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Muses, Furies, and Goddesses

A conference underscores the continuing need to secure women's place in architecture.



DOV CAMERA

ABOVE RIGHT: Conference participants included: Patricia Conway (bottom left); Denise Scott Brown, Beatriz Colomina, Beverly Willis, Sharon Sutton, Lauretta Vinciarelli, Catherine Ingraham (bottom row); Leslie Kanes Wiesman, Sylvia Lavin, Jennifer Bloomer, Sheila DeBretteville, Susana Torre (second row from bottom); Mildred Friedman, Diana Agrest, Zeynep Celik, Diane Favro, Alice Friedman, Ghislaine Hermanuz, Kathryn Gleason, Mary McLeod, Joan Ockman, Christine Boyer, Lynne Breslin (third row); Marion Weiss, Donna Robertson, Sheila Kennedy, Homa Fardjadi (top left), Diane Lewis (top), Esther da Costa Meyer, Dana Cuff, Margaret Crawford, Ann Bergren (top right). Not shown: Annette Fierro, Anuradha Mathur, Anne Vernez Moudon, Adele Santos, Anne Spirn.

Affirmative action is now under seige, attacked for promoting reverse discrimination. One of its benefits, however, has been the long-overdue hiring of women to teach in architecture schools. As a result, the number of female faculty has grown in recent years, but these women remain relatively invisible. Their collective presence is rarely felt within the discipline. That's why "Inherited Ideologies: A Re-Examination," a conference held in March at the University of Pennsylvania's Graduate School of Fine Arts, proved to be such a powerful event. For the first time, 36 of the best and brightest women in architecture gathered in one place to deliver feminist perspectives on our discipline.

The brainchild of Patricia Conway, former dean of Penn's Graduate School of Fine Arts and now a professor of architecture at the school, the two-day conference was held as part of the Annenberg Public Policy Center's year-long series on "Women in the Public Sphere." Architects, historians, theorists, urban planners, and landscape architects critically addressed the making of public space, from the room to the city.

These "muses, furies, and goddesses," as Cooper Union professor Diane Lewis characterized her colleagues, dissected the facades through which buildings and cities are typically represented and interpreted. They showed how the public square, the street, the house, the wall, and even the two-dimensional line assume new dimensions when

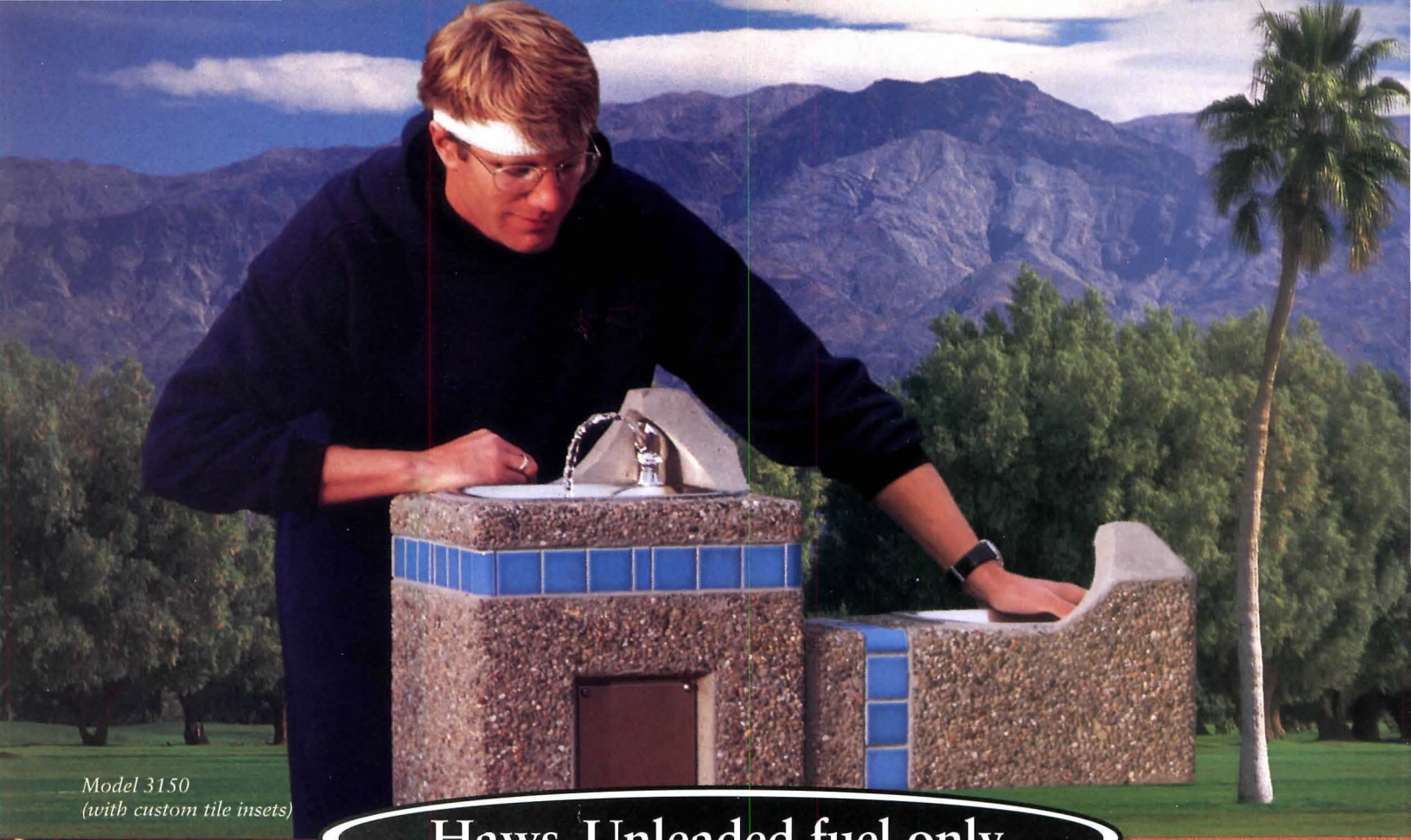
regarded through a female lens. Moreover, these presentations demonstrated that the research now undertaken by women addresses a variety of subjects and broadens, if not renounces, our inherited ideologies.

During the Penn event, one participant asked, "Do we really need conferences like this based on gender?" Given women's second-class status within the profession and recent attempts to dismantle affirmative action, the answer is resoundingly "Yes."

Only four years ago, with the appointment of three female deans and an AIA president, it seemed women had finally assumed leadership of architecture schools and the profession. Today, the four no longer hold these positions, and few institutions have elevated women architects to comparable posts. At the nation's architecture schools, only 9 percent of tenured faculty are women.

The collegial debate begun in Philadelphia must continue as a means of assessing who we are and how far we've come. It should expand to include more female practitioners at another national forum. Through further exchange of ideas, new understandings about the nature of the discipline will emerge. There are now many more female voices in architecture to be heard. We need more opportunities to listen and to learn from them.

Deborah K. Dietz



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Letters

Prove the context

Cesar Pelli's Physics and Astronomy Building for University of Washington's campus (February 1995, pages 76-85) does not seem to contribute to Pelli's more exemplary reasons for acquiring this year's AIA Gold Medal. Heidi Landecker greatly praises the building's cohesiveness with the rest of the campus, its sensitivity to scale and materials. Yet not one photograph offers a glimpse of just how "the complex fits this campus like a glove." Pelli's materials, patterns, and texture do not appear as if they mesh with the Gothic style of the campus.

Also, the sparse symbolic details designed to be inspirational—such as setting physics formulas in stone, the sundial on the southern facade—appear as afterthoughts, not as integrative to the building.

*Kelly J. Hutzell, AIAS
Bristol, Rhode Island*

Whodunnit on CAD

Dale R. Ellickson's article on the legalities of CAD (March 1995,

pages 119-21) details important concerns. At least one of those, the unauthorized manipulation of CAD files, can now be easily addressed.

There are software applications available today that provide reliable authentication of digital files. It is still difficult to prove who did what after a file leaves the designer's office, but whether a file has been altered can be shown with certainty.

Such security must become the norm when doing business in the electronic milieu of the future.

*Duane S. Thompson
Littleton, Colorado*

Master of loneliness

Architectural design is largely about making conceptual choices. For an elementary school sheltered below the Arizona mountains, should we choose to design a structure about nurturing and openness, a structure that evokes the myriad flowers of the brief desert spring, or should we design a school that is about power and loneliness, a structure that evokes the barren set of an Ingmar

Bergman film? For the children at Ventana Vista (March 1995, pages 58-67), facing a society rife with random violence and abuse, Antoine Predock chose the latter.

The design of this somber and majestic desert sculpture that enhances the encircling mountains has affirmed Predock's mastery of the architecture of power and loneliness. To say that this is the appropriate role of architecture in an elementary school, to justify the placement of children in such a structure, is architecture on a level that is truly somber, and humanity on a level that seems very lonely indeed.

*Paul D. Felder, AIA
Easton, Pennsylvania*

Correction

William McDonough, dean of University of Virginia's School of Architecture, did not receive a Master of Fine Arts degree from Yale (February 1995, page 123). His firm is now located solely in Charlottesville, Virginia.

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Events

Exhibitions

COLUMBUS, OHIO. "Rem Koolhaas and the Place of Public Architecture," May 6-August 13 at the Wexner Center. Contact: (614) 292-0330.

NEW YORK. "Mutant Materials in Contemporary Design," May 25-August 22 at the Museum of Modern Art. Contact: (212) 708-9400.

"Contemporary British Architecture," June 21-September 30 at the National Academy of Design. Contact: (212) 369-4880.

WASHINGTON, D.C. "Piet Mondrian: 1872-1944," June 11-September 4 at the National Gallery of Art. Contact: (202) 737-4215.

Conferences

ATLANTA. Computer Modeling and Rendering, June 21-23 at the Georgia Institute of Technology. Contact: (404) 894-2547.

CHICAGO. "NeoCon 95," conference for contract furnishings and building products, June 12-14. Contact: (800) 677-6278.

DENVER. "Planning for the Big One: Disaster Planning for Healthcare Facilities," June 22-24. Contact: AIA/Academy of Architecture for Health (202) 626-7482.

"Reaching New Heights," Building Owners and Managers Association annual convention, June 25-28. Contact: (202) 408-2689.

LISBON, PORTUGAL. "Defining the Urban Condition," ACSA European conference, May 23-27. Contact: (202) 785-2324.

MINNEAPOLIS. Construction Specifications Institute convention and exhibition, June 23-25. Contact: (703) 684-0300.

National solar energy conference, July 15-20. Contact: American Solar Energy Society (303) 443-3130.

NEW YORK. Stained glass conservation conference, June 22-24. Sponsored by New York Landmarks Conservancy. Contact: (914) 278-2187.

SAN JOSE. "The Responsive Campus," sponsored by Association on Higher Education and Disability, July 19-22. Contact: (614) 488-4972.

WASHINGTON, D.C. "Building a Safety Culture: Ergonomics, Safety, and Health in Construction," June 18-21. Contact: (202) 962-8490.

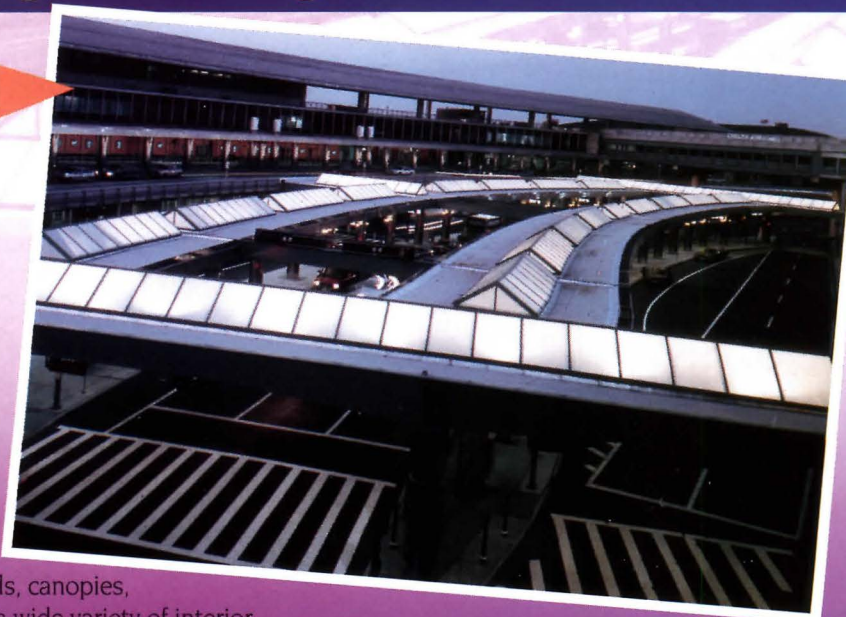
Competitions

Waterfront Center's Excellence on the Waterfront competition. Entry deadline: **July 10**. Contact: (202) 337-0356.

U.S. Department of Transportation's and National Endowment for the Arts' Design for Transportation awards program. Entry deadline extended to **July 20**. Contact: (202) 682-5437.

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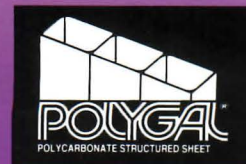
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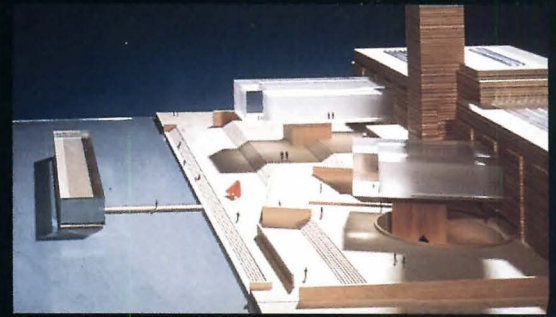


T H E O B J E C T O F A R T I



Awards to Tadao Ando

- 1995 *Pritzker Architecture Prize*
- 1995 *Asahi Prize*
- 1994 *Japan Art Grand Prize, Chikatsu-Asuka Historical Museum, Osaka*
- 1993 *Japan Art Academy Award*
- 1993 *Honorary Fellow, Royal Institute of British Architects*
- 1992 *Carlsberg Architectural Prize*
- 1992 *Arnold W. Brunner Memorial Prize*
- 1991 *Honorary Fellow, AIA*
- 1990 *Osaka Prefecture Art Prize*
- 1989 *French Academy of Architecture Gold Medal*
- 1987 *Mainichi Art Prize, Mt. Rokko Chapel*
- 1986 *Japanese Ministry of Education Prize*
- 1985 *Finnish Association of Architects Alvar Aalto Medal*



TOP LEFT: 1995 Pritzker laureate, Tadao Ando. **TOP RIGHT:** Ando's 1994 scheme for the Tate Gallery of Modern Art competition to convert a power station on the Thames River into a contemporary art museum. Ando was one of six finalists. **ABOVE LEFT:** Ando's 1995 Suntory Museum, Osaka, Japan. Glass block curtain wall creates a cylinder of light. **ABOVE RIGHT:** 1986 Raika Headquarters building, Osaka, Japan.

Ando Wins Pritzker Prize

Tadao Ando, a self-taught architect, is the 1995 recipient of the Pritzker Architecture Prize. Recognized for his simple, geometric forms, the 53-year-old Japanese architect designs inward-looking, quiet retreats amid Japan's dense cities. "Originality is his medium," praised members of the jury, chaired by J. Carter Brown, director emeritus of the National Gallery of Art in Washington, D.C. "His view of the world is his source of inspiration."

Ando established his practice in 1969 in his native Osaka, where most of his built work is concentrated. Early residential projects led to larger commissions, including museums, office buildings, religious

structures, and factories. More recently, the Japanese architect has moved into foreign markets, designing projects in Germany, Spain, Italy, and France. A major retrospective of Ando's work at New York City's Museum of Modern Art in 1991 introduced Americans to his minimalist sensibility.

Reinforced concrete is Ando's material of choice. Solid walls define carefully assembled compositions of squares, circles, triangles, and rectangles, accentuated by light and shadow. Ando attributes his flawless concrete finishes to the high level of craftsmanship applied to his projects' wooden formwork. In spite of the architect's consistent materials and simple geometries, "there is never a predictable moment as one

moves through his buildings," observed the seven-member jury.

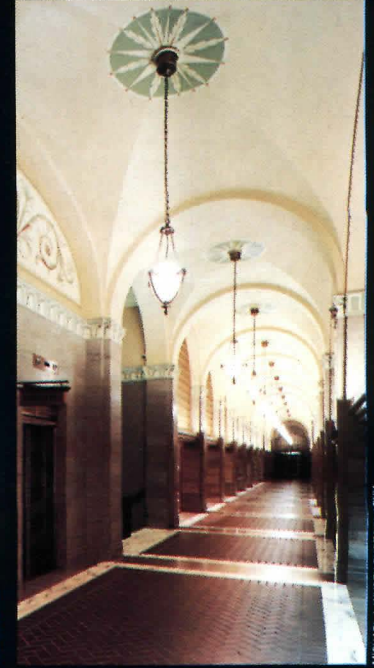
The sculptural beauty of Ando's forms is matched by structural performance: Not one of his buildings was damaged by the January earthquake in Kobe. He has built more than 30 structures throughout the Hanshin area, including the 1989 Water Temple in Awajishima Island, Rokko Housing I and II, and several private houses and schools.

The 18th recipient of the Pritzker Prize, Ando is the third Japanese architect to win, following Kenzo Tange in 1987 and Fumihiko Maki in 1993. He will be presented with a medal and \$100,000 grant this month in Versailles, France, the homeland of last year's winner, Christian de Portzamparc.—A.C.S.

Historic Preservation and Restoration



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GSA Design Awards Focus on Historic Preservation

“Federal buildings tell us a lot about our history, our culture, and how we see ourselves as a people,” asserted First Lady Hillary Rodham Clinton at the 1994 GSA Design Awards ceremony in Washington, D.C., on March 9. The winners suggest that we value renovation over new design: Nine of the 11 honor awards went to projects that involved restoration and adaptive reuse.

Only two new building designs won awards: Architectural Resources’ U.S. Border Station in International Falls, Minnesota, and the U.S. Courthouse in Portland, Oregon, by BOORA Architects

and Kohn Pedersen Fox Associates, to be completed in 1997.

Innovative engineering solutions were also acknowledged. The San Francisco office of Skidmore, Owings & Merrill received an award for the seismic retrofit of San Francisco’s 1905 U.S. Court of Appeals. Lohan Associates’ interior retrofit of Mies van der Rohe’s 1964 Dirksen Federal Building in Chicago also won an award: Steel trusses designed to redistribute loads to the perimeter enabled the firm to carve out space for eight new courtrooms.

With 80 percent of the GSA’s annual \$1 billion construction budget spent on the federal courts system, it is not surprising that four awards went to the preservation and adap-

tive reuse of courthouses. These include San Diego’s Jacob Weinberger U.S. Courthouse by Hallenbeck Chamorro & Associates and Crosby Helmich Architects; Denver’s Byron White U.S. Courthouse by Michael Barber Architecture; Oklahoma City’s U.S. Post Office/ Courthouse by Glover-Smith-Bode Architects; and New Orleans’s U.S. Court of Appeals by Fine Objects Conservation. Ehrenkrantz & Eckstut Architects’ renovation of Cass Gilbert’s 1907 Alexander Hamilton U.S. Custom House in New York City, which now houses the National Museum of the American Indian, also incorporates courts facilities.

Other preservation honors went to Ueland Junker McCauley’s restora-



6

6



9

Engineering, Technology, and Innovation



7



10

Architecture and Interior Design



8

Building Designs in Progress



11

tion of the U.S. Custom House in Philadelphia and to Karn Charuhas Chapman & Twohey's new limestone and granite facades for the Internal Revenue Service Building in Washington, D.C.

The GSA awards were presented at the National Building Museum with an introduction by Clinton, who was joined by U.S. Senator Mark Hatfield, National Endowment for the Arts Chair Jane Alexander, and Kenneth Kimbrough, commissioner of GSA's Public Buildings Service.

Members of the eight-person jury, chaired by Michael Graves, staged a panel to discuss the awards program. The varied composition of the jury is reflected in their observa-

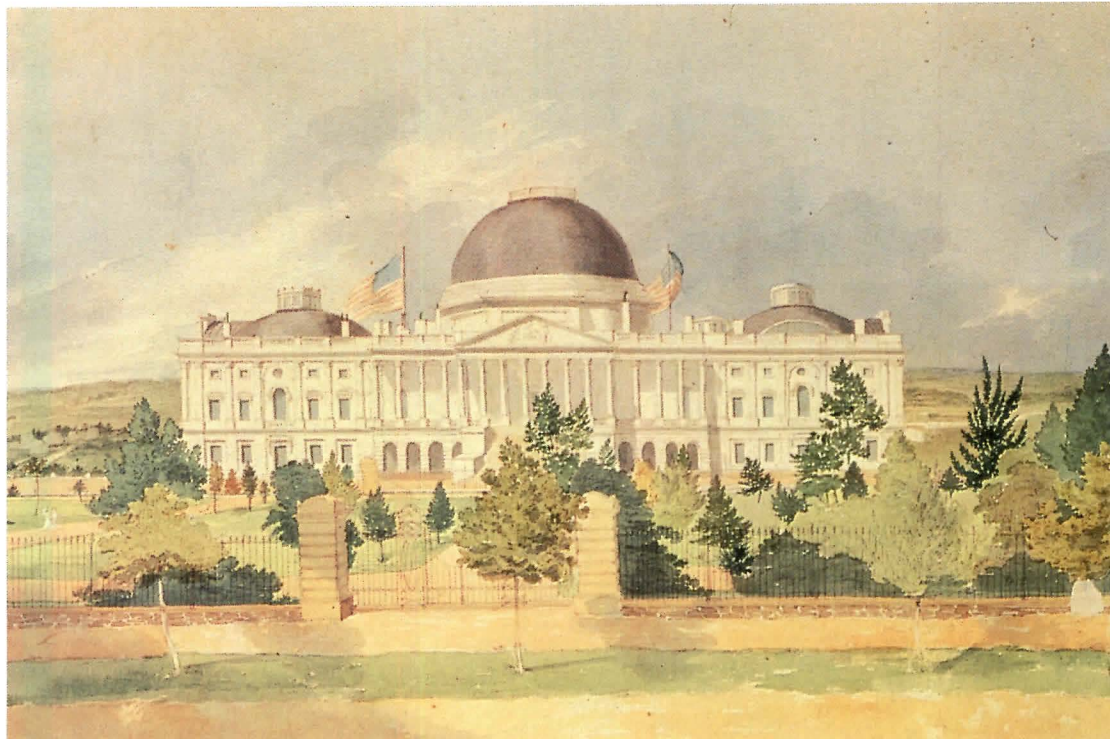
tions: Virginia Fairweather, editor-in-chief of *Civil Engineering*, stressed the importance of recognizing innovative engineering methods. Harry Robinson, dean of Howard University's School of Architecture, pointed out the absence of urban design submissions. Washington, D.C., artist Sam Gilliam encouraged the GSA to invite more artists to participate in the early planning stages of projects. Addressing the concentration of preservation winners, Thomas Beeby of Hammond, Beeby, and Babka, summarized the jury's conclusions: "Preservation is a common ground that everyone could agree on." The jury also included architect John Belle of Beyer Blinder Belle; Balti-

more engineer Charles A. Meyer; and Beverly Hills interior designer Rosanne Sachson.

Three projects received citations: the new NASA Auditorium in Washington, D.C., by Greenwell Goetz Architects; Sacramento's proposed U.S. Courthouse and Federal Building by Nacht & Lewis Architects and Hansen Lind Meyer; and the Children's Interpretive Project on the African Burial Ground in New York City.

"As the world's largest purchaser of design services, the federal government should be the leader in fostering design excellence," declared Clinton. Perhaps the next awards program in 1996 will recognize more new architecture.—A.C.S.

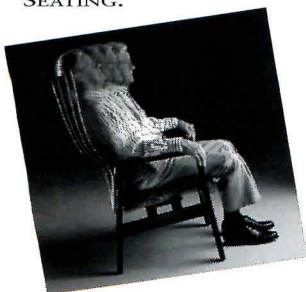
- 1 Philadelphia's U.S. Custom House, Ueland Junker McCauley.
- 2 Oklahoma City Post Office/Courthouse, Glover-Smith-Bode.
- 3 Denver courthouse, Michael Barber.
- 4 U.S. Custom House, New York, Ehrenkrantz & Eckstut.
- 5 Copper repoussé statue repair, U.S. Court of Appeals, Louisiana, Fine Objects Conservation.
- 6 San Diego's Jacob Weinberger courthouse, Hallenbeck Chamorro & Associates/Crosby Helmich.
- 7 SOM's seismic retrofit, San Diego.
- 8 Architectural Resources' Border Station, International Falls, Minn.
- 9 IRS facades by KCCT.
- 10 Lohan Associates' Chicago district court expansion.
- 11 Portland courthouse, by BOORA Architects and KPF.



WATERCOLOR: John Rubens Smith painted Capitol in 1830s with Bulfinch's dome, Thornton's elevations, and Latrobe's stair.

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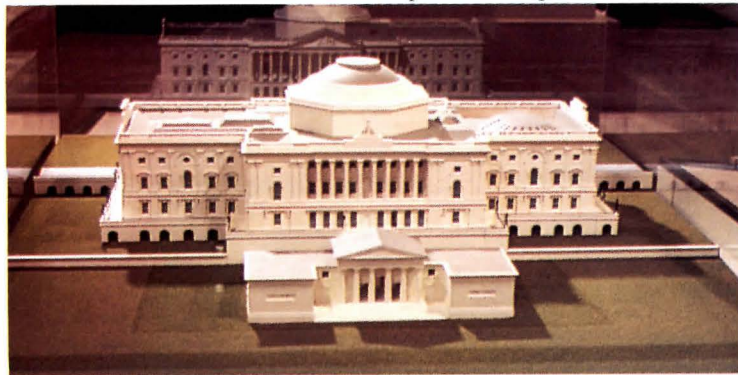
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THORNTON: 1797 scheme features raised "temple of virtue," precursor of rotunda.



LATROBE: Like the Acropolis, 1811 Capitol was entered through propylaeum.

Library Exhibits History of U.S. Capitol

How best to symbolize and house the democratic government of a new nation? The greatest minds of late 18th-century Washington, D.C., wrestled with this question. Benjamin Franklin suggested a turkey for our national symbol. George Washington wanted government to reside in a simple brick structure; Thomas Jefferson envisioned a domed rotunda. Resolving their differences, designing, and finally building the Capitol took 34 years and the direction of six architects. Now, through architectural drawings, models, and photographs shown to the public for the first time, this process is documented in "Temple of Liberty: Building the Capitol for a New Nation." The exhibit, curated by Pamela Scott, is on view in the Library of Congress's James Madison building through June 24.

Entrants to the 1792 competition to design the Capitol suggested Pal-

ladian retreats and English mansions, but only William Thornton's Neo-Classical, domed structure satisfied the judges. Lack of funds and materials slowed construction, and Thornton's design was gradually modified by several of the young nation's greatest architects, including Benjamin Henry Latrobe and Charles Bulfinch.

In August 1814, the unfinished building was burned by the British. When finally completed in 1826, the new house of government was too small to accommodate the powerful bodies using it. The Capitol that we know today is the result of additions and a new dome designed in the 1850s by Thomas U. Walter.

At the exhibit's end, the dome is shown on parlor throws, crockery, and even in ads for Coca-Cola. These attempts to popularize our "temple of liberty" may seem mundane after the exhibit's rigorous architectural history, but they go far to communicate how the search for an appropriate architecture led to a symbol for our nation.—H.L.

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HOME PLATE ENTRANCE: Main entrance faces a major intersection.



CONTEXT: Ballpark fits into warehouse district.



AERIAL VIEW: Coors Field's brick and sandstone facade and steel superstructure reflect industrial setting in Denver.

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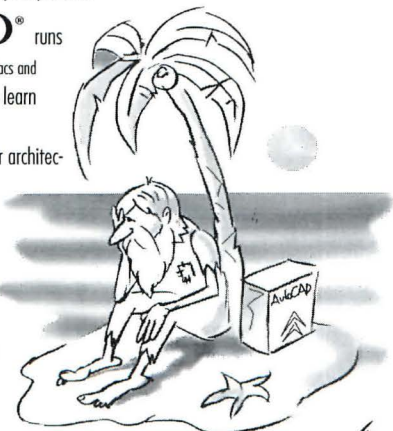
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FIELD: Asymmetrical by arrangement.



THORNEY LIEBERMAN

SEATING: Three-level park holds 50,000.

New Ballpark Opens in Downtown Denver

Coors Field, new home of the Colorado Rockies baseball team, is potentially the last of the Neo-Traditional ballparks for a while, so it's fortunate that it's also one of the best. Designed by HOK Sport of Kansas City, the \$215 million park sits on the fringe of Denver's Lower Downtown Historic District, surrounded by warehouses, freeways, and railroad tracks. The architect used this raw material skillfully. While Coors's home plate entrance borrows shamelessly from old Ebbets Field, other architectural details are inspired by neighboring industrial buildings: Red brick is laid up in thick walls with bolted steel beams and simple decoration on columns and spandrels; terracotta columbines serve as capitals; and a contemporary steel cornice and rolled metal canopies are set over the entry porches. This integration of brick and steel gives the Coors Field facade more mass and

depth than either Baltimore's Camden Yards, also designed by HOK Sport, or the Ballpark in Arlington, Texas, designed by David Schwarz.

Inside, owner demands for 52 luxury suites, club seating for 4,500, and no obstructing columns pushed the upper deck farther back from the playing field than in the old ballparks. Coors Field is compact and intimate on the lower level—its foul territory is among the smallest in the majors—but its upper deck, where some 18,000 fans will sit, is another world, another game.

An unqualified design disaster is the "Rock Pile," an arc of 2,300 seats in deepest center field that was added as a last-minute response to the Rockies' record attendance in 1993 at Mile High Stadium. It looks like the afterthought it is.

While Coors Field is hardly cutting edge architecture, it is surprisingly responsive to urban design. Blake Street, which runs in front of the park, is lined with shops, restaurants, and a pub in a restored brick building in the right-field cor-

ner. The main gates are positioned on axis with major streets, giving pedestrians and drivers dramatic long views of the ballpark. Like the Cleveland Indians, the Rockies provide minimum parking (5,500 spaces), encouraging fans to use downtown lots or mass transit.

How this behemoth will affect Lower Downtown remains to be seen, but already galleries and design-related businesses are moving out as rents and land prices rise. Loft conversions have slowed, and sections of Blake Street have turned into an extended sports bar. In adjacent neighborhoods, warehouse buildings are being demolished for parking lots. The imminent arrival of the Nuggets basketball arena by HOK Sport and Elitch's Amusement Park, a local institution, will only increase the pressure on the area.

"We've fertilized the ground and a lot of stuff is coming out of it," says Richard Farley, Denver's Deputy Director of Planning. "We hope we get a garden instead of a weed patch." —David Dillon

University of Southern Maine Library, JSA Inc, Architects

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ABOVE RIGHT: AIA/JIA team (left to right) Ryokichi Ebizuka, Roger Williams, Kozo Yamamoto, Chester Widom, Keiko Ohta, Christopher Arnold, Takanobu Ohta.

RIGHT: Concrete core samples of monorail collapse.

FAR RIGHT: Leaning office tower stands in Sannomiya.

FACING PAGE: Kobe's 1990 city hall tower remains structurally intact; old city hall with collapsed floor (front) will be demolished.



ROGER WILLIAMS PHOTOS

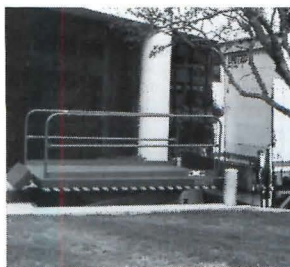
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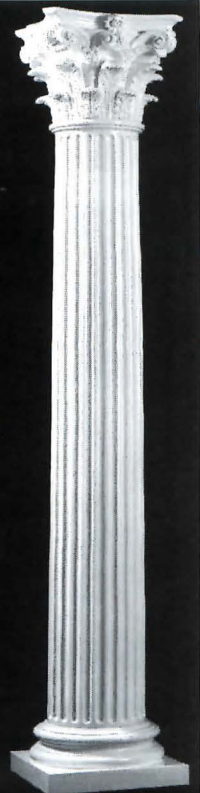
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AIA Supports Kobe Earthquake Recovery

A three-member team of architects travelled to Kobe, Japan, in March to inspect damage from the Great Hanshin Earthquake of January 17. Their mission was to offer support and advice for recovery efforts.

The delegation consisted of AIA President Chester A. Widom, whose own office, Widom Wein Cohen in Santa Monica, sustained damage in the January 1994 Northridge Earthquake; seismic expert Christopher Arnold of Building Systems Development in Palo Alto, who was in Osaka during the Kobe earthquake for a conference on seismic design and response; and Seattle architect Roger Williams, whose firm, Mithun Partners, has designed housing in Kobe and throughout Japan.

Guided by members of the Japan Institute of Architects (JIA), the U.S. team surveyed the scene and met with local architects involved in relief programs.

"I did not understand until we saw Kobe that, while this particular event was seismic in nature, our experience was really about the human response to disasters," reports Widom. The major destruction from the earthquake occurred along a 20-mile fault line extending through central Kobe and its suburbs, wiping out downtown high rises and commercial and housing areas along the fault's path. Many masonry structures collapsed or suffered foundation damage in a part of the city developed on reclaimed waterfront landfill, where some low-rise brick buildings date from the turn of the century. However, large buildings on an artificial island in Kobe's Osaka Bay survived intact.

Much of the worst devastation occurred in regions of Kobe hurriedly rebuilt after the destruction caused by World War II bombing. The AIA delegation visited Nagata ward, an area filled with small manufacturing establishments where fire frequently followed quake damage. *(continued on page 32)*

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The additional presence of volatile processing chemicals and narrow streets lined with parked vehicles that exploded in flames accounted for many casualties. Emergency vehicles had difficulty reaching Nagata, which contributed to destruction and loss of life. The death toll exceeded 5,500, with more than 90,000 buildings destroyed.

Construction material made little difference—concrete, steel, and wood structures fared about the same. Kobe's heavy tile roofs, designed to withstand typhoons, collapsed when open-plan first floors with no lateral bracing caved in beneath their weight. In contrast, most Western-style houses of both historic and recent vintage stood on solid ground and survived the quake relatively intact. Especially American wood-frame construction, a technology recently exported to Japan, demonstrated its inherent strength against seismic forces.

The delegation observed the positive effects of seismic codes and design practices for larger buildings,

which were adopted in the 1970s and 1980s and correspond approximately to U.S. seismic codes. Buildings designed after a 1983 code revision performed well, with many larger buildings surviving substantially intact. The more severe damage occurred to buildings designed before the 1970 code revisions.

In Kobe 24 hours after the quake struck, Arnold observed a city in shock. "Chaos reigned, with very little security and control," recalls the architect. "Both public and officials seemed stunned. The difference now is striking: Three months after the quake, Kobe seems a hive of energy." National defense troops and local contractors with large and small demolition equipment swarm sites throughout the central city. Temporary housing remains in high demand, even though mobile homes and other prefabricated structures accommodate some of the homeless. Many people still take shelter in schools and other public buildings; tent cities and refugee camps abound.

Since the earthquake, small enterprises have sprung up quickly in shopping streets and malls. Proprietors of grocery and supply stores set up shop wherever possible. Food vendors and providers of bathing and laundry facilities serve steady streams of customers. Public agencies, relief groups, churches, and charities have established noodle kitchens and other types of aid.

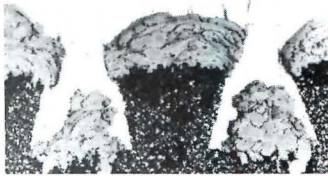
But emotional damage is taking its toll. The entire city "has the air of a ghost town, alternating with images of a colonial construction camp," explains Williams. He observes that destruction has wiped the city's face clean of character. "Today we see Kobe as a burnt-out desert, but who knows what will emerge from rebuilding?" Pressures for speedy recovery threaten to take precedence over grand urban design. The JIA/AIA team will present its findings at this month's AIA convention in Atlanta.—*Marga Rose Hancock*

Marga Rose Hancock, Hon. AIA, is executive vice president of AIA Seattle.

FACING PAGE, LEFT: Volunteers provide lunch at makeshift soup kitchen.

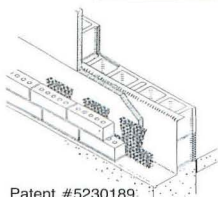
FACING PAGE, RIGHT: Workers construct a house (foreground) despite moratorium on new construction pending the approval of planning strategies; structural remains of a burned house stand behind frame (background).

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the structure and monitor future modifications to the stadium, where a construction worker was killed and two others injured March 20 when 50-foot steel beams supporting a bank of floodlights collapsed. The fatality occurred just a week after the stadium's steel work had been erected. Noah Long, spokesperson for the Atlanta Stadium Design Team, explains that the bank of lights turned out to be heavier than originally designed, which might explain the accident. The stadium's four light towers will be reconstructed, and the stadium will be completed this fall.

Federal building threatened

The good news from the General Services Administration is that Cesar Pelli & Associates and HLW International are designing a new federal courthouse and office building in Brooklyn, New York; and Hardy Holzman Pfeiffer Associates, in association with Leo A. Daly Company, is designing a \$67 million federal building and courthouse in Tucson. The bad news is that both projects are on Congress's chopping block. The U.S. House of Representatives in March voted to invalidate \$137 million in federal building contracts fully authorized and funded for fiscal year 1995. The Senate, where cooler heads usually prevail, was not to be outdone by the House marauders: In April, Senator Richard Shelby from Alabama (a Democrat who turned Republican this year), attached an amendment to a Senate-passed measure that would slash \$1.8 billion in new federal buildings, including more than 45 new federal courthouse projects nationwide. A House-Senate conference bill later this spring will reconcile discrepancies between the sizes of cuts contained in the two measures. The AIA calls the cuts "far beyond the bounds of prudence" and is fighting them on Capitol Hill.

Projects that escaped these cost-cutting measures are the modernization of three government buildings in Washington, D.C.'s Federal Triangle by RTKL Associates. Designed by Arthur Brown and constructed between 1932 and 1935, the buildings will be occupied by the Environmental Protection Agency.

Olympic collapse

The designers of Atlanta's Olympic Stadium—Heery International, Rosser International, Williams-Russell and Johnson, and Ellerbe Becket—have hired engineer Weidlinger Associates to review

Foreign shores

Two young London architects upstaged competitors for the \$300 million Yokohama Port terminal in Japan. Foreign Office Architects, headed by ex-Koolhaas design architects Farshid Moussavi and Alejandro Zaera Polo, won the coveted commission with a scheme for a wavelike low rise that projects out into the bay. Moshe Safdie and Associates and TRA of Seattle are designing a new airside terminal at Ben Gurion airport in Tel Aviv. The New York office of Skidmore, Owings & Merrill with Karmi Architects of Tel Aviv is designing the airport's landside terminal.

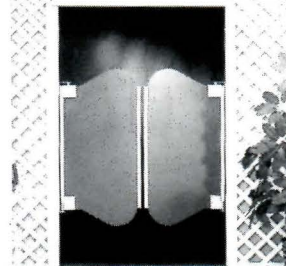
Urban design awards

The community is the real winner in this year's Bard Awards for excellence in architecture and urban design, sponsored by the City Club of New York. From transit stations to neighborhood planning, all of the awarded projects are open to the public: renovated subway stations by New York Transit Authority, Office of Station Design; a fabric-shaded, portable outdoor stage for summer concerts for the New York Philharmonic and the Metropolitan Opera by FTL Associates Architects; the reconstruction of the Hamilton Fish Recreation Center by John Ciardell Associates; R.M. Kliment & Frances Halsband Architects' glassy 34th Street entrance pavilion for the Long Island Rail Road; New York City Housing Partnership and Longwood Historic District Community Association's stabilization of the Longwood residential area in the South Bronx; and the renovation of the Times Square Hotel by Times Square and Common Ground Community.

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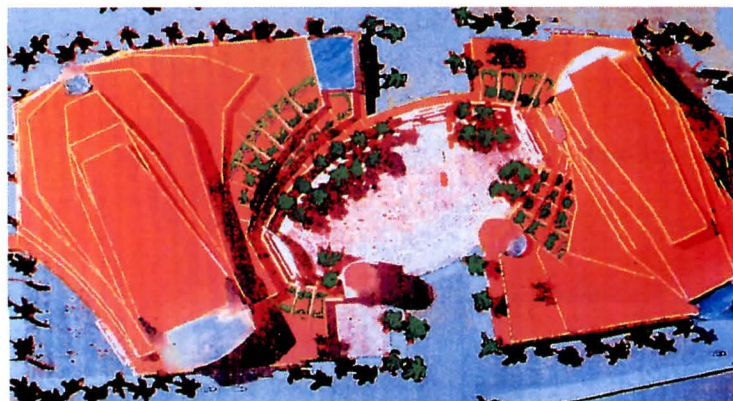
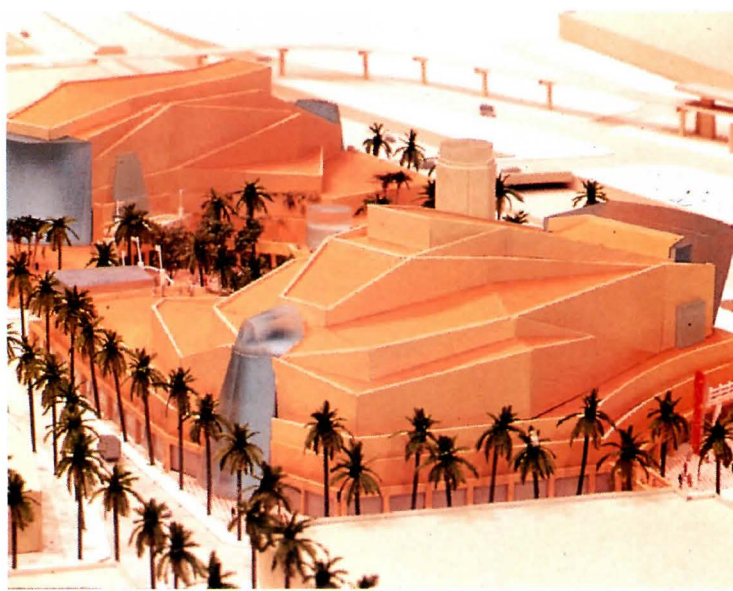
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Leslie Armstrong, AIA, is known for her innovative work in interior space, particularly theater environments. She is co-author of the definitive **Space for Dance—An Architectural Design Guide** and a specifier of DuPont Antron® nylon.

A new opera house and symphony hall will be bisected by a boulevard.



Pelli Lands Miami Performing Arts Commission

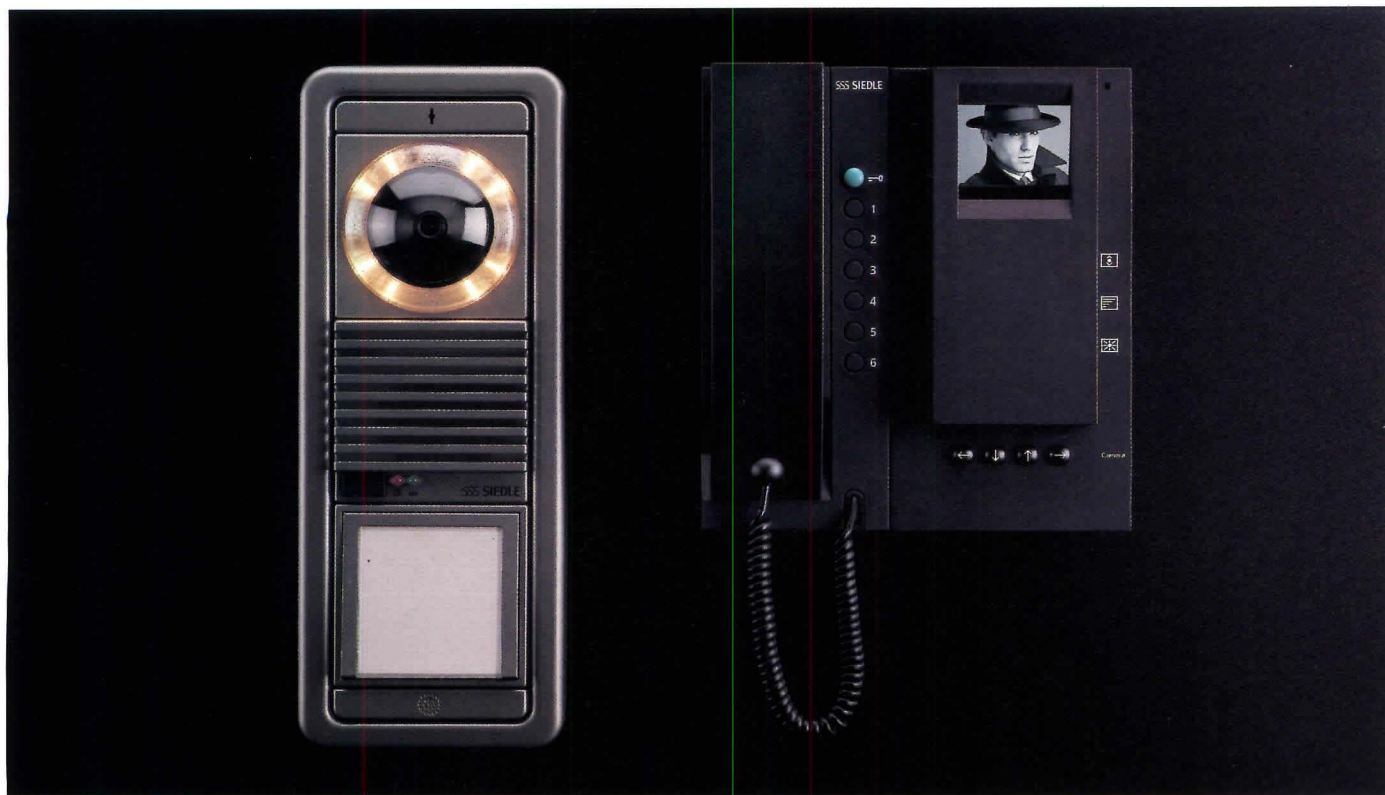
This year's AIA Gold Medalist Cesar Pelli won the competition to design the \$139 million Metropolitan Dade County Performing Arts Center in Miami, officials announced in March. Pelli's scheme of colonnades and stucco facades appealed to the jury for its regional style. The New Haven architect's on-time and on-budget management of similarly sized cultural complexes weighed heavily in their decision.

Encompassing 5.8 acres to the north of downtown Miami, the site presented two difficult challenges: accommodation of four-lane Biscayne Boulevard, which bisects the site, and preservation of an existing Art Deco landmark. Pelli's scheme positions two mountainous volumes, containing an opera house and a symphony hall, on opposite sides of the boulevard. In between, an elliptical public plaza straddles the thoroughfare. The architect defends the high-traffic incision, claiming it will animate the plaza. Pelli chose to preserve the Art Deco office tower and to incorporate an observation deck on its roof.

Pelli's scheme was chosen over the more abstract designs of the other two finalists: Miami architects Arquitectonica with Andres Duany and Elizabeth Plater-Zyberk proposed two glass-clad volumes designed for views of the skyline, and Rotterdam-based Rem Koolhaas's Office for Metropolitan Architecture stacked the opera house and symphony hall on the western block, reserving the eastern block for a public park.

No architects sat on the jury, which included arts and county administrators, but several participated in public forums staged throughout the competition. The project is scheduled for completion in 1999.—*Ann C. Sullivan*

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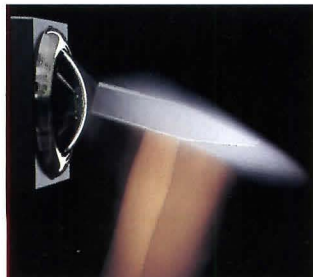
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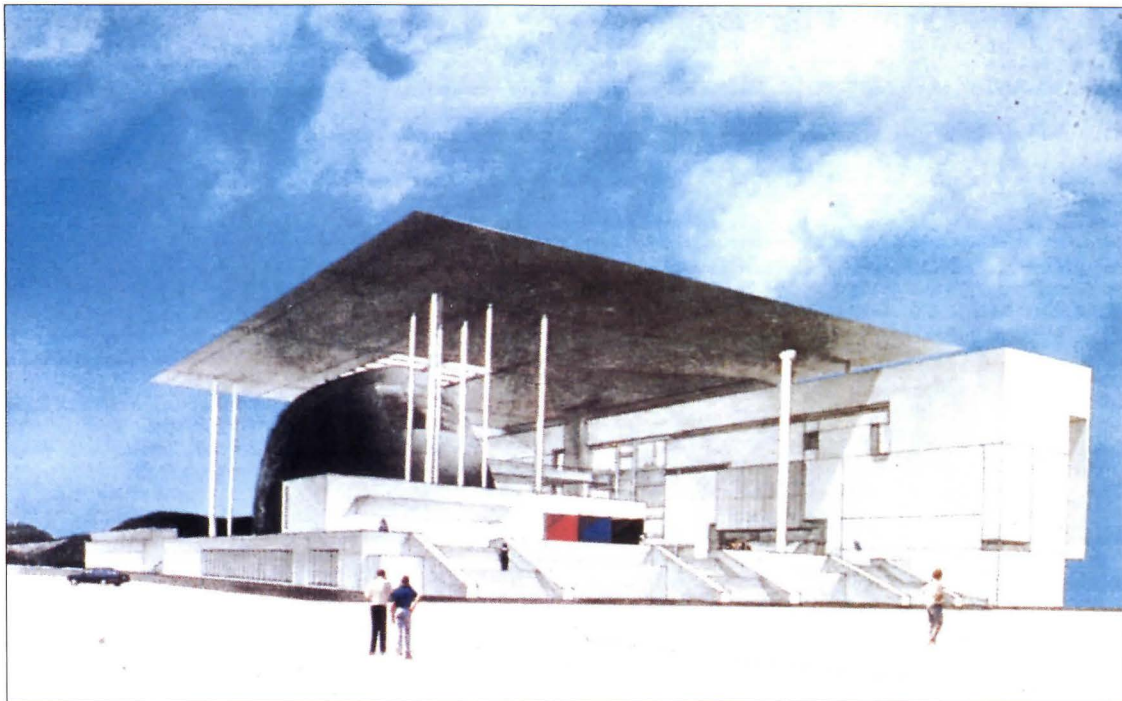
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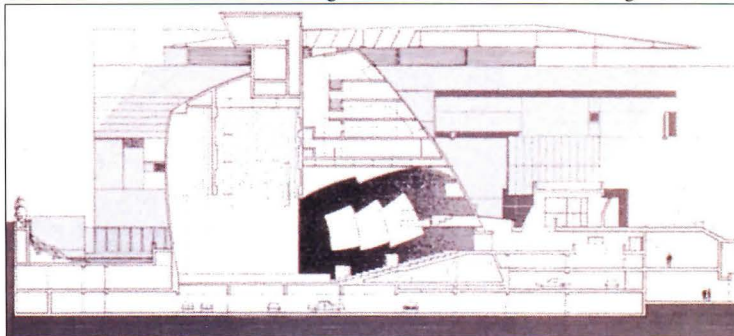
On the Boards

Korean architects win competition for art museum in Los Angeles.



COURTESY OF KOMA PHOTOS

FIRST PLACE: Construction of winning KOMA scheme scheduled to begin in 1998.



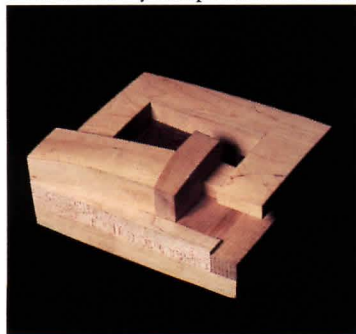
SECTION: Library and performance hall will be housed in cone.

**Korean American Museum of Art
Los Angeles, California**
En-Seok Lee, Kwang Seog Lee,
Hyun Jin Kim, and Sang Yun Kang,
Architects

A team of Korean-born architects and designers from Nanterre, France, won first place in the competition to design the Korean American Museum of Art and Cultural Center (KOMA), a 200,000-square-foot facility to be located to the west of downtown Los Angeles in Koreatown. The sculptural building renders traditional Korean building elements in contemporary materials.

The museum's monumental concrete base creates a pedestal for the main volume, a metal-clad cone that will contain the library and performance hall. A rectangular structure will house galleries, studios, and offices. Terraces and gardens will be threaded between the forms.

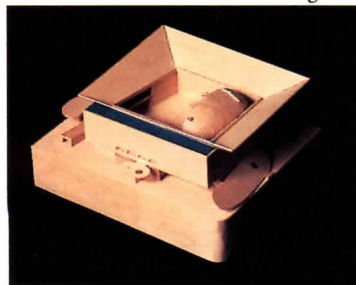
The seven-member jury, which announced its decision in March, consisted of American architects Michael Graves, Richard Meier, and Robert A.M. Stern; Yoon Seung Joong, president of the Korean Institute of Architects, South Korea; Arthur Pfefferman, president of the Los Angeles Cultural Affairs Commission; Kimm Jong Soung, former architecture dean at Illinois Institute of Technology; and Faranak Van Patten, executive director of L.A.'s Asia Society.—A.C.S.



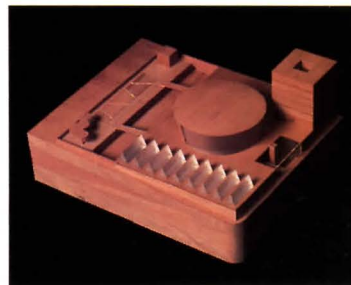
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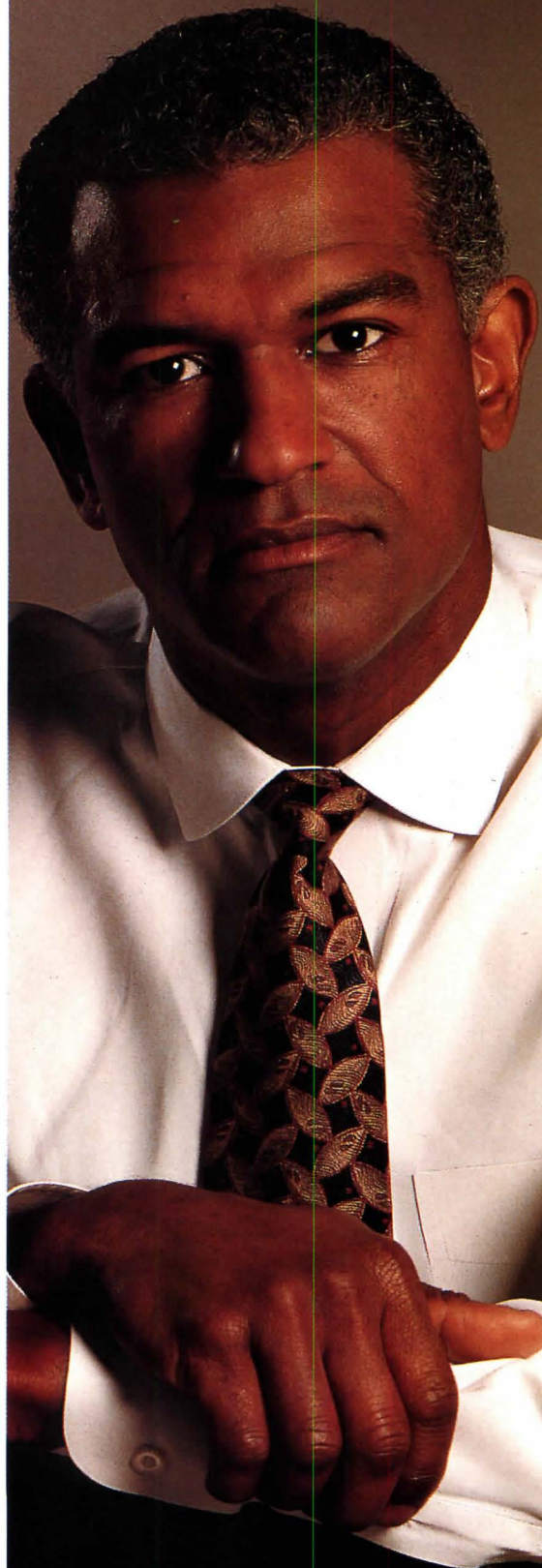
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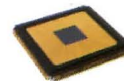
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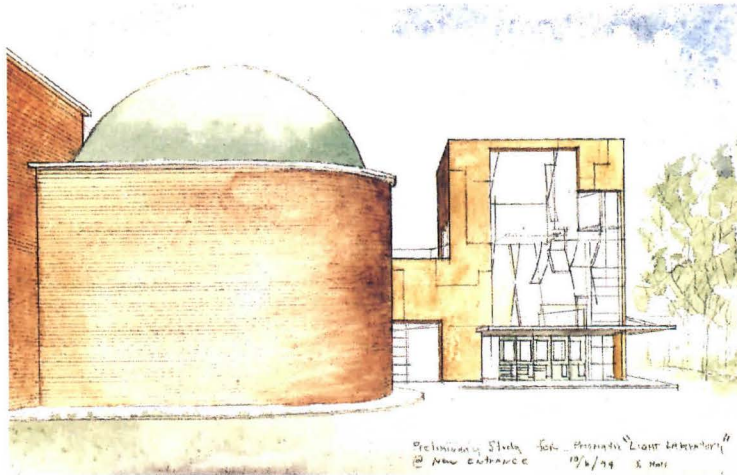
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On the Boards

A new building at Cranbrook builds on Saarinen's legacy.



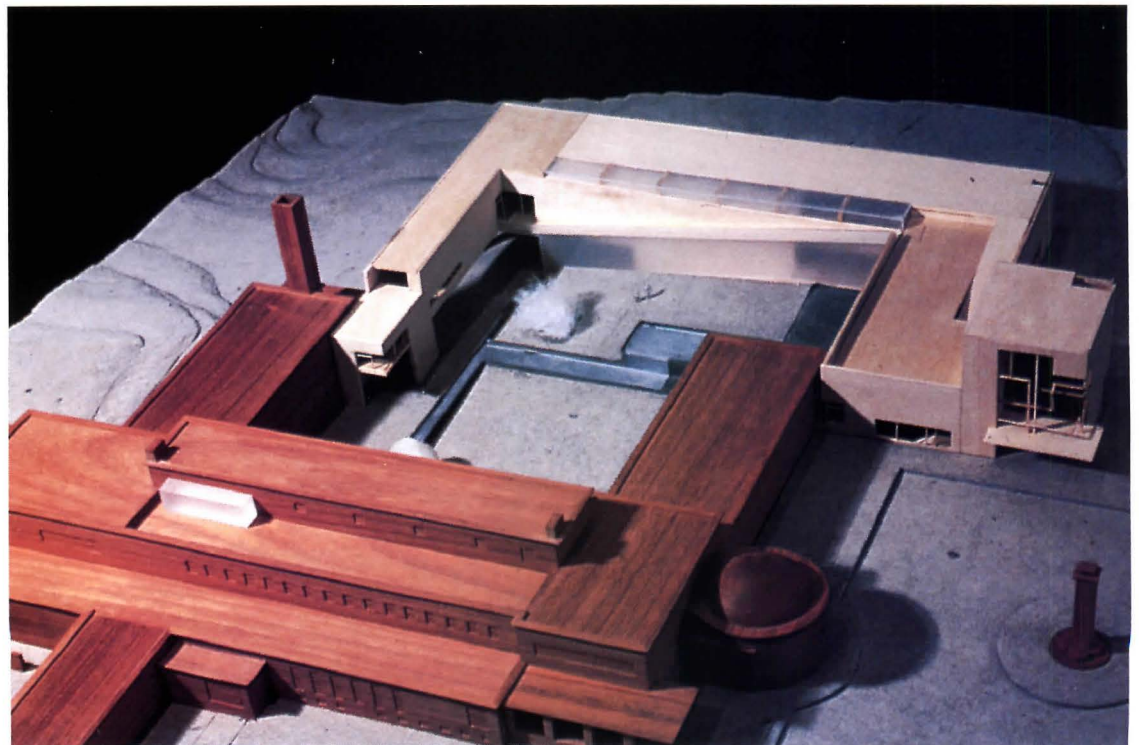
**Cranbrook Institute of Science
Bloomfield Hills, Michigan
Steven Hall Architects**

Designed in the tradition of the slender courtyard buildings that define the Cranbrook campus, Steven Hall's U-shaped addition to the Cranbrook Institute of Science clasps the outstretched wings of Eliel Saarinen's 1933 structure to form a rectangular courtyard. The courtyard will contain a science garden for the institute, which sponsors natural history and science exhibitions, research, and public education.

Holl's 27,000-square-foot expansion opens up dead-end corridors in the original brick structure. Ramps will connect existing galleries to new exhibition spaces. The three-level addition will be clad in panels of zinc and glass-fiber-reinforced concrete.

A new entrance will front the circular drive, which focuses on Saarinen's original sculptural light pole. A glass-clad laboratory for the study of light will be located above the new entry.

In the science garden, several elements will display the physical states of water: A glass-bottomed pool will stretch across the garden to a bronze mesh sculpture that will be sheathed in ice during cold months. In the northwestern corner, a steam garden will demonstrate the characteristics of vapor. Construction is scheduled to begin next spring.—A.C.S.



On the Boards



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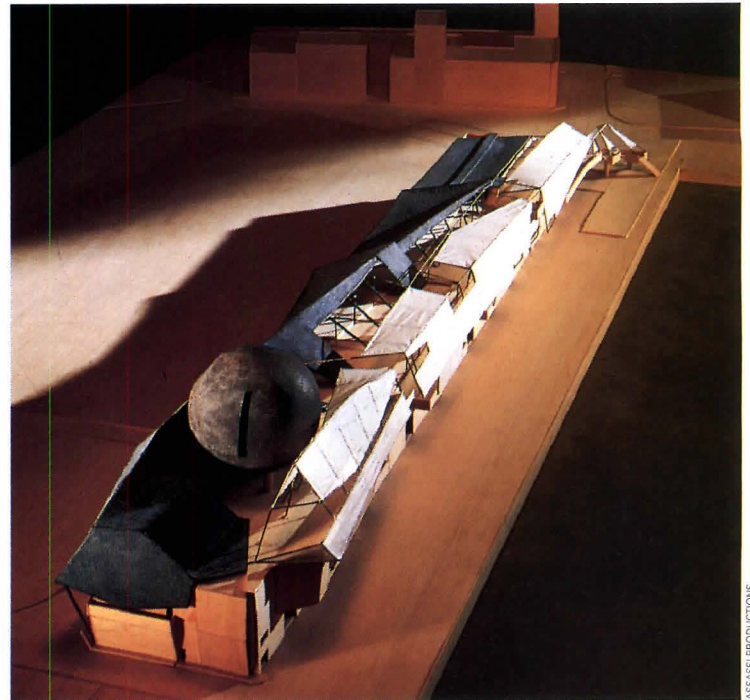
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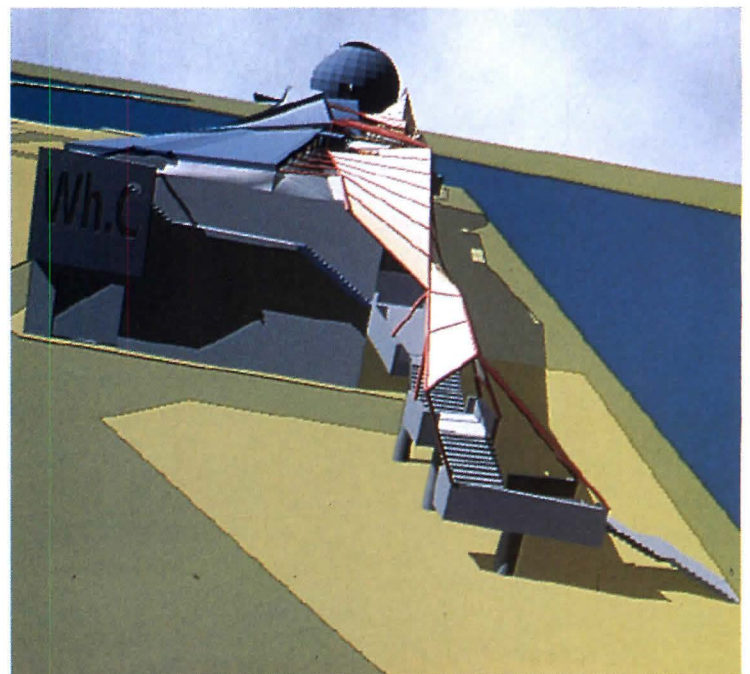
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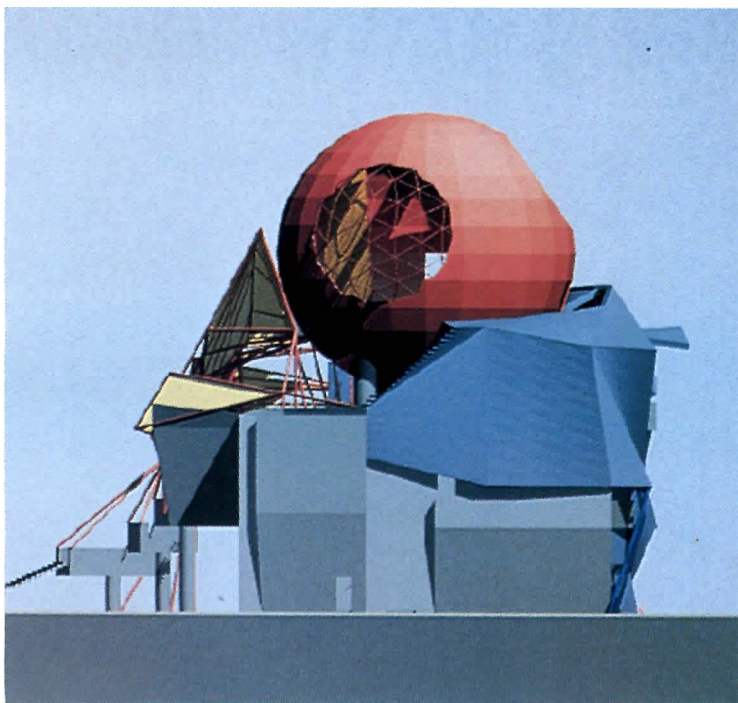
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ASSASSI PRODUCTIONS





Warehouse C
Nagasaki, Japan
ROTO Architects

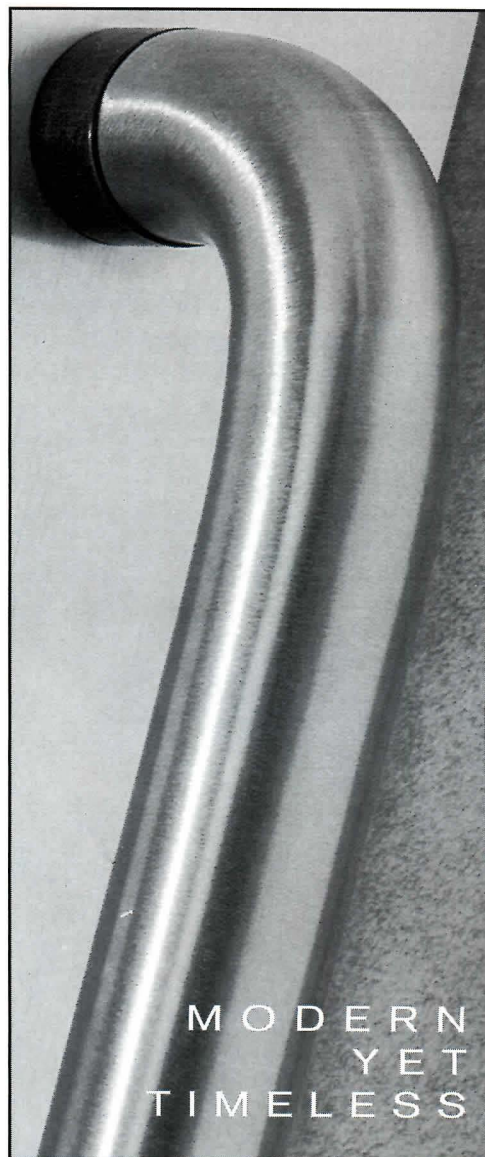
Like a barge run aground in unfamiliar waters, ROTO Architects' Warehouse C stretches 700 feet along its artificial parcel on Nagasaki Harbor. The warehouse, which will be leased to private tenants for storage, is designed to reflect the Japanese city's shipbuilding industry: Angular swatches of steel plate will cloak regular bays hidden beneath the superstructure. The steel sections will be fabricated by Mitsubishi Heavy Industries, a shipbuilder located across the harbor, and barged to the site.

A spherical steel tank, used to transport liquid gas or fuel in an ocean tanker, will punctuate the terminus of the warehouse. Measuring 20 meters in diameter, the sphere is the focal point of the building's public roof garden. An observation

deck is reached by a winding stair inside the hollow form. The length of the roof will be shaded by translucent fabric enclosures, supported by tubular steel trusses. Evoking traditional Japanese style, the garden will be composed of white gravel, wood decking, and concrete pavers.

Inside, the warehouse is divided into two 20-foot-high levels, each comprising four bays. Partial mezzanine levels in each bay provide office space for tenants.

ROTO is the only American firm commissioned by the Nagasaki Prefecture to design a building on the new landfill. The warehouse is part of a proposed mixed-use development, which will include a ferry terminal designed by Japanese architect Shin Takamatsu, an office building, and retail. ROTO Architects is working in association with local architects Mitsubishi Estate Company.—A.C.S.



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Archiving Our Nation's Architecture

Curator Ford Peatross of the Library of Congress is going public with his collections.

Curator C. Ford Peatross always wanted to be an architect. But growing up in Winston-Salem, North Carolina, Peatross suffered nightmares that he might botch structural calculations, and the buildings he designed would collapse. He studied architectural history instead, and now manages one of the largest collections of architectural, design, and engineering drawings and documents in the world.

As a graduate student at the University of North Carolina, Peatross's dissertation focused on British architect William Nichols, designer of antebellum capitols and governors' mansions throughout the South. The topic led him to the Library of Congress, the only source for newspaper articles preserved from before the Civil War. "That's when I realized how wonderful the architectural collection at the Library was," recalls Peatross, who was only familiar with the Avery Architectural Library at Columbia University. "It came as a revelation to me that the collections at the Library of Congress were larger, broader, richer, older, and much less known than Avery's," the curator continues.

Peatross was hired by the Library of Congress in 1975 and became a curator two years later. His objective was to build the Library's 200-year-old collections, which now range in scope from Thomas Jefferson's personal library to Maya Lin's drawings for the Vietnam Memorial. During Peatross's tenure, the collection has grown by more than two million items, including such treasures as the photography of Charles and Ray Eames and the papers of industrial designer Raymond Loewy. The papers of Frederick Law Olmsted are here, as are papers and drawings of Charles Bulfinch, Frank Lloyd Wright, Cass Gilbert, and Buckminster Fuller. Currently, Peatross is working on several major acquisitions that he won't divulge, saying only that one of them represents the archives of an important postwar American architect.

"Librarians say, 'Catalog it and they will come,'" quips Peatross, but with more than

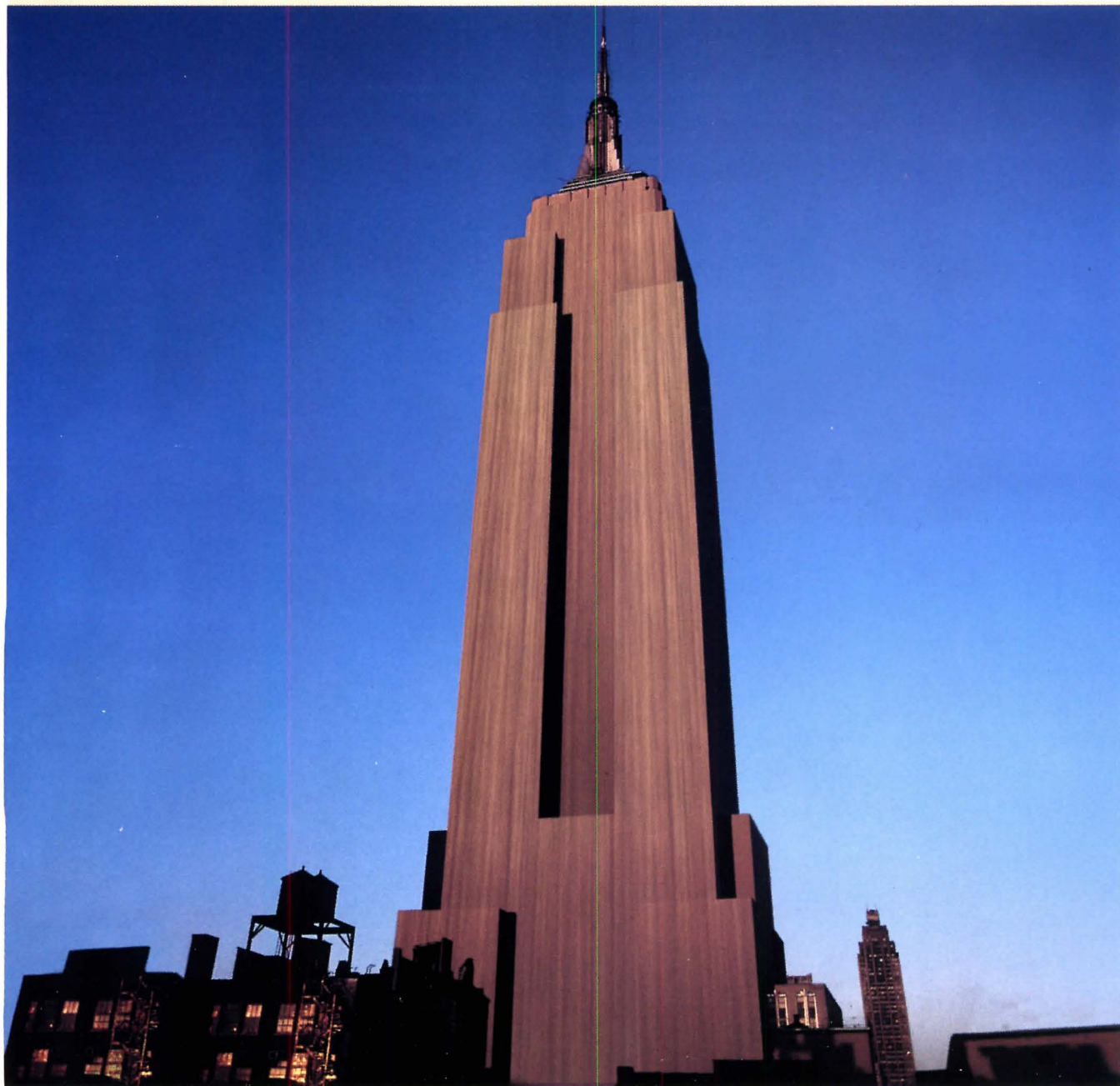


C. FORD PEATROSS: Library of Congress curator.

five million objects throughout the Library, the 47-year-old curator now wants to interpret the little-known collections for the public. To that end, Peatross is working with the Library's interpretive department to mount exhibits that showcase the collections, and three are planned so far.

The first, "Temple of Liberty: Building the Capitol for a New Nation," curated by Pamela Scott, is now on view at the Library (and on the Internet) through June 24 (pages 26-27). Two more exhibitions are planned to convey the range of the Library's 20th-century holdings: "Frank Lloyd Wright: Shaping the American Landscape, 1922-1932," will be on display at the Library in 1996. The third will show photographs taken by Charles and Ray Eames as part of their design work. That exhibit will travel to several different museums starting in 1997.

Peatross now wants to evolve from archivist to activist by securing private funding for a center for American architecture, design, and engineering, which would draw visiting scholars, fund student research grants and public symposia, and produce more exhibitions, perhaps even accompanied by videos that would be available for classrooms. "There are endless possibilities for public outreach," Peatross relates, adding that he has had tremendous support from the Library in building the collections. "Now," admits the public-spirited curator, "I want to share them."—Heidi Landecker



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Superhighway's Urban Dangers



EZRA EHRENKRANTZ

Like urban renewal of the 1960s, the new nationwide computer network may destroy our central cities.

The information superhighway, the nationwide combination of computer and telecommunications networks, ushered in an era of universal access to people, ideas, and data. Like the vast network of physical structures and systems that provide Americans with water, transportation, and energy systems, the information superhighway is also an infrastructure, one with the capacity to affect national and local patterns of growth and development. Without careful stewardship of its growth, the superhighway has potential to change our cities over the next century like the upheavals wrought by urban renewal in the 1960s.

Businesses are already communicating visually through inexpensive, high-quality teleconferencing, thus reducing the need for individuals to meet in person. Suburbanites may defer the library trip or the shopping expedition downtown, preferring instead to use interactive computers to fulfill their needs. Doctors, scientists, and engineers now transfer data, including advanced imaging techniques, across the country via the information superhighway without ever leaving their offices and labs.

In September 1993, the federal government promoted this geographical dispersion, issuing "an agenda for action" for a National Information Infrastructure (NII). Its guiding principles include promoting private sector investment; extending the "universal service" concept to ensure that information resources are available and accessible to all at affordable prices; promoting technological innovation and new applications; and promoting seamless, interactive, user-driven operation of the network. Last year, the government's NII Task Force estimated that \$400 billion in construction costs over 20 years will be created by the full development of the information superhighway.

A city's economic and physical health is strongly related to such infrastructure development. Great cities were built in concert with expanded infrastructure, prospering as

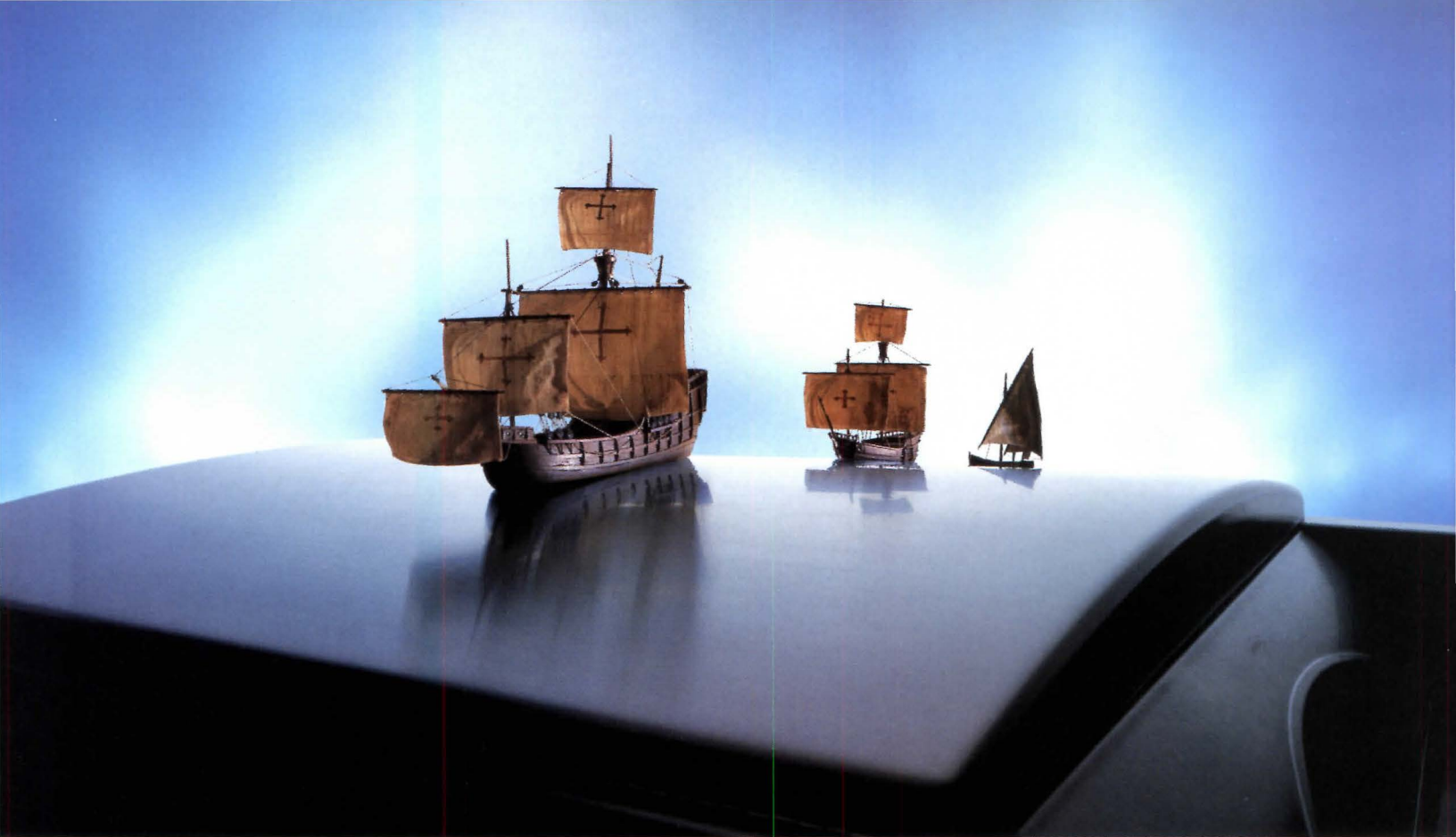
long as roadways delivered goods and services to and from the central core. But as traffic became clogged and roadway improvements were neglected, planners began to look at ways to bypass cities with ring roads, resulting in new suburban addresses for malls, research laboratories, and office parks. Related urban expressways bifurcated the cities, dividing neighborhoods. These roads and expressways made it easier for the middle class to move to the suburbs, leaving cities to a significant extent as repositories for the poor. The federal interstate highway system connected most major metropolitan areas of the country, strengthening the suburban regions along the spokes but weakening the hub.

Today, a competitive environment exists between cities, which provide metropolitan services and attractions, and suburban centers, which cream off new growth with lower land costs, lower taxes, and easier access to the highway system. Most U.S. cities are able to maintain their central function of facilitating human interaction; financial institutions, convention centers, hotels, restaurants, and museums continue to make urban centers hubs of information exchange.

When manufacturing jobs fled the city center to suburban outposts, service-based jobs in areas such as architecture, advertising, publishing, banking, engineering, insurance, and law, which all require employees to commute to a fixed worksite, took their place. There was little net effect upon the economic vitality of the city, and a delicate, if precarious, balance prevails.

But advancements in technology are beginning to challenge this balance in ways that may have irreversible negative effects on our cities. Teleconferencing, electronic mail, desktop publishing, distance learning, and the home shopping channels are but a few new developments that have reduced people's reliance on the city as a primary center.

At suburban and rural locations, people working at home or in local offices are already conferring with others around the



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Opinion

Teleconferencing, electronic mail, desktop publishing, and the home shopping channels are but a few of the new developments that have reduced reliance on the central city.

world. Many people who communicate for a living, in such professions as law, advertising, and investing, will no longer need the city, either physically or intellectually.

Technology is also expanding the definition of the workplace. At Chiat/Day, a progressive advertising agency in New York City, employees work on laptop computers at home, on the road, or in the offices of clients, coming into the company office only for meetings or to transfer information. Chiat/Day is furnished with shared workstations—employees do not have a permanent office or tools. IBM has a similar facility on a larger scale in Cranford, New Jersey. Another type of mobility, equally devastating to the city, is often the subject of articles in *Forbes*. Every few months, the magazine profiles companies of 8 to 10 people who have moved their businesses to recreational meccas such as Grafton, Vermont, or Hilton Head, North Carolina, to attract employees and clients. Moreover, with the advent of desktop publishing and sophisticated telecommunications, all types of professionals from journalists to graphic designers have moved to the suburbs and receive and send data as though they worked in the city, representing a continuum of changing patterns that reduce city revenues.

In short, the ability to function in disparate locations through data and video communications, access to the Internet, and E-mail has changed locational dependence for many individuals and businesses. Like the interstate highway system that allows New Yorkers to dine on fresh California lettuce, the information superhighway promises great economic gains and will favorably position the U.S. in the international marketplace. But this evolving interactive communication system will also result in a loss of businesses and revenues that may make some U.S. cities wards of the state. If 5 to 10 percent or more of current office work is relocated, rents, property values, and real estate tax collection will decrease, and the tax burden will increase for those who remain. More highly



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paid city-based jobs will be exported, and current equations of revenue and expense will be disrupted.

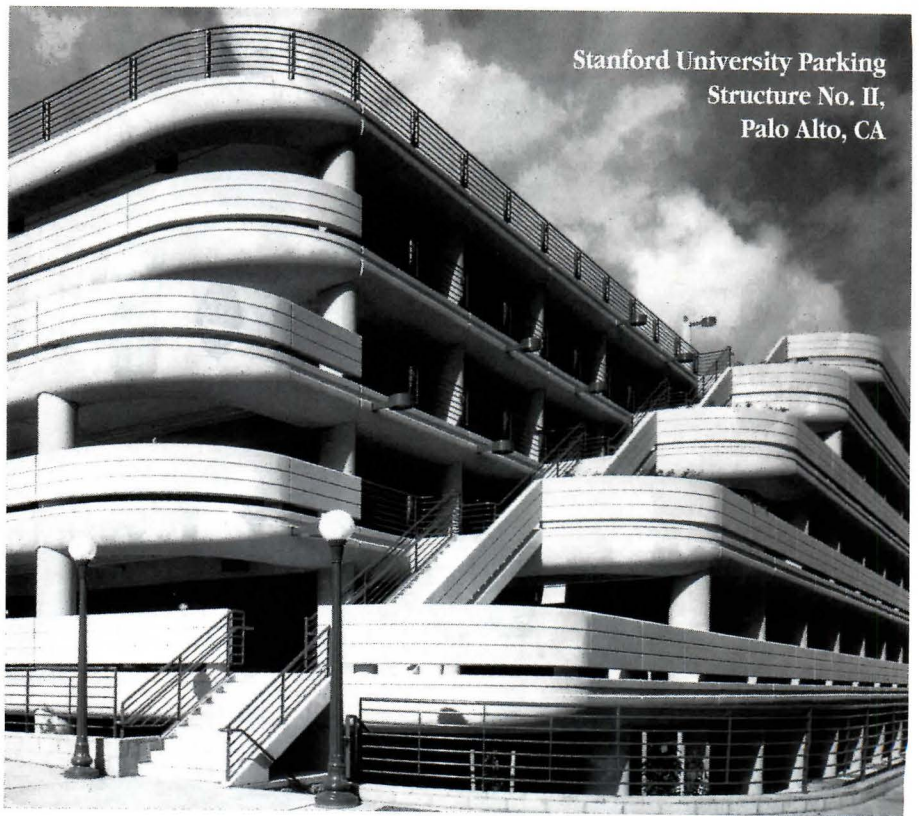
The federal government is proposing to work with the private sector to stimulate the new information infrastructure. With or without federal support, this development is taking place without fully understanding its potential urban impact.

When roads were built to bypass cities in the heyday of urban renewal, the impact was also not realized until the highways were completed and new businesses and housing were developed to take advantage of the new network. The problem was recognized only when the process was irreversible. The lessons of our urban renewal programs should not be lost. All of our levels of government—federal, state, and local—should carefully address the question of how to develop the information superhighway in order not to cripple cities further.

City planners, in particular, should organize in partnership with architects, the financial community, industry, and potential users of the information superhighway to foster beneficial environments that take advantage of the new technology but maintain and enhance their economic base. Access to the physical infrastructure to support the information superhighway, including sophisticated conferencing facilities, emergency power backup, and most importantly, a well-trained workforce, are just a few factors that may be instrumental in providing good host facilities for information technology clients.

Architects, developers, and municipalities must join together to create desirable environments for the information superhighway within our cities. We must act now, before the impact of our new superhighway becomes irreversible.—*Ezra Ehrenkrantz*

Ezra Ehrenkrantz, FAIA, principal of Ehrenkrantz & Eckstut, holds the sponsored chair of Architecture and Building Science Research at the New Jersey Institute of Technology.



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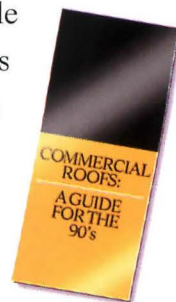
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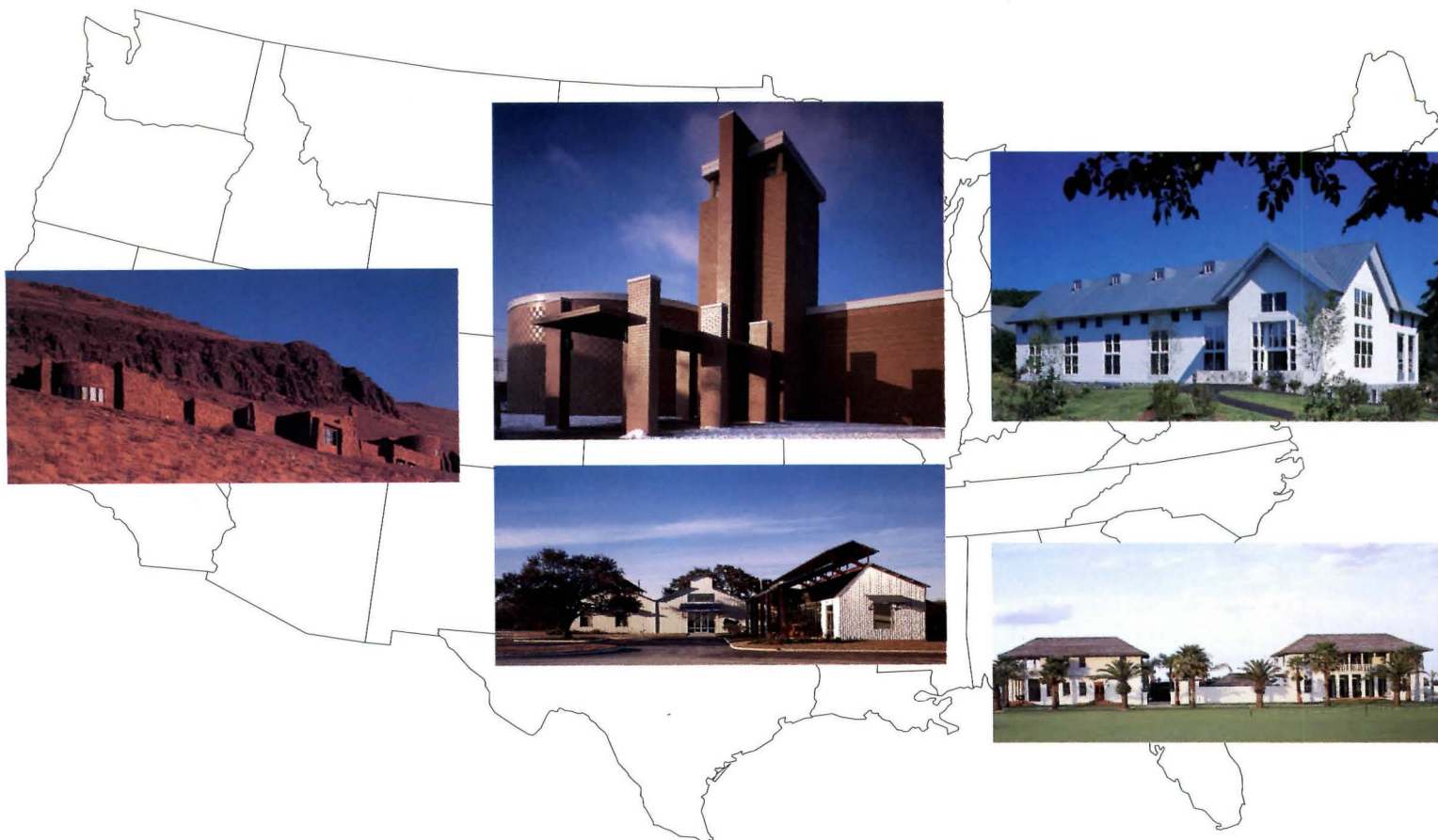


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REGIONAL PRIDE

The challenges of placemaking in five regions is the focus of this year's annual review of American architecture.

It's fashionable to complain that every place looks the same, but plumb this country's depths and you'll find buildings that clearly don't belong anywhere else. The architecture in this year's annual review represents the uniquely American character of five regions: Northeast/Mid-Atlantic, Midwest, South, Plains, and West/Northwest.

We sought buildings small in scale, designed by architects who draw inspiration from the historic and physical context of their sites. "Everyone considers light and gossamer buildings the most beautiful," notes architect Scott Merrill, whose firm in Vero Beach, Florida, is responsible for establishing the regional foundations of the new town of Windsor. "But some regions suggest different architectural attributes: The stolid construction required to withstand Florida's wind and water seems ponderous anywhere except here."

Regional architecture responds not only to physical forces but to public perception. In the Midwest, for example, Frank Lloyd Wright posthumously influences the taste of clients and review boards who still claim the overhanging eaves and horizontal lines of the Prairie School as appropriate to their locale. Such formal legacies are less important in the West, where architects pride themselves on regionalism attuned to the frontier spirit.

PLAINS
UNDECORATED SHEDS



Designing for the prairie and the plains means accepting limits. Not only in money and materials, but those imposed by a harsh climate and cultural isolation. In regions settled by land runs and cattle drives, pragmatism rules. Don't build what you can't fix yourself, and never ignore natural imperatives: blazing sun, violent winds, infinite space accompanied by a daunting environmental determinism that inhibits self-indulgent design.

Rand Elliott's ESEO Federal Credit Union in Oklahoma City is low and spreads like the plains that unroll from the Mississippi River to the Rockies. It doesn't defy the elements; it accedes to them in its use of local materials, subdued colors, and a broad, sheltering roof. Even its rusting steel braces seem to spring from the local red clay.

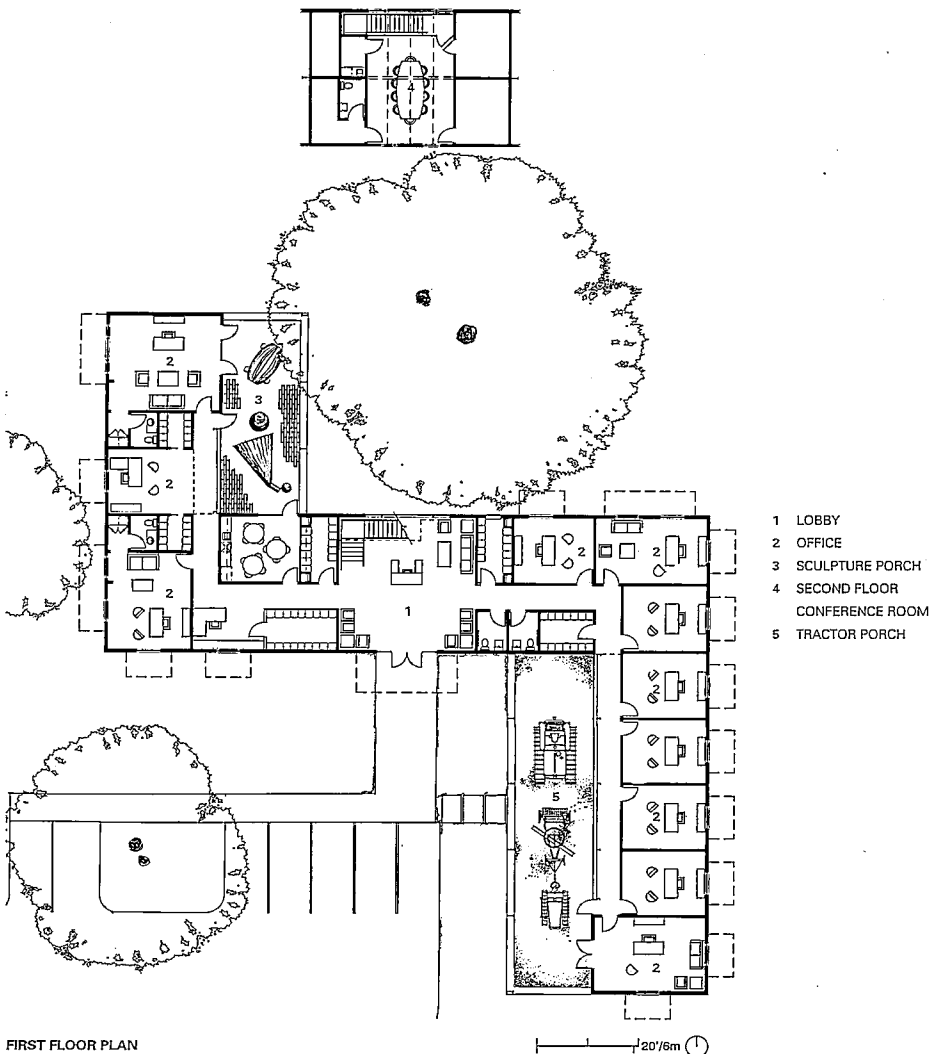
Oklahoma's rich but elusive Native American culture is reflected in some of the credit union's furnishings and in the symbolic campfire circle near the parking lot. Elliott has carried these ideas further in other recent projects. For example, a small office building in Oklahoma City features

a wind cutter—a row of copper blades—on the roof over the front door as homage to the wind spirits.

The South Texas prairie presents similar challenges in the form of vast, nearly treeless terrain that rises only a few feet above sea level. Early settlers wrote of crossing seas of grass and of the excitement of coming upon a lone cottonwood tree where they found water and relief from the sun. They tended to gather their buildings into compounds for protection and to fend off the emptiness, the way David Lake and Ted Flato arranged the Holt Companies' headquarters beneath massive oak trees. Sitting at the far end of its site, the complex looks like an outpost on the edge of civilization. The settlers used the materials at hand, caliche, corrugated metal, and steel pipe, and stuck to forms that worked, such as barns and sheds. Decoration was limited to a splash of color around window frames, and maybe a weathervane on the barn roof. Out of this hardscrabble, make-do culture sprang a pragmatic but evocative architecture that contemporary designers still find compelling.



MACHINE ESTHETIC



When local architects David Lake and Ted Flato were asked to design the headquarters of Holt Companies, a major San Antonio distributor of Caterpillar tractors, they took the direct approach. The architects purchased three prefabricated metal buildings, arranged them in a compact Z beneath live oaks at the back of the sales lot, and added metal sunscreens and tall, deep porches on the eastern and western facades. The porches allow light, but no direct sun, to penetrate the interior, while doubling as exhibit areas for vintage Caterpillar machinery, such as a 1920 tractor and terracer. Frugal and unpretentious, the headquarters was completed in only seven months at approximately \$68 per square foot.

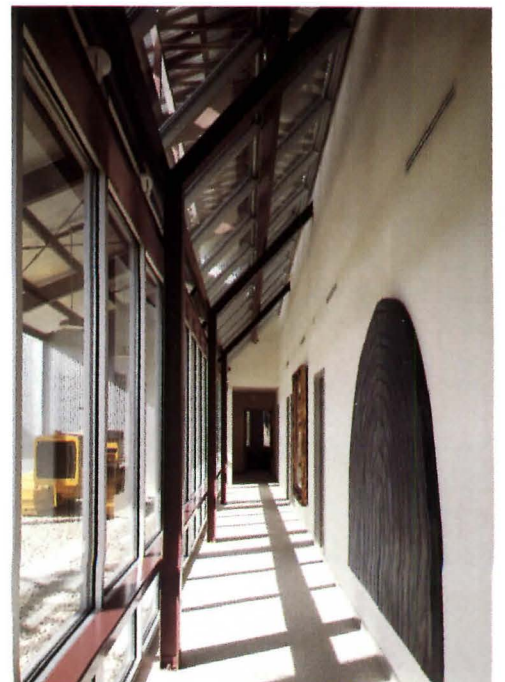
Owner Peter Holt's great grandfather invented the Caterpillar tractor, so the younger Holt insisted on unobstructed views from his office of gleaming yellow bulldozers and graders. Also a serious collector of works by Texan and Mexican American artists, he had the headquarters' interiors finished like miniature galleries: Tall ceilings, white walls, scored and sealed concrete floors, sophisticated track lighting—in short, a celebration of visual and mechanical art under one roof.

The Holt headquarters is Lake/Flato's award-winning Carraro house in Buda, Texas, gone commercial: the same Z plan, the same blend of rural and industrial materials, the same use of a large steel frame to enclose smaller volumes. But whereas the Carraro house reads like a minimalist abstraction of a 19th-century Hill Country farm, the Holt headquarters is more literal and matter-of-fact; the forms and finishes are standard lumber issue. Some of the bays are solid, others are sliced on the diagonal to bring additional light into corridors and offices. One has an enclosed cupola, another is partly open. The second floor of the center bay houses a conference room, while similar spaces in the wings are used for storage.

Both of Lake/Flato's designs display the same aversion to stylistic pretension and the same commitment to doing a lot with a little—reflecting the values of the South Texas prairie.—*David Dillon*

PREVIOUS PAGES: Lake/Flato's Holt headquarters recalls ranch vernacular of San Antonio prairie. PLAN: Headquarters' plan accommodates large, 100-year-old live oaks that stand on site.

FACING PAGE, TOP: Metal sunscreens, porches, and shed forms recall Lake/Flato's Carraro house. FACING PAGE, BOTTOM LEFT: Oak anchors northern courtyard. Sculpture is displayed on porch (right). FACING PAGE, BOTTOM RIGHT: Glass wall of office corridor is shaded by deep roof overhang.



HESTER / HARDWAY PHOTOS

NATIVE SPIRIT



Rand Elliott has been searching for Oklahoma for years. Born in the Western wheat belt in Clinton and trained at Oklahoma State University, he initially ignored his surroundings by designing crisp Modern buildings that could be at home anywhere. This early work, mostly houses and small offices, brought the Oklahoma City-based architect critical recognition but little emotional satisfaction. “I kept looking for a spirit or an emotion that came from this place,” Elliott recalls, “something that I could bring to my architecture that wouldn’t run dry.”

In the ESEO (Employment Security Employees of Oklahoma) Federal Credit Union in Oklahoma City, those explorations have finally paid off. A frugal, working-class organization, the credit union insisted that its new headquarters reflect those very values. Imagine us doing business out in a field, under a big tree, the client told the architect.

In response, Elliott designed a simple, low-slung rectangle, 8,000 square feet, with a broad, sheltering roof supported by rusting steel columns that spread like trees. Deep overhangs shade broad expanses of glass, while the steel “trees” rise to pine rafters and trusses that underscore the design’s unpretentious spirit. The floors are concrete aggregate, the exterior walls local fieldstone. The credit union’s vault, also sheathed in stone, stands just inside the front door, like a miniature frontier bank. “It’s not a vernacular building as such,” Elliott explains. “It just responds to the place in terms of materials and feeling.”

ESEO responds as well to Oklahoma’s ubiquitous but frequently inaccessible Native American culture. The glass conference room at the center of the building features a tall cabinet displaying the four sacred colors of the Native Americans—red, white, black, and yellow. Outside, a stone campfire set in a grove of native redbud trees symbolizes their historic presence on the site.

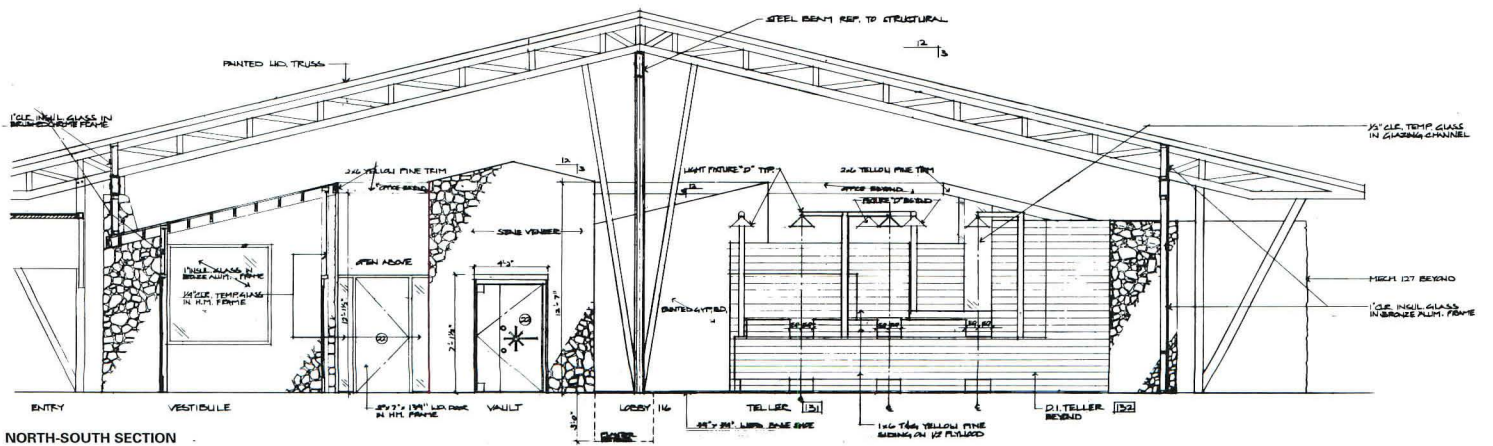
These elements are not introduced sentimentally as bits of local color. They tap layers of historical and cultural meaning that have accumulated over centuries. This is the only regionalism worth acknowledging, and precisely the kind that architect Rand Elliott has expressed.—*David Dillon*

LEFT: Dustin fieldstone pier is decorative to highlight floating quality of ESEO roof.

FACING PAGE, TOP: Entrance is framed by rusting steel beams; dormers admit light to lobby.

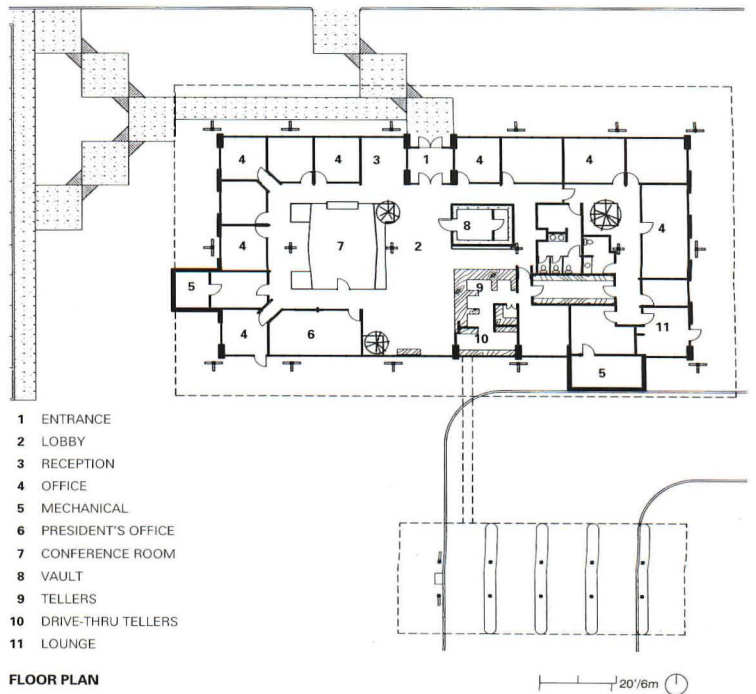
FACING PAGE, BOTTOM: Stone campfire circle, with native redbud trees, recalls Native American presence on site. Drive-thru (right) repeats materials and skeletal forms of main building.





NORTH-SOUTH SECTION

ABOVE: Branching column recalls tree.
 SECTION: Vault is on left, panelled teller desks on right of tree column.
 FACING PAGE, TOP: Teller area combines local fieldstone and yellow pine.
 FACING PAGE, BOTTOM: Conference room cabinet features four sacred colors.
 FACING PAGE, PLAN: Rear of site (bottom) is set aside for drive-up teller.



NORTHEAST/MID-ATLANTIC **LOCAL KNOWLEDGE**

The trio of buildings we chose to represent the New England and the Mid-Atlantic regions are by architects who cull from the buildings next door, uniting them in architecture that may reflect another time but is clearly of today. For a library and classroom building at a rural school that prizes outdoor programs, Schwartz/Silver Architects looked to local covered bridges and barns, village Grange halls, Shaker architecture, and New England meeting houses. Yet as much as the school's new learning center evokes the past, the building is also Modern in its straightforward forms and simple, spare details.

Architect Amy Weinstein's fire and emergency services building in Washington, D.C., recalls the turn-of-the-century firehouse it replaces, yet it meets the very different requirements of fire fighting today. Arranging bunk rooms on the same level as fire trucks and equipment to ensure quick accessibility, Weinstein disguised the building's 17,800-square-foot mass by breaking it into distinct volumes of apparatus bay, living and working area, and community room. She imbued the industrial building with residential characteristics from the neighborhood: hipped roofs, patterned brick details, vertical windows, dormers, and overhanging eaves. Quoining, jack arches, and other ornaments reflect the past but are integral to the brick facade, as befits Modernist principles and today's budgets.

Manhattan architect Dennis Wedlick's upstate New York house for a composer was inspired by 18th-century Dutch farmhouses, rural silos, and village Victorians. The little house, located at the end of a long dirt road and surrounded by forest, incorporates fat piers, a compact 1,000-square-foot volume, and a steeply pitched roof to recall a fairy-tale cottage. However, Wedlick's buildings are never cloyingly cute; they are distinctive, original compositions that somehow seem familiar. Like the other architects featured in this portfolio, Wedlick moves beyond an eclectic palette of styles to devise fresh, individual designs that harmonize with their rural settings.



RICHARD MANDEL KORN



The Alice and David Fowler
Learning Center
Proctor Academy
Andover, New Hampshire
Schwartz/Silver Architects

RURAL ABSTRACTION



Our intention was to make a Modern building incorporating the principles of rural architecture,” relates Warren Schwartz of his new library, tutorial, and computer center at Proctor Academy, a college preparatory school in Andover, New Hampshire. With a curriculum that emphasizes environmentalism and outdoor learning, Proctor is home to a ski slope, wood-heated dormitories, and 300 students who manage their own woodlot. Schwartz and Principal Robert Miklos sought to capture the school’s unpretentious, informal atmosphere by recalling buildings of nearby farms and villages.

They conceived the building as a long, three-story structure, with a computer department on the lower level. The main floor houses the library, and the tutorial center is located in an atticlike floor above. The 130-foot-long, 28,000-square-foot volume resembles a huge rural shed, its overhanging roof inspired by barns and nearby covered bridges. Inside the library, the exposed swing-beam construction is a direct descendant of agrarian building methods. Ganged, 8-by-19-foot windows recall the Grange lodges and town meeting halls of New England.

To emphasize the building’s simplicity and rural roots, the architects incorporated principles of Shaker architecture into their design. Explains Miklos, “There is no superfluous decoration—everything that defines a space is an essential part of the construction.” For example, the library’s structural framework of beams and columns creates intimate “rooms” within a room. Similarly, large, rolling shutters inside the big, south-facing windows lend scale to the expansive reading room and shade readers from the sun.

Proctor prides itself on its environmental ethics and dismissed Schwartz/Silver’s choice of a lead-coated copper roof, choosing zinc instead. Likewise, the architects had specified a durable wood-composite siding, but the school called for cedar.

The new building, where students can visit tutors on their way to and from the dining hall, is a big success at Proctor. The proof: Attendance at the library’s evening study hall is up by 200 percent.—*Heidi Landecker*

PREVIOUS PAGES: Learning center draws upon rural New England precedent.

LEFT: Ganged double-hung windows face south, shaded by interior shutters.

FACING PAGE, TOP: Southern entrance of new building is reached over a stone footbridge (right).

FACING PAGE, BOTTOM: Northern facade of building is tucked into hillside, with smaller windows for energy efficiency. Prominent east-facing porch addresses nearby academic buildings.



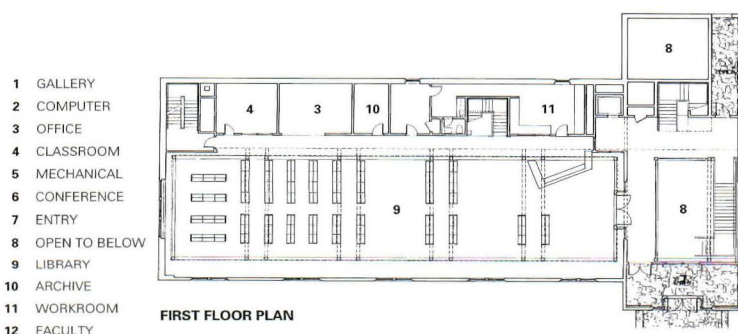
RICHARD MANDELKORN PHOTOS



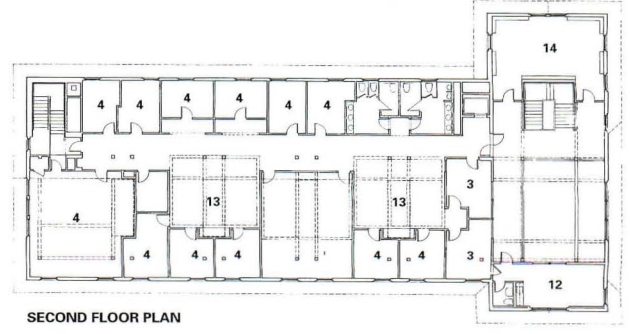
- 1 COMPUTER CENTER
- 2 LIBRARY
- 3 LIBRARY MEZZANINE
- 4 LEARNING SKILLS CENTER



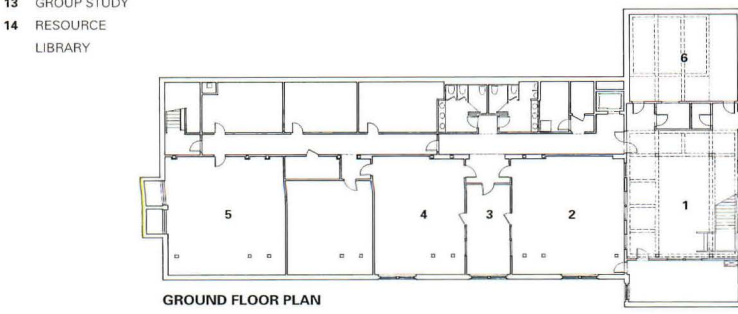
RICHARD MANDELKORN PHOTOS



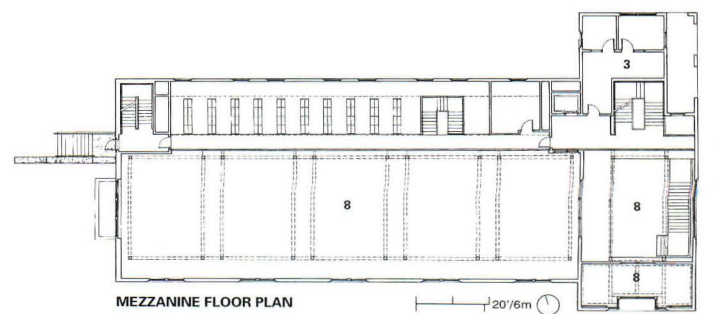
FIRST FLOOR PLAN



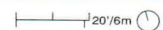
SECOND FLOOR PLAN



GROUND FLOOR PLAN



MEZZANINE FLOOR PLAN



TRADITIONAL ESSENCE



Dennis Wedlick's architecture draws broadly from American precedent. He is influenced by the Shingle Style of McKim Mead and White, the eclecticism of H.H. Richardson, and the modesty of Frank Lloyd Wright's Usonian houses. Yet his buildings are not historicist copies. Elements from local and historical architecture are arranged in fresh, engaging compositions that afford his houses a distinctive, personal character.

For the woodland house of a composer, the Manhattan-based architect drew inspiration from the rural buildings of the surrounding upstate New York countryside. Wedlick's 1,000-square-foot house is topped by a steep, gabled roof that resembles those of local 18th-century Dutch farmhouses. Partially clad in clapboard, the building recalls farmhouses, while its shingled, curved bay echoes rural silos or the turrets of Victorian houses in nearby villages. Other indigenous details, including double-hung windows, flat-roofed dormers, and deep porches, are borrowed from a variety of traditional local architectural styles, lending Wedlick's highly original house a familiar quality.

Despite these traditional details, Wedlick's small houses also incorporate Modernist principles. "I use big, double-hung windows and gang them together to give you the wall of glass that you would see in Modern houses," explains the architect. Wedlick's plans are also Modern—the open-plan living and dining areas are defined by intersecting square and circular volumes. Bathroom, kitchen, and staircase are treated as a service block rather than as dispersed rooms. And on the western side of the house, the roof cantilevers over the porch.

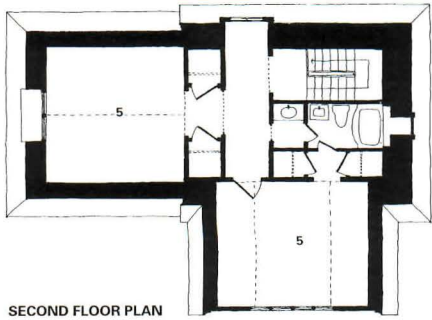
As reflected in his own house in adjacent Columbia County (February 1992, pages 64-67), Wedlick specified only off-the-shelf materials. Inside, floors and moldings are yellow pine; the roof is asphalt shingles. "To be satisfying and original, architecture doesn't require a lot of expensive materials," Wedlick notes. "I start with spatial and sculptural concepts, and then use stock materials to achieve them."—*H.L.*

LEFT: Wedlick's architecture combines elements of the Shingle Style with local Dutch farmhouse architecture and Modern windows.

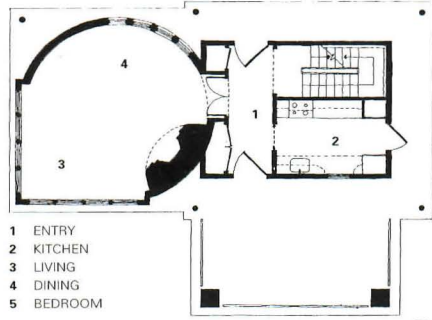
PLANS: Service core separates living room from porch.

FACING PAGE, TOP: Porch and main bedroom above oversized piers address the view. Gable end is enhanced with crown molding.

FACING PAGE, BOTTOM: Columns are not structural, but are placed to emphasize different volumes—corridor and kitchen to the left, bay of living room to the right of main door.



SECOND FLOOR PLAN



- 1 ENTRY
- 2 KITCHEN
- 3 LIVING
- 4 DINING
- 5 BEDROOM

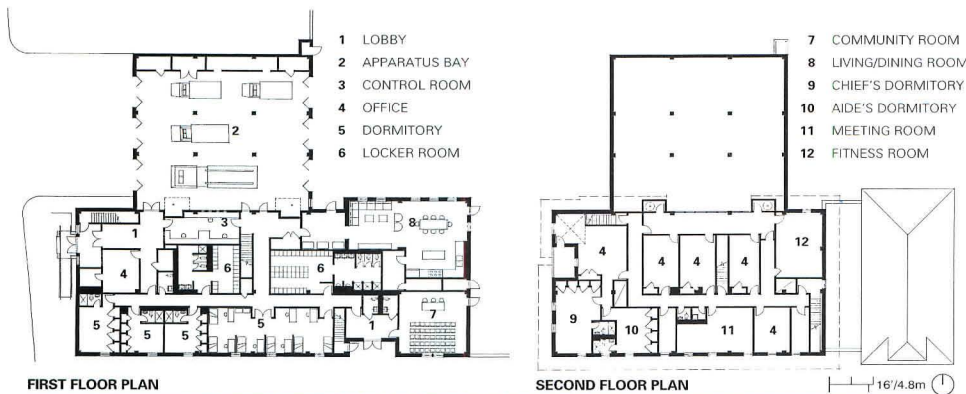
FIRST FLOOR PLAN



MICHAEL MORAN PHOTOS

Fire and Emergency Services Building
Washington, D.C.
Weinstein Associates Architects
Harry Weese Associates, Architect

GOOD NEIGHBOR



Fire stations are essentially industrial facilities, but it is an American tradition to cloak these tough buildings in a guise that is sympathetic to their surroundings. According to a study of historic firehouses in Washington, D.C., by local preservationist Sally Berk, these buildings were designed to dignify, and sometimes echo, their neighborhoods: Anacostia has a French Norman cottage; the Van Ness neighborhood a Georgian firehouse; and Adams Morgan a Mission-style building. So it is not surprising that architect Amy Weinstein has imbued a new D.C. fire station with the arts and crafts elements of its Petworth neighbors.

Weinstein manipulated the massing and designed the exterior of the District of Columbia Fire and Emergency Services Building, working as a consultant to Harry Weese Associates, architect of Washington's Metro subway system. (The new structure was built by the transit authority to replace a firehouse that was destroyed to make way for a new subway station.) To coexist with a row of two-story brick retail buildings along busy Georgia Avenue, Weinstein hid the mass of the 17,800-square-foot building by breaking it into three volumes that wrap its corner site. Facing the avenue are the apparatus bay, housing engines and ambulances, and the administrative area, which incorporates offices, control room, kitchen, and lounge. Bunk rooms turn the corner onto a side street, where a separate entrance leads to a neighborhood community room.

Petworth contains a mix of housing types, mostly constructed between 1900 and 1930. East of the fire station are brick row houses; single-family bungalows with deep porches and overhanging roofs lie to the west. Weinstein's response echoes both building types: The brick color and tilted-square pattern above the apparatus bay reflect the eastern neighbors, and an overhanging roof and dormers recall the bungalows. Quoining and jack arches, coupled with a tile roof, ornament a contextual building hardly recognized by passersby as new.—*H.L.*


PLANS: Apparatus bay (top) projects north from administrative wing (left) and community room (right). **LEFT:** Weinstein set apparatus bay back from busy avenue to allow firefighters to observe traffic before pulling into it. Second floor and top of tower's facade are clad in stucco to reflect neighborhood bungalows. Tower houses battalion chief's office. **FACING PAGE, TOP:** Community center (right), with its own entrance, is designed as a diminutive version of fire station's main volume. **FACING PAGE, BOTTOM:** Brick and tile pattern echo neighboring building (left).



MAXWELL MACKENZIE PHOTOS

WEST/NORTHWEST
EMBRACING LANDSCAPE





Nowhere in the country is landscape a more powerful determinant of architectural form than in the West and Northwest. Mountains, forests, and deserts humble even the most ambitious of architects, heavily influencing siting, materials, and construction. And clients in these regions demand site sensitivity, energy efficiency, and conservation of resources.

The three projects that follow defer to the landscapes of a Wyoming butte, a forest on Washington's *Olympic Peninsula*, and the desert outside Las Vegas. The National Wildlife Museum of Art near Jackson Hole, Wyoming (these pages), by Denver architect C.W. Fentress J. H. Bradburn and Associates, respects nature by emulating it. Set into a butte to reduce building mass and save energy, the museum's irregular fieldstone walls simulate an outcrop. The timber-framed Paulk House near Seattle by local architect James Cutler, raised on stilts above a bluff, demonstrates Cutler's environmental sensitivity and contemporary translation of traditional wood construction. And in designing the firm's own offices and studio, Las Vegas architect Tate & Snyder paid close attention to its desert environs. The brightly colored building shields the sun with an overhanging roof and angled piers.

These architects demonstrate that design need not be sacrificed to environmental constraints. Their buildings form strong images within the local scenery, enriched by a respect for nature's forces.

National Wildlife Art Museum
Jackson Hole, Wyoming
C.W. Fentress J.H. Bradburn
and Associates, Architect

ART OF THE WILD



TIMOTHY HURSLEY

It's easy to miss the National Wildlife Art Museum on the drive from Yellowstone National Park to Jackson Hole, Wyoming. Nestled into a butte two miles north of Jackson, the jagged, fieldstone-covered building could be mistaken for another rock outcropping from the shadows of the Teton Mountains. Its invisibility, however, is intentional. Denver architect Curt Fentress believes "buildings should grow from their surroundings," and in creating this museum devoted to artwork depicting bison and grizzly bears, Fentress designed a rugged structure that seamlessly blends into its terrain. In response to the client's educational mission, he also restored the landscape around the building to encourage wildlife to return.

Overlooking the Jackson National Elk Refuge, a haven for 8,000 elk in the winter, the 70-acre site had been littered in the 1950s and '60s with tourist shops, a trailer park, and a campground. Fentress regraded the butte to its original topography, and planted aspen, grasses, sagebrush, and other native vegetation to reinstate the ecological balance. He then buried the western portion of the 53,000-square-foot building into the hillside and arranged the galleries along this protected edge, where the temperature remains stable. Energy is conserved by a mechanical system that takes advantage of outside air to heat and cool the inside.

On the museum's eastern, exposed side, offices, cafe, and lounge form a rambling, picturesque ensemble that resembles a fortification in ruins. Only the metal-framed windows in this composition ring false; nearly flush with the exterior face, they emphasize that the fieldstone is only a veneer.

Inside the museum, galleries are well proportioned and display an unusual collection: one features the work of Carl Rungius, a German painter who documented the turn-of-the-century Western United States; another room in the museum re-creates the studio of illustrator John Clymer.

Although the museum reflects the local vernacular only in its log-supported entrance canopy (left), its low, naturalistic profile bows to one of most beautiful landscapes in America.—*Deborah K. Dietsch*

PREVIOUS PAGES: Jagged profile of museum blends into Wyoming butte.

LEFT: Museum is entered under port-cochère constructed of logs salvaged from fire-ravaged area of Yellowstone National Park.

FACING PAGE, TOP: East-facing side of building is clad in sandstone gathered in Arizona.

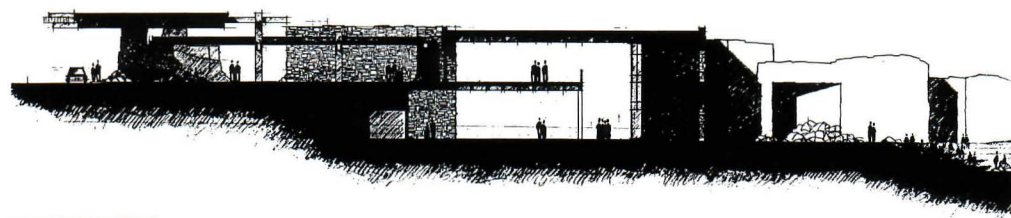
FACING PAGE, BOTTOM: Visitors drive along western retaining wall to reach entrance.



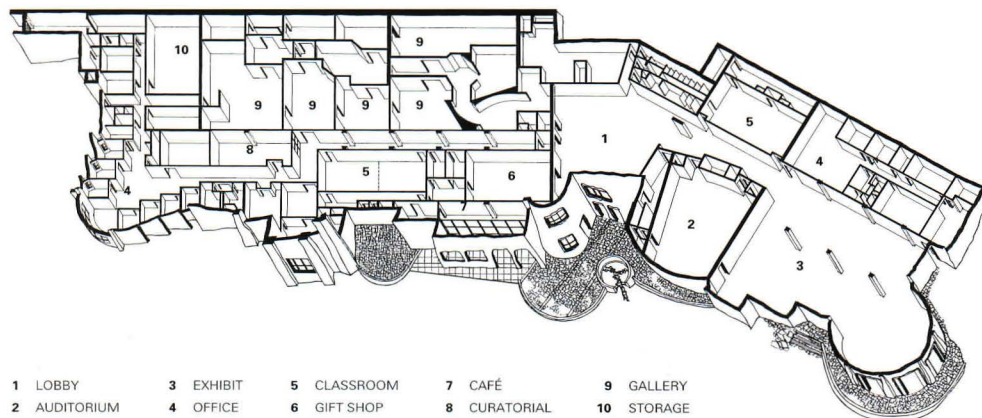
NICK MERRICK / HEDRICH-BLESSING PHOTOS



NICK MERRICK / HEDRICH-BLESSING PHOTOS



EAST-WEST SECTION



- | | | | | |
|--------------|-----------|-------------|--------------|------------|
| 1 LOBBY | 3 EXHIBIT | 5 CLASSROOM | 7 CAFÉ | 9 GALLERY |
| 2 AUDITORIUM | 4 OFFICE | 6 GIFT SHOP | 8 CURATORIAL | 10 STORAGE |

FACING PAGE, TOP: Walls are finished in sandstone; ceiling in Ponderosa pine. Staircase from entrance is topped by Ken Bunn's mountain lion sculpture.

FACING PAGE, BOTTOM LEFT: Corridor leading to offices, members' lounge, and conference room is lined with paintings of local wildlife.

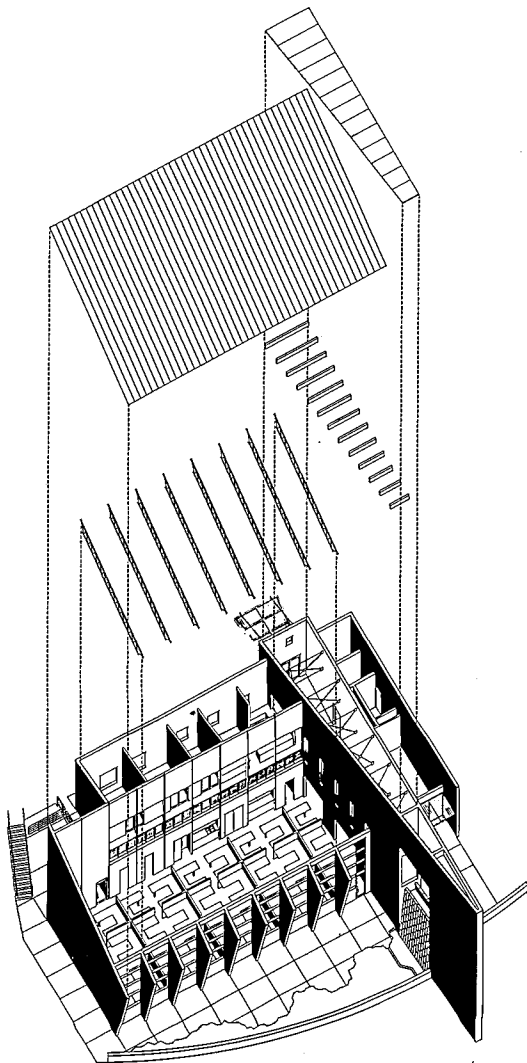
FACING PAGE, BOTTOM RIGHT: One gallery is devoted to artworks depicting the American bison.

ABOVE: Two-story lobby leads to galleries (right), gift shop (center), and outdoor terrace (left).

SECTION: Museum is entered from mezzanine on western side (left), which overlooks lobby (center).

AXONOMETRIC: Galleries are tucked underground on western edge (top left), while offices, cafe, and members' lounge are positioned on eastern side to capture views (bottom).

DESERT OASIS



It's easy for air-conditioned Las Vegas residents to forget that the desert surrounds their neon-lit oasis. But local architect Tate & Snyder hasn't forgotten the city's natural habitat of relentless sunshine, arid winds, and barren mountains. The firm designed its new studio in a Las Vegas suburb near Lake Mead to reflect both nature and artifice.

Bermed into the side of a bluff, the firm's 9,000-square-foot, two-story headquarters opens to views of distant mountains. The building incorporates an L-shaped block of offices and conference rooms that wraps around a large, double-height studio. Offices and studio are separated from support spaces by a wedgelike volume containing a gallery and a staircase. The studio's southern facade opens onto a paved terrace with a sandstone border and native landscaping that blurs the distinction between building and site.

Outside, the building's materials look to the local tradition of stucco-covered wood, with a nod to the richly hued geometries of Mexican architects Ricardo Legorreta and Luis Barragán. The studio's galvanized metal roof, meanwhile, interprets another desert icon—the Airstream trailer.

Inside, Tate & Snyder flood the studio with daylight through a glass wall and clerestories. “We have over 300 days of sunshine a year out here, so why not take advantage of it?” points out Associate J. Windom Kimsey, designer of the project. Throughout the interior, industrial materials are juxtaposed with plain, stucco-finished walls. The second floor gallery, for example, features a procession of steel tension ties that stiffen the building against Las Vegas's constant wind; a conference room is crowned by corrugated metal barrel vaults and funky pendant lighting; and exposed roof trusses and ducts animate the studio's upper reaches.

For this quirky interior palette, Kimsey looked to the metal junk piles, strewn over the desert, from which transient dwellers create encampments. The result may be unsettling, but by responding to the desert climate and off-the-wall vernacular, Tate & Snyder reminds us that there's more to learn from Las Vegas.—*Raul A. Barreneche*

DRAWING: Double-height studio (left) is separated from services (right) by wedge-shaped gallery and stairwell. Offices line northern perimeter (top).

FACING PAGE, TOP: South-facing studio is shaded by angled piers and overhanging aluminum roof.

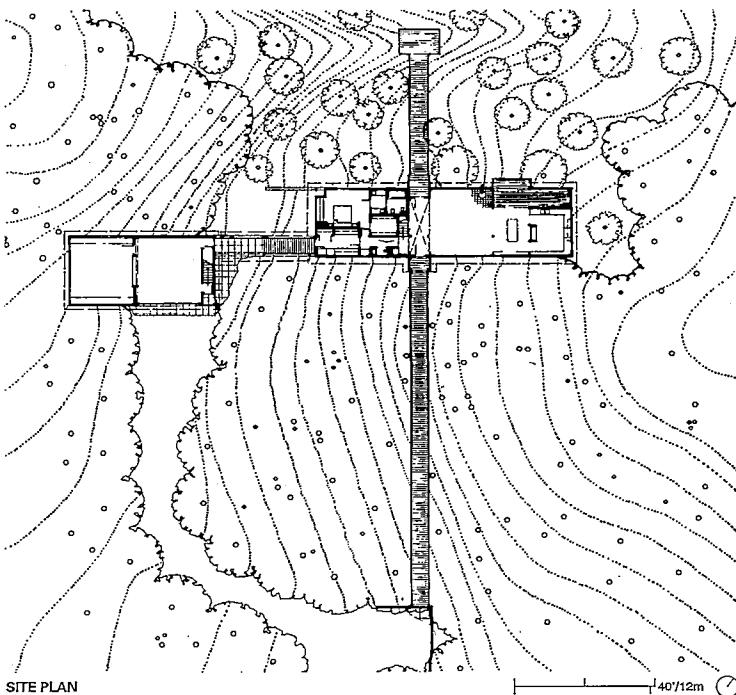
FACING PAGE, BOTTOM LEFT: Slate-finished fountain (left) near south-facing terrace entrance provides respite from desert heat.

FACING PAGE, BOTTOM RIGHT: Mechanical ducts and exposed roof deck animate studio.



PETER MALINOWSKI PHOTOS

RAIN FOREST AERIE



SITE PLAN

James Cutler has acquired a national reputation for explaining the soul of a place. His latest work, a 2,250-square-foot house perched on a bluff on Washington's Olympic Peninsula overlooking the Hood Canal, reflects the vernacular of the Pacific Northwest through simple forms and details that provide shelter in the temperate rain forest. The imagery of simple, hand-built cabins that formed the first housing stock in the region is present in the architect's economical and straightforward application of materials. Cutler's house also recalls the craftsmanship of William Wilson Wurster and Bernard Maybeck and displays Asian influences in its delicate use of trim inside and out, which organizes, divides, and frames wall surfaces. Moreover, the building offers a contemporary echo of the Native American long house. Within its spectacular setting of mountains, trees, and water, this house invokes spirituality.

Cutler and his partner Bruce Andersen went to enormous pains to nestle their project into its heavily forested site. The building floats above the forest floor on cross-braced posts. A 130-foot-long bridge leads to the front door and continues out the opposite side, barely touching down on the bluff.

The architects made sure that every detail, lighting fixture, intersection, and piece of casework revealed simple truths about how wood, metal, and glass are joined together. Sometimes the results are crude, with sheet metal screwed in place as soffits or wall panels.

The house is filled with unexpected visual jolts, such as ends of joists that are exposed at seemingly random lengths, ceilings that are pulled away from the walls to reveal rafters, a beam that has a section missing, and columns that lean at disconcerting angles. The cross bracing is set at seemingly odd places and angles throughout the house. Not merely bits of whimsy, these details are essential parts of the building's economical, though unconventional, structural system. This is an architecture that meshes elegance with eccentricity, chaos with control.—*Mark L. Hinshaw*

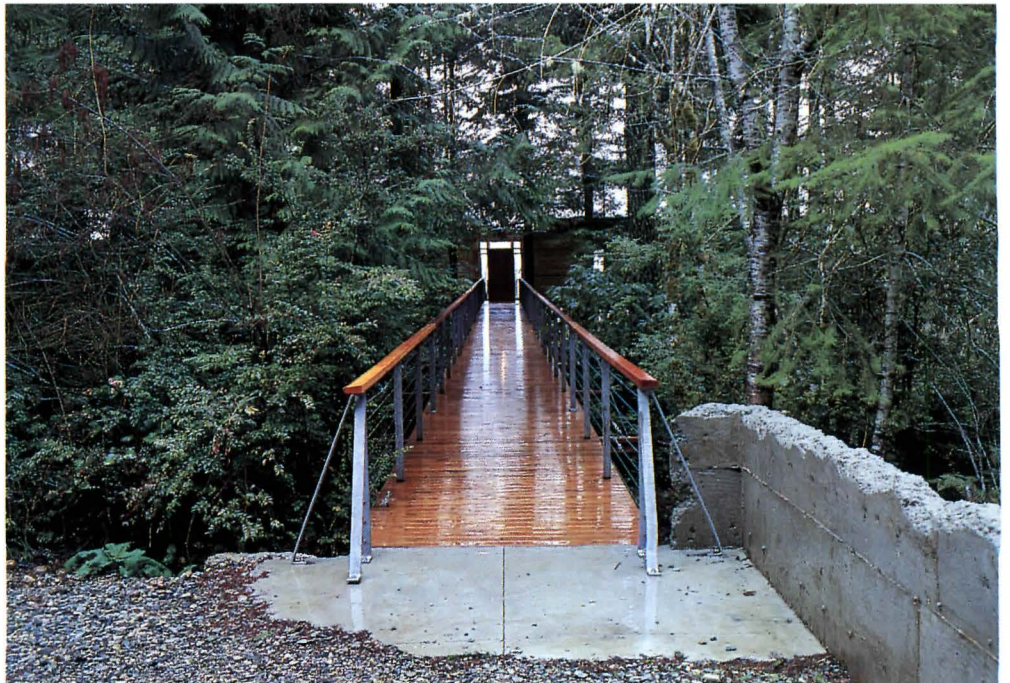
Mark Hinshaw, FAIA, is a Seattle-based urban designer who writes for The Seattle Times.

SITE PLAN: Cutler carefully fitted Paulk House into forest on remnant of old logging road.

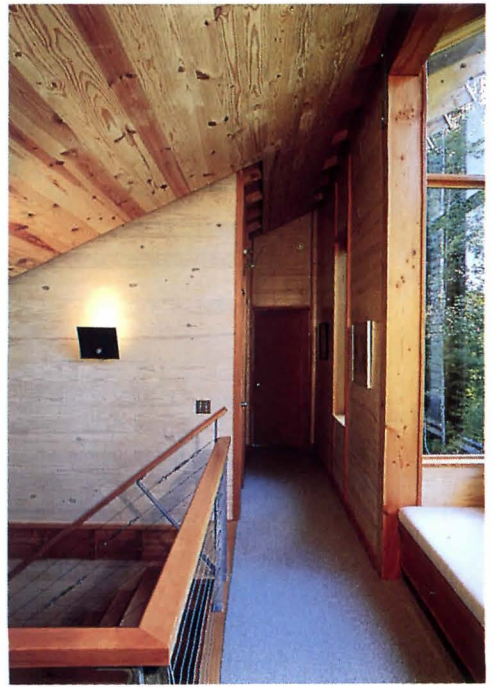
FACING PAGE TOP: Roof and purlins are notched to preserve tree (left).

FACING PAGE, BOTTOM LEFT: Randomly placed cross bracing recalls cobbled-together coal tipples from Cutler's home state of Pennsylvania.

FACING PAGE, BOTTOM RIGHT: Entrance bridge to house is supported by wood posts on concrete plinths.

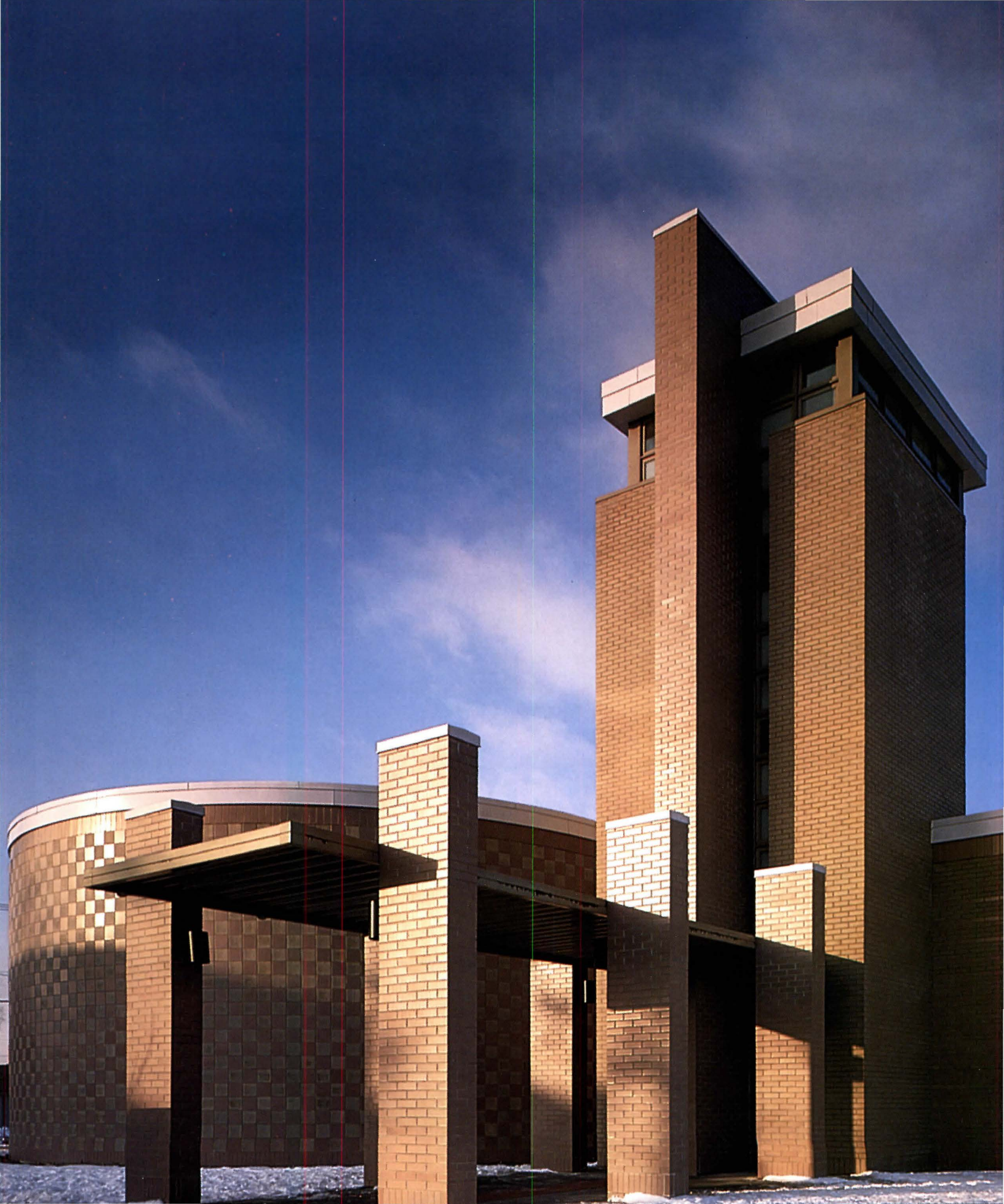


ART: GRICE PHOTOS





FACING PAGE, TOP: Central living area reflects Asian influence in framed division of space and wall surfaces.
FACING PAGE, BOTTOM LEFT: Foyer is framed by exposed structure.
FACING PAGE, BOTTOM CENTER: Ceiling is pulled back to reveal rafters.
FACING PAGE, BOTTOM RIGHT: Second-level corridor, lined with windows, connects bedrooms.
ABOVE: Mixed-grain fir casework in kitchen is simply detailed.
LEFT: Bridge passes through house, terminating at belvedere that affords view of canal and mountains.



MIDWEST THE WRIGHT WAY

Frank Lloyd Wright's legacy remains fixed in our minds as the definitive expression of Midwestern architecture. Wright stirred up provincial pride with houses that skimmed the region's flat, agrarian horizons and rose to the technology of its great machines; and no one since has so eloquently adapted architectural form to the landscape of the prairie.

But downtown Evanston, Illinois, can hardly be described as a prairie. So why was the city so taken by Joseph Powell's Wright-inspired scheme for the competition to design the city's new library? And how could a decidedly Wrightian, if modest, branch library by Ross Barney Jankowski (these pages) be deemed appropriate for a vacant block on Chicago's blighted west side?

As Principal Carol Ross Barney dryly notes, architects designing for Midwestern locales feel "beaten into submission" to the particulars of the Prairie School; yet even she admits that her library appropriately "looks like Chicago." From the exterior, the building seems born of a rebellious descendant of Wright: The architect's emphasis on the horizontal lines of the Prairie School, executed in tawny glazed bricks and metal brise-soleil, suggests her own strong impulse and talent for invention.

Because Powell works in Philadelphia and has fewer hang-ups than local architects about Wright's immortality, his building appears the less cool and abstracted of the two. Powell found the massing of Wright's Larkin Building eminently adaptable both to his site in Evanston and to the program of a library. But to evaluate the library's success by comparing it to that of Wright's revolutionary workplace would be unfair. With its clock tower, monumental stair hall, and airy reading rooms, Powell's design serves the town and the library's users quite well.

For both Powell and Ross Barney, the Wright way leads neither to cartoonish imitation nor to a technological breakthrough, but to the more elusive expression of a long-established regional ideal.

Mabel Manning Branch Library
Chicago, Illinois
Ross Barney Jankowski, Architect

CHICAGO TRIBUTE

Ross Barney Jankowski (RBJ)'s branch for the Chicago Public Library, named after community activist Mabel Manning, figures as a beacon on Chicago's blighted west side. The neighborhood's first new library in 30 years, it commands a long-neglected strip between blocks of dilapidated stores and HOK Sport's United Center, a basketball arena named after United Airlines.

RBJ's design looks defensive because librarians and city officials feared break-ins and shattered windows. But instead of assuming the worst of local residents, a democratic city like Chicago—where low-income housing reflects an enlightened view of the poor—should have risked a more inviting design to determine whether better architecture increases local pride and stewardship.

The city even mandated the library's style: Prairie School. This contradicted the intentions of RBJ Principal Carol Ross Barney, who wanted to make a statement about the area's rebirth. Her challenge was further complicated by a limited budget and a program of only 12,000 square feet, which meant that the massing would be low and difficult to monumentalize. She thus arrived at what she described a Usonian solution: economical and austere, with a tower, circular community room, and entrance canopy to enoble an otherwise rectangular box.

The tawny hue of the library's brick facades lightens the overall mass but suggests an unfortunate affinity with the United Center's vast beige envelope. Perhaps the red brick RBJ chose for their AIA award-winning Cesar Chavez Elementary School (1994) in a similar Chicago neighborhood would seem too dark for a low building with few openings. But Ross Barney has long proven her skill with pattern, and the library's carefully composed, if subtle, alternations of standard and glazed-brick cladding is no exception.

The city plans to further improve the neighborhood with a multi-block, campus-like park extending south from the library to several area schools. "This is a laboratory for what's happening in urban America," Ross Barney observes. "It's like planting a second-growth forest."—*M. Lindsay Bierman*

PREVIOUS PAGES: Tower marks entrance to Mabel Manning Library. Alternating bricks (right) emphasize horizontal lines of Prairie School.

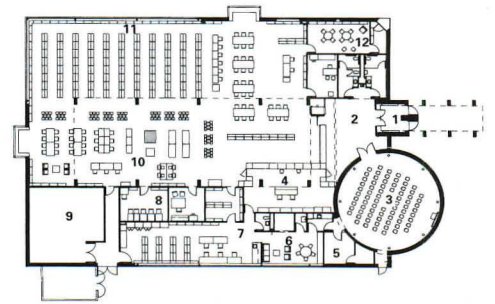
LEFT: Library tower faces east toward city's new arena.

FACING PAGE, TOP: Birch plywood panels surround clerestory above reading room.

FACING PAGE, BOTTOM: Structural steel columns and concrete-block cylinder enclose community room.

PLAN: North-facing stacks (top) and administrative offices (bottom) flank reading room (center).





FLOOR PLAN

- | | |
|----------------|-------------------|
| 1 ENTRY | 7 WORKROOM |
| 2 LOBBY | 8 COMPUTER/TYPING |
| 3 MEETING ROOM | 9 MECHANICAL |
| 4 CIRCULATION | 10 READING ROOM |
| 5 STORAGE | 11 STACKS |
| 6 STAFF LOUNGE | 12 MULTI-PURPOSE |

LARKIN REDUX



The resemblance of the newly completed Evanston Public Library to Frank Lloyd Wright's Larkin Building is troubling only to architects and local critics. If one simply looks at the relationship of the library to Evanston's dense, villagelike blocks, it's clear that the new building is much more than a diminished version of Wright's landmark.

Joseph Powell & Associates' design was chosen out of 377 entries as the winner of an international competition that elicited plenty of skillful proposals. But jurors from the library and city council were seduced by a perspective drawing that Powell appears to have cribbed from the famous oblique view of the Larkin Building. The city's bias for heavy masonry and Wrightian details, however, was not the deciding factor: It was the civic aspirations of Powell's plan, which emphatically terminates Evanston's main street with a public square defined by the library's clock tower, entrance, and structural piers.

Imagine the pique of local entrants when they found out that Powell, now 32, was a 28-year-old, out-of-work architect who had just been laid off by Peter Marino and Associates in Philadelphia.

Powell collaborated with the Chicago firm Nagle, Hartray & Associates, whose most practical problem—ADA mandates—was elegantly resolved by Powell's parti: The side-facing entrance that is so reminiscent of the Larkin Building easily accommodates a ramp for wheelchairs, which ascends gently enough to not require intrusive handrails, and spans wide enough to double as a public plaza.

The library's bulky exterior gives no hint of the generous, double-height reading rooms inside. And within the depths of the building, a profusion of wood filigree barely eclipses the banal realities of acoustical-tiled ceilings and sheetrock walls. But with a Wrightian sense of spatial drama, Powell centralized the reading areas and stacks around a square, four-story lobby, where an open staircase directs visitors three flights up to the surprise of a grand, airy reading room.

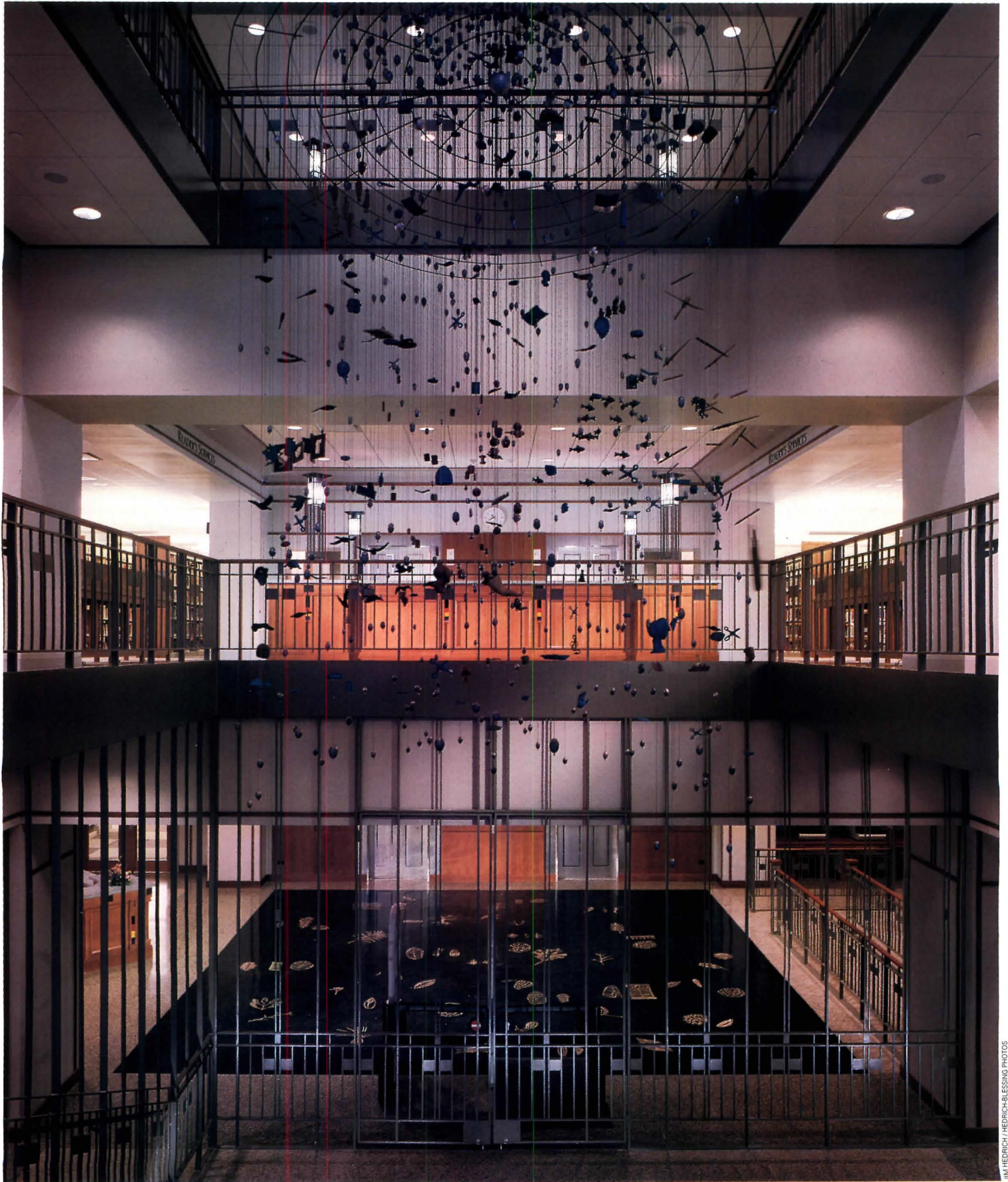
Book-related sculptures by independent artists ornament the library's lobby, and the building awaits a pair of sculptures to crown the piers on its west facade. But the choice of an artist for this final and most prominent symbol is currently mired in arguments over political correctness.—*M.L.B.*

LEFT: Clock tower of public library terminates Evanston's main street.

FACING PAGE: Piers recall Wright's Larkin Building. Cast-stone capitals with abstracted owl and ears of corn support steel trusses. Fir planks clad roof soffit.

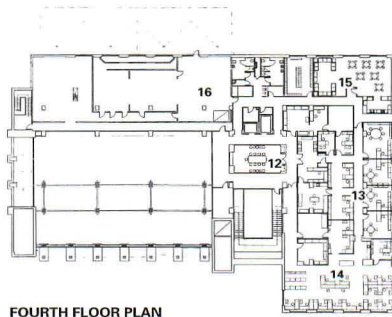


JIM HEDRICH / HEDRICH HELESSING PHOTOS

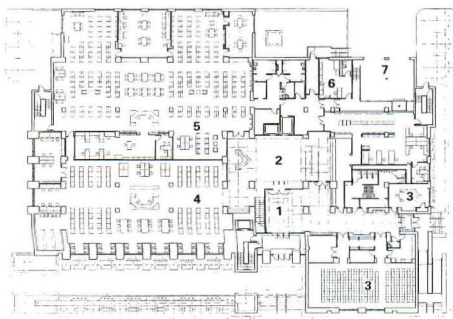




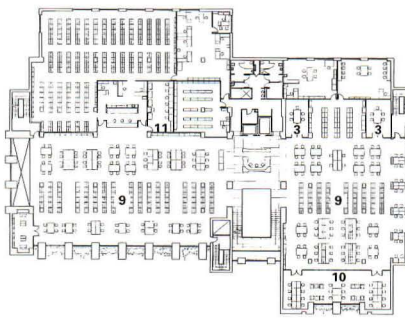
SECOND FLOOR PLAN



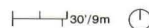
FOURTH FLOOR PLAN



FIRST FLOOR PLAN



THIRD FLOOR PLAN



- 1 ENTRY
- 2 LOBBY
- 3 MEETING ROOM
- 4 BROWSING COLLECTION
- 5 CHILDREN'S COLLECTION
- 6 MAINTENANCE
- 7 LOADING DOCK
- 8 GENERAL COLLECTION
- 9 REFERENCE
- 10 STUDY ROOM
- 11 COMPUTER ROOM
- 12 BOARD ROOM
- 13 ADMINISTRATION
- 14 TECHNICAL SERVICES
- 15 STAFF ROOM
- 16 MECHANICAL

FACING PAGE: Steel gates secure entrance lobby. *Ghostwriter*, wire and cast-aluminum sculpture by Ralph Helmick and Stuart Schechter, hangs from ceiling. *Book Leaves* by Michele Oka Doner (bottom) consists of bronze sculptures cast in terrazzo floor.

ABOVE LEFT: Steel and stained glass pendants and white-oak trim adorn periodicals room.

ABOVE: Concrete columns and steel trusses support fir-clad roof in third-floor reading room. Ceramic tiles at top of column conceal steel plates to accommodate additional floor.

PLANS: Community meeting rooms flank ground floor lobby. Reading areas and stacks are centralized around elevators and information desk on first three floors. Administrative offices occupy fourth floor.

SOUTH
WINDSOR RISES



With the current proliferation of ersatz Georgian plantation houses in the South, you'd think that everyone who lives there dreams of Tara's heyday in *Gone with the Wind*. Florida's builders have always been especially adept at realizing such romantic fantasies. Architect-Developer Addison Mizner's taste for the flavors of old Spain determined the character of Palm Beach in the 1920s; Developer George Merrick's 1920s "villages"—each named after a style, such as Dutch West African—established the jaunty resort air of Coral Gables.

Today, an hour's drive north of Palm Beach, hotel magnates Hilary and Galen Weston are imposing a surprisingly more practical vision of Florida. The Westons have enough money to build varied incarnations of Ocean View Estates or Sunrise Village across the state's remaining virgin fields. Instead, they hired Duany Plater-Zyberk (DPZ) in 1989 to develop formal guidelines for an oceanfront parcel named Windsor, where buyers prefer small lots on dense streets to wanna-be estates on the golf course.

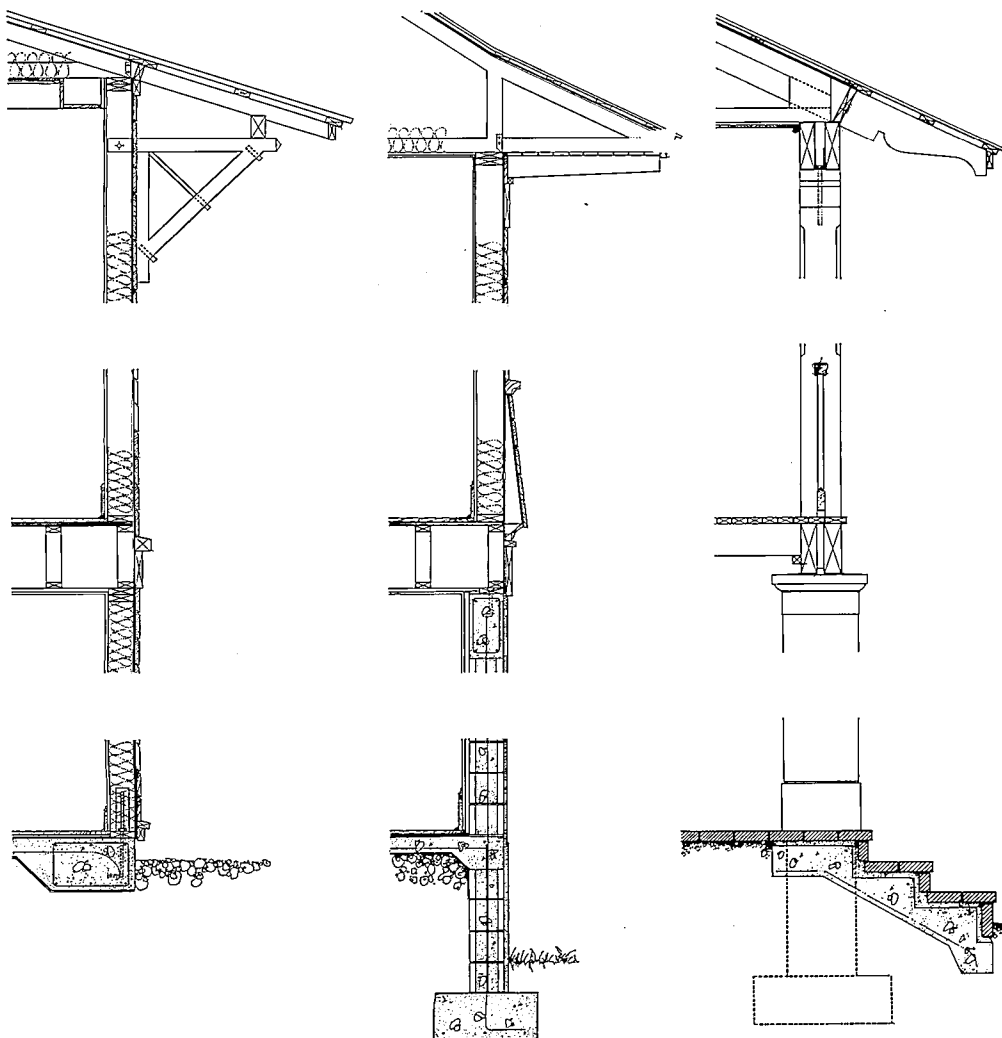
Although Windsor houses only the very rich, the new community offers lessons for housing the poor and middle class. There's nothing particularly expensive about the uniquely Floridian, stucco-on-concrete-block construction of Windsor's houses. Cost is in the details, such as mahogany doors, high-tech appliances, and silver-plated hardware.

Even in its early stages, Windsor demonstrates the success of DPZ's code, which was devised to prevent the place from becoming too quaint—a common criticism of Seaside, DPZ's first giant step toward the New Urbanism. Windsor's houses are required to meet the street's edge with masonry boundaries like garden walls, detached garages, and facades wrought with the colonial restraint of Florida's first settlement, 18th-century St. Augustine.

The best contemporary manifestations of this indigenous ideal are houses by Vero Beach architect Scott Merrill. Take away the upscale trappings of Merrill's buildings (these pages) and what remains is Florida's primitive hut: a breezy refuge from the sun.



SOUTHERN HOSPITALITY



Considering that 10 of the 24 completed houses at Windsor are designed by local architect Scott Merrill, one would expect the new community to look monotonous—like an instant olde towne. But Merrill’s houses are Windsor’s most subtly varied and most compulsively detailed. And with his new partner, Hollie Hatch, the architect is realizing and refining the Classical ideal of uniform variety in a regional palette of block, stucco, and wood—a principle that has made historic Charleston and Washington, D.C.’s Georgetown some of the country’s most emulated neighborhoods.

Windsor lacks the pretensions of its contemporaries. While Georgetown-inspired developments in suburban Washington flaunt arbitrary combinations of Federal motifs, houses at Windsor are true to local traditions. Their most prominent features—shaded terraces, deep overhangs, and operable shutters—reflect the demands of the climate.

Merrill is best known for his work at Seaside, where he was the town architect from 1988 to 1990. With the personal blessing of Andres Duany, Merrill was then handed the commission to design Windsor’s first houses as well as the community’s two most enviable commissions: a house for Windsor’s developers, Hilary and Galen Weston, and the town center, now in design development.

DPZ’s code unifies the work of disparate architects by forcing them to speak the same language, classified in Windsor’s marketing brochures as “Anglo-Caribbean.” It thus bans semicircular arches, which are deemed not only a regional cliché but also too resonant of the Mediterranean for northern Florida. So architects must learn a relaxed, tropical patois of pronounced eaves and exposed rafter tails, stucco and wood facades, vertical window proportions, indigenous landscaping, and a neutral palette of finishes.

The most concise statement of DPZ’s intentions can be found at the southwestern corner of Windsor’s polo field, where Merrill and Hatch designed two cottages to house

PREVIOUS PAGES: Cottages by Merrill, Hatch and Associates face east onto Windsor’s polo field. Garden wall (center) and building facades define the community’s north-south axis.

SECTIONS: Typical wall sections by Merrill and Hatch show attention to eave details: wood bracket supports rafter (far left); beadboard soffit spans outrigger (center); and carved rafter tail terminates cottage facades (left and facing page).

FACING PAGE, TOP: Covered porches of tennis cottage temper intense southern daylight.

FACING PAGE, BOTTOM: Clapboard skirt below second story windows activates facade.



THOMAS DELBECK PHOTOS

the Weston's guests. It looks as if the architects cast aside their books on Palm Beach and Coral Gables and started sensibly with sturdy, planar boxes. Then they carved out porches and added pergolas to shield inhabitants from the Florida sun, and topped the boxes off with steep roofs to shed heavy rains.

In most cases, Windsor code prescribes three basic massing configurations, all of which enclose a private garden and squarely address the street. These include a palazzo-like courtyard, a Charleston-inspired sideyard, and an urban row house. The cottages by Merrill and Hatch are an exception: The residual alley and garden behind them reflect the constraints of their irregular sites and the primacy of the street and polo field.

Merrill and Hatch skillfully manipulate these prototypes with their knack for episodic plans. In the row houses, for example, the architects managed to accommodate up to 2,800 square feet of interior space; a lush, 50-foot garden; and a garage apartment, all on a 32-by-100-foot lot. And the architects' latest courtyard houses are like scaled-down, Floridian versions of French hotels, where the plan of the house mediates the axial shift between motor court and garden.

The architects' latest sideyard house presents a more original interpretation of the DPZ-specified prototype. Its site plan is derived from the typical house in Charleston and others like it at Windsor, where one enters from the street onto a veranda between the house on one side and a walled yard on the other. Unlike the expected asymmetrical, two-bay street facade, Merrill and Hatch successfully contrived a symmetrical, A-B-A composition by widening the volume of the house to three bays: veranda, living quarters, and interior circulation. So visitors must choose between two entrances, one onto the veranda or the other into a small foyer.

Common criticisms of Windsor are that, like many Republican programs, it benefits only the rich; that its codes violate an architect's free speech. But working with codes is like designing a house on a tight budget: Architects like Merrill and Hatch achieve more with less.—*M. Lindsay Bierman*

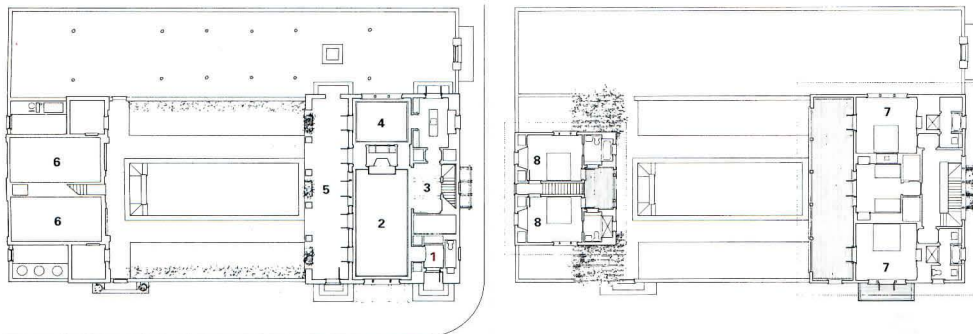
PLANS: Walled garden serves as separation of garage (left) from house (right).

LEFT: Merrill and Hatch designed massing of sideyard house to recall Charleston prototype.

FACING PAGE, TOP: Verandas of sideyard house face south onto walled garden.

FACING PAGE, BOTTOM LEFT: Three-bay facade presents doors to veranda (left) and house (right).

FACING PAGE, BOTTOM RIGHT: Staircase to garage apartment aligns with axis through house and garden.



FIRST FLOOR PLAN

SECOND FLOOR PLAN

1 ENTRY
2 LIVING ROOM

3 DINING ROOM
4 FAMILY ROOM

5 PORCH
6 GARAGE

20/6m

7 MAIN BEDROOM
8 GUEST BEDROOM





THOMAS DELBECK PHOTOS

S C A R B O R O U G H



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This year's AIA Honor Awards reflect the modest budgets, social agendas, and discriminating clients of the mid-1990s. The architecture, urban design, and interiors featured on the following pages present localized solutions to the challenges of designing infrastructure, cultural institutions, offices for new companies, affordable housing, and waterfronts. Recounts Frances Halsband, principal of Kliment and Halsband and chair of the architecture jury: "We read the values of clients in the forms, and gave prizes to architects whose work showed a seamless relationship to those values."

For instance, to develop The Farm, a mixed-income residential development near Santa Cruz, California, the Mid-Peninsula Housing Coalition selected the project's tenants as carefully as it chose architect Seidel/Holzman, indicating a "consistent pattern" of community-mindedness. The owners of the Center for the Arts Theater, designed by Polshek and Partners for the Yerba Buena Gardens district of downtown San Francisco, demonstrate a similar investment in community. "They are running the facility in a way that encourages the local arts," Halsband observes. "We saw an incredible sense of social purpose." The architecture jury also favored vernacular forms and the seemingly "invisible hand" of the architect, as evidenced in Hawaii's Plantation Village by Spencer Mason Architects, a house at Teviot Springs Vineyard by William Turnbull Associates, and Cibolo Creek Ranch by Ford, Powell & Carson.

The urban design awards jury, chaired by Alexander Cooper, principal of Cooper Robertson Partners, rewarded schemes that preserve the existing characteristics of cities, especially their natural features, and suggest ways to enhance them. Ehrenkrantz and Eckstut's proposal for new waterfront development in Baltimore, for example, extends the grain of adjacent neighborhoods with appropriately scaled blocks and streets. William Warner Architects reinstates Providence's public realm by relocating portions of three rivers in the downtown without moving a single building. And Solomon Architecture fashions a new neighborhood in San Jose that defers to the hilly topography. These award winners respect the public realm as much as the private.

This year's interiors awards honor spaces distinguished by inventive assemblages of materials that do not necessarily conform to the project's exterior presence. Explains jury chair Tod Williams of Tod Williams/Billie Tsien & Associates, "We were looking for a thoughtful sense of construction."

Each awards jury honors carefully edited designs far removed from the ostentation and self-consciousness of the 1980s. As Halsband concludes: "These are the kind of projects that should be important to us as we move forward."

AIA Honor Awards



The Farm
Soquel, California
Seidel/Holzman, Architect

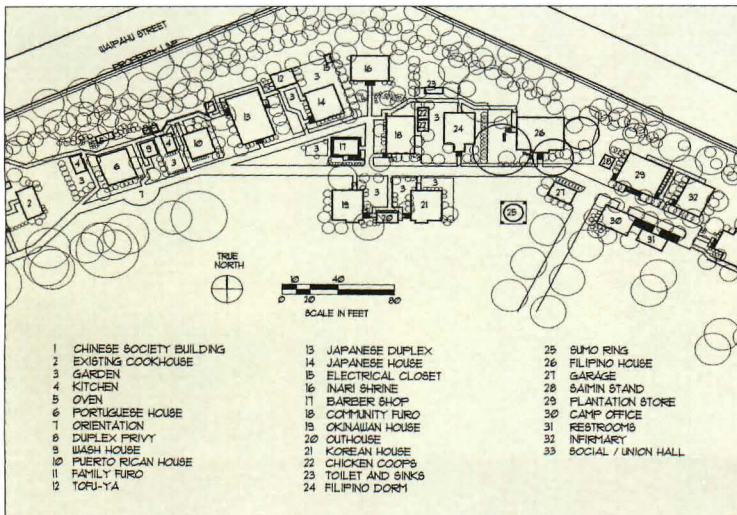
San Francisco-based architect Seidel/Holzman created an intelligent master plan for a mixed-income housing development in a former agrarian community that is now a suburb of Santa Cruz. The site plan leaves two-thirds of a historic farm intact and

maintains the area's rural character by incorporating wood siding and framing similar to that of the original farmhouse on the site, which is being converted into a neighborhood center. The community, where market-rate units help subsidize those

for lower-income households, provides energy-efficient housing for 39 families. The jury remarked that The Farm "shows exactly the right degree of contextual influence in its materials and layout" and creates a neighborly community setting.



AUGIE SALDOSA PHOTOS



Hawaii's Plantation Village, an outdoor museum of re-created rice plantation houses from the early 1900s, communicates the shared cultural heritage of the several ethnic groups that emigrated to Hawaii at the turn of the century.

Spencer Mason Architects of Honolulu sited two authentic plantation buildings alongside newly constructed replicas, an effort the jury recognized as "outstanding research and curatorship." In this project, the jury noted, a good program comes through

rather than the hand of the architect. This clear, well-composed place creates a collage from fragments of cultural evidence. "With this special project," the jury concluded, "architecture meets anthropology in linking us to a notion of our past."

**Hawaii's Plantation Village
Waipahu, Oahu
Spencer Mason Architects**

AIA Honor Awards



Advertising Agency Project
New York City
Vincent Polsinelli Architects

A former butter and cheese factory, this 1871 structure in lower Manhattan was renovated into an advertising agency by local architect Vincent Polsinelli, who organized internal spaces to make the most out of a footprint of 3,125 square feet.



PAUL WARGHOL PHOTOS

“The successful orientation of the plan allows one always to be aware of what is outside,” explained the jury. Jurors also lauded the detailed staircase, which doubles as a partition to separate space and as interior ornament. Minimal obstruction by interior walls

admits light deep into the building and affords views to the street. Showing respect for the existing architecture, the reconstituted portico—now a recessed entrance behind the original facade—blends formality into the building’s old industrial fabric.



DENNIS GILBERT PHOTOS

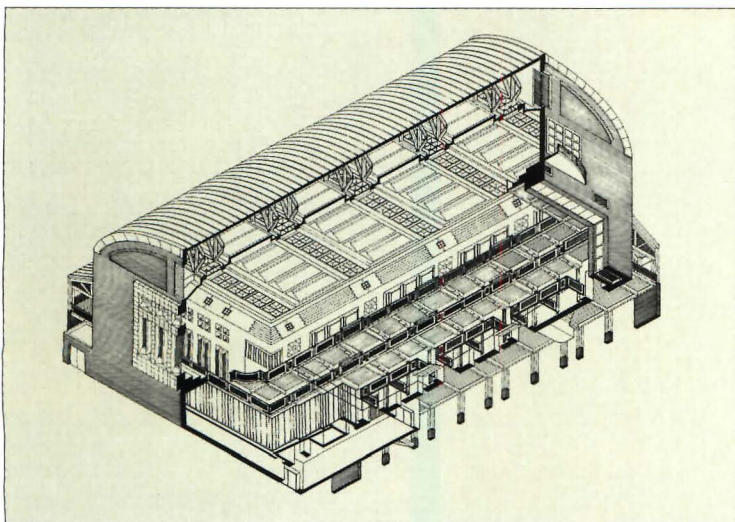
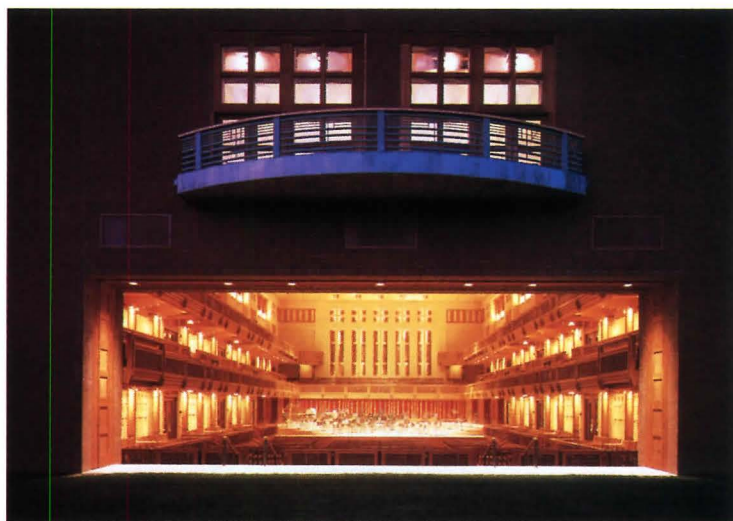
Westendstrasse 1 represents an unusual example of a high rise that dignifies its surroundings. New York City-based Kohn Pedersen Fox Associates deftly knitted the building into the fabric of Frankfurt, with a prominent street wall formed by its

granite and marble base and large public spaces animating the street. The structure's careful composition is responsive also to Germany's environmental consciousness: Extensive daylight fills the interior, the curtain wall is triple-glazed to conserve

energy, and office workers are no more than 20 feet from a window. "The tower's cornice creates a gesture toward the old city of Frankfurt," maintained the jury. "Westendstrasse gives back what it takes and becomes a kinetic figure on the skyline."

Westendstrasse 1
Frankfurt am Main, Germany
Kohn Pedersen Fox Associates

AIA Honor Awards



**Seiji Ozawa Hall at Tanglewood
Lenox, Massachusetts
William Rawn Associates**

The success of the new Ozawa Hall stems from its marvelous acoustics and has extended Tanglewood's concert season. William Rawn Associates' design responds sensitively to Tanglewood's campus and treasured Saarinen-designed

buildings. "Its simple, restrained exterior evokes wonderful rural imagery," observed the jury, pointing out its evocation of "the intimacy of Quaker meeting halls." The architect reduced the mass of the shoebox-shaped hall with an open

loggia of rich brick and timber. "The hall's form encourages entrance to its animated interior," the jury remarked. The stage is immediately accessible to the audience; no proscenium arch separates concertgoers from the orchestra.

STEVE ROSENTHAL PHOTOS



PETER VANDENMARKER PHOTOS



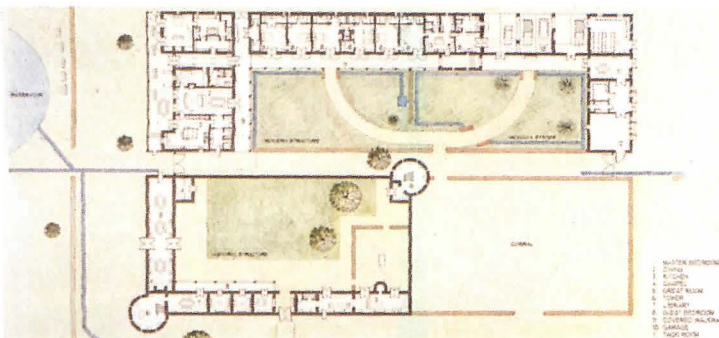
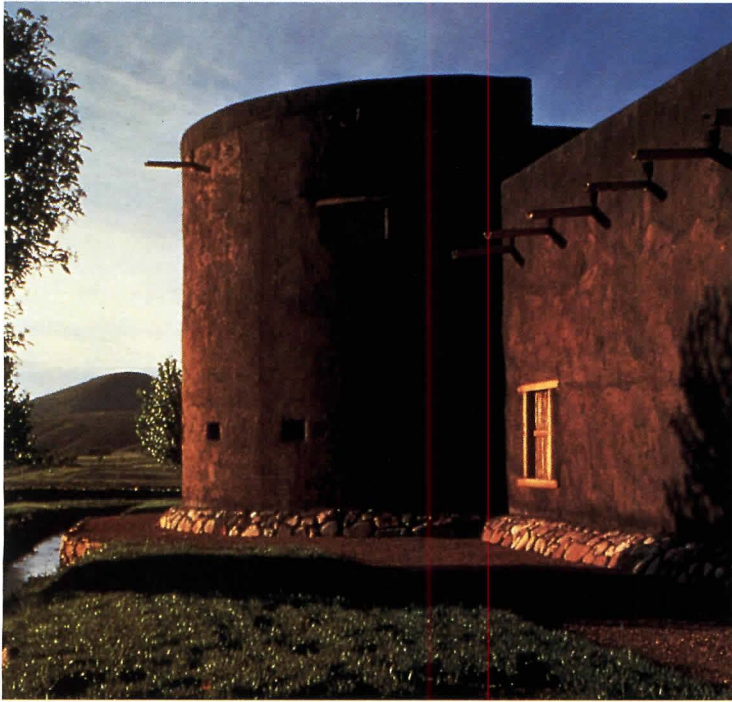
Arrow International transcends the usual suburban office building, the jury asserted, and in fact “stands as a critique of that building type.” Kallmann McKinnell & Wood’s design of the bucolic, 168,000-square-foot headquarters unites linear

elements along a covered arcade entry hall and connects the building to surrounding greenery by adjusting its mass to the curves of its front drive. Its framed indoor and outdoor spaces create carefully composed views, the jury noted, and daylight reaches

deep into the building through clerestories. “Nearly every element of Arrow International makes the building a pleasant place to work,” remarked the jurors, from its brick envelope to interior detailing. “All that employees need is here.”

**Arrow International
Reading, Pennsylvania
Kallmann McKinnell & Wood
Architects**

AIA Honor Awards



TRACY LYNCH PHOTOS

**Cibolo Creek Ranch
Shafter, Texas
Ford, Powell & Carson**

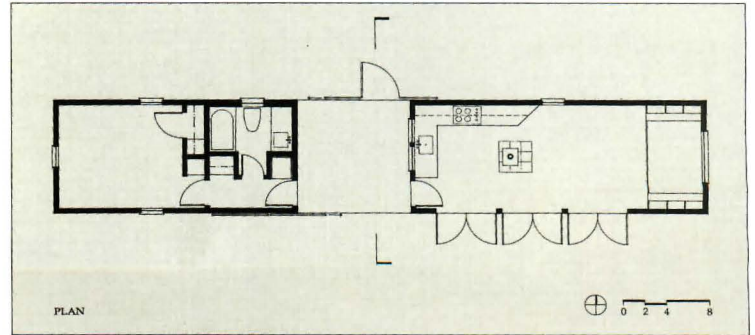
The conversion of this historic Texas adobe ranch headquarters into a luxury retreat was based on careful research of traditional local building methods and craft. The design of its new hotel by Ford, Powell & Carson of San Antonio is obviously

recent but compatible with the older structure's historic vocabulary. According to the jury, "The project's mix of old methods, old materials, and new means displays restraint, control, and powerful reiteration. Artful compositional decisions reveal

themselves in appropriate heights and rhythms." The design preserves what is good, the jury added, and advocates making more out of less. It reflects adroit program choices—the old fort is preserved as an interpretative center and not used for guest facilities.



MARY DARLEY / ESTO PHOTOS



This three-room weekend cottage, sited on the only flat area in a vineyard, is grounded in the landscape and encourages outdoor living. William Turnbull Associates of San Francisco carefully crafted the house with weathered redwood

siding and cedar shingles on a narrow gabled roof; its exposed structural details and finishes were retrieved from wind-felled Douglas firs on the site. At 640 square feet, this small project is “clean and wonderfully edited,” the jury opined. “Its means are

minimal and economical but intensely designed and considered.” Its interiors are like comfortable furniture; this cottage project celebrates the vernacular with extraordinary range and shows that powerful architecture can be remarkably simple.

**Teviot Springs Vineyard
Calistoga, California
William Turnbull Associates**

AIA Honor Awards



Jacobs Field
Cleveland, Ohio
HOK Sports Facilities Group

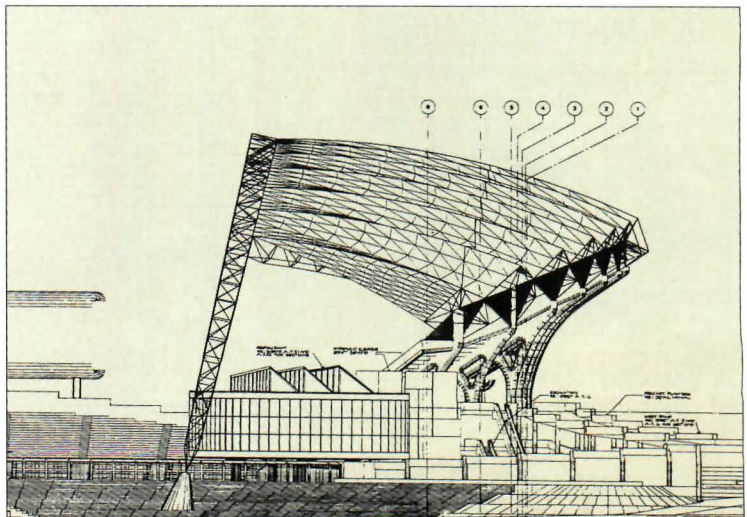
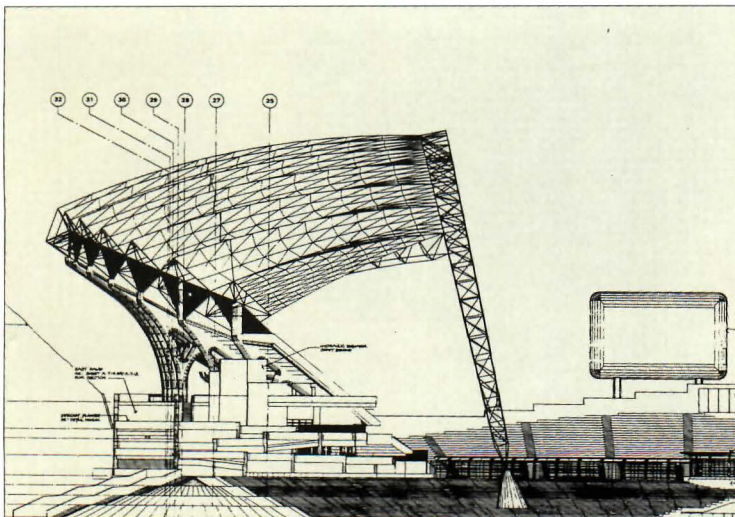
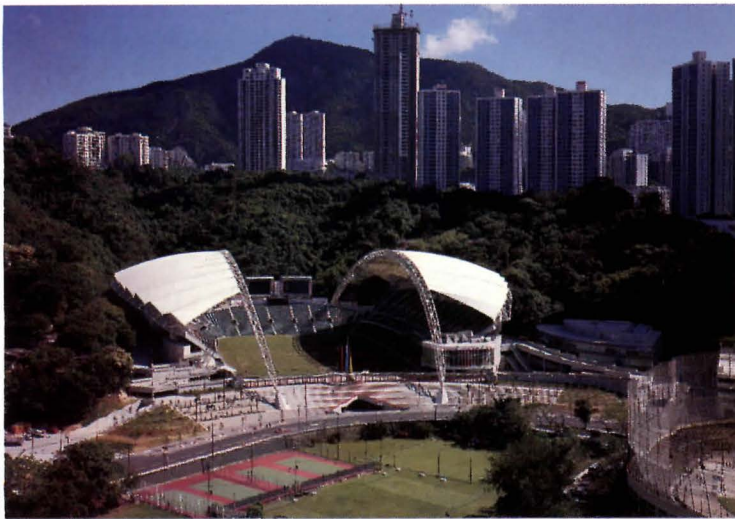
This 42,000-seat ballpark for the Cleveland Indians expresses the essence of Cleveland. Jacobs Field's structure is wrought from locally made steel, and the design by HOK Sports Facilities Group of Kansas City successfully captures the



TIMOTHY HURSELY PHOTOS

city's early 20th-century industrial character. The jury applauded the stadium's detailing: Its expressed steel connections, stone base, and Art Deco ornament reflect Cleveland's bridges and some of its best architecture "without resorting to obvious

nostalgia or historical pastiche." The ballpark includes a place for everyone, from the luxury skybox patrons to the bleacher crowd; no views are obstructed. "This is a civic-minded project. Cleveland's citizens love it."



HOK Sport's 40,000-seat Hong Kong stadium draws much of its beauty from its simple and specific siting. It is nestled in a neat bowl with a monumental stair forming a natural front door—in the words of the jury, “a complete idea addressing its urban

conditions.” The strong, overarching lines of its fabric roof, supported by steel trusswork and stayed with cables, show a “simple but spectacular feat of engineering.” The roof covers three-quarters of the seats without blocking any views.

“This solution is especially impressive considering so many formulaic projects of its type,” the jury remarked. “Its clear figural quality exhibits a simple structure with a futuristic personality,” particularly when viewed from its verdant backdrop.

**Hong Kong Stadium
Hong Kong
HOK Sports Facilities Group**

AIA Honor Awards



Berth 30 Container Terminal
Oakland, California
Jordan Woodman Dobson

The Berth 30 Container Terminal, created by Oakland-based Jordan Woodman Dobson, demonstrates how a utilitarian and banal building type can be well designed despite its industrial nature. "It's like a

machine—a big, beautifully designed tool" expressive of its mechanized context, noted the jury. The terminal serves as a staging area for overseas cargo. Its movement system "clarifies the chaos of the port and creates order," with an efficient way to move truck

traffic outside and handle computer and security operations inside. With movable columns, the bridges conserve container space, give workers in control rooms a good view of the yard, and create an urban relationship to the street.



JEFF GOLDBERG / ESTO



RICHARD BARNES / ESTO PHOTOS

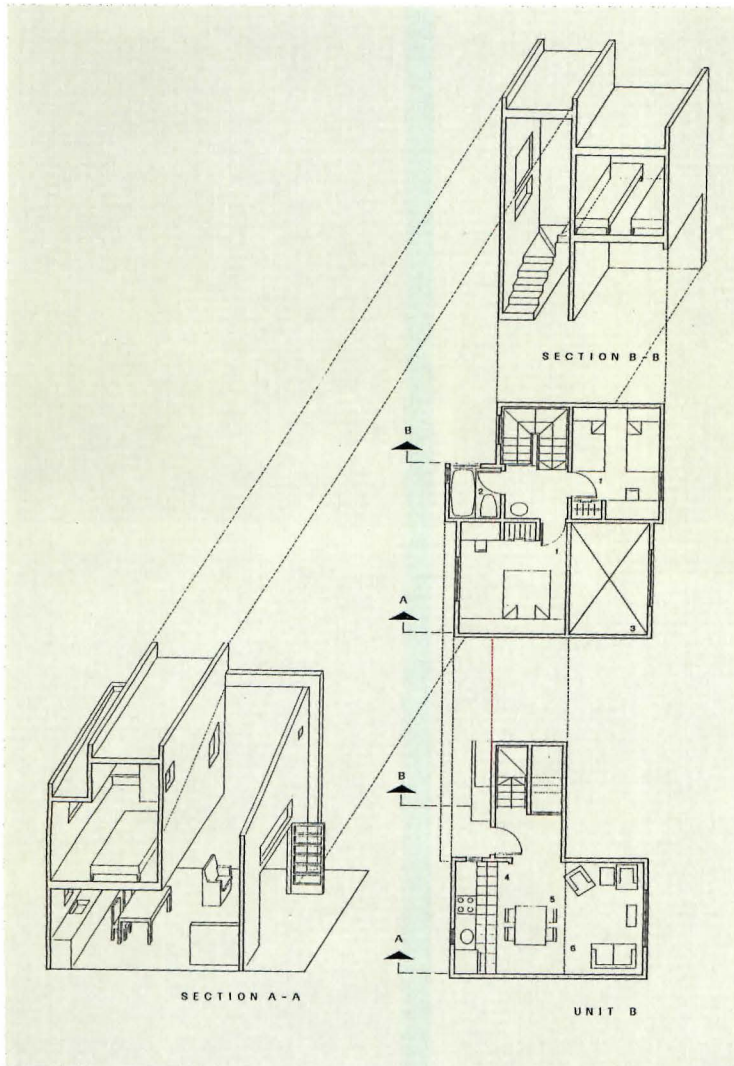


A significant landmark in the Yerba Buena Gardens development in San Francisco, this theater is a “big, complex composition broken into smaller, simple parts that engage the city,” the jury remarked. New York City-based Polshek and

Partners Architects tempered the building’s size—46,000 square feet—by assembling it from cubist elements “in a fragmentation that doesn’t explode the building, but rather coheres.” The lobby and main theater interiors are artfully composed, and

incorporate a “fun, restrained” color palette. “When designing big buildings in a field, you have to invent a context,” the jury contended. This project “is successful on all four sides, and imparts the experience of San Francisco.”

**Center for the Arts Theater
Yerba Buena Gardens
San Francisco, California
Polshek and Partners**



Sunrise Place
Escondido, California
Dauids Killory, Architect

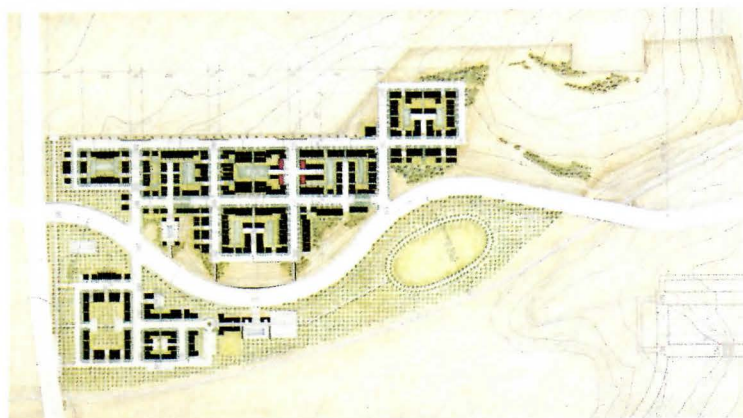
Sunrise Place, eight two-story units of affordable housing on less than an acre, springs from the efforts of six public assistance groups serving a large Hispanic community. The jury lauded the design by San Diego-based architect Dauids Killory for deftly



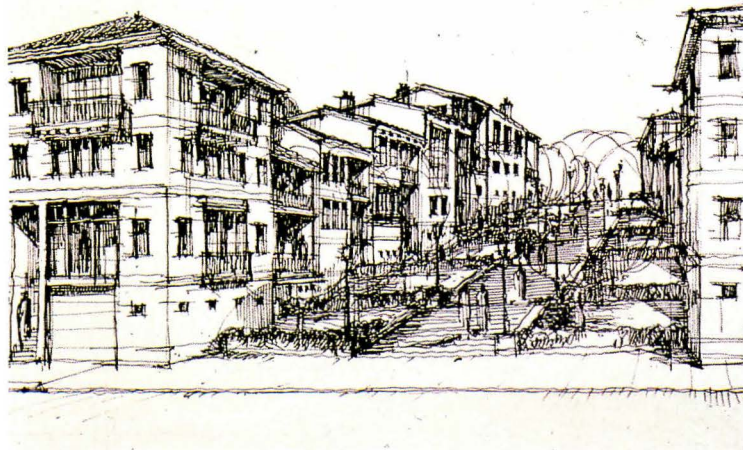
DAVID HEWITT ANNE GARRISON PHOTOS

organizing communal space with private outdoor areas around a little village street. "The architects created a place for community interaction, while reinforcing respect for privacy," the jury maintained. Sunrise Place responds to its climate with a

shady central court, cross-ventilated units, and double-height stairs that act as natural chimneys for passive cooling. With a limited palette of materials and a restricted site, the jury explained, this housing achieves impressive results.

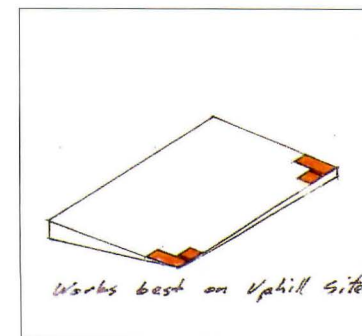
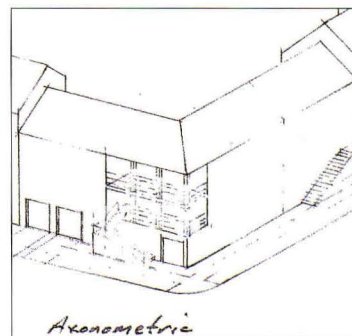
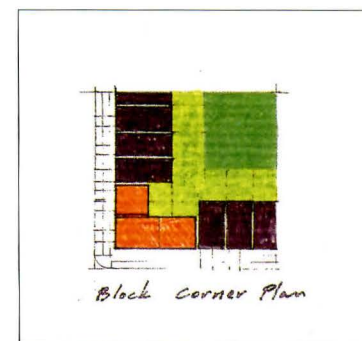
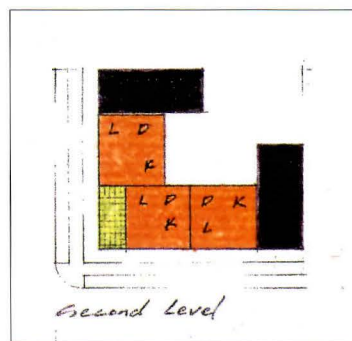
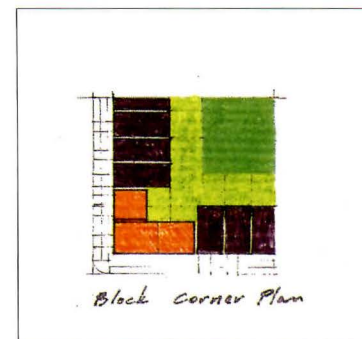
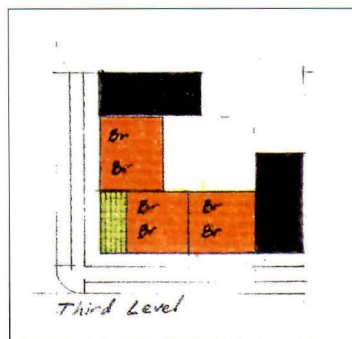


THE CURTNER NEIGHBORHOOD
SAN JOSE, CALIFORNIA



Sited upon a steep, 500-acre tract near downtown San Jose, this new residential neighborhood designed by Solomon Architecture and Urban Design of San Francisco reveals a “brilliant new approach,” lauded the jury. “The organization of

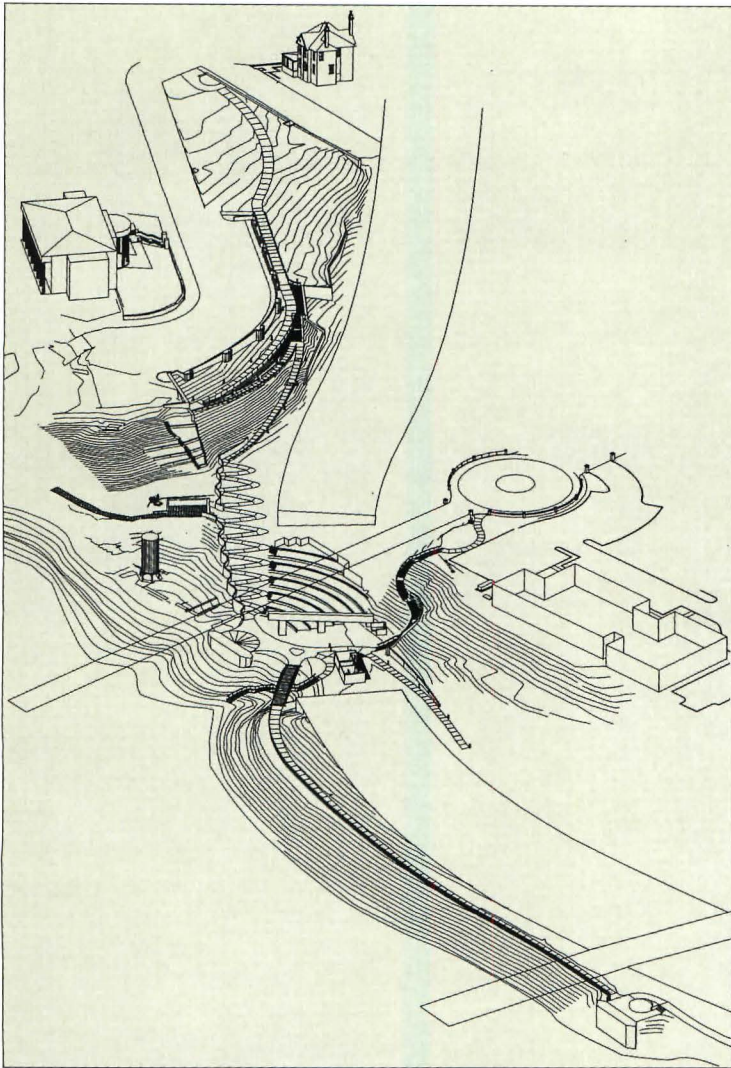
the plan, the use of space, and the indication of character stand in contrast to the surrounding sprawl” of San Jose’s suburbs. Solomon’s plan overlays an efficient grid of dense development onto hilly topography, taking advantage of slope by stepping



buildings along the grade of the street. Deformations of the grid call for stair gardens and overlooks—creating public spaces rather than private cul-de-sacs. The design suggests the community’s architectural character without dictating it.

Communications Hill Specific Plan
San Jose, California
Solomon Architecture

AIA Honor Awards



**Walnut Street Bridge/Riverwalk
Chattanooga, Tennessee
Garnet C. Chapin, Architect**

Architect Garnet C. Chapin of Chattanooga transformed an obsolete, 2,370-foot bridge built in 1891 into a pedestrian and bicycle pathway linking the Tennessee River's northern and southern shores. The jury found that the city of



Chattanooga "benefits enormously" from a direct and gracious connection linking the new Tennessee Aquarium with a waterfront area and the downtown business district. Ramps from the riverbank up to the museums feature signs noting

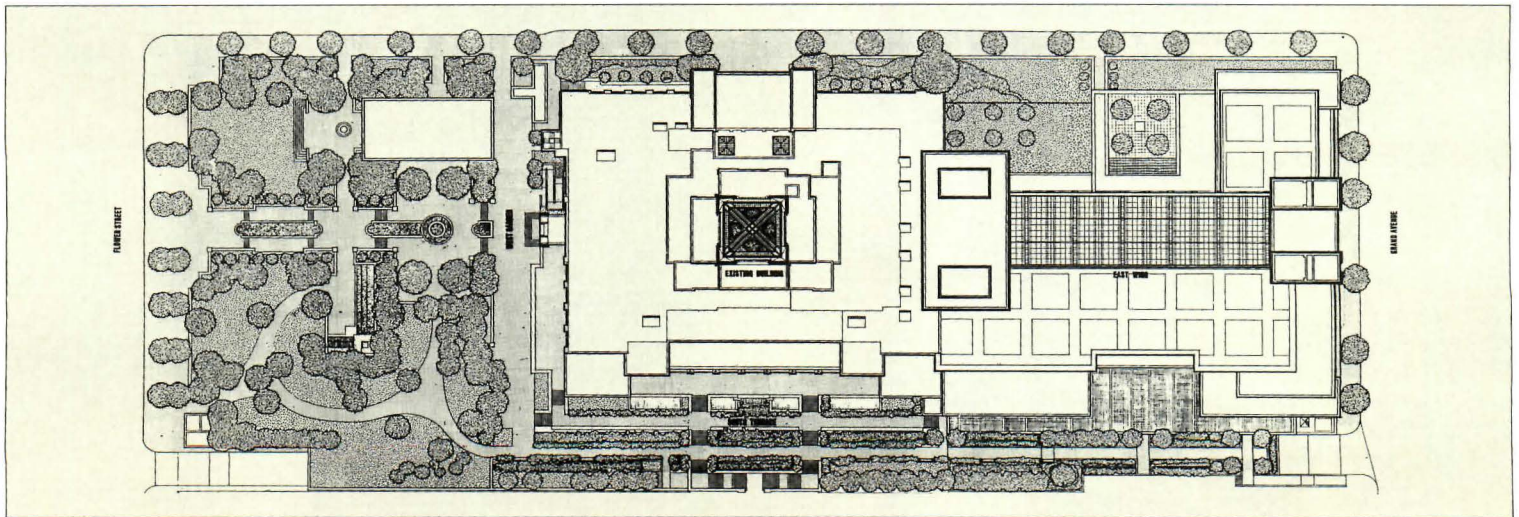
local natural history. "The new pedestrian link and the bridge's transformation have led to major design and civic improvements," the jury noted. The project also incorporates a boardwalk and an intimate amphitheater on the site.



FOAAD FARAH



JAY VENEZIA



This catalytic downtown project recreates a 1½-acre park as part of a master plan to restore and expand architect Bertram Grosvenor Goodhue’s landmark 1926 library. The Los Angeles office of Hardy Holzman Pfeiffer Associates, associate architect

KDG, and landscape architect Lawrence Halprin of San Francisco devised the transferral of development rights to adjacent properties, making way for the park on a dense downtown site. “This project gives a garden back to the public,” the jury

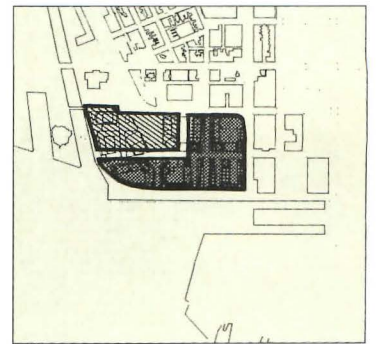
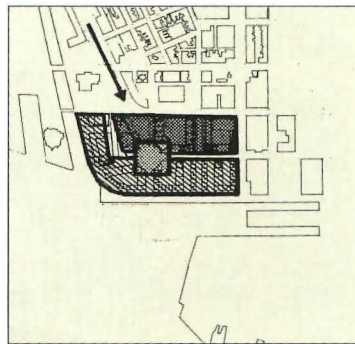
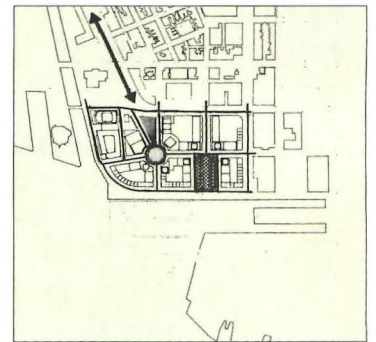
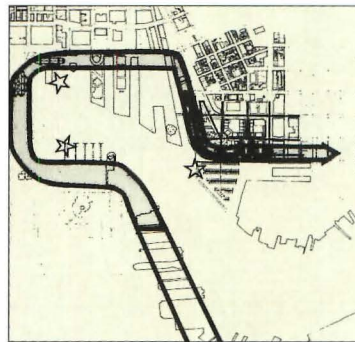
observed, recalling the public garden Goodhue envisioned as an “urban oasis” when he designed the stripped Classical library. “The design brings the park to the edge of the street,” noted the jury, “and creates a pleasant place for people to walk.”

**Los Angeles Public Library
Central Library Master Plan
Los Angeles, California
Hardy Holzman Pfeiffer Associates
KDG, Architecture and Planning
Lawrence Halprin, Architects**

AIA Honor Awards



JOCK POTTLE / ESTO

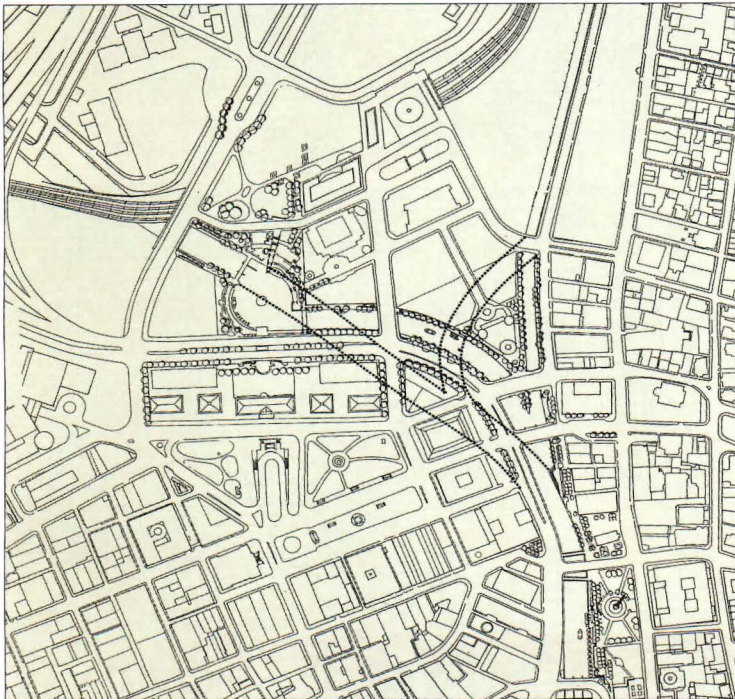


Inner Harbor East
Baltimore, Maryland
Ehrenkrantz and Eckstut Architects

Inner Harbor East, designed by Ehrenkrantz and Eckstut Architects of New York City, fashions a new urban neighborhood in the style and scale of old Baltimore. The jury praised the urban design as a “highly sophisticated example of a mixed-use

community” and appreciated the high priority accorded to laying a strong infrastructure before embarking on new development. The urban design prescribes complexity in the configuration of streets and shapes of blocks. The heights, massing, and

proportions of its largely pitched-roof buildings reconcile the diverse scales of surrounding communities. Moreover, the plan consistently defers to the water, with simpler, smaller-scale structures along the harbor side than at the core.



This far-reaching public works strategy relocates portions of three rivers at the heart of Providence to expose waterways long covered by congestive highway development. The urban design, begun by William D. Warner, Architects and

Planners in 1985, also eases traffic problems in the city center; improves pedestrian access with five new footbridges; opens nearly one mile of new navigable downtown river channels; and creates 11 acres of urban waterfront parks—without

demolishing any buildings. Jurors noted that the new series of downtown public spaces will “stimulate both renovation and new development.” They extolled the architect’s vision, sheer ambition, and focus on the public realm.

**River Relocation Project
Providence, Rhode Island
William D. Warner,
Architects and Planners**

AIA Honor Awards



Center for the Arts Theater
Yerba Buena Gardens
San Francisco, California
Polshek and Partners

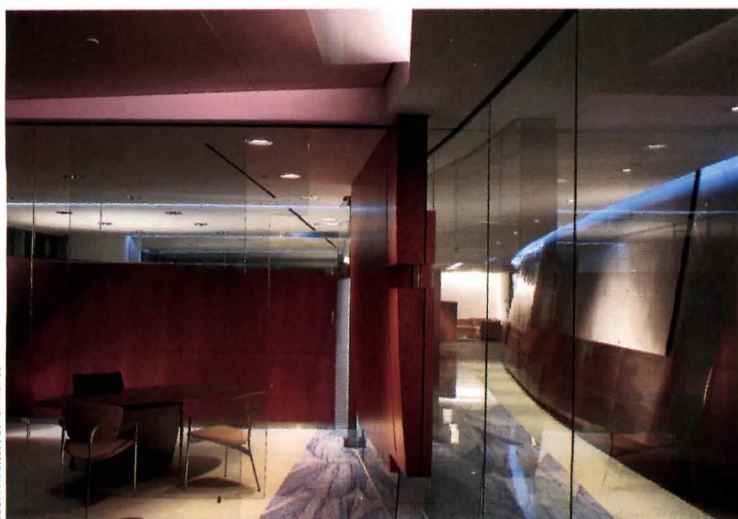
“Highly organized and unified, yet mysterious,” is how the jury described the interior of Polshek and Partners’ Center for the Arts Theater at Yerba Buena Gardens. “The architect heightens our experience of the theater with a carefully



RICHARD BARNES/ESTO PHOTOS

orchestrated procession.” Polshek articulated this episodic spatial sequence from garden to auditorium with primary colors marking the threshold between indoors and out, the staircase, and carpets and seating in the auditorium itself.

The design blurs the distinction between performers and patrons. Audience becomes actors in the glass-enclosed upper lobby and on the outdoor balcony, both visible from the garden; and actors and audience meet at the proscenium.



SCOTT FRANCES / ESTO PHOTOS



Carlos Zapata's design of the headquarters for a Latin American investment group reflects the young company's democratic policy: Every employee has a view of Biscayne Bay. Zapata layered glass partitions to ensure the privacy of individual offices

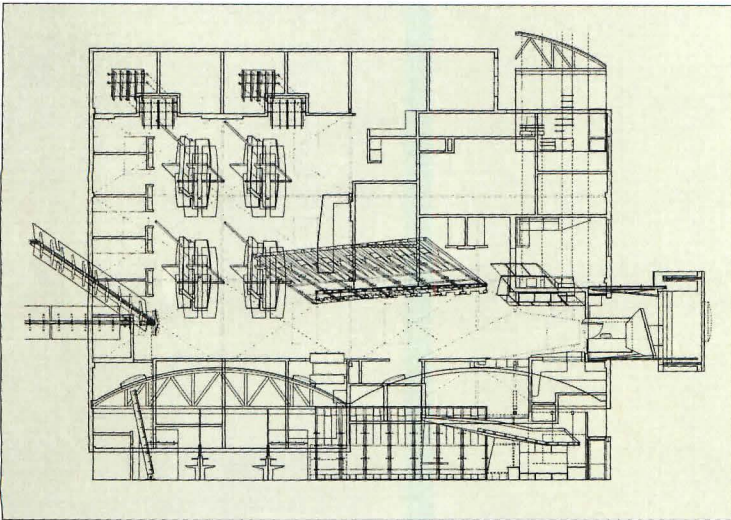
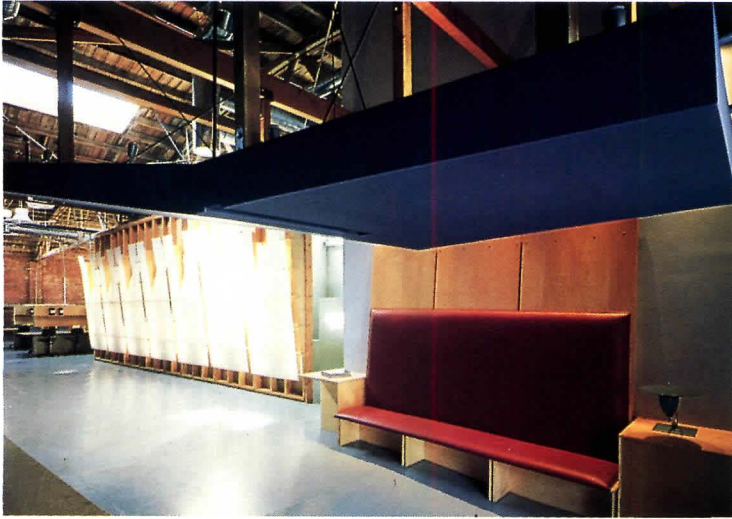
and the penetration of natural light into the depths of the interior. Noted the jury: "Ethereal light and spatial clarity complement the architect's bold use of diverse materials."

Zapata's rich palette of natural surfaces includes

cherry wood, blue Macauba stone from Brazil, and Libra stone from Spain. The architect designed desks for the offices and reception area of the 8,000-square-foot interior, which also houses conference rooms, an employee lounge, and a trading room.

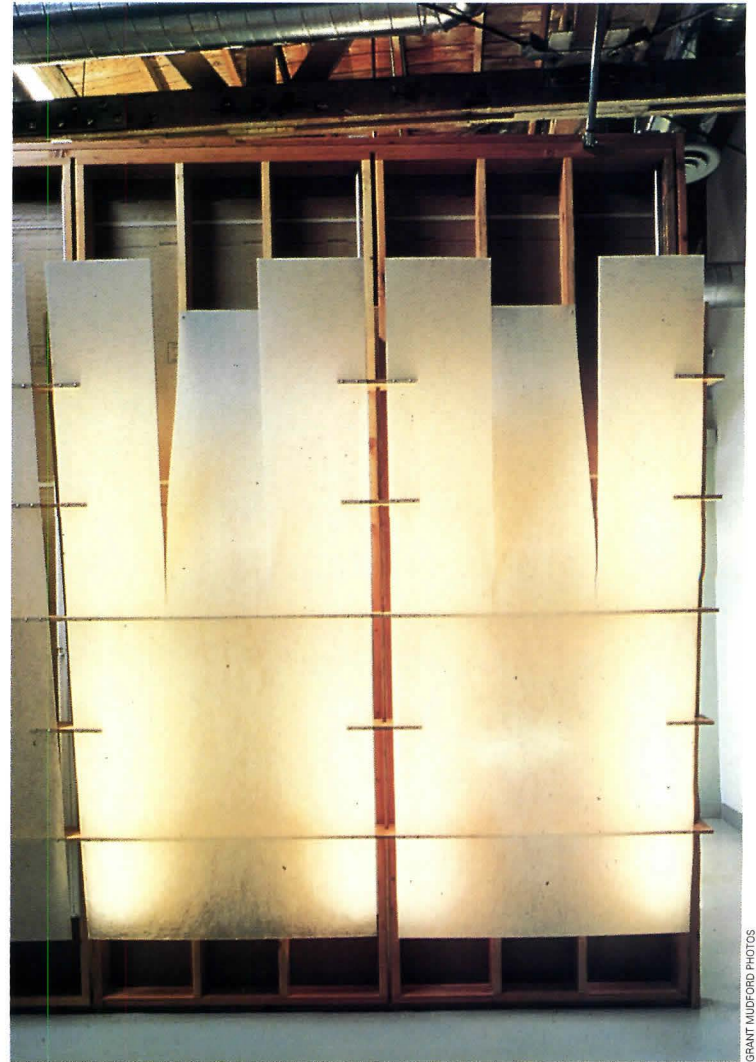
**JPBT Headquarters
Miami, Florida
Carlos Zapata Design Studio**

AIA Honor Awards



Limelight Production
Los Angeles, California
Franklin D. Israel Design
Associates

Frank Israel's renovation of an existing Hollywood warehouse accommodates the offices of a video production studio with a limited budget. New interior spaces and mechanical systems correspond to the building's established structure of



GRANT MUIRFORD PHOTOS

exposed roof trusses. Private offices are located at the perimeter to surround an open workroom; grouped workstations are serviced by conduit from a gridded network in the ceiling; and the plywood framing of a backlit, translucent fiberglass

partition between the workroom and reception area echoes the wooden trusses overhead.

The jury applauded such "notable new features" and details as aluminum fasteners that provide connections in the studio's plywood cabinetry.



SHARON RIESEDPH PHOTOGRAPHY



“The designers highlight the old and new elements of this historic structure by layering a rich variety of materials,” explained the jury of this transformation of an 1870s stone building into living quarters, gallery, and offices for a private arts foundation.

San Francisco-based Kuth/Ranieri and Jim Jennings translated the program into a series of autonomous objects within the existing shell. In the gallery, for example, display area, library, file storage, and vault are contained within

cabinets that glide on steel tracks embedded in the floor. These wall systems maintain the loftlike quality of the building, an approach the jury deemed “poetic and practical, synthesizing the building’s history and new cultural purpose.”

**House, Office, and Gallery
for LEF Foundation
St. Helena, California
Kuth/Ranieri and Jim Jennings
Arkitektur**

AIA Honor Awards

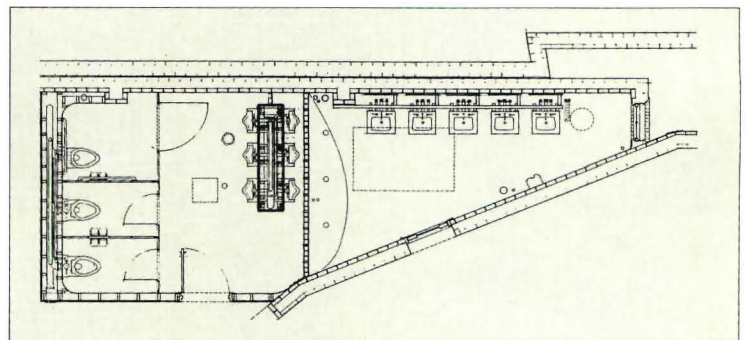


Caroline's Comedy Club
New York City
Haigh Architects

Haigh Architects designed this 300-seat comedy club as a large living room for New York City's Times Square theater district. The jury particularly liked "the juxtaposition of whimsical fixtures and furniture against the technicality of the stairs."



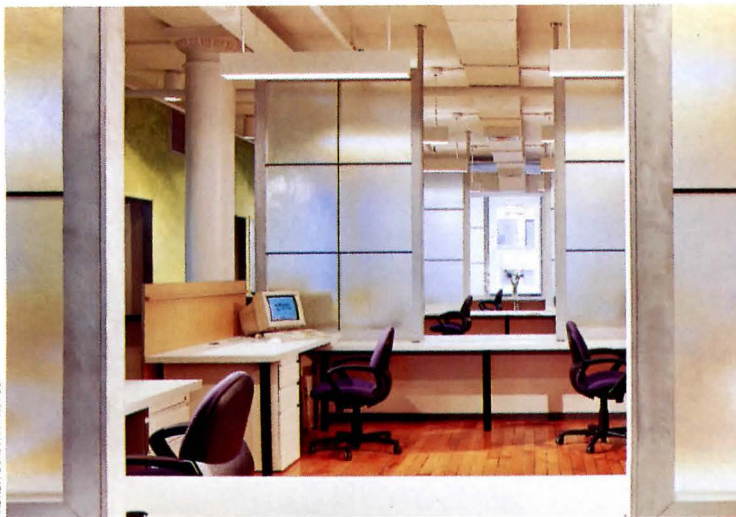
BRIDGET MARTIN



ELLIOTT KAUFMAN

Public Bathrooms
Boston Center for the Arts
Boston, Massachusetts
Kennedy & Violich Architecture

According to the jury, Kennedy & Violich's renovation of a public bathroom within a historic Boston arts center "combines strong architectural forms and innovative materials to illustrate the history of the loo."



ANDREW BORDWYN PHOTOS



A new, 13,000-square-foot corporate headquarters for a cable company occupies two adjacent floors in neighboring light-industrial loft buildings. New York City architect Kathryn McGraw Berry based her design on the electronic medium that is

crucial to the cable company's operation: Aluminum tubes and electrical metallic tubing serve as raceways for voice and data lines and double as a framing system for the Kalwall, fiberglass, and perforated metal partitions between offices.

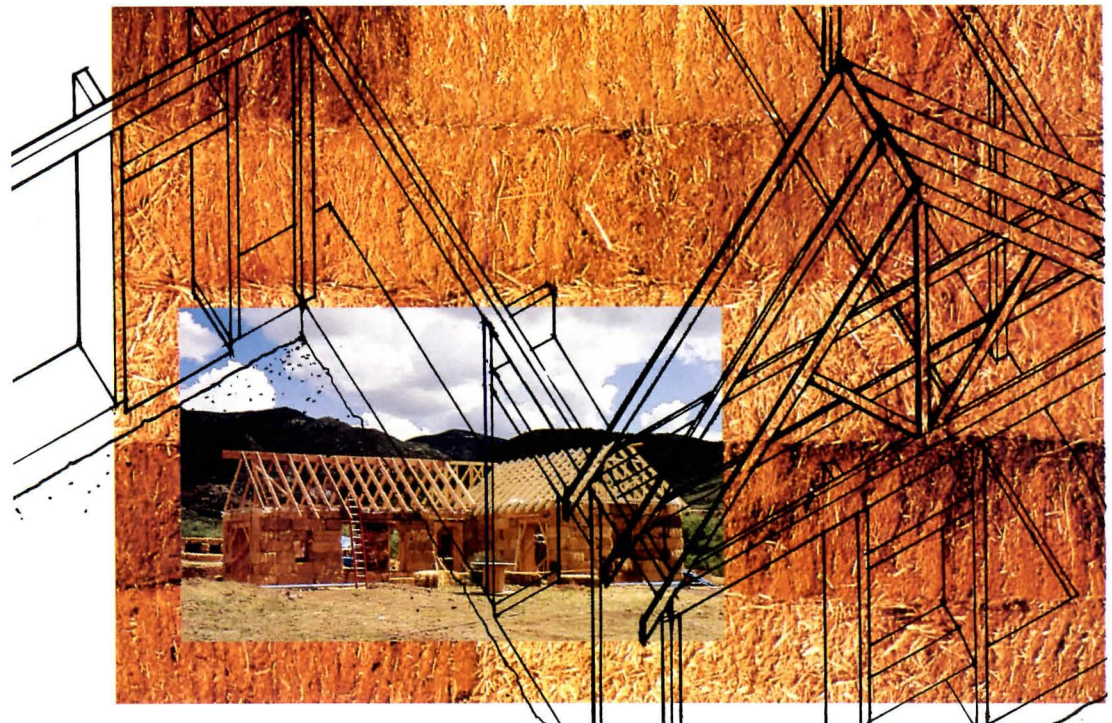
"The architect's innovative layering of partitions allows light to penetrate the headquarters' interior," the jury pointed out. "The delicacy of this design elegantly contrasts with the heavy masonry architecture of the existing building."

Graff Pay-Per-View
New York City
Kathryn McGraw Berry

PSSST. THE COMPANY HAVE SOME MA



Twenty-six story, 312 Elm Building, Cincinnati.



Once-marginal technologies and practices in architecture are gaining new respectability. Straw bale construction (above), for instance, has long been associated with ecologically minded, back-to-the-land types. Our residential feature reveals straw bale's revival and why architects and authorities are looking more closely at this earthy, energy-efficient technology: Straw bales are cheap and strong; they resist fire and reclaim tons of agricultural waste.

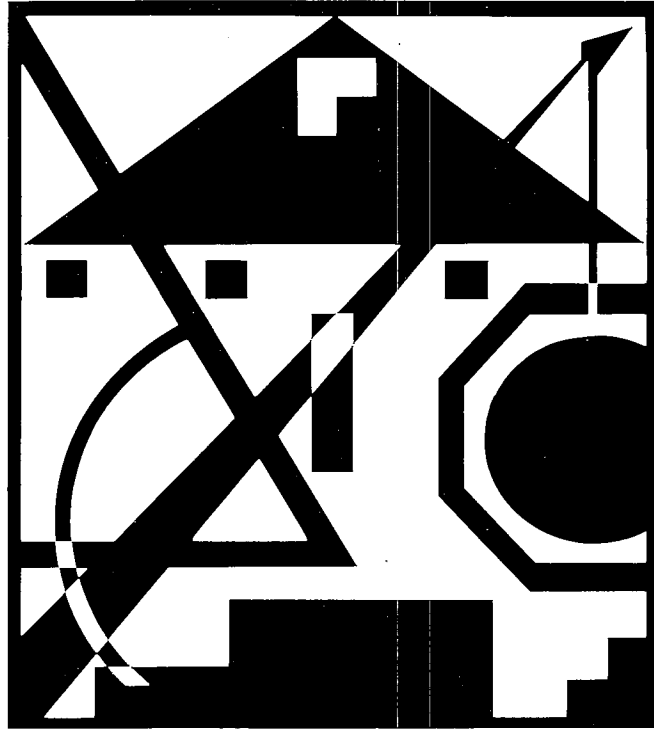
Our profile of the AIA's 1995 Architecture Firm Award winner, New York City-based Beyer Blinder Belle Architects and Planners, traces the progress of a practice that has grown alongside the historic preservation movement. We show how the firm is now tackling preservation's latest frontier, the renovation of Modern landmarks and aging infrastructure.

Architects are also reexamining exterior insulation and finish systems (EIFS). Our technology feature explores new industry-established details and standards for this synthetic stucco that boost its durability and moisture resistance.

Our computer feature focuses on a new type of architect within the firm: the information manager. The article explains why principals are increasingly relying on these dedicated information specialists to structure and maintain technology toward the greatest competitive advantage.

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Straw Bale Construction

An age-old method proves to be an inexpensive and environmentally friendly way to build a house.



ABOVE RIGHT: Straw bales are stacked between framed openings to create exterior walls. The walls of a small house can be raised in a single day.

Forget about the Big Bad Wolf blowing down houses of straw. A growing number of architects are recognizing baled straw as an inexpensive and environmentally sound material for the construction of low-scale buildings. “Straw is user-friendly and ecologically correct,” explains architect Robert Theis of Daniel Smith & Associates in Berkeley, California, who just completed a straw bale cottage at the Shenoa Retreat Center in Philo, California.

An entirely sustainable material not to be confused with hay—a nutritious product derived from cutting and drying plants such as wheat, rice, and other grains—straw is the waste remaining after the grain has been removed. Because straw does not decompose easily, American farmers burn 200 million tons of it each year. California, however, recently outlawed burning rice straw, and Oregon now prohibits all straw burning because of air quality concerns. Building with straw is an environmental way to dispose of this agricultural waste.

Although straw bale construction dates back 400 years in Germany, the material was first used for housing in the U.S. only a century ago in the Sand Hills of southwestern Nebraska, where wood is scarce and the soil is too sandy to grow sod with which to construct houses. According to *The Straw Bale House*, published by White River Junction, Vermont-based Chelsea Green, a number

of straw bale structures built in the early 1900s are still in use, including two buildings at the Fawn Lake Ranch near Hyannis.

The current renaissance of straw bale construction began about five years ago in the Southwest, encouraged by a dry climate and spread by strong local proponents through hands-on straw bale construction workshops. Though many straw bale buildings have been erected without permits in Arizona and New Mexico, architects are increasingly applying the technology to larger, more ambitious building projects. To date, straw bale structures have been erected in 19 U.S. states and in Canada, Mexico, Europe, and Asia.

The density of straw bales makes them a highly energy-efficient building material. Small, two-string bales, prevalent in New Mexico, typically measure 18 inches deep by 35 to 40 inches long, and have insulation values of R-43. The larger, three-string bales, more common in Arizona, measure 23 inches deep and 43 to 47 inches long and provide an insulation value of R-55. Straw buildings are less expensive to cool in the summer and heat in the winter, and their walls tend to absorb excess sound.

Construction techniques

Constructing a straw bale building has traditionally been a low-tech endeavor. Builders pour a concrete foundation and embed reinforcing steel rods vertically around the perimeter. The first row of straw bales is impaled on the reinforcing steel, and subsequent rows are laid up like enormous bricks in a running bond pattern. A two-string bale can be lifted into place by a single person.

Straw bales are very sculptural. They can be trimmed with a weed trimmer or bent into curved shapes simply by jumping on them. Interior and exterior walls are usually finished with a triple coat of a stuccolike material such as cement or adobe plaster. Stucco netting may be installed on both wall surfaces to help the plaster adhere to the bales.

Straw bale construction falls into two major categories: loadbearing, in which the straw bale walls carry roof, wind, and other loads, and nonloadbearing, in which a post-and-beam structural system supports building loads and the straw bales act simply as infill. Many proponents of straw bale construction believe that loadbearing straw buildings are less expensive and less wasteful of natural resources than those with additional framing. This assumption may not always prove true, however, as revealed by the Tillman House in Tucson.

In a loadbearing straw bale building, the roof is connected to a wood roof plate or concrete bond beam that rests on the stacked straw bales. To prevent the roof from blowing off, the roof plate is also tied to the building foundation, sometimes with threaded rods driven through the bales. The rods are connected at the bottom to anchors embedded in the foundation, and bolted at the top to the roof plate or bond beam.

Straw bales typically settle or compress to 1 to 2 inches each when loaded. Settlement is often uneven, however, making it difficult to set the roof plate level. A wall containing window and door openings, for example, will settle differently than an adjacent wall composed of uninterrupted bales. In addition, individual straw bales may be compacted differently, making some more prone to settlement than others. To control settlement, architects are now precompressing these walls—tying the foundation to the bond beam above the bales with rods or straps and tightening the connections.

The post-and-beam type of straw bale construction, in which dead and live loads are supported by a wood, concrete, or metal structure, is gaining popularity throughout New Mexico, Arizona, and California, especially in larger buildings. The foundations for post-and-beam straw bale construction are similar to those in loadbearing construction, but workers assemble the structural frame and roof before raising the straw bale walls. The bales are attached to the vertical posts at every course with strips of expanded metal lath, which are nailed to the post and wired to the bale strings. The bales are also attached to the horizontal roof plate or bond beam with metal lath strips.

The post-and-beam structure can be left exposed on the interior, or padded within the straw bale-filled wall. Bales can be notched with saws to accommodate structural members, or can be retied and cut to fit into corners or around framed window and door openings.

Safety considerations

Building code officials generally prefer post-and-beam straw bale houses over loadbearing structures, since loads in the frame system are carried by wood rather than straw. However, both types of straw bale construction have recently been approved by Arizona and California building departments under Uniform Building Code provisions for experimental structures. New Mexico, which has a state-wide building code authority, now routinely

approves post-and-beam straw bale projects under guidelines it published last year. According to Anthony Perry, president of the Santa Fe-based Straw Bale Construction Association, loadbearing straw bale construction is unlikely to be approved in New Mexico due to officials' concern over whether such straw bale buildings are able to withstand snow loads.

Critics are also concerned about the ability of straw bale structures to resist fire and insects. Yet fire tests performed by an independent testing lab indicated that stuccoed straw bales resisted fire penetration for more than two hours; because straw bales contain so little air, they do not burn easily. Insects generally do not pose a threat to straw bales because straw contains no nutritious matter to attract them and the bales are typically sealed with several coats of plaster.

Moisture is the greatest enemy of straw bale construction: If bales become wet and are not permitted to dry out, they will rot. Architects emphasize the importance of starting with dry bales and keeping them dry during construction. Although a vapor barrier is usually installed on the foundation below the first course of bales to keep water from wicking up into the straw, vapor barriers are not generally applied to wall surfaces, as they do not allow the straw to breathe.

Affordable opportunities

Architects are now exploring straw bale construction with an eye to affordable housing. Perry is currently working with the University of New Mexico School of Architecture under grants from the Federal Department of Agriculture to develop affordable straw bale housing prototypes. Straw bale housing is also planned for Ciudad Obregon, Mexico, a project being built by citizens working with the Save the Children Foundation and the Elgin, Arizona-based Canelo Project.

To many, the abundance of straw and the simplicity of straw bale construction make its potential seem limitless. According to architect Theis, "The institutional hurdles to straw bale—financing, insurance, and lack of experienced tradespeople—are far greater than the technological hurdles."

For more information about the forms and advantages of straw bale construction, contact the Eos Institute at (714) 497-1896; the Straw Bale Construction Association at (505) 989-4400; Out on Bale (un)Ltd. at (602) 624-1673; or The Canelo Project at (602) 455-5548.—*Virginia Kent Dorris*



BILL STEEN



ALEXANDER VERTIKOFF

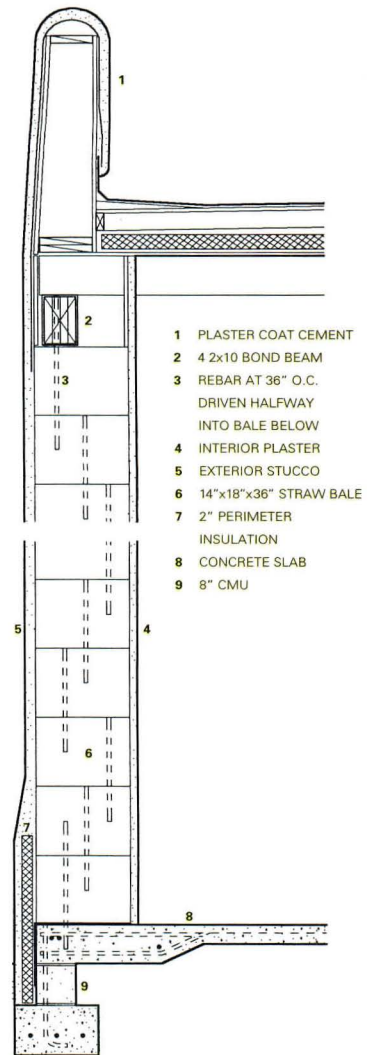
Hughes House
Arroyo Hondo, New Mexico
Steven Robinson Architects

Designed under one of the first 10 experimental permits issued by the state of New Mexico for straw bale construction in late 1992, the 4,000-square-foot Hughes house incorporates a wood frame structure with straw bale infill. Straw bales are specified only in ground level exterior walls; the second story is constructed with wood framing in accordance with the state's safety guidelines for straw bale construction, explains Santa Fe-based architect Steven Robinson. Robinson was a member of the New Mexico State Straw Bale Advisory Committee, which helped draft the guidelines approving an unlimited number of nonloadbearing straw bale building permits.

Robinson designed the Pueblo-style Hughes house with a flat roof

and parapets, paying careful attention to flashing and drainage details to protect the straw bales from moisture in the absence of a more typical overhanging pitched roof. Many modifications were made to the design during construction, especially in detailing connections between materials. Says Robinson, "No one had really done a set of working drawings for a straw bale house like this before." For example, the architect originally planned to specify 6-by-6-inch wood posts for the building's columns, but the contractor suggested substituting 18-inch-deep box columns built from 2 by 6s and plywood to match the depth of the straw bales. The columns were secured at the top to a bond beam made up of four 2 by 10s spiked together.

Although a radiant heat system was installed in the concrete floor slab, the building passively gains solar heating through a south-facing



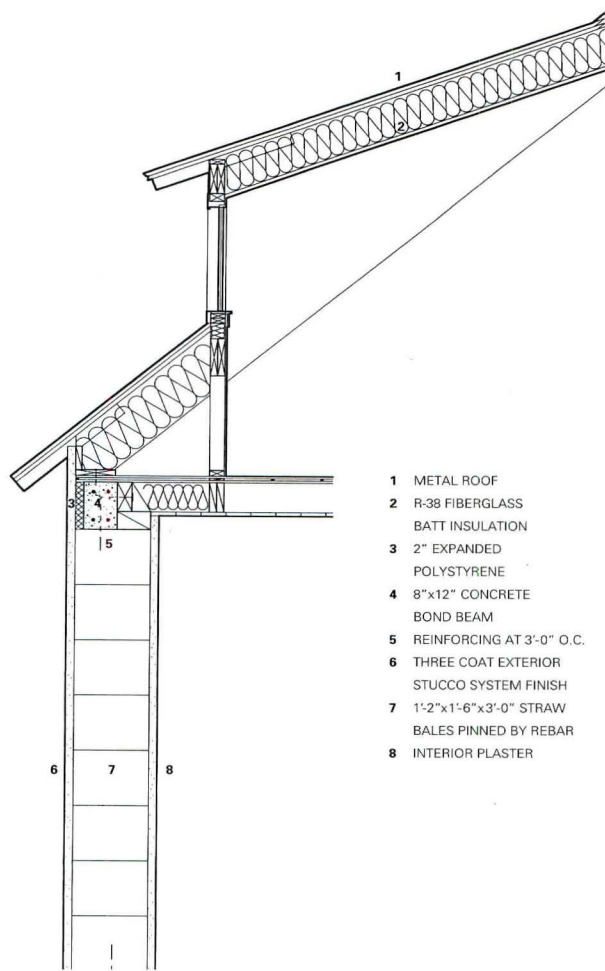
adobe-and-glass trombe wall in one of the bedrooms and through a direct-gain space: a south-facing room constructed with adobe walls that absorb and reradiate heat.

Robinson, a proponent of passive solar design, also devised a built-in trombe bench in the living room that absorbs and radiates energy. During the house's first winter, this system provided almost half of residents' heating needs. To avoid heat gain during the summer, Robinson designed shades that rest on horizontal wood corbels extending 2 feet from the exterior wall.

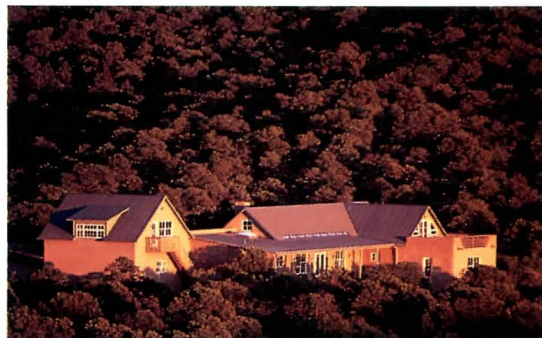
TOP LEFT: At 4,000-square-feet, the Hughes house is among the largest contemporary straw bale structures.

ABOVE LEFT: Mud plaster seals exterior straw bale wall shielded from the sun and rain beneath porch.

WALL SECTION: Straw bales are stacked in a running bond pattern, connected above and below with steel.



- 1 METAL ROOF
- 2 R-38 FIBERGLASS BATT INSULATION
- 3 2" EXPANDED POLYSTYRENE
- 4 8"x12" CONCRETE BOND BEAM
- 5 REINFORCING AT 3'-0" O.C.
- 6 THREE COAT EXTERIOR STUCCO SYSTEM FINISH
- 7 1'-2"x1'-6"x3'-0" STRAW BALES PINNED BY REBAR
- 8 INTERIOR PLASTER



Munk Residence
Santa Fe, New Mexico
Spears Architects

Architect Beverly Spears, a devotee of New Mexico's indigenous architecture, was sold on straw bale construction when she first learned of the technique four years ago. "Straw bale has everything going for it, environmentally and esthetically," she explains. Spears had the opportunity to apply straw bale technology to the local building tradition in the design of a pitched-roof, 3,000-square-foot house with a south-facing portal and overhanging eaves, sited on a hillside southeast of the city of Santa Fe.

The building's straw bale infill walls are supported by a post-and-beam structure built from masonry rather than wood because Spears wanted to provide a stiff surface against which to pack the straw bales. The columns are constructed

from stacked 8-by-8-by-16-inch concrete masonry units, grouted and reinforced with steel. Strips of expanded metal lath are nailed to the concrete block units and tied to each bale course to connect straw and concrete.

Because modern straw bale construction has such a short history, Spears says she had to develop details and solve technical problems not previously documented. She had wanted, for example, to connect the reinforcing steel of the vertical columns with the reinforcing steel of the horizontal concrete bond beam, which spans the columns to support the roof above.

To do so, the architect determined that the 8-by-12-inch bond beam could be poured in place atop the straw bale wall after the steel had been connected. Contractors poured the beam directly on top of the final course of straw bales, using the top of the straw as part of the

formwork. "It was a little messy because some of the concrete leaked out onto the straw," recalls Spears, who recommends engineered wood forms for the beam instead.

The house was constructed from barley straw from southern Colorado, which was selected because of its low cost. Spears designed the building's overall dimensions based on an anticipated bale length of 36 inches. "But the bales varied by as much as 6 inches in length," she recalls. As a result, many bales had to be retied and separated into smaller units during construction.

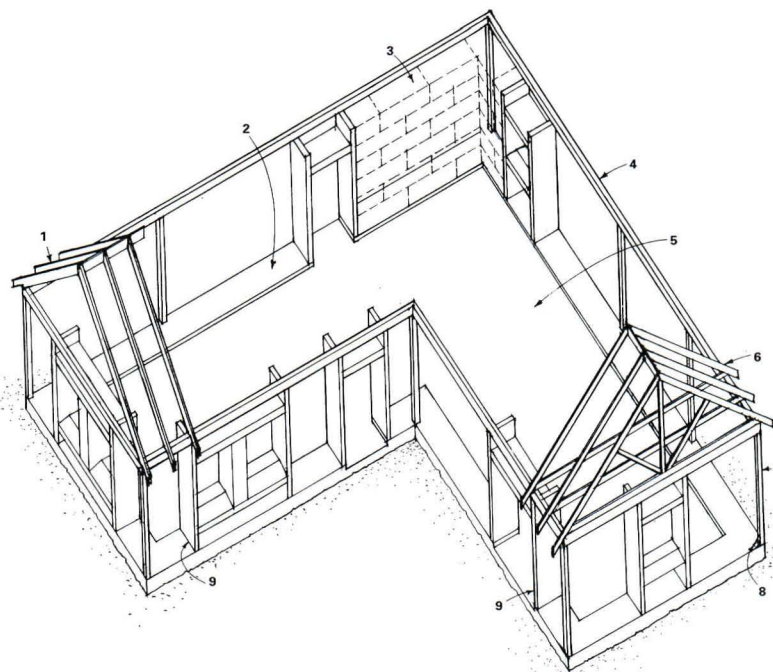
WALL SECTION: Concrete bond beam, which supports roof loads, was poured in place atop straw bale infill walls during construction.

TOP: Pitched metal roofs help integrate house into steeply sloping wooded hillside southeast of Santa Fe.

ABOVE: Straw bale walls are finished on interior with earthen plaster.



- 1 2x10 ROOF JOISTS AT 24" O.C. WITH NONBEARING RIDGE BOARD AND COLLAR TIES AS REQUIRED
- 2 4" CONCRETE LEDGE AT PERIMETER WITH WATERPROOFING AS REQUIRED
- 3 STRAW BALE INFILL BETWEEN DOOR AND WINDOW ASSEMBLIES
- 4 PERIMETER BEAM ABOVE TOP BALE COURSE, SIZE AS REQUIRED
- 5 POURED CONCRETE FOUNDATION AND FLOOR SLAB
- 6 PRE-ENGINEERED WOOD TRUSSES AT 24" O.C.
- 7 4x4 WOOD POST
- 8 1/8-INCH STEEL POST-BASE CONNECTOR
- 9 WINDOW AND DOOR ASSEMBLIES CONSTRUCTED OF 2x4s AND PLYWOOD OR PRESSED STRAWBOARD



Tillman House
Tucson, Arizona
Paul Weiner, Architect

Although the one-story, L-shaped Tillman house was constructed with a modified post-and-beam wood structure, the 700-square-foot straw bale building was not initially planned that way. Paul Weiner, architect and principal designer of Tucson-based Design and Building Consultants, developed the building in the "Nebraska style," in which all roof, wind, and other loads are carried by loadbearing straw bale walls. Weiner secured a building permit from the City of Tucson Development Services Center for the loadbearing straw structure under the local building code's experimental materials provisions.

Before construction began, Weiner was presented with the rare opportunity to create a mockup of the project at full scale: The Tree

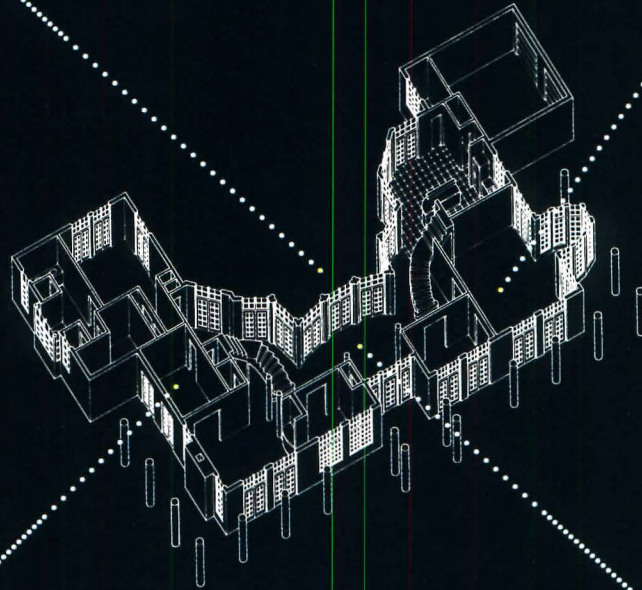
of Life Rejuvenation Center asked the architect to erect a nearly identical L-shaped straw bale building for a visitors' center on its Patagonia, Arizona, site. The construction of the Patagonia building altered Weiner's thinking about straw bale construction. "It was pretty clear that there were some major inefficiencies in the loadbearing system," he concluded.

The biggest challenge inherent in loadbearing straw bale construction is the uneven settlement of the straw bales, occurring at openings where window and door frames disrupt uniform compression of the bales. Since the roof plate bears on the bales, extensive and time-consuming shimming of about 3 inches was needed to level the plate to create a clean roof line, explains Weiner. In the modified system, the roof plate bears on 4-by-4-inch wood posts and box columns made from 2 by 4s and plywood.

Two carpenters spent four days erecting the frame, and 10 people hoisted the straw into place in less than four hours. Despite its structural wood frame, the Tillman house required slightly less wood than its loadbearing counterpart. The short distance between structural supports in the house permitted Weiner to carry roof loads with a 3¹/₈-by-7¹/₂-inch glue-laminated beam instead of the more massive roof plate specified in the Patagonia visitors' center, which consisted of two doubled pairs of 2 by 6s with 2-by-6-inch cross rungs.

TOP LEFT: L-shaped porch shields entrance and straw bale walls from rain.
TOP RIGHT: Window openings become sculptural elements in straw bale walls that are nearly 2 feet thick.

AXONOMETRIC: Wood-frame structure with straw bale infill proved easier to construct and more economical than loadbearing straw walls.



Building on the Past

AIA's Architecture Firm Award honors preservation-minded Beyer Blinder Belle.



ABOVE: Beyer Blinder Belle is headed by (left to right) Frederick Bland, Richard Blinder, John Beyer, John Belle, Richard Southwick, and James Marston Fitch (seated).

ABOVE RIGHT: One of BBB's most successful preservation projects is the 1990 renovation of Ellis Island's long abandoned immigration center into a national museum of immigration history and American culture.



PETER AARON / ESTO PHOTOS

The AIA's Architecture Firm Award is given annually to a practice that has produced distinguished architecture for at least 10 years. The 1995 award will be presented this month in Atlanta to New York City's Beyer Blinder Belle Architects & Planners. According to the jury, headed by this year's AIA Gold Medalist Cesar Pelli, "The firm has demonstrated a remarkable consistency of design quality for over 25 years. In the vanguard of preservation in America, it has retained that passion and concern for the appropriate custodianship of our urban fabric. The firm richly deserves recognition for incorporating vital new uses for our landmark structures."

The 19 projects Beyer Blinder Belle (BBB) submitted to the AIA offer strong clues to the how and why of the jury's verdict. Much of the work is high profile and spectacular because the original architects and engineers of the historic structures BBB restores were talented to begin with. The quality of the New York firm's work is rooted in its sensitivity to these talents and the original artifact. BBB's adding on and reconfiguring is done so seamlessly that it approximates the curatorial, and indeed, the firm sees itself in that role.

The Firm Award submission included the restoration and adaptive reuse of some of the most outstanding landmarks in the United States. For example,

New York City's South Street Seaport Museum Block, completed in 1983, is one of the firm's first high-profile projects. It includes the exterior restoration of 13 historic buildings and the interior design of various retail and museum spaces. The Ellis Island National Museum of Immigration project, completed in 1990, called for restoring and rehabilitating the abandoned Ellis Island Immigration Center, a national historic landmark. In 1988, Beyer Blinder Belle, with Ammann & Whitney, restored John Roebling's 1847 Delaware Aqueduct between Lackawaxen, Pennsylvania, and Minisink, New York, and adapted it for 10-ton vehicular traffic without altering its original appearance. The firm's work for Henri Bendel, a New York City store, consisted of the restoration of two landmark buildings, the Rizzoli (1908) and the Coty (1909); the design of a new infill building to the right of the Coty building; and the design of the store's interior and lobbies.

Saving old buildings, however, was hardly a fashionable pursuit for architects back in 1968, the year the founding principals, John H. Beyer, Richard L. Blinder, and John Belle, launched their practice. "I don't think most architects in those days could even imagine themselves in a situation where they were just taking care of something," recalls James Marston Fitch, who joined the firm in 1980.

But Beyer, Blinder, and Belle had met while working from 1963 to 1968 in the New York office of Victor Gruen, who viewed architecture more comprehensively than was typical at the time, focusing on city planning, urban centers, and rehab housing. Belle acknowledges that "Gruen's ideas for bringing life to cities were a great influence on us."

Another influence was Jane Jacobs and her battle to teach conventional planners that neighborhoods were not just a collection of buildings, but of people with a right to defend their communities against urban renewal. The defeat of the Lower Manhattan Expressway and the 1965 establishment of

the New York City Landmarks Preservation Law and its commission demonstrated the power of citizen advocacy. Furthermore, the tragic destruction of Penn Station in 1963 taught the young architects that our architectural heritage is indeed fragile.

Social activism was at its height when Beyer, Blinder, and Belle opened their office. Most of their early commissions were for community planning and housing. Like others of their generation, however, the founding principals began to turn to the architectural past to enrich their work. As their understanding of older buildings deepened, it was a logical step to find ways to preserve them. Blinder recalls that "the times were a partner in what we became. In preservation we saw an opportunity to create a niche where there were no practitioners of stature."

The architects were originally seen by preservationists as the enemy—instruments of change. Gradually, however, because they were advocates in community-based fights against urban renewal, they gained acceptance. "We fought Westway," Beyer remembers. "We worked with individual community planning boards in helping to plan neighborhoods. Our early community and advocacy planning is not to be minimized."

Over the past 22 years, the growth of the firm has followed the growth of the preservation movement. Today, the principals see their 80-person firm strongly positioned for the future. The original trio of partners has expanded to include Frederick Bland, James Marston Fitch, and Richard Southwick.

As the buildings of the post-World War II Modernists begin to attain landmark stature, they will demand the same level of curatorial, planning, and design care given to older works. The nation's 19th- and early 20th-century infrastructure of bridges, canals, and terminals, which still holds practical value, also possesses historic and esthetic interest. Beyer Blinder Belle expects to do its share of fixing far into the 21st century.

—*Mildred F. Schmertz*

Preserving Modern Landmarks

Beyer Blinder Belle is currently engaged in restoring and modernizing the TransWorld Airlines terminal at JFK Airport by Eero Saarinen, the Japan Society cultural center by Junzo Yoshimura, Yale University's Art and Architecture Building by Paul Rudolph, and the New York Hall of Science by Wallace K. Harrison.

Saarinen's soaring, exuberant airline terminal at JFK Airport, symbolizing the romantic spirit of flight, was completed in 1962. Badly in need of repair for more than a decade, the complex was designated a historic landmark by the Landmark Commission in 1994. The concrete shell and curtain walls are to be restored and the interior spaces reconfigured to meet today's security and baggage handling requirements.

Yoshimura's Japan Society in New York City was completed in 1971. A quiet, four-story, concrete building, it asserts a strong Japanese architectural presence. The first phase renovations of the interior were completed by BBB in 1993 and an additional floor is proposed.

Rudolph's art and architecture building at Yale, completed in 1963, marked the full development of his vigorous, expressionistic style. The concrete structure is undergoing a phased restoration and its original windows have been replaced with energy-efficient fenestration.

Harrison's New York Hall of Science in Flushing Meadows-Corona Park was built for the 1964/1965 World Fair. The 80-foot-high interior, contained within a gently undulated thin concrete wall that is perforated by a continuous grid of cobalt blue glass fragments, was intended to evoke outer space. The entrance has been repositioned to function more effectively in relation to the park's road and pathway system, and lacking museum facilities have been added. The project is scheduled for completion this fall.

BELOW: BBB is advising TWA on plans to upgrade Eero Saarinen's TransWorld Airlines Terminal at JFK Airport.

CENTER LEFT: Last year, BBB partly renovated Junzo Yoshimura's Japan Society in New York.

CENTER RIGHT: Paul Rudolph's Art and Architecture Building at Yale is undergoing an exterior rehabilitation.

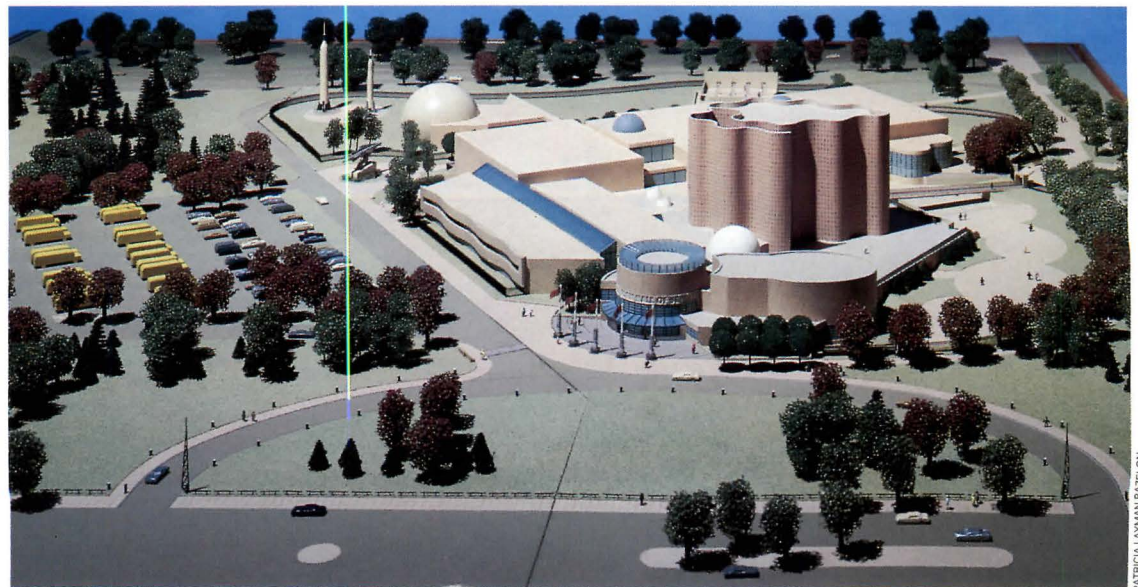
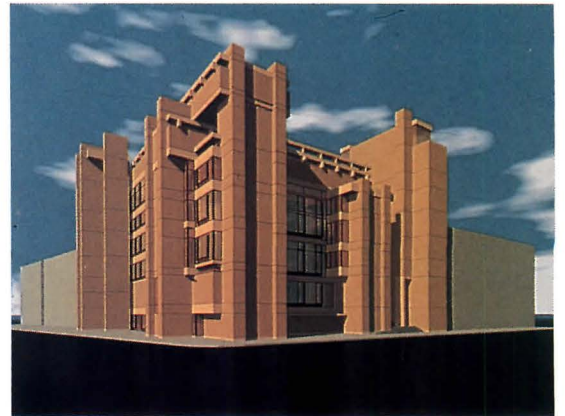
BOTTOM: BBB is surrounding Wallace Harrison's undulated New York Hall of Science with new auditorium, cafeteria, gift shop, and exhibition areas.



EERO STOLLER/ESTO



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PATRICIA LAYMAN/BAZELON

Preserving Grand Central Terminal

New York City's Grand Central Terminal is a world-renowned Beaux-Arts masterpiece of architecture and engineering. Built above the first all-electrified, subterranean railroad station, it was completed in 1913 to the designs of architects Reed & Stem and Warren & Wetmore. Its exterior was designated a landmark by the New York City Landmarks Preservation Commission in 1967, its interior in 1980. The aging building is now undergoing a carefully phased revitalization.

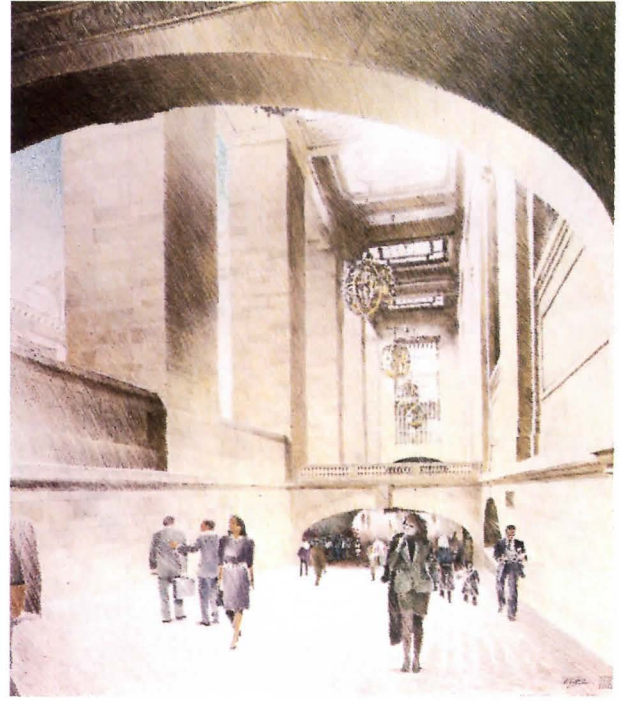
Beyer Blinder Belle, in association with Harry Weese and Associates and STV/Seelye Stevenson Value & Knecht, were engaged by Metro-North Commuter Railroad to prepare the Grand Central Master Plan, produced in 1990 after a 2-year research and investigative effort. The plan recommended that over a 5- to 10-year period, Metro-North improve the terminal's railroad services, update mechanical infrastructure, restore architectural splendor, and upgrade civic, cultural, and retail offerings, extending the building's life and use for the next 100 years and beyond.

Since the master plan's publication, the restoration has proceeded on a project by project basis as Metropolitan Transportation Authority (MTA) funds become available. Now with clients LaSalle Partners/William Jackson Ewing (GCT Venture Inc.) joining MTA as private sector partners, BBB issued a new overall plan last September. The new scheme maintains the essential components of the 1990 plan and outlines a \$100 million effort to be funded by a combination of ongoing MTA capital funds and income generated by privately developed retail.

The Grand Central Terminal shops and restaurants are not as profitable today as they could be. Furthermore, now that the terminal no longer handles long-distance passengers (Amtrak moved its



THORNY LIEBERMAN



BELOW LEFT: Grand Central's sculpture and Tiffany clock were restored in 1991. Storefronts and entrances will be restored over next two years.

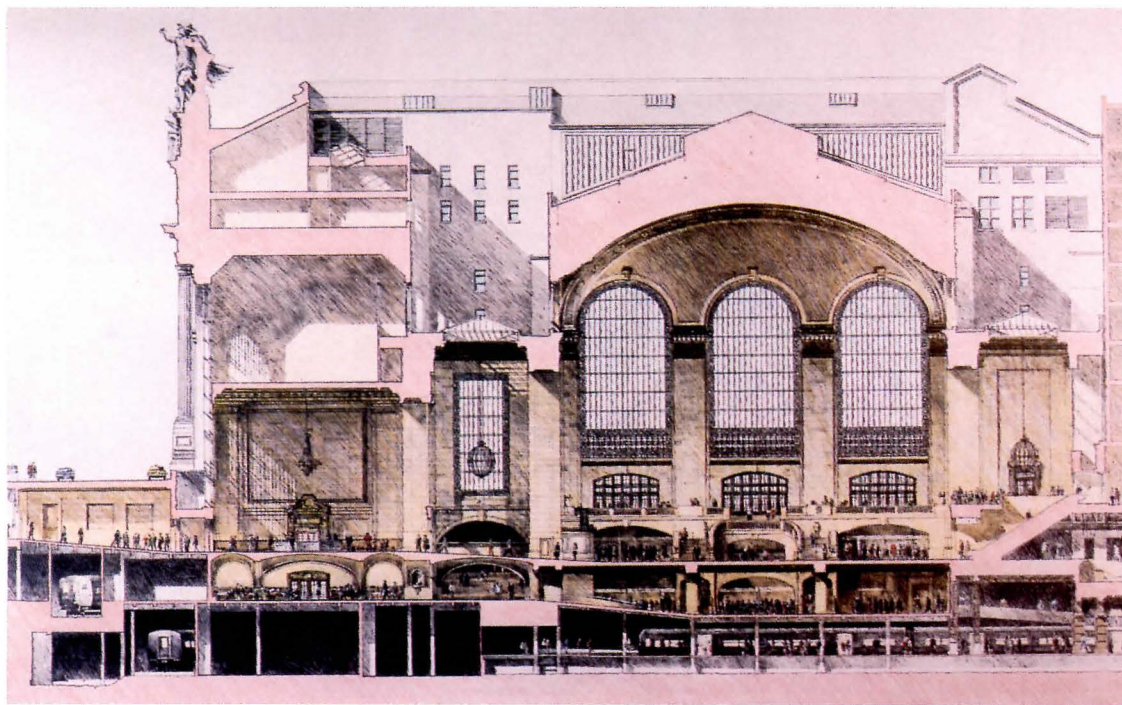
BELOW RIGHT: BBB plans to remove 1928 enclosure over Oyster Bar ramp, opening space to original ceiling.

CENTER LEFT: In concourse, portion of ceiling has been cleaned; entire surface will be restored over next two years.

BOTTOM: In 1992, BBB restored waiting room to 1913 grandeur. It is now used for exhibitions and bazaars.

BELOW: North-south section reveals waiting room (left), main concourse (center), lower concourse, and subterranean train level.

BOTTOM: Grand staircase at Vanderbilt Avenue entrance will be duplicated on eastern side of main concourse.



remaining lines to Penn Station in April 1991), large areas of space are underutilized. BBB is presently helping to devise a merchandising strategy that will fit the requirements of a heavily used commuter facility in a unique landmark building.

The current rehabilitative phase includes the reconstruction of the Guastavino-vaulted ceiling of the Vanderbilt Avenue entrance, now complete, and of exterior sculptures and portions of the facades. MTA will restore the historic fabric of the main concourse, lower concourse, sky ceiling, and other public areas throughout the terminal.

Major revisions and additions are planned to improve circulation between the main and lower concourses to ensure that the building functions as a commuter railway station as well as it functioned as a station for long-distance travelers. For this purpose, new escalators will be added both to the east and west of the main concourse, but not in the historic spaces designated as landmarks. Of great significance is the decision to complete the Beaux-Arts axial symmetry of the main concourse by adding, at the east end of the concourse, a new monumental stair identical to the existing one that leads to Vanderbilt Avenue on the west. This stair, never constructed, was part of Warren & Wetmore's original design.

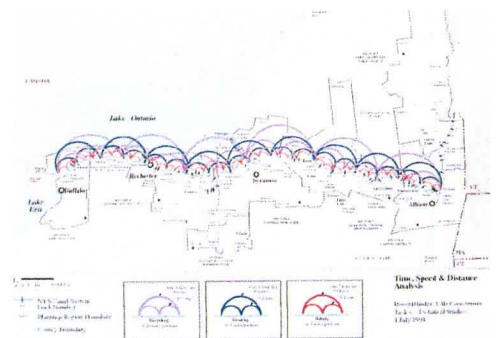
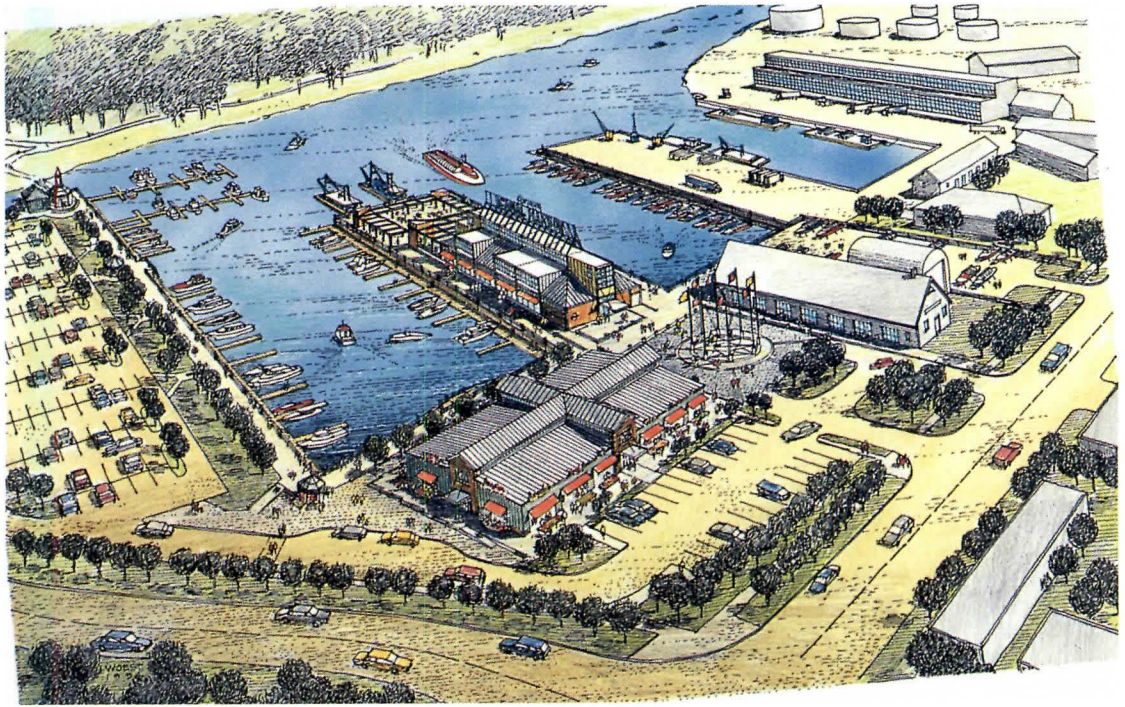
The first public space to be refurbished, at a cost of \$4.5 million, was the 13,500-square-foot waiting room, revealing its beautiful Beaux-Arts proportions and ornament. The Tennessee marble floors and Botticino marble wainscoting, Caen stone sheathing, articulated plaster ceiling, and glittering chandeliers have all undergone extensive restoration at a cost of \$4.5 million. No longer required for its original purpose, the renovated space, unveiled in 1994, is now used as a gallery and for seasonal markets.

Preserving Urban Infrastructure

Today's urban infrastructure often retraces earlier foot and vehicle pathways and water routes. Remaining segments of such networks acquire historic importance with the passage of time. Beyer Blinder Belle frequently engages in the combined restoration and modernization of old bridges, canals, railroad and bus terminals, subway stations, commercial shipping terminals, aqueducts, thruway toll booths, and rest stops. Included are the modernization of the New York State Barge Canal—or Erie Canal—and the rehabilitation of New York City's Williamsburg Bridge.

The Erie Canal, completed in 1825, extends from Albany to Buffalo, connecting the Hudson River to Lake Erie. A workable transportation corridor for the movement of people and goods westward to the Great Lakes, the Midwest, and to Canada, it transformed New York City into the greatest port in America for both commerce and immigration, and the state into the most populous and wealthy. Today, after numerous enlargements culminating in the massive 1918 canal still in present use, the waterway connects four major cities, Buffalo, Rochester, Syracuse and Albany, 17 smaller cities, 48 villages, and many sites of historic interest. It is a functioning but underutilized commercial transportation facility.

In 1992, the New York state legislature transferred the New York State Canal System from the Department of Transportation to the Thruway Authority for the creation of a Canal Recreationway Plan (CRP). Since 1993, BBB has led a consortium to transform the canal into a 524-mile linear park and waterway for recreation, tourism, and economic development. The team is currently working with local planning boards in the preparation of seven regional plans encompassing 22 counties affected by the canal.



BELOW: BBB's master plan for Canal Harbor in Syracuse, New York, calls for a retail complex at canal terminal.
BOTTOM LEFT: A sight-seeing barge and tug pass through locks on New York State Barge Canal.

CENTER RIGHT: Chart analyzing time, speed, and distance for cycling, boating, and hiking was prepared by BBB for canal plan.

BOTTOM RIGHT: New York State Canal and Thruway systems will be integrated to facilitate recreation.

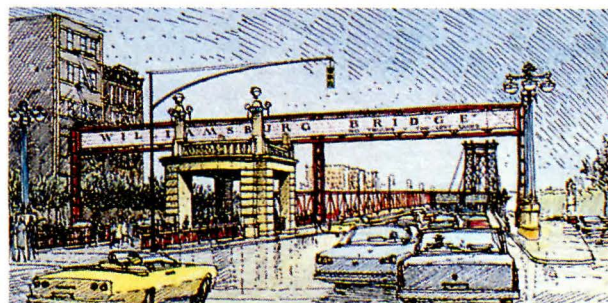
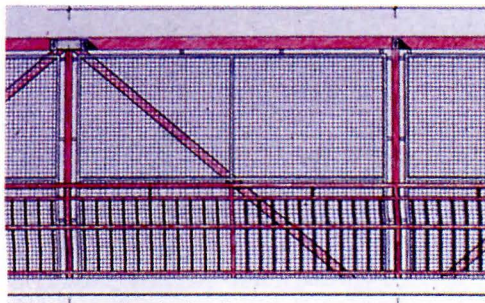
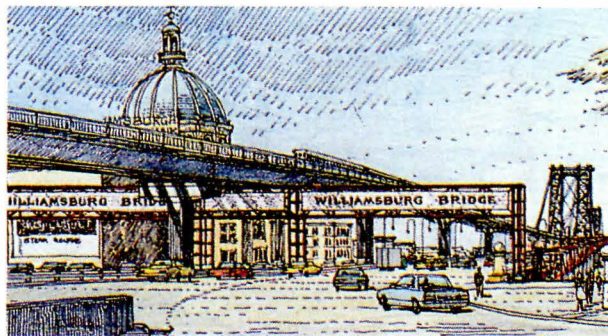
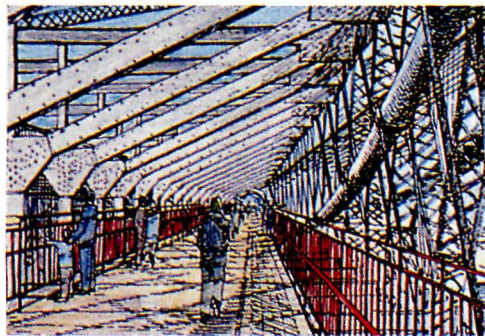
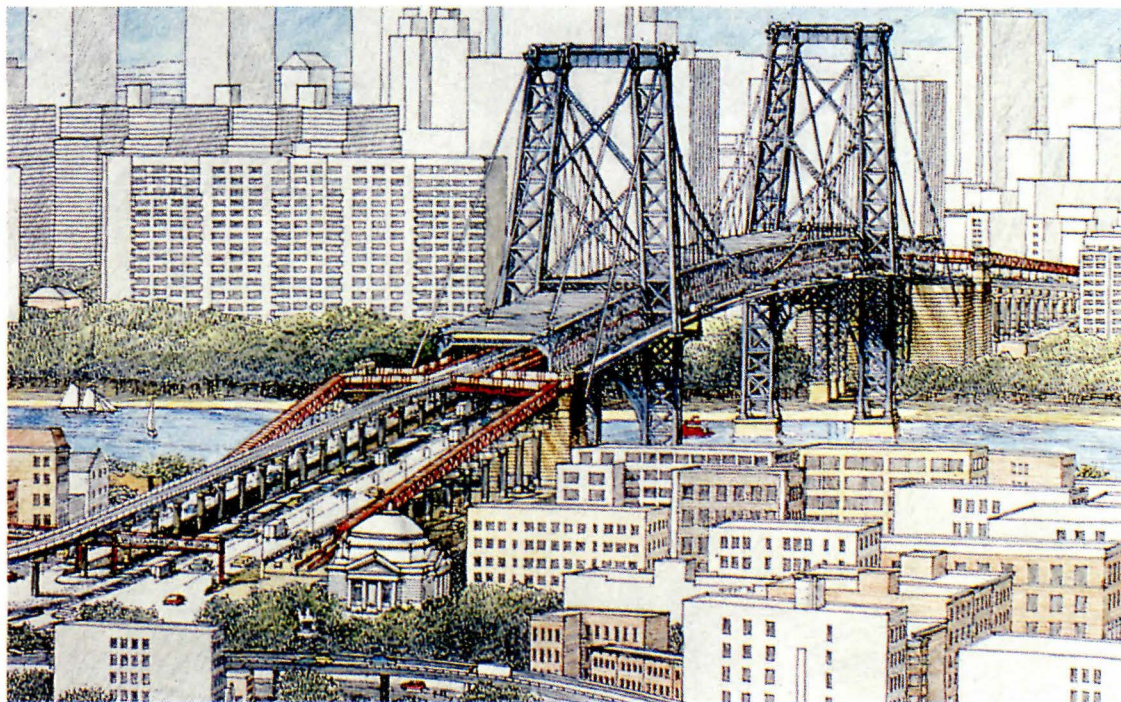
BELOW: View from Brooklyn of remodeled Williamsburg Bridge shows new pedestrian path, positioned at center and sides of bridge.

CENTER LEFT: New walkway will be carried within main bridge truss.

CENTER RIGHT: BBB designed new gantry with signs marking Brooklyn entrance.

BOTTOM LEFT: New pedestrian path is detailed with wire mesh screen.

BOTTOM RIGHT: Rebuilt historical portal from original bridge will be repositioned at Manhattan entrance.



Over 1,000 statewide public meetings provided a grassroots basis for the CRP. The goals of the plan include the conservation of the canal's recreational resources (waterways, open spaces, historic sites and villages); the development of seven major new harbors; the construction of small marinas to encourage boating; and the creation and maintenance of biking and hiking trails bordering the canal.

In New York City, the Williamsburg Bridge, designed by the engineer Leffert L. Buck and completed in 1903, connects Delancey and Clinton streets in Manhattan across the East River to Washington Plaza in Brooklyn. In its initial configuration, the 7,200-foot-long bridge served trolleys, the BMT subway, horse-drawn carriages, bicycles, and pedestrians. Over the years, the bridge has been converted to carry an increasing volume of private and commercial vehicles. Following a period of deferred maintenance, the New York City Department of Transportation Bureau of Bridges will fully rehabilitate the bridge at a cost of over \$450 million.

BBB, in collaboration with the engineering firm Steinman, Boynton, Gronquist & Birdsall, has designed new portals, devised the architectural treatment of new piers and retaining walls, and studied such varied pedestrian walkway components as fencing and lighting. The design team has maintained as many of the historical aspects of the bridge as possible—the portal to the walkway, the pedestals, the colonnades flanking the roadway—on each side of the river. These historic details will be combined with new elements such as a large gantry at each entrance. The new pedestrian and bicycle path and the BMT subway corridor are contained within a structure that is both contemporary and in keeping with the detailing of the bridge.



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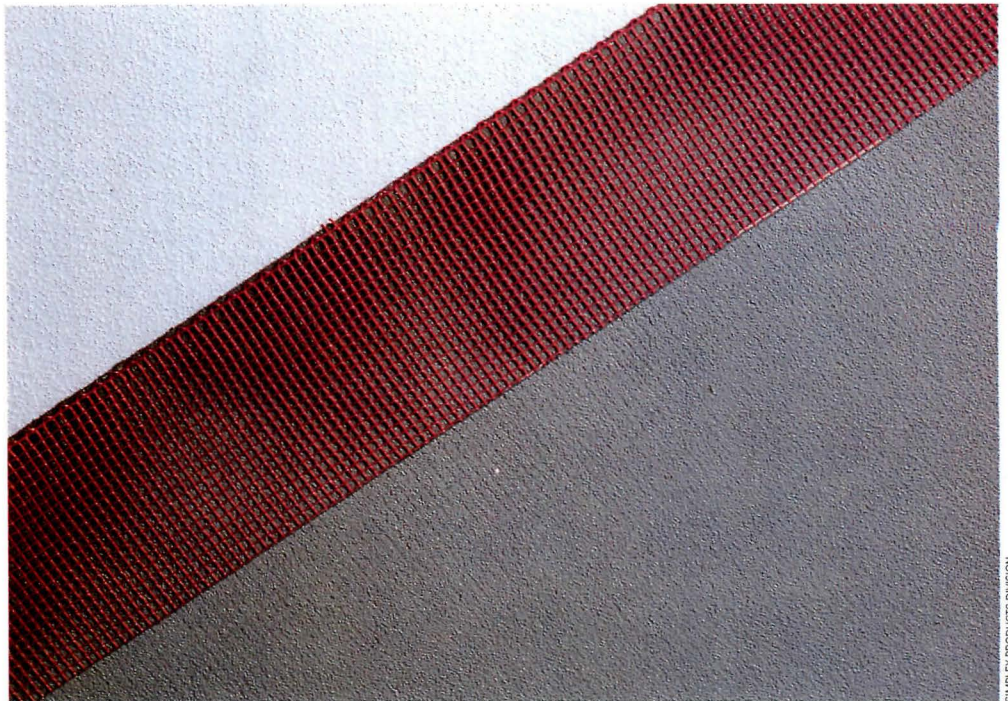
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Detailing EIFS

New industry standards improve systems' durability and moisture resistance.



SIMPLEX PRODUCTS DIVISION

ABOVE RIGHT: Class PB, the most commonly applied EIF system, typically consists of the following layers: expanded polystyrene insulation (white) attached to a substrate; glass-fiber mesh (red) embedded into a base coat; and a finish coat (gray).

Once ridiculed for their plastic, paste-on character, exterior insulation and finish systems (EIFS) have come a long way since their introduction to this country from Europe 25 years ago; better chemical formulations and components have yielded more durable products. Architects are now taking a second look at EIFS, enticed by their energy efficiency, elaborate detailing at minimal cost, and retrofit applications. As a result, this synthetic stucco is being specified for high-end projects, from custom houses to art museums, and the demand for EIFS is growing: In 1994 alone, their application in this country covered 235 million square feet.

This increased demand has spawned a host of EIFS manufacturers who may offer the material at competitive prices but at varying levels of quality. This potential problem is compounded in that many architects do not thoroughly understand the proper way to detail EIFS, and only a few contractors are adequately trained to apply them. Fritz Reitter, president of Reitter Stucco in Columbus, Ohio, explains: "Designed, built, and applied right, the system will last a long time; it's lasted 50 years in Europe. If not, you will have a problem."

To rectify the situation, the EIFS Industry Members Association (EIMA), which represents 277 companies, nine of them manufacturers, established new industry standards in June 1994 and subsequently submitted them to the American Society for Testing and Materials (ASTM) for consideration. EIMA has also revised specifications to reflect these standards and published, for the first time, generic details that illustrate accepted approaches.

EIFS are nonloadbearing cladding systems that can be attached to virtually any wall structure. The basic assembly consists of an insulation board attached to a substrate; glass-fiber mesh and base coat applied to the insulation; and an acrylic finish coat. Designed to be a waterproof, surface-sealed barrier, EIFS depend on the integrity of sealants and related accessories to ensure watertight seams at expansion joints and where the cladding abuts other assemblies.

Manufacturers classify their systems under two categories: Originally, Class PB was characterized by a softer, polymer-based finish coat, and Class PM referred to a harder, polymer-modified mix. In recent years, this distinction has blurred as the chemical formulas of various proprietary PB and PM systems have changed.

Although the products vary widely among manufacturers, Class PB systems typically have a thin base coat into which a glass-fiber mesh is embedded during installation. PB systems most often rely on closed-mold expanded polystyrene (EPS) insulation that is adhesively applied to the substrate. Class PM systems typically have a thicker base coat applied over a glass-fiber mesh that has been mechanically attached, along with extruded expanded polystyrene (XPS) insulation, to the substrate. Currently, Class PB makes up at least 80 percent of the market in this country and is therefore the first to be addressed by EIMA's revised specifications.

Setting minimum standards

Many of the standards EIFS manufacturers adhere to were developed for other products and systems. Except for a definition of terms, national consensus standards do not yet exist for EIFS. Advocating minimum standards tailored specifically to EIFS, the industry association last year formally adopted performance and application standards for Class PB systems, to take effect among member manufacturers beginning January 1, 1995.

The new performance standards consist of various test methods and their respective criteria for the durability, fire resistance, and integrity of the system as a whole; the durability and fire resistance of certain components; and the durability of associated building products such as sealants and sheathing. Establishing such a consistent battery of tests throughout the industry allows an architect to compare EIFS and to specify minimum performance levels. The application standards address installation requirements. EIMA's position is outlined in a document titled *The Quality Standards We Endorse* and within their revised *Guideline Specification for Exterior Insulation and Finish Systems, Class PB* (available from EIMA, 2759 State Road 580, Suite 112, Clearwater, Florida 34621).

Especially noteworthy is that EIMA now requires a minimum base coat thickness of $\frac{1}{16}$ inch when dry rather than the nominal $\frac{1}{16}$ suggested by many manufacturers. The association recommends it be applied in two

applications rather than one. It also calls for the installation of two layers of glass-fiber mesh—the first at least 14 ounces per square yard and the second at least 4 ounces per square yard—on all ground floor applications and facades that are expected to receive abuse.

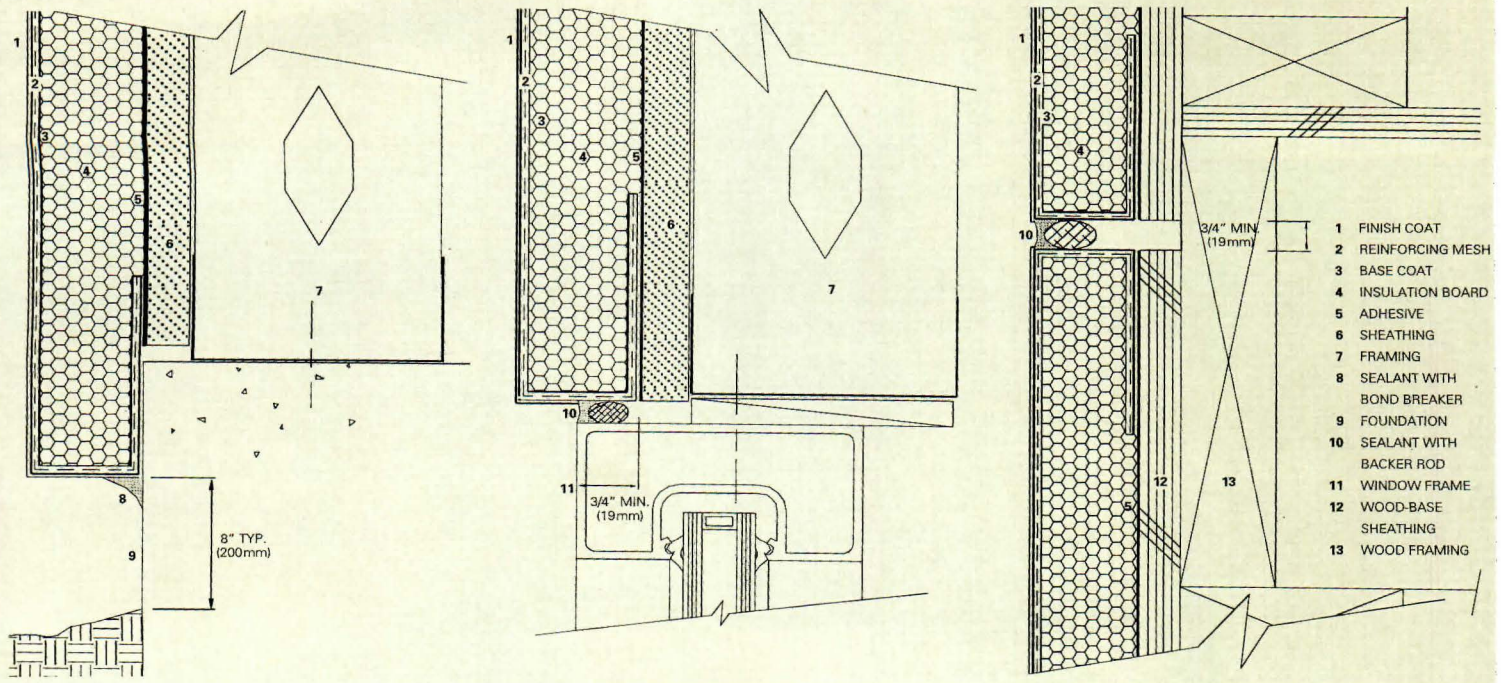
Additionally, in its revised *Tech Notes WC-101* from last September, EIMA indicates its preference for gypsum sheathing faced with a glass-fiber mat in compliance with ASTM C1177 over the more commonly specified paper-faced cousin. "When an EIFS wall leaks," explains Peter E. Nelson, vice president of consulting engineers Simpson Gumpertz & Heger, "the water can rot the paper facer or soften the gypsum core, in either case increasing the chances for the EIF system to fall from the wall." For even better water resistance, Nelson recommends cementitious sheathing boards.

So that its standards are more broadly accepted—and ultimately required by local codes—EIMA has submitted them to ASTM, and they are now being considered within several different task groups.

In June 1994, EIMA published *Exterior Insulation and Finish System: Class PB Details*, the first generic set of drawings for architects, to complement its standards and specifications. Beginning this year, these drawings will be reflected in the proprietary literature of EIMA's member manufacturers. "These details are a big contribution to the industry," notes architect Kenneth Lies, principal of the building diagnostics firm Raths, Raths, & Johnson in Willowbrook, Illinois. "In the past, manufacturer details have been inconsistent, and the architect had no other place to turn to see how this material should be detailed." The association now offers 10 basic details common to EIFS-related projects. Nine more complex details are expected later this year.

Cladding details

The first set of drawings steers architects away from problems that have occurred in poorly detailed or executed projects. Sealants, for example, should be applied to the base coat, rather than the finish, to establish a stronger adhesion at the joint, which is where system failures are most likely to occur. Joints between window frames and EIFS should be at least $\frac{1}{2}$ inch—twice as wide as is sometimes specified—to allow adequate spacing for the sealant and backer rod. In the new industry details, the cladding is shown terminating 8 inches above the ground because too often the necessary drainage is



FOUNDATION: EIFS is terminated 8 inches above grade.

WINDOW: Minimum width at sealant joint is 1/2 inch.

WOOD FRAMING: Expansion joint is used at floor line.

omitted when an EIFS assembly extends below grade. And the detail of an expansion joint at floor line in wood frame construction is included to remind architects that without it, the EIFS cladding may buckle and crack at floor level due to cross-grain shrinkage of the wood frame's rim joist.

EIFS application training

Manufacturers and architects agree that competent application is critical to EIFS's success. But in some regions of the country, relatively few trained contractors are available. At its February 1995 annual convention, EIMA announced its new applicator training program, which includes videos, instruction materials for trainers, and reference materials. This effort was designed in conjunction with EIFS manufacturers and complements their existing programs. "It's an important step for the EIFS industry," observes Robert Thomas, Jr., principal of CMD Associates in Seattle and chairman of ASTM's EIFS performance subcommittee, "although it's only in the early stages." Thomas warns that choosing a contractor from EIFS manufacturers' lists of "approved" applicators is not necessarily a guarantee that the contractor is a good one; he argues for a vouching system administered by a third party. "Single-ply roofing systems have formal inspection programs available and some windows are manufactured under a certification program," he points out. "The

EIFS industry is having trouble figuring out how best to regulate itself." Currently, manufacturers recommend that architects stipulate in their specifications that the applicator be qualified and show proof of training.

While all agree that the EIFS industry is taking positive steps to establish standards, develop consistent specifications and details, and upgrade training, some experts believe the U.S. system could benefit from techniques commonly applied in Europe. For example, architect Mark F. Williams, principal of Williams Building Diagnostics in Maple Glen, Pennsylvania, and coauthor of ASTM's *Exterior Insulation and Finish Systems: Current Practices and Future Considerations*, suggests introducing the European practices of specifying higher-density insulation boards, adding a primer on the base coat, and initiating apprentice-type training.

Balancing cost and quality

A number of manufacturers are already moving ahead, offering premium and high performance systems that include upgraded components and options such as a variety of enhancements to the finish coat to minimize dirt and mildew accumulation.

One of the most unusual details in recent years has been the introduction of drainage and weep holes into what has always been promoted as a surface-sealed system. "A surface seal is never perfect," notes engineer

Nelson. "In real life you always have something that makes a hole. An architect, therefore, should design for redundancy." In these beefed-up systems, a waterproof layer is applied to the substrate before the insulation is attached. If water penetrates the system, it is stopped by this layer and exits through weep holes. In addition, at least two EIFS manufacturers utilize rain screen technology (ARCHITECTURE, October 1994, pages 117-119) to equalize air pressure within the system so that water cannot be drawn in through cracks or improper seals.

Of course, all these enhancements increase the cost of EIFS. While some in the industry are pushing to develop a cladding that will be specified because of its exceptional quality, not its economy, others question whether clients are willing to pay for a more expensive system. "This industry is at a crossroads," contends Thomas.

Many U.S. manufacturers are responding to this dilemma through what Williams calls "performance tailoring." They are offering a smorgasbord of options from which the architect can choose. The practitioner, for example, may pick a basic EIF system for a strip shopping mall storefront in a dry climate, but recommend a premium system that includes a pressure-equalized rain screen and mildew-resistant enhancements for a luxury high-rise condominium in a rainy environment.—Nancy B. Solomon

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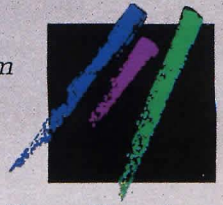
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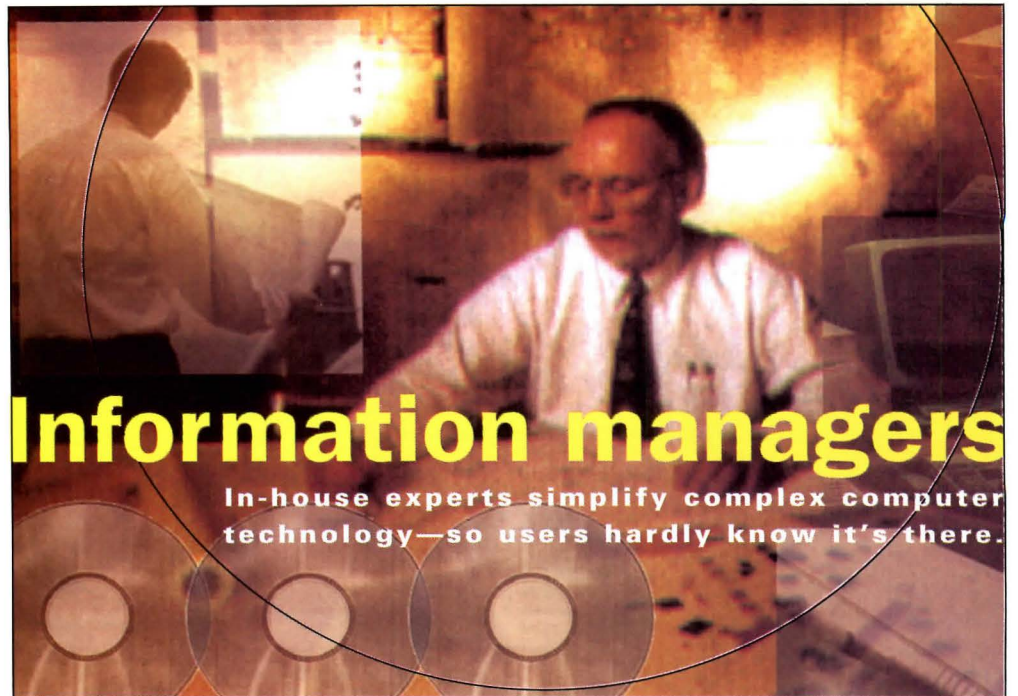
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Architects who specialize in computers are becoming a business necessity for many firms. They are not CAD operators but managers who select computers and programs, make sure that hardware and software are properly installed and running, arrange training for architects and support staff, shepherd the firm's databases and information flow, and advise principals on the developments of technology and ensuing opportunities for practice. The position of information manager is relatively new, and current information managers report "there are not many of us; not enough."

These experts see their most important function as helping firms protect and efficiently use their databases. So important has the flow of information become that many offices have upgraded the position to the level of vice president. KPS Group in Birmingham, Alabama, for example, went from hiring a CAD manager in the early 1980s to a new information vice president, Heinrich Kuhn, in 1992. Similarly, BSW International in Tulsa, Oklahoma, progressed from employing a manager of information services in 1985 to instituting a vice president of information systems when it hired Richard J. Mulligan just over a year ago.

The information manager's responsibility is steadily growing to now include project data (drawings, specifications, job files); company information (mailing lists, accounting, and marketing, including client, billing, and project histories); communications (E-mail), internally and with clients; the client's database; and external databases (code requirements, new materials, bidding information).

Forward-looking principals want to make this wealth of information applicable and accessible, no matter how large or small the firm. "The information is where the value is and where the power is," insists Gray Plosser, president of KPS. George H. Suddell Architects of Westbury, New York, similarly characterizes its approach to information technology, reports the firm's information manager Paul Doherty: "Information is equity."

Information managers begin changes within their firms by evaluating and upgrading available tools. In order to be useful, information has to be shared, so all information managers are advocates of networks. Heinrich Kuhn's first task at KPS was to evaluate and upgrade the firm's technological equipment, a process still taking place. An annual budget to upgrade and replace computer equipment will allow Kuhn to attach all personal computers to a Novell network running Windows NT for CAD, office operations, and communications.

The same task was handed to Richard Mulligan when he joined BSW—a firm that has grown from about 25 employees 10 years ago to about 525 and has, says Mulligan, “hundreds of systems.” BSW started out with Apple Macintosh machines, which it still uses for many business functions; accounting is on Windows PCs; and the CAD functions are on UNIX workstations. When Mulligan arrived, these systems were separate. He quickly realized that architects working on these different systems needed to communicate with others on the same project, and that information relating to their projects needed to be available throughout all the firm's systems. In his first year, therefore, Mulligan created a network unified by Ethernet with fiber-optic cable between floors, all tied together with Novell servers. BSW needs the variety, says David Phelps, the company's information systems team manager, because it takes in files from consultants in various formats. “We have to be prepared to deal with whatever we're handed.”

George Suddell hired Paul Doherty because he was convinced that communications would be important, especially to the firm's construction arm, where up to a dozen project managers in the field all need to be in touch with the main office. During his first year, Doherty added extensive communication capabilities to the company's Novell network in the form of portable computers that communicate through Lotus Notes. Now construction problems can be handled quickly, and Suddell finds that these capabilities have opened his firm to international jobs. For one project in the Dominican Republic, for example, data and text could be translated into metric and Spanish instantly, “and that gave us the ability to do something out of the country that we couldn't have done before,” says Suddell.

Information manager Heinrich Kuhn of KPS is similarly trying to “leverage information technology to our clients with new

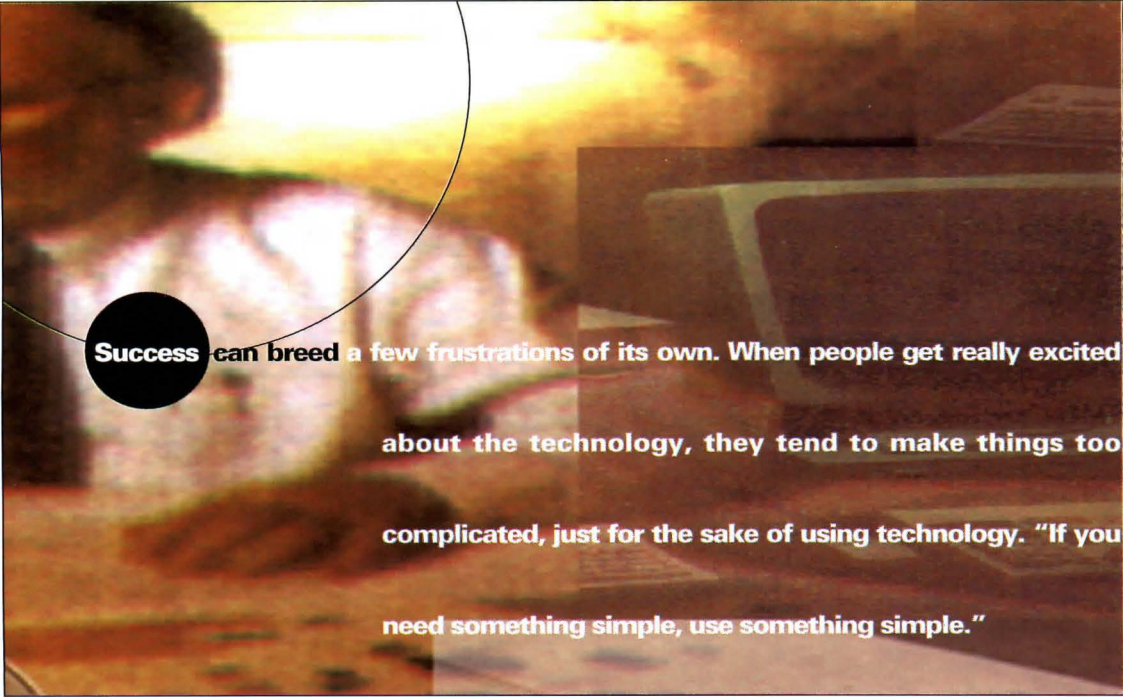
services.” The result has been to make the mid-sized local architecture firm seem much larger. According to Kuhn, “We are 60 percent dependent on key accounts, and the services to those key clients are very different from a project orientation. You can extend the life of your project for a client,” he claims, by using the information in the client database to perform facilities management or building upgrades.

Because systems are complex and often daunting, information managers have to devote time and staff to training. Although Macintosh and PC/Windows offer an easier way into technology, “There's still complexity,” says Mulligan. “The role of the information manager is to make that complexity as simple for the user as possible.” BSW provides constant in-house training; KPS provides six months of training a year, most of it in-house. But simply providing training isn't enough. “Staff members must generate enthusiasm and use the lessons learned in their daily work,” asserts Kuhn. Because Suddell is small, Paul Doherty has to do most of the training himself, so it is not formalized. But he is committed to Lotus Notes, and willing to do what it takes to get staff to understand how to use this program that allows several users to work on the same project.

Training is one form of maintenance, but another crucial form is maintaining the integrity of a company's database, preventing corruption of data through the introduction of errors and viruses. “Information is critical to the whole project,” observes Suddell's Doherty. “If you get it wrong at the beginning, it's wrong all the way through.” Most firms put limits on accessibility, and particularly on who can put other software on the system. As firms grow larger, they cannot simply open up their networks to anyone with a modem. They put up “fire walls” in the form of “gateways”—services such as CompuServe—that manage communications between users. “Even with the gateways, we dial our clients; they don't dial us,” notes Kuhn.

Being a sheriff may not have been part of the role information managers envisioned for themselves, but it shows that the job of information manager is very much a work in progress. None of these experts claims his way is the only or even the best way. They all agree on the necessity for someone to take a leadership role in managing a firm's major asset: its information.—*Ripley Hotch*

Ripley Hotch is a freelance writer based in Sarasota, Florida.



Success can breed a few frustrations of its own. When people get really excited about the technology, they tend to make things too complicated, just for the sake of using technology. "If you need something simple, use something simple."

Heinrich Kuhn
KPS Group
Birmingham, Alabama

EMPLOYMENT HISTORY: Heinrich Kuhn describes his tenure at KPS Group as "a very good match." Kuhn, born and educated in South Africa, holds an architectural degree from the University of Cape Town where he practiced architecture, and a master of science degree from MIT, specializing in information technology in the architectural environment. After a number of years working for A/E firms, Kuhn has become an expert in advising firms on making the most of information.

KPS is a midsized company that has ambitions to grow outside of its region. The firm has formed an alliance of like-minded companies in different disciplines (a cable company and an environmental company, for example) to bid on business that might be beyond any one of them. It formed KPS Technical Services to offer technology consulting to other companies, including some architectural firms. "In the last year and a half I've been running the unit, we've gone from two to 25 people and \$3 million in fees," reports Kuhn. All of that is additional income to KPS, and it's what Kuhn means when he talks about "leveraging technology."

MOST IMPORTANT PART OF HIS JOB: Kuhn is trying to get computer technology to respond more artistically to de-

signers' wishes. In many fields, computer specialists are trying to create "transparent" tools, designing software so natural to use that they seem second nature. Kuhn thinks getting people just the right tools in the right quantity and training them to use them moves KPS closer to that ideal. At the same time, he feels strongly that he has to use computers to increase production, quality, and profitability.

SUCCESSSES: Kuhn's greatest achievements for the KPS Group include reducing costs and increasing accurate, artistically satisfying renderings. A hand-drawn watercolor could run a client \$3,000 to \$5,000; if there were significant changes, it would have to be done again. Now KPS does a graphic version of the drawing. Programs like Fractal Painter then allow KPS to stylize the computer model so that it looks like a drawing done by hand. This has advantages for the firm as well as the client. Obviously, copies are easy to produce at low cost. But then changes can be made, and the cost of a new rendering is less costly than creating the original—and production time is minimal.

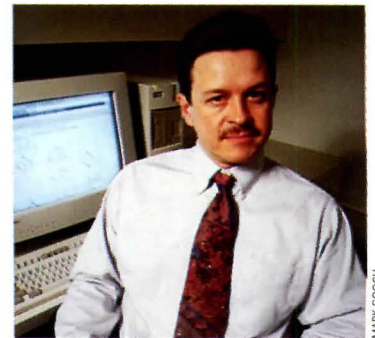
KPS's urban planning group does a lot of work that requires approval from the public, and changes mandated by one agency or another would have to be included in successive renderings. "Paste-up boards used to cost us a fortune," notes Kuhn. The company now uses pro-

grams like Arc/Info to obtain data from a municipality and then Arc-View for color renderings of urban proposals. Production time for changes is reduced to one day.

FRUSTRATIONS: It's a simple task to give people the basic office tools, but quite another to get them to understand what technology can do for a practice. Kuhn, like many information managers, sometimes feels isolated, and knows that others in a firm are not always as quick to appreciate computer technology.

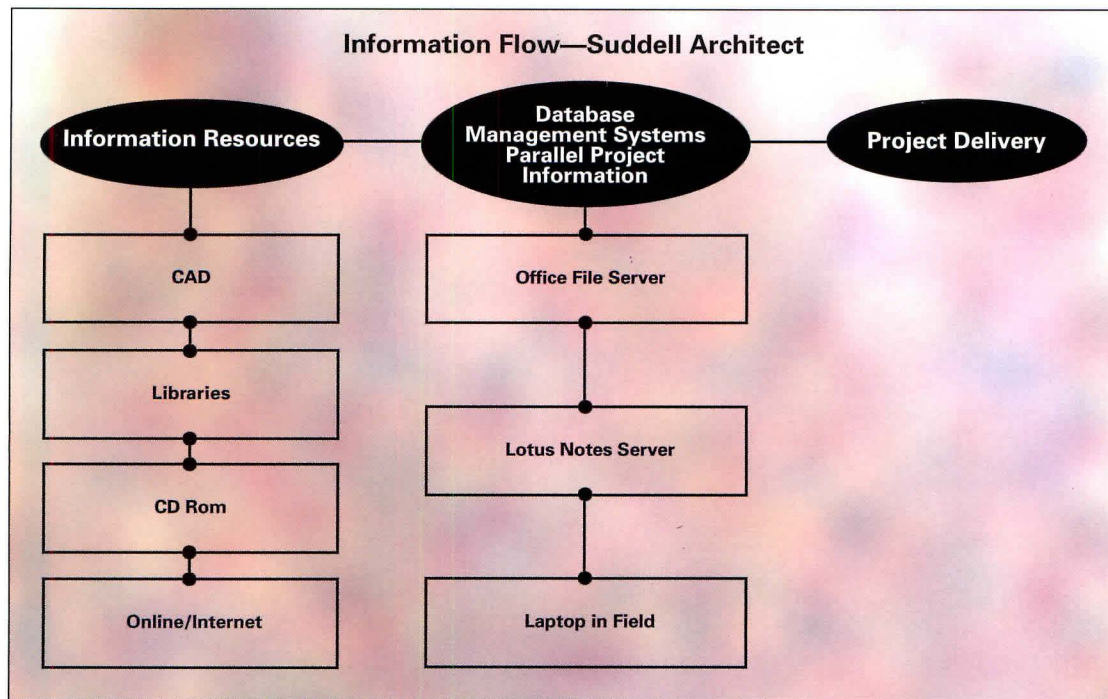
Cost also concerns him. "This stuff is really expensive," he laments. "It's different from paying \$1,000 for a drawing board and having it last 10 years. A PC lasts two or three years at the most." Success can breed a few frustrations of its own. When people get really excited about the technology, they tend to make things too complicated, just for the sake of using technology. "If you need something simple, use something simple."

ADVICE TO OTHER FIRMS: "They need to find ways to reduce the expense of these systems so they can use them," reports Kuhn. There is good advice on specifics that will fit a firm if someone will take advantage of on-line information sources, such as AIA Online, bulletin boards on America OnLine, CompuServe, and the Internet. These services give smaller architectural firms access to information that in the past was available only to large firms.



ABOVE: KPS information manager Heinrich Kuhn.

MARK GOOCH



CARL J. SANTORO

ABOVE: George H. Suddell, principal (left), and Paul Doherty (right).

Paul Doherty,
George H. Suddell Architect
Westbury, New York

EMPLOYMENT HISTORY: George H. Suddell employs only two architects, two CAD operators, and an administrator. Paul Doherty is one of the architects and simultaneously the firm's information manager. "If we were not automated, we'd probably be up to about 15 architects," says Doherty, who sees information management in architecture as a way to give more control to the architect. Doherty grew interested in computers at the age of 15; he began working on AutoCAD in architecture school. After graduating from the New York Institute of Technology, he worked for a firm that shared space with IBM's warehouse. "They had everything in the PC world," says Doherty, who ended up putting computer systems together for IBM part-time.

The 30-year-old architect thinks that the profession is at a crossroads and that designers who don't move into the new information age will be shoved aside. At the same time, he recognizes that the arcane digital world puts many off. "A lot of computer-illiterate architects feel intimidated by the language we speak. It's up to us to bring them in."

MOST IMPORTANT PART OF HIS JOB: Doherty works to change how his firm operates to take advantage of new technology. Billing is one example.

Setting up an AutoCAD drawing requires a lot of operator time up front setting links and entering information. Now Suddell bills 40 rather than 20 percent of the fee when the contract is signed.

SUCCESSES: Doherty is a great believer in the value of on-line services. Having worked extensively with other architects and information managers through the Internet, America OnLine, and other services, Suddell is the first architectural firm with its own "home page" on the Internet World Wide Web. That means there is now a digital interactive "brochure" for Suddell available to anyone anywhere in the world who has Internet access.

Another success Doherty has with on-line information exchange is his automated use of the Dodge Online database. He sets a search for current jobs up for bid that are in Suddell's geographical and price range and downloads the information into a mail-merge program, which automatically generates an introductory letter from a list that has already been created. So by 9:15 every morning, Doherty laughs, "I hope to have a couple million dollars worth of introductory letters out." He sees this as only the beginning of this kind of information exchange. Eventually, Doherty hopes to see automatic linking of a CAD drawing through the system that automatically taps into manufacturers' databases, so that required materials

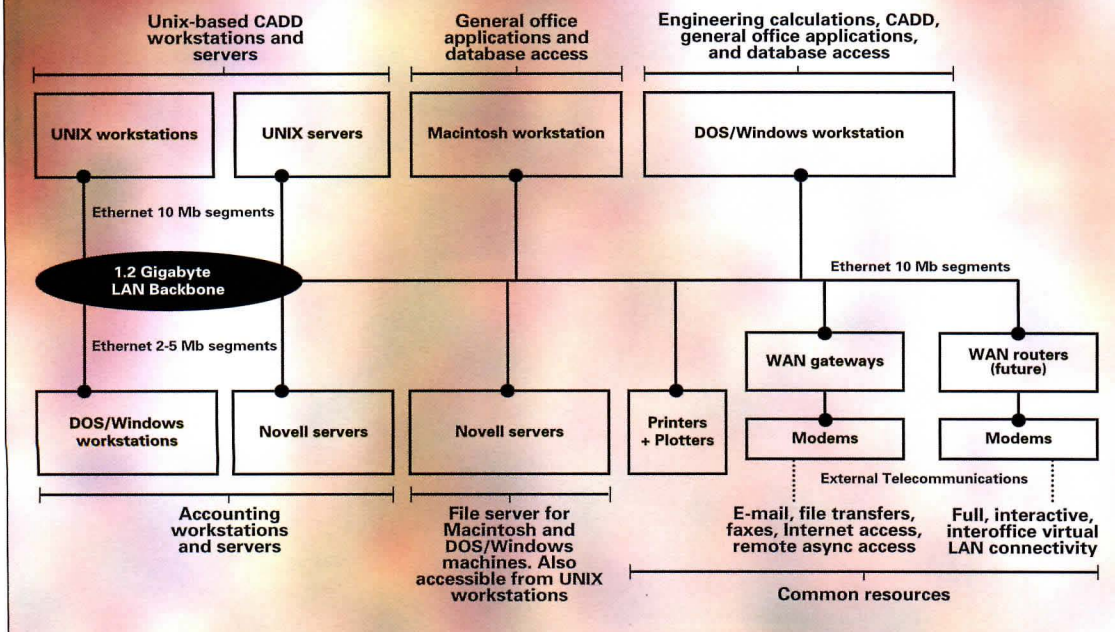
will be on the job when needed—customized if necessary.

FRUSTRATIONS: Doherty's biggest frustration is the unrealistic expectations generated by media hype about new hardware and software. "You can get seduced into the technology and lose sight of who you really are—an architect. There are whiz kids on computers, but there's not magic if you don't know how to put a building together."

ADVICE TO OTHER FIRMS: Doherty is concerned that architects may lose their central place in the building process by thinking that technology is something separate. It's important to be or employ an information manager even if you are a sole practitioner. "When wouldn't a company want an information manager?" Doherty insists. "I would have to say any company that would be looking to stay alive should have one."

For many firms, evolving an information manager from a technologically sophisticated staff member is the logical solution, but there are dangers in that. A firm will tend to throw more and more at the person who expresses an interest in this technology and then wonder why he or she is not productive. Doherty thinks that a firm has to start taking a percentage of the profits and set up an expense area to cover planning, purchase, and management of the computer systems and the methods of managing the company's database.

BSW's International Network



Richard J. Mulligan, BSW International Tulsa, Oklahoma

EMPLOYMENT HISTORY: Richard Mulligan came to information management at BSW International by an unusual route. Mulligan graduated from Carnegie Mellon with a B.S. degree in electrical engineering, and, after a three-year stint in the Army, he joined NCR as a hardware service technician and then took the same position with Digital Equipment. Mulligan eventually worked up to Chicago branch manager, then switched into information systems, and took a very successful side foray into sales. He worked for Electronic Processing in Kansas City, Kansas, where he developed and implemented information systems strategies and managed software development and maintenance, computer and network operations, and technical support for internal and external clients. Just over a year ago, Mulligan filled BSW International's newly created position of vice president of information systems.

Because BSW is so large—a staff of 525—and works with so many different kinds and sizes of partners and clients, Mulligan and his team find themselves constantly trying to deal with different hardware and software formats, both inside and outside the company. “We have hundreds of systems here,” says Mulligan. “The company grew very

rapidly—around 10 years ago it was 25 people. The information systems grew accordingly.” Separated into different networks when he arrived, the Apple Macintosh, DOS/Windows, and UNIX are now on the same network. The volume of work the firm does means that communications have to operate efficiently—and so does the information management team.

MOST IMPORTANT PART OF HIS JOB: Dealing with sheer size. “We have large groups of people working on the same project and/or related projects, and they need to share information, often across all three platforms.” And BSW deals not with just one such project, but many, in different jurisdictions. “It’s very different to do a \$53 million single project as opposed to hundreds of projects a year with different building codes and site issues.”

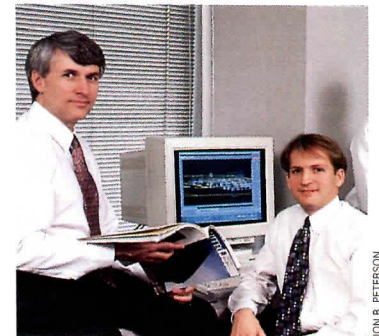
SUCCESSSES: Mulligan counts as a major success for BSW the basic repositioning of the information services department, which began with the company’s decision to bring in a chief information officer at the level of vice president. “Prior to my arrival, information systems were looked at as more of a reactive type resource that did troubleshooting rather than a proactive and strategic type of resource.”

The company now takes a team approach to business problems, and brings in information services at the beginning of discussions rather than

after a decision is made. “Collaboration is the whole key to whether information services work or don’t work,” Mulligan notes.

FRUSTRATIONS: Mulligan finds that the way software and architecture have developed has produced a number of “standard” file formats as well as hardware platforms. “I’ve called this phenomenon a Tower of Babel.” He thinks that there are great business opportunities for technology companies that can bring order to the chaos by making translations among the formats accurate and painless. Mulligan and other information managers do not like the file formats standard with AutoCAD because they are limited in the amount of information they can contain. But since these formats are what most firms use, until someone comes along with a solution, information managers are stuck.

ADVICE FOR OTHER FIRMS: In a large office, architects and support staff can get hold of all kinds of software and load it onto the system. “People will get their hands on little, independent tools, which will be cheap but cost you thousands of dollars in grief” because they will conflict with existing programs. The information manager needs to make sure programs have useful functions and are thoroughly checked out before they are added to the network. If the manager is open to suggestions, people will be open about bringing their programs in for evaluation.



ABOVE: Richard Mulligan (left) and systems operator David Phelps (right).

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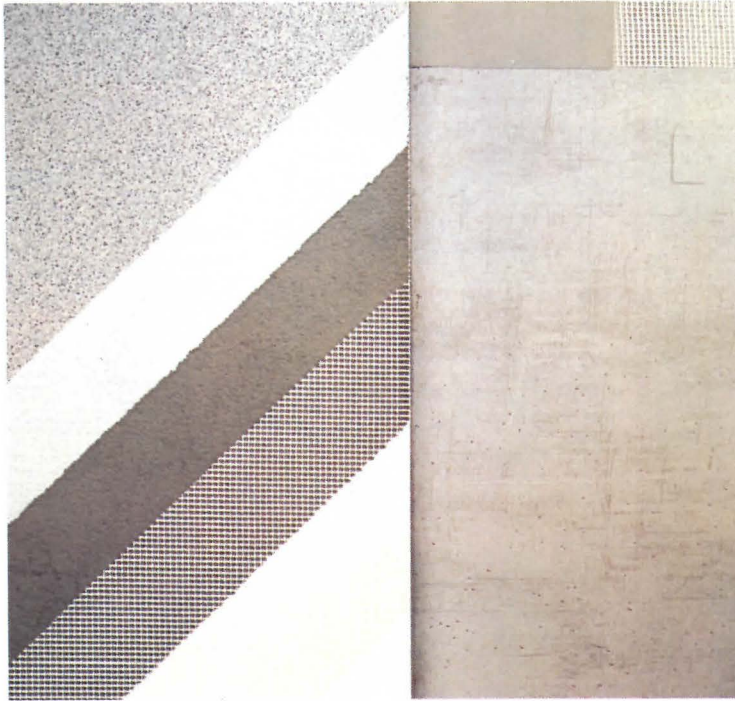
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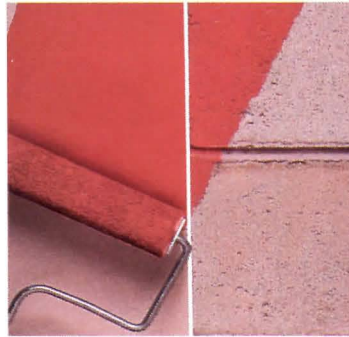
Products

Exterior insulation and finish systems improve durability.



TOP: Senergy's Senerflex QA21 exterior insulation and finish system (EIFS) incorporates two layers of base coat on all elevations and two layers of reinforcing mesh on ground level surfaces. A typical QA21 section reveals expanded polystyrene insulation board, a 15-ounce reinforcing mesh embedded in base coat, a 4-ounce reinforcing mesh embedded in base coat, a $\frac{3}{32}$ -inch layer of base coat, and finish coat. Reinforcing mesh and tape applied over substrate joints (upper right) create additional weather barriers. *Circle 401 on information card.*

ABOVE: Simplex Products Division introduces Finebuild, an acrylic base coat designed to increase strength and reduce cracking. Mixed with Portland cement, Finebuild acts as a leveling agent when applied over masonry substrates, including brick or concrete block. Finebuild may also be used in conjunction with the company's Fine-stone Class PB or Quik Clad EIFS. *Circle 402 on information card.*



ABOVE: Dryvit's Weatherprime and Weatherlastic exterior wall treatments work together to create durable, crack-resistant finishes for stucco, concrete, concrete block, and other substrates. An acrylic primer provides a nonslip, color-coordinated surface for the company's exterior finishes, which incorporate a flexible elastomeric binder to bridge hairline cracks. *Circle 403 on information card.*

TOP RIGHT: Randolph Air Force Base in San Antonio, Texas, is clad in the Premium System 3 from Parex. The system incorporates a precompressed expanding foam tape to reduce moisture infiltration through door and window openings, and tracks that protect perimeter insulation boards. Primer applied over base coat ensures even distribution of the finish coat. *Circle 404 on information card.*

CENTER RIGHT: Sto Industry's silicone-enhanced StoSilco wall coatings maintain a water-resistant exterior surface

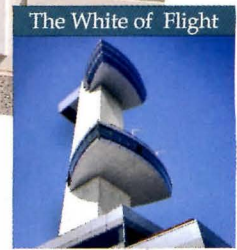
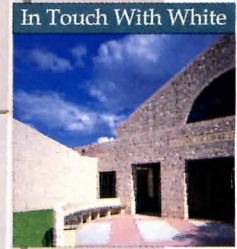
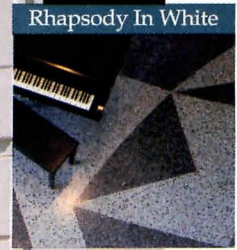
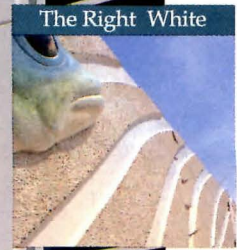


while permitting water molecules trapped inside the wall to escape through the substrate. This permeable quality reduces blisters, cracking, and peeling caused by vapor trapped beneath a finished surface. The Alexander Company specified StoSilco Shield at 780 Regent Street in Madison, Wisconsin (shown), recipient of a 1995 Excellence in EIFS Construction Award from the EIFS Industry Members Association. *Circle 405 on information card.*

ABOVE: Designed to simulate the color and texture of stone, the Renaissance finish coat from TEC, a division of H.B. Fuller, combines granite and marble aggregates in a clear, 100 percent acrylic binder. The water-resistant coating may be applied directly over concrete, masonry, and stucco surfaces, or applied in conjunction with TEC's Ful-O-Mite EIFS. Renaissance is available in shades of brown, white, pink, gold, black, gray, and silver. *Circle 406 on information card.*

TIMELESS WHITE

Photography: Peter Leach, Denver, PA Architect: Hellmuth, Obata & Kassabaum, P.C., Washington, D.C. Precast Manufacturer: Arban & Carosi, Woodbridge, VA



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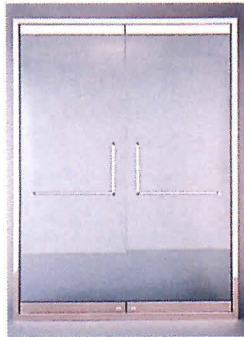
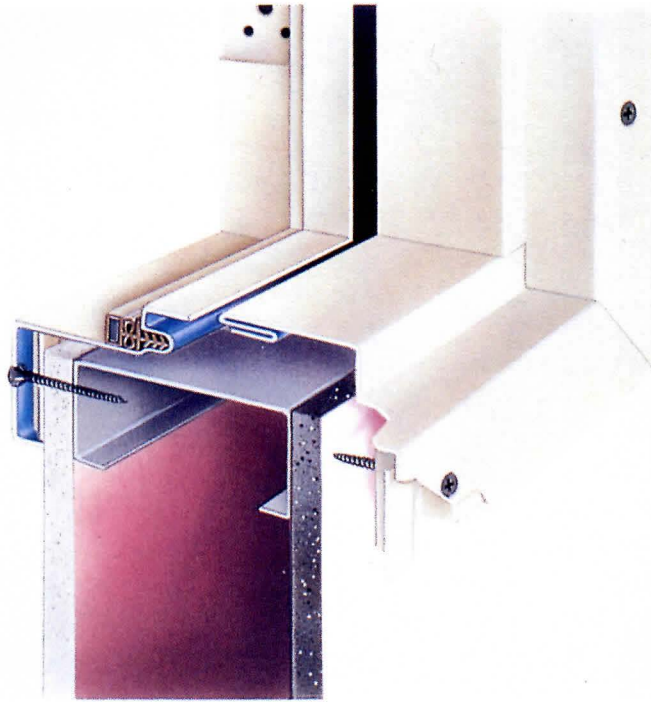
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T H E D E S I G N E R S P A L E T T E

Circle 158 on information card

Products

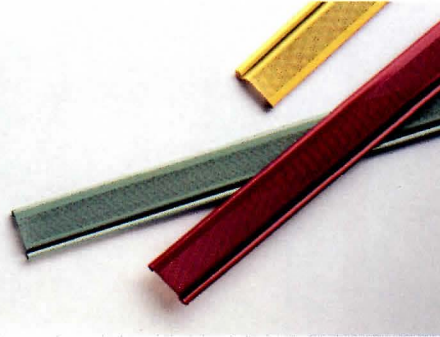
New doors and hardware are designed to ensure security.



TOP: Adjusta-Trim split-jamb steel frame from Benchmark is delivered with a prehung steel door for easy installation. The frame consists of a 16-gauge galvanized steel base jam and 20-gauge galvanized steel closure jams. It can be installed in wood, metal stud, and masonry openings, and fits wall thicknesses ranging from 4 1/8 to 7 inches. Protected by the company's Porcelplas paint, Adjusta-Trim resists rotting, cracking, and warping. A variety of 16- to 24-gauge steel doors are available. For renovations, the system can be installed directly over hollow metal or wood frames.

Circle 407 on information card.

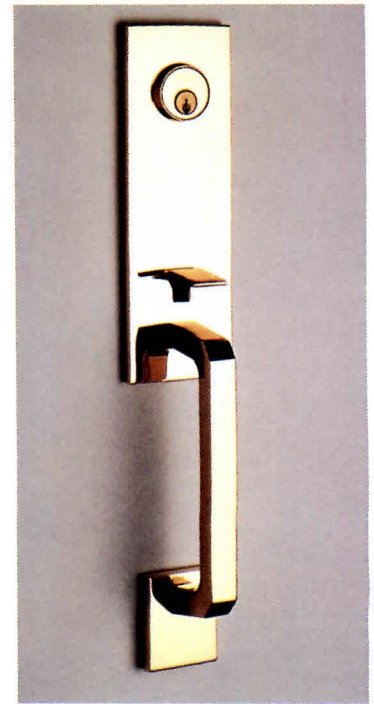
ABOVE: A full line of glass entrances is now available from Vistawall Architectural Products, manufacturers of curtain wall, thermal wall, and skylight systems. The new line offers compatible tempered glass swing doors and sliders, trim sidelights and panels, transom fittings, handles, pivots, closers, headers, and an emergency exit



device. The systems are assembled in ready-to-install packages, complete with fittings and finishes. Vistawall, a division of Butler Manufacturing Company, is based in Terrell, Texas. *Circle 408 on information card.*

ABOVE: Bright colors distinguish the new ScreenGard rolling steel service door from Cornell Iron Works. Steel slats are perforated with pencil-point-size holes, which allow light and air to pass through the door. Available in 100 colors with a polyester or epoxy finish, ScreenGard is constructed of 20- or 22-gauge galvanized steel. Its factory-applied powder coat finish purportedly provides greater resistance to humidity and corrosion than field-applied paint. Cornell Iron Works is based in Mountaintop, Pennsylvania. *Circle 409 on information card.*

TOP RIGHT: Best Lock Corporation introduces the 9K Varsity series of heavy duty, cylindrical-bored, lever locksets. Equipped with a slotted key release



cam and locking lug assembly, the handle permits access with a key even if the lockset is damaged, according to the Indianapolis-based manufacturer. The 9K features an interchangeable core to facilitate quick and inexpensive rekeying. A stainless steel knob sleeve increases the strength of the chassis. Lever handles are constructed of a lightweight zinc alloy; trim is finished in brass or bronze.

Circle 410 on information card.

ABOVE: Designed to complement its existing line of interior levers and knobs, Schlage Lock Company's solid brass Mediterranean Designer handle sets are tough enough to withstand sun, humidity, and precipitation. Three styles are available, the Capri (shown), Corsica, and Cyprus. Each unit is protected with Schlage's durable Ultima finish. The company markets the line in half-set packages, allowing designers to specify different interior and exterior handles. *Circle 411 on information card.*

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Products



Stacking chairs

The Zeta Collection of chairs (above) features a curved maple plywood shell, available in four cut-out designs. The wood shell is mounted on a steel base, protected with a chrome or a black powder coat finish. Manufactured by Charlotte, a division of Falcon Products, Zeta chairs may be stacked ten high and grouped together in auditorium or waiting room settings.

Circle 414 on information card.



Portable furnishings

Wilkhahn's Confair line of portable conference furniture (above) caters to changing office environments. Aluminum-framed tables and desks are equipped with castors to facilitate reconfiguration; chairs and tables can be stacked or folded. Laminate, plywood, wood veneer, and linoleum surfaces are available. Accessories include lecterns, audio-visual carts, and tack boards.

Circle 412 on information card.



Seating with shelves

Optional shelves and splayed, tubular legs distinguish Knoll's Salsa collection, designed by New York architects Peter Stamberg and Paul Aferiat. The lounge chair (above), sofa, and settee accommodate interchangeable side shelves. Beech, cherry, mahogany, maple, or walnut frames contrast with yellow, blue, green, red, or purple legs and shelf brackets. Standard upholstery options include 100 KnollTextiles and Spinneybeck fabrics.

Circle 415 on information card.



Pedestal tables

Solid birch tabletops contrast with tapered, tubular steel legs in the Arena table collection. The Arena Table 400 (above) offers 24- and 28-inch diameter surfaces and measures 29 inches high. Manufactured by the Finnish company Arvo Piirinen Oy, the Arena line, which includes chairs, is distributed by Los Angeles-based Design Finland.

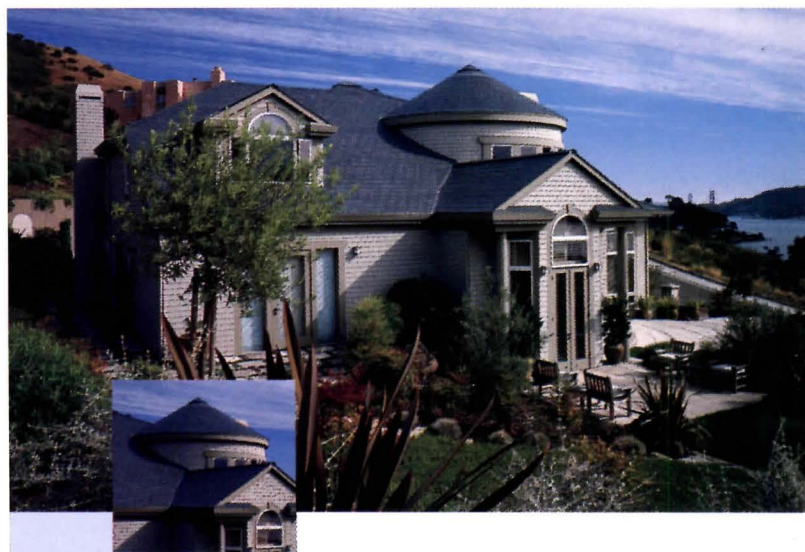
Circle 413 on information card.

Stair treads

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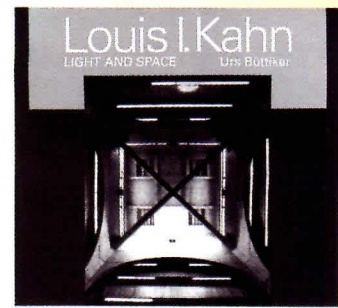
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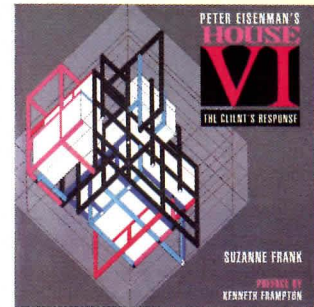
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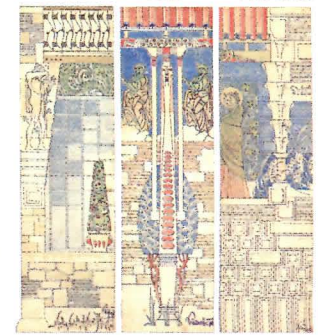
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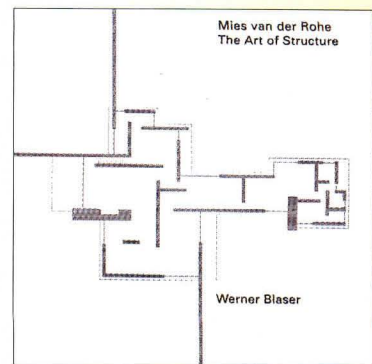
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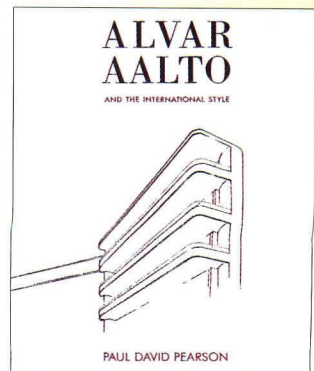
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Project Credits

GENERAL CONTRACTOR: Engelberth Construction
COST: \$3 million; \$107 per square foot
PHOTOGRAPHER: Richard Mandelkorn Photography

DUTCHESS COUNTY HOUSE
RHINEBECK, NEW YORK
ARCHITECT: Dennis Wedlick, New York City
GENERAL CONTRACTOR: Sturbridge Construction
COST: \$110,000; \$110 per sq. ft.
PHOTOGRAPHER: Michael Moran

FIRE AND EMERGENCY SERVICES BUILDING
WASHINGTON, D.C.
DESIGN ARCHITECT: Weinstein Associates Architects, Washington, D.C. (exterior design and detailing)—Amy Weinstein (design principal); Margaret Mook (project architect); Nancy Sussman (project team)
ARCHITECT OF RECORD: Harry Weese Associates, Washington, D.C. (prime consultant and project management)—John Corely (principal-in-charge); Jose Silva (project architect); Karl J. Landes (project manager)
LANDSCAPE ARCHITECT: Harry Weese Associates
ENGINEERS: James Madison Cutts (structural); John J. Christie + Associates (mechanical/electrical); VIK A (civil)
CONSULTANT: Scharf Godfrey (cost estimator)
GENERAL CONTRACTOR: Columbia Construction Company
COST: Withheld at owner's request
PHOTOGRAPHER: Maxwell Mackenzie

West

NATIONAL WILDLIFE ART MUSEUM
JACKSON, WYOMING
ARCHITECT: C.W. Fentress J.H. Bradburn and Associates, Denver—Curtis W. Fentress (principal-in-charge of design); James H. Bradburn (principal-in-charge of production); Brian Chaffee (project architect); Greg Gidez (job captain); Gary Morris, Brian Ostler, Anthia Kappos, Tim Roush (design team)
LANDSCAPE ARCHITECTS: Civitas; Verdona Landscape Architecture
ENGINEERS: Jirsa-Hedrick & Associates (structural); M-E Engineers (mechanical); Consulting Engineers (electrical); Jorgensen Engineering & Land Surveying (civil)
CONSULTANTS: Biota Research and Consulting (wildlife assessment); Hydrokinetics (ground water hydrology); Wyoming Alarm Protection (security); Thomas Ricca Associates (kitchen); David L. Adams Associates (audiovisual)

Plains

HOLT COMPANIES CORPORATE HEADQUARTERS
SAN ANTONIO, TEXAS
ARCHITECT: Lake/Flato Architects, San Antonio, Texas—Ted Flato (principal-in-charge); Scott Glen (project architect); David Lake, Graham Martin, Billy Johnson (project team)
ENGINEER: Alpha Consulting Engineers (structural)
GENERAL CONTRACTOR: Bill Cox Constructors
CONSULTANT: Carrington-Gallagher (artwork)
COST: \$68 per sq. ft.
PHOTOGRAPHER: Paul Hester/Hester/Hardaway

ESEO FEDERAL CREDIT UNION
OKLAHOMA CITY, OKLAHOMA
ARCHITECT: Elliott + Associates Architects, Oklahoma City—Rand Elliott (principal); David Foltz (project architect)
LANDSCAPE ARCHITECT: Brian Dougherty
ENGINEERS: Eudaley Engineers (structural); Allen Consulting (mechanical/electrical)
CONSULTANTS: Phil Easlon (lighting); Moody Coffman (acoustics)
GENERAL CONTRACTOR: Smith & Pickel Construction
COST: \$1 million; \$114 per square foot
PHOTOGRAPHER: Bob Shimer/Hedrich-Blessing

Northeast/Mid-Atlantic

PROCTOR ACADEMY LEARNING CENTER
ANDOVER, NEW HAMPSHIRE
ARCHITECT: Schwartz/Silver Architects, Boston—Warren R. Schwartz, Robert J. Miklos (principals); David B. Stern (project architect); Rania Matar, Diane McCafferty, Jon Traficonte, John Nakazawa, Mark Schatz (design team)
LANDSCAPE ARCHITECT: William Hoffman
ENGINEERS: Chaloff Consulting Engineers (structural); Yeaton Associates (mechanical); C & M Engineering (electrical); Lepene Engineering (civil)
CONSULTANT: John Moriarty & Associates (cost estimator)

GENERAL CONTRACTOR: Jacobsen Construction Company
COST: \$10.8 million; \$140 per sq. ft.
PHOTOGRAPHER: Nick Merrick, Hedrich-Blessing, except as noted

DESIGN STUDIO
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HENDERSON, NEVADA

ARCHITECT: Tate & Snyder Architects, Henderson, Nevada—William E. Snyder (principal-in-charge); J. Windom Kimsey (design architect); Jonathan Rappel (project architect); Mike Anderson, Troy Bettridge, Jon Drake, Steve Foster, Shelly Hayden, Mario Reyes, Joe Ross, Ziao Tran, John Treston, Patti Wills, Lisa Buchanan (design team)

LANDSCAPE ARCHITECT: S.W. Southwick & Associates

ENGINEERS: Harold Epstein (structural); JBA Consulting Engineers (mechanical); Peter Hyla (electrical); L.R. Nelson (civil)

GENERAL CONTRACTOR: Martin-Harris Construction
COST: \$746,000; \$84 per sq. ft.

PHOTOGRAPHER: Peter Malinowski/In-Site Architectural Photography

PAULK HOUSE
SEABECK, WASHINGTON

ARCHITECT: James Cutler Architects, Bainbridge Island, Washington—James L. Cutler (principal-in-charge); Bruce Anderson (project architect)

ENGINEER: RSP/EQE (structural)

GENERAL CONTRACTOR: Pleasant Beach Construction

COST: Withheld at owner's request

PHOTOGRAPHER: Art Grice

Midwest

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CHICAGO, ILLINOIS

ARCHITECT: Ross Barney + Jankowski, Chicago—Carol Ross Barney (principal); James Jankowski, John A. Fried (project team)

ENGINEER: Stone & Webster

GENERAL CONTRACTOR: Ruby Construction

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PHOTOGRAPHER: Steve Hall, Hedrich-Blessing

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EVANSTON, ILLINOIS

ARCHITECT: Joseph Powell Architect, Philadelphia—Joseph Powell (principal-in-charge); David Wohl (project architect); Thomas Parr, Bary Ginder (project team)

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LANDSCAPE ARCHITECT: Jonathan Alderson

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South

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ARCHITECT: Merrill, Hatch and Associates, Vero Beach, Florida—Scott Merrill, Hollie Hatch (principals-in-charge); George Pastor (project manager)

ENGINEERS: Frank Farley (structural); Knight McGuire (civil); Dick Smith (mechanical)

GENERAL CONTRACTOR: Windsor Construction (tennis cottages); Barth Constructon (sideyard houses)

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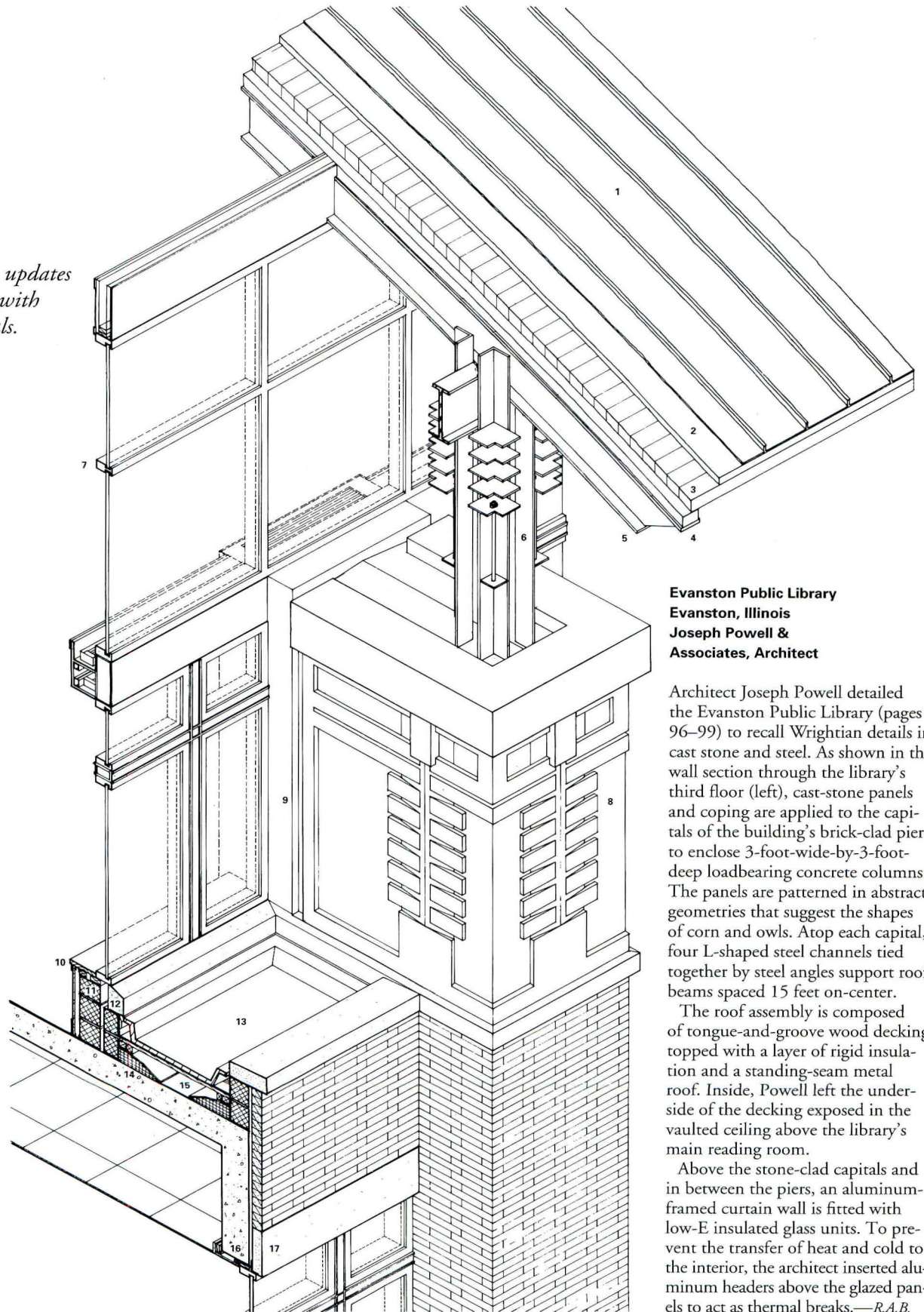
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Evanston Public Library
Evanston, Illinois
Joseph Powell &
Associates, Architect

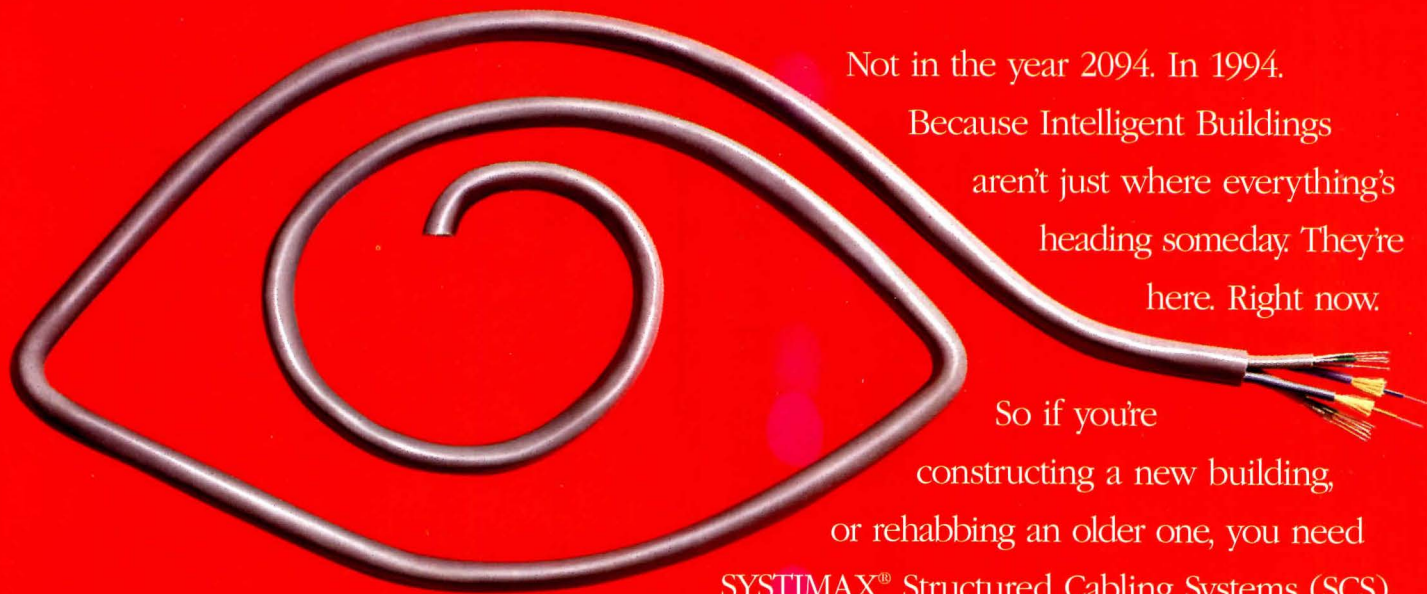
Architect Joseph Powell detailed the Evanston Public Library (pages 96–99) to recall Wrightian details in cast stone and steel. As shown in the wall section through the library’s third floor (left), cast-stone panels and coping are applied to the capitals of the building’s brick-clad piers to enclose 3-foot-wide-by-3-foot-deep loadbearing concrete columns. The panels are patterned in abstract geometries that suggest the shapes of corn and owls. Atop each capital, four L-shaped steel channels tied together by steel angles support roof beams spaced 15 feet on-center.

The roof assembly is composed of tongue-and-groove wood decking topped with a layer of rigid insulation and a standing-seam metal roof. Inside, Powell left the underside of the decking exposed in the vaulted ceiling above the library’s main reading room.

Above the stone-clad capitals and in between the piers, an aluminum-framed curtain wall is fitted with low-E insulated glass units. To prevent the transfer of heat and cold to the interior, the architect inserted aluminum headers above the glazed panels to act as thermal breaks.—*R.A.B.*

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- 2 2 1/2-INCH RIGID INSULATION
- 3 4-BY-6-INCH WOOD DECKING
- 4 4-INCH WOOD NAILER
- 5 STEEL ROOF BEAM
- 6 STRUCTURAL STEEL ROOF SUPPORT
- 7 ALUMINUM CURTAIN WALL WITH LOW-E INSULATED GLASS
- 8 CAST-STONE PANEL
- 9 DRAINAGE REVEAL
- 10 WOOD SILL
- 11 CONCRETE BLOCK
- 12 CAST-STONE SILL
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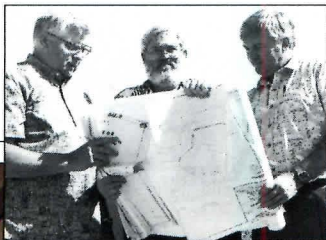
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AT&T Network Systems and Bell Laboratories service and support.  And if that isn't smart, what is? Call us at 1 800 344-0223, ext. 4014. Outside the U.S., call 602 233-5855.

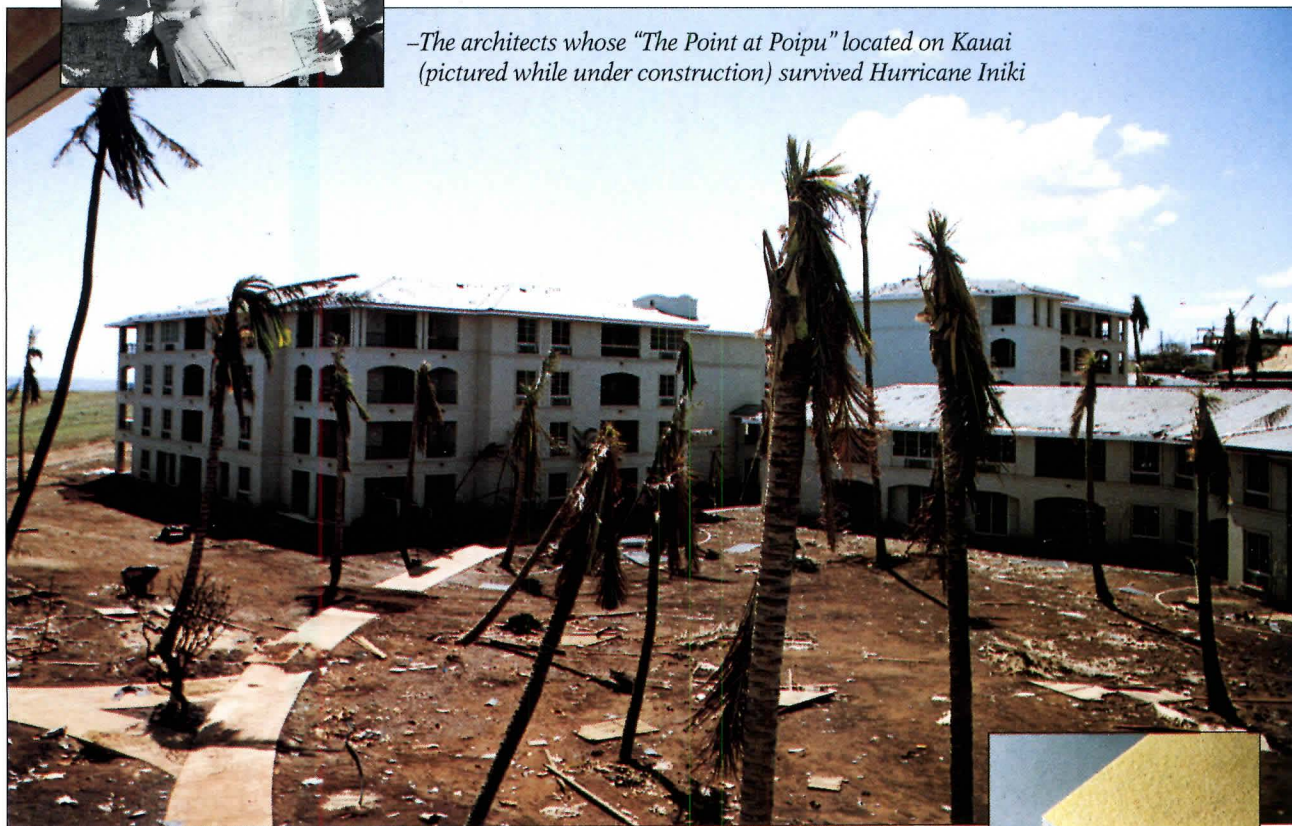
AT&T SYSTIMAX® SCS. The last cable system you'll ever need.



"We chose G-P Dens-Glass® Gold to protect the project from moisture. We were not expecting a hurricane."



—The architects whose "The Point at Poipu" located on Kauai (pictured while under construction) survived Hurricane Iniki



Architect: Group 70 International, Inc. / General Contractor: Fletcher Pacific Construction Company

G-P: You figured you'd use Dens-Glass® Gold to keep moisture out of the condos, and it ends up ...

ARCH: ...helping the condos stand up to hurricane force winds as well. The combination of the synthetic plaster we used and the Dens-Glass Gold gave the condos more structural stability than regular gypsum board could have.

G-P: You counted on Dens-Glass Gold for protection from sea spray, right?

ARCH: Yeah, constant sea spray riding in on lovely breezes up to 42 knots. That was a key reason we specified Dens-Glass Gold—paper-face can't touch it for moisture protection.

G-P: So when Iniki arrived, the condos survived the winds and the rain.

ARCH: Frankly, we were astonished. You know, over 85% of the buildings on the island were damaged. No one would have expected Dens-Glass Gold to withstand that kind of storm. But it is made for high performance. Its construction is totally unique. Silicone and fiberglass, right?

G-P: Silicone-treated core and embedded fiberglass mats front and back, with the gold-colored alkali-resistant coating.

ARCH: And it's those fiberglass mats that make it more stable than paper-face.

G-P: By the way, G-P backs Dens-Glass Gold with a six-month limited warranty against moisture deterioration when it's fully exposed to the weather. It's also warranted for 5 years against manufacturer defects.*

G-P: So, you're a pretty satisfied customer?

ARCH: And you're a master of understatement.

*For a free brochure on Dens-Glass Gold including warranty information, call 1-800-BUILD GP (284-5347), Operator 731. For technical assistance, call 1-800-225-6119. (In Georgia, call (404) 987-5190.) Look for us in Sweets, Section #09250/GEN.



Solve it with G-P™



Georgia-Pacific

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