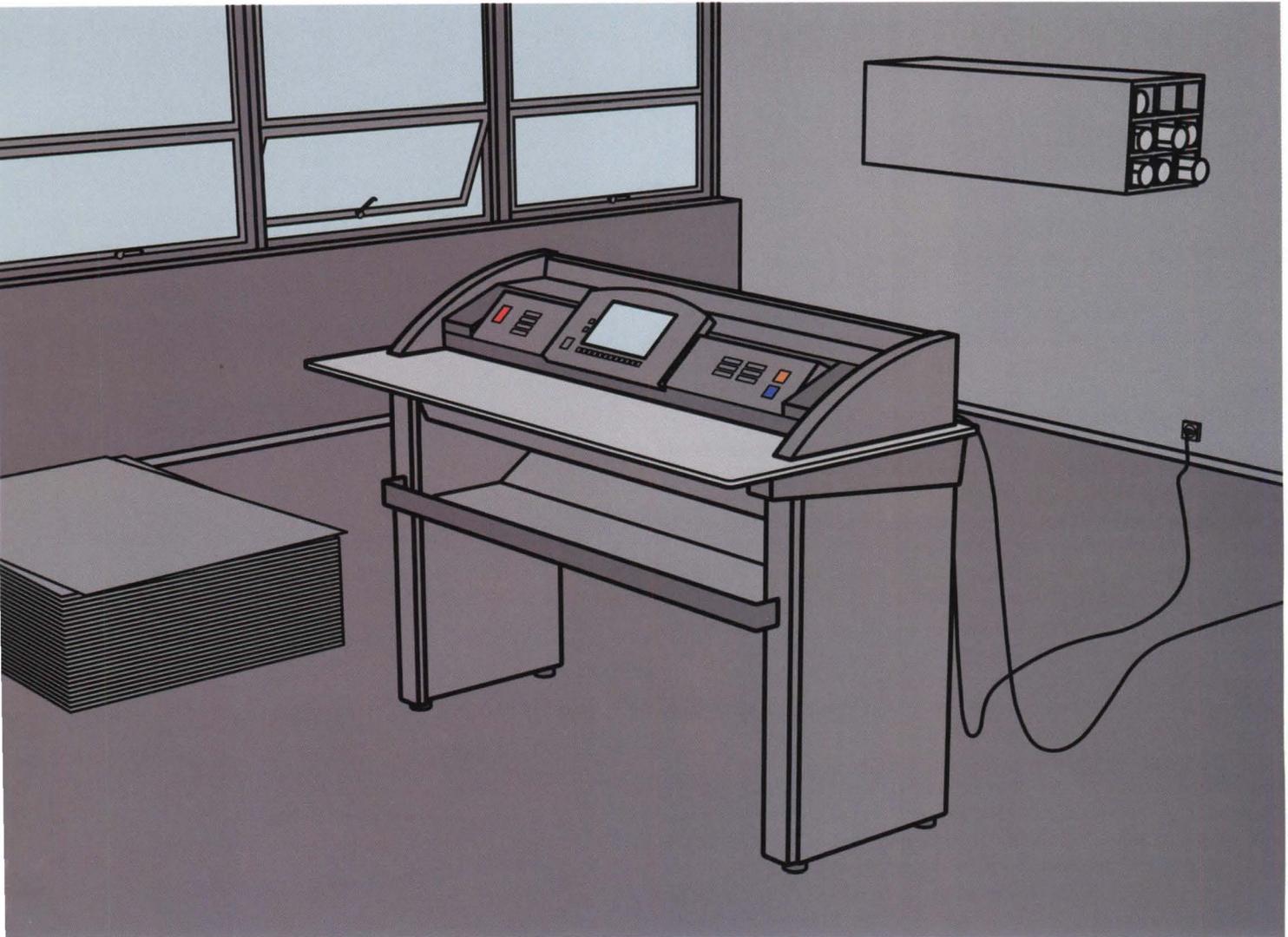
printing equipment that had sustained the Zanottis for so long fetched less than \$50 from a junkyard). The company is still only an 18-person reprography firm, but it serves a whopping 600 customers with several Océ TDS 800 printers, each of which, at a list price of \$125,000, can produce roughly 700 D-size prints per hour.

The cost-saving potential of electronically transferring files directly from a workstation to a reprographer (rather than printing them out, delivering them to a reprographer, and scanning them in again) has given rise to enormous competition among half a dozen software companies. Firms such as Ideal, eQuorum, and ReproCAD are fighting to dominate the market in “document management.” These companies create and sell software for reprographers, and each piece of software works in a similar way—reprographers are able to offer their client architects a digital “plan room” for storing and cataloging diagrams on a remote server at the reprographer’s office. Architects can then transfer plans from CAD to a print-ready format, specify the materials and dimensions of the plans they need, and digitally order sets of printed plans, all without ever having to send the physical plans to the print shop.

“The concept among all these companies is pretty much the same,” says Karen Lowery Hall, editor of *Modern Reprographics* magazine. Hall believes that no clear leader has yet emerged in the field, and points out that some reprographers, such as the national chain American Reprographics Company (ARC), have even created their own proprietary plan room systems.

But one company, Buzzsaw.com, is in a prime position to dominate the market. Buzzsaw has long tied itself to the reprography industry’s printer software, and on July 10 of this year, it was purchased by its major backer—Autodesk. The CAD giant’s products have recently begun to integrate with Buzzsaw’s plan-room software, most recently Plans & Specs, which debuted in March. Phil Bernstein, vice president of AEC Ventures at Autodesk, believes that document management will be a key part of Autodesk’s AEC strategy. “File exchange and Plans-&-Specs-type work happens throughout the entire design and construction process,” he says. “Lots of things get done digitally, but almost all of it ends up on paper.”

Buzzsaw’s strongest existing tie to the reprography industry is a product called Repro Desk, the standard piece of driver software that runs the extremely popular Océ TDS 800 printer. “Repro Desk is the cash-cow of our printing services business,” explains Chris Bradshaw, senior vice president of sales and marketing for Buzzsaw. The company has an exclusive three-year contract with Océ that will expire in 2003, and is using its resulting inroads with any reprographer using an



Océ TDS 800 to market Plans & Specs.

Buzzsaw is only beginning to capitalize on its integration with Autodesk's CAD products. Until recently, architects had to go through a complicated process to make their plans print-ready. But with the release of Autocad 2002 in June, any architect using the product can now finish working, place the plans into a reprographer's Plans & Specs plan room, and begin ordering prints, all through linked software.

And the Autodesk name carries an enormous marketing advantage. Zanotti settled on Buzzsaw's Plans & Specs system—in spite of its \$50,000 licensing fee—for exactly this reason. "I decided on Buzzsaw, although they were more expensive than PlanWell or BidCom, because they're an Autodesk company," he says, "All their products have been

in the market for a while, and we felt they'd be around down the road." And in selling himself to architects, Zanotti found that the Autodesk name provided an extra selling point. "People have a lot of confidence when you mention the Autodesk connection."

There will be plenty of work to go around for many different players in the near future, however. As digital storage grows cheaper and as bandwidth makes the transfer of files faster, reprographers are finding that printing blueprints may be only one of their potential lines of business. Architects have begun to realize that digitizing their archive of paper plans is a more reliable and inexpensive storage method than renting warehouse space. "From what we understand," Zanotti says eagerly, "there are more prints to be archived than there are new ones to do." ■

Rooms by the Hour

A new type of formwork can speed up concrete construction. **Purcell Carson** watches Disney put it to the test.

Technology If you ask Bruce MacDonald when his 5,000-room hotel will be ready to open its doors, the builder takes a deep breath. Not a world-weary sigh, but an eager gulp of air. He relishes this question.

MacDonald is the senior construction manager of Disney's Pop Century Resort, the latest effort to attract budget travelers to the company's properties. This sprawling "value resort," begun in 1999, is due to open in March 2002.

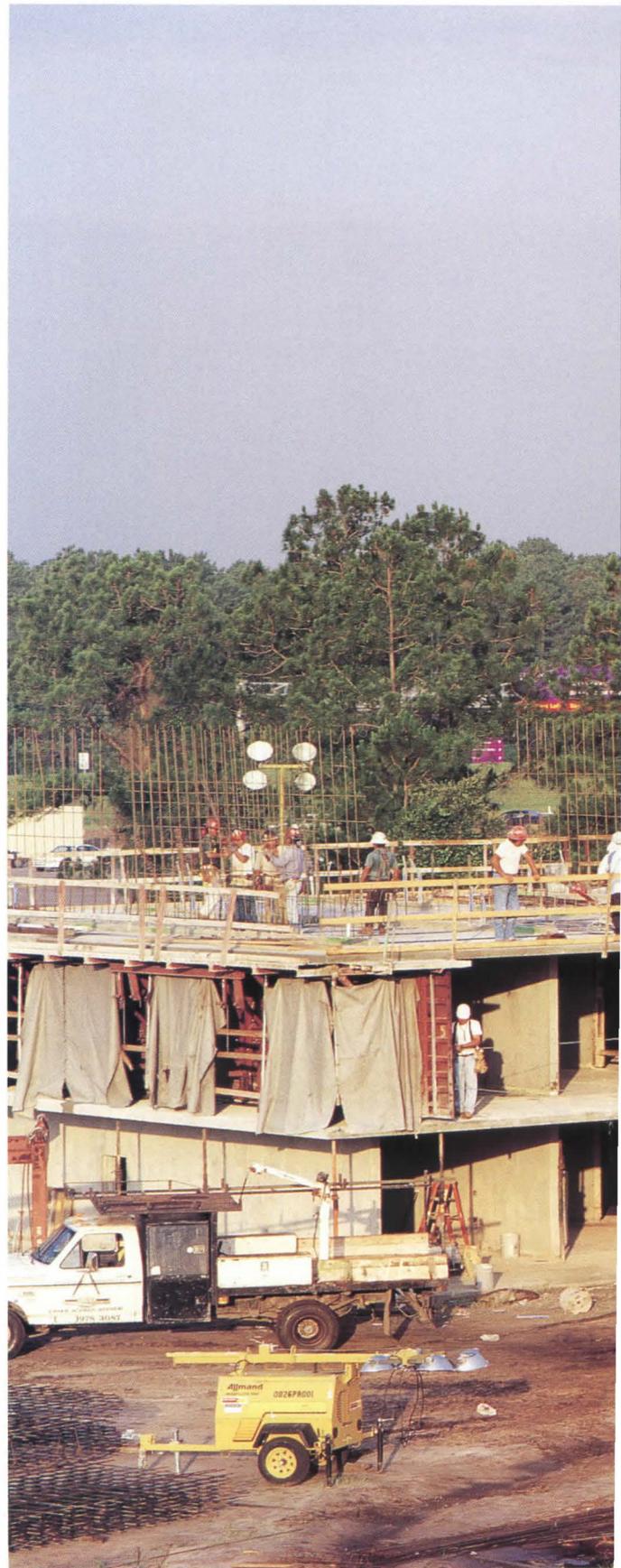
Thanks to an innovation in concrete construction called the room tunnel system, MacDonald can calculate the exact day his work will be done. The system consists of reusable steel molds that allow builders to cast complete rooms right next to those made the day before. MacDonald builds, without fail, 12 rooms a day, 60 rooms a week.

The room tunnel system was developed two decades ago. It enjoyed its first success in Western Europe, where it was a crucial element in the construction of low-cost housing; ten years ago it took off in the United States. Contractors for structurally repetitive projects like hotels and prisons can build each room as a unit, and subcontractors quickly cycle through those units like an assembly line. Lease agreements seldom cost less than half a million dollars. Sean DeMartino, project manager for Disney's contractor, Centex Rooney, estimates that tunnel-form construction is only cost-effective for projects of at least 2,000 rooms.

Last July, Centex Rooney leased 12 tunnel forms for the Pop Resort from Symons Corporation, an American manufacturer. Work begins at 5 a.m. with a test of the cured concrete poured the day before. Then, says T. J. Heflin, a Disney senior construction manager, they move the forms "out of yesterday's room and into today's all in the same lift of a crane" (right). The plumbers start on the fresh rooms immediately, laying pipe before the next 12 rooms are poured at 1 p.m. Heaters are then placed in the rooms to speed drying, and the process begins again 16 hours later. When the Pop Century Resort is finished, Disney will have built more than 18,000 tunnel form hotel rooms since 1988.

Uniformity is both the key to the process and its major flaw. "Anything that deviates from the box," says Heflin, "is a problem." But Ralph Kline, Disney Imagineering's director of publicity, suggests that the formwork's economic benefits allow the company to focus investment on "the special Disney touches, the magic and the whimsy," such as three-story dancing silhouettes and strings of words like "doo-wop" and "groovy." For now, however, the focus is on finishing the whimsy on schedule. ■

Purcell Carson is a freelance writer living in New York.





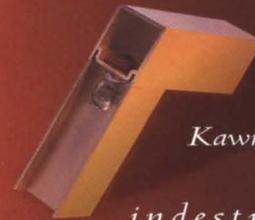
You can feel it. Strength.

Confidence. Dependability. These qualities are obvious every time you walk through a Kawneer entrance.

THE KAWNEER ENTRANCE. IT'S LIKE A FIRM HANDSHAKE.

Kawneer entrances are built reliable.

So they last. With a combination of four SIGMA deep penetration welds



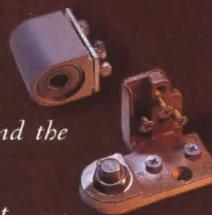
at each corner, a

Kawneer door is virtually indestructible. But the door

isn't the only element of the entrance system to take heavy abuse. That's why

Kawneer engineers the entrance and frame hardware to

withstand constant use and the rigors of the environment.



The Kawneer entrance. A great first impression. And a lasting one.

For architectural product applications and technical assistance, contact our architectural services team toll free at 877/767-9107.

Kawneer
An Alcoa Company

circle 7 or www.thru.to/architecture

Peter Blake
on His Memories of Mies
page 58

Cathy Lang Ho
on Brownfield
Redevelopment
in Atlanta
page 60

Liane Lefavre
on Hog High-Rises
page 62



The Mies Behind the Myth

Joan Ockman takes a look at two blockbuster exhibitions that reexamine the career of the modernist master.

Review Last June, hundreds of guests gathered to toast the ghost of Mies van der Rohe on the plaza of the Seagram Building under a great white tent with a transparent roof, as the skyscraper sublimely loomed overhead against the night sky. An institutional handshake had produced a pull-out-all-the-stops double retrospective at two museums. The Seagram stands close to the intersection of the axes: Three blocks west on 53rd Street, *Mies in Berlin* was opening at the Museum of Modern Art. North on Madison Avenue, *Mies in America* was bowing at the Whitney. Between the two museums, over 500 drawings, some 20 new models, scores of photographs, video projections, and computer animations were presented, along with a joint Web site and 1,000 pages of catalogue. Mies had triumphantly cornered New York. Maxwell Anderson, director of the Whitney, proclaimed 2001 the "Year of Mies."

Mies in America: The architect stands before the stairs of his Arts Club of Chicago in 1952.



Forty years pass, and an idea becomes a monument. Mies's S. Adam Department Store project of 1928–29 (right) hints at the “almost nothing” of Seagram, 1958 (left).



The idea for the double blockbuster was Phyllis Lambert's, curator of the Whitney exhibition. She had been working on the American part of Mies's career for years. Lambert is the doyenne of the Canadian Centre for Architecture, to which the American half of the exhibition will travel this fall. A scion of the Bronfman family, she was responsible for Mies's commission to design the Seagram Building close to half a century ago. Lambert has carried the torch for Mies ever since, long after Philip Johnson defected for more eclectic inspiration. Some two-and-a-half years ago, Lambert approached Terence Riley, the Museum of Modern Art's architecture curator, about collaborating on a show on Mies's American years. Discovering that Riley was already working on a show about Mies's career in Berlin, Lambert persuaded Riley to pair their shows.

The striking thing about the turn that pivots around Seagram from crosstown to uptown is how different the two exhibitions are. In terms of contemporary architectural curatorship, they could hardly offer a more fascinating and instructive comparison. This is already clear

from the asymmetry of the titles. If it is *Mies in Berlin*, why not *Mies in Chicago*? Alternatively, why not *Mies in Europe* and *Mies in America*? After all, Mies built two of his major projects of the earlier period (the Barcelona Pavilion, 1929, and Tugendhat House, 1930) in Spain and Czechoslovakia, while the New National Gallery in Berlin culminates his later career. What then, do “Berlin” and “America” signify?

Another question: Why, exactly, Mies in 2001? It isn't a centennial—that took place in 1986, the 100th anniversary of Mies's birth, when MoMA staged a frostily received retrospective curated by Arthur Drexler. Postmodernism was at high tide, and Mies was the wrong man for the moment. But much has changed since the years of “less is a bore.” The revaluation of modernism in the 1990s, the “new” minimalism, provocative rereadings of Mies's canonical works by younger theorists and historians like Michael Hays and Detlef Mertins—all this has given currency to the idea of looking afresh at the work of the last century's master of rigorous form.

So on to the real million-dollar question: Would this be a hard, challenging reexamination, or primarily a celebration? At MoMA, Terence Riley and cocurator Barry Bergdoll, the Columbia University architectural historian, opted for the former. Their exhibition moves chronologically

and lucidly from Mies's first house designed at age 20 for the philosopher Alois Riehl in Neubabelsberg in 1907, to the transitional Resor House, an unbuilt vacation home for a wealthy American couple in Jackson Hole, Wyoming, of 1937–38, on which Mies began working during a first trip to the U.S. before finally deciding to leave Germany. In between he designed four dozen projects. All are, for the first time, scrupulously displayed and documented, with superb new scholarship.

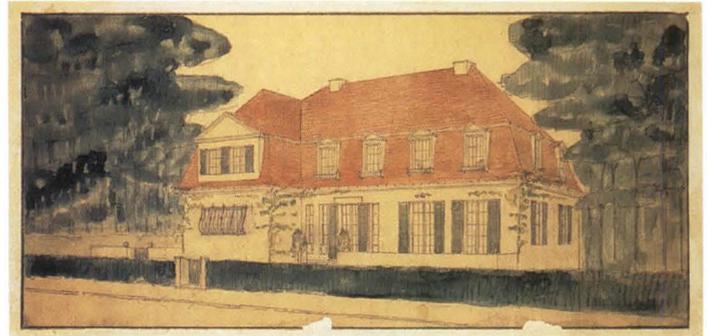
As Riley elaborates in an exemplary catalogue essay tracing the history of Mies's reception—shaped largely by MoMA since 1932, when Johnson and Henry-Russell Hitchcock staged their International Style show, featuring Tugendhat in the central gallery—critical understanding of Mies's oeuvre has, up to now, rested on the works that he himself selected. This editing amounted to what Riley calls “a systematic revision of his career.” Mies excluded from the record all but one of his buildings prior to World War I (the Kröllner-Müller project), and also suppressed the more traditional work he was doing alongside such epochal projects as the Glass Skyscrapers of 1921–22.

The real million-dollar question: Would this be a hard, challenging reexamination, or primarily a celebration?

Mies's self-fashioning was codified by Johnson in a landmark show at MoMA in 1947. Designed by Mies himself, it featured floor-to-ceiling photomontages of the chosen projects, models, and furniture groupings in a pinwheeling configuration within an idealized square plan. Riley describes: “Mies's design reflected no chronological or thematic narrative. The viewer would have had to glean any such references from the project titles, and from the abbreviated project descriptions discreetly placed next to the projects. The title of the exhibition—simply *Mies van der Rohe*—had no bracketing dates or other modifiers, and there were no extensive wall texts.... Mies's design was a visual experience....”

Riley and Bergdoll evidently made the decision not to compete with these Miesian aesthetics and to err on the side of didacticism. If the extensive installation is less visually ravishing than the one uptown, it is engaging, open-minded, and generous. The new models, constructed with an eye to accuracy rather than showiness, invite study of both the building and context. And while the “virtual walk-throughs” are more like fly-throughs (with door handles magically opening into empty rooms), and some new photographs of the extant buildings are undistinguished, they convey useful information.

An opportunity is missed, however, with respect to Mies's designs for ephemeral spaces, particularly exhibition designs (many done in collaboration with Lilly Reich). These are, with a few exceptions, relegated to a 12-minute video. Inasmuch as Mies considered exhibition design an architectural project in itself, a large-scale reconstruction of one or two of these would have been welcome.



This is the Mies that Mies chose to forget: The spare yet traditional Werner House reenters Mies's resume, courtesy of MoMA.

The major concession to “artiness” is the presence of images by German photographer Thomas Ruff interspersed throughout the exhibition. Ruff's photographs of Mies's built and unbuilt projects are digitally manipulated, with surrealistically heightened detail and altered color, provoking a second look at the originals and acting as a metaphor for historical reinterpretation, or for the variables of architectural representation. In this context, two nearly identical perspectives by Mies of his Concrete Country House project (1923), one of which is rendered white, the other pink, resonate with Ruff-like fantasy.

There were other revelations. The influence of Schinkel's romantic neoclassicism on Mies's early architecture has long been acknowledged, as has the Prussian strain coming through Peter Behrens, for whom Mies worked from 1908 to 1912. But the profound relationship between building and landscape in Mies's Berlin work, whether suburban villas or urban interventions, is persuasively demonstrated in both the exhibition (where Frank Lloyd Wright emerges as an equally important inspiration) and in an illuminating catalogue essay by Bergdoll. (Erich Mendelsohn has yet to get his due with respect to Mies's urban projects of the late 1920s.) It is this engagement of the work with the site—revising the view of Mies as primarily a maker of aloof object-buildings—that, the curators suggest, he relinquished when he came to America and his buildings became more deracinated, reflecting an existential “homelessness.”

It would have been interesting to test this thesis, which provides one argument for splitting Mies's career along the line of Berlin/America in the Whitney show, along with other questions of continuity or discontinuity. But if the Mies that emerges at MoMA is traditional and innovative, enmeshed in the cultural problems of his time while struggling to overcome their contradictions through the absoluteness of an encompassing philosophical idea, the Whitney's Mies has largely “arrived.” Issues of the day appear reducible to ever more refined essays on proportions and structure. *The Miesian “building art” moves inexorably toward its ultimate apotheosis in “universal space.”*

Intense and highly aesthetic, the exhibition amplifies but hardly departs from this canonical reading. Upon *continued on page 110*



Back in Berlin

Peter Blake remembers the opening of Mies's final and finest building, the New National Gallery.

Memoir

I first met Mies in 1947, after I had been discharged from the U.S. Army. We remained close friends for a good many years, meeting frequently in Chicago, New York, Berlin, and places in between until he died in 1969.

After he came to America, Mies's buildings tended to be steel-framed rather than concrete or masonry. Starting with the beautiful Farnsworth House (1946–50), Mies would design his buildings precisely and unmistakably: structurally delineated in steel, with glass or brick infill panels of similar precision and texture. In the 1950s, he began to design and build structures that, to this day, have not been excelled in perfection. To people living in New York, the Seagram Building (1958) is still, quite

At the opening of Mies's New National Gallery in 1968, a group of German student radicals staged a commemoration of the architect's past as a fellow traveler (above).

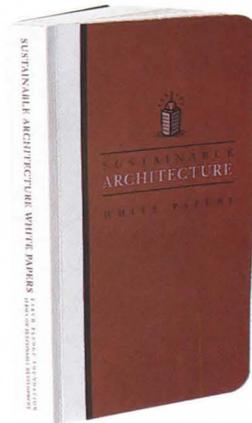
simply, the finest skyscraper done by anyone to date. Shortly after Seagram, he designed the New National Gallery in West Berlin (1962), which may well be the greatest Mies structure constructed anywhere. I saw the New National Gallery frequently while it was under construction, and I attended the opening ceremonies on September 15, 1968. (Mies was not well enough to attend but asked me to come to Chicago upon my return to tell him exactly how well the building was constructed.)

Although I have now visited the New National Gallery close to a dozen times, I am still overwhelmed by its beauty. The building is a glass-and-steel pavilion on a concrete base, measuring roughly 350 feet square. The pavilion is a structure consisting of eight cross-shaped steel columns that support a 215-foot-square flat roof. The roof is framed with 6-foot-deep welded steel girders that are spaced 12 feet apart in both directions to form a deep grid. It was framed on the platform and then raised hydraulically to a clear height of 28 feet—which took exactly 8 hours and 57 minutes. Mies had been driven to the site in an open Mercedes convertible, and he sat in the car watching the roof go up. (His driver, absolutely terrified, decided to watch the operation from the outside perimeter, while Mies sat in the open car, puffing away at a cigar.) When I asked him later how the operation looked to him, he grinned and said, “Enormous!”

Those of us who attended the opening ceremonies at the building in 1968 are not likely to forget the drama of the occasion. Although Mies was unable to attend, Dirk Lohan, his grandson, was there and so were numerous architects of considerable reputation, including Walter Gropius, Hans Scharoun, and Craig Ellwood.

While the official opening ceremonies took place inside the crystal pavilion, a dozen radical German students gathered outside the building to celebrate the occasion in their own way. They had constructed a scale model of Mies’s brick monument to two German Communist leaders, Karl Liebknecht and Rosa Luxembour, who had been assassinated by Nazi terrorists in 1925. Mies, whose politics defied description, was chosen to design the original brick monument because he was considered the most creative architect in the Weimar Republic. The young architecture students who attended the dedication felt the monument still reflected their own radical views. I showed my photograph of the students’ model to Mies when I returned to the U.S., and he was clearly moved by their effort.

The New National Gallery was the last, and perhaps the most magnificent building completed by Mies in his lifetime. (He died almost exactly a year after the gallery opened.) It was a wonderfully balanced structure, perfectly proportioned and exquisitely detailed. When you look at it today, more than 30 years after it was completed, it seems the finest 20th-century building in Europe. On the occasion of its opening, Mies sent a message that he hoped the building would “be an adequate framework for a noble endeavor. I hope it will serve the happiness of mankind, man’s spirit, and man’s art.” It does all of that, and much more. ■



Bibliofile

Sustainable Architecture: White Papers, edited by David E. Brown, Mindy Fox, Mary Rickel Pelletier (Earth Pledge Foundation/Chelsea Green)

Proving that small is beautiful, *Sustainable Architecture: White Papers* offers a world of knowledge in a palm-sized book. It’s part of a series produced by the New York City-based Earth Pledge Foundation devoted to mitigating the environmental impacts of industries that serve our essential needs: food and shelter. Like its predecessor in the series, *Sustainable Cuisine: White Papers*, this book is a Whole Earth-style database of information from more than 60 prominent architects, planners, educators, and manufacturers expounding on the ethics and technics of sustainable building.

Attractive and elegantly produced, the book’s concise, intelligently organized essays enable readers to make quick dips and skim for specific topics and resources. Each paper invites further exploration by providing the author’s professional affiliation and complete contact information. Especially thoughtful are the sections headed “Building Community” and “Homes and Schools.” In the former, William D. Browning of the Rocky Mountain Institute writes about a Santa Fe hotel that weaves itself into its neighborhood by using local eco-friendly products and respecting the culture of employees. In the latter, architect Samuel Mockbee discusses how economic constraints can inspire us to embrace sustainability by employing the most humble materials and building types.

Though the book’s contents are diverse, its breadth is more a virtue than a distraction. Some essays are drily expository and others are overly impressionistic, but taken together, they alert readers to the thinking and resources pushing us toward what Thoreau described as “a tolerable planet.”

Jay Powell



And Rust to Rust

Photographer **Ruth Dusseault** documents the demolition of a closed steel mill in Atlanta. **Cathy Lang Ho** charts the cycle of death and rebirth.

Ruins

When Atlantic Steel decided to close its Atlanta operations, the company asked photographer Ruth Dusseault to document the process of dismantling its 120-acre, 96-year-old steel mill, to eulogize the passing of a company, an industry, an era. An artist-in-residence in the architecture department of *Georgia Institute of Technology*, Dusseault had photographed Atlanta's urban landscape for many years. Her new project evolved into more than a memento for Atlantic Steel. Since the plant's closing, the groundwork has been laid for the site's conversion into a New Urbanist "city within a city"—the largest brown-field redevelopment in the country. For the last few years, Dusseault has been creating a photographic timeline with "the historic industrial site and the neotraditional town appearing as bookends to a long period of



macro-engineering," as she says.

Not long ago, Atlanta's political and business leaders were touting the city's rapid growth. Recently, however, they began to realize that this growth could be the source of the city's undoing. In aspiring to be the "Capital of the New South," the metropolis welcomed not only billions of dollars worth of business and some 900,000 new residents during the 1990s, but also gridlock, smog, and sprawl so extreme that an average of 50 acres of forest continue to be lost every day.

Ironically, a polluted industrial site is poised to become the city's savior. The Atlantic Steel site is ideally situated only a few miles from downtown. Jim Jacoby of Jacoby Development spearheaded the effort to transform the property and some adjacent parcels into a 138-acre,

Ruth Dusseault's photographs documenting the destruction of Atlantic Steel and the construction of "Atlantic Station," a New Urbanist development, will be exhibited next spring at the Atlanta Contemporary Art Center.

\$2 billion mixed-use quarter, enlisting investors and other developers to collaborate in the creation of 3,000–4,000 residential units, 1,000 hotel rooms, and as much as 9 million square feet of office and retail space.

The development will help centralize Atlanta's growth, and its urban design (by architecture firm Thompson Ventulett Stainback & Associates, with consulting from Duany Plater-Zyberk) is aimed at minimizing reliance on cars. Soil remediation and infrastructure construction are now under way; the first phase of the development is slated for completion in October 2003. ■

Hog Heaven

MVRDV's Winy Maas has designed a skyscraper for pigs. **Liane Lefavre** discovers what all the squealing's about.

Husbandry Forty-story luxury apartment tower. Prime location on the edge of downtown. Thirty-three-foot-high ceilings. Generous floor space. Plenty of light and air. Breathtaking views. Large balconies planted with oak trees and apple trees and, of all things, delicious truffles. Cutting-edge recycling system. Knock-out design. Sound fabulous? It is fabulous. But think twice before moving in. There's a problem with the neighbors. They're pigs. Really.

This sty in the sky is the latest scheme by Winy Maas, who is not only chief designer of the Rotterdam firm MVRDV but also, evidently, an heir of the madcap visionaries of the 1960s: Archigram, Archizoom, Haus-Rucker Co. This is his proposal for overcoming the woes of pig farming as currently practiced in Europe. Siting one such tower in each of the 32 largest Dutch cities, he argues, would minimize the costs and the danger of spreading contagious diseases like hoof-and-mouth as the animals are shuttled from one end of Europe to another. Forty-four identical towers clustered near the port of Rotterdam would take care of the Netherlands' immense export market.

There's a good pinch of salt along with a grain of realism in this hogwash. The Netherlands, a country with 15.5 million humans and 15.2 million pigs, is the largest pork exporter within the European Union. To the spread out, extensive method of traditional pig farming, Maas juxtaposes the economical and ecological advantages of the typically Dutch alternative based on density. The Dutch are no strangers to intensive and vertical farming, cultivating their huge export crop of tomatoes in high-rise greenhouses on rotating platforms that allow each their required exposure to artificial sunlight.

Pig City isn't just vertical husbandry, it's organic and friendly husbandry. Provisions are made for the animals to be fed a diet of 70 percent grain and 30 percent organic green garbage through a central food core. That attractive 66-foot-high glass capsule on top of the roof contains a filter that transforms the urine output of the porcine residents into half a ton of ammonia annually. As for the 200,000 tons of manure produced annually by each tower, they can yield 6 million cubic meters of methane, of which a mere 25 percent can meet the all the electrical needs of the tower. So the pigs aren't the only ones to benefit. The other 75 percent could serve to heat 2,250 housing units for humans all year round.

All of which goes to prove that architects could do worse than turn up their noses at pig sties. ■





GEHRY IN BERLIN

In any anecdotal history of Frank O. Gehry and his practice, crumpled pieces of paper pulled from the wastebasket always play a central role. While this charming bit of apocrypha unfairly reduces his art to happenstance, there is an accidental truth in it: The act of crumpling a sheet charges inert matter with energy. There is no more highly charged architectural environment than Berlin, though for the last decade planners have tried to neutralize it with restrictive conventions. In his latest project, the DG Bank Building on Pariser Platz, these requirements forced Gehry to invert himself and make a building that grows in intensity as one moves toward its center. The conference room at the heart of the DG Bank is based on the architect's years of research for his unrealized Peter Lewis House in Cleveland. Within the bank the room is referred to as the Plenum, a word which, by a happy accident of translation, in German speaks to its function (literally "chamber"), and in English, to its metaphorical significance. A plenum is a condition whereby matter or air is denser inside a closed space than outside. At the DG Bank, the plenum is the point where the architect's energies reach critical mass; it is the deus that molds the rest of the machina. Each of the other four projects in this issue faced some sort of restraint, be it financial or cultural; each of the four architects has similarly risen to the occasion.

At the center of Frank O. Gehry's DG Bank Building in Berlin is a freestanding metal-clad conference room called the Plenum; its interior (above) is clad in perforated Oregon pine.

INNER BEAUTY

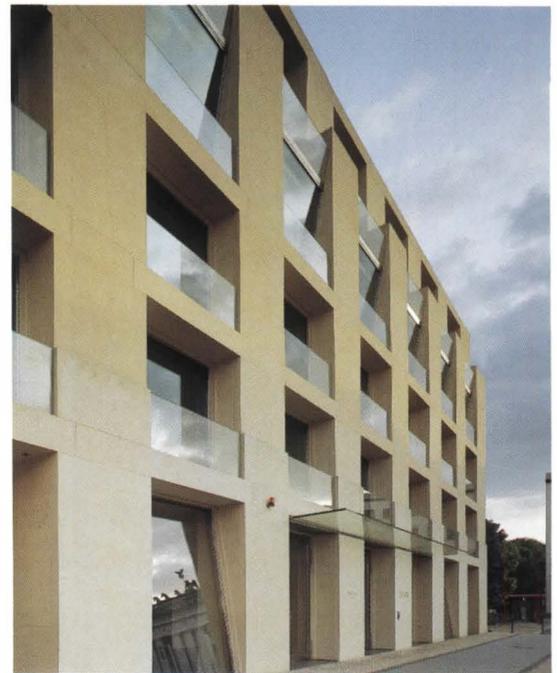
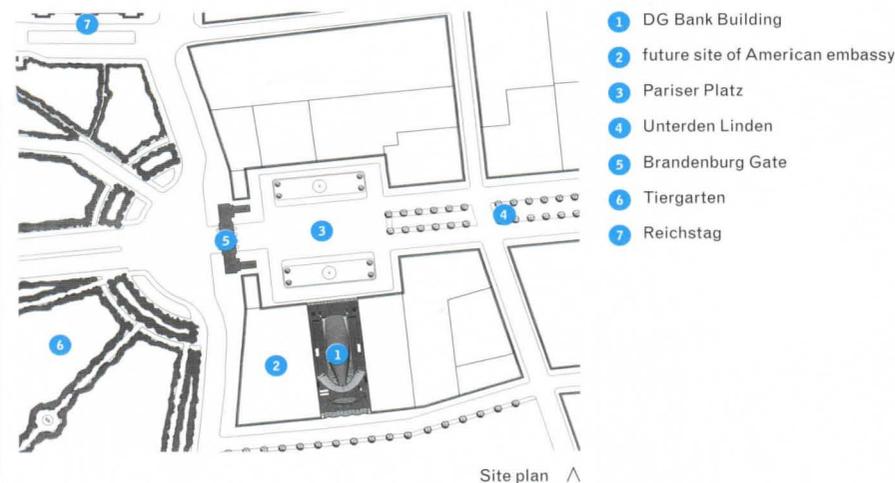
STRAITJACKETED BY
BERLIN'S STRICT DESIGN
STANDARDS, FRANK O.
GEHRY'S DG BANK BUILDING
SAVES THE SPECTACLE
FOR THE INSIDE.
BY JOSEPH GIOVANNINI







Frank Gehry's DG Bank Building sits on the south side of Berlin's Pariser Platz (preceding pages and site plan, facing page), catty-corner from the Brandenburg Gate. The bank building spans the depth of the block, and new buildings will be built on either side of it (the American Embassy, designed by Moore Ruble Yudell, will occupy the site to the west).



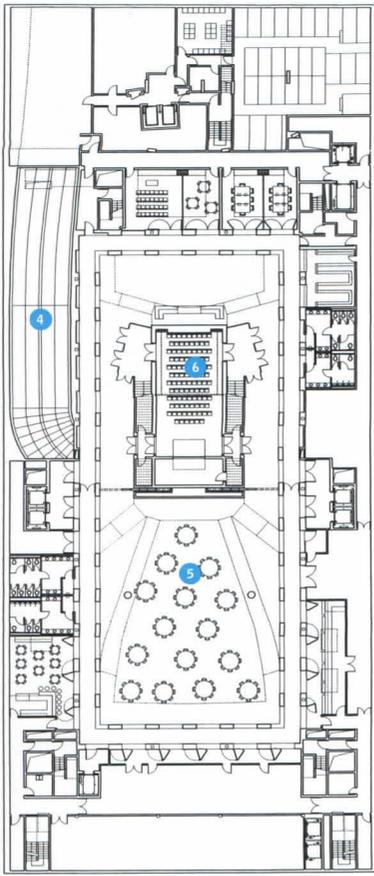
The composition of the façade facing the square (facing page, top), is comparatively conservative; in a subtle subversion of Berlin's strict design regulations, Gehry installed the window-panes on the first and fourth floors at an angle (top). The architect undulated the building's rear, south façade (facing page, bottom); and the angled projecting window frames create secondary rhythms (above).

Over the last decade, the Berlin high architectural command, headed by municipal building director Hans Stimmann, froze out architects who, like Frank Gehry, build on the far side of Cartesian rationality. Only Daniel Libeskind squeaked by with his Jewish Museum (now awaiting its opening exhibition). In a city where grandmothers in the Tiergarten reel you back for crossing against a red light, architects have operated on a very short leash, and the city, now finished with its great push to look again like a capital, shows it—it's a case study of luxurious but lifeless urban-design conformity. The architects were just following orders.

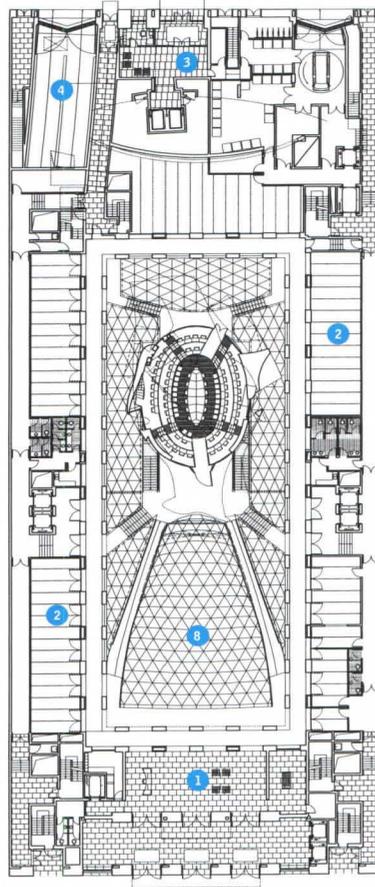
Berlin actually wanted world-class architects to prove that the new Berlin, das Kapital, was no longer a provincial outpost but had reemerged as a world-class city worthy of its own mantle. But the planners admitted only those A-list architects who would knuckle under and produce polite B-grade buildings. For this reason, Gehry failed to win the competition for an addition to Schinkel's Altes Museum, even though his design could have given Berlin a Bilbao. But he did win a 1995 competition to design a lower-profile infill project for the DG Bank headquarters on the Pariser Platz, where he pushed the limits of the rules.

While deferring to the Brandenburg Gate next door and to the traditionally urban ensemble around the reconstituted square, Gehry found life in the required street-wall façade by scrambling the usual proportions—maximizing the apertures, minimizing the stone fascia, keeping each window whole rather than divided with mullions, and slanting the oversize panes in opposite directions in the upper and lower registers. The building spans the depth of the block, and on the back side, where there are luxury apartments, Gehry relaxed the orthogonal geometries, creating an undulating stone wall that steps back in its upper floors. Front and back, both sides of this party-wall building are remarkably clean, controlled, and serene, and surfaced in a warm golden limestone.

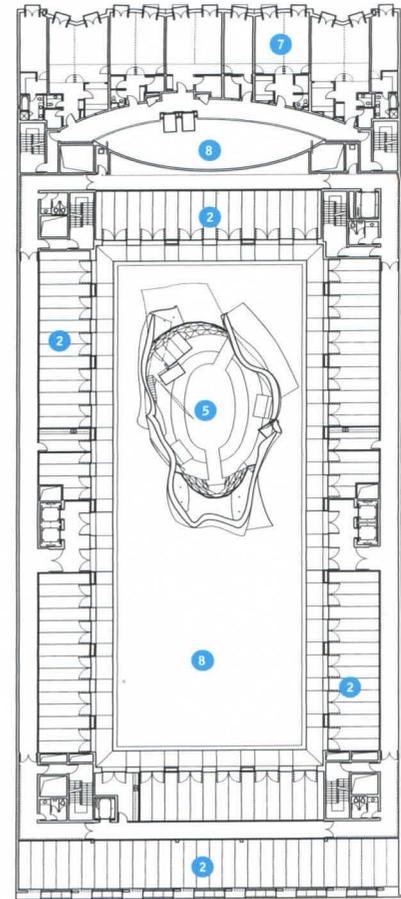
Gehry's façades are actually livelier than nearly everything done in the last decade in similar Berlin contexts, but still propriety prevails. The Pariser Platz façade opens onto a vestibule, and then to a large inner courtyard beyond, where the California architect again plays it straight, creating a five-story peristyle hall surrounding the skylit court. Purposely understated and meticulously crafted, the interior is a large jewel box. Gehry respects the courtyard typology that is the assumption of Berlin's recent architectural resurrection, and only changes it tonally: The walls are surfaced with a rich Oregon pine that glows even in Berlin's cold light.



Basement plan 24' ^

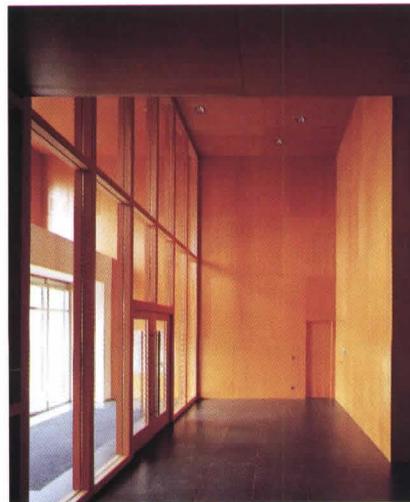


First-floor plan

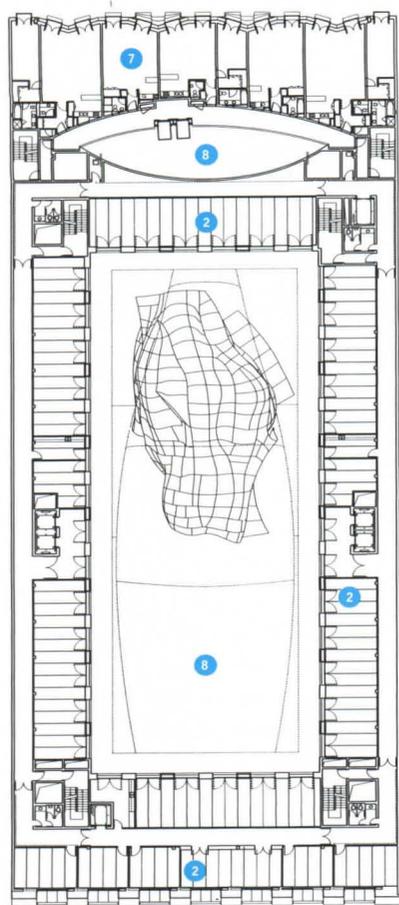


Second-floor plan

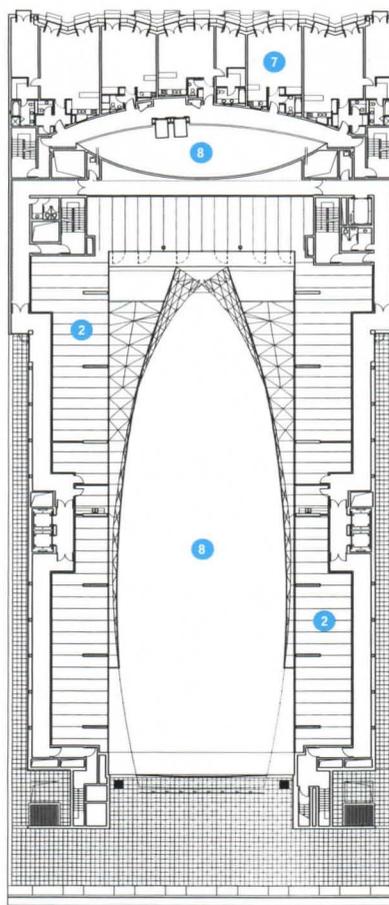
- 1 bank entrance
- 2 offices
- 3 apartment entrance
- 4 parking ramp
- 5 meeting room
- 6 auditorium
- 7 apartments
- 8 atrium



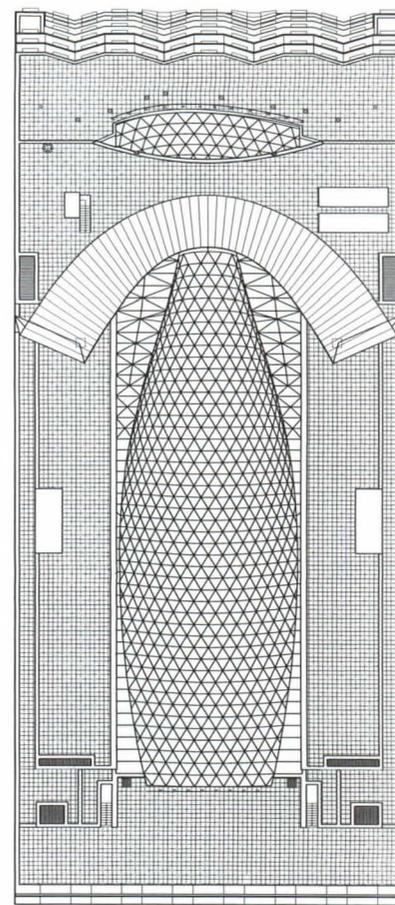
Apartments occupy the DG Bank Building's entire south side; they are accessed through the ground-floor lobby (above left) and then a stacked series of corridors overlooking a small skylit atrium (above right). On the north side of the building, the double-height bank entrance (facing page) provides a glimpse of a second, larger atrium.



Fourth-floor plan



Fifth-floor plan

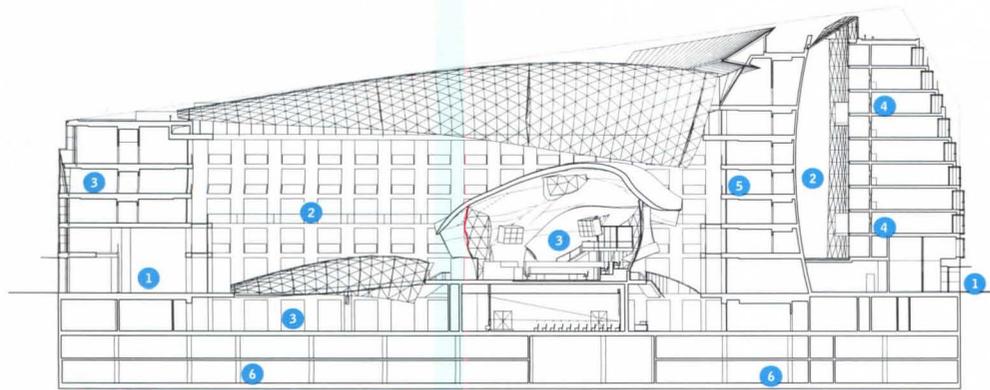


Roof plan

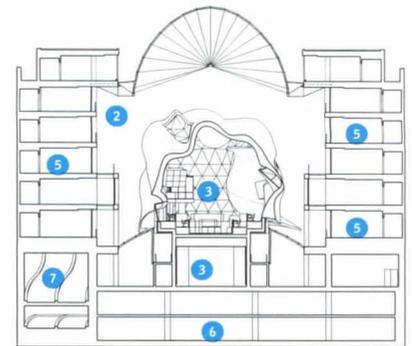
Gehry evokes the processional sequence of a classical temple that delivers worshippers through a portico into a sanctum sanctorum centered on an image of a deity. Stimmann's rules did not allow Gehry to radicalize the exterior, which he usually sculpts. The architect instead built on the outside the straight part that characterizes most of his interiors. Sober façades serve as a foil to what he posited inside: a three-story curvilinear carapace sheathed in stainless steel. The biomorphic form sits behind a billowing plane of glass in the foreground and below a skylight with a delicately engineered space frame springing from an oval collar encircling the atrium. This may be a banking hall, but the moneylenders have sponsored a sculptural apotheosis that mystifies the room. The diorama may be one of the most spectacular architectural ensembles built over the last century.

Gehry first explored the biomorphic form in a Cleveland house project for insurance magnate Peter Lewis. Sometimes likened to a horse head, the form has nothing to do with Berlin or traditions of architectural typology and morphology, but exists as a jewel in apposition and opposition to the crisp, neat case surrounding it. Gehry collaborated with the Stuttgart structural engineer Jorg Schlaich, who contextualized the piece among pillows of glass so it does not appear as a one-liner—like Gehry's stranded, freestanding fish sculpture done for the Barcelona Olympics in 1992. Here the piece, called the Plenum, is a disturbance that sends waves





North-south section 24'



East-west section

- | | |
|----------------|----------------|
| 1 entrance | 5 offices |
| 2 atrium | 6 garage |
| 3 meeting room | 7 parking ramp |
| 4 apartments | |



Gehry tucked a high-ceilinged meeting room under the roof (above); it overlooks the complex skylight of the larger atrium. Within the atrium, surrounded by arcaded office corridors, sits an eccentric form that Gehry calls the Plenum (facing page); the skylight overhead is mirrored in a second arched skylight separating the atrium from an additional meeting room below.

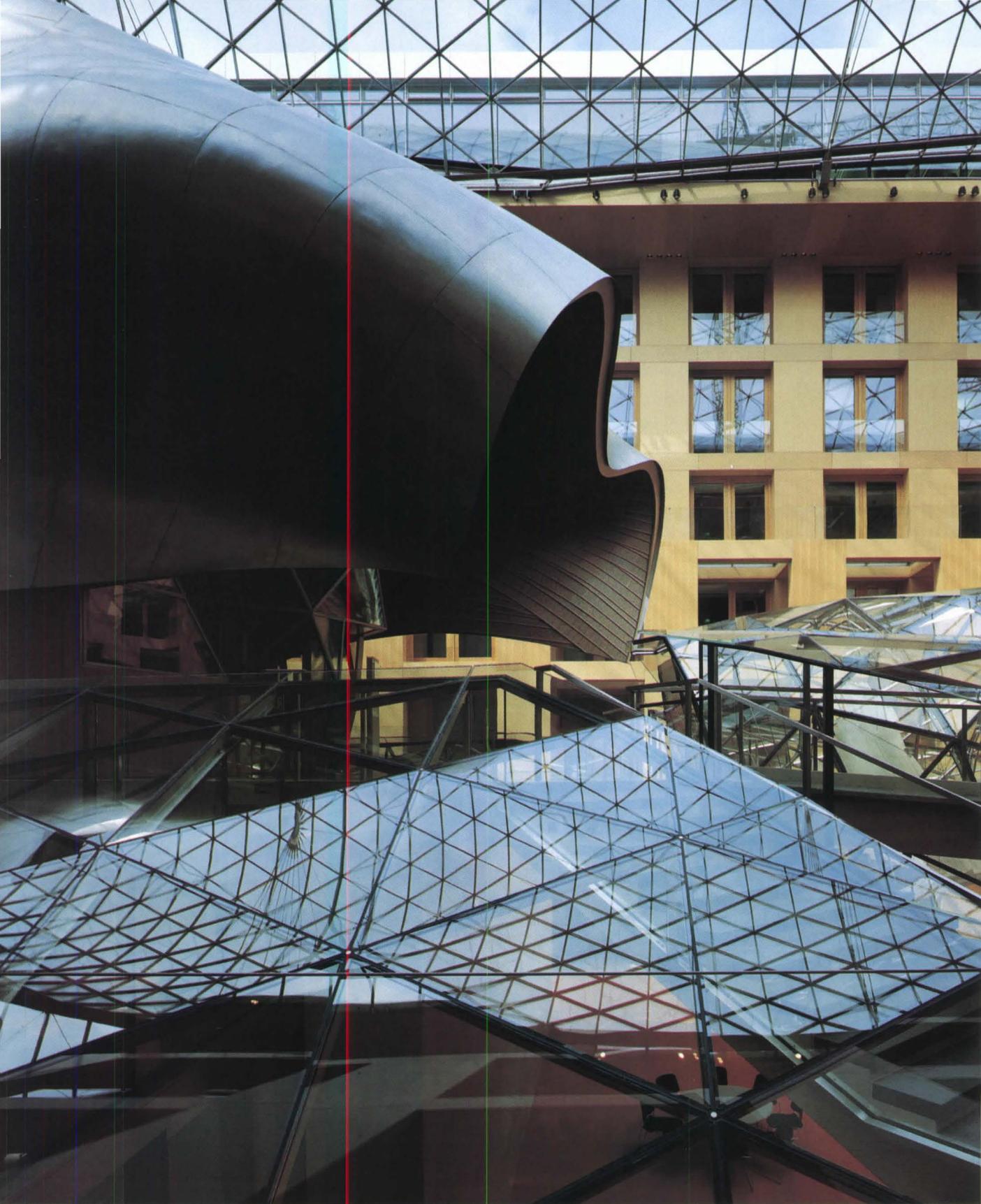
rippling through the hall. The shallow dome of glass in front swamps the Plenum's base in a pool of shimmering reflections, and the skylight above frames the piece within a bottle-shaped vault of astoundingly delicate, always changing webs. While the squared donut surrounding the courtyard houses offices for the bank, the entire court is actually a conference hall and banquet pavilion, all for hire. The first glass dish is really a skylight illuminating a large conference and banquet area below, and the inside of the Plenum itself looks like a surgical theater with a bowl of seats focused on a conference table, all of it wired for translations and video. A multidirectional patchwork of perforated Oregon pine clads the Plenum's interiors while controlling the acoustics.

When asked how he could charge so much for a sketch done in a matter of minutes, Picasso replied that he had spent a lifetime learning how to execute the gesture quickly. Gehry's Plenum, apparently so unforced and even inevitable, is the culmination of years of work, starting back in the early 1980s with his first flirtations with the fish and its compound curves. The piscine forms forced him to resort to the computer, and the computer empowered him to tackle ever more challenging forms. The Plenum's highly complex structure, with its successive undulations inside and out, is a *gesamtkunstwerk* of consummate virtuosity that involves not only Gehry's vision but also sophisticated office back-up, from the model-making shop, to on-staff computer engineers, to seasoned partners who tell Gehry how many curves a project can afford.

We have entered the space of a Jackson Pollack or a de Kooning painting, into the gestures of a painted surface that have been teased apart and spatialized three-dimensionally. In architecture, as in painting, there is a physics of aesthetics. Gehry, who admires paintings that keep the eye roving, has created a form that keeps pushing and pulling space, and with it our bodies, in continuous rounds. This is space that buoys you, a gravitational system within the box that keeps you moving as undulating lines lead you to other lines, the curved surfaces shifting directions with remarkable fluidity.

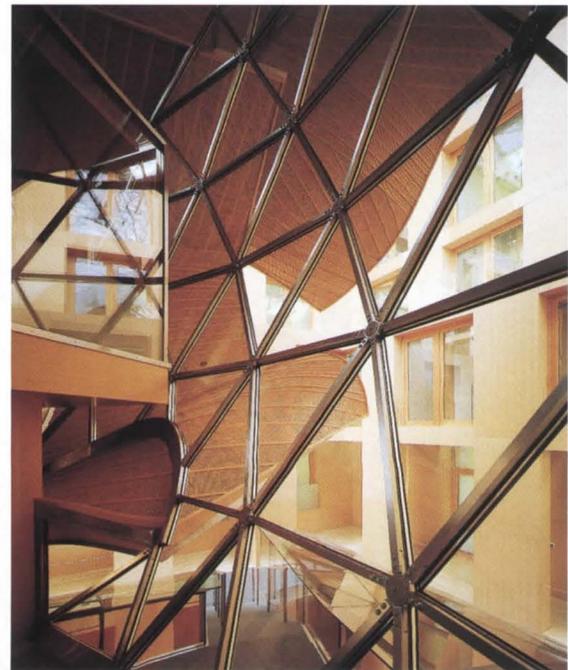
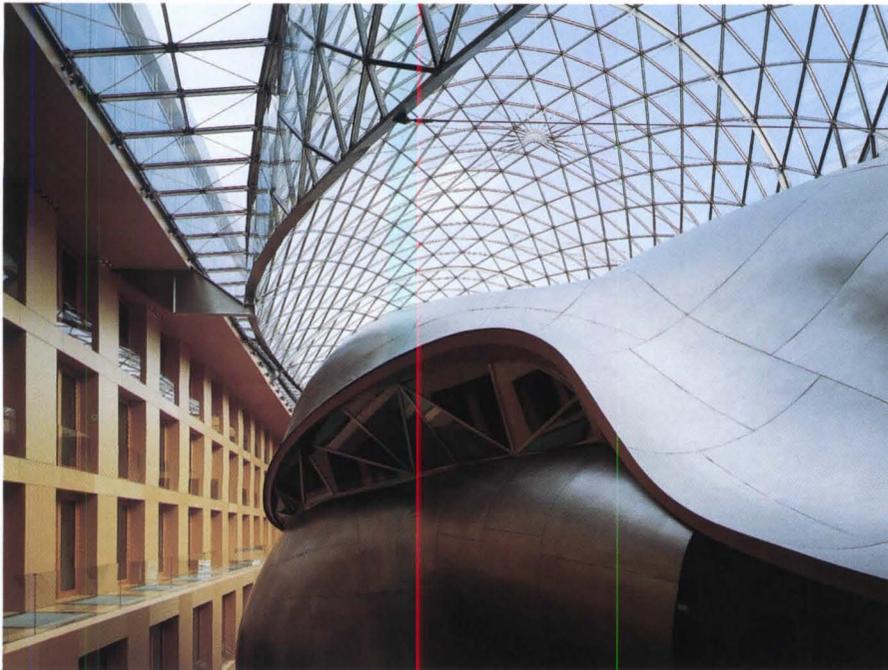
Call it body hypnosis. The eye invites you into the undertow of this





The two spidery skylights and the orthogonal pine-clad peristyle hall contrast with the continuous biomorphic form of the stainless-steel Plenum, a meeting room (above). A pair of gangplanks, which cut through the skylight separating the atrium from the large conference room below (facing page), access the Plenum; the chandeliers were designed by glass artist Nikolas Weinstein.





Gehry designed the lattice-like structure of the skylight (above left) with Stuttgart structural engineer Jorg Schlaich; a similar glazing system encloses the openings in the Plenum (above right). An overall surface of perforated pine improves the acoustics of the Plenum's interior (facing page), which the bank frequently rents out.

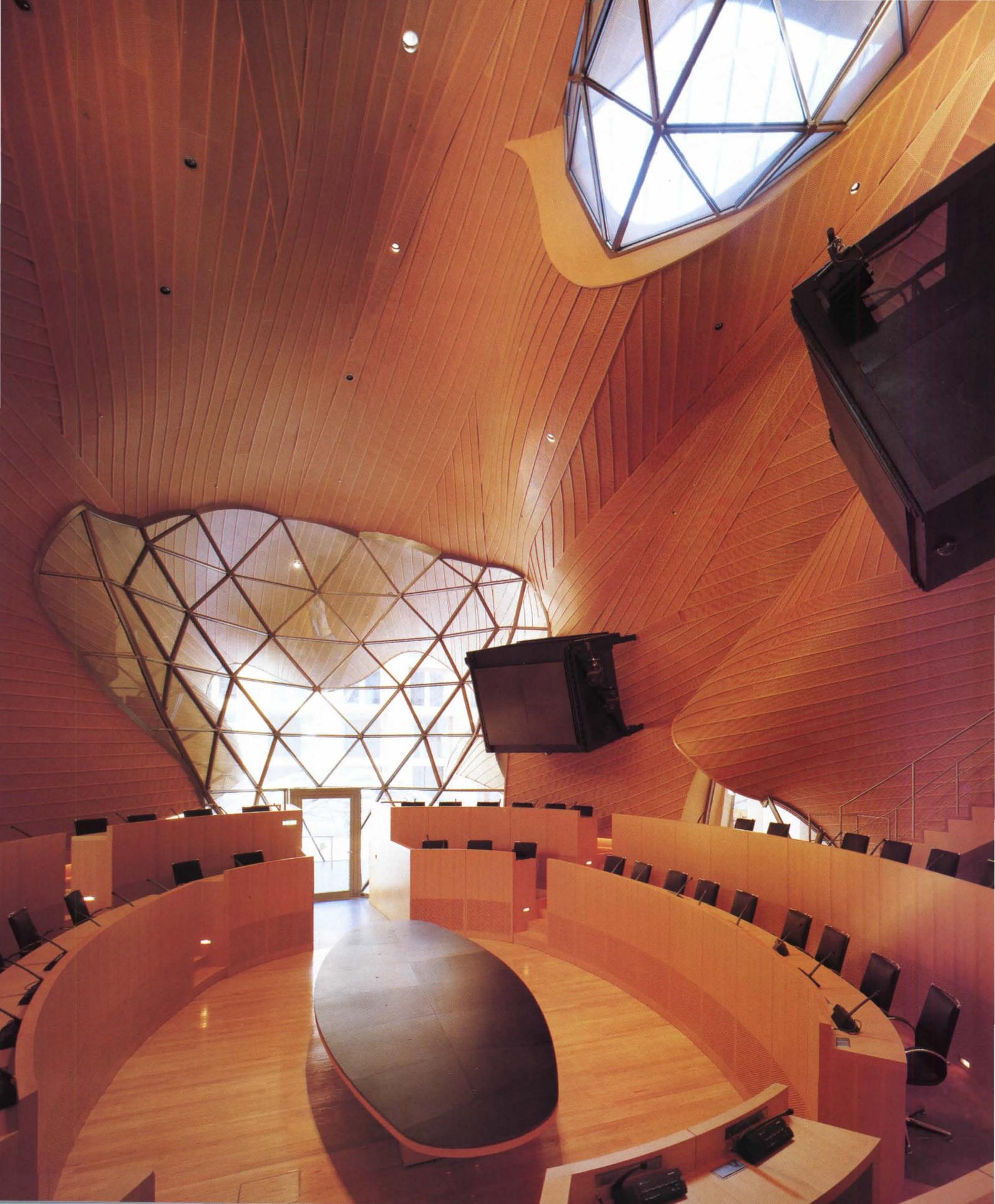
DG BANK BUILDING, BERLIN

CLIENT: DG Immobilien Management / Hines Grundstücksentwicklung, Berlin **ARCHITECT:** Gehry Partners, Santa Monica, California—Frank O. Gehry (design principal); Randy Jefferson (project principal); Craig Webb (project designer); Marc Salette, Tensho Takemori (project architects); Laurence Tighe, Eva Sobesky, George Metzger, Jim Dayton, John Goldsmith, Jorg Ruegemer, Scott Uriu (project team); Jeff Guga, Michael Jobes, Kirk Blaschke, Nida Chesonis, Tom Cody, Leigh Jerrard, Tadao Shimizu (model builders); Rick Smith, Bruce Shepard (computer modeling) **ASSOCIATE ARCHITECT:** Planungs AG / Neufert Mittman Graf, Berlin—Michael Heggemann (project manager); Achim Hauser, Johannes Wilberz, Masoud Afchar (project team) **ENGINEERS:** Ingenieur Buro Muller Marl (structural); Schlaich Bergemann und Partner (glass roof and floor); Brandi Ingenieure (mechanical/electrical) **GENERAL CONTRACTOR:** Muller-Altvaetter **CONSULTANTS:** Planungsburo Fur Ingenieurleistungen (façade); A.G. Licht (lighting); Jappsen & Stangier Berlin (elevator); Audio Consulting Munich (acoustics); Ingenieurburo fur Gebaudetechnik (audio/visual); Ingenieurburo Schaller (kitchen); Technische Prufgesellschaft Lehmann (fire safety) **COST:** Withheld at owner's request **PHOTOGRAPHER:** Christian Richters

space, and your movements become part of a liquid medium. Duchamp criticized 20th-century art for being too retinal, but the eye here leads into a phenomenal experience that proves both physical and psychological. Gehry draws you out through an interactive involvement: You trust the space, and even surrender to it. There are words such as “concentrational” and “meditative” that deal with self-realization, and indeed you feel more yourself here, drawn into a serene dream state toward the unknown that the Plenum embodies. One visitor said, “I don’t see how anyone in a conference could shout at anyone else here.” The whole hall is a masterpiece, not only because it is beautiful—strangely and inexplicably beautiful—but because it is wise, breaking down the classical opposition between subject and object. There are no frames or pedestals or plinths to separate you from the object. You occupy its space and it occupies yours.

Berlin’s planners ghettoized such architectural uncertainty by permitting it only at the Jewish Museum. At the DG Bank, the irrational is not only privatized behind walls, but also caged like wild animals in a zoo. The great regret is that this kind of excursion was never invited into the public realm where it could play a more prominent role in shaping the city and the collective German psyche. People are already clawing to get into the space, but the message on Pariser Platz is that the irrational should be repressed, safely contained within a vault, to be seen only with a pass.

Here Gehry was designing on his own, without a safety net. He has not hedged the design by depending on history, though he uses it. He has not outsmarted himself by denying authorship. He has not fled into the coy safety of Pop. Keeping his eye on the highest and best influences, nurturing his imagination as some people care for their health, he has dared stretch for his best instincts into distant, even shadowy quarters somewhere beyond conscious reach. He has created in our time a Sistine Chapel and proved that a religious space does not need a religion to be powerful. Space—the right space—is grace itself. ■



THE LIGHT BOX

P/A Award-winner Andrew Zago builds a luminous pavilion in a Detroit park. By Anne Guiney



It seems improbable now, but in its heyday, Detroit was known as the “City of Trees.” Beginning with the 1807 Michigan Territory Law, which required boulevards to be planted with trees, and on through the improvements of the City Beautiful movement, Detroit earned the epithet. However, over the last 50 years the twin blights of Dutch elm disease and urban decay wreaked havoc, and tree-lined boulevards have been supplanted by tree-filled vacant lots. Now, the Greening of Detroit, an urban forestry group, is trying to restore the city to its leafy glory.

Since 1989, the Greening (as the group is commonly known) has

planted and maintained over 32,000 trees. In 1996, the city gave the group stewardship of a park just outside downtown, and the Greening has since planted more than 60 varieties of trees and shrubs to transform it into an outdoor classroom for its education programs. Two years ago, the group commissioned local firm Zago Architecture (a 2001 P/A Award winner; April 2001, page 92) to design a pavilion in the park as a shelter for these classes and as a venue for events.

In designing the structure, principal Andrew Zago says that he became interested in tree canopies and the particular way they provide



Andrew Zago's Greening of Detroit Pavilion (above) sits in a park of the same name on Jefferson Avenue, a main east-west axis in Detroit. Though it might be hard at first for passersby to figure out what it is, the pavilion is no mere folly: It shelters classes held by an urban forestry group (also called the Greening of Detroit), which has turned the park into an outdoor classroom of specimen trees and shrubs.

shelter. Individual leaves, when densely clustered on the branches of a mature tree, create a mass that keeps most sunlight and rain from falling directly beneath. "There is no real skin—it is more like a cloud of material," he explains. His pavilion is also a skinless, dense composition of light material. As befits a structure in a park, it is an embodiment of the Frank Lloyd Wright dictum that "a building should act like a tree, not look like a tree."

A simple steel frame set into a concrete base supports a rectangle of 576 clear PVC tubes 11 feet off the ground. None of the 30-foot-long

tubes actually touch one another, but are instead spaced an inch apart and suspended on cables within the 1-beam frame. Four 5-foot-long, 1-inch-wide openings along the top side of each tube collect raindrops, and a slight slope causes the water to run off into a storm drain. Although the pavilion isn't *technically* a solid, it acts as one: A raindrop would have to fall in a perfectly straight path to make it through the 12 layers of tubing.

Zago's sheltering canopy looks nothing like the saplings around it. But it is an equally clear sign of regeneration in Detroit. ■



THE GREENING OF DETROIT PAVILION, DETROIT

CLIENT: The Greening of Detroit—Rebecca Salminen-Witt (executive director) **ARCHITECT:** Zago Architecture, Detroit—Andrew Zago (project architect); Peter Magoulick (project designer); Brendan Canning, Martin Fenlon (project team); Kathrine Collier, Jason Haigler, Roberto Jimenez (project assistants) **ENGINEERS:** Robert Darvas and Associates (structural) **CONSTRUCTION MANAGER:** Steven C. Flum **COST:** \$109,000 **PHOTOGRAPHER:** Raimund Koch

The portion of the pavilion that is not filled with tubes (facing page, at left) accommodates a removable canvas sleeve that increases the area sheltered by the structure. Because of tiny flaws that occur in the extrusion of PVC tubes, when they are clustered together they seem to be opaque. In Zago's pavilion (below), 576 such tubes form a dense and almost looming mass.







The National Museum of Australia sits at the tip of a peninsula in Canberra's Lake Burley Griffin (above). Architects Ashton Raggatt McDougall organized the building around a central courtyard. One wing of the museum (above, at left) zigzags in a manner deliberately reminiscent of Daniel Libeskind's Jewish Museum in Berlin. Ashton Raggatt MacDougal also designed the smaller Australian Institute of Aboriginal and Torres Strait Islander Studies (above, at top), which faces the museum's main entrance.

The recently completed National Museum of Australia (NMA), is a most interesting and unlikely building. Built to celebrate 100 years of Australian federation and to house a mixed collection of national treasures, it seems at first to be in the wrong place at the wrong time. Canberra, its politically charged site, is like a Washington, D.C., lost in the mountains, a planned capital city lacking its city. What there is of it is gray, bland, suburban, and uptight—characterized by the kind of evasive generalizations one expects from corporate politics. The NMA is the reverse: colorful to the point of brashness, urbane and urban, gregarious, beautiful in a few spots, and very particular about ethnic identity and historical grievances.

One arrives by car or bus to face not a gateway, but a giant red-and-orange question mark leaping overhead like a triumphal arch on a holiday.

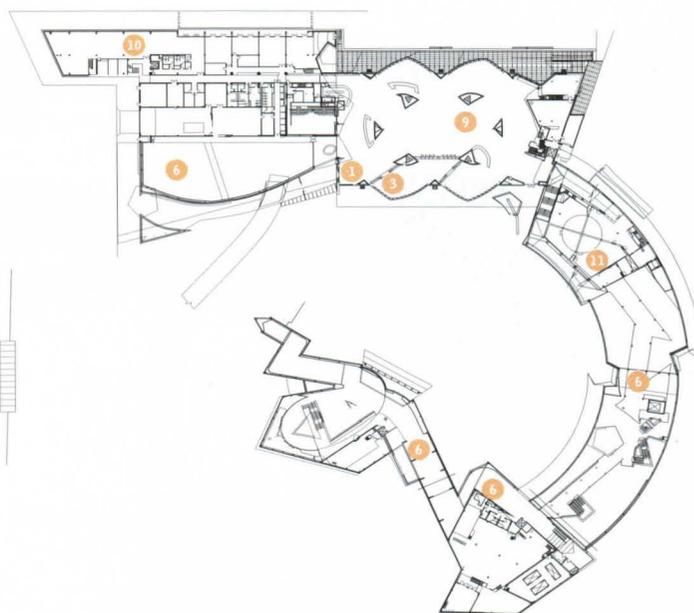
This entrance twist shoots off one way toward the hills, ending in a curled up piece of steel, while in the other direction it acts as a canopy, leading one into the main hall of the museum. This exuberant gesture sets the tone for the entire compound and becomes its icon, as distinctive for Canberra as the Opera House shells are for Sydney. It also turns out to be the key for deciphering the museum's rambling layout. The entrance canopy continues as a kind of Ariadne's thread that snakes in and out of the building through what is in effect a labyrinth, a rite of passage into Australian identity. The site is organized as a very loose question mark in plan, and its top curve holds the end of a promontory that juts out into Lake Burley Griffin. This primary position, surrounded by water, offers spectacular views of Australian nature at its most benign.

The museum's architects, Ashton Raggatt McDougall (ARM) with

- 1 entrance
- 2 Gallery of the First Australians
- 3 museum shop
- 4 café
- 5 back-of-house facilities
- 6 exhibits
- 7 childrens' exhibits
- 8 Garden of Australia
- 9 Great Hall
- 10 offices
- 11 theater

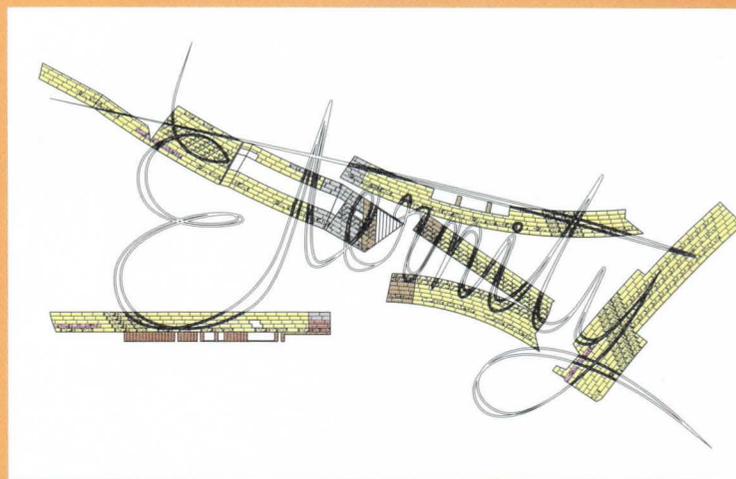


First-floor plan 54'



Second-floor plan

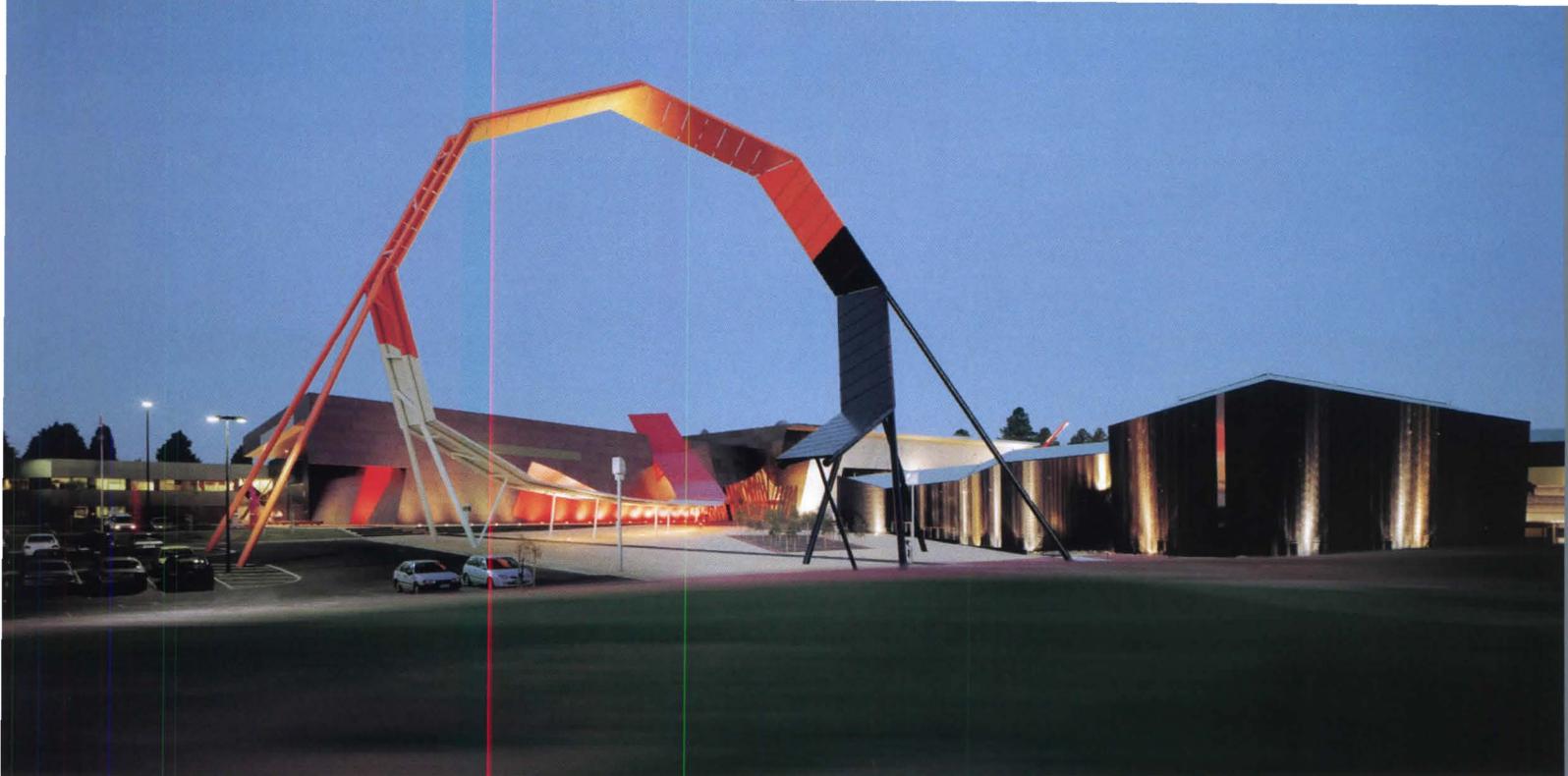
Ashton Raggatt McDougall conceptually wove a mathematical Boolean string through the museum (below left); it appears most prominently, and literally, in a ribbonlike canopy at the building's entrance. The architects applied fragments of the word "eternity" to different parts of the building's exterior surface (below right); the word's cursive lettering is in the hand of Arthur Stace, an Australian evangelist who spent nearly 40 years writing the word on the sidewalks of Sydney.



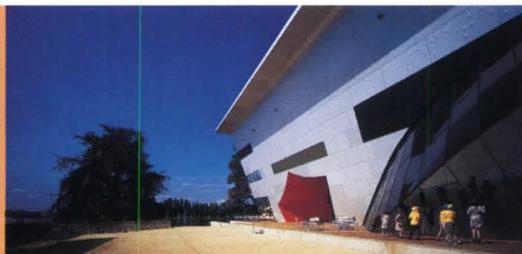
Robert Peck von Hartel Trethowan, speak about the looping form as a mathematically derived Boolean string, or a knot, or a rainbow serpent from an Aboriginal dreamtime story, as if these references were perfectly ordinary and known to most Australians. But fairground associations, like the loop-the-loop of the roller coaster, are equally apparent on first encounter. They suggest a wild ride of discovery through the national psyche that will involve sudden reversals in fortune, feelings reinforced by the violent contrasts of the central sunken garden around which the compound snakes. Here one finds fragments of an Australian map, its Mercator grid juxtaposing memories in white, red, and gray (as Peter Eisenman did for similar reasons in Berlin, to remind one of a suppressed past). Landscape architects Richard Weller and Vladimir Sitta of Melbourne present history as a contrast of desire and repression, hope

and horror: While a luscious palm hints at a tropical paradise, a row of Italian alders tilted north at an angle of 20 degrees signify immigrant longings for the European homeland.

The curving structure behind the garden is a reference to the popular Melbourne Cricket Ground and, in its garish red, black, white, and yellow, to the colors of many football uniforms. The forms are also a comment on the way such national sport retriberalizes the masses (what is more nationalist today than football loyalty?). But then, above this riot of populist cheering is a severe modern façade with a horizontal strip window, some gray dimples (supposed to be *Aussie phrases in braille*), and two vesica-shaped windows set on the diagonal (a kind of point-ended oval halo in Christian religious art). These disjointed shapes throw a bit of cold water on the political Disneyland below, a high-minded rebuke to the chauvinism



The Boolean string that Ashton Raggatt McDougall incorporated into the design of the museum is most evident outside the main entrance (above), where a canopy spirals overhead. Elsewhere on the building's exterior, such as along the northeast façade (below, left to right) the ribbon of canopy appears in negative, typically as a red-colored indentation, but also, outside the main hall, as vesica-shaped glass lumps.



of football. We are engaged in more than a dialogue here, something between a debate in parliament, a shouting match in a pub, and a Sermon on the Mount. The four main blocks that ring around the garden assert both their autonomy and their relationship to the whole; this shared difference is meant to pose the question of Australian identity as a puzzle.

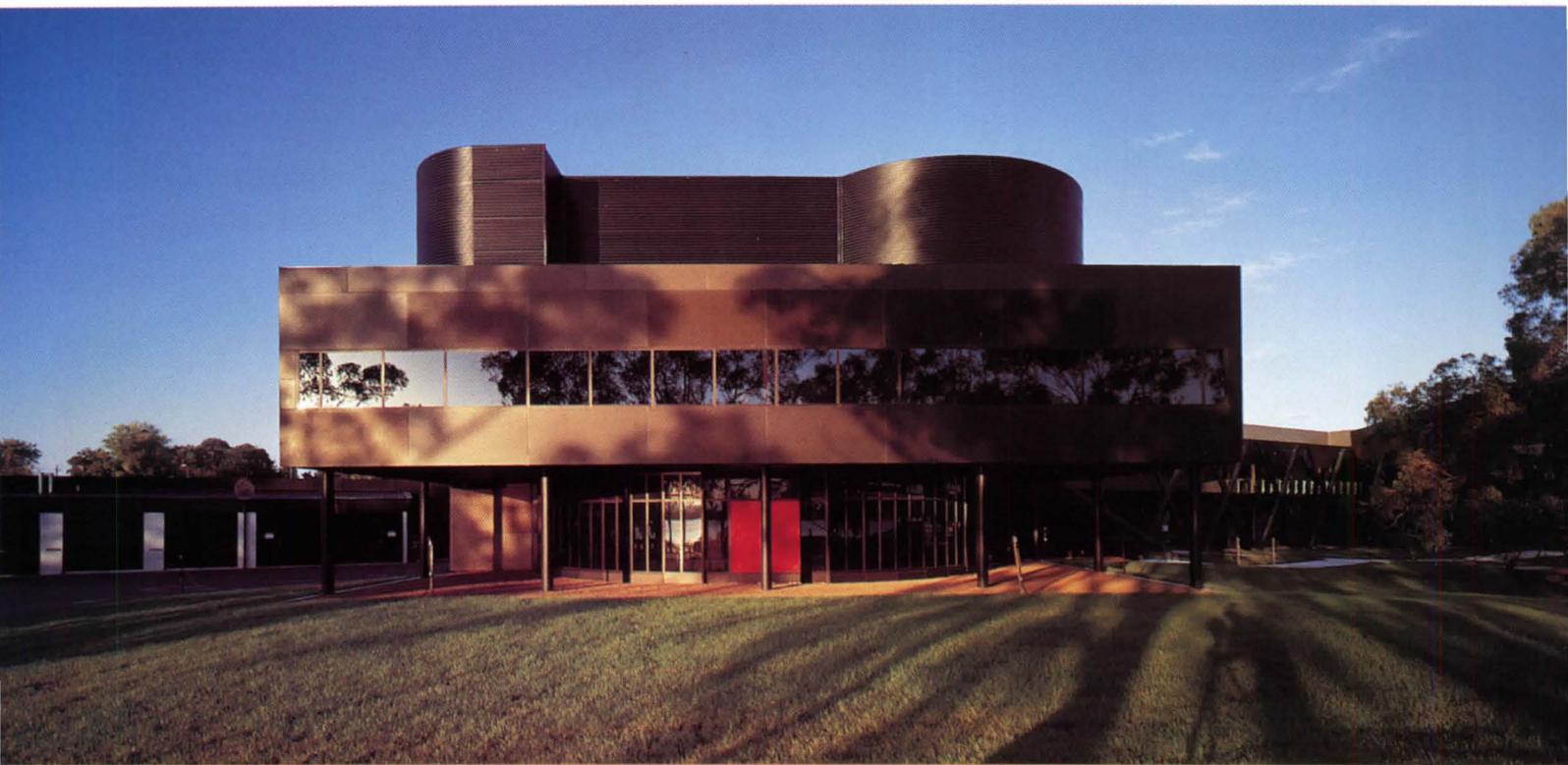
The NMA sets the proposition that identity comes from facing difference, from finding it enjoyable as well as distressing. The complex uses conventional signs of ethnicity in a highly charged, colorful, and unusual way. Fragments from the past are blown up in scale and turned into supergraphics. For instance, the *E* and *Y* from the "Eternity" signature of the Sydney street evangelist Arthur Stace are amplified and stretched across façades. They become at once signs of individual loneliness and, for those in the know, cryptic emblems of Christianity. Once the game of

hunt-the-symbol has started—and it is impossible to avoid here—one becomes sensitized to possible meanings. The advantage of this approach is that it entices participants to read on for further messages, to decode both intended and aberrant ideas; that is, to take a position on difficult questions for themselves.

One of these enigmas concerns the question of architectural representation itself. Is it right, or reasonable, in a pluralistic democracy to quote other architecture and, if so, should the quotes be overt, understated, or cryptic? Here quotation marks are out in the open, disarming charges of theft. For instance, the zigzag motif of the Gallery of the First Australians is lifted explicitly from Daniel Libeskind's Jewish Museum in Berlin, and it has several justifications. The most obvious is the parallel of two different genocides—Jewish and Aboriginal—but there is also



Ashton Raggatt McDougall also designed the Australian Institute of Aboriginal and Torres Strait Islander Studies on the peninsula. The institute's south façade (above left) faces the museum. Its form (above right) references Mitchell/Giurgola & Thorp's design for the Australian Parliament House, which is visible across Lake Burley Griffin, but its red and black colors are those of the Aboriginal flag. The institute also incorporates a black-faced "Not Villa Savoie" (below), another of Ashton Raggatt MacDougal's deliberate references to Australian and architectural culture.



the way the shape gives a figural direction to the gallery and connotes the angst of the lightning bolt. Everywhere the architects cite authorities they find relevant, functional, amusing, or instructive.

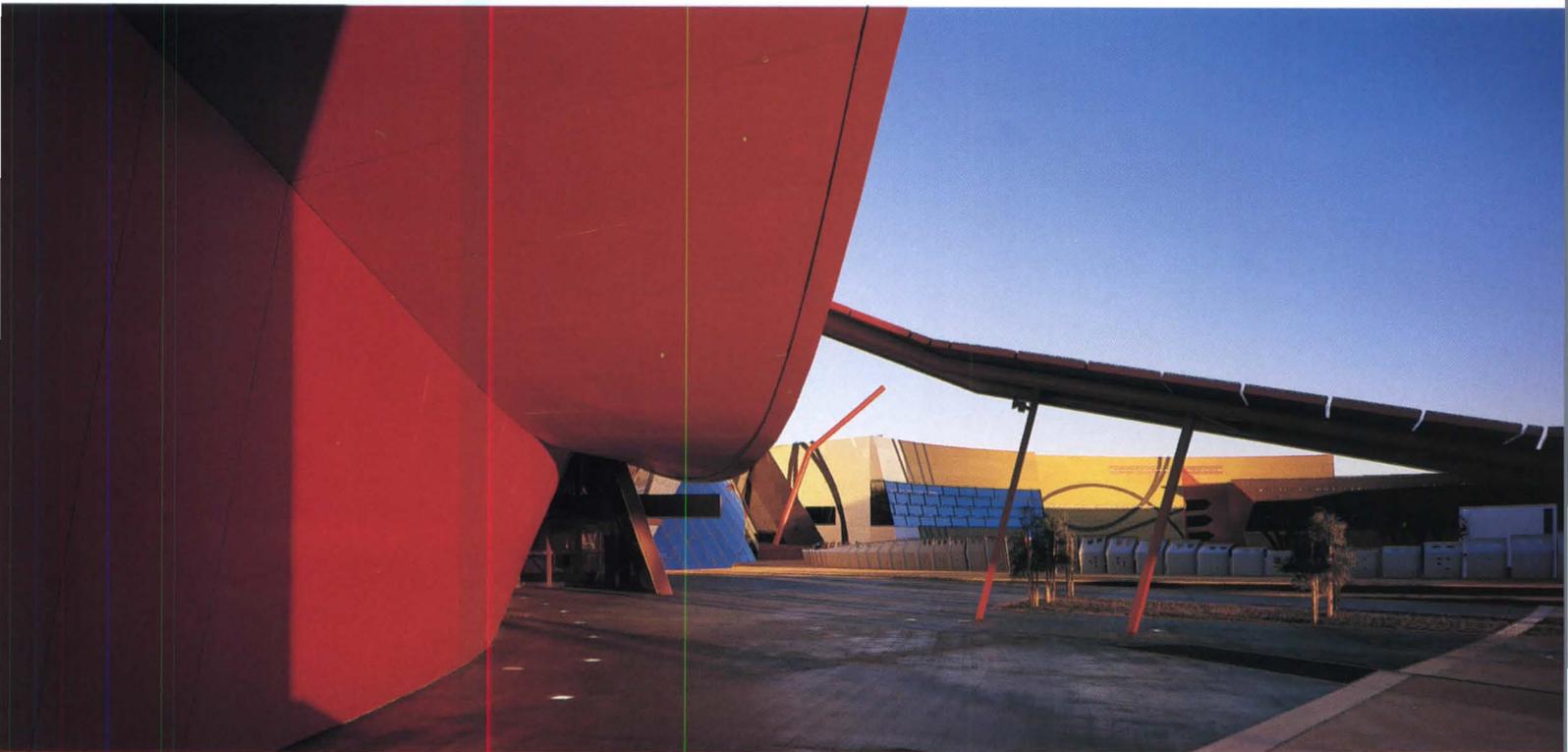
But national identity includes more than an acknowledgement of subcultures or a compilation of eclectic fragments, and here the architects have developed effective strategies. In a key text written by ARM principal Howard Raggatt in 1992, "Fringe de Cringe," the architect invents a possible Australian voice located far from all centers, on the fringe. As he writes: "So instead of bewailing as Robert Hughes has done the great Australian Cringe and the thousands whose unwanted humility perpetuated the cultural imperialism of the Center, it is the Cringe itself which becomes for us a strategy and an operation of design." This peripheral location allows one to exaggerate quotation, to combine and test all

precedents and produce subversive mongrels. Hence the series of anti-canonic canons and "nots" that Raggatt produced early in his career: the "Not Villa Savoie," the "Not Vanna Venturi House," and so forth. In Australia, so I was told, when asked how you feel you answer, "Not bad." The double negative, according to this theory, locates Aussie identity precisely in the Not-Center. Here in the southern hemisphere, where the sun is strong but from the "wrong" angle, the Not Villa Savoie is rendered in black, not white, and other changes are made to its shadows and details.

Transformation at once liberates architects from slavish imitation while allowing them to *combine prototypes*. On the building for Aboriginal Studies that ARM built adjacent to the museum, fragments are spliced from Le Corbusier, Aldo Rossi, and Romaldo Giurgola. A series of X's over the side façade functionally serve as railings but also



The museum's main entrance occurs at the point where Ashton Raggatt McDougall's Boolean string canopy intersects the building itself (below); just beyond, a balcony overlooks the museum's central courtyard. The string carves the building away at the corner (above left), creating a dramatic cantilever (above right).



point out the statement “not, not, not.” Still, in the same building, are quotes from the front of the Canberra Parliament, but now in deep red and black, the coloring of the Aboriginal flag. Since one can spy this real Parliament House in the distance, the reference makes its point: “This is not the Aborigines’ parliament, nor was their identity acknowledged in that national monument.” “Not-ness” is asserted here not only as an Aboriginal, but also as an Aussie, essence.

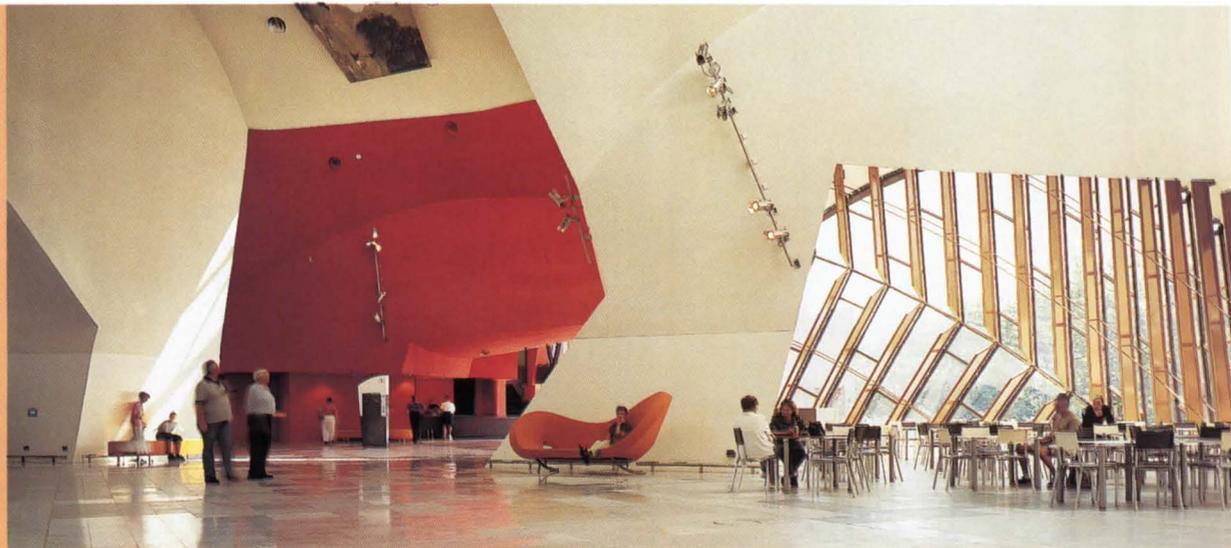
The NMA is most successful in dealing with the hardest of architectural problems: finding relevant new metaphors for the public realm that are not hackneyed. Giurgola’s Parliament House contributed to this discourse with its idea of the citizen walking on top of the *res publica*, an idea that Norman Foster followed in Berlin’s Reichstag. But neither of these two political monuments fully addresses the pressing issue of

cultural pluralism. Yet the NMA does this so completely, it becomes the standard to surpass.

As I have suggested, the museum’s brilliance is in the choice of valid metaphors that go to the heart of contemporary reality, and then beyond it. Its notion of a building generated by tangled axes that become a knot, and then a Boolean string, and then a wandering path through a puzzle has the advantage of being a single architectural idea with several variations. It is one that naturally ties together diversity without necessitating a single style, as does the Parliament House. It alludes to the Aboriginal tradition of taking possession of the land by walking it, by vividly dreaming it. It alludes to their dot paintings and abstract markings with black bumps and secret braille messages: “Who is my neighbor”; “Mate God knows”; “Good as Gold”; “Sorry”; “Time will tell”; “Love is



The complex interior form of the museum's main hall (above) is due to the knotting of the conceptual Boolean string. The large, bulbous windows and skylights (below right) occur where the string penetrates the building shell. With a few exceptions (below left), Ashton Raggatt McDougall were not responsible for the museum's gallery interiors.



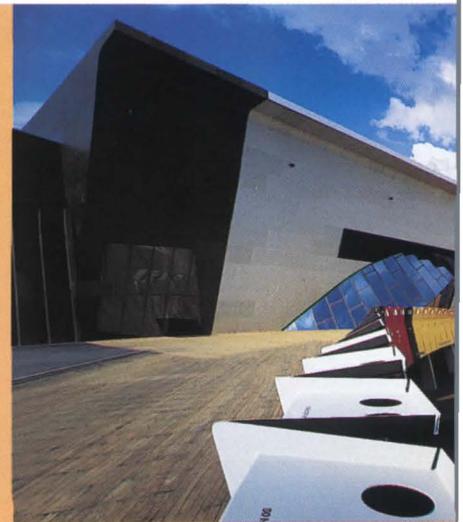
blind"; "She'll be right". Voices can be heard in a different pitch, voices of convicts, Europeans, the English, the Irish, architectural buffs, and football enthusiasts. All of these allusions and messages force one to go slow and ponder the enigma of a nation with nations inside it, the conundrum of being a hyphenated Australian. When the landscape grows around the buildings, when they age and settle in, the brash cacophony will, I believe, become a more convincing discourse of pluralism. ■

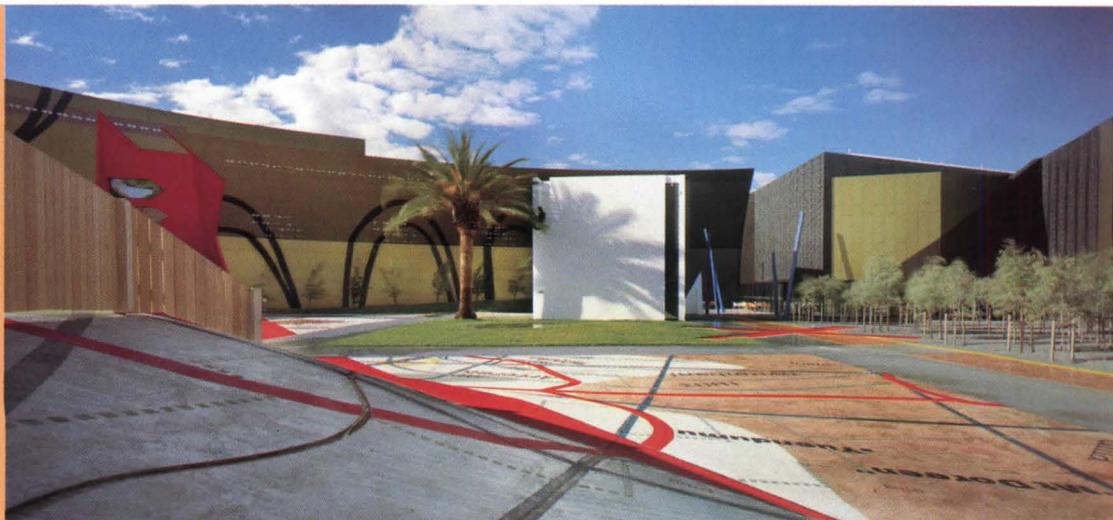
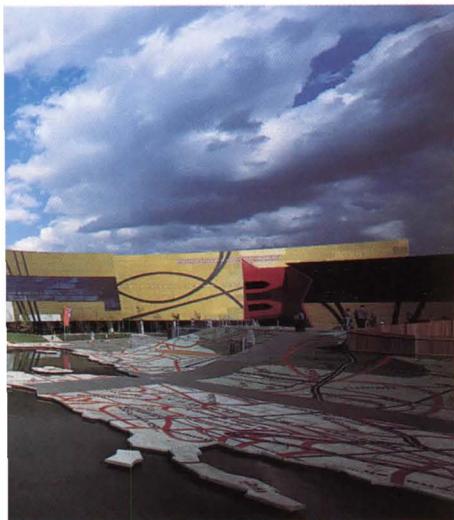
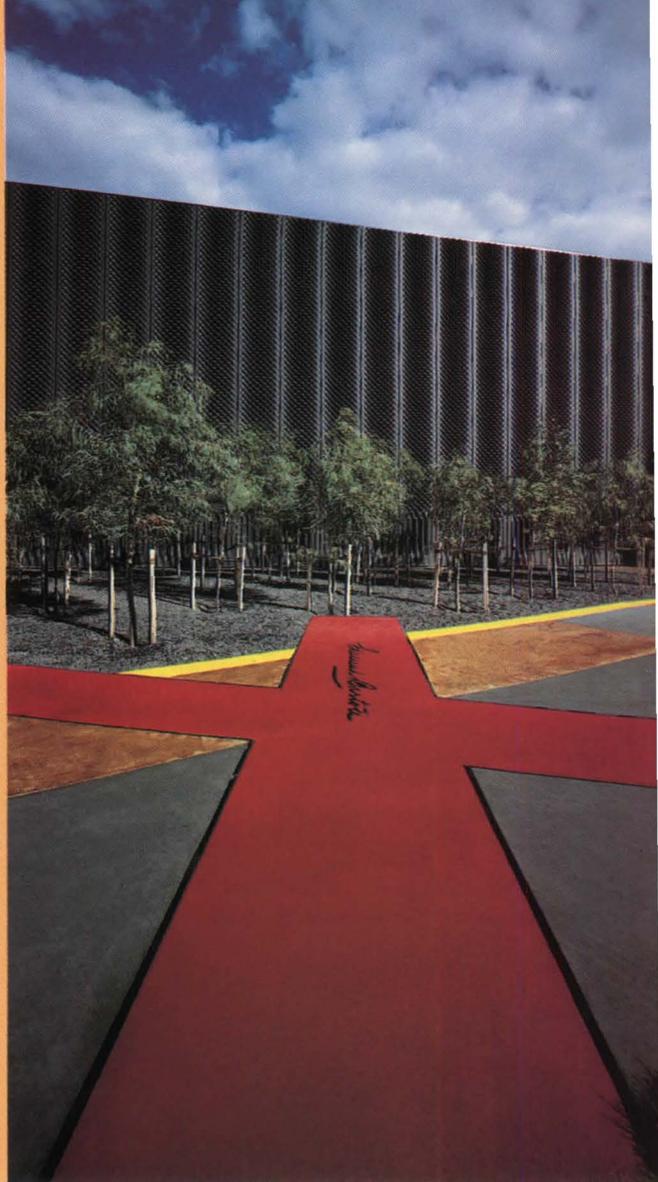
Architectural historian Charles Jencks is the author of many books, including, most recently, Le Corbusier: The Continual Revolution in Architecture.

THE NATIONAL MUSEUM OF AUSTRALIA AND AUSTRALIAN INSTITUTE OF ABORIGINAL AND TORRES STRAIT ISLANDER STUDIES, CANBERRA, AUSTRALIA
CLIENT: Commonwealth Government of Australia—Dawn Casey (director, NMA) **ARCHITECTS:** Ashton Raggatt McDougall with Robert Peck von Hartel Trethowan Architects—Steve Ashton, Alan Ball, Ken Bool, Paul Dash, Sue Dove, Catherine Evans, Marcus Fajl, Allan Flynn, Andrew Hayne, Sally Hieatt, David Homburg, Diana Jones, Jesse Judd, Nikolas Koulouras, Gustav Kroyherr, Neil Masterton, Ian McDougall, Antony McPhee, Paul Minifie, David Murrell, Rod Newton, Tony Parker, Robert Peck, Natalie Plumstead, David Pryor, Howard Raggatt, Poh Raggatt, Chris Reddaway, Salar Rofoo, Peter Ryan, Jan van Schaik, Simon Shiel, Jacinta Vines, David Waldren, Tim Wright (project team) **LANDSCAPE ARCHITECT:** Room 4.1.3 Pty **ENGINEERS:** Ove Arup & Partners (structural); Taylor Thomson Whiting (exhibition); Bassett Consulting Engineers (mechanical/electrical); Young Consulting Engineers (civil) **COST:** \$79 million **PHOTOGRAPHER:** John Gollings



The museum's design is most conceptually apparent and least formally clear in the inner courtyard (above left), or Garden of Australian Dreams, located one level below the main entrance. The surface of the courtyard (below left) is composed of fragments of a map of the island continent, surrounded by water. The exterior of the museum's great hall (below center, at left) is covered in metal panels with round bumps that spell out typical Aussie expressions in braille. The looping lines on another portion of the courtyard façade (below right, at left) are portions of the word "eternity" in the handwriting of evangelist Arthur Stace. The wing housing the Gallery of the First Australians (above right), which recalls in plan Daniel Libeskind's Jewish Museum in Berlin, is clad in panels with a computer-generated undulated surface pattern.



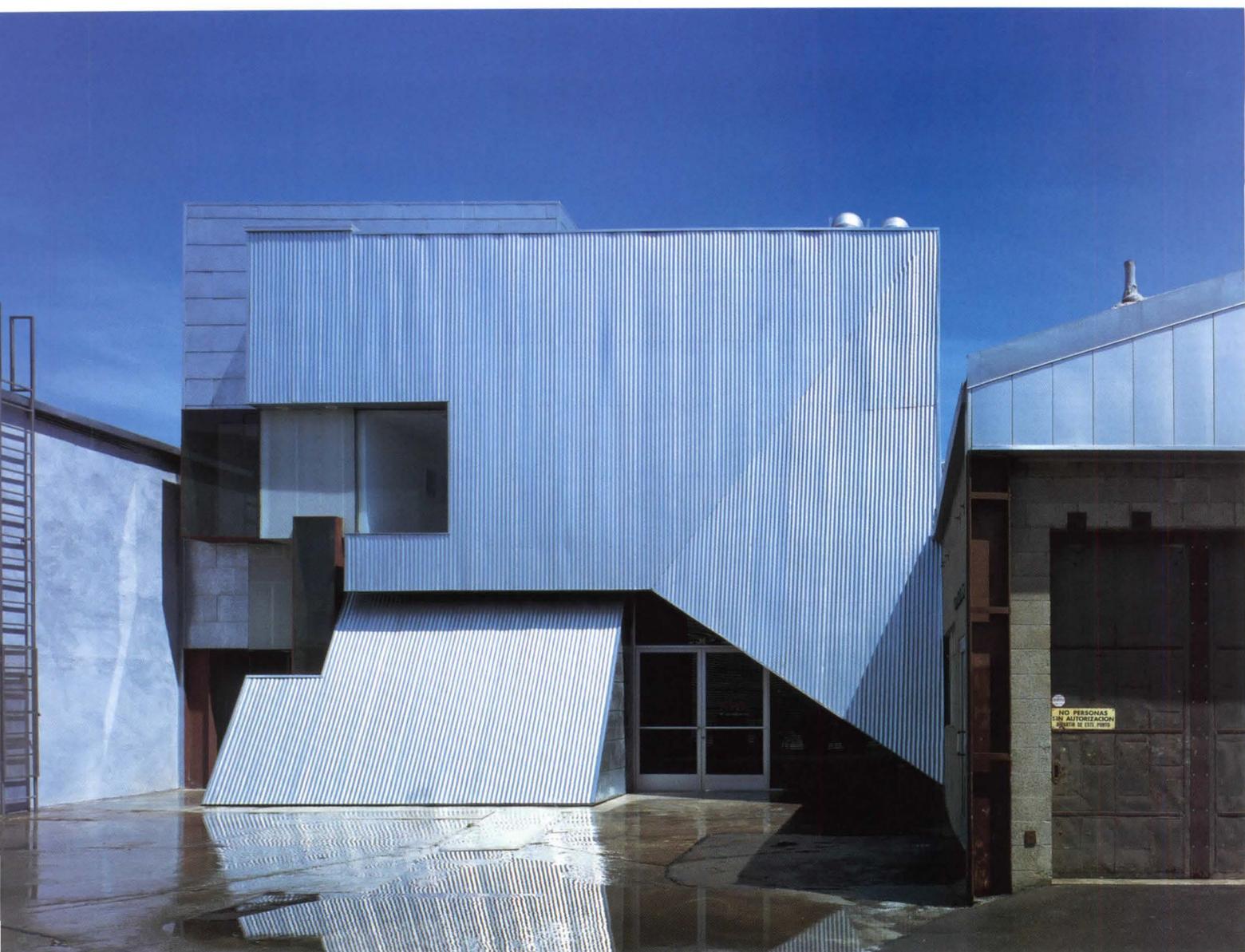




Face Value

Pugh + Scarpa invigorate the industrial tradition amid the warehouses of Santa Monica's Bergamot Station.

By Joseph Giovannini



Contextuality is relative, and at Bergamot Station in Santa Monica, instead of historical or historicized buildings, rows of funky prefab warehouses define the context. Converted a decade ago from use as industrial sheds to a complex of galleries, the compound of corrugated-metal structures now houses what amounts to a cross between an arts mall and a cultural district.

Santa Monica architects Pugh + Scarpa have worked in the complex from its early years, taking over from Frederick Fisher after the schematic design of the first phase. When they were asked to design Bergamot's only new structure, they immediately confronted limitations. Despite the casual aesthetic and patchwork quality of the surrounding buildings, any "design" could easily look like overdesign in this company. For Pugh + Scarpa, the issue was how to build new and stay in character without slumming into the imitative aesthetics of a theme park. "I wanted to keep the spirit of Bergamot's warehouses, without making an old building," says Lawrence Scarpa.

On Michigan Avenue (the street leading to Bergamot Station) the new 30-foot-high infill structure is hard to distinguish from its half-dozen neighbors, seamlessly fitting in as a piece of the urban collage. Its two façades are puzzled together from sheets of flat and corrugated galvanized metal, each

Pugh + Scarpa's infill loft building at Bergamot Station in Santa Monica (both pages) shares many of the materials of its neighboring warehouse buildings—corrugated aluminum, concrete block, and fiberglass panels—but the careful composition of the two façades sets it apart. On the primary façade (above), the metal cladding is bent outwards as a canopy over the entrance, while on the other (facing page), translucent fiberglass panels admit light into the hallway.

The three lofts that occupy the building's second floor (one of which is shown on facing page) are primarily left open. The kitchen and bathroom are tucked under the mezzanine level, which is accessible by a stairway at the end of the living space; a short run of stairs (facing page, far right) leads to an external balcony.

**BERGAMOT ARTIST LOFTS
SANTA MONICA, CALIFORNIA**

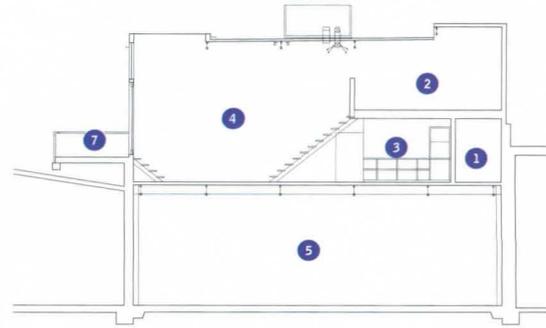
CLIENT: Bergamot Limited Partners—Wayne Blank **ARCHITECT:** Pugh + Scarpa, Santa Monica, California—Lawrence Scarpa (principal-in-charge); Jackson Butler, Peter Borrego, Angela Brooks, Anne Burke, Anne Marie Kaufman Brunner, Sabine Kainz, Ann Cash, David Montalba, Byron Merritt, Charlie Morgan, Tim Peterson, Gwynne Pugh, Lawrence Scarpa, Bettina Hermsen (project design team); Peter Borrego, Jackson Butler, Lawrence Scarpa (furniture, carpets, fixture design) **ENGINEERS:** Gwynne Pugh, Joe Castorena of Pugh + Scarpa (structural/civil) **GENERAL CONTRACTOR:** Pegan Construction **COST:** \$1,218,000 **PHOTOGRAPHER:** Marvin Rand, except as noted

with a composition of translucent fiberglass and wired windows. The main entry faces the parking lot, and here the architects set a collage of windows within a bent wall of corrugated metal. "This is a simple façade, broken into a small number of recognizable pieces," explains Scarpa.

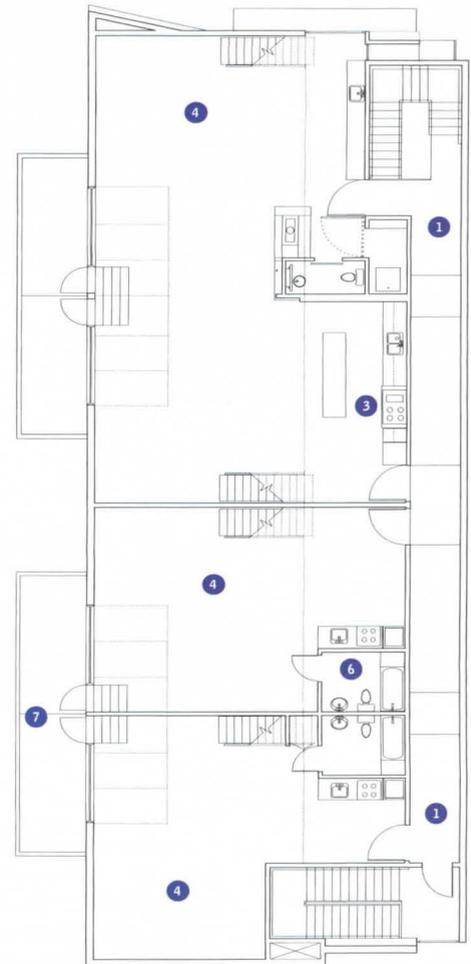
The two-story, mixed-use parti is a paradigm of simplicity. Entries on either face lead up a staircase to a long, single-loaded corridor that serves three lofts. Mezzanines in each loft overlook a double-height space; a short run of wide steps leads to balconies cantilevered over the roof of the adjacent building. The plan and section have the straightforwardness of any unself-conscious loft structure built to maximize volume and openness on a budget. Recalling years working with Paul Rudolph (an adventurer in materials), Scarpa used corrugated fiberglass panels in the bathroom and fireplace area of the largest loft, the translucency creating a shadowy interior that looks ephemeral against the solidity of the cement floor.

However, the architectural territory is more fraught than it might seem at first: Frank Gehry's house and offices are only a few blocks away, and since the 1970s, he has followed the lead of artists altering their industrial lofts. Reiterating ideas from Gehry's own house would seem like patent infringement, so Pugh + Scarpa have held back from full-blown artistic expression. But the pullback resulted in a hesitant hybrid of art and shed. While avoiding a Gehry wannabe, they lapse into Gehry's classic problem, façadism. Their well-worked elevations have little spatial impact on the interiors. "I was interested in surface treatment," confirms Scarpa.

The two façades amount to the architects' only canvas, and their response is admirably restrained. But by hewing so closely to the type of the industrial shed, their formal moves on the façades remain literally superficial; the crusty exterior has nothing to do with the inside and simply sheathes a straightforward piece of industrial engineering. The success of the design is that, like a Frank Lloyd Wright house that intensifies the landscape, Pugh + Scarpa's design intensifies the older warehouses and provides a focus within that context. But the building would have been enriched had they explored inside the spatial implications of industrial façades and the collagist aesthetic. Pugh + Scarpa push the envelope without pushing the parti. ■



East-west section



Second-floor plan (3 units) 6' ^

- 1 hall
- 2 mezzanine
- 3 kitchen
- 4 living/work space
- 5 gallery
- 6 bath
- 7 deck



A LOOK INSIDE THE CURIOUS MINDS OF
ROBERT MANGURIAN AND MARY-ANN RAY.
BY NED CRAMER
REVENGE OF THE NERDS

While not natives, Mangurian and Ray are definitively Californian. At *Architecture*'s request, they made a portrait of their studio for this article (right); like all their photography, it employs a collage technique inspired by the artist David Hockney, another adopted child of the Golden State.



If architecture were a teen drama on the WB, casting would be a cinch. Just cross *Dawson's Creek* with the Century Club, and you've got Peter Eisenman as the class president, Frank Gehry as the sensitive jock, and Zaha Hadid as the party girl, skipping chemistry to smoke cigarettes behind the gym. So much for the popular kids. Robert Mangurian and Mary-Ann Ray, the bookish principals of the Los Angeles-based firm Studio Works, are shoo-ins to play the school nerds—excitable but endearing, and decidedly, delightfully *different*.

It's an enviable role, really. For every underdog has its day, and Mangurian and Ray's appears to be dawning. The two have a new book out and several sizable projects in design or under construction; what's more, at a ceremony in October, they will receive a DaimlerChrysler Design Award. The firm itself dates to the late 1960s. Ray, 43, met Mangurian, 60, while a student at SCI-Arc, and joined Studio Works in 1985. Like many enthusiastic architects, fueled by a fervor more intellectual than fiscal, Mangurian and Ray have used teaching gigs at schools such as UCLA, Rice, and SCI-Arc to help underwrite their practice. They've built little together, but present their designs in a charming *faux-naif* manner that has won them the praise of their peers, not to mention several P/A Awards.





Studio Works made numerous collages during summers at Hadrian's Villa surveying the extensive ruins, including this one of the peristyle courtyard (left). They slyly wrapped a picture of Mangurian with an apparently upset Redbone (below left), the office dog, around the back of the portrait that appears on the preceding page, so *Architecture* followed suit. Mangurian and Ray's sketch of the developing design for the Central L.A. Area New High School #2 (facing page) includes a conceptual catalogue of architectural components: "props" such as bleachers and diving boards, for instance, and "surfaces" such as water, signage, and steps.

Mangurian and Ray are clearly academics at heart, with an attendant love of research. Who else would have the patience and perseverance to spend every summer for more than a decade leading packs of students on an exhaustive survey of Hadrian's Villa in the hills outside Rome—the fabulousness of the location notwithstanding? "Hadrian is one of our favorite architects," explains Ray, whose eccentric all-time list also includes germ-fearing magnate Howard Hughes. The two are hoping for a grant that will allow them to format and present their findings. A preview appeared in Michael Bell and Sze Tsung Leong's 1998 anthology *Slow Space*: exquisitely fine pencil drawings, measured and rendered so accurately as to register a previously overlooked 2-degree difference between seemingly parallel walls in the villa's Great Bath. In the accompanying notes, Mangurian and Ray describe themselves as "elated" to have discovered the anomaly.

The scholarly pleasures of coincidence and discovery propel Mangurian and Ray toward design inspirations that sometimes lie well beyond architecture's conventional parameters. They are currently working on a book to be titled *Stuff: A Collection of Things Found in the Studio, Aphorisms, Minor Hobby Horses, Outtakes and Other Odds and Ends Snatched From the World on a Hunch Leading to an Open-Ended Theory of Architecture*.

To motivate their studio classes to go to similar interdisciplinary lengths, Mangurian and Ray present each with compilations of texts they call "weird readers." For a 1999 studio at Rice, the reader included standard architectural essays by Adolf Loos and Gottfried Semper, but also more exotic fare, such as a chapter from Lewis Carroll's *Through the Looking Glass*. "It's a way of preventing inbreeding," says Mangurian, only half joking.

For each of their own projects, Mangurian and Ray typically prepare a book that explains their extensive research and design processes. The books are made by the architects themselves, and not intended for general consumption, but Mangurian and Ray have recently published one of them formally: *Wrapper*, which documents the firm's 40 different proposals for the storefront façade of the Museum of Jurassic Technology in West Los Angeles. A different book—Lawrence Weschler's *Mr. Wilson's Cabinet of Wonder*, a finalist for a Pulitzer Prize—made the museum famous for the exhibits that founder and curator David Wilson single-handedly assembled along a fine line between surprising scientific fact and pure, outlandish fiction. Mangurian and Ray's designs provide an architectural equivalent of this winking curatorial philosophy. One design, titled "Under Construction," or "Past the Future," entails covering the front of the museum with scaffolding to create the illusion that the building is perpetually under either construction or renovation.

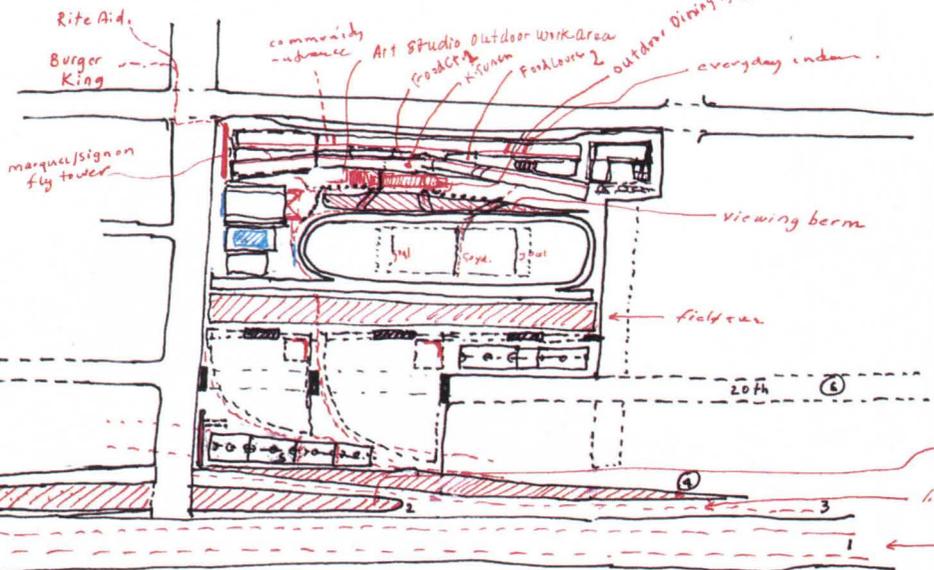
They are unlikely to find another client as sympathetic as Wilson, but Mangurian and Ray seem to be doing well enough with the work they now have in hand: Schools, appropriately enough, have become something of a specialty for the couple. *Architecture* published Studio Works' first such project, a playful, low-budget renovation for the Milwaukee Montessori School, in June 2000.

In a book they've made about their next school job, an addition to the Armenian Pilibos School currently under



E/W Lines

1. Freeway (30' in air - cars going west)
2. Grass slope 1
3. off-ramp slope - decelerating continuous
4. Greenslope 2
5. So. BB Court Lines
6. 20th st. w/dugouts
7. Mid BB Hoops + Backstops
8. Field Area
9. Track Leg S
10. " " " N
11. " " " W
12. Berm
13. Yard
14. Terrace
15. So. Leg of 'K'
16. No. Leg of 'K'
- 16a. dropoff
- 14a. Middle gap space between.



green bermed line
 16. Front side walk path (thin front lawn)
 line of cars slanting down + decelerating
 line of cars 30' in air

"Props"

- Virtual Window
- Basketball Hoops
- Dug outs
- Backstops
- Light Poles
- Berms
- Storage/Maintenance sheds
- Signage
- Tennis Court Judge Tower?
- Diving Board
- Referee's Platform Volleyball
- Team Benches + other (Volleyball, etc.)
- Lunch Shelters
- Stairs (a built-in prop)
- handrails/guardrails
- Learning Landscape Prop, Jaipur Planet Walk, Fibonacci, Geometrics

"Rooms"

BB Court/S Long Room

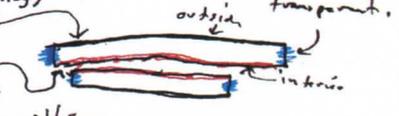
"Surfaces" : horic.

- turf
- higher grasses
- water (pool)
- court pavements
- red track material:
- Sidewalks
- Streets / Fwys.
- Steps
- pavements for lunch shelters, etc.

"Surfaces" : vertical

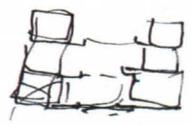
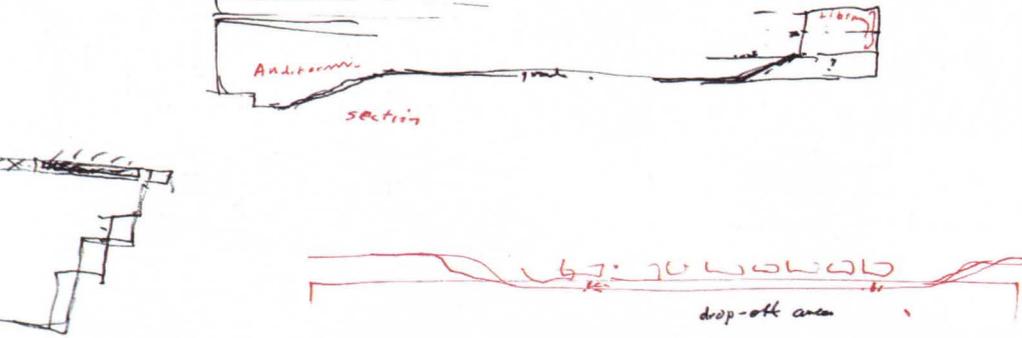
- virtual window
- public gym window
- berm "walls"
- tree line "walls" (as in Po Valley)
- Exterior Building walls E/W
- "Internal Exterior" Bldg walls
- Exterior N/S Bldg walls
- ? Could there be some vertical garden surfaces?
- Signage/Billboards

bands.



N/S "Wiggly" Line

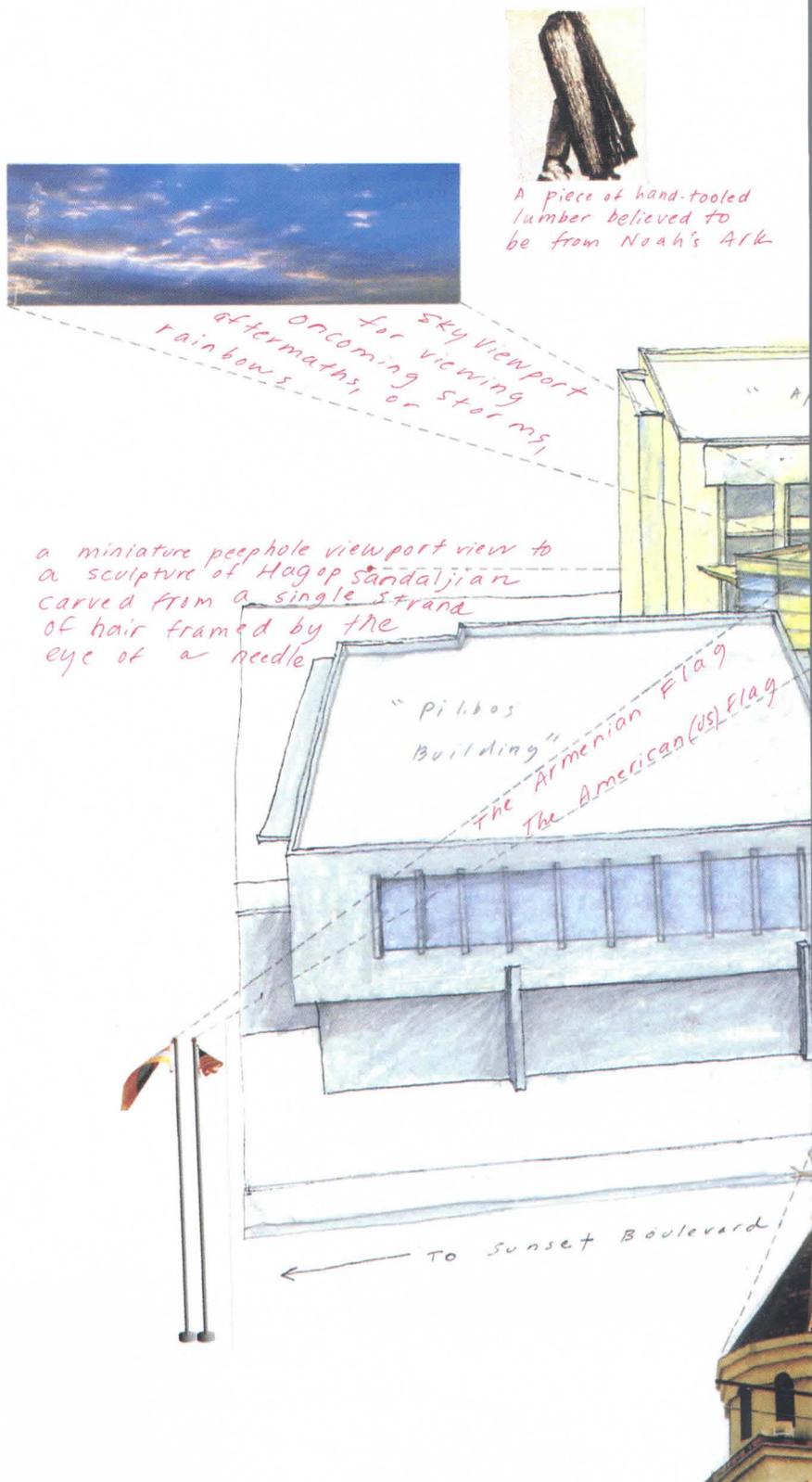
using Cuts through Berms, Curves of play fields, Diagonal Routes to Rite Aid + Burger King, etc. Bus Stops, Shot Put Ring, Soyd. Lines, etc.

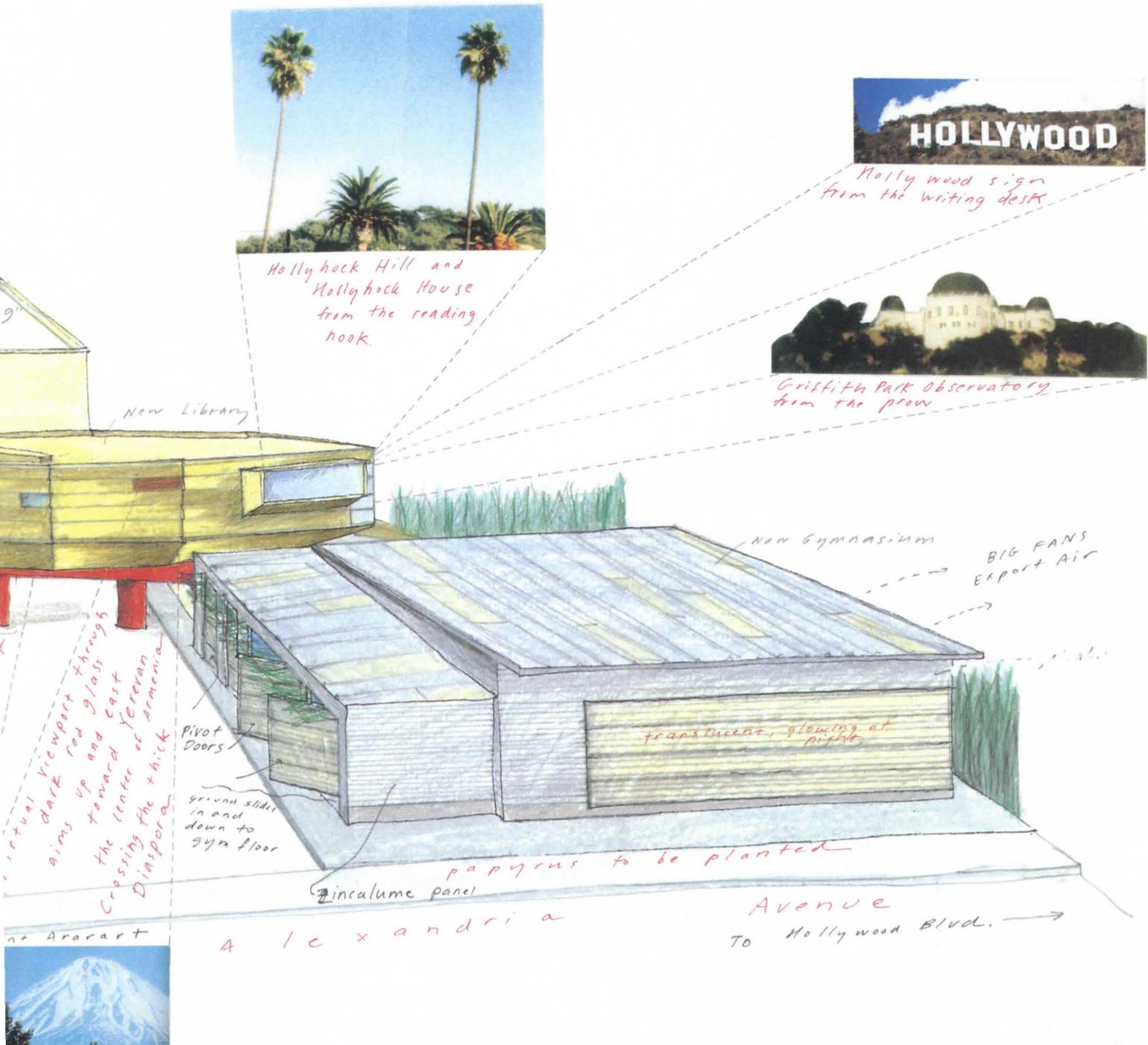


construction in Hollywood, Mangurian and Ray include the entire story of the Flood from the book of Genesis, with relevant passages in extra-large type: "And the ark rested in the seventh month, on the 17th day of the month, upon the mountains of Ararat. And the waters decreased..." The Ark and Mount Ararat are metaphors for the two principal components of the school's program, a library and a gymnasium respectively. The library looks well enough like a boat, with its hull-like wooden form elevated on mastlike columns, but the gymnasium's formal relationship to Mount Ararat is less literal. Lest these biblical references be lost on the school's students, the book also contains a composite photograph of the wreck of the *Titanic*, an alternative reading of the library bound to appeal to teenage Leonardo DiCaprio fans. The gym, presumably, is the iceberg.

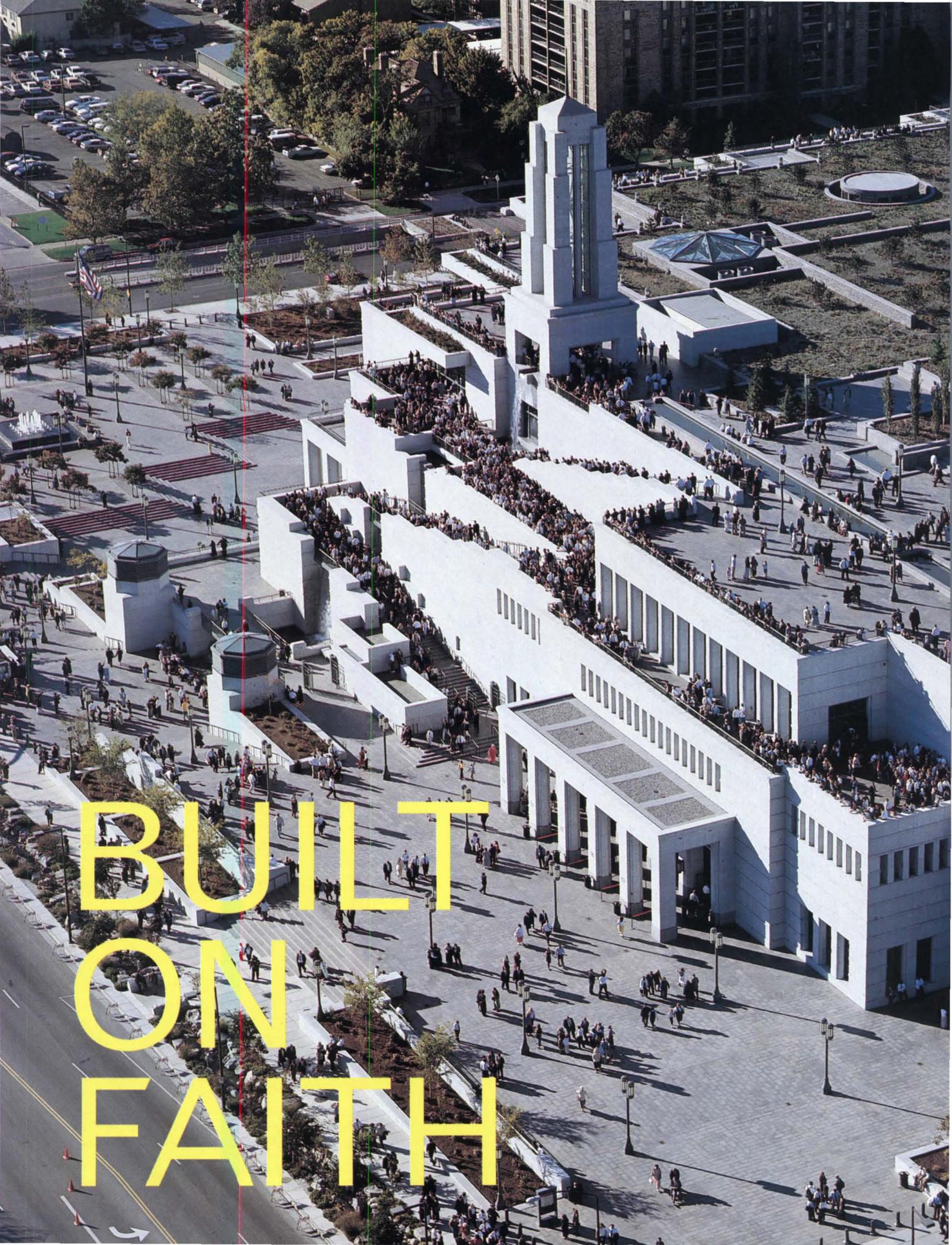
Mangurian and Ray are now designing two public schools in the L.A. area: a primary school still in the early stages, and a more highly developed project with the deadpan working title of Central L.A. Area New High School #2. Studio Works is collaborating on the high school with another local firm, the Jerde Partnership, best known for designing popular themed retail environments such as CityWalk at Universal Studios (August 2000, page 112). While the professional pairing might seem odd—like a cheerleader dating a member of the math club—fortunately the Studio Works principals have done their homework. "Mary-Ann found an article on 'cool hunting'—people whose job it is to find out what kids like," says Mangurian of the firm's preliminary research for the job. "We talked about that in our interview: The school had to resonate with students like a pair of Nike shoes." Mangurian and Ray use the term "hip-hop space" to describe the way they've tried to make the high school appeal to listless youths. Inspired by the baggy clothes teens wear, the hip-hop concept translates to architecture as informal, incidental spaces like balconies, stairs, and terraces where students will hopefully want to hang out, located in gaps between the more conventionally defined places of the school, like classrooms. Who says nerds aren't cool?

Among their own colleagues, Mangurian and Ray might seem easy to put down as postmodernists, but the term only applies in its philosophical, semiological sense, in that their work concerns the meaning and relationships of signs and symbols. They do not, however, design in order to support a theoretical argument any more than they aspire to a signature style. Perhaps the best way to summarize their approach is to say that it reflects the architects' own sensibilities—studious yet playful, and informed equally by the quotidian and the fantastic, as though the magical realism of Colombian novelist Gabriel García Márquez had found its built equivalent. Such a clear, subjective expression of personality and character is a decided, and welcome, contrast to the terminal hipness that has slowly infected the schemes of so many better-known practitioners. Mangurian and Ray might be cast as nerds, but as far as architecture is concerned, they steal the show. ■





Studio Works has raised annotation to an art form. The firm's design for the Armenian Pilibos School incorporates a new library (above, at center) and gymnasium (above, at right). The boatlike library features windows with carefully selected views, described in the drawing with a photograph and notes in a small, nervous hand.



BUILT
ON
FAITH



THE MORMON TABERNACLE CHOIR HAS A NEW HOME: A 21,000-SEAT, 1.1-MILLION-SQUARE-FOOT CONFERENCE CENTER FOR THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS IN DOWNTOWN SALT LAKE CITY. BY AARON BETSKY

The Church of Jesus Christ of Latter Day Saints Conference Center is big: Twenty-one thousand people can sit and listen to the 325-member Mormon Tabernacle Choir while 1,300 cars wait for them in the basement of the building. Its 1.1 million square feet fill a 10-acre block in the heart of Salt Lake City. The list of big things could go on to include the millions of cubic yards of concrete and the extraordinary amount and size of rebar used, but the behemoth's real achievement is that you almost never notice how large it really is. Even with lobbies that seem to go on forever and furniture scaled up to the huge spaces, the conference center never imposes itself.

The Mormons (to use the vernacular name for the church) seem ambivalent about the mammoth size of their new building. Their design architect, Lee Gray, says the church chose the Portland, Oregon-based firm Zimmer Gunsul Frasca (ZGF) to design the center because of "their sensitivity to urban design. We needed a firm that could fit this building into a landscape that includes single-family homes a block away." Yet they also wanted something that would be imposing. "This is the biggest meeting house in the world, and we wanted something appropriate," he says. The problem for the designers was that this big structure was less an ecclesiastical one than a huge convention center with religious overtones. Thus, it could not have the landmark look of white spires supporting the angel Moroni that makes the church's structures recognizable around the world. The building had to be a clear extension of Temple Square, home to the 1861 *tabernacle* across the street whose major meeting functions the new building replaces. Inside, Gray felt it was important that the feeling be theaterlike, not arenalike. This is, after all, a place of



worship. “These things quickly become basketball arenas,” adds ZGF principal Bob Frasca, “and we wanted to avoid that.”

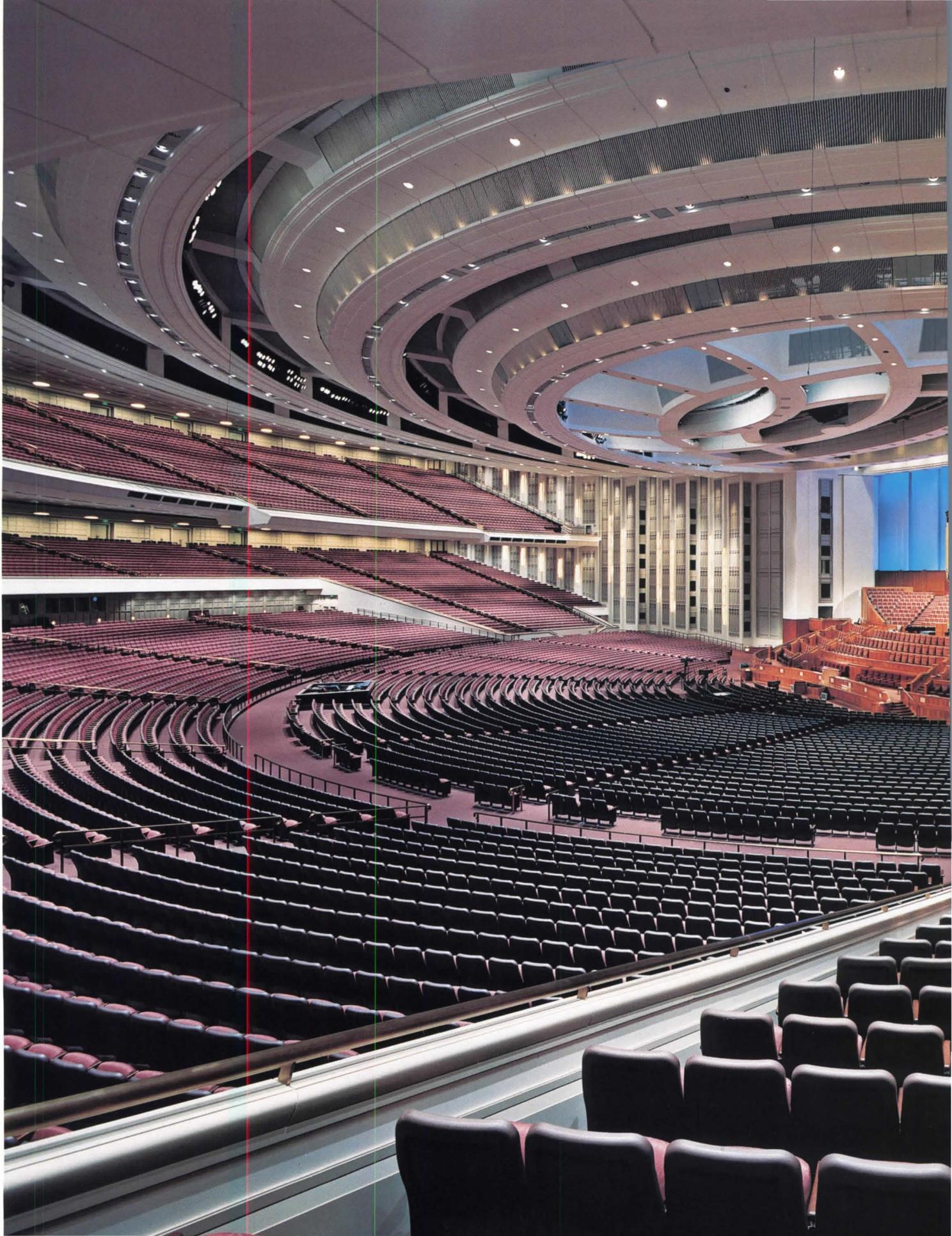
Frasca’s response was to pretend the building wasn’t really there. Using the 65-foot slope from one corner of the site to the other, he buried the center under terraced gardens, stairs, ramps, and waterfalls, leaving only a stripped-down temple front to face Temple Square as a main entrance. Visitors can enter at both the orchestra and the balcony level, further minimizing the sense of monumentality. The result is vaguely classical, not only because of the formal entrance, but also because of the lineal axes of the terraces. At the last moment, the church also asked Frasca to add a small spire to signal that this was an ecclesiastical structure. It is a necessary, though almost vestigial addition; the building’s function would otherwise be difficult to discern.

Inside, the plan conforms to the diagonal stepping-down of the roof terraces, creating a zigzag configuration of lobby spaces; they are in essence highly refined versions of those nebulous areas hotels call “break-out rooms.” Pear- and cherry-wood panels line a set of spaces where the center’s standard daily complement of 5,000 visitors can revel in the reserved good taste of their church. Inside the main auditorium, the seating fans out as it does in a regular theater, though one is always aware that it is a whole lot bigger: seven times larger than the Metropolitan Opera House in New York, for example. Time-delay audio and video systems magnify the appearance of the specklike speakers on stage to the scale of the space, but only by abstracting them in a manner for which the minimal classicism of the architecture has already set the scene.

Gray loves the Conference Center: [Salt Lake City founder] “Brigham Young prophesied that in the latter days, our buildings would be covered with gardens and fountains, and Bob Frasca [together with landscape architect Laurie Olin] realized that vision.” The crowds love it too, swarming over every endless square foot of garden, terrace, lobby, and meeting hall. And that is the final big deal about the Mormon Conference Center: It is a major tourist draw put up by the fastest growing religion in the world to hold its hordes of followers. It does so, and somehow disappears almost without a trace. ■



After a weekly service at the Church of Jesus Christ of Latter-day Saints Conference Center in Salt Lake City, the faithful spill out onto the three levels of terraced rooftop (previous page) and a street-level plaza (facing page, top). The entrance to the 900-seat theater (facing page, bottom) also opens onto the plaza. Inside, the sitting rooms (top) strung along the lobby are considerably more intimate in scale than the auditorium they surround. Pear-wood doors (above) lead from the lobby into the main auditorium.

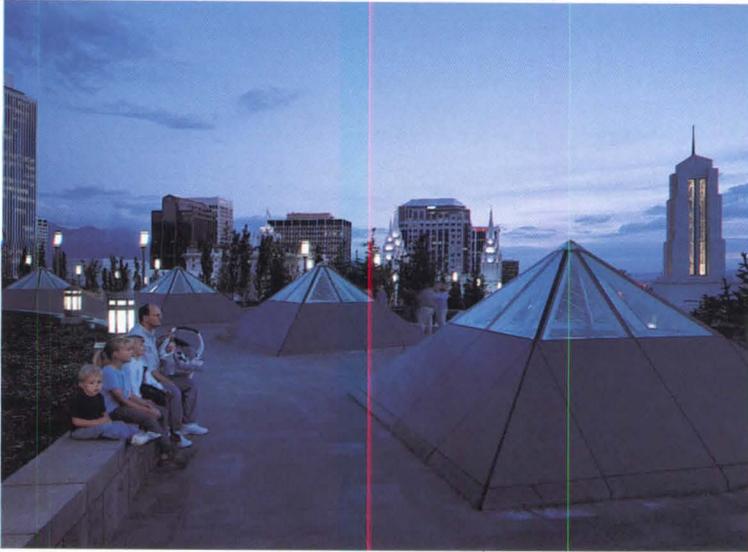




The Church of Jesus Christ of Latter-day Saints Conference Center may well be the biggest hall of worship in the world: It has no columns, so each of its 21,000 seats has an unobstructed view of the stage, as well as a translation system that can interpret 60 different languages simultaneously, and custom chairs that are 10 percent larger than standard.

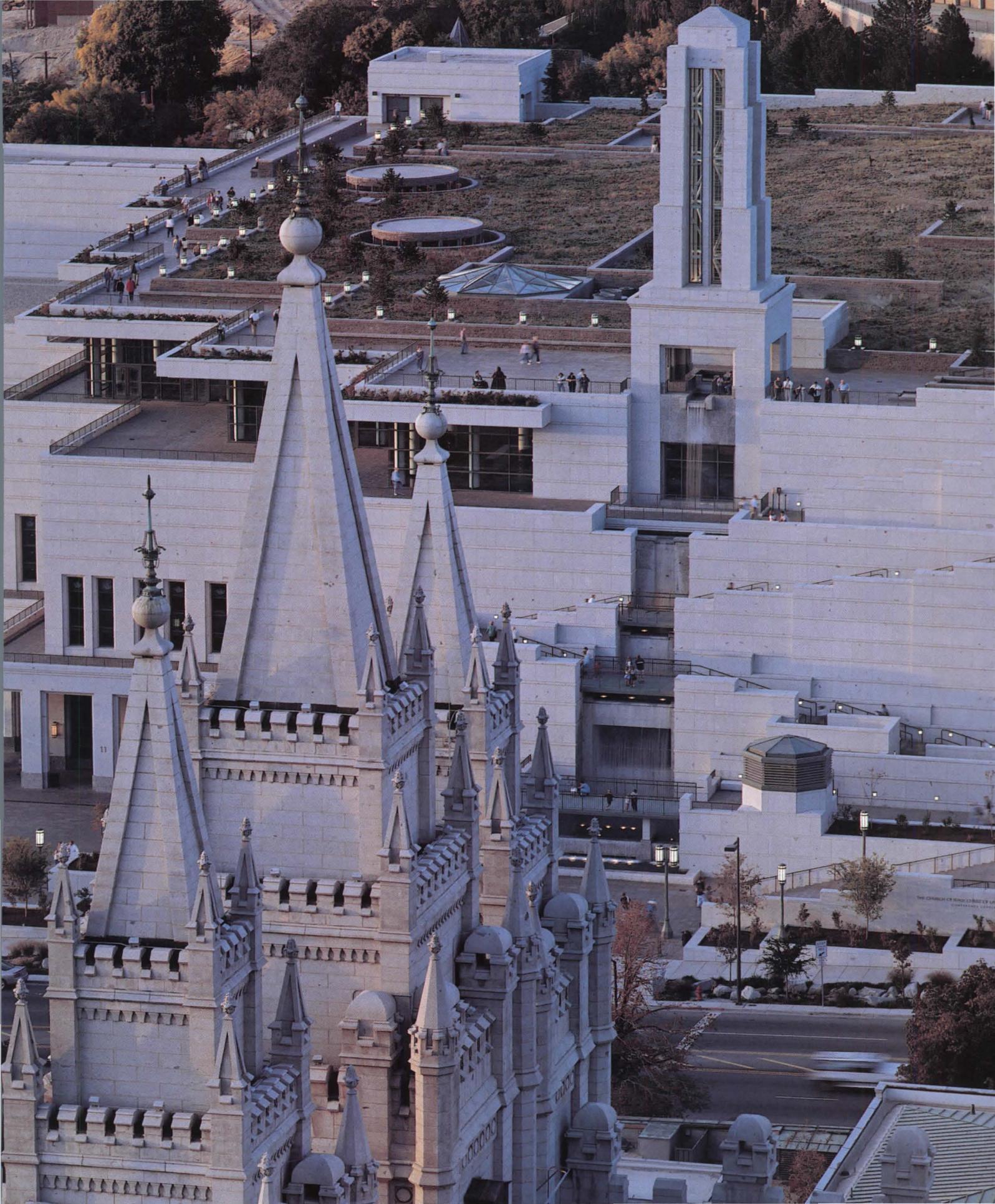
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
CONFERENCE CENTER, SALT LAKE CITY**

CLIENT: The Church of Jesus Christ of Latter-day Saints
ARCHITECT: Zimmer Gunsul Frasca, Portland, Oregon—Robert Frasca (design partner); Joseph Collins (project manager); Robert Packard III (partner-in-charge); John Thompson, Bill Williams (senior designer); Dennis Destefano, David Gonrowski (project architect); Sharron van der Meulen (senior interior designer); Donna Ford (interior designer); Steve Adams; Vaidila Banelis; Thomas Boes; Patrick Boyle; Julie Bronder; Andrew Feinberg; Bob Fisher; Kevin Gernhart; Dave Guthrie; Lee Kilbourn; Brian McCarter; Doug Morris; Patricia Parola; Richard Rapp; Ken Sanders; Brian Stevens; Alene Stickles; Paddy Tillett; Lorraine Timmen; Jon Yoder (design team) **ASSOCIATE ARCHITECT:** Gillies Stransky Brems Smith Architects, Salt Lake City **LANDSCAPE ARCHITECT:** Olin Partnership **ENGINEERS:** KPFF Consulting Engineers (structural); CHP & Associates (mechanical/electrical); EWP Engineering (civil) **GENERAL CONTRACTOR:** Legacy Constructors **CONSULTANTS:** Auerbach + Associates (theater); Jaffe Holden Scarbrough Acoustics (acoustics); Auerbach + Glasow (lighting); Lerch Bates North America (elevators); Rolf Jensen and Associates (life safety) **COST:** Withheld at owner's request **PHOTOGRAPHER:** Timothy Hursley



The roof gardens (top and bottom) are in essence a giant public park where congregants and residents of Salt Lake City can look past the spires of the 1861 tabernacle (right) at the city skyline.





PASS THE A.R.E.



Archiflash

NEW 4th EDITION
Revised & Updated

ONLY \$89.95

Individual sections available
for \$21.50 each plus S&H.

Prepare for the Architect Registration Exam with Archiflash.® Each set contains 1,152 expertly written flashcards covering all six multiple choice tests; Pre-Design, General Structures, Lateral Forces, Mechanical & Electrical Systems, Materials & Methods, and Construction Documents & Services. Learning is easy with timesaving charts, definitions, diagrams, and multiple choice Q & A. More info than you ever thought possible in an easy-to-use flashcard format.

archiflash.com
800 411 7314

circle 30 or www.thru.to/architecture

The Mies Behind the Myth

continued from page 57

entering, one is plunged into an atmosphere saturated with “Miesticism”—a “Mies Immersion,” as Lambert titles her 400-page catalogue essay. An “atmospheric” soundtrack with muted rock beats wafts through the exhibition as one moves through a fluid sequence configured in a U-shaped plan around two central galleries. Freestanding planes, hanging screens for video projections, and waist-high red pedestals with plans inscribed in white lines on their top surfaces partition the spaces. Near the threshold is a wood-grained wall reconstructed from a photomontage of the second scheme for the Resor House, the point of departure for the “American” phase. The designer of this exquisite *Gesamtkunstwerk* is the talented young Chicago-based artist Iñigo Manglano-Ovalle, who also orchestrated four video works in the show.

Lambert’s curatorial inclusions—and exclusions—raise questions. For example, the wall texts, often containing encomiums (“a solution of supreme elegance,” “a spell-binding incantation of space”), identify the birth and death dates of the delineator or photographer and the date the image was made, but, unhelpfully, never give the date of the project itself. While it’s nice to see credit given where due, it is questionable what the point is, beyond connoisseurial interest, of harping on the role of Mies’s small band of loyal associates if only to conclude, as Lambert does in the catalogue, “Acuity of the eye was his alone.”

More significant—and harking back to Johnson’s 1947 show—is Lambert’s decision to include only those works “most extensively discussed by Mies and his office colleagues.” Mies designed nearly 100 buildings after he came to the United States. Only about a quarter of these appear in the exhibition. Loving attention is paid to the various schemes for the Illinois Institute of Technology, the Farnsworth House, Seagram, high-rises in Chicago and Toronto, unbuilt projects like the monumental Chicago Convention Center, and other well-known works. Valuable comparisons of scale and structure are made among them. But a multitude of buildings

are not even mentioned (and scarcely appear in the catalogue). It is thus impossible to gain an overview of Mies’s activity during the postwar period, or to place him in the larger American context of dramatic social and cultural change.

If the show’s content veers toward worshipfulness, however, the aesthetic impact of the installation is undeniable, and effectively shifts the reading of Mies’s American work from the metaphysical and abstract-formal to the phenomenological. At the finale of the circuit is a vast, darkened square room, the sanctum from which music emanates. A model of the New National Gallery sits off-center on a 7-foot-square pedestal, barely visible with a single spotlight trained on it. Ahead, occupying an entire wall, is a video by Manglano-Ovalle titled *In Ordinary Time*, containing 12 hours of time-lapse and real-time footage of the Berlin museum. Part of the artist’s “Mies trilogy,” the performance piece involves 20 choreographed actors walking across the building’s empty podium level in attitudes suggestive of either anomie or assignation.

Is there something self-contradictory—or subversive—about this? Two years ago, in *The Kiss*, Manglano-Ovalle filmed a window washer squeegeeing the glass walls of the Farnsworth House while inside a DJ obliviously mixed music. It was this piece, shown at the Whitney Biennial of 2000, that initially caught Lambert’s eye. Yet Edith Farnsworth’s unhappiness with the house is well known—the client famously complained that Mies made her into a slave, constantly having to wash the glass because she felt herself always on display (an episode unmentioned in the show). If Manglano-Ovalle’s work is an “investigation of Mies’s humanism,” as stated in the Whitney press material, the concluding space casts him in an ambiguous light.

As Mies understood so well, exhibitions are documents of their own time as much as of their subjects’. MoMA’s revision of the received history of his early career gives us a more multidimensional Mies than we have been permitted to see before, while the Whitney retrospective, wittingly or not, reflects the profound contradictions lurking in his glassy surfaces. Together, they provide a fascinating double take on the timelessness of an architect who aspired to transcend ordinary time. ■

Metro Crusader

Continued from page 48



Boulevard, a bus arrives at each Metro Rapid stop every two and a half minutes. Travel speeds are 25 percent faster than conventional service.

The new lines fulfill nearly all of MTA's expectations. Ridership on the rapid routes is up 25 to 35 percent over that of conventional lines. "We've seen an increase in traditional riders, but also significant gains in discretionary riders," says de la Loza. A telling statistic suggests that one-third of all passengers on the Wilshire Metro Rapid run were previously home-to-work motorists who are now leaving their cars at home.

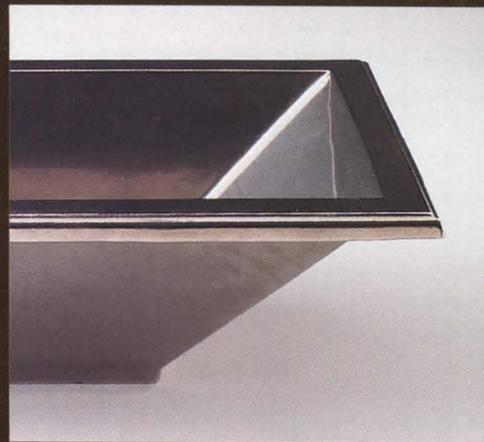
The performance on the pilot routes has persuaded the MTA to make them permanent and to begin expanding the system by as much as 22 additional routes, de la Loza says. In June, MTA's board voted to spend \$212 million developing a peak-hour dedicated curbside lane for the 13-mile Wilshire line.

The lanes, however, can be dedicated only if each affected municipality agrees to them—Los Angeles is behind the idea, but the project will be less effective if Beverly Hills and Santa Monica don't cooperate. The rapid-bus caucus already faces opposition on several fronts. Some opponents are rail junkies—Welborne calls them "guys who like trains"—who want steel-wheel transit or nothing. Other opponents fear anything but the status quo.

Wally Marks, a real estate manager and president of the Miracle Mile Civic Coalition, a business improvement group along the museum strip of Wilshire Boulevard, deems the Metro Rapid pilot buses "very positive." But his group objects to dedicated lanes down Wilshire. "We don't want to make [Wilshire] a mini-transit freeway," says Marks. "That's not how we build communities—going right through something without stopping to smell the flowers." For now, Marks can live with lanes dedicated only during peak hours. "But as long as it's a kernel of an idea for 24-hour service, we don't support anything," he says. "Which is too bad, because we all need better transportation around here."

"Inevitably, Wilshire is going to be the hardest street to do, and unfortunately, [MTA] chose to do it first," observes Welborne, who now works as managing director of the Grand Avenue Committee in downtown L.A. "Transit systems are designed by politics," she adds, "not by planning."

Politics is all Welborne will take credit for in the rapid-bus rollout, for the technology is not new and its deployment surely isn't either. "The only thing I did," she says, "was take everybody to Brazil and get the politicians to see that it would work." ■



ROCKY MOUNTAIN

H A R D W A R E

HANDCRAFTED BRONZE ARCHITECTURAL HARDWARE
SINKS & FAUCETS

888)788.2013

www.rockymountainhardware.com

Product Information for August Advertisers

RS#	178	AIGA (East, Midwest region)/p.22
	52	Architectural Area Lighting/p.19
	1	Armstrong World Industries/Cover 2-page 1
	—	Autodesk/p.35
	—	Autodesk/p.44
	53	Autodesys/p.39
	26	Belden Brick (East, Midwest region)/p.23
	9	Bobrick/p.28
	17	Buzzsaw.com/p.30
	16	Ceramic Tiles of Italy/p.122
	57	Dow Chemical/p.16
	22	EFCO/p.7
	28	Follansbee Steel/p.38
	85	Georgia-Pacific/p.32
	15	Humanscale/p.63
	183	John Wiley & Sons Inc./p.34
	7	Kawneer/p.54
	33	Marvin Windows/ Back Cover
	181	Masland Contract/p.8-9
	11	Mitsubishi Electric Corp./p.12-13
	30	NALSA/p.110
	32	Nemetschek/ Cover 3
	186	NeoCon New York/p.117
	3	Nixalite/p.6
	182	Nova Solutions/p.120
	180	Owens Corning/p.2-3
	169	P/A Awards/p.17-18
	77	Pemko/p.37
	187	Pilkington/p.25
	19	Rocky Mountain Hardware/p.111
	174	Solatube/p.26
	10	Sony/p.20
	162	Sony/p.36
	12	Spacesaver/p.27
	36	Technical Glass Products/p.14-15
	168	Timely/p.41
	176	www.toyota.com/tomorrow /p.49
	24	Truwood (Western region)/p.22-23
	188	Urban Redevelopment Authority/p.112
	—	USG/p.64
	—	USG/p.118
	69	Wilsonart International/p.10-11

Advertising Sales Offices

MIDWEST

Rob Brockley
Midwestern Sales Manager
(312) 583-5505
fax (312) 583-5501
200 W. Jackson Blvd.
Chicago, IL 60606
rbrockley@
architecturemag.com

SOUTH AND EAST

Scott Cunningham
Southeastern Sales Manager
(770) 913-0271
fax (770) 913-0275
scunningham@
architecturemag.com

WEST COAST

Jon Heng
Patricia Heng
Account Managers
(626) 799-3610
fax (626) 799-5853
755 La Mirada Avenue
San Marino, CA 91108
patsbea@msn.com

MID-ATLANTIC / UPSTATE NEW YORK

George T. Broskey
Eastern Sales Manager
(610) 975-4440
fax (610) 975-4441
175 Strafford Avenue, Suite 1
Wayne, PA 19087
gbroskey@
architecturemag.com

LITERATURE & PRODUCT PORTFOLIO /

REPRINTS

Michael Parrish
Account Executive /
Special Sales
(646) 654-5763
fax (646) 654-5816
770 Broadway
New York, NY 10003
mparrish@
architecturemag.com

For additional information
from our advertisers, circle the
corresponding number on the
Free Product Information Card
or go to: www.thru.to/architecture


DUXTON PLAIN PUBLIC HOUSING
International Architectural Design Competition
SINGAPORE

The Urban Redevelopment Authority, Singapore, in consultation with the Singapore Institute of Architects, is organising an International Architectural Design Competition for a public housing development in the Central Area of Singapore. The Competition is sponsored by the Ministry of National Development, Singapore on behalf of the Government of Singapore.

The Competition calls for innovative approaches for a 2.5ha site as a landmark high-density, very high-rise public housing development of up to 50 storeys high.

The winner will be appointed as the Project Architect for the development.

ELIGIBILITY

The Competition is open to all architectural firms qualified to provide architectural services in their respective place of practice.

PROGRAMME

Stage 1 Submission Deadline:
7th November 2001

Stage 2 Submission Deadline:
20th March 2002

Announcement of Winners:
Late April 2002

AWARDS

Winner - SGD\$300,000

Two Merit Prizes
- SGD\$100,000 each

Honorarium

for Short-listed Stage 2 Competitors
- SGD\$50,000 each

REGISTRATION

Registration forms are available from:

The Promoter
Duxton Plain Public Housing
Architectural Design Competition

Attn: Mr Andrew David Fassam
Urban Redevelopment Authority
Customer Service Counter
1st Storey, The URA Centre
45 Maxwell Road
Singapore 069118

or at website address

<http://www.ura.gov.sg/competition/index.html>

REGISTRATION DEADLINE

Friday, 21st September 2001,
12 noon (Singapore date and time)

classified advertising

To advertise call Michael Parrish 646.654.5763, fax 646.654.5816 or email mparrish@

CAREER OPPORTUNITIES

JR Walters Resources, Inc. specializing in the placement of technical prof
the A&E field. Openings nation wide. Address: P.O. Box 51214, Kalamazoo
Tel: (616) 381-5463 Fax: (616) 381-1141
e-mail: jrwwa@jrwalters.com www.jrwalters.com.

CAREER OPPORTUNITIES
INTERIOR DESIGNERS / ARCHITECTURAL /
FURNITURE DEALERSHIPS

• **Project Managers - to 90K** • **Asst. Project Managers - 40K to 50K**
 • **Sales Assistants - to 50K** • **AutoCad Supervisor - to 80K**
 • **AutoCad Specialists (furniture specs) - 45K to 60K**
 • **Administrative/Support Personnel - \$\$**
 All locations. Great Opportunities! Call Frank Cassisa, Exec. V.P., 170 Broadway
 NY, NY 10038 Ph: 212-233-2900 Fax: 212-233-3043
 e-mail: fcassisa@aol.com During off hours call 732-360-0655.

Colorado Yourself Happy

The AIA Colorado Classifieds
 Employment-Space Availability-Buy/Sell-Architectural S
www.aiacolorado.org

ARCHITECTS NEEDED!

Senior Level Architects, are you interested in a career change or are you search
 opportunities? Executive search and recruiting firm with 25+ years of exper
 architectural and engineering industry serving the nation's leading A/E firms. Pl
 your resume to: CSS Search and Recruiting, Inc. c/o Duane McClain, 115 5th A
 501, La Crosse, WI 54601. Fax: 608-784-4904. Telephone: 608-784-4
 css@csssearch.com. For a current list of our job openings, log onto our
www.csssearch.com

www.thru.to/architecture

specifications

For information on the products specified in this section, go to:
www.thru.to/architecture



Exterior of the Church of Jesus Christ of Latter-day Saints Conference Center in Salt Lake City

HIGHLIGHTED PRODUCTS

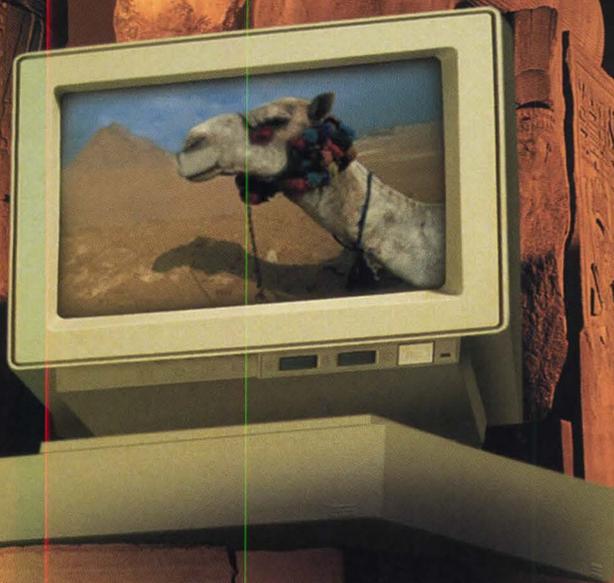
- 1 **Custom Window System**—Linford Brothers
- 2 **Custom Exterior Fixtures**—Sterner
- 3 **Fountain**—CMS
- 4 **Custom Rail**—Historical Arts and Casting
- 5 **Stone Cladding**—Caffall Tile

Finishing Eternity

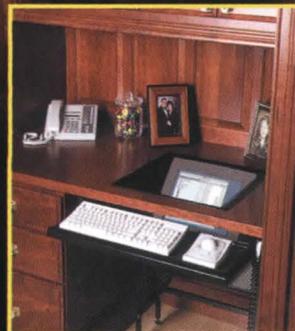
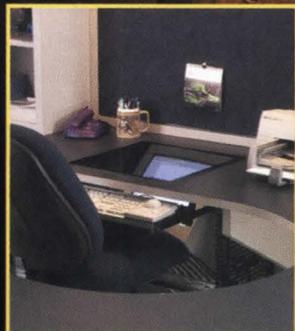
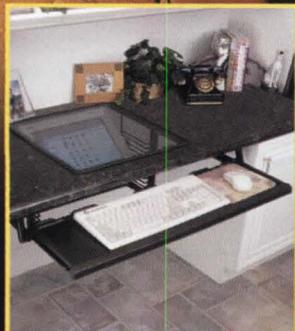
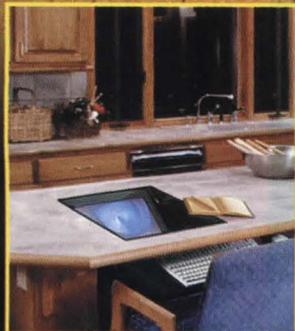
“We are building for eternity,” says Lee Gray, architect for the Church of Jesus Christ of Latter-day Saints, about the church’s new conference center in Salt Lake City. But with a facility that required seating for 21,000 people, designers had plenty to worry about in the present.

For the Portland, Oregon-based Zimmer Gunsul Frasca Partnership (ZGF) eternity translated into a building that would last 300 years, and that “had a lot to do with the finishes,” says John Thompson, senior project designer. The church required that Little Cottonwood Granite, the same stone used in the original Mormon tabernacle, be used to clad the conference center. Marked with characteristic dolomite inclusions (dark flecks that are sometimes considered flaws), the granite was harvested from boulders in the Little Cottonwood Canyon near Salt Lake, a method less scarring to the Utah landscape than quarrying. In an effort to impart timeless monumentality to the exterior, ZGF specified bronze door pulls and guardrails, as well as bronze rosettes at the junctions of the window mullions, all custom fabricated locally by Historical Arts and Casting. Because the weight and cost of bronze window framing was prohibitive, the architects specified an aluminum window system from Linford Brothers that is double coated with Kynar paint to resemble bronze.

THE PC
HAS EVOLVED,
HAS YOUR
COMPUTER DESK?



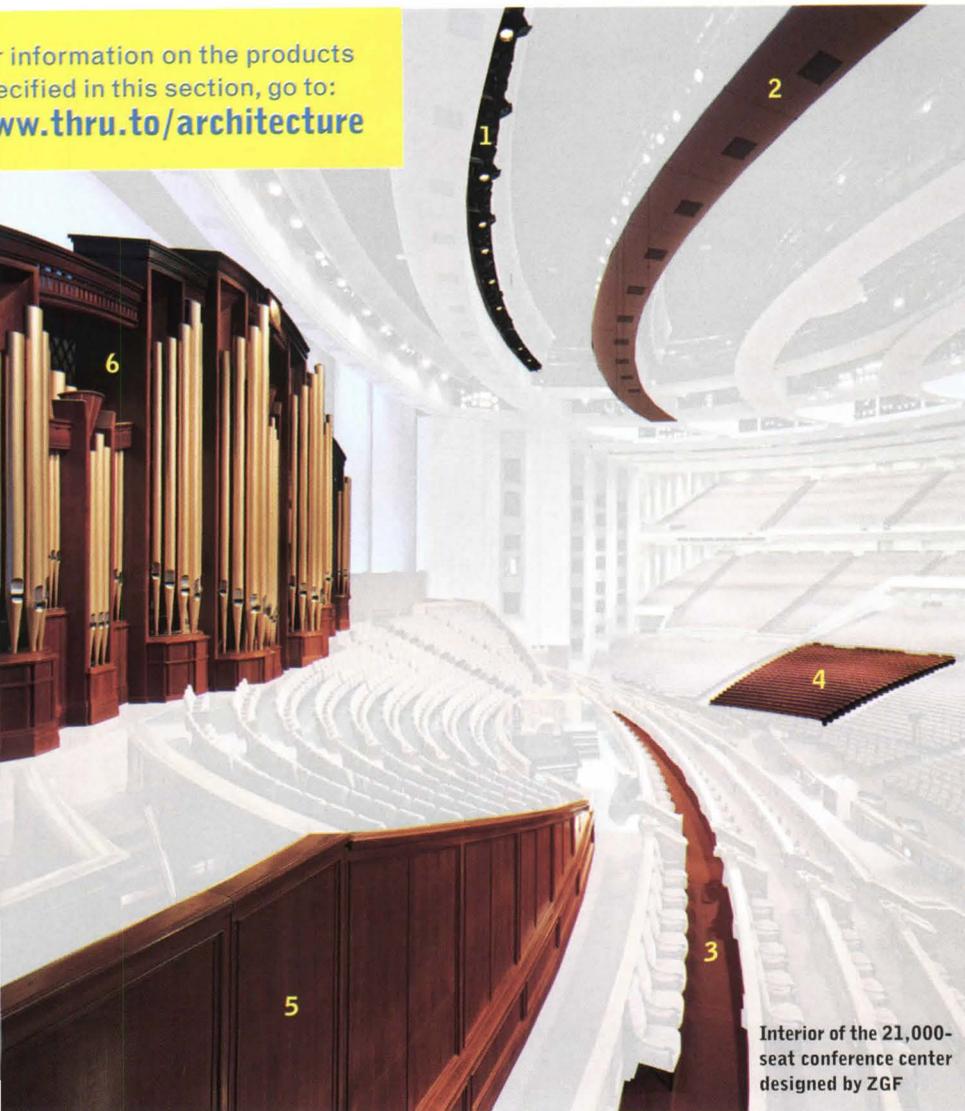
IT'S TIME TO TAKE A LOOK AT NOVA



Call for more information 800-730-6682, Ext. 236
www.novasolutionsinc.com • homeinfo@novasolutionsinc.com

 **NOVA**[®]
The Natural Solution[™]

For information on the products specified in this section, go to: www.thru.to/architecture



Interior of the 21,000-seat conference center designed by ZGF

OTHER SPECIFICATIONS AT THE CONFERENCE CENTER

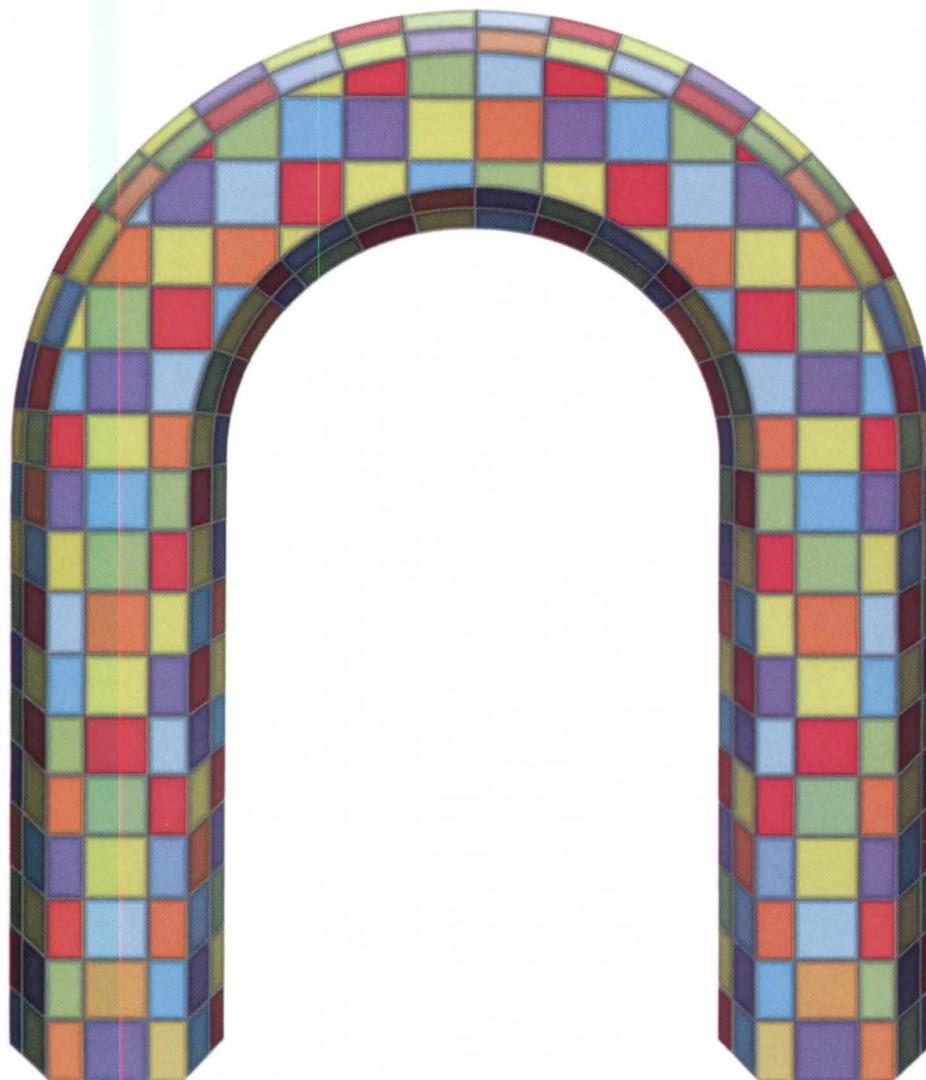
- Ceiling—Armstrong
- Doors—Fetzers, Beacon Metals
- Drywall—USG
- Elevator—Schindler
- Folding Walls/Movable Partitions—Modernfold
- HVAC—Superior Air Handling
- Laminate—Nevamar
- Lighting—Bega, Columbia, Kurt Versen, Lightolier, Lucifer, Neoray, Ron Rezek, Stemer, Winona
- Paint—Benjamin Moore
- Plumbing Fixtures—Kohler, Eljer, Sloan
- Security System—Lassco
- Stone Flooring—Wasatch Tile
- Wall Coverings—Guilford of Maine, Jhane Barnes Textiles, Luna Textiles, Maharam

HIGHLIGHTED PRODUCTS

- 1 **Theatrical Lighting**—ETC
- 2 **Glass-Reinforced Gypsum Ceiling Panels**—Unlimited Designs
- 3 **Custom Carpet**—Lees
- 4 **Seating**—Irwin Seating
- 5 **Cherry-Wood Paneling**—Fetzers
- 6 **Organ**—Schoenstein & Co.

The challenge with the interior was scale: “It had to accommodate thousands of people, yet remain personal,” says interior designer Sharon Van der Muelen. Interconnected public areas were designed like small parlors with individual identities, each showcasing a piece of the church’s vast art collection. ZGF scaled up the Donghia-manufactured furnishings by 10 percent to make the vast spaces seem more intimate. “Our only models at that scale were sports arenas, which are inappropriate for the church’s program,” notes Thompson. Finishes for the conference center are luxurious: Textile designer Sina Pearson created custom upholstery fabrics with a subtle wheat pattern, a Mormon symbol of the renewal of life. Custom lighting illuminates the side walls, and cherry-wood paneling encases the rostrum.

Between services, more than 20,000 people must be able to exit the building in 45 minutes. To circumvent the stadiumlike door banks required by fire code, ZGF specified an extensive smoke and alarm system by Western Automatic Sprinkler Corporation that reduces exit widths by 40 percent. Exits dotting the upper levels of the terraced building lead people to exterior staircases, and the ventilation system pulls smoke above the crowds, creating a safe zone and providing more time to escape the building. *Alan G. Brake*



Alessandro Mendini

INTERNATIONAL EXHIBITION OF CERAMICS
FOR THE BUILDING INDUSTRY AND BATHROOM FURNISHINGS

CERSAIE

BOLOGNA ■ ITALY
2-7 OCTOBER 2001

www.cersaie.it

EXHIBITING SECTORS:

CERAMIC TILES • SANITARY INSTALLATIONS • BATHROOM FURNISHINGS • FIREPLACES - CERAMIC STOVES - TILED KITCHENS • FIXTURES, MATERIALS AND SHOWROOM DISPLAYS FOR CERAMIC PRODUCTS • RAW MATERIALS - SEMIFINISHED PRODUCTS - EQUIPMENT FOR CERAMICS

Promoted by **ASSOPIASTRELLE** in collaboration with  **BolognaFiere** Organized by **EDI.CER. spa** in collaboration with **PROMOS srl**

Secretariat: CERSAIE P.O.Box 103 - 40050 CENTERGROSS BOLOGNA (Italy) - Tel 051-6646000 - Fax 051-862514
Press Office: EDI.CER. spa - Viale Monte Santo 40 - 41049 SASSUOLO MO (Italy) - Tel 0536-818111 - Fax 0536-807935



1



2



3



4



5

1 WINNING WEAVES

Winner of an ICFF Editors' Award for flooring, **Plynyl** by **Chilewich** combines the sensual tactility of textiles with the durability of vinyl to create a woven floor covering that is washable and versatile. Available in mat, tile, and wall-to-wall sizes in 21 weaves ranging from sisal basket weave to aluminum-mesh styles, Plynyl adheres to a soft urethane backing.

2 FREE ELECTRICITY

While fossil fuel sources dwindle, the wind just keeps on blowing. Green consultant Anthony Pereira of Alternative Power recommends **Southwest Windpower** for its flexible line of wind technology. The price of its **Air** series windmills is comparable to PV solar panels, but the windmills produce up to seven times more energy. Air's compact design is suitable for rooftop mounting.

3 HOT/COLD GLASS

Used in Leers Weinzapfel's School of Architecture at MIT, **Fireframes** by **Technical Glass Products** (TGP) offer full-light doors and floor-to-ceiling windows in firewalls. Fireframes meet the code requirements of solid barrier walls and are effective for up to two hours. By combining Pilkington's Pyrostop glass with a steel-framing system, Fireframes offer heat, flame, and smoke protection.

4 AALTO GLOW

Alvar Aalto's lighting designs are available in North America for the first time through the **Finlandia Collection** by **Baldinger**. Aalto's furniture designs are well-known classics, and now designs like his Beehive (pictured) in white-painted steel and polished brass are getting attention. Aalto's bold, pure forms are as contemporary today as when they first appeared in the 1930s.

5 REMAIN IN LIGHT

Conventional skylights only offer beautiful views of drywall, unless you are standing directly beneath them. **Solatube** has found a solution with its **Optiview** lens diffuser. Multiple lenses bring the color and light of the sky into view from almost any vantage point. Available in 10-, 14-, and 21-inch units, the Optiview diffuser fits into standard ceiling-tile systems.

For information on the products specified in this section, go to: www.thru.to/architecture

Capitol Offense

Manhattan's newest apartment tower demonstrates the thoughtlessness of the city's recent residential high-rises. **Raul A. Barreneche** takes the perpetrators to task.



An advertisement for the new Capitol at Chelsea apartment tower promises tenants “a new level for luxury rentals in Manhattan, “with “spectacular” views, “abundant” storage, a “stunning” marble and pearwood lobby, “gourmet” kitchens, and a “Zen lounge,” whatever that is. What’s not mentioned in all the cheery real estate parlance is what its unwitting neighbors will get when the 39-story tower opens later this summer at the corner of West 26th Street and Sixth Avenue. If the ad were rewritten to come clean about its effects on the neighborhood, it would sound much less enthusiastic: “Block-wide behemoth” promises “huge shadows across Sixth Avenue.”

The Capitol embodies Manhattan’s painful real estate dilemma: The city desperately needs new high-density dwellings to relieve the incredible demand for apartments for its two million residents. But it does not need the bloated, clumsy, faceless skyscrapers it is getting in neighborhoods from the Upper West Side to tony Park Avenue.

For all its presence on the skyline, a residential building like the Capitol contributes little to the city besides longer, wider shadows, and a general crowding of a lower-scale, lower-density neighborhood. At least the developers of office towers must give something back to the public domain, whether required percent-for-art installations or outdoor plazas. In New York’s golden days, there was no mistaking a dignified apartment building like the venerable Dakota for an office tower. These days, the distinctions are harder to discern.

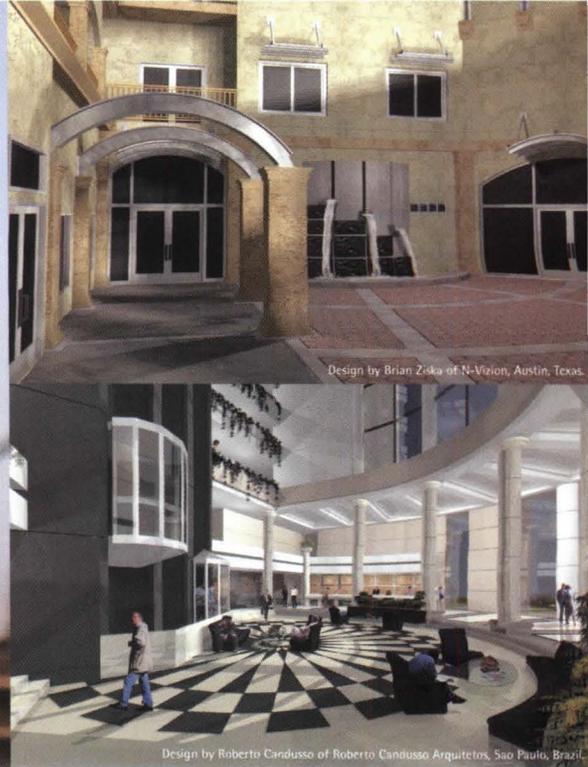
Who is to blame for this urban scourge? The Capitol’s architect, Costas Kondylis & Partners, known around town as the unrepentant author of many aesthetically offensive residential towers, is certainly a culprit, as are its developers, the Witkoff Group and Adell Corporation. But New York’s Department of City Planning and the local community board also had a hand. In 1999, these two groups proposed a change to local zoning that would allow residential buildings of greater height and bulk along the neighborhood’s broad north-south avenues (as opposed to its narrower east-west streets). The City Council and the City Planning Commission approved the change—giving birth to the Capitol and others like it.

The planning commission heralded the zoning change as a “balanced strategy” that will preserve the character of neighborhoods like Chelsea “while providing adequate opportunities for new housing development.” So far the newly minted towers are anything but sympathetic.

It’s not fair for the Capitol to shoulder all of the blame for what’s wrong with the deadly combination of design-impaired architects, greedy developers, and a complicit planning department and municipal government, when nearby towers such as 777 Sixth Avenue and Chelsea Place are guilty of the same. But it remains one of the biggest, if not the worst embodiments of this disastrous recipe. As the ad promises, the Capitol does deliver a new level for Manhattan rentals—a new low. ■

Seen something that you think is worth protesting? Send your suggestions to info@architecturemag.com.

design smarter



Design by Brian Ziska of N-Vision, Austin, Texas.

Design by Roberto Candusso of Roberto Candusso Arquitetos, Sao Paulo, Brazil.

Create faster and work smarter with ARCHITECT 9

With VectorWorks ARCHITECT 9, great designs are just the beginning. ARCHITECT 9 helps you increase productivity while it manages every step of the design and construction process. Easily integrate 2D plans, 3D models, reports and schedules. Track a project's information throughout the design process. Impress clients with high-quality presentations and even 3D animations. A complete framing module automatically frames floors, walls and roofs. Work smarter with DXF and DWG support for AutoCAD 2000i. Specialized tools make designing HVAC, piping, plumbing, and electrical systems easy. Thousands of industry standard symbols and objects come free of charge. Call today, or visit our website at www.nemetschek.net. Do what you do best—build great architecture. ARCHITECT 9 will do the rest.



www.nemetschek.net • 888.646.4223

VectorWorks. Freedom to do more.

A product of Nemetschek North America



It's in a class by itself.



The Marvin Ultimate Double Hung. It's not the double hung refined, it's the double hung reinvented. The most amazing design improvement being its unique sash tracking and locking system. And now, it's offered in all-wood as well as clad. So you and your clients can further express your individuality. The Marvin Ultimate Double Hungs. Can't you just see them in your plans?



For a free product brochure, call 1-800-236-9690.

MARVIN 
Windows and Doors

In Canada, 1-800-263-6161

www.marvin.com

1000108A

Made for you.®