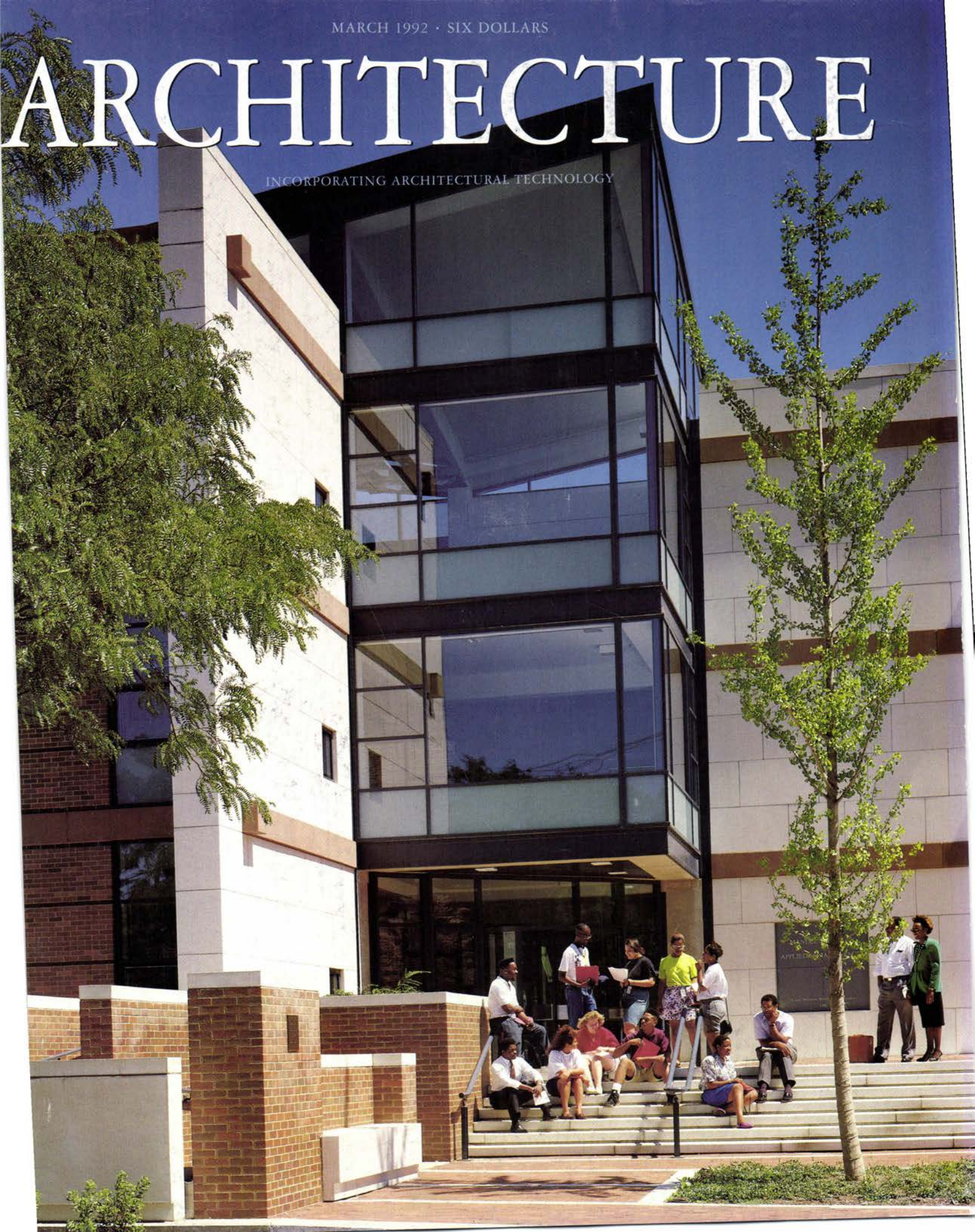


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Island of Hope, Island of Tears

WHEN THE ELLIS ISLAND MUSEUM OF IMMIGRATION OPENED IN 1990, MOST of us heaved a sigh of relief that this national shrine to our ethnic diversity had been saved. For years, America's "portal of hope and freedom," through which 12 million people passed, had been the site of real estate speculation, including proposals for a women's prison, a gambling casino, a college, and an immigrants memorial designed by Philip Johnson. Now the speculators are at it again, threatening Ellis Island with demolition and commercial development. If the National Park Service (NPS) has its way, 12 buildings on the southern part of the island will be razed to make way for a 375,000-square-foot international conference center. Eighteen other structures will be rehabilitated to provide hotel rooms, meeting areas, restaurants, and other facilities.

Advocates of the scheme argue that such a center will boost tourism, generate tax revenues, and create new jobs. Meanwhile, NPS officials contend that the crumbling, early 20th-century structures to be demolished (left in photo)—contagious disease wards, mortuary, office building, powerhouse, kitchen, and WPA recreation building—constitute only a small percentage of Ellis Island's buildings and are not critical to the appreciation of its past. The new Museum of Immigration to the north, they maintain, is enough to commemorate our national immigrant heritage.

But not all immigrants to the U.S. passed through Ellis Island's Great Hall. Many were deemed ill enough to be quarantined in the wards across the island, or declared unfit to enter our country altogether, and sent home. Fear is as much a part of the history of Ellis Island as hope; an "island of tears" is how many viewed the immigration station. Preserving the island's dark side is as crucial to interpreting its history as celebrat-

ing the Great Hall. Transforming part of our foremost symbol of democratic freedom into an exclusive conference center is at odds with its very meaning.

Another development, recently approved by Congress, will similarly diminish the historic integrity of Ellis Island. Funds have been allocated to build a permanent bridge linking the western side of the island to Liberty State Park in New Jersey. Currently, visitors travel to Ellis Island by boat, experiencing the way their ancestors came to the island. The bridge will remove this sense of arrival, delivering visitors through a back-door route and destroying the island's dignified isolation.

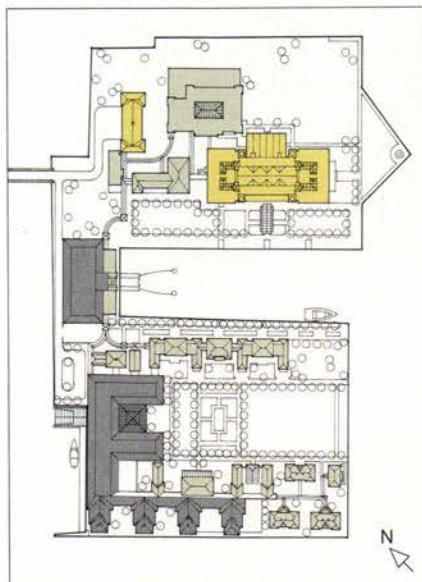
Since the Park Service announced its plans last December, more than 25 organizations and agencies have voiced opposition to its proposals. This month, the NPS will meet with the Advisory Council on Historic Preservation to hammer out a compromise, which must ultimately be approved by U.S. Secretary of the Interior Manuel Lujan. What Lujan should carefully consider is the long-term future of one of this country's most treasured national resources. Nearly half of all U.S. citizens are descended from immigrants who entered the country through Ellis Island. These

Americans—and indeed all Americans—deserve to experience this important part of our heritage in its entirety, including the memory of tears. ■

—DEBORAH K. DIETSCH

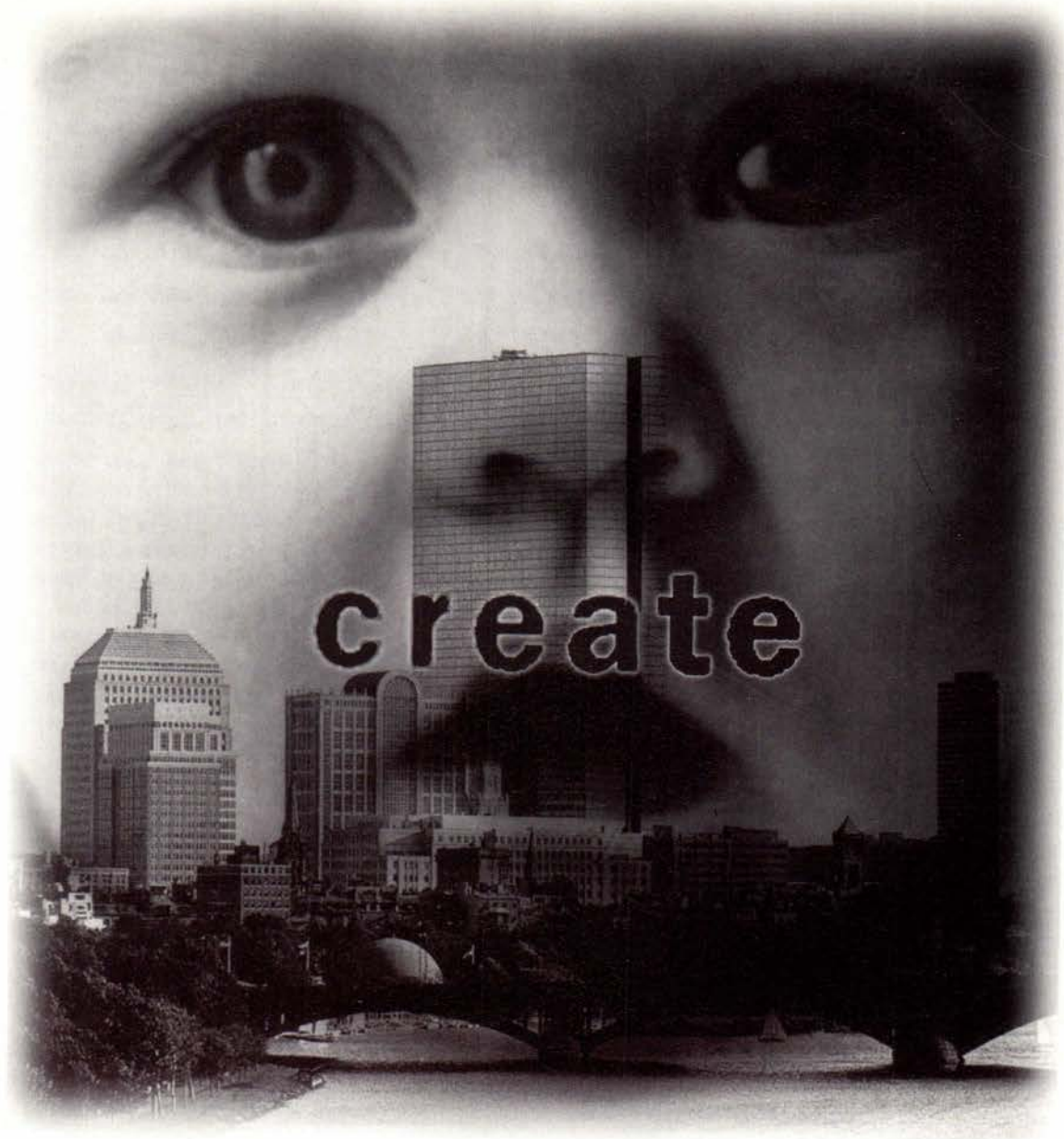


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PROPOSED PLAN FOR ELLIS ISLAND

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LETTERS & EVENTS

Increasing earning power

I take very strong exception to the position articulated by Richard Abrahams in his letter "Earning Power" (December 1991, page 16). The reason the public does not have a realistic understanding of the monetary value of architectural services is that architects do not have a realistic understanding of, or perhaps belief in, their own worth.

When architects routinely provide services for absurdly low fees, the public comes to expect that these fees indicate the market value of our services. I think we must all follow the rules of common sense: understand what you must charge to support your practice, earn a living, and make a profit; understand that a project on which you lose money is worse than no project at all; have the resolve to walk away when unreasonable fees are offered; do not undercut your competitors, who are actually your compatriots.

*Roger W. Bass, AIA
Bass & Mickley Architects
Washington, D.C.*

Sharing credit

I was both flattered and angered by your article "Copyrighting Architecture" (December 1991, pages 95-97). The designer and "author" of the Scarsdale house was never mentioned. As an employee of Nadler-Philopena Associates in 1985, I alone spent many months developing the design and preparing construction documents for the original Scarsdale house. The firm principal supervised my work, but his sketch for the front elevation was very different from the actual built house. So who really "owns" this design? In my heart, I believe I do.

I now work for a Boston firm specializing in museum planning and architecture, with projects throughout the U.S. We often associate with a local architect, though we retain the title of design architect. Yet on several recent projects, the associate architect neglected to include our firm as part of award submissions and magazine credits. We were upset to discover that a local firm had once even won an award for our firm's design.

Until the practitioners of architecture become more fair-minded and generous about sharing design credit, no law will change the real problem of design authorship.

*Richard I. Leaf, AIA
E. Verner Johnson and Associates
Boston, Massachusetts*

Edge cities

The design section of the December 1991 issue on edge cities makes an important and timely contribution to the profession. For years, many architects have been taking shots at edge city development without recognizing the vitality, potential, and challenge of this evolving urban form, or the powerful appeal it exercises for so many people.

There is a tremendous need for, and an opportunity to create, richer urban design, broader cultural diversity, improved sustainability, and a stronger sense of place and community in the edge cities, where so many millions now work and live, and where so

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many more are likely to settle.

Congratulations on this stimulating exploration of urban structure. Not only the Garreau article, but also that by Kieran and Timberlake and the coverage of Tustin Market Place, Reston, the Citadel, and Kentlands provide valuable grist for the mill of the architect/planner/urban designer.

*Frank E. Hotchkiss, AIA, AICP
Laguna Niguel, California*

Corrections

Norman Rosenfeld, AIA, Architects is the associate architect of St. Luke's/Roosevelt Hospital Center (January 1992, page 75).

Tate & Snyder is the architect of the Sahara West Library and Museum (January 1992, page 25), with Meyer, Scherer & Rockcastle as design consultant.

Alan Lapidus was the architect-of-record for the Disney Contemporary Resort Meeting Facility (January 1992, pages 62-69), with design architect Gwathmey Siegel & Associates.

March 3-April 30: "Small Firms, Great Projects," exhibit on display at the AIA/San Francisco Chapter. Contact: Liz Muffeny, (415) 362-3948.

March 9-12: CAD & Engineering Workstations '92 conference and exposition at the Anaheim Convention Center. Contact: Keith Reehl, (703) 698-9600.

March 12-14: Seventh annual Restaurant Hotel International Design Exposition & Conference, at the Los Angeles Convention Center. Contact: Barbara Downey, (201) 346-1400.

March 14: Rice University symposium "The City Imagined," exploring changing patterns of the contemporary city. Contact: Joan Reid, (713) 285-5202.

March 17-21: "Making Cities Livable" conference at the Fairmont Hotel in San Francisco. Contact: Suzanne H. Crowhurst Lennard, (408) 626-9080.

March 18-20: WestWeek '92, at the Pacific Design Center in Los Angeles. Contact: Julie D. Taylor, (213) 657-0800.

March 23-27: Workshop on Masonry Conservation in Williamsburg, Virginia, sponsored by RESTORE. Contact: (212) 477-0114.

March 26-27: "Environmental Protection: Planning, Law, and Guidelines," training program sponsored by the American Institute of Certified Planners in Phoenix, Arizona. Contact: Kristen Pridgeon, (312) 955-9100.

March 27: AIA Government Affairs Day, at USC School of Architecture Contact: Vinceena Kelly, (310) 495-1469.

March 28: "William Turnbull: A Regional Perspective," exhibit at the Contemporary Arts Center in Cincinnati. Contact: Stacey Simms, (513) 721-0390.

April 1: Application deadline for The New York Academy of Art summer program in classical architecture. Contact: Donald Rattner, (212) 941-8088.

April 3: Registration deadline for "Defining the Edge: The City and the Bay," San Francisco design competition open to architectural interns and students. Contact: AIAS, (202) 626-7472.

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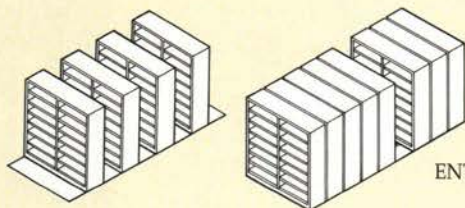
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〔 BEFORE 〕

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NEWS

White House Exhibit ■ 75 Years of Chicago Architecture ■ Millennial Message from the Cooper-Hewitt

Accent Salutes America's Most Famous Residence

ACCENT ON ARCHITECTURE was established three years ago to celebrate the AIA Gold Medal and Honor Awards, but this year's gala, held on January 22 in Washington, D.C., focused on the nation's most recognized landmark—the White House. As the official kick-off to the 200th anniversary of the laying of the cornerstone of the building, Accent spotlighted the Executive Mansion's social and architectural history. Programs included an exhibition at The Octagon Museum (page 24); a lecture by White House architectural historian William Seale, author of *The President's House*; a program for elementary and secondary students; a design charette for local high school students (bottom right); and personal recollections on growing up in the White House by Luci Baines Johnson (bottom inset).

Befitting the high profile of the White House during the festivities, First Lady Barbara Bush (top inset) presented AIA's 50th Gold Medal to Benjamin C. Thompson (pages 56-61) at a gala awards ceremony attended by 2,000 people at the Kennedy Center for the Performing Arts. Crediting Thompson for creating "joyful, robust, colorful, exciting" buildings, Mrs. Bush declared, "It takes a special vision to see the possible in what seems impossible . . . Benjamin Thompson teaches lessons that go far beyond architecture."

In his acceptance speech, Thompson acknowledged the global nature of today's practice. "World problems cry out for the healing vision of architects," the Gold Medalist implored. Thompson also challenged his colleagues "to say 'yes' to rebuilding better villages and towns, 'yes' to kinder landscapes, 'yes' to cities that are human and fun." But he concluded that even more importantly "the world needs architects who dare to say 'no' when we know that develop-

ment is wrong for the environment."

The highlight of the gala was sandwiched between speeches and skits devoted to White House history. It was a sophisticated videotaped presentation of the 10 Honor Award-winning buildings (pages 48-55) with commentary by their owners; the 25-Year Award winner, Salk Institute for Biological Studies in La Jolla, California, designed by Louis Kahn in 1966; and buildings by AIA Firm Award winner James Stewart Polshek and Partners (pages 68-79).

Jonas Salk (center inset), inventor of the polio vaccine and Kahn's client, accepted the 25-Year Award with a speech that recalled his association with the Philadelphia architect. "By creating an environment that was in itself a work of art," Salk explained, "it was my hope that the Institute would inspire the art of science and [thereby] improve the human condition."

Accent on Architecture is held in conjunction with Grassroots, a four-day leadership conference established to educate state and local AIA officers about programs and government regulations that affect the practice of architecture. In addition to public outreach and practice workshops, this year's 500 Grassroots participants attended seminars by Irving R. Levine of NBC News and Carolyn Kane of the National Federation of Independent Businesses. In "America's Healthcare Crisis: Defining the Architect's Role," U.S. Representative Dan Rostenkowski, (D-Illinois), described his own prescription for healthcare reform, which includes allowing small businesses to deduct 100 percent of health insurance premiums and reforming medical malpractice provisions. These recommendations are endorsed by the AIA, which estimates that the number of member firms offering health insurance to employees has dropped approximately 20 percent over the past two years. —L.N.



As the highlight of a Grassroots Congressional reception, AIA presented its first Thomas Jefferson Awards for Public Architecture to James Ingo Freed, partner of Pei Cobb Freed & Partners (top left); Senator Daniel Patrick Moynihan of New York (top center); and Architect of the Capitol George M. White (top right). The awards jury cited the inaugural winners for distinguishing themselves throughout their careers as individuals committed to excellence in "architecture that has lasting, beneficial impact on the lives of millions of Americans."

In another Accent outreach program, 38 students at Washington, D.C.'s Spingarn High School submitted "late entries" to the original 1792 design competition for the White House. Gold Medalists Charles W. Moore, Joseph Esherick, and Ben Thompson (below) and 1992 Firm Award recipient James Stewart Polshek (bottom) reviewed the schemes, which were presented to Barbara Bush.



MICHAEL GEISSINGER

MICHAEL GEISSINGER

DETAILS

The California Museum of Science & Industry has selected the Newport Beach, California, office of **Zimmer Gunsul Frasca Partnership** to design its new 600,000-square-foot facility in Los Angeles. New York-based **Hardy Holzman Pfeiffer Associates** has been awarded a contract to expand and renovate the Rainbow Bridge U.S. Toll Plaza at Niagara Falls, New York. **Lake/Flato Architects** of San Antonio, Texas, is planning an extension to Austin's Laguna Gloria Art Museum on its 12-acre site. Two 1946 prototypes of **R. Buckminster Fuller's** aluminum and Plexiglas Dymaxion House were recently donated to the Henry Ford Museum and Greenfield Village in Dearborn, Michigan, by the Graham family. **Schwartz/Silver Architects** of Boston has been commissioned to design a \$4 million Learning Center, containing a library and computer facility, for Proctor Academy in Andover, New Hampshire. The firm has also been selected to design two dormitories, faculty housing, and a campus quadrangle for the The Middlesex School in Concord, Massachusetts. **John Syvertsen**, the 1991 chairperson of the AIA's Committee on Design, recently joined the Deerfield, Illinois-based firm **O'Donnell Wicklund Pigozze and Peterson Architects** as a principal. **Albert C. Martin & Associates** of Los Angeles has been selected to design a 1.4 million-square-foot office complex for P.T. Gajah Tunggal Mulia and Bank Dagang Nasional Indonesia in Jakarta, Indonesia. Plans for the 400-foot-tall Toronto Arts Building (below), designed by Boston-based **Moshe Safdie and Associates** for Toronto's theater district, have recently been approved by the city council, and construction of the building is expected to begin this fall.



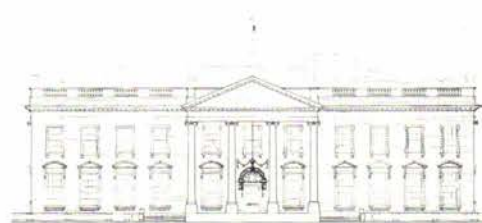
White House Exhibit at Octagon

AIA UPDATE

THE WHITE HOUSE WILL celebrate its 200th anniversary in October, and to convey its architectural history, the American Architectural Foundation (AAF) and the White House Historical Association have organized "White House: Image in Architecture 1792-1992." The exhibition of drawings, photographs, documents, and artifacts on view at The Octagon and AIA headquarters until April 12 was opened by First Lady Barbara Bush during Accent on Architecture.

Six original entries in a 1792 design competition for the Executive Mansion portray a motley collection of visions for a structure intended to reflect democratic ideals. President George Washington, who selected a scheme by Irish carpenter James Hoban (represented by Hoban's 1793 north elevation), prescribed a house that would accommodate the immediate needs of the President, yet allow for change. Hoban modeled his modest Neoclassical residence on the Duke of Dublin's Leinster House, a 1745 Irish-Georgian manor—a "sensible scheme," in the words of historian William Seale, for a house that would become more significant for its political and social history than its architecture.

Aside from the construction of the south porch in 1824 and the north portico in 1829, Hoban's design has remained unchanged; the interiors, however, have undergone extensive renovation, beginning in 1814 after British soldiers burned the building. The exhibition features 1902 drawings of the Beaux Arts East Room and State Dining Room, produced in ink on linen by McKim, Mead & White. These rooms and original 18th-century features were destroyed when the interior was entirely reconstructed during the Truman Administration.



Anthony St. John Baker's pastoral 1826 watercolor (top) contrasts with 1990 elevation (above center). Model viewed by (left to right) AIA Executive Vice President James Cramer; HABS Project Supervisor Frederick Lindstrom; First Lady Barbara Bush; and AIA President Cecil Steward.

Also on display is a 1908 letter from outgoing President Roosevelt to then-AIA President Cass Gilbert, charging the Institute with "preserving a perpetual eye of guardianship over the White House." In 1989, the AIA formed a committee to advise the White House on its most recent refurbishment which has included stone repair and the stripping of two centuries' worth of paint. Displayed in the AIA gallery are measured ink drawings by the Historic American Buildings Survey (HABS), which has been documenting the White House as part of the continuing restoration effort. —K.S.

Reinterpreting 75 Years of Chicago Architecture

CHICAGO'S IRREPRESSIBLE STANLEY TIGERMAN was at it again this winter, engaging in the risky business of categorizing the work of colleagues who aren't dead yet. Tigerman, who has organized controversial exhibitions such as "Chicago Architects" (1976) and "Late Entries to the Chicago Tribune Tower Competition" (1978), recently curated "Halftime," a rethinking of the last 75 years of Chicago architecture. As the architect introduced the show in January at The Arts Club of Chicago to an audience of more than 200—including several practitioners whose work he was about to critique—he cracked, "This show should be subtitled 'A Test of Friendship.'"

The raison d'être for "Halftime" was the 75th anniversary of The Arts Club, whose spare interior just off North Michigan Avenue was designed by Mies van der Rohe in 1950. The exhibit, on view at the club until March 11, broke Chicago architecture into four movements: Evolving Modernism (1916-66), Neo-Miesianism (1956-76), Postmodernism (1976-86), and Deconstructivism (1986-91). Each movement was half as long as the one before it—thus, the title "Halftime."

The exhibition reviewed the work of 75 architects, including Tigerman—seemingly the perfect number to celebrate The Arts Club's 75th anniversary. But was the number too perfect? The central question about "Halftime" was whether it offered an important new perspective on Chicago's architecture, or whether it represented little more than a diabolically clever numbers game. The answer was that the exhibition was at once enlightening and distorting, with Tigerman occasionally trapping himself in a web of his own making.

Tigerman designed the show as part homage to Mies, part architectural joke. "Halftime" employed a Spartan palette of black, white, and gray; a gridded plan of four freestanding walls for each of the four movements (appropriately, Deconstructivism's wall was skewed diagonally); and a grid of black-and-white photographs on each wall. On the reverse sides of the walls, a small table offered a book open to two pages that identified the photographs, two votive candles, plus a custom-designed kneeler cushion—all tongue-in-cheek homages to the demigods of Chicago architecture. Each cushion was decorated with a symbol indicating the preferred structural system of its era: An "I" represent-

ing steel I-beams, for example, graced the pillow on which one knelt before the altar of Neo-Miesianism.

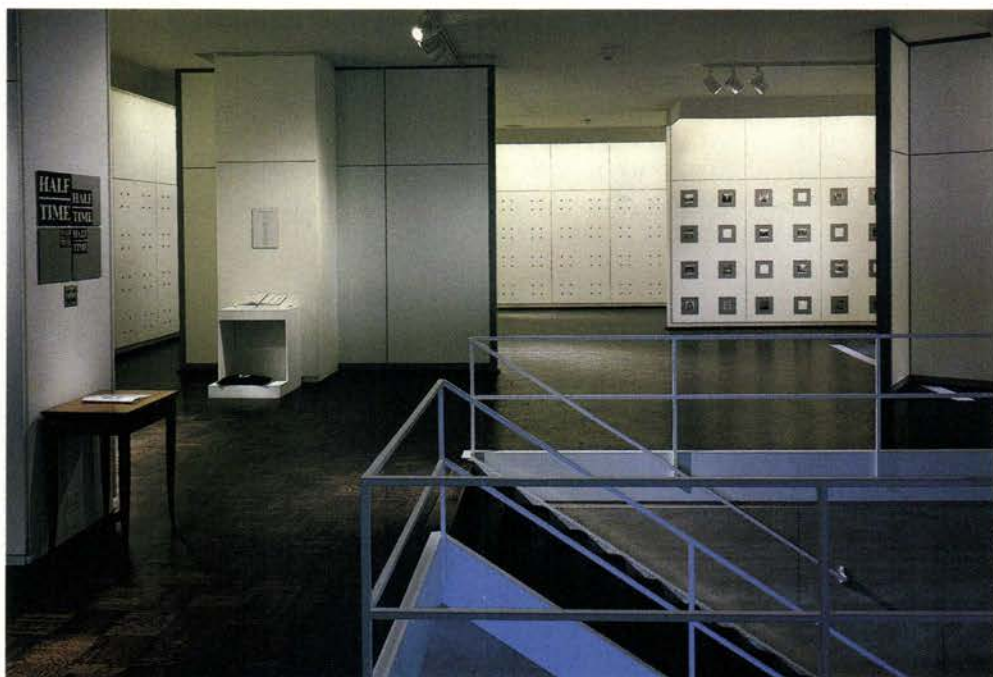
Within each of the four movements, Tigerman came up with a "halftime event" that presaged the beginning of the next movement. Halfway through the 20-year span of Neo-Miesianism, for example, Robert Venturi's 1966 publication *Complexity and Contradiction* opened the way to Postmodernism.

The heroes of "Halftime" were found in "Evolving Modernism," their names a mix of the familiar (Mies, Sullivan, and Wright) and the unfamiliar (Andrew Rebori, George Fred Keck, Abel Faigy). Although their designs differed widely stylistically, these architects shared a common struggle, Tigerman asserts. They did not exploit history in order to legitimize their work. The vast majority of them, he notes, "were rugged individualists."

Architects in the other three movements did not fare as well under Tigerman's scrutiny. Reviewing the work of "Neo-Miesians" in the show's catalogue, he writes, "The architects of 'the city of big shoulders' during this monolithic period also had big shoulders that supported little above them." It is too soon to judge the impact of Postmodernism, Tigerman maintains, adding that the movement "came and departed as quickly as a lake-effect storm," a reference to the snowstorms that whip off Lake Michigan. As for



Tigerman's "Halftime" exhibition at the Miesian Arts Club of Chicago depicts four periods of the city's architecture through grids of photographs mounted on freestanding walls (below). The black-and-white photographs (above) shrink in size to convey the decreasing lifespan and quality of each successive architectural movement, from Evolving Modernism to Deconstructivism. The photos are identified in books on "altars" adjacent to the walls.



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TECHNOLOGY BROUGHT TO LIGHT

OSRAM

Chicago Architecture *continued from page 25*

Deconstructivism, he observes that its leading teachers in Chicago are ambivalent about building, but their determination to reexamine architecture is "healthy, if not utterly scintillating."

Tigerman left the visitor wondering how long the next "halftime" movement will last—two-and-a-half years? But the fundamental weakness of the show's sequence-of-styles approach was that it gave short shrift

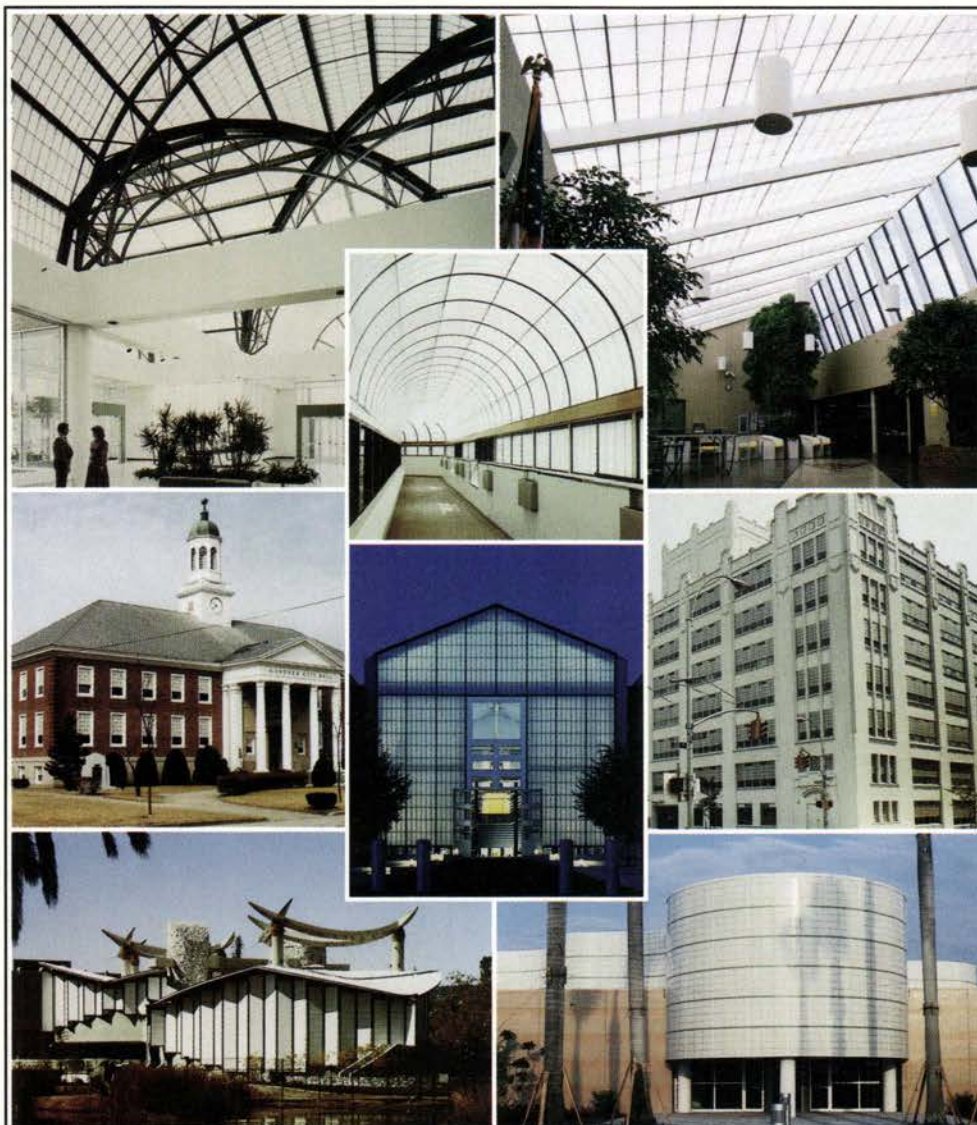
to ongoing design wars, such as the battle between Modernism and Classicism, that continue to characterize architecture in Chicago and worldwide. To prove the point, one need only consider the recently opened Harold Washington Library Center in Chicago; the Postmodern entry by Hammond Beeby and Babka won a 1988 design-build competition in a supposedly Deconstructivist era.

Nevertheless, "Halftime" had its redeeming qualities, not least of which was its ingenious installation. Tigerman's celebration of the works of early Modernists such as Rebori and Keck shed new light on the depth and breadth of Modernism in Chicago in the early 20th century. Moreover, Tigerman argued compellingly during his lecture at The Arts Club that it is time to "reconstruct" architecture, especially to address broader social problems such as homelessness.

Yet "Halftime" offered little sense of how that aim will be accomplished, other than Tigerman's optimistic observation that Chicago architects are no longer willing to "build autistically." If genuine reconstruction is to occur, it must embrace art and politics, not only incorporating the aesthetic traditions of Mies, Sullivan, and Wright, but the urban planning legacy of Daniel Burnham. It was Burnham's leadership—especially through his celebrated plan of 1909—that gave the Chicago area its renowned network of waterfront parks and forest preserves. Millions of people enjoy these open spaces every day; but, alas, Burnham died in 1912—a few years too early to make it into "Halftime."

—BLAIR KAMIN

Blair Kamin covers architecture and the arts for the Chicago Tribune.



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Kneelers and votive candles (above) encouraged visitors to pay their respects to Chicago's Neo-Miesians, Modernists, Postmodernists, and Deconstructivists.

Cooper-Hewitt's Millennial Message

MICHAEL GRAVES' FAMOUS TEAPOT Juxtaposed with a nuclear mushroom cloud—good-morning head of steam versus good-night blast of gas—typified the sardonic tone of the "Edge of the Millennium" design symposium, sponsored by the Cooper-Hewitt National Museum of Design in January. That scenario, evoked by Tibor Kalman, principal of the product design firm M & Co., and *Metropolis* design critic Karrie Jacobs, in their introductory media presentation "The End" (not of time, but of design) was an apt metaphor for the symposium. Held at The Cooper Union for the Advancement of Science and Art in New York City, the event included nearly 40 architects, designers, educators, and critics whose talks and slide presentations addressed the role of design at the end of the 20th century.

In a presentation entitled "The Apocalyptic Moment," Syracuse University professor of political science Michael Barkun postulated that the recent dramatic changes in world politics and economics, coupled with the possibility of nuclear accident or technological calamity, have made odd bedfellows of religious fundamentalists, techies, and political partisans to the right and left. The most tangible result of this unprecedented alliance, Barkun believes, is Biosphere II—the vast glass-enclosed, manmade environment in the Arizona desert (*ARCHITECTURE*, May 1991, pages 76-81)—an unworkable paradigm for design-enhanced survival.

Yale architecture professor Alan Plattus moderated a session devoted to urban design called "Four World Cities: London, Los Angeles, Mexico City, Tokyo." Reflecting upon the notion of Paris as the capital of the 19th century, he maintained that the 20th century has "no general conditions, but fragments, local communities, and analogies of urban constructions." Panelists proposed inventive planning strategies, including, "metaphoric corridors" to connect the fragments of these four cities, selected for their radically different models of urban growth.

Other presenters expressed the fear that consumer culture is homogenizing the world. In "Communications: Propaganda and Consumption," Russian-born graphic designer Constantin Boym described the new German government's view of design: Under the Com-

munists, design was forbidden; under the free-market system, the attitude is, "why bother?"

In concluding statements, critic Michael Sorkin regaled the audience with the story of Long Island impresario Walter Hudson,



whose famed 1,000-pound girth made him a prisoner of his bedroom—which was also the studio where he designed clothing for hefty folk. (Hudson, whose notoriety grew as his weight fell on a Dick-Gregory-style diet, died

of a heart attack just before the symposium began.) Sorkin's description of Hudson as the "paradigmatic millennial man for the post-electronic age: totally immobile," gave added force to an earlier, highly provocative presentation by Xerox researcher John Seely Brown. With strategies for creating "communities" of networked computer users, Brown's innovations allowed Hudson to enjoy virtual mobility and connections to his media following.

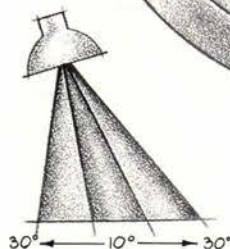
But even with its perfect choreography and packaging, it is doubtful that such tempest-in-a-teapot symposiums as the "Edge of the Millennium" have the potential to challenge Sorkin's prognosis.

—EDWARD EIGEN

Edward Eigen is a research associate at Columbia University's Graduate School of Architecture.

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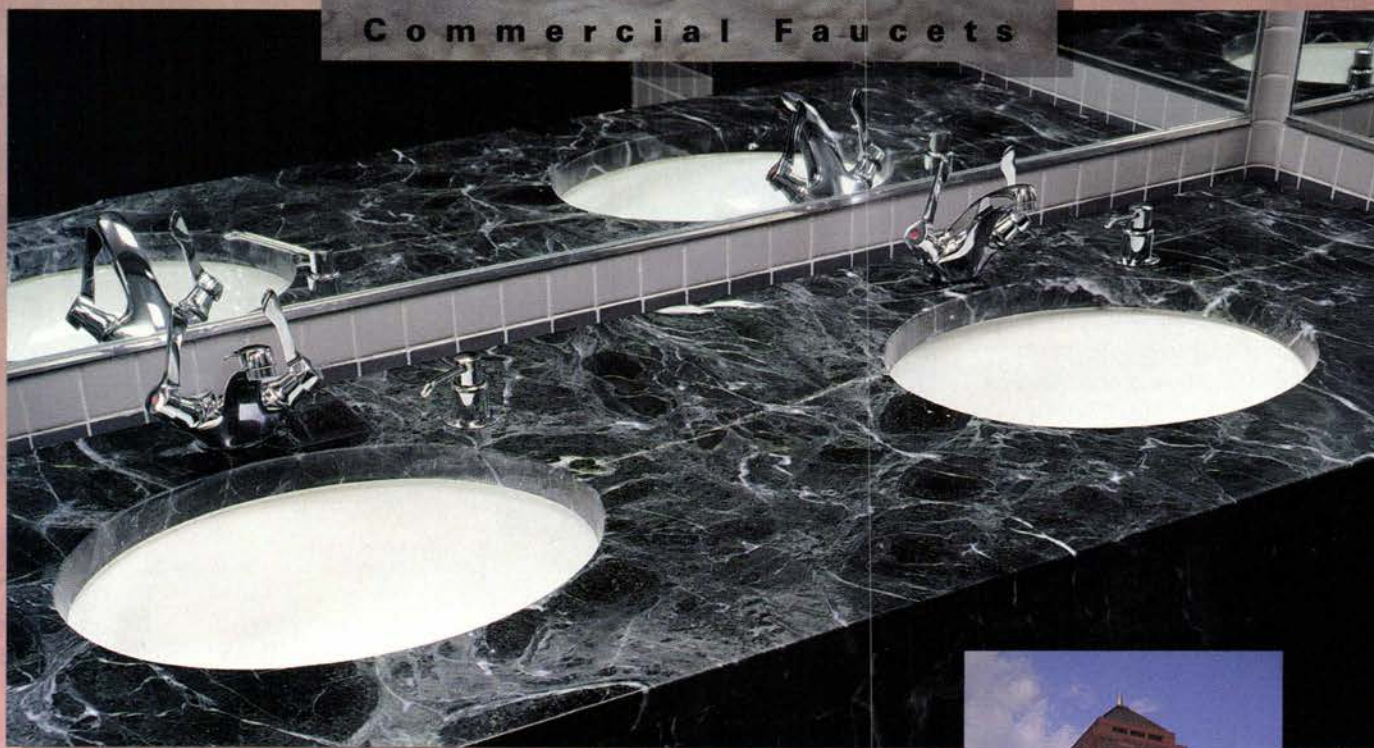
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AWARDS

Los Angeles Firms Receive AIA Awards

FOR ARCHITECTS WORKING IN LOS ANGELES, the house has long served as a laboratory for design experimentation. The jury for Los Angeles Chapter AIA's 1992 design awards, however, discovered that the city's most innovative architecture is no longer confined to houses, but includes high rises, institutional buildings, and even a fast food chain. Last October, Charles Gwathmey of Gwathmey Siegel & Associates, UCSD School of Architecture Dean Adele Naude Santos, Peter Pran of Ellerbe Beckett, and ARCHITECTURE Editor-in-Chief Deborah K. Dietsch selected eight nonresidential projects as this year's honor award winners. Although they dismissed many projects for their "crank and shake" imitations of Frank Gehry's compositions, they recognized Gehry's own skillful hand in his proposed Progressive Corporation Headquarters for downtown Cleveland. Other winning projects were lauded for their clear plans and strong volumetric relationships. Houses didn't escape the jury's attention altogether: residences by Richard Meier and Koning Eizenberg Architecture won merit awards.



Honor Award
Kippen Condominiums
Santa Monica, California
William Adams Architects



TOM BONNER

Honor Award
Gary Group
Culver City, California
Eric Owen Moss Architect



Honor Award
Mandell Weiss Forum
University of California, San Diego
La Jolla, California
Antoine Predock, Architect



Honor Award
Seventh Street Office Building
Santa Monica, California
David L. Gray & Associates, Architect



TOM BONNER

Honor Award
Kentucky Fried Chicken
Los Angeles, California
Grinstein/Daniels, Architect



TOM BONNER

Honor Award
Progressive Corporation Headquarters
Cleveland, Ohio
Frank O. Gehry & Associates, Architects



Honor Award
Salick Health Care Center
Los Angeles, California
Morphosis, Architect



WOLFGANG HOYT/ESTO

Honor Award
S.M.A. Headquarters
Culver City, California
Eric Owen Moss, Architect



Merit Award
Ackerberg House
Malibu, California
Richard Meier & Partners, Architect



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Merit Award
909 House
Santa Monica, California
Koning Eizenberg Architecture

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AWARDS

AIA Colorado Honors Denver and Aspen Firms

SEVEN BUILDINGS WERE HONORED IN AIA Colorado's annual awards program, judged by John Casberian, Daniel Samuels, and Robert Timme, principals of Houston-based Taft Architects, and ARCHITECTURE Senior Editor Michael J. Crosbie. "Rather than distinctly reflecting regional influences," the jury commented, "the collection represents a range of stylistic approaches and diverse inspirations." The Denver firm Pellecchia Olson Architects won honors for a pair of educational facilities Spruce Hall and Seven Hills Middle School. Impressed with the diversity of the submissions, the jury also cited Pouw & Associates of Denver for a fire station; RNL Design of Denver and Gibson & Reno of Aspen for the Rio Grande Transportation Center; and Denver-based C.W. Fentress J.H. Bradburn & Associates for the Ronstadt Transit Center. Residential projects by the Denver firm David Owen Tryba Architects and Harry Teague Architects of Aspen were also honored. —L.N.



Honor Award
**Seven Hills Middle School and Gymnasium
Cincinnati, Ohio
Pellecchia Olson Architects**



Honor Award
**Brown Residence and Studio
Denver, Colorado
David Owen Tryba Architects**



Honor Award
Rotko Residence
 Chester County, Pennsylvania
 Harry Teague Architects



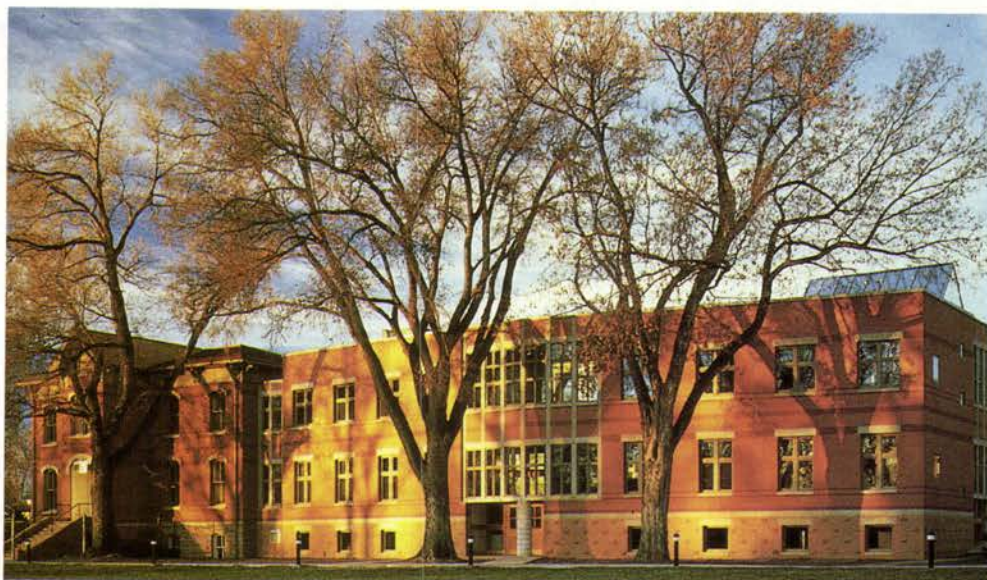
Honor Award
Rio Grande Transportation Center
 Aspen, Colorado
 RNL Design, Architects



Honor Award
Simon Volunteer Fire Department
 Simon, Colorado
 Bouw & Associates, Architects



Honor Award
Constadt Transit Center
 Tucson, Arizona
 W. Fentress J.H. Bradburn & Associates



Honor Award
Spruce Hall, Colorado State University
 Fort Collins, Colorado
 Pellecchia Olson Architects



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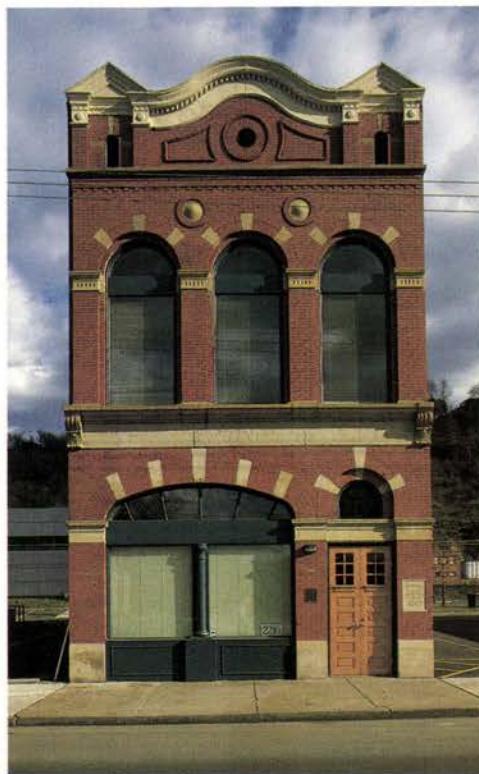
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AWARDS

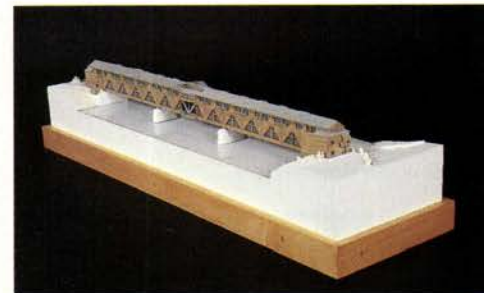
Pittsburgh Lauds Context and Renovation

SIX PROJECTS, INCLUDING TWO UNBUILT schemes, were announced last fall by AIA Pittsburgh as winners of its 1991 design awards. Three buildings earned honor awards, while the remaining projects were cited in the Open Plan category, introduced in 1990 to solicit a broader range of design work. Chaired by Boston architect William L. Rawn, principal of William Rawn & Associates, the jury also included Warren Schwartz of Boston-based Schwartz/Silver Architects; William Porter, MIT School of Architecture professor; and Cambridge-based architect Kyu Sung Woo. In the design category, jurors cited a fire station converted to offices for its lively revival of a historic facade; contextual new housing in Randolph, Virginia, for demonstrating architecture's human scale through front porches and traditional window patterns; and a corporate manufacturing facility for its inventive collection of forms and introduction of natural light into work areas through a large window wall. In the Open Plan category, the jurors recognized schemes for four wood and steel structures that transform abandoned stone piers into public amenities and connect the Allegheny and Ohio rivers back to the city. The jurors also cited a feasibility study for converting an obsolete bridge 60 miles north of Pittsburgh into a three-story conference center, and the Tanto Building, a former elementary school, as a competent, low-budget office conversion.

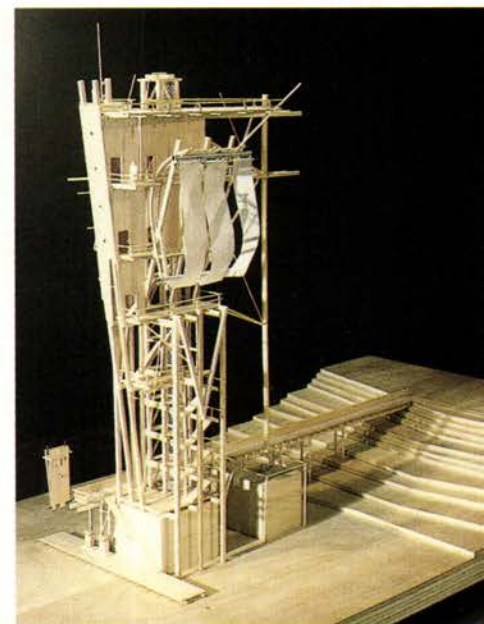
—K.S.



Honor Award
No. 7 Fire Station
Pittsburgh, Pennsylvania
Integrated Architectural Services, Architects



Open Plan Award
Foxburg Bridge
Foxburg, Pennsylvania
McCormick McCarthy, Architects



Open Plan Award
Piers Project
Pittsburgh, Pennsylvania

Bruce Lindsey/Paul Rosenblatt Associates

AWARDS

Six Delaware Projects Receive Top Honors

AFTER REVIEWING 36 ENTRIES LAST OCTOBER, the jury for the Delaware Society of Architects' third design awards program recognized six projects that represent a diversity of building types and esthetics. The jury, George Pillorge of RTKL Associates in Baltimore, Kirby Mehrhof of Philadelphia-based Dagit/Saylor Architects, and Peter Papademetriou, Director of Graduate Studies at the New Jersey Institute of Technology, favored the clear geometry of the Delaware Veterans Memorial Cemetery and the modest pavilions of the Jewish Community Center in Wilmington. An office building was admired for its treelike form, "rooted" by a two-story parking garage at the building's base. The curvilinear Ashland Nature Center for the Delaware Nature Society was honored for integrating its form with its site. Jurors praised Westhill Townhouses, a high-density housing development, for creating a sense of security and community, and a brick-clad law enforcement building for its simplified plan in the face of a complex program. —K.S.



Honor Award
Delaware Veterans Memorial Cemetery
New Castle County, Delaware
Anderson, Brown, Higley & Funk, Architects



Honor Award
Jewish Community Center Family Campus
Wilmington, Delaware
Tetra Tech Richardson, Architects



Honor Award
Three Mill Road Office Building
Wilmington, Delaware
Homsey Incorporated, Architects



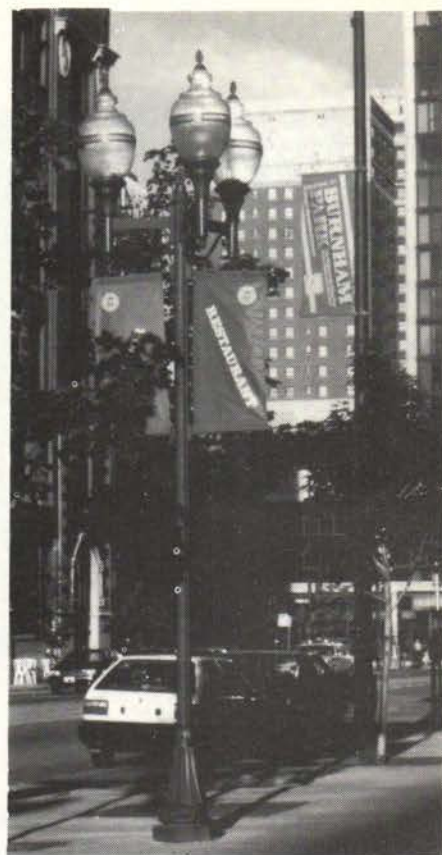
Honor Award
Ashland Nature Center
Ashland, Delaware
Homsey Incorporated, Architects



Honor Award
Vesthill Townhouses
Wilmington, Delaware
Buck Simpers, Architect



Honor Award
McLaughlin Public Safety Building
Wilmington, Delaware
Moeckel Carbonell Associates, Architects



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AWARDS



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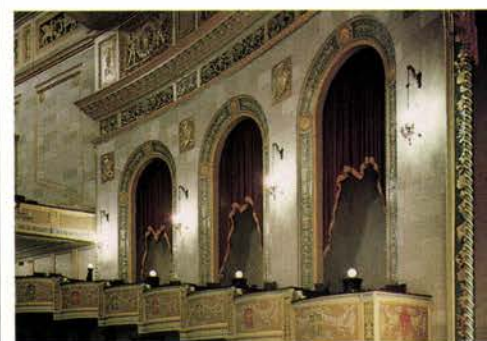
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Ohio Jury Honors Michigan Architects

ARCHITECTS PHILLIP MARKWOOD, A. NOTLEY Alford, and Robert Livesey of Columbus, Ohio, and Robert Stearns, director of Ohio State University's Wexner Center for the Visual Arts, gathered last fall to judge the Michigan Society of Architects' annual design awards competition. Premiated were seven Michigan projects that reflect contextual sensitivity and pragmatic solutions to programmatic requirements. "We were determined to recognize strong concepts as well as quality in execution," comments jury chair Markwood. Honored for preservation and expansion were the restoration of the Detroit Symphony Orchestra Hall by Richard C. Frank and Diehl & Diehl Architects; an addition to Steelcase's File Plant Office by Progressive Architecture Engineering; Penn High School expansion by Greiner and HMFH Architects; and a new sanctuary for St. Anne Church by Harley Ellington Pierce Yee. New buildings cited include a condominium complex, an office building, and a sports arena.



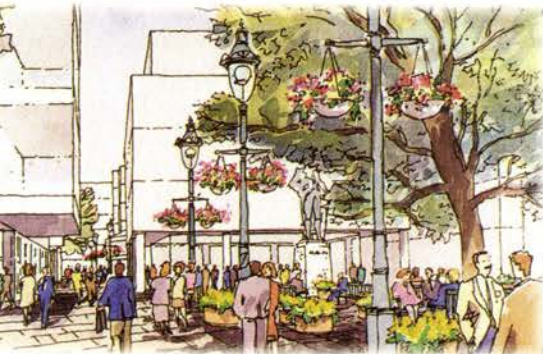
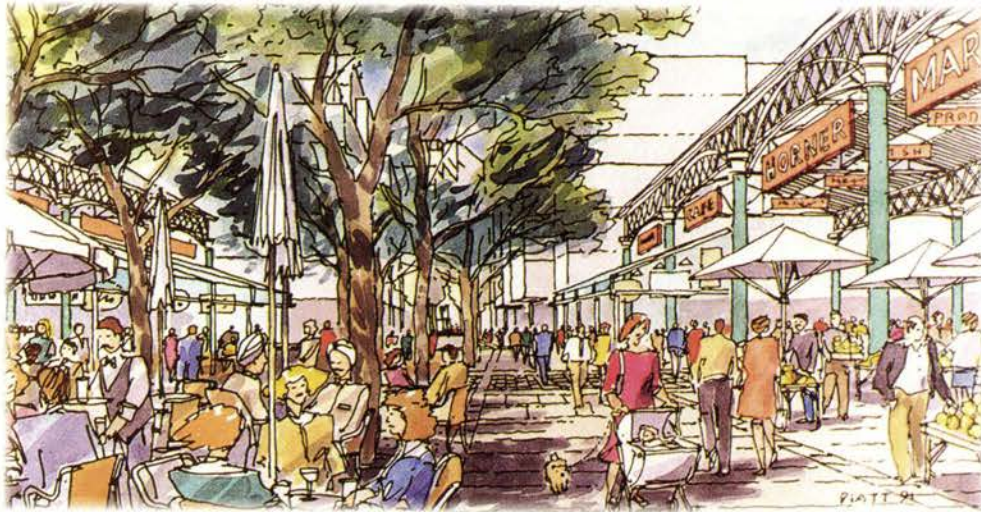
Honor Award
Penn High School
Mishawaka, Indiana
Greiner Incorporated and HMFH Architects



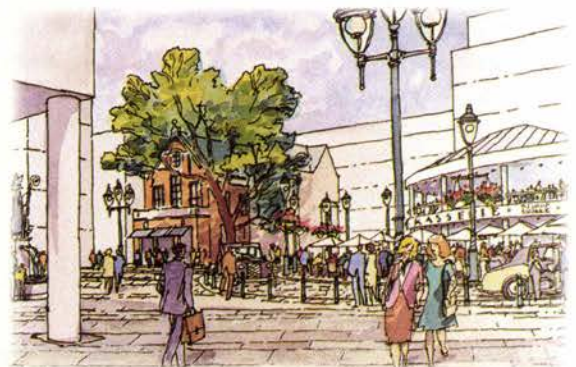
Honor Award
Detroit Symphony Orchestra Hall
Detroit, Michigan
Richard C. Frank and Diehl & Diehl Architects

ARCHITECTURE

Architecture for People



IN PRESENTING THE AIA GOLD MEDAL TO BENJAMIN C. Thompson in January, First Lady Barbara Bush lauded the architect for “revitalizing our cities and bringing great joy to millions of people around the world.” That sensitivity to architecture’s human side is evident throughout this AIA awards issue, especially in a profile of Thompson that highlights his trademark festival marketplaces, including new developments such as Spitalfields Market in London (renderings, this page). The 1992 AIA Firm Award winner, James Stewart Polshek and Partners, is also committed to melding design excellence with social responsibility. As illustrated by a portfolio of recently completed buildings and projects now on the boards, the firm’s work is characterized by a vigorous pluralism wherein specific reactions to context, program, and image shape the architectural response. This year’s 10 honor awards similarly signal a departure from the self-indulgent 1980s to “an uncompromising interest in buildings that are well-built and well-crafted,” according to juror Alan Chimacoff of The Hillier Group in Princeton, New Jersey. In the long run, this standard of quality might be architecture’s most important public contribution. As James Stewart Polshek notes, “People expect more out of architects than a pretty facade.” ■



Context and Craft

IF THE 1992 AIA HONOR AWARDS ARE TAKEN AT FACE VALUE, THE overindulgence of the 1980s is over. Or, more precisely, the opulence, theatricality, and relentless rummaging in history's closet are no longer to be considered staples of serious practice. "It

would have been easier for a Postmodernist to pass through the eye of a needle than to win an award this year," declares honor awards juror Peter Forbes of Boston-based Peter Forbes and Associates. "We'd all seen enough symphonies to sheetrock to last a lifetime." But Forbes' description doesn't square precisely with the evidence.

The refined and mannerly addition to London's National Gallery, designed by Venturi, Scott Brown and Associates, was honored, as was the Newark Museum, the product of a 20-year collaboration between architect Michael Graves and his client. These projects are clearly rooted in historicism, although neither represents Postmodernism at its most glandular. The Sainsbury Wing is dignified and pays more than passing homage to Louis Kahn's work at Yale, while the Newark Museum reveals traces of Graves's early Modernist inclinations. Both projects are restrained and tailored, and those qualities are what this year's jury was seeking—serious architecture-with-a-capital-A that generally toed a Modernist line. "We felt that it was time to speak up for architecture as more than a passing issue," explains jury chairman James Ingo Freed of Pei, Cobb, Freed & Partners. "Buildings are too costly and too important to produce one-liners that won't be around six years from now."

In that "get serious" spirit, this year's honor awards jury lauded only 10 projects, the fewest since 1982. Last year's jury, by contrast, honored 19 projects, and seriously considered chairman Robert Venturi's opening remarks that the AIA Honor Awards

should reflect the diversity of contemporary practice, rather than some narrow stylistic or ideological line. Last year's winners (ARCHITECTURE, March 1991, pages 62-67) ranged from the coolly elegant Morton H. Meyerson Symphony Center in Dallas to simple cottages for the homeless in Charleston, South Carolina. Other honors went to the fractured Koizumi Sangyo Building in Tokyo (ARCHITECTURE, September 1990, pages 80-85); vacation houses at Seaside, Florida; a Caribbean marketplace in Miami; and a summer camp in rural Pennsylvania.

In addition to Freed and Forbes, jurors included Alan Chimacoff, director of design for The Hillier Group in Princeton, New Jersey; Bobbie Sue Hood, San Francisco AIA chapter president and partner of Hood Miller Associates; *Southern Living* architectural writer Phillip A. Morris of Birmingham, Alabama; Kenneth Schroeder, principal of Schroeder Murchie Laya Associates in Chicago; Gail Thomas, director of the Dallas Institute of Humanities and Culture; Laura J. Miller, associate professor of architecture, University of Iowa in Ames, Iowa; and University of Washington architecture student Robert Raasch of Seattle. Chairman Freed described them as "extremely opinionated," and their deliberations as "lengthy, sometimes heated, but always intense and articulate." Another juror puts it more succinctly: "Everyone shook hands at the end, but nobody shared a cab to the airport." In any case, unanimity was jettisoned early on as a reasonable goal. Many votes over award nominees were split; several were cliff-hangers. "There was very little dis-

cussion of overall intentions," notes Gail Thomas. "The attitude was to take each project as it came and see if we all came up with the same opinions in the end."

One of the most heated debates occurred over Arata Isozaki's Team Disney Building at Lake Buena Vista, Florida. According to several jurors, the discussion focused less on the building's architectural merits than on whether Disney was a morally bankrupt corporation peddling a dangerously sanitized version of American life. Could Mickey and serious architecture coexist? Isozaki's building ultimately prevailed, while other Disney projects got short shrift. But behind the philosophical tumult was general agreement on certain basic architectural values, including what Alan Chimacoff called "an uncompromising interest in buildings that were well built and well-crafted."

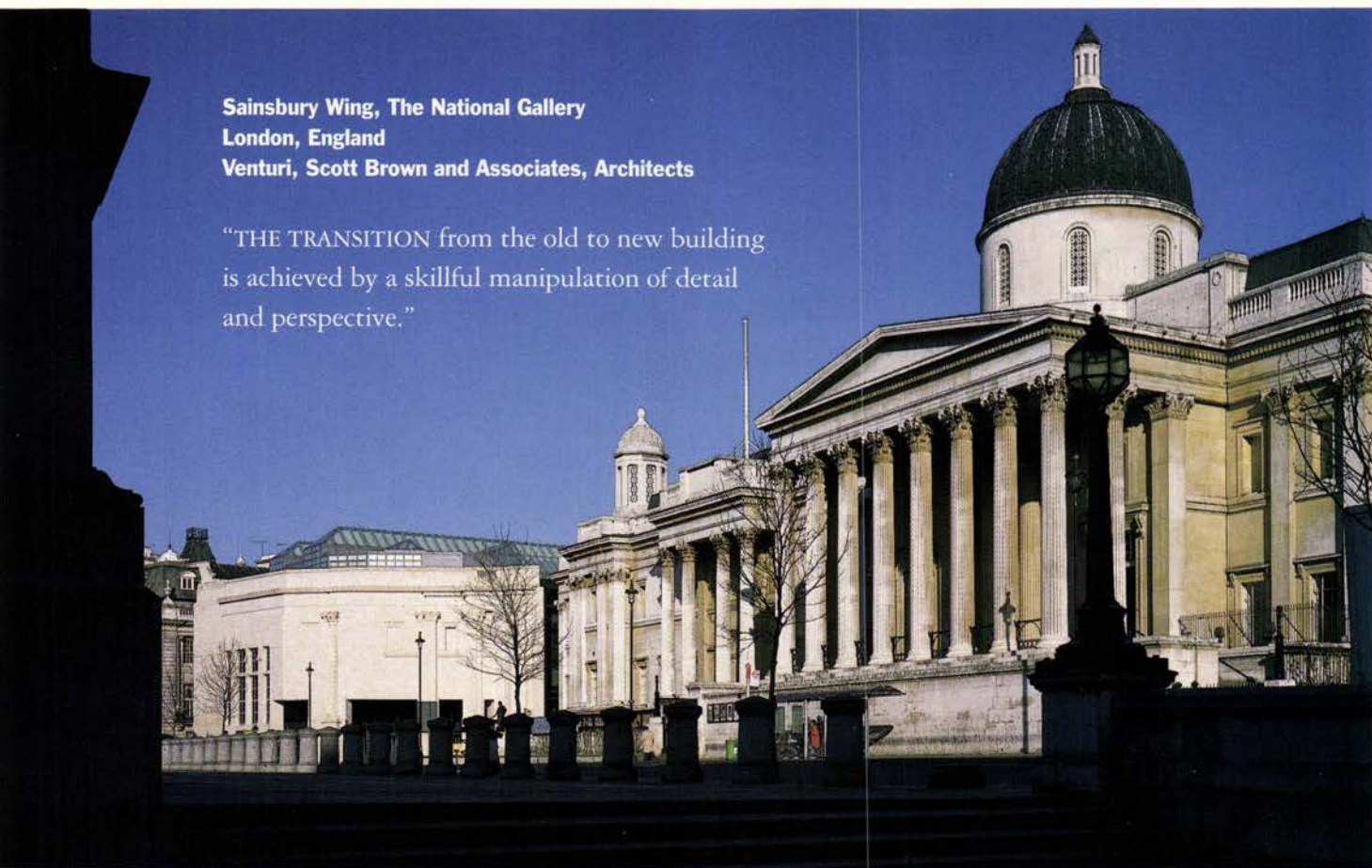
The Canadian Centre for Architecture (CCA) in Montreal is as much about the art of building—how materials are joined and how old meets new—as it is about research and scholarship. Although some jurors had reservations about its entrance, all were impressed by CCA's urban sophistication, particularly the way architect Peter Rose carried the streets of the city through the project. "We were also interested in buildings that had strong resonances and emotional antecedents," adds Peter Forbes. "The CCA is incredibly reminiscent of [Karl Friedrich] Schinkel. It's beautifully built."

The Carraro House, by Lake/Flato Architects of San Antonio, combines simple materials and at times almost skeletal forms in a romantic evocation of earlier Texas prototypes. The architects recycled pieces of an abandoned cement plant into three pavilions for living quarters, study, and garage. The result is part Texas farm and part abstraction.

Buildings that respect their contexts,

Sainsbury Wing, The National Gallery
London, England
Venturi, Scott Brown and Associates, Architects

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NICHOLAS KANE/ARCAID

HONOR

1992 AIA Honor Awards

ban or rural, were equally popular with the jury. The Sainsbury Wing at London's National Gallery is the clearest example, standing unobtrusively beside its historic predecessor and keeping its mouth shut. The Canadian Centre for Architecture incorporates a Victorian house into its design, and Koetter, Kim & Associates' addition to the Firestone Library at Princeton, though mostly underground, marks an important street and corner of the town with a low stone wall and an elegant tower. The trio of houses—Carrao, Croffead by Clark and Menefee Architects of Charlottesville, Virginia, and Chmar by Atlanta's Scogin Elam and Bray Architects—all defer to their dramatic natural settings. Even the Team Disney Building, with its colorful drum and mouse ears pricked up over the entrance, responds appropriately to its theme park surroundings.

The notable exception to this contextual consistency is Frank Gehry's swirling industrial sculpture for Vitra International Furniture in Germany. Sui generis and unrestrained, the structure's only contextual reference is to Le Corbusier's Ronchamp chapel 20 miles away.

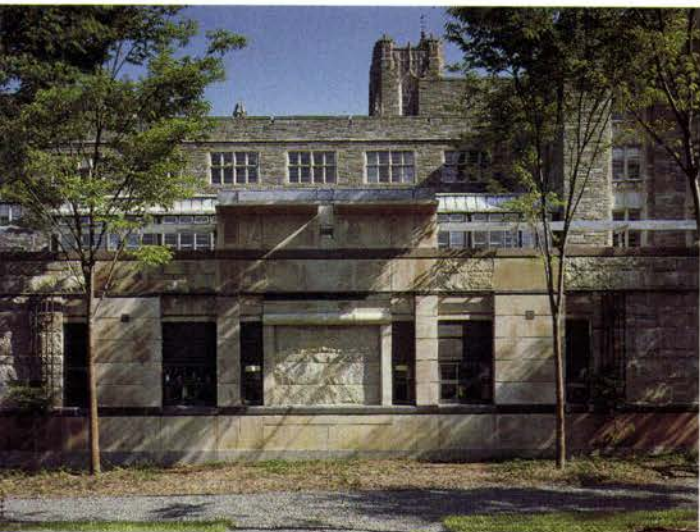
Recycled older buildings—a plausible design focus for the recessionary 1990s—also got the jury's attention. Both the Newark Museum and the Paramount Hotel show what can be done with left-for-dead urban buildings. At the Paramount, Haigh Architects and Philippe Starck turned a frumpy, 1920s hotel into a high-style escapist fantasy that evokes a Broadway stage set. Over in Newark, Michael Graves merged a Victorian mansion and an old YWCA to create a new art and science museum that the jury describes as "austere yet elegant." Graves did a lot with a little, but in the end the building's tectonic qualities seem less impressive than the architect's dedication and tenaciousness over 20 years. This award was as much for practice as for design.

But the interest in older buildings did not extend to pure restoration. No preservation project won an award. An old building transformed into a new building was deemed worthier than an old building brought back to its original glory. "Preservation has nothing



**Canadian Centre for Architecture
Montreal, Canada
Peter Rose Architect**

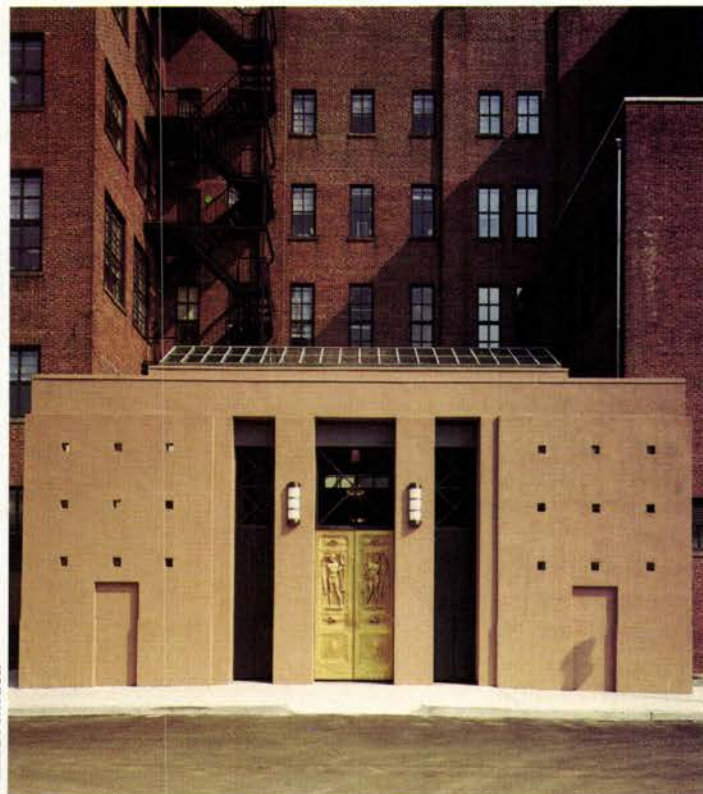
"RIGOROUSLY EXECUTED and detailed, this exceptional museum responds to its urban context and brings order and new life to an area of Montreal once fragmented by highway ramps."



Harvey S. Firestone Library Expansion, Princeton University
Princeton, New Jersey
Koetter, Kim & Associates, Architects

"THIS DIGNIFIED EXPANSION harmoniously respects the architectural forms and materials of the original building without literally imitating them. From the point of view of an urban planner, the architect uses a trio of reading rooms as public squares that serve as landmarks orienting visitors to this vast city of books."

WILLIAM TAYLOR



STEVEN BROOKE



The Newark Museum
Newark, New Jersey
Michael Graves, Architect

"AUSTERE, YET ELEGANT, this project is an example of how meaningful architecture can be achieved on a shoestring budget. Three skylit courtyards linked by gallery passages unite the four main museum buildings, one of which was formerly a Victorian mansion and another a YWCA."

HONOR

1992 AIA Honor Awards

in common with new projects," maintains Peter Forbes, echoing comments made by other jurors. "The best preservation architect is the one who is invisible. The original building is the key. So whom do you award?" But Juror Gail Thomas, among others, is disappointed with this attitude. "I feel the onus is on the AIA and architectural community to make some critical statement about the art of preservation. It needs to celebrate that, rather than ignore it."

As was the case last year, no office towers, schools, or public buildings made the final cut. Has the privatization of America in the 1980s sounded a death knell for the public realm, or have architects forgotten how to symbolize it memorably? And, unlike last year, modest or quirky projects, or those with a strong social agenda—such as low-income or elderly housing—also fell by the wayside. Inexpensive designs and Croesian ones were held to the same high standard, with no allowances made for social value or good intentions. "We did not give awards for nonarchitectural issues," explains chairman Freed. "We asked ourselves, 'Has the social agenda really contributed anything architecturally?' If the answer was 'no,' we threw it out."

But, as with everything else this year, this view was far from unanimous. "The AIA should not be reinforcing elitism," claims juror Bobbie Sue Hood. "[The profession] is failing to reach out into all those commercial areas—shopping centers, multifamily housing—that make up a big part of contemporary practice. We didn't do very well on that score." Despite Freed's statement about a "broad range of winning projects," the majority of the awards went to designs for wealthy institutions and corporations, or for private clients with high standards and plenty of money to spend. Given the stylistic superficialities of the past decade, this conservative turn is perhaps understandable. But it's worth remembering that it was a half century's absorption in grand statements and rarefied architectural issues that sparked the Postmodern revolt in the first place. It is a revolution that many people, including a majority of this year's AIA honors jurors, want to forget. ■

—DAVID DILLON



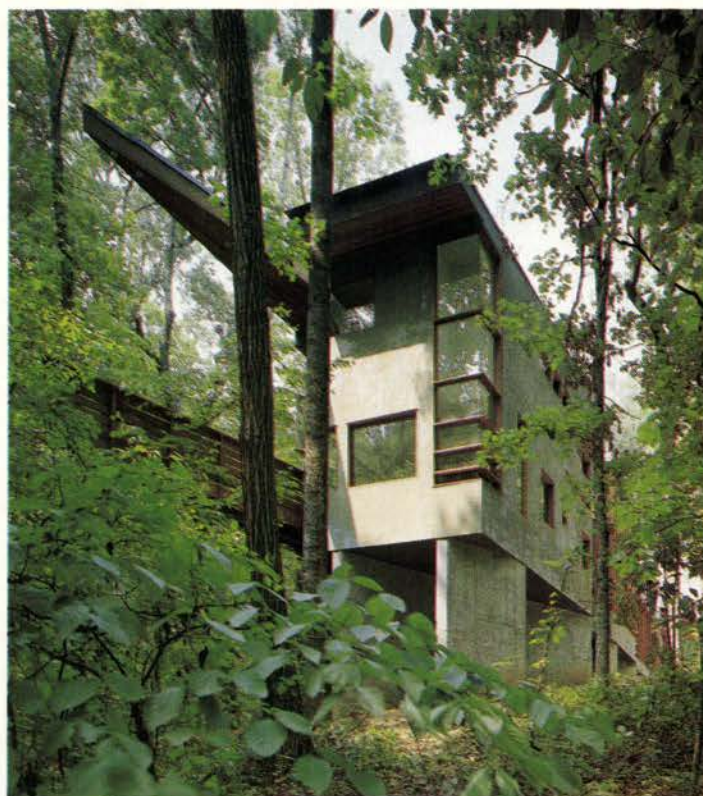
Carraro House
Kyle, Texas
Lake/Flato Architects

"DARING AND INNOVATIVE, this unusual house reexamines the use of building types and challenges the conventions of residential architecture. A gritty collage of industrial materials, this home reflects the owner's unpretentious approach to living."



Croffead House
Charleston, South Carolina
Clark and Menefee Architects

PERCHED ON A BLUFF at the confluence of two rivers, the Croffead House explores geometry without compromising livability. Vast, expansive windows relieve the denseness of the concrete block exterior."



TIMOTHY HURSELY PHOTOS

House Chmar
Atlanta, Georgia
Scogin Elam and Bray Architects

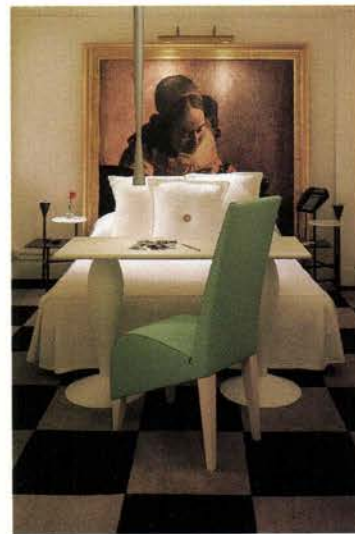
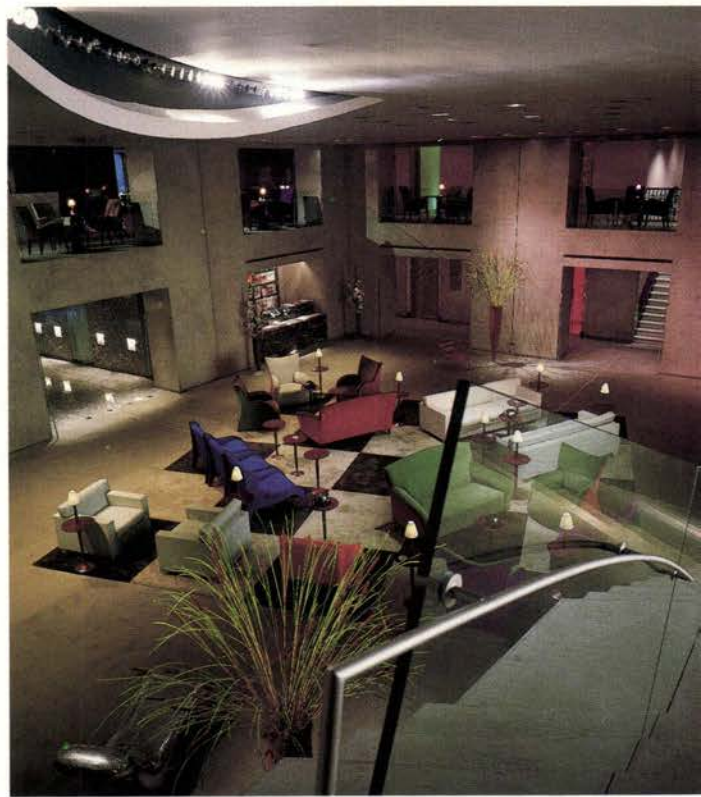
"THIS EXQUISITE HOUSE accommodates the profound spiritual lives of the owners while respecting the rhythms and cycles of the environment in which it is sited. Long and slender, it sits in the footprint of a fallen tree."



PETER AARON/ESTO PHOTOS

Team Disney Building
Lake Buena Vista, Florida
Arata Isozaki & Associates, Architects

"THIS LIVELY, ECCENTRIC headquarters celebrates fantasy while at the same time providing a serious, functional environment. A collage of skillfully crafted and colorful geometric forms, the structure has an inherent playfulness appropriate to the site and the client."

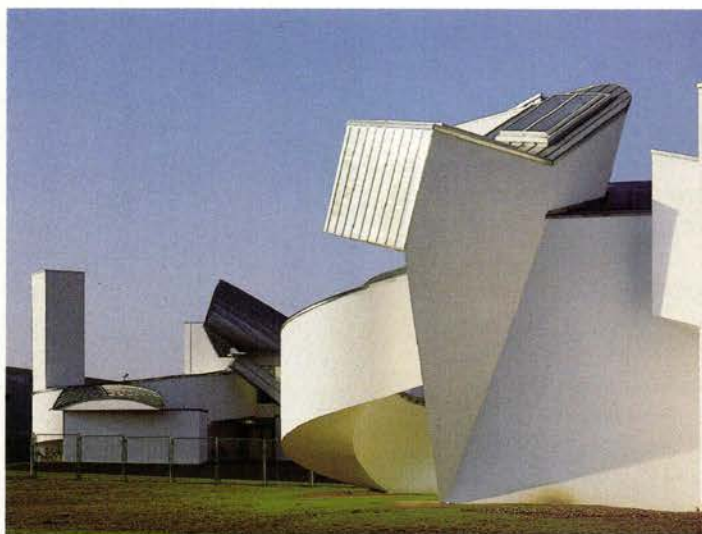
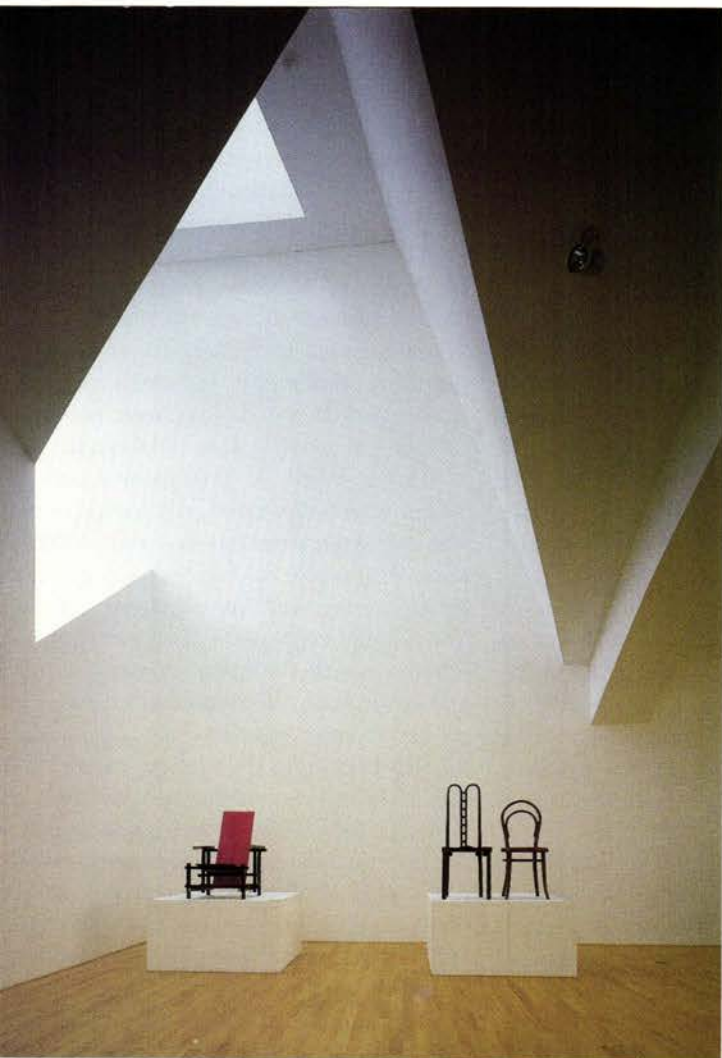
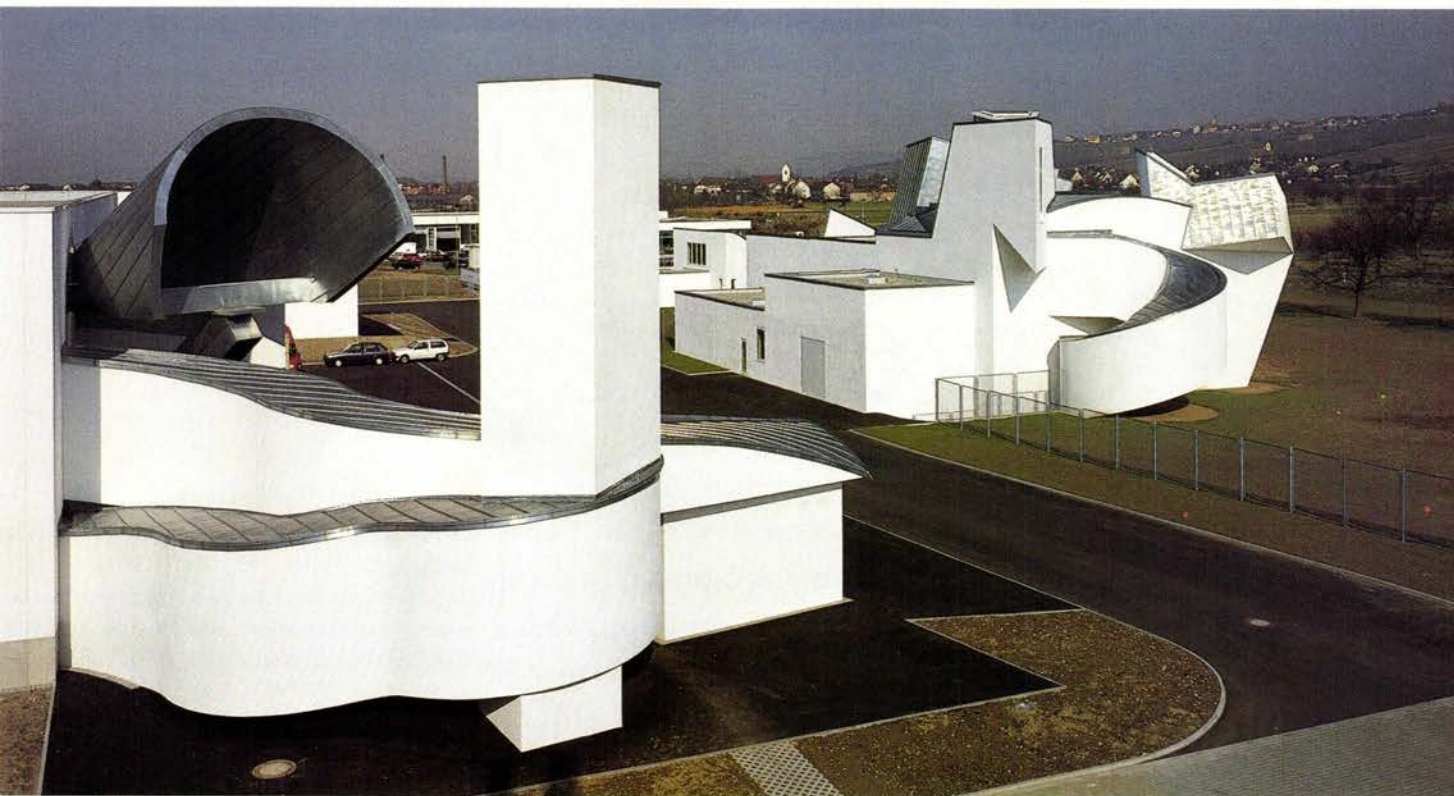


Paramount Hotel
New York City
Haigh Architects
with Philippe Starck

"A SURREAL OASIS in the midst of Times Square, the renovated Paramount Hotel transports its visitors to a vibrant, magical world that engages the senses. Low lighting and dramatic, avant garde furnishings lend a sense of otherworldliness. Using unusual cabinetry and fixtures, and by manipulating proportions, the architect manages to make the most of the very tight spaces of the original building."



PETER MAUSS/ESTO PHOTOS



**Vitra International Furniture
Manufacturing Facility and Design Museum
Weil am Rhein, Germany
Frank O. Gehry & Associates, Architect**

"AN UNINHIBITED JUMBLE of sweeping curves and sharp angles, the museum looks inward, meticulously examining the relationship between form and light. Stark white shapes collide to form an arresting sculptural whole."

Power of Joy

JOY IS ONE OF MY FAVORITE ARCHITECTURAL WORDS," GOLD MEDALIST Benjamin C. Thompson explained in his acceptance speech at AIA's Accent on Architecture gala in Washington, D.C. (page 23). At Boston's Faneuil Hall Marketplace, New York's

South Street Seaport, Miami's Bayside Marketplace, and other urban redevelopments in cities across the nation (facing page), Thompson has translated his joy into some of the most festive localities for Americans. A pragmatic visionary, the 73-year-old architect has long worked effectively with private developers and public authorities around the country to construct the sort of commercial and cultural facilities that bring about the genuine revitalization of declining urban districts.

Interested in the preservation of the nation's architectural heritage almost from the beginning of his career, Thompson was among the first architects and planners of the postwar period to develop realistic, practical ways to bring new public and commercial life to old buildings and neighborhoods. Fortunately, this interest in combining preservation with urban development coincided with the growth of the preservation movement in the United States and the widening public interest in the renewal of cities and towns.

Never an advocate of strict historical correctness for structures adapted to new uses, Thompson juxtaposes new materials and technologies with old fabric. As an architect who also designs cities, he brings to his urban designs an inventive freshness of style derived from his early work as creator of innovative architecture for campus buildings and retail establishments.

Thompson's work reveals his fundamental attitude toward architecture, namely, that form should not be the primary justification for a building's existence. Quiet background buildings, he believes, usually work best, and should be carefully conceived settings for spontaneous human exchange. This attitude, leading to his interest in the quality of urban life, appears to be rooted in his early artistic talent and extensive travel.



ED CASTLE

Thompson was born in St. Paul, Minnesota, in 1918. He describes his father as a "businessman with the soul of a poet." His mother, a painter, writer, and collector of Modern art, encouraged his talent for drawing and painting. His parents took him frequently to Europe at an early age where he learned, long before most of his American generation, of the beauty, vigor, and liveliness of European cities—in contrast, in his own case, to St. Paul. "When I would go into a neighborhood bar in my hometown," Thompson recalls, "and see the local patrons drinking beer facing the wall, I would ask myself, 'why aren't they in beer gardens?'"

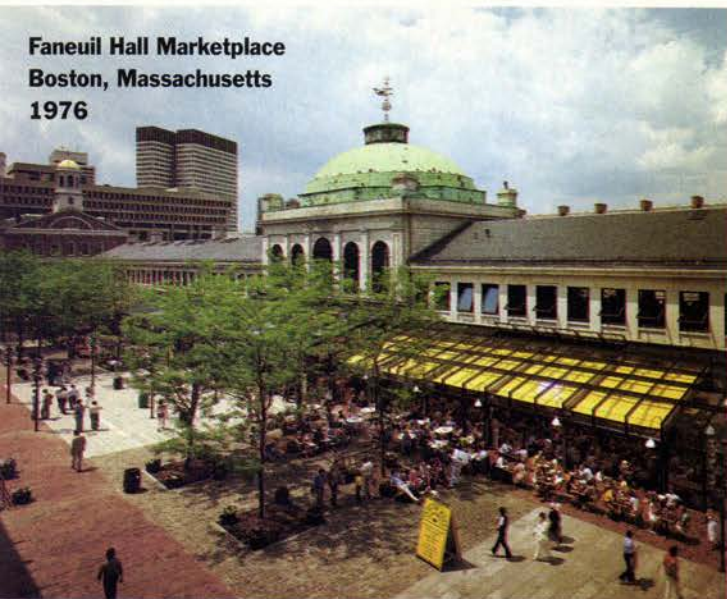
Thompson, like many young people talented in drawing and painting, elected to study architecture to help fashion a more beautiful world. He received his Bachelor of Fine Arts in architecture from Yale in 1941, but was more strongly influenced in those years by the ideas emanating from Harvard's

Department of Architecture, then headed by Walter Gropius. It was Gropius who launched the Modern movement in U.S. architectural education, bringing to an eventual end—in all the schools in the country—instruction by the Beaux Arts system. (Thompson himself eventually served in Gropius's Harvard post from 1963 to 1968.)

Thompson belonged to the group of seven young architects (the late Jean B. Fletcher, Norman C. Fletcher, John C. Harkness, Sarah P. Harkness, Louis A. McMillen, and Robert McMillan) who, in 1946, invited Gropius to help them found The Architects Collaborative. Thompson's first outstanding work as a TAC partner included the freshly invented academic buildings he designed in the late 1950s and early 1960s for Brandeis University in Waltham, Massachusetts, and Phillips Andover Academy in Andover. These campus structures launched a new style of simplicity, rationality, and elegance. For at least a decade, his designs were copied on campuses all over the U.S. and Canada.

Characteristic of Thompson's belief in background architecture, the campus buildings are simply constructed of exposed waffle slabs supported by waterstruck brick on block bearing walls and concrete columns. The exposed edges of the slabs form deep lintels flush with the brick, or thick cornices and cantilevers. All nonbearing exterior walls consist of large, floor-to-ceiling glass panes, set well back from the masonry facades. The dimensions of the waffle-slab grid form the basic horizontal module of the buildings, and because this system results in exceptionally large spans, it also offers great flexibility in plan, allowing relatively free placement of interior partitions. Thompson similarly designed the interiors of these buildings in simple and direct materials—slate or tile floors with stair rails and door frames of light fin-

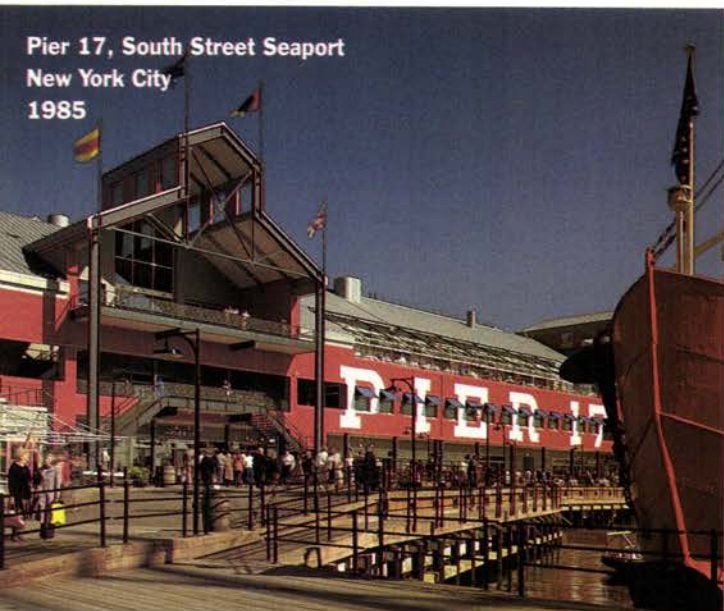
Faneuil Hall Marketplace
Boston, Massachusetts
1976



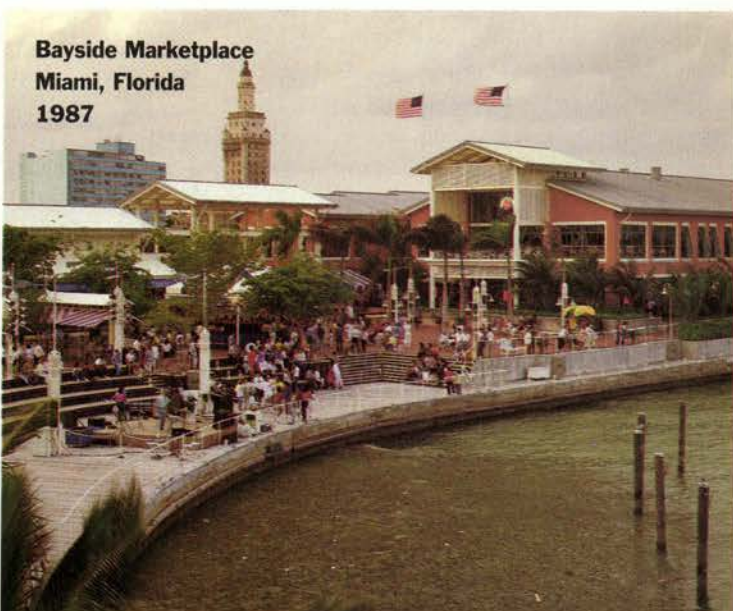
Harborplace
Baltimore, Maryland
1979



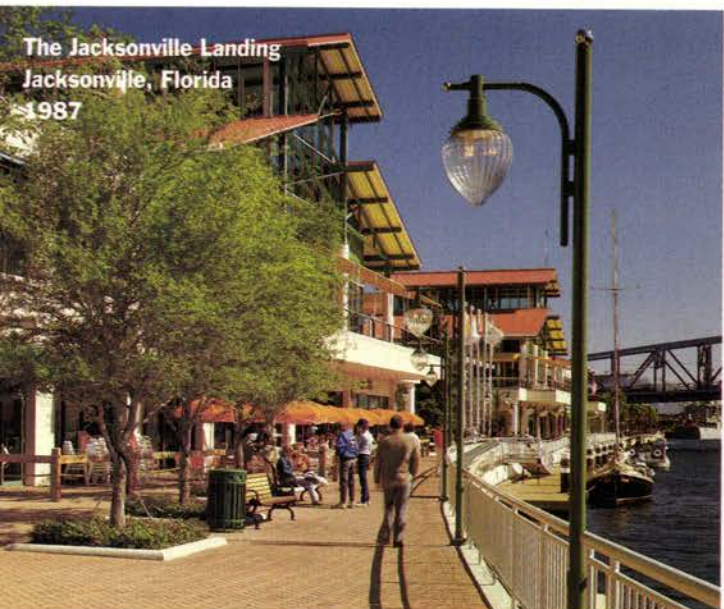
Pier 17, South Street Seaport
New York City
1985



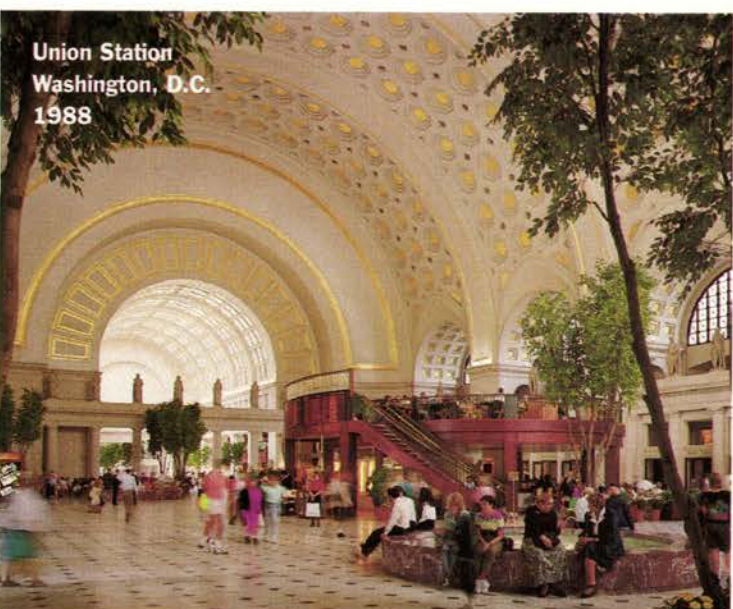
Bayside Marketplace
Miami, Florida
1987



The Jacksonville Landing
Jacksonville, Florida
1987



Union Station
Washington, D.C.
1988



ished wood. After leaving TAC in 1966 to launch, with his wife Jane Thompson, the Cambridge-based firm Benjamin Thompson & Associates (BTA), Thompson continued to work in this style for the rest of the decade. Among the best buildings designed in this manner by BTA are the Harvard University Law School complex and the dormitories and fraternity house for Colby College in Waterville, Maine.

By the late 1960s, the work of BTA expanded to include housing, theaters, hotels, and office buildings. The style developed by Thompson for campus buildings was not economically feasible for the newer projects, so BTA moved on to more cost-effective systems of construction. However, Thompson was soon to invent another design prototype—the retail pavilion.

In 1953, Thompson founded Design Research (D/R), a Cambridge retail establishment that specialized in contemporary home furnishings from Scandinavia and Italy; in 1966, when the store outgrew its old wood-framed Cambridge house, BTA began the design and construction of the remarkable building that was to be D/R's flagship store.

The exterior walls of this five-story showroom are constructed of mullionless, floor-to-ceiling, spandrel-free glass, banded by the exposed edges of the concrete floor and roof slabs. The merchandise—not the architecture—is on display. Except for the interior concrete columns, the building itself seems hardly there, yet the entire effect, especially as illuminated from within at night, is startlingly beautiful. Variations of this particular esthetic are to be found throughout BTA's work. The best of the buildings and their settings have a kind of transparency, however they are formed, that reveals the public within, enjoying the pleasures of life.

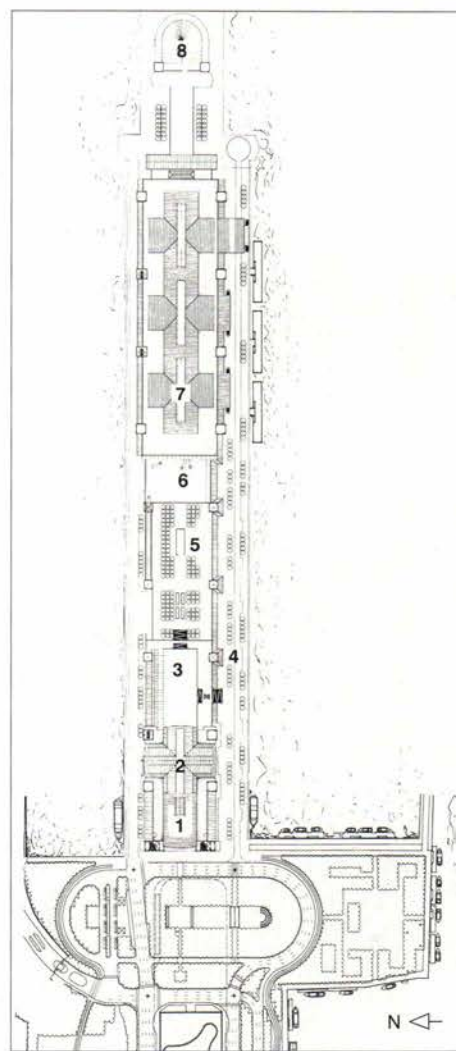
At about the same time he began building Design Research, Thompson translated his ideas for the showroom—diverse goods in lively settings for convivial human interaction—into a scheme to revive Boston's Quincy Market, a desolate, aging market on the city's waterfront. With its historic warehouses opposite Government Center, the area was ripe for renewal, but Thompson's plan, which included a pedestrian precinct of small, locally owned retail shops and 20 restaurants, was unprecedented. Championed by developers such as Columbia, Maryland's James Rouse, urban retail was at the height of a steady exodus to the suburbs. Thompson takes credit for awakening the interests of Rouse, then builder of some 25 major shop-



Navy Pier Reconstruction Program Chicago, Illinois

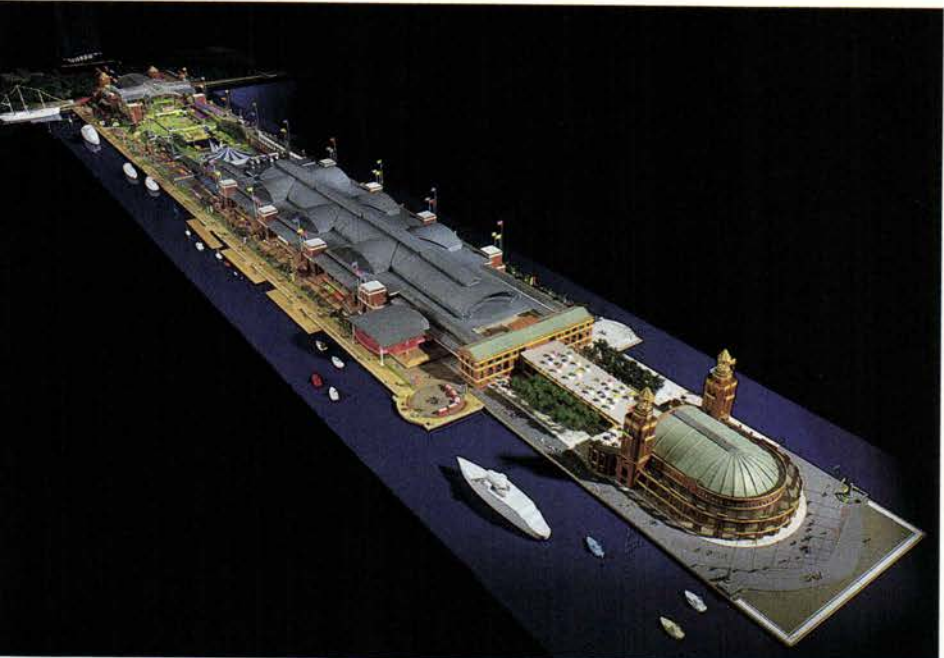
CHICAGO'S NAVY PIER, ORIGINALLY CALLED Metropolitan Pier, was built for commercial shipping in 1916, retrofitted for the U.S. Navy during World War II, and abandoned as a port in the 1970s. Constructed as part of Daniel Burnham's master plan for the city, the 400-foot-wide pier extends 3,100 feet into Lake Michigan. The pier itself, its "head house," or gateway, and the domed auditorium at its tip were renovated by the city in 1976, but attempts to realize the pier's recreational and commercial potential within Chicago's lakefront parks system have failed.

In 1990, BTA won a competition sponsored by Chicago's Metropolitan Pier and Exposition Authority to revitalize the pier as a year-round festival marketplace that would draw both tourists and Chicagoans. Addressing the circulation needs of such a population, BTA places vehicular access at the northern edge of the pier, parking underneath, and outdoor and covered promenades at its southern edge. The vast expanse between head house and auditorium is planned as an urban park of alternating indoor and outdoor gardens with exhibition halls in glass-enclosed structures evocative of Joseph Paxton's Crystal Palace. The formal entrance to the pier is located in the head house, to which will be added a glass conservatory that serves as a grand foyer. Beyond it, a playground and outdoor concert area lead to a vaulted glass-and-steel performance pavilion, connected to a 960-foot-long "expo hall." Exhibitions and museum shops will occupy the hall, and the auditorium will be refurbished as a ballroom. Associated with BTA on the project are VOA Associates and Envirodyne Engineers. The project is scheduled for completion in 1994.



SITE PLAN

- 1 RESTORED HEAD HOUSE
- 2 CRYSTAL GARDEN
- 3 PLAYGROUND
- 4 LAKESIDE ARCADES
- 5 OUTDOOR CONCERT AREA
- 6 SERVICE AREA
- 7 EXPO HALL
- 8 RESTORED AUDITORIUM



ping malls on the outskirts of American cities, to the possibility of bringing businesses back to downtown. "I decided to challenge him about his urban responsibilities," Thompson maintains. Rouse, for his part, contends that he had been on the lookout for an inner-city project, but adds, "Ben's knowledge of merchandising helped enormously in making Faneuil Hall Marketplace the kind of human, sensitive place it became."

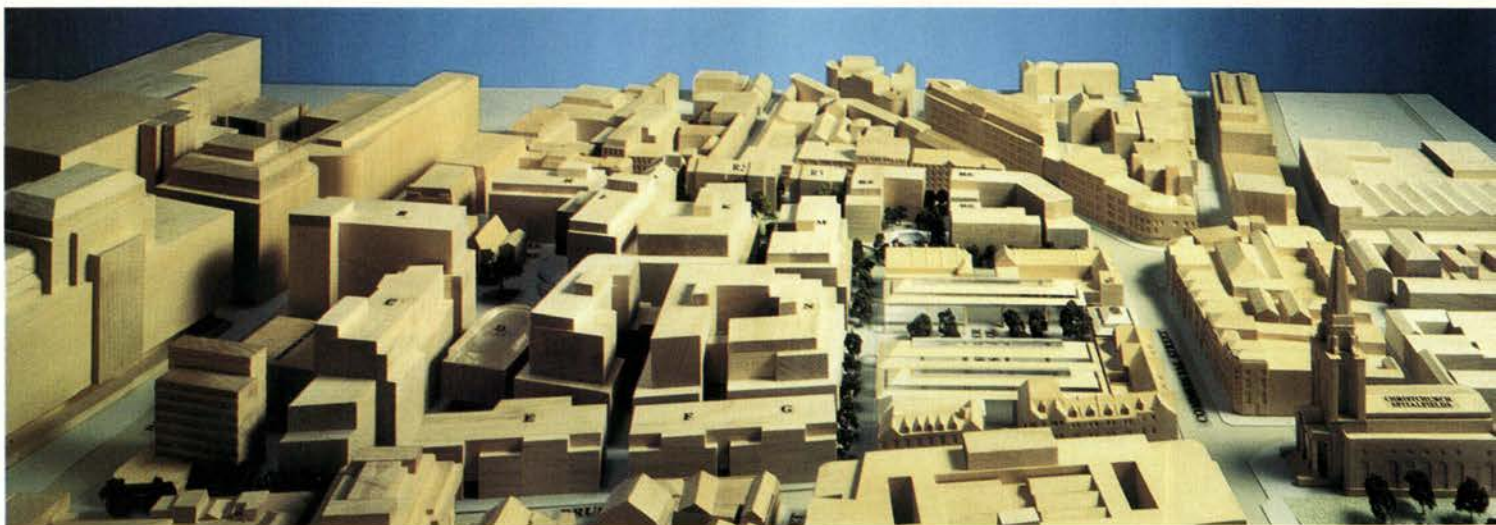
It was not until 1976 that Thompson's plan for Quincy Market, now known as Faneuil Hall Marketplace, was completed, but its success led the Thompson/Rouse team to create its remarkable series of prospering urban marketplaces across America over the next decade. The architect's pioneering schemes for dilapidated waterfronts and downtowns in the United States brought BTA similar development work in Tokyo, Auckland, Brisbane, London, Dublin, Glasgow, Cardiff, and Rotterdam.

These fine-grained, carefully articulated urban designs are thoroughly configured at every significant scale. Esplanades, courts, and plazas—and the buildings themselves—are proportioned and massed with great skill. The beauty of BTA's urban centers is rooted in what Thompson and his team have learned from the more conventional side of the practice, the design and construction of individual buildings, and the shaping and landscaping of their settings.

Thompson's early work was spare, and without applied decoration. A little over a decade ago, however, the architect began to dress some of his showplace buildings with colorful murals and decorative carpets and tiles. The later festival markets and his two performing arts centers, the Broward Center in Fort Lauderdale (pages 62-67) and the Ordway Music Theatre in St. Paul, are enhanced by a kind of free-style ornament comprising lively depictions of plants and animals, developed in collaboration with his son, graphic artist Nicholas Thompson.

If the achievement of joy through architecture has always been Thompson's fundamental aim and hope, his current work is more joyous than ever. And he intends to keep it that way. As he told his audience at the conclusion of his Gold Medal acceptance speech, "Today, when times are tough and architects face survival issues, the power of joy and the strength of dreams can keep the profession relevant, growing." —MILDRED F. SCHMERTZ

Mildred F. Schmertz, FAIA, is an architect and journalist based in New York City.



Spitalfields Market London, England

ONCE A WHOLESALE FRUIT AND VEGETABLE market, Spitalfields is a semi-abandoned 12.5-acre site (bottom right) near Liverpool Street Station in the City of London. Scheduled for redevelopment since the mid-1980s (ARCHITECTURE, September 1990, pages 70-71), the site is currently being master-planned by BTA for London's Spitalfields Development Group. Surrounded by four historic districts, the site contains a number of landmark buildings, such as 18th-century houses, a Victorian market shed, and Nicholas Hawksmoor's 1729 Christ Church. The neighborhood is punctuated by intricate lanes and passages characteristic of London's older sectors.

BTA's plan for the development (top and center) extends these small streets throughout the site and across its boundaries, linking them to existing streets, passages, and open spaces. Several new streets and squares, named for their historic predecessors, will form a direct walking route from Liverpool Street Station. Brushfield Street will be re-born as a street of shops and services, and Market Street, lined with new low-rise office buildings with first-floor retail spaces, will become a prime business address. Horner Square will be carved out of the center of the old Horner Market complex, surrounded by the remaining bays of its Victorian sheds.

BTA created guidelines for establishing ratios of office, retail, and residential spaces, and the firm is currently formulating the vocabulary of building materials and outdoor furnishings. Individual buildings will be designed by at least five British architectural firms and coordinated by EPR Architects Limited of London. The project will be built in several phases over the next eight years.



SITE PLAN



- 1 OFFICE
- 2 RETAIL
- 3 RESTAURANT/PUB
- 4 RESIDENTIAL
- 5 BISHOPSGATE
- 6 BISHOPS SQUARE
- 7 MARKET STREET
- 8 HORNER SQUARE
- 9 STEWARD COURT
- 10 SPITAL SQUARE
- 11 ELDER GARDENS
- 12 LAMB STREET
- 13 COMMERCIAL STREET
- 14 BRUSHFIELD STREET
- 15 CRISPIN STREET



Custom House Docks Dublin, Ireland

BTA'S COMPETITION-WINNING MASTER PLAN for developing Dublin's historic Custom House Docks calls for preserving and renovating the area's abandoned piers, bridges, and circulation routes, as well as most of its warehouses and service buildings. The new scheme for the 23-acre site on the River Liffey (top left and right) links the infrastructure of the waterfront district to that of Dublin's nearby center, extending and enhancing urban amenities at the city's heart. In sympathy with centuries-old waterfront structures and the district's finest building, an 18th-century Baroque custom house (top left, lower right in photo), all new buildings are as modest in scale as commercially feasible.

Five new office buildings were begun in July 1988 and completed last September. Three of the structures make up the 300,000-square-foot International Financial Services Center (top left, center in photo), a collection of major multinational banks, with additional commercial office space to the north. BTA established the massing of the buildings and developed and detailed the facades.

Now that the buildings house a substantial office-worker population, the construction of shops, restaurants, and pubs will begin as soon as economically feasible. If development proceeds as projected, these amenities will be followed by a 300-room hotel (right in model), renovated warehouses accommodating retail (center of model), additional office buildings (left in model), and 200 residential units (top in model). The project is sponsored by the Custom House Docks Authority and developed by Hardwick/McInerney/British Land. Burke-Kennedy-Doyle & Partners of Dublin is the associate architect.



STEVE ROSENTHAL



- 1 INNER DOCK
- 2 GEORGE'S DOCK
- 3 RESIDENTIAL DEVELOPMENT
- 4 HARBORMASTER'S PLACE
- 5 RAMP TO PARKING
- 6 OFFICE BUILDING
- 7 RESTAURANT BARGE
- 8 PUB
- 9 PERFORMANCE BARGE
- 10 MUSEUM
- 11 RETAIL
- 12 FOUNTAIN
- 13 PARKING GARAGE
- 14 CINEMA (GROUND LEVEL)
- 15 HOTEL

■ SITE PLAN

G O L D

1992 AIA Gold Medalist

FOR GOLD MEDALIST BENJAMIN C. THOMPSON, a performing arts center correctly situated within a newly developing urban area is as worthy of preeminence of place as a cathedral in a European city. A truly venerable cathedral is usually the result of successively constructed churches located on the same spot at the heart of a city's most ancient core. In contrast, the Broward Center for the Performing Arts, one of Benjamin Thompson & Associates' recently completed buildings, is located on what was, until recently, Fort Lauderdale's very wrong side of the tracks. This \$54 million facility is constructed within a former slum, now being redeveloped as an 11-acre, \$100 million regional arts and science district. Crowning a manmade hill at a bend of the New River, the complex overlooks a newly developed park promenade and the city's proud array of brand new office towers. How Thompson's latter-day cultural cathedral came to be so elegantly and effectively placed attests to his own power of imagination, supported by his firm's combined urban, architectural, and landscape design skills.

BTA's initial task for the Performing Arts Center Authority was to create a master plan for the Broward Center's 5.5-acre site that would establish it as the focus of the new riverfront district, five blocks west of the city's downtown. The district, undergoing a transformation led by Fort Lauderdale's Downtown Development Authority, includes the park along the river's edge, segments of which are now complete; pleasure boat docks; the Museum of Discovery and Science and its Blockbuster IMAX Theater, currently under construction; and a 950-car parking garage. A public library and arts museum border the perimeter of the district.

The best view of the Broward Center (these pages) is enjoyed by those who approach the complex by yacht or water taxi. Commanding a view of a palm-studded, terraced garden, the center consists of two halls, the larger primarily dedicated to operas, musicals, and orchestral performances. The smaller auditorium hosts both children's and community theater, chamber music groups, and emerging dance companies.



Broward Center for the Performing Arts
Fort Lauderdale, Florida
Benjamin Thompson & Associates

BROWARD CENTER for the PERFORMING ARTS

Pride of Place



"As architects contemplating this provocative site," Thompson recalls, "we visualized a great, luminous presence at the oxbow bend, moving along the river spine and responding to its rhythm—a structure that would belong to the river scenery." Because the river-bend site for the performing arts center was originally as flat as the rest of the Intracoastal region, the achievement of such preeminence posed a problem. So did bringing the floor level of the main foyer as close to grade as possible, to reduce the number of flights of stairs theatergoers would have to climb to the foyer before moving down the aisles to their seats. And because of the high water table, it was impractical to bury the auditorium in a deep foundation.

Entrance to the Au-Rene Theater (top in site plan, facing page) is marked by a glass and steel marquee (above). Both theaters are connected by an open garden court (facing page, top). Materials include a barrel-and-pan clay tile roof, textured stucco, wood shutters, copper gutters, and ornamental tiles.

To appropriately rake the orchestra floor of the main hall, BTA chose to insert the building into an earth bank, approximately 16 feet high at the entrance facade. The center's lowest point, the floor of the orchestra pit in the larger of the two auditoriums, is 12 feet below the water table. The high, eastern end of the center, at the point where the main orchestra hall meets its adjoining foyer, is 2 feet above the top of the earth bank. Patrons arriving by car reach the foyer by means of a short but elegant staircase leading from the east-facing entrance lobby. Those approaching from the boat dock or along the riverside promenade wind their way up the hillside to the lobby along paths and broad stairs that meander through lushly planted terraced gardens designed by the architects.

The complex consists of two pavilions, the larger comprising the 2,700-seat Au-Rene Theater for opera, musicals, symphony orchestras, and chamber music, and the smaller 585-seat Amaturio Theater, designed for dramatic productions, seminars, choirs, chamber music groups, and dance. Separating the two

pavilions is a sunken courtyard garden, bordered by a colonnade, serving as a central outdoor space to congregate before, during, and after the performance. It connects to the Abdolonyme New River Room, a conference and banquet facility seating 500 people. On the mezzanine level, the glass-enclosed foyer of the Au-Rene Theater is framed by French doors that open onto a balcony, luring the audience outside for the view. As seen from the city at night, the skillfully lit, richly decorated space becomes a mammoth marquee, shimmering at intermission with moving silhouettes. It is a vivid example of Thompson's emphasis on social activity, rather than architectural theatrics.

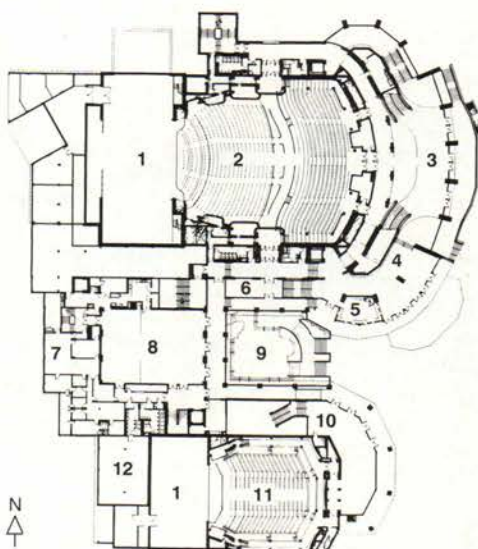
Most spaces in the complex are curvilinear in plan and section and asymmetrically arranged to suit the site and program. "The center has what I would call a symphonic form imbued with the spirit of music from the ancient to the contemporary," muses Thompson. "This form is felt in the curve of the rooms and the orchestra shell, which encloses and wraps people in sound. It is expressed in the rhythmic sweep of the halls and foyers



which echo the bending river landscape."

The larger Au-Rene Theater is configured as a traditional opera hall, with a mezzanine and balcony surrounding the orchestra seating and tiers of box seats relegated to the sides of the proscenium. With a system of concealed absorptive draperies, banners, and reflective panels, the acoustical properties of the multi-use hall can be precisely altered to house all types of performances, from drama, dance, and full symphony orchestras to elaborate Broadway productions and operas. Adjustable stage portals, an orchestra pit elevator, movable seating platforms, and multiple lighting positions accommodate a duet recital as well as the largest opera.

The smaller Amaturio Theater, situated south of the main auditorium, is outfitted with a full array of rigging, lighting, and other equipment, as well as a resilient wood floor and orchestra pit. Funded in part by Florida's Department of Education, this 585-seat theater provides as many as three performances a day to the county's school children. Its walls are constructed of five different sizes



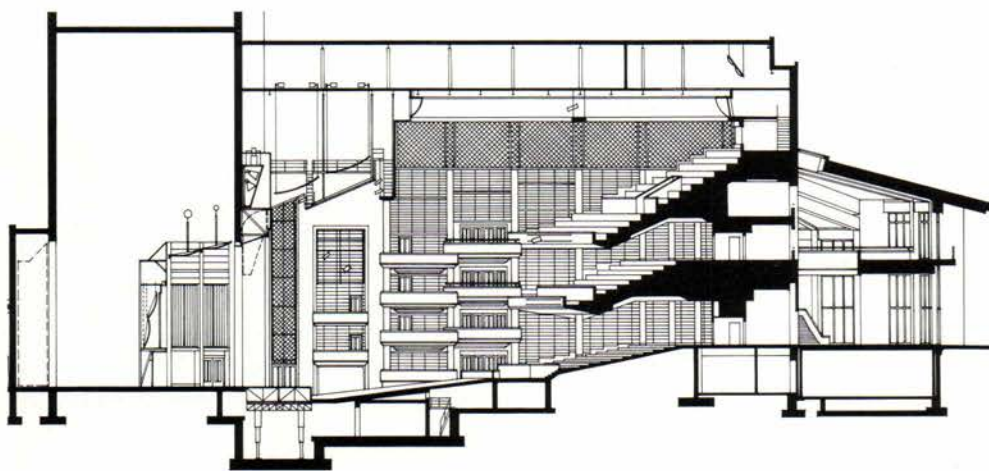
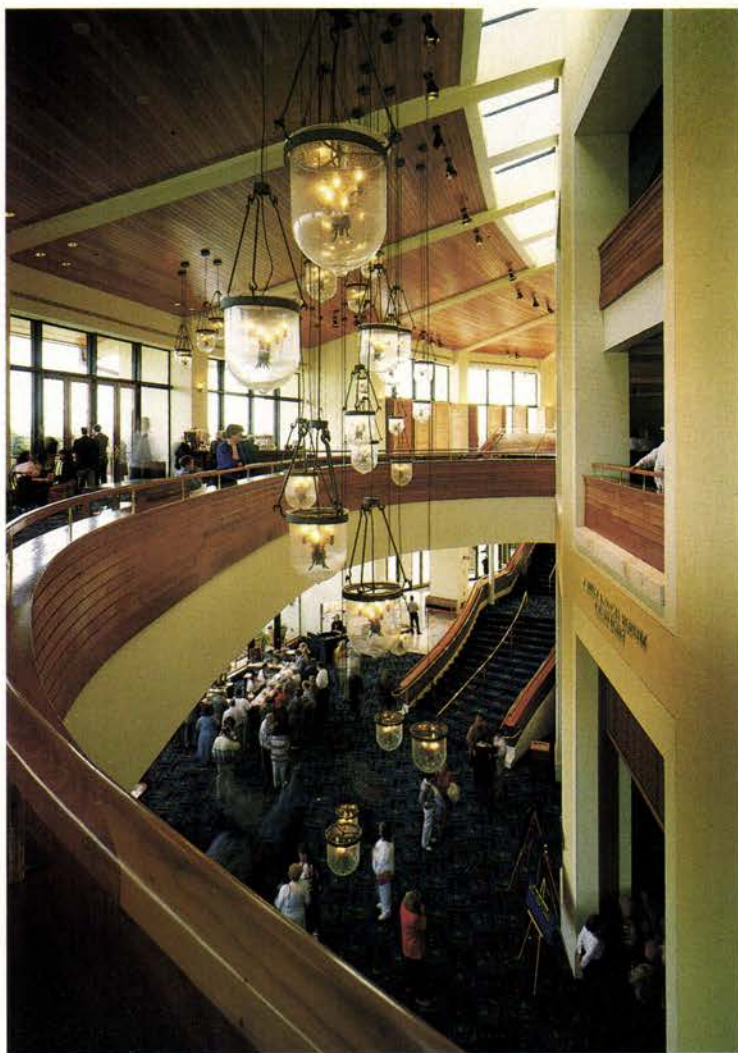
SECOND LEVEL

- | | |
|-------------------|---------------------|
| 1 STAGE | 7 OFFICES |
| 2 AU-RENE THEATER | 8 COMMUNITY HALL |
| 3 GRAND FOYER | 9 COURTYARD |
| 4 ENTRY FOYER | 10 LOBBY |
| 5 BOX OFFICE | 11 AMATURIO THEATER |
| 6 GIFT SHOP | 12 MECHANICAL ROOM |

of concrete block arranged in an ashlar pattern, providing a sense of warmth and ambience with a material that will resist wear and tear. The smaller theater's stepped orchestra seating, with tiers of loges, brings audience and performers close together.

Among the sources for the architects' contextual vocabulary are the few plantation mansions still extant in the Intracoastal region, most notably the nearby Bonnet House of 1919. This informal, handsome house, its rural vernacular more Floridian than Mediterranean, possesses deep porches, balconies, wooden shutters, thick stuccoed masonry walls, and a tile roof. The fact that the Broward Center is completely air-conditioned makes BTA's appropriation of such tropical climate control devices a purely stylistic choice. Nevertheless, these vestigial references have been carried out with such conviction, authority, and panache, that it is difficult to imagine Broward commanding such pride of place on any site other than this particular South Florida riverbend. ■

—MILDRED F. SCHMERTZ



EAST-WEST SECTION THROUGH AU-RENE THEATER

The foyer of the Au-Rene Theater, as seen from the mezzanine level (top left), serves as the main lobby of the complex. BTA-designed handblown glass and wrought iron light fixtures hang at different heights from the ceiling. The auditorium (top right and facing

page, top), features cherry wood louvered doors and shutters, which define the horseshoe configuration of the hall and function as acoustical reflective surfaces. The Amaturio Theater (facing page, bottom) is more contemporary in expression.

THE BROWARD CENTER FOR THE PERFORMING ARTS FORT LAUDERDALE, FLORIDA

CLIENT: The Performing Arts Center Authority—William Farkas (executive director)

ARCHITECTS: Benjamin Thompson & Associates, Cambridge, Massachusetts—Benjamin Thompson (partner-in-charge); Scott Wilson (project architect/design team leader); Ken Lewandowski (assistant project architect); Ben Wood, Tom Green, Art Vento, John Haley, Matt Longo, Mike Silver, Scott Butler, Colin Flavin, Bud Millham, Peter Bunzick, Helena Korpela (design team); Nick Thompson, Bob Lowe (graphic artists); Tony Ricci (contract administration)

LANDSCAPE ARCHITECTS: Benjamin Thompson & Associates—Dennis Dale, Tomm Van Dyke, Michael Emerson

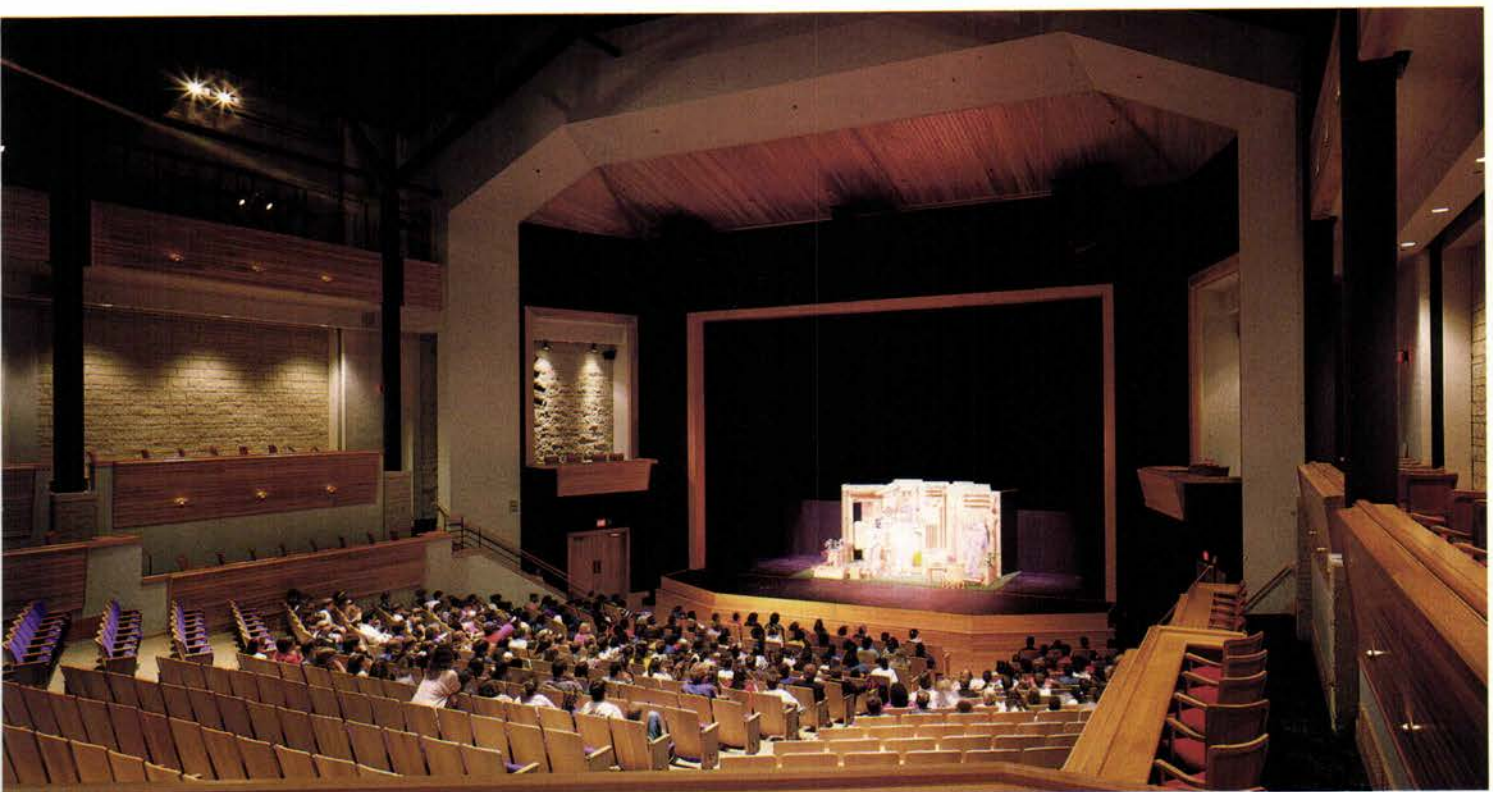
ENGINEERS: Spillis Candela and Partners (structural, mechanical/electrical, plumbing); Williams Hatfield & Stoner (civil)

CONSULTANTS: Jules Fisher Associates (theater); R. Lawrence Kirkegaard & Associates (acoustical); Wheel Gersztoff Friedman Shankar (lighting); Warren Blazier Associates (noise control); Andrew Chartwell & Company (cost control)

GENERAL CONTRACTOR: The George Hyman Construction Company

COST: \$38.5 million—\$188/square foot

PHOTOGRAPHER: Steven Brooke



Architectural Ethics

IN HIS NEW YORK OFFICE, JAMES STEWART POLSHEK IS DISCUSSING THE realities of keeping an architectural firm busy in a faltering economy. Like many architects around the country, Polshek is nervous. But unlike many, he is not grim. His firm is cur-

rently designing many important commissions, both in the United States and abroad, and he employs a core staff of partners and associates who work well together, as they have for a long time.

Today, Polshek is in a particularly good mood. The Seamen's Institute, which his firm designed in the South Street Seaport area of lower Manhattan (ARCHITECTURE, November 1991), has been published as part of *Time* magazine's "Best of 1991" roundup. Seated behind a large black granite table, where he is surrounded by a map of Paris, a photo of Le Corbusier, and books on Carlo Scarpa, Mario Botta, and Pierre Chareau, among other assorted architectural paraphernalia, Polshek jokes about the *Time* article, which calls him "one of the finest uncelebrated architects working today." The sunny smile and boyish aura of confidence suit the 62-year-old architect who, over the past three decades, has designed a number of buildings marked by restraint, invention, and elegance. Clearly relishing the description in *Time*, Polshek quips, "one of our clients called and said, 'We thought you were celebrated, That's why we hired you!'"

Although James Stewart Polshek and Partners has won numerous local, state, and national AIA Honor Awards, Polshek and his partners are uncomfortable with labels. "We actually hope clients come to us not because of celebrity," he says, "but because of what we will produce and invent. We do not put personal interests first."

Obviously, Polshek does not approve of the way architects are made the stuff of myth



Partners James Stewart Polshek (front row, center), Joseph L. Fleischer (left), and Timothy Hartung (right); associates (seated, left to right) Richard Olcott, Damu Radheshwar, Blake Middleton, Todd Schliemann, Charles Griffith; (standing) Joanne Sliker, Tyler Donaldson, Jihyon Kim, Duncan Hazard, Susan Rodriguez; and office manager Anne Boxall.

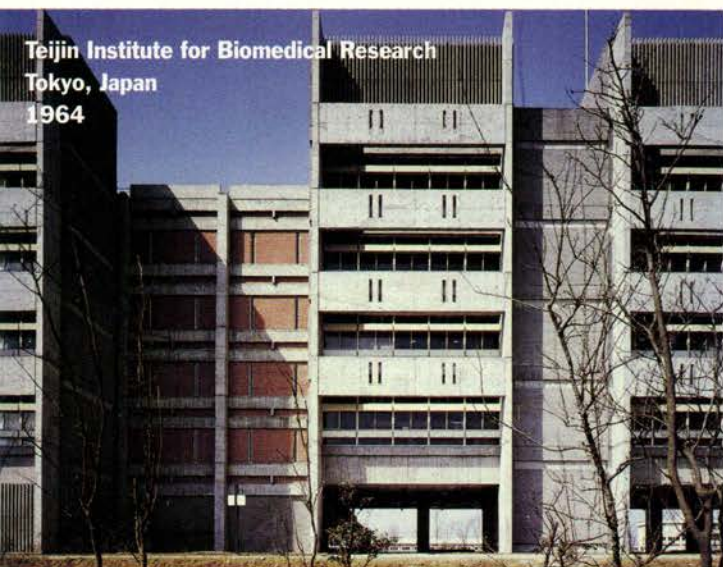
and legend. The heightened glorification of the star architect, Polshek believes, has gone hand in hand with the increase in invited competitions and selection procedures. "Too many clients at universities and museums go after star architects who will give them 'trophy' buildings," he contends. "It has resulted in some embarrassing debacles."

Polshek feels the firm's attention to particular circumstance and to the needs of clients is crucial to the success of the practice, which has been honored for both new buildings and preservation projects. Among Polshek and Partners' most acclaimed projects are the restored New York State Bar Center

in Albany, completed in 1971; 500 Park Tower, finished in 1986; and the 1986 restoration of Carnegie Hall, for which the architects also recently completed a cafe, museum, and reception-room expansion. These projects, along with Sulzberger Hall at Barnard College, which opened in 1988, and the recently completed Seamen's Church Institute at South Street Seaport (ARCHITECTURE, November 1991, pages 66-73), are a critical test of Polshek and Partners' commitment to creating architecture that fits appropriately into an urban setting, yet stands apart as an authentic expression of its time.

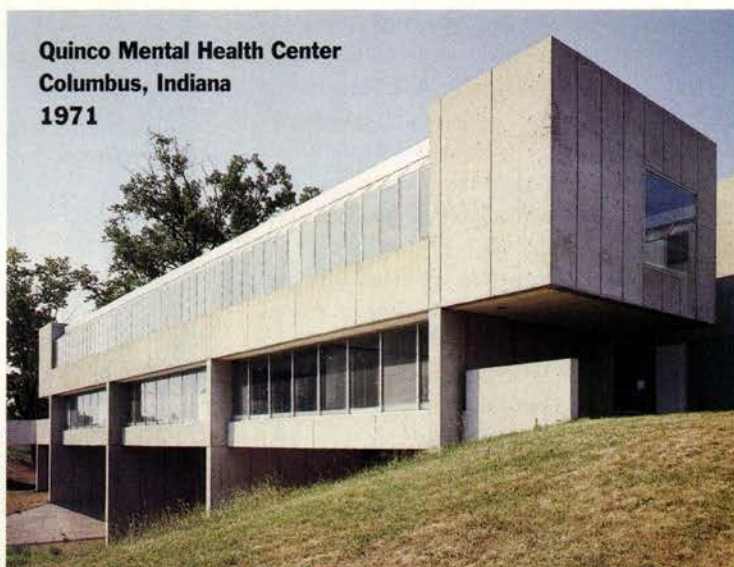
Polshek disavows any particular style for the firm, adding that his approach is pragmatic: "The act of building is more important than the theory of building," he contends. In *James Stewart Polshek: Context and Responsibility*, published by Rizzoli International in 1988, architectural historian Helen Searing writes, "Polshek's work resists stylistic labeling . . . the unifying characteristics [in the firm's approach to design] encourage openness to many different forms—contemporary and traditional, Western and non-Western—and a willingness to assimilate and incorporate those forms when appropriate."

The firm's range of building types resists categorization as well, although the architects have designed a preponderance of school and college buildings, not to mention several convention centers and theaters. Currently, Polshek and Partners is designing two buildings in Polshek's hometown of Akron, Ohio—the National Inventors Hall of Fame and a convention center—and the Center for the Arts Theater at Yerba Buena Gardens in San Francisco. Just recently, the practice began an expansion of the Lehman Children's Zoo and a signage program in New York's Central Park. And, following the popularity of Sulzberger Hall, his high-rise dormitory at Barnard Col-



Teijin Institute for Biomedical Research
Tokyo, Japan
1964

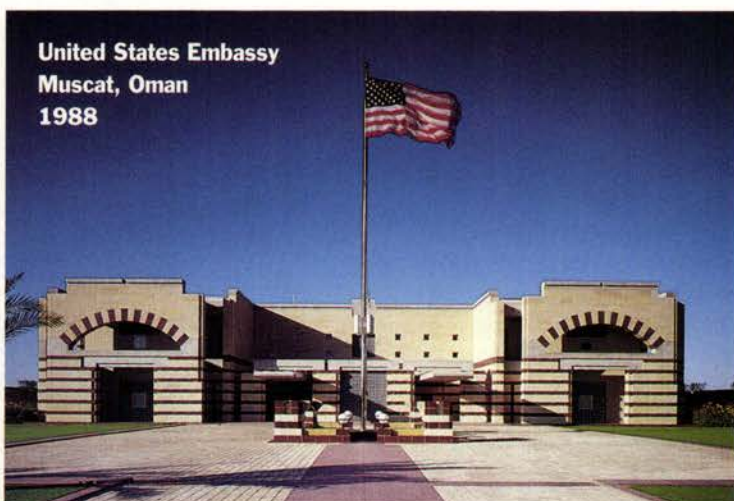
BALTHAZAR KORAB



Quinco Mental Health Center
Columbus, Indiana
1971



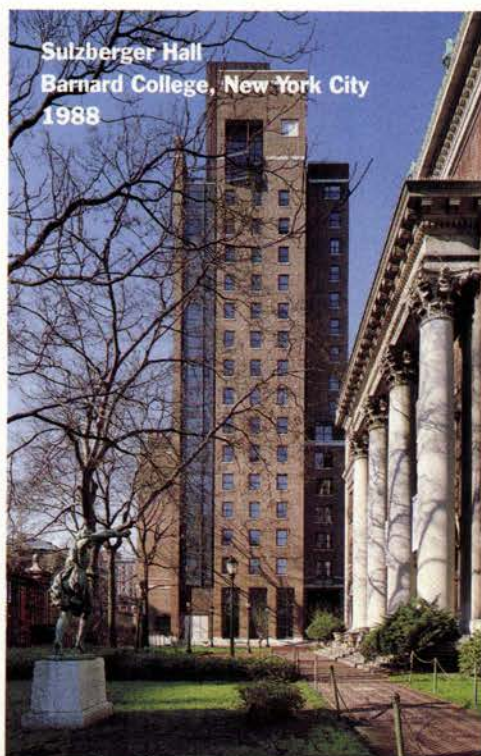
Washington Court
New York City
1987



United States Embassy
Muscat, Oman
1988



500 Park Tower
New York City
1986



Sulzberger Hall
Barnard College, New York City
1988



Leighton House
New York City
1990

lege, Polshek is currently studying buildings on that campus in need of an overhaul.

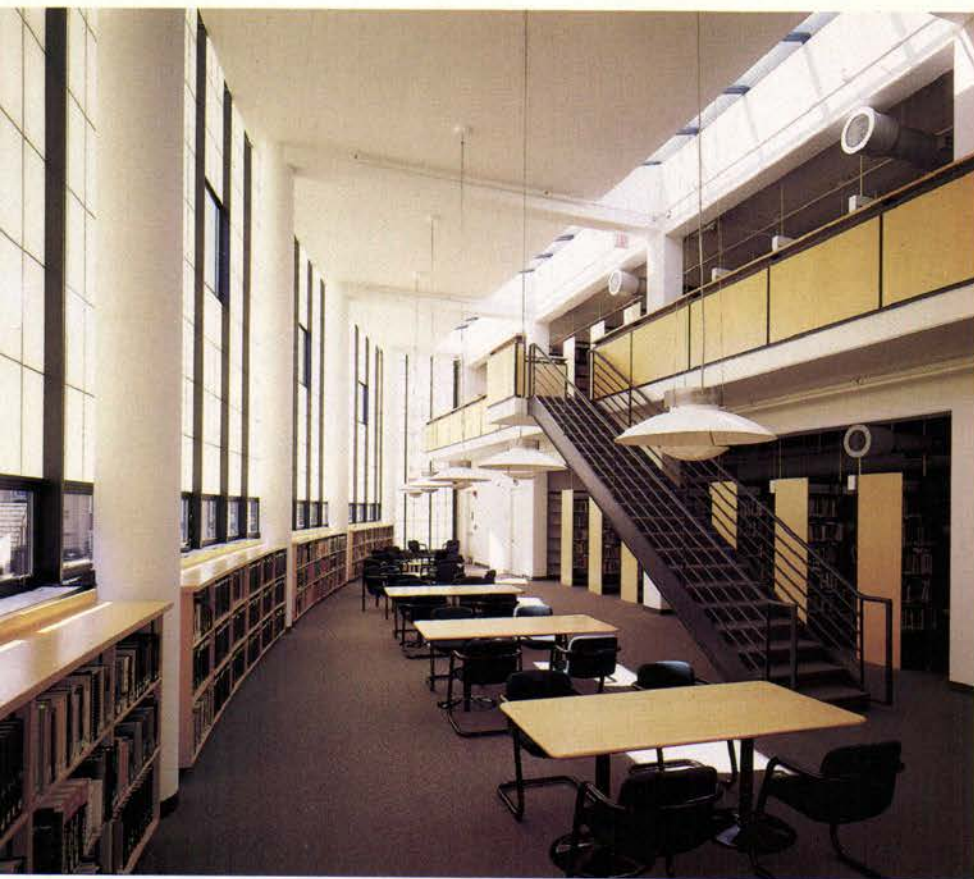
Despite Polshek's protestations against style, a formal set of principles is indeed evident throughout the body of the firm's architecture. Since founding his practice in 1963, Polshek has evolved a Modernist, rational, and rectilinear vocabulary of forms, with an emphasis on both expression of structure and refinement of details. It is an esthetic that is tempered and modified by the nature of a project's placement and its moment in time. The reason his 40-story apartment and office tower at 500 Park Avenue succeeds so well on an urban scale is that its proportions, horizontal fenestration, details, and materials blend smoothly and elegantly with its graceful nine-story glass and aluminum neighbor, designed by SOM for Pepsi-Cola in 1959. Polshek's glass and aluminum shaft, juxtaposed with granite cladding and deeply punched windows, is remarkably contextual—not only with SOM's Modernist form, but among the glass and steel or masonry and marble towers surrounding it in midtown Manhattan.

Similarly, the firm's Washington Court housing complex in Greenwich Village (1987) is one of its most contextual urban schemes. Brick detailing that alludes to the nearby urban vernacular and general massing all make the assemblage amenable to its Greenwich Village site. There is an "ethic" underlying this kind of deference, Polshek alleges; it's a matter of "good manners." As he explains, "Buildings don't have to bow and curtsy. But they have to show a concern for the user and the people on the street. Most people are educated now, and they are armed with regulatory powers," he points out. "They expect more out of architects than a pretty facade."

When the firm undertakes preservation projects, such as the restoration and renovation of Carnegie Hall (begun in 1978), design may defer to the existing structure. But the architects achieve a certain bravado in lighting, ornament, and coloration that reveals an architecture filtered through current ways of looking at the past. In the Carnegie Hall expansion, for example, a rectilinear grid of bronze continues the motif of the new elements in the lobby. Clean, Modernist wall paneling is composed of rich woods that exude a 19th-century sensibility. "We have an ethical responsibility to deal with old as well as new," asserts Polshek. "Putting the imprint of the late 20th century on restoration is just as avant garde as doing new work."

Currently, 40 architects and designers in Polshek's office are working on projects rang-





Mandel School of Applied Social Sciences
Case Western Reserve University
Cleveland, Ohio

POLSHEK INTENDED THE NEW MANDEL School of Applied Social Sciences at his alma mater, Case Western Reserve, to symbolize the institution's progressive stature as one of the nation's leading schools of social work. Of four possible sites for the building, the architect chose one that permits his building to serve as a gateway to the campus.

The building's main, southwest-facing entrance occupies a prominent corner overlooking a plaza, from which two wings splay out like an open book. At the glass-enclosed, prowlike entry, the roof slopes back to the north and the east, creating a forced perspective and reinforcing the image of forward movement. From the first-floor lobby, students can either circulate through the building or continue through to a sheltering courtyard, which opens to the campus beyond.

Slicing through the building, two perpendicular limestone walls define the two main wings, which are devoted to disparate functions—the west wing houses administrative offices and conference rooms; the southern wing contains special program offices and classrooms. The eastern volume, which wraps around the block to embrace the courtyard, contains faculty offices, work areas, lounges, and a library.

The angular entrance facade responds in form to Mather House, an existing early 20th-century classroom building located cater-corner from Mandel, which also meets the street with a diagonal corner entry. The new building's brick, cast stone, and limestone street facades reflect the materials of the older structure. In the courtyard, two gently curving walls seem to nudge students on their way to the campus proper. On the southern face of the courtyard, next to the glass entrance pavilion, randomly patterned square windows light the stairwell and communicate a playfulness.

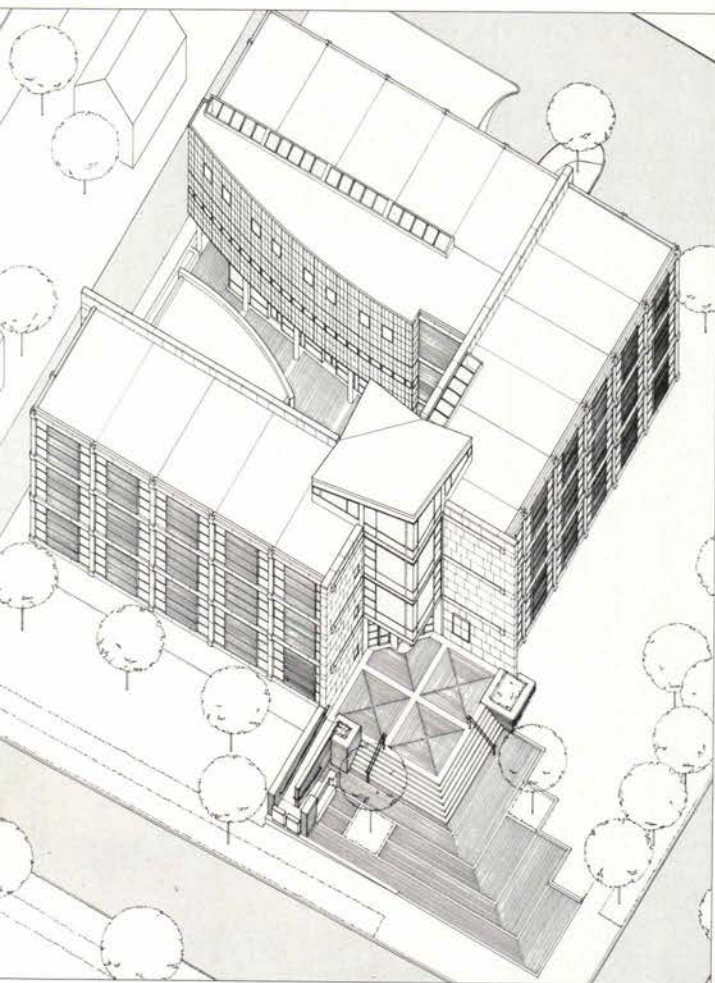
—MICHAEL J. CROSBIE

ARCHITECT: James Stewart Polshek and Partners, New York City—James S. Polshek (principal designer); Joseph L. Fleischer (partner-in-charge); Gaston Silva (project manager); Steve Peppas (project architect); Simona Scarlat (technical coordinator); Marla Appelbaum (interior design); Charles Wolf, Lori Sacco, Ed Duffy, Jeff Botwin (design team)

ENGINEERS: Barber & Hoffman (structural); Byers Engineering (mechanical/electrical)

GENERAL CONTRACTOR: Kelly Construction Management Associates

PHOTOGRAPHER: Jeff Goldberg/Esto



Two limestone walls slice through the Mandel School (facing page, top) to define an entry plaza at the building's southwest corner. The glass tower permits diagonal passage through the lobby directly to the courtyard (facing page, bottom, and axonometric), which is articulated by curved east and west walls faced in aluminum and fiber-glass panels. Behind the ribbon of windows on the east wing's second floor is a light-filled library (above) with mezzanine-level stacks.

ing from a new, competition-winning scheme for an office building for the Ministry of Construction in Chambéry-le-Haut, France, to the Sacramento Memorial Auditorium in California. The firm's method of working entails the involvement of all three of its partners—Polshek, 48-year-old Joseph L. Fleischer, and 42-year-old Timothy Hartung—in various phases of project development.

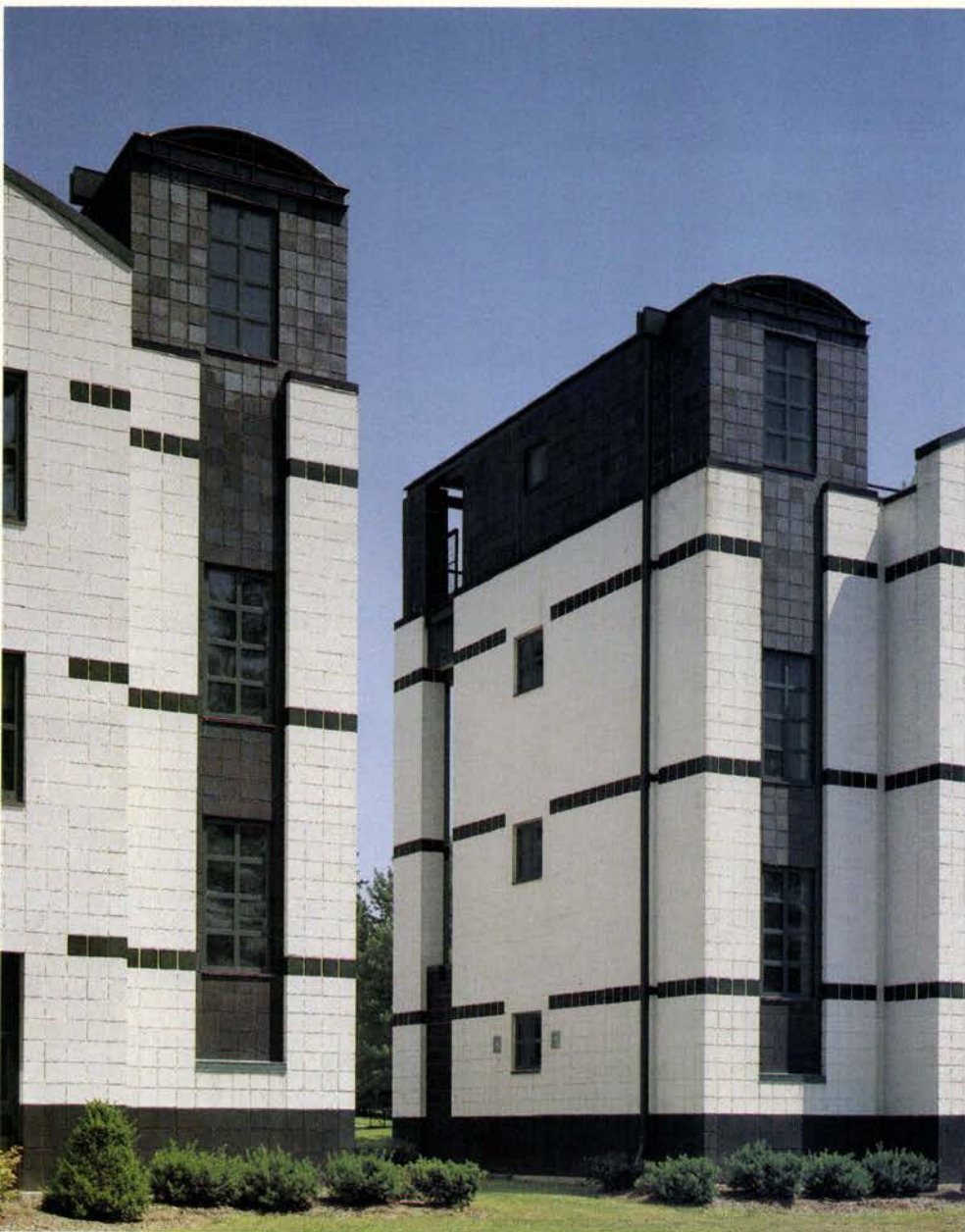
Fleischer, who joined the office in 1966, is responsible for financial management and overseeing project managers on several large-scale commissions, including the Akron Convention Center, the Silicon Valley Financial Center in San Jose, and New York University's Skirball Institute for Biomolecular Medicine and Residential Tower. As Fleischer puts it, "I make sure projects are running, clients are being served, and budgets and schedules are on target." In order to perform this function most effectively, Fleischer gathers information on how time is spent on projects and feeds it into a computerized management system. "The sizes and types of projects are so varied," he explains, "that project managers need feedback quickly on their budgets. Once their hours are in, I tell them where they might make adjustments to keep on track. We can do this within 24 hours." But it takes time to stay on top of this electronic system. "I'm in the office by 7:15 a.m.," Fleischer admits. "I even make the coffee."

Timothy Hartung also manages projects, which he and Fleischer divide up according to project size. Hartung, who has been with the firm since 1978, oversees the general esprit of the office, making sure individuals are suited to their assignments, ironing out problems. "It involves skills in both economics and psychology," he explains. With regard to hiring, Hartung says, "We don't look for designers or technical people, per se. We want to expose architects to all areas of practice." Polshek adds, "When we hire, we look for a certain humility. But we don't want blind followers. We want people who talk back."

Polshek participates extensively in the design process. "I'm out on the floor a lot," he says. "I design the parti of the project, but I tell the other designers, 'This is what I see as the idea or the direction, but it can change.'" For example, Polshek describes his basic role for the Seamen's Institute as "defining the spirit of the building." He maintains that he was the institute's "design conscience," whereas Senior Design Associate Richard Olcott was its principal designer. "My role," Polshek explains, "became one of critic."

Polshek's associates feel that a certain





Alumni Houses
Bard College
Annandale-on-Hudson, New York

FOR THE RURAL CAMPUS OF BARD COLLEGE, the architects designed two new dormitories that, in typical Polshek fashion, improve an existing site and define a new campus quadrangle. They chose a site that faced a bland, unpopular 1960s dormitory that had been inexplicably placed in the middle of a field. To tie the existing and new dorms to the campus, Polshek placed his buildings at a right angle to the unloved Tewksbury Hall. "We could have put our building on a prominent site away from the old dorm," he notes, "but by getting close to it, we've made an unpopular dorm into a popular one." That Tewksbury Hall is now in demand is perhaps explained by the fact that the old dormitory affords picturesque views of the new building. "It's a variation on the old Henny Youngman line. He said he'd rather stay across the street from the Plaza, so he could have a view of a grand hotel," Polshek remarks with a chuckle.

The new dormitories comprise two three-story buildings, set side by side, accommodating 72 students. At the end of this row, a two-story faculty house is positioned at an angle facing Tewksbury. Each dorm building is broken into two wings—distinguished by vaulted cornices, white facades of concrete block, and dark brick and terra-cotta trim—that appear as abstract renderings of white Shaker barns. By articulating the wings with separate roof lines, facades, and entrances, the architects designed the dorms to appear as discrete "houses" of residential scale.

The verticality of the stair towers that serve each dormitory block is emphasized by a dark brick core set within a white concrete shaft, topped with barrel-vaulted metal roofs. These elements offer a marked contrast to the two-story faculty house, which modulates the difference in scale between the new dorms and smaller nearby campus buildings. —M.J.C.



New dormitories are positioned to the south of an existing residence hall (left) to define a quadrangle. Dormitory wings (facing page, top) are articulated by white facades and square windows. A two-story faculty house is sited at an angle (facing page, bottom). Stair towers at the ends of the dormitories (above) form a gateway between the two buildings.

ARCHITECT: James Stewart Polshek and Partners, New York City—James Garrison and James S. Polshek (principal designers); Timothy Hartung (partner-in-charge); Peter Talbot (project architect); Charmian Place (interior design); Don Weinreich, Charles Griffith, Steve Peppas, Adrian Panaitecu, Annette Rusin (design team)

ENGINEERS: Tor Smolen Calini & Anastos (structural); Thomas A. Polise, P.C. (mechanical/electrical)

GENERAL CONTRACTOR: Bard College Department of Physical Plant

PHOTOGRAPHER: Jeff Goldberg/Esto

looseness of approach pervades the office, which works to the firm's benefit. "There isn't a formula to the design of each project," notes Design Associate Susan Rodriguez. "Each project offers a new opportunity." For example, the children's zoo in Central Park, now on the boards, requires researching zoos, landmark districts, and parks. According to Rodriguez, "We never come into a problem thinking it is going to look a certain way."

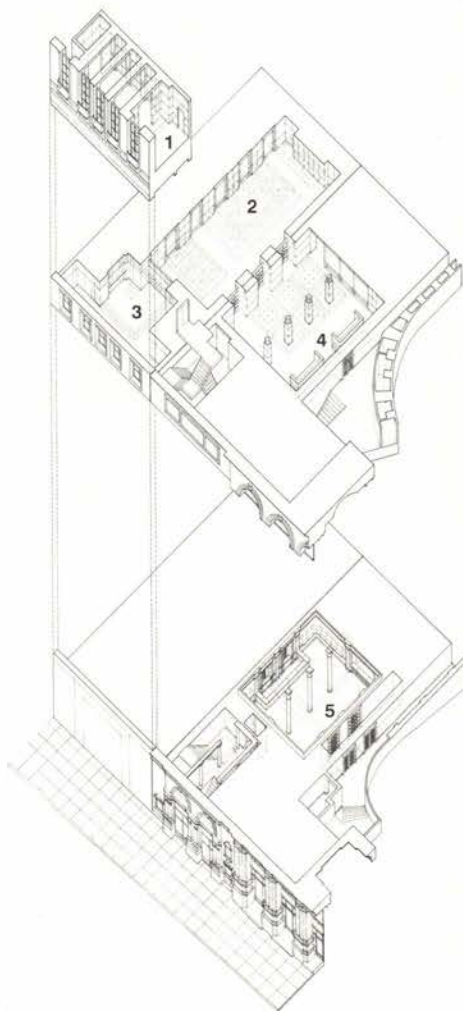
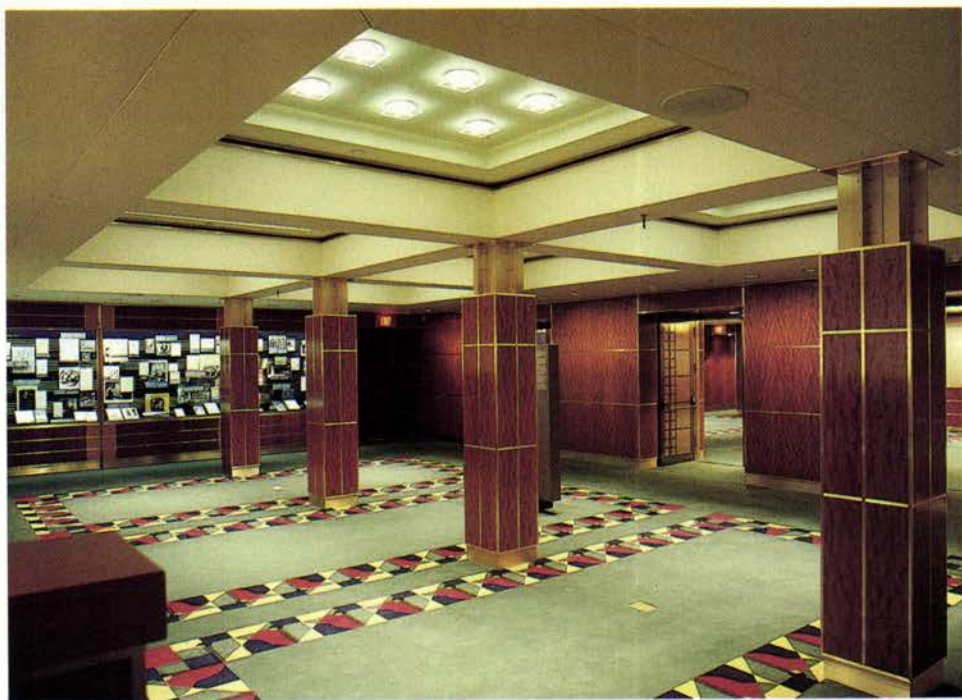
Blake Middleton, another design associate, agrees. "Each job seems to take on its own characteristics," he muses. "It could be described as Modern architecture, in the sense that it is not literal historicism. But it does rely a lot on typology and the history of building types." Middleton, like Rodriguez and the two other design associates, Olcott and Todd Schliemann, all graduated from Cornell University, where historian and theorist Colin Rowe's views on Le Corbusier, typology, and contextualism in urban issues influenced graduates significantly. "So many of the firm's projects are in urban areas," Middleton notes. "The contextual principles I learned from Rowe are invaluable."

Five other associates—Duncan Hazard, Tyler Donaldson, Joanne Sliker, Damu Radheshwar, and Charles Griffith—are project managers, with Hazard in charge of interiors projects, and Donaldson handling preservation. A tenth associate, Jihyon Kim, is responsible for technical services.

Managerial style seems to be key to the quality of work produced. "A camaraderie exists in the office," professes Middleton. "Since the style is informal, there is a real dedication to putting the building together well. We try to get a Porsche out of a Volkswagen budget." Polshek is also "incredibly accessible," adds Rodriguez. "And you are allowed to express your opinion. People remain here for a long time. And some come back."

Hartung adds that turnover is indeed low, although he admits to cutting staff over the last year due to the recession. Polshek argues that what brings people to the office is not a central set of visual rules, but a shared vision that "the architect should be the last humanist." He adds emphatically, "What ties the office together is ethics, not esthetics."

Polshek's ethical architecture may in part be due to his mentor, Louis Kahn. Growing up in Akron, Polshek was the child of parents who expected their son to become a doctor. As a premed student at Case Western Reserve University, Polshek took a course in the history of Modern architecture. He soon transferred to the School of Architecture. By



- 1 RECITAL HALL LOUNGE
- 2 EAST ROOM
- 3 CLUB ROOM
- 4 ROSE MUSEUM
- 5 CAFE CARNEGIE





Rose Museum (facing page, top) displays Carnegie Hall memorabilia and serves as lounge during intermission. Brass strip details harken back to hardware of original building. Double doors lead to East Room (facing page, bottom), and Club Room (facing page, center), which is intimately scaled for small gatherings. Cafe Carnegie (left and below), at parquet level, is lined with metal-framed glass counters.



Carnegie Hall Museum and Patron Spaces New York City

THE RESTORATION, REMODELING, AND EXPANSION of Carnegie Hall have provided an ongoing project for Polshek and Partners for nearly 14 years. In 1988, the firm won a national AIA Honor Award for its refurbishment of the New York City landmark, which includes a complete renovation of the main concert hall, a new lobby, and rehearsal spaces. Several of Polshek's new public spaces for the Carnegie Hall Corporation are located within Cesar Pelli's Carnegie Hall Tower (ARCHITECTURE, June 1991, pages 66-71), just east of the concert hall. They demonstrate the same sensitivity to the 1890 building, and the invention of new details sympathetic to the old, that have distinguished the firm's previous work for Carnegie Hall.

The most exciting new amenity for the concert hall is the Rose Museum. Located directly east of the concert hall's first balcony, the museum doubles as a lounge during intermission. With its dark makore and light anigre paneling edged in brass, brushed-brass column capitals, illuminated coffered ceiling, and display cases exhibiting memorabilia from Carnegie Hall's history, the museum is as exacting in its detail as a tuxedoed conductor. Two adjacent dining rooms offer the flexibility to accommodate banquets or small private gatherings, derived through sliding pocket doors that subdivide the rooms.

Cafe Carnegie, the refurbishment of an existing lounge at the parquet level, is designed to reinstate the room's original Neoclassical details. Polshek and Partners revealed the ornate ceiling and cast-iron columns, once covered over with gypsum board. They added a second entrance to the cafe to improve circulation; new doors echo the same Viennese Secession-inspired motif that the architects inserted within the renovated spaces throughout the hall. —M.J.C.

ARCHITECT: James Stewart Polshek and Partners, New York City—Alice Raucher and James S. Polshek (principal designers); Joseph L. Fleischer (partner-in-charge); Tyler Donaldson (project manager); Mike Woods, Lori Sacco, Lisa Mahar, Marla Appelbaum (design team)

ENGINEERS: Robert Salmon Associates (structural); Goldman Copeland Batlan (mechanical/electrical); Fisher Marantz (lighting)

CONSULTANTS: Chermayeff & Geismar (exhibit designer); Tracy Turner Design (graphic designer) Chapman Ducibella (security)

CONSTRUCTION MANAGER: Tishman Construction Corporation of New York

PHOTOGRAPHER: Jeff Goldberg / Esto

1951 he had entered the Yale School of Architecture, where Kahn was one of his professors. Like his colleagues, Polshek was moved by Kahn's architecture, but, more importantly, he was also influenced by his professor's approach to practice. And like Kahn, Polshek has gradually turned away from houses toward cultural, academic, and civic projects. "Every building is automatically a public one," he maintains, "whether privately or publicly funded." And like Kahn, Polshek has for the most part avoided developers. "There's a devaluation of architecture in society today," he contends. "Architects now design skins on office buildings, while other firms do everything else."

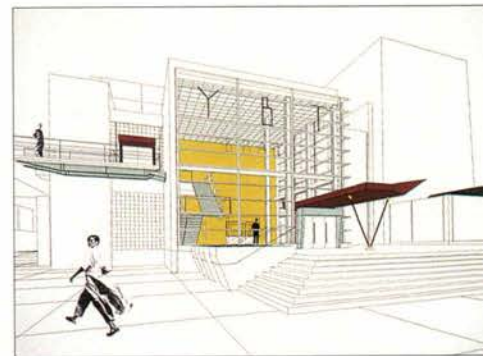
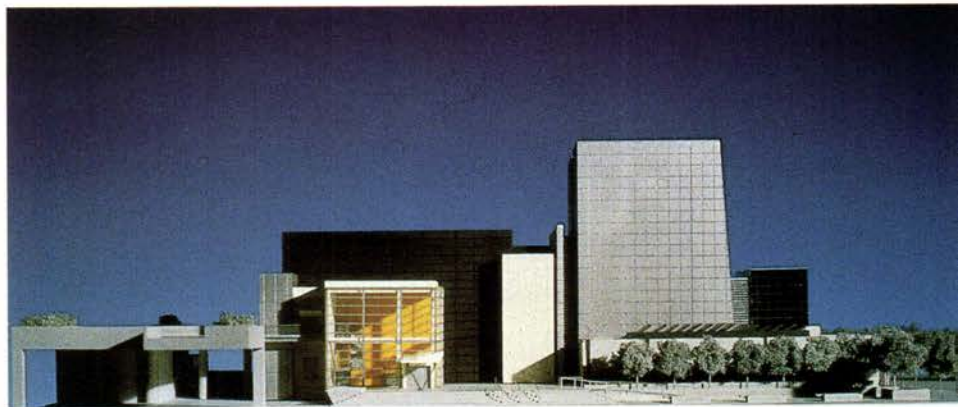
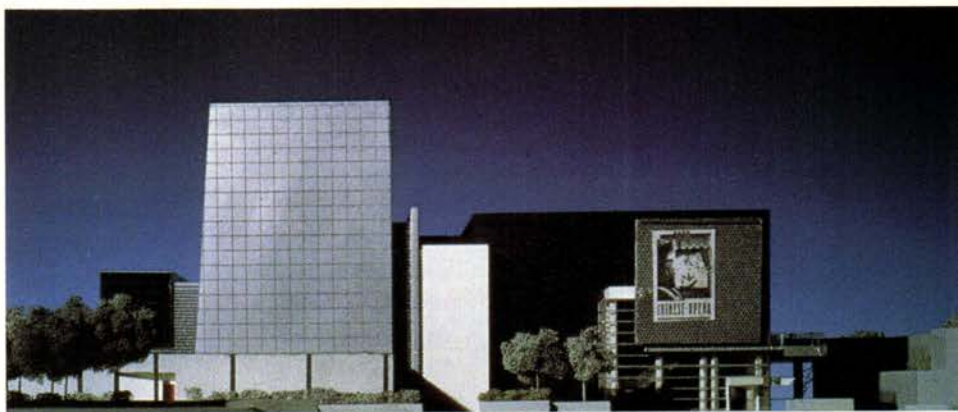
After working briefly for I.M. Pei when Pei was in-house architect for Webb and Knapp, and then for Ulrich Franzen, Polshek received a commission to design two large research institutes in Japan for Teijin, a textile manufacturer. It meant living in Tokyo for two years, but the recognition and experience allowed him to set up his own practice in New York in 1963. By 1972, he was named dean of Columbia's Graduate School of Architecture, Planning, and Preservation, a position he held until 1987.

As the firm's commissions grew in number, Polshek changed the practice from a sole proprietorship to a partnership. In 1980, Fleischer became a partner, and Hartung was made a partner in 1987. Even as the practice has increased in size, Polshek says, his firm has tried to create an architecture that "doesn't skirt the challenge of being inventive, while remaining attentive to the architecture of the place." As he puts it, "I'm making a plea for social responsibility. Architects need to see the building as part of a complex society. But a building is not socially responsible unless it is very beautiful."

The 1990s present a new round of challenges, quite different from those faced by Kahn and Saarinen. The competitive atmosphere is harsher. Architects are still waging style wars. The ongoing recession is thwarting the realization of projects, or even their conception. So now what? "I think attitudes are changing," predicts Polshek. "I'm optimistic. Users will collaborate in the design of their buildings. Projects will be built on a smaller scale. With corporate breakups, companies are smaller, and smaller groups of people will make decisions about where they work and live."

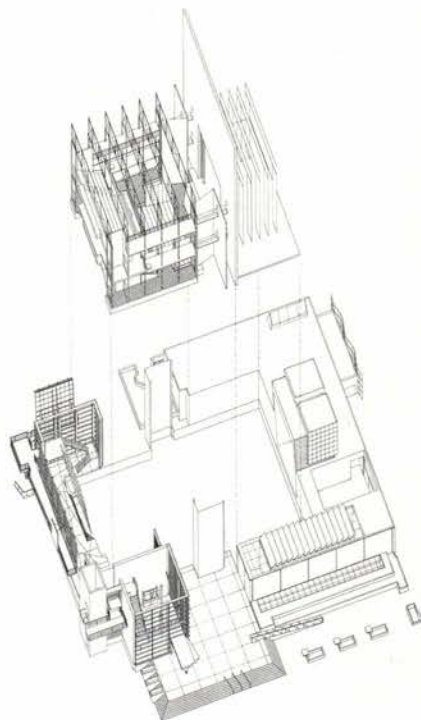
—SUZANNE STEPHENS

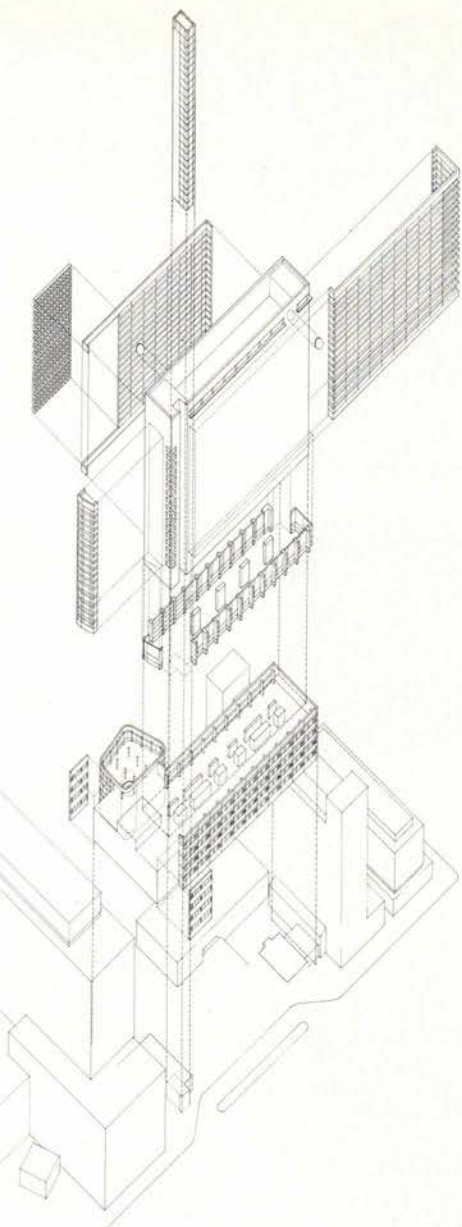
Suzanne Stephens is the editor of Oculus, the magazine of the New York Chapter AIA.



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

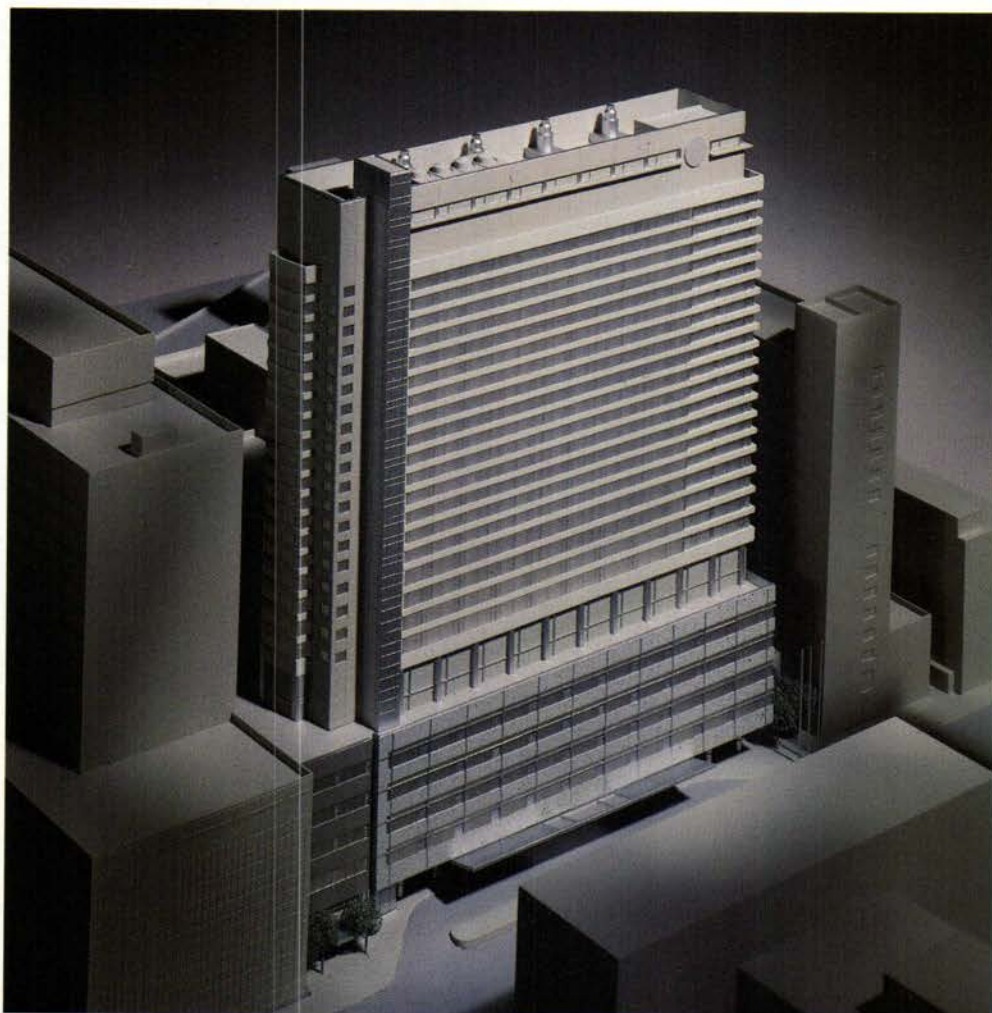
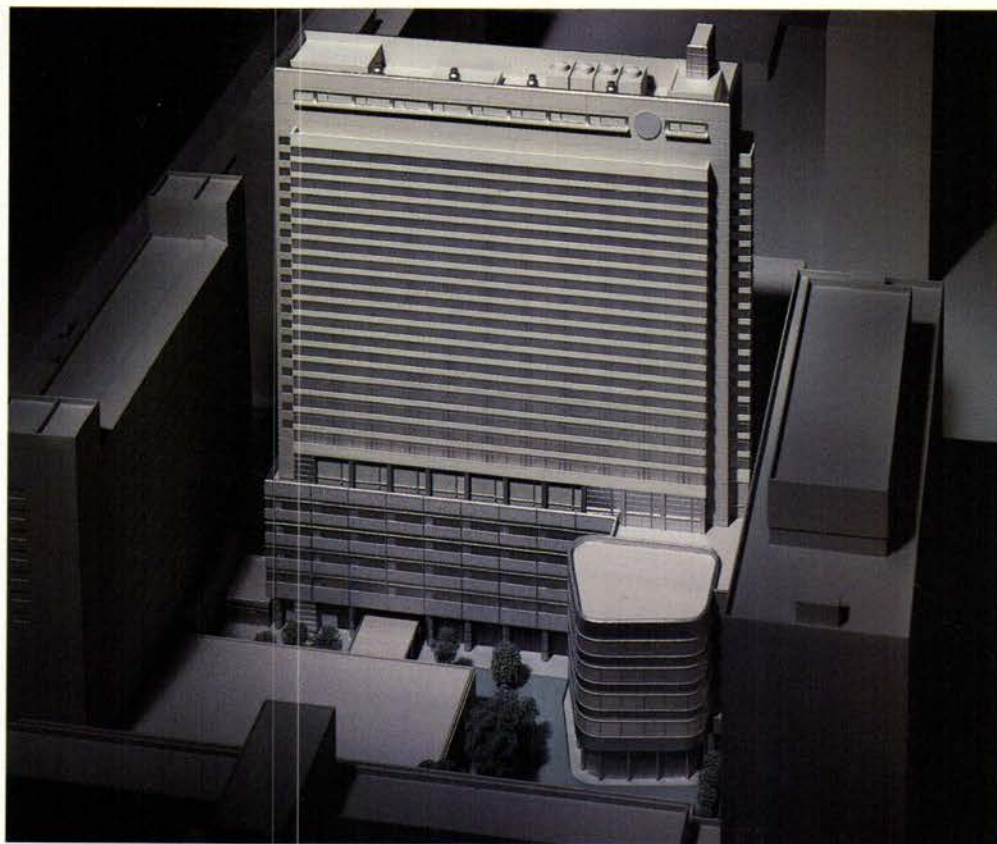
SITUATED JUST NORTH OF THE MOSCON Convention Center on an open site in downtown San Francisco, the Center for the Arts Theater differs from most of Polshek's commissions in that it is a freestanding building rather than urban infill. The building, adjacent to the city's new Museum of Modern Art (now under construction) will be visible from all four directions. The center, which accommodates film, dance, opera, and theater, is a composition of black tile, white steel, and aluminum boxes (top and above) that establish a singular profile for the complex. The tiled volume will feature a large glass window through which video screens will be visible. The complex will be completed in 1993. —M.J.C.



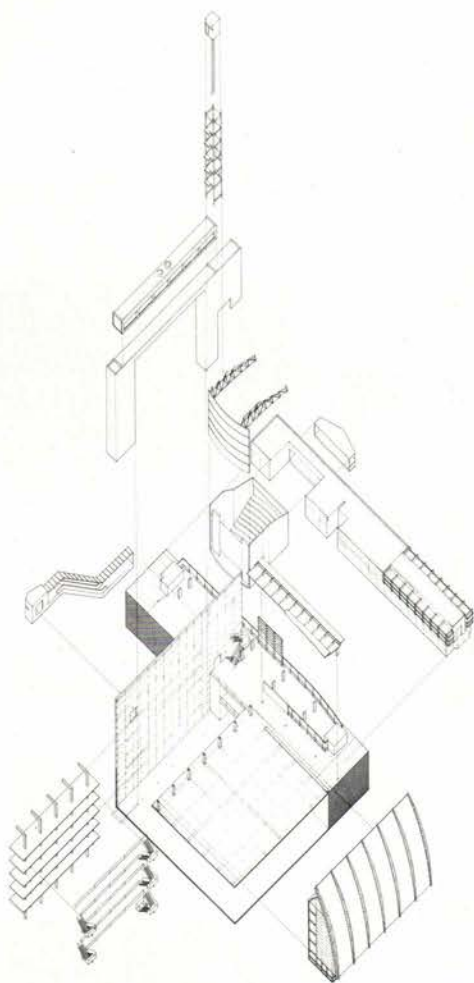


**Kirball Institute for Biomolecular Medicine
and Residential Tower
New York University Medical Center
New York City**

DOLLSHEK'S TRADEMARK IS THE DEFT JUGGLING of spaces on a crowded urban site, typified by a 550,000-square-foot mixed-use building for New York University's hospital complex. The granite, aluminum, glass, and brick exterior (right) of the 24-story tower relates to adjacent Modern buildings and expresses its various program contents: four stories above grade include biomolecular research laboratories and mechanical equipment. Faculty offices and student housing occupy the upper 19 floors. The ground-floor lobby channels medical center staff between tower and hospital. Now under construction, the project will be completed in late 1992. —M.J.C.



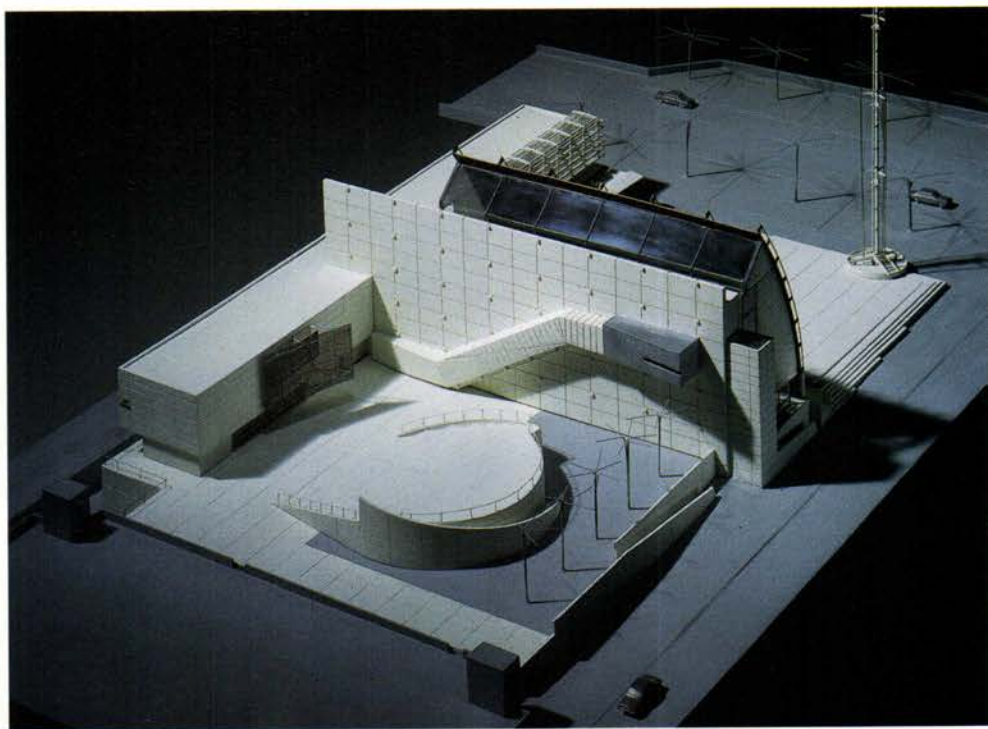
JOCK POTTLE/ESTO PHOTOS

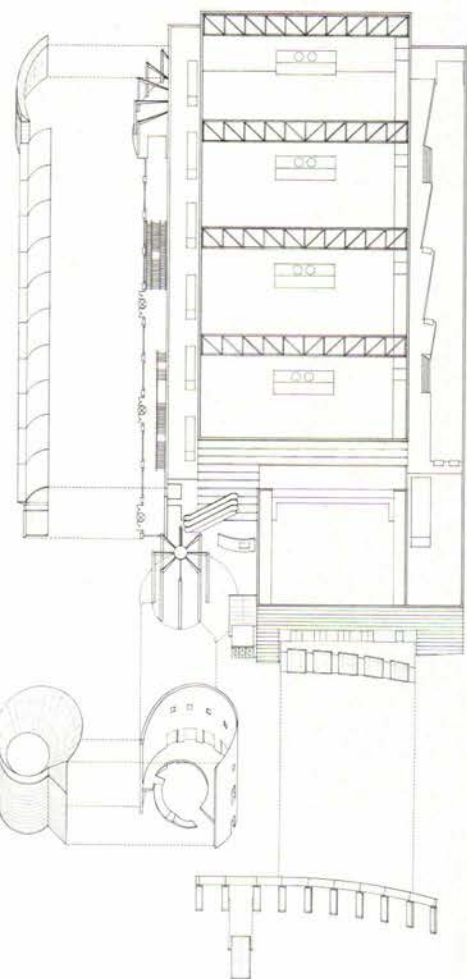


National Inventors Hall of Fame Akron, Ohio

EXHIBITS DEVOTED TO AMERICAN INVENTORS will be housed in an 82,000-square-foot building in Polshek's hometown of Akron, Ohio. The museum, which will display such artifacts as the patent for Alexander Graham Bell's telephone, comprises an arcing wall of metal panels and trusses beside a 170-foot-high tensile-cable and steel tower (top right). Inside the curved structure is a five-story volume with tiered balconies, through which visitors view historic inventions and a portrait gallery. An amphitheater is angled toward a highly finished concrete wall that slices through the building (center right and right). Sponsored by the nonprofit National Invention Center, the museum's construction will begin later this year.

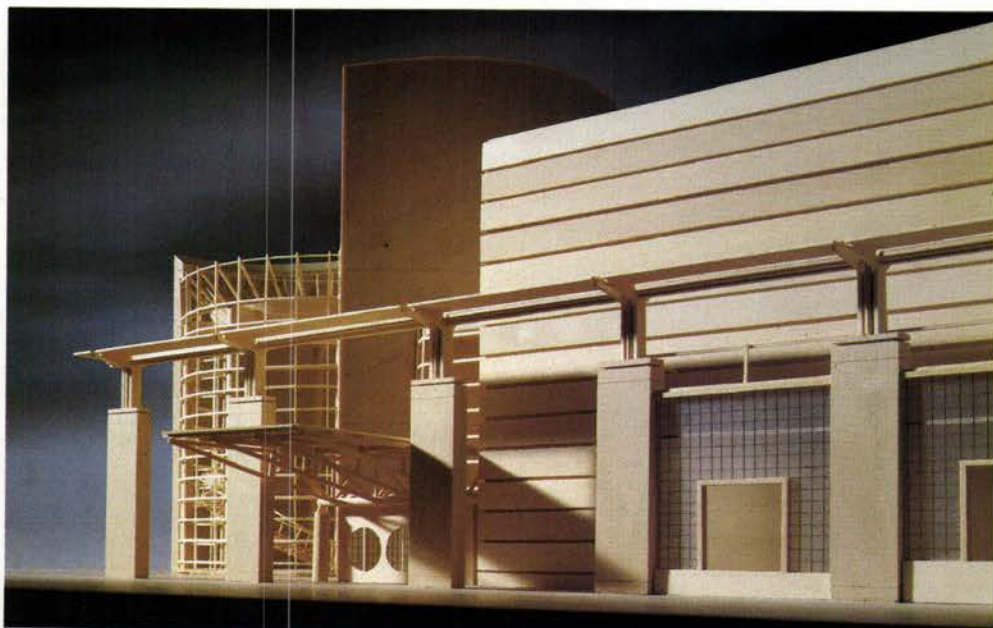
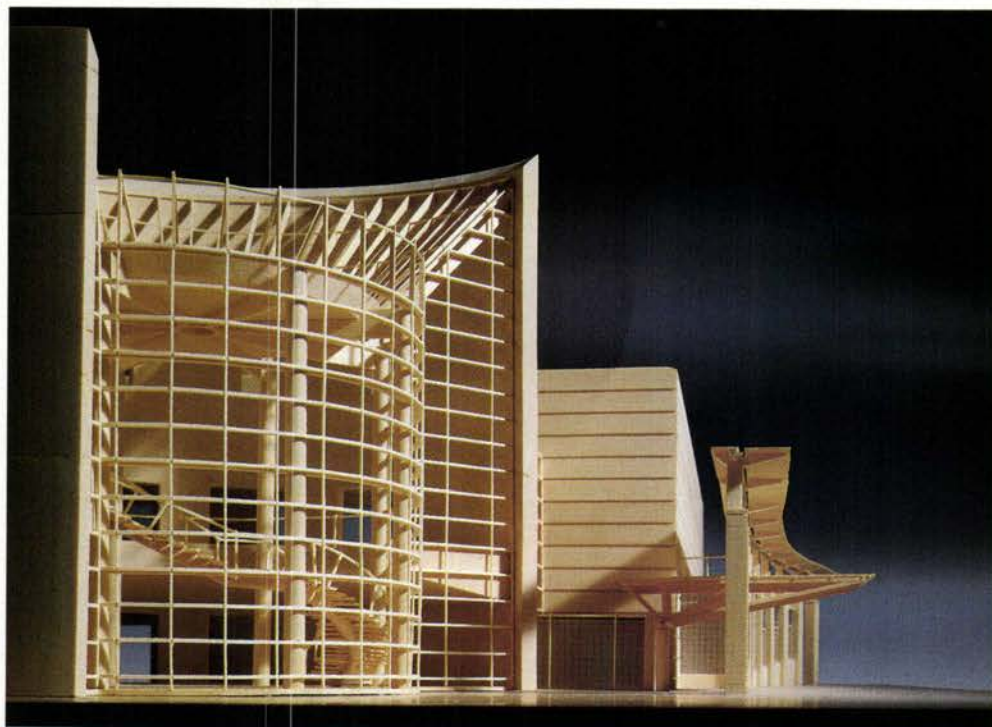
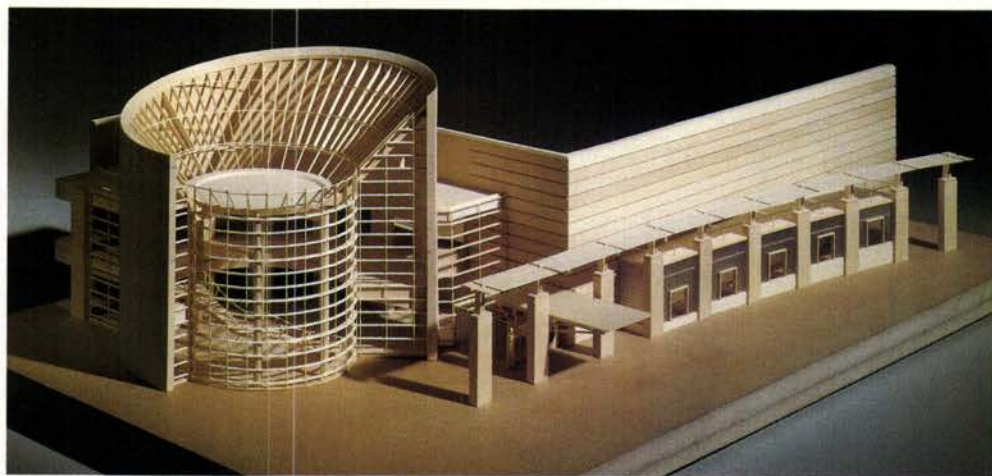
—M.J.C.



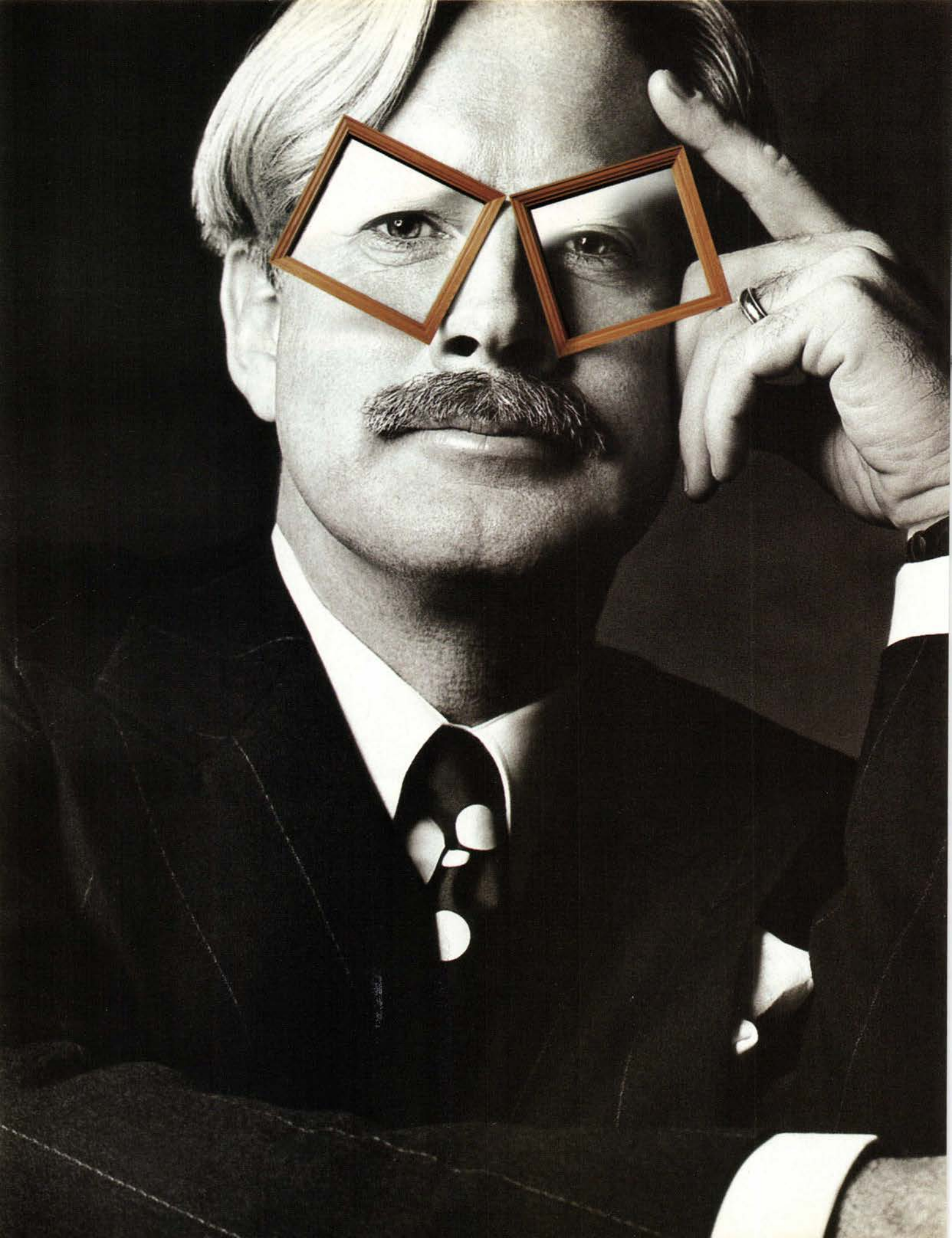


Akron Convention Center
Akron, Ohio

LIKE THE NATIONAL INVENTORS HALL OF fame, the Akron Convention Center is designed as part of the city's downtown revitalization plan. A three-story brick and glass rotunda (top right and center right), will rise in the city's skyline and act as a point of orientation from the center's two major public spaces: a 60,000-square-foot exhibition hall and a 1,000-seat banquet hall. A two-level arrangement of the concourse wings incorporates exhibition spaces on top and smaller spaces, such as conference rooms and administrative offices, on the lower level. Exterior brick and translucent glass block (right) recall the nearby grain mills and factories of the late 19th and early 20th centuries. Construction is scheduled to begin in May 1992. ■



JOCK POTTLE/ESTO PHOTOS



Technology & Practice info

Information on building construction, professional development, and events

Seismic Requirements Shift Eastward

TWO NATIONAL BUILDING CODE ORGANIZATIONS have substantially revised their seismic evaluation methods. This year's supplements to the Building Officials and Code Administrators (BOCA) International's National Code and the Southern Building Code Congress International's (SBCCI) Standard Code, both adopted in eastern regions of the United States, no longer determine seismic requirements on the basis of a map divided into geographic "risk zones." New and renovated commercial buildings are now classified by seismic performance categories based on occupancy and the building's motion relative to ground movement. Under the newly adopted regulations, proposed construction on sites previously designated as "low-risk" (zone 1 regions (based on a scale of 0 to 4), which were excluded from seismic regulations, will now be subject to seismic codes. The new criteria are based on provisions recommended by the National Earthquake Hazards Reduction Program (NEHRP). BOCA is now offering workshops explaining the new design requirements. For further information, contact BOCA, (708) 799-2300, or SBCCI, (205) 592-7001.

—M.S.H.

Guide to Healthy Air

The Environmental Protection Agency (EPA) ranks indoor air pollution among the top five environmental health risks. To limit such hazards, the EPA and the National Institute for Occupational Safety and Health have jointly released a new nonregulatory "self-help" guide:



Building Air Quality: A Guide for Building Owners and Facility Managers (above). This spring, the EPA plans to open an Indoor Air Quality Information Center and publish a primer on the subject for architects designing new buildings. Contact: (202) 260-8090.



Home Builders Poised For Market Upswing

IF ATTENDANCE AT THE NATIONAL ASSOCIATION of Home Builders (NAHB) convention is any indication of the coming year's housing market, the outlook is bright. The Las Vegas event attracted more than 60,000 participants and 1,000 exhibitors. The optimism at the show may have been bolstered by a slight increase in single-family housing starts at the end of 1991.

Attending to the needs of the nation's increasingly diverse populations was the underlying theme of many of the show's events. A seminar entitled "Home of the Future" noted a rise in "particle" markets in the United States. Growing Asian and Hispanic populations, for instance, will trigger greater demand for larger houses to accommodate several generations under one roof, while more senior citizens will require smaller dwellings.

Diversity was certainly apparent in the range of products, seminars, and demonstration homes presented this year. While speakers wrestled with the complex factors that affect affordability—including building codes and construction methods—several manufacturers introduced sophisticated automation systems and components for the high-end customer.

Celebrating its 50th anniversary this year, NAHB inaugurated "Homes Across America," a year-long low-income housing initiative. NAHB, Southern Nevada Home Builders, and Habitat for Humanity sponsored the construction of a 1,222-square-foot house outside the exhibit halls. The home was then trucked to a Las Vegas suburb where it will be sold at cost.

—N.B.S.

Products displayed at this year's NAHB exhibit include Marvin Windows' Magnum Triple Hung (top left), whose top sash lowers as the bottom sash is raised; Pella's French Casement (center left), which eliminates the corner mullion; and Plexus's Control Center (left) for the Smart House.



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Designing for AIDS

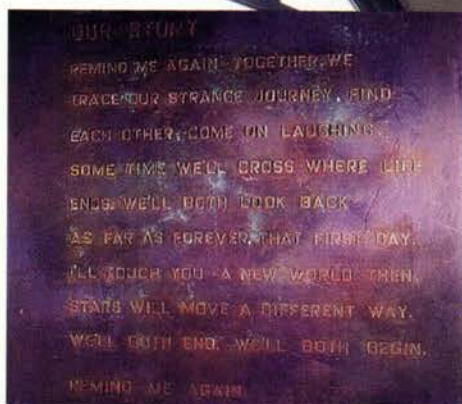
As the epidemic grows, architects develop new types of healing environments.

THE RESIDENTS WILL BREAKFAST LATE IN the dining room, soak up sun rays in the solarium before a morning massage, and walk slowly through the greenhouse to check on the seedlings they planted the day before. They will not be guests in the latest health spa, but AIDS patients striving to maintain their independence at the life-affirming Bailey-Boushay House, which opens next month in Seattle, Washington.

The 34,000-square-foot concrete block and stucco building is one of many facilities across the country designed specifically to care for and house people with HIV-related illnesses. These new prototypes defy traditional healthcare models. Architects must virtually start from scratch in creating a building type to house a diverse range of functions: examination and treatment rooms, counseling areas, dining and living rooms, administrative offices, and specialized spaces. Each new project remains an individual case, sponsored by enlightened clients who embrace alternative concepts of care. As they negotiate between federal, state, municipal, and community bodies for regulatory, zoning, and reimbursement approvals, these sponsors and architects are developing innovative buildings that should not only benefit those afflicted with AIDS and HIV, but patients in other types of healing environments, especially the elderly.

Architects are creating supportive settings for this type of unconventional healthcare by donating their services and developing innovative ways of cutting across social, political, and medical boundaries. In response to the

Bailey-Boushay House in Seattle, Washington, features amenities such as greenhouse and terrace on the third floor (right). Artwork includes a poem in raised brass letters (inset) that gives pause for reflection.



MICHAEL JENSEN PHOTOS

range of AIDS and HIV patient needs, they are designing a spectrum of facilities that counter the rectilinear footprints of traditional health-care structures.

Craftsman-style houses, old orphanages, and former office buildings are being transformed into skilled-nursing facilities offering psychological support so that patients can return home; day centers for adults who are still independent; community healthcare centers with a broad agenda of medical and therapeutic aid; housing dedicated to people with AIDS; and hospices for the last days of life.

The traditional skilled-nursing medical model—despite the merit of being eligible for Medicaid reimbursement—sadly fails HIV/AIDS populations. The cyclical and ongoing nature of HIV illnesses; the fact that adults with AIDS are usually in their prime of life, and therefore more mobile and sociable than other patients; the need for psychological and family support; plus associated debilitations such as loss in body weight and strength, vision impairment, and dementia, demand a wide range of environmental supports for both patients and staff. The most successful new facilities are housed within homelike settings that contain consulting, therapeutic, and meeting rooms for patients, additional office space for staff, and such amenities as libraries and greenhouses. Centers for live-in patients typically house kitchens, sleeping accommodations for caregivers, and meditation rooms for reflection and grieving.

If the facility offers medical services, additional provisions for handling infectious waste and HVAC systems with sufficient capacity are required to prevent the spread of airborne infections such as tuberculosis. For example, rooms dedicated for administering aerosolized pentamidine, one of the primary drugs for treating AIDS-related pneumonia, require 20 to 30 air changes per hour to protect clients and medical staff.

Substantial revisions in July 1990 to New York's skilled-nursing facility codes should go a long way toward humanizing larger HIV/AIDS facilities. For the first time, concepts such as enhancing the quality of life and improving residents' privacy, independence, and dignity are articulated in the regulations. Based on performance criteria rather than on specific requirements, the new codes are forcing architects to rethink conventional double-loaded corridors and create solutions that encourage a positive social and psychological outlook.

The first skilled-nursing facility dedicated to people with HIV illnesses in New York City is Rivington House on New York's Lower





Bailey-Boushay House
Seattle, Washington
The Bumgardner Architects

DESIGNED BY THE BUMGARDNER ARCHITECTS of Seattle, Washington, and dedicated in January, Bailey-Boushay House (above) is the nation's first newly constructed skilled-nursing home and adult day center for people with AIDS. Developed by AIDS Housing of Washington, the \$7 million project was built with help from federal and foundation grants in addition to corporate and community funding. The facility, named after two founders of the project, is located in an older neighborhood of houses and small retail shops. After many community hearings—and an 11th-hour lawsuit by a neighborhood developer who eventually supported the project—construction began according to a revised design that incorporates such requests as retail space, landscaping, and parking. The three-story house is organized in “neighborhoods” of eight or nine residents each (plan, left). The first floor houses offices, nap rooms, therapy rooms, and a dining and activity space (facing page, top) for the adult day center. The second floor includes a meditation room and 18 single bedrooms (facing page, bottom), while the third floor contains 17 rooms and a greenhouse. On the two upper floors, solariums (facing page, center) are positioned at the ends of each wing. The architects incorporated the work of local artists Mary Ann Peters and Beliz Brother in a solarium (center right) with granite hearth. A column in entrance lobby by artist Linda Beaumont (center left) is clad in mosaics of ceramics, fossils, and shells.



THIRD FLOOR PLAN

- | | |
|------------------------|--------------------|
| 1 SOLARIUM | 7 CONFERENCE ROOM |
| 2 BEDROOM | 8 GREENHOUSE |
| 3 STORAGE | 9 WORKROOM |
| 4 SOILED LINEN | 10 NURSES' STATION |
| 5 CLEAN LINEN | 11 MEDICAL CENTER |
| 6 DINING/ACTIVITY ROOM | 12 TUB ROOM |

East Side. Sponsored by the Village Nursing Home, a community-run long-term care operator, its construction is expected to begin this year following the sale of state bonds. Perkins & Will and Davis, Brody & Associates of New York have been commissioned to create the \$24 million facility by renovating a dilapidated school to house 241 beds and a rooftop dining and recreation space. "There's really no code for a facility like this," points out Perkins & Will Partner Donald Blair. Unlike other AIDS projects across the country that have been held up or rejected because of neighborhood prejudice, Blair is most pleased to report that Rivington House won the support of all local organizations. Another facility with a new approach to functional and public spaces is a 140,000-square-foot, 190-bed skilled-nursing home in Harlem designed by Norman Rosenfeld Architects of New York. The new brick building contains a laundry and kitchen on each floor, a bar and lounge for entertaining, and rooms with beds arranged at a right angle to delineate occupants' territories. Sponsored by Mount Sinai Medical Center, the project awaits final state approval.

In the earlier days of the AIDS epidemic, the primary need was for skilled-nursing beds. With the advent of more drugs that reduce the frequency of the acute episodes that require hospitalization, there is growing demand for far less expensive walk-in centers and housing with no fear of eviction. One of the most sophisticated centers in the country is Boston's new Fenway Community Health Center. The new building is designed by Dan Ocasio of the local firm Urban Access; the programming, planning, and design of the interiors were undertaken by Vance Hosford and Victoria Mohar of Boston-based Payette Associates. Opened last May, the three-story building houses HIV treatment rooms on the top floor, which overlooks a park; community, mental health, and alternative services such as chiropractic and acupuncture on the second floor; and a lab and administrative offices on the first floor. Identifying the design challenge as "giving expression to individuality within a community," Hosford opted for a "noncorporate, noninstitutional atmosphere" by designing such details as indirect lighting, maple-clad casework, and undulated ceilings.

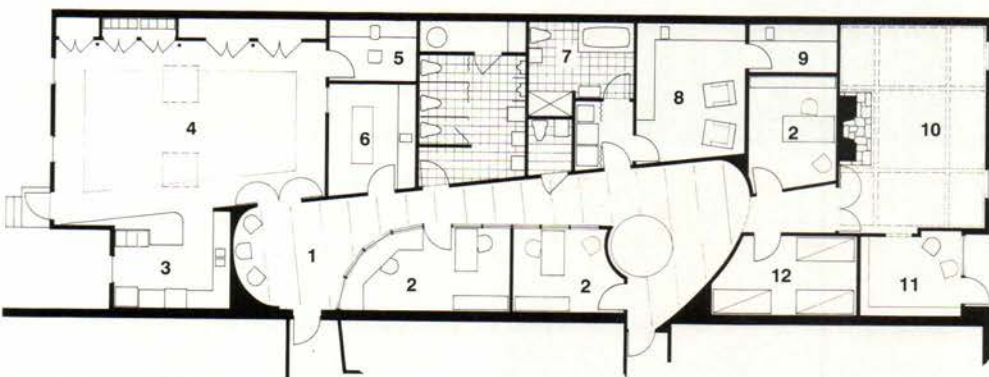
The major criteria for housing people with HIV-related illnesses is developing a sense of home, believes architect Martin Cohen, an Armonk, New York-based health-facilities consultant to other architects and owners.





Bill Austin Day Treatment and Care Center
Whitman-Walker Clinic
Washington, D.C.
Acanthus Architects

PROVIDING A RANGE OF EDUCATIONAL, MEDICAL, and psychosocial programs to the gay and lesbian community of Washington, D.C., since 1973, the Whitman-Walker Clinic initiated its first AIDS program in 1983. To better serve its HIV-infected clients, who represent all populations affected by the virus, the clinic commissioned Acanthus Architects of Washington, D.C., to convert an adjacent single-story office building (above) into the 3,700-square-foot Bill Austin Day Treatment and Care Center. The center, which opened in February, is entered from the main clinic through a curvilinear reception hall (plan and facing page, top). Handrails along the corridor (facing page, center) offer support to frail patients. The hallway leads to a skylit general activities room (facing page, bottom), which functions as a dining room, meeting room, and, after hours, a waiting room for those being tested and counseled for HIV infection. Adjacent to this room are a kitchen, storage lockers hidden behind wood-paneled doors, and a personal-care room in which a haircut or shave is offered. Off the main hallway, the architects located a room for physical therapy and massage, a bathroom with an accessible shower and whirlpool for treatment (center left), laundry facilities, and a nurses' station where patients can receive four- to eight-hour intravenous treatments. A living room (top left), located at the far end of the facility, offers a place of fellowship for HIV-positive patients, who often feel a deep sense of isolation. Countering an orthogonal grid, angling suspended light fixtures, and selecting unusual colors and rich materials are a few ways in which the architects added delight to a potentially somber setting. Hanging above the oak mantelpiece is a portrait of Washington, D.C., architect Bill Austin, who died of AIDS in 1990 and whose friends and family provided financial support for the center.



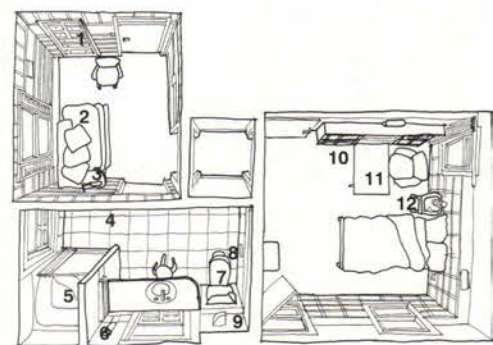
GROUND FLOOR PLAN

- | | |
|---------------------------|-------------------------------------|
| 1 RECEPTION AREA | 7 SHOWER ROOM/HYDROTHERAPY TUB |
| 2 OFFICE | 8 NURSES' STATION/MEDICAL TREATMENT |
| 3 KITCHEN | 9 MEDICATION STORAGE |
| 4 GENERAL ACTIVITIES ROOM | 10 LIVING ROOM |
| 5 PERSONAL CARE | 11 LIBRARY |
| 6 PHYSICAL THERAPY | 12 NAP ROOM |

But he adds, "Our profession has yet to understand what makes a place seem like a residence." Home may mean having bedside control over lights and window shades, as in the Easler House in Gloucester (these pages), growing plants in a greenhouse, as in Seattle's Bailey-Boushay House (pages 86-87), or living with family members who are also infected. To help meet the growing demand for family care is the 42-apartment Highbridge-Woodcrest Center, a renovated orphanage in New York City designed by Donald & Lisa Sclare Architects. The scheme features a lounge with kitchens on each floor (19 two-bedroom apartments have their own kitchens), an exercise room, and a fully staffed clinic. Alternatively, home could be an apartment in the \$1.2 million, 17-unit New Hope Residence, under construction in San Pedro, California, designed by Grinstein/Daniels of Los Angeles. Organized around a courtyard and equipped with roof deck and hospital-size elevator, the complex includes one- and two-bedroom units. Each unit includes a bathroom and a caregiver's bed.

In talks to the AIA Committee on Architecture for Health and the New York Chapter of the AIA, Richard V. Olsen, a New York environmental psychologist and one of the very few who has researched AIDS-related facilities, addresses the root concepts of home—dignity, autonomy, community, and physical comfort. He maintains that supportive settings must be organized from the user's perspective. Because residents are suffering from feelings of loss of home, job, and health, their environment should help give them back a sense of autonomy by being totally accessible and comfortable. Olsen cites many details through which residents can gain a sense of control, such as lightweight doors that are easy to close and a stool to sit on while shaving. He recommends features that provide physical support, a directly accessible bathroom, and lights with dimmers, which are essential for people bothered by glare or who have vision problems.

Facilities for patients who are too sick to be independent, yet do not require hospitalization, are also in great demand. In 1988, with these AIDS populations in mind, California legislated a new licensing category, called a "congregate living health facility," for people who are terminally ill. Fitting that code requirement is the 25-bed Carl Bean AIDS Care Center in South Central Los Angeles, financed by state bonds. The facility is reserved for people with full-blown AIDS; average length of stay is expected to be 40 to



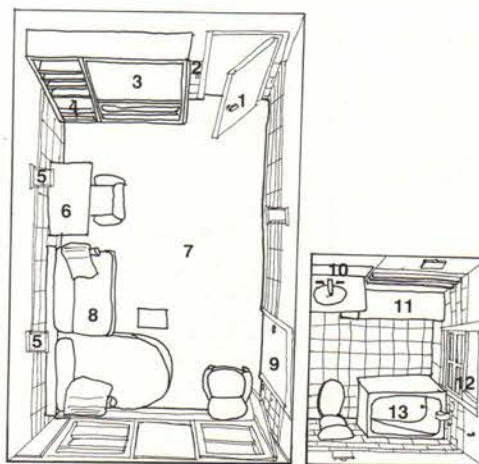
TWO-ROOM SUITE

- 1 TV/VCR HOUSED IN CABINET
- 2 SOFA CONVERTS TO A BED WITH REMOVABLE CUSHION COVERS
- 3 ADJUSTABLE WALL-MOUNTED LIGHT
- 4 SEAMLESS WALL FINISHING
- 5 SHOWER WITH SEAT AND GRAB BARS
- 6 EXTENDING SCISSOR MIRROR
- 7 18-INCH-HIGH TOILET
- 8 GRAB BAR
- 9 QUARTZ LIGHTING
- 10 BUILT-IN SHELVES FOR PERSONAL BELONGINGS
- 11 FOLD-DOWN WRITING/DINING TABLE
- 12 LIGHT DIMMER, WINDOW SHADE CONTROL, PORTABLE PHONE, AND CALL BUTTON



Easler House
Gloucester, Massachusetts
Payette Associates

LATER THIS YEAR, A FORMER SEAMEN'S FLOPHOUSE (above) will become Massachusetts' first integrated residence for people with HIV-related illnesses and those recovering from substance abuse—two populations with similar requirements for supportive housing. Owned by two local developers involved in affordable housing, the 17-room facility is managed by Nuva (or “new life,” in Portuguese), an innovative, publicly funded community organization. Two of the rooms were recently renovated by Vance Hosford and Dian Love of Payette Associates under the sponsorship of *Interiors* and *ARCHITECTURE* magazines and the National Symposium on Healthcare Design to provide an appropriate setting for people with HIV-related illnesses. (Nuva is currently raising funds to facilitate additional renovations.) Equipped with remote-controlled shades, dimmable lighting, room for occupants' personal furniture and belongings, and built-in furniture, the revamped spaces offer emotional and physical support for the patient. The third floor contains a two-room suite that consists of a 12-by-13-foot bedroom (facing page, top), which includes a folding wood table (facing page, center), and an 8-by-9-foot sitting room (facing page, bottom) with a sleep-sofa for a caregiver. A 12-by-18-foot studio on the second floor includes a bed (top left) that can fold out of sight (center left) to enlarge a sitting area (bottom left). Both rooms include private bathrooms with an accessible tub or shower. Wilsonart generously contributed to installation costs, and the furniture was loaned by manufacturers and distributors (see page 92). MorseDiesel International arranged for subcontractors to donate some services. Construction was managed by The Combine of Essex, Massachusetts, which also contributed to costs. Payette Associates waived its fees on this project.



STUDIO

- 1 LEVER DOOR HANDLE, 3 FEET HIGH
- 2 LIGHT CONTROL, 3 FEET HIGH
- 3 FOLD-DOWN BED
- 4 SLIDE-OUT COUNTER
- 5 INDIRECT LIGHTING ON DIMMER
- 6 FOLD-DOWN WRITING/DINING TABLE
- 7 SOLUTION-DYED CARPETING
- 8 COUCH WITH BUILT-IN CHAISE
- 9 POCKET DOOR
- 10 BUILT-IN TOILETRY CUPBOARD
- 11 BUILT-IN SEAT
- 12 TRANSLUCENT GLAZED PANEL
- 13 DEEP TUB WITH INTEGRATED ARM RESTS, REPOSE PILLOW, AND HAND SPRAY



60 days. Butler Forbes Jubany and associate architects Po Thogmartin Architects, both of Los Angeles, along with Cooper Roberts Architects of Salt Lake City, renovated a 1901-vintage, 3,400-square-foot Craftsman-style house and built a 15,000-square-foot addition for the center. Scheduled for completion this May, the project includes individually air-conditioned rooms and spa-type baths on each floor. To achieve an airy, noninstitutional image within the addition, the architects inserted a double-height public area capped by a barrel-vaulted ceiling of glass. Windows from the second-floor corridor look out into this interior space, bringing more light to the upper bedrooms.

The California legislature has also made way for a new type of facility called a free-standing acute-care hospice. Opened in July 1991 to great acclaim, the privately funded San Diego Hospice Acute Care Center, located on the new campus of the San Diego Hospice Center, includes all the services of an acute-care facility plus the amenities of a residential setting. The 24-bed hospice by Delawie, Wilkes, Rodrigues, Barker & Bretton of San Diego features hardwood floors, doors opening onto patios, and accommodations for families. The building also houses the Center for Palliative Studies, a research and educational body whose mission is to improve the quality of care for patients for whom a cure

is no longer an option.

Given the limited funding for most AIDS projects, many architectural firms are waiving fees as they develop new building types. If, as Hosford predicts, the trail-blazing smaller projects of today become prototypes for the institutions of tomorrow, pro bono work may very well be rewarded with larger commissions in the future. In addition to developing new design solutions to AIDS-related problems, architects are discovering new ways of practice. In New York City, for example, Swanke Hayden Connell Architects, Kohn Pedersen Fox Associates, and Perkins & Will are working together in an unprecedented pro bono collaboration on plans for a new, full-service, pediatric-AIDS-care unit for Bronx Lebanon Hospital.

According to the Centers for Disease Control in Atlanta, the number of people in the U.S. with AIDS may increase from 206,392 to 365,000 by the end of the year. With more than 1 million Americans now infected with HIV, there is clearly a huge demand for HIV/AIDS facilities of all types. Incorporating alternative concepts of design, caregiving, and environmental supports, these new facilities will offer pioneering models for other types of healthcare.

—KARIN TETLOW

Karin Tetlow is a freelance writer based in Accord, New York.

ARCHITECTURE thanks the following companies, manufacturers, and individuals for donating their services and products to the Easler House in Gloucester, Massachusetts, which originated as an Interiors initiative project.

SPONSORS: Architex; Armstrong World Industries; The Combine; Component Assemblies; Davis Furniture; DesignTex; Garofalo Electric Co.; Kimball; Maharam; Milcare; MorseDiesel International; Wilsonart

ARCHITECT: Payette Associates, Boston

CONSULTANTS: Weidlinger Associates

CONTRACTORS: The Combine; MorseDiesel
SUBCONTRACTORS: BKM Associates; JAJ Tile Company; L.W. Holton Company; Maywood Builders Supply Co.; Medusa

CUSTOM FABRICATORS: Upholstery Modes/CI Design (cushions)

SURFACES: Shep Brown Associates (bathroom tiles); Vicretex (vinyl wall covering); Wilsonart (wood veneers and laminates for bathrooms/solid surface wall); The James Wood Company (wood paneling)

TEXTILES: Ambiance; Architex; DesignTex; Kirk-Brummell; Sina Pearson Textiles; Stratford Hall; J.H. Thorpe; Unika Vaev

BED LINENS: J.P. Stevens

FLOORING: Hartco Wood Flooring (parquet flooring); Prince Street Technologies (carpeting)

FOLD-UP BED: Sico Incorporated

LIGHTING: Boyd Lighting; Dibianco Imports; Lightolier

PLUMBING FIXTURES: Kohler Company

WINDOWS: Charrette (mylar shutter cover); DiBianco Imports (glass panels); MechoShade Systems (motorized blinds); Pinecrest Shutters (shutters)

FURNITURE LOANED: B&B Italia via Montage; Donghia via Ostrer House; HarborLight Futon Co.; ICF; The McGuire Furniture Co. via M. Geough; USA, Inc.; Workbench

Resources for AIDS-care Prototypes

FOR ARCHITECTS SEEKING MORE INFORMATION about AIDS-care facilities, a good place to start is the Technical Assistance Project (206-448-5242) headed by Betsy Lieberman, executive director of AIDS Housing of Washington, who is writing a manual on AIDS-care facilities. Two other sources are *Developing AIDS Residential Settings: A Manual*, a useful report on San Francisco's early model hospice project, published by the Visiting Nurses and Hospice of San Francisco in 1988 and "Re-designing Facilities for People with AIDS" by Richard V. Olsen, *Health Facilities Management*, February 1990. Kim Blakely, a New York-based environmental psychologist who is writing a staff-training manual on AIDS and vision for The Lighthouse National Center for Vision and Aging, reports that 75 percent of people with AIDS suffer vision loss ranging from slight impairment to blindness. *Low Vision Information: A*

Photographic Essay on Partial Sight, published by The Lighthouse in New York, is a helpful explanatory brochure. Responding to the poverty of research, the Health Facilities Research Program of the AIA/ACSA Council on Architectural Research is seeking funds for a study of AIDS-care environments. The study will investigate such issues as the impact of deaths on residents and the merits of single versus double rooms. Two departments at the New Jersey Institute of Technology (NJIT) are addressing AIDS facilities issues. NJIT's Architecture and Building Science Group has applied for funding to develop design and selection criteria for apartment programs for people with AIDS. At the NJIT School of Architecture, Professor Leslie Kanes Weisman's fifth-year design studio is working closely with the Newark medical community to develop an architectural program for a community center for families with HIV/AIDS. To be completed this

summer, the resulting document, which includes designs, method, and concepts, will be used for fund-raising (call 201-596-3080). Meanwhile, literature on geriatric dementia and low vision is relevant to designing for AIDS/HIV. Three useful publications are *Nursing Home Renovations Designed for Reform*, by Lorraine G. Hiatt (Butterworth Architecture, Stoneham, Massachusetts), which helps sponsors optimize systemic qualities of programs through better design; *Holding On to Home: Designing Environments for People with Dementia*, by Uriel Cohen and Gerald Weisman (Johns Hopkins University Press, Baltimore), which includes examples of different types of facilities and a systematic process for planning, programming, and design; and *Housing the Aged* by Victor Regnier and Jon Pynoos (Elsevier Press, New York), a well-organized compendium of design directives for groups with special needs. ■

Branching Out to New Generations

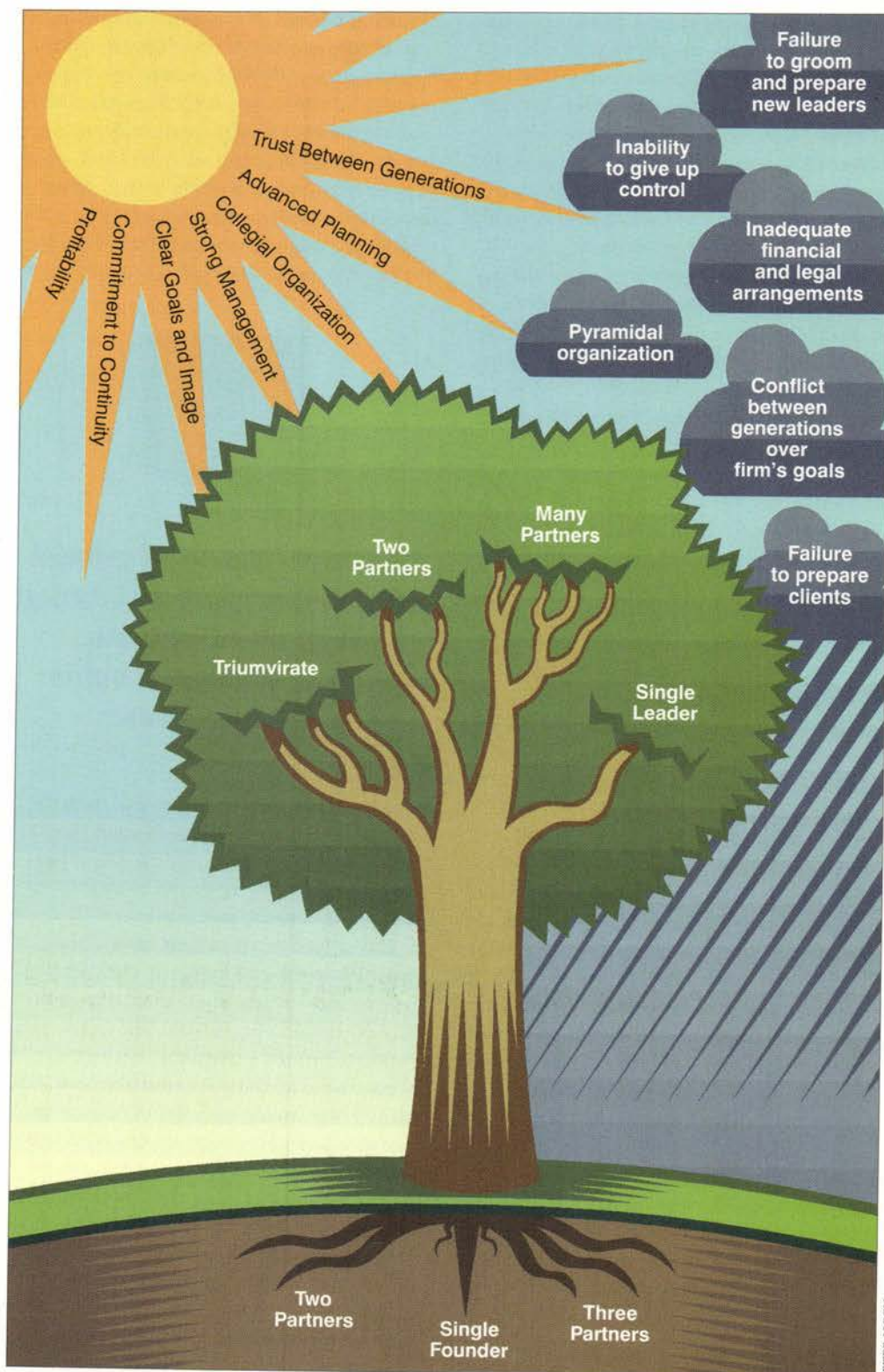
Continuity from one set of firm principals to another requires careful planning.

A RECENT SURVEY OF ARCHITECTURE AND engineering firm principals by the management consulting firm of Mark Zweig & Associates of Natick, Massachusetts, reveals that more than 25 percent of respondents feel that older principals are "just coasting toward retirement." According to Frederick D. White, a partner with Zweig, younger, baby-boomer principals are "taking on a lot of responsibility, and are frustrated because image and ownership are very difficult to change."

This alienation among younger partners reflects a reality for many prominent architecture firms launched during the postwar era: their founders are now approaching retirement age. The image of a celebrated partner basking in his former glory and leaving the work—but not the remuneration—to younger followers is common among architecture firms. According to White, "most firms are oriented around the professional good will and charisma of a founding principal." Ensuring continuity of purpose, projects, and profits after a firm's leader retires requires establishing a sound transition plan; in the case of an illustrious but aging designer, it also requires relinquishing control.

Gradual transfer of power

AMONG THOSE NAVIGATING THE SHOALS OF leadership and ownership transitions with a measure of success is The Stubbins Associates of Cambridge, Massachusetts, formerly of Hugh Stubbins and Associates, famed for its 1977 design of New York's Citicorp Center. The Stubbins firm prospered from the time it was founded in 1949 until the recession of the early 1970s, which jolted founder Hugh Stubbins into reorganizing his practice. The recession also persuaded Stubbins, then 65, to lessen his administrative involvement and devote more time to design. "I wasn't ready to retire, but one gets older," Stubbins explains. To attract new talent and to encourage the best people to stay, he began to share responsibility. In 1977, he named three younger principals, including 33-year-old Richard Green as vice president of design. The restructured practice grew, and Stub-



PETER HOBY

bins announced his desire to step down as president in 1983, leaving the choice of successor to the four remaining principals. That prompted further soul-searching about the firm's direction, and a decision to keep the practice oriented to high-quality design. Green, who was soon elected president and chief operating officer, contends that clients were prepared to accept this change, since "they knew that we weren't a one-man firm." In 1985, management took two final steps. An employee stock ownership plan was instituted, and Hugh Stubbins' stock was purchased and redistributed. (Stubbins retains the title of chairman and chief executive officer.) The plan included the stipulation that, as older principals retired, their stock would also be sold to the next generation. A strong economy and healthy profits during the 1980s allowed the younger principals to buy out the older generation's stock at a price acceptable to both. The firm's new leaders renamed the practice The Stubbins Associates, signalling a change in leadership, but the intention to build on traditions established by the founder.

Green believes that smooth leadership transitions require cooperation and positive reinforcement from the founder, or the process is doomed to failure. The frequent inability of founders to groom successors and shape a buy-out and transition plan is one reason why business- and service-oriented firms have an easier time rejuvenating themselves than do practices whose reputations depend on signature design. As illustrated by the gradual transfer of power by The Stubbins Associates, a successful transition requires three steps: a firm must be profitable, it must plan ahead, and it must plan well.

To assure its profitability, the venerable Chicago firm Holabird & Root, which has rejuvenated itself repeatedly for more than a century, has instituted a system in which former partners retain a percentage of profits for 10 years after retirement. "That makes them choose new partners very carefully," explains senior partner Gerald Horne. It also ensures that retiring principals leave new leaders sufficient funds to compensate themselves.

Profitability eliminates a major source of friction and mistrust between the retiring generation, which wants to sell for the highest possible price, and the younger principals, who want to buy into the firm at the lowest achievable cost and least risk of liability. "Many problems occur because there isn't planning until the owner wants to get out, and then there isn't adequate time to fund a

gradual transition of ownership and power," explains consultant Mark Zweig. By the time the owners want to retire, their stock is often too expensive for junior partners to acquire.

Mergers and mutations

THE FIRM MAY THEN BE FORCED TO LOOK outside for new leadership with more capital, or to merge with an existing practice. According to merger and acquisitions specialist Bob Skunda, principal of Dewberry and Davis, an engineering and design firm based in Fairfax, Virginia, "fewer than 50 percent of mergers make it." At best, they tend to mutate rather than regenerate a firm, because each practice has its own peculiar culture, which new owners generally replace with their own. Moreover, during a recession, few practices have the capital to acquire other firms. But, while an economic downturn is seldom a good time to



Because each architectural practice is unique and rooted in its own traditions, no two will branch out in the same manner.

put a transition plan in place, it is often the best period to prepare for succession by clarifying the firm's guiding principles and promoting key people, as was accomplished by The Stubbins Associates.

Zweig further warns that, in selecting future leaders, founders should look for the same entrepreneurial spirit that made the firm successful to begin with. The second generation's instinct is usually to maintain, rather than take the risks needed to sustain a spirited firm. In the majority of cases, even once-small, design-oriented firms tend to become larger and more management-oriented in the second generation. After acquiring more principals, a practice tends to become more corporate in style. Sasaki Associates of Watertown, Massachusetts, for example, began as a modest practice specializing in landscape architecture, but has matured into a full-service firm with 28 principals, 275 em-

ployees, and offices in seven cities. "The huge transition for us," says principal David Hirzl, "was from an entrepreneurial to a corporate organization. The challenge was to maintain the original character of the practice, to avoid becoming a huge, faceless enterprise."

The transition process is also easier within organizations founded by several partners than for firms with only one or two founders. In firms such as The Architects Collaborative of Cambridge, Massachusetts, egos aren't a problem. Founder Walter Gropius instituted a policy in which the presidency rotated every two years. Says John C. Harkness, a long time TAC principal: "The transition between Gropius and the rest of the office was easy, because we were all partners to begin with. Financially, we were all equals. Offices can be divided into those where the whole thing folds when the leader dies, and those where leadership has always been shared."

Declaring independence

BECAUSE EACH ARCHITECTURAL PRACTICE IS unique and rooted in its own traditions, no two will branch out in the same manner. One variation is the successor firm, as exemplified by MGA Partners, heir to Mitchell/Giurgola of Philadelphia. The firm started in 1958 as Mitchell/Giurgola Architects and split in the late 1960s into two offices—one based in New York, headed by Romaldo Giurgola, who was teaching at Columbia—the other remaining in Philadelphia. By 1986, Ehrman Mitchell had retired altogether, and Giurgola was spending more time in Australia after completing the Parliament House in Canberra. Adrift, the remaining principals in the Philadelphia office began working with a management consultant to identify the firm's strengths and goals in the hopes of continuing as a firm. MGA Partners, established in 1990, is the resulting creation of the firm's three current principals, Alan Greenberger, Bruce Thompson, and Daniel Kelley. MGA Partners' survival depended on the firm's ongoing commissions, which carried it through its initial years. Questioned about his firm's name change, Greenberger answers, "Our name says we're a new firm that doesn't want to throw away its history."

Regarding the new firm's client base, Greenberger recalls, "We became good at sniffing out which clients were looking for stars and which were looking for expertise, and we also got over answering the 'where's Aldo?' question defensively. Now we just tell clients which of us will be in charge." To establish that it can succeed independently

without abandoning its history, MGA has also nourished relationships within the local architectural and academic communities. All three partners have taught in schools of architecture, and Alan Greenberger was recently inducted as 1992 president of the Philadelphia Chapter/AIA.

Planning the next transition

FOR FIRMS THAT CAN SURVIVE THE EVOLUTION from founders to second-generation leadership, the transition of power becomes easy and continuous. Power transfers have become second nature to such practices as Shepley Bulfinch Richardson and Abbot of Boston, which, like Chicago's Holabird & Root, has repeatedly renewed itself for well over a century. The 106-year-old New York firm HLW, known until recently as Haines Lundberg Wachler, has likewise continually revived itself through merit promotions. Ted Hammer explains that his first assignment when he was elevated to managing partner at age 39 was to find his own successor. He feels it important to talk often and openly about succession, because "the folks we choose to lead the firm have an effect even after they are gone." HLW, like many practices today, is seeking leaders with international experience who are interested in new delivery systems and comfortable with integrating technology and design. Explains Hammer, "We've always done strategic planning. We know exactly where we want to go, but how we get there may surprise us."

The need to adapt to change is altering even America's best known firm, Skidmore, Owings & Merrill, in major ways. Previously led by a committee of partners, SOM last July named David Childs as its first chairman. Childs explains his accession as a reaction to the firm's need to be responsive to the changing business climate. "Because of the economy and the diverse base of our practice," he contends, "we needed a better organized operation to make decisions quickly. Part of my mandate," he concludes, "is to plan a future where promotions are more logical, and transitions are easier."

These partners have successfully negotiated the uncharted waters of leadership transitions, avoiding what consultant Zweig refers to as "taking the lions' share of the rewards and perquisites without making sacrifices." Grooming successors, delegating authority, and charting a clear direction and strong firm culture produce practices where the young are not alienated—they're in charge. ■

—ANDREA OPPENHEIMER DEAN

Basics of Ownership Transition

UNTIL ABOUT 20 YEARS AGO, ARCHITECTS rarely addressed the need to transfer ownership of their firms. More commonly, they gradually reduced their volume of work and eventually retired. As firms grew larger, the transfer of ownership from older to younger practitioners has become more commonplace. Reasons for passing the baton range from a need to expand the practice and its markets, to adding to a firm's capital, to ensuring continuity of services and philosophy. They include:

Continuity. If firms are to maintain service to their clients beyond the lives of their founders, new owners must be brought in to keep the practice viable.

Expansion. Clients buy from and are served by principals. If firms are to grow, they may need new owners who can market and sell to more clients.

Expertise. If principals wish to compete for new kinds of projects, especially those where extensive experience is necessary, they may need new partners with the appropriate background.

Leadership. For firms to be successful, owners must recognize the value of strong leadership and the importance of identifying future owners. Promising associates must be recognized and given appropriate opportunities. Those who have the ability to practice at the level of partner will do so—if not where they currently practice, then elsewhere.

Capital. When firms require funds for growth, owners have the responsibility to provide capital. New owners add to the capital base.

Retirement. Founders seeking to diminish or cease their activities in a firm without liquidating it can only do so if others replace them. New ownership can be accomplished through mergers and acquisitions, or through transfer of ownership to individuals within the firm.

Once the firm's needs are understood, current partners must agree on the qualities they will seek in new owners. In addition to providing capital, leadership ability, experience, and the other qualities listed above, new owners may be chosen because of their age, education, legal abilities, professional achievements, and shared values. Current owners should be com-

fortable working with prospective owners as part of the management team.

When ownership is transferred, something of value changes hands. ("Value" is ordinarily defined as the amount that an informed buyer would pay a willing seller in the absence of duress.) A firm's value is simply the net difference between its assets and liabilities. To avoid repetitive and costly appraisals or negotiations between buyers and sellers, firms are advised to establish a specific value, a valuation process, or a valuation formula that will serve various ownership transfer situations, including retirement, early withdrawal of a partner, or admission of new owners.

When the percentage of the firm changing hands—and its corresponding value—are established, owners must create a transition process that achieves the objectives of both buyer and seller, taking into consideration issues of taxation, risks, and liabilities. The mechanism can be as simple as a transfer of cash, or it can involve complex combinations of cash, notes, deferred compensation, and retirement benefits, with or without interest.

Owners must also address how the firm will be governed after the transition. Issues of control are the essence of a firm, and they include such matters as:

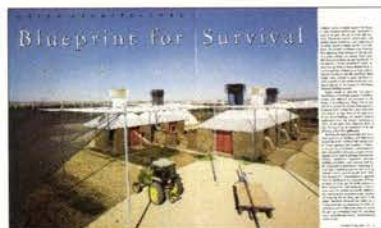
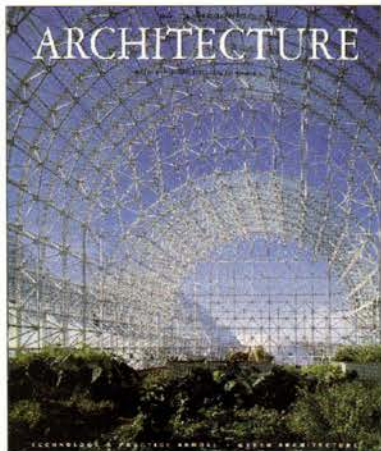
- How will decisions be made regarding the compensation of owners?
- Who will decide the process by which projects are to be developed and delivered?
- Which partners will have final authority for design, management, and technical decisions?
- What kind of projects should the firm seek, and who will make those decisions?

The actual transfer of ownership—handing over the baton—is relatively easy. But making the transition effectively requires reevaluating a firm's purpose, finances, ownership needs, and future control. The most successful transitions are achieved through careful planning and discussion, long before the change actually occurs.

—PETER PIVEN

Peter Piven, FAIA, is a principal consultant of The Coxé Group, a Philadelphia-based management consulting firm that serves the design professions.

Award-winning coverage.



ARCHITECTURE is proud to announce that the magazine has won its first Jesse H. Neal Editorial Achievement Award. Hailed as the Pulitzer Prize of the business press, the Neal Award is the industry's salute



to individual editors for their high standards of editorial excellence. This year's 38th awards jury of journalists and educators honored ARCHITECTURE's May 1991 issue on "green architecture" as the best subject-related series of articles in its category. In that issue, we urge architects to adopt a holistic approach to design by examining the increasingly complex relationship between the manmade and natural environments. This message of ecological responsibility is conveyed through innovative examples of environmentally conscious design and practical advice on selecting resource-efficient building materials and systems. ARCHITECTURE's award-winning coverage of such important topics underscores our commitment to providing architects with the most valuable information on design, building technology, and professional practice.

ARCHITECTURE

Award-winning ARCHITECTURE

Full Metal Jacket

New fabrication techniques elevate the profiles of steel- and aluminum-clad buildings.



WITH THE REVIVED POPULARITY OF STREAM-lined Moderne, metal cladding has come into its own. Many buildings, especially those that house high-tech facilities of the computer era, are dispelling the stigma of prefabricated metal exteriors. In an effort to polish its image, the metal construction industry staged its first annual convention last October for building-design professionals (ARCHITECTURE, December 1991, page 79). Metalcon '91, held in Washington, D.C., revealed recent advances in manufacturing that offer new design alternatives to standard metal components and systems.

Coupled with improvements in coatings that offer greater durability and expanded color palettes (pages 97-99), metal-panel manufacturers have advanced their fabrication techniques, enabling architects to specify more detailed and customized metal-panel profiles. Many of these innovations are the result of research and development conducted for the aerospace industry.

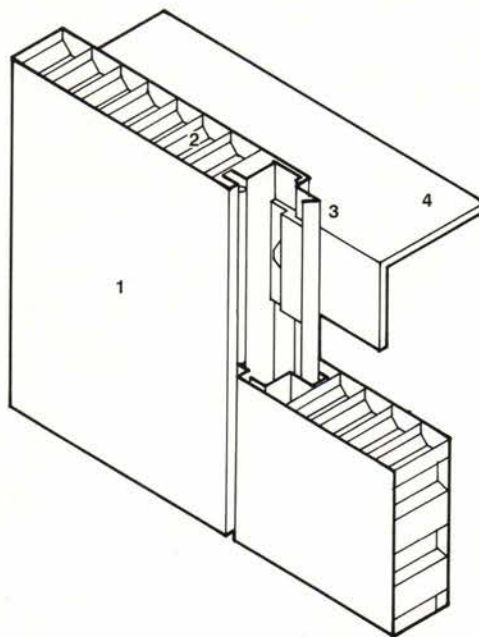
Superplastic aluminum

ONE TECHNOLOGY DEVELOPED BY AEROSPACE engineers and adopted by the building industry is the formation of superplastic aluminum, also known as "superplasticizing." In this process, panels are fabricated from an aluminum alloy that behaves like plastic when heated and blown into a mold with compressed air, but retains the strength of aluminum when finally formed. From molded 1/8-inch-thick sheets, aluminum panels can be formed through this process into intricate shapes with smooth contours. Complex components can be combined into a single mold and formed from sheets in a single pressing. This process reduces the need to fabricate smaller sheet-metal parts and weld or mechanically fasten them in the field, ensuring dimensional accuracy and consistency. Although production facilities for architectural applications of superplasticizing were first established in England, Superform USA, an American offshoot of the British company, recently opened a plant in Riverside, California. According to Michael Reynolds, the com-

Superplasticizing is a metal-fabrication procedure in which an aluminum alloy sheet is heated until it can be formed like plastic (top left). The process creates detailed shapes such as ribbed panels (center and bottom left) and retains the structural strength of aluminum. A composite panel constructed of steel or aluminum skins adhered to a core of foam insulation, corrugated kraft paper, or metal honeycomb (bottom section) offers a smooth surface finish (below).



COURTESY H.H. ROBERTSON



COMPOSITE PANEL

- 1 METAL PANEL FACE
- 2 HONEYCOMB CORE
- 3 SHIPLAP JOINT
- 4 METAL ANGLE

pany's vice president of sales and marketing, superplasticizing is most economical when at least 50 and up to 5,000 panels of the same profile are required. Recent applications of superplasticized aluminum include Gatwick Airport's North Terminal and the Financial Times Print Works in London (facing page).

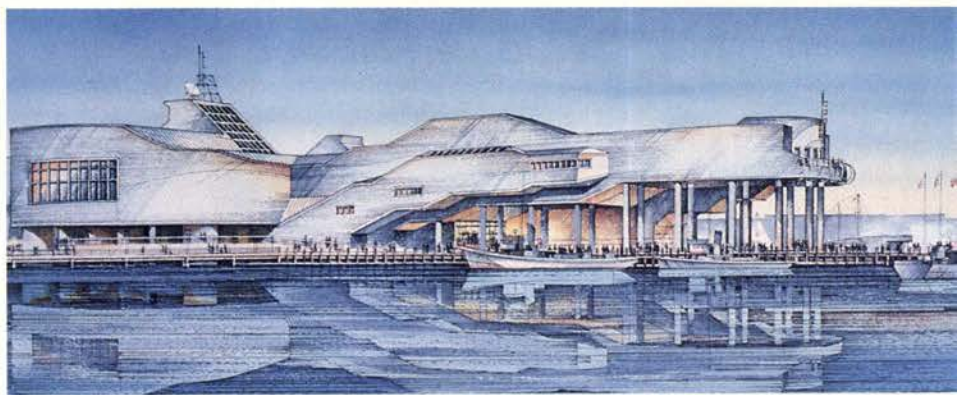
Superplastic aluminum has yet to be employed in this country for a building, although it was recently considered by Centerbrook Architects and Planners for the National Maritime Center, currently under construction in Norfolk, Virginia (right). The architects became interested in superplasticizing in order to fabricate ribbed panels with a flat flange for attaching coping and flashing (a particular concern since ribbed panels tend to act as a gutter for rainwater when oriented diagonally). But the process requires that the metal be heated to 850 degrees Fahrenheit, thus adding to finishing costs by preventing the sheets from being painted before they are formed.

Composite panels

WHEN A SLEEK SURFACE IS DESIRED, ARCHITECTS often specify composite panels of aluminum or steel over a foam insulation, corrugated kraft paper, or metal honeycomb core. Also an offshoot of aerospace engineering, such panels offer improved strength without increased weight and thickness. The manufacture of composite panels is a result of advances in epoxy adhesives that permit improved lamination between core and skin materials. The new adhesives provide a smooth, blemish-free face without the threat of "oil-canned" bulges or puckered surfaces.

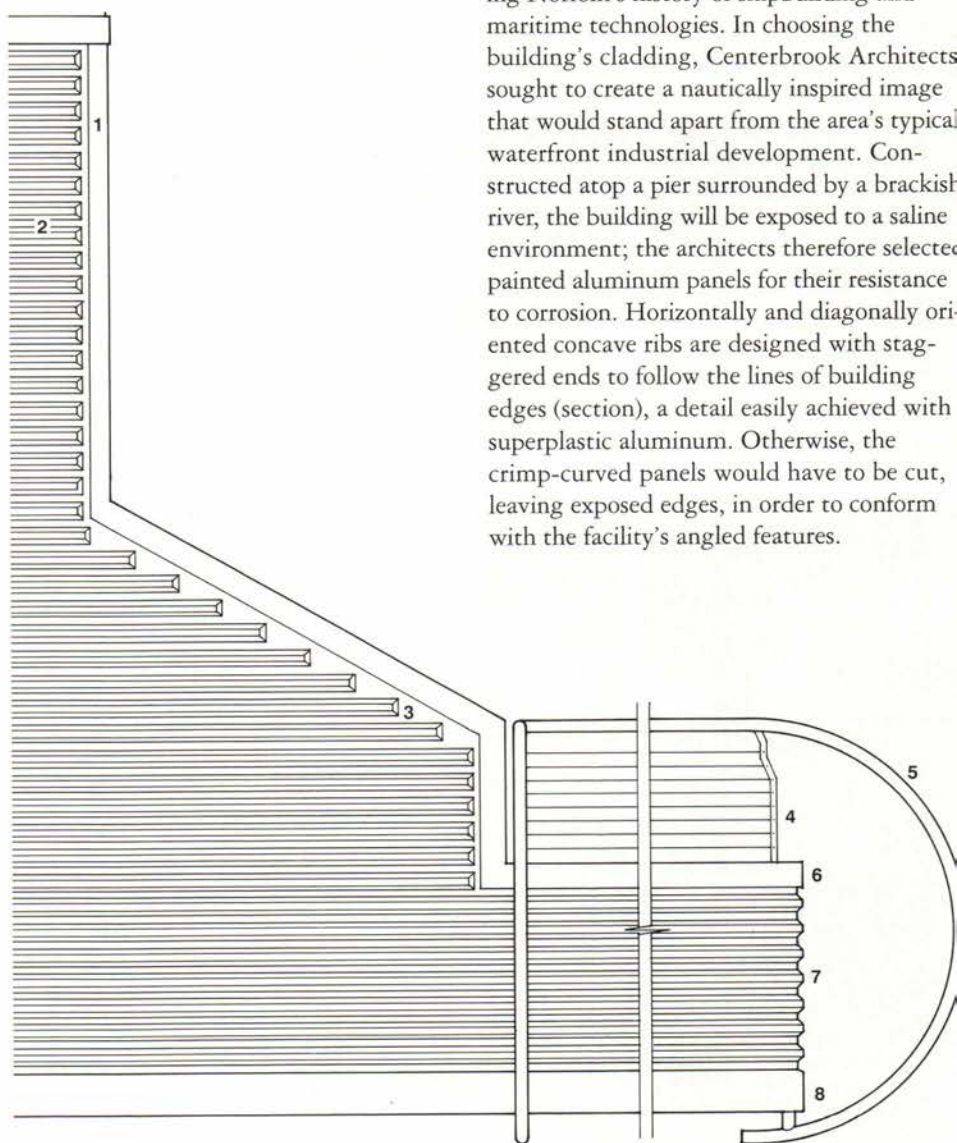
The degree of potential curving, and a composite panel's strength and weight, are dependent on the thickness and type of metal specified. According to Herb Larsen, architectural-panel market manager for the Pittsburgh, Pennsylvania-based metal manufacturer H.H. Robertson, standard 2-inch-thick composites can be curved with a minimum radius of 2 feet, 6 inches, while a 6- to 9-inch radius is possible for the thinnest composites, as slender as 1/8 of an inch.

In specifying metal systems, architects must choose between conventional steel and aluminum, the most commonly specified metals for panels. Stainless steel is corrosion resistant, but it is also extremely costly for cladding applications, making aluminum the usual metal of choice in highly saline environments. The alternative is to specify coatings over steel for enhanced rust protection. More malleable than steel, aluminum is



**Nauticus, The National Maritime Center
Norfolk, Virginia**
Centerbrook Architects and Planners
Shriver and Holland Associates

CURRENTLY UNDER CONSTRUCTION, THE 120,000-square-foot National Maritime Center (above) will house aquariums, aquatic research labs, and interactive exhibits displaying Norfolk's history of shipbuilding and maritime technologies. In choosing the building's cladding, Centerbrook Architects sought to create a nautically inspired image that would stand apart from the area's typical waterfront industrial development. Constructed atop a pier surrounded by a brackish river, the building will be exposed to a saline environment; the architects therefore selected painted aluminum panels for their resistance to corrosion. Horizontally and diagonally oriented concave ribs are designed with staggered ends to follow the lines of building edges (section), a detail easily achieved with superplastic aluminum. Otherwise, the crimp-curved panels would have to be cut, leaving exposed edges, in order to conform with the facility's angled features.



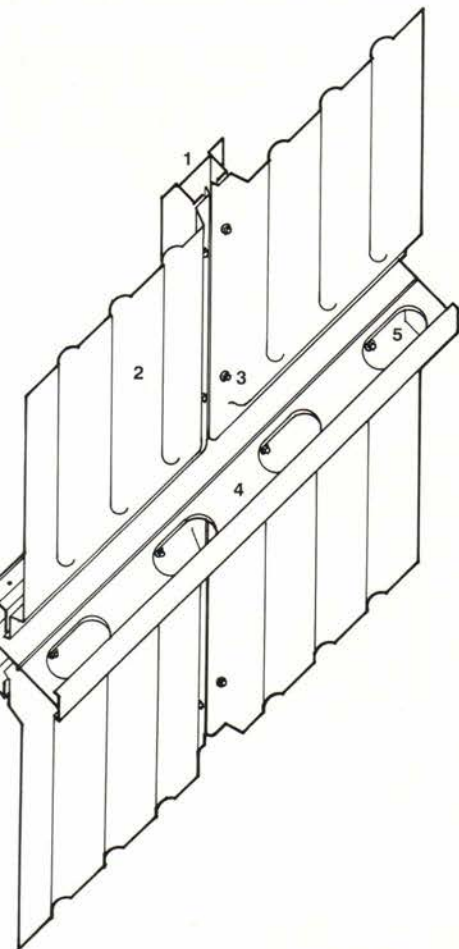
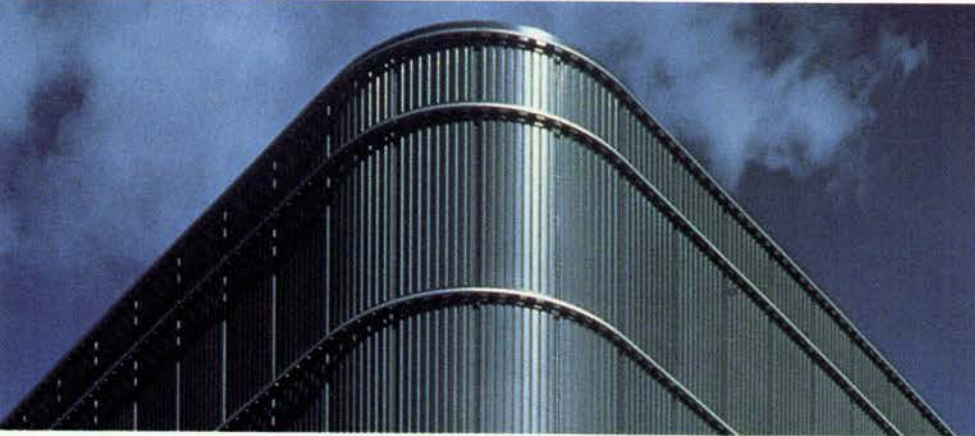
DETAIL OF BALCONY EXTERIOR

- | | | | |
|---|---|---|-------------------------|
| 1 | PAINTED ALUMINUM TRIM | 5 | PIPE FENDERS |
| 2 | ALUMINUM PANEL WITH FLAT FLANGE END RIB | 6 | CURVED ALUMINUM CANTING |
| 3 | CHEEKWALL | 7 | CRIMP-CURVED PANEL |
| 4 | CABLE RAILING | 8 | ALUMINUM CURB COPING |

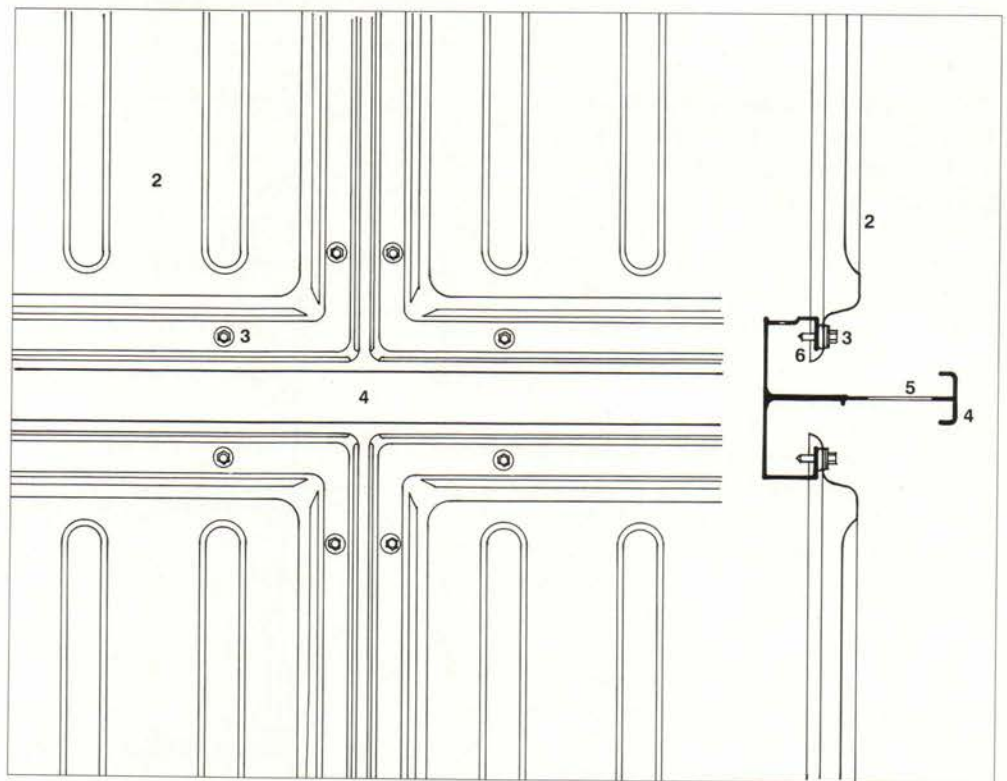


Financial Times Print Works
London, England
Nicholas Grimshaw & Partners

THE BRITISH FIRM THAT DESIGNED THIS printing plant for one of the United Kingdom's largest newspapers specified more than 1,700 flat and curved painted aluminum panels with slender, vertically oriented concave ribs (center left) that add detail and scale to the envelope of the austere, windowless expanses of the building. The panels also contrast with the smooth-finished aluminum cladding that wraps the freestanding service and stair towers (top left). Extruded aluminum rails form horizontal banding with open slots (axonometric, bottom left) that function as gutters to collect rainwater away from the panel face (elevation and section, below). Superplastic aluminum panels, bolted to the underlying structure of the vertical and horizontal rails, add structural reinforcement to the building envelope and simplify the construction of the curtain wall. They allow individual panels to be easily replaced by reducing the number of components required for field assembly.



AXONOMETRIC OF CLADDING



CLADDING ELEVATION AND SECTION

- 1 VERTICAL ALUMINUM CLADDING RAIL
- 2 SUPERPLASTIC ALUMINUM CLADDING PANEL
- 3 STAINLESS STEEL SELF-TAPPING SCREW
- 4 HORIZONTAL ALUMINUM CLADDING EXTRUSION (NATURAL ANODIZED FINISH)
- 5 SLOTTED EXTRUSION
- 6 SEALANT TAPE

easily shaped, but it also lacks the tensile strength of steel for an equivalent thickness and can be more easily dented. Aluminum also expands and contracts at approximately twice the rate of steel, a consideration architects must take into account when combining components of different metals.

Crimp-curving metal

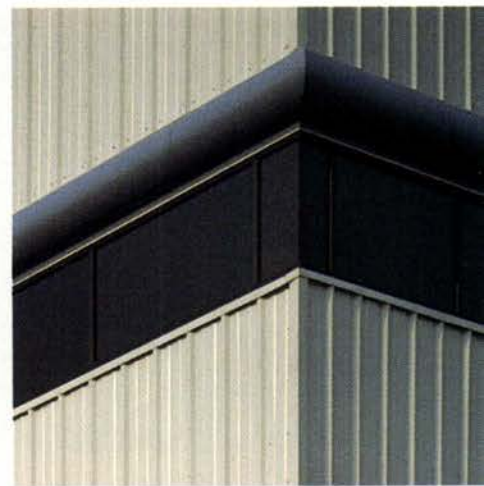
DEVELOPED IN THE NETHERLANDS, CRIMP-curving is a patented, computer-controlled process that incrementally pushes and pulls conventional ribbed metal sheets into rounded forms. It has only been available in this country since 1985, according to Dennis Klocek, architectural design consultant for Curveline, the Ontario, California-based firm that first imported the fabrication technology and provides custom services for most of the American ribbed-sheet-metal manufacturers. Steelite, a Pittsburgh, Pennsylvania-based metal-component manufacturer, also offers crimp-curving for its line of metal panels.

The curving process actually increases the effective strength of panels, thus reducing their weight and corresponding need for underlying structure, while increasing allowable spans. Such panels can be formed with multiple curves and, depending on specifications, can turn a corner without requiring intermediary support. For aluminum sheets measuring .032 inches to .050 inches in thickness and 18- to 26-gauge steel sheets (the larger the gauge, the narrower the thickness), crimp-curving can shape panels up to 30 feet in length, with ribs ranging from $\frac{3}{4}$ of an inch to 4 inches deep. The deeper the ribs, the larger the required turning radius of the curve. The minimum radius that can be achieved through the process is 10 inches.

Klocek explains that curved panels are increasingly being specified by architects to enhance pre-engineered structures such as warehouses and manufacturing facilities. Architectural features such as curved mansards must often be designed where local building and design codes demand more than merely a functional building profile.

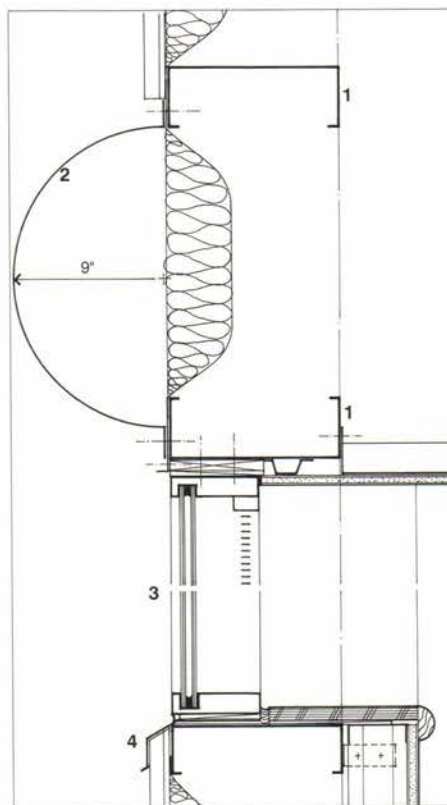
With its machined esthetic and streamlined, aerodynamic appearance, metal cladding is increasingly being specified by architects to visually express the technological nature of buildings such as computer, engineering, airline, automobile, and naval facilities. With improvements in the manufacturing of standard components, architects now have the potential to polish even mundane building types with metals of distinction.

—MARC S. HARRIMAN



**U.S. Marshals Service Air Operations Division
Oklahoma City, Oklahoma
HTB Architects, Engineers, Planners**

TO ECONOMICALLY PROVIDE BOTH HANGAR space and support facilities for transporting federal prisoners to jails throughout the United States, HTB Architects chose to customize a premanufactured metal structure (top), creating a building within a building. The 67,000-square-foot complex provides 25,000 square feet of office space on three stories at the rear of a structure originally engineered to house only aircraft (above left). Standard, manufacturer-supplied flashing details failed to provide overhead projection, allowing water to stream down the painted steel siding and over the face of the glass where office windows were installed. Therefore, the architects specified the addition of a continuous, semicircular rolled-steel component at the ribbon windows to deflect rainwater from the glass face (above right). The dimension of its 9-inch radius was determined to be small enough to avoid buckling without bracing, but large enough to bend easily when custom-fabricated. A sloped sill was detailed in place of a standard, flat sill cap to prevent water from streaking down the siding below (detail, left).

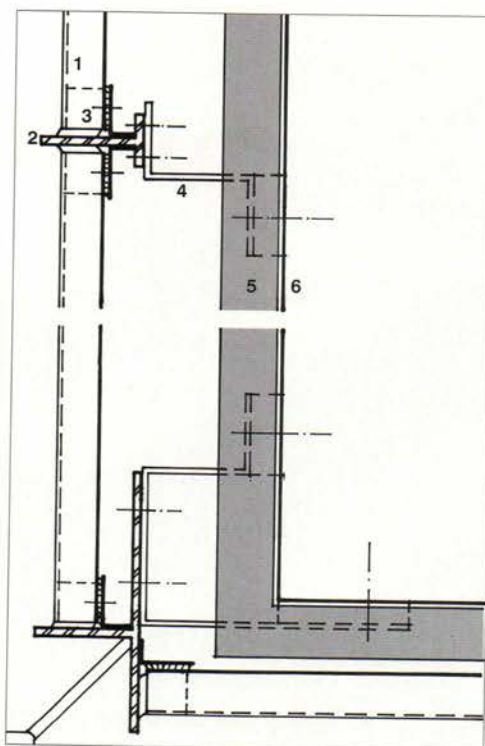


WINDOW DETAIL

- 1 STRUCTURAL STEEL GIRDER
- 2 ROLLED-STEEL TRIM
- 3 WINDOW
- 4 SLOPED SILL CAP

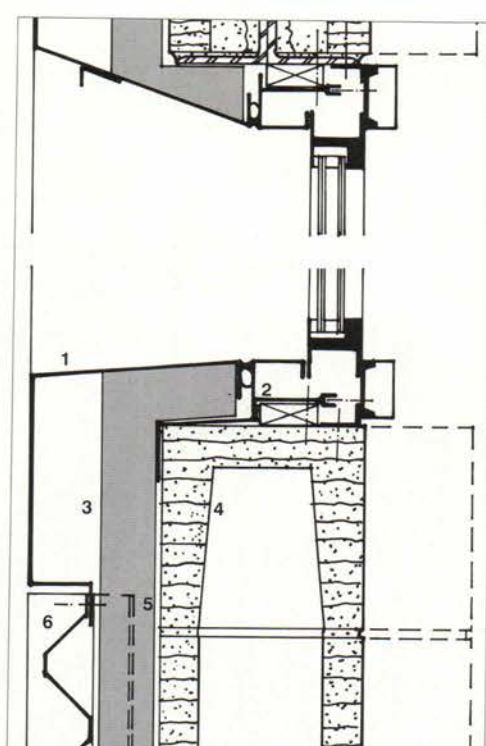
Engineering Research Facility
University of Iowa
Iowa City, Iowa
Brooks Borg and Skiles, Architects

TO OUTWARDLY REFLECT THE TECHNICAL nature of the University of Iowa's environmental engineering and computer research facility, the architecture and engineering firm Brooks Borg and Skiles clad the concrete block exterior of a former auto parts store with a new metal skin. The horizontally oriented, steel "V"-ribbed siding is painted, installed in standard 10-foot widths (top right), and secured to the existing shell and a new addition. Mechanical fasteners attach the siding at the rise of each rib edge to extruded aluminum T-sections (near right and detail, bottom center). The vertical T-sections also serve to delineate the structure's 10-foot-square planning module. Juxtaposed against the deeply textured ribbed siding, custom-fabricated, $\frac{3}{16}$ -inch-thick plate-aluminum panels with a clear anodized finish wrap the punched windows (far right photo, bottom left, and far right detail) and curvilinear main entrance (top) that project from the 100-by-100-foot-square metal-clad building.



DETAIL OF CORNER AND SIDING DIVIDER

- 1 PAINTED STEEL "V"-RIBBED SIDING
- 2 EXTRUDED ALUMINUM T-SECTION
- 3 MECHANICAL FASTENER
- 4 METAL ANGLE
- 5 RIGID INSULATION
- 6 CONCRETE BLOCK



TYPICAL WINDOW SECTION

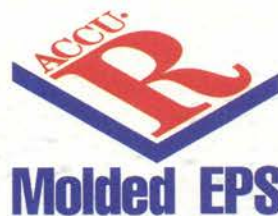
- 1 ALUMINUM PANEL
- 2 METAL WALL FLASHING
- 3 RIGID INSULATION
- 4 CONCRETE BLOCK
- 5 WATERPROOFING
- 6 PAINTED STEEL "V"-RIBBED SIDING

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insulation material since the 1950's. Independent tests of early installations have shown that, when properly installed, the original R-value remains constant. The ACCU-R EPS Program is striving to improve on this already proven performance by creating a nationwide network of participating manufacturers.

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Metal Protection

From paints to electrolytic processes, coatings preserve metal and offer finish options.

THE BEST WAY TO PROTECT METAL AND ENHANCE its appearance is by coating its surface with a protective finish. Some coatings, such as zinc, are applied purely to preserve the material, but these protective finishes may be left in their natural state to embellish the metal's luster. Other coatings, such as paint, are selected for esthetic appeal and performance. For example, the light buff-colored paint covering the aluminum panels of Cesar Pelli & Associates' 777 Tower in Los Angeles was selected for its exceptional luminosity in sunlight and nighttime illumination, which provides a beacon on the Los Angeles skyline. To specify the appropriate finish for a variety of design, performance, and environmental requirements, architects should consider the pros and cons of various coatings.

Anticorrosive coatings

A NUMBER OF COATINGS FOR METAL HELP RE- tard corrosion and are usually hidden by a finish coat; they may also offer some esthetic appeal if left unpainted. Corrosion-retardant coatings are applied to cold-rolled, low-carbon steel before it is formed into building materials. Such coatings protect metal in two ways: by "sacrificial" protection, in which the coating slowly oxidizes over time, thus protecting the base metal beneath; or by "barrier" protection, in which the coating

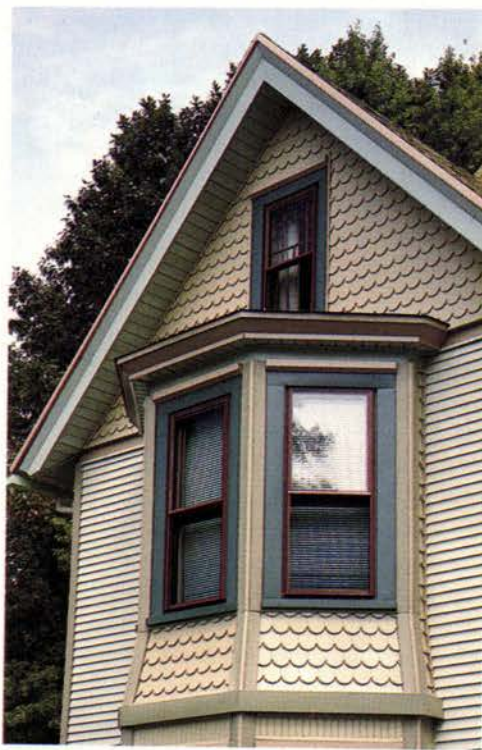
provides an impervious layer between the metal and the elements.

The two most common elements used for anticorrosive coatings are aluminum and zinc. Coating steel with aluminum provides barrier protection, and usually offers an even, matte finish; product manufacturers call it "aluminized" steel. Coating steel with zinc produces "galvanized" steel, a material with both sacrificial and barrier protection. Another type of anticorrosive finish, aluminum/zinc-coating for steel, offers the sacrificial protection of aluminum and the barrier protection of zinc. All three coatings provide excellent protection for metal, although aluminized steel is the most durable.

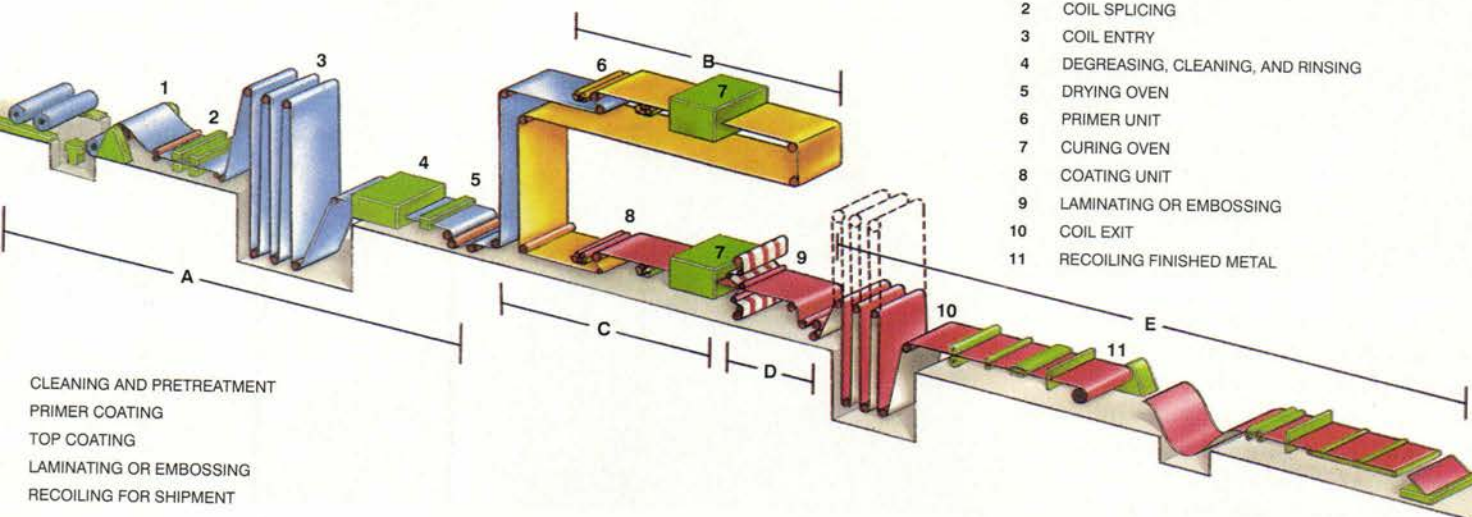
Esthetic coatings

FINISHES THAT ENHANCE METAL'S ESTHETIC appearance include organic coatings, such as liquid or powdered paints derived from carbon compounds, and inorganic coatings, such as anodizing, which produces a finish through oxidation.

Organic coatings, such as paints with fluorocarbon bases, are among the most durable coatings for metal, and are common in large commercial projects. Acrylic- or polyester-based paints, also derived from organic compounds, are less durable, but also less expensive, and are common in residential



In the coil-coating process, sheet metal is fed into a paint line (below, left to right) where it is cleaned, primed, painted, baked, and then recoiled or cut to size. The coated metal is stamped or cut to form various building materials, such as bargeboard (above), for Ward Associates' offices in Tuscaloosa, Alabama.



buildings. Fluorocarbon-based paints on metal may be guaranteed for 20 years, while guarantees of acrylic or polyester-based paints usually cover only a three- to five-year period.

Fluorocarbon-based paints are made with polyvinylidene fluoride (PVDF) resin, which is supplied by only two manufacturers—Atochem North America and Ausimont. (In a nongaseous state, fluorocarbons are not threatening to the environment.) Because of the complex technical process required for manufacturing PVDF paints, the resin is distributed to only five paint companies: Akzo, Glidden, Morton, PPG Industries, and Valspar. Paint is usually composed of 70 percent PVDF resin and 30 percent proprietary pigmentation and solvents. This composition makes paint spreadable; during the subsequent curing process, the solvents evaporate.

The American Architectural Manufacturers Association (AAMA) Standard 605 specifies performance criteria for paints manufactured with PVDF resin. The standard calls for a minimum of 30 percent gloss retention of the finish; minimal change in color; and, at most, only 10 percent erosion of the coating's surface. The standard requires manufacturers to test other properties, such as the coating's hardness and adhesion, its durability under heat, salt spray, and direct impact, and its resistance to abrasion, alkalinity, detergents, acid pollutants, and humidity.

Performance standards for acrylic- and polyester-based paints are stipulated by AAMA Standard 603, and are far less stringent than those governing fluorocarbon-based paints. For example, Standard 603 does not require tests for erosion of the coating surface, color retention, abrasion, or resistance to acid or alkaline pollutants.

According to Steve Swaney, coil-coatings

market development manager for the Dexter Corporation, a St. Louis-based coatings manufacturer, light colors are generally less expensive than dark colors, but tend to show more color change than whites or light colors due to fading. Light colors also reflect heat, while dark colors absorb it. By reducing a building's energy consumption, lighter shades are a better choice for metal roofing in warm climates.

Coil-coating and spraying

TO COAT METALS, PAINT IS APPLIED IN TWO ways: coil-coating and spraying. Coil-coating is a mechanical process in which raw, coiled aluminum or steel is flattened and fed through a "paint line" that cleans the metal, chemically treats it for painting, applies primer and finish coats, and then cures the resulting material. At the end of the process, the metal is either recoiled or cut into sheets for shipment to manufacturers for stamping and forming. Coil-coating is most common for coating building materials—particularly metal panel systems, roofing, and gutters.

Coil-coating is usually more efficient than spray-painting, because the material is coated before it is formed. Post-production painting tends to waste paint; typically only a little more than half of the paint actually adheres to the metal. Because the metal is painted on both sides when coil-coated, it also offers higher corrosion resistance.

Since the coil is flat when treated, coil-coating produces a more uniform finish than spraying, which may produce uneven coatings when paints are applied to preformed materials. However, both spraying and coil-coating methods release volatile organic compounds (VOCs) such as hydrocarbons, which deplete the ozone layer. According to

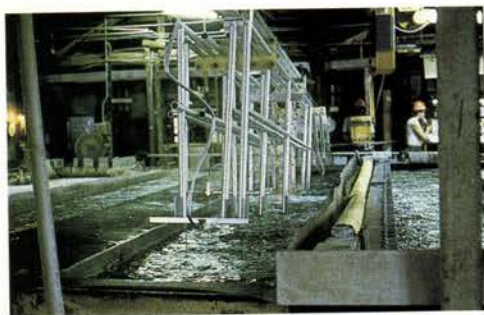
the National Coil Coaters Association, 90 to 95 percent of these compounds are captured and recycled to fuel the curing ovens in the coil-coating process.

Powder coatings

PAINTS IN THE FORM OF FINE POWDER ARE known as powder coatings, and contain no solvents. Powder coatings, such as those applied to metal panels of the Crate & Barrel store in Chicago (facing page), encapsulate pigments within resin; they are applied to metal through an electrostatic process, and then oven-cured. Because no VOCs are released during application, they are less harmful to the environment than spray-applied liquid paint coatings and coil-coatings. Powder coatings with PVDF resins are available, and thus afford the same durability as liquid paints. Presently, a smaller color choice is available for powder coatings than for solvent-based coatings, primarily because of the high cost of powder-grinding equipment.

Anodized finishes

PLENTIFUL, MALLEABLE, STRONG, NATURALLY resistant to corrosion, and recyclable, aluminum is growing in popularity as an architectural material. In contrast to painting, which hides metals, anodizing produces a hard, noncorrosive oxide film on the surface of aluminum through electrolytic action. Anodizing is achieved by cleaning and chemically treating the aluminum, and then dipping it into an electrolyte bath through which an electric current is passed. Anodized coatings can be applied by coil-coating, on preformed sheets, or by batch or piece to extrusions and formed pieces. The Aluminum Association rates these coatings according to thickness: "protective and decorative" coatings measur-



Aluminum is anodized by dipping metal into an electrolyte bath (above) and passing an electric current through it to form a hard, aluminum-oxide coating. Anodized aluminum can be left clear (far right) to reveal the metal's original color, or dyed a variety of colors, including bronze (right).



less than 0.4 mils thick; "architectural class II" coatings are between 0.4 and 0.7 mils; "architectural class I" includes coatings 0.7 mils and thicker.

Aluminum can be colored in the anodizing process by depositing a dye in its porous oxide surface and then exposing the surface to a hot water bath, which seals the surface pores shut. Since the color is integral with the metal, anodized finishes will not flake off, and offer good color retention when exposed to ultraviolet light. However, because the metal is visible beneath the coating, anodized aluminum may reveal the metal's imperfections. Another drawback, notes Somerville, Massachusetts, architect Kimo Griggs, a sole practitioner who works extensively in metals, is that anodized aluminum is difficult to repair if scratched. Anodized finishes are also more susceptible to acid pollutants than fluorocarbon-based coatings. Dirt and stains can be removed from anodized aluminum by scrubbing the metallic surface with abrasive pads and a mild detergent.

However, anodizing produces an environmentally sensitive coating process because, unlike solvent-based paints, electrochemical application does not emit VOCs. Anodizing does not release harmful gases, and anodized aluminum can be recycled without stripping. Robert O. Hirsch, Executive Director of the Architectural Anodizers Council, refers to anodizing as the "green" finish. Architects should keep in mind that the Clean Air Act and the Resource Conservation and Recovery Act now limit emissions of many paint solvents. Solvent-based paint coatings may thus become prohibitively expensive, leaving anodizing and powder coatings as the most cost-effective options for finishing aluminum. ■

—MICHAEL J. CROSBIE



JAMIE PADGETT/KARANT + ASSOCIATES

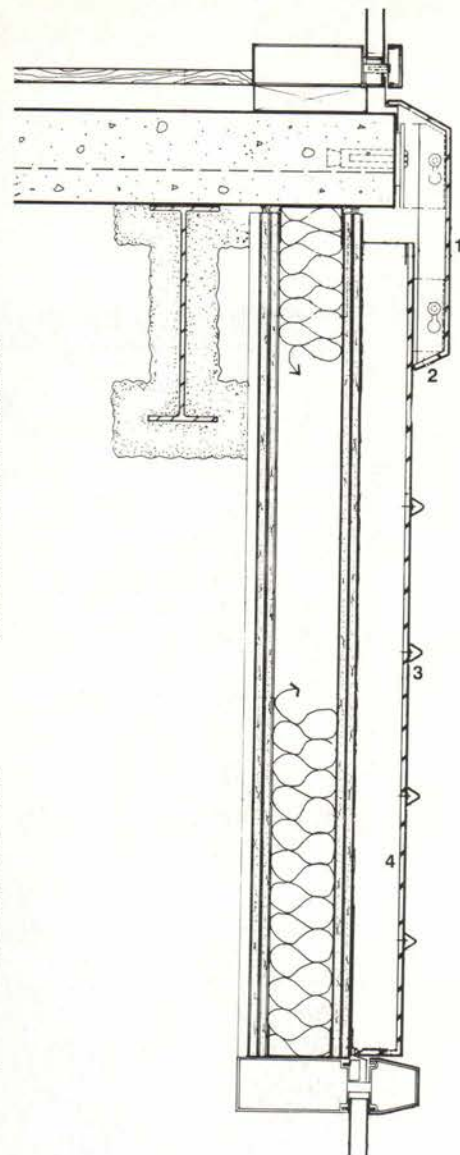


JAMIE PADGETT/KARANT + ASSOCIATES

Powder coatings, essentially paints without solvents, are baked onto metal building components, such as the panels cladding the Chicago Crate & Barrel store (above and section), designed by local firm Solomon Cordwell Buenz. The building's larger panels required special oversized ovens.

TYPICAL SPANDREL PANEL

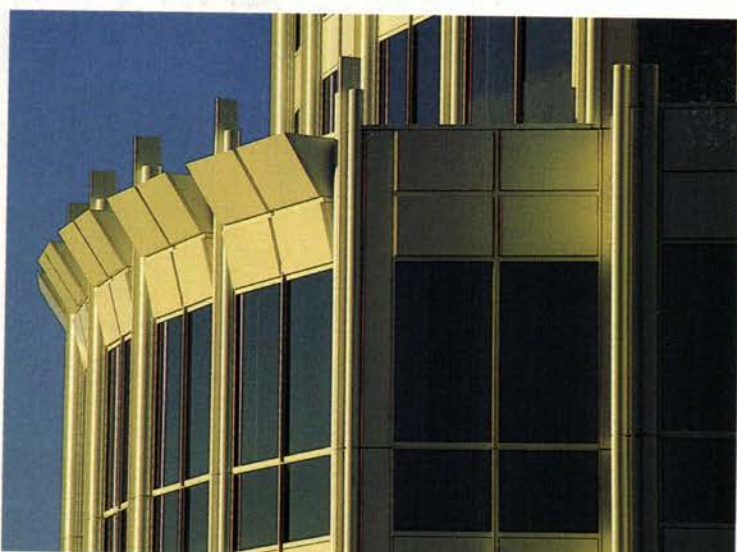
- 1 POWDER COATING
- 2 FIELD-APPLIED HORIZONTAL TRIM
- 3 FACTORY-APPLIED HORIZONTAL SNAP-ON TRIM
- 4 3MM-THICK PREFABRICATED ALUMINUM PANEL



Spray painting metal building components (above) is an alternative to coil-coating. Cesar Pelli & Associates clad its 777 Tower in Los Angeles (right) in aluminum panels spray-coated with a fluorocarbon paint, incorporating polyvinylidene fluoride resin, one of the most durable paint coatings available.



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DOS-Mac Debate Continues

Evaluators compare improvements and additions to operating systems.

FAR FROM SHOWING SIGNS OF RESOLUTION, the debate between users of Macintosh and DOS-based computers has intensified in the last year. For the most part, the debate has been spurred on by two new developments: the introduction of Windows 3.0, an icon-based graphical interface, to the Microsoft disk operating system (MS-DOS), and the release of System 7, a major upgrade to the Macintosh operating system. Both products promise to ease the initiation of beginners and to improve the productivity of experienced computer operators.

Simply stated, an operating system is software that controls the internal functions of the computer and the "look" that the computer presents to its user. MS-DOS is by far the most popular system for architects, with the Macintosh system a distant second. Although only Microsoft develops MS-DOS, it is installed on computers made by many manufacturers, most notably IBM and Compaq. The Macintosh and its operating system are proprietary to Apple Computer.

When ARCHITECTURE first compared the DOS and Macintosh computing environments (December 1990, pages 115-119), architects in each camp argued their preferences with emotional zeal. Although no knock-out blow was delivered, the Macintosh emerged with a slight advantage in the opinion of the architects who served as evaluators.

Last December, this magazine asked another set of architect evaluators to review the two competitors in light of their most recent introductions. The main panel of 16 evaluators, evenly divided between Macintosh and DOS users, met at Triton College's School of Architecture in the Chicago suburb of River Grove. They listened to keynote speeches by representatives from Apple and Microsoft, followed by presentations from vendors of CADD (Autodesk, Isicad, Foresight Resources, Claris, and Archicad's Graphisoft), financial management software (Timberline and Samara), specifications software (Eclat), general business programs (Microsoft and Claris), plotters (Houston Instrument, JDL, and OYO Geospace), and a digitizer (CalComp). The

vendors were selected because their products are, or will be, among the first to take advantage of new computing environments made possible by Windows and/or System 7.

Computers selected for the presentations were the fastest available. Windows programs ran on a Compaq 486/50L with 16 megabytes of RAM, 340-megabyte hard disk, NEC 5D monitor, DOS 5.0, and a Microsoft mouse. Without monitor and mouse, the computer lists at \$12,999 but is available from dealers for about \$10,700. Macintosh applications were run on a Quadra 700 with 20 megabytes of RAM, 160-megabyte hard disk, extended keyboard, mouse, and 19-inch SuperMac monitor. The computer was accelerated from its normal operating speed of 25 megahertz to 33 megahertz with a \$349 overdrive from Newer Technology, Wichita, Kansas. Without monitor, the computer lists for \$8,137. Discounts of up to 25 percent are available from dealers.

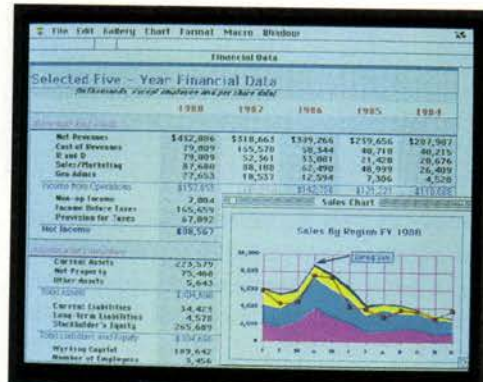
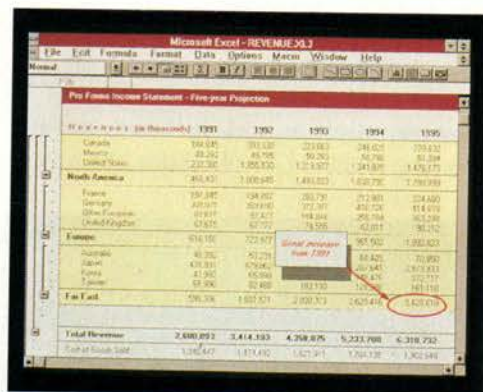
After the presentations, the evaluators met for two hours in a closed session to discuss their impressions and to try to reach consensus. The following day, the main panel of evaluators was invited back to Triton College, along with other Chicago-area architects, for an open forum that permitted more individual experimentation and interviews with the vendors. After the evaluation, participants concluded the following:

■ Four, not just two, major competitive systems are now available on the market: DOS (which most of the evaluators with DOS-based computers have not abandoned),

Evaluator Kevin Kemp and Barbara A. Stoffel (top) of Decker + Kemp Architects and Urban Design, with Houston Instrument product manager Lillian R. Rhoades (seated), review the capabilities of the company's DMP-162R plotter. Houston Instrument is one of the first plotter manufacturers to offer a Windows-specific driver. Microsoft's spreadsheet program Excel is available for Windows (center right), which has been designed with a look and feel similar to Excel for the Macintosh (right).



WAYNE CABLE / CABLE STUDIOS

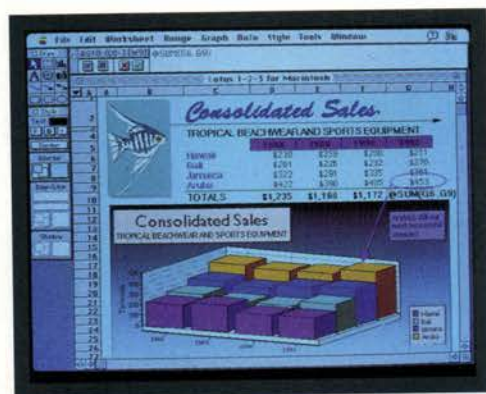




Laurence E. Dieckmann prepared a rendering (above) on his Macintosh using MacPerspective, SuperPaint, and the Cal-Comp 33120AS digitizer. The digitizer has a pressure-sensitive pen that allows a computer drawing to be signed with a recognizable signature.



The savviest of the System 7 programs, Canvas 3.0 (above), combines drawing, paint, and CADD functions. After importing the Canvas drawing into Microsoft Word, for example, users can work on it easily and at any time simply by double-clicking its icon.



Lotus 1-2-3 for the Macintosh displays both spreadsheet and related charts simultaneously (above). A change in data immediately alters the chart. The file format is compatible with 1-2-3 for DOS and Windows, permitting spreadsheet data to be easily exchanged.

DOS with Windows, Macintosh System 7, and Macintosh System 6 (which most of the evaluators with Macintosh computers have not abandoned). In fact, System 7 requires a hard disk, so Apple must continue to support System 6 for Macintosh computers with floppy disk drives only.

■ The DOS/Macintosh debate lost most of its emotional charge with the introduction of Windows, whose graphical nature has much in common with the Macintosh operating system.

■ Just because the debate has become less emotional doesn't mean it has become less intense. Apple adherents view the success of Windows as a vindication of their belief in a graphical interface, but contend that the similarities between Windows and Macintosh are mostly cosmetic.

■ In addition to Mac and DOS, other operating systems must also be considered: Unix, OS/2, and a DOS clone by Digital Resources called DR-DOS. Unix is backed by some of the biggest names in computing. OS/2 development and promotion have been taken over by IBM, and Digital Resources was acquired last year by Novell, the leader in personal computer networking. Each is perceived as having significant potential to become a full-fledged competitor by one or more members of ARCHITECTURE's panel of evaluators.

■ No clear-cut winner emerged, but the Macintosh continues to gain respect as a business and graphics machine. The challenge that both Windows and the Macintosh face is the inertia of a huge base of existing DOS-based computers and software applications, and users who have grown comfortable with the system. Nevertheless, the Macintosh has enjoyed remarkable success among architectural practices. The 1991 AIA firm survey shows that the Macintosh is used in 24 percent of all firms with computers. According to the survey, DOS has captured 72 percent of the architectural market, and other systems have the rest. The reaction of architects who participated in ARCHITECTURE's most recent comparative evaluation of DOS and Macintosh environments suggests that Windows might slow the rate at which the Macintosh is gaining market share, but probably won't stop it. The Macintosh is the only computing environment that maintains its market share among architects regardless of firm size.

■ Attempts to compare the speed of DOS with Windows and System 7 proved futile. Most of the demonstrated programs were still under development or did not run in both environments.

System 7

CREATIVE PEOPLE DO MORE THAN JUST stroke words or lines or numbers into a computer all day, argues Apple. Convinced that most users are no more interested in the mechanics of a computer than in the boilers and pipes of a building, Apple shields its operating system from view. The user never sees it, even when the system crashes. While the graphic interface of System 7 is similar to System 6, slight changes enable programs to execute more complex instructions faster. Released by Apple in May 1991, System 7 is a 32-bit operating system, with an option for switching back to System 6's 24-bit structure to run older programs. (By comparison, Windows is a 16-bit system.)

Handling of type in System 7 is less expensive, more convenient, and better matched between the monitor and the printed page than in System 6. The reason is the addition of TrueType technology, which uses outline fonts instead of bitmap fonts. Microsoft has licensed TrueType technology from Apple and promises to include it in the next version of Windows. The new Apple LaserWriter IIfx and IIfx printers are compatible with both PostScript, the font-mapping method used in System 6, and TrueType.

Virtual memory is new to System 7, enabling space on the hard disk to substitute for needed random access memory. Also new is the concept of aliases, which are tiny files that lead directly to the full program of application elsewhere on the disk or across the entire network. An alias can be placed in the Apple menu, which makes it available instantly from the desktop without searching through folders within folders. Double-clicking on the alias launches the file or program.

System 7 expands the Macintosh cut/copy/paste capability with several techniques for interapplication communication. Apple's tools are called "Publish and Subscribe" and "Apple Events." One of the most stunning features of System 7 is the use it makes of AppleTalk, which Apple has long billed as a networking device, but which most users saw as just a cable that connected two or more computers to the same printer. Now, all computers connected via AppleTalk constitute complete peer-to-peer network. Each user can access the entire contents of the hard disk of any other user on the AppleTalk network. Standard network security is provided so that with a few simple clicks of the mouse, sensitive files can be shielded or available only to some users or only to users with a password.

The beauty of this type of network is its

simplicity and cost: It's free for the price of the cable. The catch is that it's slow—so slow that you probably wouldn't want to install a program on only one computer and have everyone else share it. But it's an effective way to share short files on an occasional basis and to learn the basics of network operation.

While Windows users have had little trouble running programs written for old versions of DOS, some Macintosh users have experienced a less than transparent conversion. Running some programs in System 7 on a Quadra, for example, may require that the 32-bit addressing function be turned off, thereby forfeiting the increased acceleration offered by the Quadra. Most software developers are aware of this problem by now, and updates or patches to existing programs should be available in the next few months.

Windows

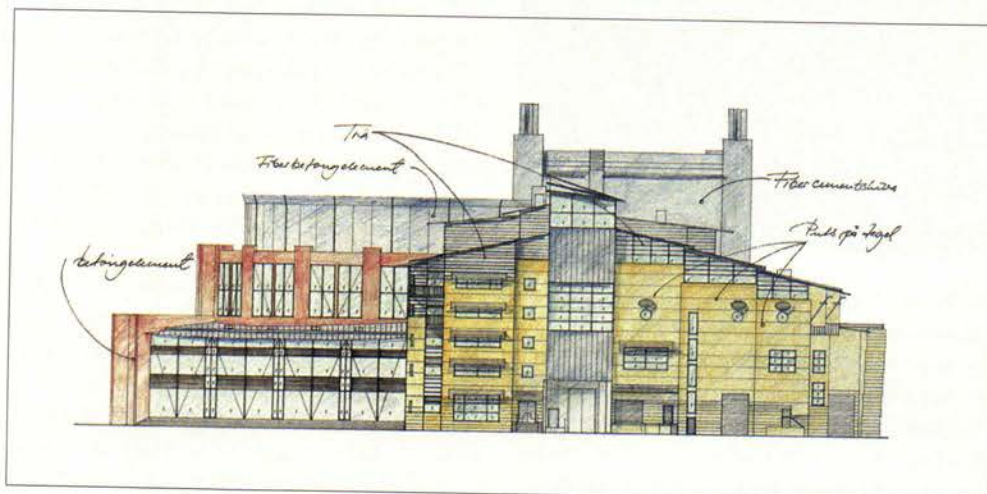
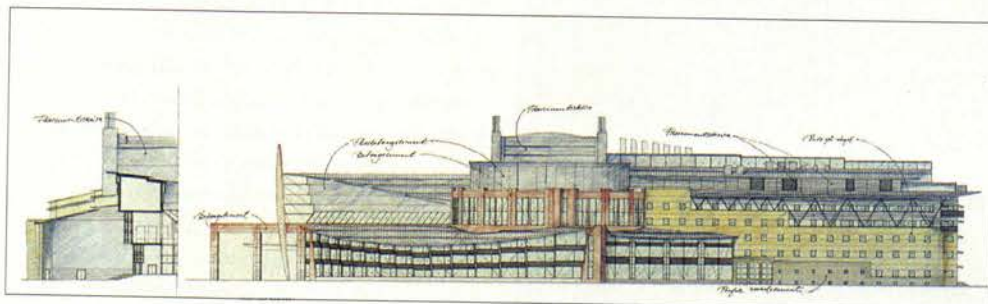
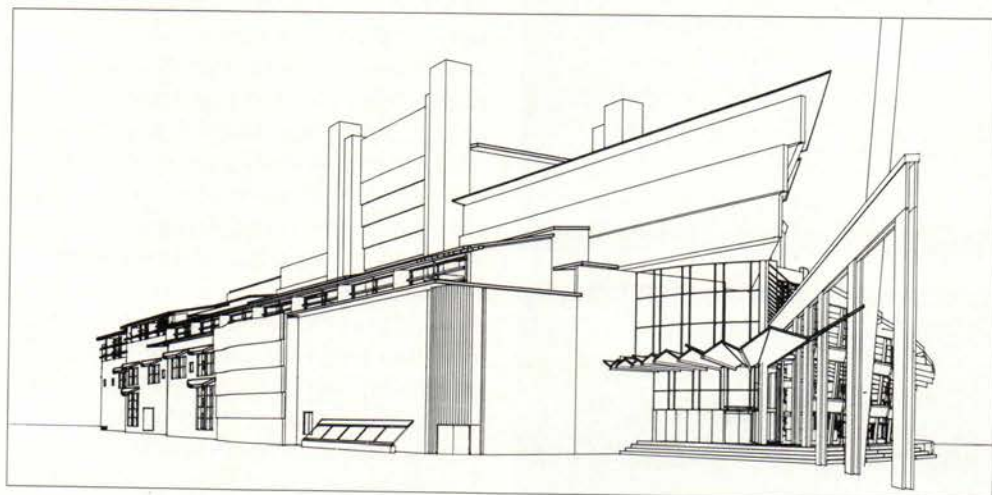
THE BENEFIT OF WINDOWS IS THAT IT PROVIDES an easy upgrade path for the 15 to 20 million DOS users. Although Windows was introduced in 1985, it did not catch on until version 3.0 was released in May 1990. And then it did. As of last fall, Microsoft reported that it had shipped more than six million copies to users and 65,000 development kits to potential authors of Windows-based programs. Estimates of the number of Windows applications that have been released range from 1,000 by Computer Intelligence, a San Diego-based market research firm, to 10,000 by Microsoft.

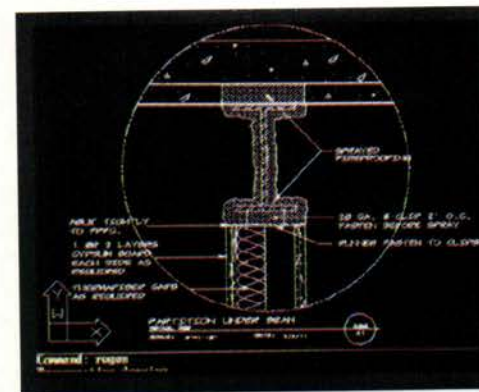
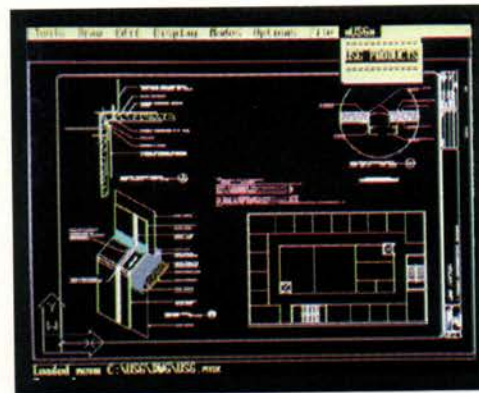
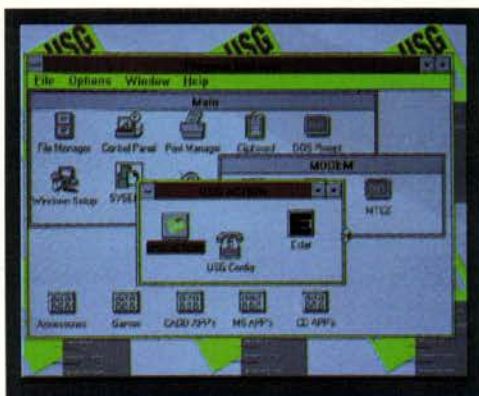
New users of Windows tend to focus on its icons and its use of the mouse as a pointing and selection device (instead of typing commands as in DOS) because they make it easier to use the computer. With the mouse/icon mechanism, diverse programs start to have more in common, which means greater transfer of knowledge. DOS users can make

to show citizens of Göteborg, Sweden, what the new opera house would look like when the building is completed in 1994, local architects Lund & Valentin superimposed a drawing of the structure on a photograph of its proposed site (top right). From the design created in Archicad on the Macintosh System 7, graphic artists Jonas Dagson and Michael Jansson used Aldus Freehand and Adobe Photoshop to complete the merger. Wire-frame perspectives were also created in Archicad (center right), as were sections and elevations (above and bottom right) that were later hand-colored to create presentation drawings.



ALLAN KARLSSON PHOTO / IDAG / FHMSTATTARNA





Many specification systems, such as U.S. Gypsum's Action (top), support Windows because occasional users find it easy to use. Action is launched from the Windows desktop; double-clicking on icons (second from top) launches product information that can be shown as details in Autocad (bottom photos).

the transition to Windows without having to discard any existing hardware or software. DOS programs and devices can coexist with programs and devices for Windows. Lotus uses SmartIcons, a program that can be customized, in its Windows version of 1-2-3 to automate some procedures.

Less obvious advantages of Windows are features such as the ability to imbed files of one program within the files of another program. The two files need not understand one another's data formats—either file can be changed by double-clicking its icon to bring up the parent program. Or the secondary, "receiving" file can be linked to a primary, "parent" file, so that when the parent file is updated, the receiving file is updated automatically. This procedure allows each program to specialize in what it does best without the burden of understanding the programming structure of a linked file. If an architect wants to write notes or specifications while in a CADD program, for example, he or she can call up a favorite word processing program; the CADD program doesn't have to try to incorporate word processing as one of its features.

Windows also permits the user to open and view two or more files from different programs simultaneously, a process called multitasking. The feature is useful to anyone who keeps getting interrupted during the course of the day with tasks that require checking or editing a variety of computer files. The kind of multitasking done by Windows is called cooperative, which is not as efficient as preemptive multitasking, which is what OS/2 does. In cooperative multitasking, the program must return control of the operating system voluntarily, and some programs want to hog the processor until they are done or until the operator intervenes. In preemptive multitasking, the operating system is the boss, and it passes around control of the processor according to priorities set by the operator.

In theory, Windows avoids the need for a software developer to write a different link, or "driver," between the operating system and peripheral devices it wishes to support, such as printers, plotters, and monitors. The developer just references the Windows driver, and the job is done. In practice, Microsoft has been slow to develop drivers or set standards for some devices of great importance to architects, such as plotters and digitizers. The plotter driver in Windows 3.0 is an unsuccessful implementation of Hewlett Packard's Graphics Language (HPGL). Houston Instrument and JDL are among the first plotter

vendors to recognize this problem and write their own drivers.

Despite all the Windows programs currently shipped, only a few CADD programs are available—and most of those were originally written for Macintosh, such as Alias Upfront and Ashlar Vellum. Drafix was the first and, as of early 1992, still the only general-purpose CADD program written solely for Windows. Many more are coming, including Autocad and Cadvance, but they must be completely rewritten so that they will run as fast as their DOS predecessors. Is the effort worth it? Apparently so. Foresight Resources, the vendor of Drafix, has been selling both a DOS and a Windows version, and the Windows version has just recently begun to outsell the DOS version.

Because Windows is an addition to DOS, rather than a replacement, and because it is a graphic system, it is inherently slower than DOS. Experienced operators can run text- and vector-based programs faster under DOS than under either Windows or Macintosh. DOS still controls the word-processing, line-processing, and number-crunching functions. Says Autodesk spokesman Andrew Zarrillo: "In terms of raw speed, nothing beats Autocad 386/486 for extended DOS. And it's also true that Windows is our most important development platform."

DOS-Mac comparisons

BOTH WINDOWS AND THE MACINTOSH share some advantages, like communication among different programs, and some disadvantages, like big appetites for memory and disk space. Fortunately, memory and storage cost less than they did a couple of years ago, and compression utilities can virtually double the effective storage capacity of a hard disk.

Both computing environments have software gaps. Although more than a dozen architect-specific financial management programs are available for DOS, none are written for Windows and only two are available for the Macintosh. The gap is being closed by programs such as Clerk of the Works by Samsara for the Macintosh and Timberline, which showed a preliminary general ledger for Windows. Although dozens of excellent drawing and paint programs are available for the Macintosh, only a few support DOS and fewer still run under Windows. Among the best are Arts & Letters by Computer Support Corporation, Corel Draw, and Micrografix Designer. The most important features of both Windows and System 7 are awaiting implementation by software developers.

For occasional users, it's getting harder to tell the difference between one company and the next. On one hand, Apple sues Microsoft over the appearance and accessibility of its operating systems; on the other hand, Apple signs an agreement with IBM to develop a joint operating system. And Microsoft and IBM, which were once jointly developing Windows and OS/2 for separate markets, are now separately developing those operating systems for the same market. Meanwhile, Apple has licensed two key components of its technology, TrueType and QuickTime, to Microsoft. QuickTime is a free software extension to System 7 that permits time-based data, such as video, animation, or sound, to be inserted and played back within an application as easily as still images can now be inserted and viewed. Of all the introductions that have resulted from such joint ventures, QuickTime holds the most promise of revolutionizing the way computers are used.

Mac evaluations

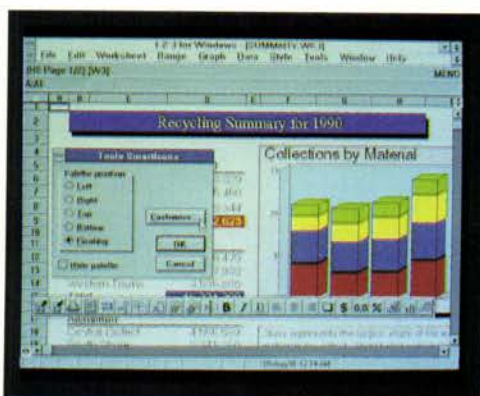
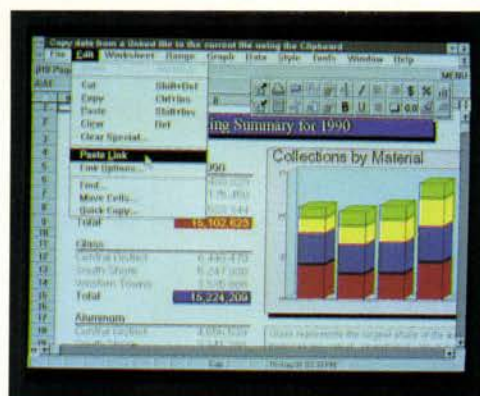
ARCHITECTS WHO EVALUATED MACINTOSH computers credit Windows primarily for its graphical interface, memory management, and linking features. But they still consider Windows years behind System 7. Only one of the evaluators had converted his Macintosh from System 6 to System 7 as of December 1991. Most of the others were waiting for their applications to take advantage of System 7's new capabilities.

DAVID J. JOHNSON, *Eastlake Studio*: We still haven't converted from System 6 to System 7. We run many programs and, though we expect 90 percent of them to run under Sys-

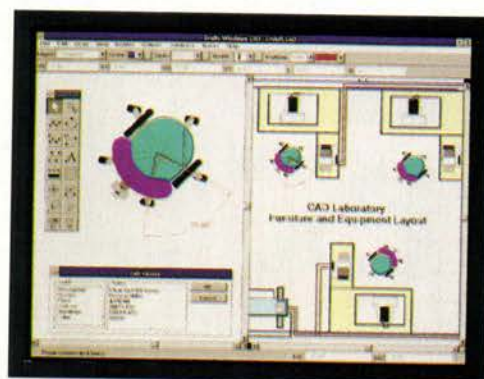
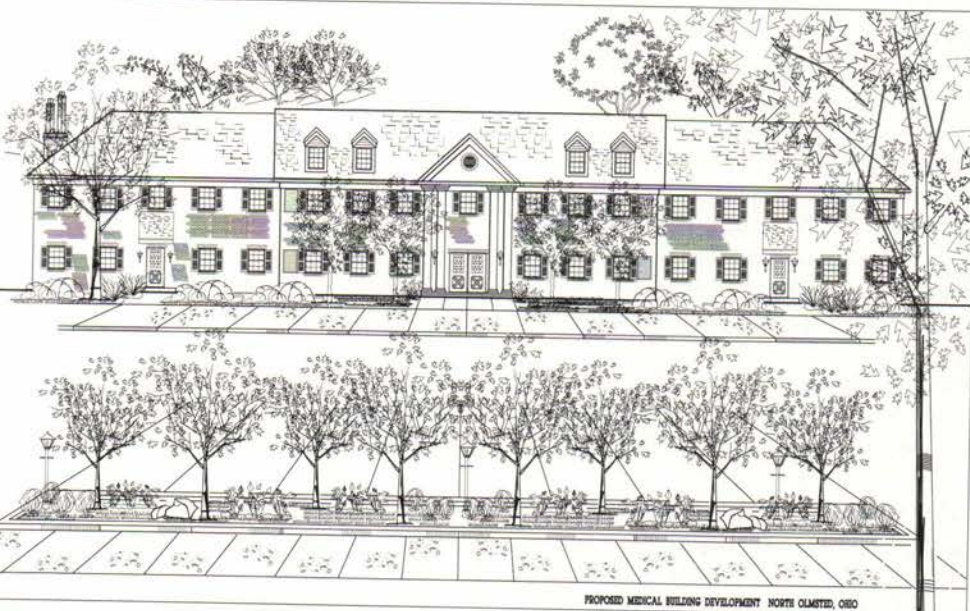
tem 7, we're not sure about a couple of important utilities. Windows has nothing that the Macintosh didn't offer four years ago. The issue is really how we can practice better architecture, and I see the Macintosh fostering more innovation. With Windows, Microsoft has caught up to where the Macintosh was years ago. Despite some similarities, the Macintosh is still simpler and more intuitive than Windows, and presents the user with fewer system considerations.

EDWARD J. MARCYN, *Philip West, Donald Bergstrom and Associates*: We're still running System 6 and have no plans to convert. System 7 doesn't seem to offer much yet for the CADD programs we use.

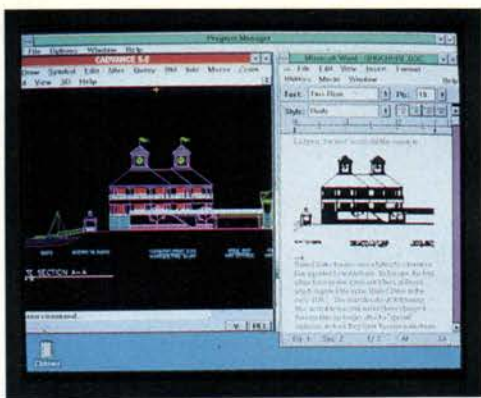
DON M. BEASLEY, *Don Beasley + Associates, Architects + Consultants*: I converted to System 7 because I consider it an inevitable step, even though there is no overwhelming urgency. It costs nothing. Doesn't it bother you that Windows doesn't go any further than it does? It's a Mac clone. The Macintosh is no longer as deficient as it was in management software. MicroPlanner's Project Manager is as sophisticated as anything on another platform. The interprogram communication features of both Windows and Macintosh will start a trend toward downsizing programs. We'll buy four \$300 modules that will work better than one \$1,200 program. Authors of Write, Draw, and Paint programs have gotten away from the simple concept that made them great and easy to use. If PageMaker and Word get any closer together, they'll merge. I'm tired of paying \$100 a year to upgrade to features already included in the other.



The new version of Lotus 1-2-3 for Windows has a palette of SmartIcons in the upper right-hand corner of the screen (top). SmartIcons launch common spreadsheet procedures. If the default palette of 70 SmartIcons is insufficient, users can create their own (above) to customize additional procedures. Users can also control which icons appear and the order in which they appear. For additional flexibility, spreadsheets created in 1-2-3 for Windows are file-compatible with spreadsheets created in 1-2-3 for the Macintosh, which was recently introduced.



When working in Drafix Windows CAD (above), an information bar appears at the bottom of the screen to describe the selected icon's function. Elevation of a proposed medical building (left) was drawn in Drafix by Cleveland's Mongello Associates, which uses CADD with restraint to avoid excessive repetition.



Evaluators praised Isicad's new Cadvance program (top) for its speed and full functionality, including 3D images (second from top), macros, and ability to be customized (second from bottom). In addition, multiple active views of the same drawing may be displayed simultaneously (bottom).

GERALD R. HASELHUHN, *Arc-Assist*: I can't believe how far Archicad has come since our last comparative evaluation of 3D programs. It's pricey, but impressive.

SAL W. GAETA, *Roy H. Kruse + Associates, Architects*: Claris CAD is a relatively intuitive drawing program and a good value for beginners. It needs an architectural symbol library and an easier way to clean up the intersections of a wall connecting two nearby parallel walls. I was also very impressed with Archicad. It has everything an architect would want, although it is much more expensive than Claris CAD.

STUART D. SHAYMAN, *Stuart Shayman Associates*: We use both Macs and PCs. Adding Windows to our PCs would make going from one machine to the other a lot easier. We use Architrion on the Macintosh, but Archicad seems to beat the pants off it. Archicad is more intuitive, requires fewer keystrokes to make complex shapes, and sets up faster. The roof and slab feature is a big advantage in speeding design. I thought Clerk of the Works was well designed for financial management of an architect's office. I liked it. The OYO Geospace plotting and imaging system was wonderful.

LAURENCE E. DIECKMANN, *L.E. Dieckmann, Architect*: I was impressed with Cadvance, although it doesn't look like Windows offers as much as System 7. I prefer Archicad as a 3D-based CADD program. I think about elevation development sooner than if I were just drawing lines that I'd extrude later to make 3D. For a financial management program, I liked the input techniques for Clerk of the Works. It appears to match an architecture practice very closely. The CalComp digitizer has a pen that senses pressure and widens the line as the user presses down. That doesn't mean much in drafting, but it considerably improves the appearance of freehand drawing. Although the feature is available for both Macintosh and DOS models of the digitizer, most programs that support it appear to be for the Macintosh.

DOS evaluations

AFTER VIEWING ALL THE PRESENTATIONS, architects who routinely used DOS-based programs disagreed about the merits of DOS, Windows, and System 7. Mostly longtime DOS users, they were not eager to change to other systems. Four evaluators said they are committed to old DOS, two favored Win-

dows, three expressed strong interest in the Macintosh, and four were ambivalent.

CHARLES GRANT PEDERSEN, *Charles Grant Pedersen Architect*: I just spent 15 minutes working on a Macintosh, and System 7 makes Windows look like a half-hearted DOS overlay. I'm not impressed with where DOS is going. The next evaluation I foresee may be OS/2 versus Mac. Once an office grows beyond three computers, a network becomes very helpful. Windows is a disaster on a network—I haven't seen an application yet that warrants the effort to install it. I'm not burdened with a lot of inertia in my office, and I will need a couple of high-powered computers within the next year. I am going to consider Macintoshes. But as I look at other architects' offices, I see a big mixture of DOS-based computers. When you try to put a network operating system on them, it's an absolute disaster. Macintosh computers, on the other hand, can be strung together without worrying about incompatibilities.

MICHAEL B. HOGAN, *Loebl Schlossman and Hackl*: Windows can be installed on a network, but the Novell manual takes 60 pages to explain how. We have 40 DOS-based computers running on a Novell network and we need more. If I purchased Macintoshes, we would be able to afford only 25 computers. Our workstations are set up to insulate users from details of either the operating system or the network; to switch to Windows would require at least some retraining, which is hard to justify these days. Still, I'm intrigued with some capabilities of Windows, such as data links. CADD programs make lousy word processors, and I get frustrated when I see people typing general notes in CADD. When the links between programs are fully established, I could see switching to Windows. Plotters, like the OYO Geospace, are beginning to accept both bitmapped and vector files. This is important as more existing drawings are scanned into the computer.

ROBERT C. ROBICSEK, *Environ*: At this point, I'd never switch my office from DOS to either Windows or the Macintosh, but I might buy a Macintosh for home use. The problem with Windows is that it slows down almost all programs, especially Autocad. Pauses of 80 seconds between commands are unacceptable. If you know DOS, as we do now, why switch? The advantage of the Macintosh used to be its graphical interface, but why should I depend on buying hardware

from one company when I can get better performance from a Compaq clone for a lot less money?

WALTER J. HAINSFURTH, Kurtz Associates: I foresee basic computer functions coming together and becoming more alike. Still, there are more users of DOS than of the Macintosh, which means more options and lower prices for DOS hardware and software. As for capability, I can do more in Drafix than in Claris CAD.

WALTER J. FORAN, Gelick Foran Associates: I learned a lot today that I didn't know about the Macintosh, and I liked it. First I thought I couldn't do it all with a Macintosh, and then I found that I could—to a point. I use Autocad in the office, and Windows looks like a great improvement. Autocad under Windows is more straightforward, simpler to use, and easier to teach. But once you're into a program, there's nothing much for the icons to improve upon.

JAMES C. JANKOWSKI, Ross Barney + Janowski: It used to take a long time to get CADD applications running under DOS. Now I see four cables hanging from the back of the Compaq and eight or ten from the back of the Macintosh. In some ways, the systems are converging. If I were just starting out and I didn't have a computer, I'd look seriously at the Macintosh. Microsoft has learned a lot. The commonality of programs and the consistency that Windows brings are time-savers. We're going to switch to Cadvance for Windows as soon as it is available. With Windows, I will have a common computing environment to run both CADD and Excel, move text, and share data. I like the way Cadvance for Windows permits multiple views of the drawing, so I can see both a close-up and the wider area at the same time. I like the idea of not having to quit the plan view to check the section view.

JOHN C. VOUSEN, John C. Vosen Architects: Despite all the software being ported back and forth between Windows and the Macintosh, it mostly helps clerical staff do their tasks faster. I see nothing that gets us to new levels of thought and creativity.

JOHN H. HANSON, Stenbro Associates: At the last evaluation, I said I wouldn't switch from DOS. Now I'm committed to Windows. We have 20 computers and six more coming, and I'm putting Windows on all of them.

I'd just like to find a Windows CADD program. Maybe we'll switch to Drafix. I can't see paying \$3,500 for Cadvance just to get Windows. I might even buy one Macintosh because of its great graphics, but the cost still seems astronomical for comparable power.

KEVIN KEMP, Decker + Kemp Architects and Urban Design: I go with what I'm comfortable with, and I'm comfortable with DOS. Windows is not for us. Only our office manager uses the computer a lot, and she rarely works in three programs at once. There's much more to DOS than to the Macintosh.

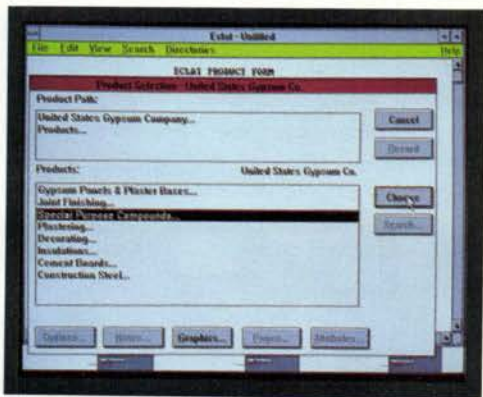
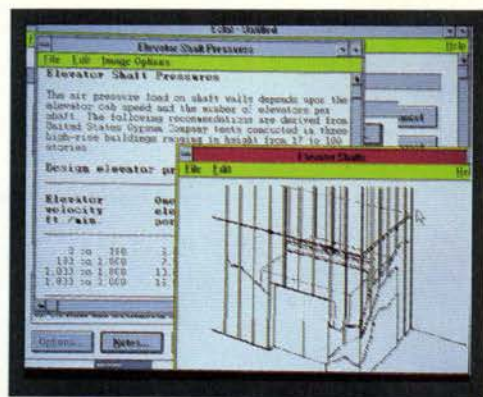
EDWARD W. WENZLER, William Wenzler and Associates: Windows scares me. I foresee at some point that my old applications won't run, and I'll have to go through retraining. DOS now does what I wanted when I first got started in computing. All my macros are written. To make any changes would require some major new capability. If I were to buy a Macintosh, I'd have to buy a new CADD program, and I'm not ready to start over again.

JAMES R. PEARSON, Pearson + Associates Architects: I was impressed by System 7. The learning curve on DOS is more difficult, although Windows is a big help. I'd switch to the less expensive Drafix for Windows, but what I'd really prefer is a Macintosh with the new version of Autocad.

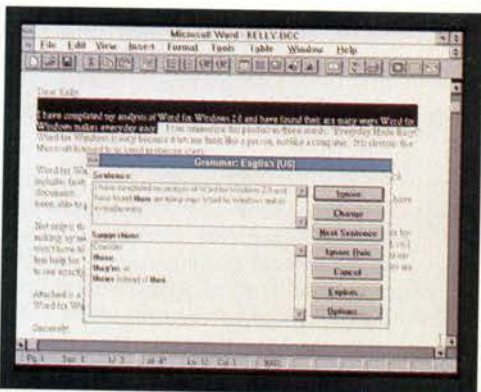
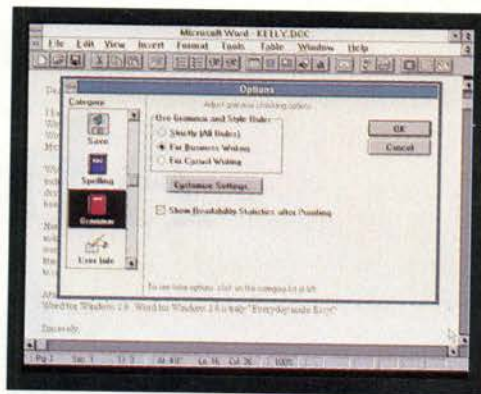
CHARLES R. NEWMAN, Charles Newman and Associates: If I were to buy another computer today, I'd really think about a Macintosh and put it on my Novell network. If Windows evolves into a complete operating system, we'll have the best of all worlds, but for now, DOS with Windows is not as seamless as the Macintosh with System 7. After experimenting briefly with the Digital Resources version of DOS, I like it better than the Microsoft version. It does everything MS-DOS does, and more. It's also easier to work with and might be a little faster. Running on the network, my computer had 480 kilobytes free memory with MS-DOS and 594 kilobytes free memory with DR-DOS.

DAVID J. ENGELKE, Potter Lawson Architects: I could see myself and a few others working in Windows, but not our whole office. It's still early. Autocad ran a lot slower under Windows than under DOS. I can't see purchasing the OYO Geospace plotter at a price of \$9,600 without color.

—OLIVER R. WITTE



Eclat (above), which provides free catalog information on compact disc, runs exclusively under Windows and uses its clipboard for copying and pasting symbols and details directly onto drawings. Microsoft Word for Windows incorporates options accessed via icons, such as a grammar check (below).



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WOLVERINE TECHNOLOGIES' SIXTH ANNUAL "FINISH FIRST" DESIGN contest honors buildings that express innovative applications of the company's vinyl siding, details, and accessories. The five jurors who met in Dearborn, Michigan, last October included 1989 award-winner Patrick Masterson of Virginia Beach, Virginia; president John Mikulak, Wolverine division; architect Bill Hobbs of Ann Arbor, Michigan; *Professional Builder & Remodeler* Editor Roy Diez; and ARCHITECTURE Senior Editor Michael J. Crosbie. Awarded were new and renovated buildings that take advantage of Wolverine's trims, moldings, vents, and a variety of siding styles. According to Masterson, the winning projects demonstrate that "vinyl is not contradictory to design, but can lead to creative design solutions." Jurors cited the Spruce Hill development, by Running Brook Builders, and the Pawleys Island Presbyterian Church, by Key Architecture, for combining vinyl components with natural materials such as wood shutters and copper roofing to integrate the structures into surrounding neighborhoods. —K.S.



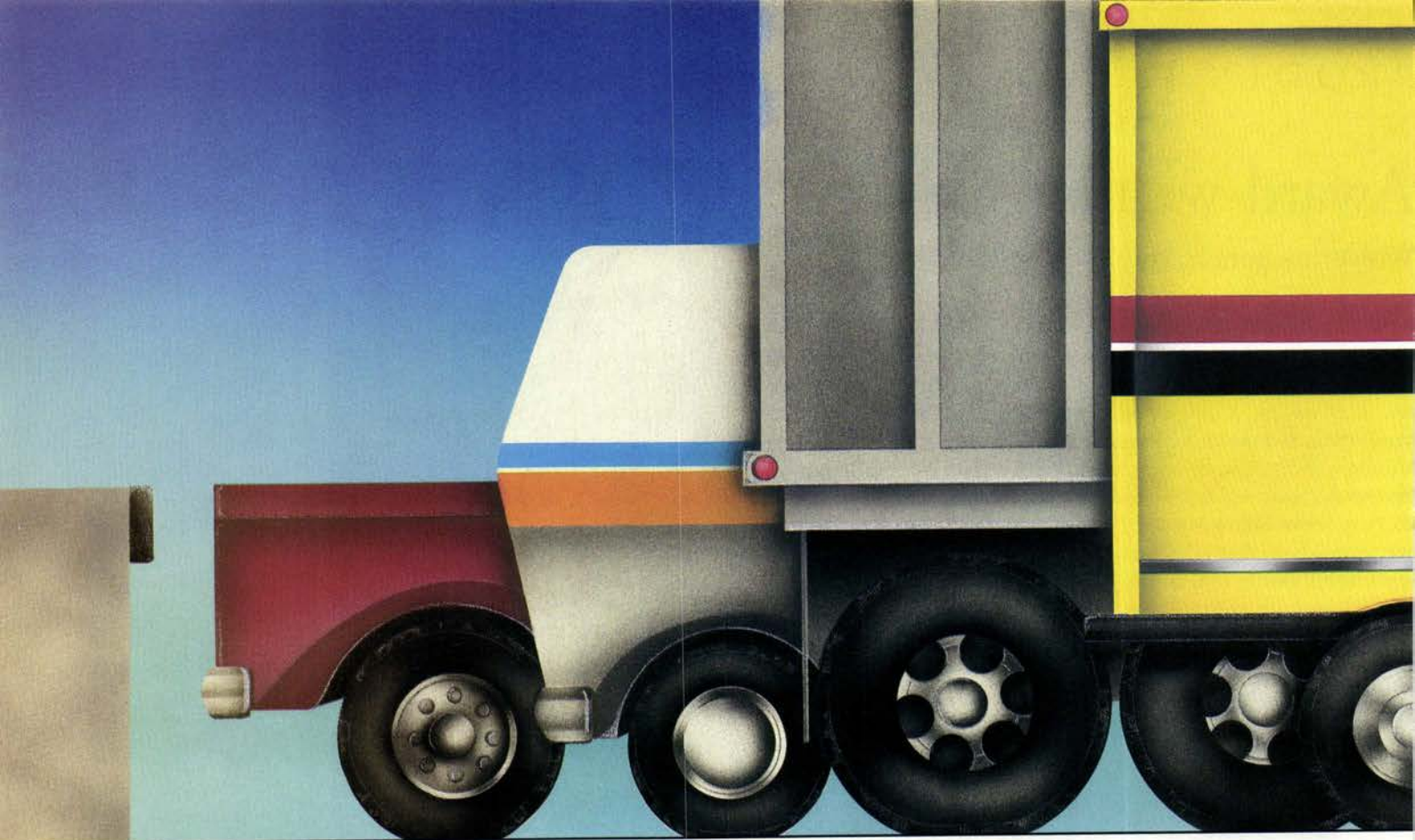
1. Columbia Gardens, a condominium complex in Cape May, New Jersey, by S.J. Fenwick Associates of Linwood, New Jersey, was awarded the grand prize for its application of Wolverine's Stockbridge siding.

2. A Victorian house converted into offices by Tuscaloosa, Alabama-based J.W. Ward Associates received the award for historic renovation.

3. Pawleys Island Presbyterian Church in Pawleys Island, South Carolina, won top honors in the light commercial category.
4. The award for most innovative application was presented to Krhounek + Povondra Architects of Omaha, Nebraska, for the SWI Juvenile Detention Center in Council Bluffs, Iowa.



5. Running Brook Builders' Spruce Hill, a 27-house development in Goshen, New York, won the award for new residential construction.
6. The Greenberg House, by the Johnson Group of Margate, New Jersey, was cited in the residential remodeling category.
7. David Christensen earned special recognition for his Solar Clock House in Bellingham, Washington. For Wolverine Technologies, circle 401 on information card.



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West Week Preview

New seating lines are unveiled this month at the Pacific Design Center.

1. The Knoll Group introduces a light-weight bentwood furniture collection, designed by Frank Gehry. Comprising four chairs, two tables, and an ottoman, the collection is constructed of thin, laminated, domestic maple strips and glue. Each chair weighs less than eight pounds. Seat pads for two of the chairs can be specified in fabric or leather. Circle 402 on information card.

2. The ashwood Subekka chair, designed by Andrea Franzini of Milan for Atelier International, has an upholstered leather seat. Circle 403 on information card.

3. Kimball manufactures three lines of Arpeggio guest seating to fit contemporary,

traditional, or transitional environments. Each line is available in a variety of finishes and fabrics. Circle 404 on information card. 4. The Fitzgerald Club Chair by Jazz Furniture is constructed with doweled hardwood frames and domestic hardwood legs. Circle 405 on information card. 5. Arflex manufactures the Virgola armchair designed by Israeli Yaacov Kaufman, which consists of molded polyurethane foam supported by a painted metal frame. Circle 406 on information card.



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ceilings. Circle 410 on information card.

5. ASCOA Fire Systems' HR Series of residential sprinklers can be installed in single- and multifamily units. Circle 411 on information card.

6. The American Metal Door Company produces the 2500 series horizontal sliding fire door finished in galvanized steel. Circle 412 on information card.

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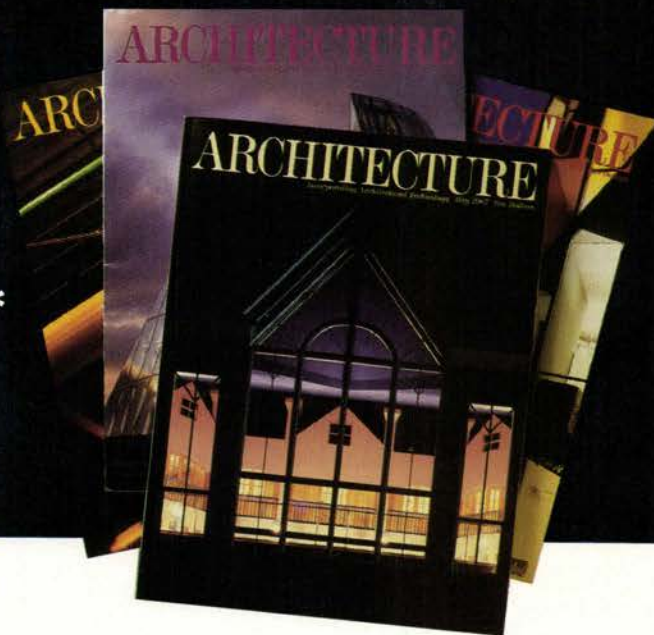
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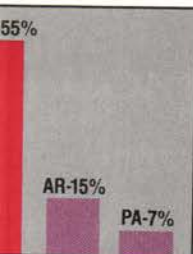
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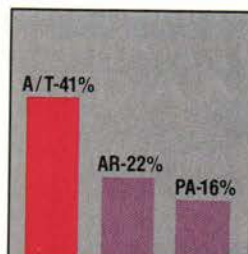
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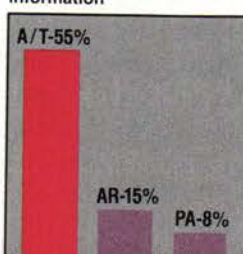
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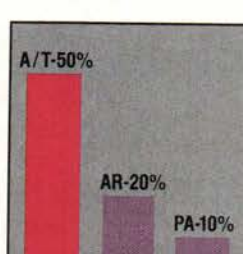
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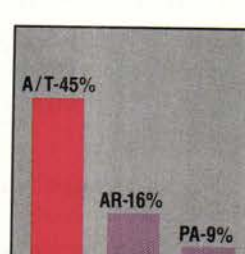
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Many architects use the terms "limestone" and "sandstone" interchangeably, but the two materials are very different stones with different compositions. Because the colors can be very similar, limestone and sandstone are difficult to tell apart. Because limestone releases acetic materials when washed with rainwater, care must be taken in restoration work not to replace sandstone with limestone, and vice versa. Placing limestone over sandstone will cause the sandstone to deteriorate. A quick way of identifying the two materials, without elaborate testing, is to look at the pattern of rainwater runoff on a building. Rain removes impurities from limestone, loosening the base where pollutants might settle. Thus, rainwater cleans limestone, but it leaves a black residue on sandstone.

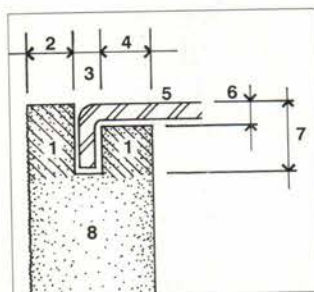
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Tacoma, Washington*

Granite Panel Testing

The minimum thickness for exterior veneer granite panels should be set at 3 centimeters or 1 1/4 inches after finishing, with a tolerance of plus 1/16-inch, minus 0 inches. This base thickness should then be validated or increased following evaluation of test data, application formulas, design pattern and size, and type of mounting. The stone to be tested should come from the same quarry where granite for the

project will be cut. Tests should be conducted for compressive strength, modulus of rupture, and flexural strength. If the stone passes these tests, additional evaluation should be conducted on a sample finished panel for flexural strength both perpendicular and parallel to the stone's grain; durability in freeze/thaw cycles; and absorption and petrographic analysis. Kerf anchoring edges (detail, left) are particularly fragile, and the test data are essential in determining maximum panel size and tolerances for such anchoring systems.

*Carl Hensler, AIA
Skidmore, Owings & Merrill
Washington, D.C.*



KERF ANCHORING EDGE

- 1 CRITICAL SECTIONS
- 2 FACE LEG
- 3 KERF WIDTH
- 4 BACK LEG
- 5 ANCHOR
- 6 BACK CHECK (IF REQUIRED)
- 7 KERF DEPTH
- 8 PANEL

Fire Suppression CSI Division 15320

Sizing Protection Systems

While codes may stipulate whether a building must incorporate a fire sprinkler system, architects should talk to local fire officials and the client's insurance company regarding the size of fire protection system required before conferring with a sprinkler consultant. Fire officials should be consulted regarding the appropriate system for the building's location, materials, use, and content. They can determine whether the local water supply is sufficient, and whether fire pumps are needed. The client's insurance company should be consulted regarding whether the system will discount insurance premiums. The architect should also study variances in the building code for sprinkled buildings, such as requirements for egress, fire-rated construction and allowances for square footage and building height.

*Frank Roberts
National Fire Sprinkler Association
Chicago, Illinois*

Sprinkler System: Alternatives

In buildings such as rare book libraries that contain fragile material fire-suppression systems based on halon gas were once common for extinguishing a fire. While halon systems reduce the possibility of damage to valuable items, they are considerably more expensive than conventional sprinkler systems and require effective containment of the gas. Released halon is also an environmental hazard that contributes to reduction of the Earth's ozone layer. A combination of new developments in conventional sprinkler systems now reduce the risk of water damage to rare collections. Pre-action systems are composed of dry pipes, which only fill with water when the system is activated by smoke or heat detectors. The sprinklers then discharge only in areas where the sprinkler heads are subject to heat from fire. If a wet pipe system is used, flow-control sprinkler heads can be considered for reducing the degree of potential water damage. Flow-control heads are thermostatically controlled to open when heat is detected and to close when the fire is out. Fusible link heads, which activate when heat melts a lead alloy link, must be shut off manually and can thus cause considerable water damage. Copper pipe systems can be specified in lieu of black iron pipe, as copper does not collect rust and dirt, which can be major causes of damage to books in the event of sprinkler discharge.

*Gerrit Zwart, AIA
Shepley Bulfinch Richardson and Abbott
Boston, Massachusetts*

Architects are encouraged to contribute their NEAT ideas, including drawings, sketches, and photographs, for publication. Send the submissions to NEAT File, Michael J. Crosbie, 47 Grandview Terrace, Essex, Connecticut 06426, or by fax (202) 828-0825.



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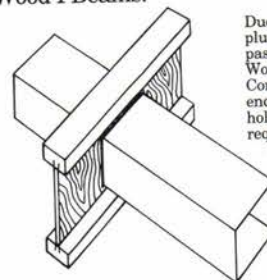
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