

ARCHITECTURE



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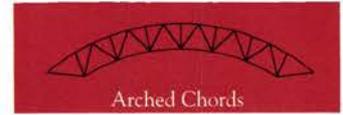
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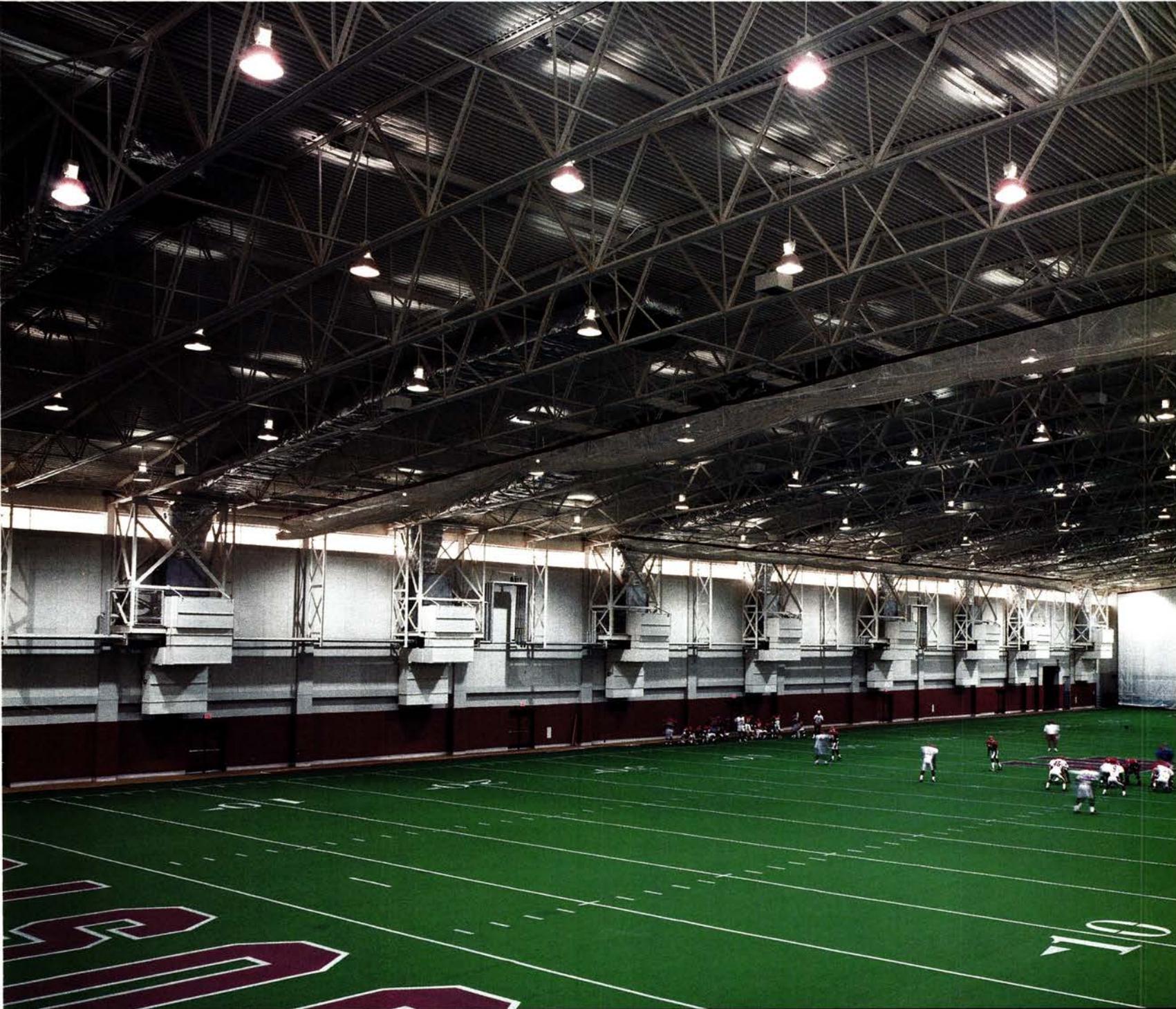


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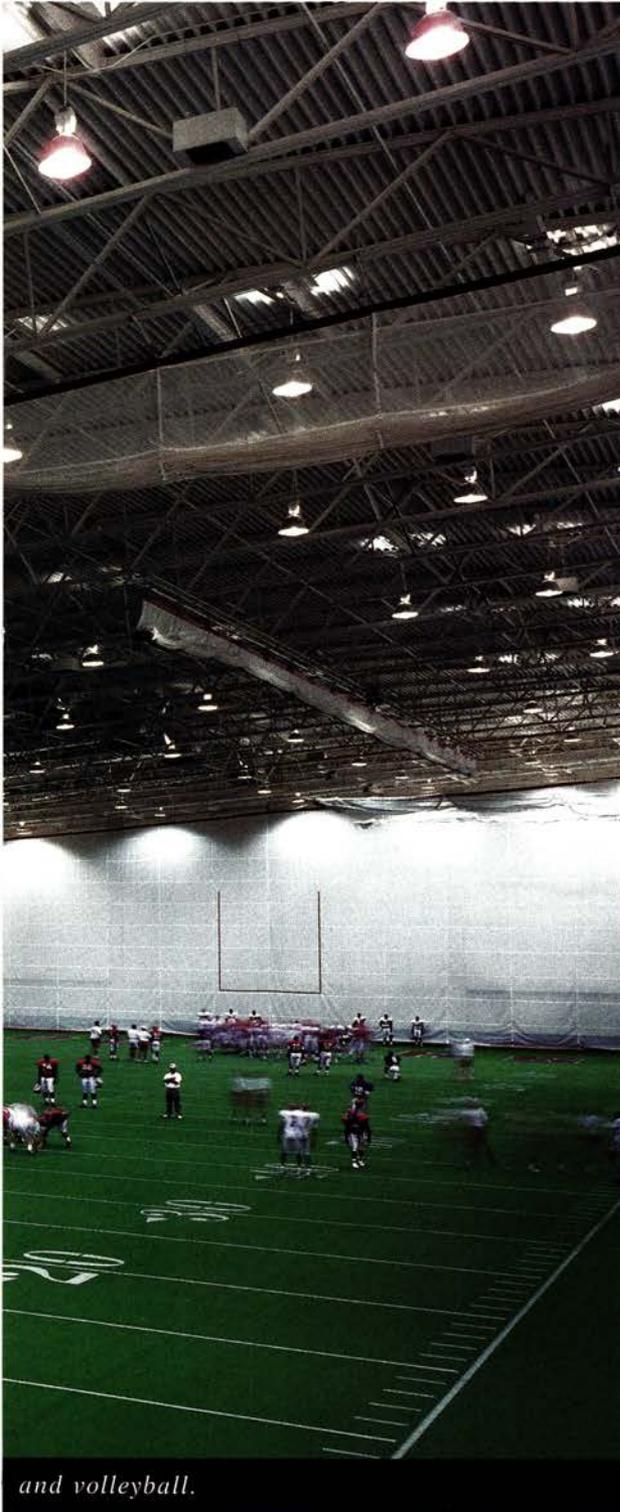


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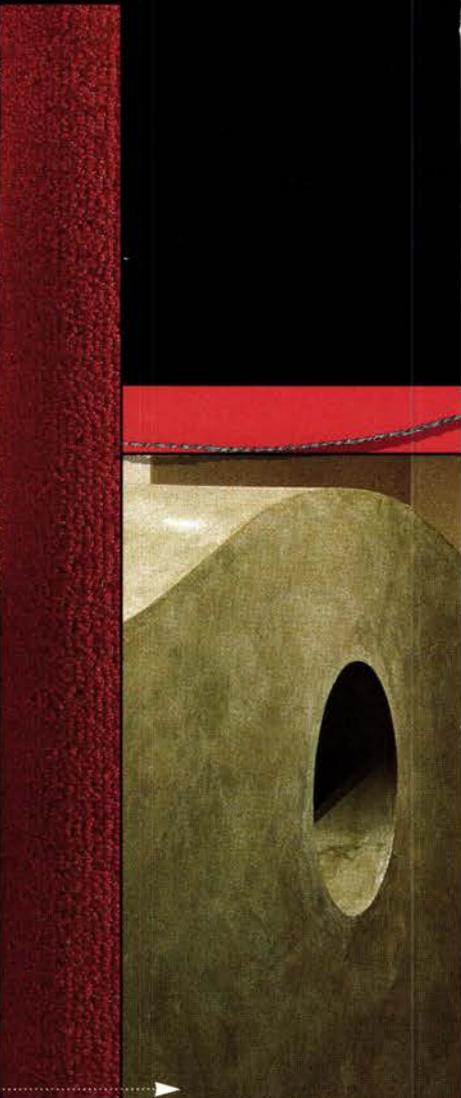


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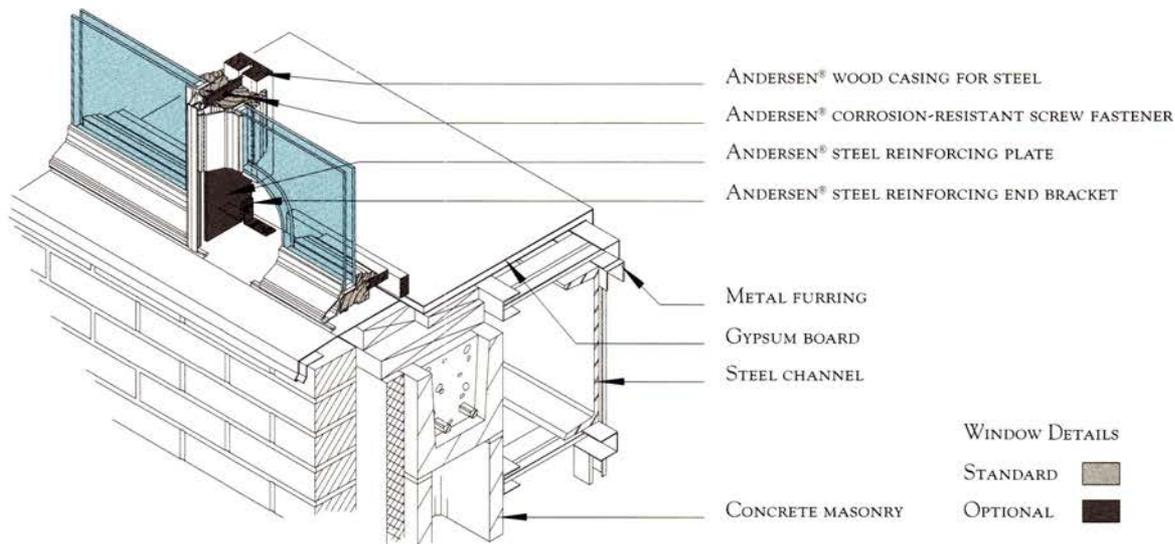
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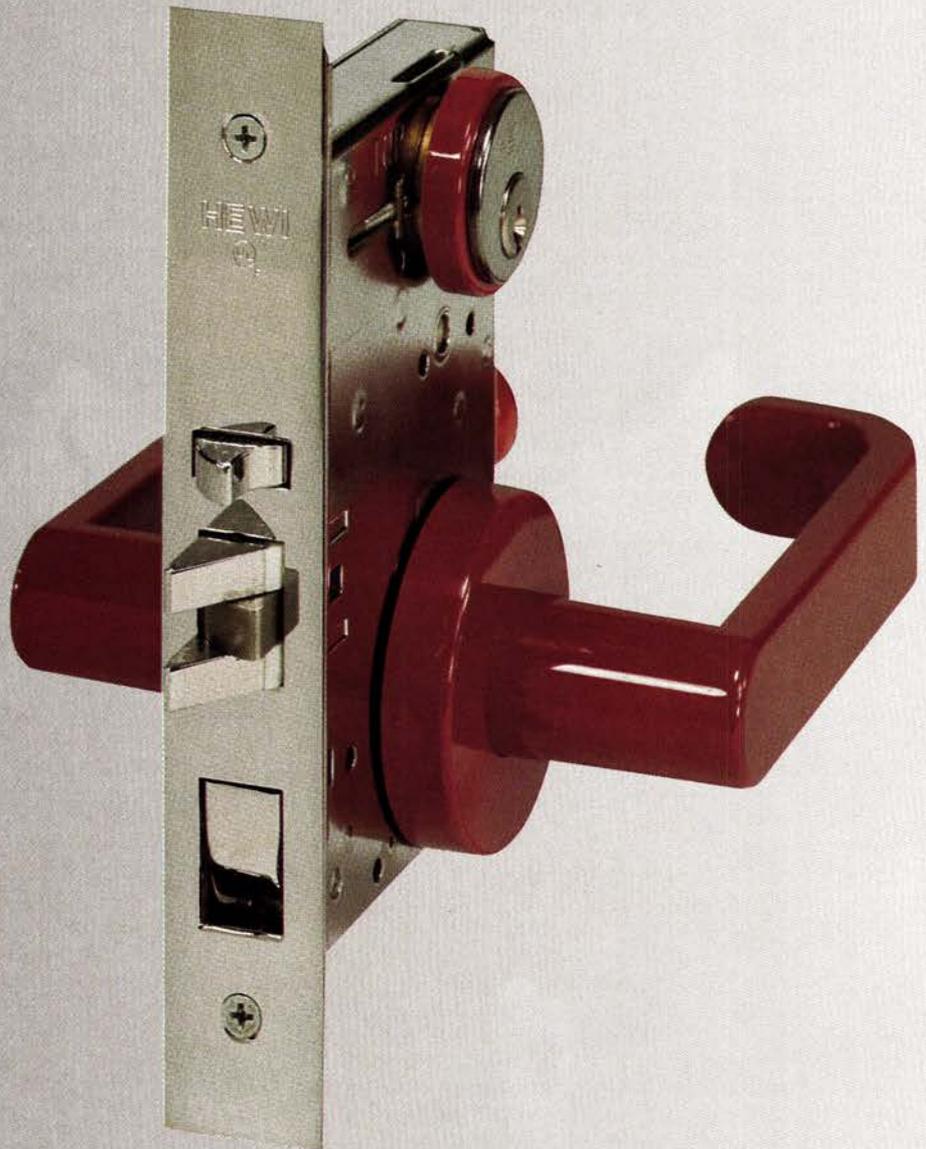
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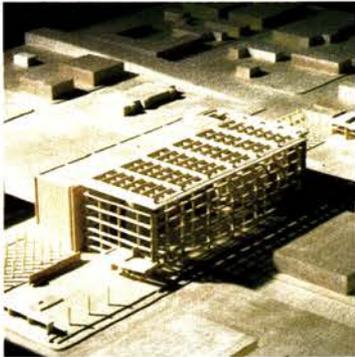
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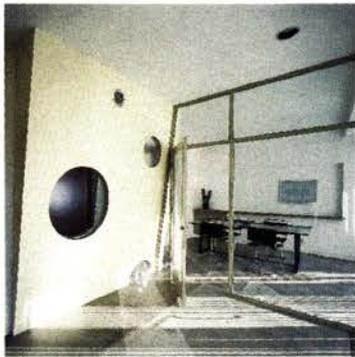
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Building on P/A's Legacy

ARCHITECTURE continues the P/A Awards, a barometer of design trends for more than four decades.

The architecture profession hands out more awards than Hollywood. This issue presents our equivalents to the Academy Awards and Golden Globes—the AIA Honor Awards and Progressive Architecture Awards. The rare opportunity to juxtapose these two national programs for built and unbuilt work results from the purchase of P/A by our publisher, BPI Communications, in January. We salute the P/A staff for preparing the 1996 awards, which were set to go to press just before the magazine was sold.

Of the two awards programs, P/A's has always been more interesting, often recognizing innovative design ideas before they take root in the profession. Many "firsts" have occurred on the pages of P/A's January issues since 1954, when the winners of the first competition were revealed.

In 1961, for example, the controversial Brutalist design of Carlin, Millard, and Pozzi's New Haven fire station caused so much heated debate among the jurors that the magazine decided to begin publishing jury comments. Two years later, the judges premiated building renovations for the first time, more than a decade before historic preservation became accepted practice.

The vanguard of Postmodernism was first widely exposed with the recognition of three projects by Venturi and Rauch in 1967. And in the 1970s, the P/A Awards directed architects' attention to energy consciousness and site sensitivity—issues that have since intensified in their urgency.

P/A winners don't always turn into real buildings, but the ones that do often result in seminal works, such as Skidmore, Owings & Merrill's Connecticut General Life Insurance Headquarters (a 1955 winner); Moore Lyndon Turnbull Whitaker's Sea Ranch Condominiums (1965); Benjamin Thompson's Faneuil Hall Market (1975); and Peter Eisenman's Wexner Center (1985).

The P/A Awards have also launched careers. In 1970, Michael Graves received an award for a house in Pocantico Hills, New

York—the first time his work was published in the national architectural press. Four years later, Thom Mayne and Michael Rotondi won a P/A Citation, the first of 15 awards their firm Morphosis would earn over the next two decades. Steven Holl also credits recognition by P/A, in the form of a 1978 award, with helping to jump-start his practice. "The awards issue provides a little hope and a chance exit from oblivion for dedicated young architects," Holl contends.

At times, the P/A Awards were criticized for promoting stars and trendy, small-scale designs chosen by juries out of touch with mainstream architectural practice. The editors attempted to change that in recent years, with more diverse juries and less emphasis on formal issues. Not every year yielded enduring ideas, but the results were never dull.

Recognizing their value to the profession, ARCHITECTURE will continue the P/A Awards this year and in the future. The program will remain a forum for unbuilt architecture, selected by a panel of leading practitioners.

The members of the jury for the 1997 awards will be Sarah Graham of Angélil/Graham Architecture, Los Angeles; Laurie Hawkinson of Smith-Miller + Hawkinson Architects, New York; Enrique Norten of TEN Architects, Mexico City; Antoine Predock of Antoine Predock Architect, Albuquerque; and William Rawn of William Rawn Associates, Boston.

Entry forms for the 1997 awards competition will be published in our next three issues; submissions will be due September 6. Judging will be held in late September, and the winners featured in next January's issue. The continuation of the P/A Awards is only the first of many changes taking place at ARCHITECTURE. Stay tuned.

Deborah K. Dietz

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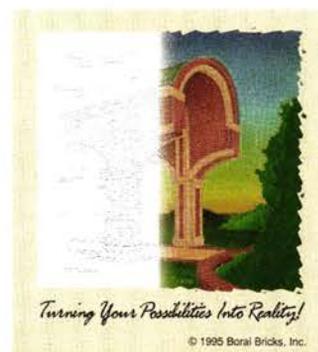
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Letters

Meier on Meier

Regarding my "deanship": It seems to me that the most outdated, anti-modern notion we can have is that the movement known as Modernism was simply rebellious and its practitioners, "Turks." By making the shock of the new our primary criterion today, we turn Modernism into a mere subcategory of Futurism, which is exactly backward.

I believe that clarity, rigor, and responsibility are fully Modern qualities; otherwise I would have to take away the title of Modern from Mies and Le Corbusier. Similarly, I believe that an "insistent formalist" such as myself can "extend and reinforce street patterns and public squares," so that the "buildings knit together the surrounding urban fabric"—just as I believe, on your evidence, that I can both continue a career-long investigation of design principles while pioneering new expressions of urbanism. Thank you for your comprehensive coverage.

*Richard Meier, FAIA
New York City*

Unabating bias

In your recent issue devoted to Richard Meier & Partners (ARCHITECTURE, February 1996), one disturbing issue stands out: women made up only a tiny fraction of the teams on every one of Meier's important projects.

Nor is this an isolated incidence: it's simply a particularly glaring example of the standard bias against women at most of the major architectural firms—a bias that shows few signs of abating.

*Laurie Kerr
New York City*

Johnson's joke

Though appreciating Philip Johnson's references to Jefferson in his St. Basil Chapel (ARCHITECTURE, March 1996, pages 52-53), I feel he is up to other referential tricks. His square, windowless chapel suggests not a Catholic heritage structure, but rather the holy Muslim shrine, Kaaba, in the Great Mosque of Mecca. The slicing black "bell tower" plane runs northeast—the

location of the black stone in the Kaaba. Farfetched perhaps, but then so is Philip Johnson.

*Andrew Ruppel
Charlottesville, Virginia*

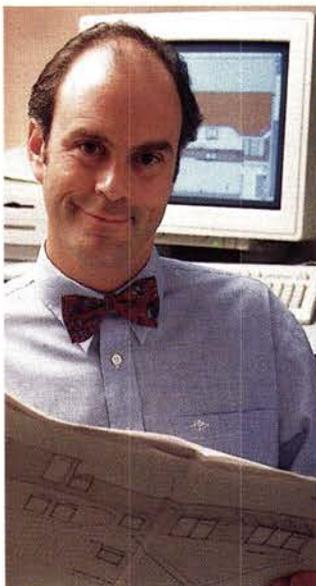
Listening up to clients

Your two articles, "Communicate, Don't Isolate" and "Listen Up or Lose the Client" (ARCHITECTURE, February 1996, pages 55, 57, 59; 153-155) are helpful reminders of how clients are changing their expectations for design services.

Architecture is a service that almost always sells as a product. I have never seen a firm using their solid performance record sell over a firm with a design in hand or a completed building that meets the clients' expectations. The quality of our service, the skill and effort we bring to the process, and our clients' satisfaction with the completed project help us get repeat work.

Only repeat clients are likely to value service equally with the product, yet when a larger, perhaps more important project comes along,

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even our most satisfied clients are likely to look closely at other firms for their design products while overlooking our past service.

It is no wonder that firms with high profiles, design awards, and many products to show continue to get work even when they fail to address their clients' overall needs. And this may be why our profession has always had a mixed reputation for beautiful buildings, arrogant designers, and missed schedules and budgets. This would not be the case if clients could differentiate between service and product.

We are all in competition to create the most products with the most pizzazz to impress the next client, and if our service is above average, that's just icing.

*David A. Souers, AIA
Optimus Architecture
Rhinebeck, New York*

Maybe I'm oversensitive, but did I detect in "Listen Up or Lose the Client" another veiled castigatory treatise on architects? There has

never been any real question of the propriety of architects' pretending to know more about their client's businesses than the clients do, just more about architecture.

I have yet to meet an architect whose ego is a match for that of a corporate executive officer or project manager. I think most "archi-speak" results from the inadequacy most architects feel from working in a profession that depends on patronage. We don't typically build, or control development empires. Our clients often do. Thus, despite our skills and expertise, we tend to approach the trough as supplicants, rather than snooty louts.

In most details, "Listen Up" is apt, but LePatner is preaching business development practices to the choir, to those who can "through your stockbroker, secure copies of the prospective client's...financial statements." Without staff and financial resources, it is nearly impossible to mount that kind of preparation. And with the pressure to lower fees because there are too few commis-

sions to go around, and since richer firms are in effect able to give away certain categories of work, the rest of us must negotiate tighter scopes of service. I don't mind bending over backwards for my clients: they deserve my good will and best effort within the scope of our contract. I do resist bending over in any other direction, however, and the line between backward and forward is pretty fine these days.

*Gary R. Collins,
G.R. Collins & Associates
Costa Mesa, California*

New Orleans razes landmark

Your article on the demise of the New Orleans Rivergate and its replacement casino (ARCHITECTURE, February 1996, page 49) was right on the mark, except for one thing: it was not Harrah's, the developers, who insisted on its demolition—it was the New Orleans city council.

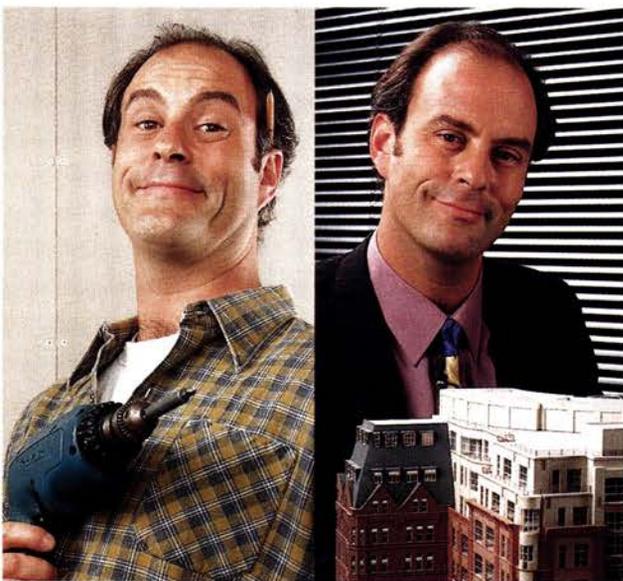
Harrah's received an operator's license from the state of Louisiana with a proposal to renovate the Rivergate. The city of New Orleans,

owner of the Rivergate, signed a lease requiring demolition. No matter that Harrah's financial projections were based on a \$350 million renovation, which became an \$850 million project as a result of demolition. Anticipated revenue from the casino remained the same.

The city insisted that the developers operate a temporary casino in the city-owned Municipal Auditorium; Harrah's originally wanted to renovate the Rivergate in phases, which would not have required a temporary casino. Profits from the temporary casino were meant to supplement the construction cost of the permanent one; instead, it operated in a deficit.

Preservationists pleaded with the city to allow the Rivergate to be spared, but the city council thought the casino would provide such an economic boost that, in time, they would be forgiven for the Rivergate. What was supposed to be a shot in the arm ended up a shot in the foot.
*Michael Rouchell
New Orleans, Louisiana*

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Events

Exhibitions

BOSTON. Architectural renderings by Samuel V. Chamberlain, through June 9 at the MIT Museum. Contact: (617) 253-4444.

CHICAGO. "Process and Design in Residential Architecture," May 16-September 13 at the Chicago Architecture Foundation. Contact: (312) 922-3432.

DENVER. "Borek Sipek: Auratic Architecture and Design," and "The Industrial Revolution, 1776-1996," June 29 through June 1997 at the Denver Art Museum. Contact: (303) 640-2295.

HILVERSUM, THE NETHERLANDS. Willem Marinus Dudok retrospective, through September 15. Contact: 31-20-624-3333.

JACKSON, MISSISSIPPI. "The Palaces of St. Petersburg," through August 31 at the Mississippi Arts Pavilion. Contact: (601) 960-9900.

LOS ANGELES. "Franklin D. Israel," through May 26 at the Museum of Contemporary Art. Contact: (213) 626-6222.

MINNEAPOLIS. "The Twin Cities on Paper: A Century of Architectural Drawings for Minneapolis and St. Paul," through June 23 at the Minneapolis Institute of Arts. Contact: (612) 870-3000.

NEW YORK. "Glass in Architecture," through June 9 at the Czech Center. Contact: (212) 288-0830.

"Help Define Frederick Douglass Circle," through June 23 at the Charles Dana Discovery Center, sponsored by Cooper-Hewitt. Contact: (212) 860-6909.

"Refining the Sports Car: Jaguar's E-Type," through August 20 at the Museum of Modern Art. Contact: (212) 708-9400.

PARIS. Christian de Portzamparc retrospective, through May 27 at the

Georges Pompidou Center. Contact: 33-1-447-812

PITTSBURGH. "A Century of Women Landscape Architects," through June 2 at the Heinz Architectural Center. Contact: (412) 622-3131.

WASHINGTON, D.C. "The Architecture of Bruce Goff, 1904-1982," through August 31 at the Octagon Museum. Contact: (202) 638-3221.

"Building the Ballyhoo: Architectural Photography by the Wurts Brothers Company," through August 18 at the National Building Museum. Contact: (202) 272-2448.

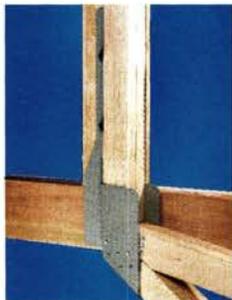
Conferences

ANAHEIM. "A/E/C Systems," computer technology for the design and construction industry, June 17-20. Contact: (800) 451-1196.

"The Internet for Architects," June 20, sponsored by the San Francisco

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Institute of Architecture.
Contact: (800) 634-7779.

ASPEN. International Design Conference, June 5-9.
Contact: (970) 925-2257.

ATLANTIC CITY. "Gambling on Your Waterfront: An Objective Look," May 19-21, sponsored by the Waterfront Center.
Contact: (202) 338-6657.

BARCELONA. Congress of the International Union of Architects, July 3-6.
Contact: 34-3-412-7651.

BIRMINGHAM, ENGLAND. "Canals and Regeneration," world canals conference, June 26-28.
Contact: 44-121-212-4433.

BOSTON. ARCHIBUS/FM users' conference, May 15-17.
Contact: (617) 338-1011.

"Design Management in the Digital Environment," June 5-7, sponsored

by the Design Management Institute. Contact: (617) 338-6380.

"Finding Freedom," Society for Environmental Graphic Design annual conference, May 31-June 1.
Contact: (202) 638-5555.

CHICAGO. NeoCon World's Trade Fair, June 10-12 at the Merchandise Mart. Contact: (312) 527-7650.

COPENHAGEN. "Art + Architecture" international conference, May 29-31.
Contact: 45-44-77-3020.

DENVER. Construction Specifications Institute convention, June 28-30.
Contact: (800) 689-2900, ext. 772.

GAINESVILLE. "Green Building Materials," June 24-25, sponsored by the Sustainable Development and Construction Initiative.
Contact: (904) 392-5930.

MINNEAPOLIS. AIA National Convention and Exposition, May 10-13 at

the Minneapolis Convention Center. Contact: (617) 859-4475.

NEW YORK. International Contemporary Furniture Fair, May 18-21 at the Javits Convention Center.
Contact: (800) 272-7469.

OXFORD, MISSISSIPPI. "Southern Landscapes: Past, Present, Future," May 16-18, sponsored by the Center for the Study of Southern Culture.
Contact: (601) 232-5993.

SAN FRANCISCO. "Lightfair International" exposition, May 14-16.
Contact: (800) 856-0327.

SANTA BARBARA. "Green Building Now," June 7-8, cosponsored by AIA and the Sustainability Project.
Contact: (805) 963-0583.

Competitions

World War II memorial competition for Washington, D.C.'s Mall,

sponsored by the Battle Monuments Commission. **Entries due May 15.** Contact: (202) 761-0474.

Six-month internship with Renzo Piano Building Workshop in Genova, Italy, for 1995 graduates. **Entries due May 31.** Contact: 39-0106-171-1350 by fax.

"Escape to Create" fellowships, sponsored by the Seaside Institute. **Deadline June 1.** Contact: (904) 231-2421.

Richard Kelly grants for lighting design. **Entries due June 3.** Contact: (212) 248-5000.

Excellence on the Waterfront awards, sponsored by the Waterfront Center. **Entries due August 1.** Contact: (202) 337-0356.

"Furthermore..." publication grants, sponsored by the J.M. Kaplan Fund. **Deadline September 1.** Contact: (518) 828-8900.

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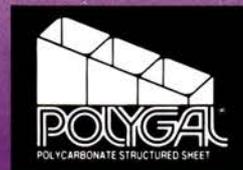
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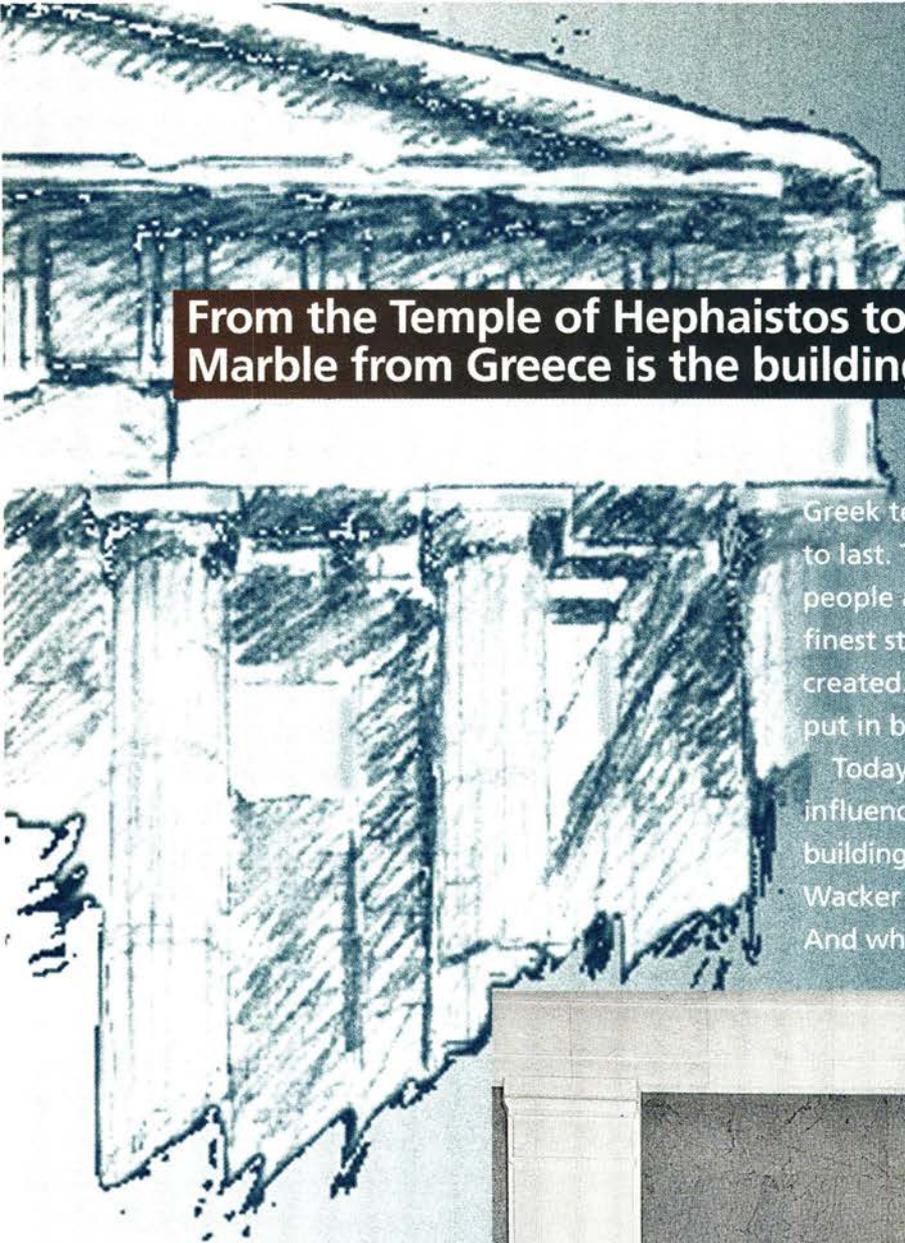
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Judging will take place in July 1996. Public announcement of the winners will be made in November 1996, and winning entries will be featured in the November 1996 issue of ARCHITECTURE.

Awards for Architectural Research

ARCHITECTURE, in collaboration with the American Institute for Architectural Research, announces its first awards program for architectural research.

AIA Research supports architectural research and design excellence by identifying the architectural discipline's research needs, by encouraging research activities to meet those needs, and by disseminating results that aid the design and construction of inspiring buildings and sustainable communities. The purpose of this awards competition is to recognize outstanding research in architecture and urban design, and to publicize it for use by the profession.

Awards and citations will be designated by a jury drawn from academia and the profession. Decisions will be based on the study's overall excellence, innovation, rigor, and usefulness to the practice of architecture and urban design. The jury will consider the degree to which the research addresses compelling social needs, extends traditional architectural expertise, demonstrates ways to integrate research and design, and utilizes multidisciplinary problem-solving techniques.

Research methodology appropriate to the nature of the inquiry should be made explicit, as should the application or applicability of the research. Doctoral dissertations and applied research are welcome.

Entrants will be judged in one of three broad categories of research: **Energy and Sustainable Design**, **Behavioral and Social Science**, or **Technology and Materials**. Entrants should interpret the call for outstanding research as broadly as possible to include the subdisciplines of architecture as well as diverse modes of inquiry. *See reverse for entry form and rules.*

Jury

Martha Welborne, FAIA (Chair)
Associate Partner
Skidmore, Owings & Merrill
Los Angeles

William J. Mitchell, FRAIA
Dean, School of Architecture
and Planning
Massachusetts Institute
of Technology
Cambridge

Sherry Ahrentzen, Ph.D.
Professor of Architecture
Department of Architecture
University of Wisconsin
Milwaukee

Entry Form: Awards for Architectural Research

Please complete and submit all parts intact with each entry (see paragraph 9 of instructions). Photocopies of this form may be used.

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CREDIT(S) FOR PUBLICATION (attach additional sheet if necessary):

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CATEGORY:

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I certify that the submitted research was done by the parties credited and meets all eligibility requirements. I understand that any entry that fails to meet submission guidelines may be disqualified. Signer must be authorized to represent those credited.

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Eligibility

1 WHO CAN ENTER: Architects, environmental design professionals, academics, and students conducting research and working in the U.S., Mexico, or Canada may enter one or more submissions. Research may be focused on any location, but the work must have been directed and substantially executed in the U.S., Mexico, or Canada not more than five years ago.

2 SUBSTANTIVE PROJECTS: Entries may include funded research, reports accepted by clients for implementation, or studies undertaken by entrants who have marketed or applied their results. Applied research, in which existing research findings are used or tested in the field (resulting in new knowledge gained from application), and doctoral dissertations are also eligible. Basis of eligibility as well as the date of the study should be explained in the submission. ARCHITECTURE may contact any of the parties involved to verify eligibility.

Publication Agreement

3 PROVIDING ADDITIONAL MATERIALS: If the submission should win, the entrant agrees to make available further information and graphic material as needed by ARCHITECTURE.

4 PUBLICATION: ARCHITECTURE is granted the first opportunity among U.S. architecture magazines for first publication of the study. Prior publication does not affect eligibility. AIA Research reserves the right to publish entries not selected for the November 1996 issue of ARCHITECTURE.

Submission Requirements

5 PROJECT FACTS PAGE: To ensure the jury's clear understanding, each entry must contain a page that lists, in English, the research project facts under the following headings: Project Title; Research Category; Client or Source of Funding; Budget; Start and Finish Dates; Name and Location of Client; Research Setting; Form of Final Products; Basis of Eligibility; Bibliographic References. Ten copies of this page must be submitted.

6 NARRATIVE: Entries must contain a three- to five-page synopsis of the project that includes the following section headings: Purpose/Objectives of

the Project; Research Design and Methods Used in Research; Data and Analysis Procedures; Major Findings and Results; Significance and Uses of Results. Ten copies of the narrative must be submitted.

7 ADDITIONAL MATERIALS: One copy of supplementary graphic or written material may be submitted, in 8¹/₂-inch by 11-inch format and firmly bound in binders. No slides, original drawings, videotapes, or unbound materials will be reviewed.

8 ANONYMITY: To ensure anonymity in judging, no names of entrants or collaborators may appear on any part of the submission except on entry forms. Credits may be concealed by tape.

9 ENTRY FORMS: Each submission must be accompanied by a signed entry form, to be found on this page. Reproductions of the form are acceptable. Fill out the entry form and insert it intact into an unsealed envelope labeled "Entry Form" to be included with the submission.

10 ENTRY FEES: Entry fees must accompany each submission. Fee is \$110. Make check or money order payable to ARCHITECTURE. Canadian and Mexican entrants must send drafts in U.S. dollars. Fee must be inserted in unsealed envelope with entry form (see 9 above).

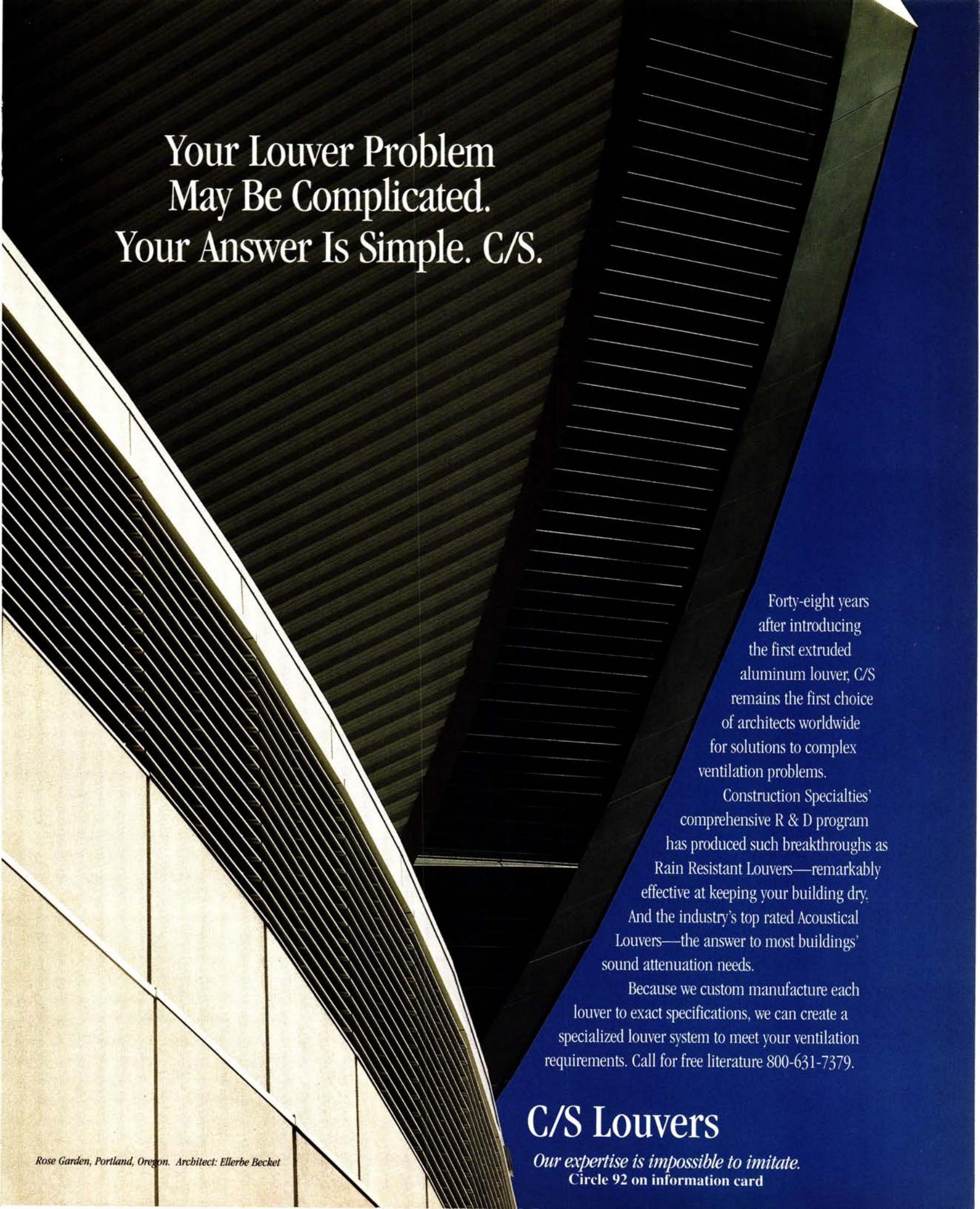
11 ENTRY RECEIPTS: ARCHITECTURE will send a receipt by July 15, which will indicate an entry number to save for your reference.

12 RETURN OF ENTRIES: Entrants wishing return of submission materials should include a self-addressed, stamped envelope. Copies of project facts and narratives may not be returned.

13 ENTRY DEADLINE: Deadline for sending entries is July 1, 1996. All entries must show a postage mark as evidence of being in the carrier's hands by that date. Hand-delivered entries must arrive at ARCHITECTURE's offices by 5 p.m., July 1. To ensure timely arrival, ARCHITECTURE recommends using a carrier that guarantees delivery within a specified number of days.

Address entries to:
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MONEO: 1996 Pritzker Prize winner.



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DAVIS MUSEUM: Moneo's 1993 American debut at Wellesley College.



A.P. WORLDWIDE PHOTOS

COLLAPSE: Lateral bracing blamed.



A.P. WORLDWIDE PHOTOS

AQUATIC CENTER: Temporary roof will shelter 11,000 additional bleacher seats.

Moneo Wins Pritzker Prize

Spanish architect José Rafael Moneo, 59, has been named winner of the 1996 Pritzker Prize for Architecture. The jury praised Moneo for regarding "materials and construction to be just as important as the architect's vision and concept."

Moneo was educated at Madrid University and opened his office in that city in 1965. He first received international recognition for the Bankinter Bank Building (1976) in Madrid, designed with Ramón Besco. The Museum of Roman Art (1986) in Mérida is widely considered his masterpiece. Also respected as an educator and theoretician, from 1985 to 1991 Moneo chaired the Harvard Graduate School of Design's Architecture Department.

Moneo succeeds Tadao Ando as the Pritzker Prize's 19th recipient.

The award and \$100,000 grant will be presented June 12 at the Getty Center in L.A.—*Ned Cramer*

Roof of Olympic Aquatic Center Collapses

Safety officials in Atlanta blame faulty construction for the collapse on March 19 of two 5-ton, long-span steel joists at the \$23 million Olympic Aquatic Center on Georgia Tech's campus. Atlanta-based Stanley, Love-Stanley and Smallwood, Reynolds, Stewart, Stewart, & Associates, designers of the 15,000-seat facility, both declined comment on the accident, which resulted in no personal injury.

The two 176-foot joists were inserted horizontally between the facility's permanent roof and two vertical columns for support until

the roof deck was completed. The structure collapsed in the middle, falling 130 feet and hitting the roof of Georgia Tech's student athletic complex, which was not seriously damaged. Contractors revised the lateral bracing procedure and resumed construction April 10.

Construction for the Olympics has been fraught with mishaps since last April, when a light tower collapsed at the Olympic Stadium, killing an ironworker; the collapse was attributed to miscalculations by engineers. Two Olympic Village dormitories later settled 9 inches on their foundations, a flaw blamed on a computer-related error. The federal Occupational Safety and Health Administration has investigated each incident, and finds no evidence of a pattern of recklessness or deadline pressures to be contributing factors.—*Bradford McKee*



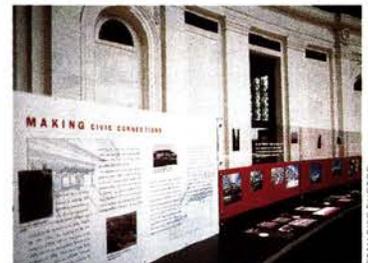
CIVICS LESSONS: New York City's public projects, sponsored by 24 agencies, are displayed in rotunda of Custom House.



MODEL: Custom House renovation.



DESIGN: Architecture Research Office.



TEXT: Describes transportation projects.

AIA New York Exhibits Civic Architecture

With infrastructure spending in New York City threatened by budget cuts, architects are taking the case for capital investment to the public. "Civics Lessons: Recent New York Public Architecture," an exhibition sponsored by AIA New York and the New York Foundation for Architecture, shows how recent public projects have transformed the city, and exhorts New Yorkers to support investment in civic architecture.

"Civics Lessons," on view at the Custom House through May 2, encompasses 75 projects sponsored by 24 public agencies. They were chosen from 200 submissions by a jury comprising Deborah K. Dietsch, ARCHITECTURE's editor-in-chief, and New York architects Hugh Hardy and Max Bond.

The most forceful argument about public architecture presented is that New York needs more. Contends AIA New York President Jerry Davis, "In the '70s, New York quit spending on infrastructure, and we're still paying for that." Unfortunately, the show steers clear of issues about the practice of public architecture: for instance, how projects are commissioned, designed, and built.

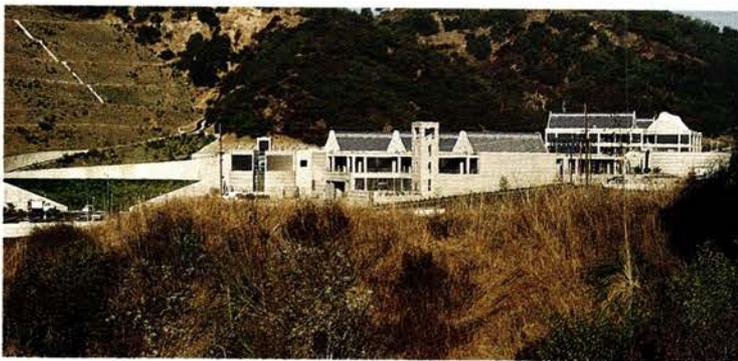
The exhibition assembles the latest generation of New York civic architecture in order to appraise its collective impact. It presents public projects that knit together communities, such as the prototype modular schools designed by architects Richard Dattner and Gruzen Samton Steinglass that serve both students and after-hours programs.

The show also surveys transportation proposals such as the recent subway station rehabilitation proj-

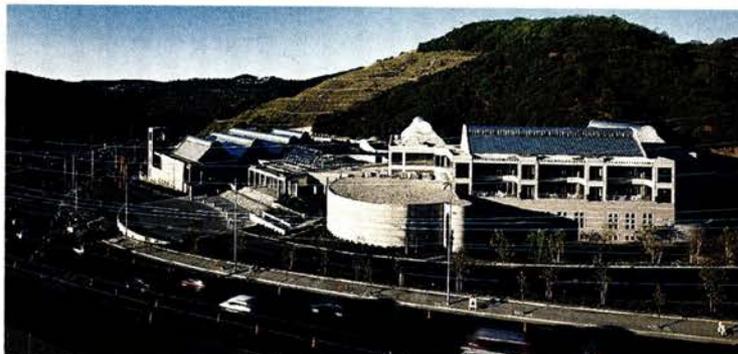
ects, and new airport terminals such as SOM's International Arrivals Terminal at Kennedy Airport.

None of these recent airport projects, however, are daring or celebratory in the tradition of Kennedy's Pan Am or TWA terminals, pointing up the problems "Civics Lessons" has in expressing a contemporary language for civic architecture. The brutal, blank volumes of Rafael Viñoly's Bronx County Housing Court, for example, are likely to reinforce the mistrust many minority New Yorkers have for the judicial system, rather than express the openness of due process under law.

The show's best examples reflect the character of their communities. For instance, the democratically derived design of Melrose Commons in the South Bronx by Magnusson Architects and Lee Weintraub challenged city officials with an uncon-



SKIRBALL CULTURAL CENTER: Buildings conform to surrounding topography.



FREEWAY VIEW: Safdie designed forms to be visible from San Diego Freeway.



GRAND PLAZA: Varied courtyard edges lend urbanity to plaza.



MUSEUM BUILDING: Gabled sheds are repeated throughout project.



ENTRANCE PAVILION: Flanked on the south by clerestoried galleries.



NORTHERN ENTRANCE: Tartan grid of stainless steel panels and concrete.

TIMOTHY HURTSLEY PHOTOS

ventional, citizen-led planning process that won approval thanks to patient community advocacy.

These civic visions, however, face an uphill battle. Barely two weeks after “Civics Lessons” opened, Mayor Rudolph Giuliani was suggesting a 25 percent cut in New York’s capital budget. Governor George Pataki continues to propose massive cuts in social and civic programs. And the city’s congressional delegation is battling to keep funds for projects such as the relocation of Penn Station to the landmark post office across the street. Designed by Stephen Cassell of the Architecture Research Office, the exhibition will be on view at the National Building Museum in Washington, D.C., this fall.—*Todd W. Bressi*

Todd Bressi is executive editor of the design journal Places.

Safdie’s Skirball Center Opens in Los Angeles

The Skirball Cultural Center is a new landmark for both Los Angeles and Israeli-born architect Moshe Safdie—it is his first civic project in the U.S. Carefully set in a hillside along one of L.A.’s busiest freeways, the \$65 million, 125,000-square-foot cultural center is an outgrowth of Hebrew Union College. The program includes a museum devoted to American Jewish history, a 300-seat auditorium, classrooms, a café, a gift shop, and a large plaza.

The Skirball is nestled into the same hill on which Richard Meier’s Getty Center is rising. Unlike Meier, who leveled the mountaintop to make room for his campus, Safdie brought the landscape into an integral relationship with his building.

The architect seems to have strug-

gled to understand L.A. during his 10-year design process. The landscape was familiar as a “Mediterranean” climate, but unfamiliar as an urban form—“It’s an exploded, formless agglomeration,” Safdie says of L.A. Eventually he reconciled himself to the car-oriented nature of the hillside-by-the-freeway: the Skirball acts as its own billboard, to maintain visibility in a city where, the architect complains, “buildings are experienced at 60 miles an hour.”

In response, Safdie designed a set of simple, barnlike buildings with barrel vaults, which are lined with clerestory windows, atop gables. But despite its strong roadside image, the Skirball is a quiet, inward-looking project. Compared to some of Safdie’s other works, such as his sculptural Library Square in Vancouver (ARCHITECTURE, October 1995, pages 72-79) and the Na-

tional Museum in Ottawa, the Skirball seems understated, revealing Safdie’s maturity both in programming spaces and in detailing. The museum is skinned in light pink stone and greenish slate that avoid sharp contrast. Knowing that the building would often be overshadowed by the hillside, Safdie followed the example of the domes and towers of Iranian mosques, to which blue tile is applied to enhance the visibility of the structures even in half light.

Particularly fine is a 7,500-square-foot courtyard that conveys an urban feeling through the skillful edging of the space with stairs, openings, and different walled surfaces. With the Skirball, Safdie has created a new variant on the L.A. tradition of fostering an intimate relationship between interior and exterior spaces.—*Morris Newman*

Glass on Display at New York's Czech Center

Czechoslovakia boasts some of the world's greatest architectural glass, a tradition that has survived since the Middle Ages through the emergence of industrial technologies and communist patronage. A pair of exhibitions now on view in New York City document the works of six contemporary glass artists from Prague, all of whom collaborated with architects to realize works that are both spatial and sculptural: Václav Cíglér, Marian Karel, Vladimír Kopecký, Dana Zámečnicková, and the team of Stanislav Libenský and Jaroslava Brychtová.

The larger of the two shows, "Form Light Glass: Contemporary Glass from the Czech Republic," on display at the American Craft Museum until June 9, presents at least one large-scale work of each artist. The smaller, "Glass in Architecture," at the Czech Center until May 17, displays models and photographs of various installations.

The Czech Center adjoins a newly renovated lobby on the ground floor of the Czech Permanent Mission to the United Nations. Unlike the exhibition of larger works at the Craft Museum, the Center's modest show of models and photographs allows only a vague understanding of each installation. The photographs nevertheless suggest the enormous presence and power of the works in situ—ranging in scale from the sculptural windows of a Gothic church to monumental installations at the Corning Glass Headquarters in Corning, New York, designed by Kevin Roche and John Dinkeloo.

"Glass in Architecture" also highlights the talents of Czech-born artist Eva Eisler, who organized the exhibition and completed the center's sparse, planar interior last fall. Eisler studied architecture in Prague and moved to New York City in 1983, when she began to design jewelry with a Modernist eye for sharp geometry and clear construction. Her smallest works resemble architectural hardware: hingelike

brooches, for example, are constructed from sterling silver and slate to create what she calls "jewelry for women who don't wear jewelry—for someone who would have a house designed by Richard Meier." (Zaha Hadid, for one, wears Eisler's creations.)

From these tiny Constructivist compositions, Eisler began to develop sculpture and furniture using steel, plywood, and slate, including cabinetry for her own apartment and the Czech Center's maple-plywood reception desk.

Eisler collaborated with New York architect Lawrence Adams on the design for the center's lobby, and her minimalist approach prevailed in its glass-enclosed vestibule, tawny marble floors, and the center's steel-framed entry doors. Her insistence upon clean lines and a neutral palette seemingly extends the building's limited space for display, at present accommodating a 4-foot-high glass figure from Zámečnicková's 1993 installation "Theatrum Mundi."—*M. Lindsay Bierman*

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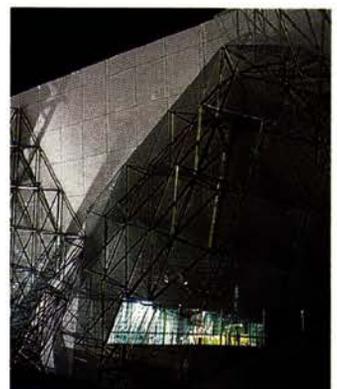
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CZECH CENTER: Eva Eisler's minimalist interior for Czech Center's library.



LIBENSKY/BRYCHTOVÁ: Prague pyramid.



KAREL: Seville Expo installation.



ZÁMEČNIKOVA: Laminated glass sculpture.



ČIGLER: Road to Prague castle.

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JOHNSON: 90th birthday honored.



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DICK FRANK

EISENMAN: Avant-garde advocate.

Avant-Garde Debated in Johnson Colloquium

Two years ago, Phyllis Lambert, director of the Canadian Centre for Architecture in Montreal, architect Peter Eisenman, and critic Jeffrey Kipnis began to prepare a *Festschrift* in honor of Philip Johnson's 90th birthday. Such occasions are traditionally a private gathering of friends to commemorate a life well lived. Early in the planning, however, the Johnson *Festschrift* metamorphosed into a major public conference called "The Origins of the Avant-Garde in America, 1923-1949: The Philip Johnson Colloquium," which took place in New York City in February.

Given Johnson's own stature as an avant-gardist, this critical exploration seemed an inspired choice. Beginning in 1932, "The International Style," Johnson's famous show of contemporary European architecture at the Museum of Modern Art (MoMA), curated with the late historian Henry-Russell Hitch-

cock, confirmed that a new architectural language was possible for an America still in the grip of dead eclecticism. To this day, Johnson continues to help establish one opposing vanguard after another, each launched approximately a decade after the one preceding.

Lambert had no difficulty persuading Terence Riley, curator of architecture and design at MoMA, and Bernard Tschumi, dean of Columbia University's Graduate School of Architecture, to cosponsor the colloquium. However, 10 members of Tschumi's 12-person tenured faculty informed him by letter that they believed Columbia should not honor Johnson because of his former Nazi sympathies and lifelong misogyny. The latter is particularly galling to outstanding women architects, critics, and historians who have watched Johnson sponsor and support their male peers while steadfastly refusing to acknowledge female talent.

The signers of the letter—Kenneth Frampton, Klaus Herdeg,

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Steven Holl, Peter Marcuse, Mary McLeod, Richard Plunz, James Stewart Polshek, Saskia Sassen, Elliott Schlar, and Gwendolyn Wright—urged Tschumi to reconsider his decision to cosponsor the conference and requested that he turn Lambert down. The colloquium planners tried to appease the faculty by offering Frampton and McLeod the chance to participate as moderators, but both refused.

More than a month after receiving the faculty's letter, Tschumi wrote to assure them that "the so-called Philip Johnson colloquium at Columbia is not about celebrating his birthday or career," and indicated that Johnson's name would not be used in the conference's title. Lambert, of course, did not accede to this, since honoring Johnson had been the whole point from the start. MoMA's hype did not equivocate, advertising the colloquium as honoring "America's preeminent architectural curator, critic, historian, and practitioner." Double-crossed by Tschumi, and not wishing to ap-

pear to endorse Johnson's "preeminence," the safely tenured 10 protesters boycotted the entire affair.

In the opening session, Johnson cheerfully debunked the notion that he himself was ever an avant-gardist. "What keeps me running is a sense of fashion, what's in the air... Architecture is the dress of the structure." Johnson's performance was the colloquium's only light touch.

All was in dead earnest from then on, beginning with Lambert's introductory lecture on the origins of the avant-garde in America. She explained that the movement developed in three centers: Harvard's Fogg Art Museum, the Wadsworth Athenaeum in Hartford, and MoMA. Its dynamo was the late poet, art and dance critic/patron Lincoln Kirstein, who centered his effort at Harvard with a network that included leading East Coast museums and galleries. Lambert noted that without this network, "MoMA and the Hartford Athenaeum would not have taken the form they did."

Kirstein's esthetic embraced Constructivism, Futurism, Dada, and Surrealism, but ignored the Modernism of Americans Louis Sullivan and Frank Lloyd Wright. Furthermore, the Johnson-Hitchcock formulation of the International Style movement stressed style only, excluding the political, social, and technological forces that inspired the invention of European Modernism.

Colloquium planner Robert Somol, a young Los Angeles architect and theoretician, then invited historians and theorists to reconsider and reframe key architectural figures of Modernism. Beatriz Colomina, a professor at Princeton's School of Architecture, argued that Le Corbusier's architecture was not high art, but a form of mass media distributed throughout the world by means of photography, film, publications, exhibitions, and advertising. Other participants reassessed the work of vanguard historians Lewis Mumford and Siegfried Gideon, and offered new interpretations of the structures and theories of Fred-

erick Kiesler, Mies van der Rohe, Richard Neutra, Charles and Ray Eames, and the CIAM group.

Eisenman concluded the colloquium with a largely self-referential address. His subject: the necessity of an American avant-garde. Necessary? Absolutely, even if just for him—Eisenman stated forthrightly that he would be unable to function without one. A strong critical and creative presence in the promulgation of Deconstructivism, he appears to be inventing the next vanguard to enliven the scene, in the spirit of Johnson.

But does the profession of architecture really need to be continually challenged by wave after wave of critical theory preceding, coinciding, or following radical changes in form? Yes and no. Architecture that aspires to the level of art must be identified and sustained by a critical framework. But such a framework must prevail for a decent interval, much longer than a decade, to allow a nascent esthetic to perfect itself over time.—*Mildred F. Schmetz*

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Midwestern Houses Exhibited in Chicago

The term "villa" has been regularly used for centuries to refer to distinguished country houses. But in "The Chicago and Midwest Villa," an exhibition on view from March 7 to April 28 at the Chicago Athenaeum, the label is liberally applied to urban and suburban, detached and free-standing, distinguished and banal examples. The 30 projects exhibited, culled from 80 submissions either designed or built after January 1993, are intended to survey recent design trends in residential architecture by architects from Chicago and the Midwest. Selections were made by a jury comprising Nada Andric of Skidmore, Owings, & Merrill; Scott Sevon, president of Chicago's Home Builders Association; and Jared Shlaes, a real estate consultant for Shlaes & Company.

Several trends are discernible from the varied work. The reexploration of the formal properties of the Shingle Style, most clearly articulated by

Robert A.M. Stern, continues unabated in less talented hands. A mediocre private residence by Becker Architects applies some semblance of Shingle Style surface treatments, but lacks the requisite three-dimensional exuberance. Tilton + Lewis Associates' Johnston House captures that formal articulation, but careens badly out of control with a turreted tower that seems inspired by Bruce Goff through a filter of Martian movies. A marginally more developed house by DKL Architecture for Lot 12, Forest Beach, hits closer to the historicist target.

Even more disturbing are those projects that pick and choose from a potpourri of styles in a vain attempt to distinguish themselves. Rudolph & Associates' Burr Ridge Residence resurrects the ghost of Frank Lloyd Wright protégé George Maher, carefully replicating his grandiose and overwrought renditions of the Prairie Style. The Beaubien Residence in Lake Forest by Tilton + Lewis parades the typical suburban French Renaissance style in its most

insipid form. And Morter Architects' house in Mountain Star, Colorado, collages the stone and timber motifs of ski lodges with neither rhyme nor reason.

The architects' own houses are the exhibition's most noteworthy designs. Morgante Wilson Architects' renovation and extension of the Wilmette House, a workmanlike suburban residence, knits together various spaces into a coherent whole. More visually exciting is the Stefan House in Stillwater, Minnesota, designed by Stefan/Larson Associates: constructed as a bridge across a ravine, the house incorporates a tower and a detached garage which stands guard as a gatehouse.

Only two of the 30 projects suggest fertile ground for residential architecture. Salmela Fosdick's Lutz Residence in Duluth, Minnesota, is an exciting composition of disparate parts featuring an active interplay between distinct three-dimensional elements as well as varying surface treatments. Similarly, Florian Architects' Villa I: Michigan in Chicago

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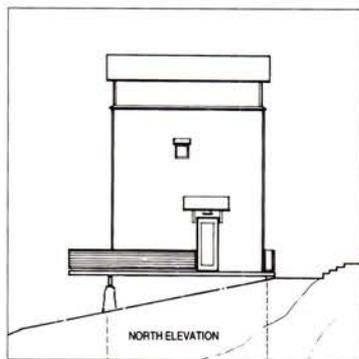
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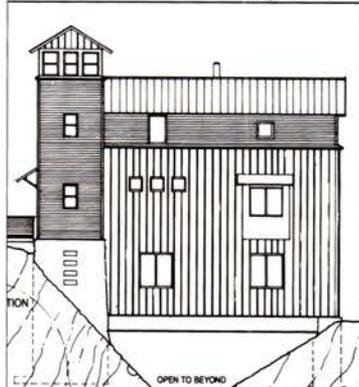
displays a smart, simple composition of plinth, wall, tower, and soaring roof that shows a lot of verve.

"The Chicago and Midwest Villa" is part of a biennial series organized by the Chicago Athenaeum. This format could yield a broad cross-section of work by firms both known and unknown, but curiously, most of the entries came from those neither unrecognized nor distinguished. Where is the new residential work of Chicago architects such as Stuart Cohen, Larry Booth, and Tom Beeby? And why are we left without a clear indication of who their progeny will be?

For the most part, the level of work in "The Midwest Villa" is better suited to an ordinary suburban showcase of homes—and they at least offer real buildings to examine. To display architectural drawings and photographs of mediocrity only degrades the serious exhibitions sorely needed to educate architects and the public as to the theoretical and practical possibilities of houses today.—Edward Keegan



STEFAN HOUSE: Tower acts as gatehouse.



STEFAN HOUSE: House bridges ravine.



LUTZ HOUSE: Salmela Fosdick's Duluth design was one of exhibition's best houses.



WILMETTE HOUSE: By Morgante Wilson.



WILMETTE HOUSE: Addition at rear.

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KENTUCKY KNOB: Palumbo-owned house opens with new sculpture garden.

Pennsylvania Wright House Opens to Public

Kentucky Knob (1956), a Frank Lloyd Wright-designed house located 10 miles southwest of Falling-water in Pennsylvania, opens to the

public May 1. The copper-roofed residence, built with Tidewater red cypress and native fieldstone, is organized on a hexagonal grid around a central kitchen. The current owner, Peter Palumbo (former chairman of England's Arts Council, and

owner of Mies van der Rohe's Farnsworth House), has installed a collection of modern sculpture on the grounds. For more information, call (412) 329-1901.—N.C.

Wampler Retrospective Reflects Social Concerns

For the past 25 years, MIT Professor of Architecture Jan Wampler has been designing, documenting, and teaching about affordable housing in the U.S. and abroad. A retrospective of his work, on display at the MIT Museum in Cambridge, Massachusetts, through June 9, includes photographs, drawings, and models; journal entries and poetry; and fragments of leaded glass and tile decoration that the architect incorporates in his structures. Titled "Open Strings for E," a reference to Wampler's passion for the cello, these vignettes of an architect's life are juxtaposed with newspaper headlines placing his projects within a political timeline over the last quarter century.



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The show begins with a public housing scheme for San Juan, Puerto Rico, designed by Wampler for the Puerto Rico Urban Renewal Administration in 1968. The 1,000-unit complex, conceived to replace a crowded urban slum, arranges low-rise buildings around plazas. The never-realized scheme reflects the architect's sensitivity to the urban poor, while his journal entries reveal his losing struggle to renovate the existing slum.

Other projects exhibit a similar altruism: an affordable plan to renovate Boston's public housing at Columbia Point was dismissed when officials at the Boston Housing Authority worried, "What would happen if everyone wanted housing like this?" But a congregate house for the elderly in Jamaica Plain, Massachusetts, was successfully completed in 1985. Models, drawings, and photographs of these projects are displayed beneath headlines about poverty: "Unable to Find Home, Family Lived in Car."

In the exhibition's text, Aldo van

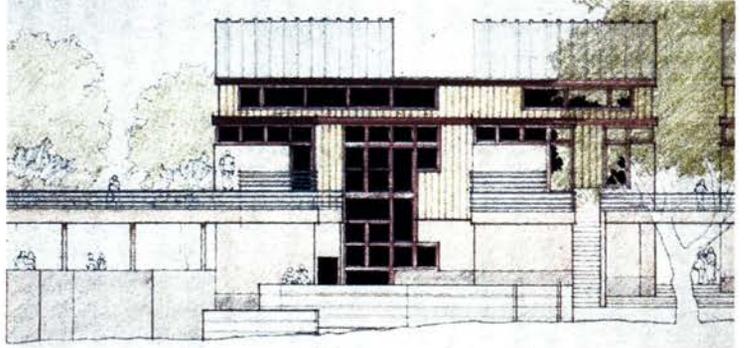
Eyck urges architects to follow Wampler's example and "build as well as you can for the benefit of all people"; Fumihiko Maki extols Wampler's belief that an architect must be sensitive to people and cultures; and MIT Professor John Habraken describes Wampler's quick mind as "governed by the heart, which renders him vulnerable."

Wampler's heart is on his sleeve in this show, with journal entries and poetry that divulge his antiwar sentiments, personal and professional frustrations, and a frightening bout with cancer. Architecture, Wampler implies, is both personal and political; his life's work reflects a successful joining of the two.

Architecture so firmly anchored in helping others was fashionable in the 1960s and '70s, but now the profession seems to be questioning its very essence and direction. Without intellectualizing, Wampler looks back on a life spent making architecture for those less fortunate than himself. This is a life worth studying.—Heidi Landecker



BLOCK ISLAND HOUSE: Wampler's own house is naturally heated and ventilated.

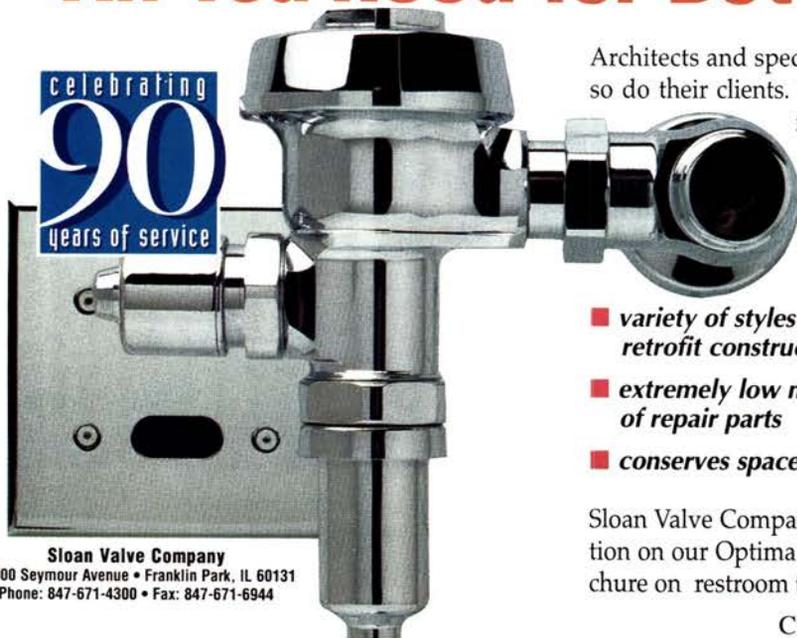


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World Monuments Fund Targets Imperiled Sites

A new "endangered species" list created by the World Monuments Fund (WMF) doesn't hope to protect spotted owls, bald eagles, or marbled murrelets, but such internationally recognized architectural landmarks as Hagia Sophia, Ellis Island, and the Taj Mahal. The list of the 100 most endangered sites was announced by the New York-based organization in late March. It targets at-risk buildings, archaeological districts, monuments, and artworks from Paleolithic petroglyphs to 20th-century Mexican murals by Diego Rivera and the "Endless Column" monument in Romania by sculptor Constantin Brancusi.

The World Monuments Watch was launched to mark the 30th anniversary of WMF, a private organization that sponsors international restoration efforts. "Our role is to bring together private-sector support for local organizations that are engaged in specific preservation projects," explains Executive Director Bonnie Burnham. The project has already attracted the financial support of the American Express Company, which pledged \$5 million over the next five years to help implement specific preservation plans for targeted sites. WMF will compile new lists yearly and establish a permanent database of endangered buildings. (The deadline for submitting nominations for next year's list is December 1, 1996.)

The roster was compiled by a multidisciplinary selection panel whose eight members included Colin Amery, trustee of the Prince of Wales Foundation for Architecture and architectural critic of London's *Financial Times*; Jeanne Epping, president of the American Society of Travel Agents; and James Wiseman, former president of the Archaeological Institute of America and chairman of Boston University's Department of Archaeology.

The panel reviewed more than 250 nominations from around the globe. Applicants were required to identify the specific threat, propose a feasible restoration solution, and identify local supervisors for the project. Selections were based on the monument or site's significance, immediacy of the danger, and the proposed action's viability. Funds are not in place to remedy all 100 of the imperiled sites. However, the decision as to which will receive immediate funding will be made not by WMF, but by American Express. WMF Executive Director Burnham calls this process "reasonable, since at this point it's largely [the company's] money that's being given away." But will American Express choose to repair the sites in the most critical condition, or those among its most popular tourist destinations? The recipients of the first round of grants will be announced on May 23 in New York at another landmark of sorts—the Windows on the World restaurant, currently under renovation by Hardy Holzman Pfeiffer Associates, atop the World Trade Center.—*Raul A. Barreneche*

identify the specific threat, propose a feasible restoration solution, and identify local supervisors for the project. Selections were based on the monument or site's significance, immediacy of the danger, and the proposed action's viability.

Funds are not in place to remedy all 100 of the imperiled sites. However, the decision as to which will receive immediate funding will be made not by WMF, but by American Express. WMF Executive Director Burnham calls this process "reasonable, since at this point it's largely [the company's] money that's being given away." But will American Express choose to repair the sites in the most critical condition, or those among its most popular tourist destinations?

The recipients of the first round of grants will be announced on May 23 in New York at another landmark of sorts—the Windows on the World restaurant, currently under renovation by Hardy Holzman Pfeiffer Associates, atop the World Trade Center.—*Raul A. Barreneche*

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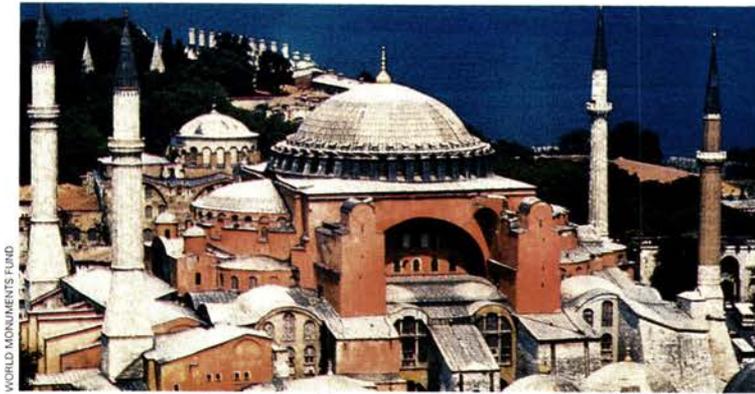


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HAGIA SOPHIA: Byzantine landmark's structure is cracking and roof is leaking.



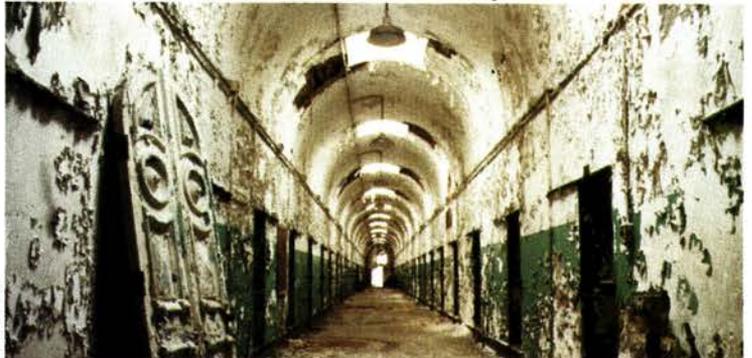
WORLD MONUMENTS FUND

MY SON TEMPLE: Heavy rains destroyed Vietnamese temple district's foundations.



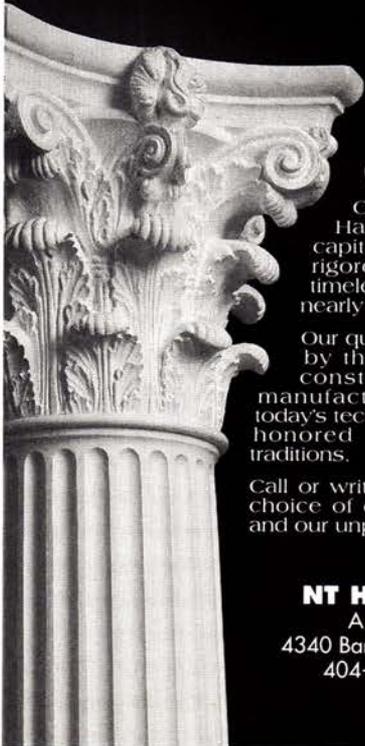
ROYAL THAI GOVERNMENT

AYUTTAYA, THAILAND: City flooded by rising Chao Praya River in November 1995.



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EASTERN STATE PENITENTIARY: Abandoned Philadelphia jail badly needs roof repairs.



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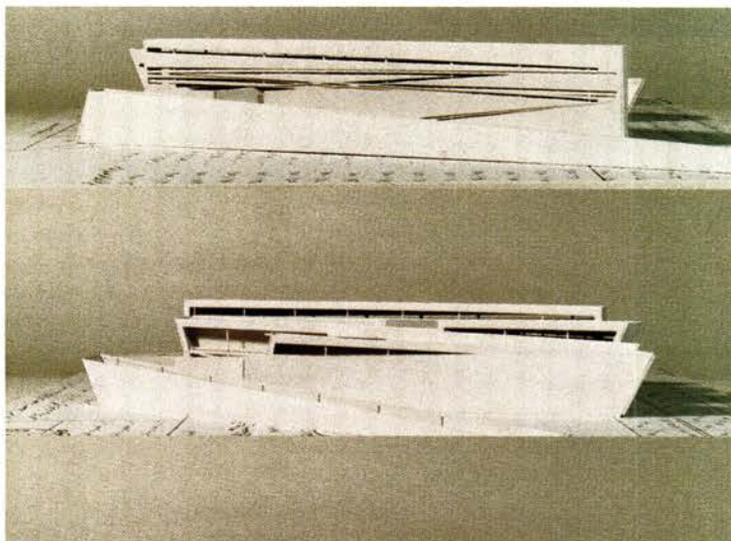


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YOUNG ARCHITECTS: House in Jordan by Erik Hemingway.

Rising Design Stars

The Architectural League of New York has chosen six firms from 100 hopefuls for its 1996 Young Architects Forum, based on their portfolios and responses to the questions, "Is form inevitable in architecture?... Can architecture today ask questions about form itself, rather than... challenging one formal strategy in the name of another?"

Erik Hemingway of San Francisco answered that "form is the physical consequence of ephemeral conditions"; Kadambari Baxi and Reinhold Martin of New York described their work as "a landscape of white noise and impenetrable blurs, where there is nothing more real than an image." Also among those chosen were Mehrdad Hadighi of Buffalo, Rick Joy of Tucson, partners Marwan Al-Sayed and Janet Fink of New York, and Stephen Cassell, Thomas Jenkinson, and Adam Yarinsky of New York-based Architecture Research Office.

The jury comprised Peggy Deamer, Silvia Kolbowski, Tod Williams, and past Young Architects Forum

participants Scott deVere, Laura Kurgan, and John Nastasi. The architects will present their work in a lecture series this month; an exhibition of the projects runs through July 6 at the Urban Center.

New Transit Designs

Kwan Henmi Architecture/Planning has won a \$23 million commission to design a light rail system to connect San Francisco International Airport's terminals. Washington, D.C.'s Metro subway system will add two new suburban Maryland stations by Chicago-based Harry Weese Associates. Weese is also designing an intermodal transportation center in Hamilton, New Jersey, scheduled to break ground this summer. Bower Lewis Thrower Architects of Philadelphia is spearheading a \$50 million renovation of Suburban Station for the South Eastern Pennsylvania Transportation Authority. HNTB is designing an addition to Knoxville, Tennessee's airport, and the B Terminal building at Boston's Logan Airport.

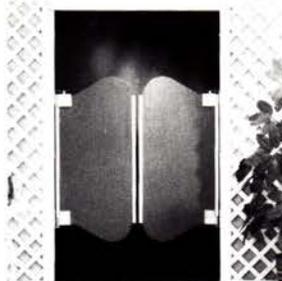
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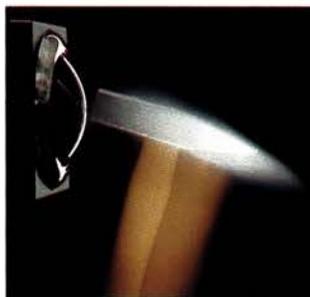
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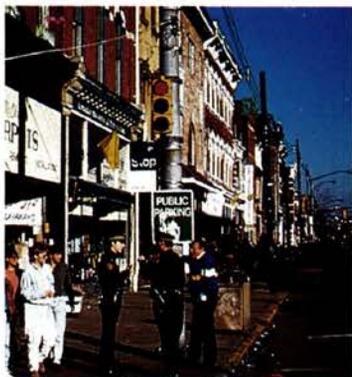
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National Trust Awards Main Street Rehabs

Main Street USA is alive and well, and in the best cases, more popular than the mall, thanks to the Main Street Center of the National Trust for Historic Preservation. Since 1980, this civic self-help program has helped save 900 communities nationwide. It has spurred such places as Eureka, California; Okmulgee, Oklahoma; and Mannington, West Virginia, to preserve the best assets of their downtowns through citizen teamwork.

Many of these towns begin the revitalization process to combat retail flight to suburban chain stores. They spruce up historic buildings, upgrade streets and sidewalks, hold community festivals, and even stage contests for small-business plans. These efforts not only transform Main Streets into lively destinations, but reinvigorate local communities for residents and tourists alike.

The resourcefulness of this grassroots economic redevelopment is exemplified by the five towns that won this year's Great American Main Street Awards, a juried competition held in February. The tiny town of Bonaparte, Iowa, formed a corporation to rehabilitate vacant stores and an old opera house, and even hosted a summit to find ways

of repairing damages incurred by the 1993 floods. Chippewa Falls, Wisconsin, transformed an old shoe factory into housing. The East Carson Street Business District of Pittsburgh shored up its neighborhood by encouraging a mixture of housing and businesses.

Saratoga Springs, New York, home of the country's oldest thoroughbred racing track, has spent the last 25 years cementing its urban center, from restoring historic facades to building a new performing arts center. In Wooster, Ohio, investors upgraded a derelict department store, donated it to the city, and then convinced a major retail corporation to relocate downtown and open a new store.

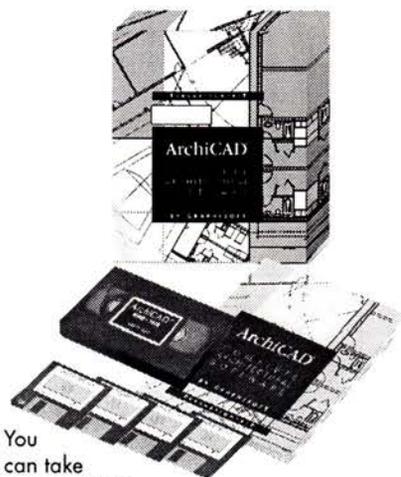
In this era of reduced government spending, the remarkable volunteer efforts required of these Main Street programs are a role model for other communities. "I find myself signing up for projects and committees to be a part of something meaningful," explains Jody Rowan, owner of a Chippewa Falls coffee shop.

Each winner of this year's Great American Main Street Awards received a \$5,000 cash prize at the National Trust's National Town Meeting on Main Street in Nashville on April 29. For more information about the National Main Street Center, call (202) 673-4219.



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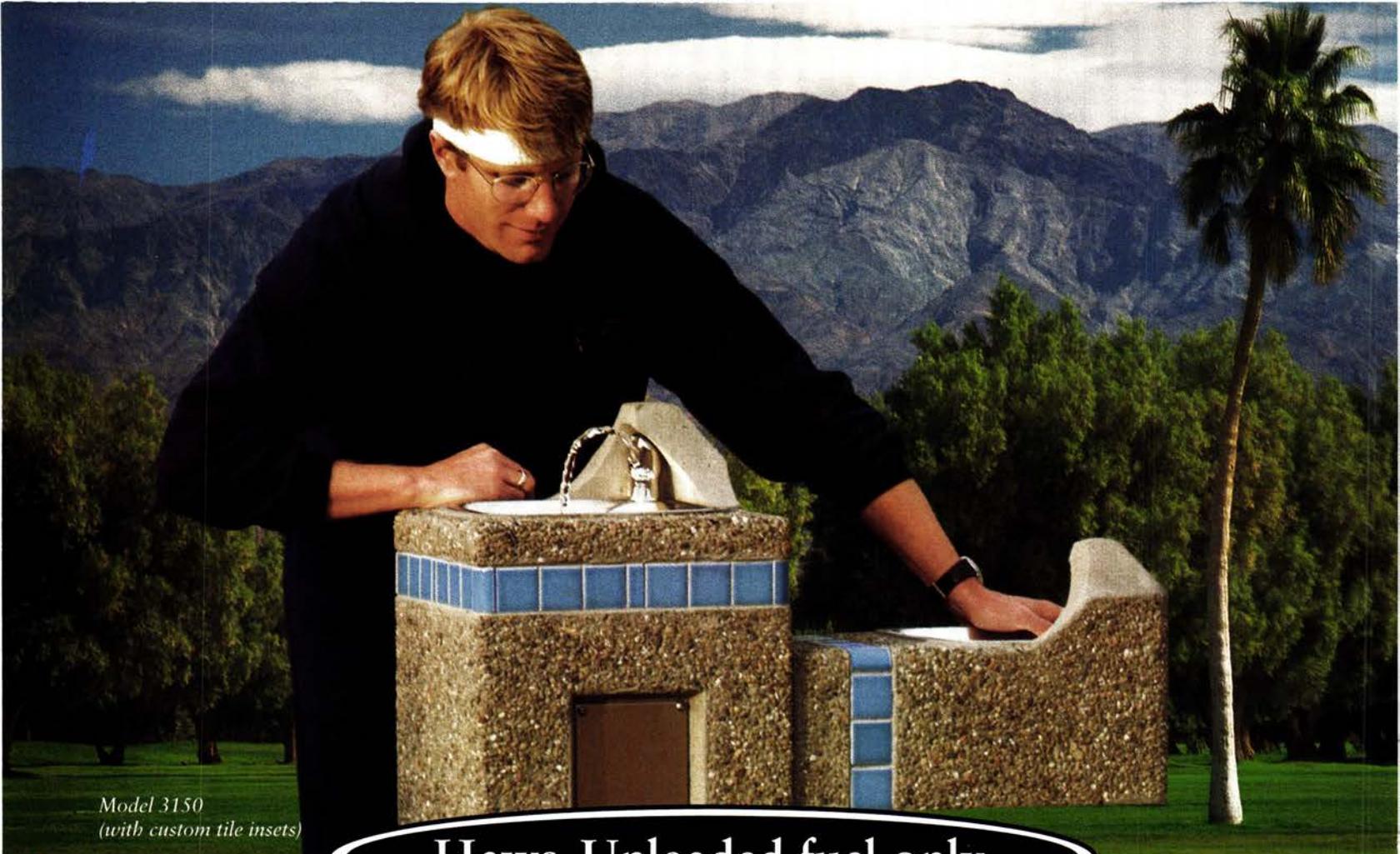
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REAGAN BUILDING: Pei Cobb Freed's design completes D.C.'s Federal Triangle.

Pennsylvania Avenue Corporation Shuts Down

The Pennsylvania Avenue Development Corporation (PADC), responsible for renewing the boulevard that runs between the Capitol and the White House, is the latest victim of congressional budget cuts. Scheduled to close in 1997, the office was shut down April 1. Using only \$150 million in federal seed money, the PADC generated \$1.5 billion in private development since 1972. Unfortunately, its final project, the Ronald Reagan Building and International Trade Center designed by Pei Cobb Freed & Partners to complete the Federal Triangle, has generated controversy over its runaway budget of \$700 million.

New Commissions

A two-rink training facility near Phoenix is being designed by Jones Studio for the Jets hockey team. Ellerbe Becket has been named designer of the 300,000-square-foot Science Museum of Minnesota in Minneapolis. In St. Paul, Hamline University has commissioned Arbnies King Vlock to design a 40,000-square-foot arts school and museum.

A 170,000-square-foot experimental middle school in Houston is being designed by Taft Architects.

Tulane University has commissioned Perkins & Will and Scogin Elam and Bray to design new dormitories. Butler Rogers Baskett is upgrading the Buckley, Episcopal, Chapin, and St. Bernard's schools in Manhattan.

Childs Bertman Tseckares is designing a 40,000-square-foot addition to H.H. Richardson's Crane Public Library in Quincy, Massachusetts. Philip Johnson is designing a nondenominational church in Dallas for the largest gay and lesbian Christian group in the country. The Mill Springs Civil War battle monument competition has been won by the Boston firm Beach Linn Design.

Motivated by Moshe Safdie's design of a tomb for assassinated Prime Minister Yitzhak Rabin, the Israeli government has commissioned Safdie to design a Jerusalem think-tank in honor of Rabin, to be dedicated to the peace process.

Developer Dies

James W. Rouse, age 81, died April 9 at his home in Columbia, Maryland, the 14,000-acre town he created in the late 1960s. The developer of Boston's Faneuil Hall and Baltimore's Harborplace, Rouse is remembered for his invention of the "festival marketplace" and advocacy of low-cost urban housing.



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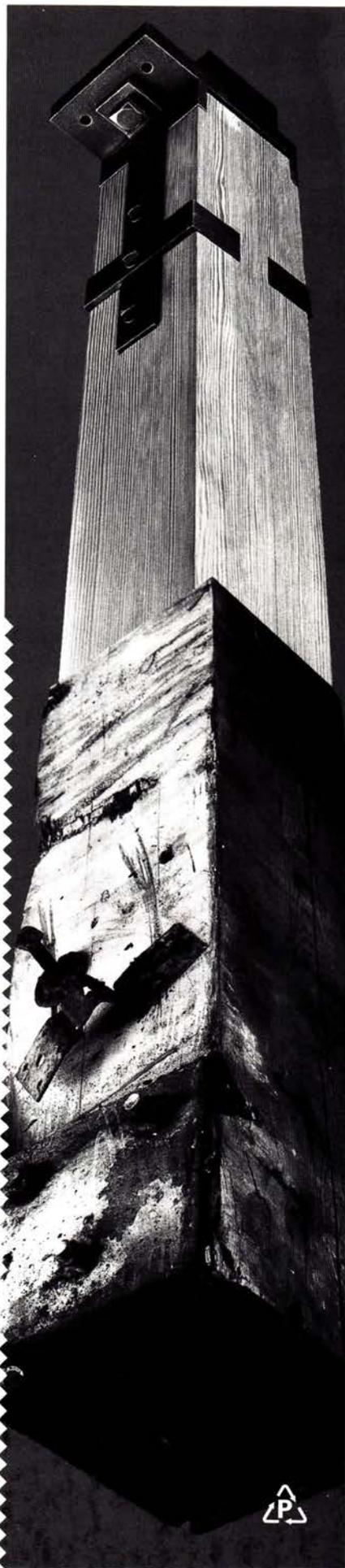
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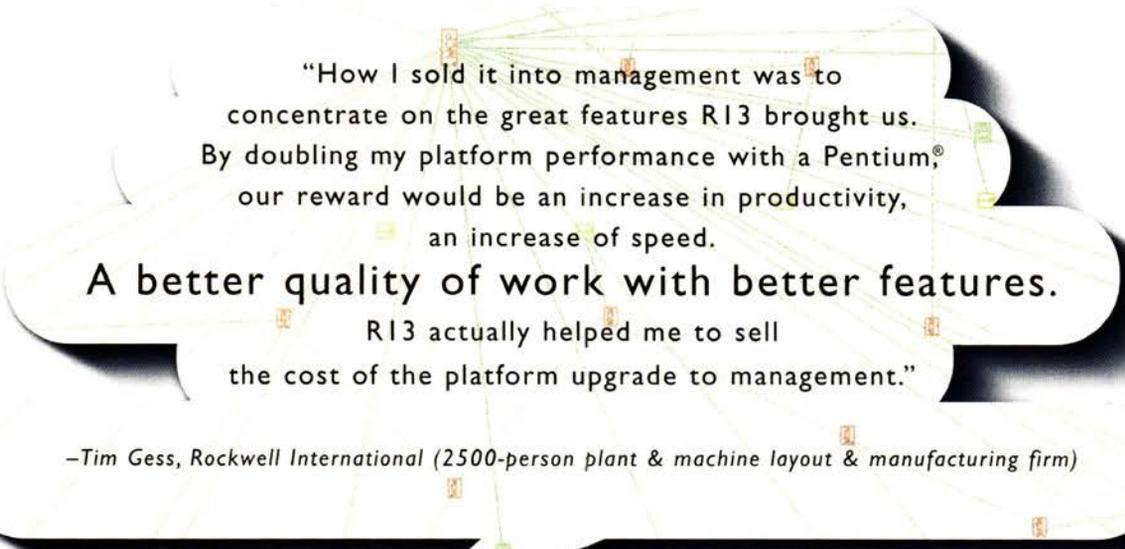
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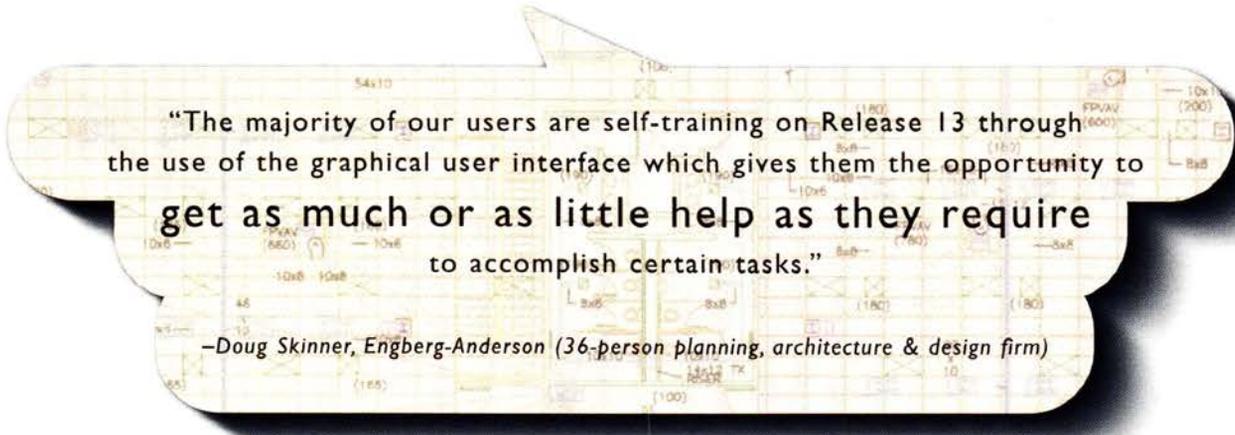
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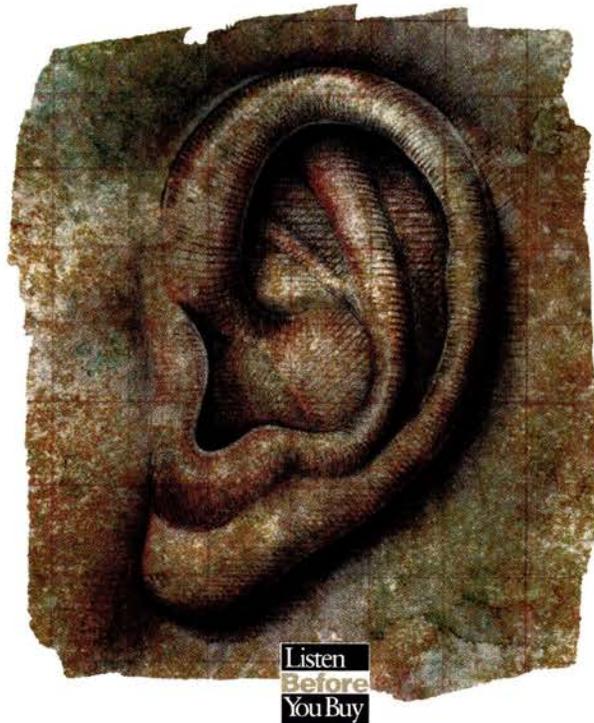
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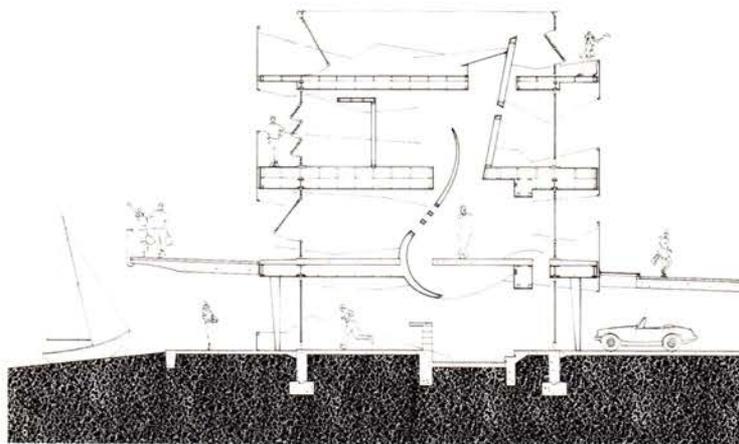
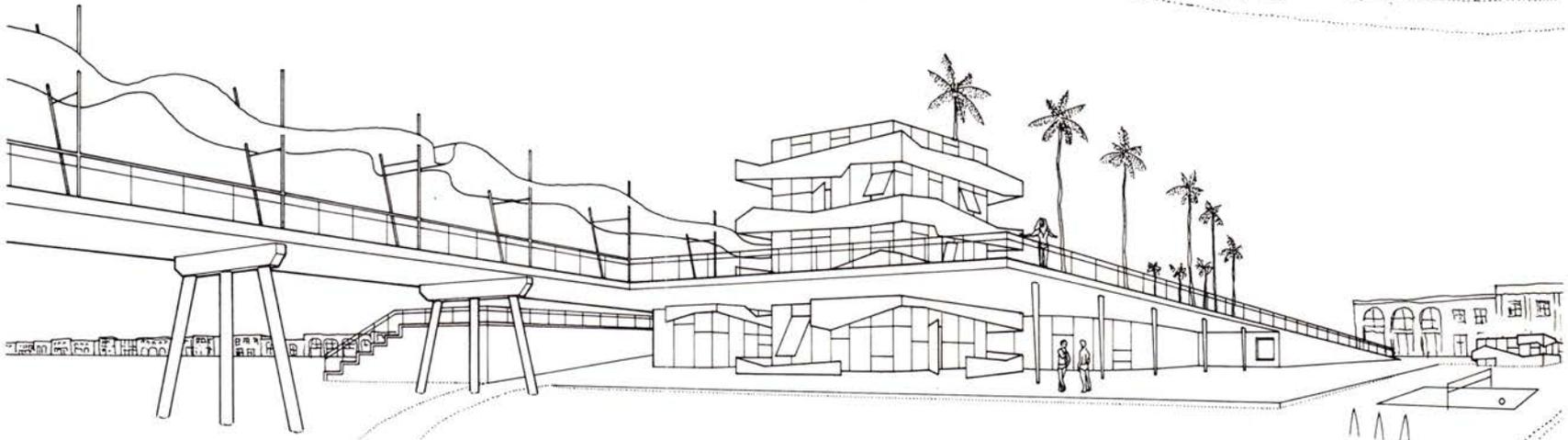
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Hermosa Beach Pier
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In 1993, Charles Moore juried the AIA Cabrillo competition that selected Lombardi Poon Architects' Hermosa Beach Pier over elaborate proposals for hotels, malls, concert halls, and amusement parks. Moore praised the small, Los Angeles-based practice for its provision of "a large open area where architecture doesn't define the space; people, through their activities, will define the space." Rather than introduce new programming into the site, the firm recognized the need for a simple reworking of existing elements.

A plaza surmounts underground parking, offices, meeting rooms, an athletic facility, and bathhouses that open to the beach; a renovated three-story pavilion on the western edge of the plaza houses the county lifeguard headquarters. An undulating sheet-metal canopy runs two-thirds of the length of the existing concrete pier, and two wooden fishing decks hang from the pier on steel tension rods. Construction is scheduled to begin in 1997.—N.C.

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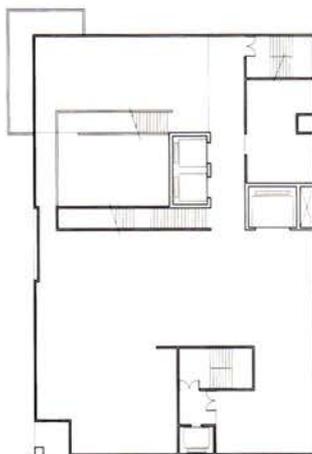
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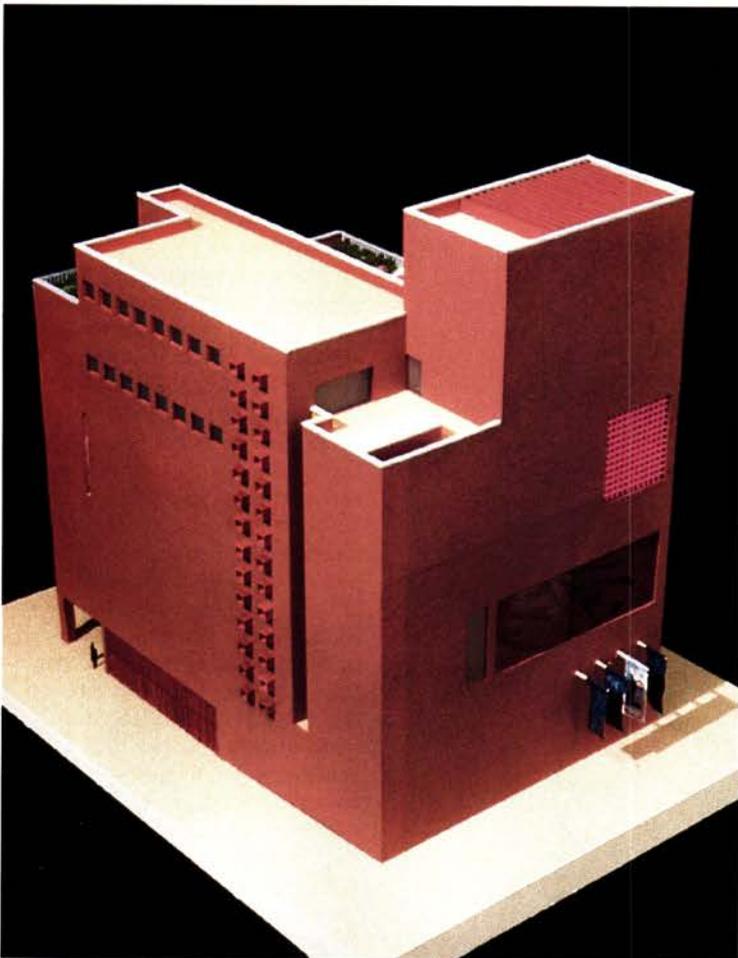
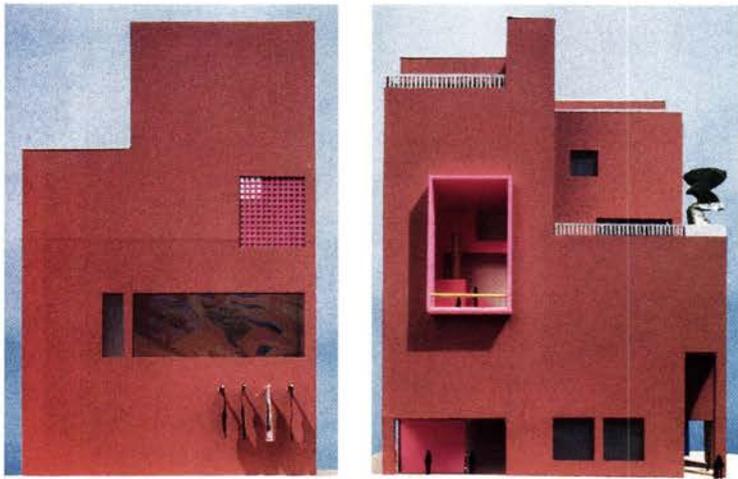
FIRST-FLOOR PLAN

Mexican Museum Legorreta Architects Robinson Mills + Williams

Mexican architect Ricardo Legorreta's signature of intensely colored masonry is being applied to San Francisco's new Mexican Museum. The rectangular six-story mass, to be clad in the dark-red lava stone characteristic of many public buildings in Mexico City, is relieved by the subtraction of cubic volumes as entrances, porticos, and terraces, and punctuated by brightly colored grilles, railings, and surrounds. The museum, dedicated to the exhibition of Mexican art, is being constructed across the street from Fumihiko Maki's Center for the Arts Galleries and Forum in Yerba Buena Gardens.

Galleries on the ground and second floors and administrative offices on the upper levels will sandwich two floors of leased office space, into which the museum will expand as future growth necessitates. In the galleries, Legorreta forgoes his usual bold color scheme in favor of more art-friendly beige.

The \$14 million budget is supported by private donations and a matching grant from the city. Construction of the museum is scheduled to begin in 1997.—N.C.



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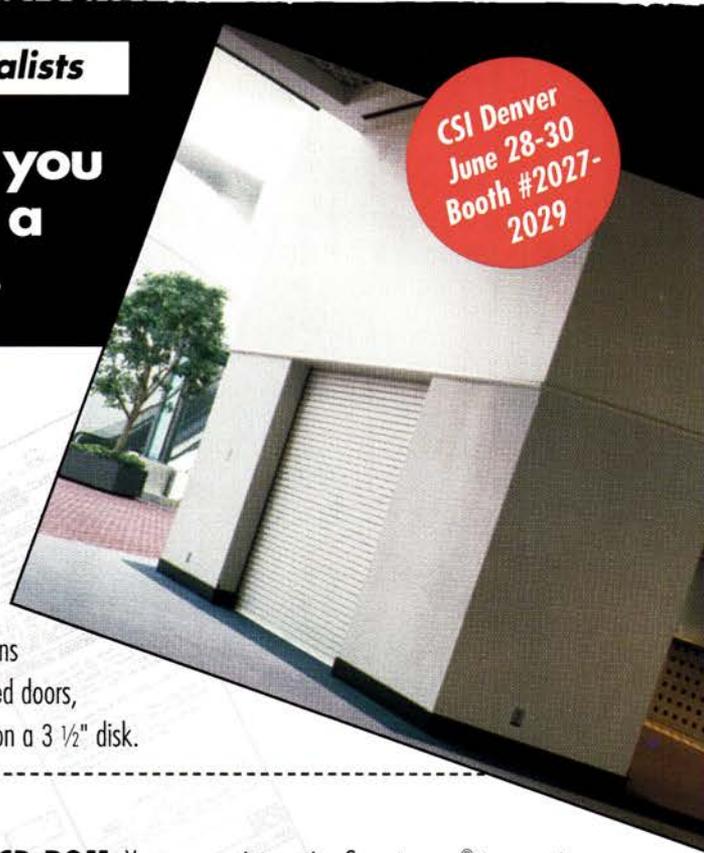
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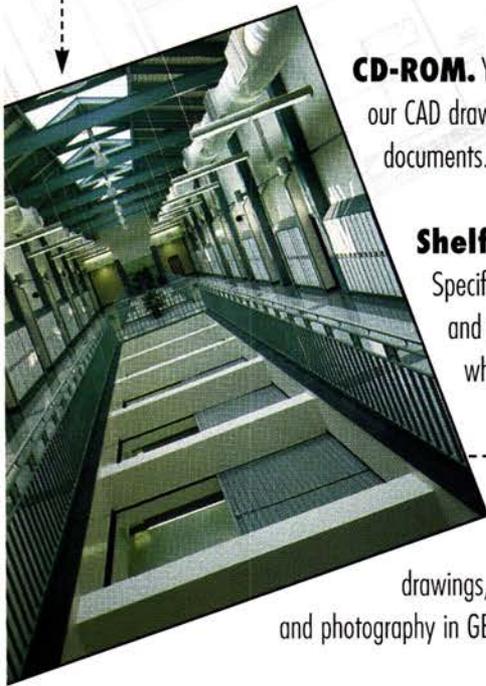
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Chihuly Bridge
Tacoma, Washington
Moore Andersson Architects

The Washington State History Museum in Tacoma, opening in August, is inspired by the adjacent Union Station, which now houses a federal courthouse. Moore Andersson translated the elaborately detailed brick, limestone, and copper surfaces of the 1911 Beaux-Arts station into brick-clad, vaulted forms for the museum.

Three bays contain galleries with temporary exhibitions and a permanent overview of the state's history, as well as administrative offices; shows will also be staged in Union Station's grand concourse. A fourth barrel vault serves as an open canopy that leads to the museum entrance and an outdoor amphitheater.

Next year, the 100,000-square-foot museum will be linked by a pedestrian bridge to the future site of the International Museum of Modern Glass to the east. Designed by Moore Andersson in collaboration with glass artist Dale Chihuly, the 700-foot-long bridge, which spans a freeway, will support five pavilions inspired by 19th-century conservatories. Each will house a different installation of sculpted glass. Tacoma native Chihuly views the project as an opportunity to "make a significant contribution to the city where I was born."—N.C.

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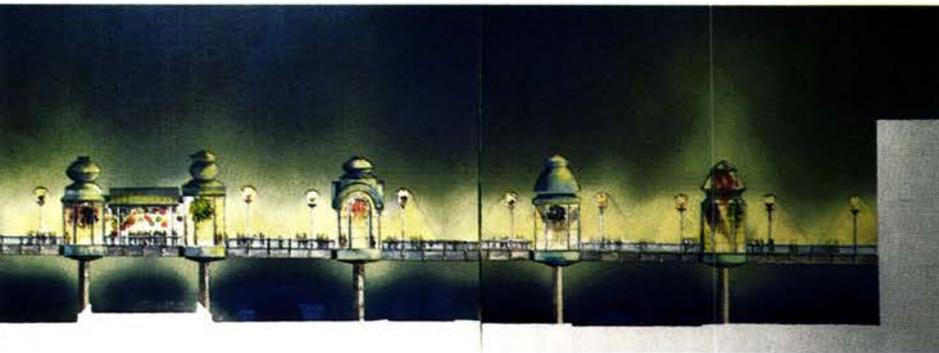
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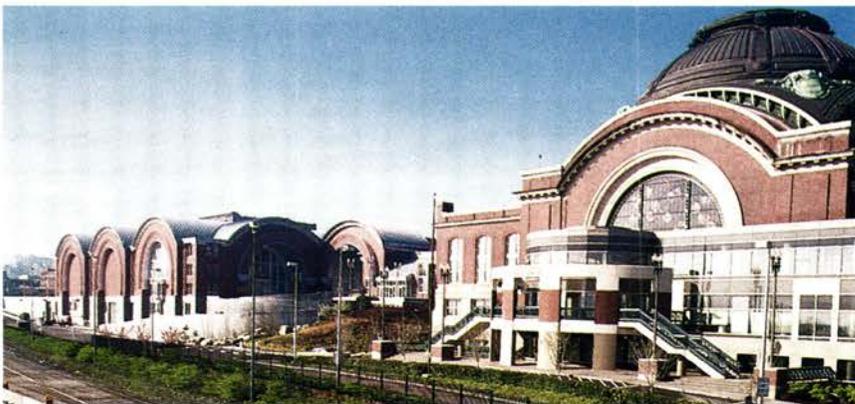
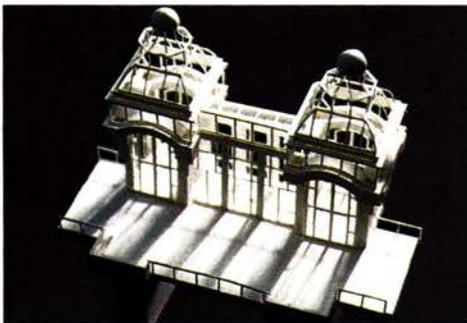


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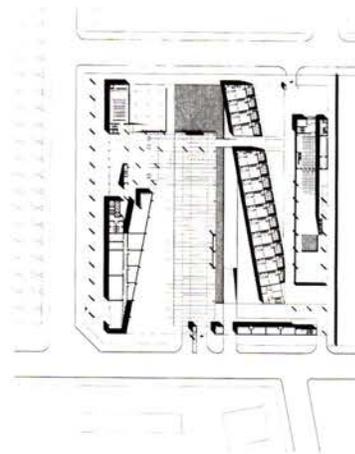
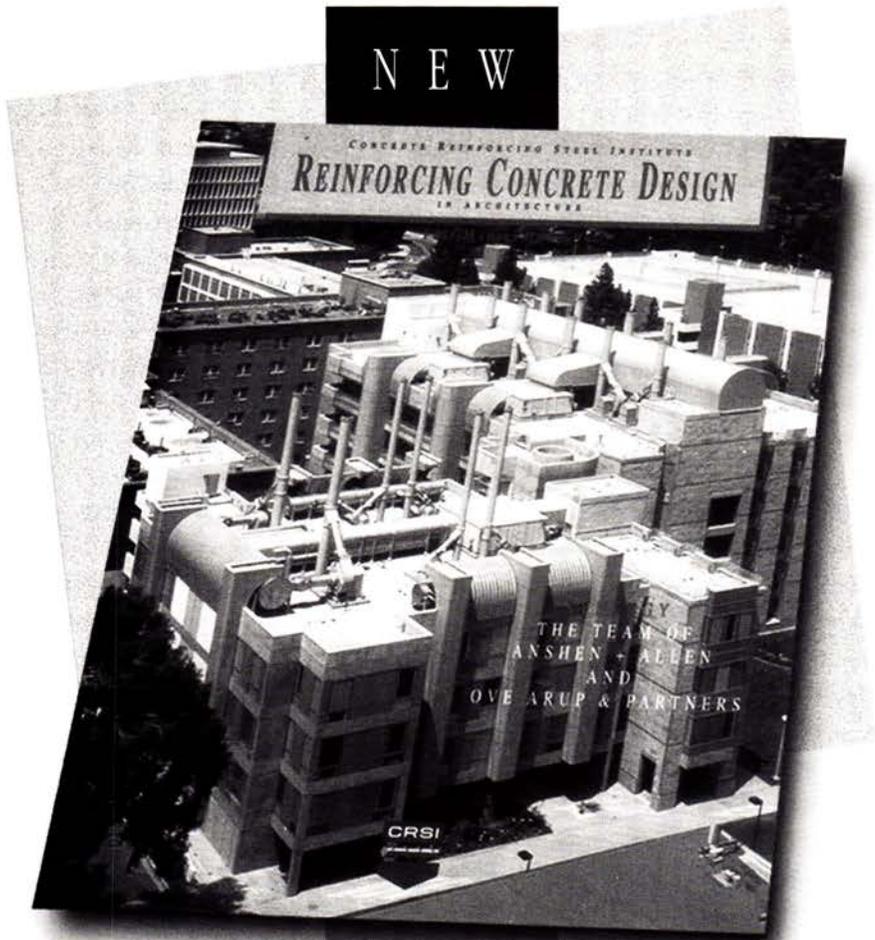
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Inspired by the courtyard compounds of traditional Korean palace and temple architecture, New York-based Garrison Siegel and Seoul-based Kunwon Architects won a competition last year for a new Korean embassy in China. The complex will be located on a site in Beijing's new diplomatic district, adjacent to a public park and proposed Indian and Dutch embassies.

The architects organized the 162,000-square-foot embassy around two courtyards. The six-story, V-shaped chancellery flanks a paved ceremonial courtyard to the south and overlooks a park to the north. The building's two wings, which house an auditorium, offices, galleries, and conference and reception rooms, enclose a wedge-shaped atrium.

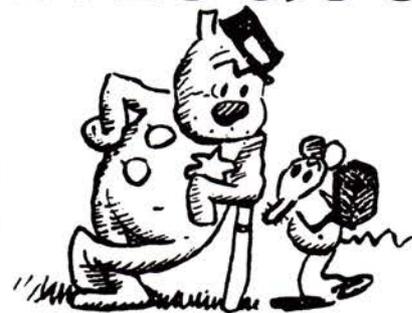
Extending from the chancellery and enclosing the ceremonial court to the east is a rectangular volume containing the main reception room. A long pool of water and a block of housing for the embassy staff separate the ceremonial court from a smaller, landscaped garden. The ambassador's residence to the south completes the enclosure of the garden. Construction is scheduled to begin in 1997.—*N.C.*



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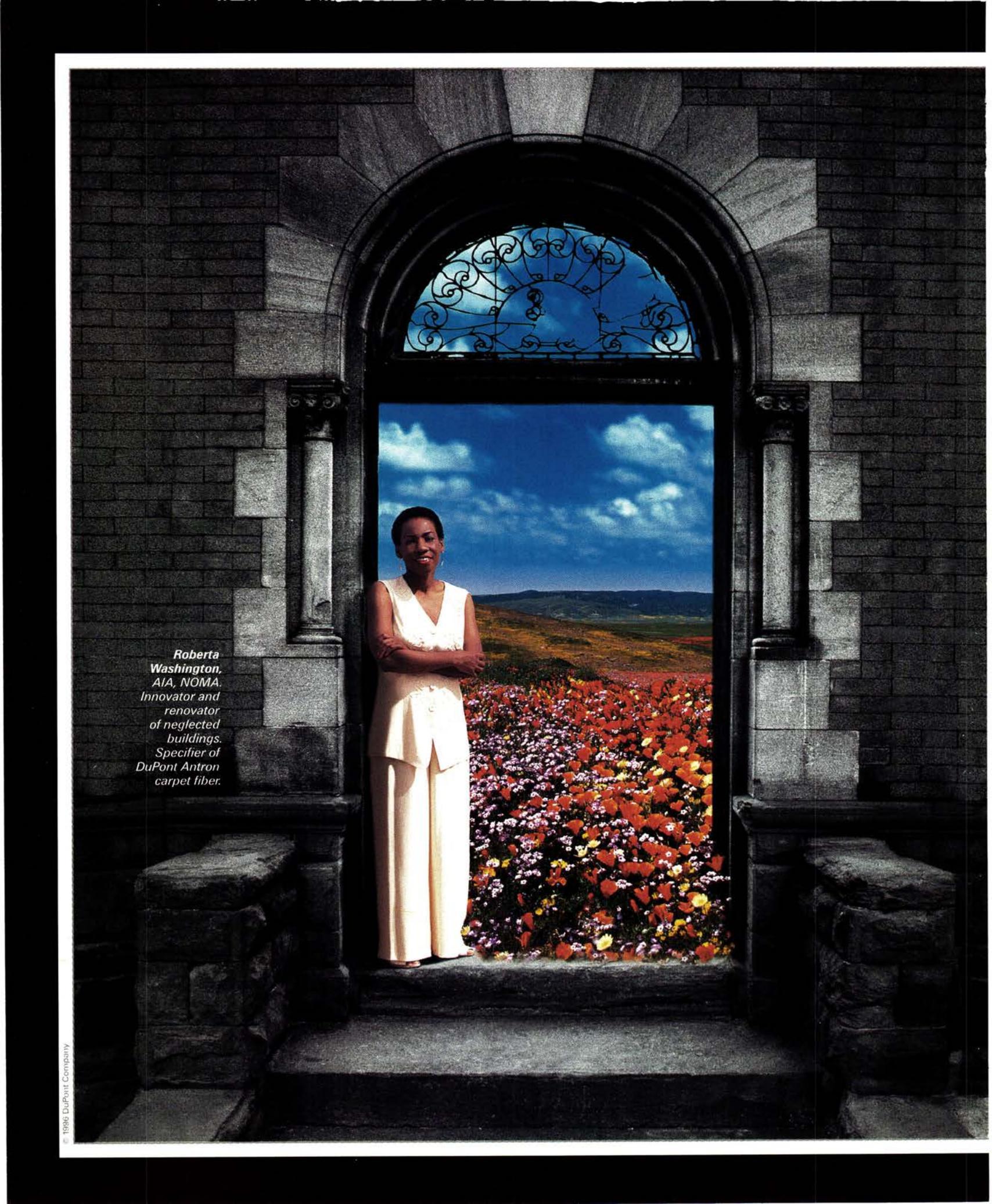
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A woman, Roberta Washington, stands in a stone archway. She is wearing a light-colored, sleeveless jumpsuit. The archway is set in a dark stone wall. Above the arch is a decorative wrought-iron window. The view through the arch shows a vibrant field of colorful flowers (red, orange, yellow, and purple) under a bright blue sky with scattered white clouds. The overall scene is a contrast between the dark, solid interior and the bright, colorful exterior.

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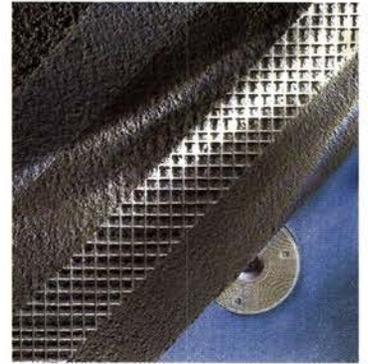
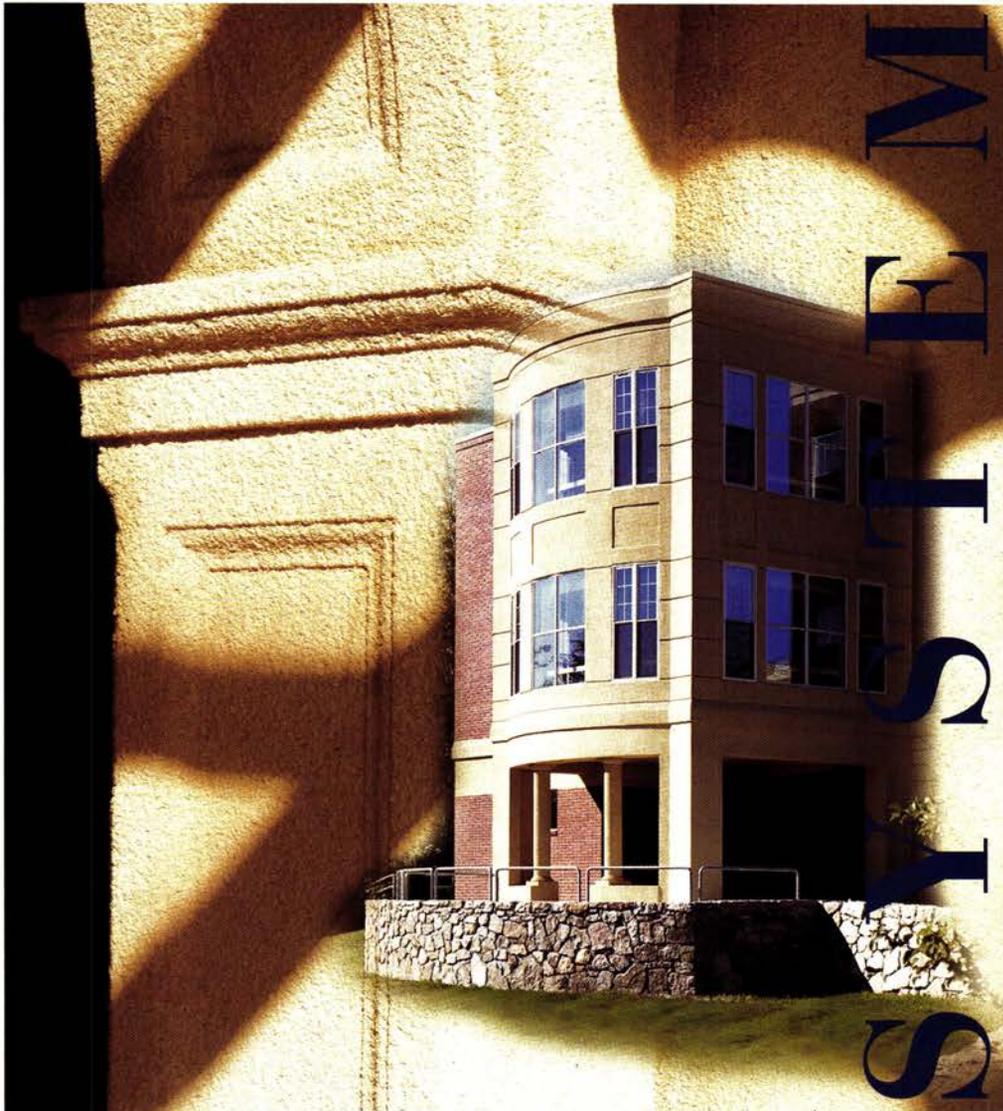


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Protest

A looming tower undermines a neighboring historic district in downtown Seattle.



PACIFIC HEIGHTS: Glitzy condominium tower is more suited to Honolulu than Seattle.

New Tower Jolts Downtown Seattle

The Vyzis Company calls One Pacific Towers “the best address in town.” Seattle architects, however, call it the Mauna Loa. They call it David Letterman doing Shakespeare. Leroy Neiman doing Monet. They call it a failure, a building that clashes with its surroundings.

The new residential glass-and-metal tower sits askew on a premier corner just across the street from the historic district that boasts the Pike Place Market, one of Seattle’s most precious jewels. Its looming 27 stories of glitzy, curved steel and mirrored glass are set on a square base and angled 45 degrees to capture southwestern views of Puget Sound. Under construction on the ground floor is yet another coffee bar. “It looks great for Honolulu,” says one architect, bestowing, along with

“I’ve seen worse,” perhaps the highest praise the tower may receive.

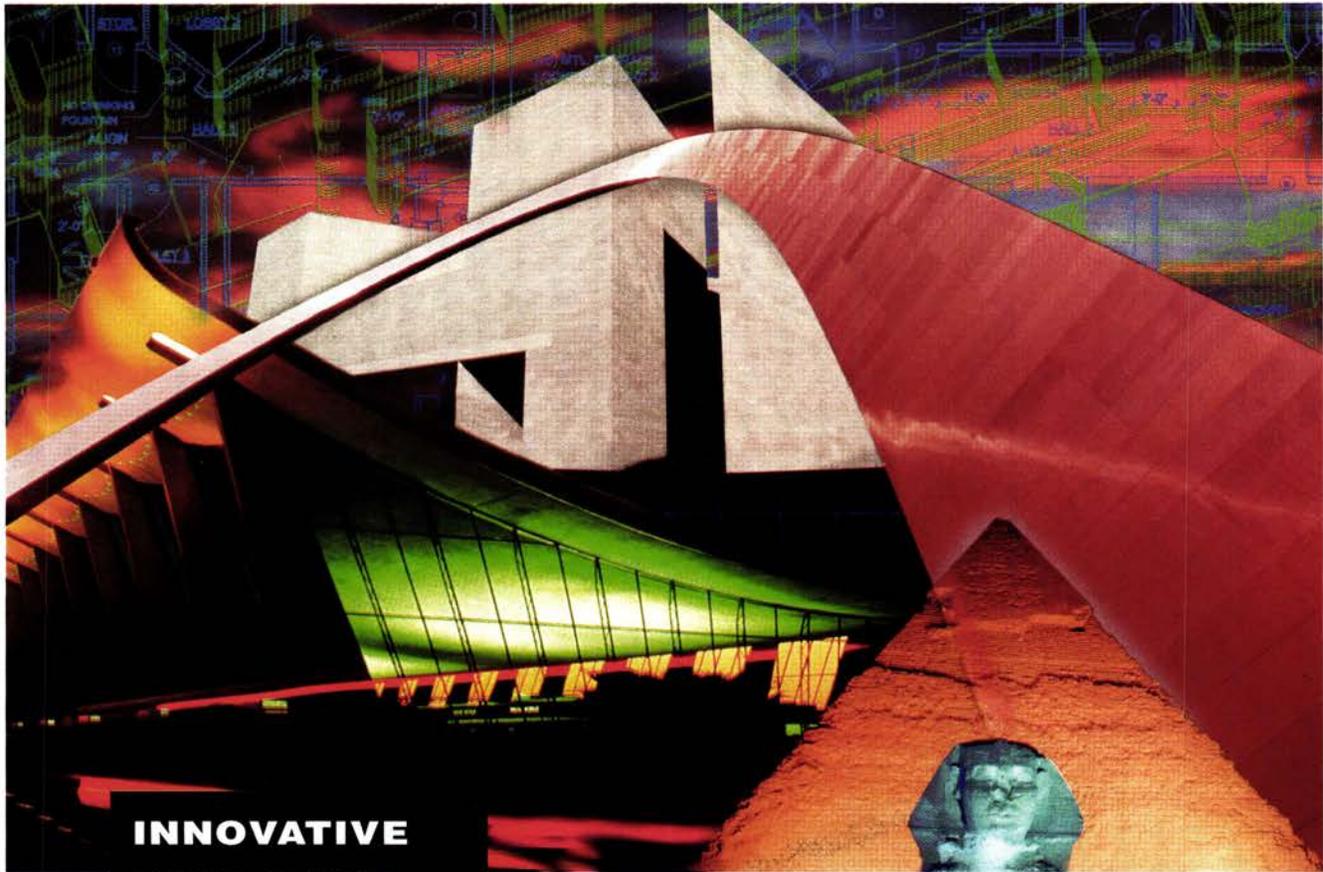
The word on the street is that the developer, The Vyzis Company, was inspired by a building in Hawaii—or in more elaborate versions of the tale, as guests there, they’d had a terrific time, danced the hula, loved the poi. When they got hold of what’s been described as one of the great sites in Seattle, a former parking lot between First and Second avenues on Virginia Street, they showed drawings of the Hawaii tower to their architects, Curtis Beattie and Associates. In a great burst of nostalgia, they said, “Do that.” And in fact, Vyzis makes no effort to hide that One Pacific Towers was directly inspired by the Waterfront Center in Honolulu.

Then somebody got the idea to “complement” the low-rise, early 20th-century masonry structures nearby, such as the Terminal Sales

Building’s multiple rows of mullioned windows immediately to the south. The designer’s tip of the hat was to disguise the condo tower’s parking garage with mullioned black reflective glass, an insensitive attempt at historical mimicry.

So how did One Pacific Towers get approval? First, it fulfills Seattle’s plans for increasing residential uses downtown, where building height is unrestricted. More importantly, because the tower lies just outside the Pike Place historic district, it was not required to undergo public design review. The same will hold true for phase two of the project, which calls for an identical edifice to be located on the eastern half of the site. The second building has yet to be scheduled for construction.—*Nancy Montgomery*

Nancy Montgomery is a writer for The Seattle Times.



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Save Our Recent Past

Modernist architecture requires new methods of preservation, argues Robert A.M. Stern.

Architects raised on the heady esthetics of International Style Modernism hated the Victorians: today, many of us hate the Modernists. And with some good cause, at least for those of us who love tradition. But the Modernists should not be hated for what they built, but for how they related their work and their ideas to what went before. The Victorians viewed themselves as part of the ongoing tradition of architecture; in contrast, the Modernists wanted nothing to do with history. Times change, and it's now fairly easy to preserve a Victorian building, in large part because the public has never quite swallowed the medicine of Modernist minimalism, and Victorian excess is their sweet revenge. But what ironies are in store for us who love the continuities of history. Now, the iconoclastic Modernists want their place in the historical sun—they clamor to be preserved. Even the most antitraditional architects have eaten crow and made their peace with the past in order not to be left out.

Consider Walter Gropius, who, after founding the Bauhaus in Germany, became the leading architect-advocate of International Style Modernism in America. As the head of Harvard's architecture school in the 1940s, he eliminated the teaching of history and banished all architectural history books from the library. But when it came time to prepare for his place in posterity, Gropius gave his own uncompromisingly antitraditional house in Lincoln, Massachusetts, to

the Society for the Preservation of New England Antiquities. And upon the death of the still very vital nonagenarian Philip Johnson, the National Trust for Historic Preservation will become responsible for the New York architect's great Modernist complex of houses and outbuildings in New Canaan, Connecticut. From these examples, it can be deduced that when good Modernists die, they seek entrance into preservation heaven.

But preserving our Modernist heritage should not simply mean saving isolated houses on country estates. We must preserve city buildings and even cities themselves. The problem with preserving urban Modernism is that many of the best buildings were constructed for short-term profits. Their time is now up, their metal walls leaking or even failing, the once sophisticated electrical and mechanical systems on which they depend are hopelessly antiquated, and their very "look," hopelessly old hat. Their owners want to rebuild in a more up-to-date way, which often means stripping the shell and recladding—a process which the curtain wall techno-esthetic too easily allows.

In New York City, Skidmore, Owings & Merrill's Lever House (1952) was designated a landmark in 1982, but only after Jacqueline Kennedy Onassis joined the battle. Designating Mies van de Rohe and Philip Johnson's Seagram Building (1958) was possible in 1989 because the Bronfman family who built it had imposed, in the form of



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GROPIUS HOUSE: Now historic site in Lincoln, Mass.

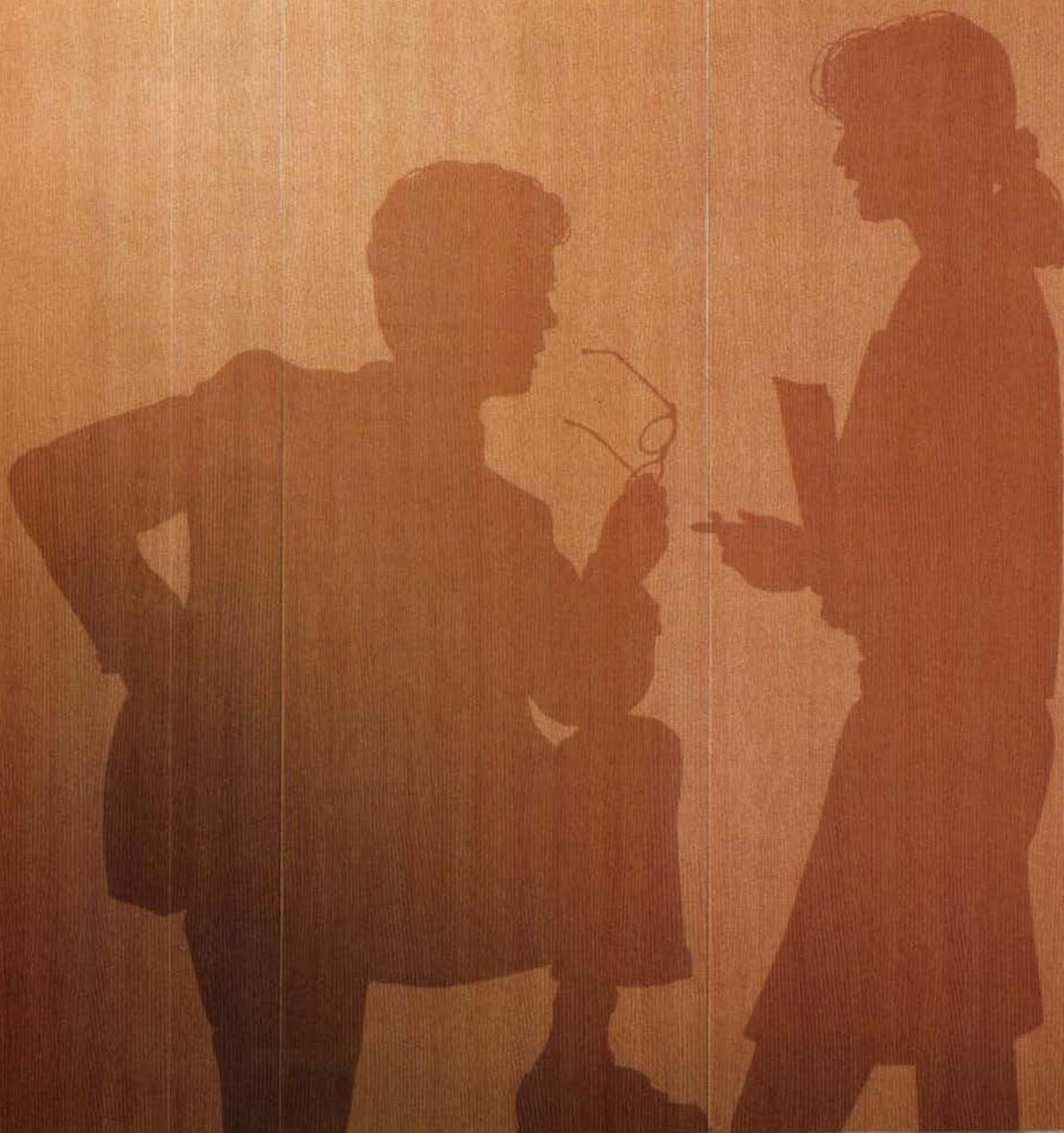


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Opinion

binding deed restrictions, far stiffer standards for preservation than demanded even by those landmarks with legal designation. Eero Saarinen's brilliantly conceived TWA Terminal at New York's Kennedy International Airport—truly the Grand Central Terminal of the air age—was protected in 1994 despite strong opposition from its current owners, the very airline that built it. True, the airline's needs had changed, but the building, though badly served by renovations, was still a thrillingly optimistic image of flight.

Many key monumental works of the Modernist period remain threatened—some with destruction, and many more with the exquisite torture of incremental renovation. While much can be done to alter a massive Victorian pile before it begins to be seriously compromised, the minimalist buildings of the Modernist movement, with their papery glass walls, are easily ruined in the name of energy conservation. The need to install double glazing is one of the many reasons why owners are more inclined to tear these structures down or, easier still, strip them of their skins and give them a "new look."

Sadly, unless we act decisively, we will lose some very fine buildings to the wrecker's ball or, more likely, to the architectural equivalent of plastic surgery—a nip here, a tuck there, a new skin: no personality, no memory, no history.

Preservationists must also come squarely to terms with the urbanistic, as well as the architectural, heritage of Modernism. Following World War II, whole sections of our nation's cities were swept clean and rebuilt into new urban landscapes of highways and objectlike buildings. Although these neighborhoods may be objects of public scorn in the '90s, their significance must be recognized and their suitability as historic districts carefully considered.

A good example is New York's Park Avenue, between 47th and 59th streets. In the 1950s, the public lamented the destruction of the great Beaux-Arts boulevard of stone-clad hotels and apartment houses that was swept aside to make way for the world's pre-eminent corporate address, a street of glassy office buildings that include the landmarked Lever House and the Seagram Building. But what is not protected, or even very much acknowledged as having any value, is the entire rebuilt avenue itself. This stretch of Park Avenue is today one of the most important Modernist places in the world. Its efficient and spectacularly crystalline office boxes offer a unique reflection of a particular moment in America's social, economic, and architectural history—embodying the home of the "man in the gray flannel suit."

Already, one of Park Avenue's representative buildings of the 1950s has been stripped



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Opinion

and reskinned, reshaped and resheathed, emerging as a tasteless Postmodernist pastiche. What should preservationists do? Designate and freeze a street like Park Avenue, or let nature take its course? Are we courageous enough to call for saving postwar Park Avenue? On the one hand, it can be argued that the buildings of the 1950s and 1960s represent an assault on traditional architecture and urbanism, and are getting what they deserve: destruction. But it is also fair to say that the glass architecture of postwar development epitomizes America's great contribution to the Modernist esthetic—the corporate Modernism that the rest of the world still admires and imitates, and which should be preserved. What are we to do with postwar Park Avenue, not to mention the downtowns and centers of the sprawling cities of the 1960s and the 1970s, such as Houston and Dallas? There are no easy answers.

Our commercial Modernism is not all that needs protection. At stake is the preservation of America's most representative building type: the skyscraper. Take the case of lower Manhattan, with its world-famous skyline rising from New York Harbor. Though still impressive when viewed from afar, this treasury of high-quality superskyscrapers is in poor physical condition. Many of the buildings are untenanted, and are desperately in need of major capital investment

as well as new ideas about how to use them.

To save lower Manhattan, the preservation community must unite over a plan of action. To date, preservationists have been suspiciously and uncharacteristically silent. Because very few people live in lower Manhattan, like the threatened downtowns of many American cities, the area has no local constituency for preservation. The failure of New York City's Landmarks Preservation Commission and local watchdog groups to aggressively move to protect more than a handful of lower Manhattan's buildings through landmark designation is shocking and irresponsible. While architectural historians estimate that there are at least 100 buildings worthy of designation as landmarks in lower Manhattan, the Landmarks Preservation Commission proposes to hear only 10, or possibly 20, cases. Columbia University's Historic Preservation Program, which devoted 1994 and 1995 to studying the problem of lower Manhattan, argued that individual landmarking of isolated buildings may not be enough—the entire area should be designated an historic district.

The problem of preserving the recent past is not just a New York problem. In Denver, Zeckendorf Plaza (1960), designed by a team working under the direction of I.M. Pei, constitutes an internationally recognized marvel of corporate Modernism and a seminal



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Opinion

American interpretation of the International Style. But the pioneering mixed-use development is sadly undervalued in its own backyard. Despite a preservation effort last year, it was denied landmark status and is currently slated for demolition.

Nor is the problem confined to commercial office buildings. Take the case of our inner cities' massive post-World War II housing developments, which seem to many of us to be paradigmatic examples of how to destroy a city. It is fashionable to postmodernize or to blow these projects up, as in St. Louis or in Baltimore. Fraught with problems though they are, these housing projects nonetheless constitute serious reflections of a profound social, as well as esthetic, mission, and as such, they must be given the full consideration of history. The best of these projects also deserve consideration as historic districts.

Because the architecture and urban development of the last 50 years has been radically different from anything that preceded it, the preservation movement must significantly redefine itself if it is to save the recent past. Preservation has come a long way since the days when a small band of picketers marched in front of a threatened Pennsylvania Station. At the time, no one believed that McKim, Mead & White's masterpiece could be saved, but there was hope that some other buildings, almost as good, might escape the

wrecker's ball. Preservation has become a powerful force throughout the country, with an ethos and a sophisticated means for lobbying. In spite of the gains, we must not think the job is finished, or even that the mission is permanently defined.

Highly prized buildings are slipping through our fingers, the victims of economic and political pressures—or worse, the victims of mere oversight or the vagaries of taste. The list of landmarks needs to grow; the definition of landmarks is important and needs to evolve. If we close our eyes to the recent past, we are guilty of the same crimes that our predecessors committed against the Victorians. We must rise above fashion and personal taste: we cannot afford to make the mistakes of the 1950s and 1960s a second time. Tough though it may be for some of us, we must learn to see the beauty not only of Modernist icons, but of many everyday examples of Modernism. The conscience of the preservationist must not be blinded by glass curtain walls or stonewalled by concrete slabs. Grow the faith. Preserve the recent past.—*Robert A.M. Stern*

Robert A.M. Stern directs Columbia University's graduate program in historic preservation. His latest book is New York 1960. This essay is adapted from a talk given by Stern to the National Trust for Historic Preservation.



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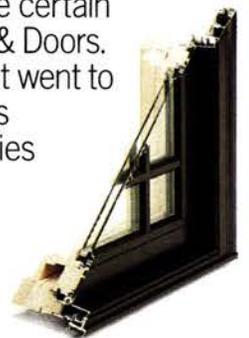
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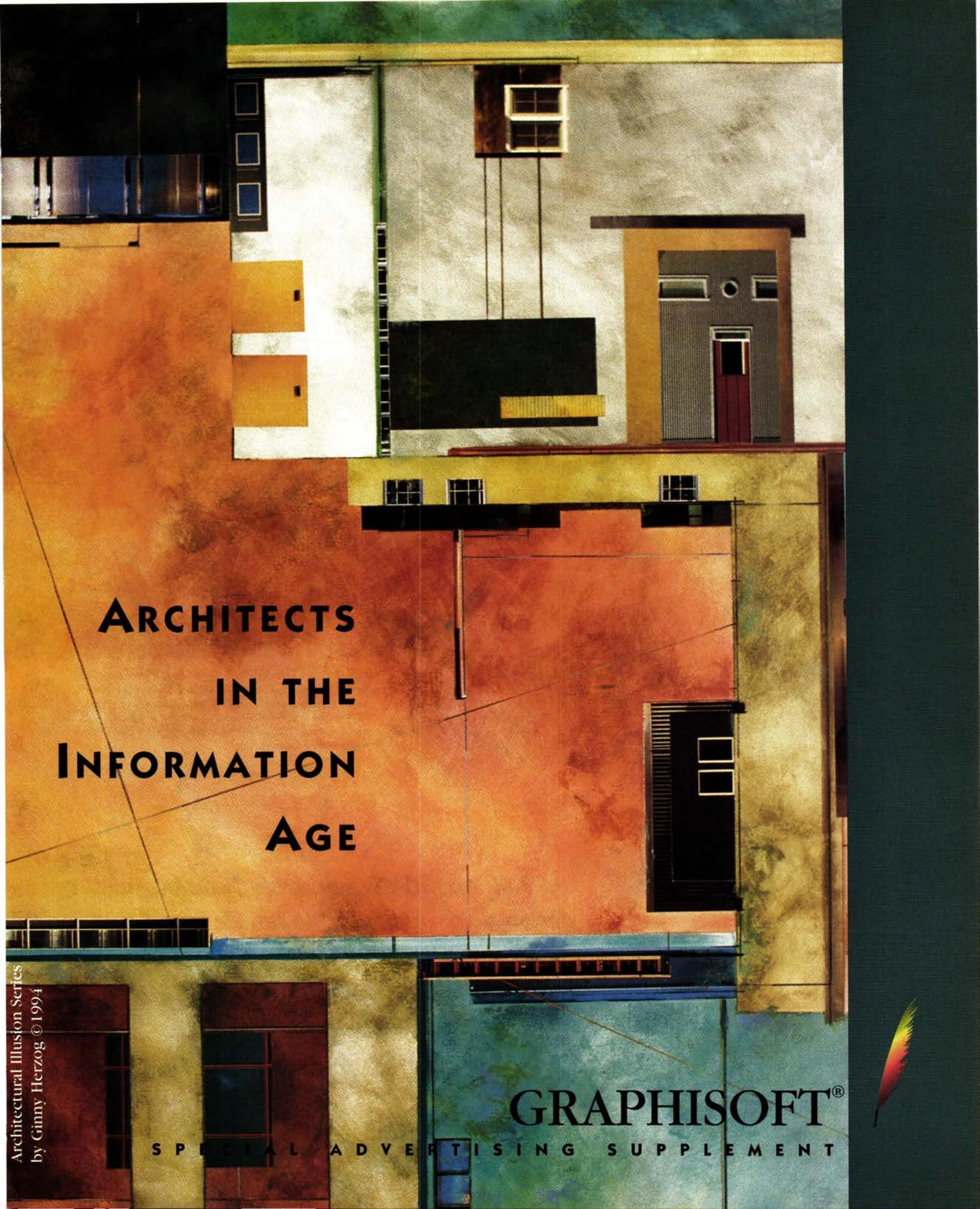


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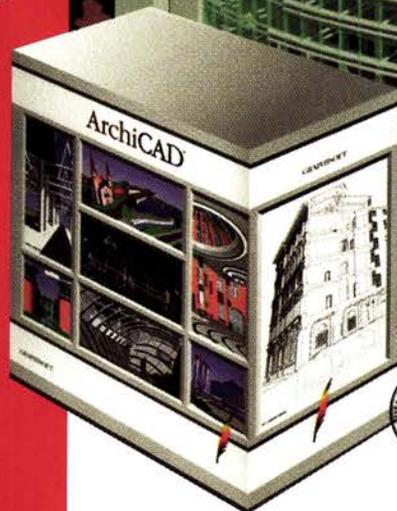
David Fiore and Alan Ritchie, Principals,
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So much of our work is done on computer these days, that the choice of CAD software becomes critical to the overall efficiency of the office. We chose ArchiCAD software so that the entire office can standardize under one system. Since our approach is to have the senior staff do as much of the 'hands on' work as possible, an integrated software allows them to spend more time on project management and less time on system management.

With hand drafting or other software, presentation, schematics and design development documents typically are not usable when the next phase begins. By contrast, using ArchiCAD software, senior staff can begin the work on the computer by quickly generating sketches, square footage allotments, programming, cost estimates, etc. for a variety of schemes. These same drawings can be used throughout subsequent phases of the project.

The Shanghai Complex Competition was definitely a situation where a small project team was able to produce a large quantity of high quality presentation drawings in a matter of days. Any other method of approaching the project would certainly have taken several more people, and we would have had to scale back our presentation.

*David Fiore, Principal
Philip Johnson, Ritchie & Fiore Architects,
New York*



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GREATER SHANGHAI COMPLEX COMPETITION.
Philip Johnson, Ritchie & Fiore Architects
Project Team: Alan Ritchie, David Fiore, Nick Buccalo, Douglass Alligood, Ling Li
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"With ArchiCAD®, senior staff can begin design work on the computer. We found that the software 'thinks' like an architect."

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ENTER THE "INFORMATION AGE"

By GABOR BOJAR
PRESIDENT/GRAPHISOFT

"Computers are now recognized as the primary tool to access, understand, and communicate vast quantities of information"

Historians tend to segregate our history by materials (stone age, bronze age, iron age) and mark our progress by inventions in transportation, such as the wheel, sailing ships, and the automobile. But as society and the architecture profession adopt computers, we see that a more significant lineage of inventions is in the field of communications.

Beginning with the first language some 40,000 years ago, inventions that improve the collection and transmission of information, such as writing, printing, and now the computer, have driven society's evolution and made progress in all other areas possible. For example, the stone ax and arrow were second in importance to speech in the Cro-Magnon's ability to coordinate the hunt. Much later, writing became the first reliable way to store information, and society advanced again to build pyramids and cities.

The printing press, only 500 years old, marked the beginning of the "Paper Age" and an information explosion that fueled society's progress until very recently. As thousands of printed pages turned to tril-



lions, however, the paramount challenge to society became access and transmission of information rather than collection and storage (although that was becoming unwieldy as well).

This challenge is being addressed by digital technology in the "Information Age." Computers, originally intended as fast calculators, are now recognized as the primary tool to access, understand, and communicate vast quantities of information through images, text, and sound, through the media of television, telephone, compact discs, and the Internet.

Similarly, computers were introduced to

the architecture profession as "automated drafting machines," to make the most tedious and expensive part of traditional practice more efficient. Taking cues from other parts of society, however, architects can reinterpret the computer as a tool for processing and communicating information about buildings. Architects can use computers to simulate the building itself and produce better and more complete information, including animation with voice-overs, virtual reality scenes, interactive facilities management models, sun studies, real-time cost analyses, as well as working drawings. The goal of the architect in the Information Age is not to compress the time required to produce traditional documentation, but to explode the amount and nature of information available about a proposed building, to the benefit of the building's designers, users, and owners.

Like the printing press in the Paper Age, the personal computer in the Information Age is democratizing information by making it accessible and understandable to a greater number of people. This accessibility is less the result of price than of usability. Just as the automobile became a commodity, not with increased horsepower or added features, but when it became simple and fun to drive, capable software that is also simple and fun will offer the easiest path on which a user can move toward his or her goal. In architecture, this means software that is in sync with the architect's logic, revealing the wealth of relevant building information necessary to make the best design decisions.

From within the Information Age, we can have no idea of the computer's long-term significance, but its information processing capabilities may prove as important as the invention of language itself. When the Sumerians laid down their first runic scripts, they had no idea of building the Acropolis or mapping the universe. We don't know the implications of having at our fingertips all of the world's information about building technology and the ability to process this information through design. However, it is not too optimistic to imagine and anticipate that the result will be not faster drawing but better buildings. ■

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ARCHITECTS EMBRACE CHANGE

By DAVID MARLATT, AIA
PRESIDENT/GRAPHISOFT U.S.

"Sophisticated software is already surpassing mere automation of traditional tools and contributing original methods to architectural design."

During a panel discussion I attended two years ago at the American Institute of Architecture Students' annual forum, a student proposed that the entire architectural profession was in danger of being replaced by a combination of engineers, graphic artists, and their ever more sophisticated software. Neglecting the question of how artists and engineers (not the likeliest of allies) would unite, this student articulated one of the great undercurrents carrying the profession for the past 15 years: what will be its role in the building process—or even society—as we head full bore into the "Information Age?"

Every profession has the right to worry about its future in the face of universal computerization, but it would seem that architects should have the least to worry about. As generalists trained to solve three-dimensional problems, architects should be in higher demand in the Information Age, not lower. Anyone familiar with the latest games by Nintendo or Sega, or with Myst, JAVA, or VRML can sense that much of the "new information" is about the third dimension and requires skills in filtering, sorting, and synthesizing diverse data.

Who will CD publishers and on-line services call on to define and organize the 3D worlds they are building? Who will be best prepared to capture, filter, and prioritize building parts as they pass from product design, to manufacturing, to construction, and finally, to maintenance? Who will create and control the digital building, the computer model that will be maintained in parallel with the real building and used for design studies, maintenance forecasting, materials testing, facilities management, as well as sales and marketing for the owners?

The singular answer should be: the people who are learning and practicing architecture today. This will not happen, however, without changes in how architecture is taught and practiced, in what defines architecture, and in working, contracting, and billing methods. An article last year by Gregory Turner deftly exposed the deteriorating ratio of registered architects to billable work with the sad conclusion that the profession needs to thin its ranks. It would, indeed, be the saddest of conclusions for the profession if it closes ranks around a tradi-

tional definition of itself rather than embrace the new opportunities for architectural thinking created by the Information Age.

Here are seven major issues confronting the architect in the Information Age:

SIMULATE, DON'T AUTOMATE

Why use a computer to draw parallel lines when you can use it to build a wall? Architects have been drafting for more than 400 years. They have automated their drafting only in the past 20 years. But, for the next 20 years they will use 3D-based software to simulate buildings. The simulated building will create opportunities for new or enhanced architectural services, such as:

- computer rendering, animation and "virtual reality" scenes to help community groups, financial backers, or prospective tenants or customers visualize the design in 3D
- three-dimensional facilities management
- simulation and visualization of building material performance
- explorations of design and maintenance alternatives
- feasibility studies of alterations
- simulation and planning of design changes required over the life of the building
- optimization of energy use

ARCHITECTURE AND SHOPPING

Most components of a typical building are manufactured, non-custom building products. In both residential and commercial practices, therefore, a big part of the architect's job is to filter through hundreds of possible building products and specify the right one. Symbol libraries used in CAD software mimic the practice of component selection, but these symbols rarely carry the wealth of information needed to see and specify a product, nor are they "intelligent" enough to adapt to all of the options typically available in one product.

Using the Internet, however, architects will eventually be able to search manufacturers' libraries for appropriate products and place them in their project on the computer, complete with a 3D product model, specifications, and drafting symbol. Whenever the project file is opened, the building products will "read" a file downloaded from

their manufacturer and alert the architect if any specifications have changed.

RDC Interactive Media, Inc. of Palo Alto, California, is pioneering the use of such "smart" building products on the Internet so that eventually the product designer, manufacturer, architect, and facilities manager can all use the same 3D computer file to describe an object. Manufacturers will save time and money getting products to market, architects will have much better information at their fingertips, and building managers will have automatic access to manufacturer maintenance schedules, latest performance tests, and product upgrades.

ITERATIVE, NONLINEAR NON-PROCESS

Traditionally, CAD software development has mimicked the hardware tools (pens, paper, paint brushes) used in the practice of architecture. Sophisticated software, however, is surpassing the mere automation of traditional tools and contributing original methods to architectural design. These methods are nonlinear and depend on a tight integration of design, presentation, documentation, and quantification.

This concentric working model offers the architect and client many more options to intervene in the design and see the effects simultaneously elsewhere in the design. For example, in schematic design, the architect can summon detailed and precise information not traditionally available until the working drawing phase. Conversely, fundamental design changes can be made relatively late without greatly affecting the architect's work schedule because the 2D working drawings and schedules are essentially "views" derived from the 3D model and updated by the software.

This recursive method of design also enables the architect to experiment with design alternatives and make better decisions earlier in the overall process where a firm's risk, liability, and overhead are lower. Crisis management becomes crisis avoidance.

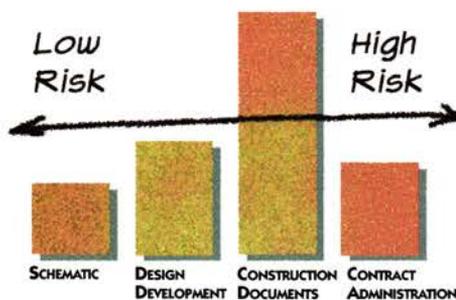
BUILDING ON SAND

French journalist Christine Ockrent once said: "Television is not a mirror of reality, it's an amplifier." Similarly, television, the Internet, and other media of the Information Age don't drive change in society; they accelerate it by disseminating vast quantities

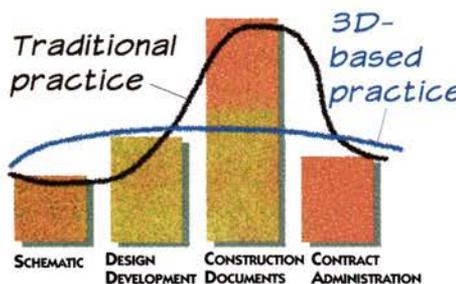
of unfiltered information to a wide group of people.

Building an architectural practice on the assumption that the client base and workload will be in constant flux suggests a structure that is agile, focused, and quick to adopt new skills. All architects need to use architectural (and other) software every day. Dedicated drafting departments and drafting software will slow a firm that needs to move quickly to compete. To meet this need for flexibility, the CAD software must address all aspects of building design and documentation evenly so that any firm member can contribute directly to any phase of the project.

The graph below illustrates the breakdown of architectural fees as prescribed by the AIA's standard contract. The fee structure is based approximately on the labor expenses historically incurred during a typical building project, with most of the fee and expense occurring during the construction documents phase.



Firms using 3D-based systems such as ArchiCAD, however, show a different pattern. Their work becomes "front-loaded" as more time is spent early in the process creating a 3D model, but saved in the documentation phase because the base 2D drawings are by-products of the 3D modeling process, and more design details are resolved before documentation begins.



A closer look shows that these firms are able to level their staffing where traditional firms cannot and spend more time early in the process when it is less costly because design changes have fewer consequences for consultants, contractors, and others. Not coincidentally, this is also the part of the process that is the most fun, inviting architects to explore alternatives, make better design decisions, and avoid changes later.

"We do a lot of medical and educational work requiring intensive documentation," says Chuck Hill of The Orcutt/Winslow Partnership in Phoenix, Arizona. "Our job teams usually start with two or three people who stay with a project from schematics to construction management. The teams peak at only five to seven people during working drawings. The investment made in developing a good 3D model more than pays off in savings during documentation, a better building design, and a more satisfied and involved client."

While a practice built on change implies constant learning, it also requires minimizing downtime to train staff for a particular skill. In an accelerated business environment, weeks or months spent training staff to use software productively must be reduced to days. To minimize training time, firms will leverage traditional architectural education and skills if they have software that uses "real-world" building metaphors and addresses the entire building design process. Such software enables employees to apply their training throughout design and documentation.

VAST SPECIALIZATION

Economics, accelerated market conditions, and increasing building sophistication will require architects to collaborate more than ever with fellow architects and others. "Virtual firms" specializing in a specific building type and that exist only for the duration of a project will require equally specialized solutions. This means software that enables architects to create highly customized building parts, to train team members on software quickly, and to employ a usage-based software license so that the virtual firm is not left with a real capital expense after the project is complete. It also means that architects will evaluate and select software developers as they do

other consultants and working partners rather than as simple software vendors.

To accommodate rapid growth, downsizing, and these fast-moving alliances, software needs to be delivered "just in time" with minimal capital expense. Minimizing training time is part of this formula, but innovative, usage-based licensing concepts such as Graphisoft's PayPerUse™ are also essential.

"The PayPerUse concept allowed us to employ ArchiCAD on several projects simultaneously," reports Tom Simmons of Esherick, Homsey, Dodge and Davis Architects in San Francisco. "Because we could modulate our software expense with job revenue, we were able to expand our ArchiCAD sites rapidly and without up-front cost for the software. This option, coupled with ArchiCAD's low learning curve allowed us to expand from one to more than 12 ArchiCAD workstations in only six months."

THE CLIENT/COLLABORATOR

If the Information Age only accelerates change, what drives change? Vitruvius and Corbusier may have offered the same answer in their time: the client.

Clients' expectations and abilities to absorb complex building information have grown dramatically. They see computer renderings of cars spin through space on television, and they don't understand why their buildings, costing many times more, can't do the same. Having experienced the instant feedback offered by spreadsheets and databases, they are impatient waiting days or even hours to see a change in their building (or paying for that change). Also, having integrated computers into their own businesses, they are comfortable acting as design collaborators with the architect in front of a computer. Successful architects in the Information Age will engage their clients in iterative and participatory design.

But, more than just increased client sophistication is reshaping the architect/client relationship. Because the architect is now the owner/caretaker of a 3D digital building, his or her role should not stop when the occupancy permit is issued. Rather, the architect can stay with the building project and play a pivotal role in its maintenance and evolution.

Architects will provide ongoing client services on a more/less continuous basis so

that the act of building may change from a single dramatic event to just an uptick in a much longer revenue stream from a given client. The digital building can also add new meaning—and meat—to the architect's copyright of the design.

A 3D-based firm owns and retains a computer model that can be effectively locked, unlike a paper-based practice which transmits the design as a set of blueprints that can be easily copied. Unless arrangements are made to sell the digital building to the client, not just the right to use it for construction, the original architect will have a tremendous competitive advantage in winning remodeling and facilities management work for that building for years or even decades.

A JOB SITE IN CYBERSPACE

And finally, as the culmination of the integration of software tools and their media, and as a challenge to architectural thought, consider the World Wide Web as your next job site.

Trade in your structural engineer for a VRML programmer, and explore this world without gravity, sunlight, life safety issues, or the need to protect your head from the rain. Professor Julio Bermudez of the University of Utah reported at the AIAS' annual forum in Portland, OR, that the Internet has the fastest growing population on Earth. There is no question that it is used by people with complex socioeconomic problems, traffic and structural problems, and the need to 'meet' and interact in an urban setting. And, unlike a CD-ROM or other static software, the Web offers both a third and a fourth dimension.

Certain functions that typically require buildings are already being fulfilled by the Internet, such as libraries, archives, retail stores, government agencies, meeting rooms, and schools. By allowing us to move digitally rather than physically to accomplish our task, the Internet unquestionably offers the "greenest" environment for architecture, saving trees, HVAC systems, electricity (imagine infinite lights consuming a mere 60 watts), fuel, and all of the costs associated with moving people and material from one place to another.

New "places" such as Cyberspace and CD-ROMs and new tools for simulating space, rather than just automating drafting, will not alter architects' core values but will provide

a myriad of new opportunities to expand their practices in a manner that is relevant and useful to society.

BUILD OUTWARD FROM THE CORE

Many people and programs can solve problems of 3D geometry; architects are trained to solve problems—be they sociological, financial, or functional—using 3D geometry. Architects should defend their core values and build a practice around them to serve the traditional and emerging needs for their unique skills. Rather than seek alternative careers, we hope that architects explore expanded careers.

The case studies that follow show a range of practices embracing the Information Age and poised for success within it. Although they are each very different, each firm shares certain themes:

- they typically use ArchiCAD on a job from start to finish, and every trained architect is able to conduct every part of the architectural process on a computer
- they choose ArchiCAD because it solves the needs of their practices; in all cases, conformity to "industry standards" turns out to be a "non-issue"
- they market the advantages of ArchiCAD's integration, 3D modeling, and rendering to their clients by stressing such things as team continuity, client involvement, cost effectiveness, and exceptional presentations
- they expect every new employee, even those without prior experience, to be productive with ArchiCAD in only one or two days
- they are eager to explore better ways to make their architecture and are committed to learning new tools and techniques.

Whether they choose to expand their practices to new fields or concentrate on more cost-effective ways to deliver traditional services, these firms all view Graphisoft, its developers, and its local distributors and resellers as members of a team to assist with the software they need for the Information Age. Graphisoft has developed ArchiCAD as the premier software tool for the profession of architecture, and as the profession discovers new ways to prosper in the Information Age, Graphisoft will be there to provide its software and technology solutions. ■



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A NEW OFFICE STANDARD

*Philip Johnson, Ritchie &
Fiore Architects,
New York*

"ArchiCAD is making it possible for senior people to develop and manage designs on the computer, then usher them through construction-documents."

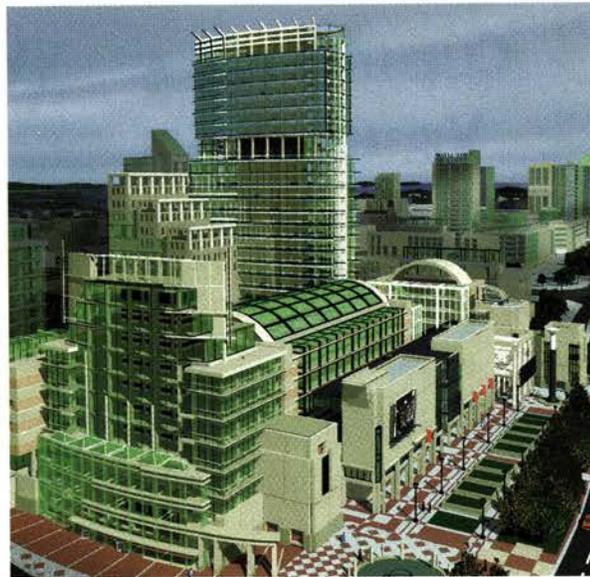


A rendering for the Greater Shanghai Complex Competition, top of page, and the Homewood Apartments in Martinsburg, Pennsylvania.

When two architecture firms merge, they must decide how to manage their differences in working methods. When they choose between two unlike CAD systems, the software they select should reflect the character that they want to emphasize in the newly formed firm. Two years ago, the offices of Philip Johnson Architects and Alan Ritchie/David Fiore Architects merged to form Philip Johnson, Ritchie & Fiore Architects. At the time of the merger, Ritchie/Fiore had been using ArchiCAD for two years, while Philip Johnson's office had been on AutoCAD. As might be expected, ArchiCAD was put to the test in the process of deciding which program would become the new office standard.

Douglas Allgood, a project manager with the firm explains why ArchiCAD passed that test: "One of our goals here is for all the staff to be well rounded. Each individual must become as proficient as possible in all areas of executing a project. We especially want to avoid the traditional separation of design and production staff. ArchiCAD is making it possible for the more senior people to develop designs and manage them on the computer, then to usher them through the construction-documents phase."

Speaking of other key reasons behind their decision to adopt ArchiCAD as the main office CAD software, Allgood cites ease of use, better coordination, and superior working-drawing capabilities. "ArchiCAD is unique in the way it handles multiple stories of a building within the same file," says Allgood. "For instance, I can view all columns and slabs of an eleven-story building from any given floor, then simultaneously rearrange any line of columns or stair or elevator openings. We have found this to be tremendously important in managing multistory projects. With



AutoCAD, I would either have to open eleven files, or set up complicated external reference files."

Allgood also notes that ArchiCAD makes it easier to produce construction documents that look the way they used to. "Using composite walls," he says, "the different layers of materials that compose the wall are shown with differing fill patterns, an effect we used to achieve with Zipatone and colored pencils. This is easier with ArchiCAD because of the way it handles doors and windows; the fills are automatically adjusted when a door or window is moved." In some other CAD programs, the fills are separate entities and must be edited when doors or windows are placed, moved, or deleted. Composite walls and slabs make detailing even easier, according to Allgood. "When we generate door and window details using the composite wall tool, the relationships of the respective wall components are already there. We then import and place standard-format details from specific product manufacturers."

Regarding compatibility between ArchiCAD and other systems, Allgood remarks, "Of course from time to time someone criticizes us for bucking the 'industry standard' in using ArchiCAD. But so far, we have not found any significant problems in doing so. On all our projects we typically deal with many consultants, and not all of them use AutoCAD. On one project, we were exchanging files with one consultant using Drafix and another using ArchiCAD. The compatibility issues were easily managed." ■



CLIENTS TAKE A VIRTUAL TOUR

*Studios Architecture,
San Francisco*

"When clients take control of the mouse and are able to explore a space in detail, they begin to understand the design more thoroughly."

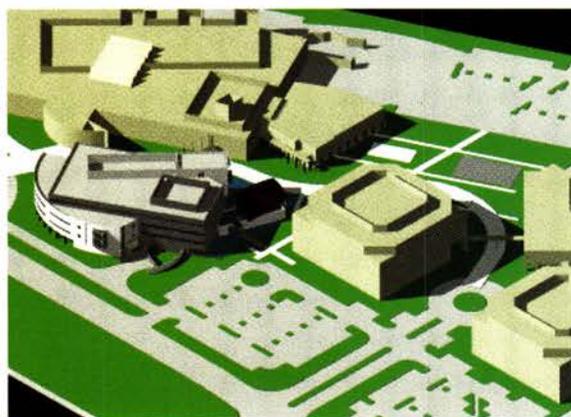
An aerial view of the 3-Com campus created by Studios Architecture, above. A QuickTime VR movie created by Studios Architecture for Fore Systems simulates a "walk" through the proposed building. Clients can move between spaces and understand them more easily than with 2D drawings.

Walls that curve and tilt in three dimensions are virtually impossible to understand through plans and sections alone, especially for clients not accustomed to "reading" spaces through orthogonal drawings. So when architects at Studios Architecture in San Francisco want to explain the spatial quality of their progressive designs, they use ArchiCAD to create models, perspectives, animations, as well as working drawings.

One key to Studios Architecture's success in communicating through modeling is QuickTime VR. This technology, developed last year by Apple Computer, enables designers to stitch together a panorama of digital photographs or renderings to create a full 360-degree surround. Users then "navigate" this environment simply by dragging the mouse to the right or left, up or down. The sensation of movement enables them to experience the complex forms more directly.

Creating QuickTime VR movies used to be technically difficult until Graphisoft became the first CAD company to integrate Apple's technology into its modeling software. A designer simply specifies the "camera" locations, and the renderings and movie file creation are automatic. The resulting movies, which can simulate a walk through any number of spaces in a building, are relatively small and can fit on a floppy disk to send to a client.

The latest version of ArchiCAD, which incorporates spline curves, makes this feature even more valuable for Studios Architecture, which is known for its passion for nonorthogonal design elements. According to designer/systems administrator Bradley Skaggs, the firm's architects as well as its clients benefit from being able to visualize their work through QuickTime VR. "A lot of these movies and perspectives," he says, "are really intended for internal communications. Often though, we show them to the client as well to better convey our design intentions. There's a misconception that we spend a lot of time

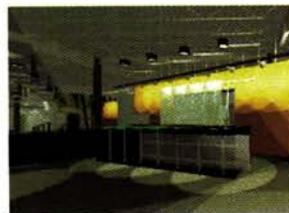
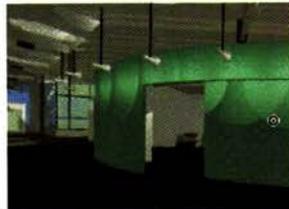


refining these drawings for client presentations. In reality, we don't have much time for that, so anything the client sees is simply a derivative of what we do for our own purposes."

Which is not to say the client is short-changed on presentation quality. When clients take control of the mouse and are able to explore a space in detail, they begin to understand the design more thoroughly. This leads to both a greater appreciation for their proposed building and a more informed perspective from which to suggest changes.

In addition to educating clients, Skaggs has noticed that these animations have been instrumental in attracting the interest of his firm's top designers. Skepticism about a new technology immediately disappears when they see how they can use it directly in their design work. Often, even computer novices can learn to be fully productive in about one week. And the firm's upper management is impressed with how easily architectural presentations can be incorporated into the overall design process. "Unlike with other packages," says Skaggs, "we no longer come to a crossroads where we have to choose between production and visualizations. With ArchiCAD, we can develop an area where we want to create a QuickTime VR movie or perspective, but at the same time, we're moving the project drawings along as well."

For over 20 years, researchers and software vendors have promised the architecture profession digital tools that could integrate art and science. Now, they may well have fulfilled this promise. According to Skaggs: "What it really comes down to is that Graphisoft has given us full integration." ■

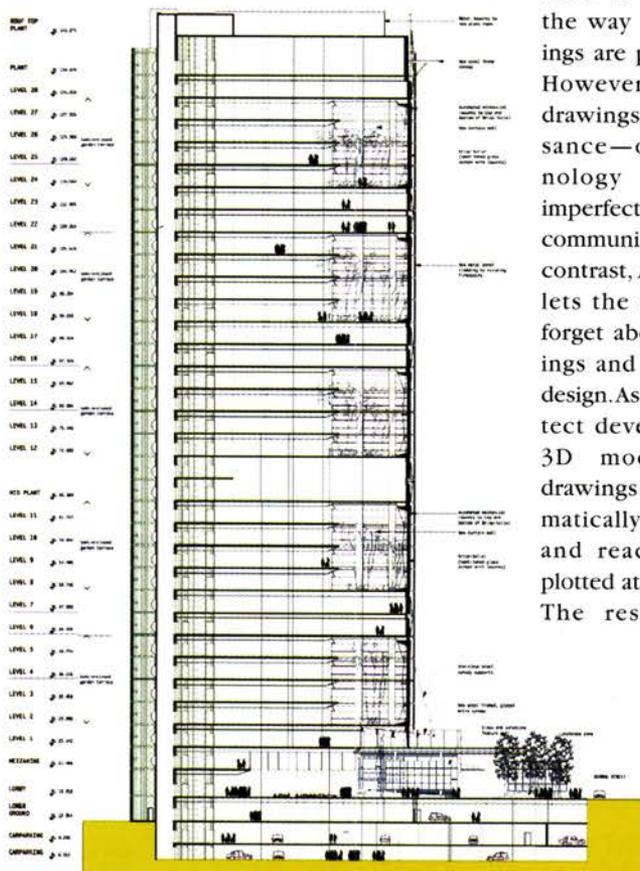


SOFTWARE THAT SPEAKS THE ARCHITECT'S LANGUAGE

*The Rice Daubney Group,
Sydney, Australia*

Leading Sydney architectural firm The Rice Daubney Group is one of the first in Australia to break away from traditional CAD methods and work in 3D for the entire design process. They had been using CAD software for over ten years but recently signed an agreement to use ArchiCAD. They are expecting big returns from the change of software, hardware, and methods in their Sydney and Indonesian offices.

Ian Simpson, The Rice Daubney Group's information technology manager, says that most of today's CAD systems are simply used to improve the way 2D drawings are produced. However, he sees drawings as a nuisance—old technology and an imperfect means of communication. By contrast, ArchiCAD lets the architect forget about drawings and focus on design. As the architect develops the 3D model, the drawings are automatically updated and ready to be plotted at any time. The result is a



"'Building simulator' is a great term because before you commit to anything, you can make a 3D model and test the building—not just visualize it."

streamlined design process, virtual elimination of visual risk, and a more cost-effective building.

"The software understands the language of architecture, so the architect doesn't have to learn 'computer speak,'" he says. "For a long time CAD systems have been able to create 3D models but now we have a system that links the model and documentation. In 2D CAD, my brain is the only thing that ensures that changes are made to every

drawing. Now that the drawings are generated from the 3D model, all corrections are automatically assured.

Simpson says the firm was not prepared to miss out on all these advantages just because it is harder to find trained people. "Anyway," he says, "ArchiCAD is so easy to learn that CAD novices can start using ArchiCAD on a project after two-days of training. Two to three months later, a two-day advanced course ensures that they are confident and proficient."

At The Rice Daubney Group, ArchiCAD has changed the design process more radically than 2D CAD did ten years ago. This is not just about reproducing drawings differently. Simpson says: "'Building simulator' is a great term because before you commit to anything, you can make a 3D model and test the building—not just visualize it. We have made a huge leap forward in our ability to communicate within the firm and with outside parties. ArchiCAD removes the communication barriers inherent in 2D drawings and helps our clients understand and participate in the design process. We sit down together and explore the options. We can test lighting and color schemes, see how the building looks in context, or assess how effective the signage is."

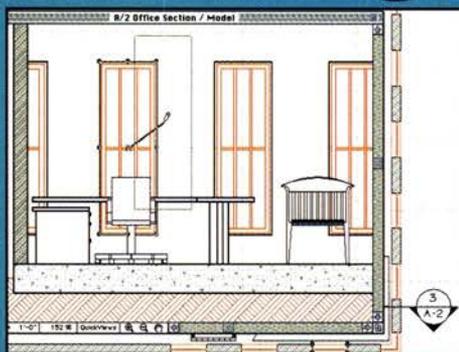
Simpson notes: "It is also a great sales and marketing tool. Our clients can use our 3D design to communicate with their clients, local councils, or resident action groups. It's hard to get excited about a flat drawing, but a 3D model you can walk through brings the whole thing to life and can really help clients to rent or sell their buildings."

Simpson observes: "Architects often say that they don't want their design skills restricted by a computer—an excuse for not getting into CAD. But with ArchiCAD the reverse applies; it has freed up what we can design. In the past, architects did not use 3D modeling extensively because it was too hard. But ArchiCAD is a breakthrough, perhaps because it was written in Hungary behind the Iron Curtain, away from the influences of existing software. They didn't copy other CAD systems but focused their energies on developing an architectural CAD system. They found a great solution and have excelled in tailoring it to architects' needs." ■

ANNOUNCING...

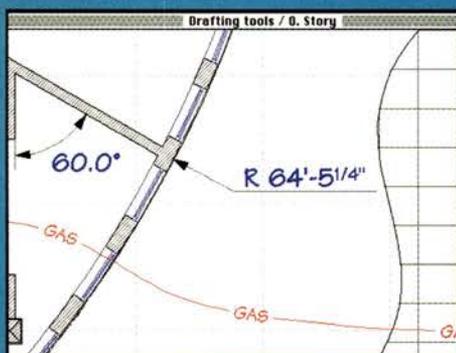
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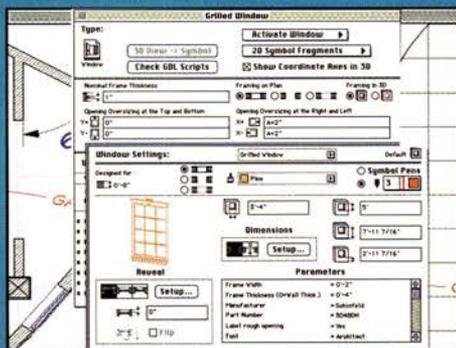
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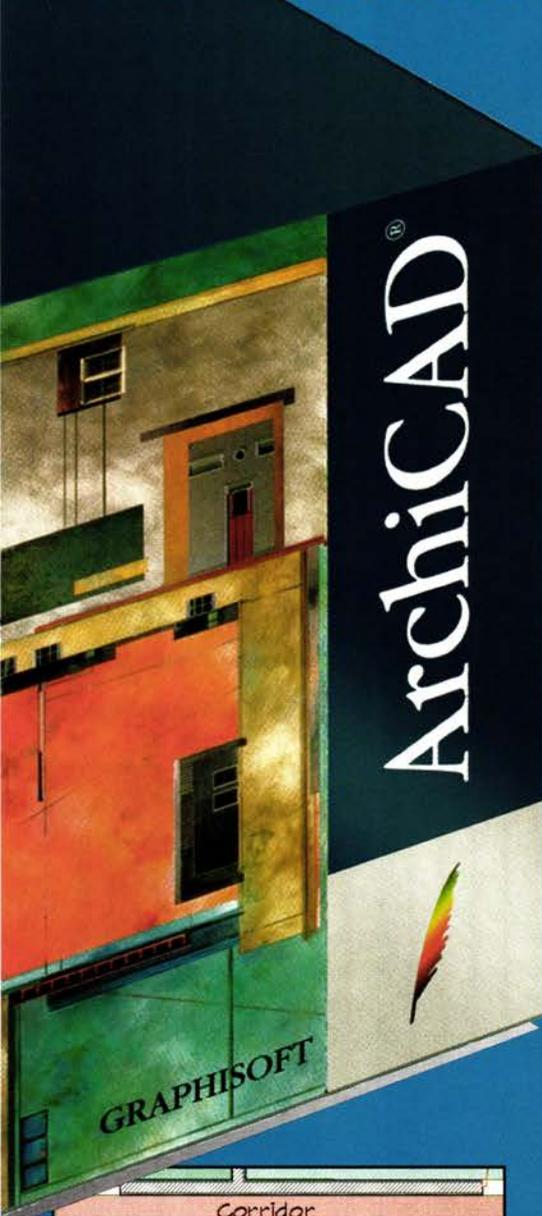
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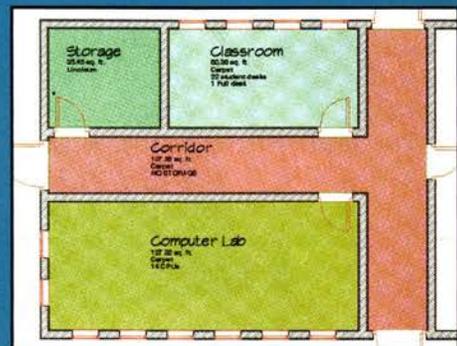
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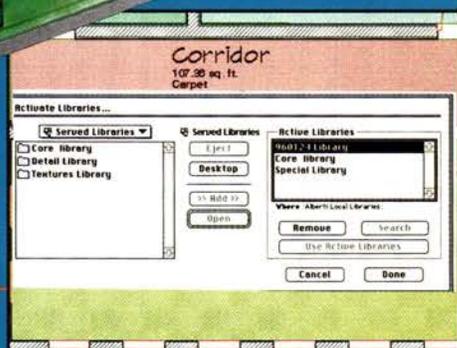
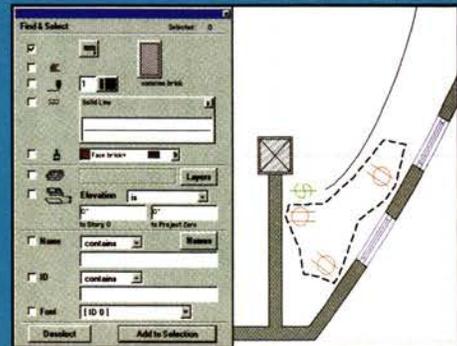
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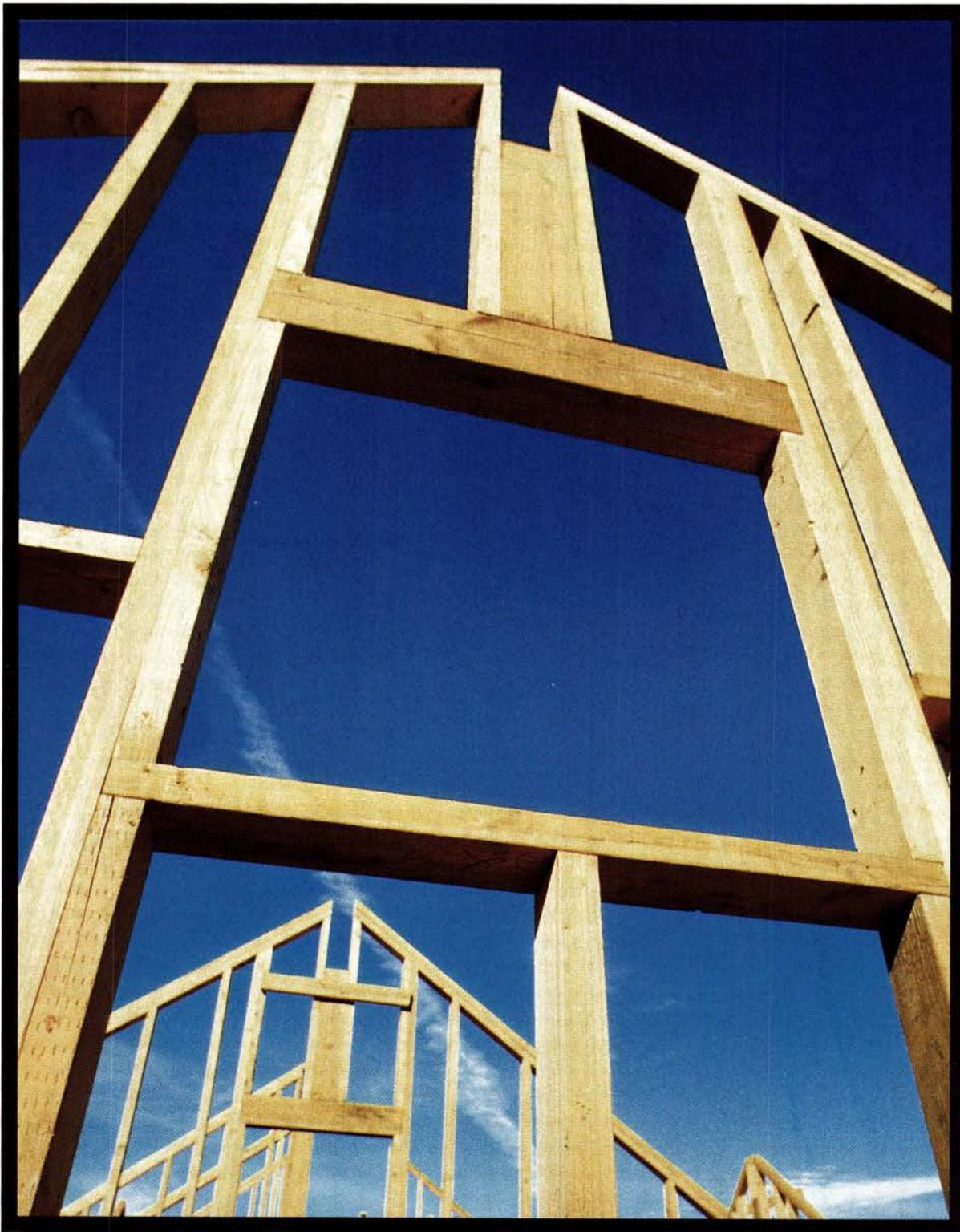
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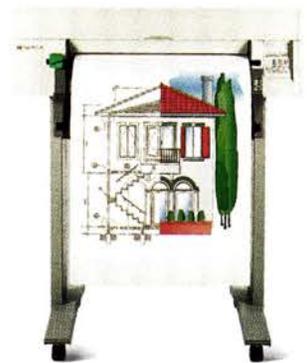
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THE DESIGN COLLECTIVE'S RACE AGAINST TIME

*The Design Collective,
Baltimore*

"ArchiCAD allowed us to develop a complex design, use creative formats, and produce an innovative presentation for our clients in a short period of time."

In less than a month, The Design Collective completed the schematic design for a prototype housing development and made a presentation including animations and renderings.



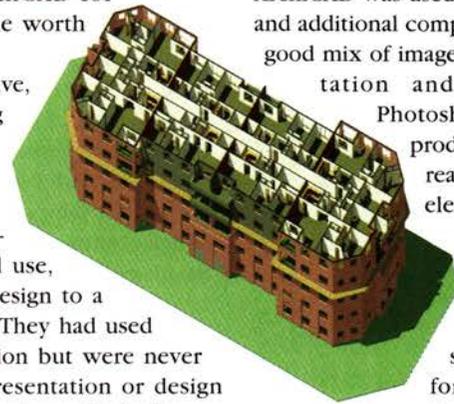
When a client asks for not only innovative design, but an innovative presentation, and when the architecture firm has only 25 days to prepare, this might not be the best time to start learning new software. But when the firm's existing tools can't do the job, and the new software is ArchiCAD for Windows, it's a gamble worth taking.

The Design Collective, Inc., an award-winning 50-person firm in Baltimore, was asked to develop a prototype housing development for international use, and to convey their design to a multilingual audience. They had used AutoCAD for production but were never impressed with its presentation or design capabilities. Project designer Chris Harvey says: "In contrast, ArchiCAD is a real design tool; it allowed us to develop a complex design, use creative formats, and produce an innovative 3D-based presentation with animations for our clients in a short period of time."

At the project's inception, the design team had not yet received ArchiCAD training so they called in AEC Solutions, the local value-added reseller, to determine if the ambitious project was feasible. "We usually don't recommend that a firm train on a large-scale project with a tight deadline," said Dianne Davis, a designer at AEC Solutions, "but they had no choice for generating this volume of information."

J. Alexander Kacur, one of the project architects, received training and video production assistance from Henry Berger, of

AEC Solutions, and together they developed the buildings in ArchiCAD. Tony Bochicchio designed the unit layouts and drafted them with AutoCAD for later export to ArchiCAD. Harvey, as project designer, coordinated the design, consultant information, and schedule, and rendered the hidden line views. ArchiCAD was used to create the animations and additional computer renderings. To get a good mix of images needed for the presentation and video, Davis used



Photoshop to scan photos and product information, and put real skies and other merged elements behind the hand-colored perspectives.

Kacur began his ArchiCAD training designing the steel structural system, performing massing studies, and doing wall- and window-design iterations. There was no time to spare, so animations and renderings were generated as soon as each part of the design was finished. Within three days the first ArchiCAD model was complete.

Though time didn't permit Harvey to train on ArchiCAD, it proved a valuable tool in his design process. "To develop the buildings," he said, "I worked with plotted elevations, massing studies, and perspectives. Surprisingly, after the first few days we couldn't always keep up with Kacur and Berger. Kacur had definitely learned to use ArchiCAD quickly."

The rest of the time was spent creating the other two buildings and fine-tuning the unit designs. "We could step inside our design," Kacur recalls, "to improve the quality of the space. What once required the expense of construction can now be simulated on the screen."

The last four days were a whirlwind of production. The 30 presentation boards had a richness comparable to the firm's past work. Finally, Harvey and Dennis Jankiewicz, president of The Design Collective, presented the boards and animations to the client's representatives. "Not all of them spoke English," said Harvey, "but they were clearly excited about the project and gave us the go-ahead for a second phase." Kacur concludes: "The imagination of the architect can now be portrayed in an affordable medium. For us, that new medium is ArchiCAD." ■

CONTINUITY AND COMMUNICATION BREED SUCCESS

*The Orcutt/Winslow
Partnership, Phoenix*

*"When computer
technology is changing
so rapidly and the
potential uses of CAD for
architecture are expanding
so much, it's reassuring to
know that we have
Graphisoft as a developer
partner working for us."*

Designs of the Good
Samaritan Medical Center,
above, and the Fountain Hills
High School Administration
Building by The
Orcutt/Winslow Partnership.



With five years of ArchiCAD experience, the architects at The Orcutt/Winslow Partnership appreciate the continuity and communication tools it provides for both their firm and their clients. This ability to communicate is evident in their measures of success: counting 29 registered architects among its 60 employees, Orcutt/Winslow employs the most registered architects in the State of Arizona. Their 1995 billings of \$7M, representing \$121M of construction also makes them one of the most successful, with work that is divided almost equally between educational and health care facilities.

Using more than 40 sites of ArchiCAD, the firm tackles projects ranging from designing 2000 square-foot tenant improvements to tracking three million square feet of space for the Good Samaritan Hospitals. "At Orcutt/Winslow," says project manager Chuck Hill, "it's important that everyone be a 'jack of all trades,' able to do everything from proposal writing to design and working drawings. We simply can't afford dedicated CAD operators. If a project manager knows what a client wants, he or she can sit down and do it instead of communicating it to a CAD person and possibly losing something in the translation."

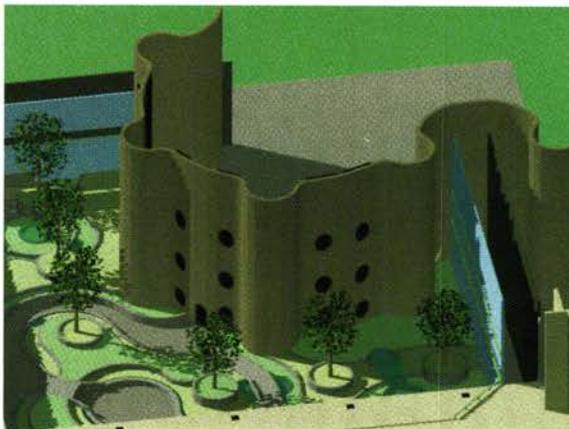
Rather than being split between design and production departments, the firm is organized into small studios that take a job from start to finish. Using ArchiCAD's modules and merge functions, several team members can work collaboratively on the same project as it progresses. In fact, Orcutt/Winslow uses the continuity of staff throughout a job, made possible by ArchiCAD, in the marketing of their services.

They also promote their in-house abilities to produce 3D renderings and animations and offer more "what-if" exercises to clients because of ArchiCAD's powerful 3D modeling and rendering strengths.

When asked to design an addition to Fountain Hills High School, Orcutt/Winslow saw many details in the original building that they wanted to carry into the new. Using the original drawings and ArchiCAD, they created a "kit" of small 3D models of the original details.

ArchiCAD's object-based structure allowed them to reassemble these building parts quickly and in a variety of ways, generating a successful new design that maintained both technical and esthetic continuity with the old.

The 15,000 square-foot Good Samaritan Healing Garden was a case in which per-



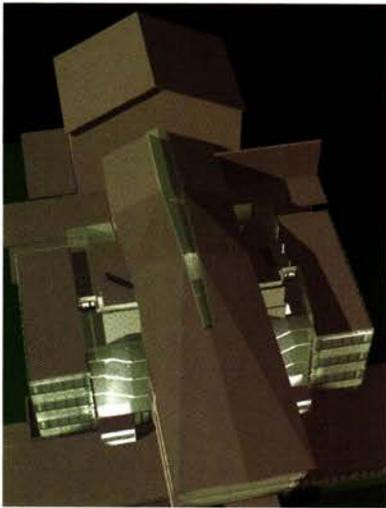
haps only a multimedia presentation based on a 3D CAD model could convey the true nature of the design. "Reacquainting the client with ideas of sensory experience was critical during the conceptual design phase," says Barbara Crisp, Project Manager at Orcutt/Winslow. "It was important that they clearly understood the relationship of interaction and movement within this three-dimensional space." The combined use of Mpower for slides, video, music, and text and ArchiCAD for animation and hidden-line 3D views were key to the unanimous approval from the client."

Fountain Hills High School and the Healing Garden are among more than 300 projects completed by Orcutt/Winslow using ArchiCAD since 1991. "We originally chose ArchiCAD over many alternatives five years ago," says Paul Winslow. "But high among the reasons we stay with it is Graphisoft's record of listening to clients—like us—and including our requests in every new release. We've been through three major releases so far, and we believe that about 80-90% of our own wish list is addressed in each one. When computer technology is changing so rapidly and the potential uses of CAD for architecture are expanding so much, it's reassuring to know that we have Graphisoft as a developer partner working for us." ■

A NEW EXTENSION OF THE KLAGENFURT CITY THEATRE

*Gunther Domenig,
Graz, Austria*

"The 3D model served as the basis for the detailed drawings and allowed the architects to understand the complex building thoroughly."



Competition-winning additions to the Klagenfurt City Theatre were modeled and presented in ArchiCAD. The floating cantilever of the addition dramatically reinforced the main axis of the original building.

Architect Günther Domenig chose a radical solution for the new administrative section of the theatre building in Klagenfurt, Austria, originally built by Fellner & Helmer. Planned and designed with ArchiCAD, the project features a dramatic floating axial cantilever while respecting the building's original form.

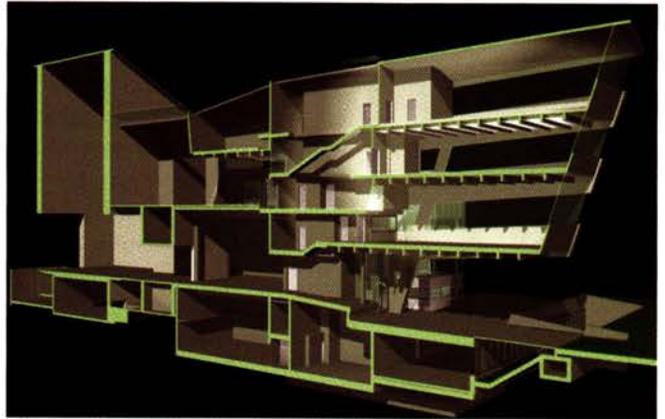
The Klagenfurt City Theatre project won an Austrian competition in May 1995. Günther Domenig created the interior and exterior perspective views with ArchiCAD. ArchiCAD's dedication to architecture offers a high level of flexibility in planning. The 3D model serves as the basis for the detailed drawings and at the same time allows the architects, in a short period of time, to understand the complex building thoroughly.

Originally the building's shape was strictly axial, but its symmetry had been broken by an extension built in the 1960s. The new project was to add a staff entrance area, two wings, and access to a park. Domenig's idea was to remove the 1960s extension of the building and to develop new construction conforming to the axial design of the original elements. Several functional aspects had to be taken into consideration: the new wing was to be the home of the administration, the workshops, the technical staff, and the artists. Connected to the old building, it houses the stage sets and provide a new entrance to the stage.

Both eastern cross naves have been replaced by joints. The lateral closing masses

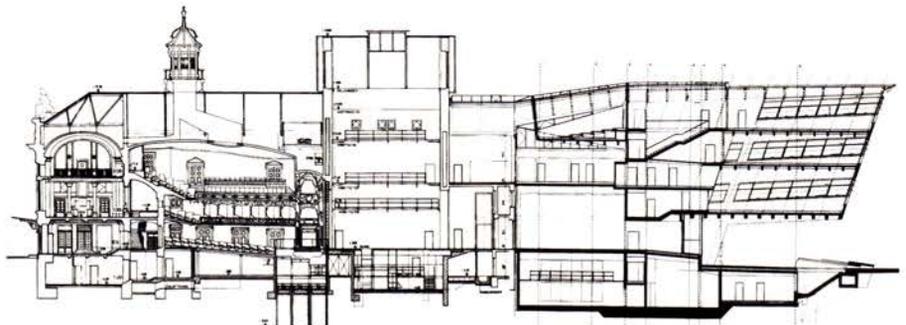
are attached to the main building and respect its proportions. Beyond the entrance area, a lighting cavity placed crosswise borders the park surrounding the whole structure.

The most powerfully expressive architectural element is the floating cantilever reinforcing the main axis. The cantilever's roof, bending and protruding over the park, is made of a noncorroding alloy of copper and bronze, built on the existing steel framework over the stage.



The mass as a whole is an integrated unit, unifying interior and exterior space, structure, and material. The cantilever, by contrast, is an architectural sculpture, the protrusion a combination of tension and relaxation. The elements around this wing are the joints of the oblique glass staircases attached on the east side and the bays of windows finely coated with metal elements, reflecting the existing facades.

According to Jurgen Rogener, CAD manager at Günther Domenig Architects: "The architectural nature of ArchiCAD offers great flexibility in planning, which allows us to use the 3D model to develop floorplans and working drawings of the complex project simultaneously in a short time." ■



GRAPHISOFT: A RESPONSIBILITY TO COMMUNITIES, EDUCATION, AND THE PROFESSION

"ArchiCAD has become an indispensable tool in education, for both practicing architects and university students."



Designs by Habitat for Humanity above and right, a house completed by Frontier Housing using ArchiCAD, poster for 1996 Graphisoft Prize next page.

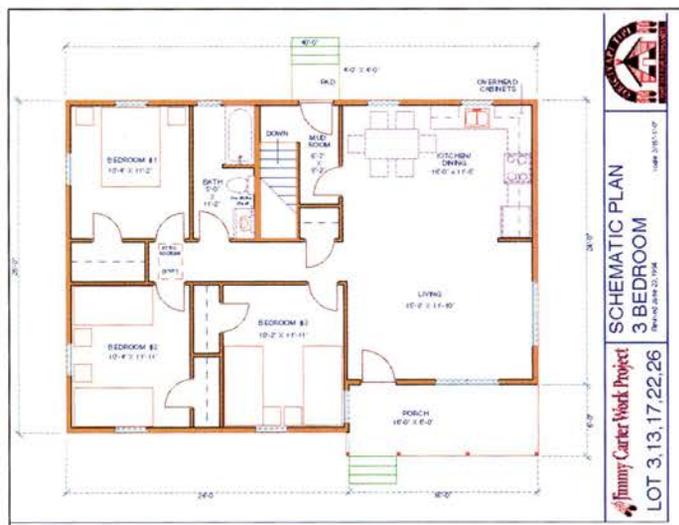
Graphisoft is committed to the people and communities it serves, teaming up with charitable organizations, design professionals, and universities around the world to improve living conditions, encourage innovation, and provide the architects of the future with the software of the future.

Graphisoft is proud to be a partner of Habitat for Humanity International, providing them with more than 130 copies of ArchiCAD, as well as training and technical support. With 1,400 affiliates in 48 countries, Habitat has built 45,000 houses in the past 20 years, making it one of the world's largest homebuilders. "The difficulty with the type of houses we build is they tend to be pretty small," says Peter Dalva, Habitat's associate director of construction technology. "Our design criteria call for a three bedroom home to be 1,050 square feet, a four bedroom home to be 1,150 square feet, so it's challenging to come up with a house plan that has the bedrooms and living and utility space. You tend to do a lot of revisions and alterations, and if I didn't have ArchiCAD I wouldn't make as many revisions. It leads to a better design."

ArchiCAD's ability to provide instant revisions is just one of the qualities important to Frontier Housing Inc., in Morehead, KY, which for 22 years has built houses in Appalachia for struggling families. In 1995, the group built a record 29 houses, every one designed with ArchiCAD donated by Graphisoft. "We were able to do that many last year because we had a good CAD system, one that's simple to learn and use, and one that can quickly generate the drawings, revisions, and 3D views we need," says Tom Carew, Frontier's executive director. "And the technical support we get from Graphisoft is excellent. That's worth every-

thing to us because without that kind of support, you can be out there hanging in the middle of nowhere, unable to move forward."

Graphisoft is dedicated to helping people move forward, in Appalachia and around the globe. In South Africa, Graphisoft provided ArchiCAD at cost to the Association of Black Architects to aid in a bold plan to build millions of new houses for South African blacks. In Croatia, Graphisoft donated its award-winning program to the Croatian government to help the war-torn nation's efforts to rebuild. In Washington D.C., Graphisoft, in conjunction with AEC Solutions of Baltimore, MD, will award ArchiCAD and a year of training and support



to the winner of this year's AIA Design Award for Pro Bono Work. And in Hungary, Graphisoft has donated more than \$1,000,000 of ArchiCAD to local governments, who are using the program to design new houses and businesses and to improve the nation's infrastructure.

"Governmental budgets are very limited in Hungary, meaning no money is available for things such as software," says Gabor Kazar, Graphisoft's vice president of marketing. "But we're committed to progress in Hungary, and we're proud that ArchiCAD has become an indispensable tool in that development."

ArchiCAD has also become an indispensable tool in education, for both practicing architects and university students. Working directly with the American Institute of Architects, Graphisoft developed the new

"Graphisoft CAD Course," which offers 12 Learning Units, fully a third of the AIA's annual continuing education requirement. Authorized for study at home or office, the interactive kit contains ArchiCAD demo software, a tutorial book with exercises, and a videotape. The company also cosponsors, with the American Institute of Architecture Students, the Graphisoft Prize Student CAD Competition, awarded annually both internationally and in the United States.

On the academic level, Graphisoft has provided thousands of copies of ArchiCAD—discounted up to 90 percent—to more than 600 universities worldwide, from Auckland to Atlanta, Moscow to Milan. As a result, "Students are now able to think in new and different ways," says John Guyer,

systems and programming professional for the Washington State University School of Architecture. With 235 copies of ArchiCAD, the students and

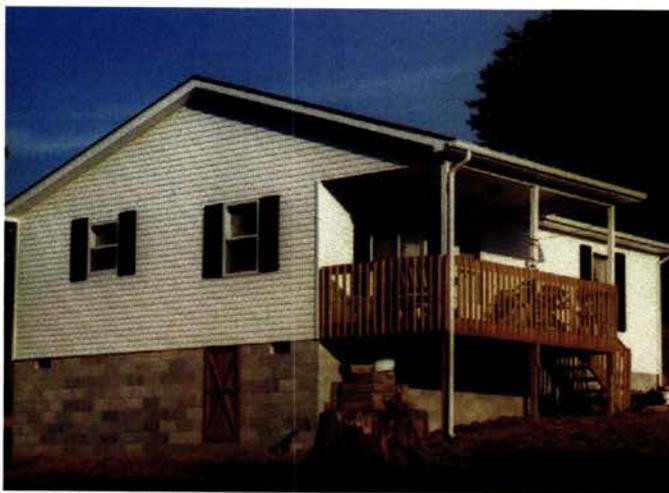


the university have benefited, he says. "The level of architecture students who are staying with the program has gone up dramatically," says Guyer. In fact, the grade point average for students accepted into the architecture program has risen more than half a point, which he attributes to ArchiCAD. "There's a lot of competition in the university for those high-end students, and our program is retaining far more than we ever used to," he says. "There's an environment here now where they can push themselves. With the computers and ArchiCAD they really have a chance to explore."

Students and teachers at the Technical University of Nova Scotia, in Halifax, are also using ArchiCAD to explore. With 330,000 inhabitants, Halifax is Nova Scotia's largest

city and yet, says Professor Tom Emodi, it's not large enough to attract the wide range of design experts students need. To fill the gaps, the university finds instructors through the World Wide Web who critique students' work. ArchiCAD is the ideal program for working on the Web, says Emodi, "because it's quick to sketch with, quick to model with, and makes relatively small files, so it's easy to send a file somewhere."

In another innovative project, Emodi is using ArchiCAD to calculate "embodied energy," which is the amount of energy consumed in a building's construction, including the manufacture of building materials. Emodi uses ArchiCAD's Bill of Materials to calculate the cubic meters of concrete, wood, drywall, and other materials in a building. He then converts that figure into mass and, using available research figures,



calculates how much energy is consumed in making and installing that material. Using ArchiCAD, Emodi can also substitute materials to reduce a building's energy quotient.



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"As the world runs short on certain materials and becomes more concerned with energy consumption," he says, "the question of how much energy it takes to *build* a building versus how much energy it takes to *run* a building becomes more and more important."

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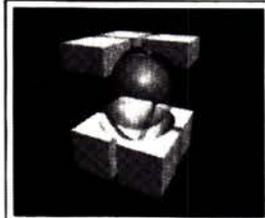
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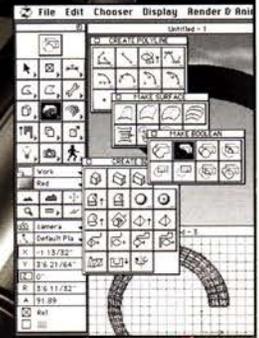
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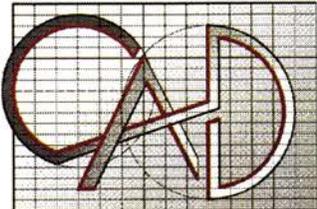
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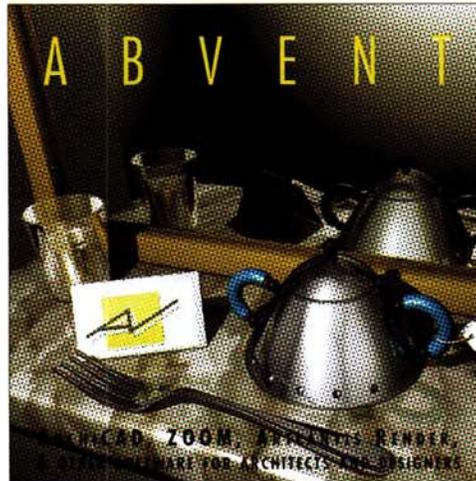
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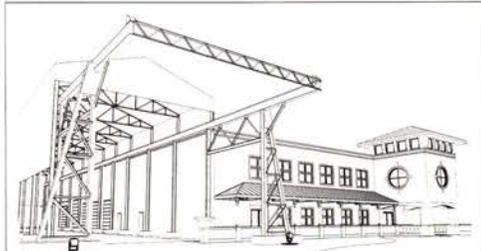
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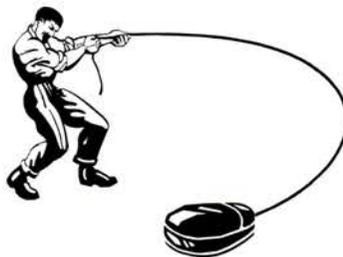
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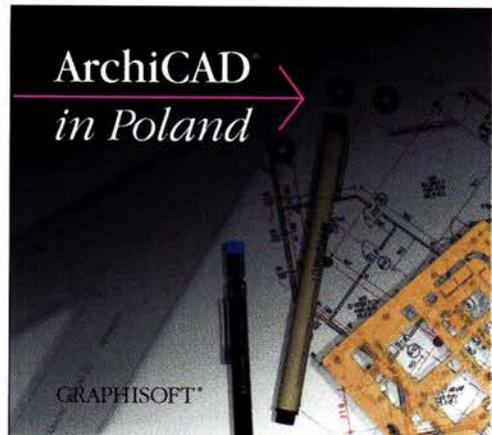
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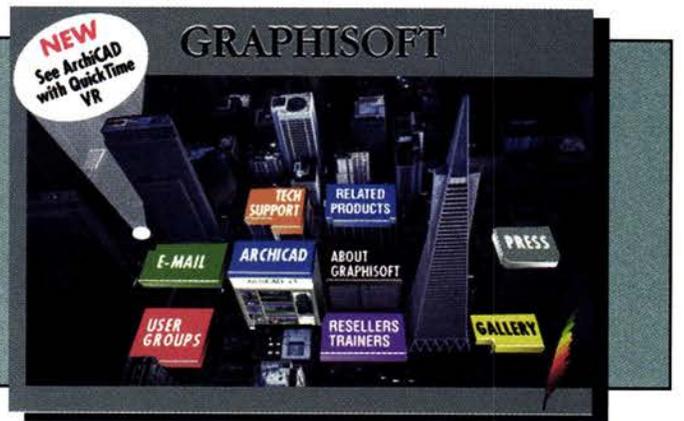
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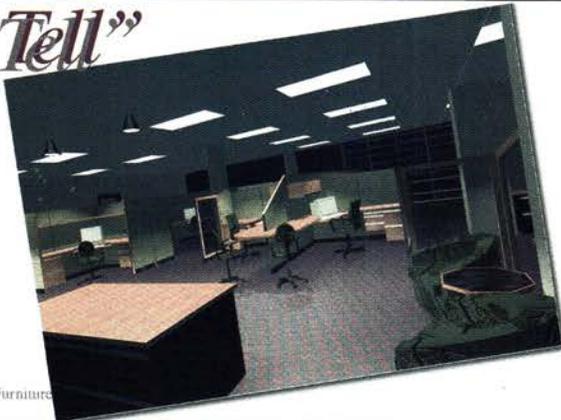


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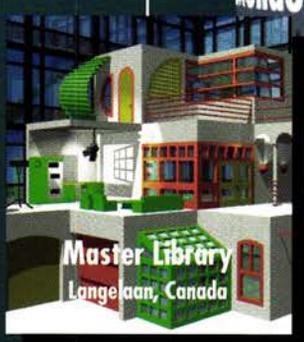
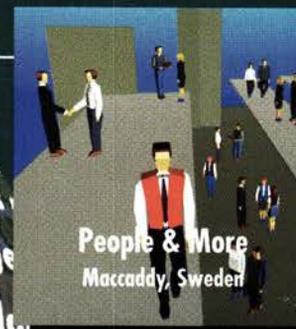
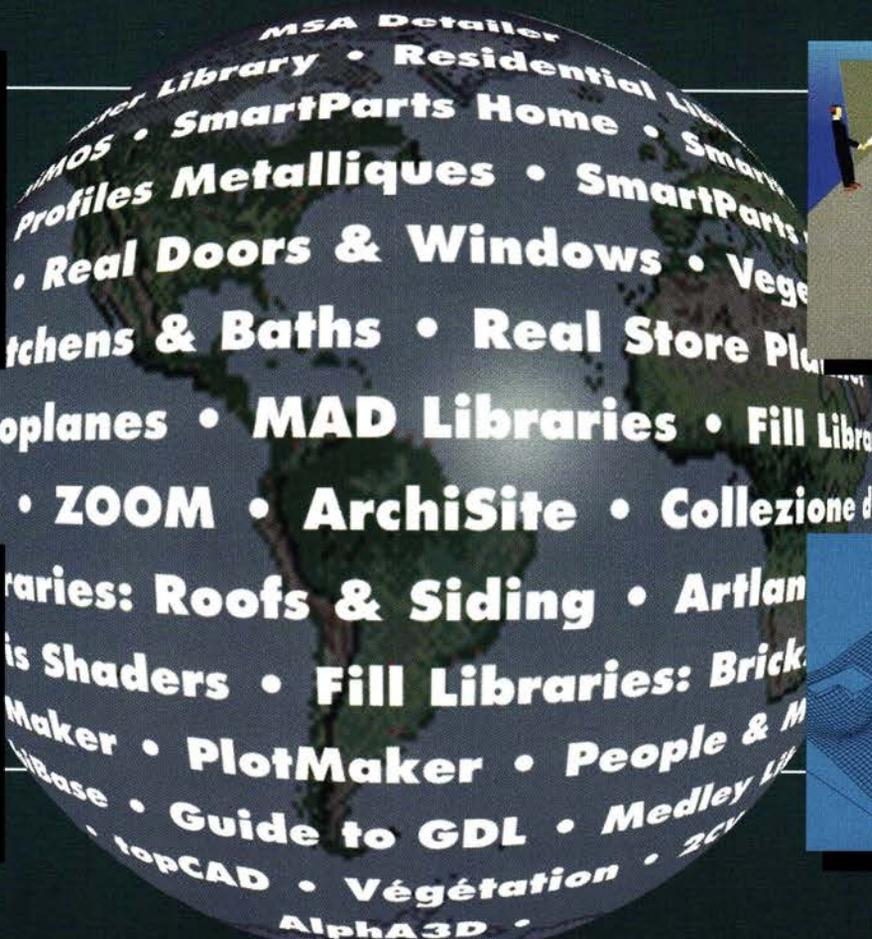
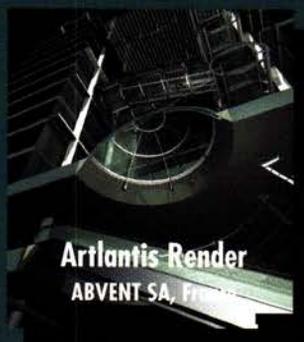
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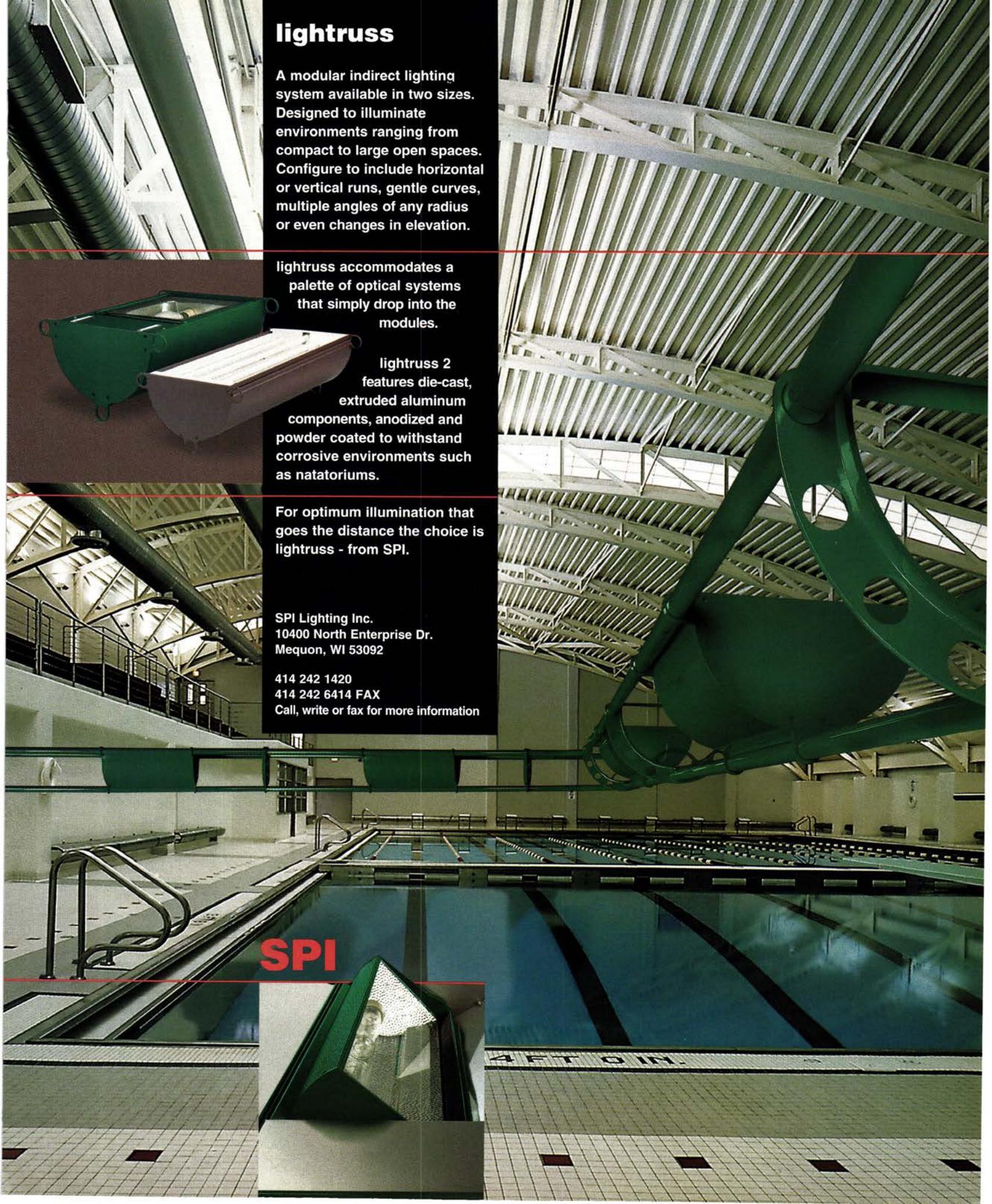
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Annual Awards Issue

With this issue, the results of two leading design awards programs, the Progressive Architecture Awards and the American Institute of Architects Honor Awards, are presented in one publication for the first time. This juxtaposition offers a rare opportunity to assess the nature of the two programs and the current state of architectural design.

Recognizing that an architect's best intentions often remain on paper, P/A began honoring noteworthy unbuilt schemes in 1954. The AIA Honor Awards, by contrast, were inaugurated in 1949 to acknowledge outstanding buildings, interiors, and urban design that are completed. The P/A Awards are open to any registered architect; AIA restricts entries to members of the Institute.

As a result, the P/A Awards are perceived as prophetic, the AIA Honors, reflective. P/A traditionally favored small-scale, experimental projects such as Conway + Schulte's DeCode/ReCode Atlanta and Loom's Knox Garden. AIA typically leans to more mainstream institutional buildings, such as Anshen + Allen's new Engineering Science Building for the University of California at Riverside, and Boston's Joslin Diabetes Center by Ellenzweig Associates.

But this year, the two programs remarkably converge in honoring similar concerns. Architects' revived interest in building techniques is manifested in AIA's recognition of Murphy/Jahn's Munich Order Center and P/A's award to Pierre Thibault's Queen of Hearts Theater. Attention to urban restoration is reflected in AIA award-winner Herbert Newman's design for downtown New Haven and P/A's accolade to John Loomis and Kiss + Cathcart for community strategies in Brooklyn. Improvements to civic infrastructure figure prominently in both competitions, as reflected in P/A's citation of Richard Meier's new Phoenix courthouse and AIA's praise for R.M. Kliment and Frances Halsband's Pennsylvania Station Entrance Pavilion in New York City. And one architect actually won awards from both programs: Bohlin Cywinski Jackson Senior Architect Joseph Biondo garnered a P/A Citation for an Adirondack summer cabin and an AIA Honor Award for a kindred weekend house in Maryland's Catocin Mountains. The example of Biondo's award-winning projects demonstrates that imagination need not be compromised on the way to reality.

1996 Progressive Architecture Awards



MICHAEL HURD, PHOTOS

An emphasis on integrity and innovation characterized the 1996 P/A Awards. Most valued were works deemed fresh, but not capricious—derived in large part from thoughtful responses to site, program, cultural context, and method of construction.

This year's jury—Michael McKinnell (chair), Will Bruder, Douglas Kelbaugh, Patricia Patkau, and Karen Bausman (who replaced Santiago Calatrava)—premiered 14 projects from a total of 444 entries.

While the jurors held strong opinions on myriad aspects of design and practice, purely formal or stylistic issues barely figured in their agenda. Indeed, there seemed to be tacit agreement on the professional imperatives of the hour: social responsibility, environmental stewardship, and substantive consideration of setting, which underpinned most of the winning schemes.

The jury's concluding roundtable reflected many of the concerns that had surfaced throughout the judg-

ing. Jurors reiterated their disappointment with certain types of commissions: deemed particularly weak were the categories of urban design, cultural buildings, and housing. By contrast, the education and industrial categories won high marks as encouragingly strong bodies of work. (Oddly enough, the jury's evaluation of the categories is not proportionally reflected in the lineup of winners.) More positively still, beyond their critique of established arenas of design, the jury identified a number of fertile new spheres for pioneering practice.

DOUGLAS KELBAUGH: The projects premiated and the submissions in general represent a relatively quiet period in American architecture, which I welcome. I'm tired of the desperate appropriation, the desperate search for new and inventive form. This solipsistic search has produced some great individual buildings this century, but few good streets, neighborhoods, or cities. The submissions on the whole are

more sensitive to context than they were 10 or 20 years ago, and there is generally more respect for the city, although, ironically, the urban design section was among the weakest we reviewed. I'm sorry that there weren't good examples of New Urbanism that illustrated compact, mixed-use, higher-density models of settlement, particularly on the metropolitan fringe, which is where most construction goes on now.

MICHAEL MCKINNELL: I was very pleasantly surprised by the whole issue of social responsibility, which is quite clearly reemerging as an important item for architects to address. That was reflected in the submissions, the prizes, and our discussions. There was an overall sense that what people were looking for was a kind of authenticity in the projects and the architecture, as opposed to the image-making that Douglas referred to. I believe that's why we were so long in judging the industrial buildings, and perhaps why we thought many of the entries in that category were so good. Authenticity in architecture is enabled by the task of making an industrial plant because one is so close to the real thing—the function, the process. It tends to inform the architecture much more strongly than in other areas. I thought it was a pity we couldn't give more awards in this category.

WILL BRUDER: The winners that we see represent the growing interest in not only materiality but constructability issues. And while we are somewhat forced into the established building vernaculars of our country—whether balloon frame or whatever—some architects are reinvesting those building traditions with great elegance, with care for proportion, for scale, for detail, for both poetic and pragmatic qualities.

MCKINNELL: Ultimately, a renewed emphasis on construction and mate-

rials reaffirms the basis for dignity in architecture, because it draws from within, rather than imposing from without. The essential strength of architecture is that it's built.

KAREN BAUSMAN: If I have one disappointment, it's that I really would have liked to see more innovation in construction technology. It's not to discredit what is known, but about opening up the possibilities of the unknown. Europe is already much further ahead in this respect. The construction industry in America isn't supporting innovation with research initiatives. It is incumbent upon architects to push for that level of involvement by the construction industry. Take, for instance, the technology of glass. We saw too many schemes where glass was used for enclosure, but not one where it was used structurally.

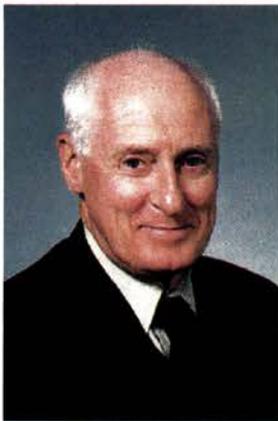
The quality of housing schemes being commissioned around the country came up repeatedly in the evaluations of individual projects. Jurors discerned an opposition between "progressive" architectural aspirations and what could be broadly termed "public taste" in America.

KELBAUGH: It's a real problem. We have esthetics over here and social initiative or social imperative over here, and as one goes up, the other goes down. It's rare to find both together. Look at most of the low-income housing in this country now. It's clothed in very conservative architecture. Architects and developers find it's the only way they can get it accepted in the community.

BRUDER: I think the client is a real issue, because too many times architects use the client as an excuse.

KELBAUGH: There are still more good designers than good clients.

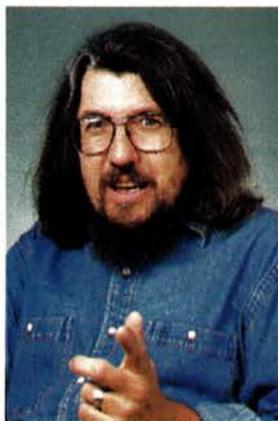
BRUDER: No way. I think architecture is made by responsible clients. With the computer graphics we



MICHAEL MCKINNELLS, FAIA, chair of the P/A jury, was born in England and educated at the University of Manchester. He came to the U.S. in 1956 on a traveling fellowship and earned a master's degree at Columbia University in 1960. In 1962, McKinnell and Gerhardt Kallmann won the design competition for the Boston City Hall and founded the firm now known as Kallmann McKinnell & Wood in Boston. Among the firm's recent commissions are the U.S. embassies for Bangladesh and Thailand, federal courthouses in Boston and Cleveland, and campus buildings for Harvard, Yale, Princeton, Carnegie Mellon, University of Washington, and Washington University. For 25 years, McKinnell was on the faculty of the Harvard Graduate School of Design.



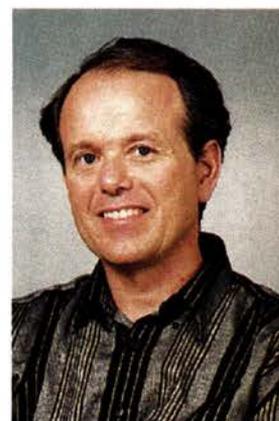
KAREN BAUSMAN is a principal of Karen Bausman and Associates, New York. She recently completed a sojourn at the American Academy as the 1995 Rome Prize winner. In 1994, Bausman was the Eero Saarinen visiting professor at Yale. A 1982 graduate of Cooper Union, New York, she was a founding partner of Bausman-Gill Associates (1982-1994), which was featured in *P/A's* 1990 Young Architects issue, and profiled in *A+U* in 1993. She has been an adjunct assistant professor at Parsons School of Design (1987-present) and Columbia (1990-present). Her built work with Bausman-Gill Associates and her independent research projects have been published and exhibited widely in the U.S., Europe, and Japan, and have been recognized with awards.



WILLIAM P. BRUDER graduated with a B.F.A. in sculpture from the University of Wisconsin, Milwaukee, and received his architect's license in 1974 after an apprenticeship that included work for Paolo Soleri and Gunnar Birkerts. Since 1975, from his desert studio in New River, Arizona, he has worked on more than 370 commissions throughout the U.S., Canada, and Australia. Among his recent works is the \$28 million Phoenix Central Library (ARCHITECTURE, October 1995, pages 56-65). In 1985, he won a Graham Foundation grant for research as coauthor of a book on Paul Schweikher. In 1987, he was the recipient of the Rome Prize. Bruder has taught, lectured, and served as visiting critic at architecture schools in the U.S. and Europe.



PATRICIA PATKAU, FRAIC, was born in Winnipeg. She is a partner with John Patkau and Michael Cunningham in Patkau Architects, which was founded in Edmonton in 1982 and has since moved to Vancouver. The firm has won three P/A awards, including for the Strawberry Vale School in British Columbia. In 1986, the architects won the design competition for the Canadian Clay and Glass Gallery in Waterloo, Ontario, which won a 1990 Canadian Architect Award for Excellence. The firm has won one Governor General's Award and four Governor General's Medals. Patkau is an associate professor at the University of British Columbia and has been a visiting professor at Harvard (1993 and 1995) and at the University of Calgary (1994).



DOUGLAS KELBAUGH, FAIA, is a professor at the University of Washington, Seattle, where he was chairman of the Department of Architecture from 1985 to 1993. He also associates in practice with Peter Calthorpe, with whom he wrote *The Pedestrian Pocket Book*, published in 1989. Kelbaugh earned B.A. and M.Arch. degrees at Princeton. Between degrees, he founded and ran a community design center in Trenton, New Jersey, and subsequently worked for the city of Trenton. From 1978 to 1985, he was a partner of Kelbaugh + Lee in Princeton, a firm that pioneered award-winning work in energy and design. He has organized more than 10 design charettes on urban, suburban, and exurban projects, about which he is currently writing a book.

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KELBAUGH: I don't see it as a lack of information, but as a failure of nerve.

BRUDER: But what is that lack of nerve? It's a self-imposed caution.

Certain projects that elicited some of the most animated discussion among the jurors didn't make it to the final rounds of judging. Among these were schemes that tackled residual sites in the urban and suburban fabric, such as a school wedged onto a narrow tract along the edge of a suburban mall's parking lot, or a residence constructed on the roof of a derelict industrial building. As perceived by the jury,

this class of work portended a vital arena for architectural exploration, if not outright advocacy.

PATRICIA PATKAU: These kinds of projects represent interesting attempts at new types that think about the city as sectional, as made up of superimposed conditions rather than pancakes of use. Obviously there is going to be more of that as the built-up areas of North American cities fall into disuse. In a sense the new typology is interesting because the projects go beyond themselves in their implications. These single buildings are conceived as pieces of the city.

We actually have some projects among the citations, such as the infill building at Clinch Valley College, that show how even a tiny piece can be thought of as part of a much larger structure, and help that

structure in significant ways by very minimal gestures. I found those moments quite powerful.

KELBAUGH: What's going on out there along those arterial strips—those malls and office parks and subdivisions—will be the legacy of our generation. We've got to do something about the misuse and underuse of land: finding and reclaiming the forgotten, hidden, unrealized sites is very important in both urban and suburban America.

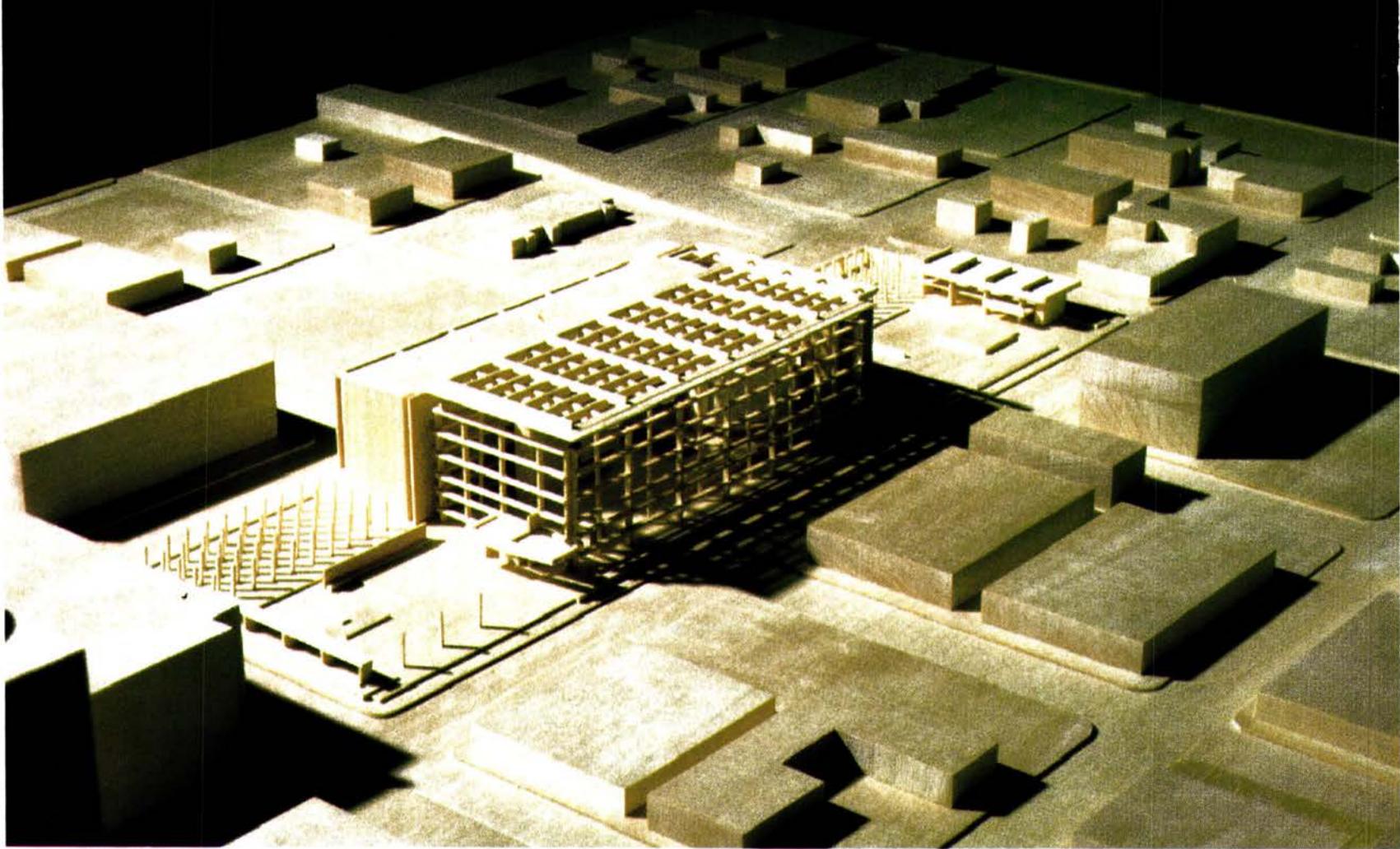
BAUSMAN: It's about finding value in what is now considered valueless, of giving value to what have been throwaway spaces.

BRUDER: And it's about asking the question of the client, because the client is the vehicle. I believe we are empowered by our clients to ask harder questions. That's why they pay us the fees, why they invest in

us, in our abilities and our credentials. I don't think architects take advantage of that nearly enough.

Discovering sites in the urban environment would be a topic I'd be very interested in debating in a broader professional forum. As to that, I really lament the fact that more architects, both in practice and on the academic scene, can't sit around tables as we have in the last two days and share an open critical discussion about our profession and our art. It seems that in the world of the Internet we could invent a way to have dialogues like this on a regular basis. We all get stale; we could all benefit from dialogues that challenged us, that created excitement and passion in us.

The staff of Progressive Architecture compiled and edited these awards.



MODEL FROM NORTHEAST

U.S. Courthouse

RICHARD MEIER & PARTNERS

PROJECT: Federal Building and U.S. Courthouse; Phoenix, Arizona.

SITE: Two downtown blocks, along a main avenue between the commercial core and the new city hall; a third block will be developed as a city park to form a continuous three-block precinct.

PROGRAM: A gross floor area of 573,000 square feet, including six courts of appeals, judges' chambers, 13 district courtrooms (plus expansion space for six more), six magistrate courtrooms, related chambers, and other facilities.

SOLUTION: The building responds to three major considerations—the hot desert climate of Phoenix, the opportunity of a civic land-

mark in a burgeoning downtown, and the complex programmatic demands of a modern courthouse. The building focuses on a monumental glass hall that addresses all of these concerns. In a city where urban development was made possible only by artificial means of cooling, this building employs innovative approaches to climate control (ARCHITECTURE, February 1996, page 167). The phenomenon of adiabatic cooling—through evaporation rather than heat exchange—is used to attain a drop in air temperature without a significant expenditure of energy. Circulation is induced: air between the skylights and the porous shading devices at the top of the hall is heated and allowed to rise through roof vents; make-up air is humidified by misters as it enters through the curtain wall. Exhaust air from the building's cooling system further cools the air in the hall.

By these economical means, the glass hall provides a comfortable year-round environ-

ment, at a medium comfort level between the fully conditioned spaces and the exterior. Even on the hottest summer days, the temperature in the hall can be lowered from between 15 degrees to 25 degrees Fahrenheit, and the movement of air at occupied levels will enhance the sensation of comfort.

The large-scale, geometrically simple form of the building proclaims its civic role. Inside the semipublic volume of the glass hall, a ceremonial courtroom in a cylindrical volume acts as a formal symbol of the building's program. The rest of the courtrooms, judges' chambers, public spaces, and prisoner handling facilities—as well as a library, a café, a child-care center, a health center, and parking for 284 vehicles—are segregated into separate security zones.

The occupied mass of the building is constructed of cast-in-place concrete; the glass hall is enclosed by a steel space-frame on custom-fabricated steel columns. The curtain walls will be of painted aluminum and fritted

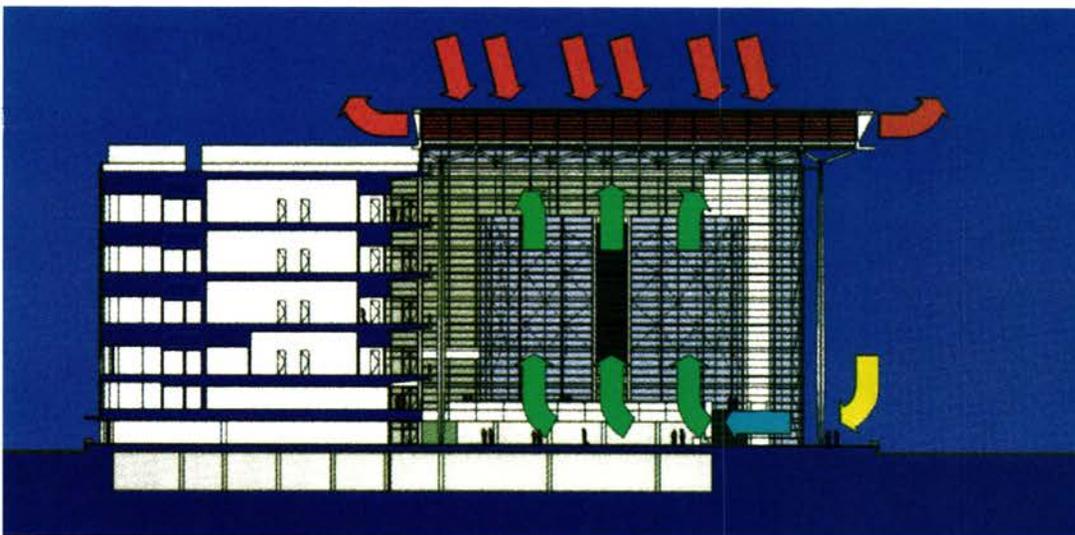
glass, with aluminum solar control devices. Construction is budgeted at about \$90.3 million (\$157 per square foot) and is scheduled to begin in January 1997, with completion estimated in January 2000.

JURY COMMENTS: The project generated early enthusiasm. In proposing it for an award, Karen Bausman opened by saying, "First, it's a government project, and to see this level of excellence in a project of that type is something I want to applaud. Second, it's about technology and place, and that conjunction is very, very important."

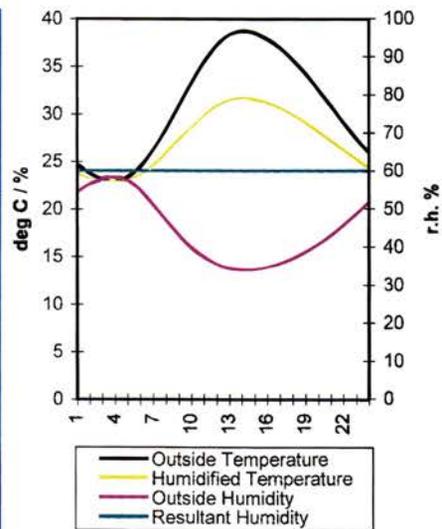
Will Bruder agreed: "It's a building that's about technology, but about low technology, which is wonderful. It's about giving the city a room in a desert place where just an open square would not be effective. It really works: look at the solar diagram and cooling diagrams for winter and summer that are shown. Phoenix has examples of covered courtyards at the university, which are always applauded

and never imitated, and this has risen to a higher level than those." Jury discussion continued over the specific means of climate control in the building's glass hall. The special courtroom set inside the glass hall generated some controversy. Patricia Patkau observed that it was not entirely clear from the submission what a "ceremonial courtroom" is, and Bausman cited it as "the least convincing" part of the project. But Douglas Kelbaugh praised the way this special volume was "beautifully set within the crystalline envelope. And behind it is the no-nonsense planning that makes for a workable courthouse." Michael McKinnell agreed that it is "a magnificent scheme," which "works within known vocabularies" rather than breaking new formal ground.

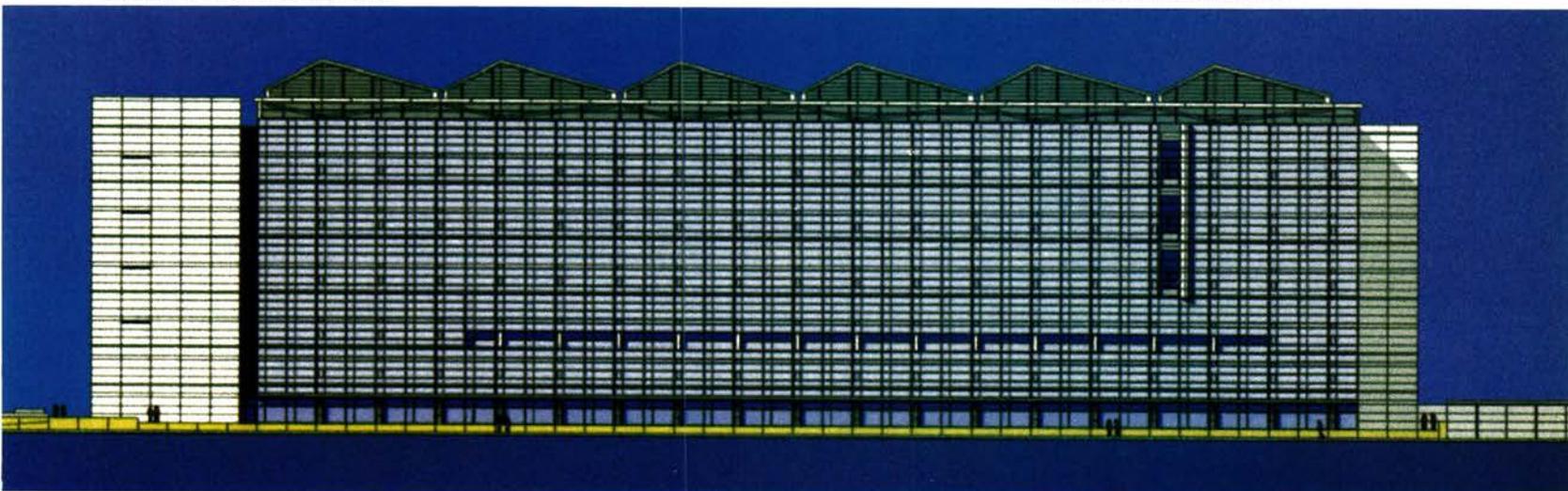
Will Bruder brought up a timely concern, adding, "There's another message here after the Oklahoma City tragedy. I was fearful that the new courthouses would become bunkers, but here is the reverse, very well done."



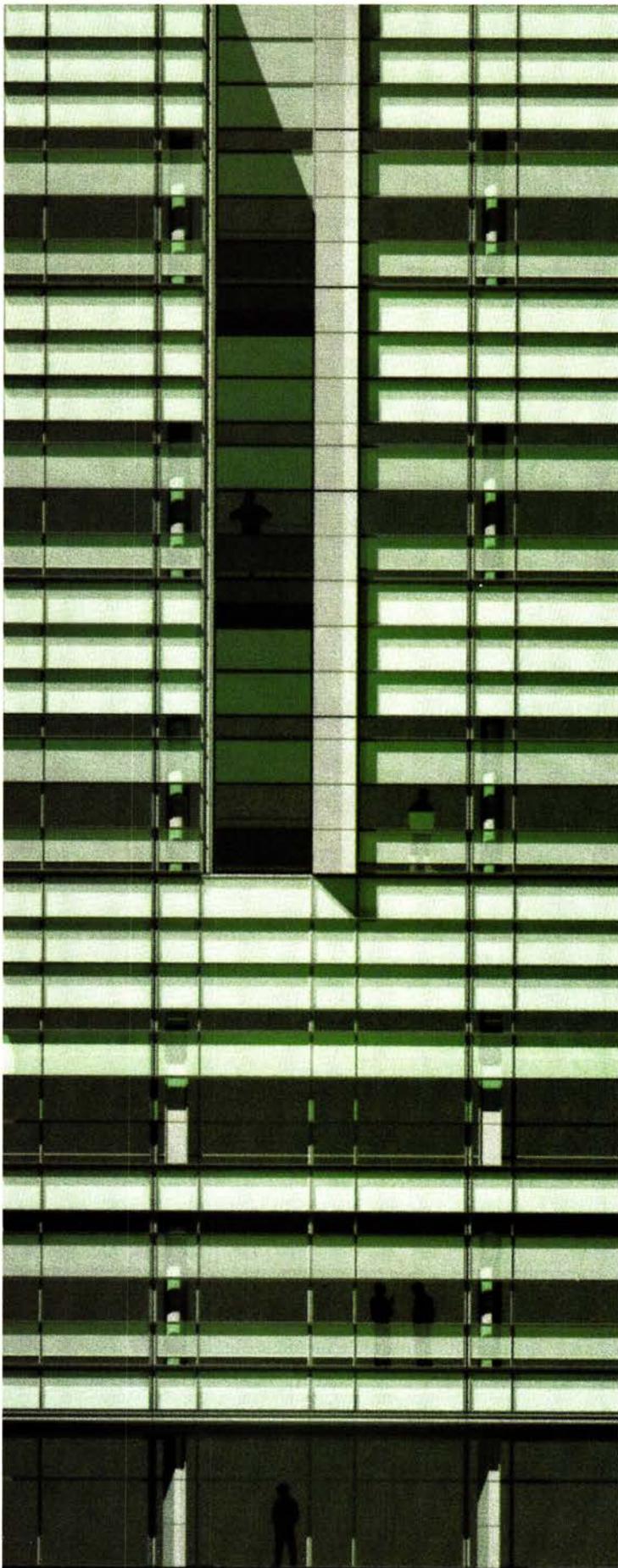
PASSIVE COOLING, SECTION LOOKING WEST



GLASS HALL AIR DATA FOR AUGUST



SOUTH ELEVATION

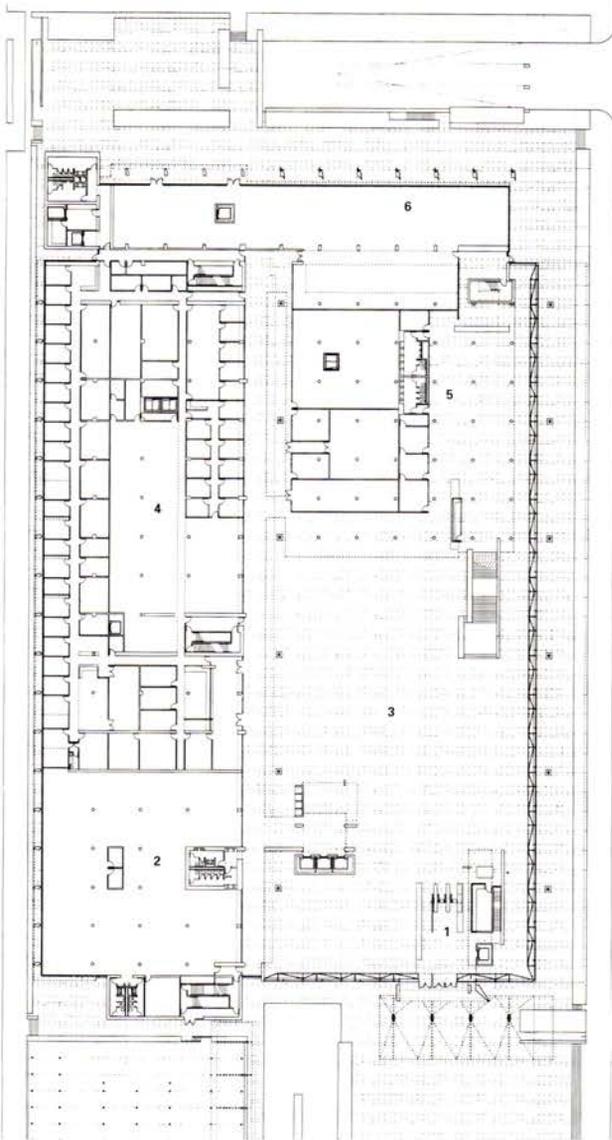


PARTIAL SOUTH ELEVATION

1/00'00m

ARCHITECTS: Richard Meier & Partners, New York City—Richard Meier (principal); Thomas Phifer (design partner); Stephen Dayton, Alfonso Perez-Mendez (project architects); Jim Sawyer (project manager); Toby Rogers (associate architect); Langdon Wilson Architecture, Phoenix; Timothy Collins Douglas, Ron Castellano, Jeff Greene, Steven Harris, Andrew Kim, Julian Kin, Bob Lewis, Paul Masi, Marc Rosenbaum, Carlos Tan (collaborators)
CLIENTS: General Services Administration, Public Buildings Service—Keith Lew (project manager); U.S. Ninth District Court

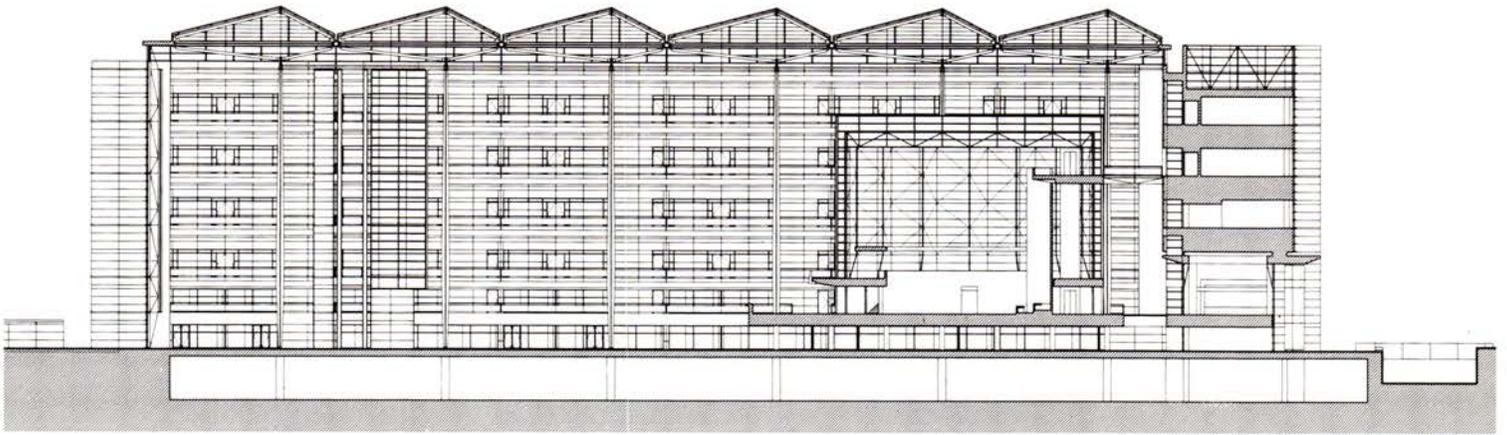
ENGINEERS: Robin E. Parke Associates (structural); Baltes/Valentino Associates, Ove Arup & Partners (mechanical)
CONSULTANTS: R.H. Heintges Architects/Consultants (curtain walls); Richard Emik Associates (landscape); Fisher Marantz Renfro Stone (lighting); Shen Milsom & Wilke (acoustics, audiovisual, and telecommunications); Vignelli Associates (graphics)



- | | | |
|------------------|---------------------------------|-----------------------------|
| 1 ENTRANCE | 7 OPEN TO BELOW | 12 CONFERENCE CENTER |
| 2 PROBATION | 8 MARSHAL'S OFFICE | 13 DISTRICT COURTROOM |
| 3 GLASS HALL | 9 SPECIAL PROCEEDINGS COURTROOM | 14 DISTRICT COURT CHAMBER |
| 4 CLERK'S OFFICE | 10 CONFERENCE | 15 COURT OF APPEALS CHAMBER |
| 5 JURY ASSEMBLY | 11 CAFE | |
| 6 CHILD-CARE | | |

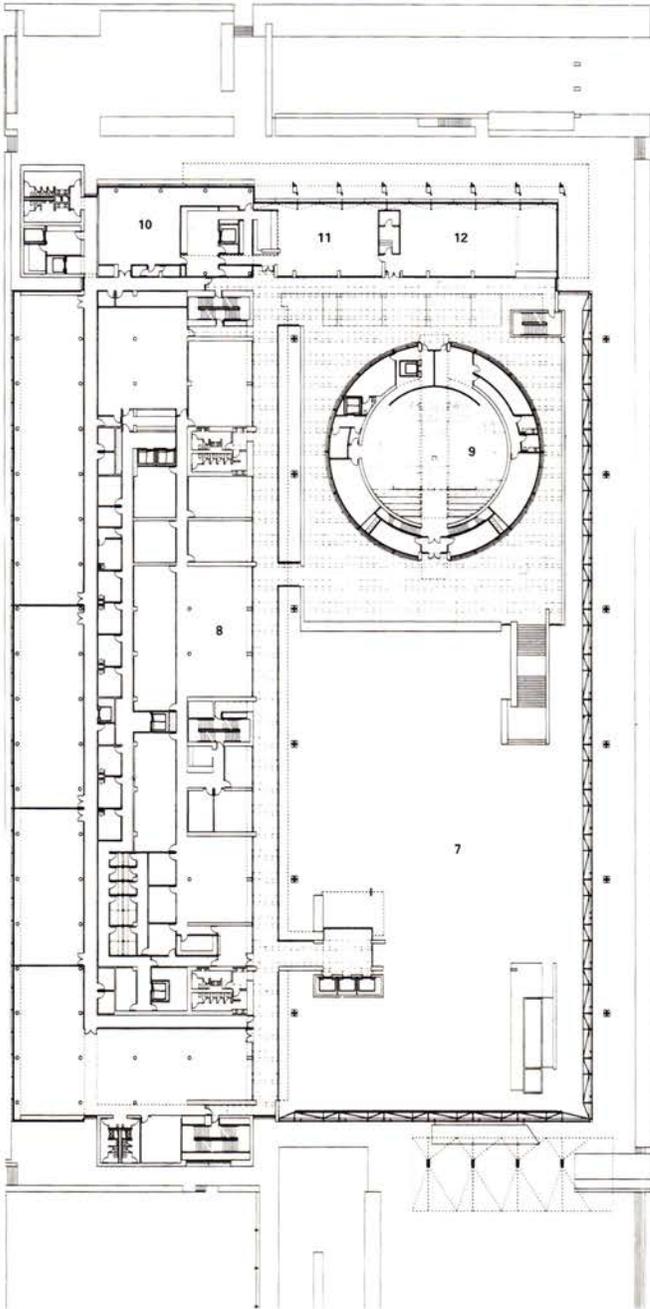
FIRST-FLOOR PLAN

1/40'/12m



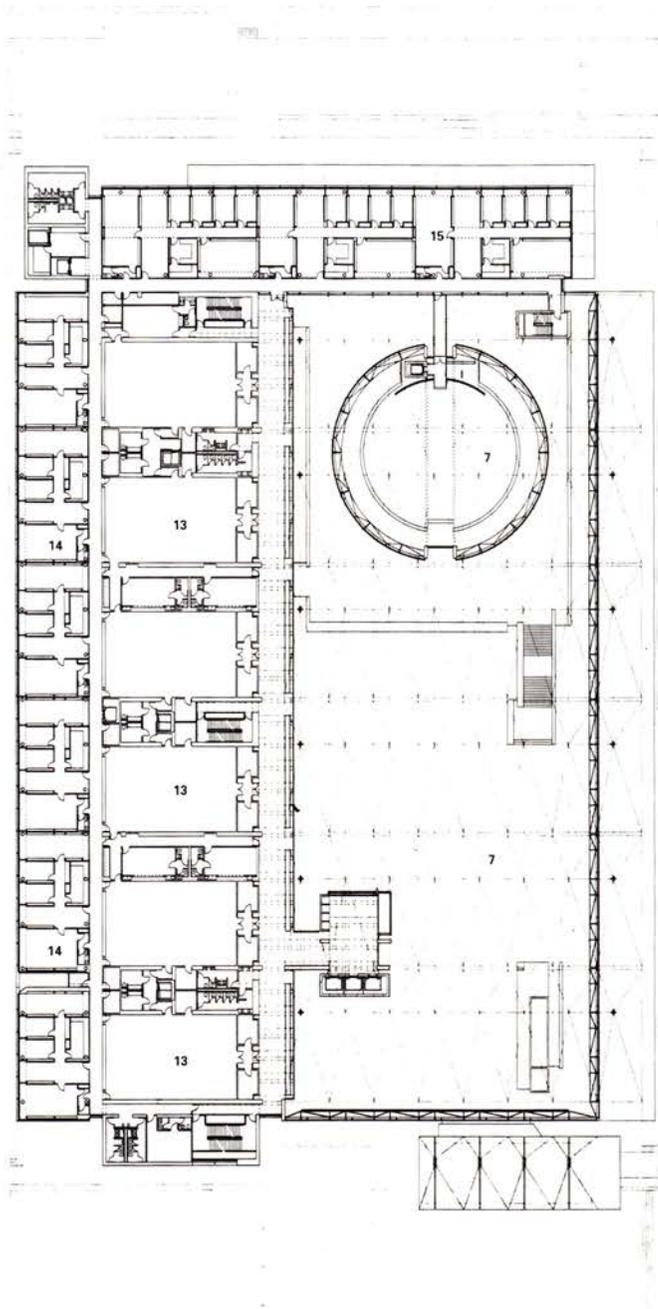
SECTION LOOKING SOUTH

40/12m



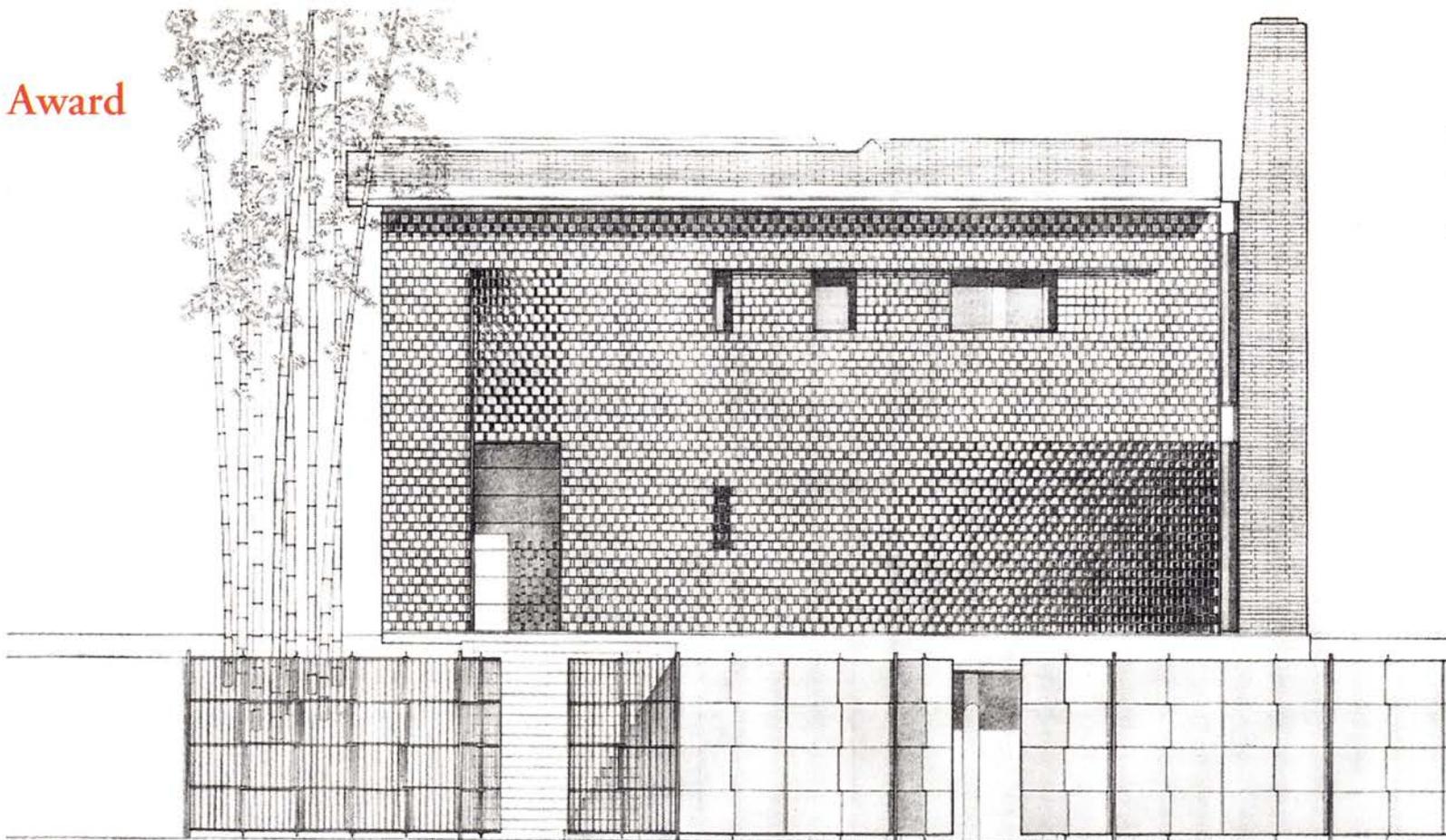
SECOND-FLOOR PLAN

40/12m



FIFTH-FLOOR PLAN

40/12m



ENTRANCE ELEVATION

Casa La Roca

OFFICE dA

PROJECT: Casa La Roca; Caracas, Venezuela.

SITE: Top of a hill overlooking the city. The property sits about six feet above street level on a plinth of stone. A 23-foot-high rock formation at the rear of the lot forms a natural boundary between the site and a public park.

PROGRAM: A 3,200-square-foot single-family house.

SOLUTION: The aim of the design was to afford a sense of openness while maintaining adequate privacy for a domestic space. The house is wrapped in a continuous surface of terra-cotta blocks, with a large opening carved out of the northwest corner in alignment with a rock formation at the rear. The resulting outdoor room functions simultaneously as a living space and a back yard. The ground level is organized as an L-shaped plan around the patio, with the living room located on axis with the rock.

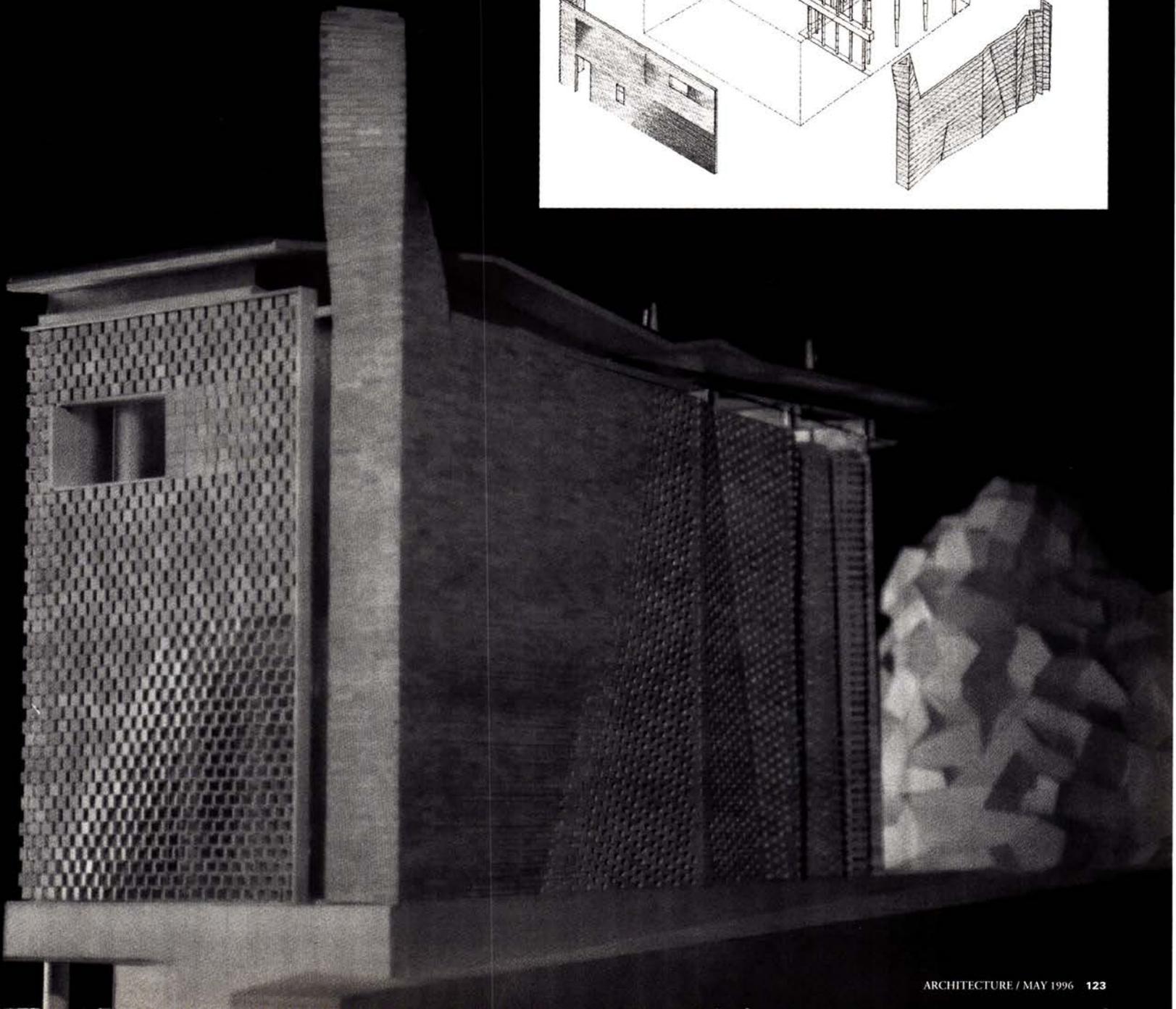
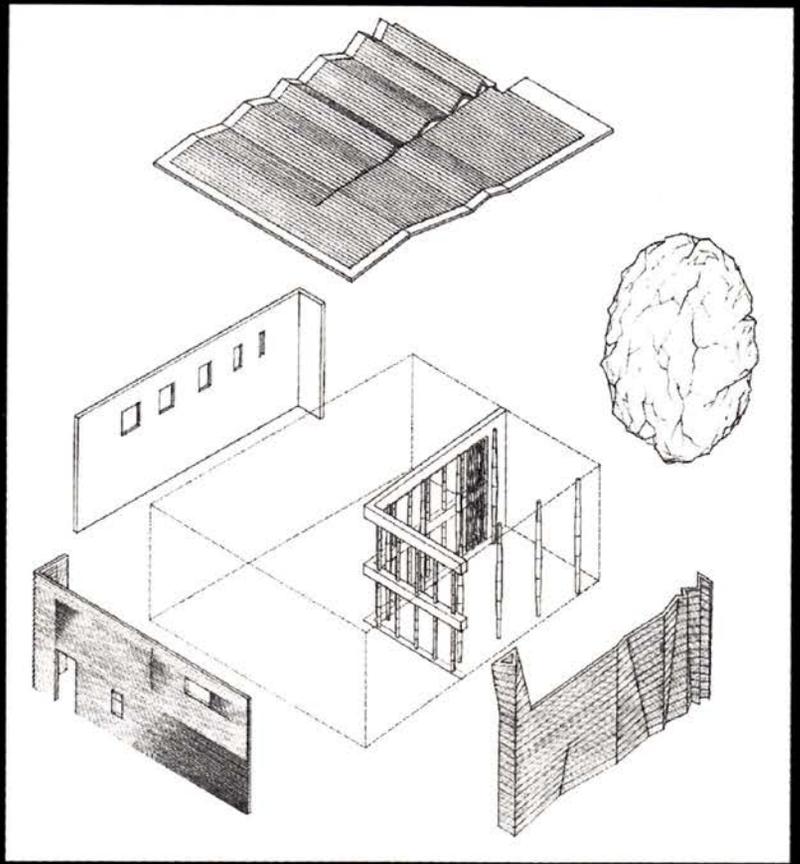
The walls fronting the patio are composed of sliding glass doors and windows, complemented by a steel concertina security grille. The patio roof is supported by concrete bamboo-shaped columns and steel I-beam coffer-

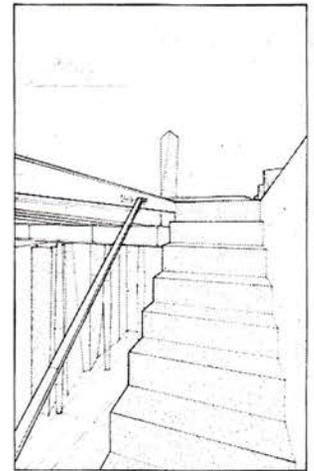
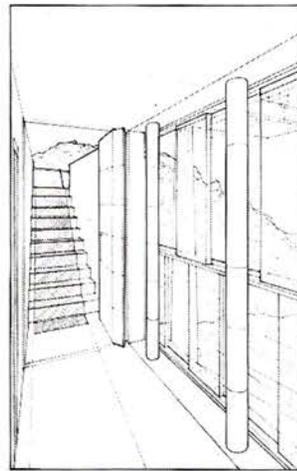
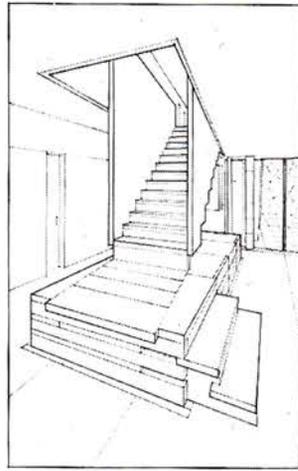
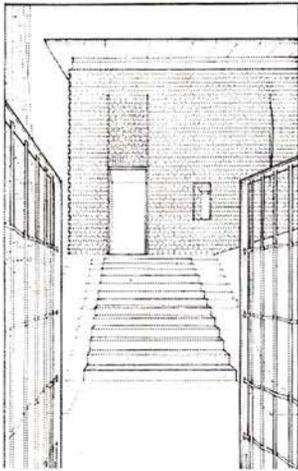
ing. While the rock generated the organization of the plan, the panoramic views from the roof determined the sectional composition as a sequence of spaces ascending to the rooftop terrace. The south-facing front elevation is constructed from terra-cotta blocks that shield the house from the sun while eliminating the need for security bars. The east facade, overlooking a relative's residence, provides privacy without the appearance of massive enclosure. Its brickwork is laid in a running bond along the living-room wall, which gradually separates into a Flemish bond with open spaces as it approaches the patio. The geometry of the wall marks a transition from a loadbearing plane to a creased, rigid screen.

JURY COMMENTS: Patricia Patkau opened the enthusiastic commentary by pointing to the house's construction, which the jurors found most compelling. "The strength of the project is in the making: the fine craft, the control of the craftsmen," Patkau said. Karen Bausman elaborated: "This building has a great deal of invention in it. Control is one thing, but the kind of playfulness, the kind of invention through material, is quite phenomenal in this scheme." "There's a great sense of tactility and materiality," added

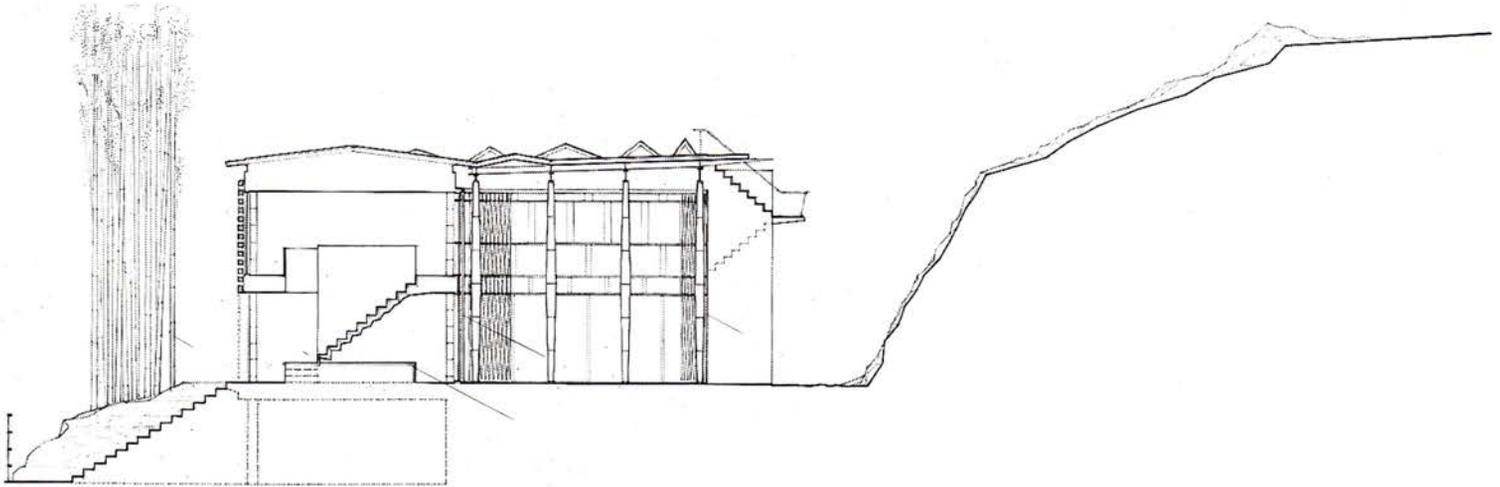
Douglas Kelbaugh, "but I think there are some bigger architectural strategies here as well, in the relationship of solid and volume of the building to the rock, and the relationship of the building to the distant landscape." Will Bruder joined in praising the refinement and articulation of the work, noting that for all its "detail and romance," the architecture retained a "sense of modesty."

Echoing Bruder, Michael McKinnell addressed the relatively plain, plastered west facade, against which the house's services are stacked. "The banality of the west wall is very important against the sensual and beautifully crafted brick," he explained. "Had the author not been able to exhibit restraint and continued this treatment around, I think the whole project would have gone over the top. The brilliance of the scheme lies in the transformation of the rock by way of a masonry material into something that is then dematerialized into a veil. It begins with this chimney, which is so gently twisted to suggest the manipulation of the volume as opposed to the God-made form. And then the final disintegration of it into this veil, which would glow with light against the rock, is absolutely brilliant. I wouldn't give a damn what the plan was like because that alone is enough to give it an award."



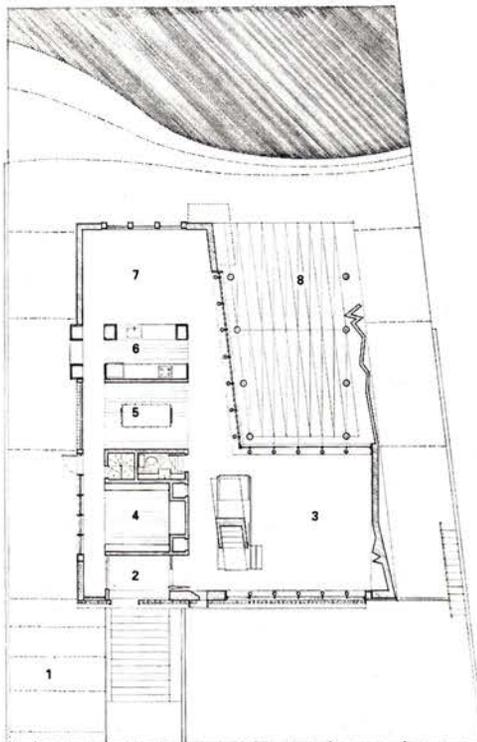


PERSPECTIVES SHOWING SEQUENCE OF STAIRS

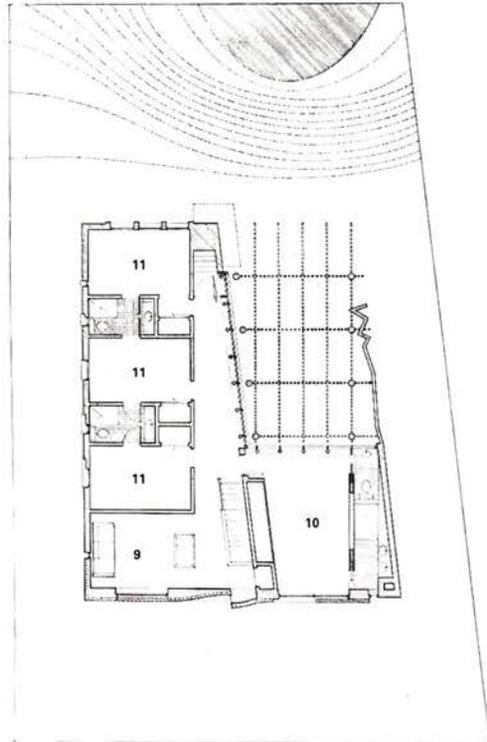


SECTION THROUGH SITE, LOOKING WEST

20'/6m



FIRST-FLOOR PLAN



SECOND-FLOOR PLAN

20'/6m

ARCHITECT: Office dA, Boston—Monica Ponce de Leon, Nader Tehrani (principals); Natalia Maric, Vorapochana Ansananda, Jeffrey Asanza, Kazuyo Oda, Apisek Wongvasu, model team; Patricia Szu-Ping Chen, Mario D'Artista, Gene Miao, Alejandro Ponce de Leon, Thamarit Suchart, Diego Toledo, Rusty Walker (project assistants)

CLIENT: Ricardo Durrego and Claudia Rodriguez, Caracas

MODEL PHOTOGRAPHERS: Vorapochana Ansananda, Apisek Wongvasu, Nader Tehrani

RENDERERS: Monica Ponce de Leon, Nader Tehrani

- 1 ENTRANCE TO EXCAVATED GARAGE
- 2 ENTRANCE TO HOUSE
- 3 LIVING ROOM
- 4 STUDY
- 5 DINING
- 6 KITCHEN
- 7 FAMILY ROOM
- 8 PATIO
- 9 CHILDREN'S ROOM
- 10 MASTER BEDROOM
- 11 BEDROOM





Head Start Child-Care Facilities

HOMA FARDJADI, SIMA FARJADI, CRAIG SCOTT

PROJECT: Patterns for Head Start Child-Care Facilities, Hightstown, New Jersey.

SITE: A flat, 1.5-acre parcel surrounded by residential, commercial, educational, and municipal facilities.

PROGRAM: A 7,870-square-foot prototypical facility housing classrooms, staff support, family service/parent involvement, social services, multipurpose area, administration, nutrition, and health services. A playground and parking lot are also included. The design is to be adapted to locations nationwide.

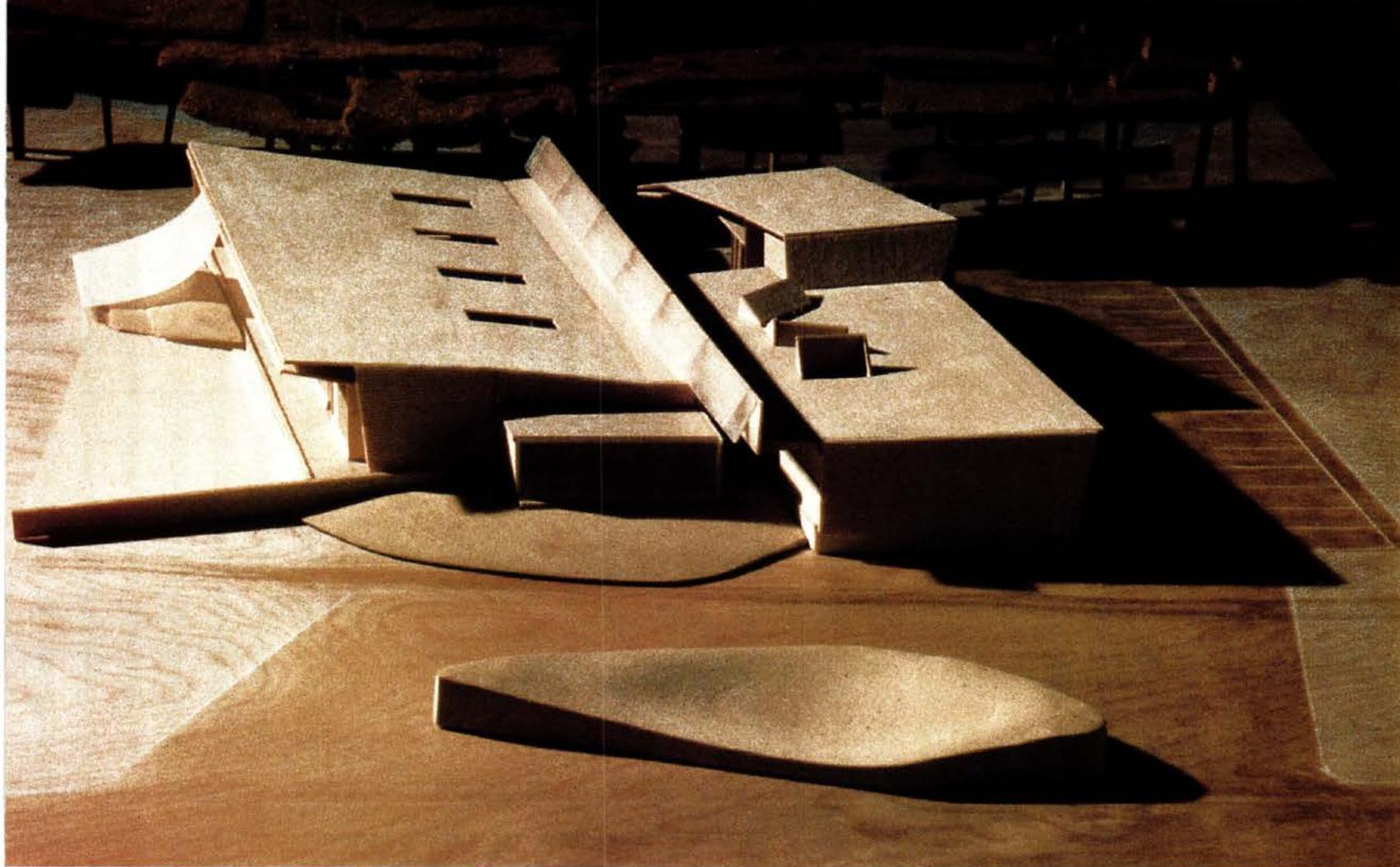
SOLUTION: The winning scheme in a national design competition for a prototypical Head Start child-care facility (ARCHITECTURE, June 1995, pages 22-23), this single-story building sits on a shallow mound designed like an abstracted shell. The use of the turtle metaphor continues inside, where flooring in the common area, the skylit gallery, and the open court is inscribed with a shell pattern. This interior turtle “landscape” links the project’s three main functional blocks—health and social services, multipurpose hall and kitchen, and classrooms. A stepped podium

in the common space, the wide gallery alongside the classroom block, and the multipurpose room (which can be transformed into an open-air space) are areas designed to accommodate both organized activity and spontaneous interaction. The irregularly shaped classrooms are placed along the gallery, where children’s art is displayed and a low strip window opens views to the play court. Patios in two of the rooms contain a wet play area and a terrarium. A loft structure enclosed by a curtain houses nap cots and can be used as a semisecluded space.

Depending on the specifics of the site and the local program, the facility can be built using a choice of structural systems (steel columns and beams or wood/laminated columns and beams) and with variations in the curve and height of the cast-in-place concrete mound. Construction for this facility will begin later in the year.

JURY COMMENTS: The level of invention in this project, from the variety of common spaces to the irregularity of the classrooms,

was widely admired by the jury. There is “something new and, for me, quite exciting about the construction of the classrooms, which literally and figuratively break the box and facilitate some of the activities that I think might be invented by the teachers,” explained Michael McKinnell. “The crank in each of the classrooms,” noted Douglas Kelbaugh, “provides a subdivision of space that would be useful both pedagogically and socially.” Will Bruder admired the simplicity of the construction system: “While it’s not orthogonal, it has all the economies of an orthogonal scheme in its framing and structure.” Patricia Patkau observed that “the classrooms, the entrance, the multipurpose room, and the captured court add up to a rich set of spaces for a tiny program.” The jury was divided, however, over the separation of administration from the children’s areas. Patkau and Karen Bausman would have preferred a stronger link between the two functions. Nevertheless, the sense of community engendered by the project was unanimously praised.

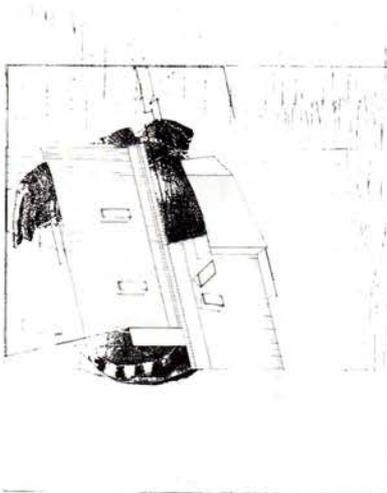


MODEL VIEW LOOKING SOUTH

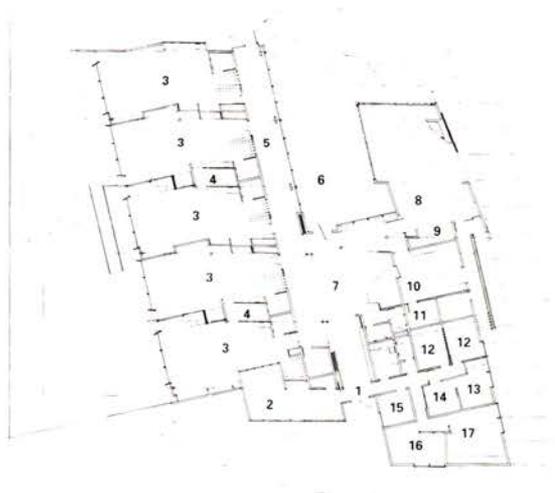


MODEL VIEW LOOKING WEST

ARCHITECTS: Homa Fardjadi, Sima Fardjadi, Craig Scott (project designers); Albertus Wang, Gloria Lee, Nathan Swift, Lisa Iwamoto, Stephen Potts (project team)
CLIENT: Early Childhood Facilities Fund
ENGINEERS: Harvey Bryan (mechanical); LeMessurier Consultants (structural)
MODELMAKER: Albertus Wang
MODEL PHOTOGRAPHER: Craig Scott



SITE/ROOF PLAN

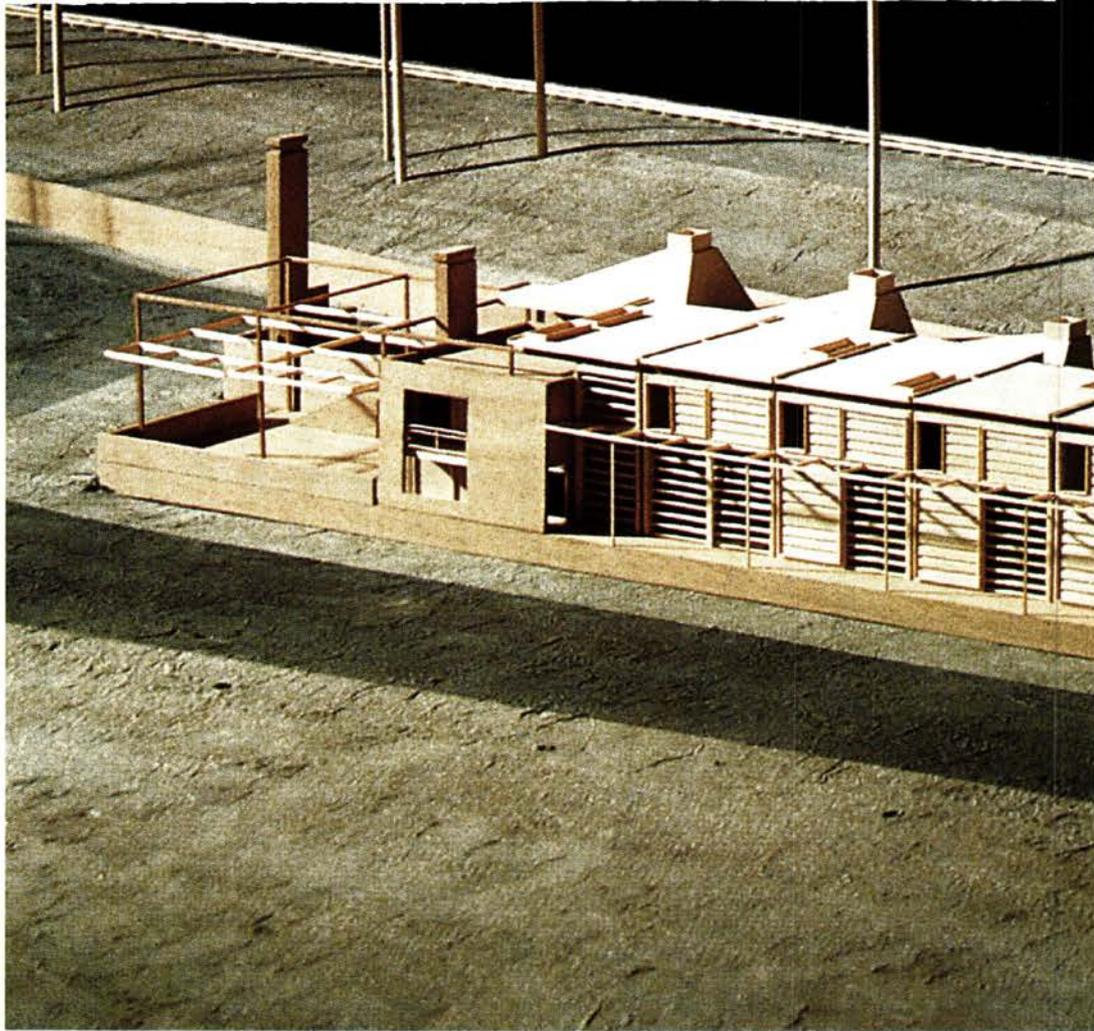


FLOOR PLAN

- 1 ENTRANCE
- 2 CONFERENCE
- 3 CLASSROOM
- 4 PATIO
- 5 GALLERY
- 6 PLAY COURT
- 7 COMMON SPACE
- 8 MULTIPURPOSE ROOM
- 9 STORAGE
- 10 KITCHEN
- 11 PANTRY
- 12 FAMILY WORKER'S OFFICE
- 13 SICK BAY/OFFICE AREA
- 14 SCREENING ROOM
- 15 OFFICE
- 16 PARENTS' LOUNGE
- 17 PARENT TRAINING/COMPUTER ROOM



Citation



MODEL VIEW LOOKING SOUTH

Seattle Brewing Company

ALLIED WORKS, ARCHITECTURE

PROJECT: Seattle Brewing Company; Woodinville, Washington.

SITE: A narrow, steeply sloping, 1,400-foot stretch of land bordered by a county highway in a rural suburb 25 miles north of Seattle.

PROGRAM: A working brewery with the capacity to produce up to 50,000 barrels of beer a year; a pub; and a founders' room with visual connections to the manufacturing process.

SOLUTION: The 12,500-square-foot building is designed as an earthwork in an effort to connect the building to the region's agrarian past and to distinguish the public and private functions of the brewery.

Two concrete terraces with masonry walls are cut into the site at a point that allows the greatest buildable width. Raised four feet above the highway, the lower terrace, housing the manufacturing process, is defined by a steel frame that extends the full length of the brewery. The frame is infilled with wood

panels that filter light and slide open to expose the brewing equipment to the street. Set back from the edge of the terrace, it creates a pedestrian zone protected by a vine-covered trellis. To minimize the visual impact of the building's length, the tank hall, shipping facilities, and the founders' room rise above the terrace at both ends.

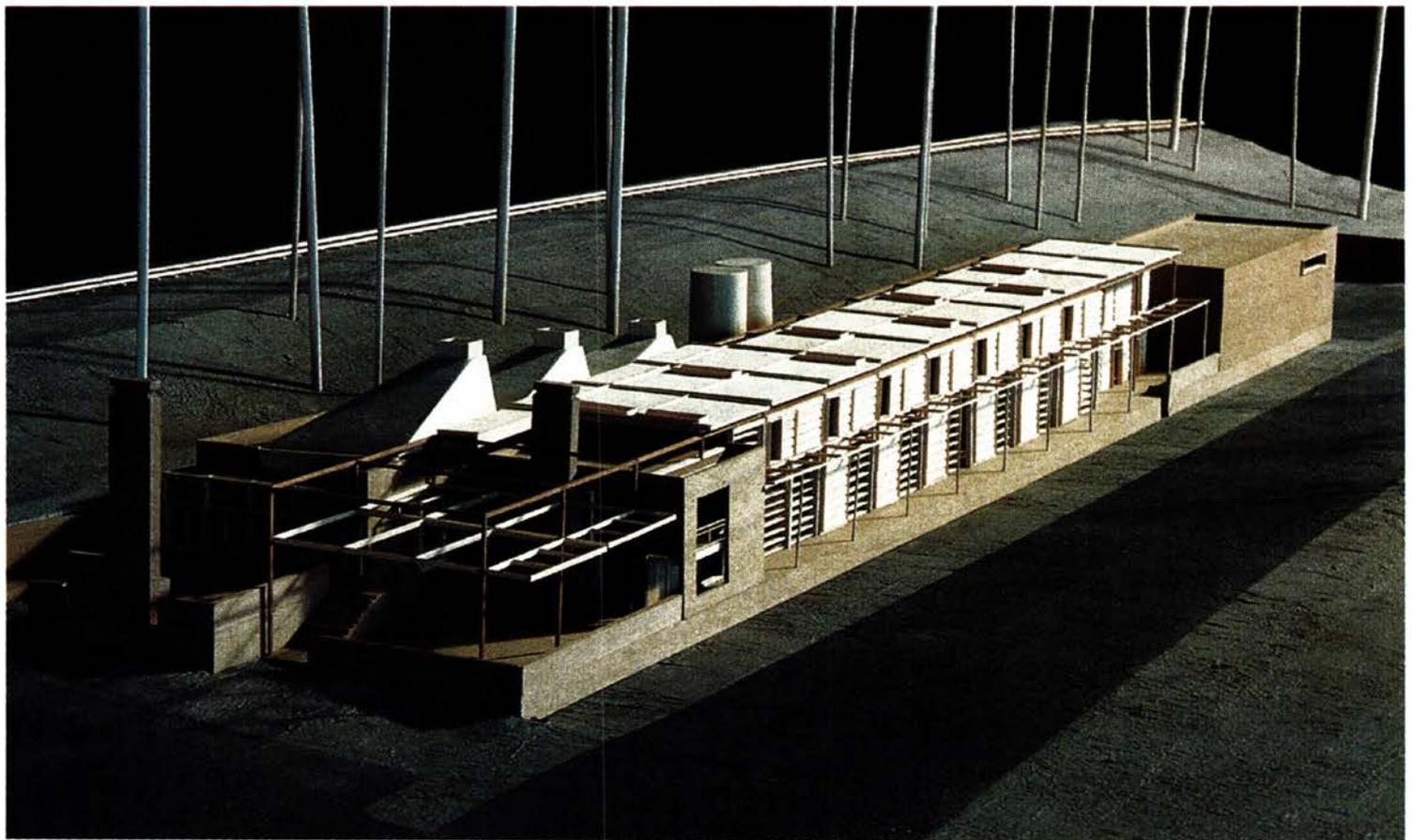
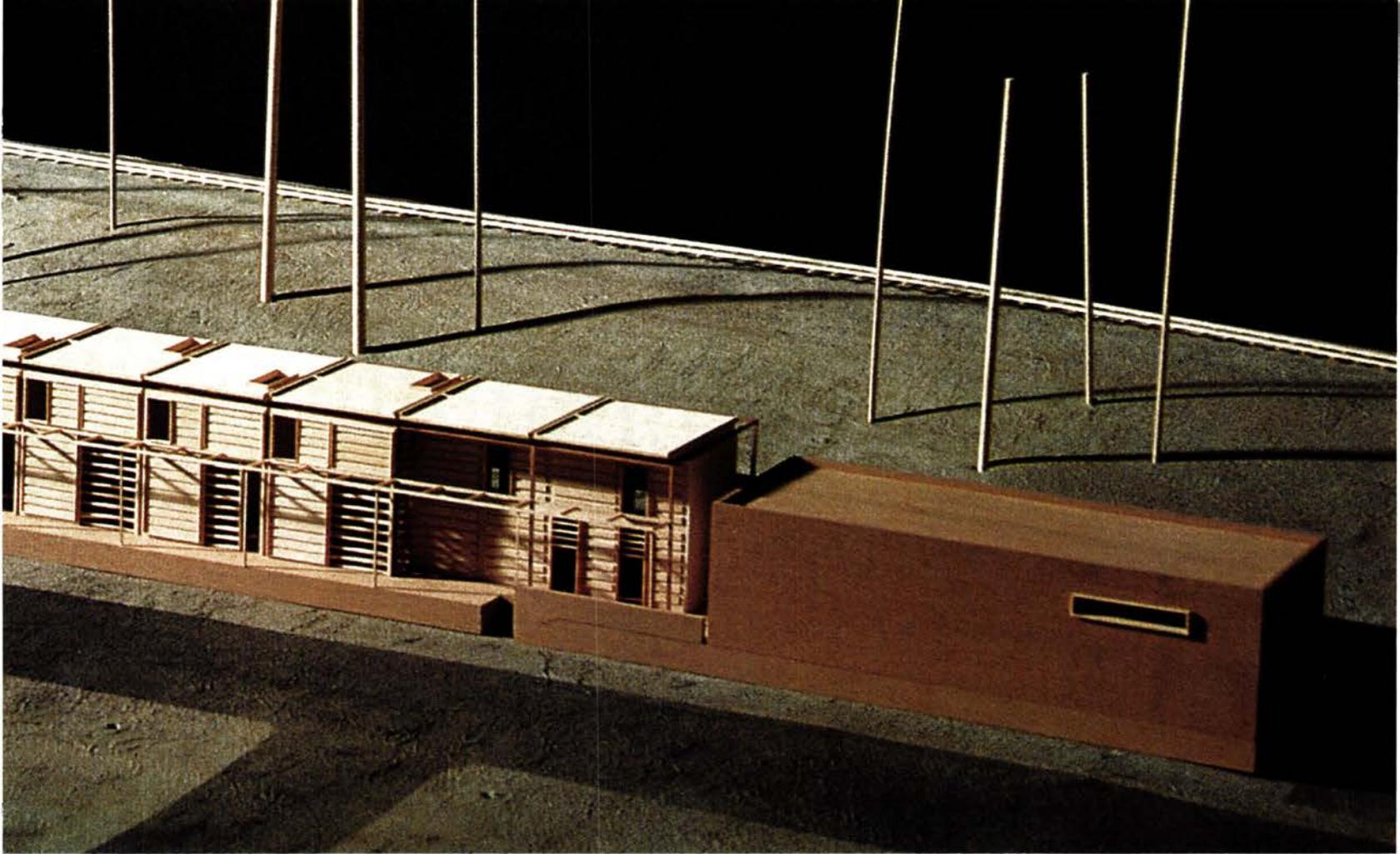
The upper terrace, which sits five feet above the lower terrace on the highest point of the site, accommodates the pub and its outdoor extension. Natural light is brought into the pub through large roof lanterns. Visitors can watch the brewing process through bay windows in the pub and through a window in the founders' room.

JURY COMMENTS: The jury was impressed with the way the architects manipulated the site and articulated the brewery's linear manufacturing process. The two terraces "remake

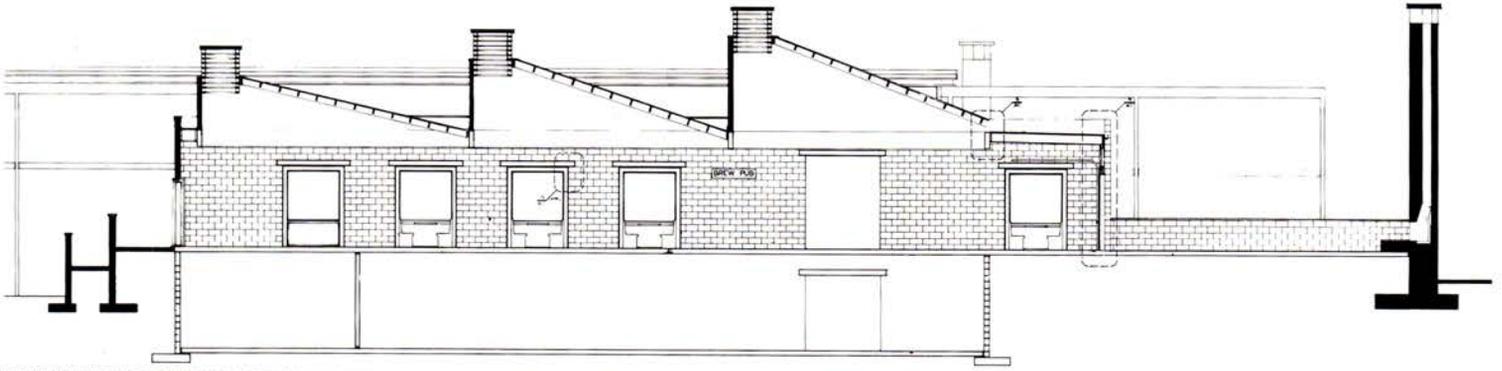
the site in a sensible way," remarked Douglas Kelbaugh, adding that the building "has repetitive elements, but isn't relentless. It has a beginning, a middle, and an end."

The jury found the integration of functions to be well resolved. Will Bruder remarked on the way the architecture energizes the program; its public and private elements "interact nicely." "There is a celebration of the process of making beer," he went on. Bruder also liked the proximity of the pub to the parking lot, where visitors are "greeted" by people on the terrace.

There was some disagreement, however, over the success of the pub. "I think the project is splendid," said Michael McKinnell, "but the pub space is far too solemn." Bruder countered that pubs tend to be dark environments. Karen Bausman summed up the project's merits: "It's succinct, economical, and, at the same time, poetic."

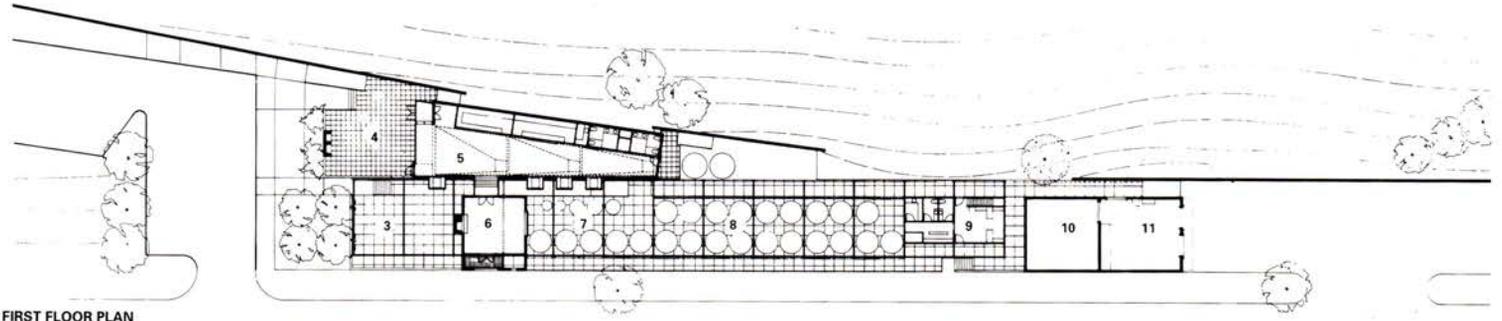


MODEL VIEW LOOKING WEST

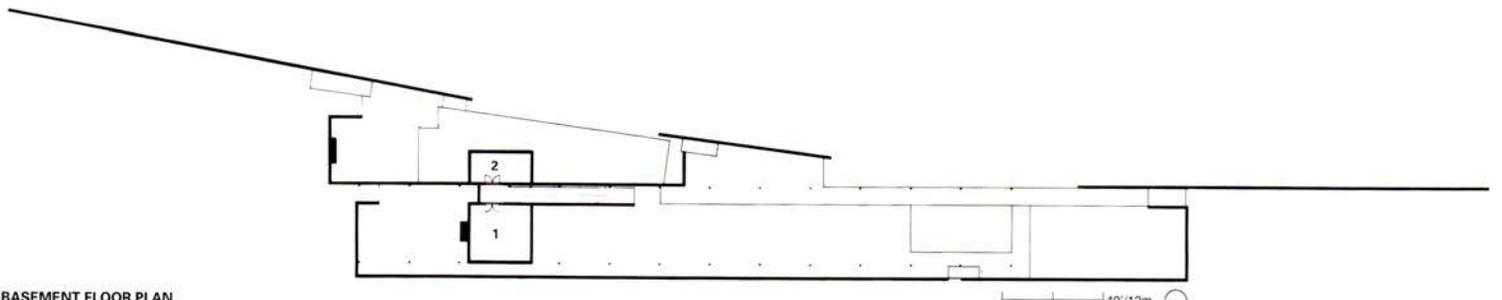


LONGITUDINAL SECTION THROUGH PUB LOOKING WEST

10/3m



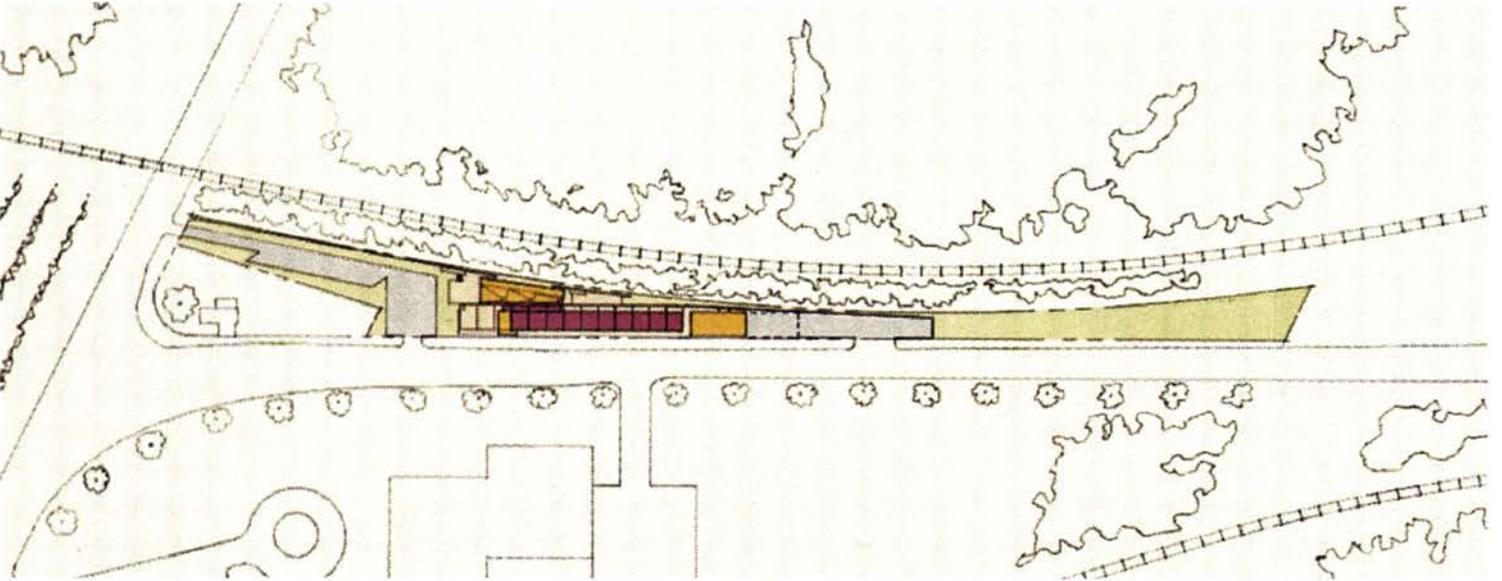
FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

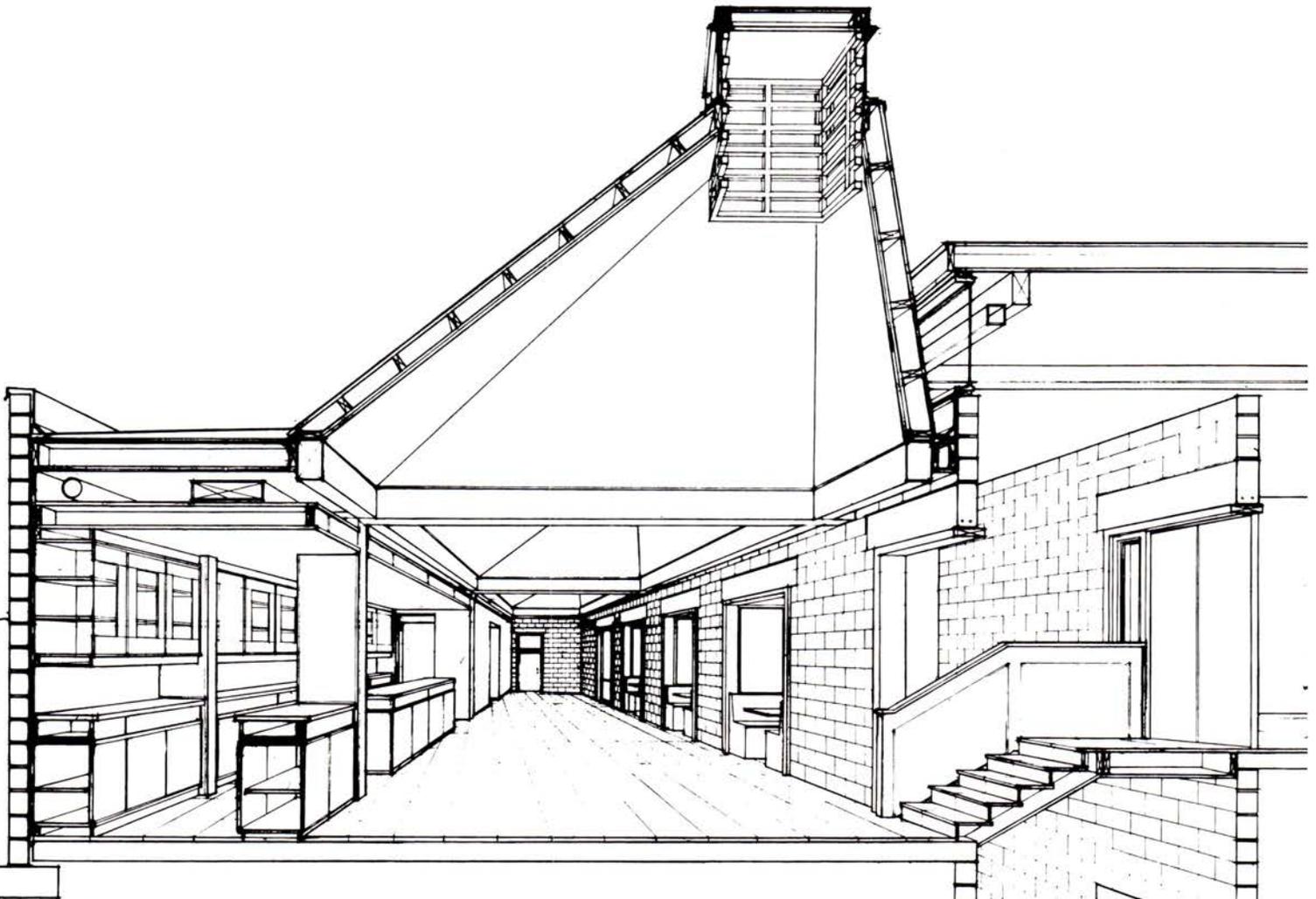
40/12m

- | | | |
|------------------|-------------------|--------------------|
| 1 UPPER TERRACE | 5 BREW HOUSE | 9 DRY STORAGE |
| 2 LOWER TERRACE | 6 TANK HALL | 10 MECHANICAL ROOM |
| 3 PUB HALL | 7 LAB AND OFFICES | 11 MILL HOUSE |
| 4 FOUNDERS' ROOM | 8 COOLER | |

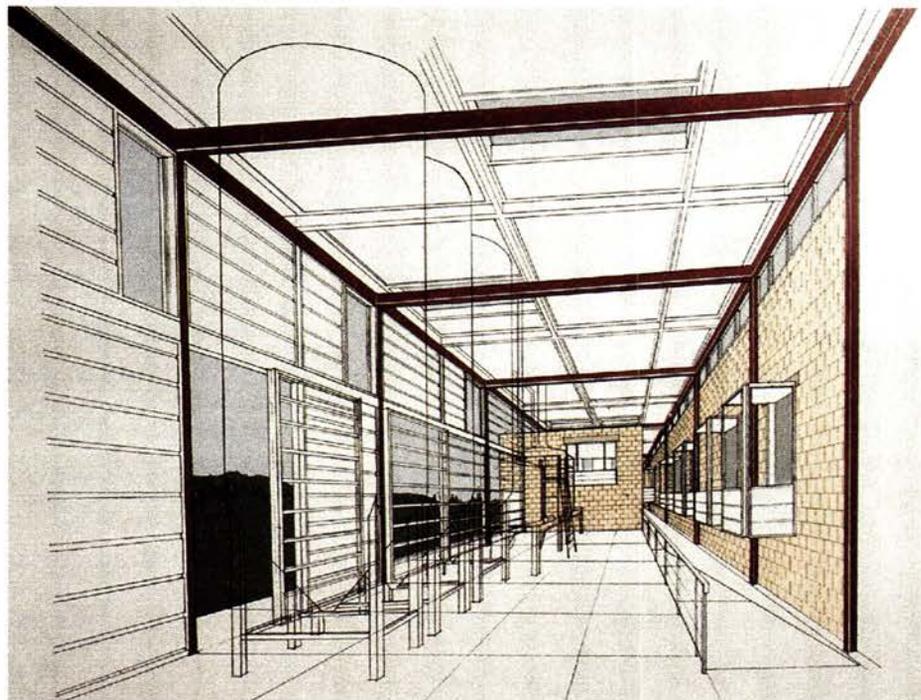


SITE PLAN

300/100m



SECTIONAL PERSPECTIVE THROUGH PUB HALL

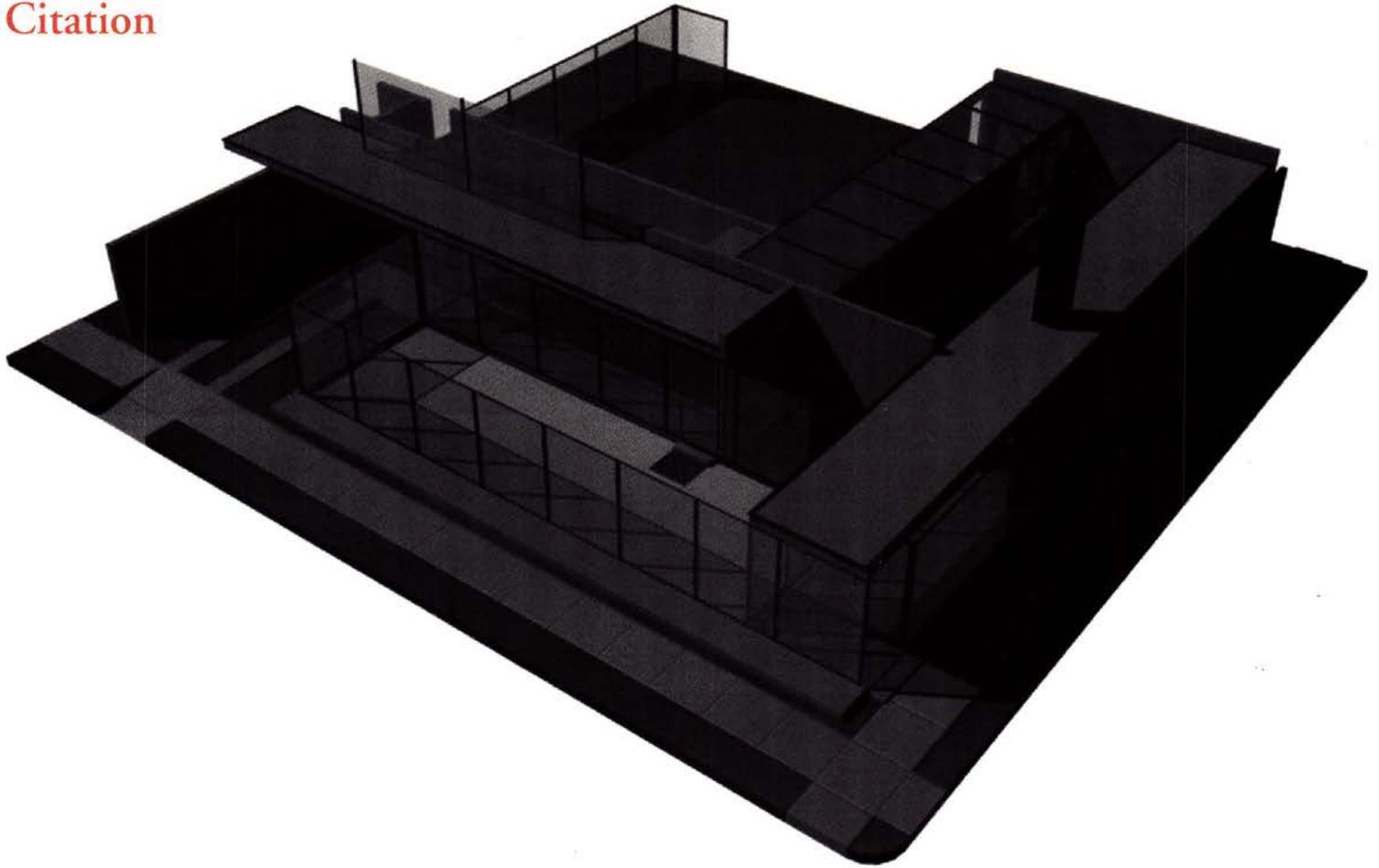


PERSPECTIVE OF BREW HOUSE



ARCHITECT: Allied Works, Architecture, Portland—Brad Cloefil (principal/project designer); Kip Storey (project lead); John Weil, Brock Roberts, Chris Bixby, Tim Simpson, Kei Nakamura (project team)
CLIENT: Seattle Brewing Company
ENGINEER: KPF Consulting Engineers (structural)
CONSULTANT: Mayer/Reed (landscape)
CONTRACTOR: Walsh Construction

Citation



Alsbrooks House/Studio

MICHAEL BELL, ARCHITECTURE

PROJECT: Alsbrooks House/Studio; Houston.

SITE: Square corner lot in the midtown section of Houston, a hybrid zone of 1850s frame houses and 1960s strip stores lying beyond the freeways ringing the downtown. The house faces Louisiana Avenue, a one-way street leading downtown, and McGowen, a quiet cross street.

PROGRAM: Two studios and a loftlike living area, with offstreet parking and enclosed outdoor courtyards.

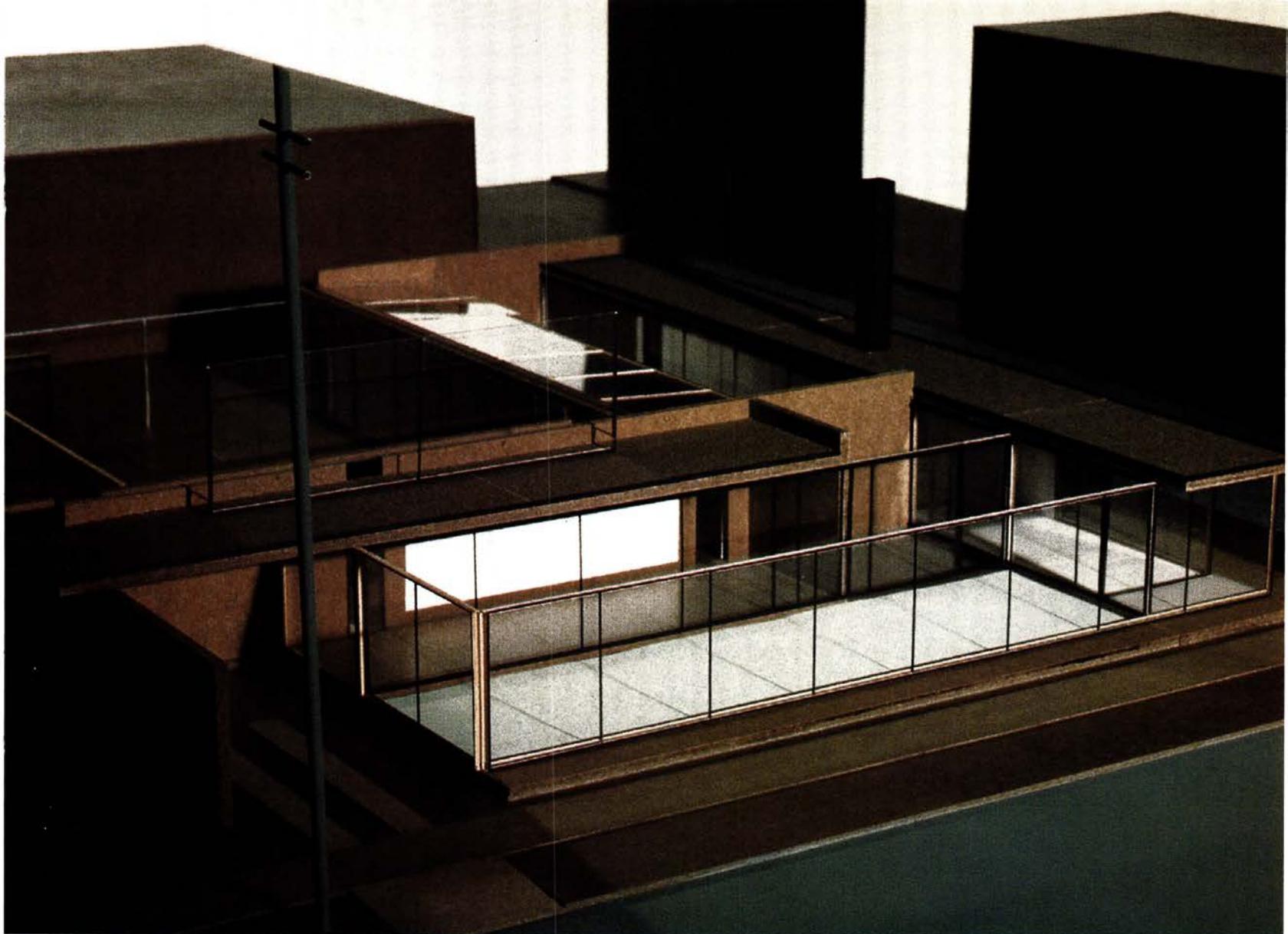
SOLUTION: In response to the lack of traditional urbanism in megalopolises such as Houston, where space is a thin sprawl of parking lots and objectlike buildings, the architect has attempted to “make a fast non-centrifugal house,” in his words. What makes the house “fast” is the series of long, narrow rooms, 11 feet wide and ranging in length from 40 to 75 feet, whose shapes suggest movement and multiple uses. One of the

rooms is a loft with living space and a kitchen; another is a greenhouse/studio with a glass roof and nearly windowless walls; and a third is a glass-walled studio. The inward orientation of the L-shaped house makes it “noncentrifugal,” with narrow courtyards separating or flanking the three enclosures. A carport and glass-enclosed front courtyard face the main avenue. The house is constructed of an iron-framed glass curtain wall and tilt-up concrete panels.

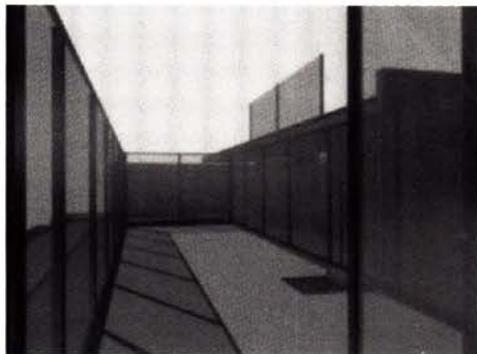
JURY COMMENTS: The jury applauded this scheme for “raising the Miesian bar higher,” as Karen Bausman put it, although Douglas Kelbaugh thought that “it probably takes Mies a little further, but not far enough.” The more the jury studied the design in detail, the more questions they raised. Kelbaugh noted that, with its glazed horizontal roof, the greenhouse will be “a guaranteed

oven in Houston,” and Patricia Patkau questioned “putting the most private space [the loft] open to the street in a public way.”

Michael McKinnell argued strongly that the house “fulfills the urban obligation in the time-honored traditional sense of the American house, presenting a piece of open land to the street, which is never used,” and that the rooms’ being “long and skinny removes from them any possibility that they can be regarded as traditional rooms and forces. Then, the vision back to the whole, which has this multiplication of transparent, translucent, and opaque layers. It is a sort of painting.” Will Bruder responded that the layers of courtyard, glass, and concrete walls provide a sense of “tranquillity” in a fragmented urban context. All of the jurors were taken with the ideas in the project and agreed that Michael Bell’s proposal be “chosen as a generic set of possibilities, not as a resolution.”



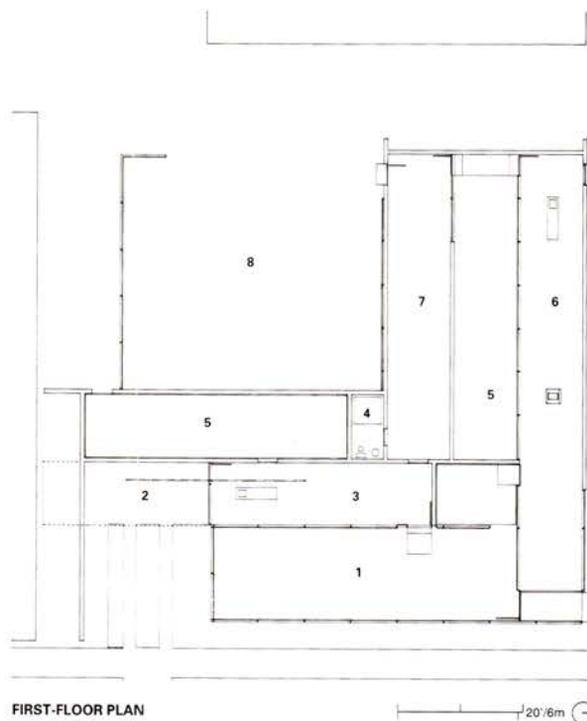
MODEL OF THE HOUSE IN ITS URBAN CONTEXT



VIEW OF FRONT COURT FROM ENTRANCE



VIEW FROM ONE STUDIO ACROSS COURT TO SECOND STUDIO



FIRST-FLOOR PLAN

ARCHITECT: Michael Bell, Architecture, Houston—Michael Bell, David Marini, Peony Quan, Chris Nichols (design team)

CLIENT: Ruston Alsbrooks

MODELMAKERS: Michael Bell, Peony Quan, David Marini

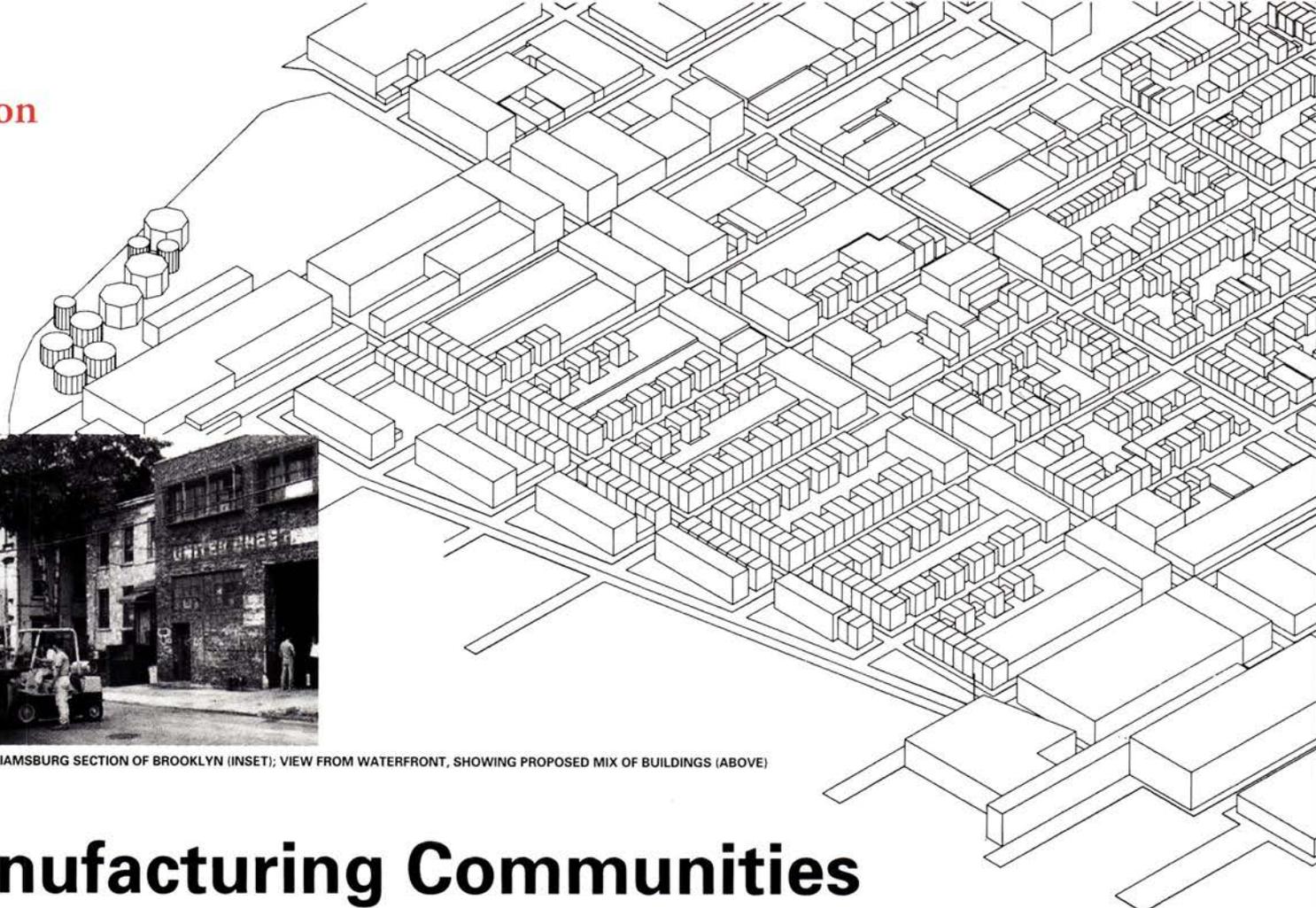
MODEL PHOTOGRAPHERS: Michael Bell, David Marini, Sze Tsung Leong

RENDERERS: Michael Bell, Chris Nichols

- 1 FRONT COURT
- 2 CARPORT
- 3 LOFT
- 4 BATHROOM
- 5 COURTYARD
- 6 STUDIO
- 7 GREENHOUSE STUDIO
- 8 BACKYARD



NORTHSIDE WILLIAMSBURG SECTION OF BROOKLYN (INSET); VIEW FROM WATERFRONT, SHOWING PROPOSED MIX OF BUILDINGS (ABOVE)



Manufacturing Communities

JOHN A. LOOMIS, KISS + CATHCART

PROJECT: Manufacturing Communities, Brooklyn, New York.

SITE: A semiabandoned waterfront zone in Brooklyn's Northside Williamsburg section, adjacent to a mixed area of manufacturing and housing. The district is currently undergoing a zoning review.

PROGRAM: Provide for a mixed-use residential and manufacturing community that strengthens the positive aspects of the existing mixed-use area and extends them into the waterfront development area.

SOLUTION: This proposal sets forth a new approach to cities, one that combines the rebuilding of urban districts and the rebuilding of America's manufacturing base into a single coordinated strategy. Applying experiences from programs in France and Italy, and observations from old American urban neighborhoods where factories are sprinkled amid housing, this strategy envisions "urban-friendly manufacturing activities." Small, flexible manufacturers, who make up a rapidly expanding sector of the economy, could occupy buildings that mesh well with traditional rowhouses, thus creating lively, diverse streets like the ones described so

memorably by Jane Jacobs. Industries could choose from among multistory lofts, single-story pancake buildings, one- to two-story infill buildings, one-story-plus-mezzanine workshops of narrow dimensions, and three- to four-story rowhouses—all of which might be interspersed among residential rowhouses on pedestrian-scale blocks measuring about 200 by 400 feet. This proposal, developed with the support of an NEA grant, is being considered by city officials and neighborhood groups currently debating what sort of development to encourage in Williamsburg.

JURY COMMENTS: "Here's a project that deals in more than a token way with the question of production in American cities and the role that small-scale industry can play in rejuvenating them," asserted Douglas Kelbaugh. "It develops existing and new production and housing typologies, and distributes them in a way that isn't heavy-handed and relentless. There is an organicity about it." Will Bruder praised the project for dealing with problems that every city is facing and for adopting an approach that is working-class-oriented and "honest and invigorating."

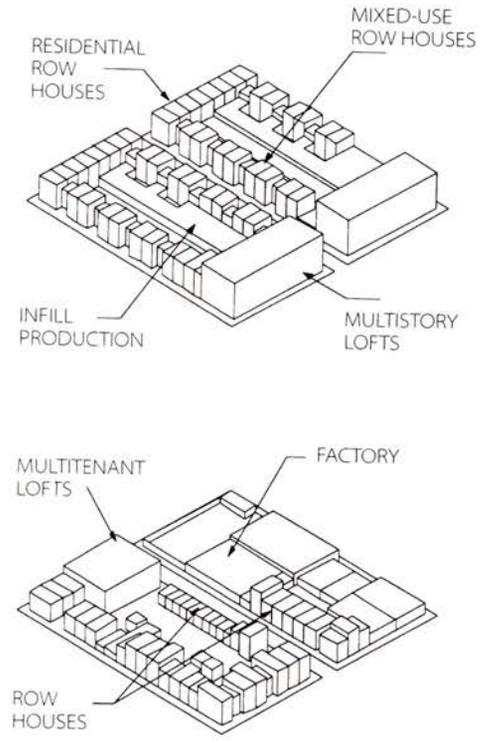
Patricia Patkau noted that the proposal aims to foster industries with no more than 50 employees—"the kind of production that's often being squeezed out of space in the city as land values go up."

The jury debated whether the Loomis, Kiss + Cathcart proposal would have been improved by calling for gardens on the roofs, and Michael McKinnell expressed reservations because it did not seize "the opportunity for an extraordinary parklike area" along the waterfront. "Urban designers at the moment are running scared," McKinnell lamented. They gravitate toward small-scale endeavors and seem unwilling to pursue "the vision of the grand," as represented by earlier generations' creation of great public projects such as Central Park and Riverside Park. Nonetheless, he said, the proposal is "very sensitive and very intelligent."

ARCHITECT: John A. Loomis, Kiss + Cathcart, New York—John A. Loomis, Colin M. Cathcart, Gregory J. Kiss, Peter O. Anders, Jennifer Kinkead, Luis Estrada, Amy Nanni (project team)
CLIENT: National Endowment for the Arts
RENDERER: Irv Glassman



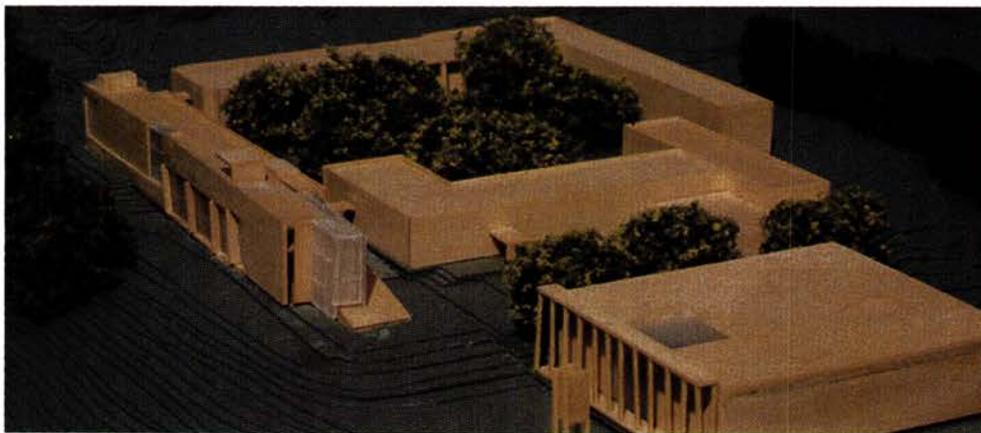
PROPOSED MIXED-USE STREET



MIXED-USE COMBINATION



PROPOSED STREET WITH GROUND-FLOOR MANUFACTURING AND OFFICES ABOVE



Education and Development Center

PASANELLA + KLEIN STOLZMAN + BERG ARCHITECTS

PROJECT: Education and Development Center, Clinch Valley College, University of Virginia; Wise, Virginia.

SITE: A 50-foot-high plateau in the heart of a small rural college's upper campus, bounded by a steep slope descending on the west to the lower campus.

PROGRAM: 30,000 square feet of teaching and office space, including classrooms, an auditorium, computer and natural science labs, a black-box performance theater, four academic departments, and advising, media, and instructional improvement centers.

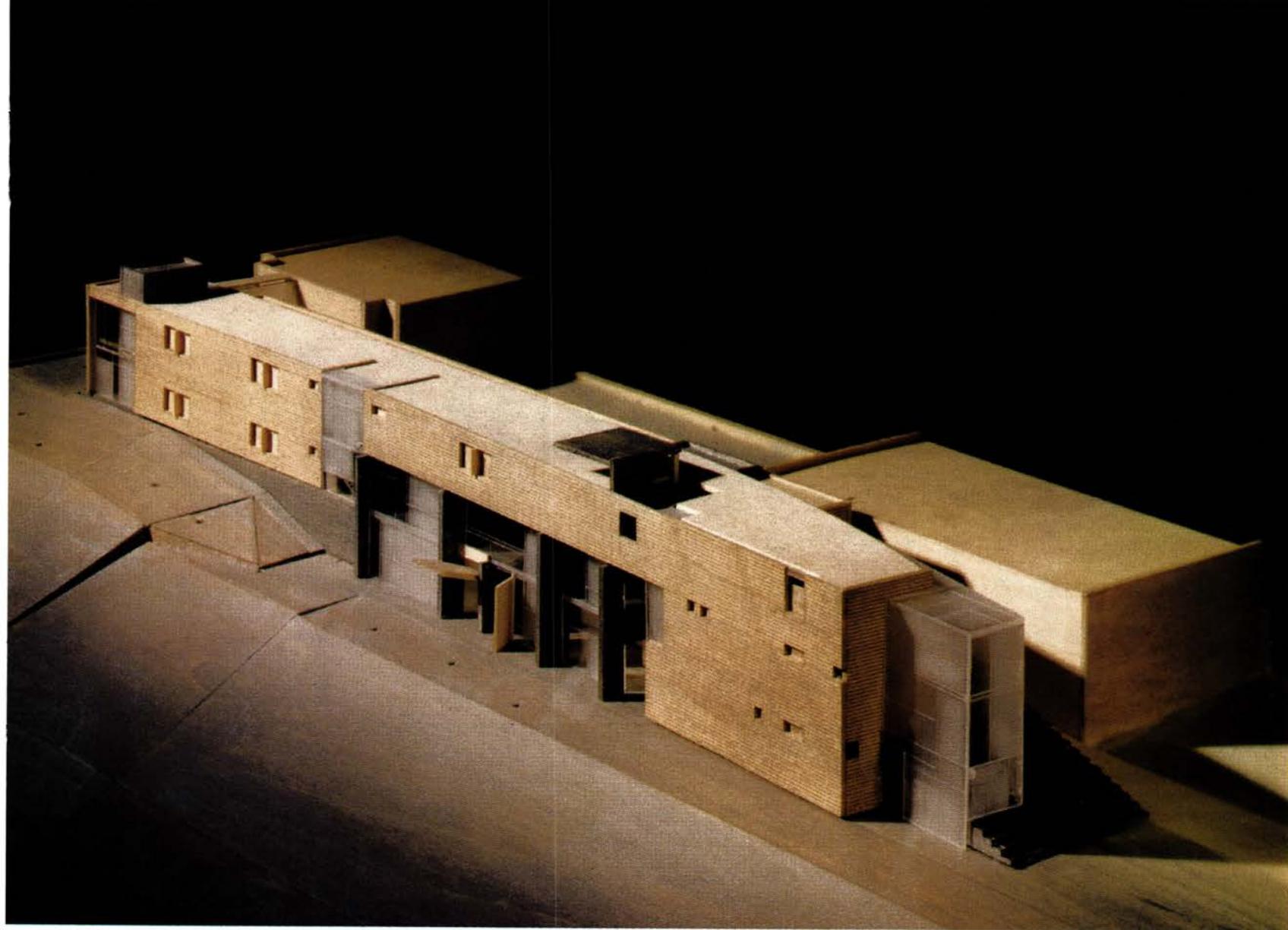
SOLUTION: As part of an overall campus plan, the site strategy was to use the new building as a key piece in turning the divided campus into a cohesive whole (ARCHITECTURE, March 1995, page 35). The new bar-shaped structure connects two existing buildings lining the main courtyard and forms its third edge. The fourth edge of the courtyard will be formed by a proposed addition to the science building.

A new outdoor circulation zone is created along the building's courtyard-facing east facade, linking a campus entrance at the north parking lot with the ceremonial entrance to the south. The treatment of the east facade is commensurate in scale to the relatively intimate courtyard; the outward-facing west elevation relates to the lower campus and to a mountain range beyond. The center is organized to support interaction among the departments that share it: each department is stacked vertically around a vertical circulation node, and a glass enclosure drawn through the building culminates in a double-height student lounge with views of the entire college campus.

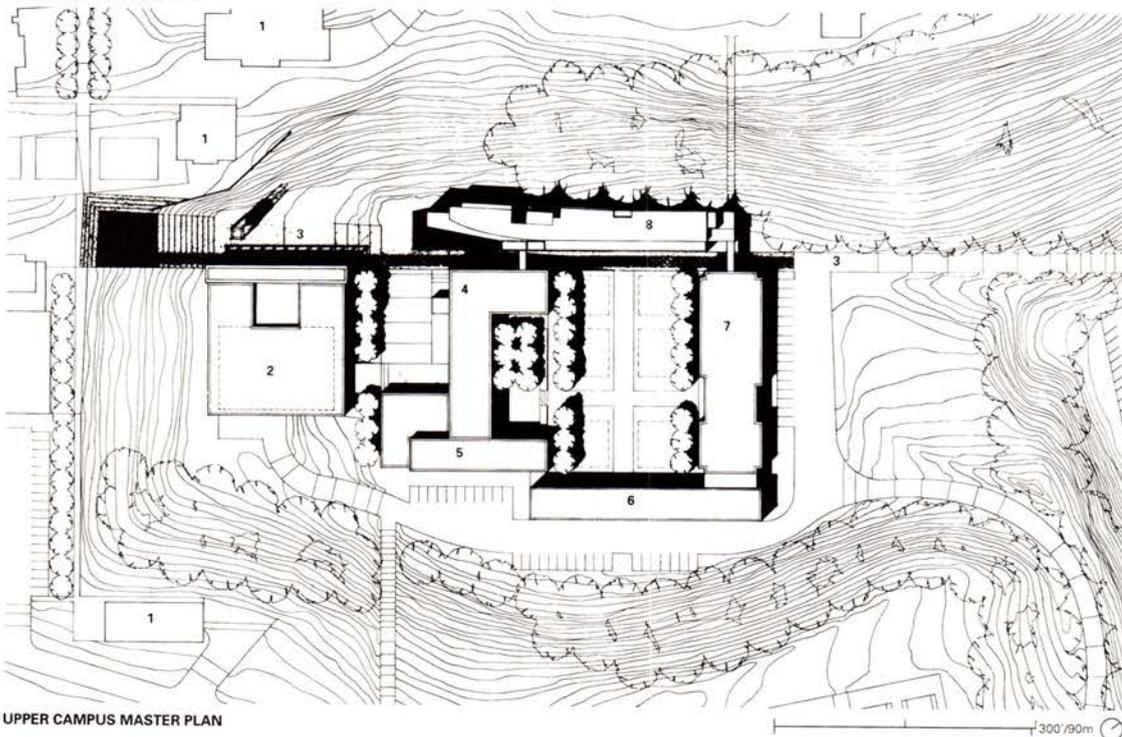
JURY COMMENTS: The siting of the Education and Development Center and its organizing effect on the college's campus were major points lauded by the jurors. Patricia Patkau perceived the addition as "restructuring the idea" of the hilltop, setting up important new circulation patterns and clarifying others: "The more I looked at it, the more I thought that a building can go beyond itself in very subtle and quiet ways to imply that it's part of a greater whole." Michael McKinnell added that the building was "very good indeed in the way that it forms this processional route and becomes part of it, and in consequence really ennobles what one imagines is a rather pedestrian complex of 1950s and 1960s buildings."

Douglas Kelbaugh praised the building's "low-key Modernism" and the architect's ability to create "a lot of variety very economically." The elevations, he said, "have a freshness and a newness—they are not the tired, shopworn sort of curtain-wall Modernism." Will Bruder favored the designers' skill in expressing the idea of a "fortress courtyard on the hilltop," elaborating, "They are skilled in penetration. There is a sense of transparency, a sense of editing and framing through views to the landscape as well as to the courtyard."

Karen Bausman sided with the other jurors regarding the success of the project as a piece of infill, but dissented on the architectural expression. "A lot of campuses are going to require additive pieces and this is a good model to look at," she said. "I'm not as convinced about the elevation. To me it's not very fresh, except in the way the component parts are pulled together, which is strong."

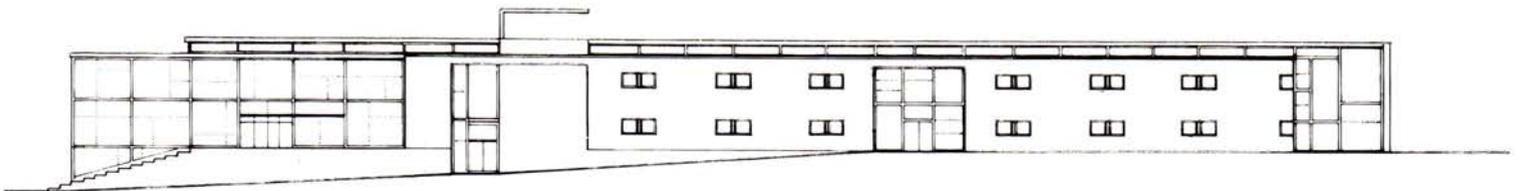


MODEL VIEWED FROM WEST

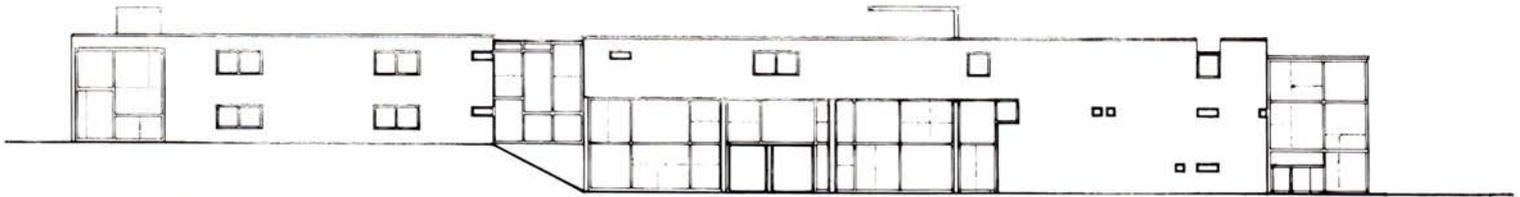


UPPER CAMPUS MASTER PLAN

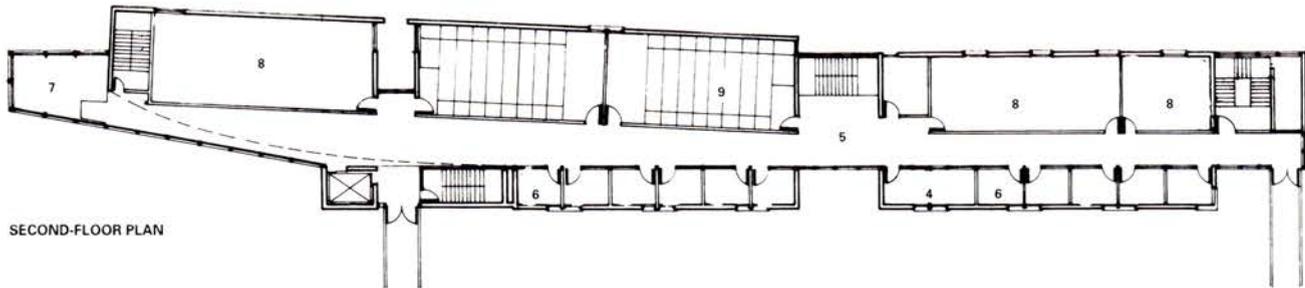
- 1 EXISTING BUILDING
- 2 LIBRARY ADDITION AND RENOVATION
- 3 NEW CIRCULATION PATH
- 4 ZEHMER HALL RENOVATION
- 5 ZEHMER FUTURE ADDITION
- 6 SCIENCE BUILDING FUTURE ADDITION
- 7 SCIENCE BUILDING
- 8 EDUCATION AND DEVELOPMENT CENTER



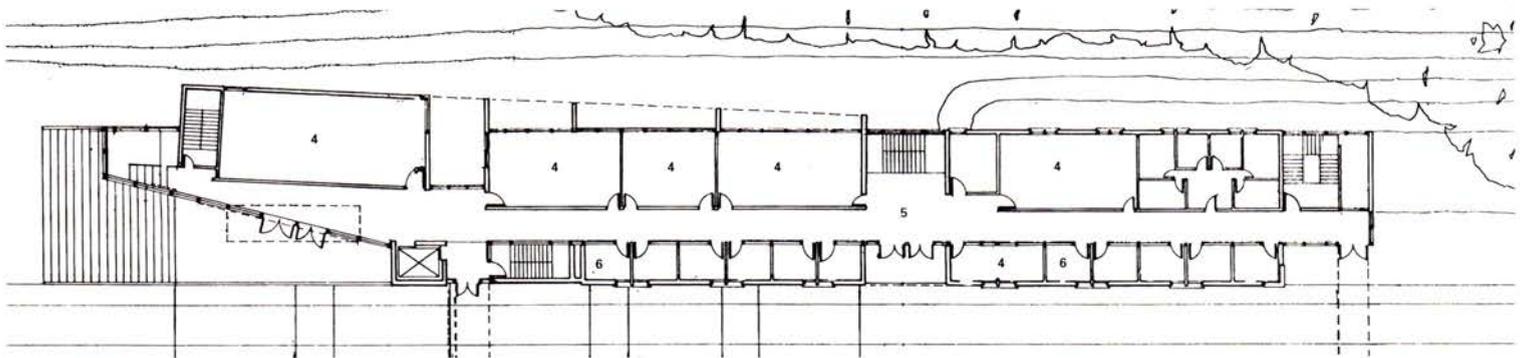
EAST ELEVATION



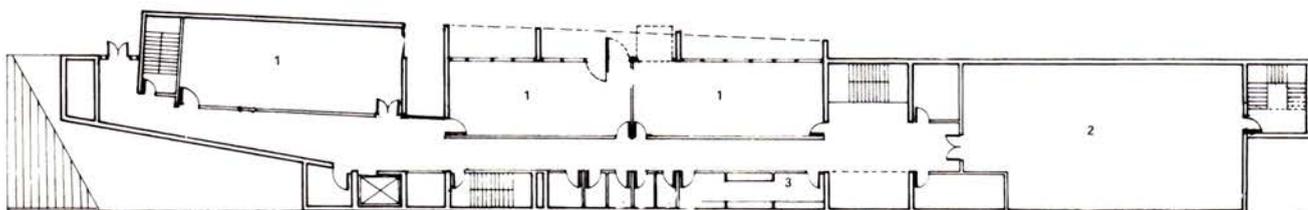
WEST ELEVATION



SECOND-FLOOR PLAN



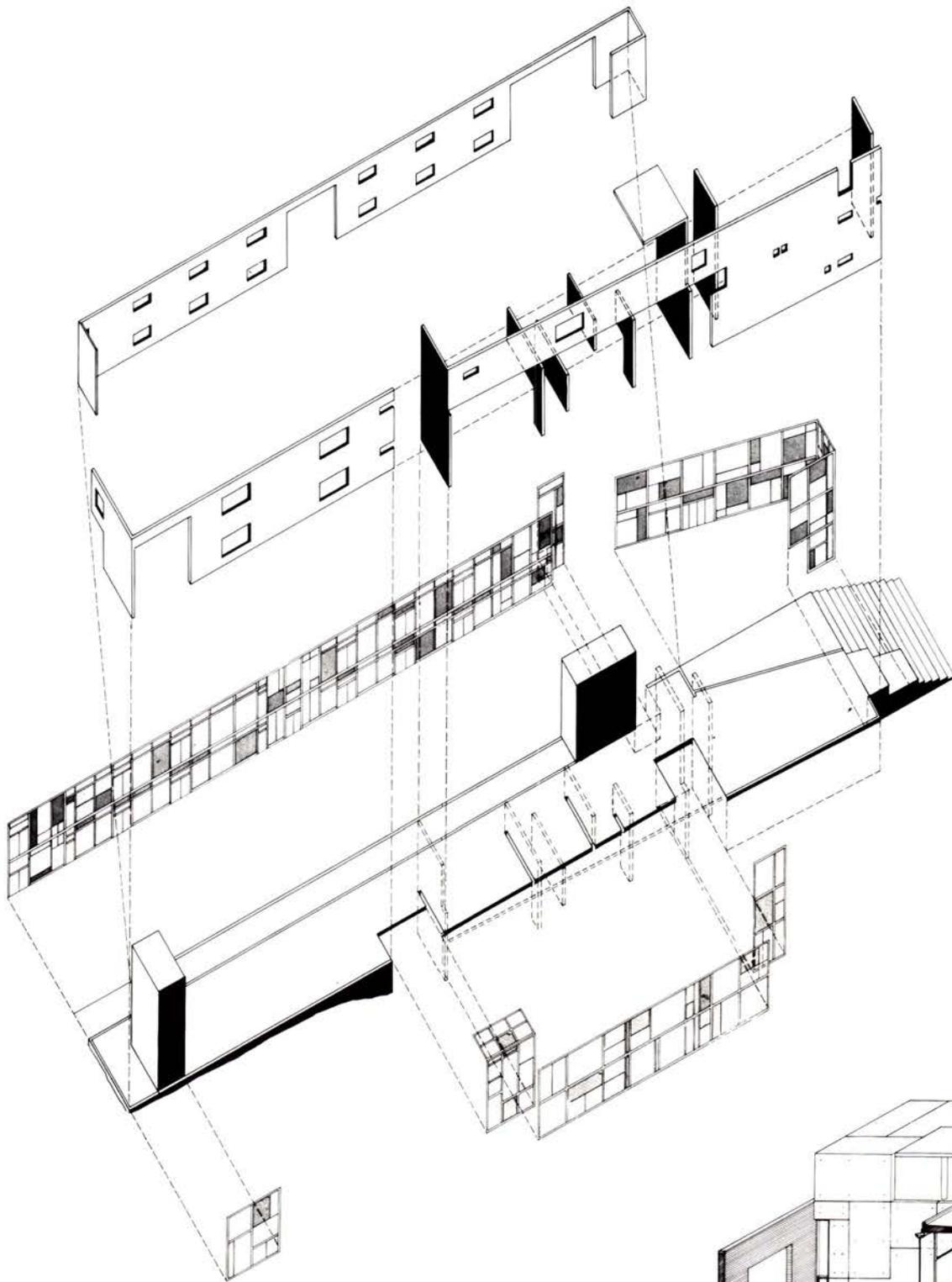
FIRST-FLOOR PLAN



BASEMENT PLAN

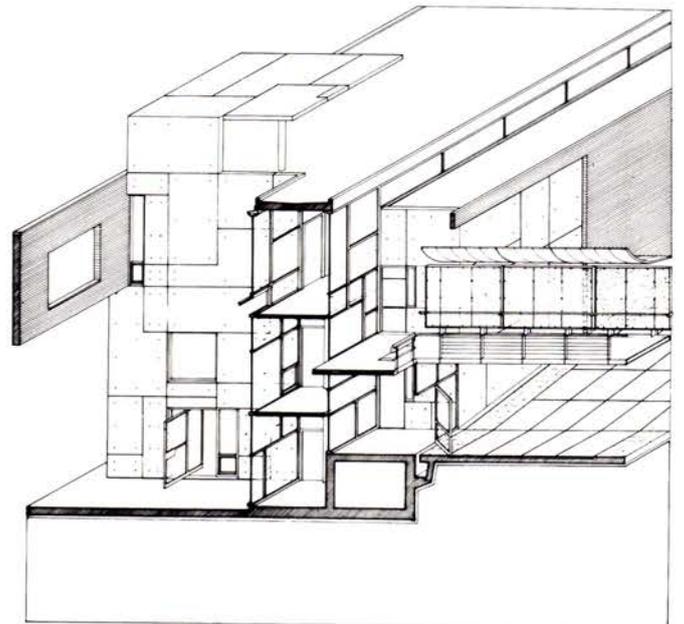
- | | |
|---------------------------|-----------------------------------|
| 1 ART AND MUSIC WORKSPACE | 6 OFFICE |
| 2 MECHANICAL | 7 STUDENT LOUNGE |
| 3 PHOTOGRAPHY STUDIO | 8 SCIENCE AND COMPUTER LABORATORY |
| 4 CLASSROOM | 9 AUDITORIUM |
| 5 LOBBY | |

1/40 (1:20) Ⓞ

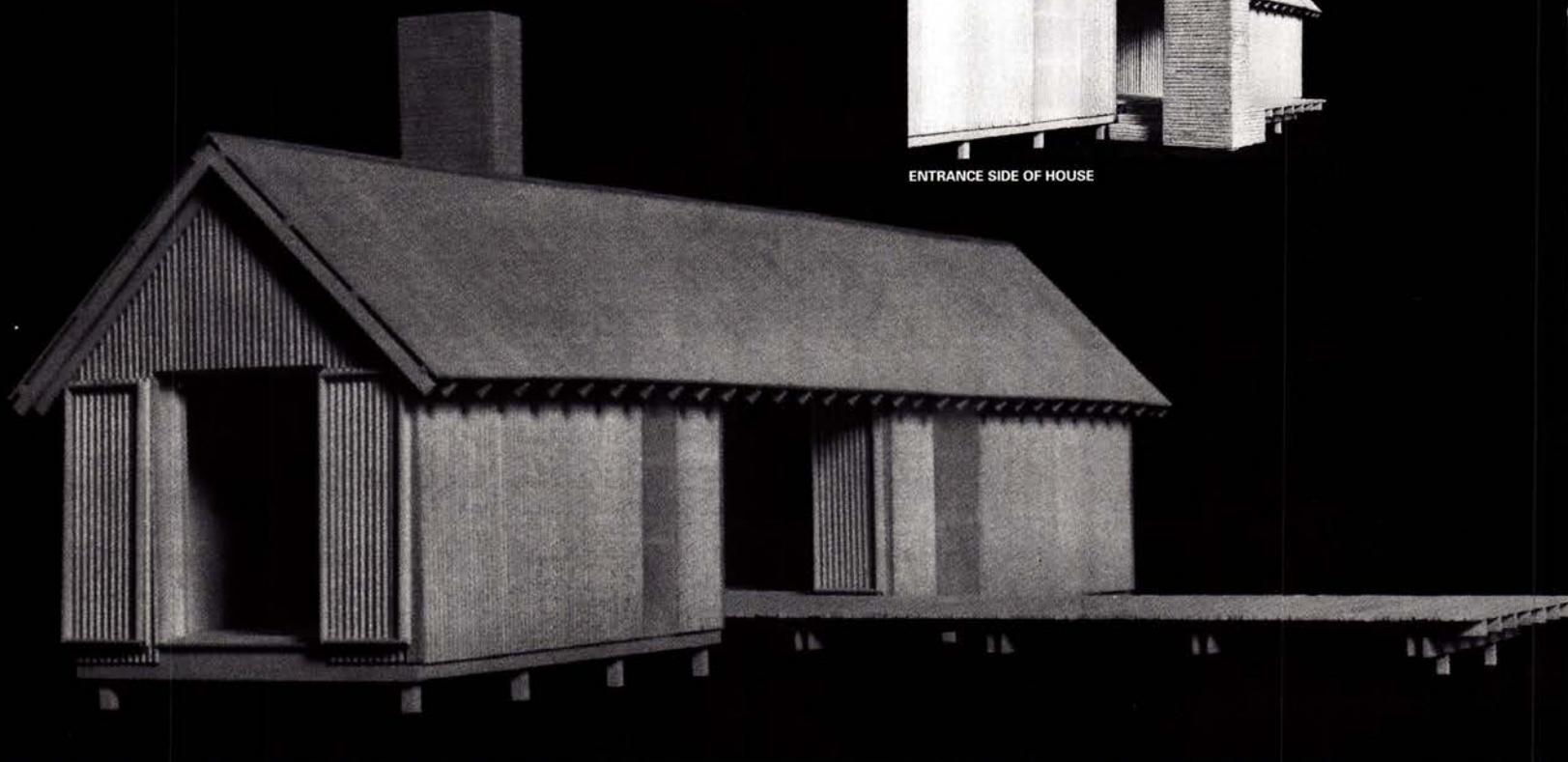


ENCLOSURE DIAGRAM

ARCHITECT: Pasanella + Klein Stolzman + Berg Architects, New York City—Wayne Berg (principal-in-charge); Jonathan R. Knowles (project architect); Albert Ho (project designer)
ASSOCIATE ARCHITECT: Balzer & Associates—R. Craig Balzer (principal-in-charge and architect-of-record); John D. Fulton, Jr. (project manager); Dennis T. Stevens (job captain)
CLIENT: University of Virginia
ENGINEERS: Whitescarver, Hurd & Obenchain (mechanical/electrical/plumbing); Dunbar Milby & Williams (structural)
MODEL PHOTOGRAPHER: Jock Pottle/Esto



SECTIONAL AXONOMETRIC



ENTRANCE SIDE OF HOUSE

MODEL FROM SOUTHWEST

Zachary House

STUDIO ATKINSON

PROJECT: The Zachary House, Zachary, Louisiana.

SITE: Set in a rural area, the 40-acre lot is a mixture of trees and open pasture. The house is located in a grove of pecan trees surrounded by a grassy field.

PROGRAM: Designed for a retiring priest suffering from Parkinson's disease, the house is to serve as a retreat from his city parish. The small structure is to be built on land owned by friends of the priest, who will also use the house on weekends and for occasional family gatherings. The design will take advantage of the site for passive cooling.

SOLUTION: The form of the 500-square-foot building is a version of the classic dogtrot house: two enclosed volumes separated by a covered exterior passageway. The breezeway can be left open so prevailing winds can cool the house; folding doors close the breezeway for privacy or when the house is unoccupied.

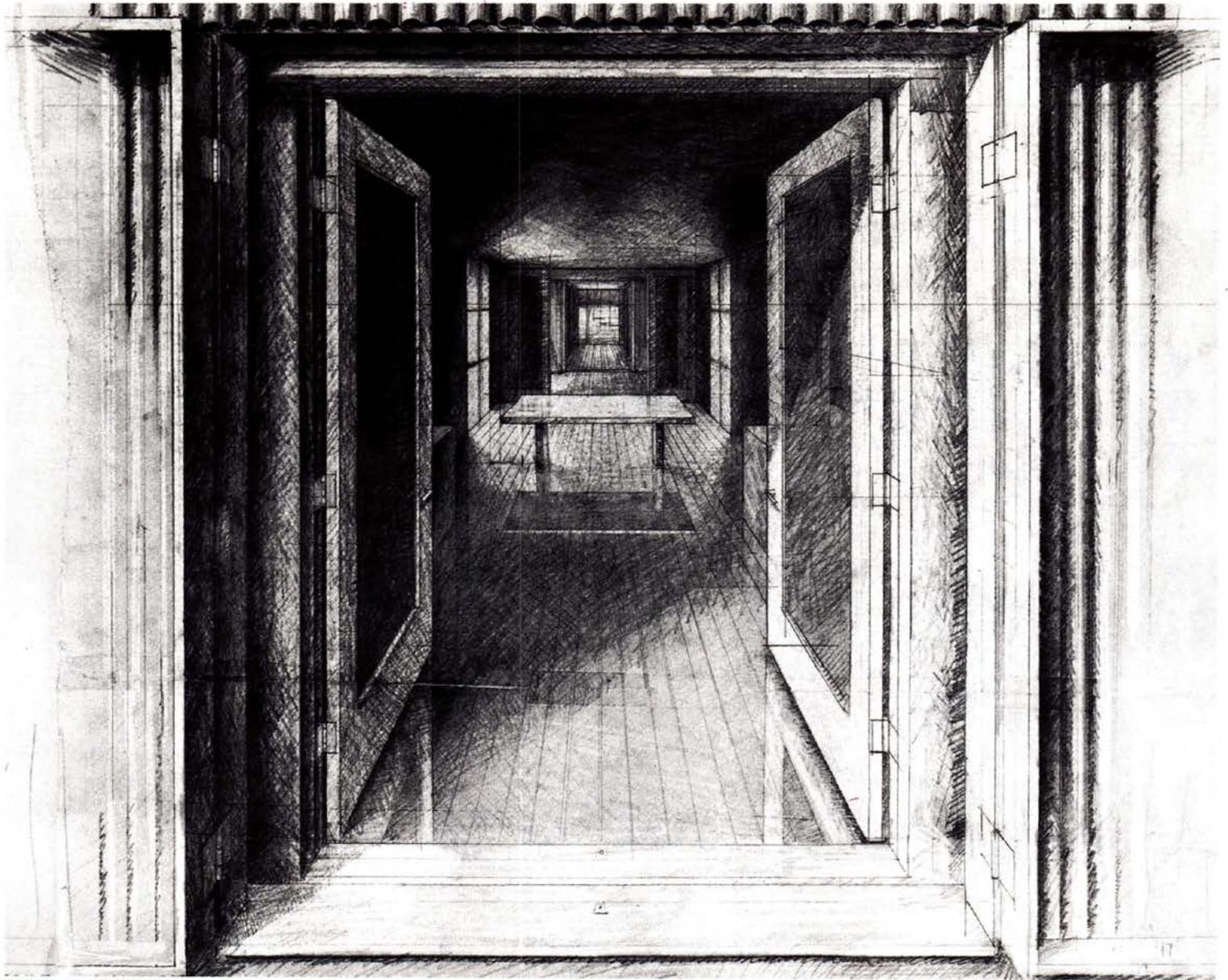
The deck extends from the breezeway to the south under sheltering trees to create an outdoor room. At the north entrance is a combination hearth and threshold, its masonry mass visually anchoring the house and providing a sense of solidity to the wood structure.

Most of the house will be built by the clients, working with family and friends. The architects designed the exterior with a "skill saw" level of craftsmanship, employing modest materials and simple details. Interiors and utilities will be completed by professional tradespeople. Construction is 2 by 4 framing on 6 by 6 post foundations, with corrugated metal exterior siding and roofing. The interior will be finished in gypsum-board walls and ceilings, with pine flooring. Cost is estimated at \$50 per square foot.

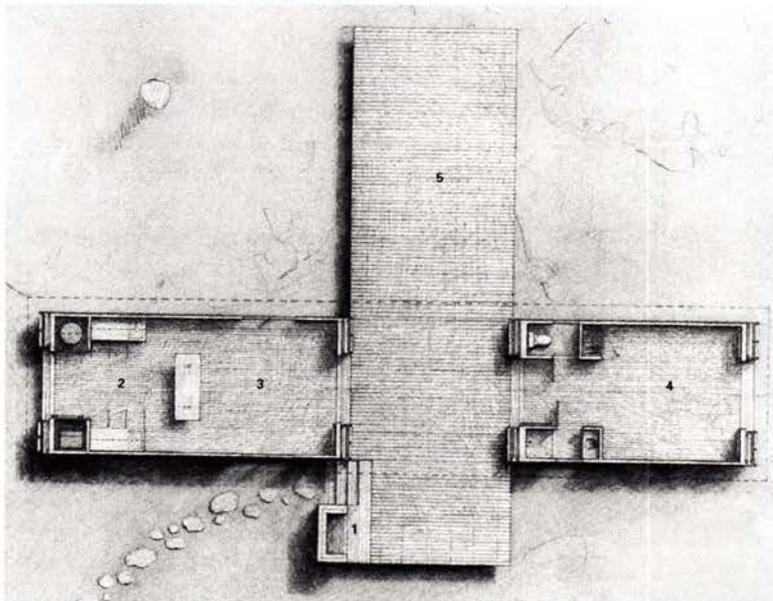
JURY COMMENTS: Douglas Kelbaugh praised this project as being "ruthlessly simple in its

detailing and materials; very economical, very humble and modest, yet dignified at the same time." Kelbaugh considered the chimney "needlessly monumental," but Will Bruder defended it as giving the project a "sculptural presence" related to local traditions. Karen Bausman described the house as "haiku architecture," and characterized the design as "a known type that is beautifully done." Patricia Patkau admired the house's transformation when it is closed up and becomes an "absolutely mute volume."

ARCHITECT: Studio Atkinson, Boston—Stephen Atkinson (principal); Thomas Lehman (assistant)
CLIENT: Dr. and Mrs. John B. Atkinson; Reverend Jerome A. Dugas
MODELMAKER: Thomas Lehman
MODEL PHOTOGRAPHER: Stephen Atkinson
RENDERER: Stephen Atkinson



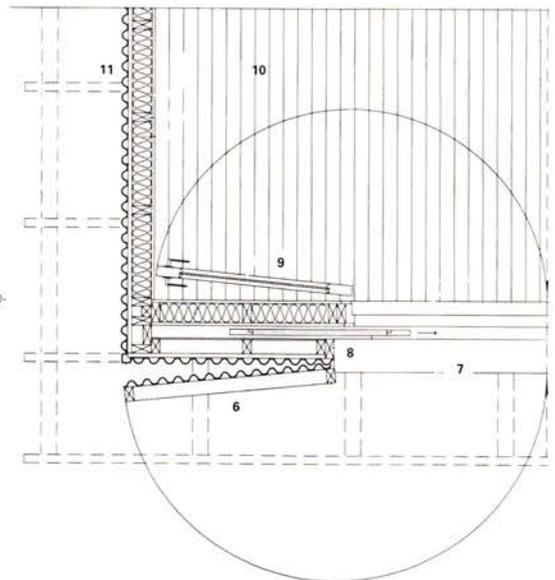
VIEW THROUGH LIVING WING TO BEDROOM WING



FLOOR PLAN

10/3m

- 1 ENTRANCE
- 2 KITCHEN
- 3 LIVING
- 4 BEDROOM
- 5 DECK
- 6 EXTERIOR SHUTTERS
- 7 PRESSURE-TREATED WOOD THRESHOLD
- 8 POCKET SCREEN DOOR
- 9 3'X8' GLAZED FRENCH DOORS
- 10 3" PINE FLOORING
- 11 ANODIZED CORRUGATED-METAL SIDING



DETAIL OF FOLDING DOORS

Queen of Hearts Theater

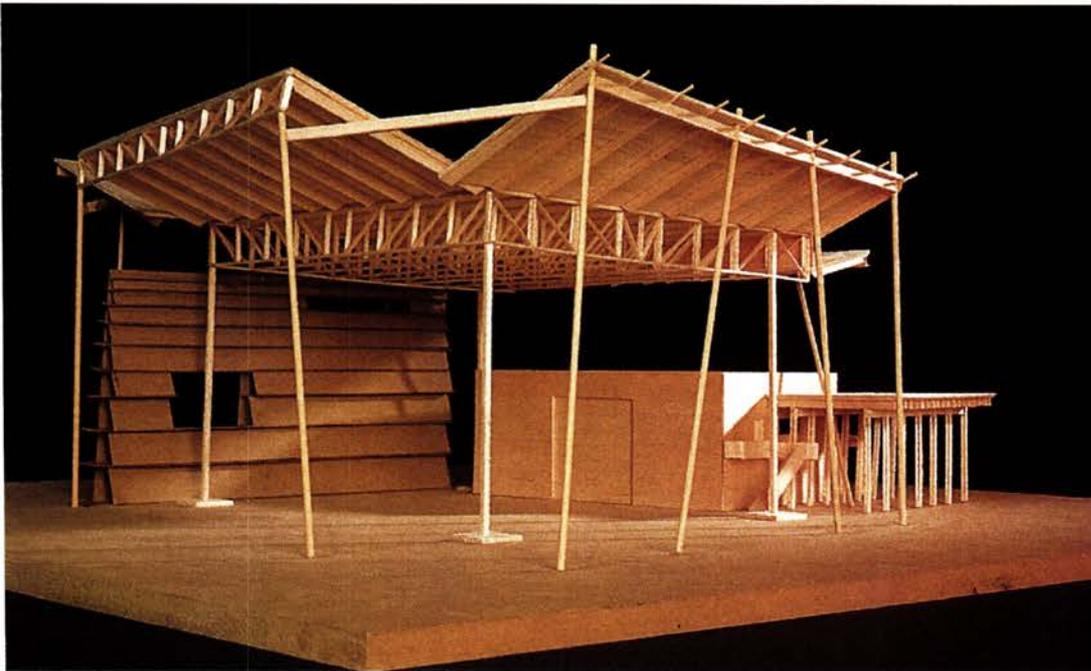
PIERRE THIBAULT, ARCHITECT

PROJECT: Queen of Hearts Theater, Upton, Québec, Canada.

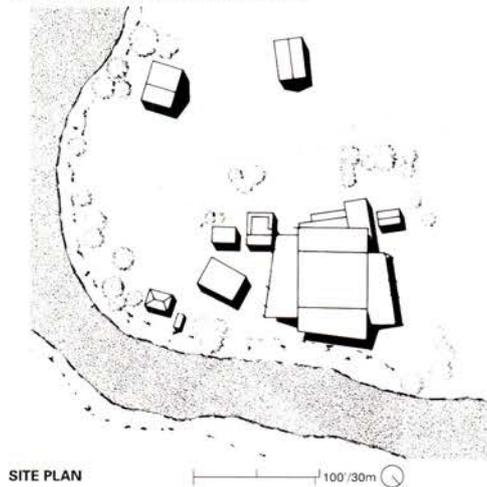
SITE: A short distance from Montreal on the St. Lawrence River, the site includes historic buildings and natural surroundings worthy of preservation.

PROGRAM: A dual-purpose indoor/outdoor space for presenting large-scale productions to audiences of 300 to 400, accentuating the scenic surroundings.

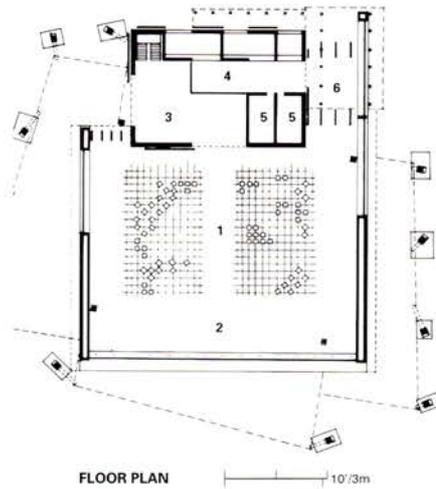
SOLUTION: The new theater provides a sheltered area under a trussed roof supported by slender columns. The architect describes the wood-and-steel shelter, with its uplifted wings and canted struts, as “evocative of an insect alighting softly and smoothly on a surface of water, yet causing not a ripple.” The shelter had to cover as much area as possible (1,500 square meters) with a minimum of ground contact, so the columns splay out from the performance space, giving the enclosure a tentlike quality. The raised roof wings permit views of the sky and the surrounding woods. Collapsible wood walls can be set up east and west of the stage area to protect the audience and performers from winter winds, thus allowing an extended performance season. The roof juts out over an existing ancillary building, which contains new reception space, theater workshops, ticket sales, and restrooms.



EARLY VERSION OF MODEL FROM NORTH



SITE PLAN



FLOOR PLAN

- 1 AUDIENCE
- 2 STAGE
- 3 WORKSHOP
- 4 TICKETS
- 5 REST ROOM
- 6 RECEPTION

JURY COMMENTS: Douglas Kelbaugh was quite impressed with this project’s theatrical quality and its organic expression. The designers, noted Kelbaugh, “have certainly attained the lightness they’ve aspired to.” The theater, commented Will Bruder, “is a metaphorical gesture for the lightness of the grasshopper and the nearby forest.” The slanted poles also allow a larger crowd to be accommodated. Kelbaugh added that the theater’s expression of slender supports and folding planes “adeptly illustrates its temporary quality.”

ARCHITECT: Pierre Thibault, Architect, Québec City—Pierre Thibault (principal designer); Eric Thibodeau, Chantal Douville, Jean-François Fortin, Julie Lafrenière, André Limoges (project team)

CLIENT: La Corporation Honorifique Agréée, a foundation dedicated to the preservation of historic buildings in Upton, Québec

ENGINEER: Le Groupe Technika

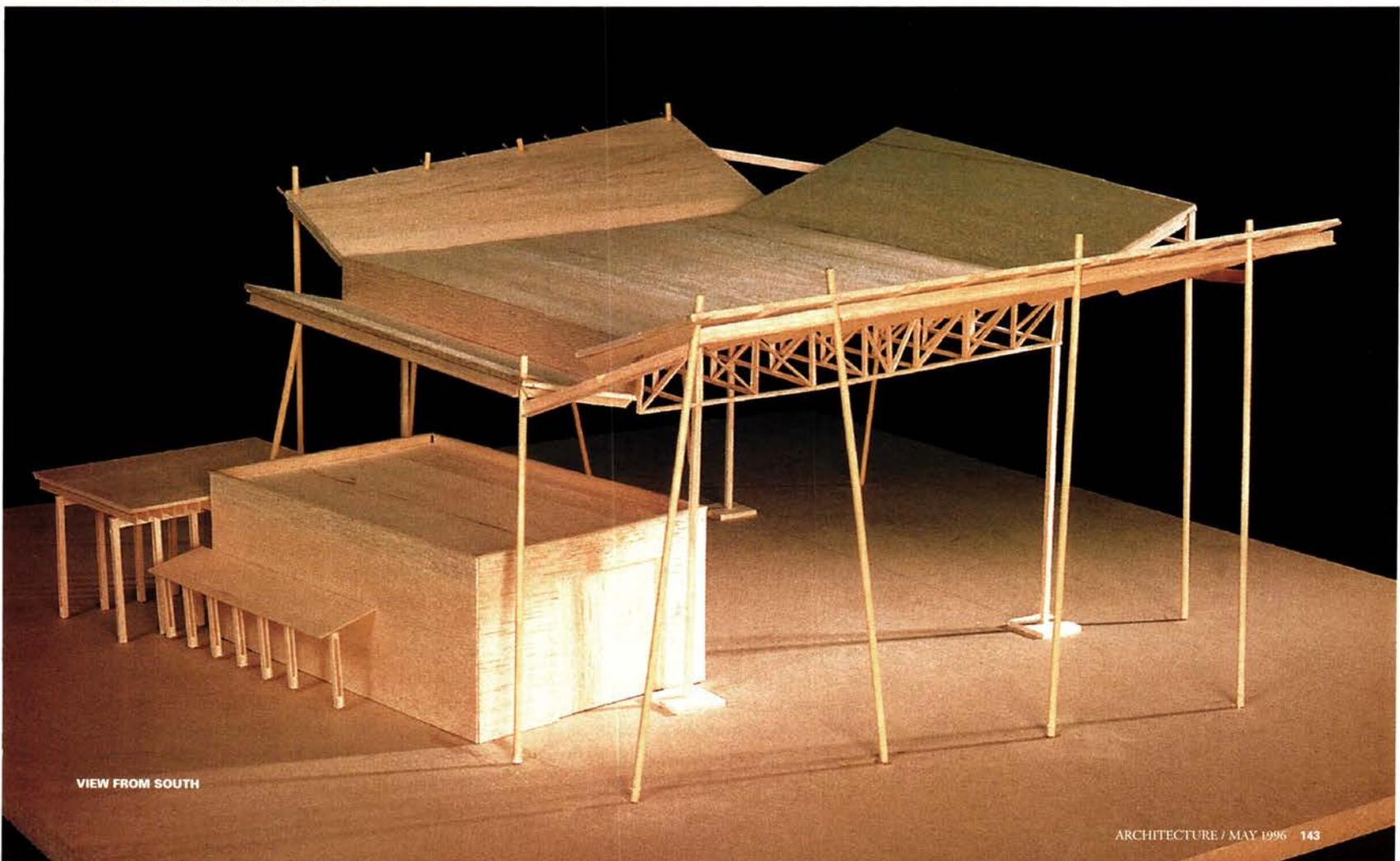
MODELMAKER: Jean-François Fortin

MODEL PHOTOGRAPHER: Brigitte Ostiguy

RENDERER: Chantal Douville



MODEL WITH RETRACTABLE WALLS IN PLACE



VIEW FROM SOUTH

Housing in China

ATELIER FEICHANG JIANZHU



TRADITIONAL HOUSE WITH SKY-WELL

PROJECT: Jufu New Village, District II; Qingxi, Guangdong province, China.

SITE: Undeveloped parcel of 67,200 square meters (16.6 acres), the second of eight districts planned for the suburban Jufu New Village near the new city of Shenzhen. The site runs along a north-facing hillside, with an access road along the north side and an abrupt rise in elevation to the south.

PROGRAM: Following completion and sale of District I's 60 houses, this project will contribute 109 houses and 48 apartments toward the village total of about 500 houses and 100 mixed-use buildings. The project will include three housing types: Villa A, 168 square meters on a lot of 158 square meters; Villa B, 281 square meters on a lot of 235 square meters; apartment, 106 square meters. Total land coverage is 34.3 percent; floor area ratio is 0.436.

SOLUTION: In contrast to the existing picturesque houses, which have prominent red tile roofs, the proposed house types combine the spatial traditions of Chinese courtyard houses with crisply cubic, stuccoed forms that recall the International Style. The elimination of fenced front yards and side yards allows larger private courts and shared park areas. The house plans maintain the Chinese tradition of the sky-well (*tianjing*) and its extension into the building as an open, covered room (*tang*), which is particularly suited to the tropical climate of Guangdong province. The upper floors include screened clothes-drying decks, as well as bedrooms and terraces; in the larger Villa B, the bedrooms are in two separate pavilions. Even the apartments are organized around a central court.

The structures combine masonry bearing walls with concrete columns and beams and prefabricated concrete floor slabs. Construction is budgeted at 800 RMB (about \$94) per

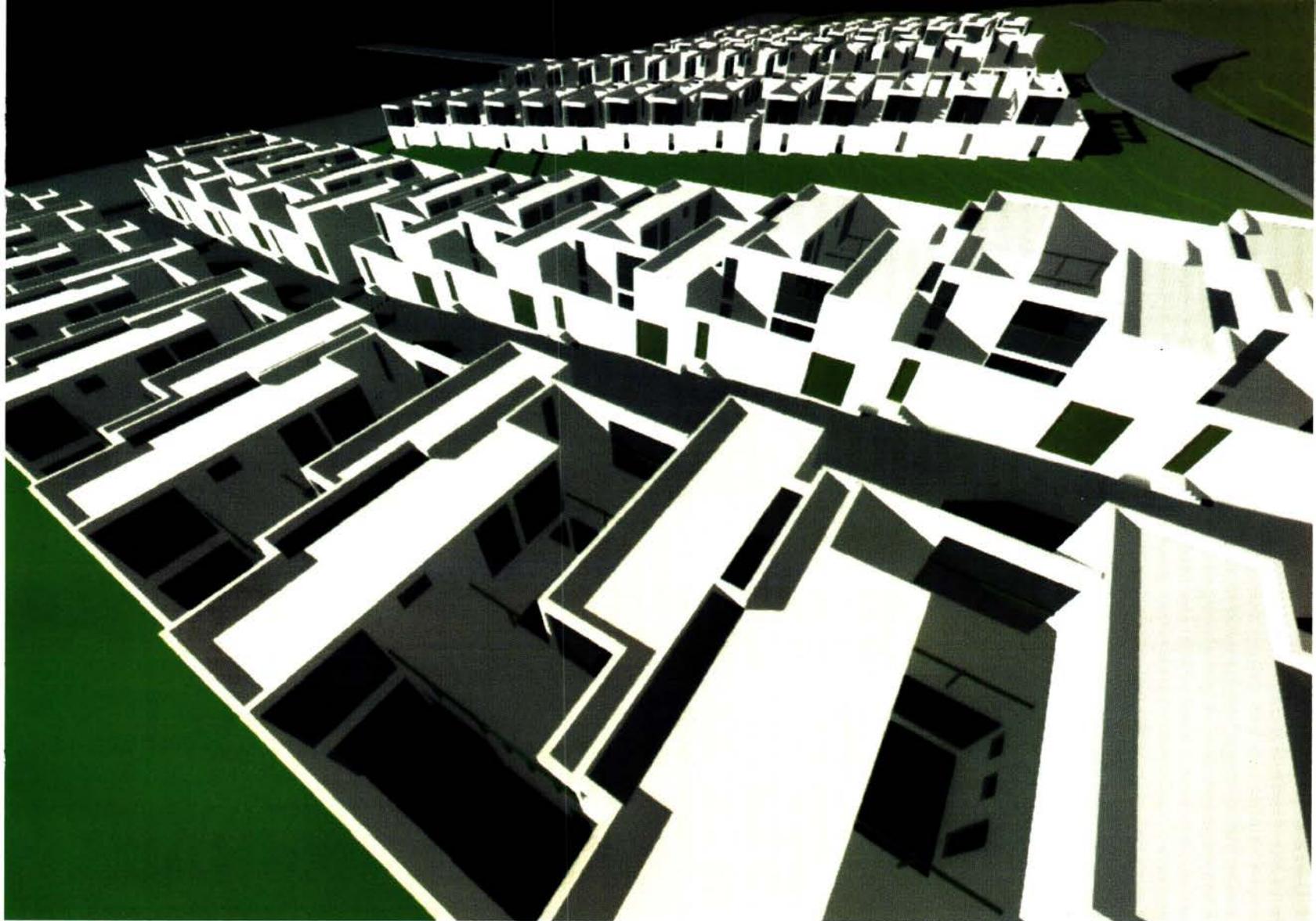
square meter (or \$8.70 per square foot).

Fast-track construction started this fall, with the first 39 units—including all three types—to be completed in February.

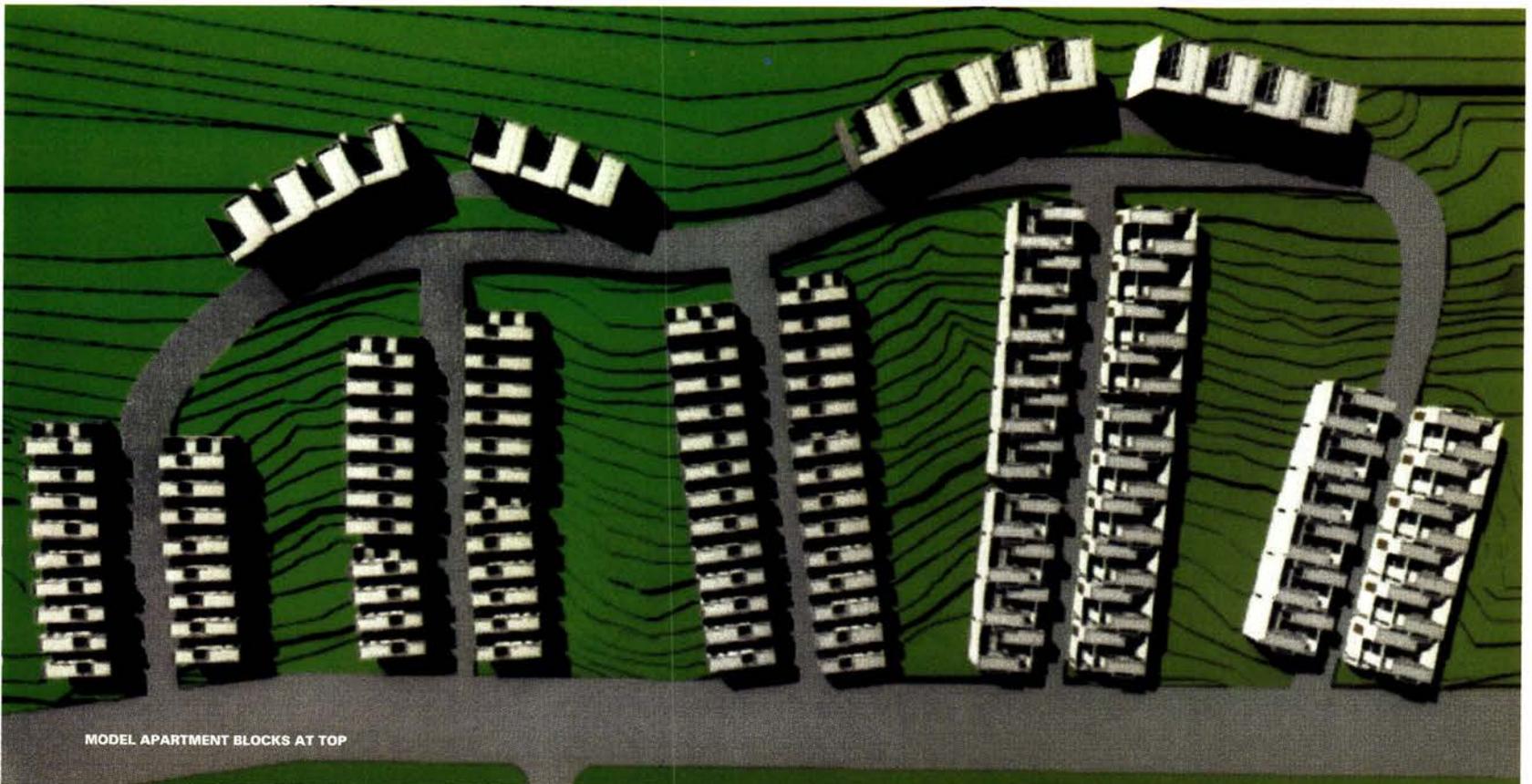
JURY COMMENTS: The jurors expressed some concern about their understanding of the context of this housing, but were reassured by the establishment of certain basic facts: a bare site, a tropical climate, and housing for sale at market rates. Douglas Kelbaugh observed, "I'm just happy to see this model being exported, rather than some of the lower-density American housing types. This is not the detached single-family dwelling that is being copied in Asia now." Patricia Patkau asked if it were not "a Chinese model being copied." Will Bruder countered that "it's an architecture that listens to context."

Bruder praised the private open spaces, which Michael McKinnell agreed will be "quite wonderful." Patkau agreed and raised some speculation about whether, in a country where private automobile ownership is still rare, the garages didn't have potential to be used as offices or as spatial extensions of the public streets.

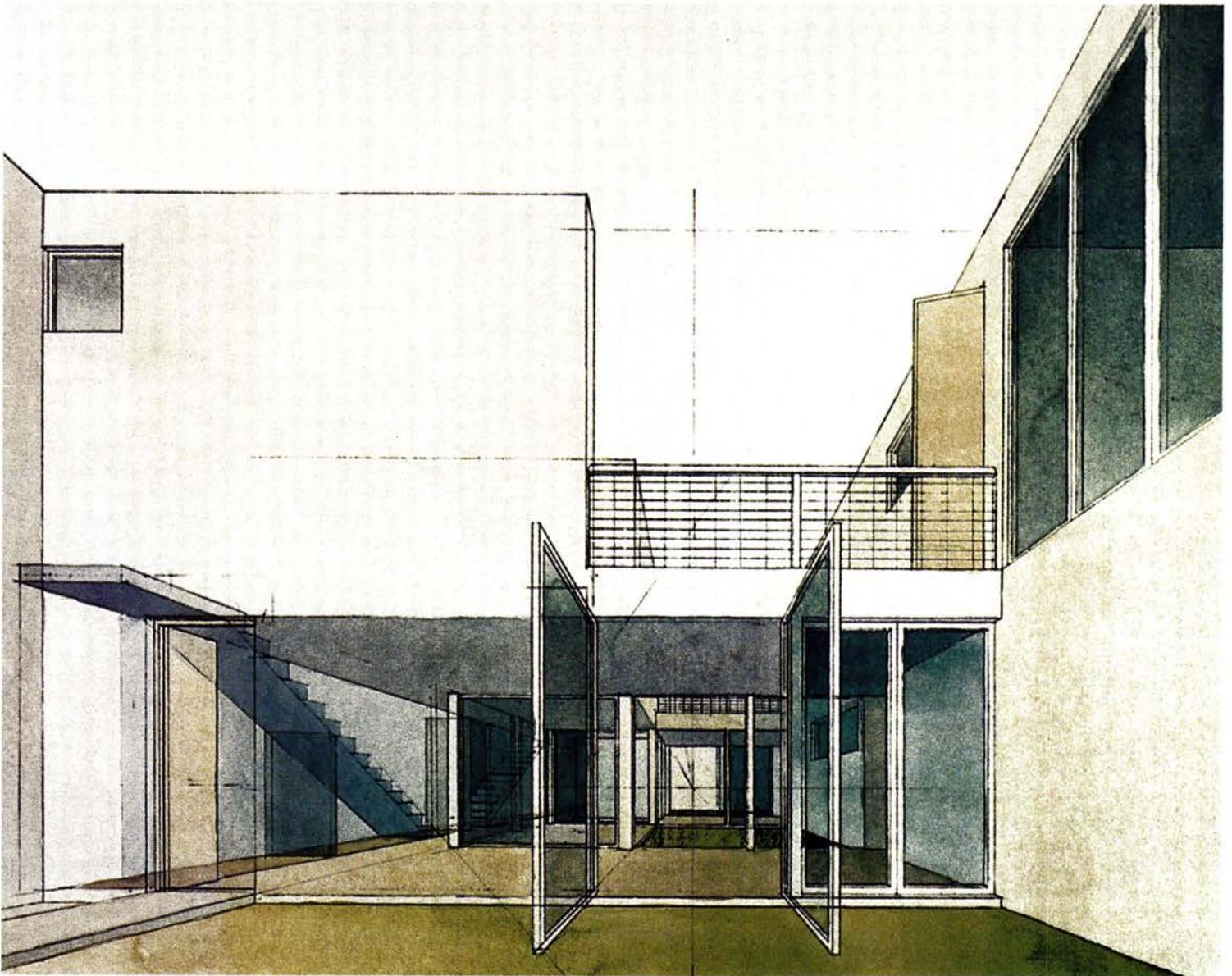
Kelbaugh expressed the jury's concern about the district plan: "I think the site plan is a carpet scheme that has some texture and some grain, but the end units are exactly the same as the midblock units, and those that end on the streets are the same as those that end on the lanes. It's sort of anonymous in those terms. The whole of the site plan does not add up to more than the sum of the parts, in my opinion." McKinnell observed that the housing types proposed here could be arranged to "produce a social unit larger than the family. But they have not done it yet." "Nonetheless," said Kelbaugh, summarizing the majority opinion, "I'm in favor of it."



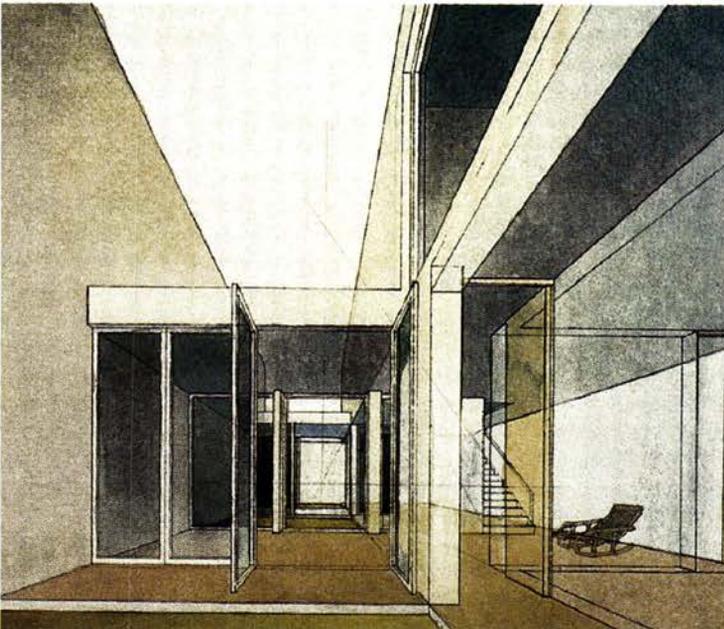
COMPUTER IMAGE OF TYPE B VILLAS IN FOREGROUND, TYPE A BEYOND



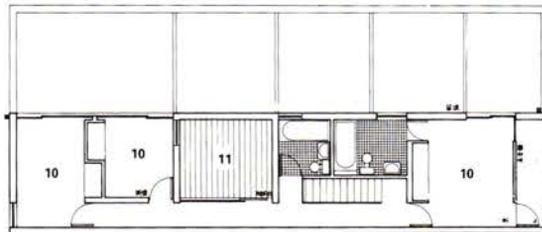
MODEL APARTMENT BLOCKS AT TOP



PERSPECTIVE FROM ENTRY COURTYARD, VILLA B

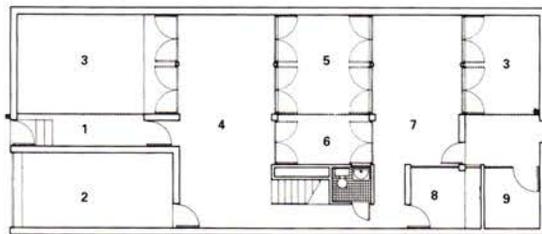


PERSPECTIVE FROM ENTRY COURTYARD, VILLA A



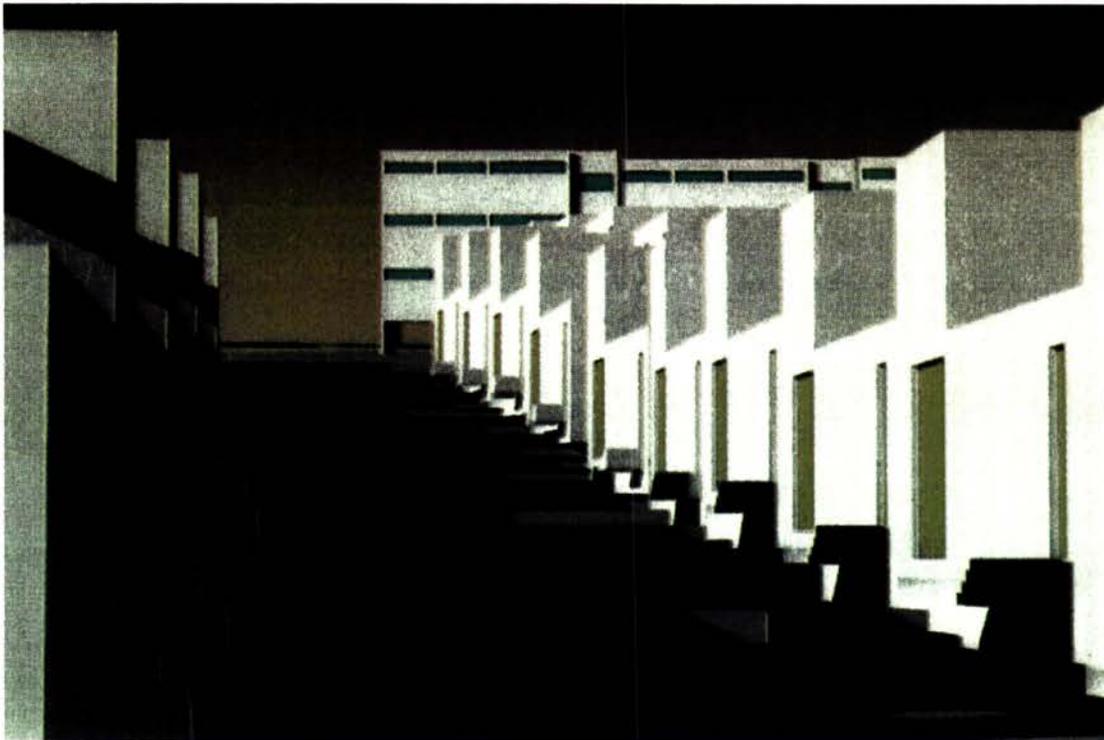
VILLA A—SECOND-FLOOR PLAN

- 1 ENTRANCE
- 2 GARAGE
- 3 COURTYARD
- 4 LIVING ROOM
- 5 SKY-WELL
- 6 COVERED SPACE
- 7 DINING ROOM
- 8 KITCHEN
- 9 SERVANT'S ROOM
- 10 BEDROOM
- 11 DRYING DECK



VILLA A—FIRST-FLOOR PLAN

10/3m



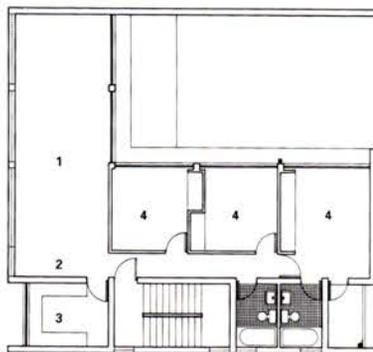
VIEW UPHILL TOWARD APARTMENT BLOCKS

ARCHITECT: Atelier Feichang Jianzhu, Houston and Beijing—Yung-Ho Chang (principal); Cui Pengfei, Liu Xiaodong, Liu Hongwei, Lijia Lu, Xu Feng, Yin Yimu, Zou Jun (project team); Blaine Brownell, James Rong, Zhu Yue (computer); Frank Sun (technical advisor)

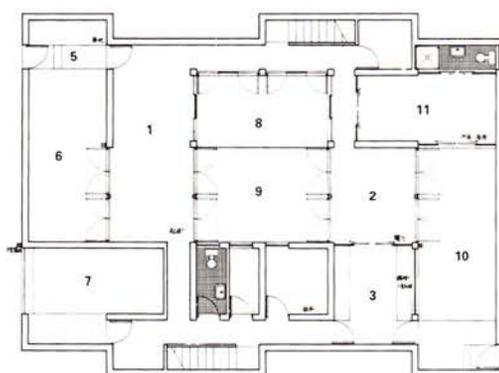
ASSOCIATE ARCHITECT: Humen Architectural Design Office



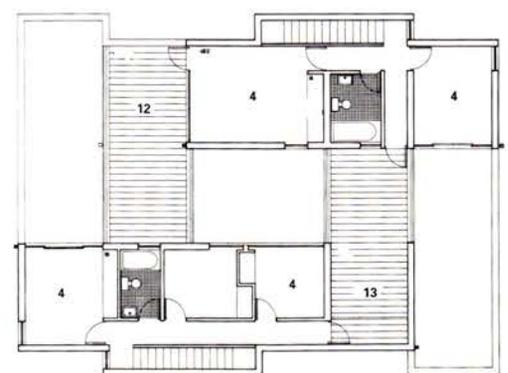
EXISTING DISTRICT I HOUSING



TYPICAL APARTMENT PLAN



VILLA B - FIRST-FLOOR PLAN



VILLA B - SECOND-FLOOR PLAN

- | | |
|---------------|-----------------|
| 1 LIVING ROOM | 8 COVERED SPACE |
| 2 DINING ROOM | 9 SKY-WELL |
| 3 KITCHEN | 10 COURTYARD |
| 4 BEDROOM | 11 STUDY |
| 5 ENTRANCE | 12 DRYING DECK |
| 6 COURTYARD | 13 TERRACE |
| 7 GARAGE | |



EXISTING SITE BETWEEN TWO HOUSES AND ADJACENT TO COMMUNITY CENTER

Knox Garden

LOOM

PROJECT: Knox Garden, Minneapolis.

SITE: 1211 Knox Avenue in Minneapolis, a tax-forfeited property that had become a neighborhood dumping ground. The mid-block residential site backs up to a local Christian community center, home of the Boys and Girls Club.

PROGRAM: A multiuse outdoor space for the community center and neighborhood residents that would be affordable to build. In addition to structured, programmed activities, the architects acknowledge that the garden may accommodate “unprogrammed but probable activities such as drug dealing, gang gathering, and prostitution.”

SOLUTION: The design evolved out of a series of community workshops led by the architect and a local nonprofit urban lands and resources center. It reflects the territorial markings in the form of the fences and graffiti common to a neighborhood comprising many races and cultures.

The design proposes three areas: the Original Garden, Eve’s Space, and Adam’s Space. Painted wire-mesh fencing and steel posts, salvaged from the site and from leftover warehouse stock, will be erected to define outdoor rooms of color. Retaining walls, steps, and raised beds will be constructed of

salvaged timbers; the central serpentine seating area will be made of old paver bricks from the city salvage yard. The Original Garden will have native plant species and fruit-bearing plants, with a cylindrical Apple Room in this garden devoted to group gatherings and story-telling under a single apple tree. Eve’s Space on the east end of the site will have three minor rooms enclosed in red, yellow, and orange wire mesh; Adam’s Space on the west will have three rooms of blue, purple, and green mesh.

Plants in each room will correspond to these colors, with carrots in the orange room, sunflowers in the yellow room, and bleeding hearts in the red room. Compacted wood chips donated by the city’s tree maintenance department will define the garden floor.

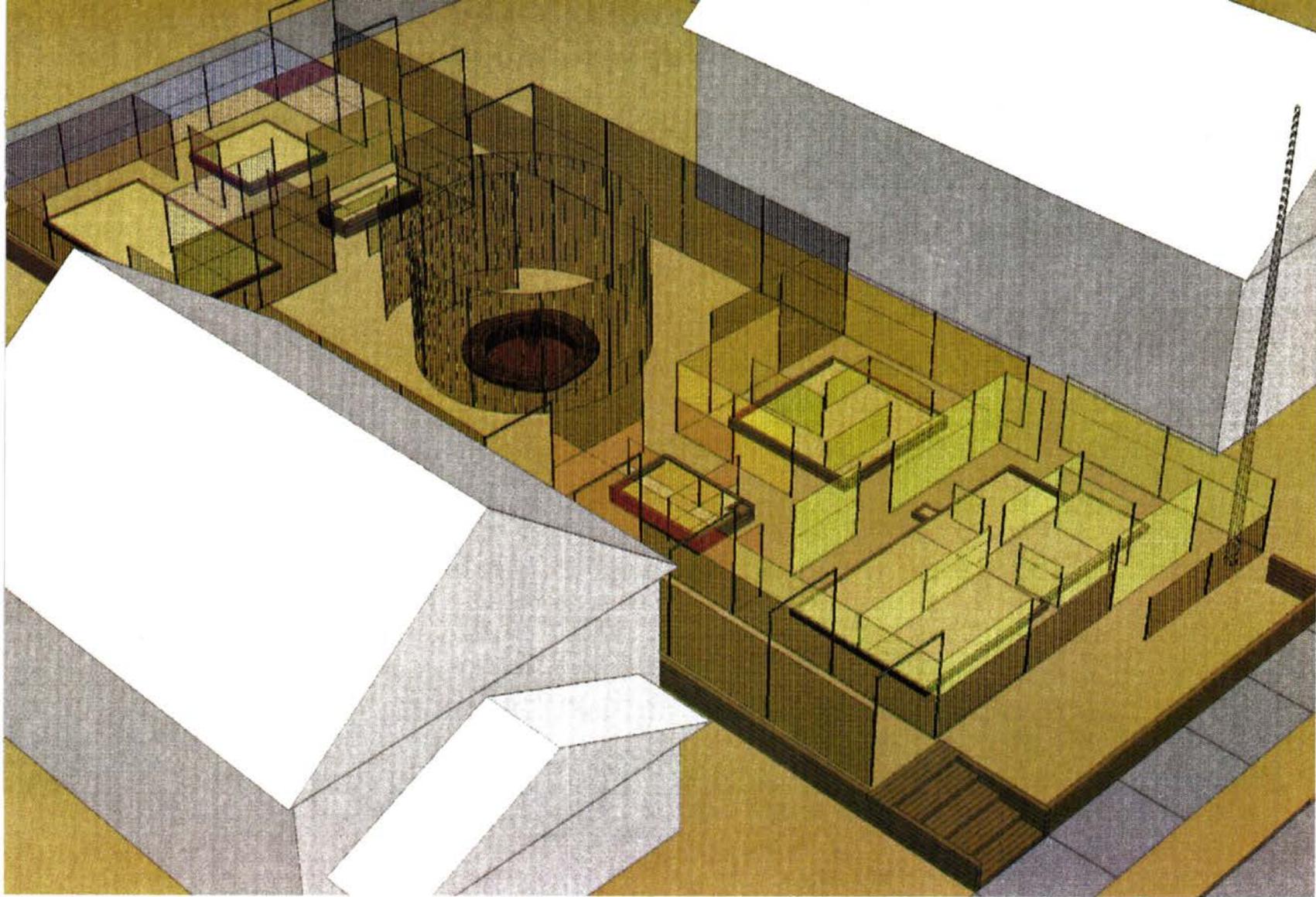
JURY COMMENTS: This project appealed to the jury both for its conceptual richness and its physical simplicity. “I like this project because it deals with a very important issue in architecture: the issue of ground,” said Karen Bausman. “It sensitively looks at the movement of a figure through space along that ground, and at the relationship of the ground to a sky plane, to an edge, and to a boundary.” “It gives the chain-link an interesting vitality with color coatings that will create moiré patterns as you walk through the space,” added Will Bruder.

Other jurors had some reservations, however. Douglas Kelbaugh noted that he had

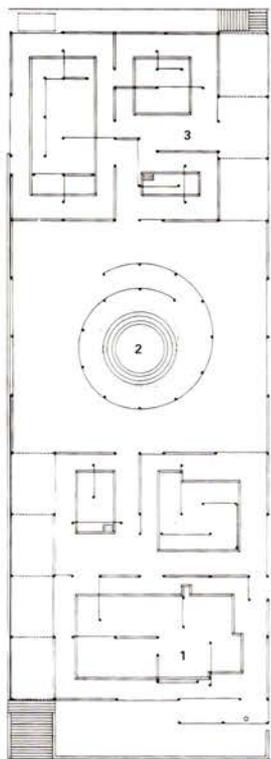
seen projects made of “similar layers of chain-link fence, in a similar public setting, and the moiré effect, the layering, is not as successful as one might expect.”

Michael McKinnell had another qualification. “I think there is a very interesting problem here. Ever since Picasso and Braque first put newspaper clippings into paintings, there has been the exciting possibility of taking elements from everyday life and transforming them. Frank Gehry has done this with precisely this material, but he transforms chain-link fencing by representing it in a fashion divorced from its known function, which was always the critical issue in any collage. For me, this project does not make that transformation, because the chain-link fencing is anchored to its mundane function of enclosure.”

For Patricia Patkau, the issue this scheme raised was one of control. “I like the idea,” she explained, “that vegetables and flowers could be formed into rooms of color and scent. The scheme implies a participatory field, though, in relationship to the community—and the color coding seems too controlling in its abstractness. If the vegetation were allowed to creep up over the fences, it could become an armature rather than simply spatial enclosure, taking on a solidity in places.” The jury decided that the Knox Garden project, in raising a number of interesting questions, deserved recognition despite such reservations.

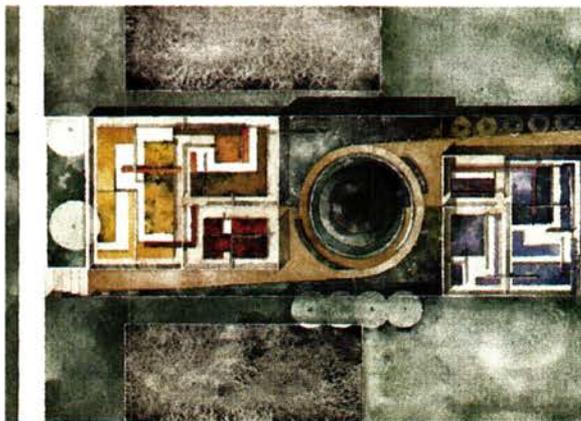


PERSPECTIVE SHOWING ROOMS DEFINED BY CHAIN-LINK FENCING



- 1 EVE'S SPACE
- 2 ORIGINAL GARDEN
- 3 ADAM'S SPACE

FINAL SITE PLAN 10'/3m

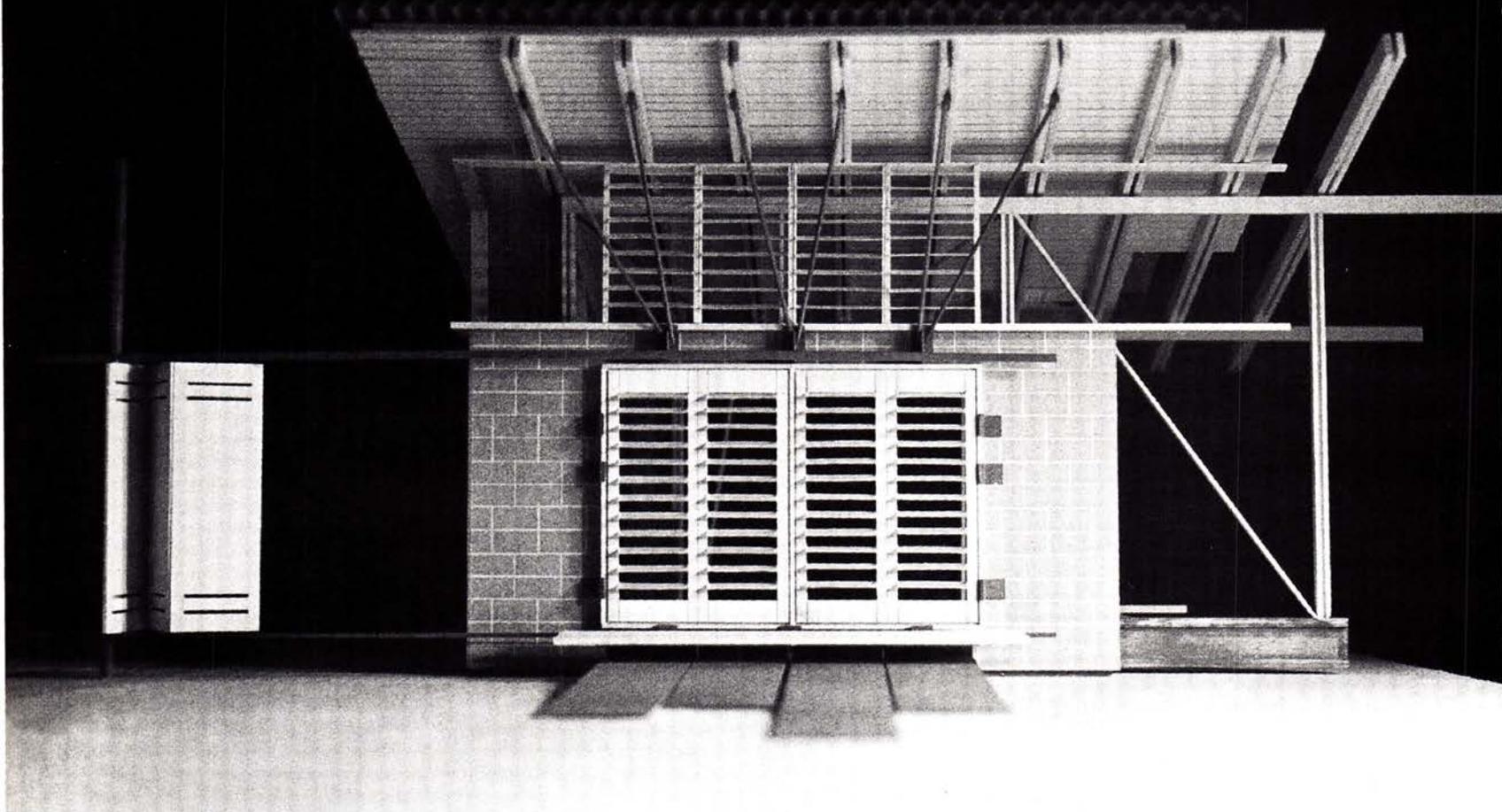


EARLY PLAN ESTABLISHED BASIC LAYOUT



VIEW INSIDE ADAM'S ROOM, OVERLOOKING PLANTING BEDS

ARCHITECT: Loom, Minneapolis—
Ralph Nelson, Raveevan Choksombatchai (principals); Benjamin Awes (assistant)
CLIENT: Sustainable Resources Center and the Minneapolis Park and Recreation Board, Minneapolis
COMPUTER MODELER: Dean Johnson



Summer Cabin

JOSEPH N. BIONDO ARCHITECT

PROJECT: Summer Cabin, Adirondack Park, New York.

SITE: Rectangular lakefront property with dense mature vegetation and rugged terrain, surrounded by scattered wood-frame houses.

PROGRAM: A 1,200-square-foot cabin with sleeping, living/dining, modest kitchen, and bath for a family of four.

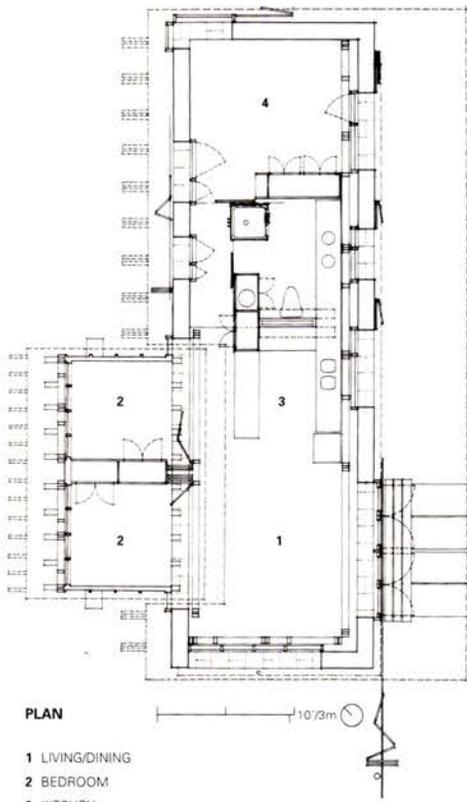
SOLUTION: The cabin's two principal rectangular volumes are placed perpendicular to the length of the site, with a sloped roof raised toward the south. Visitors approaching from higher ground to the north encounter first a series of weathered steel retaining walls and then the canted planes of the roof. Kept to a modest \$78 per square foot, the cabin is constructed with a layered structural system that is made explicit through the use of a "kit of parts"—a cutaway masonry envelope, par-

tial timber truss reinforcements, and wood fenestration and casework. To capitalize on water views while optimizing the natural ventilation afforded by lake breezes, sizable openings in the south and west facades are screened by jalousie windows. A deep overhang protects the interior from the summer sun.

JURY COMMENTS: Commending the cabin's articulate structure, Douglas Kelbaugh noted that thanks to an "extremely additive construction system," the cabin was "not only tactile in its materiality—concrete block, wood, and weathered steel—but its actual process of construction is permanently revealed." Karen Bausman added that the cabin "fully explores the materials and the methods of construction in lath framing, taking it to what I would consider the ultimate

degree." Michael McKinnell concurred in calling the design "elegant," but he challenged its ostensible simplicity. "It's actually a very sophisticated little house," he said. "If one looks at the number of the pieces of assembly here, this is not an intrinsically modest house. It's really very elaborate, and to the degree that it's elaborate, it is slightly inappropriate." Voicing her support for the project, Patricia Patkau attempted to resolve the issue raised by McKinnell. "I don't think there is any extraneousness in it: you understand how things are put together," she said. "This house is small enough that it can stand to be entirely tectonic, if that's what the client desires. But if tectonic explicitness goes on forever and everything is articulated, it often means that there's hardly a wall surface that you can put something on."

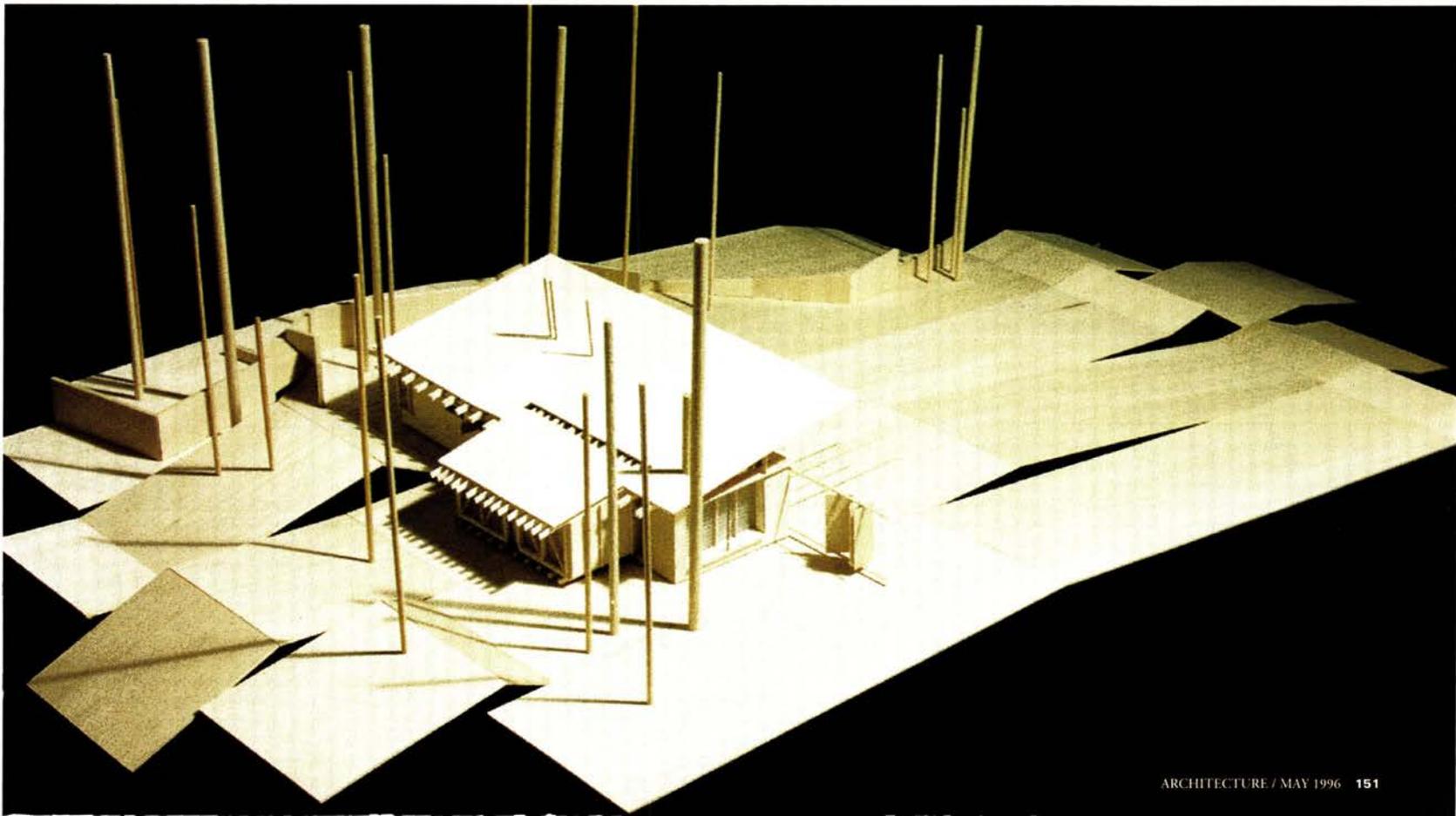
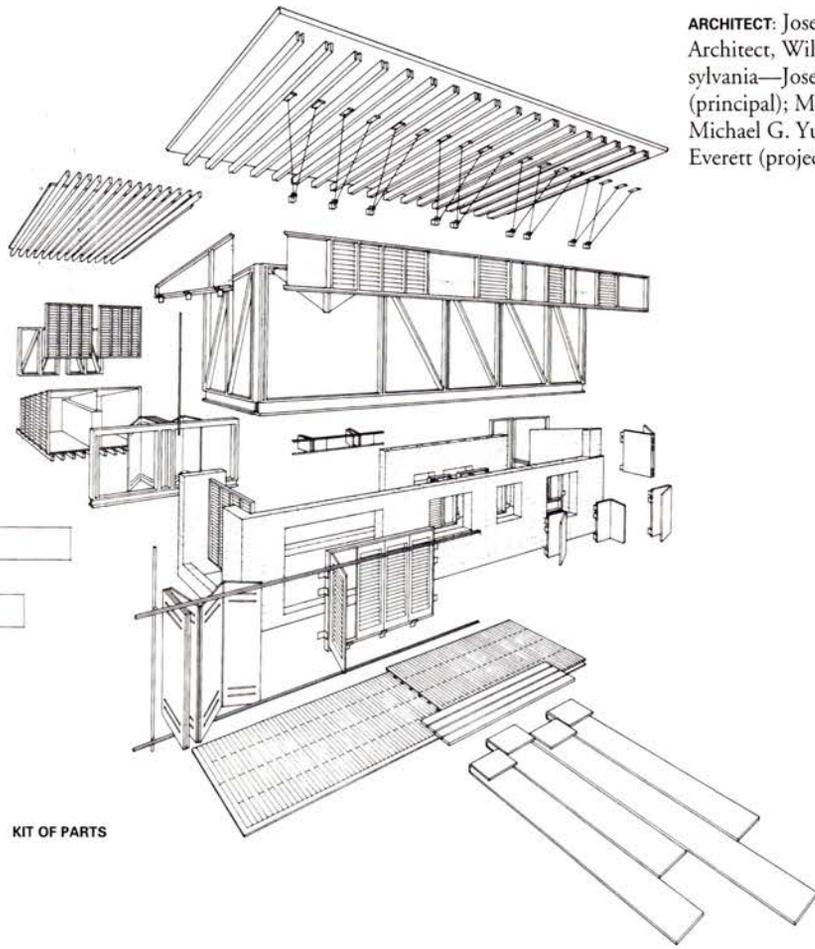
ARCHITECT: Joseph N. Biondo Architect, Wilkes-Barre, Pennsylvania—Joseph N. Biondo (principal); Michael J. Revit, Michael G. Yusem, David L. Everett (project team)

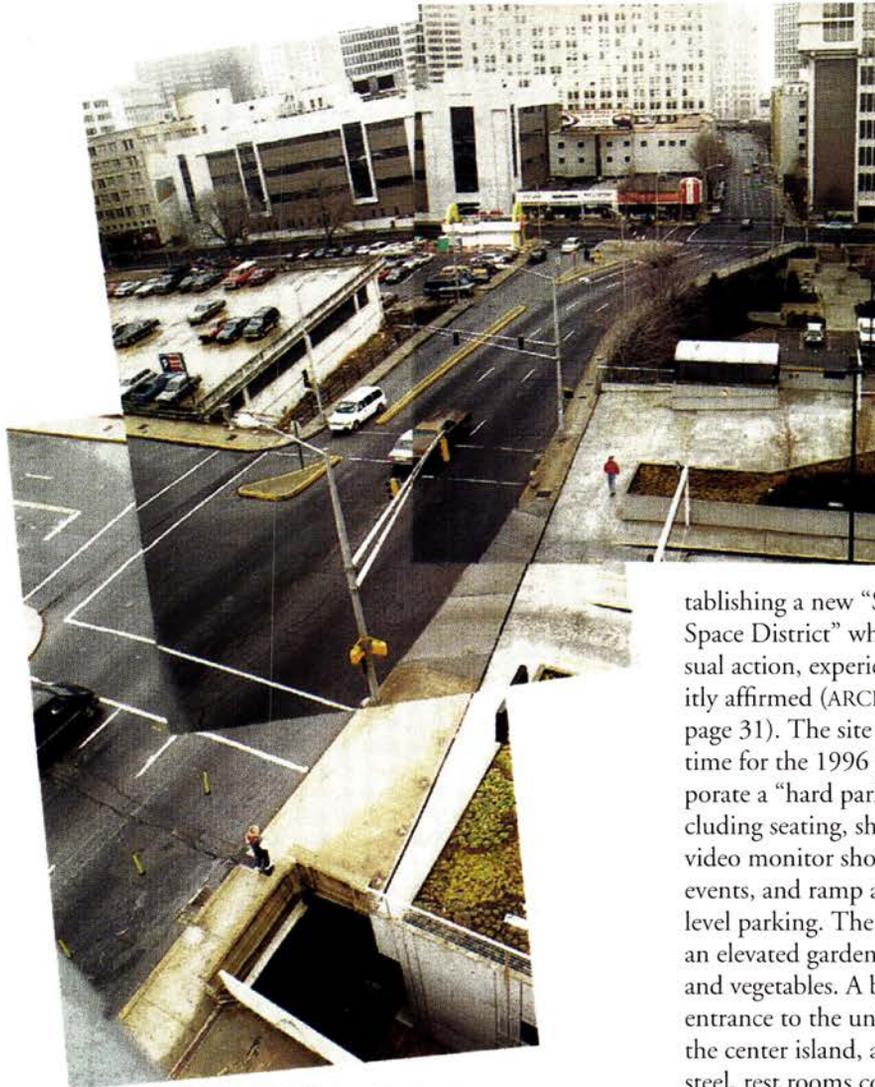


PLAN

- 1 LIVING/DINING
- 2 BEDROOM
- 3 KITCHEN
- 4 MASTER BEDROOM

KIT OF PARTS





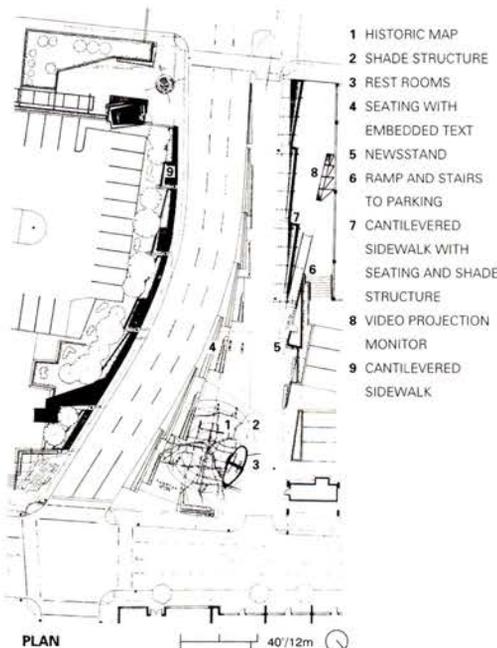
EXISTING CONDITIONS, LOOKING NORTH

establishing a new “Special Interest Public Space District” where the right to “consensual action, experience, and debate” is explicitly affirmed (ARCHITECTURE, July 1994, page 31). The site is to be rebuilt by May, in time for the 1996 Olympics, and will incorporate a “hard park” on the western edge, including seating, shade, information panels, a video monitor showing the day’s Olympic events, and ramp and stair access to lower-level parking. The eastern edge will feature an elevated garden with seating amid flowers and vegetables. A bus stop/kiosk signals the entrance to the university campus. Within the center island, an open shade structure of steel, rest rooms constructed of lead-coated copper over a steel frame, and seating define a “public room.” Embedded in the surface paving is a narrative history of the site.

DeCode/ReCode Atlanta

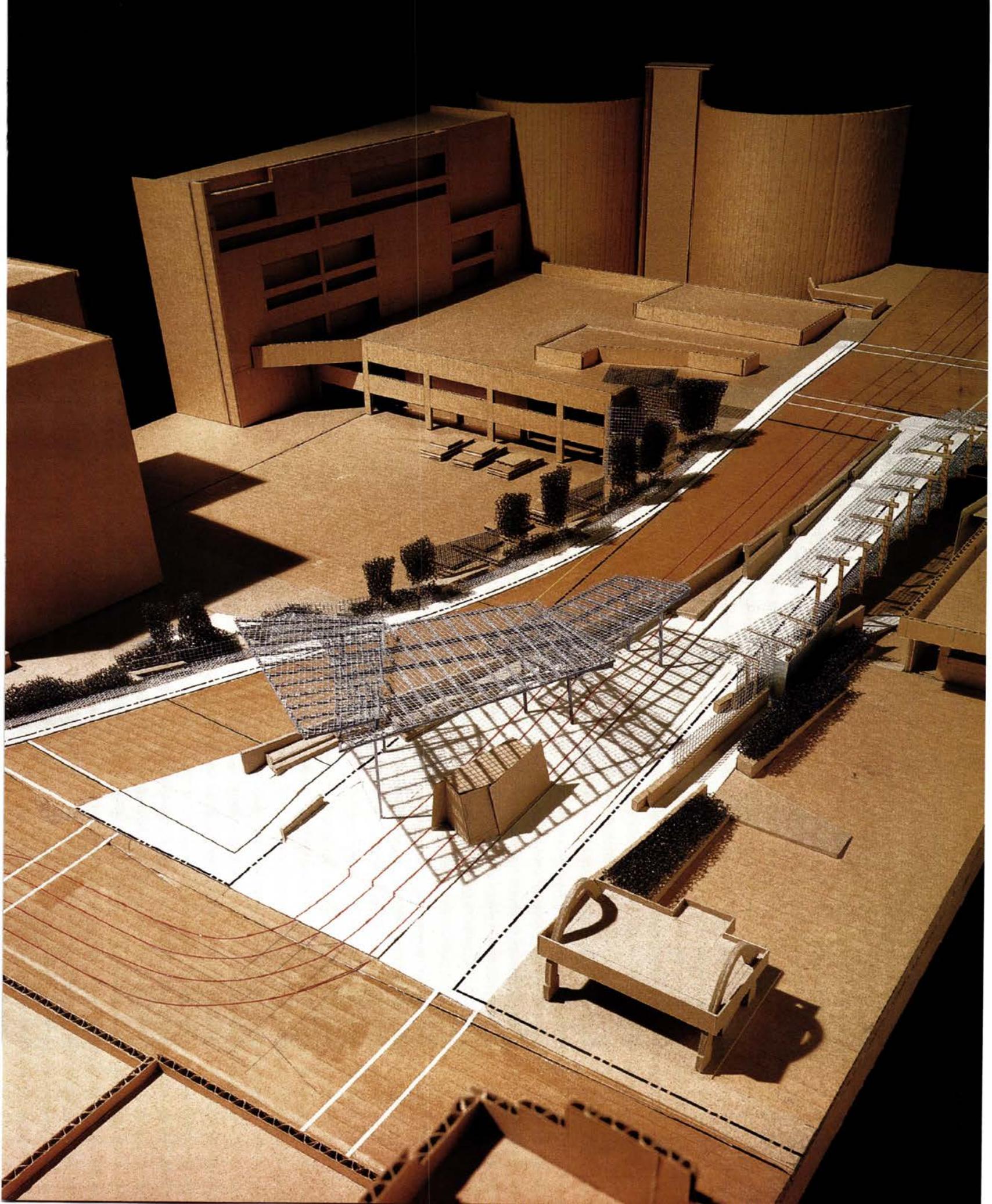
CONWAY + SCHULTE

JURY COMMENTS: Douglas Kelbaugh summarized the project as “urban design with real teeth.” Karen Bausman supported the project as “a rewrite of rules.” Patricia Patkau commended the project’s potential for upgrading the site into “occupiable space,” furnished with toilets and serviced “the way you would service a building.” The design itself was described by Michael McKinnell as “a very elegant structure...quite civic in its scale, without being in any way oppressive or prescriptive in its form.” Said Will Bruder: “It’s one good thing for the Olympics.”



PROJECT: DeCode/ReCode Atlanta.
SITE: One block of Central Avenue in downtown Atlanta, rebuilt in 1924 as a viaduct over railroad tracks and located in an entertainment and SRO hotel district. The site, which contains the Zero Mile Post where Atlanta began, is the first segment of the Martin Luther King Freedom Walk. It provides a pedestrian link between the business district, the state capitol, Underground Atlanta, Georgia State University, and Auburn Avenue.
PROGRAM: Develop an urban design dealing with public policy, urban architecture, and public access for a downtown site.
SOLUTION: The project examines zoning ordinances, building codes, and planning guidelines, and concludes that they define “the public” in a static, inadequate fashion. The project therefore offers a rewritten text to be inserted into the city’s zoning ordinance, es-

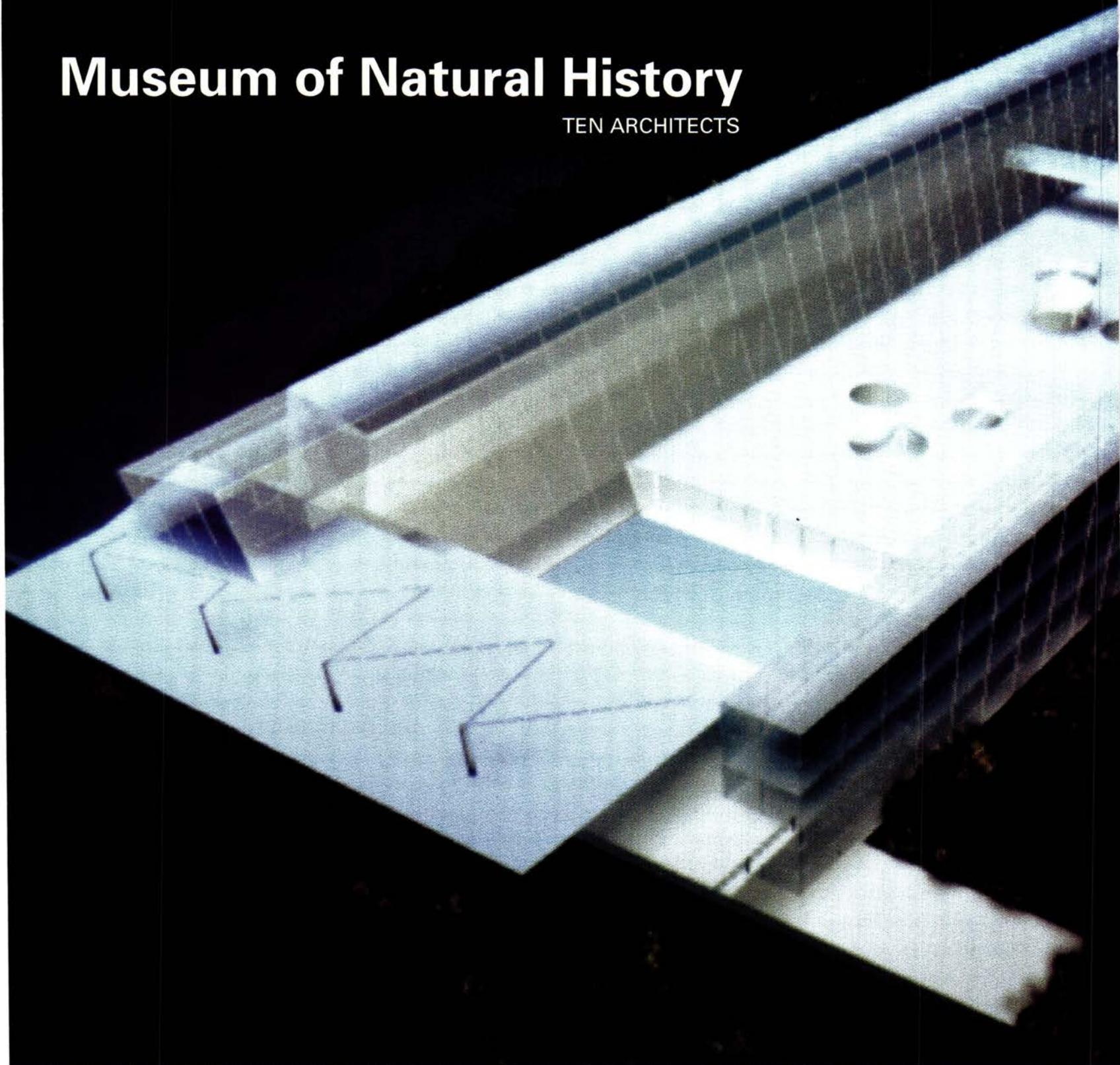
ARCHITECT: Conway + Schulte, Ames, Iowa—William F. Conway (principal-in-charge); Marcy Schulte, Marcelo Burigo M. Pinto (design team); Paula Curran (project assistant, graphic design); Douglas Pfeiffer, Ian Scott, Timothy Wolfe, Kathryn Bogue, Russell Anderson (project assistants)
CLIENT: Corporation for Olympic Development in Atlanta
MODELMAKER: Marcelo Pinto
MODEL PHOTOGRAPHERS: William F. Conway, Studio AU/Greg Scheideman
RENDERERS: William F. Conway, Timothy Wolfe



Citation

Museum of Natural History

TEN ARCHITECTS



COMPUTER MODEL WITH ENTRANCE CANOPY IN FOREGROUND, LEFT



MODEL VIEWED FROM NORTH

PROJECT: Museum of Natural History, Mexico City.

SITE: The footprint of an existing museum in a densely forested section of Chapultepec Park.

PROGRAM: 160,000-square-foot museum to house the permanent collection, temporary installations, an auditorium, museum store, restaurants, administrative offices, workshops, classrooms, a library, and a laboratory.

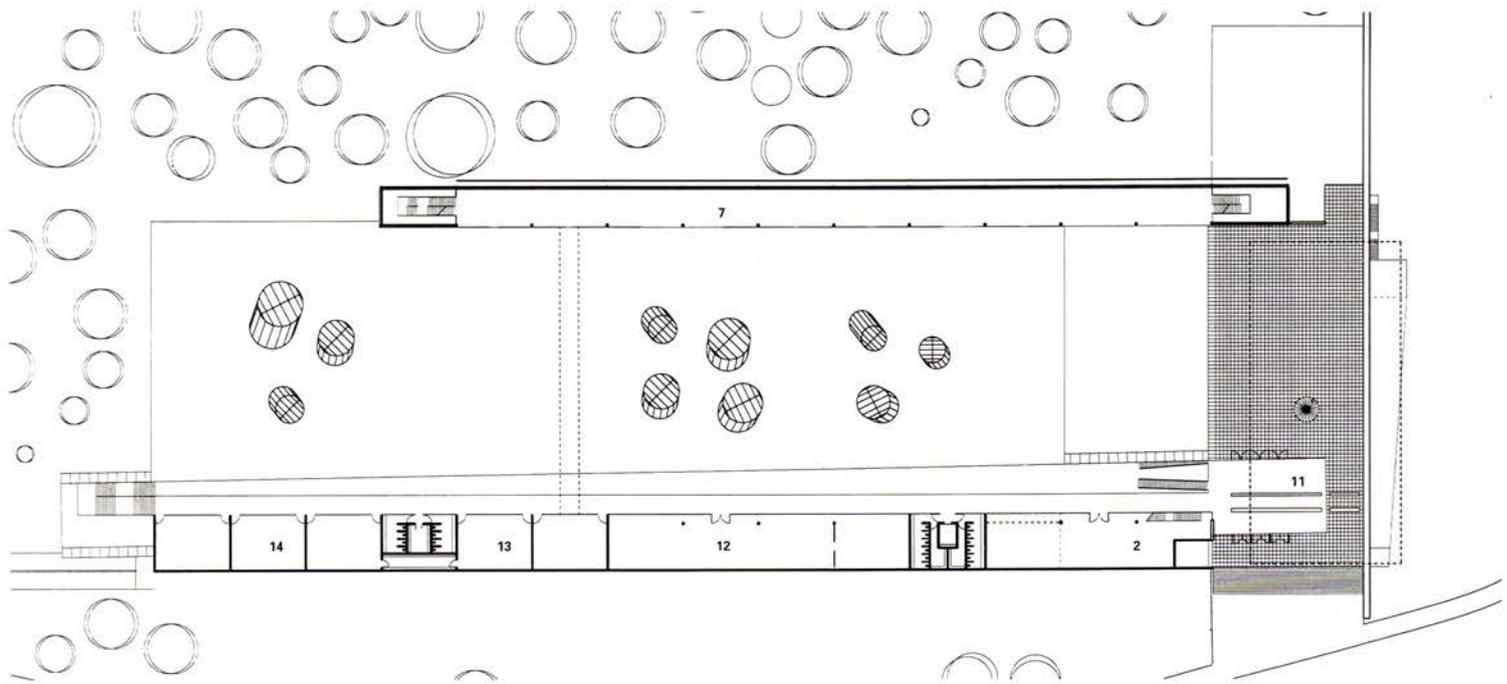
SOLUTION: Replacing the existing museum on the south edge of Mexico City's largest and most prominent park, the new museum building is a low-lying structure comprising three chief elements: a vast, colonnaded hall on the lowest level, intended for the permanent collection, with an expansive flat roof pierced by sculptural skylights; a rectangular volume with a canopy-hung roof, which forms the generous entrance lobby and contains the auditorium; and flanking the submerged hall, two elongated glass-and-steel prisms that house the remaining museum functions. The west prism, which intersects with the entrance canopy and fronts one of the park's ring roads, is distinguished by its canted geometry. The east prism is rectilinear; its outer face, oriented toward the forest, is screened with sequoia louvers.

JURY COMMENTS: "We're looking at a large-scale civic project in one of the great parks of the world," Will Bruder commented. "I've been to the Museum of Anthropology, and this building, in a crystalline way, plays against that massive courtyard piece. From the lobby, you look across a nonpeopled

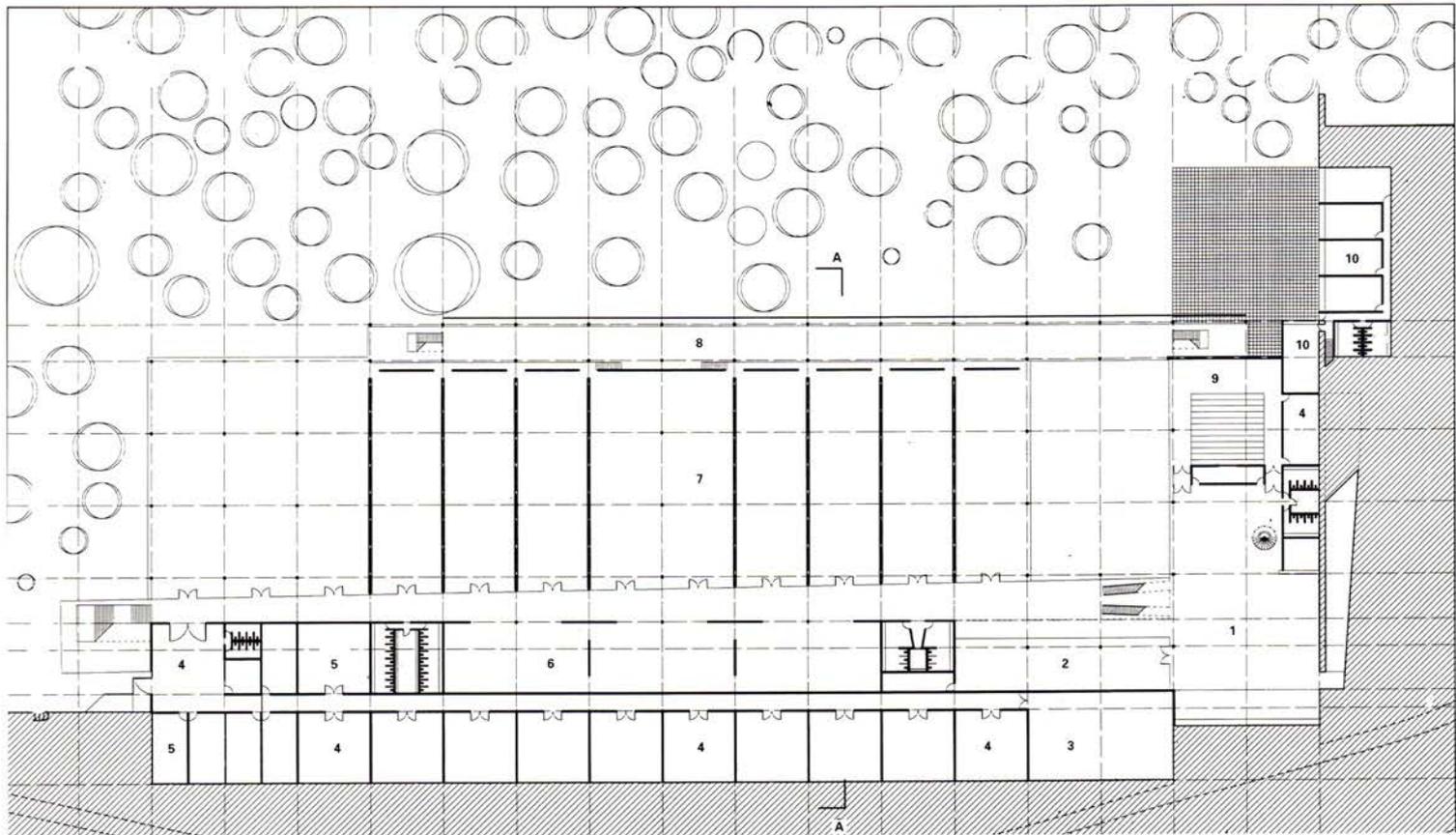
space of light scoops and troughs bringing light into the lower level. I like the characteristic of the courtyard. It feels very Mexican, and it's what I would expect in a place with pyramids and platform mounds. It carries that spirit of place, which I think is important." While Bruder praised the plan's "logical flow," he criticized the canted volumes: "Some of the geometries are jarring to me. Without seeing a human-scale figure in this diagram, these geometries are questionable as far as what they do and how they play out."

Patricia Patkau was puzzled by the representation of the exhibition spaces. "The only reservation I have has to do with the nature of the museum space itself," she said. "It seems conceptually to be a giant space that's potentially available in multiple ways, but the plan shows this repetitious linear space that is always the same or is double itself. It may have already been worked out with the gallery staff: if this space is for the permanent collection, and if it is actually lit in very specific ways, I suspect that this isn't just any old layout. It is the layout."

Michael McKinnell seconded Bruder's caveat about the dynamic geometry, deeming "the departure from the orthogonal completely unnecessary." He summed up the jury's unanimous support for the project: "This is a lovely scheme in many ways, and like the Phoenix courthouse, it demonstrates that what is now a very traditional architectural vocabulary is capable of achieving a monumentality and a dignity that in the recent past, people suggested it was not capable of."



FIRST-FLOOR (ENTRANCE-LEVEL) PLAN



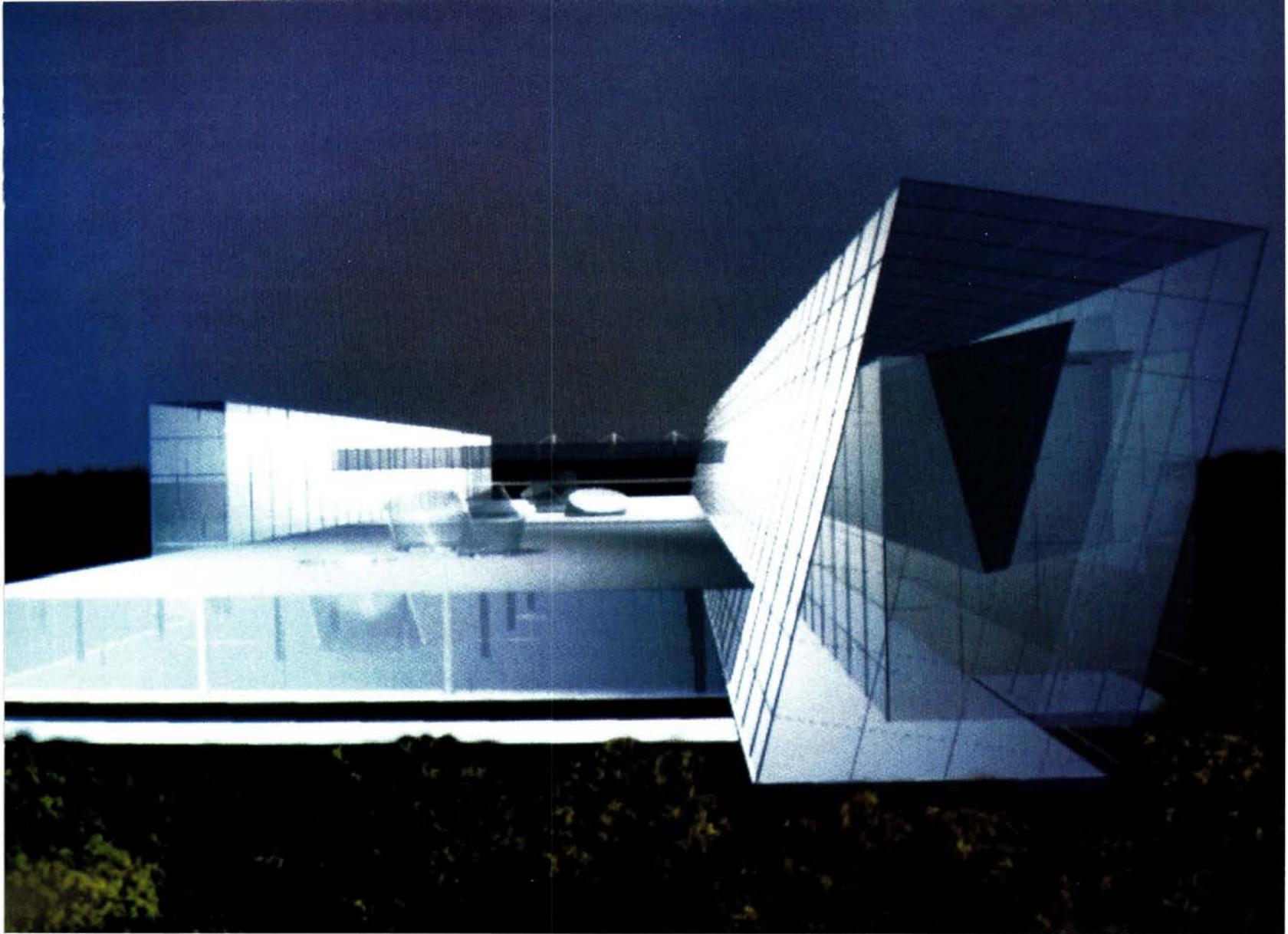
LOWER-LEVEL PLAN

40'/12m

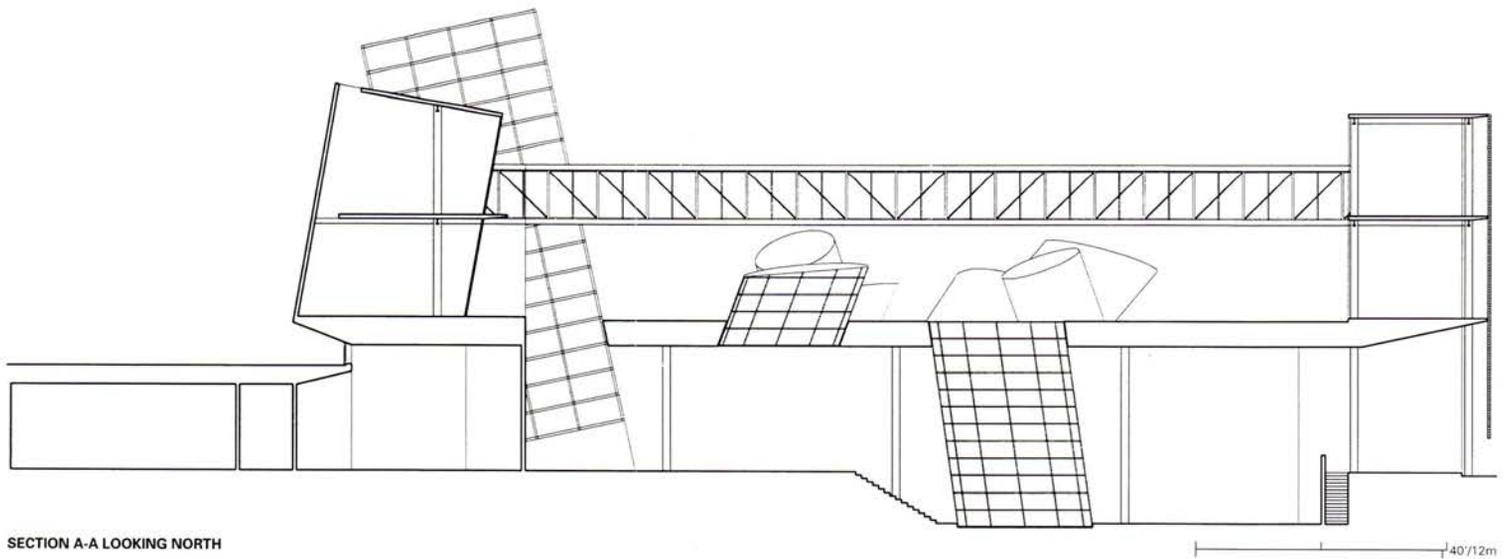
- | | |
|------------------------|------------------------|
| 1 VESTIBULE | 8 GALLERY |
| 2 MUSEUM SHOP | 9 AUDITORIUM |
| 3 MECHANICAL | 10 RESTAURANT |
| 4 STORAGE | 11 MAIN ENTRANCE LOBBY |
| 5 MAINTENANCE | 12 ADMINISTRATION |
| 6 TEMPORARY EXHIBITS | 13 WORKSHOPS |
| 7 PERMANENT COLLECTION | 14 CLASSROOM |

ARCHITECT: TEN Architects, Mexico City—Enrique Norten, Bernardo Gómez-Pimienta (principals); Blanca Castañeda, Carlos Ordoñez, Gustavo Espitia, Raúl Garduño (project team)
CLIENT: Secretary of Education and Social Development, Department of Federal District, Mexico City

ENGINEER: Ove Arup & Partners, New York (structural/electrical/mechanical)
MODELMAKER: Gustavo Espitia
MODEL PHOTOGRAPHER: Luis Gordo
COMPUTER RENDERER: Antonio Pavón



COMPUTER MODEL: PERSPECTIVAL SECTION LOOKING SOUTH



SECTION A-A LOOKING NORTH

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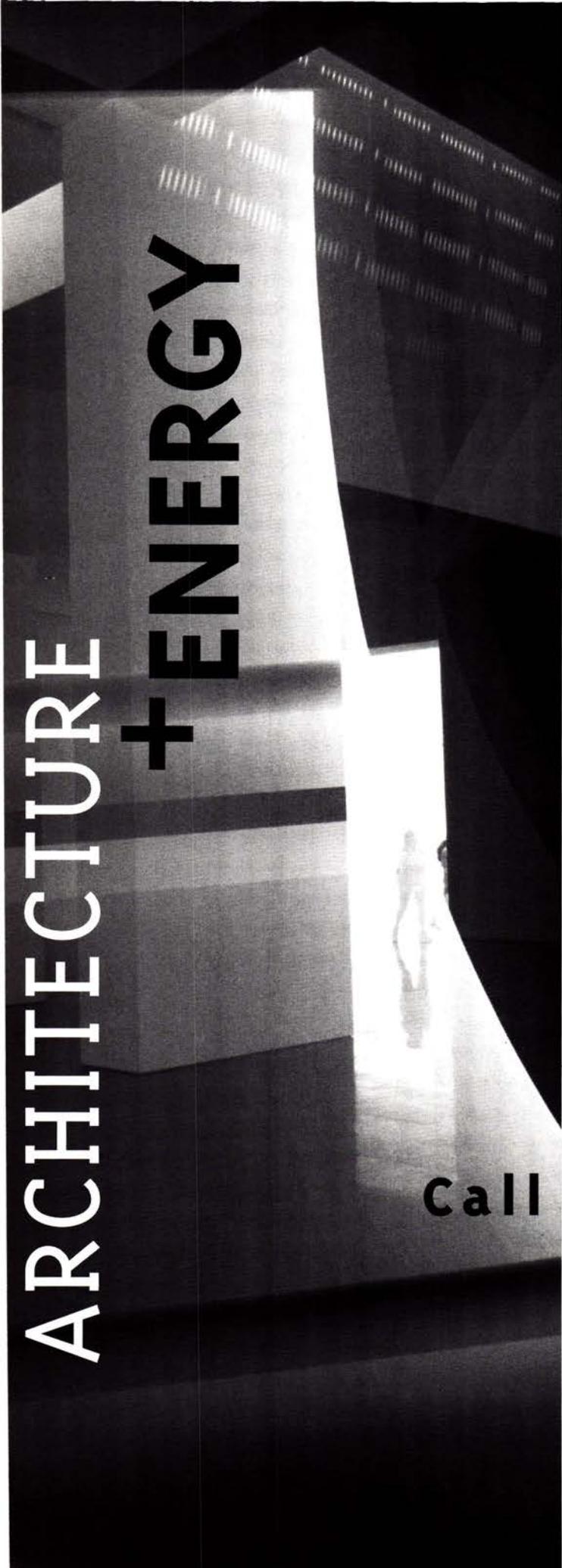


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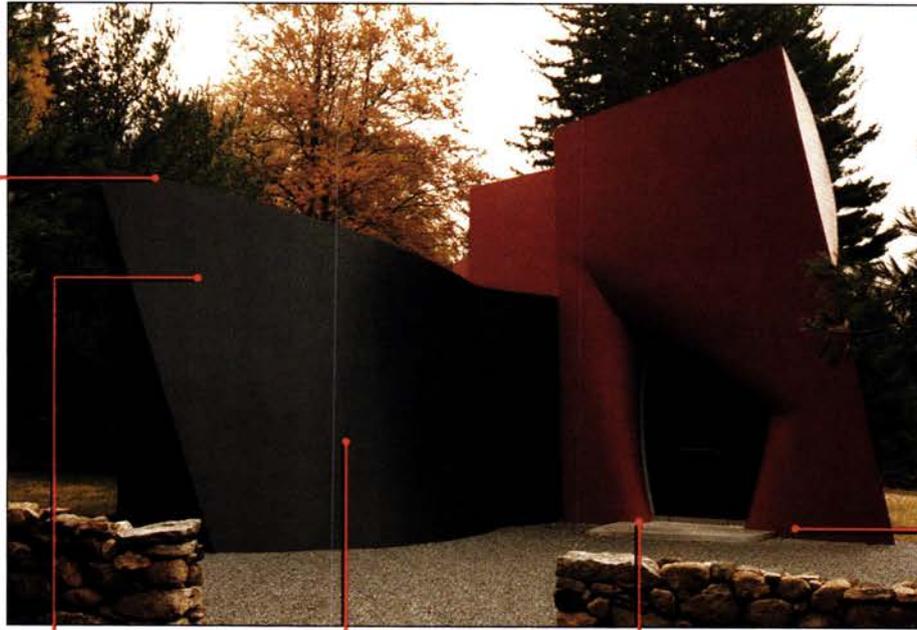
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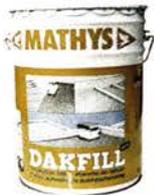
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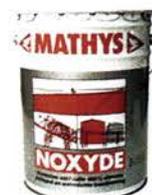
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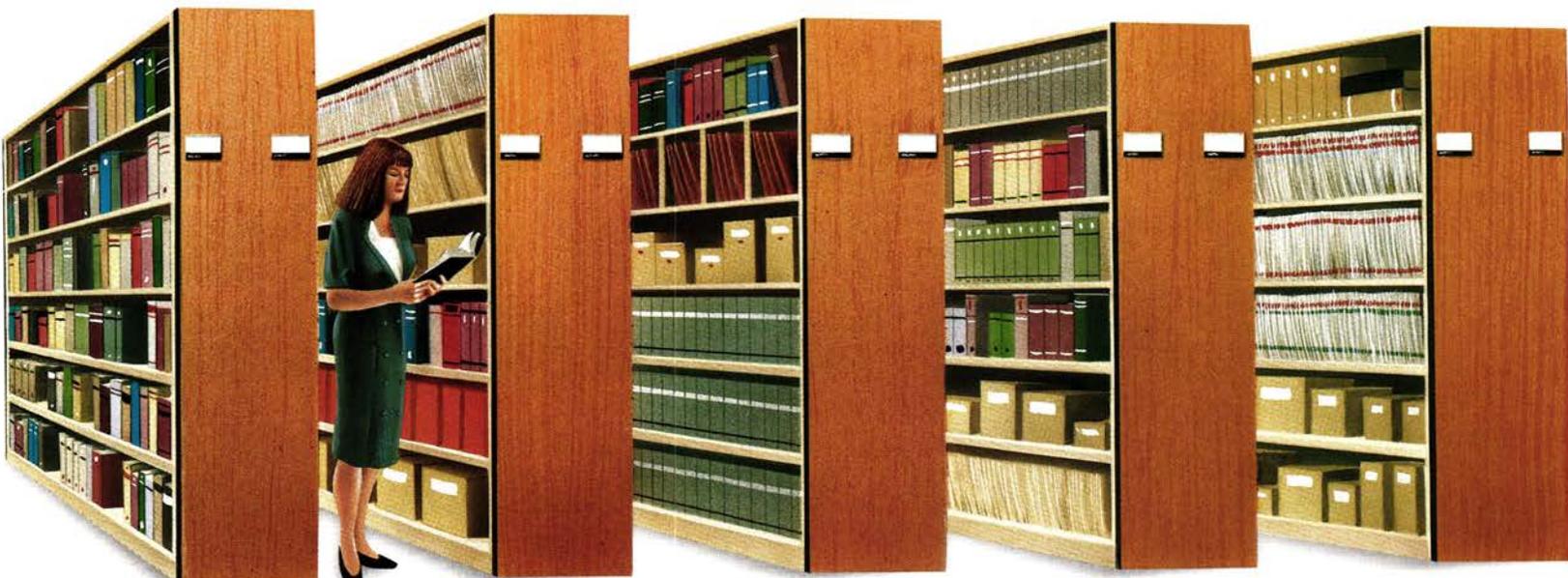
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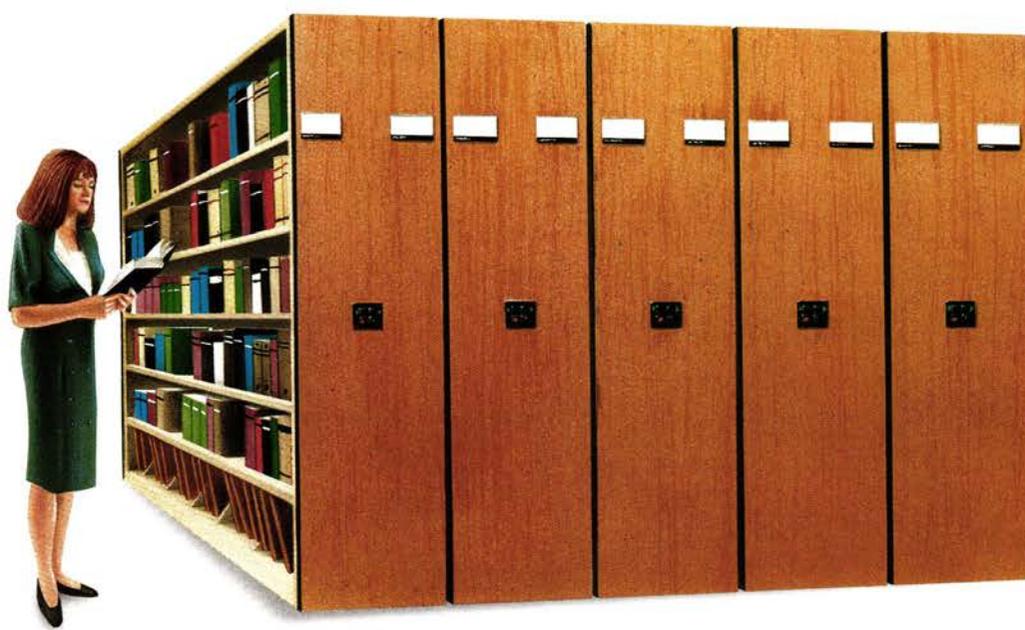
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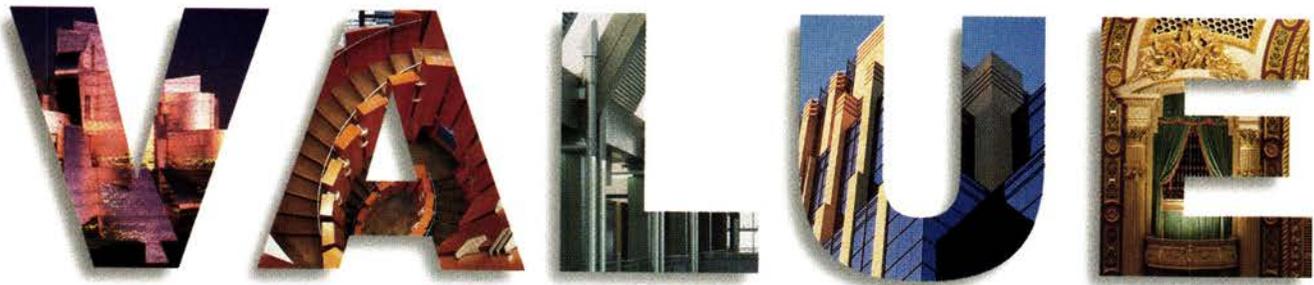
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A close-up photograph of a wood grain, showing wavy, concentric patterns in shades of brown and red, positioned in the upper right quadrant of the cover.

**National
Wood
Window and
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Association**

supplement to

Architecture Magazine

Wood Windows & DOORS

Wood windows and doors: What could be more conventional and low-tech? Guess again. The industry is as dynamic as any in the building trade. It has, in fact, changed dramatically in the past decade. For architects, this translates into greater opportunities and more flexibility in design aesthetics. It also means there is more need than ever for product testing and specification guidelines. That's where the National Wood Window and Door Association steps in.

Think for a moment about the type of windows available today. Consumers can be confused by the difference between double hung and casement windows. When you mention argon-gas and warm spacers, they are bewildered.

Not only the range of window types has proliferated, so has the variety of shapes. Today, you can choose from awning, casement, double-hung, hopper, horizontal sliding, non-operative, pivot, single-hung and turn-tilt. Windows can easily be custom made in any conceivable shape — half-round, quarter round, transom, squares, even moon-shaped. The use of CAD, CD-ROM, and other computer models has automated the manufacturing process; future advances in computer technology will surely improve the system. And windows themselves will be more automatically "self-managed" for privacy, ventilation, or solar gain.

More stringent energy codes have brought a new generation of energy efficient windows, filled with argon or lined with heat reflective film. The use of xenon and krypton gas will allow for smaller gaps between glass panes, but is now expensive. Costs should decrease. Overall, researchers at Lawrence Berkeley National Laboratory suggest technological advances have peaked; the changes over the next ten years will be in cost effectiveness.

For materials, the industry is moving in two directions: real wood components are seen as more valuable, and the use of wood composites — mixtures of wood & plastic — is growing. Wood composite is seen as particularly valuable as a structural element. Conservation has also affected the industry.

These and other developments are being tracked by NWWDA through its Hallmark Certification program, which has set standards for Wood Flush Doors, Architectural Wood Flush Doors, Wood Windows, Wood Sliding Patio Doors, Water-Repellent Preservatives Non-Pressure Treatment for Millwork, Wood Stile and Rail Doors, Wood Skylight and Roof Windows, Wood Swinging Patio Doors, Wood Primary Entrance Doors.

The window standards for air filtration, energy efficiency, and structural loads are performance oriented. The door standards are more specific, calling for such things as different grades of veneers and densities of solid cores. The association has established crucial testing methods for fire, and is leading the more performance-oriented certification for doors. For more information on NWWDA standards, test methods, and information literature or to purchase the guide for architects and specifiers, contact NWWDA, 1400 E. Touhy Ave., Des Plaines, Ill. 60018 (708) 299-5200.

And what about the future? Architectural historian James Marston Fitch wrote in 1947: "The level of building in any given time and place stands in direct relationship to the specific technological level of society." Wood windows and doors must be seen in this light, for the industry has steadily changed as technology has. More surprises are expected in the future.



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Al Campbell
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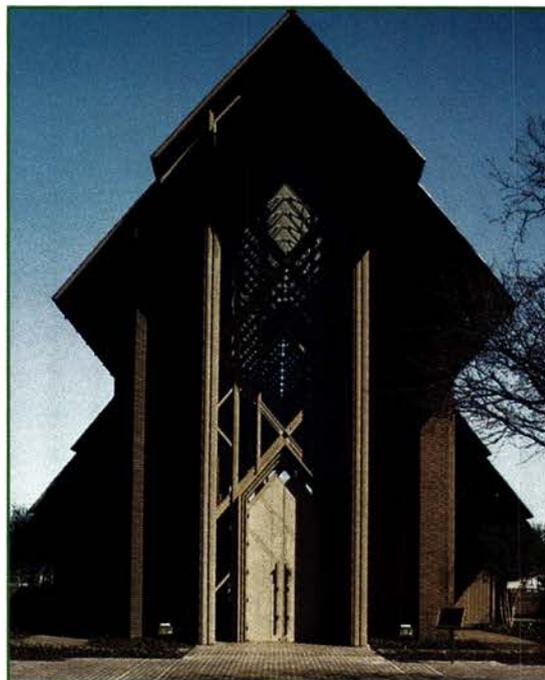
Fay Jones creates palaces of wood and glass. Regardless of building type (he is particularly noted for the

design of chapels and single-family houses) Jones uses the flexibility of wood juxtaposed against screens of glass to create a geometric pattern. He then employs this theme throughout to create a seamless composition. For him “completeness” is everything. “Every detail is significant,” Jones says. “No matter how small, each piece lends a completion to the overall continuity.”

Perhaps Jones, of Fay Jones/Maurice Jennings Architects in Little Rock, Arkansas, has the best of all worlds. Most of his projects use custom-made windows. Generally, large pieces of glass are set floor-to-ceiling. Sometimes these serve as “window/doors,” providing cross ventilation and the utilitarian use as an entrance. With the help of local craftsmen, Jones works on shaping screen patterns with wood inside the building, manipulating mullions, sills, heads, beams, “everything,” he says. He treats the screens as a piece of cabinet work. Roof structures are dominant, and the broad overhangs work as passive solar devices, protecting windows and doors from excessive heat gain. In his chapels, wooden entrance doors measure 12 to 14 feet tall. In fact, he prefers door panels that run up to the ceiling. “As Louis Kahn said, the door is just an opening where the walls part,” Jones suggests.



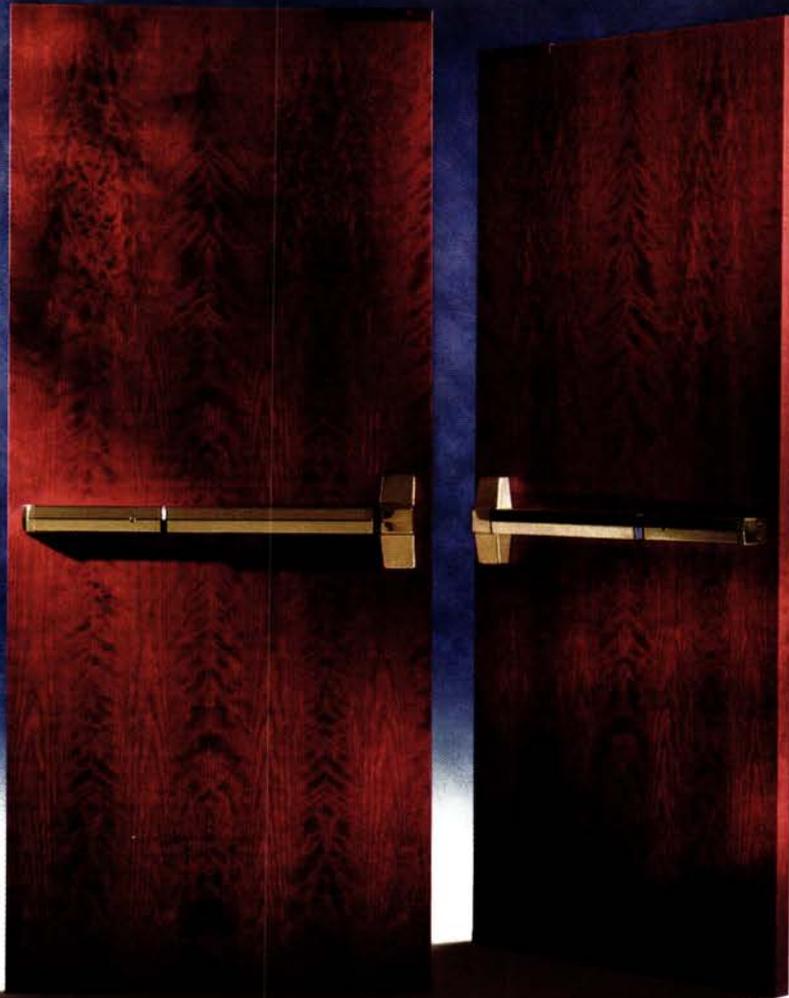
Photographs © Greg Hursley



The Marty Leonard Chapel glows with layers of glass and wood. Its precise detailing is announced in the wood entrance door.

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As seen in the Reed and Edmondson Residence, the residential design of Fay Jones features combinations of wood and glass.



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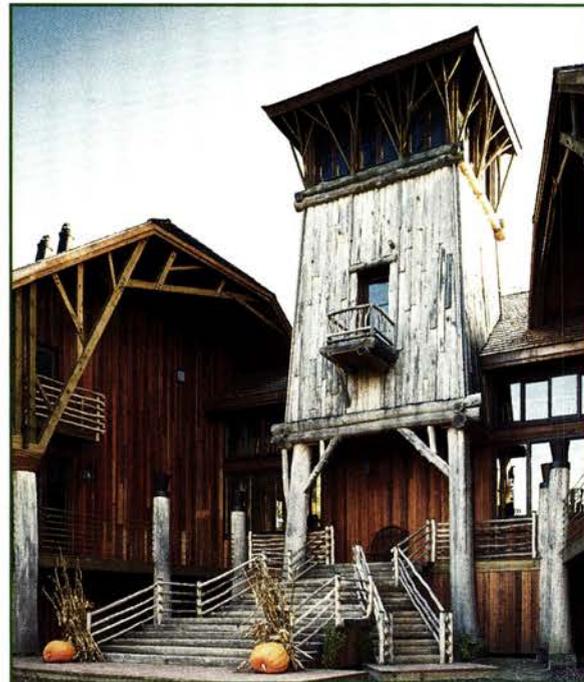
Mark Simon, CENTERBROOK

Wood windows and doors provide “a sense of tradition,” to residential and commercial buildings alike,

says Mark Simon, of Centerbrook Architects in Essex, Connecticut. Particularly for residential design, wood windows and doors add to the building’s comfort. When such “warm” materials are used in commercial architecture, it denotes, according to Simon “a major effort to soften, to humanize the space.”

Simon is quite versatile in his use of wood windows. He deftly employs glassy screens intermixed with tiny openings to take advantage of passive solar heating and cooling and daylighting. For the Pond House, on Martha’s Vineyard, the client wanted a large expanse of glass, but also a “house that felt sheltered.” Simon employed a board and batten notion, breaking up the glass panels with vertical and horizontal pieces, but keeping it integrated as a grand window. He calls it “a strange blend of the Modern and traditional.” For the great room of a 20-person lodge, 11-foot-high window walls offer views of the surrounding marshland.

Of help to the architect is the trend in window manufacturing towards a greater variety of window sizes and types, which has “freed us up tremendously,” says Simon. “Projects that could not afford custom shapes now can,” he adds. Simon encourages window manufacturers to examine historical styles and windows and doors.



Fenestration in the Marsh Lodge range from 11-foot-tall window walls to small, semi-hidden openings.

Norman McGrath

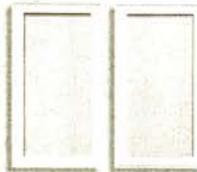


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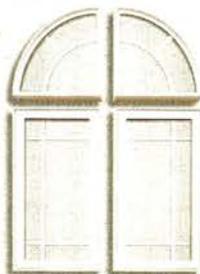
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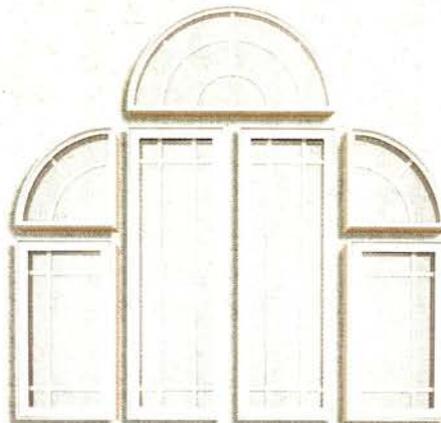
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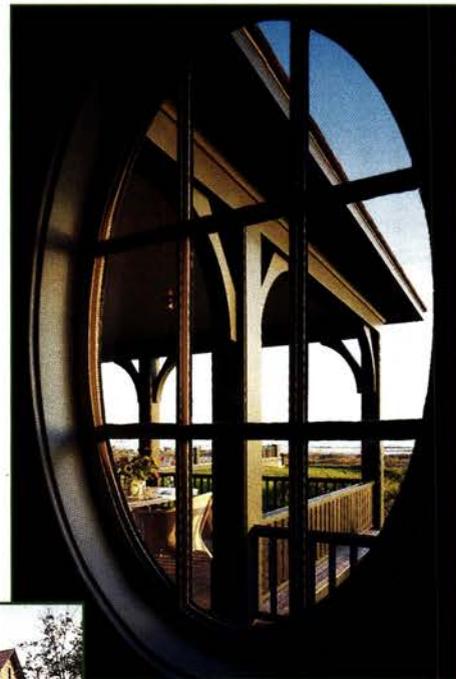
Robert A. M. STERN

There can be no doubt that trends in aesthetics and style affect the entire building industry. Take for

example, the influence of the Post-Modernists and one of its leading proponents, Robert A. M. Stern. “For me,” says Stern, “the design process is one of emulation: combining imitation and invention. I work with a knowledge and sympathy for the past, but I endeavor not to confuse the circumstances of our era with that of another.” This philosophy is reflected in Stern’s use of wood windows and doors and corresponds to a shift in the industry toward more custom services.

The architecture of Robert A. M. Stern Architects in New York is known for its use of over-scaled windows and doors — ones “twice the size of what one would expect them to be,” says partner Robert Seifter. “We try to emulate 19th-Century models.” A classical inspiration is reflected in the design of the Norman Rockwell Museum in Stockbridge, Massachusetts. Fenestration is minimal, because of the program, but it is clearly formal in expression. Even the Skyview House in Aspen, Colorado is shaped in classical proportions.

The firm is also known for its adoption of vernacular forms, particularly Shingle Style houses. The Kiawah Beach Club translates the aesthetics of the surrounding coastal community into a contemporary statement. In fact, the revival of vernacular detailing in both residential and commercial architecture can be traced, in part, to Stern. Attention to detail is all important. His use of oversize windows leads to large frames, mullions, and muntins. Pitched roofs, verandahs, gables, dormers, and wood details grace his buildings.



Large windows and doors grace the Kiawah Island Beach Club; all adopt traditional architectural forms found in the region. The dining pavilion serves as a filtering buffer between the entry motor court and the swimming and beach area. The cypress and cedar cabana is Caribbean in influence.

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WINDOW AND DOOR

Richard Fernau, of Fernau & Hartman Architects of Berkeley, California, confesses a fascination with blurring the

distinction between windows and doors. In the work of his firm you discover doors within doors, doors with windows, and doors used as windows. "The flexibility of wood allows you to play with different convention," Fernau says.

For the design of the Laybourne Art Barn in the Colorado Rocky Mountains, Fernau goes to one extreme. In this uninsulated building, massive doors on two opposing sides become the focal points. On the front, a smaller door is within the larger 14-foot door. The enclosures on both sides can easily be opened to allow for daylight and fresh air to enter the barn, and for utilitarian purposes. "The doors make the building," Fernau observes.

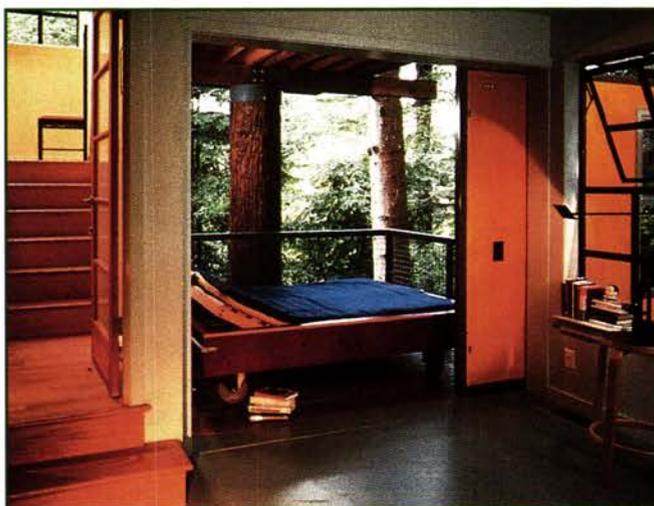
A radically different concept of the door is incorporated into the Fernau/Cunniff House in Berkeley. Here, Fernau uses a door as a moveable screen between the master bedroom and an open-air deck. From the exterior, it creates the idiosyncratic vision of a door suspended in space.

In his work, Fernau establishes a hierarchy of materials. Wood is reserved for very specific window and door treatments to draw attention to the material. "We like the idea of exposing the properties of the wood itself. It's precious, and when we use it, we do so with real intent."



Massive wooden doors, an integral part of the Laybourne Art Barn, become the focal point of the design.

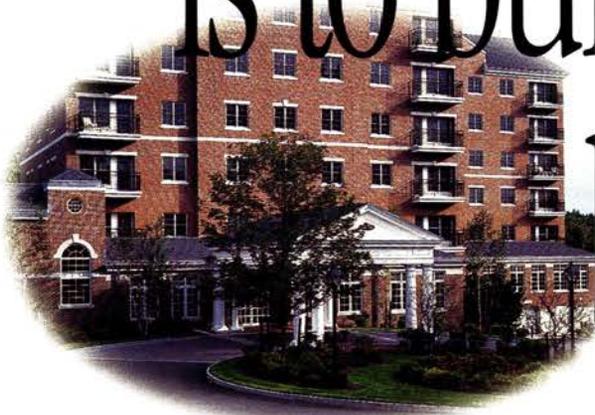
© Mark Darley/Esto



A sliding door opens the master bedroom of the Fernau/Cunniff house to the open-air porch and creates an illusion from the outside.

© Richard Barnes

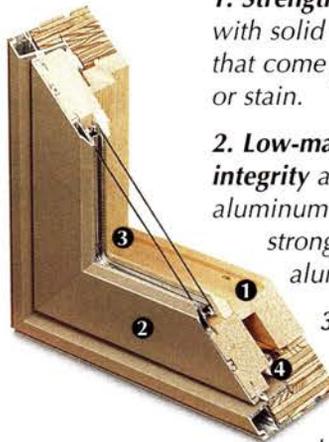
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Opting for windows and doors is a matter of “aesthetics and function” for Susan Maxman Architects of

Philadelphia. “Our aesthetics are always predicated on the building’s use,” Maxman says, “It’s a melding of both.”

Take the Camp Tweedale Activity Building, designed for the Freedom Valley Girl Scout Council in Oxford, Pennsylvania. One wall of the activity building is entirely composed of French doors, with a bank of clerestory windows above. French doors allow the building to be totally open in summer, but are also suitable for use in winter.

For Maxman, an architect dedicated to environmentally sound design, the wood window and door industry has kept pace with architects’ demands. Advanced thermal response supports daylighting design. For natural venting, she applauds advancements in motorized opening systems for clerestory windows: “If you have to do it manually, people just aren’t going to use the system.”

Because of cost concerns, Maxman relies on standardized windows, a practice that has been aided by the tremendous expansion in the sizes and types of wood windows offered by manufacturers. “The manufacturers are very responsive to the current trends in architecture,” Maxman says. For the vacation house in Harvey Cedars, New Jersey, the window selection was a main generator of aesthetics. Maxman began with a given: the house would incorporate three different types of standardized windows, including sliding glass doors. On the other hand, strict historic preservation often calls for custom-made windows, such as for the Joseph Pennock House in London Grove, Pennsylvania, which are exact replicas of the original wood windows.



© Tom Bernard

Wood windows and doors provide natural lighting and cooling, as well as allow for vistas of wooded surroundings at the Camp Tweedale Activity Building and cabins.



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The different sizes and shapes of standardized windows play a significant role in the geometry of the residence in Harvey Cedars, New Jersey.

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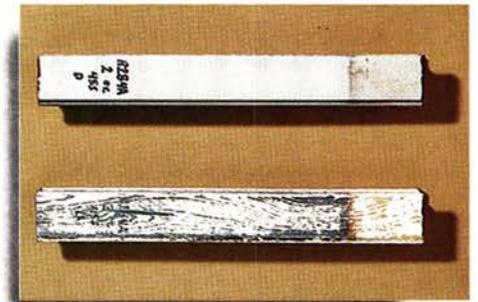
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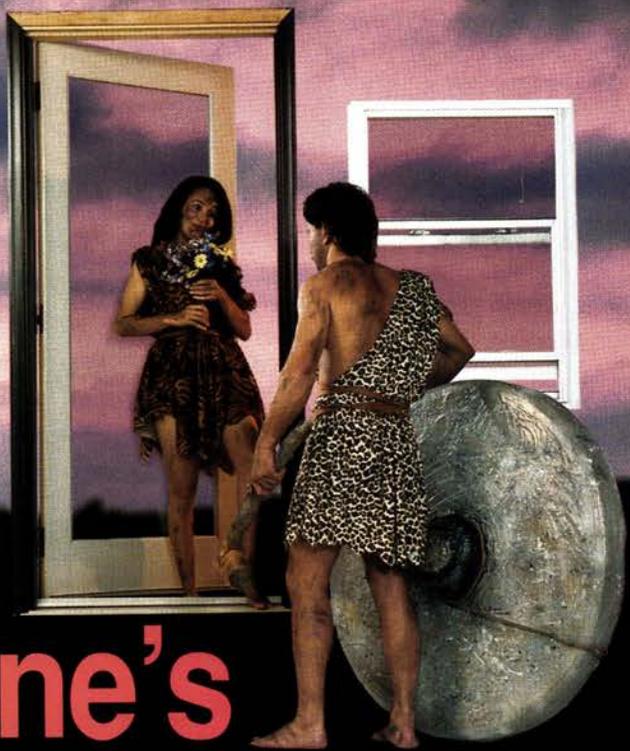
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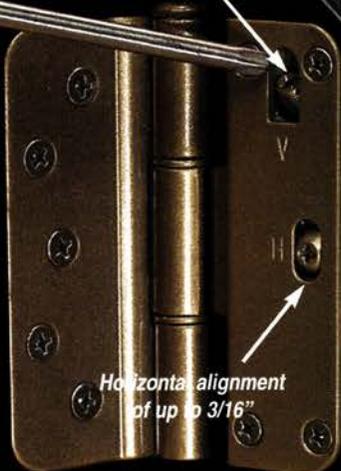
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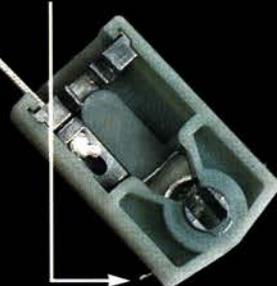
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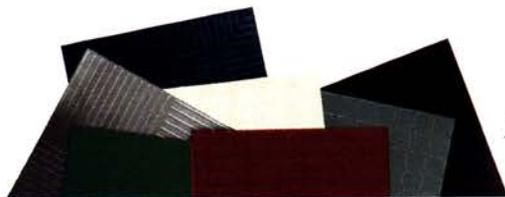
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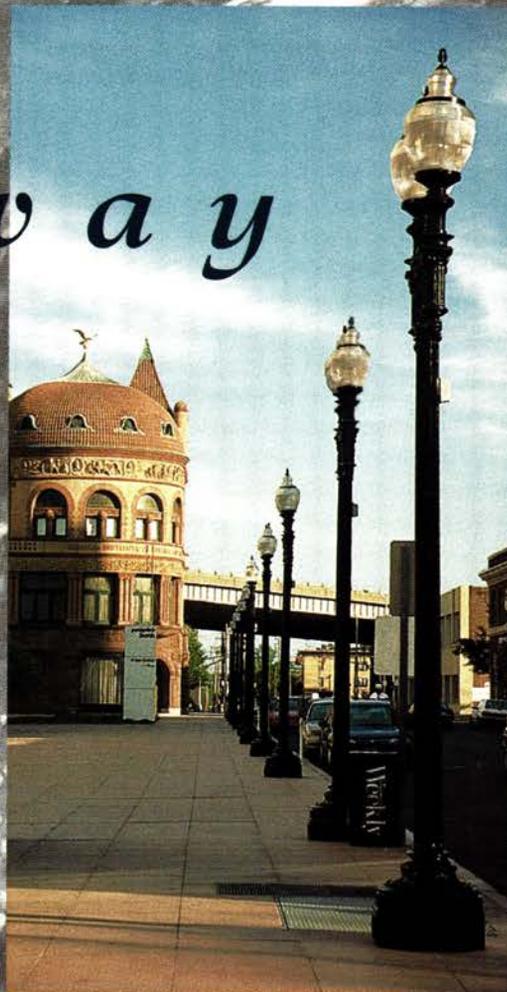
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Pass the certificates, please. This month, the AIA honors 27 diverse projects for their design excellence in architecture, urbanism, and interiors. In form, the winners range from the decorated Neoclassicism of the restored Michigan State Capitol to the complex, damn-the-right-angle Modernism of Frank Gehry's Center for the Visual Arts at the University of Toledo. In scale, they are as modest as a 1,600-square-foot office retrofit realized at \$30 per square foot, and as grand as a 780,000-square-foot apparel center whose exhibit halls are tucked under expansive cable-stayed roofs. And these projects are flung far and wide geographically, from the outskirts of Los Angeles to the heart of Berlin.

Despite the winners' diversity, a few clear trends emerge. Most obvious is the prevalence of renovation and reuse. Breathing new life into venerable places has become a vital aspect of architecture, urban design, and interiors, from the conversion of a Highland Park, Illinois, auditorium into a refined setting for chamber music, to the restoration of New York State's 524-mile-long canals into a recreational network. "Reuse, restoration, and addition commissions are increasing," explains Barton Myers, who chaired the architecture awards jury. "It's where the action will be in the next few years. We saw the end of a big building era in the late 1980s and early 1990s, and are now seeing the first of the old/new combinations."

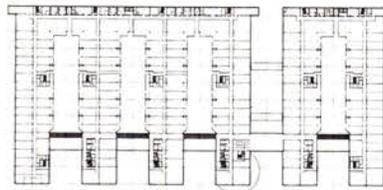
The award winners also reveal a strong emphasis on repairing American cities. In the architecture and urban design categories, nine awards reflect continuing investment in civic infrastructure. Examples include a landmark entrance pavilion for New York's Penn Station and reconstruction of Chicago's Buckingham Memorial Fountain.

Nine of the winning projects focus on education—from a Warner Bros. preschool in Burbank, California, to a community-based school in Perry, Ohio, whose innovative two-part plan makes the most of scarce resources by combining a high school and a primary-middle school. Despite intensive programs and often stringent budgets, these educational projects inject artistic vision into the most fundamental aspects of construction.

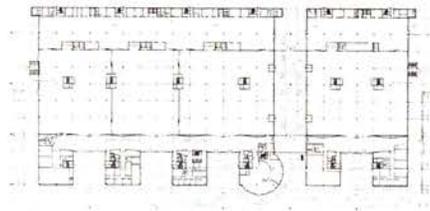
Compared to past years, the 1996 Honor Awards reflect fewer displays of formal showmanship and more solutions based on the responsible notion that good architecture results from good citizenship, whether it's a proposal for housing in New Haven's historic Ninth Square district or a sports-oriented district taking shape in downtown Cleveland. And the enlightenment extends beyond the major metropolises. Even tiny Soldotna, Alaska (population: 3,809), knows that urban-sensitive design reaps positive benefits.—*Vernon Mays*



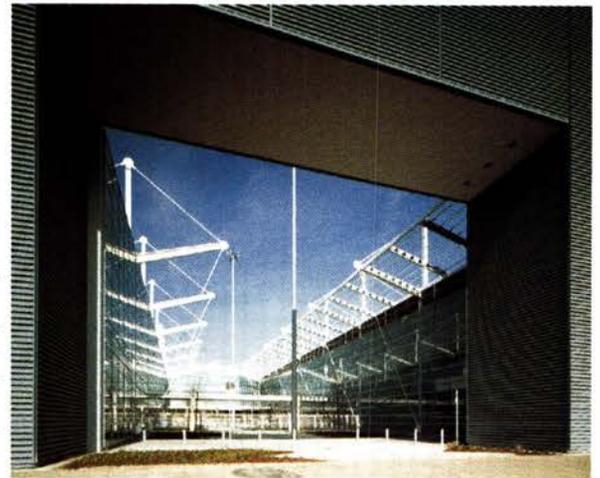
ENGELHARDT / SELLEN PHOTOS



SECOND-FLOOR PLAN



GROUND-FLOOR PLAN

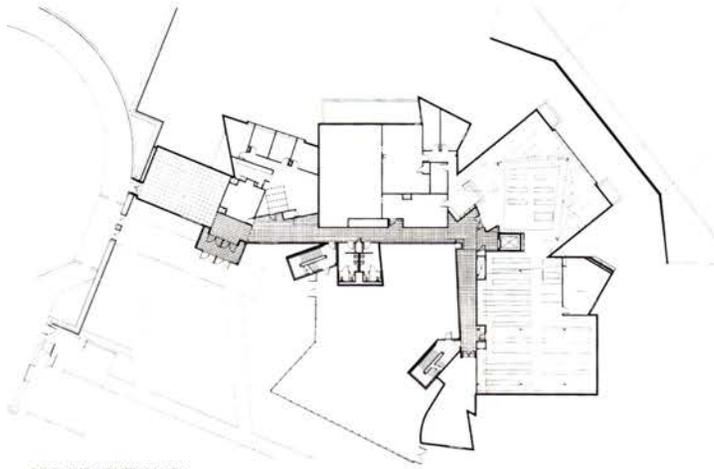


Munich Order Center
Munich, Germany
Murphy/Jahn

The German wholesale apparel industry's demands for large exhibit halls, small, private showrooms, and order offices yield a new building type—the order center. The building's backbone is its corrugated-metal-clad service wall. Extruded from this core are six long bays, capped by cable-

stayed roofs, that establish an alternating rhythm of solid and open "fingers." These long volumes, which extend the full length of the site, house the order offices on the upper two floors. Between them, in 80-foot-wide setbacks along Lilienthalstrasse, are landscaped entrance courts

leading to three-story foyers supported on glass-floored steel bridges. Jurors praise the building's clear organizational diagram: "While it could have been overwhelming and inhuman, the brilliant handling of hard materials achieves a quality of lightness, softness, and human response."



GROUND-LEVEL PLAN



TIMOTHY HURSELEY PHOTOS

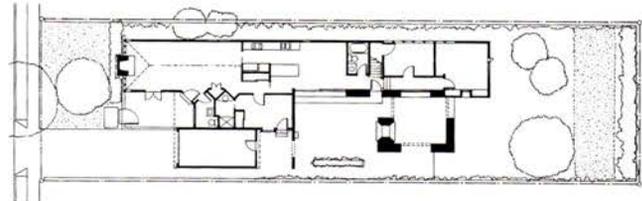
**Center for the Visual Arts
University of Toledo
Frank O. Gehry & Associates**

Formerly housed in the Toledo Museum of Art, the Center for the Visual Arts is situated in new quarters immediately adjacent to the older Neoclassical museum. The center is positioned to allow the expansion of the 1912 limestone building, which was designed by Edward B. Green, and

to preserve several mature trees. Clad in lead-coated copper and glass, Gehry's sculptural, L-shaped assemblage frames a courtyard which abuts the original museum. Studios and classrooms requiring natural light are located on the upper floors; public functions occupy the ground floor; photo labs

and a lecture hall are placed in the basement; and circulation occurs along a glass-walled corridor surrounding the courtyard.

Jurors laud the center for raising the design quality of the overall museum complex, adding, "It works well programmatically and within budget."



FIRST-FLOOR PLAN



TIM GRIFFITH / IMAGES PHOTOS

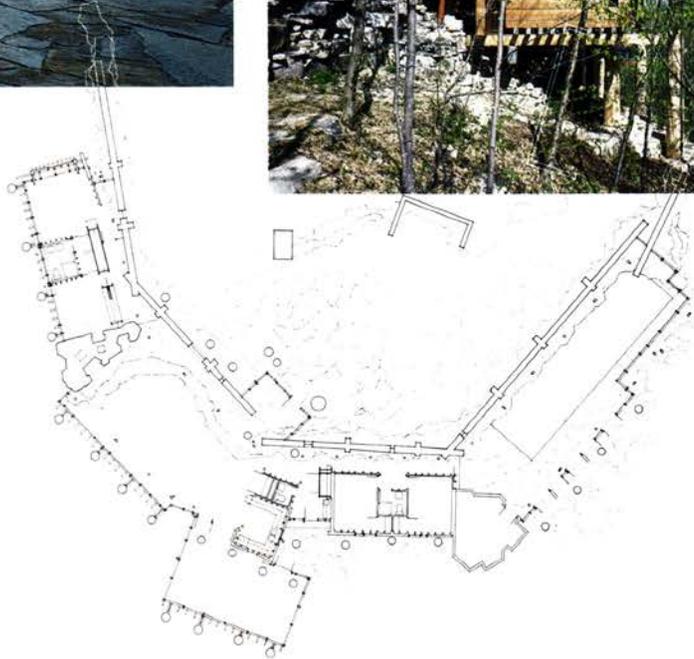
31st Street House
Santa Monica, California
Koning Eizenberg
Architecture

Inspired by the architecture of Irving Gill, Hank Koning and Julie Eizenberg renovated a modest 1930s cottage for a four-person family without forsaking the character of the unpretentious neighborhood. The architects gutted and reconfigured the existing 1,300-square-foot house to

create an open, linear scheme connecting new rooms with outdoor living spaces. Their 650-square-foot addition provides a generously glazed second-floor bedroom sitting atop thick, sloping walls that define an outdoor dining room. Although the house is severely transformed by the

introduction of undecorated stucco facades, its street facade remains understated.

Jurors call this project “the classic commission—adding to a house to make it better and enhance the neighborhood. Although modest in objectives, it achieved much more.”



GROUND-LEVEL PLAN



KARLA BACKUS PHOTOS

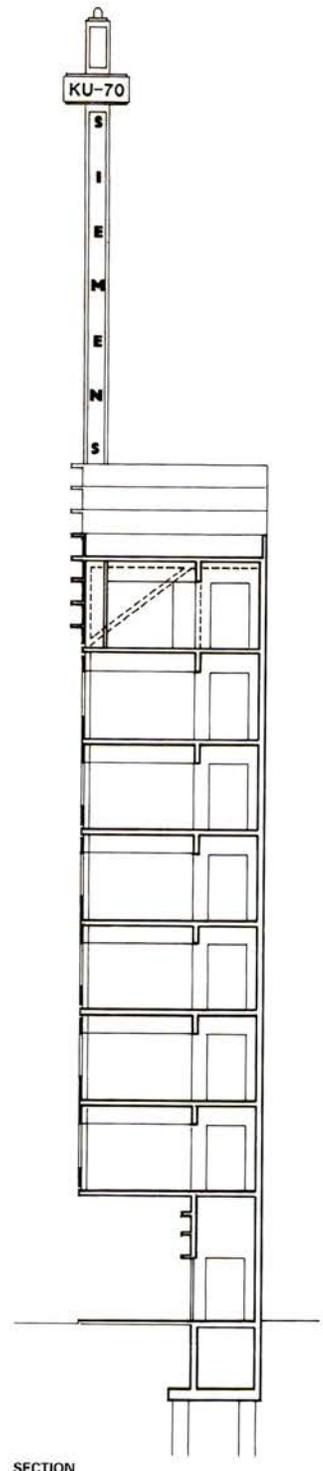
Weekend House
Catoctin Mountains, Maryland
Bohlin Cywinski Jackson

The spirit of rustic early 1900s Adirondack camps is captured in a mountain retreat by Bohlin Cywinski Jackson. Post-and-beam construction frees exterior walls from having to bear loads, increasing design flexibility (pages 241-247, this issue). Hand-peeled, scribed-in-place white cedar logs,

mahogany-framed window walls, and cedar siding enrich the exterior. In the tradition of camp architecture, the hardware, electrical fittings, and framing for partitions and cabinets are exposed and timber connections are celebrated. Spring-loaded steel-plate straps accommodate the

timber's shrinkage by placing constant compression on joints.

Jurors praise the building's siting and sensitivity to the nature of materials: "The way the house is detailed shows how the collaboration of architect and builder can produce a raw yet manicured piece of architecture."



SECTION

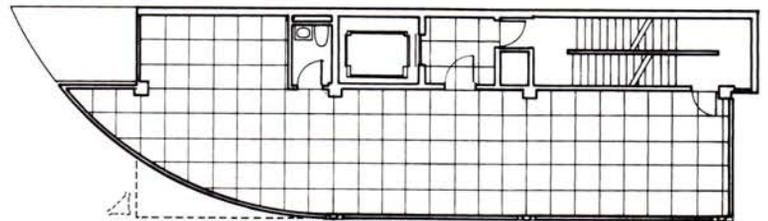
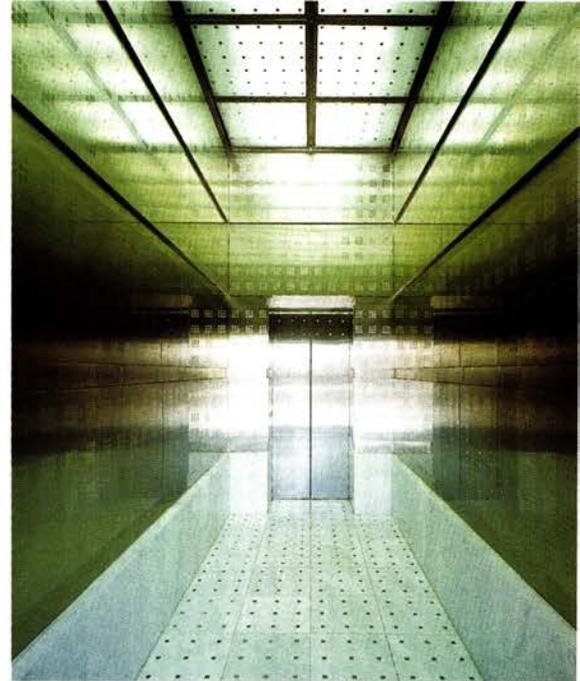
Ku-Damm 70
Berlin, Germany
Murphy/Jahn

Knifelike in configuration, Murphy/Jahn's narrow office building echoes an earlier scheme for this site by Zaha Hadid. Located on Berlin's most important avenue, the new structure caps the unsightly end of a building exposed in the 1950s. Extending from the party wall, a 10-foot-wide con-

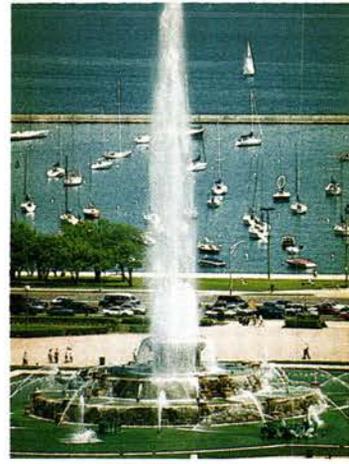
crete service core supports cantilevered steel girders from which the floors are hung. The main facade is subdivided by a steel grid of 22-by-22-foot squares, each infilled by a patchwork of glass with varying frit patterns. Located in Berlin's equivalent of Times Square, the building flaunts its

address logo atop a steel mast, and a 10-by-40-foot billboard flashes commercial messages.

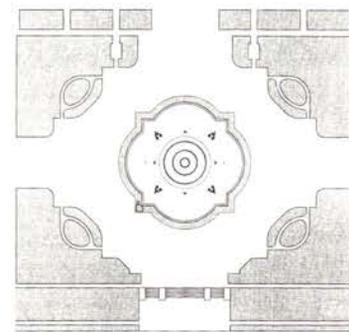
The jury commends the project's successful fit into its surroundings despite difficult site constraints: "The building maintains a delicate balance between being well crafted and shouting."



SECOND-FLOOR PLAN



BOB HARR



SITE PLAN

Buckingham Memorial Fountain Restoration
Chicago, Illinois
Harry Weese Associates

The faithful restoration of Chicago's Buckingham Memorial Fountain in Grant Park represents the best of architecture in service to the community. Harry Weese preserved the historic character of this important public landmark through contemporary technology and materials, without

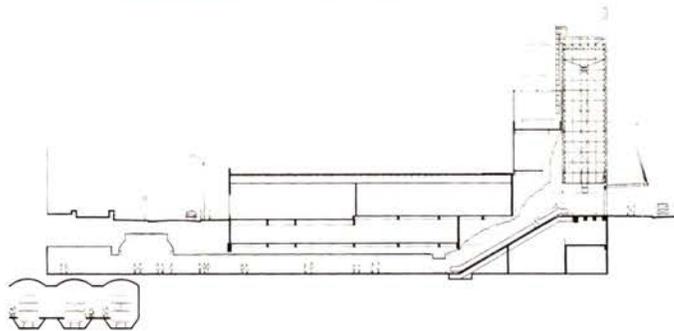
disrupting its continuous operation. He conserved the fountain's ornamental marble and replaced its failing concrete substructure with a new structure detailed to resist freeze/thaw damage. The architect redesigned the waterproofing system with elastic double-tiered joints, and upgraded

ornamental lighting with low-voltage systems and computer-synchronized water displays.

"This project proves that infrastructure matters," the jury concludes. "It's an important part of the fabric of the city and recognizes the importance of architecture of the public realm."



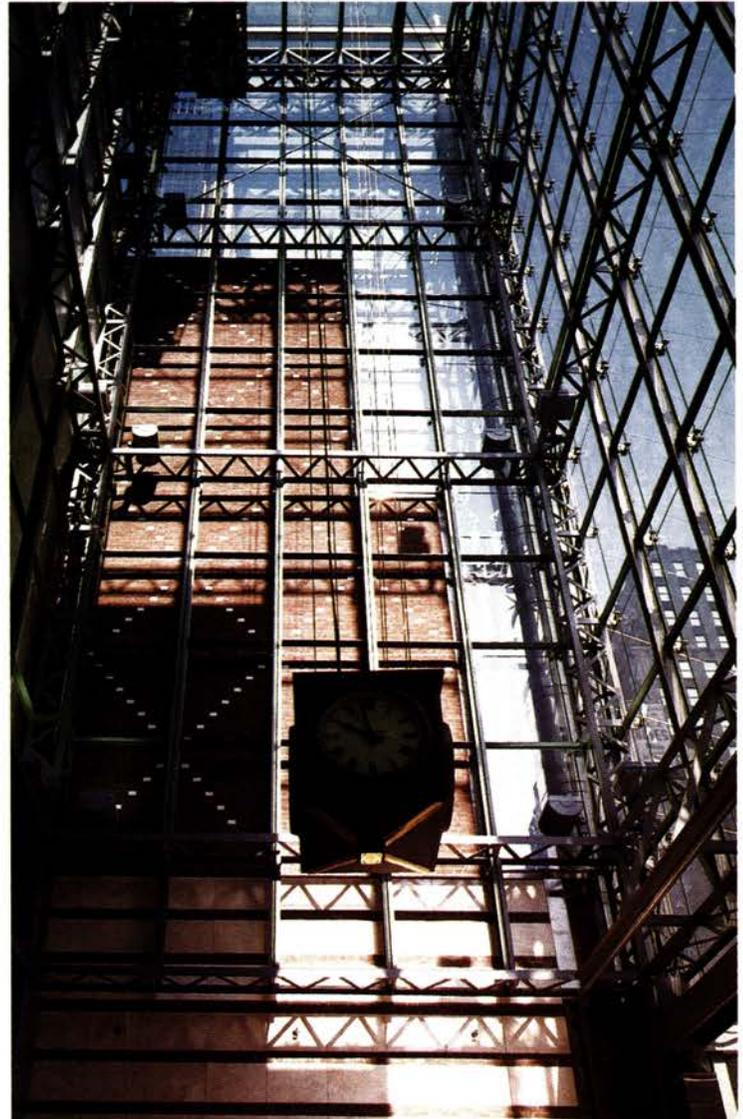
CENHAT/ROBINSON PHOTOS



SECTION THROUGH CONCOURSE

**Entrance Pavilion
Penn Station
New York City
R.M. Kliment & Frances
Halsband Architects**

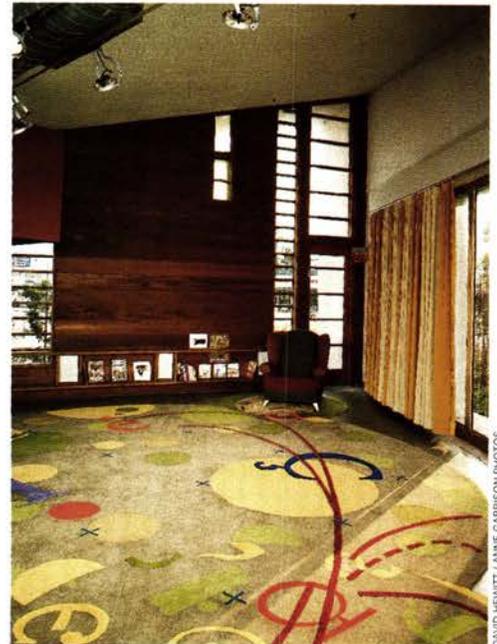
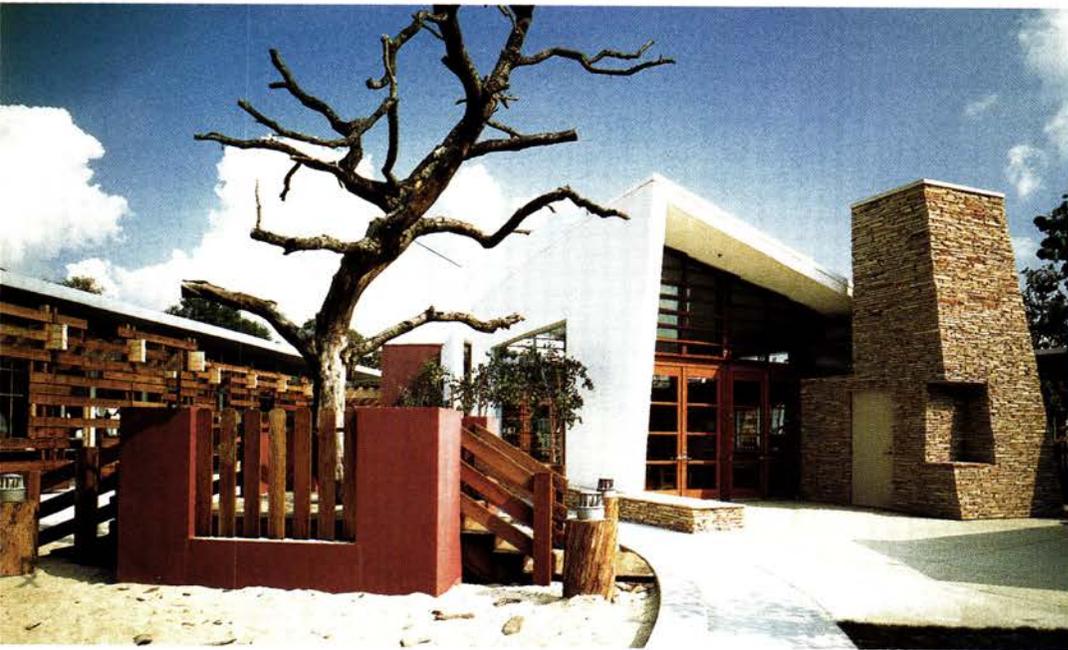
"A tribute to civic pride" is how jurors characterize the new street-level entrance to the Long Island Railroad concourse, designed by R.M. Kliment and Frances Halsband in association with TAMS. Conspicuous and monumental, the pavilion's tower rises 92 feet high to form a civic beacon in the



midst of New York City's urban chaos. Its masonry walls conceal cooling equipment for the concourse and form a protective shell for the 28-by-24-foot glass tower. The mullionless glass curtain wall is supported by laced steel columns and braces designed to admit maximum daylight and allow

views of the cityscape. Cables fanning down from a 107-foot-tall stainless steel mast support a glass-and-steel canopy that extends 21 feet over the sidewalk.

The jury observes that "for the first time, passengers who take the Long Island Railroad have a dignified entrance on the street."



DAVID HEWITT / ANNE GARRISON PHOTOS



SITE PLAN

**Warner Bros.
Children's Center
Burbank, California
Rios Associates**

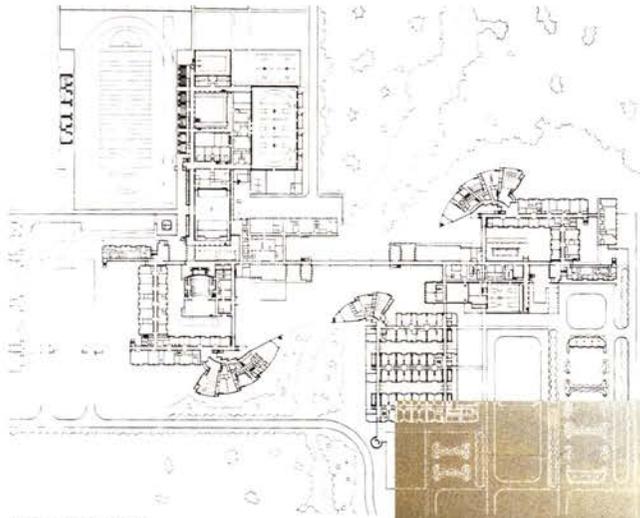
Located on the back lot of Warner Bros. Studios, the 9,500-square-foot day-care center, for the use of the studio's employees, draws inspiration from the stage sets ranging from Western towns to Gotham City that rise next door. Modeled on influences that include Case Study Houses and

1960s-era California schools, Rios Associates' design for classrooms, playgrounds, and offices emphasizes natural light, connections between indoor and outdoor spaces, and tactile surfaces that encourage imaginative play.

A daring client gave the architects freedom to design the land-

scape, graphics, interiors, and children's furniture—an opportunity that produced a well-integrated work.

Jurors praise the project as "sophisticated and spirited," noting that the architecture is an integral part of the function and not a contrived "toy town."



FIRST-FLOOR PLAN



NICK MERRICK / HEDRICH BLESSING PHOTOS



Perry Community Education Village
Perry, Ohio
Perkins & Will and Burgess & Niple

A bucolic 160-acre site outside Cleveland is now home to two discrete campuses, one on each side of a tree-lined creek. On the west side of the site are a high school and a community fitness center; on the east are middle and elementary schools.

Linked by a pedestrian spine

with a tower at each terminus, the campuses function individually, but are visually linked by a rational system of common components, each adapted to the site through a kit-of-parts approach. The primary repetitive element, a fan-shaped building that houses each school's library and music

and art departments, mediates between the campus grid and its irregular edge.

Lamenting the decline of American public education, jurors respect the client's wise use of resources in the schools' combined facilities and applaud the creation of a community asset.



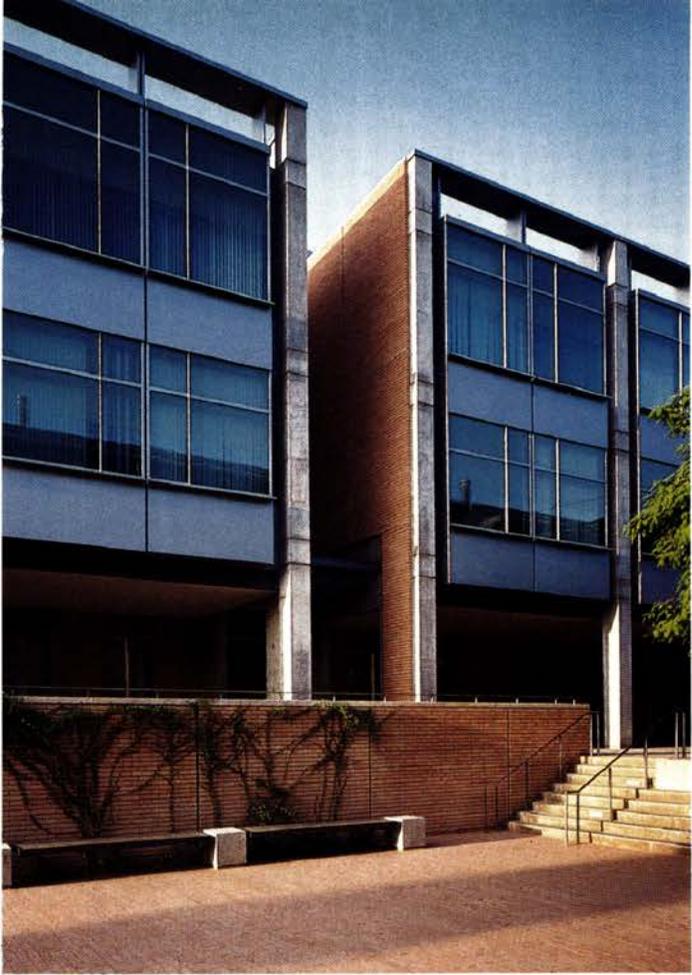
**Engineering Science
Building, Unit 1
University of California
Riverside
Anshen + Allen Architects**

University of California, Riverside's 165,000-square-foot College of Engineering contributes a grand gesture to the campus plan. Its division into two volumes, each containing labs and offices, breaks down the scale of the building and frames two courtyards, one paved and the other

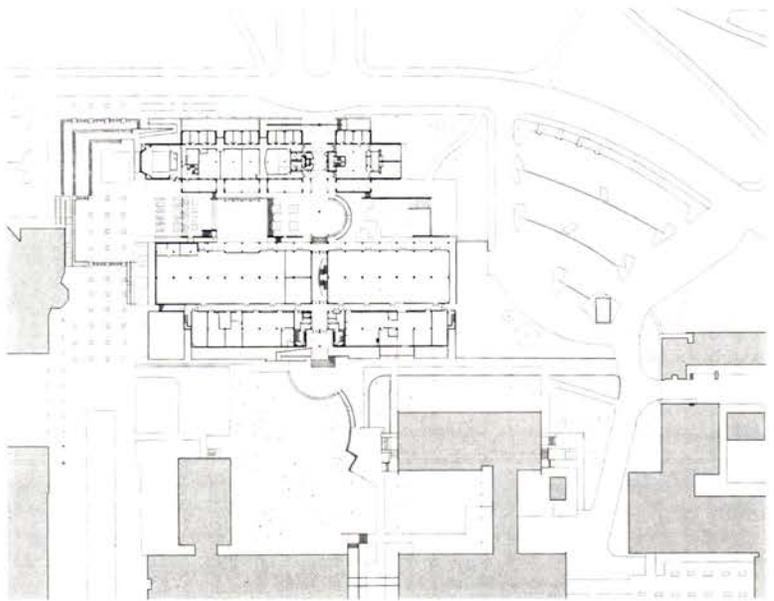
landscaped. An overhead bridge follows a circulation spine that slices through the buildings and connects the campus edge to its core. Materials are used to instruct: Brick, the primary campus material, forms a loadbearing skin on the concrete structure; in contrast, the north- and south-facing

aluminum-and-glass curtain walls are hung from the framework.

"This understated building has a clarity of plan reinforced by a simple vocabulary of details," maintains the jury. "The architects consistently reveal the nature of the materials and the part they play in making elegant spaces."



J. SCOTT SMITH

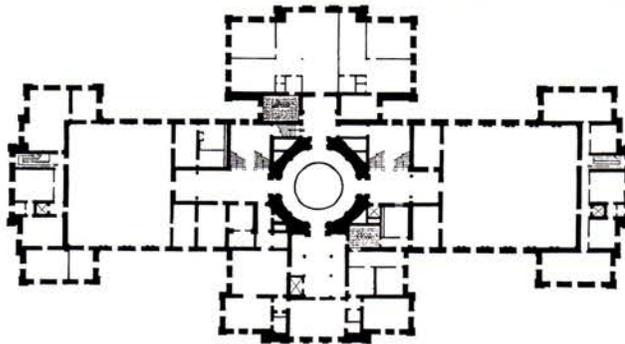
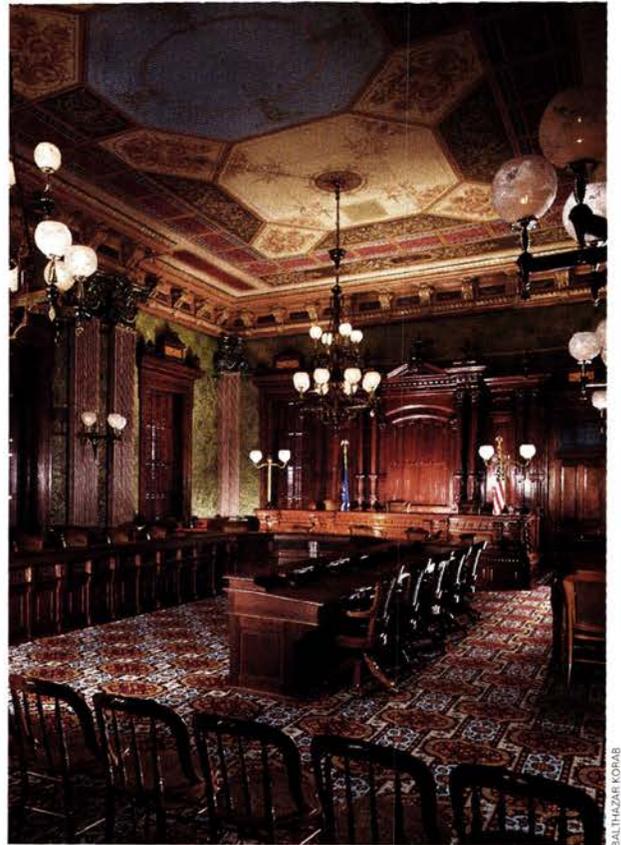


SITE PLAN



TIMOTHY NURSLEY

TIMOTHY NURSLEY



SECOND-FLOOR PLAN

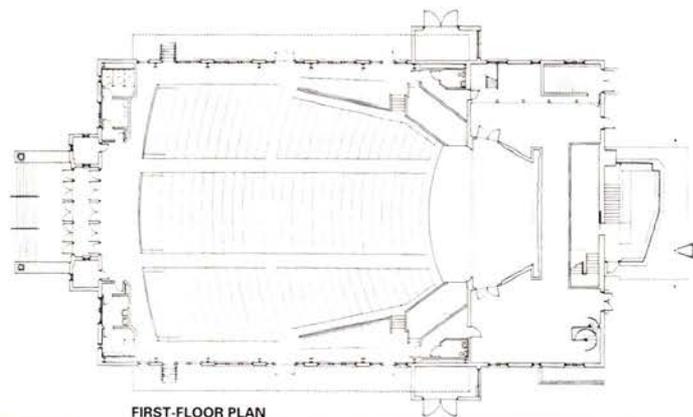
**Michigan State Capitol
Renovation**
Lansing, Michigan
Richard C. Frank,
Preservation Architect

Past and present commingle artfully in this restored icon of the gilded age of public architecture. Designed in 1879 by Elijah E. Meyers, Philadelphia carpenter turned Midwestern architect, the Michigan capitol had become uncomfortably crowded and in dire need of repair. Functionally inad-

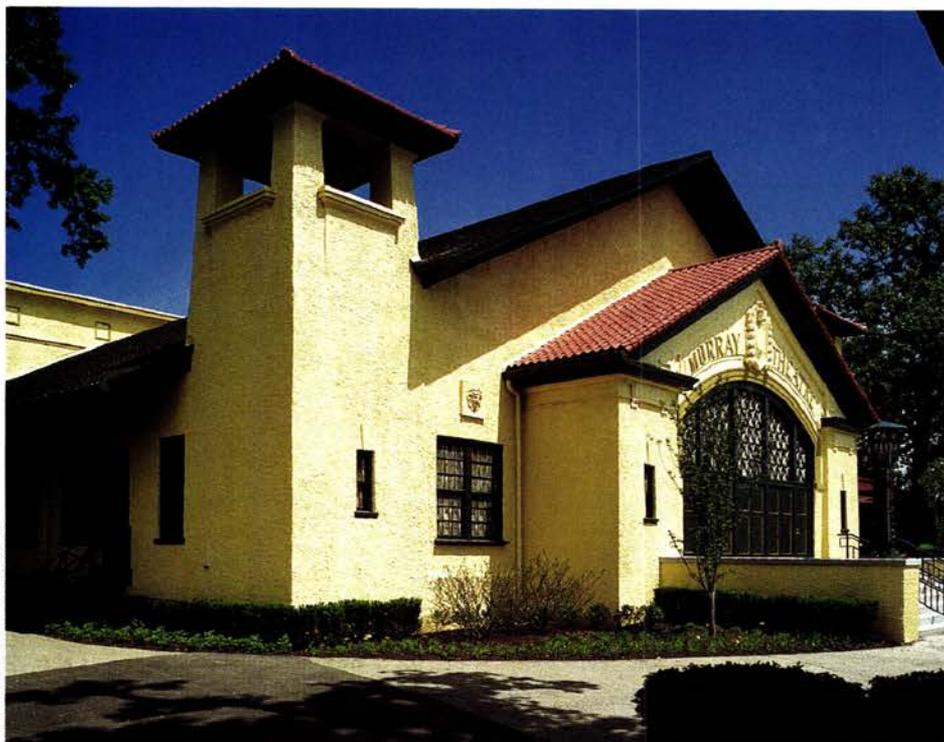
equate for intensive office use, the building was reassigned the limited role of meeting place for state leaders. Freed of a hodgepodge of uses, the capitol's cast-iron dome and its grand painted decoration and gas chandeliers were restored by a team of architects: Richard C. Frank, Quinn Evans Archi-

itects, Architects Four, and Wigen, Tincknell, Meyer & Associates.

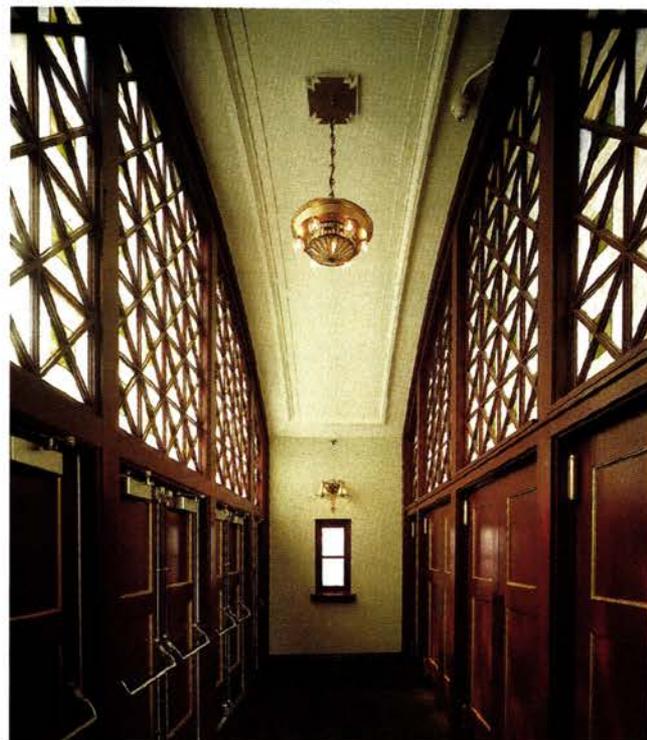
The jury applauds the \$58.5 million restoration for reversing years of neglect: "The original character of the interior, long hidden, is now on view—an outstanding preservation project for the people."



FIRST-FLOOR PLAN



JOHN MILLER / FIEDRICH-BLESSING PHOTOS



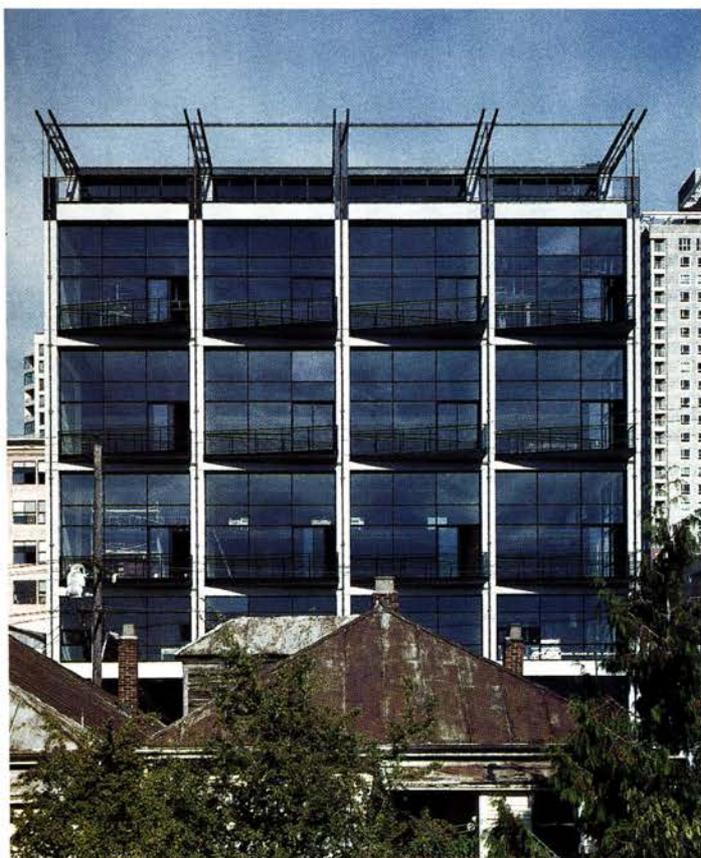
**Martin Theatre
Highland Park, Illinois
Skidmore, Owings & Merrill**

The last survivor from Ravinia Festival, a 1904 amusement park outside Chicago, the Murray Theater was upgraded for chamber music performances through a sensitive preservation by Skidmore, Owings & Merrill, and rededicated as the Martin Theatre. Stucco walls were repaired

and wood shutters removed to allow light through the stained-glass windows. Inside, existing seating was refurbished, and stained-glass light fixtures were restored and refitted to highlight the elaborately stenciled wood ceiling. SOM enlarged the proscenium arch to its original dimen-

sions and substituted a permanent acoustical shell for the old ceiling-hung reflecting panels.

“The rehabilitation reestablishes the historical character of this humble performing arts center,” the jury asserts. “The transformation from a summer assembly hall has been thoughtfully achieved.”



MICHAEL IAN SCHOPFENI PHOTOS

**Banner Building
Seattle, Washington
Weinstein Copeland
Architects**

Seattle's Belltown neighborhood is now home to a new community of artists. Similar to the industrial lofts often taken over by artists, the Banner Building provides a basic live/work structure but requires that residents build out their own spaces. Weinstein Copeland organized the 10-story



RESIDENTIAL FLOOR PLAN

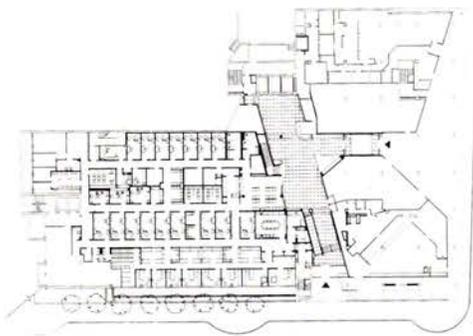
building into a commercial base with parking and a high-rise condominium with 14 studio lofts. A low-rise building with six lofts is separated from the high-rise by a community courtyard/roof terrace. The architect also included an espresso bar/art gallery to promote interaction among residents.

Circulation was widened outside units to prompt artists to embellish their doorways; the industrial esthetic provides a neutral background for art.

Jurors recognize potential in the unfinished space, which can be customized repeatedly: "It has great views and light."



STEVE ROSENTHAL PHOTOS



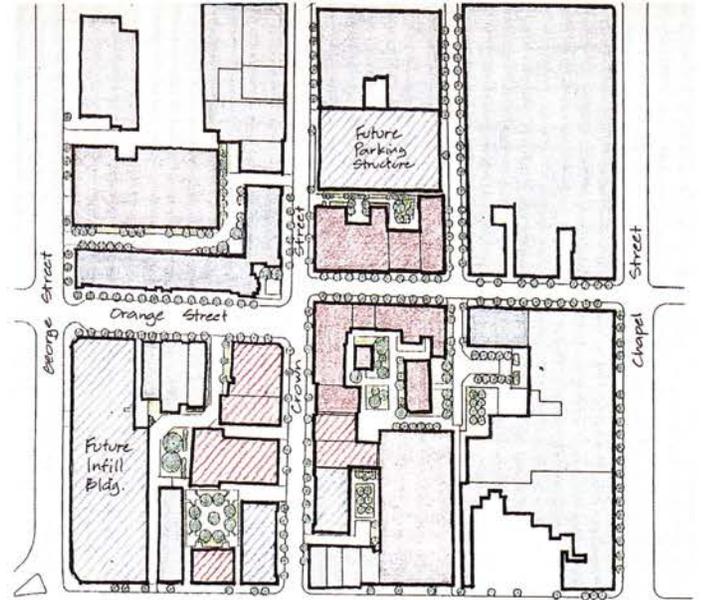
FIRST-FLOOR PLAN

**Joslin Diabetes Center
Boston, Massachusetts
Ellenzweig Associates**

With nowhere to go but up, a 1974 teaching hospital was expanded with three stories set atop its poured-in-place concrete structure. Ellenzweig Associates down-scaled the 93,000-square-foot addition by articulating the new metal-and-glass facades according to program elements such as labo-

ratories, offices, and clinical facilities, in sympathy with the existing base building, which was designed by Payette Associates. New public spaces—including a reworked lobby, a new skylit atrium, and an elevated courtyard—upgrade the old facility to accommodate changing functions.

“The building answers a relevant and difficult problem seen often in urban medical settings: the extension and updating of complex technical buildings in highly constrained contexts,” the jury explains. “Even as it grows to twice its original size, it becomes better scaled.”



SITE PLAN



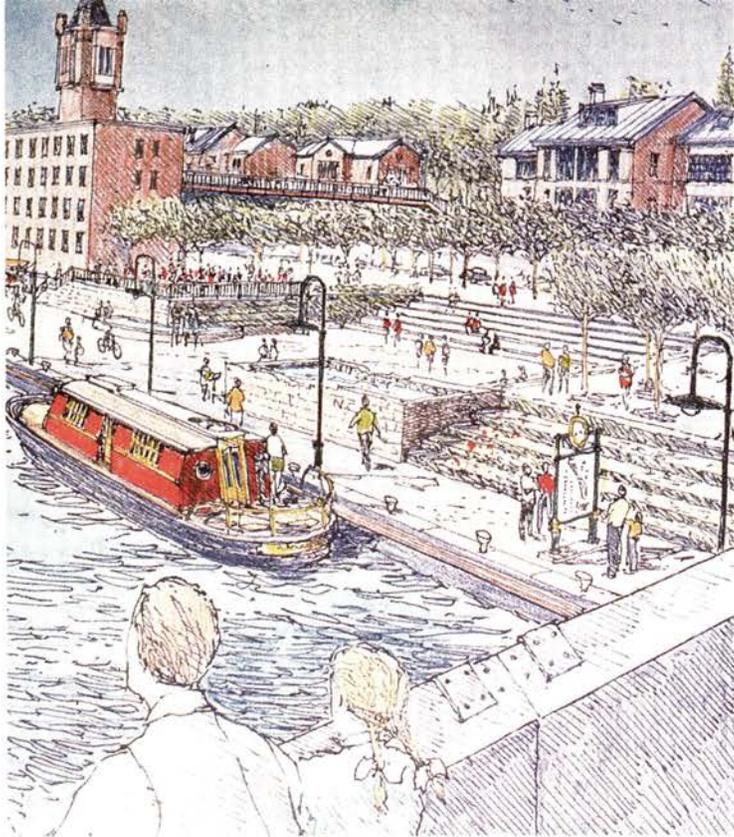
NORMAN MC GRATH

**Ninth Square
 New Haven, Connecticut
 Herbert S. Newman
 & Partners**

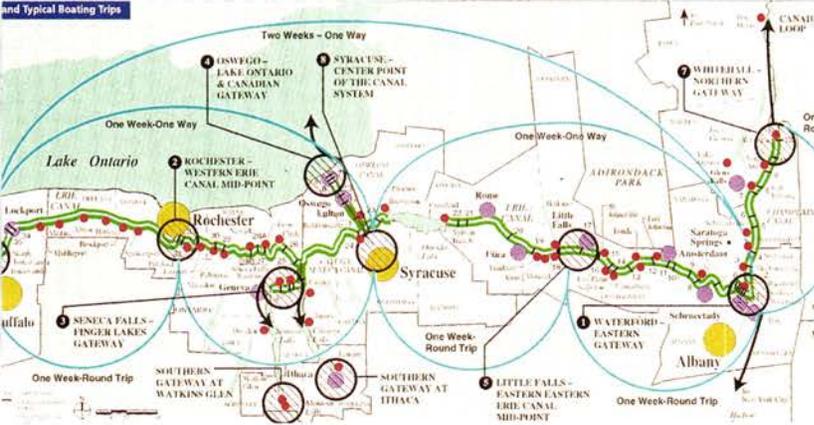
Adding new housing to promote the rebirth of urban residential life was an important goal for Herbert Newman and associate architect Smith Edwards in developing a three-block area in New Haven's Ninth Square Historic District. New paving, sidewalks, and lighting brightened streets,

and vacant lots gave way to new apartment buildings and parking garages. Surviving 19th-century buildings were renovated and rear lots cleared for new courtyards to activate street life. In the largest courtyard, an 1890s stable was converted into a community center for residents that includes so-

cial rooms, a kitchen, and an exercise facility. More than half of the units are available to people with moderate incomes or below. Jurors honor the project for "representing a new urban security...combining historical and commercial interests to meet affordable housing needs."

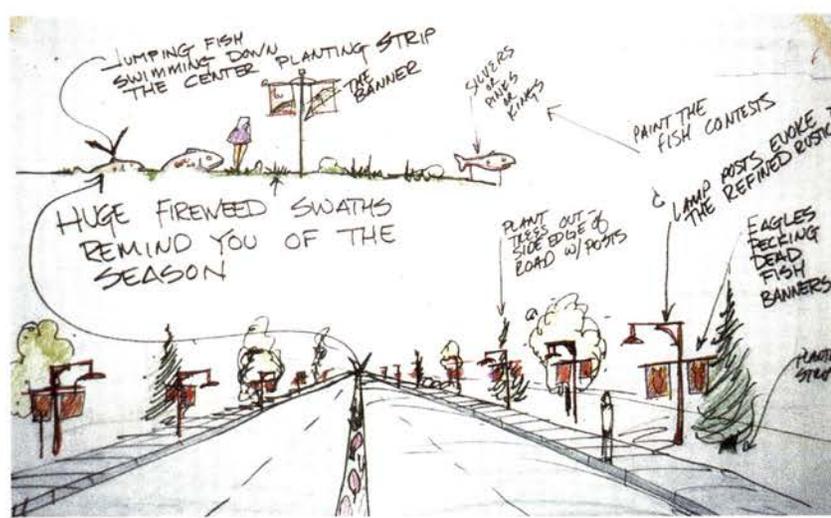
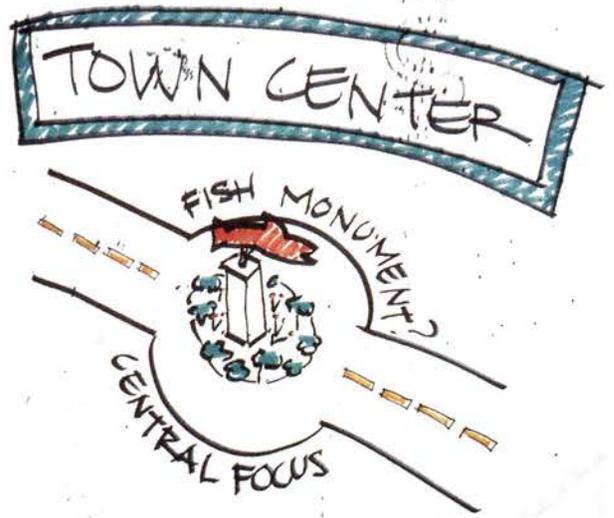


and Typical Boating Trips



**New York State Canal
Recreationway Plan
Albany, New York
Beyer Blinder Belle**

Beyer Blinder Belle's master plan to enhance recreation at and preserve the historic assets of New York's 170-year-old canal system calls for a 524-mile-long park with biking and hiking trails, an improved waterway, and a scenic byway. The jury describes the plan as "thorough and competent."



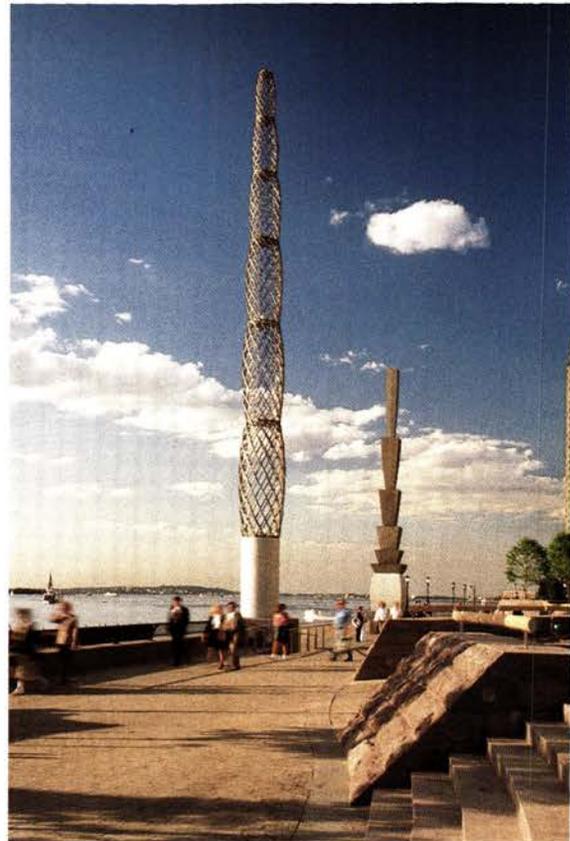
**Mainstreet Alaska Plan
Soldotna, Alaska
M Mense Architects**

In February 1995, architect Michael Mense organized residents and city and state officials for a three-day charrette to discuss proposed infrastructure changes in the Alaskan town of Soldotna, and to articulate a vision for the town's future. Jurors called the Soldotna plan "a diamond in the rough."

AIA Honor Awards
URBAN DESIGN



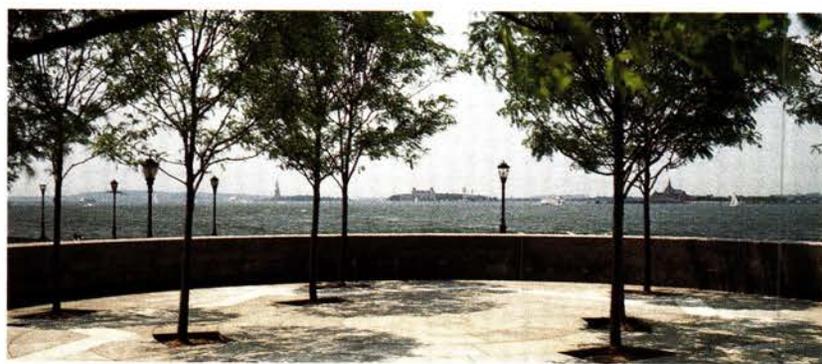
STEVE HALL / HEDRICH BLESSING



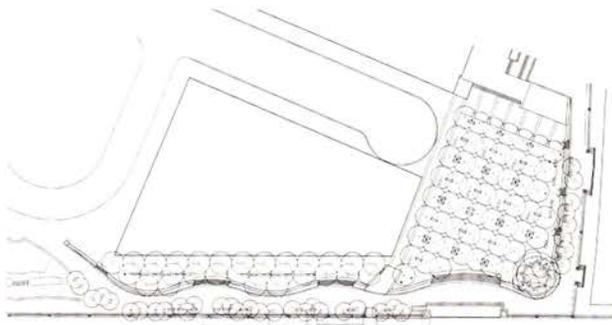
JEFF GOLDBERG / JESTO PHOTOS



STEVE HALL / HEDRICH BLESSING



STEVE HALL / HEDRICH BLESSING



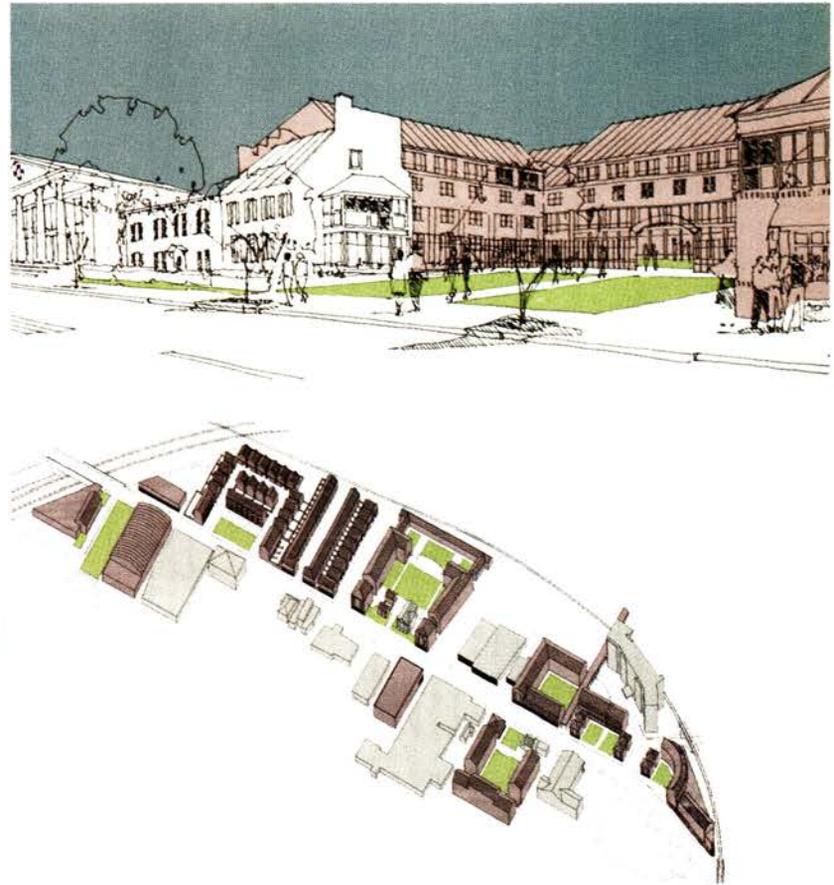
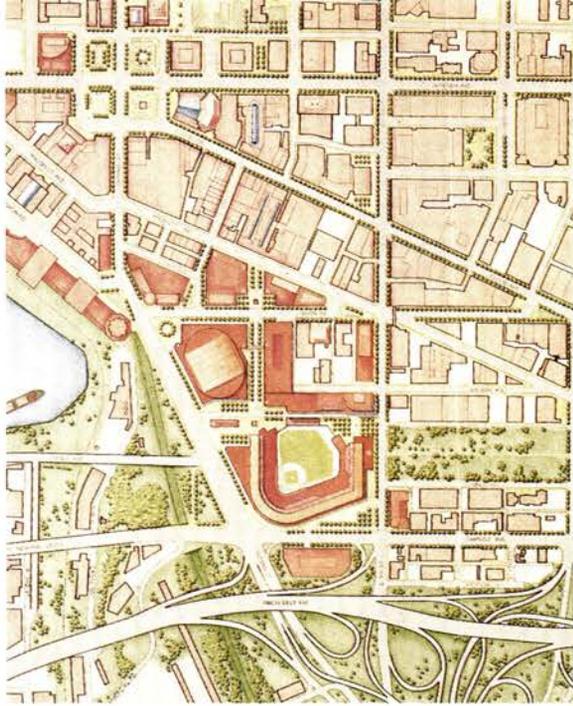
SITE PLAN

Congress Viaduct and Plaza Reconstruction
Chicago, Illinois
DLK Architecture

DLK Architecture resurrects a piece of Daniel Burnham's plan for Chicago by restoring Congress Plaza's fountains, obelisks, and retaining walls. New staircases restore pedestrian traffic to the viaduct accessing Grant Park, a move which "carefully knits what's old and new," as the jury notes.

The Belvedere
New York City
Mitchell/Giurgola Architects

Sited at the northern edge of Battery Park's corporate plaza, the 1.6-acre Belvedere park is one of a series of public spaces along the Hudson River. Both a gateway for the city and a refuge for visitors, the simple design proves "infrastructure can be beautifully executed," the jury applauds.



**Cleveland Gateway
Cleveland, Ohio
Sasaki Associates**

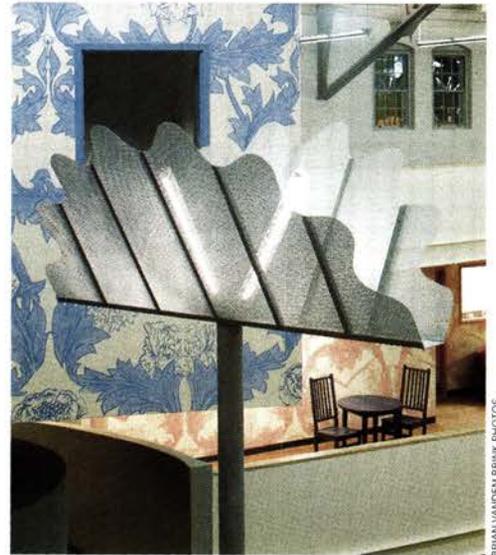
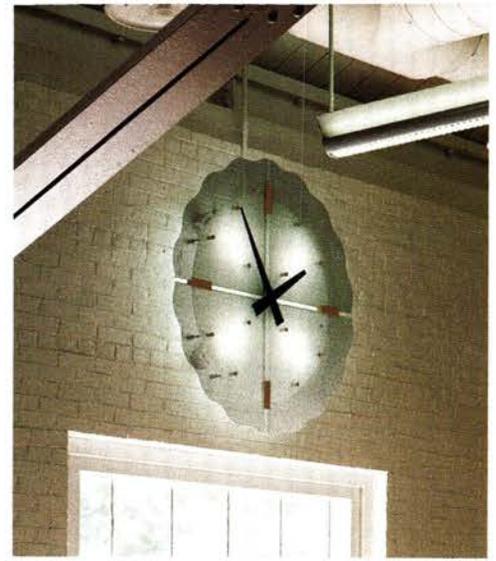
Sasaki Associates led a team that included HOK Sport and Ellerbe Becket in a “noble effort” to focus Cleveland’s entertainment district on a \$425 million sports complex. Rather than isolate the sports center in a sea of asphalt, parking for 14,000 cars is provided within walking distance.

**West Main Street
Urban Design Study
Charlottesville, Virginia
William Rawn Associates**

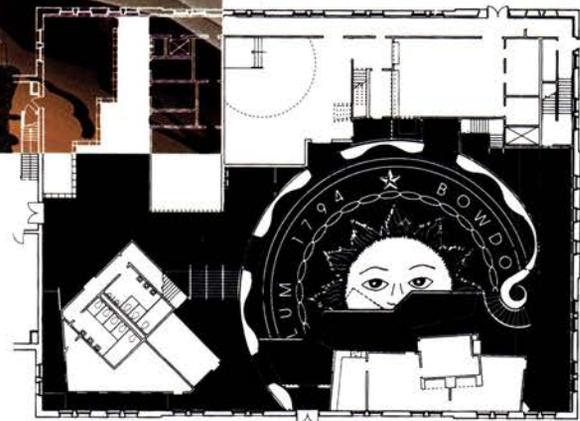
A team headed by William Rawn aims to transform a struggling urban corridor into a spine of public amenities: a medical hotel, housing, a recreation center, and a residential college for the University of Virginia—setting “an example of universities expanding into the community,” says the jury.

AIA Honor Awards

INTERIORS



BRYAN VANDEN BRINK PHOTOS



FIRST-FLOOR PLAN

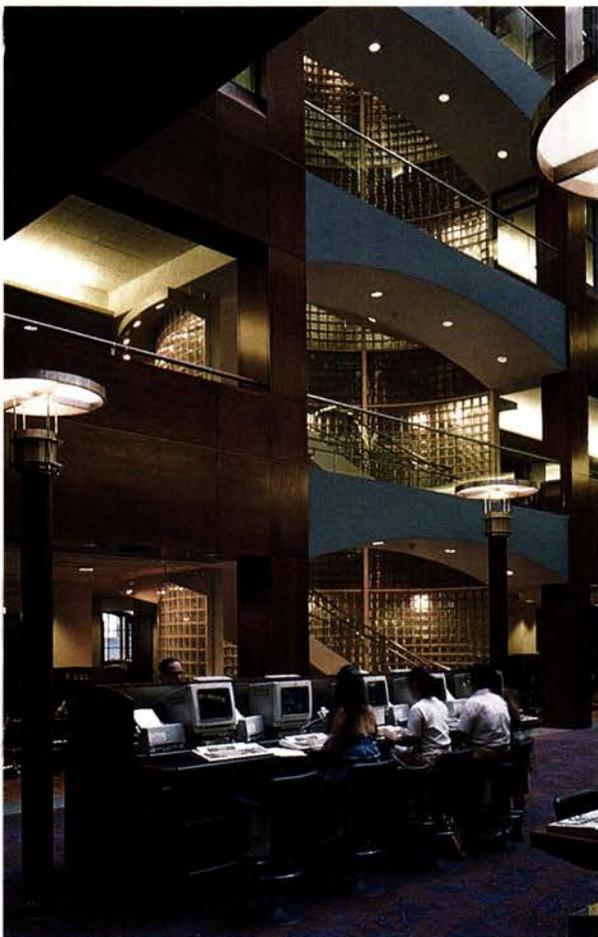
**David Saul Smith Union
Bowdoin College
Brunswick, Maine
Hardy Holzman Pfeiffer
Associates**

Completed in 1913, the former Sargent Gymnasium at Bowdoin College had been rendered obsolete by an athletic facility built in the late 1980s. But because of its large open volume, the prosaic brick box was seen as ideal for student activities. Hardy Holzman Pfeiffer's renovation pre-

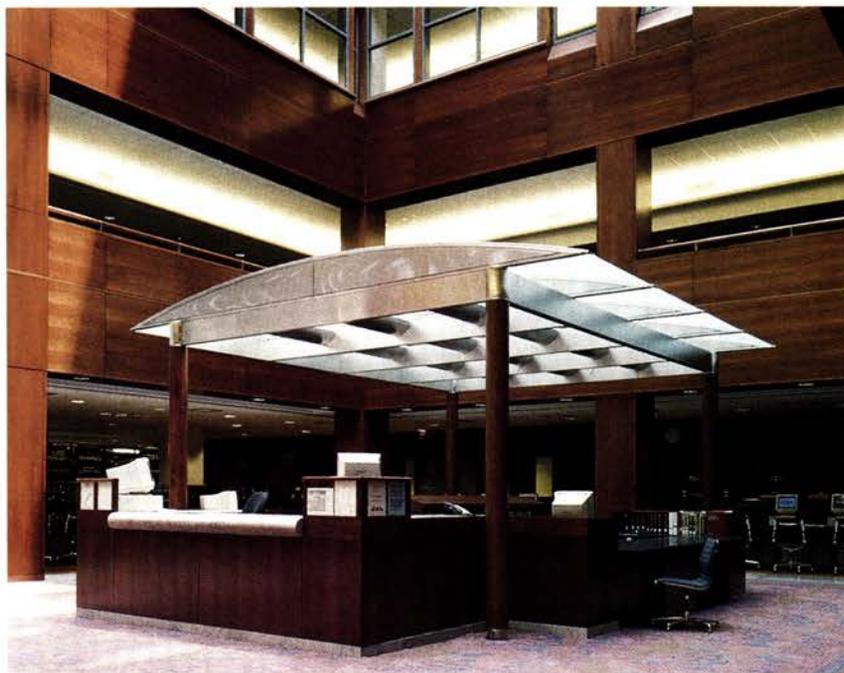
serves several of the distinctive features of the original enclosure—including paired windows, a clerestory monitor, and exposed metal trusses—and adapts them to meet stringent environmental standards. Exposed mechanical systems and custom lighting likewise become part of the design

program, illuminating and celebrating the student activities accommodated within.

The jury calls it “an excellent example of adaptive reuse. In Maine, where the winters are long and dark, the building evokes the energy and lively spirit of the young people who use it.”



SECOND-FLOOR PLAN



PETER AARON / ESTO PHOTOS

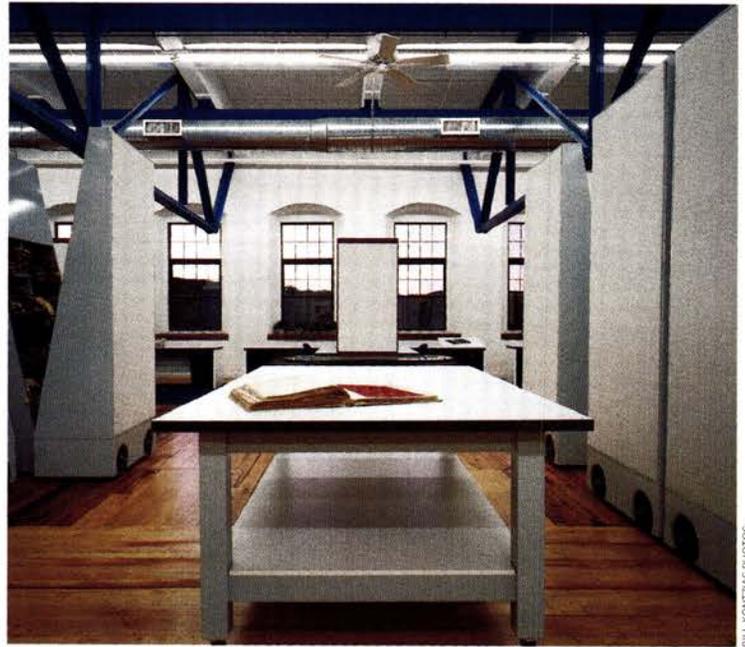
**Newman Library and
Technology Center
Baruch College
New York City
Davis, Brody & Associates**

An urban treasure is transported into the computer age in Davis, Brody's conversion of an 1894 industrial building in midtown Manhattan into a library for Baruch College, City University of New York. An impressive public atrium was created by enclosing a seven-story light well, which

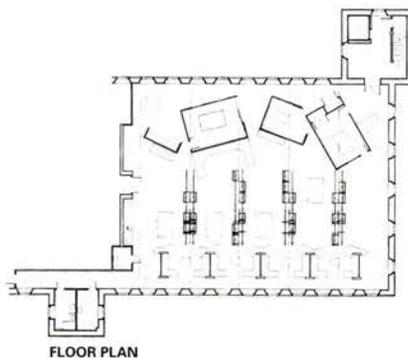
became the building's organizing feature. The lowest five floors, clad in dark cherry wood, constitute the library and computer center. On the upper two floors, the atrium steps back beneath a 70-by 90-foot fritted skylight to create a large interior terrace opening to administrative offices and a

conference center, painted white. Library security required segregated circulation systems and two elevator cores. Special attention was paid to accessibility throughout the building.

"Excellent choices of materials and detailing add to the feeling of peace and quiet," asserts the jury.



BILL KONZIAS PHOTOS



**Guilford of Maine
Studio and Showroom
Webster, Massachusetts
Robert Luchetti Associates**

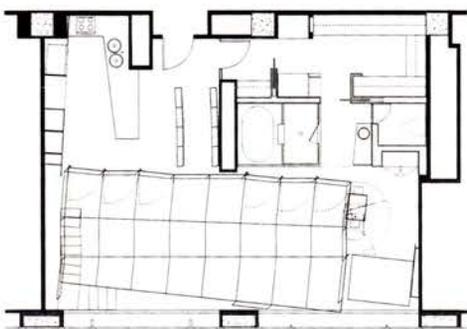
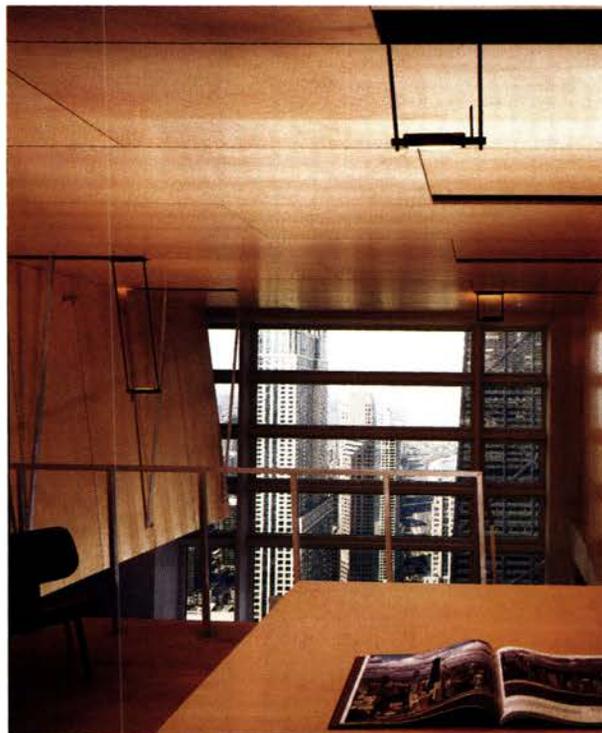
A new 5,000-square-foot design studio and showroom for a fabric manufacturer builds on the legacy of an existing late-19th-century mill, which still houses operational textile looms. Boston architect Robert Luchetti emphasized the mill's historic character and components—steel trusses, gran-

ite details, brick sills, and maple floors—as primary elements by separating his new construction from the original walls.

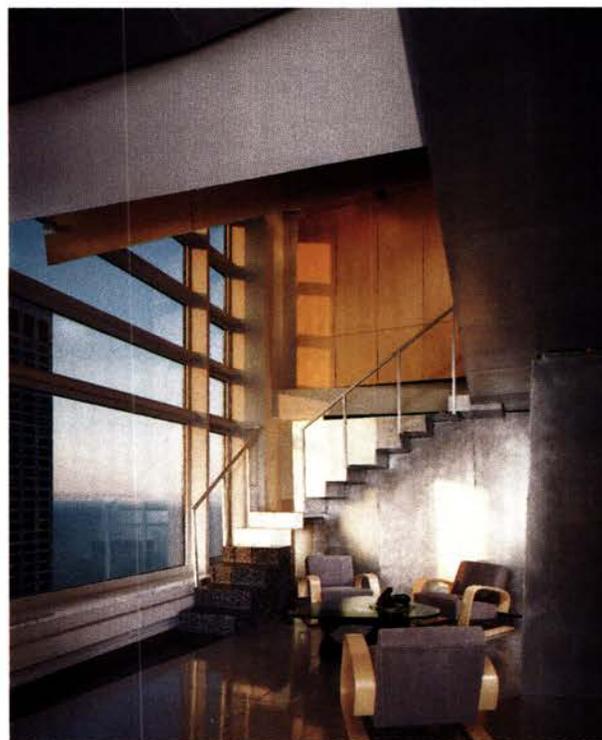
Many activities can be accommodated in the single open space, which was created in the 1930s, when 4-foot-deep steel trusses were inserted to eliminate the

need for columns. Luchetti introduces 24 flexible, track-mounted display/storage cases, which can be rolled to new positions for a variety of studio and showroom configurations.

According to the jury, “This bright workspace celebrates the act of design and creativity.”



LOWER-FLOOR PLAN



BARBARA KOSKOFF PHOTOS

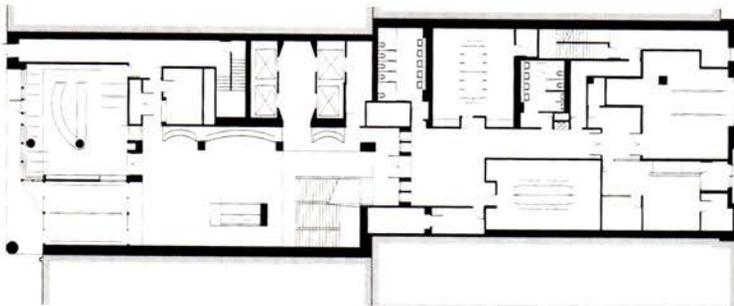
**Gardner Apartment
Chicago, Illinois
Valerio Dewalt Train
Associates**

Offering a dramatic view of the John Hancock tower, this Chicago apartment in a Michigan Avenue high-rise is composed of domestic “boxes” that warp in the direction of the nearby tower’s imagined gravitational pull. Valerio Dewalt Train divided the residence into two containerlike

rooms on the 58th and 59th floors, and sheathed one in wood, the other in aluminum. The architect maximized ceremonial spaces within the two containers by relegating messier functional areas needed for sleeping, cooking, bathing, and storage to the leftover spaces between the walls

of the rooms and the outer shell of the apartment. Hinged surfaces in the containers provide access to the functional areas.

“Thin is in,” concludes the jury. “The two boxes form the structure and finishes, and the thin metal stair carries the theme from the first to the second level.”



FIRST-FLOOR PLAN

**The Lighthouse
New York City
Mitchell/Giurgola
Architects**

A new 170,000-square-foot headquarters for the world's leading not-for-profit organization for vision rehabilitation and research ably expresses the mainstreaming mission of The Lighthouse: to accommodate all visitors and users. Conceived as a model of universal design, the diverse building con-

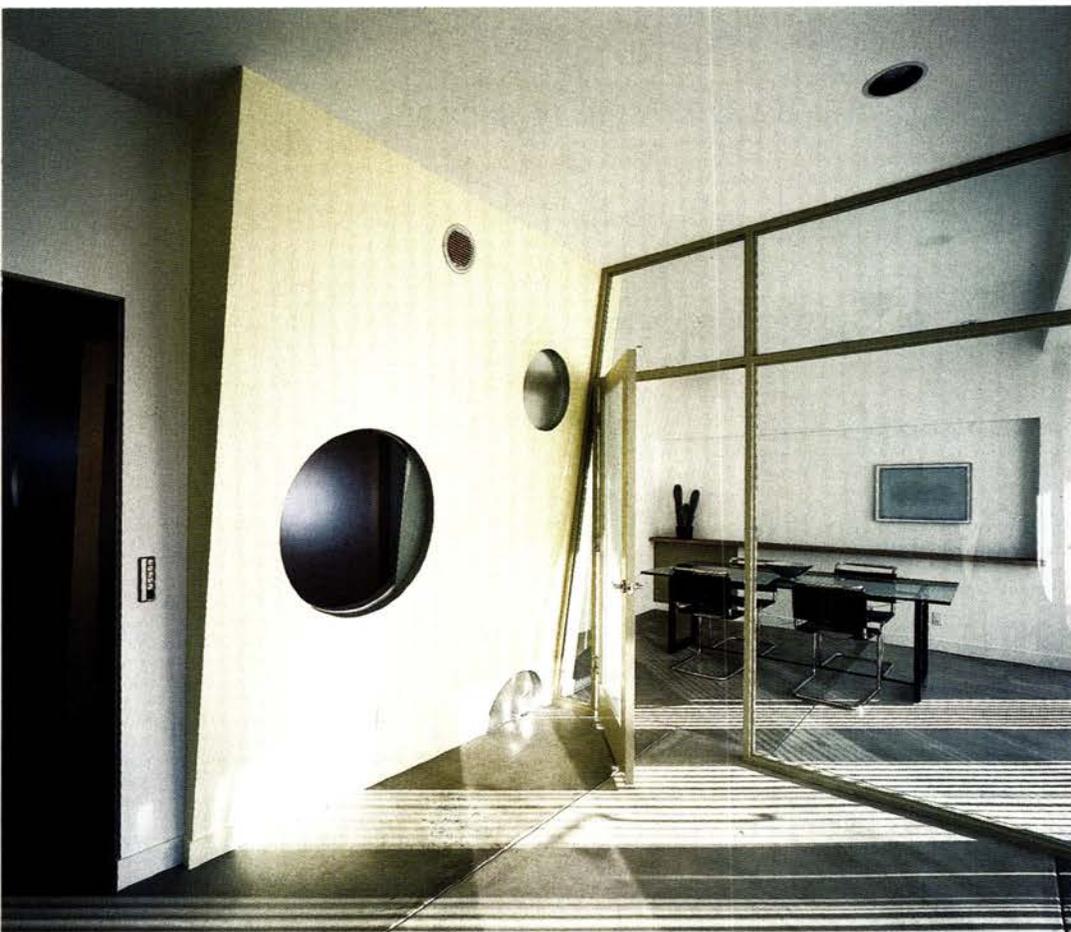
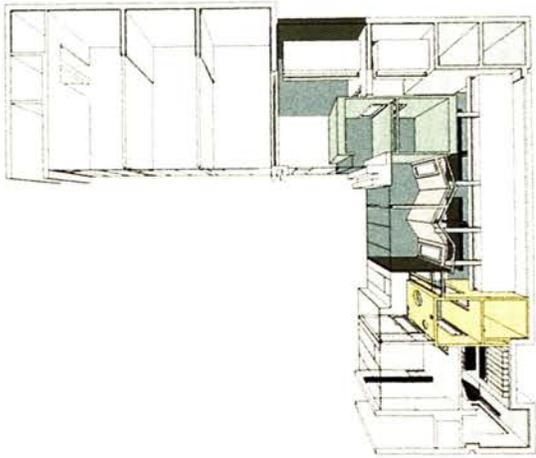


JEFF GOLDBERG/ESTO PHOTOS

tains a vision center, preschool, conference and education center, offices, and an institute for applied research. Nearly every aspect of The Lighthouse's new headquarters, from circulation patterns to color selection, was tested by Mitchell/Giurgola through workshops and focus groups in an

effort to promote accessibility and accommodate the needs of people with vision, hearing, and mobility impairments.

Jurors praise the ADA-sensitive solution of Mitchell/Giurgola's design as "a thoughtful and unassuming transition from research to mainstream orientation."



JEFF GOLBERG / ESTO PHOTOS

**Christina Development Office
Malibu, California
Kanner Architects**

A developer who specializes in attention-seeking, low-cost buildings slotted into the retail strips of Los Angeles now advertises his mission in a new headquarters located in a Malibu mall. Realized for an astounding \$30 per square foot, Kanner's design is an example of inspired interiors on a low

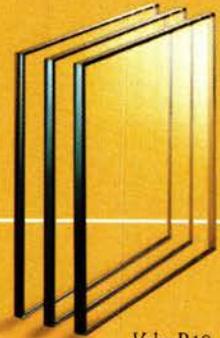
budget—a synthesis of playful forms, textures, and boldly colored surfaces contained in spacious, light-filled offices. The interior is a series of visual puns quoting the client's earlier projects, rendered in a blend of International and Pop styles. The office's striking details include a

laminated-wood wedge dining table suspended from a structural pipe column, and a wall with a faceted glass clerestory that zig-zags around a similar column in the main corridor.

Jurors congratulate the project's "imaginative use of form and color with close attention to detail."

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saving techniques. I use an exterior wall

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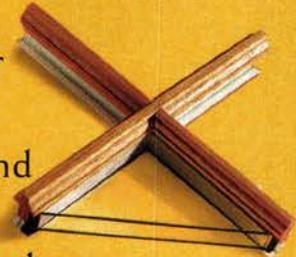
a 7,600 sq. ft. house, which is heated for just \$70 a

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lot of research. And



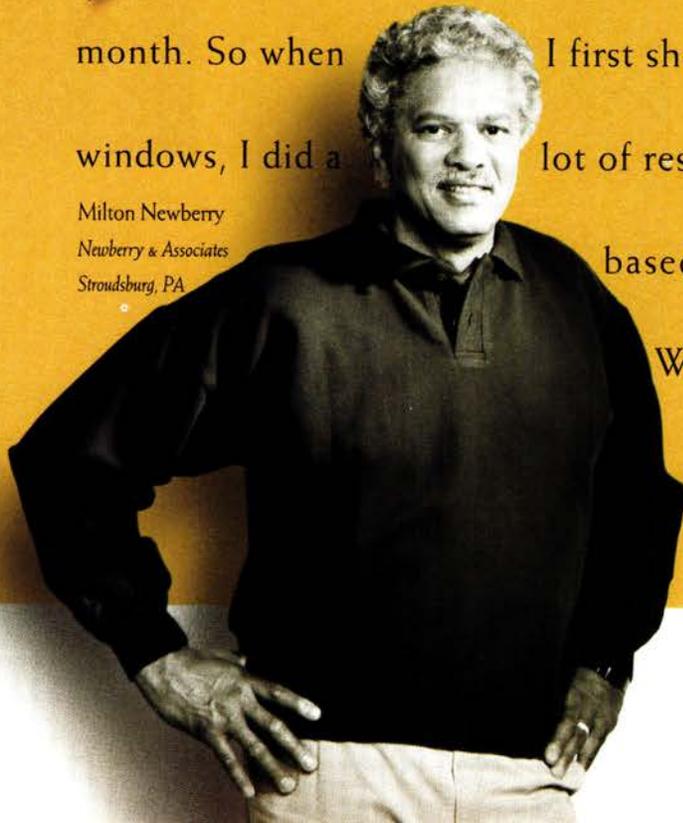
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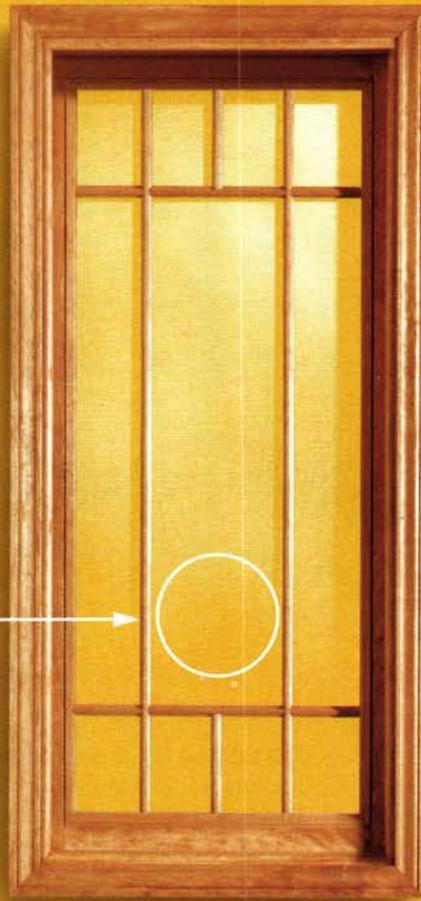
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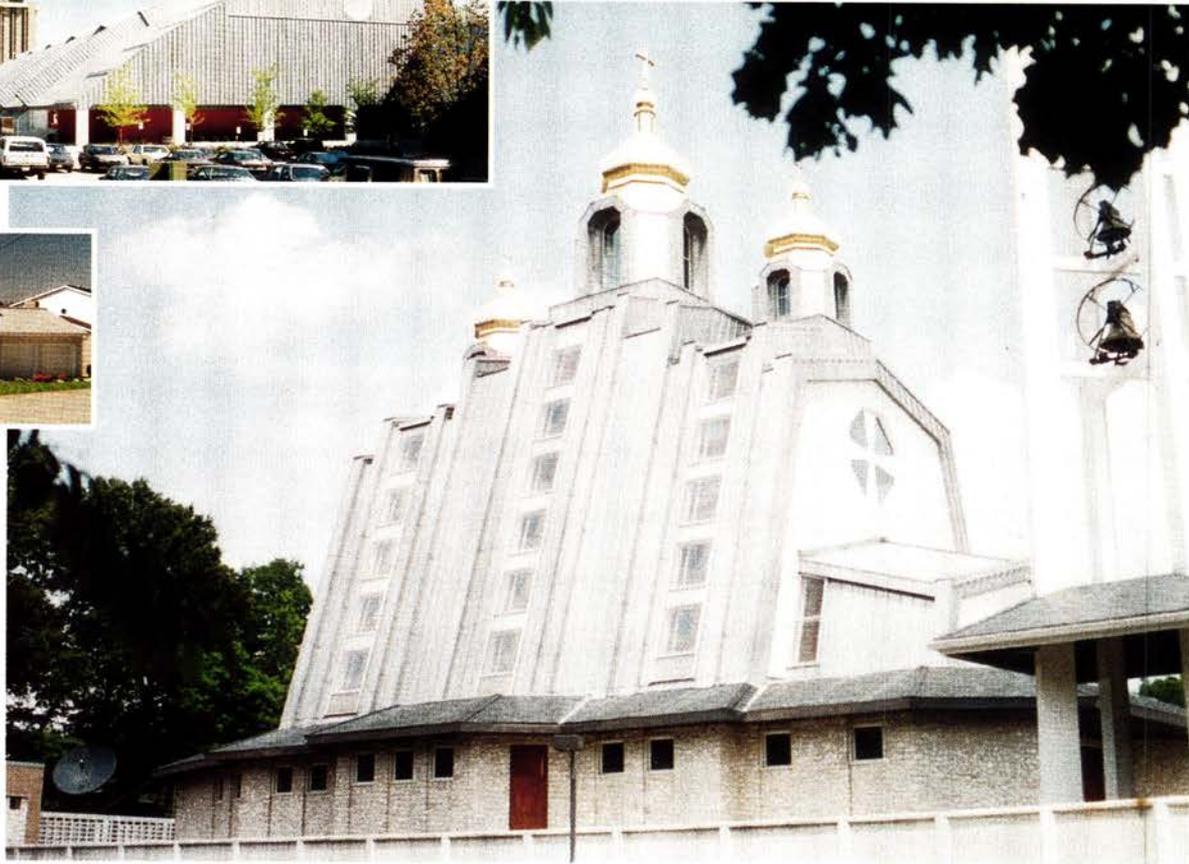


Ukrainian Catholic National Shrine
Washington, D.C.

Architects: Duane, Elliott, Cahill, Mullino & Mullino
Washington, D.C.

Roofing Redesign:
Seals Engineering
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Roofer:
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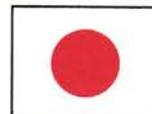
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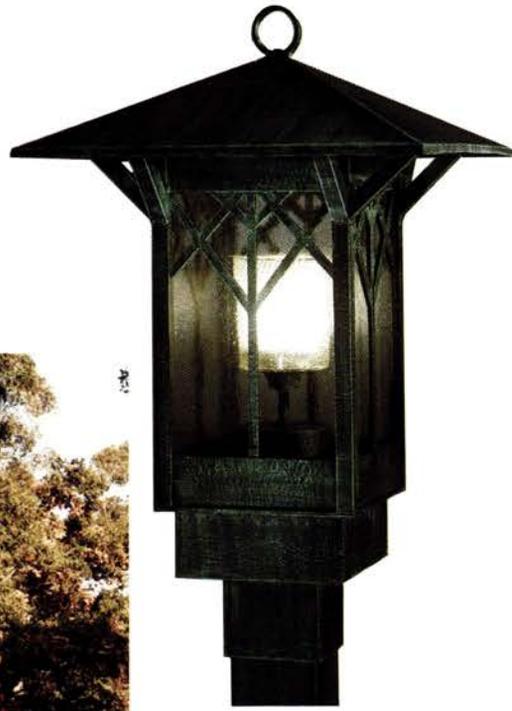
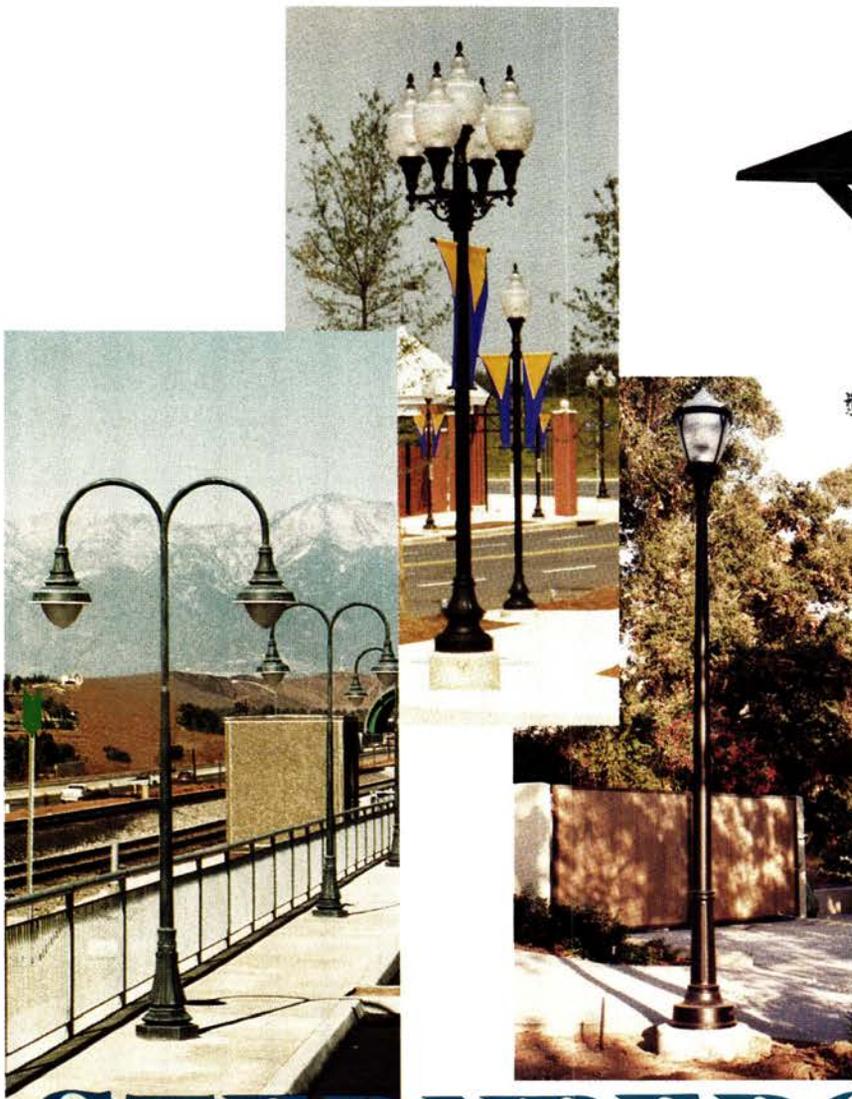
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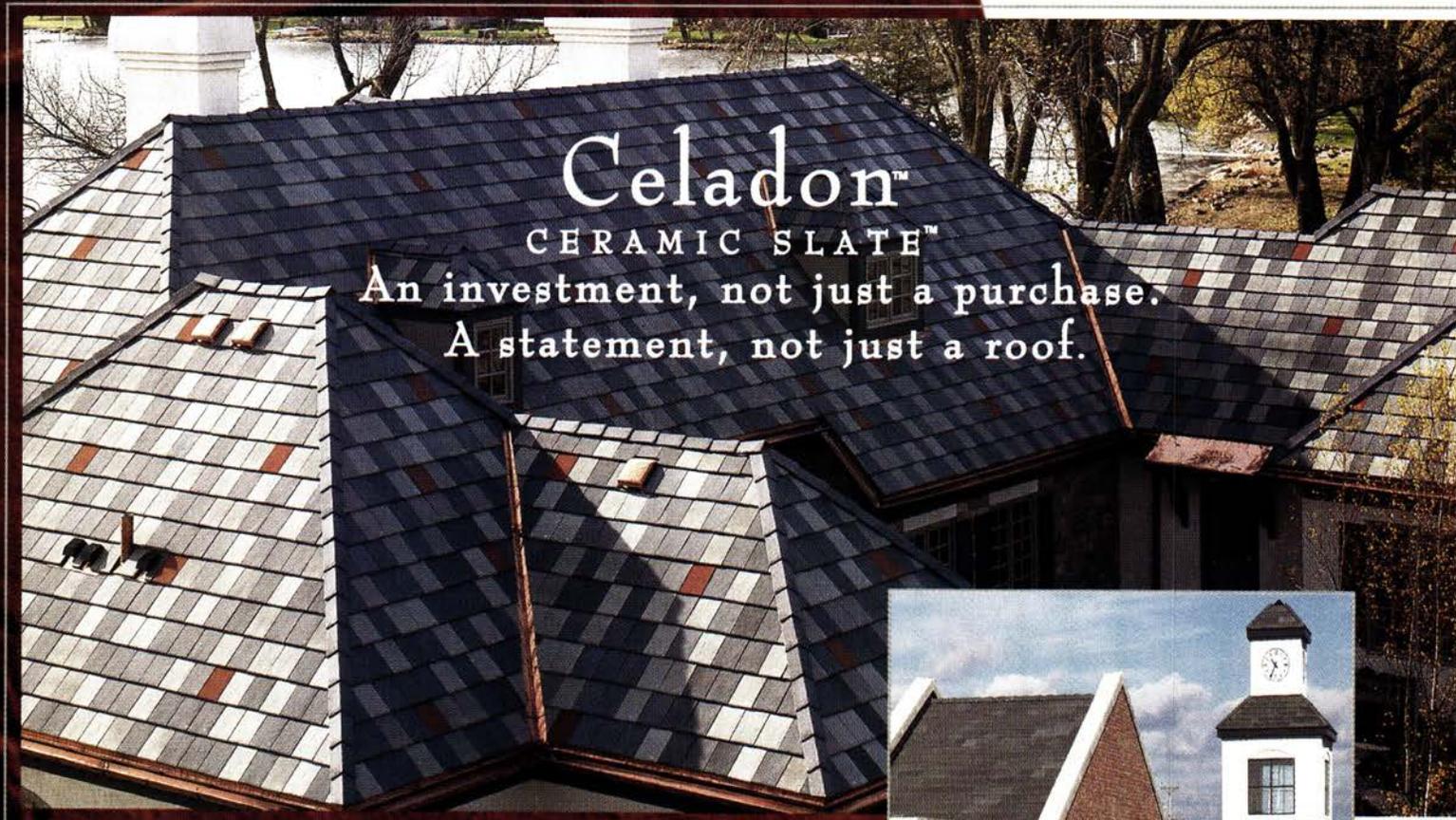
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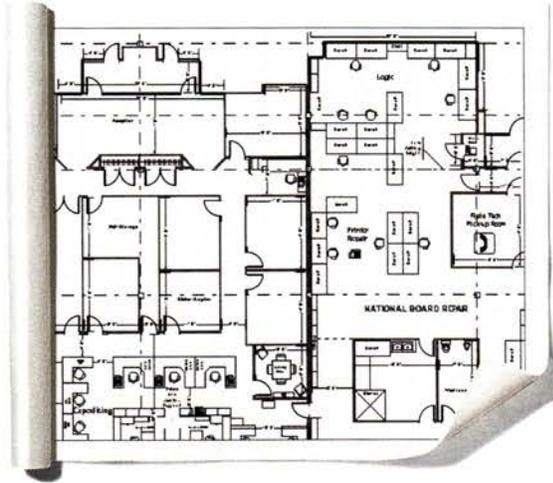
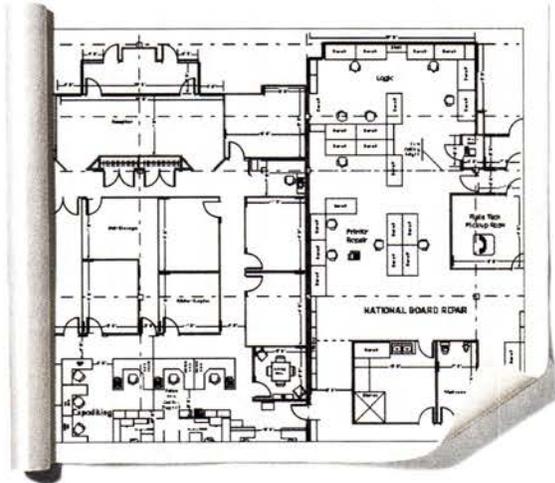
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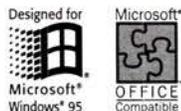


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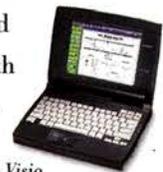
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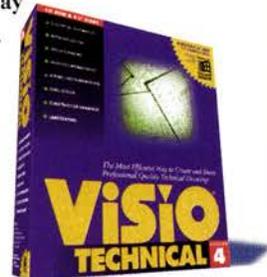
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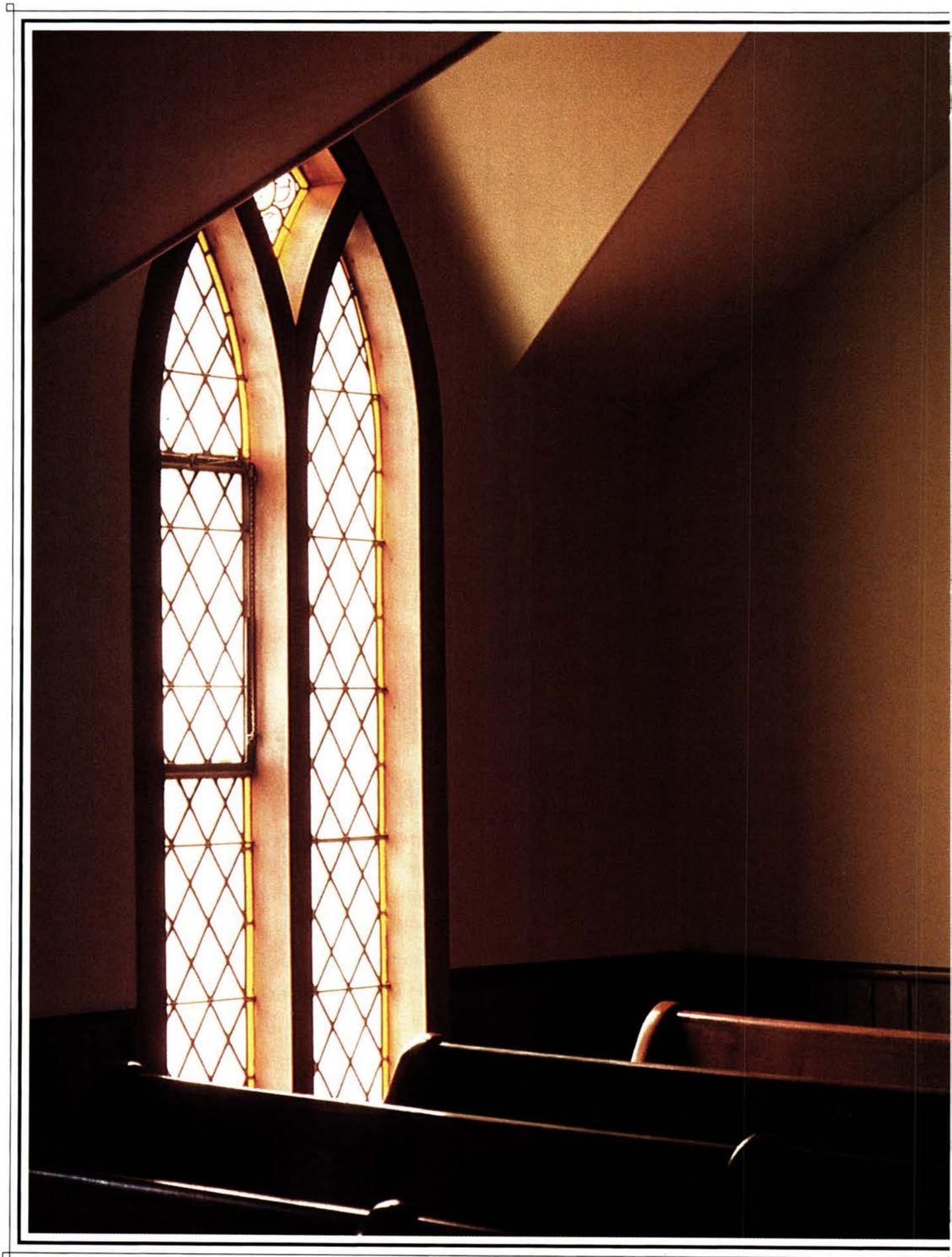
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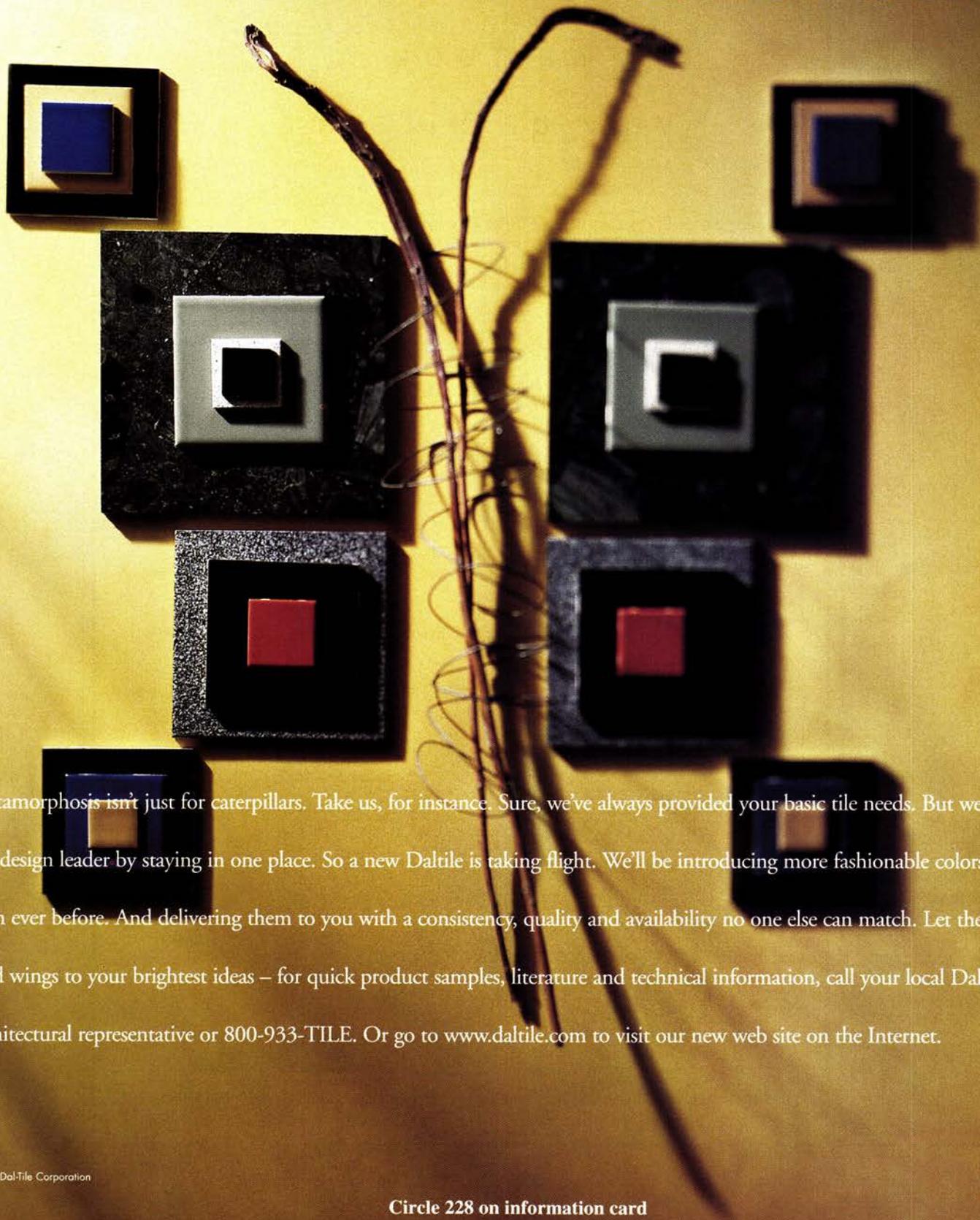
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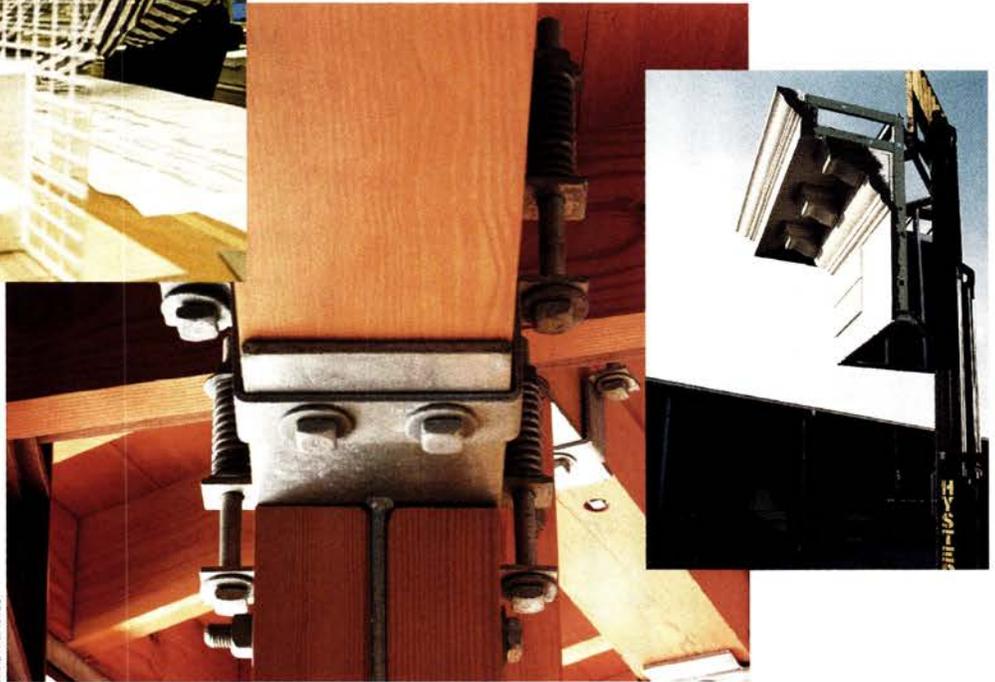
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Technology & Practice

231 Practice
241 House
251 Technology
257 Computers



LISA DUMONDES



KARL A. BACKUS

Our awards coverage continues in this month's Technology & Practice section, beginning with a profile of Skidmore, Owings & Merrill. This year's winner—for the second time—of the AIA Architecture Firm Award, SOM has emerged from the 1990s recession with increased revenues, a multidisciplinary firm structure, and a growing portfolio of new building types.

Another winner of the AIA Firm Award (1994), Bohlin Cywinski Jackson, is the architect of an AIA Honor Award, a sophisticated log cabin in rural Maryland. We show how the firm detailed this 3,200-square-foot house with exposed heavy timbers and delicate wood joinery to create a retreat at once rustic and refined.

Other low-cost construction materials from which architects are crafting high-end designs are exterior insulation and finish systems, known as EIFS. Our technology feature discusses how the EIFS industry is combatting allegations of poor performance with new details and a builder certification program.

Architects must consider energy performance not just in terms of building materials, but must also take into account a structure's site, orientation, systems, maintenance, and operation. As our computer feature points out, new energy software programs, partially funded by the U.S. Department of Energy, will allow architects to predict and even refine their strategies for energy efficiency in the early stages of design, when more substantial benefits can be achieved.

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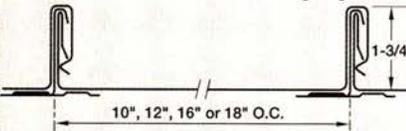
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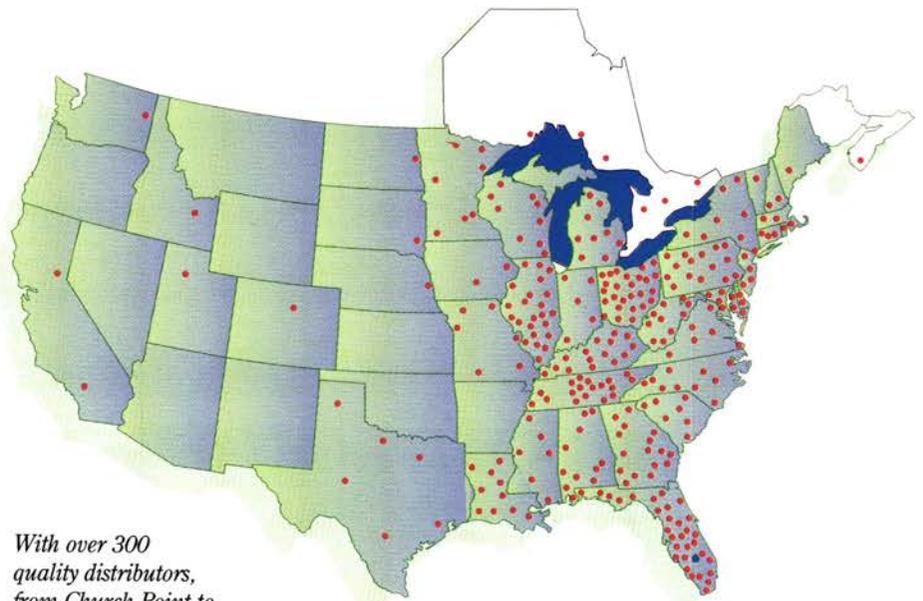
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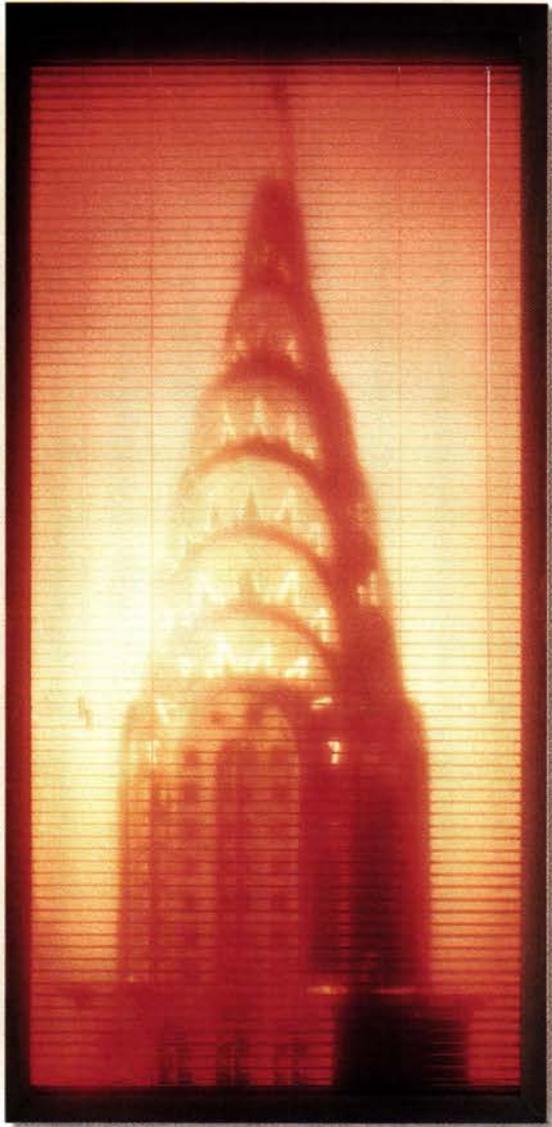
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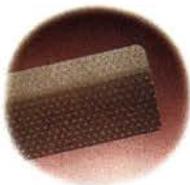


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SOM Retrenches

Skidmore, Owings & Merrill's recent reorganization has led the firm to win this year's prestigious AIA Architecture Firm Award.

When the AIA announced that its 1996 Architecture Firm Award would honor Skidmore, Owings & Merrill (SOM), many architects were aghast. How could the Institute give the award to the IBM of architecture, the ultimate corporate practice, a second time? If the point was to recognize a large firm, why not honor Perkins & Will or Gensler? After all, critics complain, SOM sold out in the 1980s, forsaking its pious Modernism in shallow acts of Postmodern promiscuity. And didn't the firm lay off architects by the hundreds at the dawn of the recessionary 1990s? Weren't the partners embroiled in legal battles with former colleagues? Why lionize SOM all over again?

To hear AIA and inside observers tell it, SOM is a whole new firm. The practice turns 60 this year, but it's scarcely the same creature that won the Institute's first-ever Firm Award in 1962. Not one of the partners of

34 years ago remains on board today. Two generations of architects have followed founders Nathaniel Owings, Louis Skidmore, and John Merrill, and their compatriot Gordon Bunshaft, whose Lever House defined corporate Modernism. The firm's succession plan, codified by the founders, remains the pride of the partnership. SOM did not merely survive the withering recession of 1990 to 1994, argues W. Cecil Steward in his nomination letter to the AIA jury, SOM helped lead the profession to the other side, owing to "various creative reorganizations."

Indeed, SOM has pulled through the darker days of this decade fully intact, if with only half its former stature. In 1989, the firm's gross receipts topped out at \$157 million; the staff peaked at 1,500. By 1993, the nationwide slump in the commercial real estate market had more than halved revenues, to \$67 million, and whittled the payroll to 557 employees. By 1995, SOM appeared to be on the rebound, raking in revenues of \$117 million and employing nearly 800 people. With offices in Chicago, New York, Washington, San Francisco, Los Angeles, and London, SOM has rebuilt itself on a portfolio of high-rise projects in Asia—approximately 43 percent of its work lies

ABOVE: Partner Adrian Smith, CEO and Partner John H. Winkler, and Partner David Childs.

Chicago

Half of Asia, it seems, is being designed on four floors of a Daniel Burnham building facing Chicago's lakefront. SOM Chicago is whistling away on more than 12 major buildings around the Pacific Rim. Asia's divergent codes, construction methods, and affinity for symbols and numerology are shaking up the firm's traditionally sleek, Modernist vocabulary with such projects as the Jin Mao Tower in Shanghai.

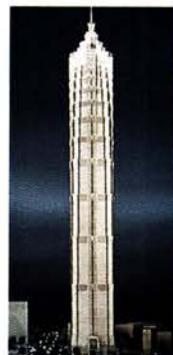
Close to home, SOM Chicago has landed several plum public jobs, such as Chicago's Ravinia Festival performing arts center, the Lyric Opera House renovation, the redesign of Chicago's State Street, and renovations of train stations.

The 274-person Chicago office remains the historical heart and soul of the firm. Having raised such seminal architects as Walter Netsch and Bruce Graham, SOM Chicago is now led by design partners Adrian Smith, Joseph Gonzalez, and Larry Oltmanns. It also still serves as SOM's nerve center for structural and mechanical engineering under Partner Raymond Clark. A restructuring, begun early this year under Partner Richard Tomlinson, shows how aggressively the Chicago office plans to expand its client base, with 12 "development teams" responsible for building niche markets. The office has even taken on a new casino in St. Louis—the type of project that SOM wouldn't have considered a decade ago.

TOP RIGHT: Partners Richard Tomlinson, Adrian Smith, Joseph Gonzalez, Jeffrey McCarthy, Raymond Clark (standing); Robert Wesley, Larry Oltmanns (seated). Thomas Fridstein is not pictured.
CENTER FAR LEFT: Pidemco Towers in Singapore.
CENTER LEFT: Jin Mao Tower in Shanghai.
CENTER RIGHT: Xiamen Building in Xiamen, China.
CENTER FAR RIGHT: LG Kangnam Tower in Seoul.
BOTTOM LEFT: Beijing Merchandise Mart.
BOTTOM LEFT: Electronic studios afford flexibility.

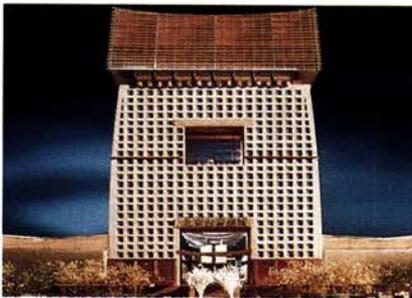


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overseas, 26 percent across the Pacific—as well as numerous large-scale public and institutional commissions in the U.S.

And while few of its new clients commission buildings with the past budgetary abandon of blue-chip corporations, SOM has nonetheless reinvigorated its design since the '80s, with design partners Craig Hartman, Joseph Gonzalez, and most recently, Larry Oltmanns and Mustafa Abadan, who are now in the prime of their careers. Under this new generation, SOM's design ethic is moving beyond unvarnished Modernism, beyond historicism, more toward work that reflects both post-ideological convictions about building cities and a continuing commitment to the technological imperative in

architecture. As its practice expands in new directions, SOM's culture has grown more pluralistic, agile, and economically sound. Once a preserve of white males, the 718-person firm employs 345 women and minorities; 4 of them are partners. The offices are organized as project teams rather than separate design and production studios, and the partners embrace every discipline from architecture to management, engineering, urban design, and most recently, interiors.

To combat the absolute dearth of corporate and commercial work in the early '90s, SOM sought new and broader markets. This effort entailed an intensive reeducation as the firm pursued more politically and programmatically complex projects. As a result,

SOM's dossier boasts a diversity of project types, including airports, convention centers, public buildings, and entire new cities in Asia—a breadth of experience that will certainly help the firm sustain a sudden drop in any particular sector. "We are alive and well and stronger than ever," Partner David Childs declares brightly. "We have a range of commissions unequaled anywhere."

SOM would never have accomplished this miraculous recovery were the firm not strongly centered at its core, at the partnership level. Few, if any, firms train and sustain successive generations of designers, technicians, and entrepreneurs as intensively as SOM does. The firm's emphasis is on acculturating raw talent, indoctrinating young

New York

With former chairman David Childs and current CEO John H. Winkler presiding over its New York office, SOM's center of gravity seems to have shifted from Chicago to the East Coast. The 178-person SOM New York serves as the hub for airport projects, but interiors—constituting 30 percent of the work within the office—provide much of its cash flow. The interiors practice gained new stature last year with the appointment of Partner Stephen Apking, SOM's first interiors partner, who is designing the offices for Swiss Bank's North American headquarters. "We're trying to bring in more of the disciplines at the partner level," explains Childs, "so there's more diversity represented."

Unlike Chicago, Los Angeles, and London, SOM New York does not cultivate a structural engineering presence. "We have the best engineers in the world here," avers Childs. "So we use them. Plus, those people can bring us work."

Demanding these engineering skills are the numerous airport projects coordinated by Partner Marilyn Taylor, an urban planner active in various New York civic groups. The office is designing new terminals for Boston's Logan, New York's Kennedy, and Tel Aviv's Ben Gurion international airports, as well as planning the San Francisco airport. Taylor also heads SOM's East Coast urban design group, which has completed a plan for Newark's central business district.

TOP LEFT: Partners Roger Duffy, Jr., Stephen Apking, Mustafa Abadan, T.J. Gottesdiener, Office Director Gert D. Thorn (standing); Michael McCarthy, Marilyn Taylor, CEO John Winkler, (seated). David Childs is not pictured.

CENTER LEFT: U.S. Embassy in Ottawa, Canada.

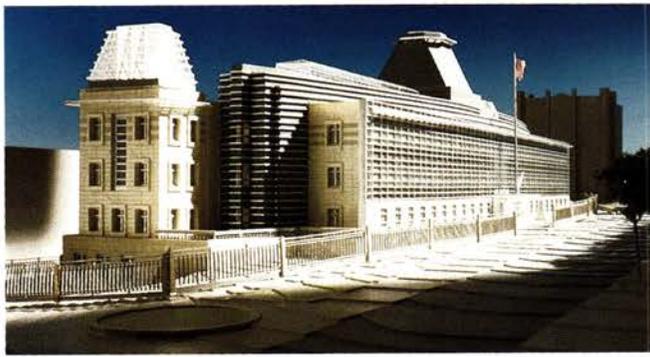
CENTER RIGHT: Pair of towers in Kuala Lumpur.

BOTTOM LEFT: N.Y. office is hub of airport planning.

BOTTOM RIGHT: Swiss Bank in Stamford, Connecticut.



LISA QUINONES



JOCK POTLIE/ESTO



LISA QUINONES



architects and designers to the "SOM way."

Following the founders' gospel, today's partners continually scan their ranks for successors: new partners are never imported from outside. And over the last decade, the partnership's average age has dropped by about 10 years. "There has been a big change since I was with SOM last," remarks Martha Welborne, managing director of the Los Angeles office, who returned to SOM in 1994 after nine years as partner of Sasaki Associates. "It's not just a bunch of guys in their 50s anymore. It's a bunch of people in their 40s."

In the past, it was harder for SOM to bring on younger partners unless senior partners wanted buyouts, because ownership was based on a limited spread of 100 shares.

In the late '60s, SOM changed to an open-ended number of shares. Today, 14,000 shares of ownership are split among 24 partners; none owns less than 2 percent nor more than 7 percent of the firm. SOM's current partnership is structured to allow young partners to acquire ownership in a planned, financially manageable process, "so we have talented architects, rather than billionaires, coming up the line," notes one partner.

Yet despite SOM's strong organizational sense, the practice has been far from perfect. In the '80s, the firm's rampant growth engendered bad habits and high overhead. The quantity of work—particularly multi-million-square-foot interiors for financial services firms—cost the firm quality control.

Systems and internal standards ran awry, as when the size of the New York office, for example, doubled from 200 people in 1984 to 400 in 1989. "We lost focus on making design a big goal," maintains a former associate partner in interiors. The studios held fewer charrettes and critiques; Childs affirms that "there was just too much going on."

Then came the "depression," as Childs calls the period from 1990 to 1993 that hit SOM with triple blows. By 1990, several major projects were ending, just before the U.S. commercial real estate market collapsed and bankrupted a number of developer clients. And with disastrous timing, an entire tier of partners left the firm simultaneously, including Bruce Graham, the firm's heavyweight

Washington, D.C.

The 48-person Washington office of SOM, which fronts the great friezes of Federal Triangle, came alive in 1967 under Nathaniel Owings, who built the office around the grand redesign of Pennsylvania Avenue, Constitution Gardens, and the Mall for the nation's bicentennial. In 1971, Owings hired David Childs, then chief designer of the Pennsylvania Avenue Commission, to take over the D.C. office.

Since Childs moved to the New York office in 1984, the Washington office has experienced nearly a dozen changes of leadership—which has cost SOM its local clout. “Washington is essentially run by the New York office,” explains CEO John H. Winkler. Today, the office handles a mix of federal projects, such as new offices for the FBI in downtown Washington and headquarters for government lender Sallie Mae, and institutional work such as a library for George Mason University and the American Center for Physics.

But will SOM ever unleash this office from New York and install a full partner? If prospects pick up again, it would be a good idea. Clients like to deal with principals, and have been turning to local competitors for renovations or the rare new building. “SOM’s D.C. office goes out and says, ‘We’re a new group now,’” explains a former associate, “but the market here has heard that a number of times before.”

TOP LEFT: Associate Partners Gary Haney, Director-in-Charge Mark Regulinski, and Nestor Santa-Cruz.

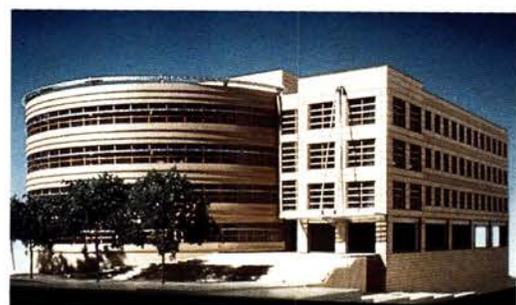
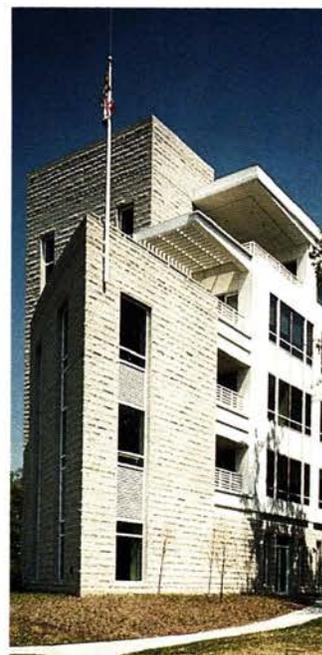
TOP RIGHT: American Center for Physics in College Park, Maryland.

CENTER LEFT: Beijing Parkview complex.

CENTER RIGHT: George Mason University Law Library in Arlington, Virginia.

BOTTOM LEFT: Washington office is organized around interdisciplinary project teams.

BOTTOM RIGHT: FBI building in Washington, D.C.



designer of Chicago's Sears Tower and John Hancock Center. When Graham retired in 1990, he left no heir apparent.

Into this vacuum stepped Childs, then 50, a designer trained at the elbow of Owings. The partnership's self-described "first among equals," Childs appointed himself chairman in 1991—a milestone for the firm. "Things were falling apart," he recalls. "We had to get one person to speak for us, and I knew I was the person to do it." The post, however, would prove thankless. In 1993, an exhausted Childs restructured the position of chairman into a two-year term for a chief executive officer, and installed Adrian Smith, a Graham acolyte who had emerged as lead design partner of the Chicago office.

Last October, Smith was succeeded as CEO by John H. Winkler, a Vietnam War veteran who in 1975 was sent to Saudi Arabia as an SOM plebe and returned to the U.S. a partner five years later. "The job is easier for me," Winkler assures, than it was for Childs or Smith, "because I did not have to break that ground."

SOM's turnaround has been especially difficult, Childs contends, because the firm's former partners operated on a presumption of infinite growth. "Our systems were fine as long as everything was getting bigger," Childs remarks. The firm reorganized, purging hundreds of staff from its offices on the last days of fiscal years 1990 and 1991. Leases were renegotiated and space was con-

solidated. SOM cancelled its long-term proprietary software development deal with IBM, and cut perks such as partners' limousines and servants in the offices.

The biggest hurdle confronting the active partners was dealing with commitments to their retired colleagues, who were to draw out their paid-in capital and retirement income from SOM over 10 years. Retirement funds were tied to the firm's projected revenues. Unfortunately, by 1990, SOM didn't have much in the way of projected revenues. Worse, the firm had other big bills to pay. Since as early as 1988, the partners had been financing "long-term assets" with short-term debt, issuing European-denominated notes through Barclay's Bank. In 1992, according

London

SOM opened its London office in 1986, just as the British building boom in speculative office development was heating up. As a result, the London office helped buoy SOM's American branches during the early '90s recession, designing master plans and buildings for Canary Wharf in London's Docklands, as well as the Broadgate development and 10 Ludgate Place within the City of London.

"After the boom of the late '80s, we tried to diversify both the kind of work we were doing and the geographic location," maintains Partner Robert Turner, who runs the 35-person SOM London office with partners Peter Magill and Roger Kallman (London Partner Peter Ellis recently relocated to SOM San Francisco). And the diversification effort has paid off: SOM London is designing an 18,000-seat arena for the 1998 Lisbon Exposition; a Modernist office tower in Amsterdam; a hotel in Cairo; a mixed-use complex in Amman, Jordan; and a 350,000-square-foot office and residential tower in Moscow. Urban design and infrastructure planning make up about 15 percent of SOM London's work, with a transportation plan under way for the core of Genoa, Italy, and a new business park in progress for Doncaster in England's Midlands.

After 10 years, the partners in London maintain that their office, which hires and assimilates Britons into the operation, has entrenched itself in the United Kingdom. "We tried very hard to understand the differences here," explains Turner. "We feel very much a part of this community."

TOP: Partners Robert Turner, Peter Magill (standing); Roger Kallman, Peter Ellis (seated).

CENTER: Utopia Pavilion for Lisbon Expo '98.

BOTTOM LEFT: Urban design group of SOM London.

BOTTOM CENTER: Amstelzicht Tower in Amsterdam.

BOTTOM RIGHT: Holborn Viaduct in City of London.



JOHN STEWARD



RICHARD ARMINGER



RICHARD ARMINGER



ANDREW HUTTLER



MILLER MARBE

to court records, Barclay's alleged SOM to be in default on its credit line for a principal sum of \$9.4 million. (The default was eventually rectified. As of last year, SOM had repaid all but \$3.35 million.)

To repay the bank, the active partners had to strike new agreements regarding payments to former partners. "It hasn't been easy," Childs recalls. "But we fought desperately to keep the fundamental philosophy of our group practice the same."

Upholding that philosophy required SOM to file a lawsuit in January in Chicago against five of its 47 former partners: Bruce Graham; John O. Merrill, son of the founder; Robert Diamant; James R. DeStefano; and Walter H. Costa. The firm is trying to force these

former partners to stop pressing claims to retirement income that they allege they were never paid, in accordance with a 1993 consent agreement between SOM and 45 of its departed partners.

SOM's suit contends that from 1992 through last year, the firm had no money left over to pay former partners after the expenses, debts, and partner draws allowed under the agreement. The former partners sharply dispute SOM's story, and are suing back. In February, a larger group comprising Thomas Eyerman, Richard C. Keating, Diane Legge-Kemp, and David Pugh filed a \$44 million countersuit against SOM, alleging breach of contract, breach of fiduciary duty, and misrepresentation. Among other allega-

tions, the former partners charge that SOM has concealed its actual financial position by folding profits into a subsidiary corporation.

Winkler explains that SOM "froze" the ability to return former partners' capital because the active partners needed the money to move ahead. "You have to honor your commitments," Winkler declares, "but you have to provide economic health to [active] partners. Otherwise, they're doing little more than paying off debt." Some former partners, Winkler asserts, don't comprehend the scope of change in the firm since they left. The former partners roundly decline comment. Graham does admit that he and SOM "are not getting along very well right now," but adds, "Some of us still love the firm."

San Francisco

Prominent among the projects of SOM's 136-person San Francisco office are nearly two dozen gigantic towers and mixed-use centers in Asia—all coordinated under Partner Carolina Woo. Partner John Kriken is also designing a new city center south of old Saigon in Vietnam, and a master plan for Manila's Makati financial district in the Philippines.

Much of this Asian work puts SOM on the familiar ground of designing developer-built financial centers, such as the recently finished Fubon Banking Center tower in Taipei and Beijing's Industrial and Commercial Bank of China Headquarters. Yet the economics of such work are far tougher to manage than in the U.S., as Asian developer clients aggressively push their profit margins. "The main risks are in project delivery," Woo asserts. "Can we really achieve an SOM building, given the client's parameters?"

Local projects seem simple by comparison, but are in fact diverse and complex. Partner Craig Hartman, once a protégé of Walter Netsch, is applying his structural expressionism to such recent Bay Area projects as a Hewlett-Packard campus in Palo Alto, a small building for Electronic Arts in Redwood City, the new International Terminal at San Francisco International Airport, and a barnlike structure near Potrero Hill for the San Francisco Food Bank. In the city's Civic Center district, SOM is renovating an historic state office building; designing an adjacent 850,000-square-foot tower; and renovating and seismically retrofitting the U.S. Court of Appeals building.

TOP: Partners Craig Hartman, Gene Schnair, John Kriken, and Carolina Woo.

CENTER LEFT: Saigon South Development.

FAR RIGHT: Ayala Tower and Gateway in Manila.

BOTTOM LEFT AND CENTER: Industrial and Commercial Bank of China Headquarters in Beijing.



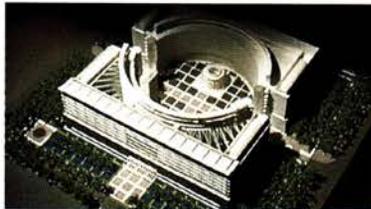
CHINA SUE SCOTT



CHRIS GRUBBS



STEVEN YOUNGBERID PHOTOS



This crisis compelled SOM to revisit its entire approach to management, marketing, and project delivery, changing the firm's culture radically. The firm adopted the cash method of accounting in the early '90s, reflecting a new emphasis on managing its cash flow. Under the accrual system, explains Alan Hinklin, managing director of the Chicago office, SOM always kept track of the time spent and portion of a project completed, rather than the project's remaining work and cash flow. The firm understood what it made or lost on paper, but had a poor sense of its net earnings. "We're looking forward now, not looking back," Hinklin contends. "It's like chess: we look three moves ahead of ourselves."

SOM must focus more aggressively on its strategy for the future because commissions do not walk into its office anymore. In contrast to the genteel liaisons that former partners once maintained among the corporate elite, in the last five years SOM has been compelled to roll up its sleeves and start marketing like every other firm. The Chicago office, for example, is reorganizing around a dozen niche-market "development teams" that will focus the firm's efforts on certain building types—performing arts centers, sports facilities, or airports—or on specific geographic markets, such as Korea. In addition, this team structure, unlike SOM's previously divided design and production studios, will help build the firm's

technical intelligence, maintains Partner Jeffrey McCarthy. The new development teams, he explains, will grow into centers of specialized expertise covering multiple projects. As a result, resources and authority are decentralizing, and SOM's rigid hierarchy is growing less pronounced.

Today's more penny-wise clientele is forcing SOM to reconsider its purist approach to producing architecture, in the interest of maintaining profits. Fees on federal projects, for instance, are capped at 6 percent, and Asian clients, while structuring fees differently, typically pay around 5 percent. SOM has cut back its elaborate layers of designers and technicians on projects to accommodate these lesser fees. And while indi-

Los Angeles

SOM's Los Angeles office is coping with the region's recession with a high-energy group of directors and designers, a strong mix of services, and proximity to the Pacific. As a result, the 47-person office has held its own through the slow period and is now feeling the stirrings of future work. "Projects that have been on hold are starting up again," reports Associate Partner Martha Welborne, who directs the L.A. office.

Following a leadership vacuum caused in 1990 by a breakaway partnership led by Richard Keating, the L.A. office now appears to be raising a cadre of next-generation talent. Welborne, an accomplished architect and urban planner, heads an emerging tier of associate partners engaged across architecture, interiors, structural and mechanical engineering, and urban design. In 1991, Partner Carolina Woo recruited Associate Partner Marjorie Platzker to pursue the local market in corporate interiors. That business sector is brisk, but the work is short term and fees are tight. Associate Partner Jeffrey DiMarzio, meanwhile, recently completed a tower in Taipei and is at work on three more in Bangkok and Manila.

As the recession wears on, SOM's L.A. office continues to find work with entertainment clients MCA and Disney, and a smattering of public work such as renovating the Hollywood Bowl. And significantly, the office is also well into design of a corporate headquarters developed by Castle & Cooke—one of the only major corporate projects currently under way in L.A.

TOP LEFT: Associate Partners Steven K. Sobel, Jeffrey DiMarzio, Marjorie Platzker, Martha Welborne, Edwin Shlemon, and Raymond Kuca.

FAR LEFT: Corporate tower in Bangkok.

CENTER LEFT: PBCOM Tower in Manila.

CENTER RIGHT: Fubon Banking Center in Taipei.

RIGHT: Telecom Asia Tower in Bangkok.



PATRICIA LANZA



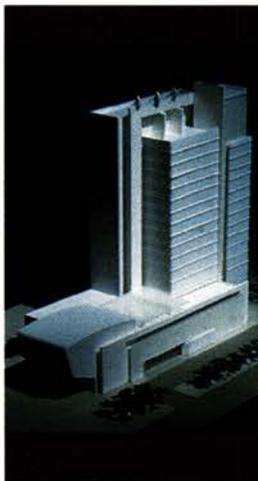
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vidual offices have decentralized, coordination among them has improved so that they no longer compete with each other for work. "It used to be that the first one at the stoplight got to go first" when pursuing a project, Winkler recalls. Today, the firm assigns projects according to geography and specialty. For example, the San Francisco airport project is executed by the local office, with program coordination directed by the New York airports group.

"Flexibility" is the new byword. "It's no longer an inherent advantage being big," contends Partner Marilyn J. Taylor, an urban designer in charge of SOM New York's airport planning group. Computer technology is flattening the competitive field,

Taylor adds, making it "possible to deliver higher quality with fewer people."

Refinement has always been a measure of SOM's control, but in today's markets, strict control is harder to come by. Asian projects such as the 88-story Jin Mao tower in Shanghai and the Hong Kong Convention Center require SOM, like every other U.S. architect, to hand over design to local associates for documentation—a quandary for SOM, where design and documentation are one. "We look for continuing relationships" with local teams, says Partner Carolina Woo, who coordinates Asian practice from San Francisco, "so that new projects are easier to hand off."

Validating the difficulties of trans-Pacific practice are the epic opportunities afforded

to SOM in shaping cities and skylines for what will surely be the Asian century. SOM's high-rises in Taipei, Shanghai, Bangkok, Kuala Lumpur, and Seoul, as well as its large city centers for Ho Chi Minh City and Manila, are destined to become urban engines of millennial growth.

Through this work runs an optimism resonant with SOM's corporate beginnings. Unlike less-fortunate large firms—The Architects Collaborative (ARCHITECTURE, December 1995, pages 117-119) and CRSS are two examples—SOM is embracing its future, rather than clinging stubbornly to the legend of its past. In the practice of architecture today, that capacity separates the dynamos from the dinosaurs.—Bradford McKee



STRAIGHT TALK ABOUT EXTERIOR SYSTEMS FROM USG

The "Stucco Look" is Here to Stay, and So is USG

In the past decade, Exterior Insulation and Finish Systems (EIFS) has emerged as one of the most popular exterior cladding alternatives in the residential and commercial building industry. Its design flexibility, aesthetic appeal and thermal insulation value have virtually guaranteed these insulated systems a long and prosperous future. And USG is strongly committed to this forward momentum that the stucco look has brought to the industry.

Yet, like many fast-growing industries, there are growing pains.

Building inspectors in North Carolina discovered last year that some homes constructed with EIF Systems experienced damage to wood-based sheathing and framing because of moisture trapped behind the EIFS insulation in the wall cavity.

At USG, we're learning that North Carolina is not an isolated situation. Rather, the issue of "water management" in the exteriors business touches us all, wherever we live.

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By definition, EIFS is a "barrier system." It is designed to seal water out of the wall cavity to protect the system's water-sensitive substrate.

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Improper flashing details, or imperfections in the installation of the system, especially in caulking or around windows that are not water-tight, will allow water to penetrate the system. Once this happens, there often is no place for moisture to escape, so it remains inside the system, eventually rotting the home's water-sensitive framing and exterior sheathing. This is what occurred in North Carolina, and everybody, from homeowners and builders to architects, contractors and building inspectors, is looking for answers.

Exterior Systems with a Water Exit Strategy

Fortunately, the answer we're all searching for is a simple one: If water penetrates an exterior system, it must escape without harming the wall system.

This "water in, water out" principle is featured in a fail-safe exterior system

that USG currently offers. It's called the Water Management Finish System. It has the same look and design flexibility as barrier wall EIF Systems. And it's available with or without exterior insulation. But it's designed to manage water, however it gets in, through a simple drainage plane and flashing system that lets water escape easily and freely, in any climate.

Exterior Systems Without the Problems

Water Management Finish Systems function exactly like conventional portland cement stucco, or even aluminum siding. They're water-durable, and recognized by all Model Building Codes, including those in North Carolina.

You'll see and hear more about Water Management Finish Systems this year by USG, through our research center, local training programs and seminars, Internet site, and our national network of exteriors distributors.

As always, you can be confident that USG is wholeheartedly committed to the exteriors industry, and that we will strive to ensure its long-term success. And if you have any questions, or need detailed information on Water Management Finish Systems, call **800-USG-4YOU**.

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Log cabins are typically modest architectural enterprises, hardly worth the attention of a national design jury. But this year, the AIA honors such a rustic retreat (page 189, this issue) by Bohlin Cywinski Jackson Architects (BCJ) for its urbane interpretation of the log vernacular.

Designed by Partner Peter Bohlin and senior architect Joseph Biondo (winner of a P/A Award, pages 150-151, this issue) for a Washington, D.C., family, the 3,200-square-foot house in western Maryland was begun in late 1992. The clients expressed a fondness for Adirondack architecture and a desire for heavy timber construction, and BCJ responded with wood-framed pavilions set on a rocky outcropping in the forest and casually organized along a rambling log wall.

This north-facing log wall is thick and heavy, constructed of hand-peeled, scribed-in-place white cedar specimens from Michigan that are exceptionally clear and consistent. Although massive, the wall is not

them from the walls below. The clerestories actually are suspended from the roofs, and rest in slots that allow for their expansion and contraction. Although that joint is hidden, most others are revealed.

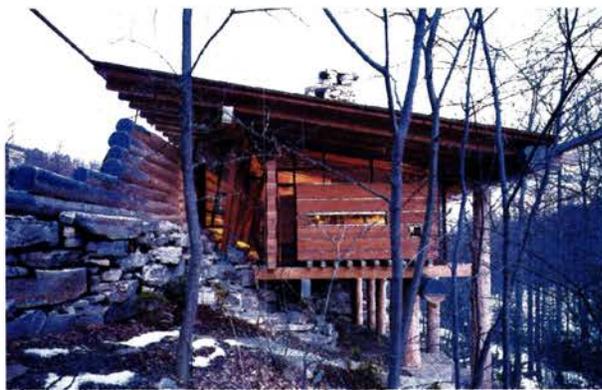
As in many BCJ projects, structural explanation is a major architectural theme of the house: the architects intently acknowledge nearly every connection, joint, or structural system. Thus, the pier-and-beam structure's 8 by 16 composite framing beams are shackled in prominently exposed spring-loaded clasps, which control timber shrinkage at column connections. Where piers come to rest on the Adirondack quartzite sandstone boulders and slabs in the house, they terminate in exposed galvanized-steel shoes which are welded to a pipe subcolumn resting on a concrete pier. Where they meet wood floors, the columns punch through to the double-joist structural system below, demonstrating that the finished floors are not structural.

Open-rafter ceiling planes slide under and

Rustic Refinements

The log cabin grows up in an AIA award-winning house by Bohlin

Cywinski Jackson, meticulously detailed to emphasize connections.



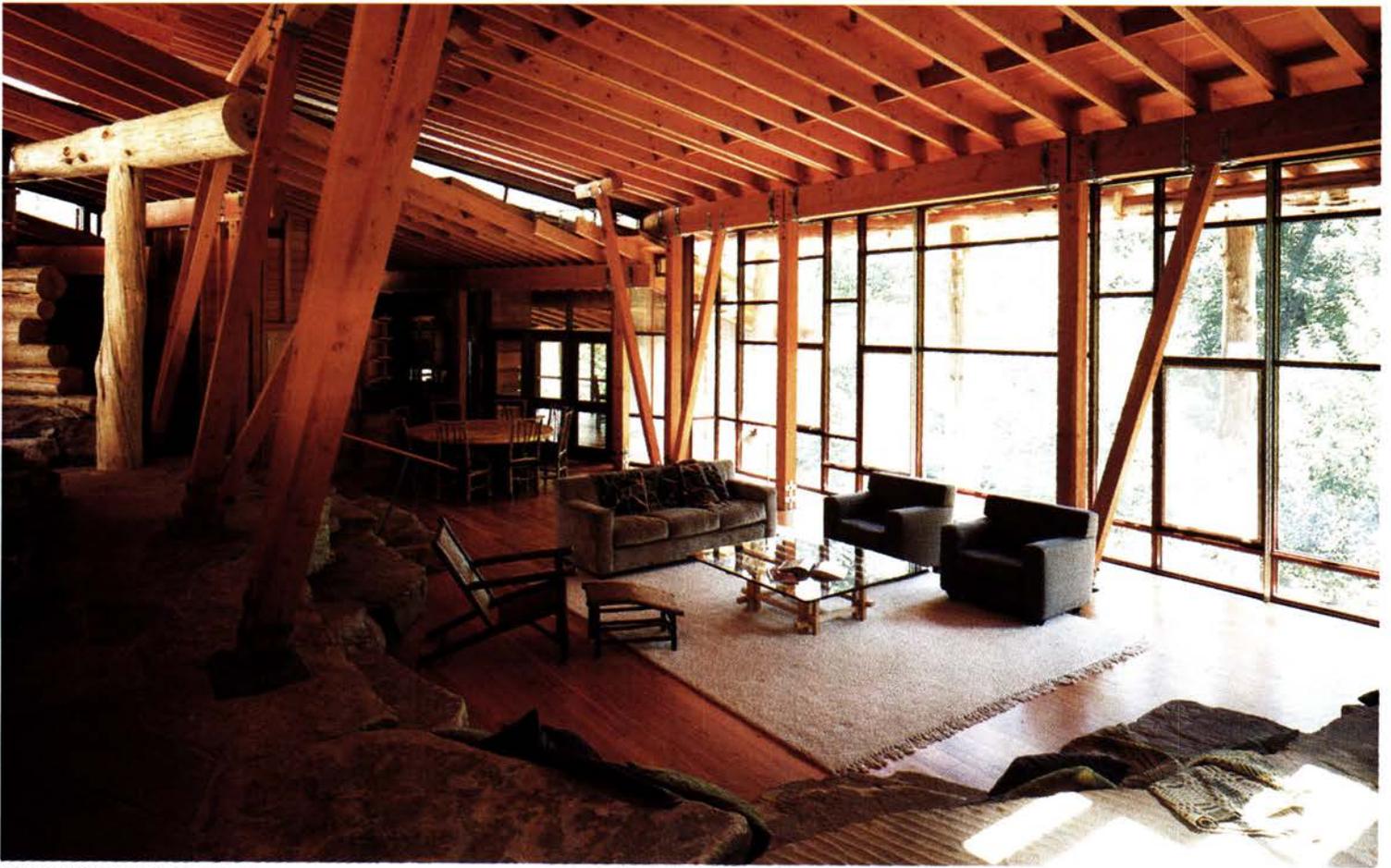
bearing, and is peppered with small windows offering glimpses inside. The house's main body projects south from the wall, overlooking a stream valley below, and cups an entry court created on the site of an earlier cabin.

Atop each pavilion, steeply canted shed roofs sail up and beyond the faces of the house, seemingly supported by the mahogany-framed clerestories that separate

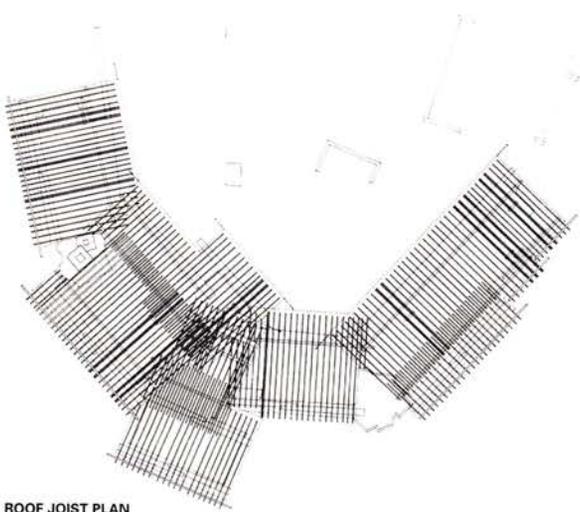
through one another as the pavilions jostle in plan, creating flying forests of structural-grade Douglas fir. On the floor, the plan collisions are reflected in changing patterns of wood and cork. Even more explicitly, shelving, case goods, and custom furniture are assembled in a system of sticks, dowels, plates, and bolts that pays homage to the Arts and Crafts and De Stijl movements, as well as to traditional Japanese joinery.

Despite these high-design precedents, the house never loses its summer camp character. The plywood panels, exposed electrical fittings, and open-track sliding doors of the interiors are also the components of the out-back buildings that inspired the house. But no Adirondack aerie ever approached BCJ's level of detail, which verges on the obsessive. In some places, the density of slots, bars, pulls, and housings overwhelms the ingenuity underlying their expression. Regardless of these excesses, however, the design, detailing, and construction of the house are exceptional—a sophisticated evolution of the simple log cabin.—*Reed Kroloff*

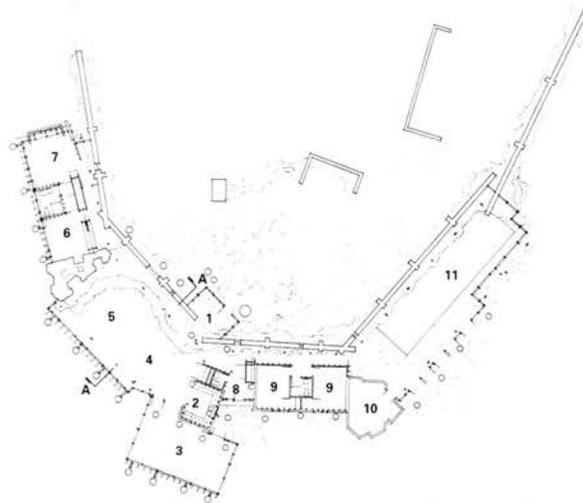
ABOVE: View of west elevation shows master bedroom of western Maryland house.



VIEW OF LIVING ROOM AND DINING AREA FROM HALLWAY



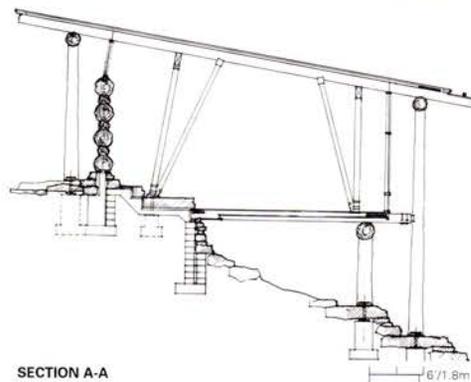
ROOF JOIST PLAN



FLOOR PLAN

- 1 ENTRANCE
- 2 KITCHEN
- 3 SCREENED PORCH
- 4 DINING ROOM
- 5 LIVING AREA
- 6 STUDY
- 7 MASTER BEDROOM
- 8 SERVICE
- 9 BEDROOM
- 10 MECHANICAL
- 11 POOL

25/7.5m



SECTION A-A

6/1.8m

WEEKEND RESIDENCE
CATOCTIN MOUNTAINS, MARYLAND

ARCHITECT: Bohlin Cywinski Jackson, Pittsburgh, Pennsylvania—Peter Q. Bohlin (principal-in-charge); Joseph N. Biondo (project manager)

ENGINEERS: E.D. Pons Associates (structural); Martin/Rogers Associates (mechanical/electrical)

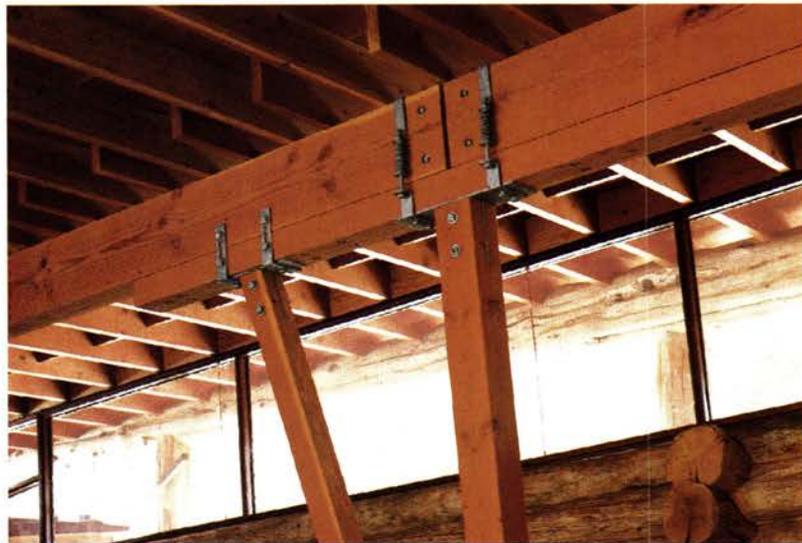
CONSULTANTS: Allan D. Garnass Associates (landscape); Swim-In-Rooms (pool)

GENERAL CONTRACTOR: Currey's Custom Homes

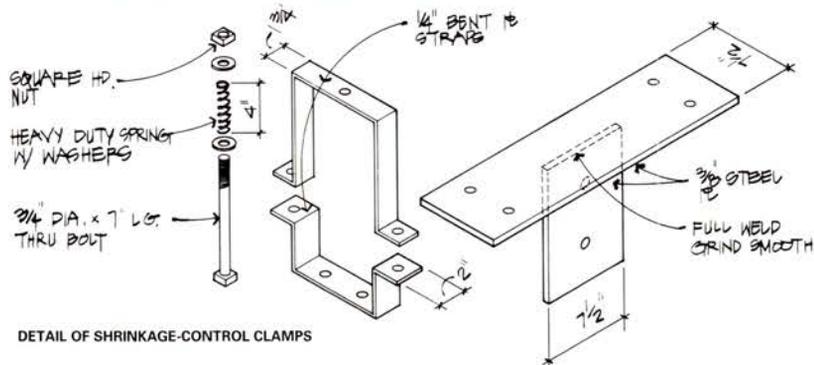
PHOTOGRAPHER: Karl A. Backus



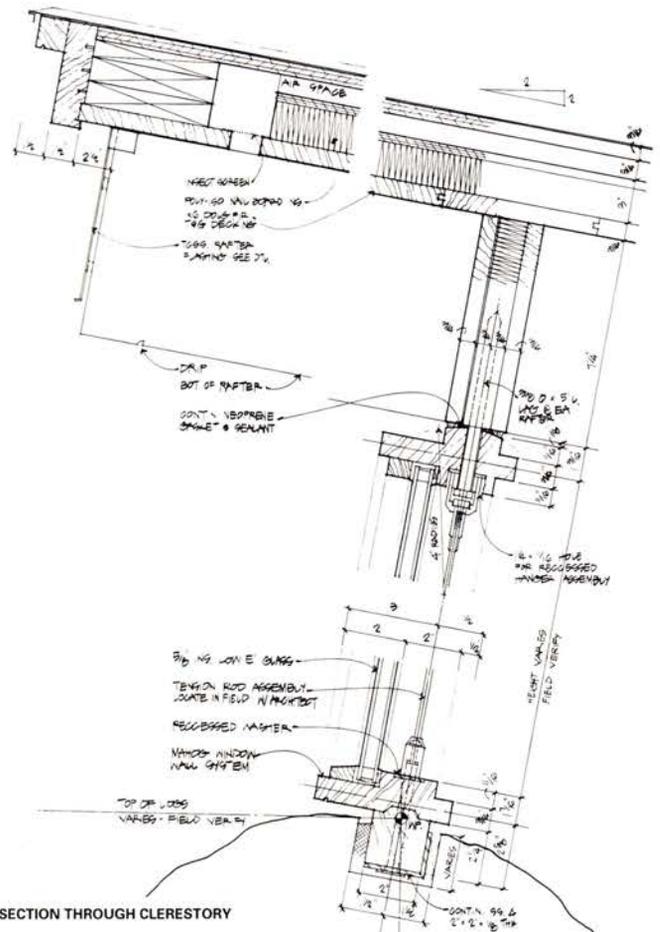
VIEW OF LIVING ROOM FROM DINING AREA



SPRING-LOADED SHRINKAGE-CONTROL CLAMPS AT DOUGLAS FIR COLUMN



DETAIL OF SHRINKAGE-CONTROL CLAMPS



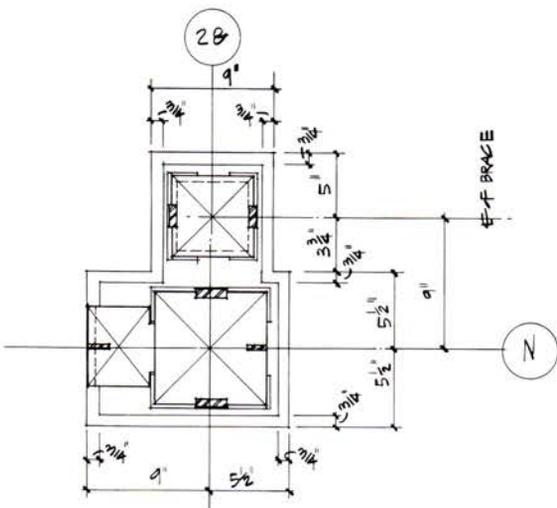
SECTION THROUGH CLERESTORY



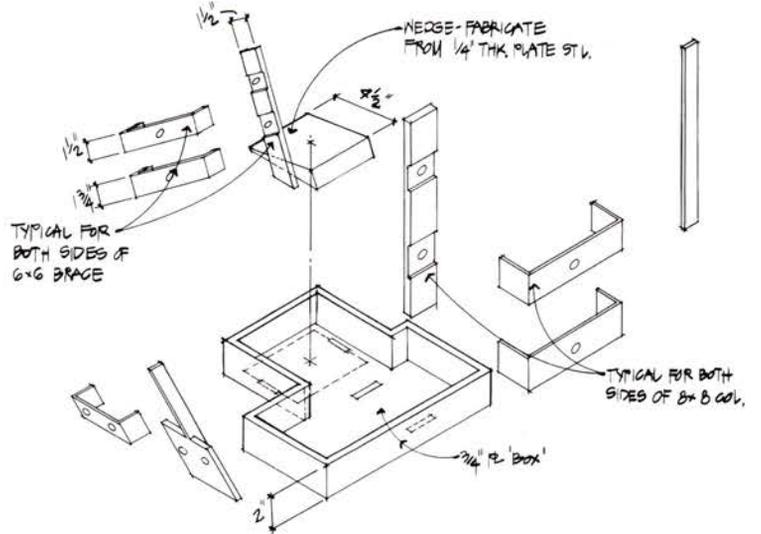
VIEW TOWARD MASTER BEDROOM FROM HALLWAY



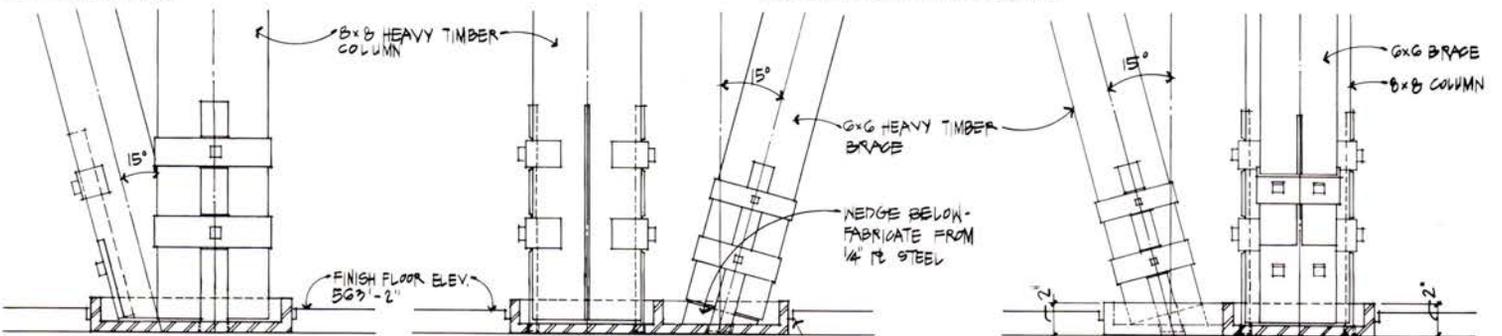
DETAIL OF COLUMN ASSEMBLY



PLAN OF COLUMN BASE



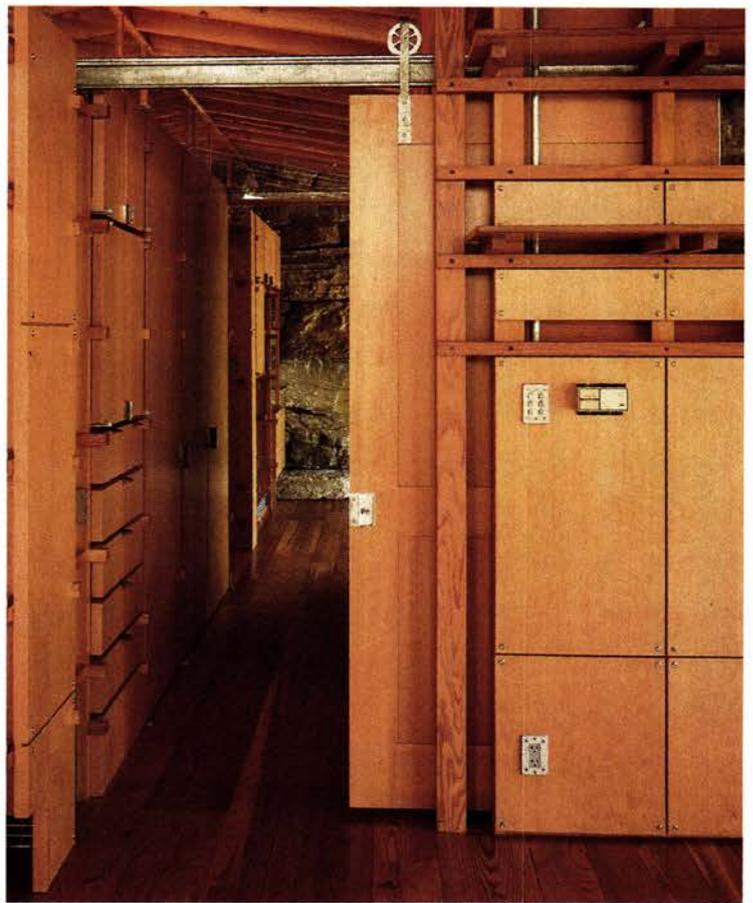
COLUMN BASE ASSEMBLY COMPONENTS



COLUMN BASE ASSEMBLY ELEVATIONS



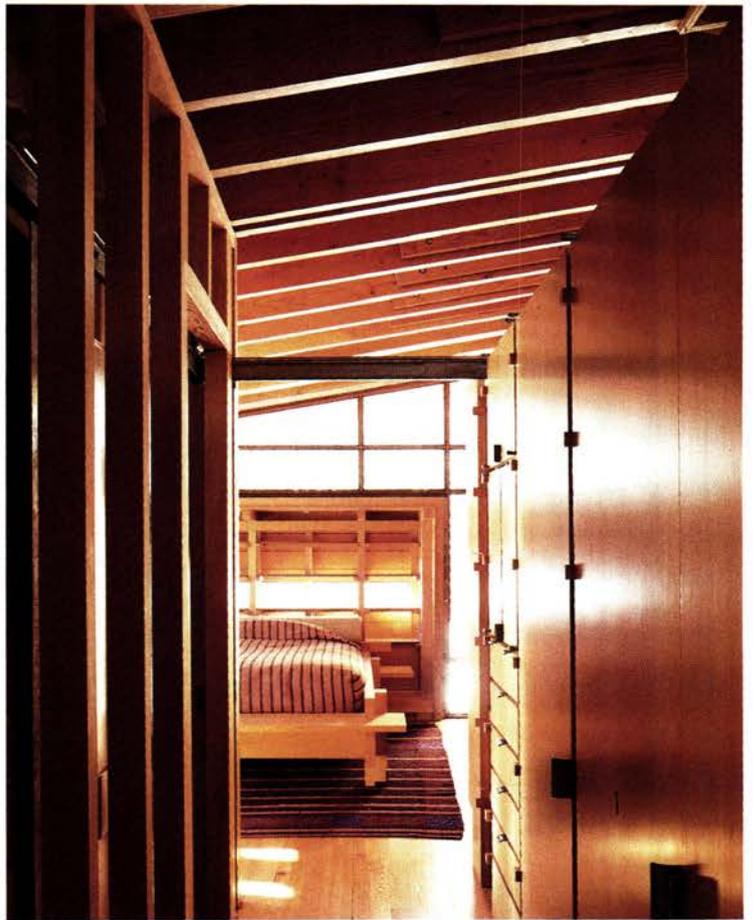
MASTER BEDROOM CABINETRY



VIEW OF HALLWAY FROM MASTER BEDROOM



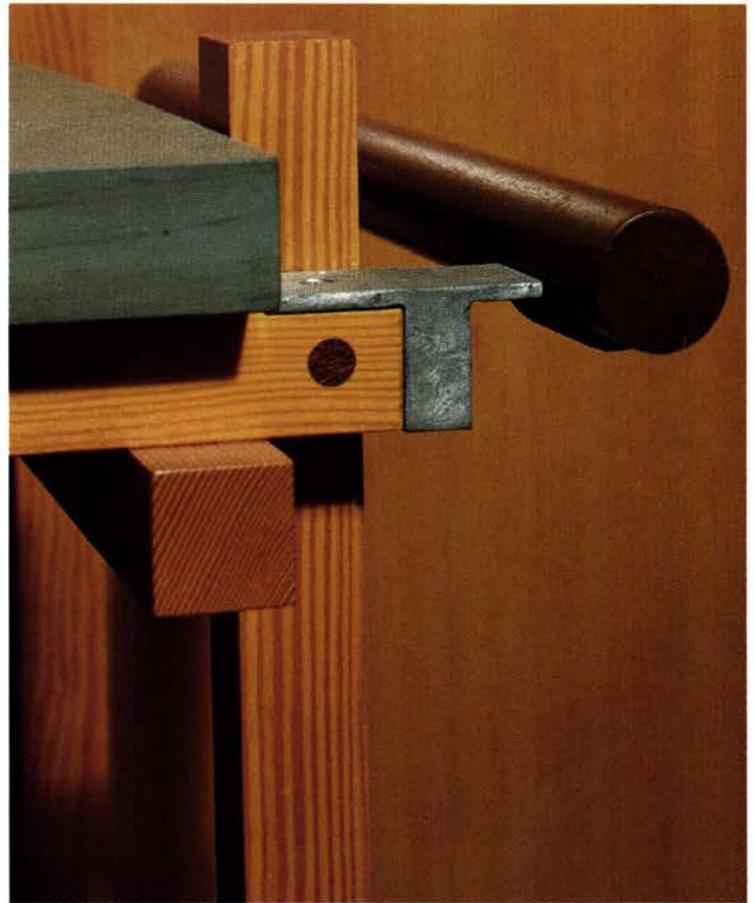
MASTER BEDROOM BUILT-IN SHELVING



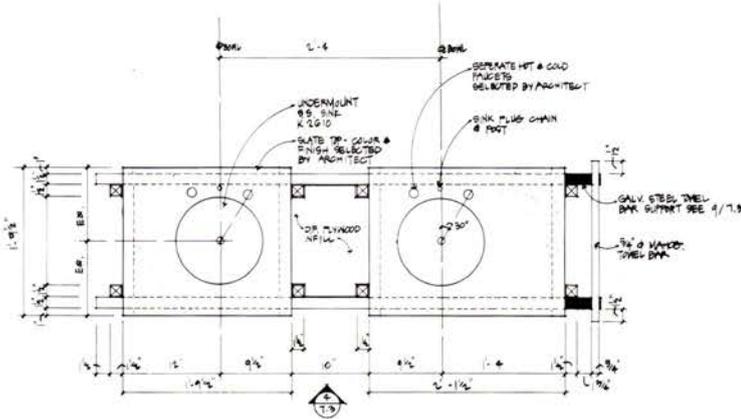
VIEW INTO MASTER BEDROOM FROM HALLWAY



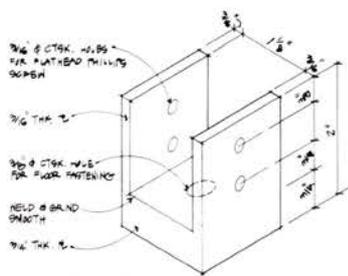
MASTER BATHROOM LAVATORY



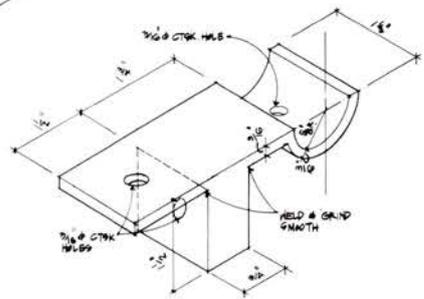
TOWEL BAR DETAIL



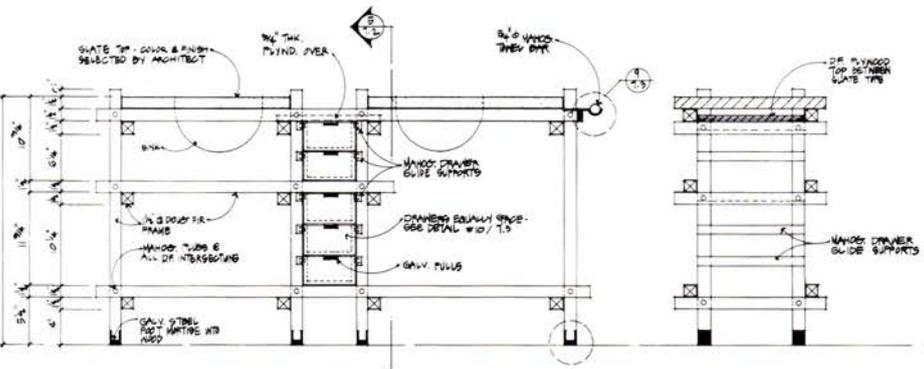
PLAN OF MASTER BATHROOM LAVATORY



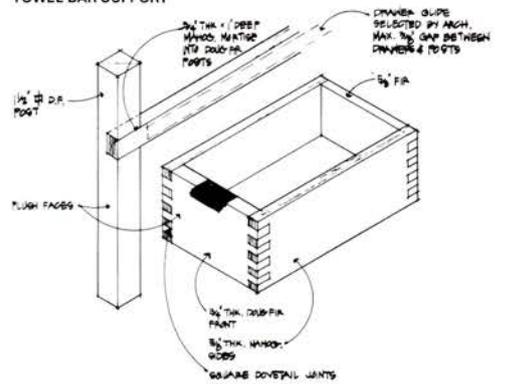
LAVATORY FOOT



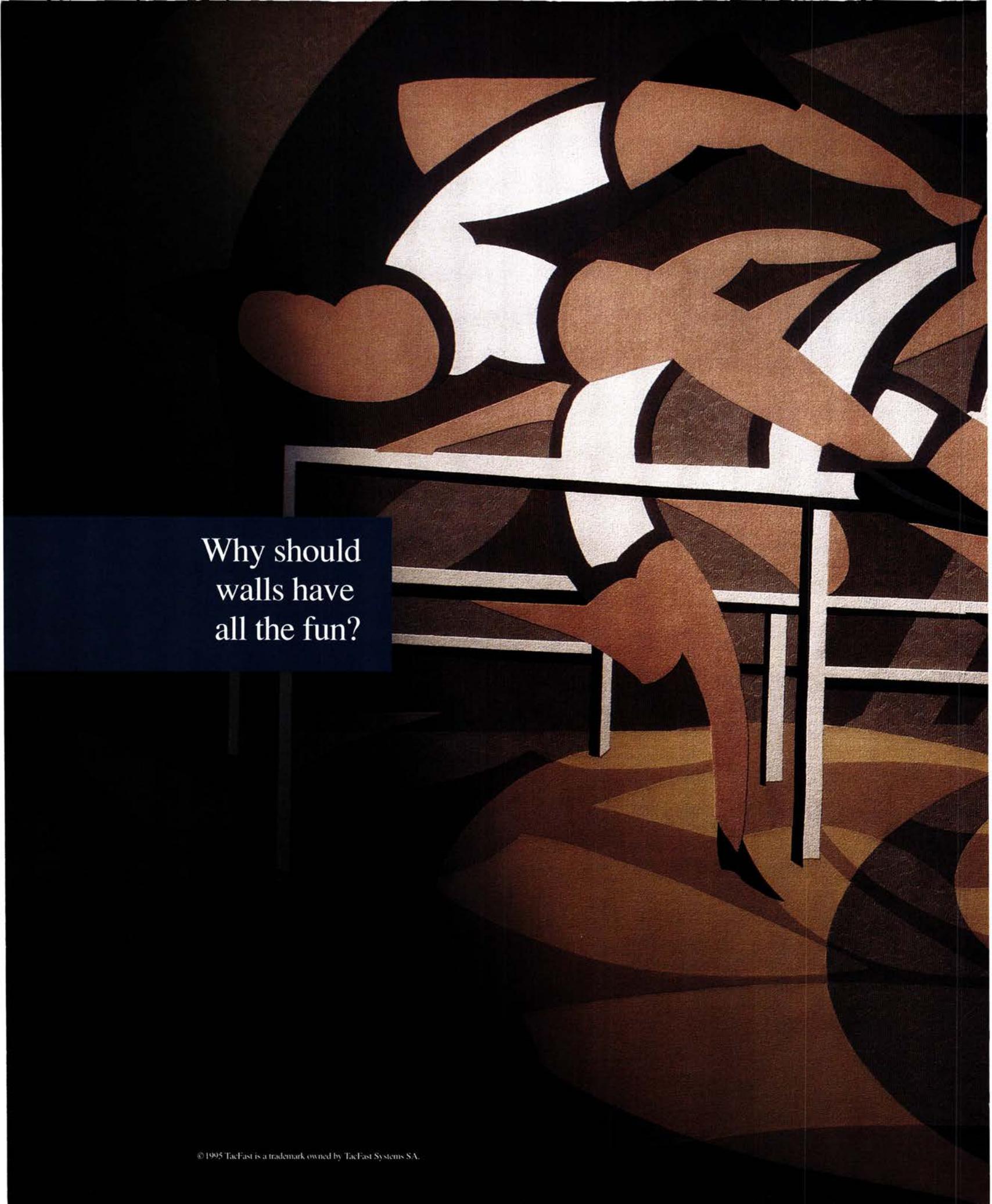
TOWEL BAR SUPPORT



ELEVATION OF MASTER BATHROOM LAVATORY



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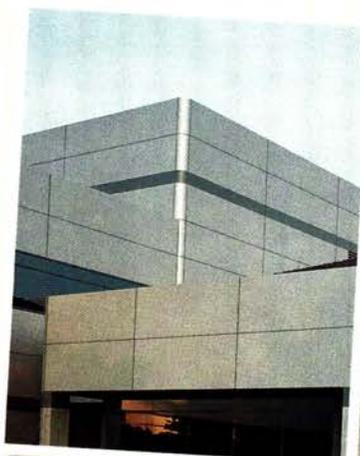
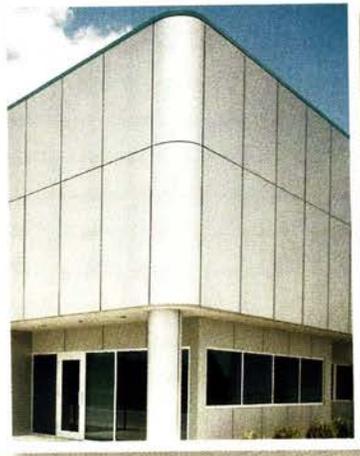
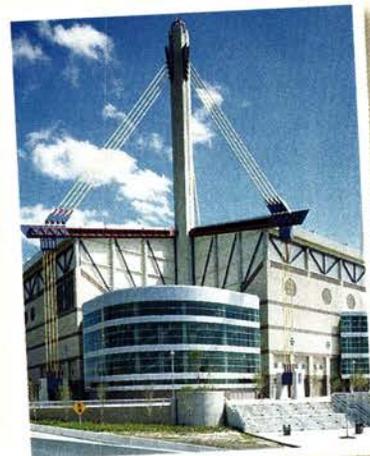
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Touted for design flexibility, low costs, and energy efficiency, exterior insulation and finish systems (EIFS) have captured a 12 percent share of the commercial cladding market since their American debut 26 years ago. In 1995, sales of these synthetic stucco exterior-wall systems climbed 11 percent, totaling more than 260 million square feet. The EIFS Industry Members Association (EIMA) predicts that by the end of 1996, total EIFS installation in North America will exceed 2 billion square feet.

A threat to the success of EIFS, however, has surfaced in North Carolina, where panic and legal opportunism have created an industrywide controversy. Over the last 18 months, North Carolina's New Hanover County Inspections Department has observed significant problems with EIFS-clad houses. Last July, the department created a database to monitor reports of structural damage to relatively new houses, and noticed that several of the properties were finished in

synthetic stucco. An investigation of 72 randomly selected EIFS-clad houses, all less than three years old, revealed that 70 of them suffered from water infiltration. A subsequent study of 209 EIFS-clad houses, conducted by the Wilmington section of AIA North Carolina, drew similar conclusions: 90 percent registered unacceptably high moisture levels.

The surfaces of the EIFS did not fail, but water managed to get into the walls through joints between the cladding and windows, doors, and other penetrations, as well as roof flashing. The consequences ranged from damp window frames to rotting structural framing and damaged interior finishes.

The primary causes of the water infiltration appear to be improper detailing and poor workmanship. The AIA study found that 38 percent of the 209 houses had improper or no caulking around windows, and that 25 percent of 652 flashings sampled were not watertight. But many New Hanover County locals didn't wait for confirmation:

Improving EIFS Performance

A controversy in North Carolina reminds architects that successful exterior insulation and finish systems depend on detailing.



ABOVE: Full-scale mock-up of Neoclassical cornice at National Advocacy Center by Robert A.M. Stern Architects demonstrates detail possibilities of EIFS.

several applicators closed shop, owners summarily removed healthy EIFS from buildings with no traces of water penetration, and some real estate agents refused to show houses clad in synthetic stucco.

This EIFS backlash climaxed with a suggestion to ban the systems statewide, a measure that was considered and rejected by North Carolina's Building Code Council in March. However, pending class action suits filed on behalf of EIFS homeowners ensure that the dispute is far from being resolved.

A troubled history

EIFS manufacturers are no strangers to controversy. Since EIFS were introduced in this country in 1969, architects, contractors, and applicators have gone through a difficult learning period of familiarizing themselves with the systems' idiosyncrasies.

EIFS consist of a polymer-matrix base coat, fiberglass reinforcing mesh, and a finish coat applied to a polystyrene insulation board, which is secured to a substrate with an adhesive or a mechanical attachment. The

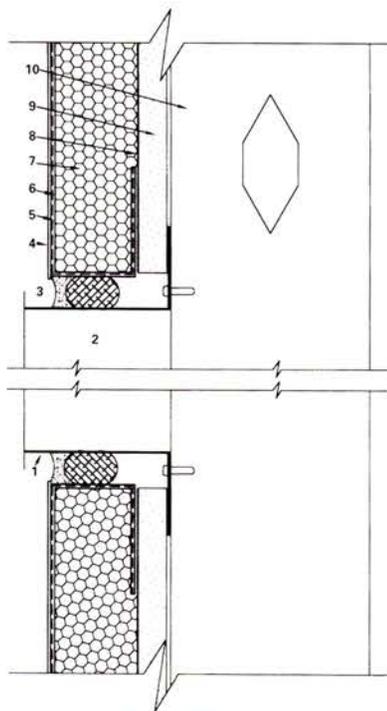
EIMA's second round of details

will focus on weatherproofing

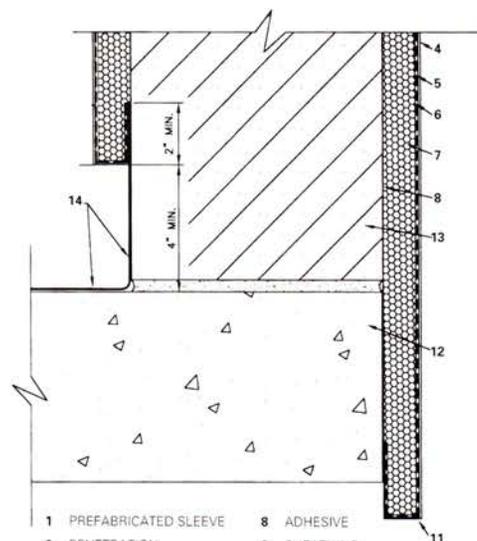
interruptions in EIFS' surfaces,

such as balconies, air-conditioning

units, and sprinkler aprons.



SYSTEM PENETRATION DETAIL



- | | |
|---------------------------|------------------|
| 1 PREFABRICATED SLEEVE | 8 ADHESIVE |
| 2 PENETRATION | 9 SHEATHING |
| 3 SEALANT WITH BACKER ROD | 10 FRAMING |
| 4 FINISH COAT | 11 DRIP |
| 5 REINFORCING MESH | 12 FLOOR SLAB |
| 6 BASE COAT | 13 MASONRY UNIT |
| 7 INSULATION BOARD | 14 WATERPROOFING |

BALCONY WALL DETAIL

prototype originated in post-World War II Europe as a finish system applied over masonry and concrete in building renovations. American manufacturers adapted the European system to metal- and wood-framed walls sheathed in gypsum board or plywood.

Compatibility among these various materials is critical. Alkali present in the base coat can cause deterioration of the fiberglass mesh; the wrong base-coat thickness, cement content in the base coat, or mesh density can result in leaking, cracking, and delamination. Improperly caulked windows, poor sealants, and inadequate flashing can ruin an EIFS wall by allowing moisture to penetrate these face-sealed barrier constructions—as is the case in New Hanover County. Once water gets in, it cannot escape: unlike cavity walls, traditional EIFS have no internal drainage provision if moisture gets past the system membrane.

Manufacturers have had to scramble to stay one step ahead of negative reports as the building industry learns these difficult lessons—often at the expense of the buildings' owners. To improve EIFS' performance, a number of companies now offer premium systems that incorporate higher-density mesh for stronger impact resistance, thicker or double-layer base coats to increase weather resistance, and drainage and weep holes to allow moisture to escape.

On a more sophisticated level, manufacturers have devised rain-screen systems that employ a trowel-applied air barrier to equalize air pressure so that moisture cannot be

drawn into the wall assembly. But these systems, necessarily more complex, offset EIFS' fundamental benefits—low initial costs and straightforward installation methods.

New codes and details

The lack of industry standards governing EIFS has also hurt their performance. The systems have all but been ignored in building codes. EIFS made it into the books for the first time when the Building Officials and Code Administrators (BOCA) membership voted last September to insert a clause into the 1996 BOCA code, requiring special inspections to be performed on EIFS applications of more than 10,000 square feet.

Last January, EIMA-endorsed standards went into effect that specified a minimum dry base-coat thickness of $1/16$ of an inch, and recommended that it be applied in two coats. But in August, the association revised its stance, requiring that the mesh be fully embedded in the base coat—but not specifying a minimum base-coat thickness.

EIMA maintains that the change was made to avoid hindering development of future systems that may warrant thinner base coats. Others believe EIMA to be shirking responsibility when the association should be assuming it: "At the same time that EIMA backed off from a very modest requirement, BOCA accepted its first language for EIFS," points out architect Richard S. Piper of R.J. Kenney Associates, a research and testing laboratory in Plainville, Massachusetts.

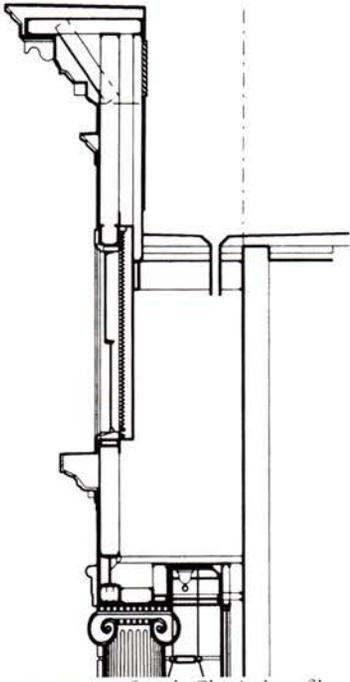
To its credit, EIMA has taken steps to address detailing of EIFS. In June 1994, the association published 10 basic details (now being revised) that focus on generic installation conditions at foundations, windows, parapet caps, dissimilar substrates, and expansion joints. A supplementary set, scheduled to be published this summer, addresses nine more complex circumstances, including a balcony wall intersection and penetrations such as air conditioners (above). These details offer essentially the same information currently available from manufacturers.

What promises to be more significant is EIMA's inauguration this June of a third-party builder certification program. The National Association of Home Builders Research Center will certify qualified participants based on EIMA-specified installation techniques.

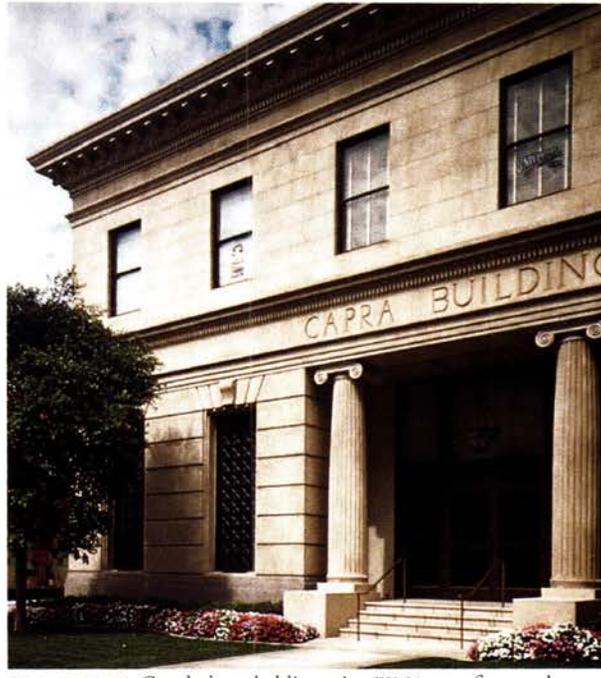
State and federal standards

First targeted to commercial applications, EIFS have only entered the residential market in the last 10 years, but already an estimated 250,000 U.S. houses are clad in EIFS.

Details tailored to residential EIFS, rather than borrowed from commercial projects, might have averted some of the problems in New Hanover County. Rather than waiting for the industry to regulate residential EIFS construction, however, North Carolina has enacted standards of its own. In March, its Building Code Council adopted stringent restrictions on wood-framed EIFS applications statewide. The terms specify that, effective



WALL SECTION: Sony's Classical profile.



SONY PICTURES: Gensler's recladding wins EIMA retrofit award.



ASSEFI HOUSE: Residential winner of EIMA award.



THE PALACE: Commercial winner of EIMA award.

January 1, 1997, all new synthetic stucco systems must incorporate drainage. Any owner whose property is damaged to the point that EIFS panels must be removed, must replace the damaged EIFS with a drainable alternative. And projects on the boards that have not yet obtained final building permits must conform to these new terms.

This legislation has precedents. Similar restrictions went into effect in January in Vancouver, which now permits only prefabricated EIFS constructed off site under temperature-controlled conditions or, for on-site installations, EIFS designed with weep holes or rain-screen technology.

In July 1993, the U.S. Department of Housing and Urban Development (HUD) adopted agency-specific EIFS regulations that ban the use of gypsum-based sheathing as an EIFS substrate; require third-party inspections of all HUD-funded EIFS installations of more than 5,000 square feet; and demand a 20-year manufacturer's warranty against faulty performance of the system, including failure of the caulks and sealants.

Meanwhile, litigation continues in North Carolina and across the country. Plaintiffs filed a civil suit with the U.S. District Court (Eastern District of North Carolina, Southern Division) in March that would require the nine manufacturers responsible for 80 to 90 percent of EIFS construction to pay damages to current and past owners of EIFS-clad houses who have incurred costs for inspecting, repairing, and replacing the EIFS. This

civil suit and four other state-level suits are several months, if not years, away from conclusion. Meanwhile, the smell of compensatory and punitive damages lingers in the air, wafts across the country, and beckons to a platoon of expert witnesses in waiting.

Flexible ornament

As EIFS' performance stabilizes, manufacturers continue to fight another battle: design acceptance. It's not an easy task to win over architects, but the industry is trying hard. More and more architects involved with high-end institutional projects are specifying these multiple-component synthetic-stucco systems, attracted by their relatively low cost and design flexibility.

Robert A.M. Stern Architects, for example, is working with EIFS on two campus projects in Columbia, South Carolina: a student dormitory and the National Advocacy Center, a training facility for attorneys. "Both are Neoclassical buildings," explains Associate Gary Brewer, "and both rely on EIFS to shape window casings and cornices with elaborate profiles." As Brewer observes, EIFS offer a good way to replicate details without the expense of stone.

High-profile clients such as Disney have given EIFS quite a bit of visibility. Michael Graves incorporated EIFS in the 1990 Dolphin and Swan hotels in Lake Buena Vista, Florida, for the corporation. Venturi, Scott Brown and Associates mixed EIFS with porcelain tiles in Disney's flamboyant 1994

Reedy Creek Emergency Services Headquarters in Orlando, and specified synthetic stucco for Disney's Frank G. Wells Office Building, currently under construction in Burbank. "For projects with limited budgets, there are a lot of neat things you can do with EIFS in terms of two-dimensional patterning and color," explains Principal Steven Izenour. "It's extremely flexible in terms of ornament, and it's cost-effective."

The industry is doing its best to publicize the architectural merits of EIFS, with strategies such as EIMA's design awards program, now in its third year. Announced in February, this year's three winners share a Classical flair: Gensler's six-block neighborhood of filmable facades for Sony Pictures Studios in Culver City, California, won the retrofit category. Architect Richard W. Sewall and Coronado Stucco & Stone captured the residential prize for the Assefi House in Great Falls, Virginia. In the commercial category, general contractor McDevitt Street Bovis of Columbia, South Carolina, came out on top with The Palace in Myrtle Beach.

Architects who have been won over by EIFS' versatility and cost-effectiveness caution others not to reject the systems too hastily. They understand that EIFS are not isolated systems, but are simply one part of the exterior envelope. With proper integration of all components, EIFS provide a low-cost, detail-intensive alternative to conventional masonry. Asserts Gary Brewer, "If John Nash were alive, he'd be using EIFS."—Ann C. Sullivan



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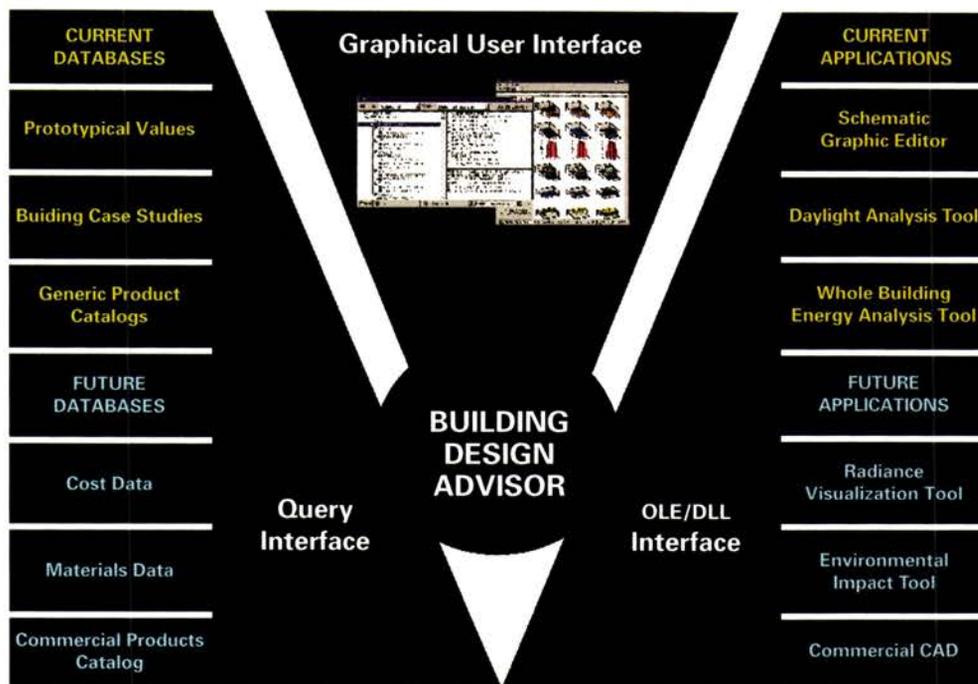


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Windows 3.1, Windows NT™,
OS/2® Warp,
IBM® PowerPC™ NT,
HP 700™ Series,
DEC Alpha™ NT, RS/6000™, SGI
Clipper™, Apple® Macintosh®
and Power Macintosh™



New Software Saves BTUs

Computerized tools help architects improve energy efficiency during design development.

Energy-efficient design has come a long way since the 1970s, when the U.S. experienced its first oil crisis. Massing and detailing strategies, efficient systems, and sophisticated analytical tools now help reduce energy consumption in buildings, yet many architects fail to implement these solutions. New energy software programs, funded in part by the U.S. Department of Energy (DOE), have made the task easier, allowing architects to predict and improve energy performance early in design.

Research indicates that the greatest potential energy savings—as much as 60 percent—come from decisions made at the beginning of design. However, an energy assessment is often undertaken by an engineer near a project's end, well after basic massing, fenestration, and shading strategies have been determined. The design team is then forced to apply last-minute corrections to an inherently inefficient structure.

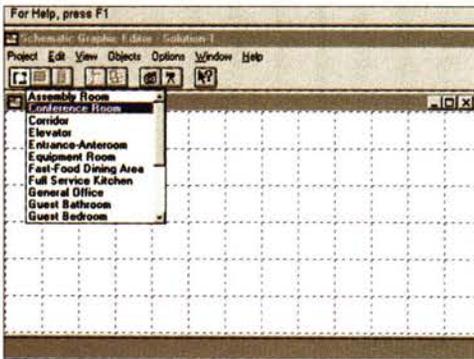
TOP: Building Design Advisor's databases and applications allow architects to rank and compare potential energy consumption of designs.

Energy performance must be considered holistically from the project's beginning, because it encompasses complicated, dynamic processes permeating all aspects of a building. It is affected by the ethereal—the angle at which a light ray strikes a window—and the mundane, such as the hours at which occupants routinely come and go. To achieve an efficient structure, a designer must simultaneously study site, orientation, materials, systems, operation, and maintenance, which demands a complex array of calculations.

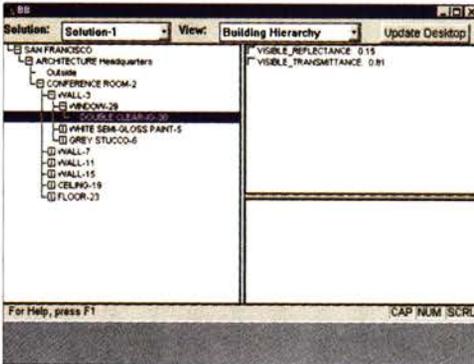
Existing software for modeling and analyzing energy performance often requires detailed descriptions of buildings and systems that can only be generated at a project's end. In addition, many of the tools are complex and operate independently of each other, so an architect would have to painstakingly enter separate building descriptions to investigate daylighting, air flow, and plug loads.

Fortunately, researchers at DOE and various universities, working with utilities and software manufacturers, have developed new energy software to make the process less daunting. Tools such as Building Design Advisor, Energy-10, and Softdesk Energy vary in scope, ease of use, and even level of completion, but their vision is the same—to make energy-efficient design a common practice in every architecture firm.—*Nancy B. Solomon*

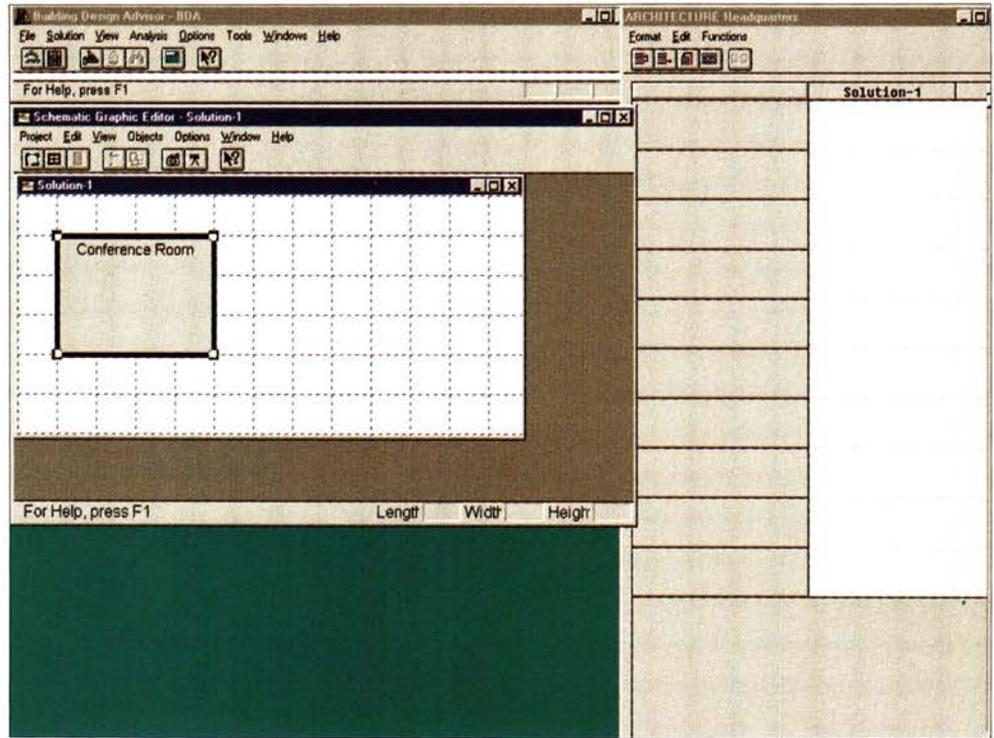
Building Design Advisor



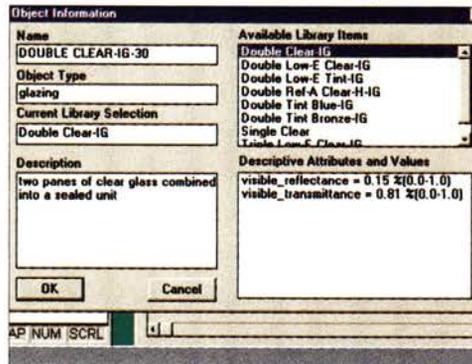
ROOM TYPE IS SELECTED FROM LIST OF PROTOTYPES



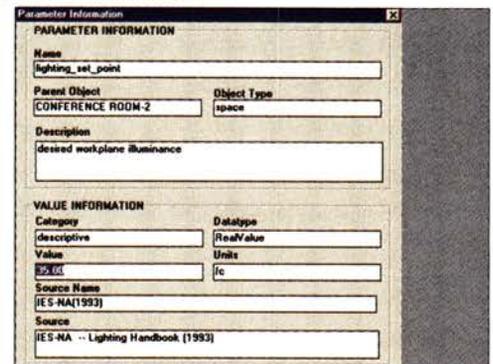
BUILDING BROWSER LISTS MATERIAL'S PROPERTIES



SCHEMATIC GRAPHIC EDITOR DRAWS ENTIRE SPACE, LINKED TO NONGEOMETRIC INFORMATION



COMPONENTS ARE DESCRIBED AND ALTERNATIVES SUGGESTED



SOURCES FOR ALL DEFAULTED VALUES ARE REVEALED

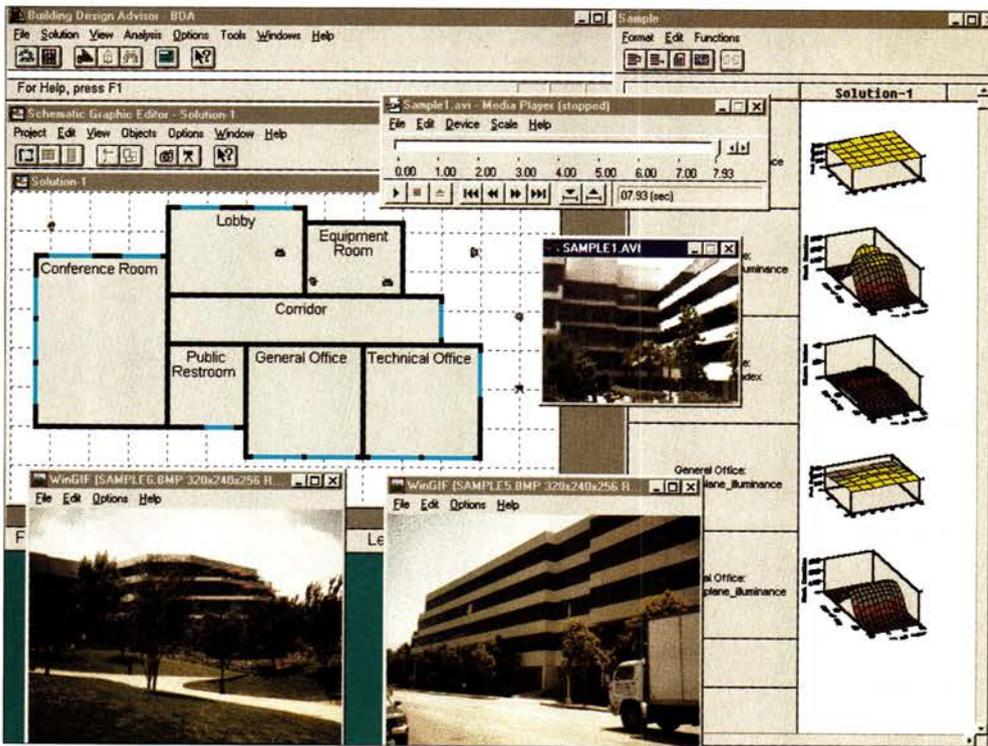
Recognizing that energy-efficient design cannot be accomplished in isolation from esthetics, cost, and comfort, a team of researchers from Ernest Orlando Lawrence Berkeley National Laboratory (LBL) in Berkeley, California, has created the basic framework for a tool known as Building Design Advisor (BDA). Still under development, BDA is a multimedia-based software package that can be linked to specialized applications and databases. With input from these external sources, it can analyze schemes according to various performance parameters. "BDA is a tool of tools," claims Konstantinos Papamichael, staff architect at LBNL. In addition to DOE funds, the project has been supported by the California Institute of Energy Efficiency and two of its member utilities, Pacific Gas & Electric and Southern California Edison.

The initial BDA package, which is targeted for completion this summer, is organized into three parts: a graphical user interface, databases, and applications. The interface consists of two basic features, the Building Browser and the Design Decision Desktop. The system's current databases include building case studies, generic product catalogs, and prototypical values for all nongeometric building parameters, such as the thermal properties of a wall assembly, the visible reflectance of a glazing, and the occupancy schedules of a standard office building. The software will link to three applications: a schematic graphic editor, a daylighting analysis tool, and a simplified whole-building energy-analysis tool. In addition, developers anticipate that BDA 1.0 will connect to PowerDOE, a Windows-based alternative to DOE-2 now under development. DOE-2 is the

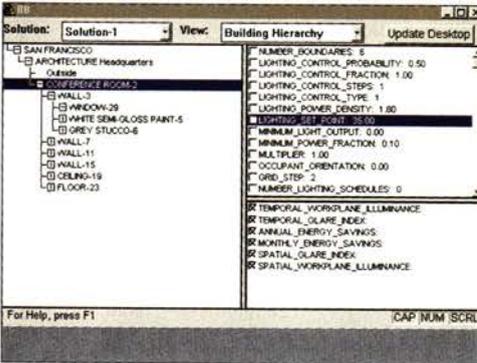
current version of a widely used and highly accurate whole-building energy-simulation program dating back to the 1970s.

Architects sketch their buildings with the schematic graphic editor. Based on state-of-the-art object-oriented programming, this tool links graphic images, such as windows, to material descriptions, such as double glazing with a particular visible reflectance. As the architect draws, the system automatically selects appropriate materials and values, based on building type, climate, and space program, for all descriptive parameters required by the tools linked to BDA. The platform is designed so that the schematic graphic editor could be replaced by proprietary object-oriented CAD systems in the future.

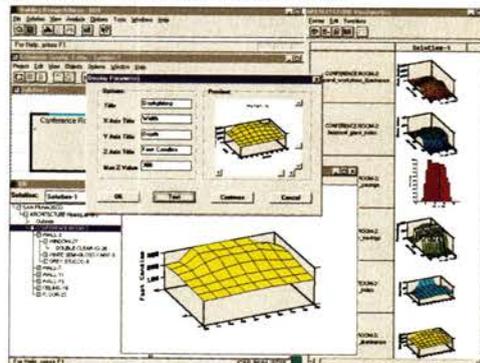
Having drawn the perimeter walls and openings, an architect can enter the Building Browser to review the materials and values



MULTIMEDIA DATABASE OFFERS PLANS, IMAGES, AND PERFORMANCE DATA OF EXISTING BUILDINGS FOR COMPARISON



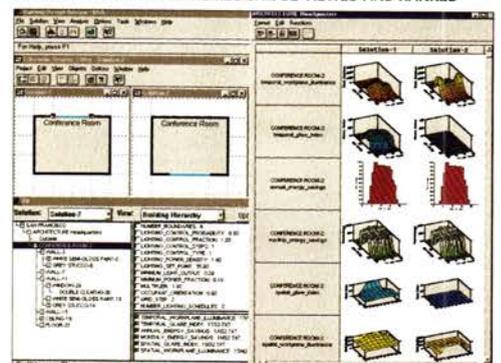
ARCHITECT MARKS DESIRED ANALYSES IN BUILDING BROWSER



RESULTS IN DESIGN DECISION DESKTOP CAN BE ENLARGED



OUTPUT FROM MANY SCHEMES CAN BE VIEWED AND RANKED



DESIGN CAN BE ADJUSTED AND REANALYZED

that BDA has automatically selected. The Browser screen is divided into three parts: a hierarchical list of the building's physical spaces and components, such as conference room, wall with window, and clear double-glazing; the performance characteristics associated with those physical objects, such as reflectancies or R-values; and a summary of the output available from the application tools linked to BDA.

By double-clicking a material, the designer obtains information about that component and a listing of possible alternative materials. And by double-clicking a specific characteristic, the architect can review the organization or code that was used as the source for the default value. If this value is modified, the current user name is automatically assigned as the source for the new value. BDA keeps track of all material and parametric changes,

as well as who made them and when, in case questions arise in the future.

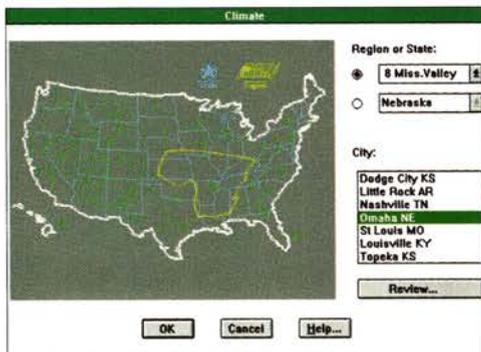
Once satisfied with the preliminary scheme, the architect selects the desired analyses and launches a simulation. Results are graphically displayed in the Design Decision Desktop, a matrix screen with columns of design solutions and rows of output. An architect can then adjust the design within the graphic editor and run another simulation. When instructed, the program will rank solutions in the Desktop based on a particular criterion, such as the lowest energy consumption or the least expensive to construct. Results from several different applications will be displayed together, providing a holistic, integrated picture with which to optimize a project's varied performance goals.

BDA also offers case studies of energy-efficient projects so that architects can com-

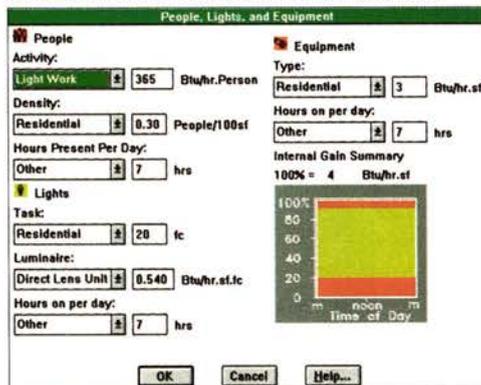
pare their own schematic designs against a tested model. The first version of BDA will contain several buildings from California, but architects can add their own projects to the multimedia database at any time. BDA developers envision a day when architecture schools and other organizations will establish regional databases of exemplary energy-efficient projects on the Internet.

In the future, BDA may connect to other databases—proprietary product catalogs, construction costs, and environmental assessments of materials—as well as additional applications such as RADIANCE, for lighting and photoaccurate rendering, and COMIS, for air-flow simulation. BDA runs in a Windows environment with a PC 486 or more advanced system. Architects interested in obtaining the first version should contact Konstantinos Papamichael of LBNL at (510) 486-6854.

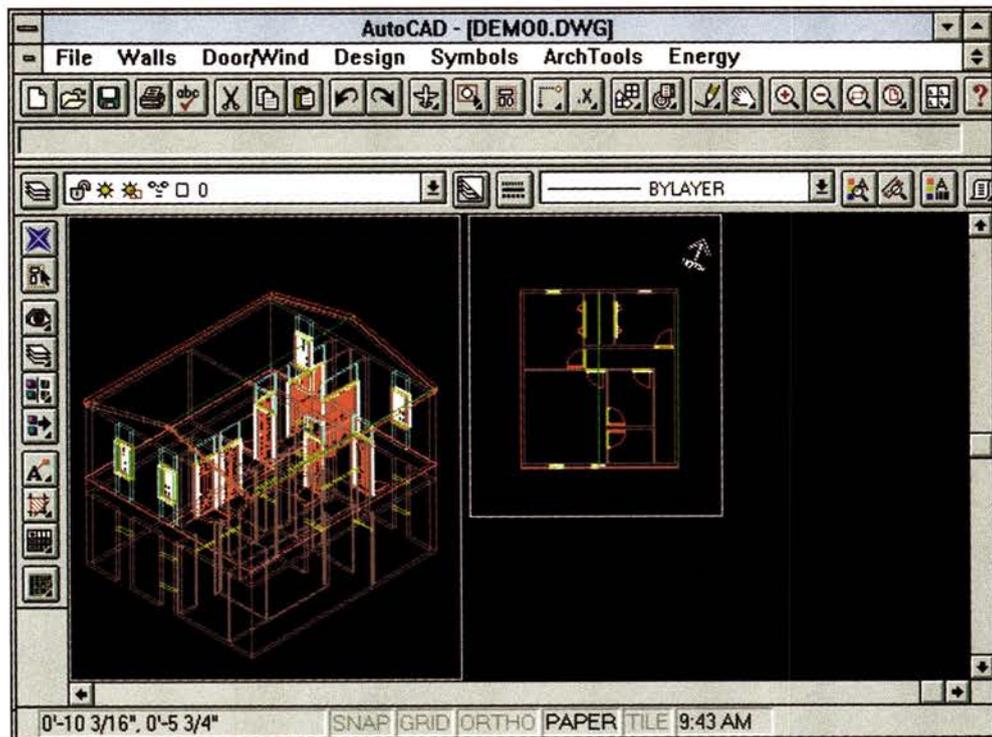
Softdesk Energy



ARCHITECT INDICATES CLIMATE BY SELECTING APPROPRIATE CITY



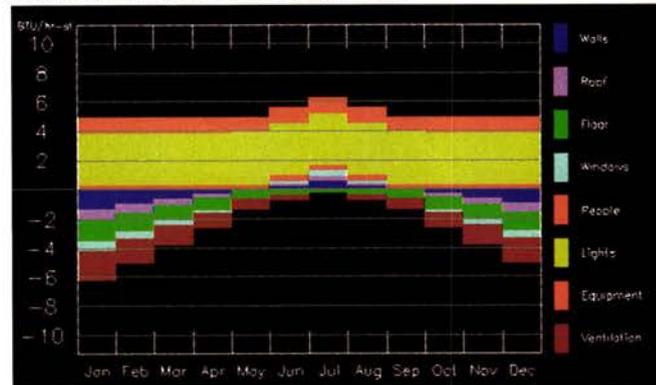
OCCUPANCY AND OTHER SCHEDULES ARE ADJUSTABLE



ENERGY PROGRAM ANALYZES SCHEMES DRAWN IN AUTO-ARCHITECT, ELIMINATING NEED TO REDRAW



DESIGNER SPECIFIES STOCK ITEMS



HEAT GAIN AND LOSS ARE ESTIMATED BY COMPONENT FOR ENTIRE YEAR

Softdesk Energy from Softdesk of Heniker, New Hampshire, weaves energy analysis into an architect's existing work flow. The application is an add-on to Auto-Architect, the company's third-party application for Autodesk's AutoCAD. Once loaded, Softdesk Energy becomes an additional menu item within Auto-Architect and can therefore estimate heating and cooling loads based on actual CAD drawings. Pacific Northwest National Laboratories in Richland, Washington, and the University of Oregon in Eugene performed the research and development for the software; Softdesk was responsible for quality assurance and distribution; and DOE provided funding.

Architects can activate Softdesk Energy as soon as the perimeter walls of their preliminary designs are drawn. The software asks for a north arrow to determine solar orientation;

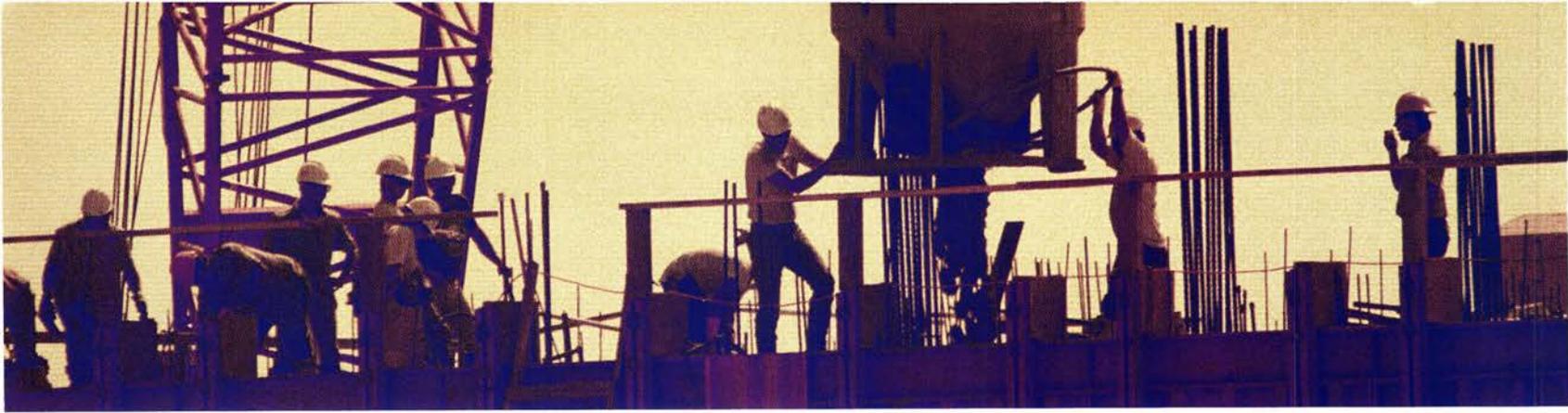
a building type, which automatically links the scheme to predetermined construction components, thermostat and ventilation settings, and occupancy, lighting, and equipment schedules; and a geographical location, for appropriate climate data. The simulation takes about 15 minutes to run, and the program's only output is a horizontal bar chart of energy-load estimates for a typical year.

This chart allows the architect to make initial rough estimates of a design's energy performance. The color-coded graph indicates heat gains and losses due to individual building components and systems. A broad, continuous band of yellow in the upper portion of the diagram, for example, indicates that lighting will generate a great deal of heat. Having viewed the graph, the architect makes appropriate adjustments to the design. A second simulation can confirm whether

the overall performance has indeed improved.

As the design develops, an architect can modify construction components, mechanical settings, and schedules to more closely model the actual specifications. Practitioners cannot enter a custom assembly, but can choose a similar stock item and adjust the R-value to match the innovative construction. Modifications can be saved as a new building type, which can form a future prototype.

Softdesk Energy was first released in June 1995 as part of Softdesk 7.0. It requires a PC 486 or more advanced system, plus AutoCAD and Auto-Architect. A Windows-compatible version with Canadian climate data will be available by June as part of Softdesk 7.5. For now, only one zone can be run at a time, but the capability to handle multiple zones simultaneously is planned for 1997. The energy add-on is free to all owners of Auto-Architect.

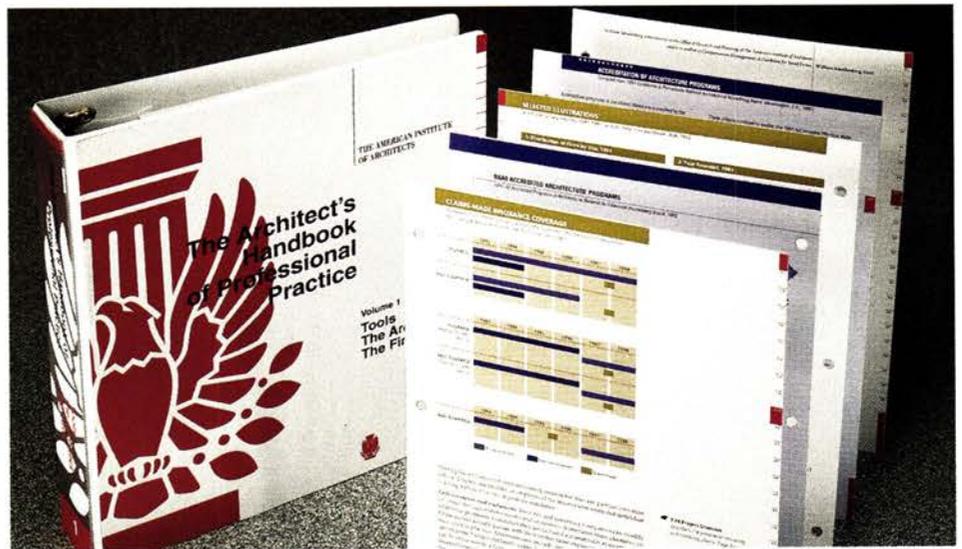


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Products

Ceramic flooring tiles recreate the appearance of limestone, marble, and granite.



TOP: Armstrong's World Industries' Standard Excelon Imperial Texture line has introduced a new palette. The "Spice Collection" of vinyl composite tile offers new shades of tan, red, purple, gold, blue, green, and brown in addition to the 42 original colors. The mottled tiles, intended for high-traffic areas, measure 12 inches square and $\frac{1}{8}$ - and $\frac{3}{32}$ -inch deep.
Circle 401 on information card.

ABOVE: The Alabastro Collection of porcelain tiles from the Italian manufacturer Ariosteia imitates the veins and patterns of alabaster marble. The veining extends through the full thickness, not just the surface, of the tile, enhancing the illusion that the Alabastro Collection is made of real stone. The tiles are available in five colors—coral, brown, green, pink, and white—and are manufactured in five sizes: $15\frac{3}{4}$ inches square, $11\frac{3}{4}$ inches square, $3\frac{1}{2}$ inches square, $15\frac{3}{4}$ inches by $3\frac{1}{2}$ inches, and $11\frac{3}{4}$ inches by $3\frac{1}{2}$ inches. Ariosteia also manufactures ceramic tile

resembling porphyry, limestone, marble, and granite.
Circle 402 on information card.

TOP RIGHT: Vinyl laminate flooring from Roppe includes the Wood Naturals line of wood-patterned laminates, finished in cherry, walnut, three varieties of maple, and four varieties of oak. The $\frac{1}{8}$ -inch-thick tiles are manufactured in 18-inch squares and 3-by-36-inch planks that resemble conventional hardwood boards. Roppe also manufactures the Cerrito Collection of Southwest-inspired rubber tiles, and the Venetia line of flecked, pastel-colored tiles.
Circle 403 on information card.

CENTER RIGHT: Ann Sacks Tile and Stone, a division of Kohler, manufactures and distributes residential and commercial flooring in hundreds of varieties of stone and tile. Terra-cotta clay tiles, contemporary architectural tiles, Italian marble, Arts and Crafts tiles, as well as stone and terra-cotta

reclaimed from buildings in Israel, France, and Indonesia are available. Among the marbles are several mosaic medallions, patterns, and borders, including the 2-inch-square Roman stone with mosaic border (pictured).
Circle 404 on information card.

ABOVE: Italian manufacturer Rex Ceramiche Artistiche found inspiration in the limestone flooring of French castles for its Chateaux de la Loire series. The ceramic tiles are available in shades of white (pictured), gray, blue, red, and black, and can be specified in seven sizes. The following sizes are available in all colors: 6 inches square, 12 inches square, 18 inches square, 6 by 12 inches, and 12 by 18 inches. The 12-by-24-inch and 24-inch-square tiles are available only in white. Rex Ceramiche Artistiche also offers tiles resembling weathered wood, which measure 6 inches wide by 18 inches long and are available in blue, black, white, peach, brown, and green.
Circle 405 on information card.

Products



Bathroom fixtures and finishes are designed to emphasize human comfort.

Ergonomic toilet seat

Zoë, a new toilet seat (above) from the Japanese plumbing and bathroom fixtures manufacturer Toto, incorporates two hygienic features that distinguish it from conventional models. A jet of water from the seat, operated by a remote control (above right), offers the same cleaning function as a bidet, while a fan draws air through a filter in the seat, returning fresh, odor-free air into the bathroom. An automatic seat-warmer accessory, activated by sitting down, is also available.

Ayse Birsel's design for the Zoë seat won a 1995 Good Design Award from the Chicago Athenaeum Museum of Architecture and Design. The ergonomically designed seat purportedly provides better back and rear support than conventional toilet seats, and rubber knobs under the seat cushion the impact of sitting. The seat and back fit on standard elongated and round bowls. The seat measures approximately 17⁵/₈ inches wide, 21¹/₄ inches deep, and 5 inches high. *Circle 406 on information card.*

Tapered faucets

Finial Fundamentals, a new collection of faucets from Kohler, includes shower, sink, and bidet fixtures, as well as accessories such as towel bars, tissue and soap holders, and hooks. Three handle designs—cross, lever, and tee (above)—can be used with the tapered base. Finial Fundamentals faucets are available in polished chrome and white finishes; a higher-priced line, Finial Art, is available in red, blue, wrought iron, and other finishes. *Circle 407 on information card.*

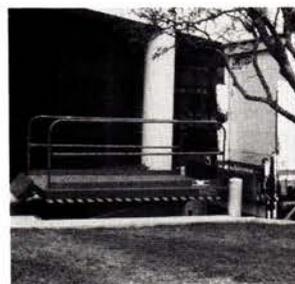
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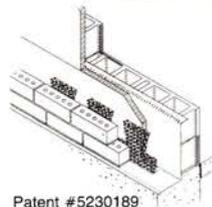
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Ceramic basin

The Vessels line of above-counter basins from Kohler is available in three models, including cone-shaped Conical Bell (above). The ceramic lavatories can be finished with high-gloss glazes in blue, black, and white, or in matte black, cream, midnight blue, and clay (above). Turnings and Conical Bell models measure 16¹/₄ inches in diameter; Hex Strata measures 19⁵/₈ by 17¹/₈ inches. The chrome faucet is available in 6-, 9-, and 12-inch lengths. Circle 408 on information card.



Classic parquet

The Custom Classics collection from Kentucky Wood Floors, featuring Bordeaux, Brittany, Fontainebleau, and Citation patterns, now includes the Cambridge pattern. The tile can be specified in any species of wood, including ash and red oak (above). Standard units measure 24 inches square and ³/₄ inch thick, but can be custom-ordered in any size. Custom Classics can be delivered with finished or unfinished wood surfaces. Circle 409 on information card.



Acoustic panels

Sound-absorbent wall and ceiling panels from Tectum can be specified in any color. ChromaSpec paint from Artistic Coatings is applied to the panels in a drizzled motif (above). The ceiling tiles measure 23³/₄ inches square, 47³/₄ inches square, and 23³/₄ by 47³/₄ inches. Available in 1- and 1¹/₂-inch thicknesses, the wall panels can be specified in standard 23³/₄-by-31³/₄-inch dimensions, or 47³/₄ inches wide with heights from 72 to 144 inches. Circle 410 on information card.



Floor tile

Natura Excavare ceramic floor tiles from Florida Tile have a semimatte finish which resembles natural stone (above). The tiles, intended for interior use, are available in six colors: white, cream, gray, charcoal, gold, and green. Natura Excavare measures ¹/₃ inch thick and is manufactured in four sizes: 6, 12, and 16 inches square, and 6 by 12 inches. The line also includes a bullnose molding measuring 4 inches high and 12 inches wide. Circle 411 on information card.

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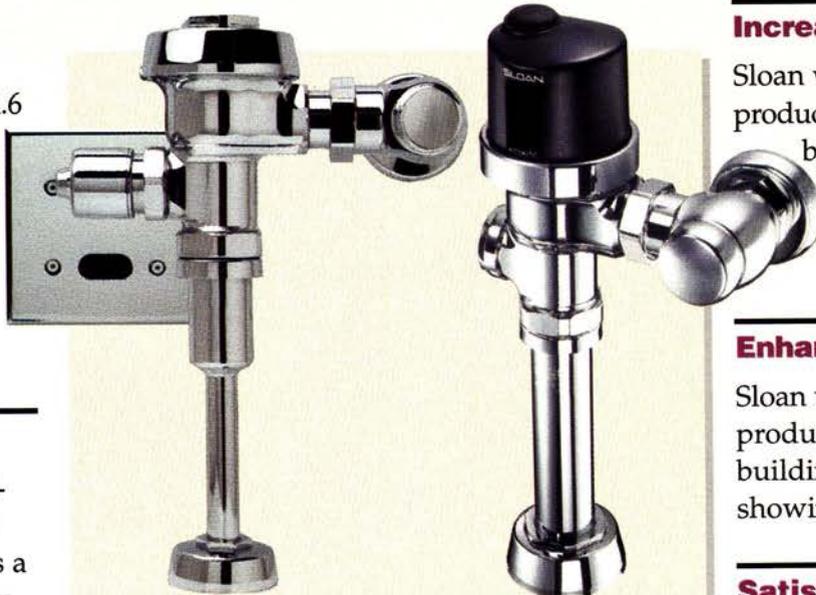


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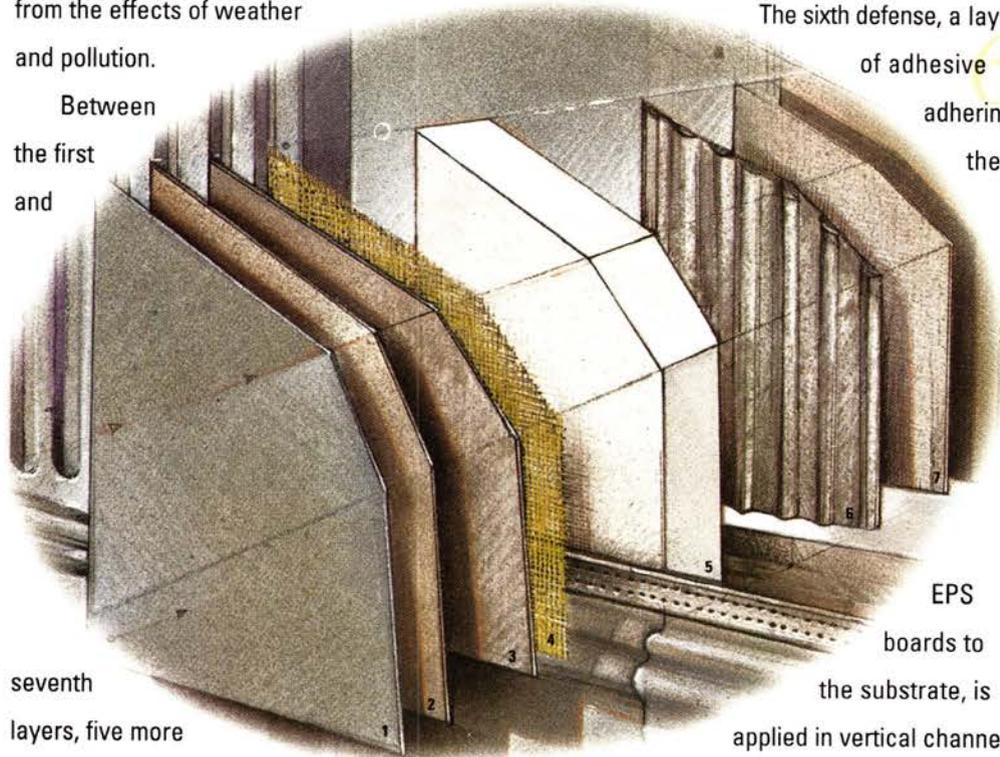
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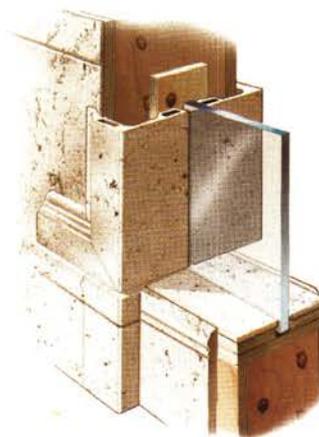


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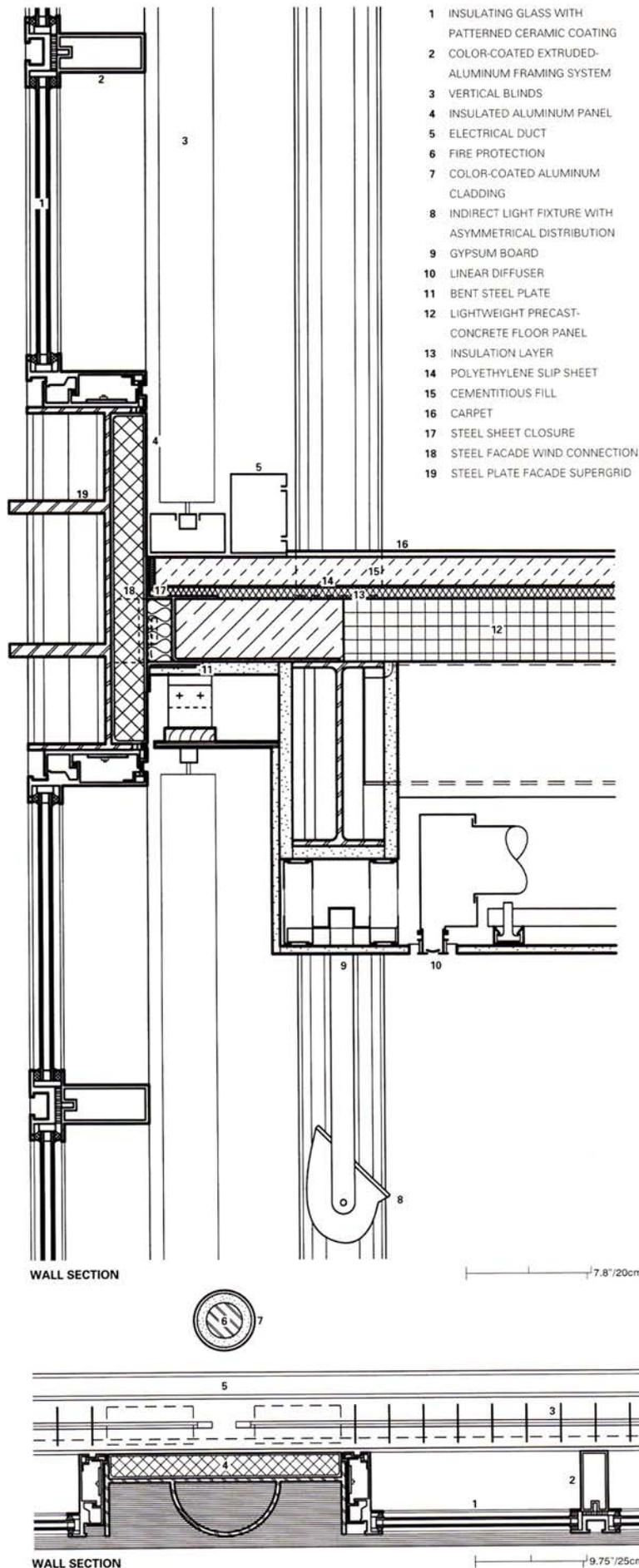
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Details

Preassembled curtain wall panels improve construction of a Berlin office building.



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Murphy/Jahn

Helmut Jahn squeezed a 7½-meter-wide structure onto a slender, 3-meter-wide site by cantilevering offices over the sidewalk (pages 190-191, this issue). The offices are supported by trusses that extend from a concrete-framed party wall atop deep foundations. Hung from the trusses are tubular vertical members placed 50 centimeters behind the glazed curtain wall (section, left).

The building's exterior skin is composed of a panelized aluminum curtain-wall assembly fitted with insulated glass. Jahn selected this system for its improved quality of construction. The panels were pre-glazed in a factory and assembled on the curtain wall with interlocking mullions on the job site.

The 7-meter-square curtain-wall panels are fitted with 8-millimeter-thick glass on the exterior, with 4-millimeter-thick glass mounted on the inside surface; a 15-millimeter-wide air space separates the two glazed panels. By placing the thicker glazed layer on the interior, the architect reduced sound penetration from the street. Varying gridded frit patterns applied to the exterior glass create different degrees of transparency and lend scale to the west elevation.—*Raul A. Barreneche*