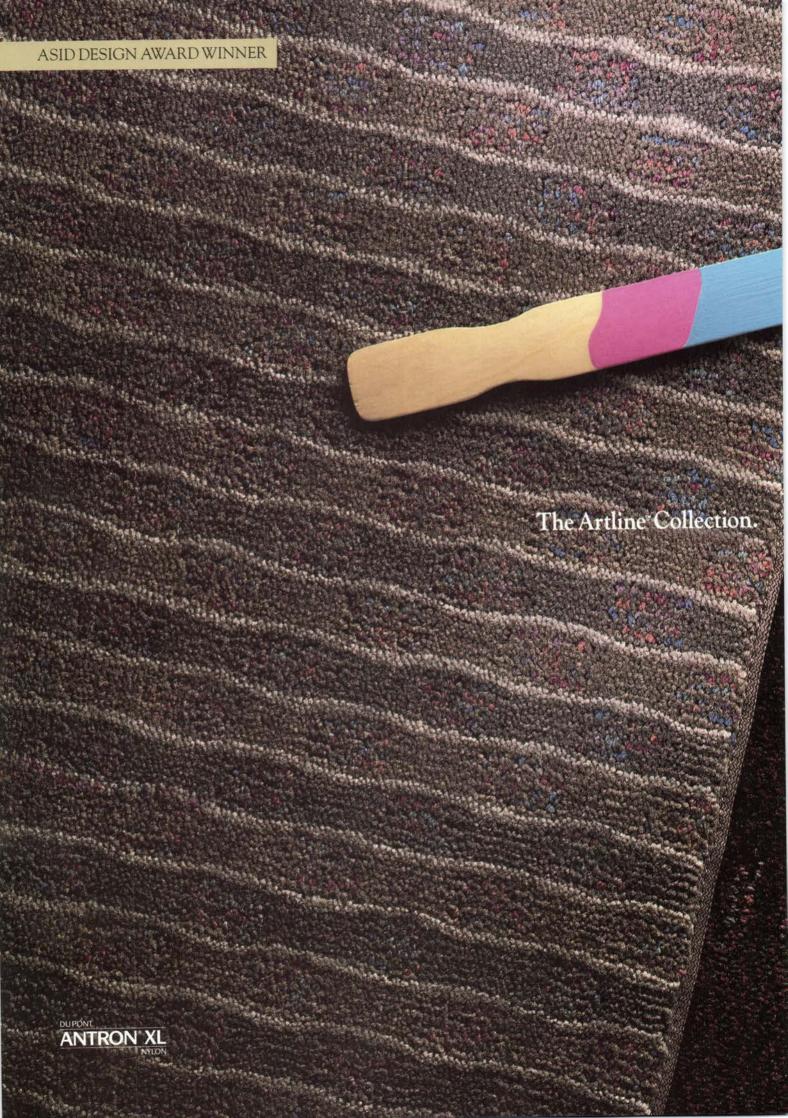
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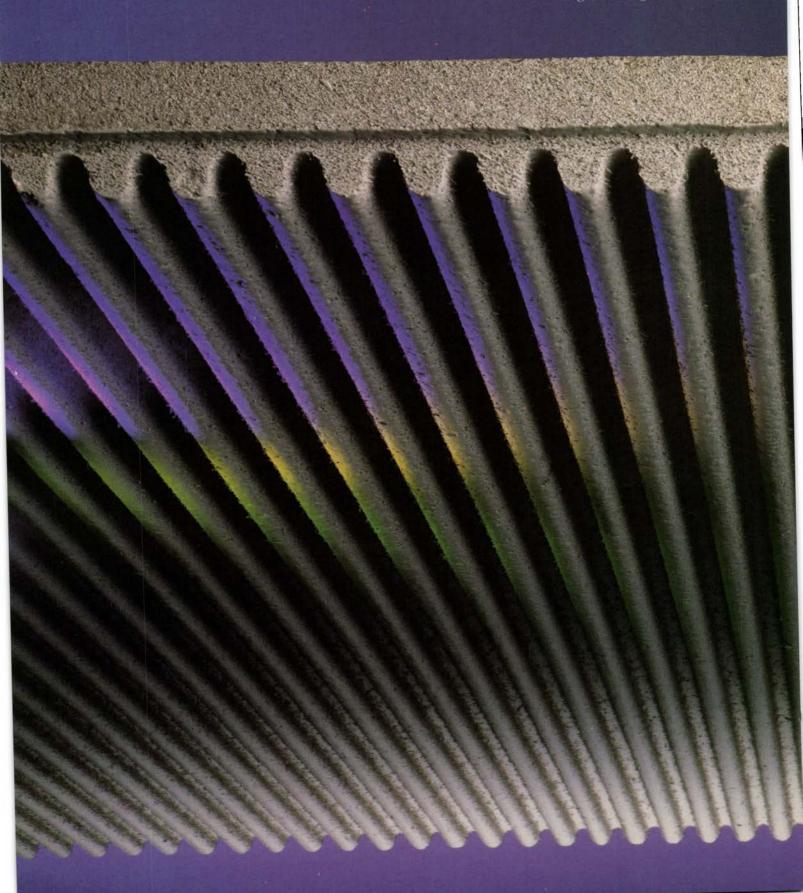


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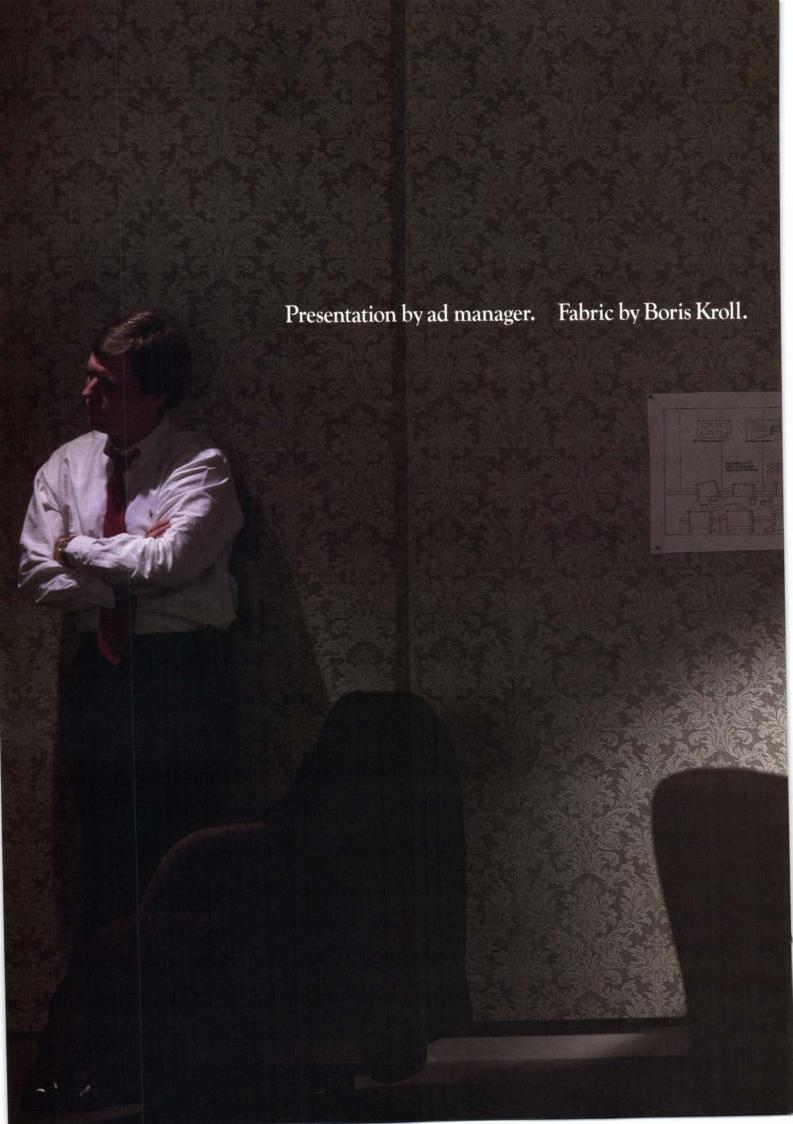
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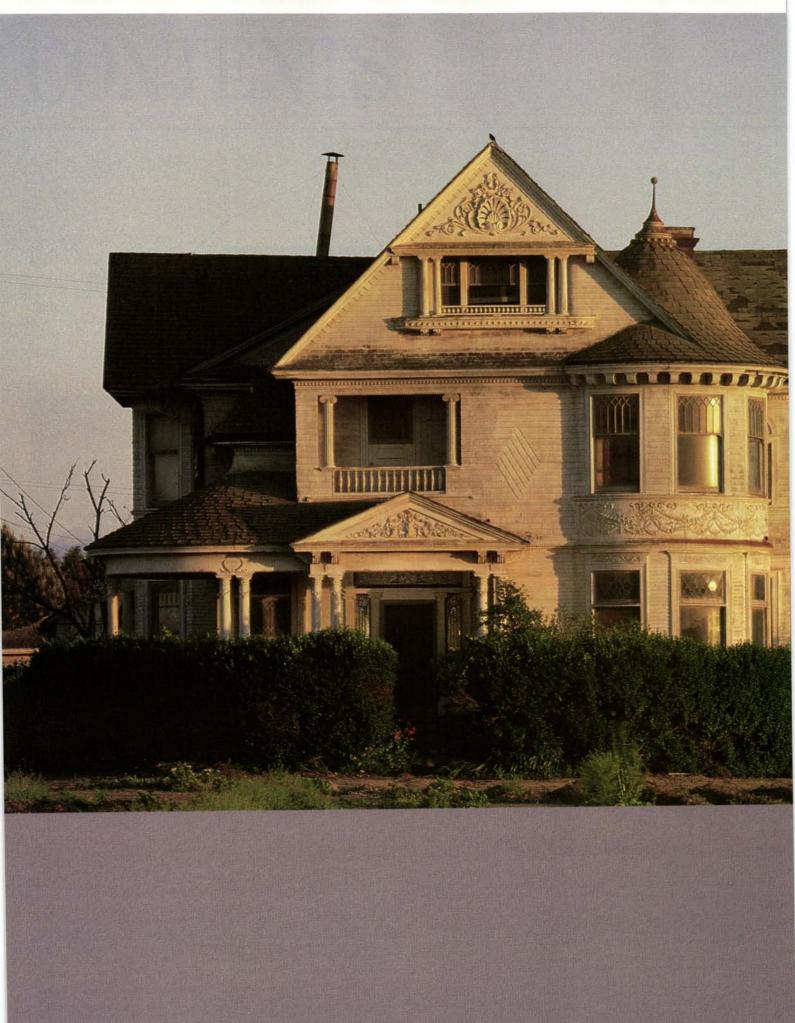
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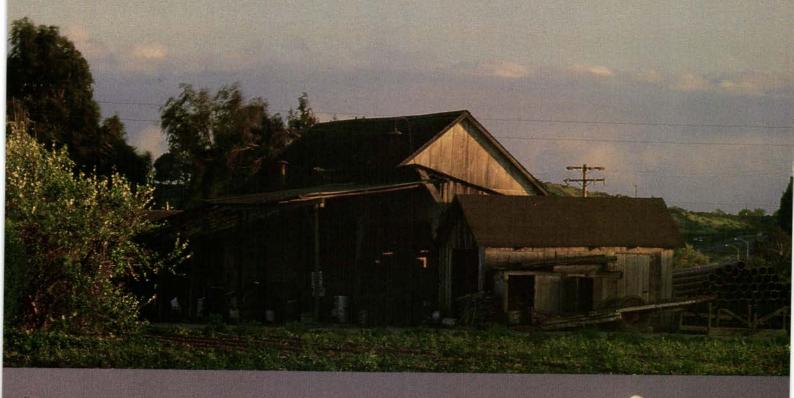
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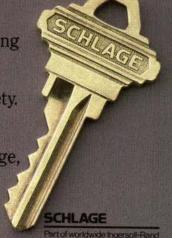
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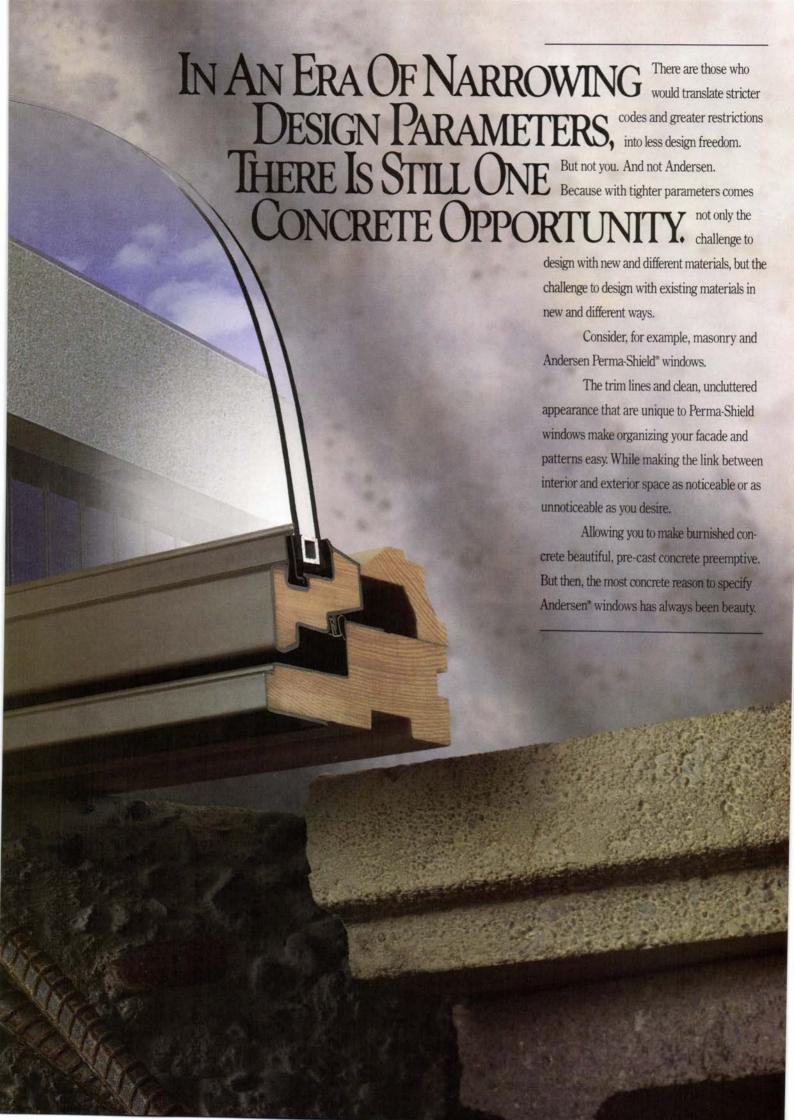
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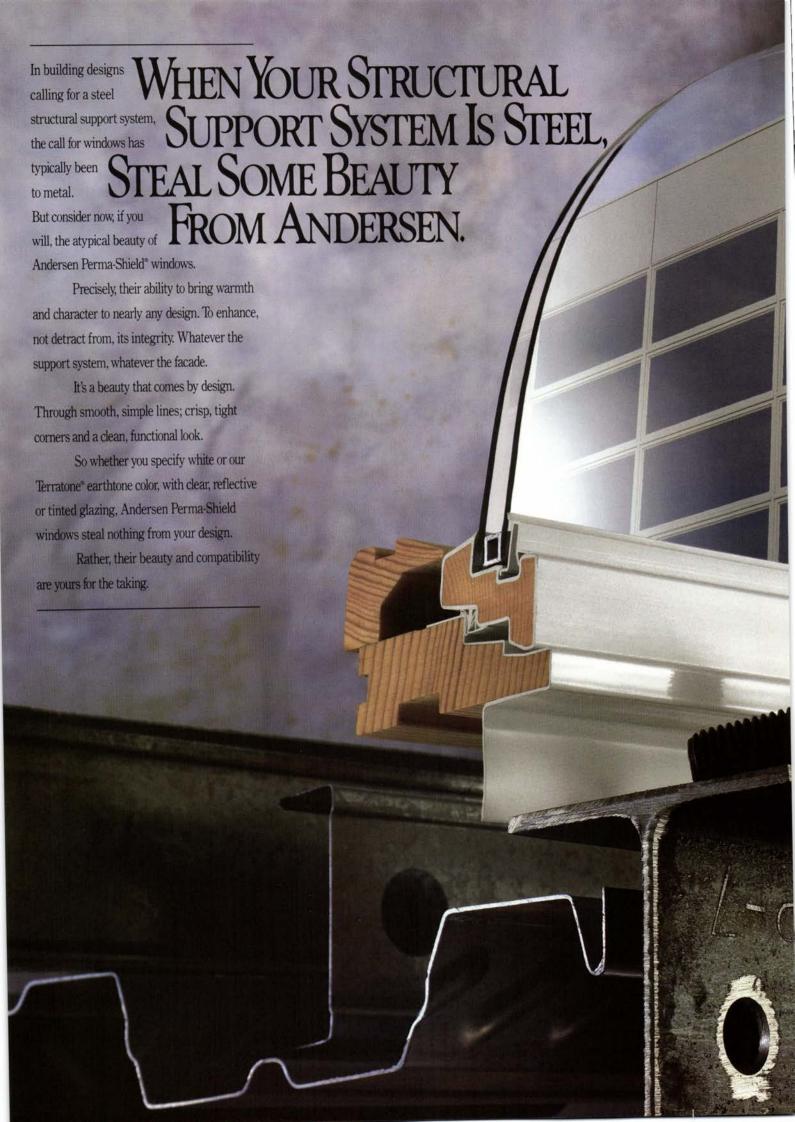


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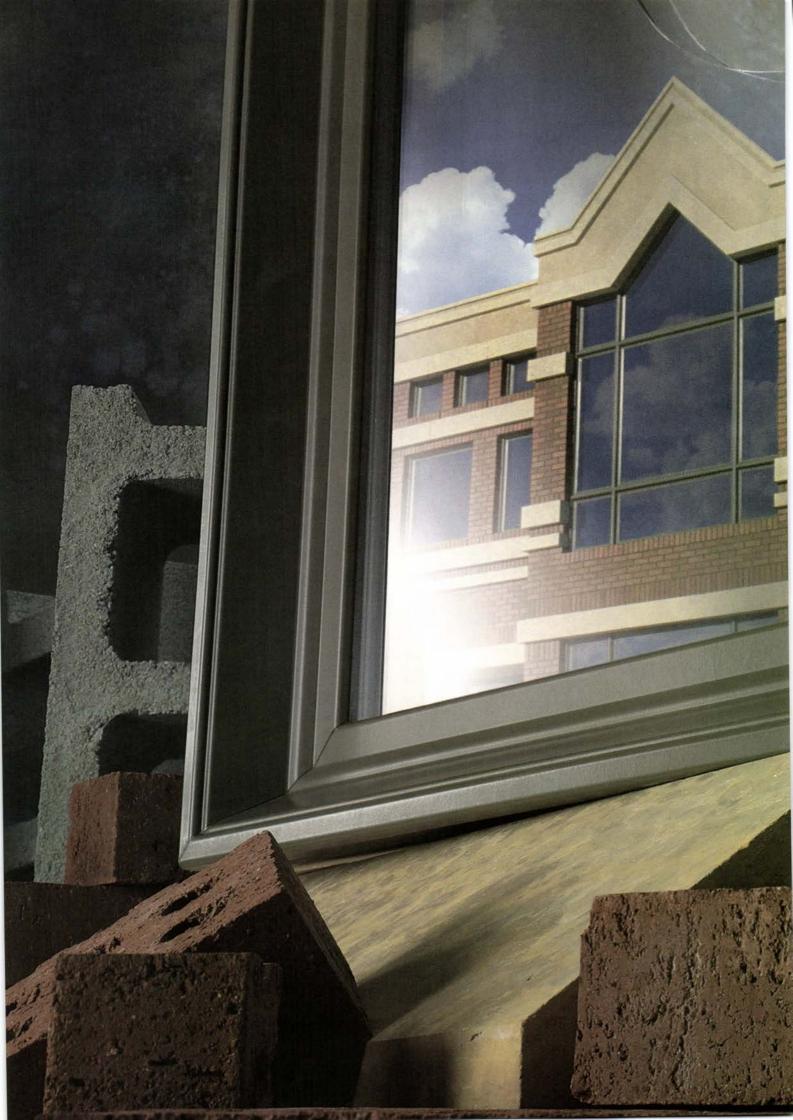
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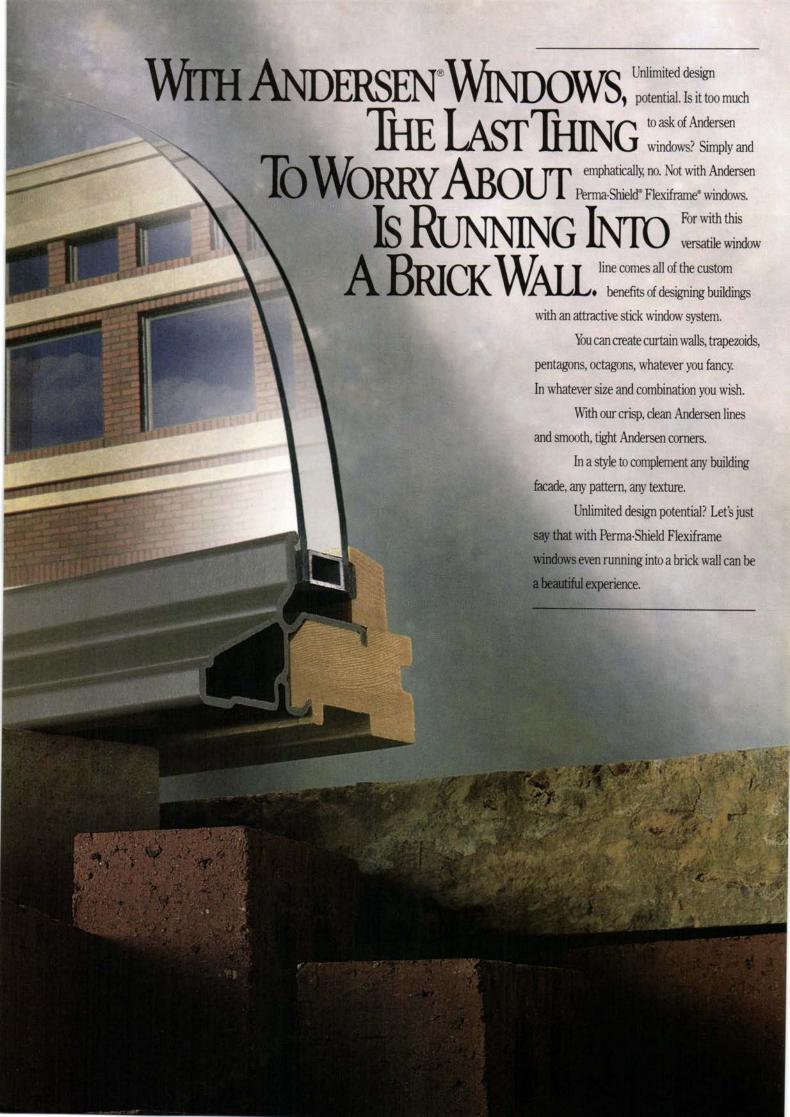


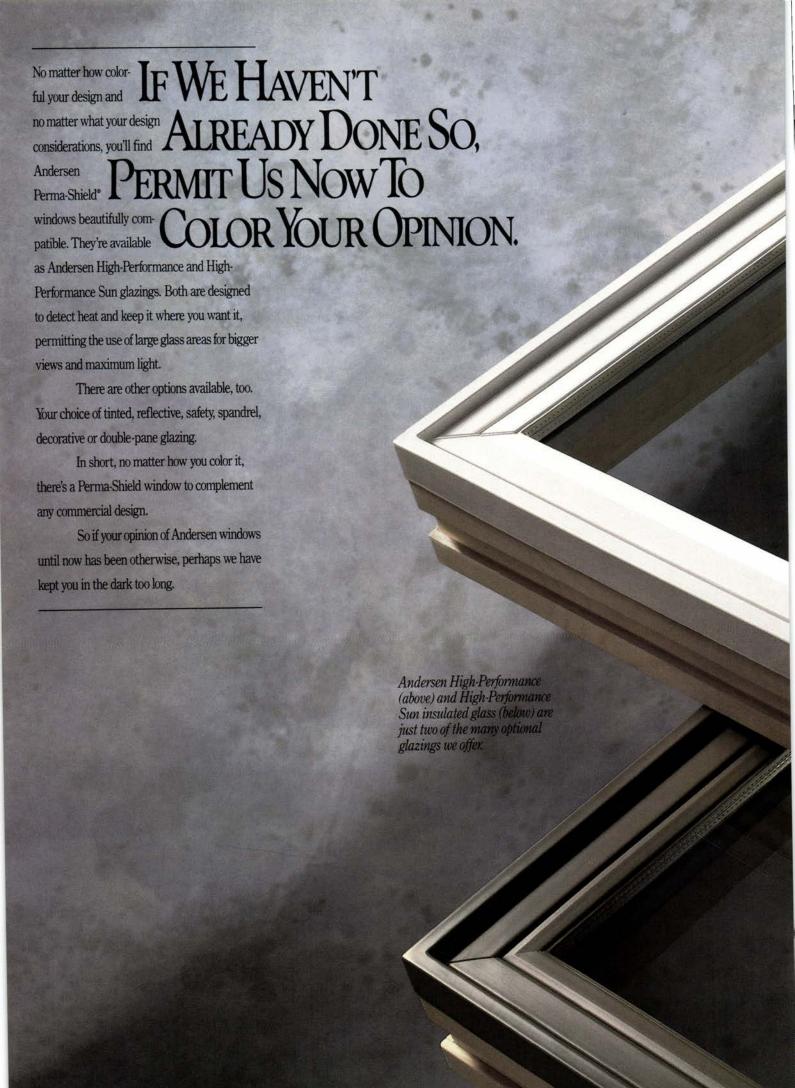


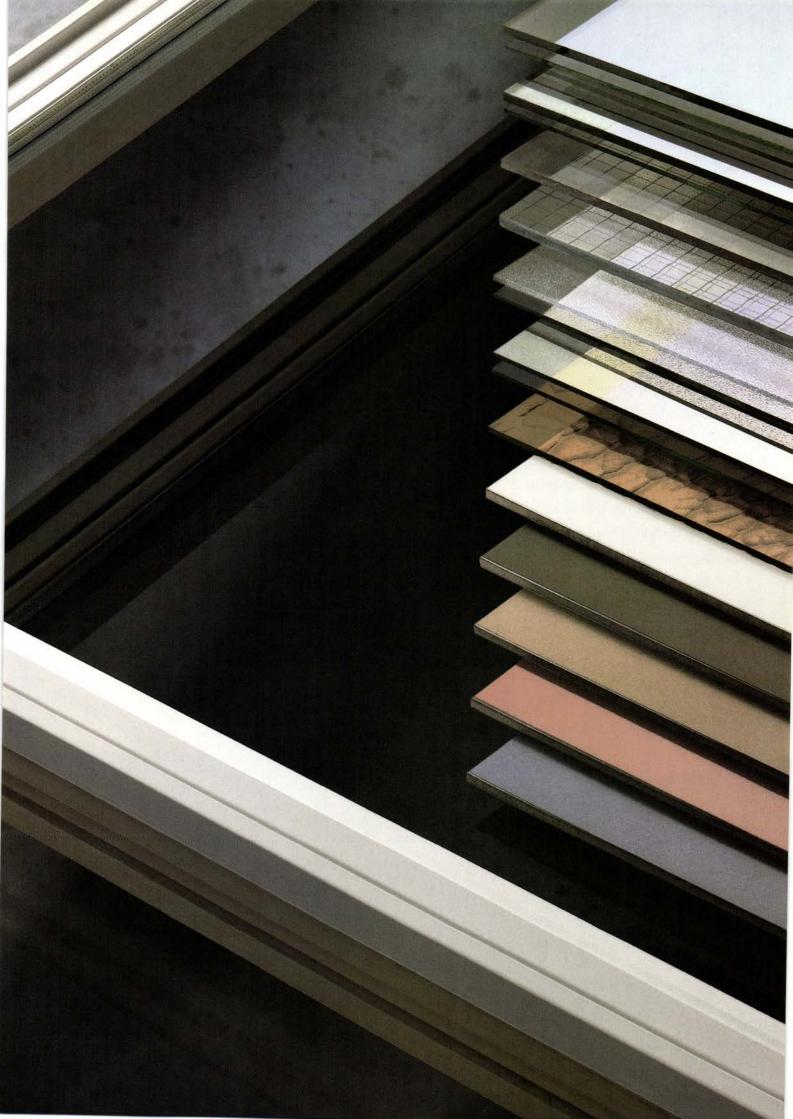












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NEWS

Conferences

Are Art Museums Becoming the 'Cult' Centers of the '80s?

More museums have been built in the last decade than in the rest of the century. Not long ago there was a consensus about how they should look, usually porticoed and pilastered, with a grand central rotunda and soldierly rows of galleries stretching on as far as visitors' legs could carry them. Such verities have now been swept away by a burst of experimentation that has produced such innovative and varied designs as the Pompidou Center, the Menil Collection in Houston, and the Museum of Contemporary Art in Los Angeles. The notion of an ideal museum type is gone forever.

Curators, critics, and architects gathered recently in Houston to discuss these phenomena and how to cope with them. Organized by the Houston Museum of Fine Arts and the Rice Design Alliance, "The Museum: Art and Architecture" focused exclusively on art museums, although many comments could be applied equally well to their next-of-kin in other disciplines.

Pontus Hulten, the first director of the Pompidou Center, attributed the soaring

popularity of art museums to the disintegration of the modern city.

"Cities are harder to live in than ever before," he said, "so museums have become havens in which to escape the brutality of the city. You can find peace there."

The words "peace," "haven," and "refuge" turned up frequently during the twoday symposium. Arata Isozaki, Hon. FAIA, architect of the new Museum of Contemporary Art in Los Angeles, compared the museum of today to a harbor, at which traveling exhibitions dock for a few months before moving on to new locations. Many new museums have no permanent collections and depend on traveling exhibitions to a degree that would have astonished their predecessors.

But if the new museums are havens from the city, Hulten also complained that 90 percent of them "are not very good." Many

Below, Arata Isozaki's Museum of Contemporary Art as a community gathering place in Los Angeles. of the problems, he suggested, are caused by clients who either don't know what they want or don't know how to get architects to give it to them. The expanded programs that even the most precious museums are now obliged to sustain have generated massive confusion.

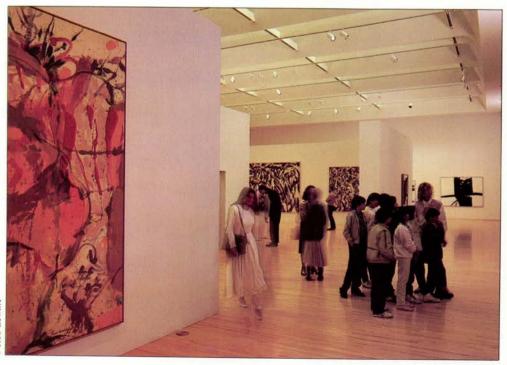
During the 19th and early 20th centuries the art museum was a center for collecting and exhibiting. It was an archive, a treasure house, occasionally even a propaganda machine for the regime in power. Today it is typically closer to a community recreation center that offers, in addition to painting and sculpture, movies, lectures, concerts, dance recitals, space for company parties, toys, and throw pillows. In Germany-and numerous other countries—more people visit museums than attend sporting events. The Pompidou Center is so popular that after only 10 years it is worn shabby and will soon be extensively renovated.

"There is no point in supposing that the architect of a museum is in a position to say that there is a right way of making something and that other ways are wrong," said Charles Moore, FAIA. "All you can do is to be sensitive to the images and memories that people have and try to translate those into a building that is theirs."

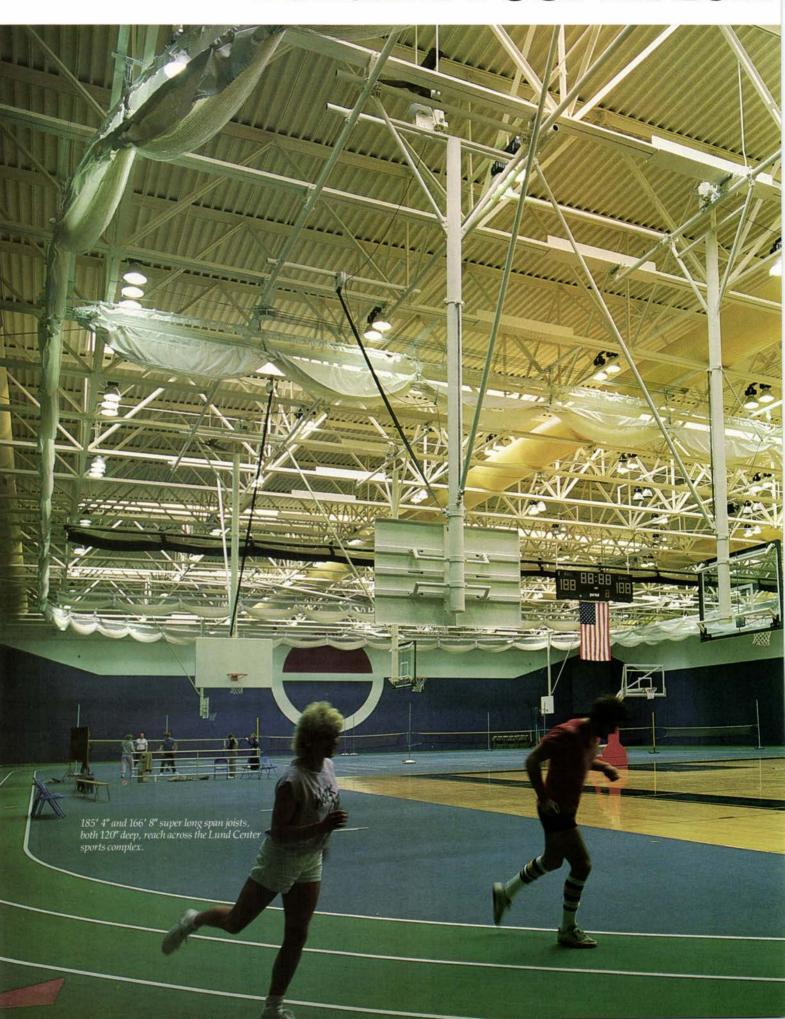
The speakers (who also included Hans Hollein, Hon. FAIA, Getty director John Walsh, and historians Joseph Rykwert and Stanislaus von Moos) disagreed over the merits of this new openness. Hulten came down in favor of it, while also lamenting that "the public now thinks it can run the museums as [well as] the professionals." But to satisfy his various constituencies at MOCA, Isozaki ended up producing 30 different design schemes over a period of six years. Moore made 17 models for the Hood Museum and says he spent a year refining the door moldings for an addition to the St. Louis Art Museum. So along with new popularity has come what Hulten called a "loss of innocence," an absence of a clear and uncompromised mission.

The speakers debated technical issues as well, including natural versus artificial light (daylight was preferred except for museums in Scandinavia and maybe northern Minnesota, where it is scarce), acoustics ("Do anything to avoid stone walls and floors," urged Hulten), and the comparative merits of gallery rooms and free-flowing gallery spaces (no consensus).

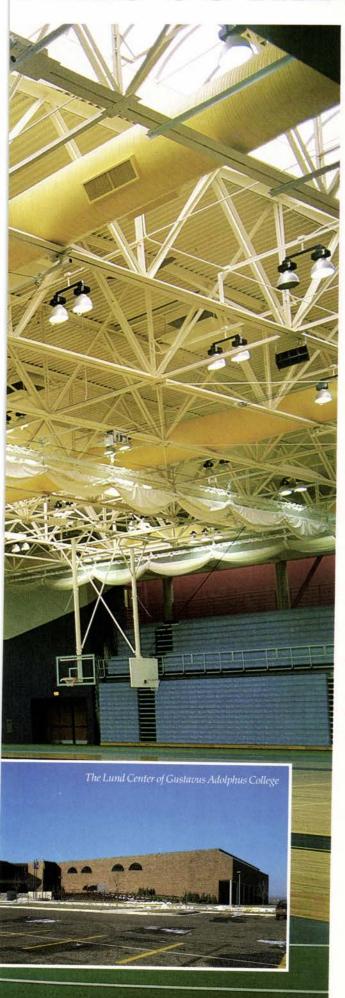
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Circle 19 on information card

Conferences from page 25

As to organization, Hulten noted that a good museum "should be organized like a good restaurant—50 percent up front and 50 percent behind. Any new museum should exaggerate on the workshop and storage side."

Near the close of the symposium Rykwert asked a question that could just as well have opened it: "Should works of art be exhibited at all?" Without answering his own question, he went on to explain that the museum as a discrete institution, with its own identity and its own facade, dates only from the beginning of the 19th century, and its birth coincides with a social mission to elevate public taste. While museums failed dismally at raising public taste, the broad educational objective remained central until recently, when museums suddenly became places to be seen rather than to be educated.

"Museums are no longer places of instruction but places of cult," Rykwert observed, "quasi, if not totally religious institutions. That's what justifies the trudge. We're looking for a cultural experience, not an esthetic one. We'll have to reckon with this for the next century."

-DAVID DILLON

Education Conference Explores Why Johnny Can't Write Specs

A symposium on architectural education was held in Berkeley as part of AIA's March board of directors' meeting. This topic consistently provokes strong differences of opinion within the profession, and the event underscored that phenomenon. In a nutshell, many practitioners feel that graduates entering their offices are not well prepared for work in the real world, while many educators feel that such pragmatism should not be the prime role of a liberal architectural education. These opposing sentiments have been voiced for at least two decades. Not surprisingly, a two-hour discussion did not settle the question, but it did evoke a variety of view-

Moderator Peter Winkelstein, FAIA, opened by stating that "education is a lifelong process," and asked which issues schools should deal with, who should teach them, what role the profession should play, and what other institutions can contribute to the educational process.

Fred Stitt, a self-employed researcher who teaches professional practice at UC Berkeley, began by saying that architects generally are not well equipped to survive. He attributed this in part to "false debates of theory versus practice and trade schools versus professional schools." He cited research showing that "70 percent of graduates are dissatisfied with technical and managerial courses" while "employers are 17 percent satisfied with the quality of graduates as employees. The profession

continued on page 31



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Conferences from page 29 has widened its scope in the last 20 years, but education has not. Students are cheated on their education" and ask "why do we know so little about education?" He answered that it's because "educators do the research" on that subject.

John Hartray, FAIA, a practitioner who teaches professional practice at the Illinois Institute of Technology, held up the Ecole de Beaux-Arts as the best model for architectural education and said that "when an architecture school gets off the five orders, it begins to drift into suspect theory-making. Postmodernism is a shallow reaction to shallow modernismboth are propaganda efforts. Deconstructionism is slowly traveling west, like the elm blight." But he conceded that "the real world isn't that good; it also needs improving. The demographics of the profession are depressing. Students who will earn \$7 an hour are exhausted, debtridden, middle-aged upon graduation." He suggested "disconnect[ing] licensing from education. Ideally we should go into schools as licensed professionals and fight it out with design professors one on one."

Robert Geddes, FAIA, a practitioner and former dean at Princeton who directed a major study of architectural education in the 1960s, said that "the tension between schools and the profession is necessary." He felt it was time to do such a study again, with three goals in mind: graduates that are immediately useful to their employers; are able to keep on learning; and have a professional sense of better possibilities than the environmental status quo. He also recommended that "the profession should offer to help schools evaluate their performance . . . and schools should evaluate the performance of the buildings, neighborhoods, and cities that the profession creates." Observing that "the profession and the schools are not influencing the new city," he showed slides of chaotic suburban and quasi-urban development in the Princeton corridor and the Tysons Corner area of northern Virginia as telling evidence.

Following these presentations were discussion among the speakers and questions from the audience. Among the wideranging remarks were these:

Stitt: "Schools are archaic systems of conveying information. Students are slowed down way below their capacity to learn ... students are the least consulted group ... they are afraid to make their dissatisfaction known because of their professors' power to give grades."

Hartray: "Why are there so many appalling buildings by licensed architects? Life safety is a better thing to focus on in exams than theory and design. Design should carry a First Amendment guarantee: the right to do awful work."

Geddes: "Design is not an art, not a science, but a noble profession in its own right." Despite its immense demands on

continued on page 33



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students' time, "the design studio is the best club on campus." The segregation of architecture students "is a terrible education. A university education is the only possible hope."

As the event concluded, Cecil Steward, FAIA, dean at the University of Nebraska, observed that "there is no known curricular device that can prevent a student from getting an architectural education." Conversely, there seems to be no known curricular method to ensure an architectural education either. Nor is there any evidence that students are interested in architectural education in the abstract. Although the symposium was held at the end of the school day about 200 yards from the architecture building, there were fewer than 10 students in an audience of about a hundred.—John Pastier

Prince Charles Calls for Public Involvement in 'Remaking Cities'

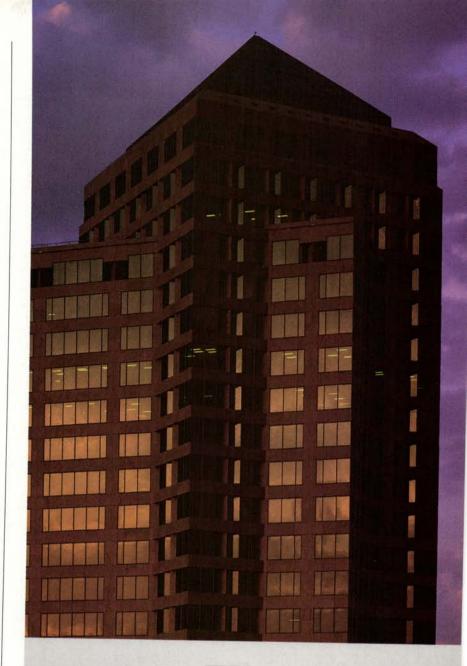
In the concluding address at AIA/RIBA's "Remaking Cities" conference in Pittsburgh in March, Prince Charles confirmed an overriding theme that had been voiced during the preceding week by British and American architects, urban planners, developers, city officials, and academics. "When all is said and done, however, it seems to me that the most essential feature of this whole debate is how to re-create communities. At the heart of the question lies the human individual," said the Prince.

In conjunction with the conference, a Regional/Urban Design Assistance Team (R/UDAT) focused on the economically depressed "Mon Valley," a once-thriving industrial area southeast of the city, where today nearly 1,000 acres of abandoned steel mills line both sides of the Monongahela River. (R/UDATs are interdisciplinary task forces organized through AIA to help local communities identify issues and propose workable solutions.) And the R/UDAT proved that the local citizens do want to get involved. The team of 18 U.S. and British architects, planners, and other professionals presented its findings before several hundred local citizens at a lively town forum at the Bishop Boyle Center in the mill town of Homestead.

George DeBolt, a Homestead business owner and citizen chairman for the report, said that for 100 years the Mon Valley was totally steel oriented. "We need to look at the whole area differently," he said.

Acknowledging that steel would never return as the valley's economic base, the R/UDAT recommended preserving some of the abandoned mills and developing industrial adaptive use for other mill sheds. The Carrie Furnice complex was designated to be preserved in its entirety. The team's report also called for improving access to the river and beautifying the towns to attract other forms of develop-

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Conferences from page 33

ment and suggested the demolition of some of the abandoned buildings. Outlining the government's role, the report recommended tax sharing, establishing a river authority, and funding for transportation improvements. Possibly reflecting the British influence, the team also called for a design competition for an international garden festival for the Homestead mill site.

Pittsburgh architect David Lewis, FAIA, who served as conference chairman, said, "Our first truly international R/UDAT shows that experts from two countries can focus on highly local problems and propose a catalyst for community action."

The R/UDAT study served as a case study for the conference and a focus for part of Prince Charles's speech. Rather than lambast architects and planners and criticize specific buildings as he previously has done on several occasions (see Jan., page 22), the Prince urged architects to provide leadership and to encourage demoralized citizens to participate in overcoming urban problems. Although he admitted that he has become aware of the complexity of the architectural issues and has come to realize that taste and style are very subjective, Charles did repeat his plea for a "continuity of the past" and for "vernacular by architects which will help to reinforce people's sense of belonging and involvement in places.' The Prince also called for a "renaissance of craftsmanship and the art of embellishing buildings for man's pleasure and for the sheer joy in beauty itself, as opposed to mere functionalism."

Charles did have some harsh words. "In the United States and the United Kingdom, we have had 40 years of practice at urban design and comprehensive planning and development. The results have been pretty disastrous," he said.

Stressing the importance of collaborative efforts between the public and private sectors, the Prince said, "Clearly, urban regeneration has to be fueled by a renewed economic incentive, but if the money motive for development is the only serious force in urban renewal then we shall not succeed. Building is about more than just money and market forces." In praising the host city, he added, "Urban renewal cannot be left entirely to the kind of developer who lacks an awareness of the type of old-fashioned philanthropy that was evident in a city such as Pittsburgh."

The tone of the Prince's speech was generally optimistic for the future of cities. However, he did pose a litany of questions: What is likely to produce the greatest sum of human happiness when it comes to the design of modern cities? Who is to decide? How do we avoid making similar mistakes to those of the past? Many of his questions to the audience were the same as those the conference participants had addressed in various workshops.

The conference was organized in a workcontinued on page 38



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The new Monogram



Conferences from page 35

shop format with participants breaking up into groups for five topics: new economic opportunities for cities; city centers versus suburban expansion; preservation and development of neighborhoods and housing; creating new partnerships; and urban futures. The discussions revolved as much around social and economic issues as architecture and planning.

London architect and writer Colin Ward warned the audience against romanticizing the past and called urban nostalgia a fallacy. "Just as there never was a golden age of childhood, there never was a golden

age of the city."

After describing some of the problems that have plagued cities for years, RIBA President Rod Hackney asked, "Why do the poor come to the cities?" Hackney said that government must maintain a certain level of housing for those who cannot obtain it for themselves but warned that "you can't solve the problem by simply throwing money at the poor. Decaying cities must first build up community pride and then even the worst areas can turn around."

One recurring theme of the conference was that remaking cities requires a total commitment on the part of the federal and local government, business and industry, and the ordinary citizen. However, Harry Cowie and Deborah Barlett of the London-based Phoenix Initiative said that community programs and public/private partnerships are important but are not a substitute for responsive government.

Volker Hartkopf, professor of architecture at Carnegie Mellon University, observed that cities now have "separate and unequal populations that are growing." Hartkopf also lamented the fact that in a world of growing global communications cities are becoming more insular.

Frank Cahouet, chairman of the Mellon Bank Corp., cited Pittsburgh's successful transformation from a steel town that reached its industrial peak in the 1930s to a vibrant city in the 1980s with gleaming corporate towers of a service-oriented economy. This rebirth was not without pain, said Cahouet, who described short-term hardships before long-term goals were achieved. "Pittsburgh proves that this formula works," he concluded.

However, U.S. Senator John Heinz (R-Pa.), in his introduction of Prince Charles, warned architects and the government to avoid "urban self-deception." Describing his native Pittsburgh's successful renaissance, Heinz said that urban revitalization stems from people and civic values and that "one cannot bottle Pittsburgh's success like it was horseradish."

The "Remaking Cities" conference was the second in a series of international conferences on revitalizing older industrial cities. The first was held in London in November 1986; the third is scheduled for Essen, West Germany, in 1989.

-LYNN NESMITH

Awards

Eero Saarinen's Dulles Airport Wins AIA 25-Year Award

Air travel has changed dramatically since Eero Saarinen's terminal at Dulles Airport opened in 1963. There have been some alterations to accommodate a boom in the number of passengers and an onrush of development nearby. Still, the majestic terminal continues to dominate the verdant exurban Virginia landscape in which it stands. And now the extraordinary vision of Saarinen's design has been again revealed as plans are being laid to triple the facility's capacity. To celebrate the endurance of Saarinen's masterpiece, the Institute's honor awards jury has chosen it for the 25-year award for 1988.

Dulles Airport is located 27 miles from downtown Washington in Chantilly, Va. It is linked to the city by an access road exclusively reserved for airport trips. However, in recent years a toll road for general use has been built parallel to the Dulles access road, sparking a development boom reaching all the way to the airport. Yet, because of its 15-square-mile acreage, the original terminal and control tower still stand alone.

On approach one first notices the terminal's inverted roof—a gigantic concrete blanket slung between two rows of columns. The concrete columns lean outward, seemingly stretching the roof like a hammock to a 170-foot span. On the facade, glass is set in aluminum framing, its transparency or reflectance determined by the position of the sun.

Of the building, which was first owned by the Federal Aviation Administration, Saarinen wrote, "Federal architecture is traditionally static, but we felt a jet airport should be nonstatic, expressing the movement and excitement of modern travel by air."

Edgar Kaufmann Jr. wrote in *Progressive Architecture* in August 1963: "Saarinen has set serenity and mobility at human scale; he has used elementary spaces defined by smooth forms regularly repeated, and to supplement them, a small plan package of transportation that amply links his architecture to its raison d'être—the planes. . . . Enrichment comes not from the few materials or the limited colors, but from the play of active and static forms, the certainty of scale, the ample rhythm. . . . It is a temple to a friendly power of flight."

The interior of the main terminal is a single immense room in which are placed ticket counters and concession stands. The only awkward change in this room since Saarinen's time has been the addition of security pass-throughs, a contemporary necessity no one on the original design team envisioned. On the lower level are baggage claim areas and ramps sloping down to parking and up to ground

transportation.

A two-story south wing connects the 14-story-high control tower to the main terminal. A U-shaped restaurant and bar hug the tower base and overlook a pool and fountain on the lower level. Observation decks lie outside the lounges and above the restaurant. Of the tower Kaufmann wrote, "The massive, dense, rich forms of the tower complement the candid, airy framework of the terminal in a most satisfying counterpoint. Preliminary models show that this relationship continued on page 43



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Most of the models show here are available in yo choice of these exclusicolors:

Rain Forest Wildfire Starlight Fountainblue High Polish Bronze Scarlet O'Har Limousine Canary Island French Roast High Polish Stainless Si



Awards from page 38

of the two central structures was Saarinen's main formal concern."

To increase the waiting area, in the late 1970s the Washington office of Hellmuth, Obata & Kassabaum pushed the boarding gates 50 feet toward the apron through a pair of low sheds appended to the south facade. This also enlarged the baggage sorting space. And, a few years ago, two temporary midfield terminal sheds were added to ease congestion in waiting areas.

Now the Washington Metropolitan Airport Authority, which succeeded the FAA as Dulles's owner, is looking toward the 21st century, when passenger numbers could rise as high as 40 million. (In 1988, roughly 11 million passengers are expected. Saarinen envisioned up to 13 million per year.) According to MAA director James Wilding, several plans are under study, among them lateral expansion of the main terminal building, which is now 600 feet long. Saarinen's design allows for a 100 percent stretching of the terminal.

The MAA also plans to build up to six new midfield terminals, each with 24 gates. The first two will replace the temporary sheds. The international arrival area will be moved from the terminal's east end to the west and enlarged significantly. The New York office of Skidmore, Owings, & Merrill (under the direction of David Childs, FAIA, and Marilyn Taylor, AIA) is the architect of the new master plan.

Genius is evident in the farsightedness of Saarinen's plan, which addresses location, dimensions, and materials of all future buildings at the airport. As Saarinen once said, "I don't think the terminal should be evaluated just as a work of art. I think we faced this job as an architect's problem in total relation to the present world. We tried to give a completely logical, imaginative, and responsible answer to that problem. . . . I think this airport is the best thing I have done. I think it is going to be really good. Maybe it will even explain what I believe about architecture."

-Nora Richter Greek

Richard Meier Awarded the RIBA Gold Medal for 1988

Richard Meier, FAIA, has been awarded the 1988 gold medal of the Royal Institute of British Architects. The award is conferred annually by the sovereign on a distinguished architect or group of architects "whose work has promoted either directly or indirectly the advancement of architecture." Meier is the first American to be so honored since the medal was presented to the office of Charles and Ray Eames in 1979.

Commenting on the award, Meier said, "It is an honor for me to receive this gesture of support and recognition for my work from such a distinguished group of

peers as the Royal Institute of British Architects."

Meier established his own practice in 1963 after working first for Davis, Brody & Associates and then for Skidmore, Owings & Merrill and Marcel Breuer & Associates. He received his architecture degree from Cornell, and he credits an exhibition on Le Corbusier in the early '60s at the Museum of Modern Art as a major influence on his architecture.

In 1965 Meier won his first national AIA honor award for the Smith house in Darien, Conn. Last year he won his ninth honor award for the Museum für Kunsthandwerk in Frankfurt, West Germany.

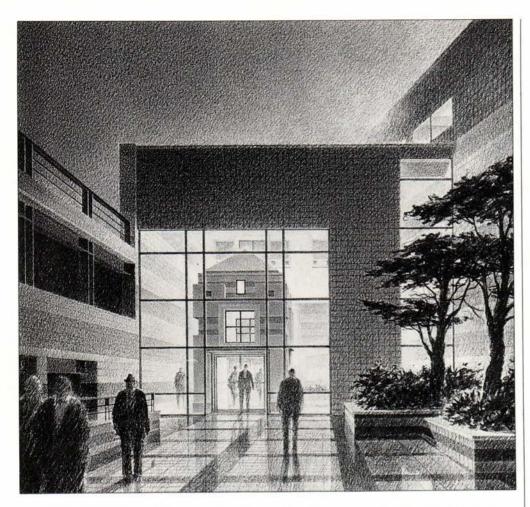
Although Meier's early practice included a wide range of building types, it is his gleaming white museums and cultural buildings (in such diverse contexts as Atlanta, Des Moines, New Harmony, Ind., and Frankfurt) that have brought him fame. Meier's oeuvre has remained in the broad tradition of modernism, and he has continued to combine his complex yet now familiar forms and planes to create dramatic and at the same time serene buildings. It is still too early to determine whether his three major projects in the works will show a divergence in his architecture—the J. Paul Getty Center in Los Angeles, a new city hall complex in The Hague, and a museum in Ulm, West Germany. - Lynn Nesmith

News continued on page 46



Heavy-Duty Beauty





The American Society of Architectural Perspectivists' annual national exhibition, which included more than 40 architectural drawings, recently was on view at AIA's national headquarters in Washington, D.C. The exhibition and accompanying catalogue were drawn from 500 entries in ASAP's second annual competition. Richard Lovelace's illustration of 1 Montvale Avenue in Stoneham, Mass. (shown above) won the 1987 Hugh Ferriss memorial prize, the highest national award for excellence in the graphic representation of architecture. ASAP is seeking entries for its third national competition and traveling exhibition. The submissions should be 35 mm slides of original drawings representing projected buildings or environments in any medium at any size. These original drawings should be available for exhibition if selected. Each entry of five slides must be accompanied by a \$50 fee, and the deadline for submittal is June 15. For more information, contact ASAP, 320 Newbury St., Boston, Mass. 02115.

Seven Concrete Structures Win CRSI Design Awards

The Concrete Reinforcing Steel Institute in conjunction with the American Institute of Architects has selected seven winners in its ninth biennial design awards program that recognizes "architectural esthetics, engineering achievements, functional excellence, and economy of construction" in cast-in-place reinforced concrete strutures.

The winning structures are:

· Campus Drive pedestrian bridge, University of California, Irvine, by SGPA Planning & Architecture, San Diego-a cast-in-place, 250-foot-long reinforced con-

 1315 Peachtree branch library and office building, Atlanta, by Thompson, Ventulett, Stainback & Associates, Atlanta-a longspan, site-cast concrete structure free of interior columns and built on a 100x240foot corner site. Exterior spandrel beams are concrete with a sandblast finish.

- · The Diamond baseball stadium, Richmond, Va., by Baskervill & Sons, Architects, Richmond-a 12,000-seat outdoor sports stadium (see March, page 90).
- · Ameriwest Financial Center at Park Square, Albuquerque, by Skidmore, Owings & Merrill/Houston—a 10-story commerical building that incorporates exterior concrete accents designed to resemble sandstone.
- · Sunshine Skyway Bridge, Tampa Bay, Fla., by structural engineer Figg & Muller Engineers Inc., Tallahassee-an 8,860foot-long, concrete, segmental bridge.
- · University of Utah student services building, Salt Lake City, by Astle/Ericson & Associates, Salt Lake City-a four-story addition that utilizes reinforced concrete to match the floor-to-floor height of an adjacent historic building.
- · The Terraces at Perimeter Center, Atlanta, by Skidmore, Owings & Merrill/ Chicago-a major suburban office park development located on 500 acres.

News continued on page 48

Architect John Minden on sound control with laminated glass.

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Architect's rendering of Victorian Apartments in Seattle, Washi



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Proposed Additions to Vietnam Memorial Spark Controversy

Five years after its construction a new wave of controversy has swelled over the Vietnam Veterans Memorial on the National Mall, threatening to "complete" its design with yet more additions.

At issue is a proposal to add a statue of an Army nurse representing the women who served their country in the conflict. At the same time, a separate movement is under way to fly an American flag from a pole at the juncture where the two slender arms of the wall meet, the monument's most distinctive point from virtually every

approach.

This is the second time conflict has centered around the memorial. In 1980, in the midst of construction plans and final fund raising, a determined effort to discredit Maya Ying Lin's design was led by a former member of the Vietnam Veterans Memorial Fund who was also a losing entrant in the design competition. Detractors of the memorial criticized it as a "black gash of shame and sorrow" and as a "wailing wall" and demanded that the walls be made white and raised above ground like a fence. The veterans group's defense that black was a color of dignity and respect eventually won out, but only after some substantial concessions. The compromise left Lin's design for the memorial intact but added a flag and scuplture of infantrymen to form an entry plaza to the site. Then the choice had pretty much been the memorial with the statue or no memorial at all, according to Robert Doubek, formerly the executive director of the fund. The circumstances are different now.

The nurse statue, proposed by the Vietnam Women's Memorial Project and backed by other veterans groups, is the subject of a Senate bill introduced by David Durenberger (R-Minn.) and Alan Cranston (D-Calif.), which at press time had picked up more than 60 cosponsors. The statue would stand to the side of the existing statue of three infantrymen.

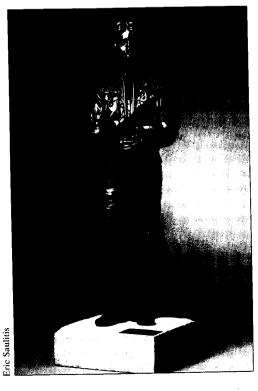
"The Vietnam Veterans Memorial is one of the few bright legacies of our country's involvement in the Vietnam War. It is complete and it is whole," said Doubek, who is heading those opposed to making changes to the memorial. His response to the charge that the women who served are not represented by the existing memorial and statue is that the memorial is a symbolic honor to all who served. The key to the abstract design of the wall, he said, is its equalizing and unifying effect, honoring all veterans regardless of rank, service branch, military occupation, race, creed, or sex.

"In honor of the men and women of the Armed Forces who served in the Vietnam War...," reads the first inscription line of the Vietnam Veterans Memorial; it is followed by the 58,156 names of those who died, including eight women. Close to 10,000 American women were involved in the Vietnam struggle, and they served in administrative and medical support roles. Over the course of the war, more than 3 million American men were sent to fight, and a good many of them were in the infantry.

That the existing statue depicts the infantrymen who bore the principal burden of the combat effort does not seem inequitable, said Doubek, and, because the vast majority of casualties were enlisted men, they are represented in the existing statue as a symbol of the entire Vietnam veteran population. The addition of a statue representing nurses, or any special interest group, diminishes the existing statue, relegating it to literal representation of only the infantry, argued Doubek. That, he pointed out, "would open a Pandora's box of competing and proliferating statuary to the emphemeral goal of literally depicting every possible subcategory."

A statue of a woman placed at the Vietnam Veterans Memorial, based solely on gender, raises questions of proportion and of precedent that Doubek finds troubling—

A life-size bronze statue of a nurse by sculptor Roger M. Brodin is a proposed addition to the memorial.



what about the Navy, the Air Force, Native Americans? The list potentially could be very long.

Durenberger's bill has a clause that limits additions to the memorial to only this one more statue. After the addition of a woman Vietnam veteran, reads the bill, the Vietnam Veterans Memorial will be complete, and no further additions to the site should be undertaken.

But the memorial is already complete, said its designer, Lin. "I am strongly opposed to any additions or major alterations to the Vietnam Veterans Memorial," she said in testimony before a Senate subcommittee. "I cannot see where it will all end, and I can see numerous factions who will now want to be included, despite the preventative clause." In allowing this addition, she said, Congress would be substantiating the assumption that national monuments can be tampered with by special interest groups years after their dedication, without regard to the esthetic impact or to the legal approval process that had previously been followed.

The D.C. Fine Arts Commission and the National Planning Commission agree with Lin and Doubek. As two of the three organizations whose approval is necessary to make any changes to the memorial, both commissions have vetoed the statue. Only the third-the National Parks Service, headed by Interior Secretary Donald Hodel-is backing the proposal. The approval process has been complicated, however, since Congress adopted the Commemorative Works Act last year, requiring its own approval of all memorials in the capital city. With such a big push in the Senate, opponents fear the nurse statue may very well gain that approval.

Proponents of the statue contend that the Vietnam Veterans Memorial is not about art or about fulfilling any special interests, but rather it is about healing on both a personal and a national level and that a nurse statue will ideally represent such healing. Lin has her own answer to this argument. "Their understanding about art is that it is elitist, that art has nothing to do with the heart or the soul, and nothing could be farther from the truth," she said.

Depite the opposition to another statue at the Vietnam Veterans Memorial, Doubek and his supporters do not take issue with the concept of a memorial honoring women for their contributions to the United States military. Congress addressed this topic in 1986 when it authorized a memorial on federal land to honor all the women who have served in the armed forces. Doubek said he applauds this legislation and has volunteered to help establish the memorial.

The fact that the nurse statue is being proposed only to neutralize the power of the first addition seems a misdirected attempt at equality for women, Lin testified. There is no national memorial to

continued on page 49

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the women who have served in this country's wars, and one is needed, she said, but an addition to the Vietnam Veterans Memorial is not the best or most honorable solution.

For their part, some members of the House of Representatives have their own idea of what is needed to complete the memorial. Spearheaded by Robert Dornan (R-Calif.), the House bill proposes that a flagpole be erected at the vertex of the memorial, standing high above the wall. It is Dornan's proposal that is potentially the most dangerous, said Lin. Dornan's approach is to make it appear that anyone opposed to this flag, despite its esthetic intrusion and contradiction to the wall's subtlety, is unpatriotic, she said.

Although Dornan's bill currently has 230 cosponsors, Rep. David Bonior (D-Mich.) has recently circulated a "Dear Colleague" letter in which he urges fellow Representatives to refrain from supporting the flagpole. "I have been actively involved with planning and preserving the integrity of the Vietnam Veterans Memorial for several years now," he wrote. "Based on this involvement, I am certain that [the proposed bill] would severely, though unintentionally, damage the memorial." He pointed out that there is already a 60-foot mast flying the U.S. flag at the memorial's entrance and contended that any additions would detract from a beloved monument, the most-visited in the nation's capital.

Simplicity, eloquence, and poignancy are the essence of the memorial, said Doubek, and any additions would destroy its symbolism. It is complete, it is whole, and it needs to be protected, he insisted.

-ELENA MARCHESO MORENO

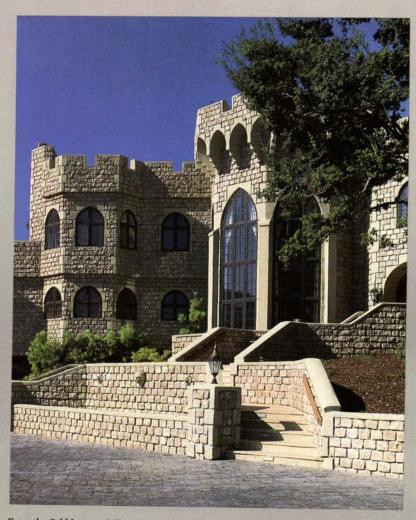
Deaths

Bernard Rudofsky: Architect and Social Analyst

Bernard Rudofsky, architect and social analyst, was, in the words of Interior Design editor Stanley Abercrombie, FAIA, "our most perceptive and outspoken critic of human habits and habitations." Rudofsky's books and museum exhibitions influenced not only architecture but also fashion, interior design, urban planning, and food. In 1964, in his exhibit "Architecture Without Architects" at the Museum of Modern Art, he coined the term "vernacular" architecture to describe buildings he felt were without pretensions.

Born and educated in Vienna, Rudofsky received master's degrees in architecture and engineering and a doctorate in technical sciences. He practiced architecture for several years in Italy. He received Ford, Fulbright, and Guggenheim Foundation fellowships and taught at Yale, MIT, the Royal Academy of Fine Arts in Copenhagen, and Waseda University in Tokyo. He died in New York City in March at the age of 82. News continued on page 52

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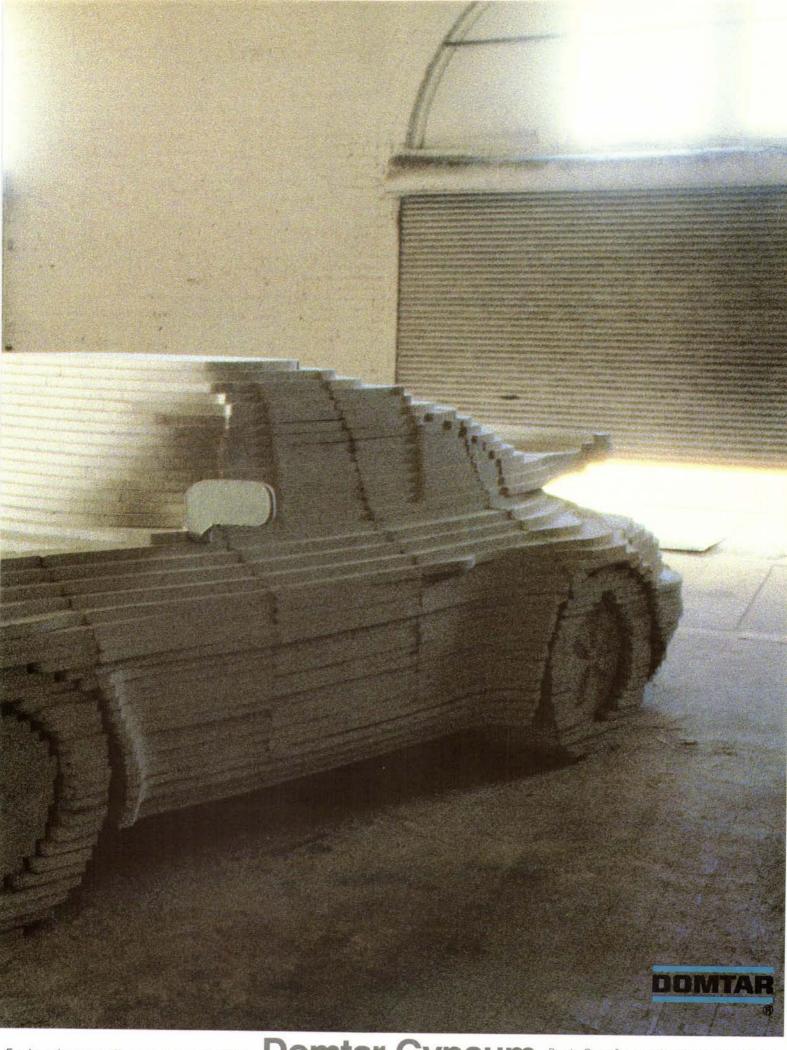
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C. Theodore Larson, FAIA, professor emeritus of architecture at the University of Michigan in Ann Arbor, was a pioneer in architectural research. He was born in Kansas City, Mo., and educated at Harvard. In 1948 he went to the University of Michigan to found its Architectural Research Lab, which he directed until his retirement in 1972. In 1967, Larson, with K. Lonberg-Holm, published the "Development Index," which Robert C. Metcalf, FAIA, former dean of the UM college of architecture and urban planning, called "a grand synthesis," describing "every activity of mankind and how it fit together." Larson died in February at the age of 85.

Arthur F. Sampson, Hon. AIA, who was head of the General Services Administration in Washington, D.C., from 1972 to 1975, died in March. He was 61. A native of Warren, R.I., he received his bachelor's degree in business administration from the University of Rhode Island. He began his GSA career in 1969 as commissioner of its federal supply service and also was chief of its public buildings service and deputy GSA administrator for special projects before becoming GSA administrator.

BRIEFS

Frank Lloyd Wright Tours

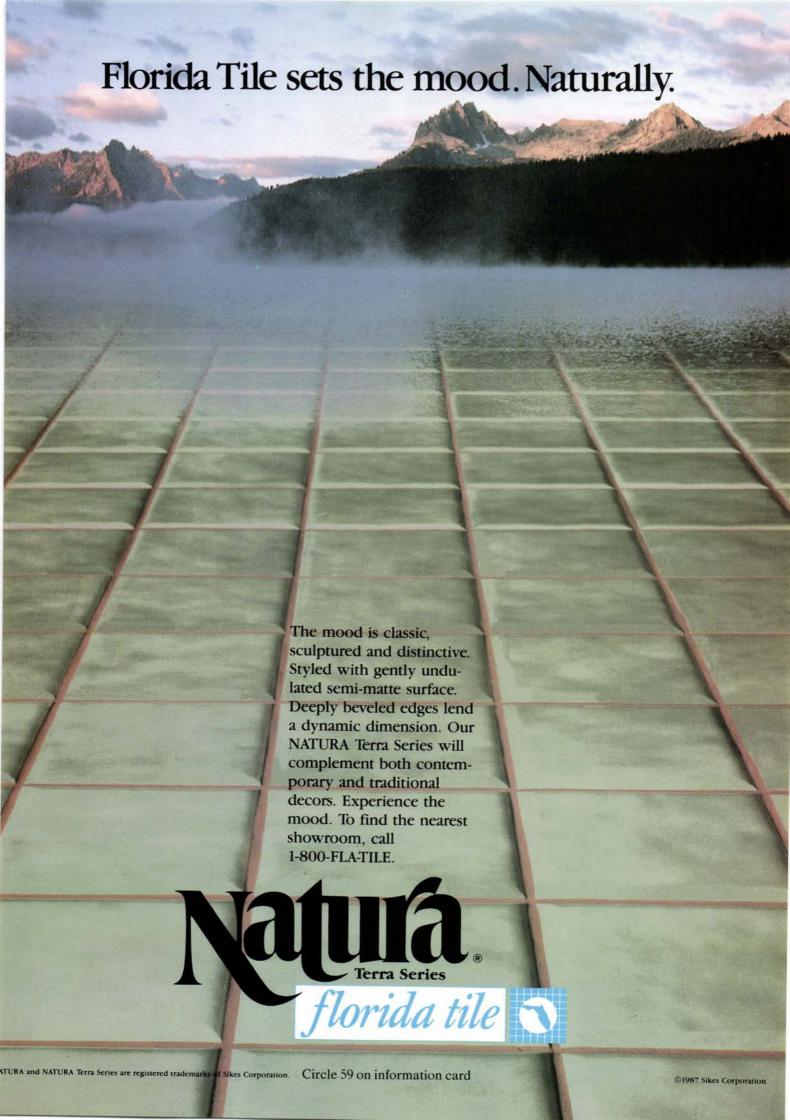
Wendell Architectural Tours is sponsoring four tours featuring the works of Frank Lloyd Wright. The tours are to Fallingwater, the Willey residence, Taliesin, and the Darwin Martin house. For more information, contact David V. Wendell, Wendell Architectural Tours, 1635 25th St., Marion, Iowa 52302.

Livable Cities Tour

The Center for Urban Well-Being is having it's first European "Livable Cities and Farmers Markets" tour June 16-26, to provide participants with images and experiences of some of Europe's most livable cities and farmers markets. This is a study tour designed for mayors, city managers, planners, architects, and community leaders, but it is limited to 19 participants. For more information, contact Suzanne H. Crowhurst Lennard, Livable Cities & Farmers Markets Tour, Center for Urban Well-Being, Box QQQ, Southampton, N.Y. 11968.

Architectural License Seminars

This program offers home study courses, handbooks, and seminars to help students prepare for the 1988 NCARB Architect Registration Exam, and well as the California Architect Licensing Exam. Seminars covering the design and structural exam sections will be held in Boston, New York City, Washington, D.C., Orlando, Fla., Atlanta, Chicago, Phoenix, Los Angeles, and San Francisco. For more information, contact Architectural License Seminars, P.O. Box 64188, Los Angeles, Calif. 90064. □





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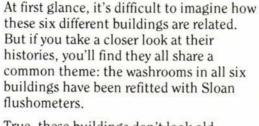
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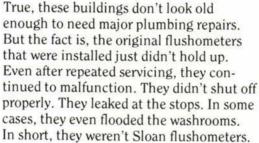












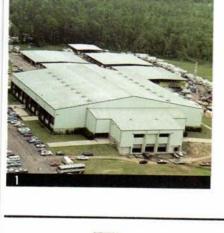
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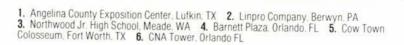
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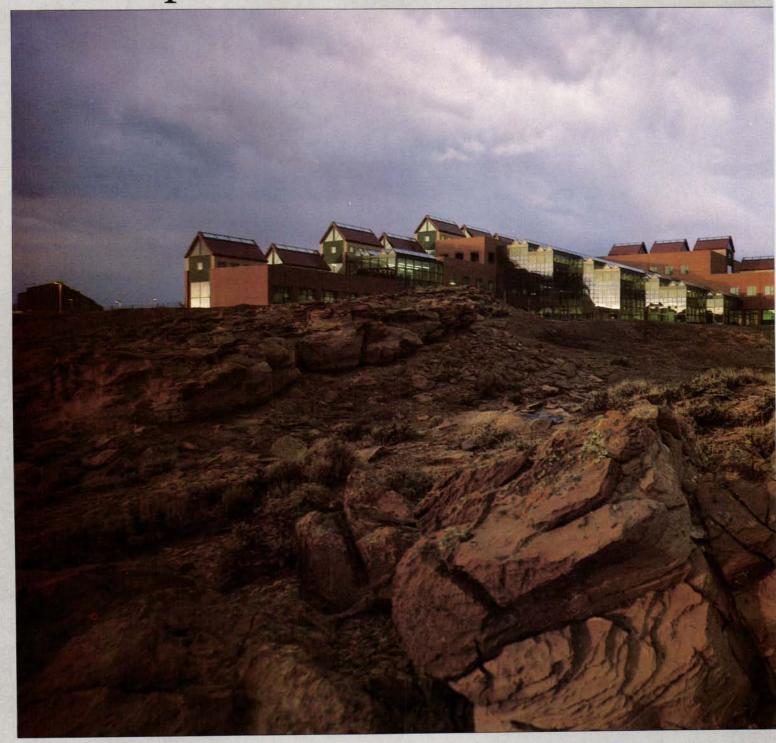


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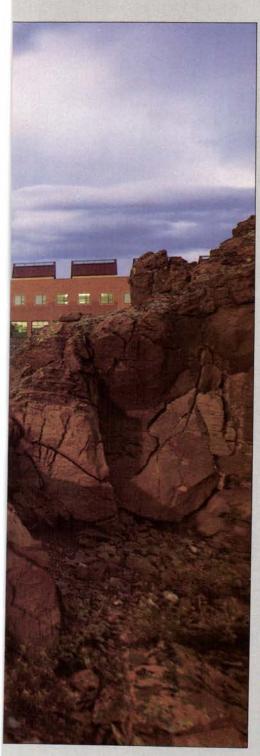


AIA Component Awards By Stevens R. Anderson





iotographs © Greg Hursley



The following projects are a selection from this year's AIA state, local, and regional component awards, chosen to help illustrate the general quality and variety of work being completed in various regions of the country. The component awards, given to architects for their proven design ability in advancing the quality of the built environment, recognize a wide variety of building types each year. This year's selection includes a parking garage in Alaska, a boat house on the Chesapeake Bay, and a gallery rehabilitation at the Cowboy Hall of Fame in Oklahoma City.

Beginning with Colorado and the surrounding Rocky Mountain states, this survey then follows the border regions of Alaska and the West Coast before swinging across the South and up the East Coast to New England. It concludes by moving back into the central region of the country, ending in Des Moines, Iowa.

AIA Colorado. Western Wyoming College Campus, Rock Springs, Wyo.; joint venture of Anderson Mason Dale, P.C., Denver, The BKLH Group, Denver, and Sasaki Associates, Watertown, Mass. Located on a rocky plateau overlooking the city, this major campus expansion integrates existing college buildings into a single unified complex beneath one roof. Appropriate to a region known for its severe winters, the complex has a network of interior "streets" lighted by skylights linking classrooms, laboratories, shops, student commons, a 1,200-seat concert hall, and a 400-seat theater. A variety of forms on the exterior of the building helps to reduce what would otherwise be an overwhelming mass while giving expression to its various functions. The jury commended the design for its sophisticated response to a landscape that is "powerful, unrelenting, and barren of an architectural context.



Component Awards

AIA Colorado	Baltimore Chapter
North Dakota AIA	Philadelphia Chapter
Western Mountain Region 65	
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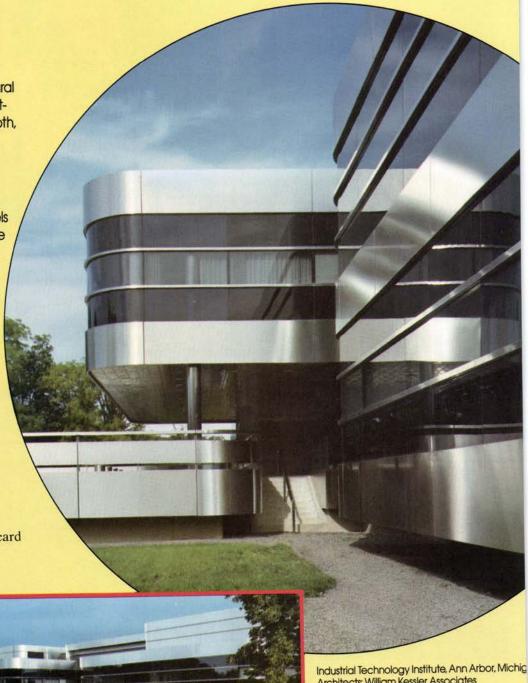
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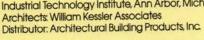
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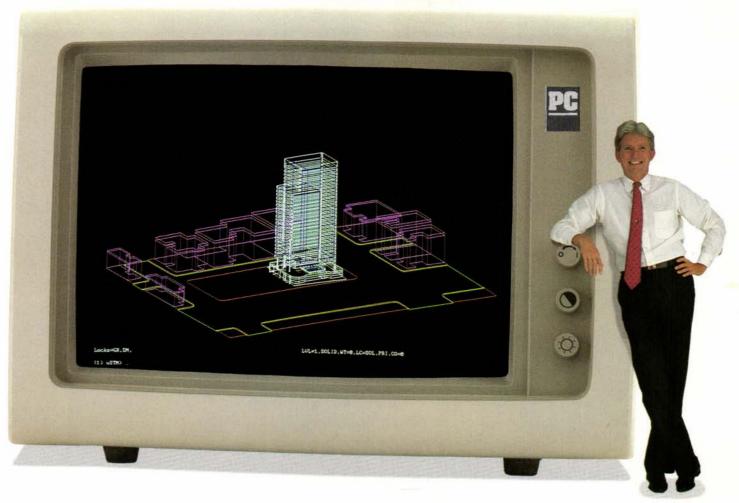
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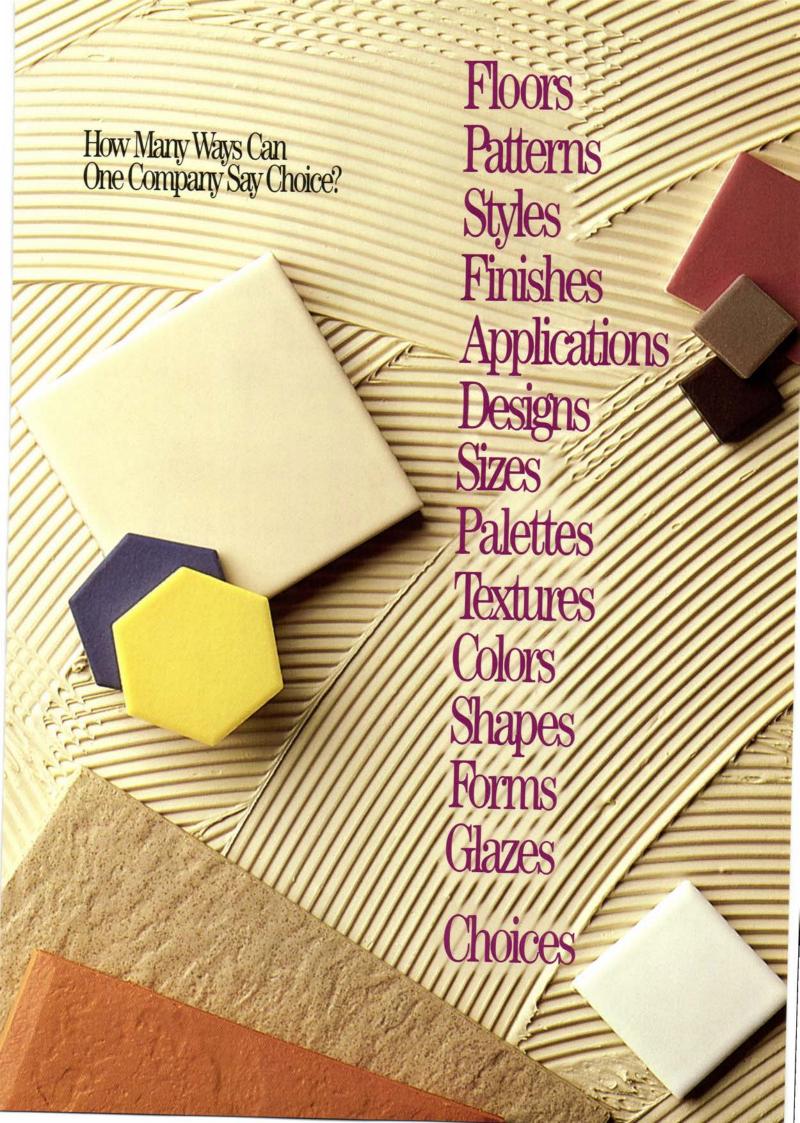
AIA Component Awards



AIA Colorado. Montview Elementary School Media Center Addition, Aurora, Colo. (above); Michael Brendle Architects, Aurora. This playful addition to a 1950 elementary school was likened by the jury to a child's building block, employing bright colors, simple forms, and subtle shifts of scale to create a fantasy environment entirely appropriate for children. The center is located at the core of the school complex in what was an asphalt-covered courtyard, now extensively relandscaped to create a green space for study and play. The addition, sensitively integrated with the existing structure, is central to the revitalization of the school's image.

North Dakota AIA. Children's Reading Room, Fargo Public Library, Fargo, N.D. (right); Clark, Holman & Moorhead Ltd., Fargo. A room within a room, this project presents an imaginative and colorful addition to an existing 20-year-old, 4,000-square-foot children's reading room. Three new polychrome structures of painted gypsum board were constructed within the 20-foot ceiling height: a desk, gazebo, and pavilion linked together by an arcade. These succeed in transforming the existing monumental volume into a progression of child-scaled reading spaces.





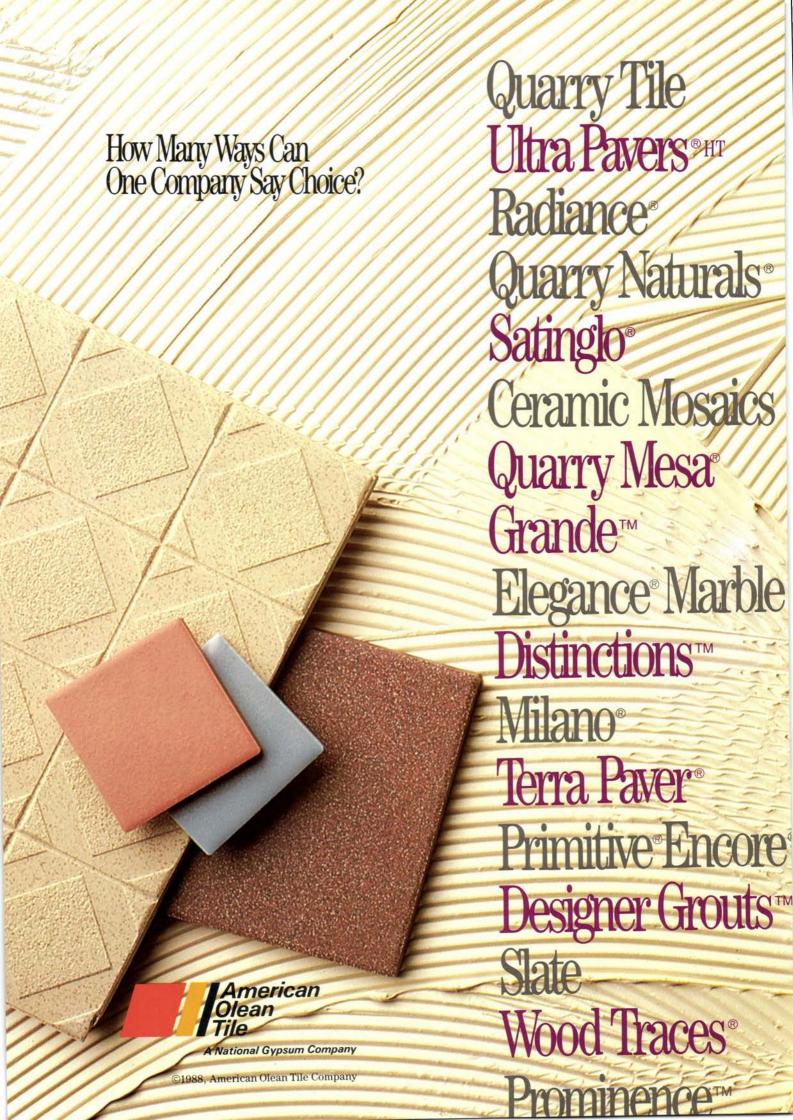


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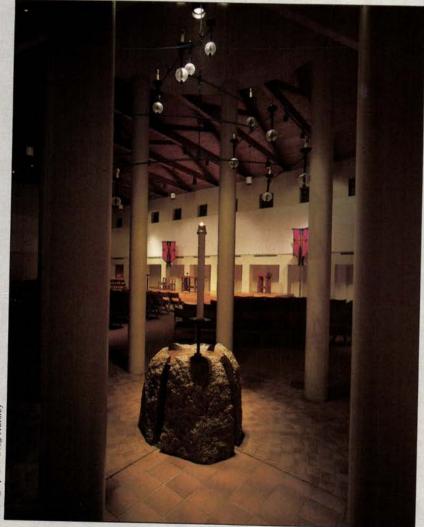
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AIA Component Awards







Western Mountain Region. Light of the World Catholic Church, Littleton, Colo.; Hoover Berg Desmond, Denver. With magnificent views of the Rocky Mountains to the southwest, this Roman Catholic church responds to its parishioners' expressed hopes for a building with "basic, early-Christian values, while at the same time being an architecture natural to our time." A monastic quality of strength and simplicity is expressed through the use of traditional Christian forms-basilica, colonnade, cloister, and tower, built from modest materials of brick, drywall, gluelaminated timber, and glass block. Located on the highest hill in a new suburban subdivision, the 800-seat worship space functions for secular as well as sacred activities, as did early Christian basilican churches. The jury praised the plan organization, the attention to details, and the symbolism of the mirror stainless steel and reflective glass tower and steeple that proclaims the "Light of the World."

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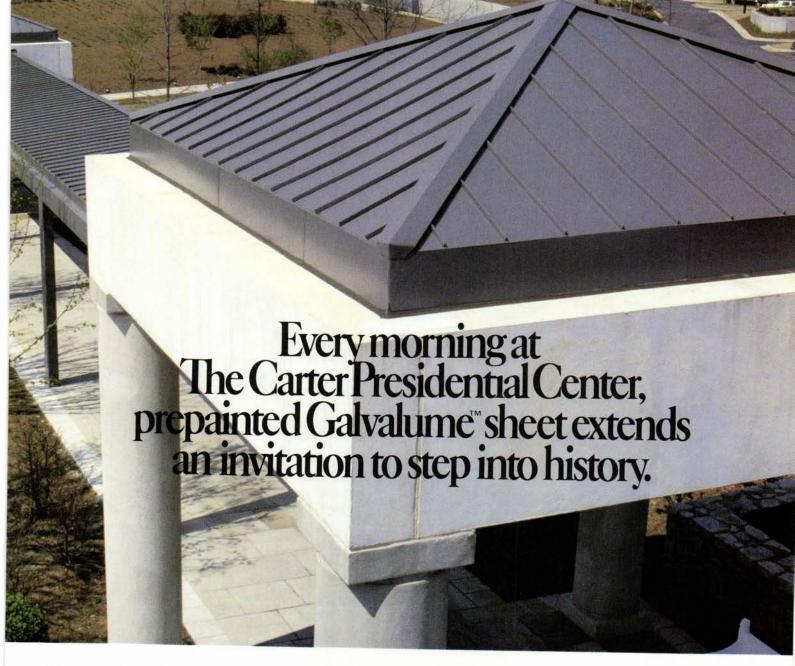
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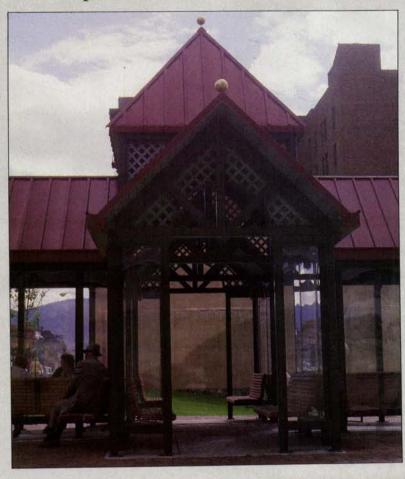
Architect: Jova/Daniels/Busby—Lawton/Umemura/Yamamoto, Architectural Joint Venture, Atlanta, GA. General Contractor: Beers Construction Co., Atlanta, GA. Roofing Contractor: Tip-Top Roofers, Atlanta, GA. Component Manufacturer: MBCI, Houston, TX. Walkway roof panels: MBCI Craftsmen Series SB-12 Architectural Panels, Charcoal Gray.

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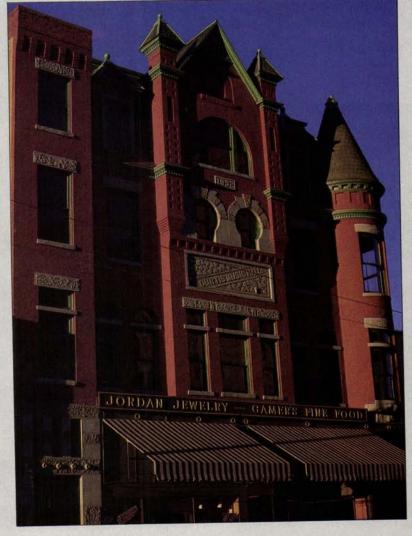
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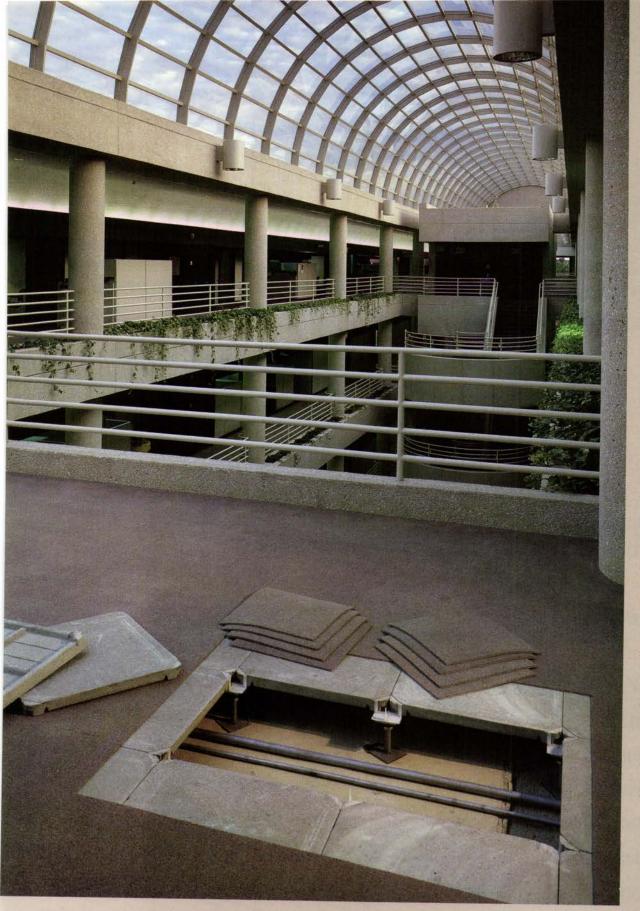
AIA Component Awards



Montana Chapter. Gazebo/Bus Stop Shelter, Mural Park, Butte, Mont. (left); Walter H. Hinick & Associates, AIA, Butte. Reminiscent of Victorian garden architecture, with its wood lattice arches and standing-seam metal roof with brass finials, the shelter complements the turn-ofthe-century architecture surrounding its site. The welded steel superstructure, fabricated locally out of square, structural steel tubing, is located on a brick plaza adjacent to a heroic mural and overlooking a valley.

Montana Chapter. Curtis Music Hall Restoration, Butte, Mont. (right); Walter H. Hinick & Associates, AIA, Butte. The restoration of this 1892 commercial building, located within a National Historic Landmark District, was based on preservation and enhancement of its existing features. The original vaulted vestibule ceiling and cast iron columns on the storefronts were uncovered after being hidden for 35 years beneath layers of ashlar stone and galvanized metal. Signs and metal canopies added in the 1950s were removed and replaced with traditional fabric awnings. A careful restoration of the "Overland Rye Cures the Blues" sign painted on the side wall of the building adds to the authenticity of this project. The jury was impressed by the careful research into the building's past for the benefit of adaptation for present-day use.





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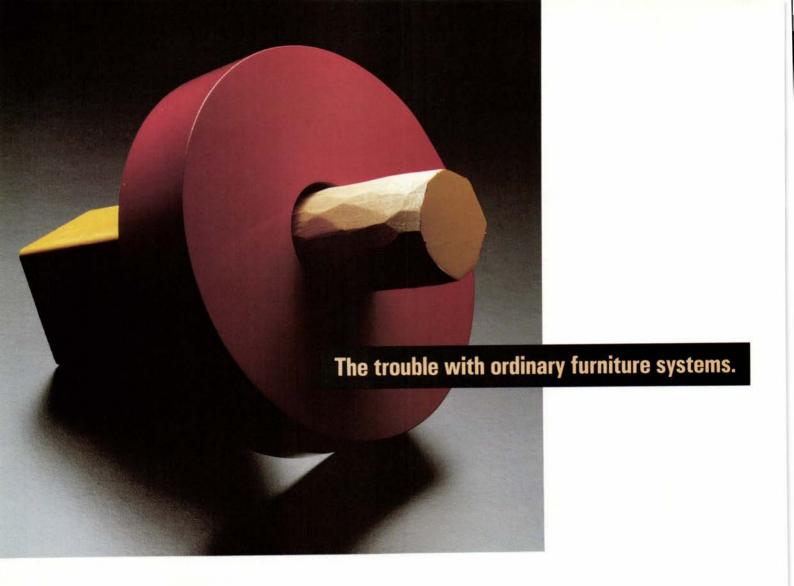
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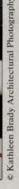
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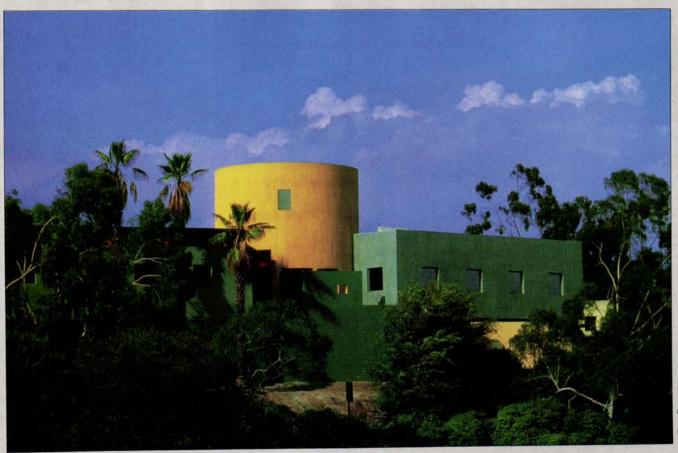




Alaska Chapter. Anchorage International Airport Parking Garage and Underground Lobby, Anchorage (top); McCool-McDonald of Alaska Inc., Anchorage. This covered, four-story, 1,200-car parking garage, designed with climate-controlled access to the existing terminal, is part of the first phase in a master plan for airport expansion to help alleviate congestion at the main terminal. A series of cascading enclosed escalators provides access between the garage and a new, underground, ground transportation lobby that joins to the main terminal. New glass and steel curbside lobbies provide shelter for passengers waiting to be picked up.

Seattle Chapter. Museum of Flight, Seattle (above); Ibsen Nelsen & Associates, Seattle. The steel and glass structure of this 50,672-square-foot airplane museum encloses a dynamic interior display area. Its design and location were considered by the jury to be expressive of the nature of the place. Light and air fill the gallery, and the slope of its roof reachs a height of 77 feet, determined by the flight clearance line of the adjacent Boeing Field. Airplanes using the field, visible from almost anywhere inside the museum, become an active background to the display of vintage and historic airplanes suspended within.









Los Angeles Chapter. Arlington II Office Building, Los Angeles (top); John Aleksich Associates, Los Angeles. The landscaping of the Santa Monica Freeway provides a parklike setting from which this speculative office building takes its palette of foliage hues. Rather than turning its back on the freeway that runs parallel to its site, the building accepts the passing traffic as a powerful visual presence. The vellow cylinder rising from the underground garage is the entrance or arrival space for the complex. The jury noted that the series of open courts providing circulation and natural light to various offices helps create "idiosyncratic" spaces that achieve a sense of identity and interest in the workplace.

California Council. U.S. Navy Bachelor Officer Quarters P-052, San Diego (above); Ralph Bradshaw/Richard Bundy & Associates, San Diego. Located on a visually prominent site at the entrance to San Diego Harbor, this housing project for naval officers provides a sense of individual identity within a cohesive whole. The architect conducted a survey of the base's naval officers and found an interest in "staying in touch with the sea" to be their primary concern. Small individual units, linked together by exterior catwalks similar to exterior circulation ways of ships, are combined to create a cohesive nautical design. Each unit maximizes sea views while enjoying a flow-through ocean breeze for natural ventilation.



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Central Oklahoma Chapter. Cowboy Hall of Fame Renovation, Oklahoma City (above); Elliott + Associates Architects, Oklahoma City. The entrance into this renovated gallery is beneath a peeled pine log gateway crowned with a bleached buffalo skull. This gateway type, based on regional historic precedent, is then contrasted with a four-inch-diameter, arched, painted steel structure inspired by Indian tepee construction. All new construction remains essentially independent of the existing 1957 building, the pipe structure resting in vertical slits in the perimeter walls. Mobile walls allow alternate gallery configurations with improved circulation patterns. The entire project took only 13 weeks to complete in time for the scheduled opening of an exhibit.

North Central Oklahoma Chapter. Bartlett Center for the Studio Arts, Stillwater, Okla. (left); Frankfurt-Short-Bruza Associates, P.C., Oklahoma City. This art studio, located in the third-oldest building at Oklahoma State University, is part of a rehabilitation program adapting the existing building into a teaching center for the visual arts. Providing 40,000 square feet of functional space for classrooms, offices, a large auditorium, art gallery, and spacious studios, this project fulfills a departmental requirement while preserving part of the historic fabric of the academic

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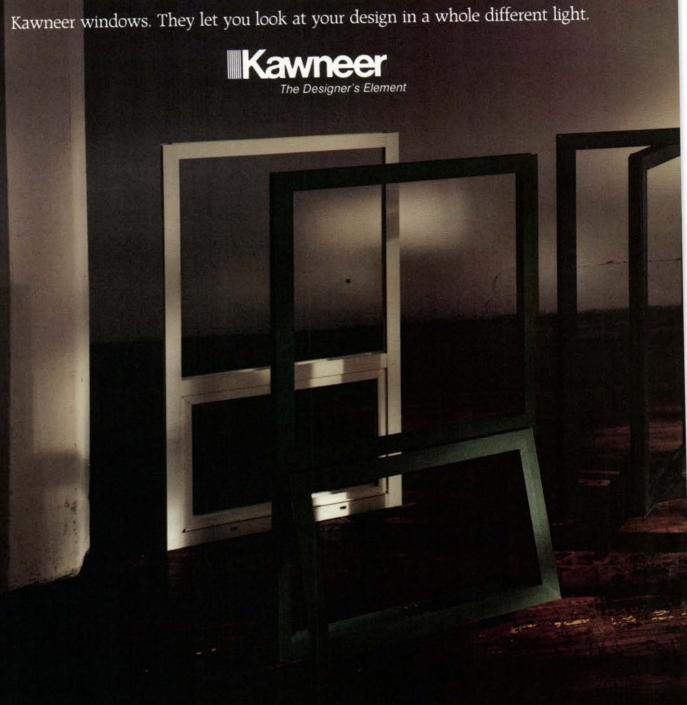




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Louisiana Architects Association. Batson Residence, Tangipahoa Parish, La. (above); Holly & Smith Architects, Hammond, La. Located in a mature woodland on the edge of the Tangipahoa River, this simple, raised, two-story residence sheathed in tidewater red cypress visually blends into the surrounding landscape. The design of the house combines Japanese elements, as stipulated by the client, with regional vernacular architecture. An efficient aircirculation system is incorporated into the design to assist in cooling the residence during the hot Louisiana summers.

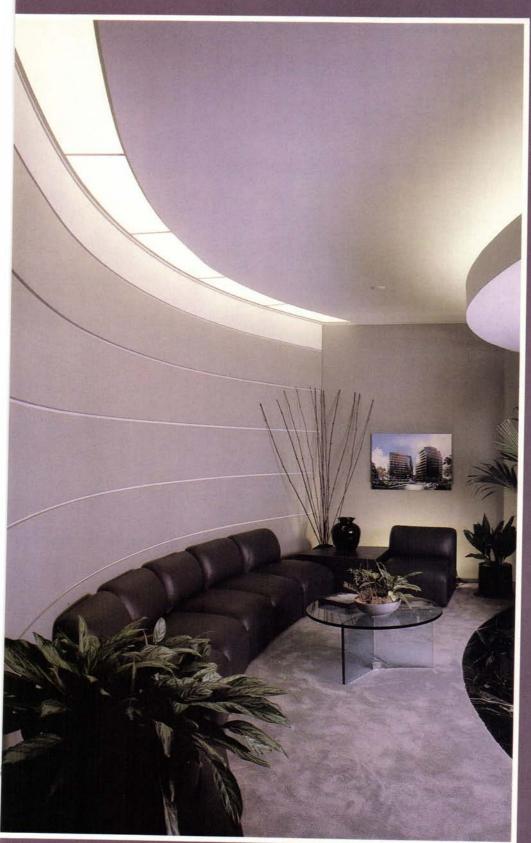
Florida North Central Chapter. The Gib-

Florida North Central Chapter. The Gloson Inn, Apalachicola, Fla. (right); Barnett + Fronczak Architects, Tallahassee. This project, "capturing the vitality of a gulf coast town" at the turn of the century, is a careful restoration and rehabilitation of a 1907 building. Although the building was significantly altered and in a state of deterioration, the architect carefully maintained its original fabric of cypress, heart pine, and beveled and blown glass. Required mechanical systems were carefully inserted into the design without distracting from the original character of the building.



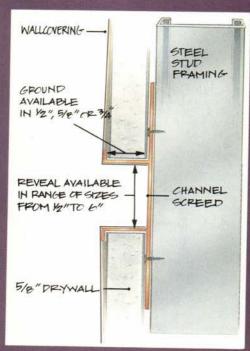


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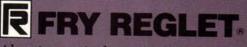


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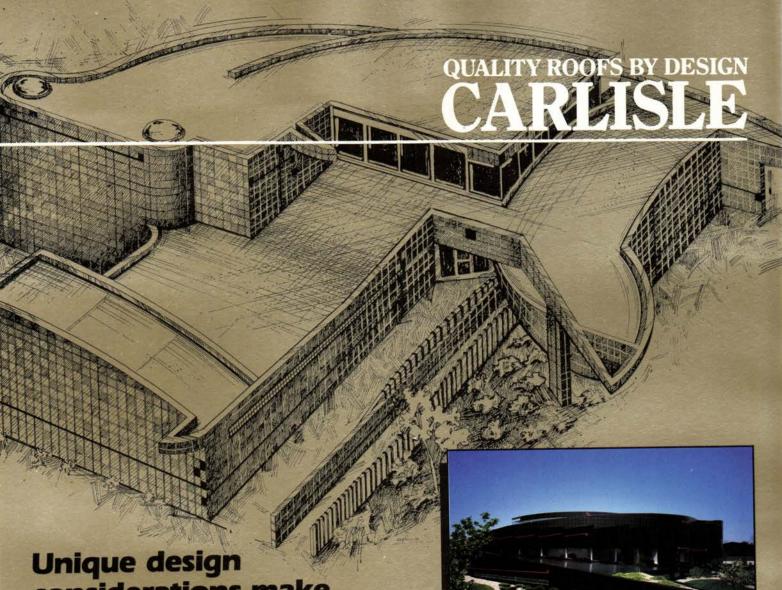
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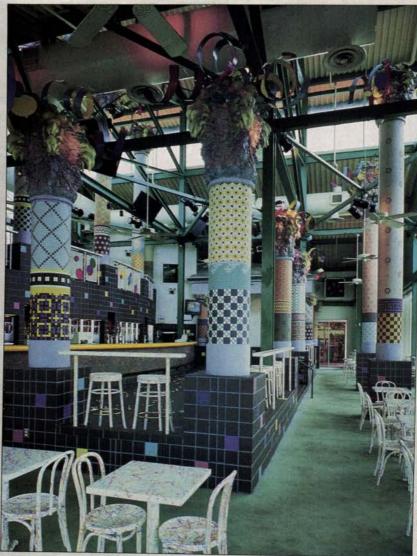
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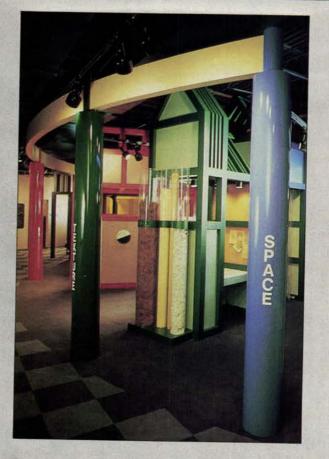
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New Orleans Chapter. Fat Tuesday Bar & Restaurant, Jacksonville, Fla. (right); Leonard Salvato, AIA, New Orleans. This restaurant, cited for its festive atmosphere and colorful mosaics, is part of a redevelopment project in a defunct shipyard area on the St. Johns River. The interior, reminiscent of a Mardi Gras float with its exaggerated architectural detailing, extends outward onto a second-level terrace overlooking the river.

Mississippi Chapter. Impressions Gallery, Jackson, Miss. (below); joint venture of Linda S. Trobaugh, Architect, with Samuel Mockbee, Architect, Jackson. Located at the Mississippi Museum of Art, this participatory gallery for children exhibits various aspects of art. Forms and colors are combined to organize the space into individual modules defining line, color, expression, space, texture, and shape. The modules are designed with removable panels to provide for easy alteration.





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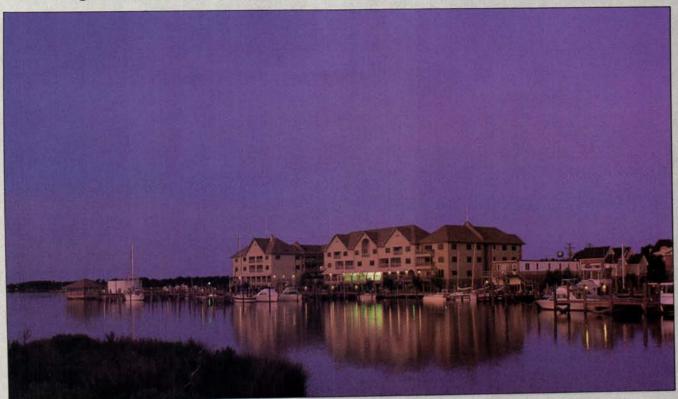
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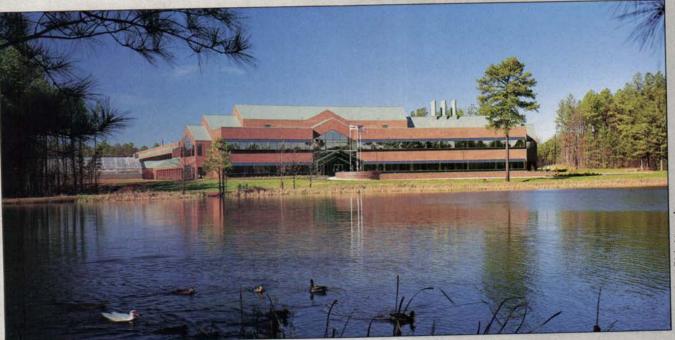
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Charlotte Chapter. The Waterfront, Manteo, N.C. (top); The FWA Group, Charlotte. This dockside neighborhood, totaling 57,520 square feet of combined retail and residential units, blends into the urban scale of the historic seaside town. Horizontal layering of the building's structural systems defines the individual levels while providing greater flexibility in the massing of the upper floors. The structure combines three building types and systems: concrete framing for parking on the first level; steel frame construction on the second level, reserved for retail; and wood framing for the upper two floors with their steeply pithed roofs and gables expressing a residential function.

Charlotte Chapter. BASF Agricultural Research Center, Research Triangle Park, N.C.(above); The FWA Group, Charlotte. Sited next to an existing four-acre, manmade lake surrounded by 56 acres of woodland, this research center has a design that is carefully integrated into its natural environment. The two-story brick building is organized as a curvilinear arc determined from a radius point in the lake. The facility houses administrative offices and chemical research laboratories, and its radial arm houses biological research functions. The sloping, glazed, gabled roofs provide a greenhouse motif, incorporating into the design the key element of this building's purpose as an agricultural research facility.

- ----



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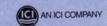
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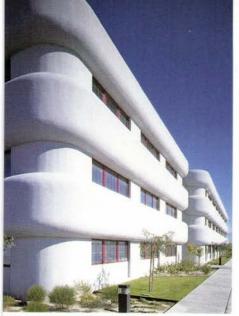


Baltimore Chapter. Marine Service Building, Baltimore Yacht Basin, Baltimore. (above); Kelly, Clayton & Mojzisek, Architects-Planners, Baltimore. This simple shed-and-deck construction, supported above the water on pilings, is an appropriate building type for its site and program. Orienting itself to the water, the building achieves an integration with the environment through the use of materials and a construction method common to the area. The jury felt that this building "demonstrated beauty in its simplicity, honesty through its economy of space and materials, and elegance by its sense of proportion and attention to detail.' Baltimore Chapter. Baltimore Rowing Club, Baltimore (left); Ayers/Saint/Gross Inc., Baltimore. Based on a study of local boat houses built at the turn of the century, this contemporary boat house presents a traditional image with strong regional associations. The typology the architect established consists of a heavy base supporting a wood frame construction with a metal roof. The jury commended the architect for executing the project with restraint and creating a sense of tradition appropriate to its function.

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There's not much that's typical about this office building.

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Needless to say, this 70,000 square foot office building stands out in a neighborhood of predictably severe granite and glass offices. Williams Center features rounded corners, the playful juxtaposition of unusual shapes, and a dashing color scheme of red and white. You can't miss it.

In fact, the main entrance is easily recognized. It's under what appears to be a giant red metal water slide. Inside, however, the mood changes. Visitors and tenants reach their offices after passing through a charming courtyard with waterfall, meandering pool, lush vegetation, waterside seating, and contemporary sculpture.

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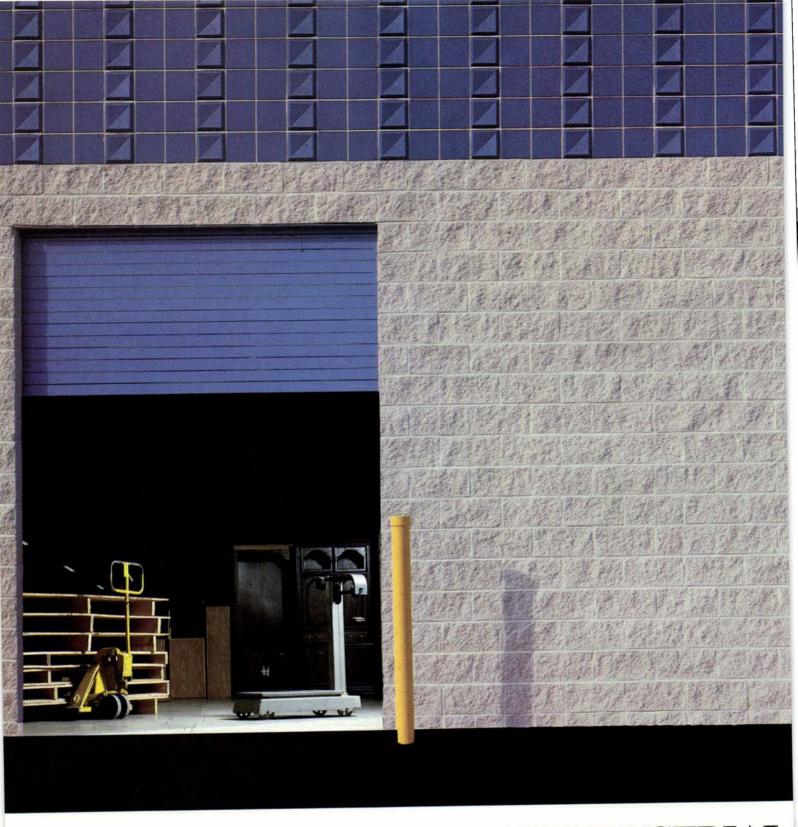
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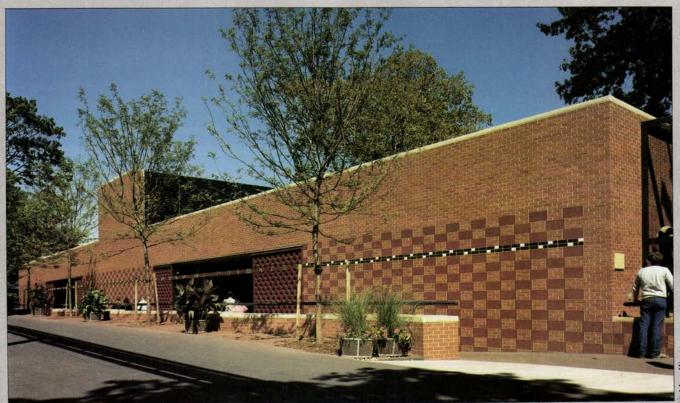
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Philadelphia Chapter. World of Primates, Philadelphia Zoo, Philadelphia (top); Venturi, Rauch & Scott Brown, Philadelphia. Located on the main walk at the zoo's center, the World of Primates incorporates a new holding and viewing building with the rehabilitation and adaptive use of George Hewitt's 1907 Kangaroo House. The one-acre site has been extensively relandscaped, marking the beginning of the zoo's new master plan to provide animals with large, naturalistic, outdoor habitats. The new building, built to house animals at night and during inclement weather, uses patterned brickwork, lattice, and color to create a lively facade that harmonizes with other historic zoo buildings. A low, serpentine retaining wall runs in front of the building's entrance, providing a resting spot for visitors beneath shade trees while separating major pedestrian circulation on the main walk from the circulation into the World of Primates.

Philadelphia Chapter. Knoll International Assembly/Shipping Facility, East Greenville, Pa. (above); Mitchell/Giurgola Architects, Philadelphia. This assembly/shipping facility organizes storage and assembly areas to separate the technology of robot cart storage and retrieval systems from the employees' working environment. This allows for lower ceiling heights within the worker-oriented assembly areas to respect the human scale. The insertion of three landscaped light courts, which function as employee entrances, provides a visual link and easy access to the exterior. The reception area, support offices, and cafeteria are located in an adjacent building to clearly differentiate their function while taking full advantage of the existing landscaped site. The jury commended this project, with its simple plan and careful attention to detail, as a unique achievement in improving the working environment of a factory building.



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New Jersey Society of Architects. Clos Pegase Winery and Residence, Calistoga, Calif. (above); Michael Graves, FAIA, Princeton, N.J. Adjacent to a vineyard in richly productive Napa Valley, this winery projects an image of strength and stability appropriate to its agrarian setting. Its pure geometric forms, reminiscent of Ledoux and other visonary architects, are fused with a Palladian design sensibility of working villas. Visitors to the winery pass through a ceremonial entrance, with a single, 22-foot-high Tuscan column in antis, providing access to an atrium that functions as a transitional space before moving on axis into an enclosed courtyard. The focal point of this space is an existing live oak tree on axis with the monumental Tuscan column.

Pennsylvania Society of Architects.

Hammermill and Zurn Engineering and Natural Science Building, Berhend College, Erie, Pa. (photos at right); Bohlin Powell Larkin Cywinski, Wilkes-Barre, Pa. This science building, with its two-story lobby terminating the central axis of the campus quadrangle, is sited on a slope between the upper campus and lower student parking lots. The lobby, with its steeply pitched roof and steel frame construction, links two independent masonry masses named for two different corporate donors. Providing vertical circulation between the two buildings with its monumental stair, the lobby also maintains the horizontal circulation pattern established between the quadrangle and lower student parking lots.



Emery Yeager



Otto Baitz

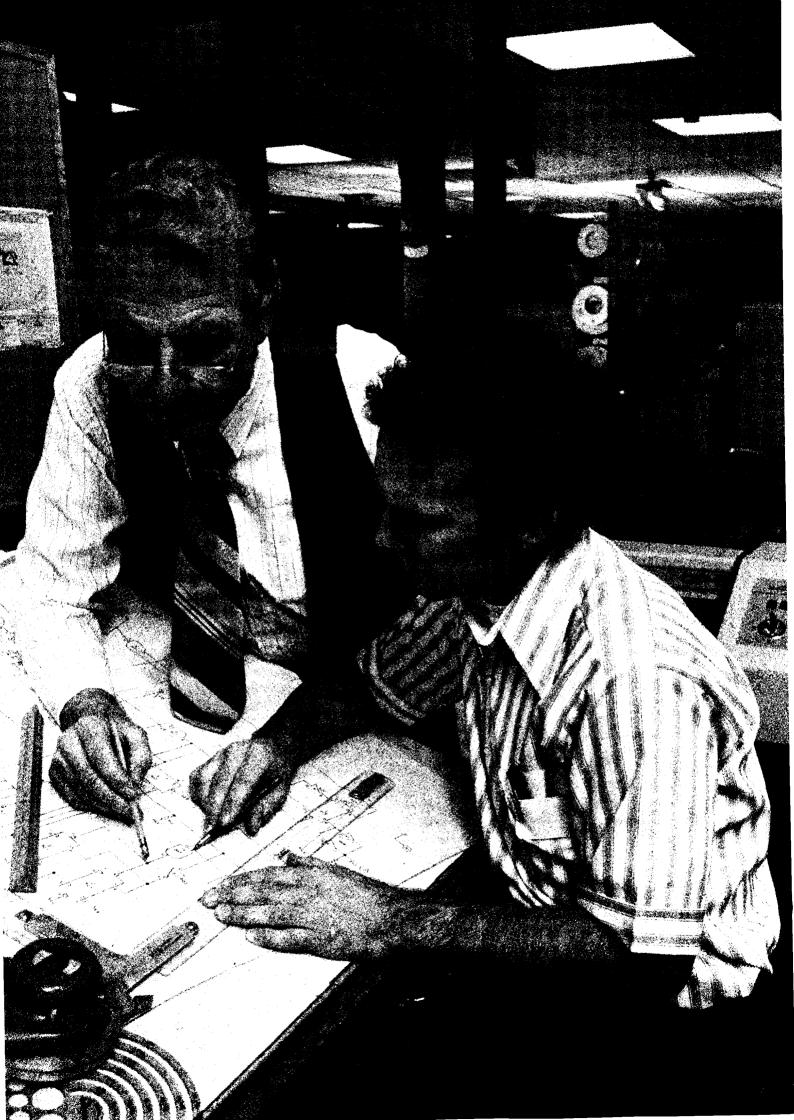
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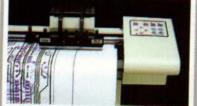




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New York State Association of Architects. Astor Place Station, New York City (above); Prentice & Chan, Ohlhausen Architects, New York City. As a valuable part of the Lower Manhattan streetscape, this cast iron kiosk's adaptive use integrates the careful preservation of original features with appropriate new design elements.

New York State Association of Architects. American Craft Museum, New York City (left); Fox & Fowle Architects, P.C., New York City. Relocated in a four-story wing of a high-rise building on 53rd Street, this 31-year-old museum's new, 18,000square-foot space is four times its previous size. An enticing curved staircase with a low rise forms a sculptural element in an otherwise austere interior. Located within a 40-foot-high atrium, the staircase provides vertical circulation to the museum's upper galleries. A wide variety of display settings is created around the atrium staircase, which incorporates landings, balconies, and recesses into the gallery space.

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"Crossing Paths" invites a closer look at the Washington Harbour complex in Washington, D.C.

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y,capturing simple human gesture in bronze, Seward Johnson, Jr. creates a sculptural cperience that everyone can enjoy. Remarking i his "uncannily realistic bronze figures" in ME, J.D. Reed observes: "In parks and plais from San Antonio to Seattle...Johnson's e-size sculptures, many sporting colored othing, capture the everyday details of ordiary citizens down to their crumpled brown ags and untied shoelaces. They portray arpenters, business-women, students, ngaged in such activities as talking on a park ench, leaving a tennis court, or simply cratching their backs. We are surrounded by onolithic towers and cold glass in our cities, ays Johnson. 'My work celebrates minieroics, normal size people reclaiming their ımanness.'"

The Sculptor elaborates: "In each piece and its contents, I try to portray a 'mini-hero' taking a minor piece of his or her life under control to express self-determination. All of these bronze people are taking time between appointments, in the small gaps of their structured lives, to do something spontaneous for their own satisfaction. I am celebrating their fight to retain human values as we approach the twenty first century. I started creating my hyper-realistic sculpture of human presences to please myself by filling a void no one else seemed to be filling. When I walked into a park, I wanted to see a human presence using a bench or some other resting place. A presence that would announce: 'This place is for us. Come and share it."

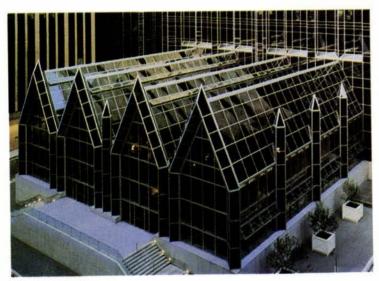
And, as TIME's Reed describes, people of all ages everywhere unhesitatingly do interact with Johnson's figures: "Touching and interacting with the sculptures... are unstoppable. Children sit in their bronze laps; on chilly nights adults drape sweaters over their shoulders." Clearly, Johnson with this distinctive and engaging work, not only celebrates the familiar, but also affirms his own belief that "public art, unlike private art, must have personal response from a wide variety of people."

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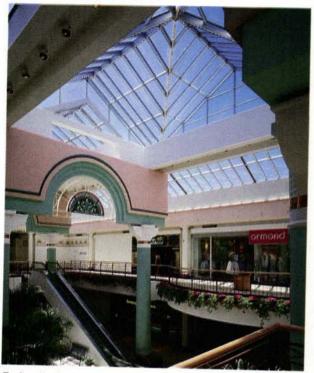
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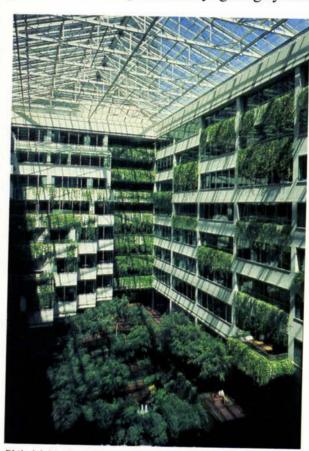


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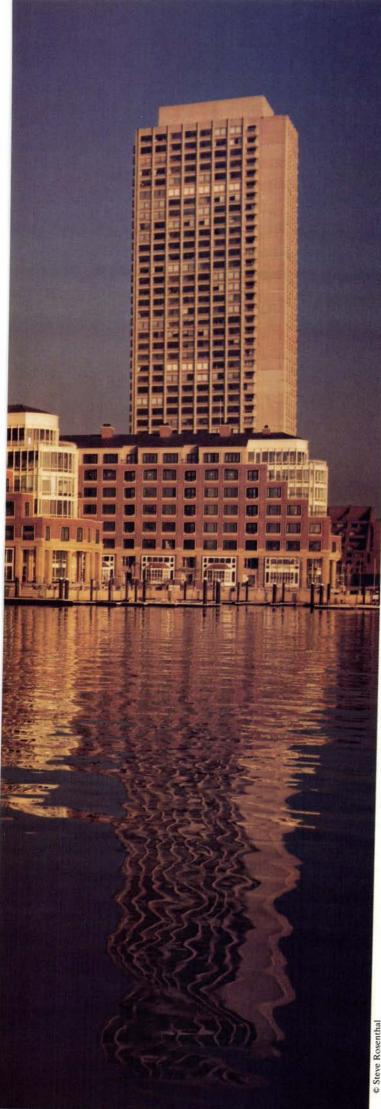
his issue represents a kind of stocktaking in which we examine where American architecture stands and where it might be going. We do so by looking at the best recently built work that we and AIA awards juries can find. Some of the buildings have been previously seen here and elsewhere. The uniqueness of this issue is that it brings them together side by side between a single set of covers.

In past annual reviews we have had essays by architects and others examining design trends. They are not included in this issue because we used the essay format in the April issue on New York City. There is, however, an article examining trends in skyscraper design as illustrated by four recent towers.

A final word, not about this issue, but about the subject of one of the past covers of the annual review. It is the Vietnam Veterans Memorial. As reported in the news section, at the time of this writing there are efforts being made to add yet another statue and, once more, to top the memorial with a flag.

These efforts must be turned back because the memorial is, as is, a masterpiece and one of Washington's most emotive shrines. The additions would be desecrations. -D.C.





Multi-Use Complex That 'Feels Like Boston's Waterfront'

Rowes Wharf, Skidmore, Owings & Merrill. By Robert Campbell, AIA

The best way to approach Rowes Wharf is by water, slicing across Boston Harbor on the water taxi that shuttles between the airport and Rowes Wharf 112 times every working day.

The whole skyline of Boston rises dramatically before you. In front of it, the cluster of shapes that is Rowes Wharf appears to be politely kneeling, like a group of children in the foreground of a family photograph who are trying not to conceal the taller people behind.

The taxi tucks up against a floating wood dock, and you step off. You are within five or 10 minutes' walk of all downtown Boston. Your ride from Logan Airport has taken seven minutes.

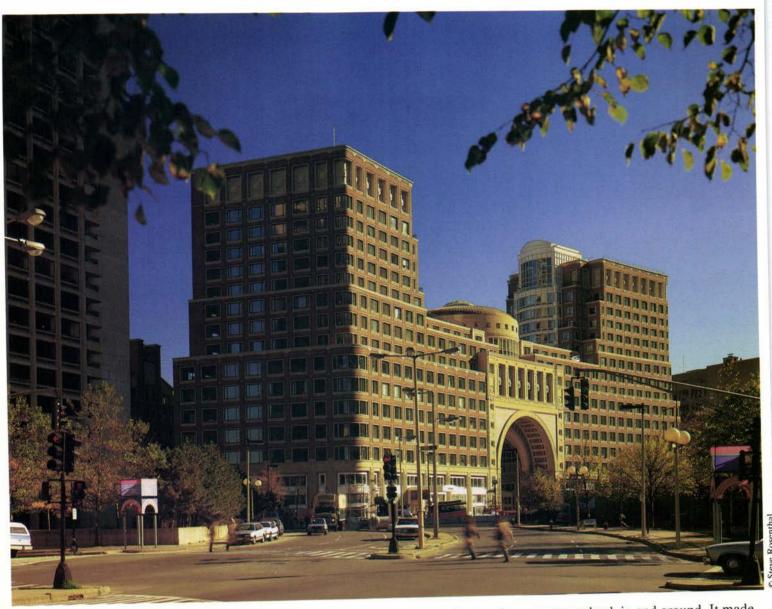
The water taxi was part of the deal. In order to win the right to build on the derelict, city-owned wharf land, the successful developer, the Beacon Companies, had to promise to build a ferry terminal and operate a water taxi. Such are the benefits of a booming real estate market. Today Boston can demand virtually anything of developers and get it. The city has chosen, generally, to demand lower heights, richer details, better materials, and public amenities—waterfront access, subway connections, the water taxi. Sometimes the city demands the renovation of older buildings as the price of permission to build a new one.

Rowes Wharf is probably the best privately developed chunk of Boston to have been built since before the Great Depression. But "privately developed" is now a term to be used cautiously, as I hope the previous paragraph suggests. Rowes Wharf is as much the product of public guidelines and public review as it is the work of its sensitive developer and its architect, Adrian Smith, FAIA, of the Chicago office of Skidmore, Owings & Merrill. Sometimes the Boston review process can be maddeningly whimsical, but in the case of Rowes Wharf it scored a knockout.

Rowes Wharf is 16 stories of condominiums, hotel rooms, offices, restaurants, a marina, a parking garage, a ferryboat launch, and a public water plaza. The low height was one of the rules. So was the principle of mixed uses. All the uses jostle and support one another with lively urbanity, proving once again that Jane Jacobs was right. The contrast between Rowes Wharf and the previous Boston generation of boxy, single-use office towers, standing grim and lonely in their windy little plazas, is the contrast between life and death.

There's little attempt at Rowes to express the mixed uses in the facades. Boston has many old wharf buildings that continue to look like warehouses although today they are condominiums,





offices, shops, or museums. In such cases, form obviously doesn't follow function. Like the old buildings, Rowes communicates the message that many different uses can be happily accommodated in the same kind of building. Generally speaking, its parking is underground (underwater, really), its retail near grade, office floors in the middle, and condos and hotel rooms at the top.

In photographs, Rowes Wharf can look overwrought, slightly cartoonish, with its little copper-hatted tempietto out by the water's edge and its grand, gaping entrace vault. It doesn't quite compose, on the harbor side, into a whole. But none of this feels wrong when you're on the site. What distinguishes Rowes Wharf most is the care with which it has been shaped to its context. This isn't a contextualism of imagery or scenographics. It's the real thing. Rowes Wharf feels like the Boston waterfront.

Rowes Wharf faces entirely different conditions on its water side from those of its land side. On the land, it fronts Atlantic Avenue, a wide, gently curving major street. Here Rowes is a wall, lining up with older buildings and curving with the street to enclose the street space, making it feel like an intentionally formed outdoor room. On the water side, by contrast, Rowes belongs to the Boston harborfront, which is characterized by what are known locally as the "finger piers"—short, stubby piers built almost up to their edges with bluff, blocky wharf and warehouse buildings of granite or brick. Rowes, too, pushes fingers into the water, continuing the traditional serrated water edge of the city.

Says Smith, "When you look at maps of the harbor, it's so clear what the edge condition has historically been. We felt no compulsion to try to change the edge of the harbor by putting something out there that was a solid wall or a planar element. The finger pier idea should just continue on, jutting out into

the water, letting the water come back in and around. It made sense for us, too. It added water frontage and it made more interesting walkways for the public.

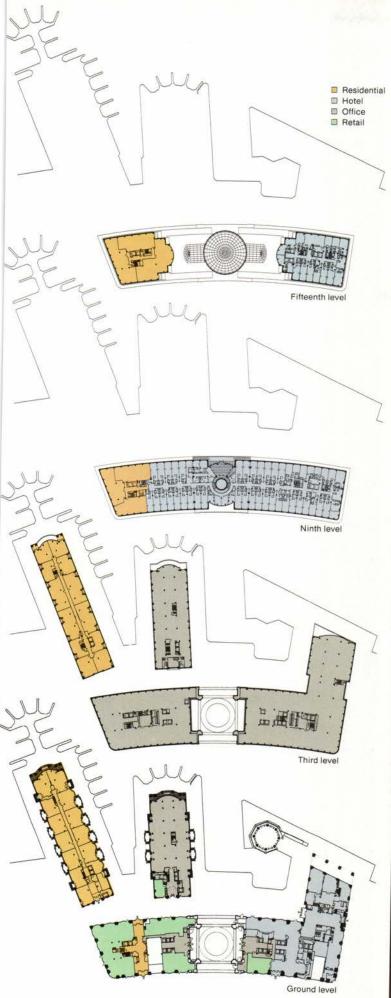
"At Atlantic Avenue you have that strong curving of the street. In downtown Boston you see all these wonderful buildings that follow the sidewalk edge and the street edge as the street bends and curves and changes direction. It's one of the most important features that makes Boston Boston. It makes the street a figural space."

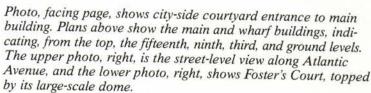
The long wall along Atlantic Avenue is perhaps a little forbidding. Scaled to the city, it slightly overscales the individual pedestrian. Soon it will be relieved by a row of London plane trees.

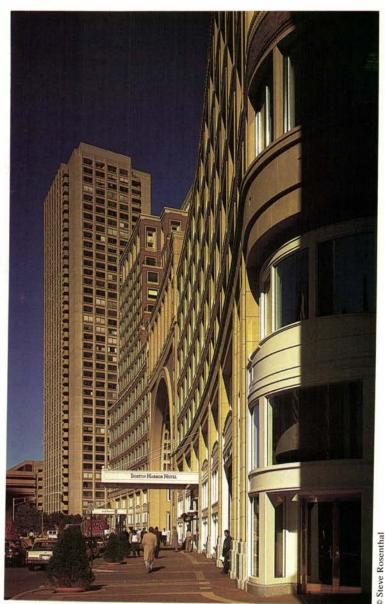
At the center of the street wall is Rowes Wharf's flashiest element, a grand, domed entryway known as Foster's Court. (Rowes and Foster were once two wharfs on the site.) As you walk through Foster's Court a panorama of the whole of Boston harbor opens before you, framed by the great arch and accented, as if in a painted seascape, by the little round pavilion in the foreground. High above Foster's Court floats a big dome that roofs a pleasant, semipublic lounge from which there are spectacular views.

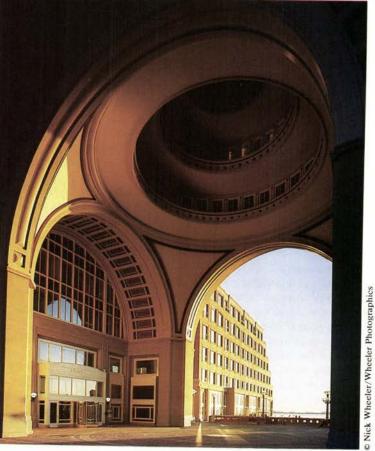
You now step forward from beneath the dome to overlook a tiny water plaza ringed by ramps and steps. Smith hoped the steps would be occupied by outdoor tables and chairs, like an informal Italian piazza-side restaurant. So far, regrettably, the developer hasn't let that happen. The water plaza needs just such a very public use. Still, it's already wonderful. The opposite of a purely visual, Disneyland attraction, it's a piece of working waterfront. Commuter boats from the south shore berth here. So, of course, does the water taxi, operated in a model of public-private partnership by the Beacon Companies together with the

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Evoking different moods, the water side welcomes ferry commuters while the city side blends with the hectic streetscape.

Massachusetts Port Authority. The water plaza is probably the best recent public space in Boston, a fresh, vigorous addition to the network of streets, squares, and quays that make up the city's public realm.

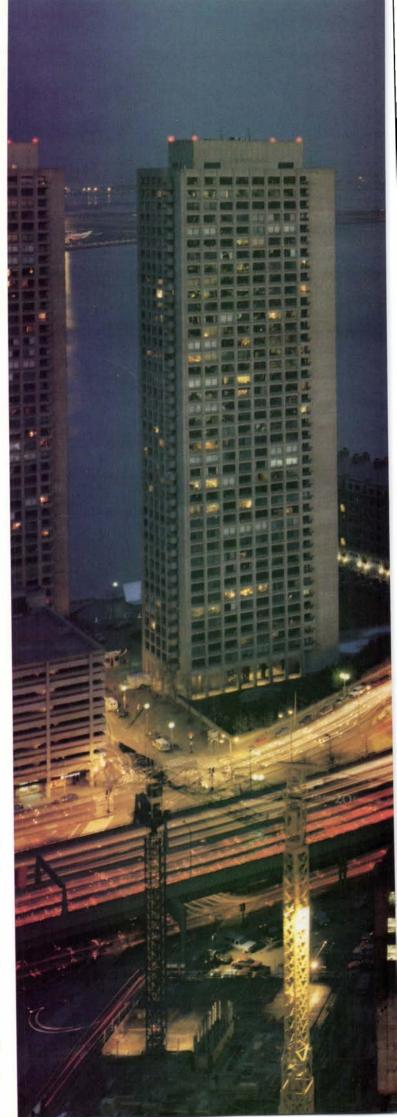
Rowes Wharf has one other set of virtues. These are its exterior materials and details. The building is unpretentious, made of ordinary brick, trimmed in buff precast concrete. Accents of white-painted wood hint at the sea. The concrete, taking advantage of new technologies, is as dense and crisp as limestone and has, cast into it, shallow decorative patterns. The result is a complete success. Without being precious or artful, Rowes Wharf conveys a sense of solidity, of craft, of human scale, and of real materials. It feels like something built, not like an image.

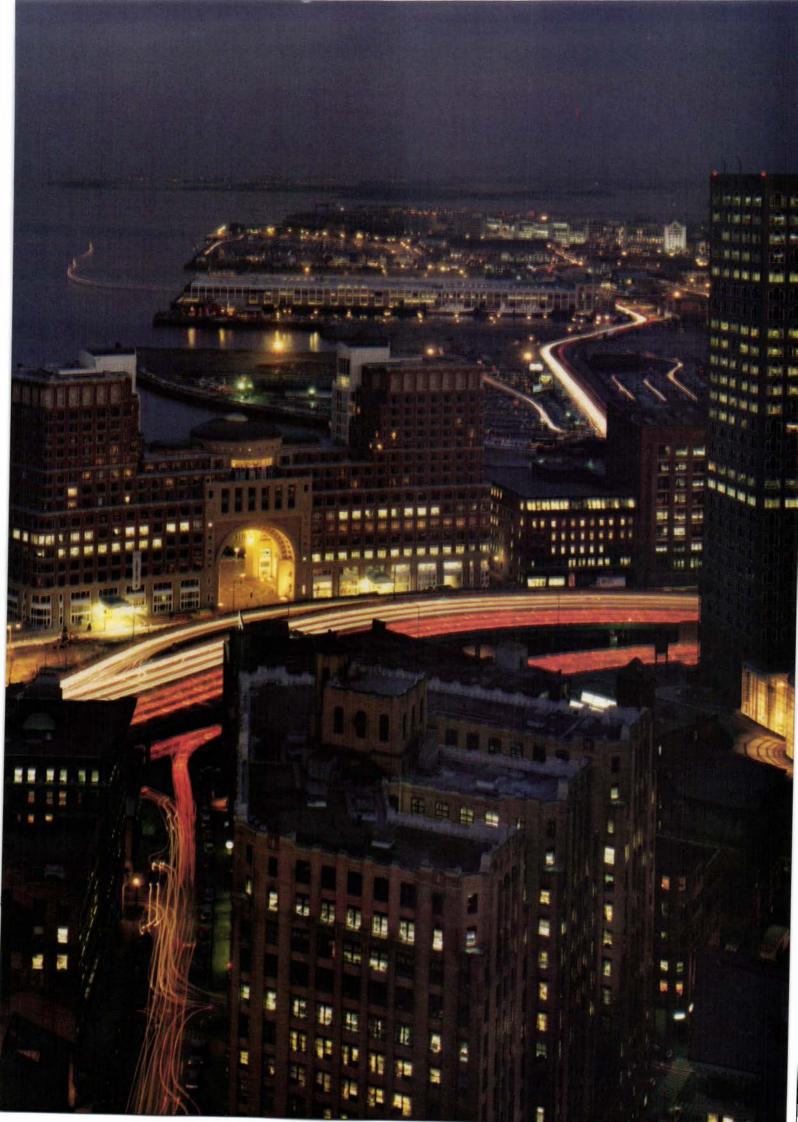
It's a fascinating lesson in different attitudes toward details to compare Rowes with another major new development across the street—International Place by John Burgee and Philip Johnson. There the skin is made of granite detailed to look like flat cardboard stamped with white Palladian window motifs. The effect is that of exterior patterned wallpaper. Burgee and Johnson seem to be stating plainly that today we make buildings that are frames enclosed in ornamental wrapping paper. Smith, whose building also is a frame wrapped in a curtain, has chosen—with more success if perhaps less brutal honesty—to recall the more solid architecture of the past.

Smith says, "We wanted it to be a Boston building not only in the way it fit the site but also in terms of memory. From that point of view we looked at materials, color, depth of facade. My feeling was that on the waterfront Boston has a rough and rugged kind of imagery, not too finished, different from Back Bay or Beacon Hill. There are more rough edges, more crudeness on this site."

Only the hotel—called the Boston Harbor Hotel—falls below the prevailing standard. Its entrance and lobbies are mean, low-ceilinged, and shapeless. Its decor, by another designer, is gaudy and predictable, completely violating the wharf esthetic of the rest of the building. Kitschy funeral-parlor elegance has no place on a waterfront. The restaurants are especially inept, seeming to have been designed without regard for the great harbor views. All their interior surfaces are so dark that, when your eye does meet a window (or a part of a window that isn't heavily draped), you feel as if someone had triggered a flashbulb in your face.

Rowes Wharf is an expression of the new wealth of Boston, part of the "miracle of Massachusetts" of which so much has recently been made nationally. But wealth, of course, can be taken out of a city as well as plowed back into it. It is to the credit of Beacon Companies and Boston's planners that private wealth in this case has been used—as it was by the Boston Brahmins at the end of the last century—to create a better public world.







A Tale of Four New Towers and What They Tell of Trends

Skyscrapers in Chicago, Minneapolis, and Philadelphia. By Allen Freeman

After a hundred years of evolution in at least four phasesfunctional, eclectic, modern, and postmodern, as reckoned four years ago by Ada Louise Huxtable-what is the direction of skyscraper design? Is this a postmodern era, in the narrow definition of Charles Jencks, or perhaps part of a long period of pluralism, in which the midcentury reign of modernism is a historical anachronism? I looked closely at four recent towers and asked their architects to prognosticate.

The buildings are 190 South La Salle Street, Chicago, by John Burgee Architects with Philip Johnson; 123 North Wacker Drive by Perkins & Will, also in Chicago; Lincoln Centre in Minneapolis by Kohn Pedersen Fox, and One Liberty Place in Philadelphia by Murphy/Jahn. Each is a speculative office building. Each makes reference to towers of the age encompassed by the rise of the Beaux-Arts to the onset of the Great Depression. Most noticeably, each terminates in a romantic or geometric top.

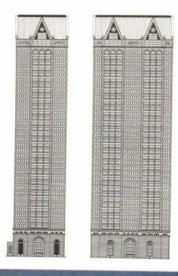
Burgee/Johnson's tower stands 40 stories tall in the Loop, diagonally across the street from Burnham & Root's lyrical, firmly rooted Rookery (now exactly a century old). One hundred ninety South La Salle was loosely based on another of John Wellborn Root's designs, the 21-story Chicago Masonic Temple, built in 1892 and torn down in 1939. The new building has in common with the Masonic Temple a high-set roofline of prominent gables and dormer windows—châteaux in the sky—and arches along the base and upper reach of the shaft.

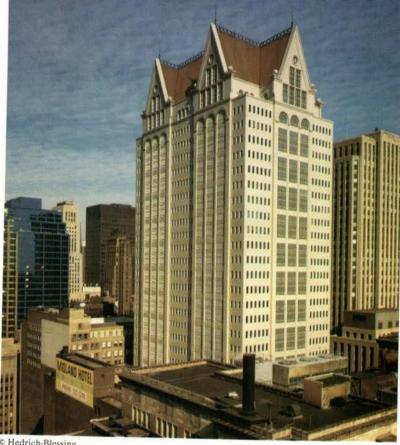
From here the designs diverge. Burgee/Johnson elaborated on Root's roof, employing six gables to the Masonic Temple's four (because, says Burgee, this is a corner building and the intersecting Adams is an important street). On the other hand, they simplified the base. One hundred ninety South La Salle only hints at Root's rustication and replaces his lively row of Richardsonian arches with fewer and higher classical openings. The relatively blank ground level is a regression as urban design, making the building seem aloof and closing it to the street.

In contrast, Burgee/Johnson opened up the shaft with a glass curtain wall, designing an exceptional system-you don't for a moment think it's off-the-shelf-and playing it against expanses of stone with punched windows. Double-floor panels read not as wall, either opaque or transparent, but as tall, white cages on a dark field, with windows and spandrels setting up a pleasingly complex vertical rhythm that reinforces the building form. The punched windows are set in white frames as well, tying them to the glass wall grid and creating highlights. Photographs tend to flatten the building and make it appear dull; in real life it has more presence yet seems appealingly light, an appropriate foil for the dark brick and terra-cotta Rookery.

The elements comprising the crown conspire in making a buoyant composition: tall dormers that almost seem to float as if suspended from wires by their pointy tops, thin white mullions on the dormer windows, spheres that anchor dormer roofs, and cast aluminum finials and traceries along the copper roof ridges. Among tops ranging from flat to assertive on the Loop's skyscrapers, 190 South La Salle's pinnacles sit cool, lovely, feminine.

Right and opposite, Burgee/Johnson's 190 South La Salle Street.

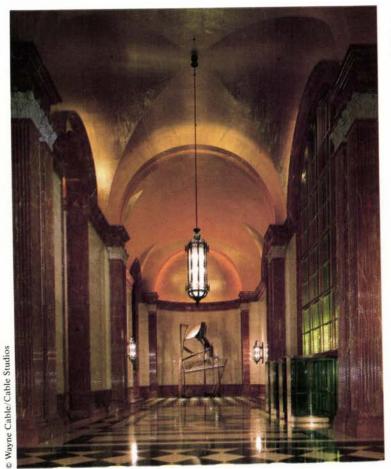


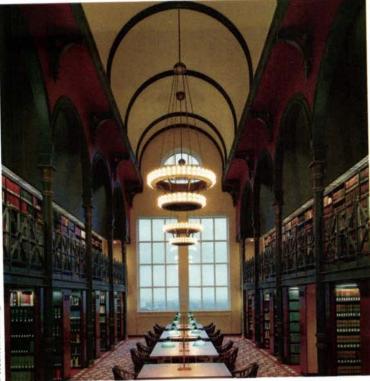






Wayne Cable/Cable Studios





The lobby and a law firm's library in the crown, both Burgee/Johnson designs, are exceptional. The former is classical, marble-surfaced, and Brobdingnagian, extending 180 feet (the full length of the building) and soaring 50 feet to a vaulted, gold-leafed ceiling. "Surely the most lengthy, high, and dignified lobby in the city," boasts Johnson in the developer's brochure. Much more inviting is the T-shaped, double-height library at the top. It fits snugly under three of the dormers in high Victorian hypostyle eclecticism.

"Pluralism is in the wind," says Burgee, "and it is here to stay. Tenants, developers, and architects want a greater richness in cities, and that comes with buildings that are identifiable. And site consideration is of great importance. It's a sad comment on what we did in the postwar years that contextualism is a new

discovery."

Quite different from hemmed-in La Salle Street is the context of Perkins & Will's 123 North Wacker Drive. Although lacking the character of a boulevard, North Wacker is scaled as one, so its buildings can be seen from base to crown rather than piecemeal. In designing this relatively diminutive Chicago tower (30 stories, 525,000 square feet) Ralph Johnson, AIA, composed surface materials in the same key as 190 South La Salle's—vertical strips of glass curtain wall bracketed by stone with punched windows. But he made a more muscular composition out of more elemental building blocks—squares, circles, and, for the top, a triangle. Windows and pyramidal hat were suggested by the much larger, late-1920s Civic Opera House in the next block; the arcaded base is consistent with it and other towers along North Wacker. The new building is conservative and polite in urban terms, but not dull.

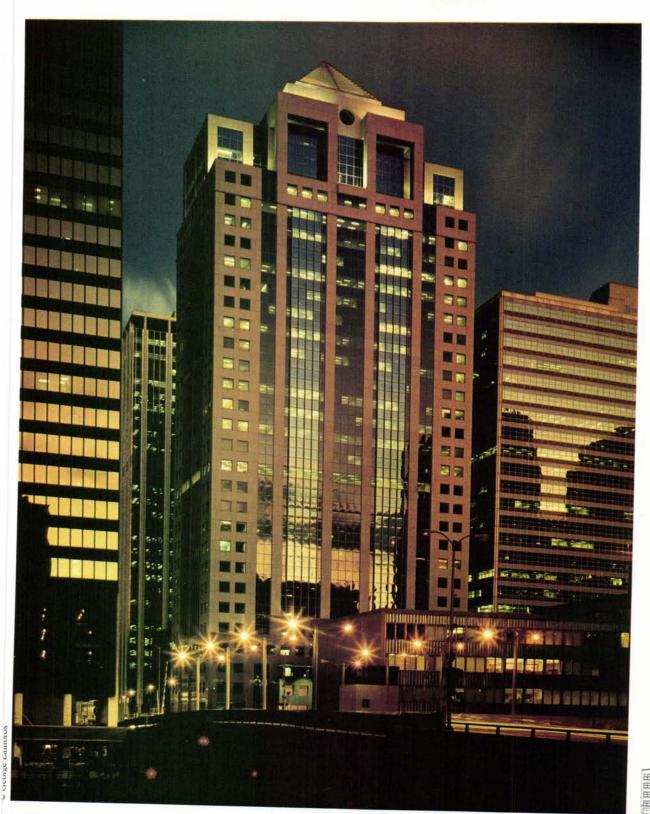
Most of its interest comes at the top, where Johnson made the highest three floors read as a romantic penthouse. The crown grows logically from the shaft, with the top floor surmounted by an oculus—echoing a larger one on the base—and setting up a geometric foil for the pyramidal hat. What resembles a stepped pyramid is in reality an open grille over the mechanical equipment. Lighting from within makes the point mysterious and lovely.

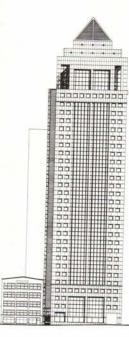
Ralph Johnson sees in the design of late-1980s skyscrapers a fusion of "today's spirit of construction, which is modernist, with



Left, marble lobby (above) and top-floor library in 190 South La Salle, both Burgee/Johnson designs. Huge metal sculpture at far end of lobby is 'Chicago Fuge' by Anthony Caro; chandelier and sconces are cast aluminum, as are columns in law library. Law firm of Mayer, Brown & Platt is the building's major tenant, occupying the top 10 floors.

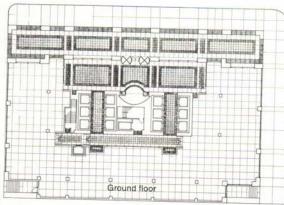
Hedrich-Blessing







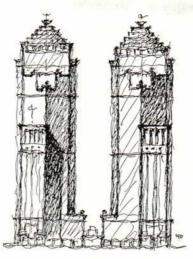


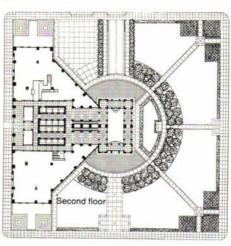


Above, 123 North Wacker. Left, its 30-foot-wide arcade and three-story lobby. Plan is the ground floor; elevation is Randolph Street's.



Right, William Pedersen's conceptual sketch for Lincoln Centre's twin towers. Left, the first-built. Below, the entrance pavilion in center of block, currently serving first tower, will form the link between the two. Below right, inside the pavilion in view toward unbuilt site; 26-foot-tall lead vase was sculpted in 1917 by Paul Manship. Plan shows full site with first building.









a more imageable character, producing romantic, more figural shapes rather than just functional containers of space. We like the deep recesses of buildings done at the turn of the century, but curtain walls are very expensive if you do them that way." Technology and the demands of the office building market have led to thin walls "whether we want them or not," he says. "You have to come to terms with that technology and try to find the appropriate expression for it" with such things as massing or skin texture.

Johnson's approach is to simply "weigh appropriate building typologies in relation to the particular site. The good thing about today's pluralism is that it allows you a variety of different strategies to respond to the uniqueness of the site."

Lincoln Centre by William Pedersen, FAIA, of Kohn Pedersen Fox started with a client's need to develop a full downtown Minneapolis block in two equal increments of 625,000 square feet in such a way that the first phase would seem complete without the second. The now completed 31-story tower reflects in its form both site and program.

The building stands near an edge of the commercial downtown, across the street from John Carl Warnecke's concrete and glass, bifurcated, high-rise Hennepin County government center. Pedersen planned his twin towers to rise from identical triangular bases pulled flush to parallel streets. Anchored by four pavilions at the corners of the square site, they are to be joined by a fifth pavilion in the center of the block, on axis with the glassy slit up the south wall of the Warnecke building. The center pavilion was built as the entrance to the first tower—eventually it will serve both—and the balance of the block to the east has been landscaped as a forecourt.

Handsome as an individual tower, Lincoln Centre promises to become even more intriguing in dialogue with its twin. (By way of negative comparison, imagine a lone World Trade Cen-

ter building.) On the back, or west, side, it is a three-part composition with a high centerpiece and two flanking elements whose cornices are level with the top of a Murphy/Jahn high rise across Fourth Avenue. The east face presumes proximity of the unbuilt twin, folding back diagonally from a centerpiece that rises from the entrance pavilion to the crown. On the way up, all the way around, the stone and glass skin does a sort of classicized boogiewoogie. Resolution comes as a stepped pyramidal crown in apparent homage to the 1920s Foshay tower, a beloved downtown landmark.

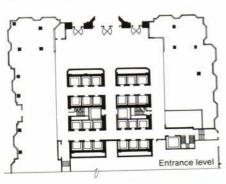
Pedersen says the value of postmodernism to skyscraper design has been not only to create interesting skyline objects but also to "restore the possibility of allowing tall buildings to combine into what I call street walls—the way buildings grab hold of other buildings visually to define a public realm." His Lincoln Centre does stand handsomely on the skyline and does extend street walls. It also responds reasonably to Minneapolis's extensive system of second-story walkways, a dreary, anti-urban response to the forbidding winter climate. They siphon activity from the street level by moving shops to the second floor.

Pedersen sees his Minneapolis towers embodying urban contextualism in classical language, but he is also interested in the language of modernism, "reintroducing compositional techniques and even aspects of material selection and usage that relate more to the modern period," he says.

And over the next decade, what? "I see an evolution where structure itself will again become a more dominant participant," Pedersen continues. "Not structure for the sake of structure like Sears and John Hancock, but structure as supportive to the more important compositional aspects that make it a participant in the fabric of the city. If postmodernism achieved anything, it was interrelating of buildings."

Interrelating buildings, or rather failing to do so on the sky-

Above, One Liberty Place from above Rittenhouse Square; tip of statue atop city hall is barely visible between broadcasting towers. Left, the projected full complex. Below, plan of the base and lobby photograph.





line, has made headlines in Philadelphia. Above a sea of mostly flat roofs on buildings that seem like lumps of modernist formula, Helmut Jahn's One Liberty Place (a forgettable name with the ring of a corporate market study) crackles like a deco lightning rod. The building would be controversial even if it hadn't broken the "gentleman's agreement" to hold building heights at 548 feet, the level of William Penn's hat on Alexander Milne Calder's statue on City Hall. Rising 945 feet, including spire, with 58 leasable floors, One Liberty Place resembles a fatter, bluer Chrysler Building, as one sidewalk critic observed. With setbacks starting relatively low on the shaft, its form also recalls a Hugh Ferriss massing study. There is a pleasing surface affinity with Sternfeld & Roth's blue-walled, chevroned, radio-deco WCAU building of 1928 (now the Art Institute of Philadelphia) on nearby Chestnut Street. And it has a strong resemblance to Jahn's winning, unbuilt, 82-story entry in the 1982 competition for a Houston skyscraper.

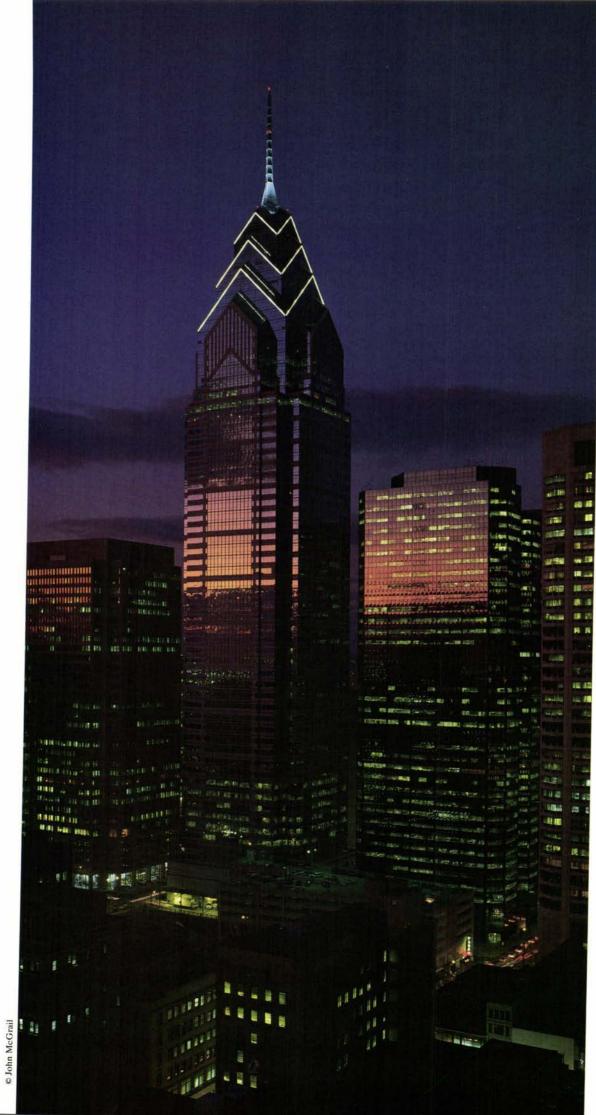
Fortunately for Philadelphia, the building that broke the height barrier is as considerate an urban piece as it is a splendid skyline ornament. The three-story, square-in-plan base of blue pearl granite is enlivened with sconces, high bay windows that emphasize ground-level retail functions, and a higher, squared-off, outwardly puckered, stone-framed entrance on Market Street. The shaft is all slick-surfaced, an unabashed curtain wall of silver-blue aluminum grid, horizontal stripes of blue glass and blue stone at the re-entrant corners, and silver metallic glass up the center of each elevation. The facetlike skin shimmers and reflects the sky and nearby buildings so that you often are unsure what's glass and what's stone. Like the top of the Chrysler Building, One Liberty Place's crown reaches down at the corners, as if to secure it to the shaft, and then rises in a series of glassy, set-back gables to a spire.

The lobby opens four stories high to the north and angles down in balconies to the square-shaped, low-ceilinged elevator core in the center of the plan. Every surface shines—white and gray marble, pearl-blue granite, glass, and stainless steel—in horizontal stripes that recall the curtain wall. The building profile is etched in marble, three stories high, on facing walls flanking the entrance and again on each of the steel elevator doors. Ceilings in the core inflect inward toward linear light coves. The ground-floor design seems resolved to the nth degree. Though ultraslick, these interior spaces have an exemplary play of materials, modulation of scale, and attention to detail.

One Liberty Place is the first phase of a three-quarter-block project that will include a second, similar, slightly shorter tower on the opposite corner, a hotel on the third corner, and a midblock retail component. Since the first conceptional drawings, the second tower has been enlarged to accommodate larger, rectangular floor plates required by the insurance-company tenant, and the facade play at the corners has been simplified. Murphy/Jahn master planned the block and is design architect for both towers; Zeidler Roberts Partnership of Toronto is architect of the hotel, retail component, and parking garage. The hotel as represented in an architectural model will be lower and appear more solid than the towers, with a prominent, unconvincing mansard that repeats in a couple of tiers on one end.

For his built tower in the development, Jahn welcomes comparison with the Chrysler Building but emphasizes that the quotation is indirect and abstract. Like Pedersen, Jahn seems to want to inform, maybe reform, modernism. "For me," he says, "at least part of the success of Liberty Place is associated with its modernity in terms of straightforward use of materials and the image of technology, combined with the certain sense that it continues the historical traditions" abandoned since the '30s. He thinks the latest spate of historicist quotations is ending—just about every good old building has been copied, he says—and he abhors a copycat approach to contextualism.

But like John Burgee, Ralph Johnson, and William Pedersen, Jahn welcomes "a newfound freedom to produce interesting forms and spatial results—functional and technical solutions through intellectual and intuitive responses." Perhaps most welcome, he says, is the emphasis on urbanity.



Grand and Gracious Oriental Outpost

The American Club, William Turnbull Associates. By Hiroshi Watanabe

The casual tourist has little inkling of the stresses to which the residents of Hong Kong are continually subjected. According to the 1986 census, the metropolitan areas of the colony have an average population density of nearly 54,000 per square mile; the density in the Shamshuipo district in Kowloon is said to be eight times that number. (The average population density in New York City is about 23,500 per square mile.) Obviously, most members of the foreign business community in Hong Kong enjoy comforts and privileges unavailable to the great majority of the population, yet even this segment of society cannot have wide spaces and high ceilings in the built-up areas. After a while in such circumstances even the most handsomely appointed condominium may begin to pall, particularly on Americans accustomed to suburbia.

The new Tai Tam facility of the American Club in Hong Kong, designed by William Turnbull Associates in association with M. Moser & Associates, Architects, is intended to provide a haven where for the price of membership one can get a bit of elbow room. This the building succeeds in doing, in a way that suggests home to American expatriates even as it respects its spe-

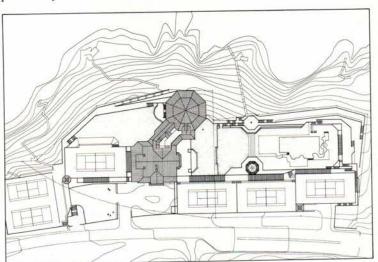
cial Oriental site.

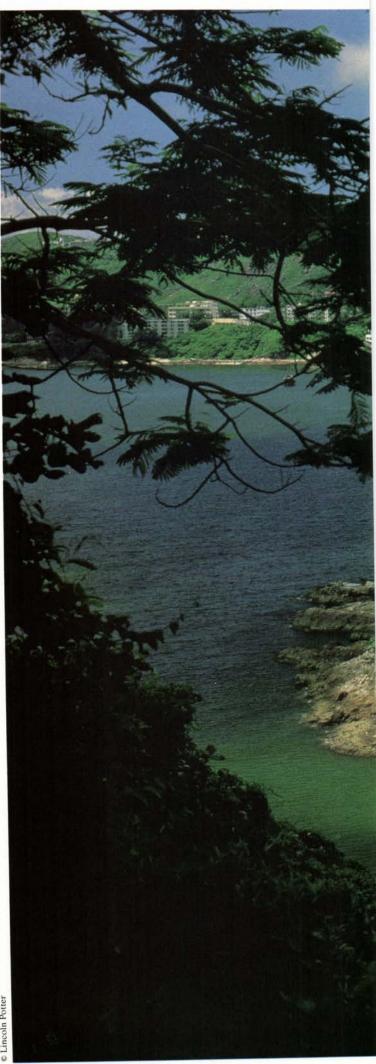
In 1983 the American Club invited submissions of interest for the design and development of "town" premises in the central district and a "country" site at Tai Tam, on the northern and southern sides respectively of Hong Kong Island. From some 35 submissions, nine firms or teams were short-listed. It was decided eventually to separate the two projects, and the team led by William Turnbull Jr., FAIA, was selected to design the country club facilities.

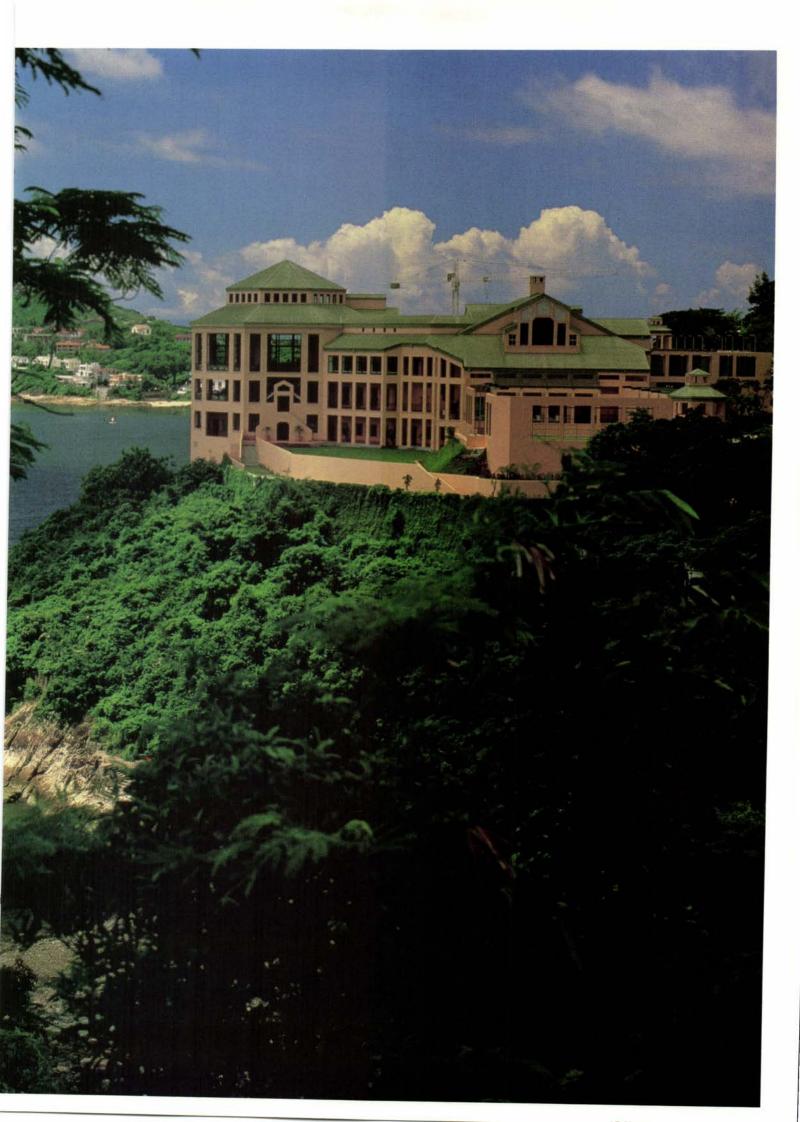
The initial design work was undertaken mostly in Turnbull's office in San Francisco. Continual changes in personnel on the American Club's building and general committees and the consequent changes in direction were a source of some confusion. In Hong Kong, Moser & Associates, with Moira Moser, AIA, as principal in charge and Danny Cerf as project architect, did the working drawings and the construction administration.

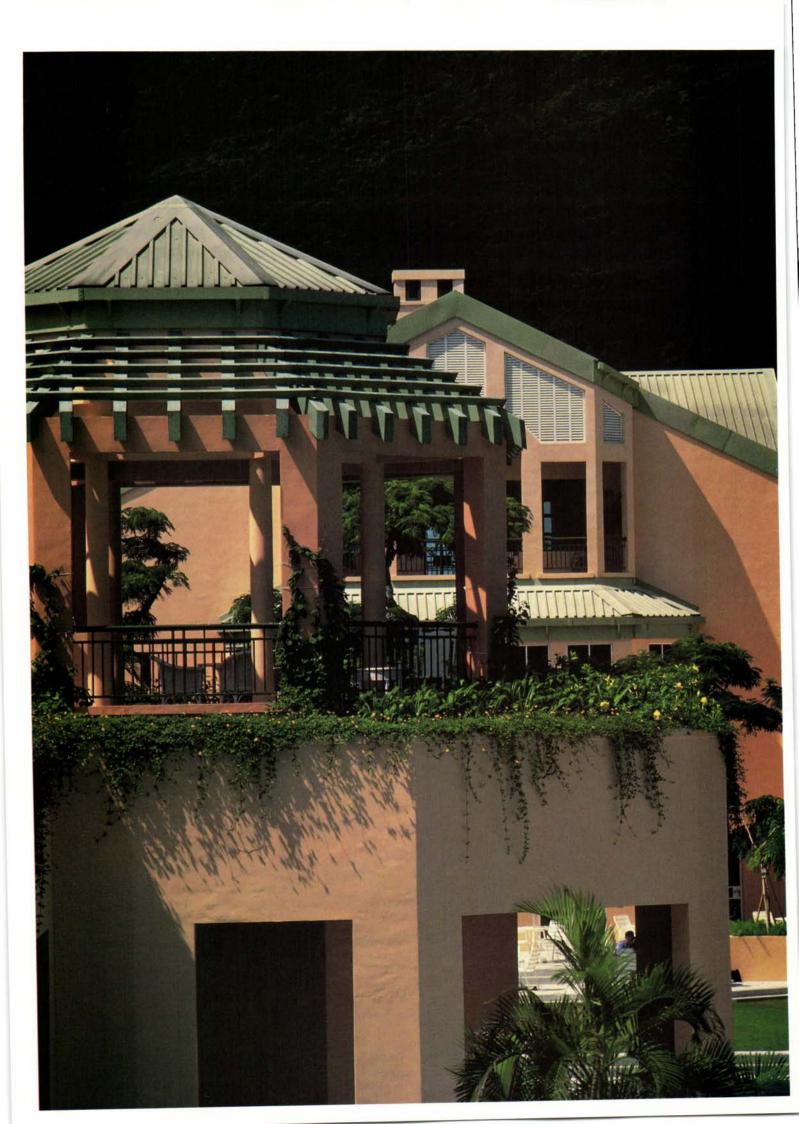
There has been a building boom in the colony, despite the uncertainties connected with return of control to China in 1997. The boom has resulted in a shortage of skilled labor in every-

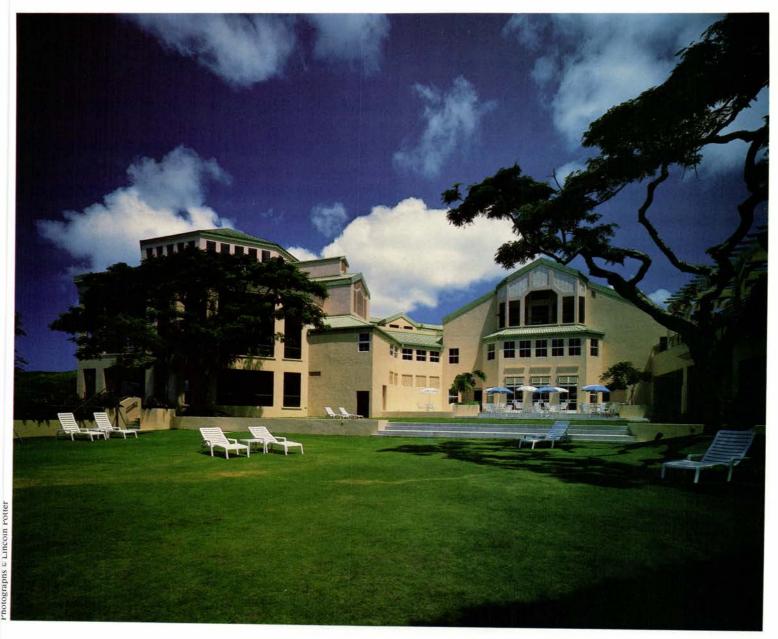
Mr. Watanabe is an architect in Tokyo and a former correspondent for Architecture Plus.











thing from concrete work to carpentering. The architects of the Tai Tam project were disappointed in the general level of workmanship, though to a recent visitor shortcomings were not apparent. Also, the budget of approximately \$5.75 million was not as generous as the architects could have wished, considering the site work required, and it forced cutbacks in finishes, with local materials used instead of American imports. But the architects are generally pleased with the way the club has turned out.

Despite the heavy overcrowding in the metropolitan areas, there is in fact no dearth of undeveloped or sparsely settled land in the colony. Most of it is hilly and not suited for conventional large-scale housing, and where it has been developed it has been turned into sites for luxury accommodations set in verdant landscapes. The site for the country club was formerly the grounds of three estates and is bordered on the west by Tai Tam Road. Though it had a wonderful, unobstructed view of Tai Tam Bay, two-thirds of the land sloped at a steep angle down toward a narrow strip of Crown Land that separates the site from the water. Moreover, high-rise developments were being planned or were under construction in surrounding areas. Considering the scope the club envisioned for its facilities, indoors and out, the threeacre site was relatively small. Nevertheless, the architects chose to retain and work around four attractive flame-of-the-forest trees. (A row of tall Norfolk pines, however, had to be sacrificed, and their remains will feed the fireplace in the main lounge.)

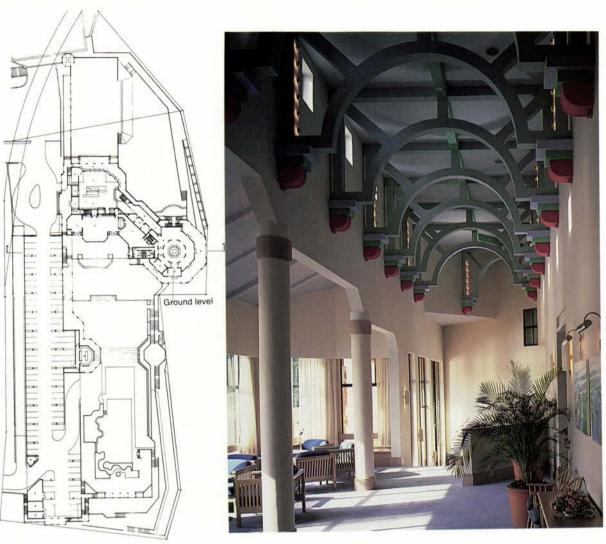
Left, the three-story, octagonal wing evokes the image of a lighthouse. Above, solid walls alternate with the voids of verandas to create, in parts, a double-skinned appearance.

To provide privacy from the road, the architects used a 74-car garage with three tennis courts on top to screen the compound. Crib walls along the site's eastern edge made available more level, usable land. Vines, including wood rose, Himalayan creeper, and bougainvillea, are quickly draping themselves over the garage and crib walls and blending into the landscape.

The building proper cuts across the site, dividing the grounds into northern and southern halves. In plan the building resembles a pendulum frozen in midswing. The front portion, with the foyer and lounge on the first floor, is aligned with the road and garage and provides a fixed point from which a wing is extended at a 45-degree angle in the southeastern direction. At the extremity of this extension is the octagon, a three-story structure standing at the far edge of the site and evoking the image of a lighthouse. The isolation and quiet with which lighthouses traditionally are associated make for welcome imagery for those who seek to be as far from the madding crowds as possible, short of taking the next plane home.

The building as a whole is conceived in the spirit of those large, late-19th-century American houses in places like Manchester-by-the-Sea, Mass., and Mount Desert Island, Me., with their play of solid wall against the void of verandas and their picturesque massing of volumes with round, polygonal, and rectangular plans, all bound by a continuous outer membrane.

In the Tai Tam building, as in those houses, one can move easily in and out via verandas. The double skin that wraps the building inevitably recalls the Zimmermann house of 1972-75 by MLTW/Turnbull with its hypertrophied porch (and an octagonal dining room). There, an "inner house" was enclosed by a







redwood lattice, creating an air space that blunted the impact of hot Virginia summers. Turnbull's Davidow residence of 1980-82, on Kauai, Hawaii, is a more recent example of a house within a house, located in a wet, humid climate not unlike Hong Kong's.

Hong Kong has relatively cool, dry winters, but it can get quite muggy the rest of the year, a fact that was impressed on Turnbull during his initial visit in July 1983. Thus he made every effort in design to provide shade and to catch the breeze from the ocean.

The two levels of verandas circling the octagon provide an open-air connection between the north and south lawns, which are big enough for barbecue parties and other typically American backyard activities. The south lawn leads to pools bordered by planters and to changing rooms, squash courts, and a nursery, all hidden on a lower level.

The club is family oriented and informal. You can park your car and go in the front entrance, which leads to the foyer and reception desk, or go by a stairway directly to the second floor and various athletic facilities. The foyer is sandwiched between the coffee shop and lounge, and directly ahead are stairs and a gallery leading to the function room, a space under the grill room that can be used by groups of various sizes.

The angled plan results in a wide variety of views as you move from the foyer to the second-floor grill room. The blue decora-

In the interior, the ceiling rises progressively, from the foyer (left), up the stairs to the gallery (above left), to the 35-foot-high grill room with spectacular views of Tai Tam Bay.

tive arches and beams with stenciled ornament are explained as an attempt to compensate for the absence of blue skies in generally hazy Hong Kong. They also lend a processional quality to these spaces. The ceiling rises progressively. The sequence terminates spectacularly in the grill room, an airy, 35-foot-high space poised 138 feet above Tai Tam Bay. You then understand the reason for the angle of the "pendulum," for directly ahead is the mouth of the bay and beyond it Potoi Island.

The veranda around the octagon on the grill-room level is a generous space about 18 feet high and 15 feet wide and is furnished with wicker chairs. The outer, reinforced concrete skin, painted a light apricot, provides a sense of enclosure and frames views of the bay. The atmosphere here is intended to recall the dining veranda of the old Repulse Bay Hotel, which had been a noted Hong Kong landmark. One of the mature flame-of-the-forest trees nuzzles the octagon on the southern side and also contributes to the sense of history with the illusion that this pile has been standing here for ages. This is quite a feat, considering the building had its grand opening last June.

The architects were given a wonderful site and they have made the fullest use of it. The American Club members, who number about 3,500, have had their needs met; yet the American population in Hong Kong, minus tourists, is about 26,000 and growing and reportedly has overtaken the British contingent in number, if you exclude the military. Perhaps, therefore, the only complaint that might be made of the Tai Tam facility is that there is only one of it. \square

Arts and Crafts Spirit Pervades Corporate Offices

Becton, Dickinson Headquarters, Kallmann, McKinnell & Wood. By Robert Campbell, AIA

Most of the famous American suburban corporate headquarters—Weyerhaeuser, John Deere, Connecticut General, General Foods—seek to communicate an overwhelming sense of organization. The corporation wants you to think of it as well organized, and it wants its headquarters to express that quality. The resulting buildings are like palaces set in deer parks—stately, centered, aristocratic, hierarchical.

The new Becton, Dickinson headquarters by Kallmann, McKinnell & Wood is something very different. (Becton, Dickinson is the little BD you probably never noticed on virtually every medical thermometer you've ever used.) The headquarters stands in 114 acres of rolling scrub woodland in the posh New Jersey suburb of Saddle River, former home of Richard Nixon. The architecture is rich and graceful but it isn't grand. It seems to have emerged from a more relaxed sensibility, one self-assured enough not to need to assert its importance.

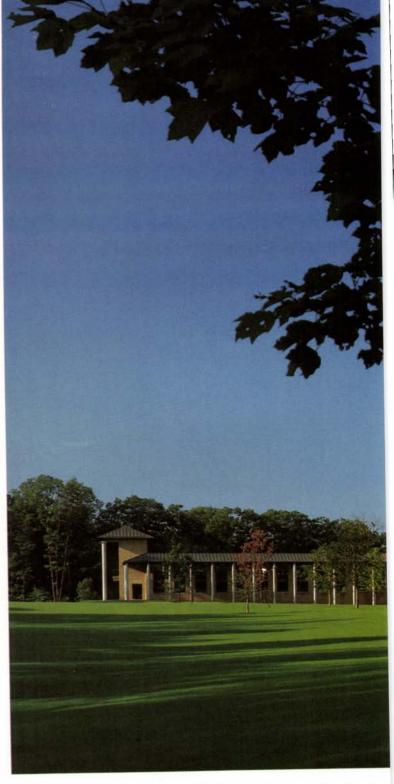
Corporations, after all, aren't monarchies, and their leaders aren't czars or dukes. CEOs don't arrive at their rural headquarters with processions, and they don't go hunting, at least not on the premises. There's an absurdity in the aristocratic deer-park image that has dominated our architects. Why should a headquarters be a stately mansion? Why should its surrounding landscape be a mere setting, applauding and glorifying the building?

At Becton, Dickinson, all is more modest. The landscape is primary, on a par with the architecture. The company was keenly aware of the desire of wealthy neighbors that the new building shouldn't destroy the rural, residential character of Saddle River. "The neighbors knew what they didn't want," recalls BD vice president Wilson Nolen, "which was anything that would remind them of the Route 1 corridor in Princeton."

There was another motive for modesty. "We make medical products," says Nolen, "that is to say, things for people who are sick. We didn't think the building should transmit a message of corporate grandeur. It shouldn't suggest that we've become overly affluent at the expense of sick people."

The master planner and landscape architect, Morgan Whee-





lock, chose to leave the woodland in its natural state and in places to let it creep up close to the building. "Our original concept," says Nolen, "was that the building should appear to have been dropped in the woods, with planting native to New Jersey coming right up to it. We thought of it as a home in the woods. I think of the woods here as a Neil Welliver environment."

Wheelock added to this concept a recontoured, saddle-shaped expanse of grass known as the "Great Lawn." Across this lawn, employees will walk from Phase I of the headquarters, the part that's been built, to Phase II, now under construction.

Walking across landscape is basic to the experience of Becton, Dickinson. When you arrive at the building (crossing one of the two elegant highway overpasses designed by Kallmann, McKinnell & Wood), you immediately stash your car in an ingeniously engineered garage (Zaldastani Associates, consultants) and, emerging from it, walk in snow, sleet, rain, hail, or sunshine across a broad courtyard toward the building.

The client admits to wishing, often, for a tunnel, but luckily



Above, glassy executive wing. Left, main entrance.

the solid rock ledge below grade makes one too costly. Thus the landscape becomes, as in a good college campus, something more challenging and bracing than a mere picture seen through the frame of a window.

Like all the recent work of Kallmann, McKinnell & Wood, BD is eclectic. The materials are traditional—pale brick, limestone, copper roofs. Their warm-toned pallor suggests the palette of the architecture of the Tuscan hills. The craftsmanship is outstanding. Nearly 40 brick shapes were needed to achieve the angled corners and bull-nose trim work. Stone, copper, wood, and brick are fitted together with care rarely seen.

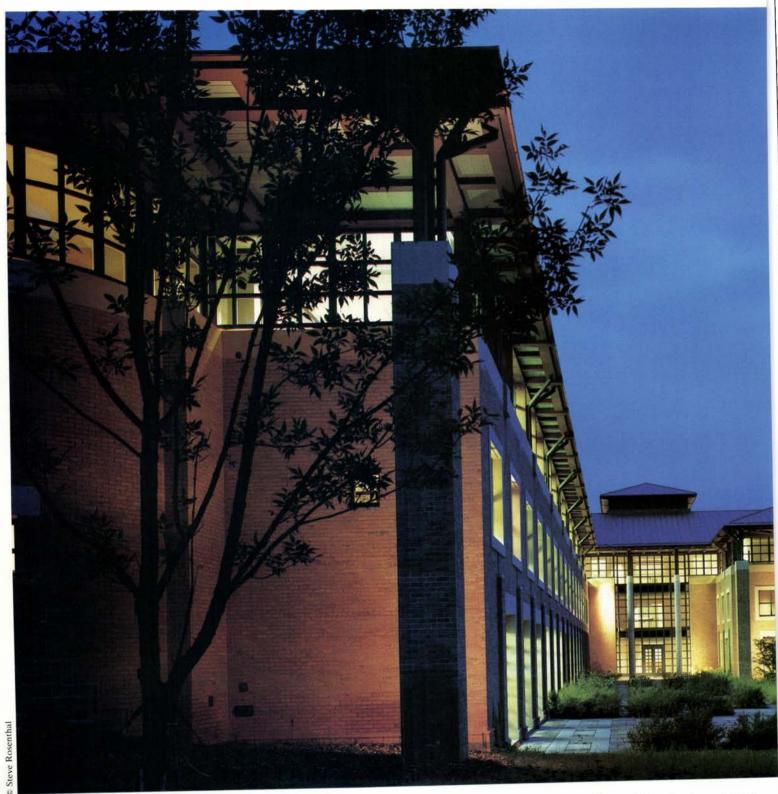
In style BD resembles the same architect's American Academy of Arts and Sciences in Cambridge, Mass. Oddly enough, the program for each building contained, in nearly the same language, a proviso that the building should not reflect the architectural tastes of any one moment in time. Sketches of the

academy, on KMW's office wall, influenced the client's choice of this architect.

"I knew right away when I saw the sketches that that was exactly what we wanted," Nolen remembers. "The academy was a working environment for knowledge workers. It was expressive of values that are attractive to people who work with their minds. It had a university rather than an industrial atmosphere."

Both buildings are strongly influenced by the arts and crafts movement, with its message of human scale and hand workmanship as well as its vague, comfortable air of Edwardian clubbiness. Especially evident at BD are the influence of Mackintosh and Wright, with hints perhaps of Aalto, Asplund, Scarpa. "Early on," recalls Nolen, "I bought the architects a Greene and Greene T-shirt."

But there's also that Tuscan look, emphasized by arches, arcades, and hip roofs. Even the parking garage has an applied false front of Tuscan towers and arcades. Why a Tuscan villa is the right embodiment for the headquarters of a manufacturer



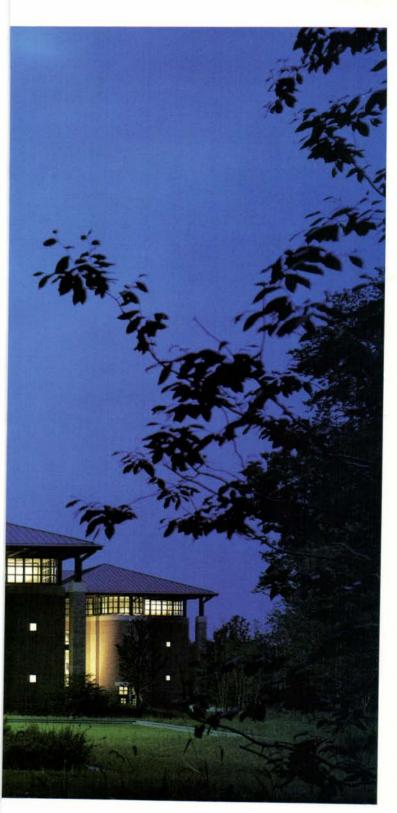
of medical equipment, on a site in the Jersey woods, is a reasonable question. Aside from their simple love of Tuscany, both the architect and the enormously sophisticated client seem to have been searching for an image that would retain some of the aristocratic dignity of the corporate deer-park tradition but that would suggest a much looser organization and a much closer working relationship to the land. Michael McKinnell, AIA, compares the parking garage, for instance, to the farm outbuildings of Palladio—prosaic, in both cases, and incorporated without fuss into a total building-land composition. If BD has a flaw, however, it is that the architect perhaps veered a little too close to the picturesque and the scenographic in the use of this kind of imagery. The arch at the entrance jars a little, and the garage's false front seems slightly overdone—"the slipcover," as Nolen irreverently calls it.

As you approach BD across the courtyard, the front door is easily found but doesn't leap out at you. That fact is the first indication of the building's lack of conventional hierarchy or

authority. Says McKinnell, "The client told us, 'we're not on a power trip.' So we tried to achieve something more episodic than the usual headquarters, something that would pose choices and would be more interesting for the daily user."

Thus the building tends to reveal itself slowly, unrolling or unraveling gradually to your perceptions. This is true on the exterior, where BD is not a unity but presents itself in separate chunks. It's also true inside, where there is no impressive lobby or grand spine or any other obvious organizing principle. This is a building you have to explore over time. The exploration offers joys and surprises—for example, in the sudden long views that open up through skylighted atria or out into the landscape.

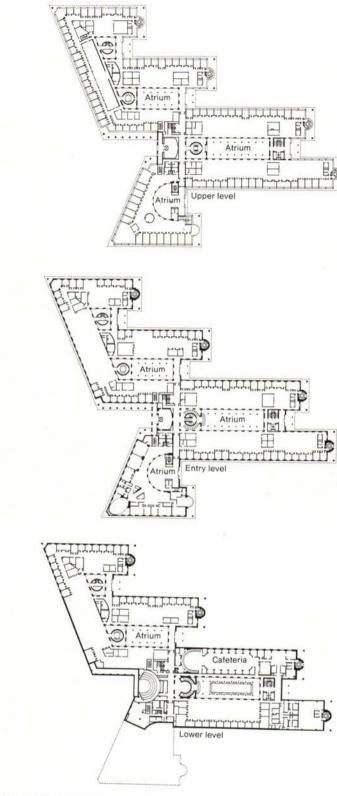
The typical exterior facade is among the triumphs of BD. There are three stories, and usually all are devoted to essentially the same office uses. But the exterior in no way expresses this plain fact. Instead of looking like a package of uniform cubage, it is a careful fiction that humanizes the building and relates it to the site. The ground-floor windows look like French doors, as if

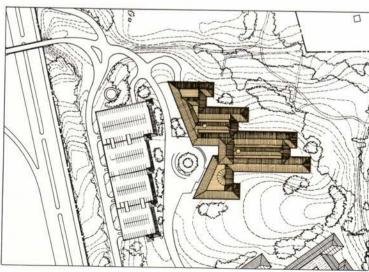


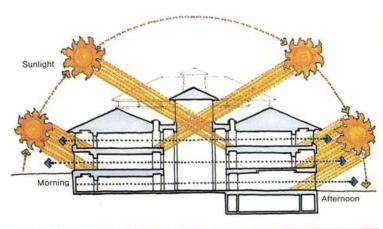
At dusk, the warm-toned hues of the Tuscanlike building.

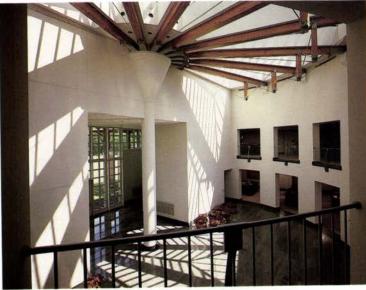
they could be thrown open to the outside from spacious interior reception rooms (most really don't open at all and have ordinary offices behind them). The middle floor has square windows. The top floor, deeply shaded by an overhanging eave, is continuously glazed, as if it were a continuous gallery or studio space. All the windows have green mullions that relate them to the scale of a human face. The result is a very handsome facade that offers the executives inside a variety of window conditions.

If the message of the windows is that office workers are not interchangeable digits but human beings and that their workplace is not a human filing cabinet but a house, the same message is proclaimed in the space layouts inside. As far as possible, BD's interiors do not consist of large, subdivided space, where people must work within a labyrinth of little partitions. Instead, the interior is divided into rooms—rooms with high coffered ceilings and, because of the building's 56-foot typical span, a generous,

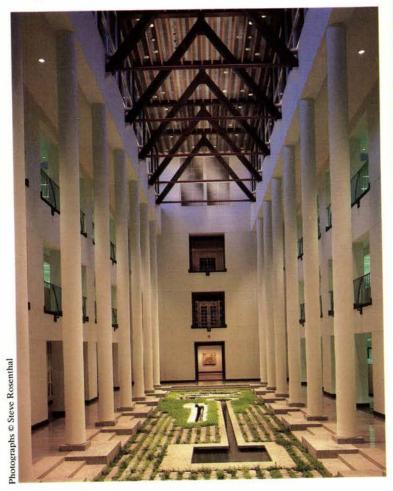








Below, the large atrium's centerpiece is a flower-water garden shaped like an excavated quarry. Above, the executive wing lobby with its mushroom column and sunburst wood skylight.

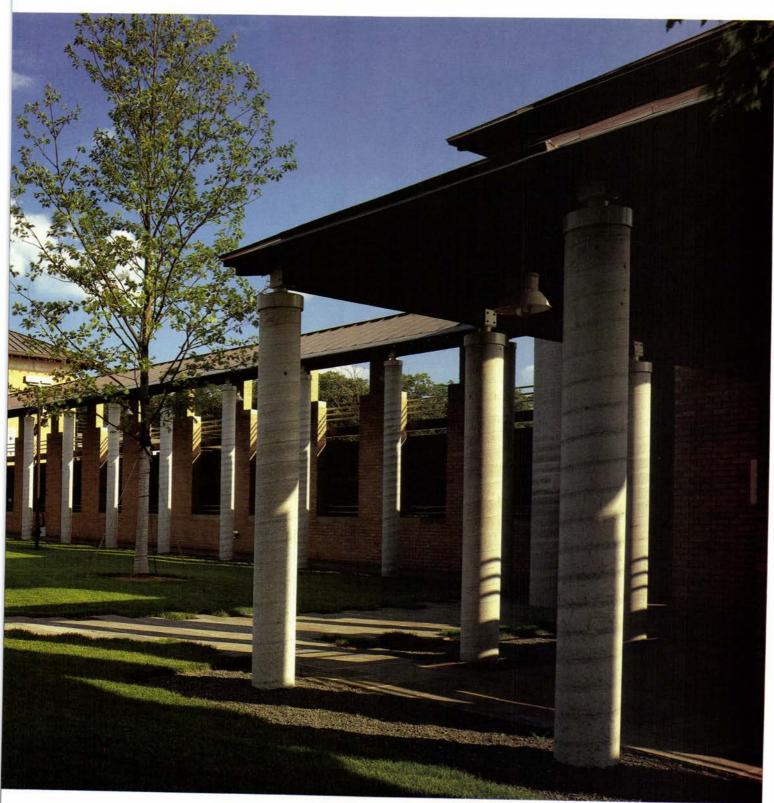




open feeling. Few places in the building lack a view of daylight either through windows or bouncing off the walls of the atria.

The high point of BD is surely the two interior atria, both designed in collaboration with sculptor Michael Singer. In the larger atrium, the floor is a water garden that Singer has shaped into an excavated quarry from which the materials for the building are perhaps being extracted—but with a strong suggestion, too, of an archaeological dig, as if we were uncovering the ruins of the building. Photographs don't begin to do justice to this atrium and its floor-garden sculpture. It is a magically silent and serene place that poignantly relates the building to the means of its making and its eventual unmaking.

All of Kallmann, McKinnell & Wood's work has explored the theme of the tragic side of architecture, the conflict between the proud built artifact and the slow eroding processes of time. Nature chews into one corner of the American Academy of Arts and Sciences, and Boston City Hall resembles the surviving ruin of itself. The large atrium at Becton, Dickinson is another mov-



Arcade encourages an interchange with the natural surroundings.

ing expression of the same theme. A smaller atrium, almost equally eloquent, contains another Singer sculpture with a quarry cart and piles of cut stone and wood.

Art is present elsewhere, indeed everywhere, at BD. Environmental artist Richard Fleischner was given the cafeteria terrace to design. Fleischer planted a long, straight row of birches, visible through the cafeteria windows. The birches begin on the terrace and penetrate several hundred feet into the woods, where they gradually peter out. They state Fleischner's theme, which is an exploration of the difference between the formed and the natural and all the stages in between—a theme that becomes a device for relating the architecture to the landscape. Fleischner also paved the terrace, placed benches in it, and planted yarrow and sumac. A "green room," an 80x80-foot, geometric clearing in the woods, was planned as a sort of negative image of the interior atria, but it was cut because of budget limits.

Much of the pleasure of BD lies not in its big ideas but in the simple delight of its detail. Kallmann, McKinnell & Wood has never before done a building so fully realized.

Among its joys are the eloquent freestanding corner columns at the exterior; the crisp red trusses that span the atria; the spatially rich, cylindrical stair towers of the atria, which frame views and incidentally serve as the building's shear walls; the forestlike eaves with their wood brackets; the granite base with its trim of bull-nose brick; the braced metal railings around the atria, hinting, perhaps, at Mackintosh's windows for the Glasgow Art School; the sunburst wood skylight, atop a mushroom column, in the lobby of the executive wing; the handsomely tiled servery in the cafeteria, a room rather than a production line; the very turn-of-the-century, arts-and-crafts cafeteria.

Becton, Dickinson is a design that repays your attention at every scale, from the landscape down to the brick. It proposes a healthy and modest attitude toward the design of the rural corporate headquarters as a building type. \square

joists to purlins to thick shingles, the roof rises, fills out, and evanesces into treillage and skylight at the edges.

Within, a strong space both enfolds and soars. Shadows move across the floor as they respond to the tall pines bending in the wind. Walls open out to the grasses or to the pond beyond. The line between "out" and "in" is blurred; the feeling is of finding shelter within the out-of-doors.

Interior details reinforce the unity of the whole. Slender columns with high angular bracing reflect the branching of the long-leafed pines outside. The floor plane sets up a rectangular grid, which is repeated in numerous details. Lamps (strong, sculptural forms that anchor the pavilion's four corners) and indirect lighting (integrated with the floor grid, protected by custom-designed metal grids) all combine to form one glowing work in the evening landscape.

Materials harmonize with the total surroundings. From wood, which already has weathered to a greenish-gray, to earth-colored brick flooring, which stretches beyond the shelter of the roof line into the open air, to wooden dowels and earth-toned metal connections, the colors and textures subtly blend with the envi-

ronment while enriching the building.

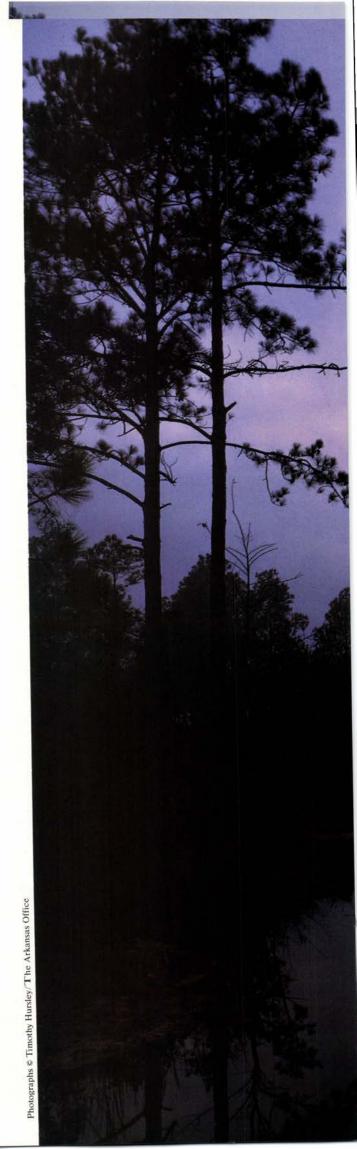
The pavilion's greatest beauty lies in its bones. Pinecote is reticulated—its structural framework forms a unified network like that of a burned leaf. Column bracing illustrates the principle. These beams, which tie the building together laterally, ascend continuously from near ground level to an apex near the ceiling. Their repetition sets up a rhythm; seen in perspective, their receding crossed X-forms reinforce the roof's height. The geometric metal oculus joining the beams snaps the composition into focus. Like Gothic buttressing, Pinecote's simple columns and beams delight the eye while carrying their loads.

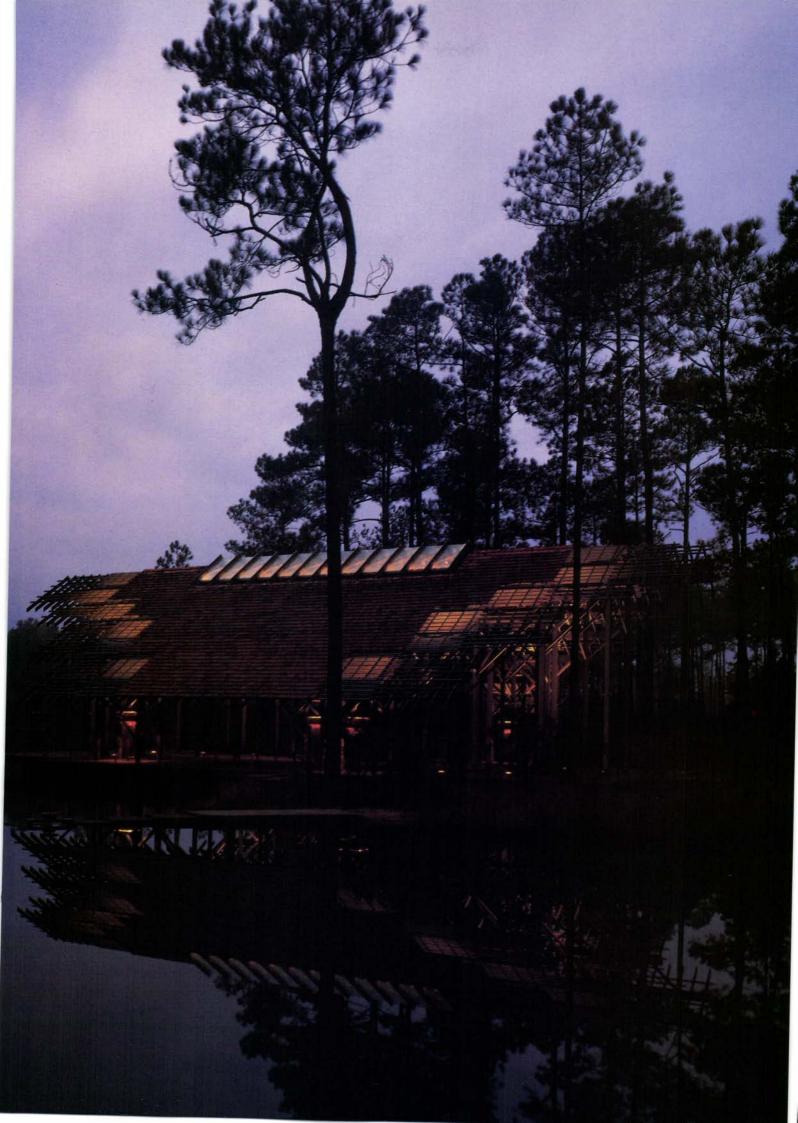
No cathedral, the pavilion is a secular variation on a theme Jones has explored in other work, particularly Thorncrown Chapel, though Pinecote is more modest—an open platform and roof that will receive myriad uses in its lifetime. Its assurance comes from being firmly rooted in its pine forest home.

One small, woodland building set between earth, water, and sky, Pinecote focuses people's attention on their relationship with nature by bringing the elements within touch. Fay Jones has read the landscape and responded with a unified ensemble that is true to place and true to purpose and that calls quietly for men and women to come, to walk, and to reflect.

Below, the pavilion's hovering roof and the slender wooden columns frame the surrounding landscape. Right, dramatic night lighting reveals the skeletal structure and skylights.



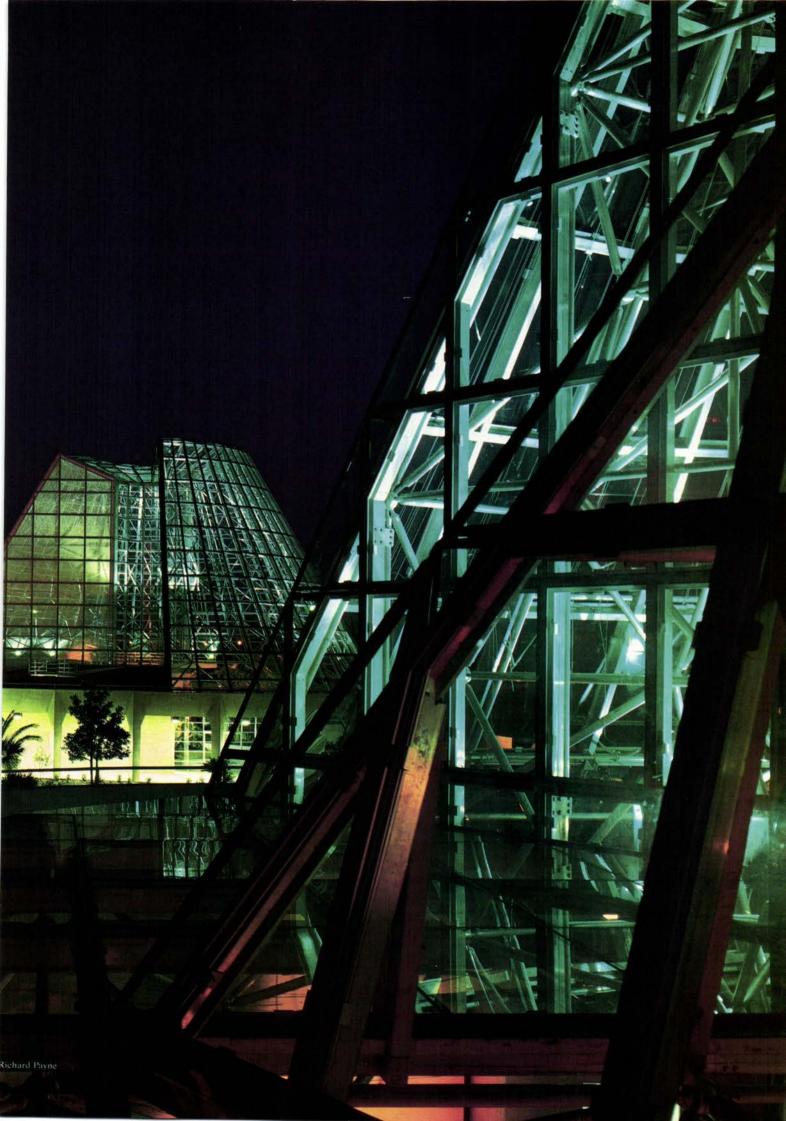


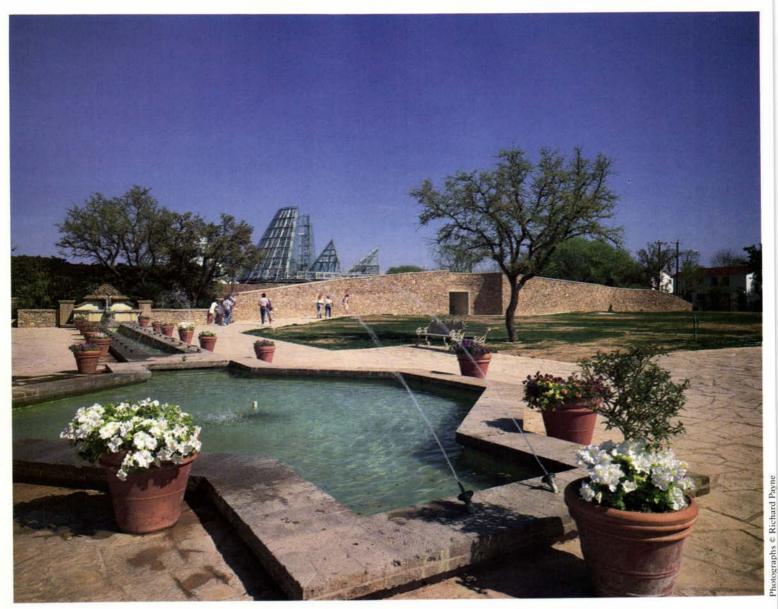




Drama of Nature and Form

Lucile Halsell Conservatory. Emilio Ambasz. By David Dillon





real life, and at the Lucile Halsell Conservatory in San Antonio our first impression is of a prehistoric earthen tomb. Undulating stone walls converge at a narrow cleft in the earth, through which we pass cautiously and uncertainly, not knowing what lies beyond. Suddenly we are confronted by an open circular pavilion, made of raw concrete and containing only a single totemic palm tree. The experience is unsettling, more like an initiation rite than an entrance to a building.

Immediately beyond is a second circular room, slightly larger and covered with an elaborate network of trusses and glass pyramids beneath which seasonal flowers and shrubs bloom. This room opens—explodes, almost—into a large central courtyard with a lagoon and dozens of cacti and flowering trees. To one side are rooms for tropical and desert plants, to the other is an orangery, the historical parent of the conservatory, with tropical fruit trees set out in gigantic Mexican stone pots. Tucked into the earth behind the orangery is the steamy fern room, with its grotto and artfully sculpted concrete rocks that could double as a set for a Tarzan movie.

Farther on, at the head of the courtyard and the apex of the journey, stands the palm house, 57 feet high and 103 feet across, the most dramatic shape on the landscape. Large palms and cycads are arranged in tiers, as they might be inside a volcanic crater. We walk past them on an upwardly spiraling ramp, arriving finally at a small observation platform from which we look back over the entire conservatory and, in the distance, the city of San Antonio. Here is the climactic epiphany for the true believer, the point at which, however briefly, we can imagine art and nature reconciled.

Contemporary architects, linguistically overeducated, like to

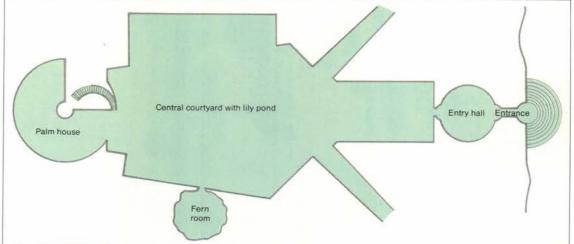
rhapsodize about "design metaphors." Emilio Ambasz has actually built one. The idea of a passage from earth to sky and darkness to light drives the design of the Halsell, pushing it beyond mere utility toward myth.

Fortunately, an underground conservatory has many practical advantages as well. Traditional conservatories, such as London's Kew Gardens or the New York Botanical Garden, are essentially gigantic glass sheds designed to admit as much sunlight as possible. They are Northern phenomena. Ambasz recognized immediately that such a design would never work in San Antonio, where summer temperatures often exceed 100 degrees and even the hardiest plants can get charbroiled. So he buried most of the plant rooms, designing them as discrete boxes that can move independently in San Antonio's unstable clay soil. Light enters through the glass cones and triangles, which are equipped with operable windows and computerized sun screens that can be raised and lowered as light levels change. A special fogging machine keeps the tropical plants moist by shattering a stream of water into tiny droplets that remain suspended in the air. In summer the droplets lower the temperature of the room through evaporation; in winter they keep it warm by retarding plant heat loss.

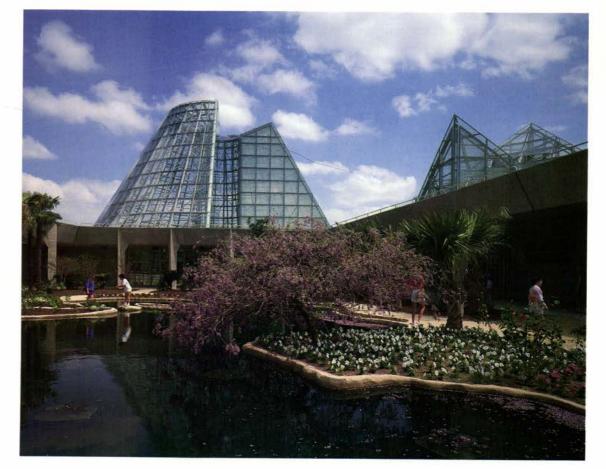
This glass Stonehenge eventually will contain some 18,000 plants, including palms, Hawaiian tree ferns, orchids, and other exotic species that could not survive naturally in San Antonio. The achievement is remarkable for an organization that until recently had maintained a purely regional focus. The San Antonio Botanical Center was established in the mid-1970s, with \$150,000 from the city and a matching grant from the Ewing Halsell Foundation. Halsell was a native Texan who made a fortune ranching in Oklahoma and then set up a foundation that,

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Left, you enter the conservatory through rectilinear opening in wavy stone wall in center of photograph. Above, shallow stairs, one of the straight arms at the perimeter of the plan at right, lead back out. Below, the lily pond at the center of the conservatory's open court.



Left, temporary exhibits of seasonal displays are found in the second circular room from entrance. Below, the desert room, which lies off the central court. Right, the palm house at the end of the plan.



upon his death, would aid worthy projects in his home state.

Initially the botanical center concentrated almost exclusively on native Texan and Southwestern plants, with a few roses thrown in for color. In 1980 the San Antonio Botanical Society was formed to advise the center and raise money for development. It was the society that in 1982 lured director Eric Tschanz away from the Cox Arboretum in Dayton, Ohio, and started planning a conservatory. Once again the Halsell Foundation came through, this time with a \$5 million grant. Other San Antonio benefactors and foundations provided an additional \$2 million to complete the project.

But money without vision can be a formula for mediocrity. The vision came from San Antonio attorney Gilbert Denman, president of the Halsell Foundation. He had seen an exhibition of Ambasz's work at the Leo Castelli Gallery in New York City, which included several bermed and earth-sheltered designs. Although impressed, Denman also knew of Ambasz's reputation as an uncompromising idealist, who had designed furniture, kitchen utensils, and diesel engines but never a building. "We asked him if he thought of himself as an engineer or an architect," Denman recalls, "and he said he thought of himself as a

poet. That was not reassuring.

In the end Denman trusted his intuitions and hired Ambasz anyway. Now it is clear that it is precisely the union of poetry and innovative technology that makes the Halsell Conservatory unique. Architecturally, it has nothing to do with San Antonio, the state's most architecturally coherent and suggestive city. Ambasz made no secret of his disdain for the kind of "contextualism" that flourishes in San Antonio, repeatedly dismissing it as intellectually bankrupt. "Emilio didn't care much for the context of San Antonio," says John Kell, AIA, of JonesKell,

Ambasz's local associates. "He took a very international approach to the project, and that's been very exciting." Once again Denman and the botanical center board deserve credit for recognizing the need to transcend the merely local.

At times they undoubtedly wished they had taken a more conservative path. The complexity of the design produced construction delays. There were floods, strikes, and several subcontractor bankruptcies to contend with. And in places Ambasz simply overreached.

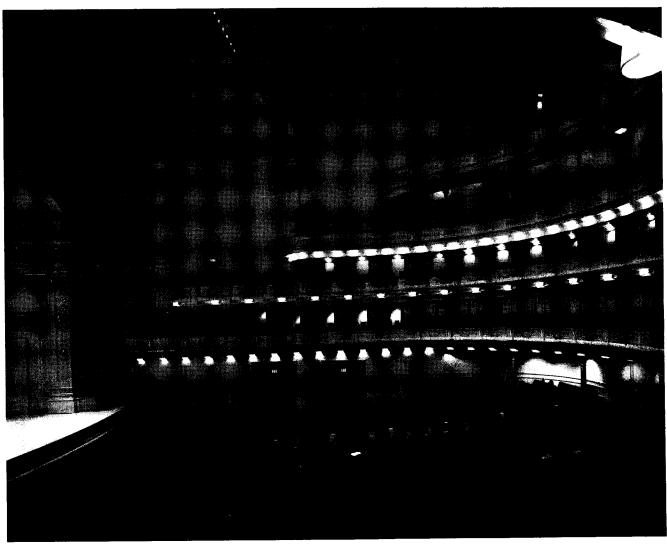
The temporary exhibition room, for example, is top-heavy with steel and glass, as though two separate designs got mixed up and then both got built. The entrance wall is excessively formal and architectural for the spiritual journey that it prefigures. But as the plants and the landscaping mature, these occasional standoffs between architecture and nature will surely diminish. The conservatory will weather and soften, and in five or ten years physically resemble the archaeological site that, metaphorically, it already is.

Three years ago, before ground was broken for the conservatory, Ambasz expressed a hope that "if a parent brings a child the two could walk and have a feeling, without using words, that they have entered a symbolic place. There will be walls around the courtyard, and the tree branches will diminish heat. It will be a place with a deep feeling of silence." Even in its semiraw condition, the Halsell fulfills those expectations. It is one of those rare designs that satisfies practical needs while also tapping something deeper and more elemental, an Edenic memory, perhaps, in which for an instant we imagine ourselves triumphing over climate and geography. It speaks to deeper desires for ritual, solitude, and a mythic past—an architecture of aspiration and reconciliation both.



AIA Honor Awards 1988

William Turnbull Jr., FAIA, who chaired this year's honor awards panel, says the jury "collectively searched for overall excellence rather than giving awards by category. In cases where architects tried to exceed the boundaries of pragmatism to reach a sort of art of architecture, the jury was impressed by the imaginative solutions of individual minds, and premiated them as such." The jury did not consider these buildings "literal models for the future of architecture," he says. Joining Turnbull as jurors were W.G. Clark, AIA; Mildred Friedman, Hon. AIA; Paul A. Kennon Jr., FAIA; William Morgan, FAIA; Laurie D. Olin, ASLA; John T. Regan, Assoc. AIA; John Vinci, AIA; and Melanie White, architecture student. We previously featured four of this year's 15 winners and begin coverage with them.—A.F.

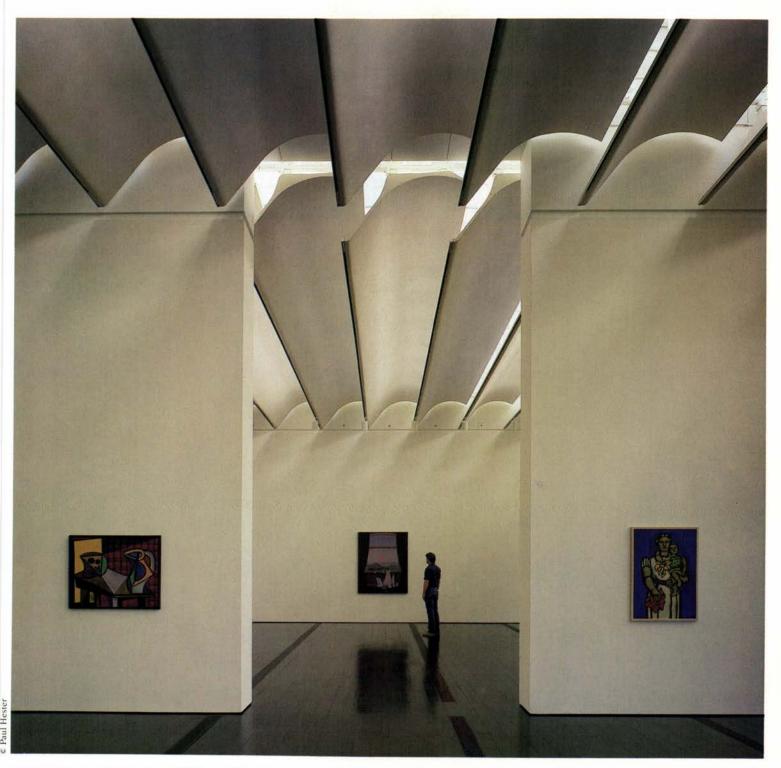


Cervin Robinson

y today's standards, Andrew Carnegie's 1891 music hall, designed by William Tuthill, was compromised from the start. Although the concert hall was and is superb acoustically and its sight lines are exemplary for a 2,800-seat room, the public lobby and backstage areas were tiny. Too, Carnegie Hall had undergone numerous renovations and modifications, some of which were mutilations.

James Stewart Polshek & Partners master planned and did design work for a \$40 million refurbishment job ranging from emergency stabilization of deteriorated structure and ornament to major space reconfigurations. The architects expanded the lobby to nearly double its original size by lowering the floor to sidewalk level, eliminating redundant staircases and extending under the parquet level. And they enlarged the backstage by appropriating space formerly occupied by the Carnegie Tavern.

The \$40 million project required "packages of work," as Polshek puts it, to fit around the concert schedules as funds became available. Hindering progress was the absence of original drawings, noted Sharon Lee Ryder in our February 1987 story. Polshek & Partners "raised the quality of architectural design to a level commensurate with its artistic tradition," commented the jury.





year ago on these pages, John Pastier likened the just-completed Menil Gallery in Houston to the metal space frames of Fuller and Wachsman, the thin, ferrocement shells of Nervi and Candela, and the domestic-grade industrialism and Miesianism of the California Case Study Houses fostered by *Arts & Architecture* magazine. "In the spirit of the '80s, these '50s elements are collaged and hybridized" in a museum that is "polite and refined rather than confrontational and dramatic," he wrote.

Above minimalist forms distinguished by gray-painted cypress siding and exposed, white metal, trabeated members, architects Piano & Fitzgerald suspended an elaborate system of skylights, concrete light diffusers, and ductile iron trusses. Within the museum (above), the system integrates structure, natural light, artificial light with lighting tracks, ventilation through return air ducts, weatherproofing, and drainage. The system extends outside the building envelope, minus the glass and ductwork, to form a *brise-soliel* roof for the perimeter colonnade (left).

The jurors found the Menil "wonderfully understated but eloquently detailed . . . a building that is at once deferential and inviting, self-effacing yet celebratory."



S Nathaniel Lieberman

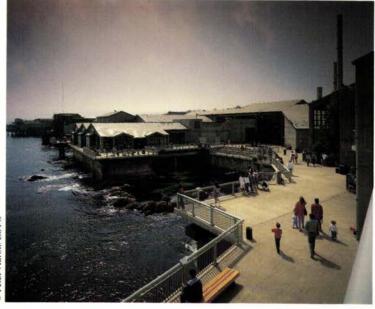


he Jacob K. Javits Convention Center-a glass envelope supported by the largest space frame in the country—is "a latter-day Crystal Palace in the challenging urban context of New York," said the AIA jurors. At 1.7 million square feet of space (the third-largest U.S. exposition hall), the building by I.M. Pei & Partners with associate architect Lewis, Turner Partnership stretches over five midtown Manhattan blocks. A three-level entrance room (left)—itself called the Crystal Palace rises to 157 feet and is so large that 3,000 people don't crowd it, Mitchell Rouda reported here in March 1987. This room occurs about a third of the way down a 1,000-foot-long, 90-foot-wide circulation spine just within the east elevation. Exhibition spaces on two levels flow from this concourse.

"Though massive in scale, the public spaces are well-ordered and superbly organized ... [and] the transitions between spaces of vastly differing size are masterfully handled," said the jurors. They also remarked that the building's "transparency from the inside makes the city and the river living backdrops to the activity within.... At night, the building takes on a dramatic life of its own, demonstrating the capacity of public projects to cap-

ture the civic imagination."

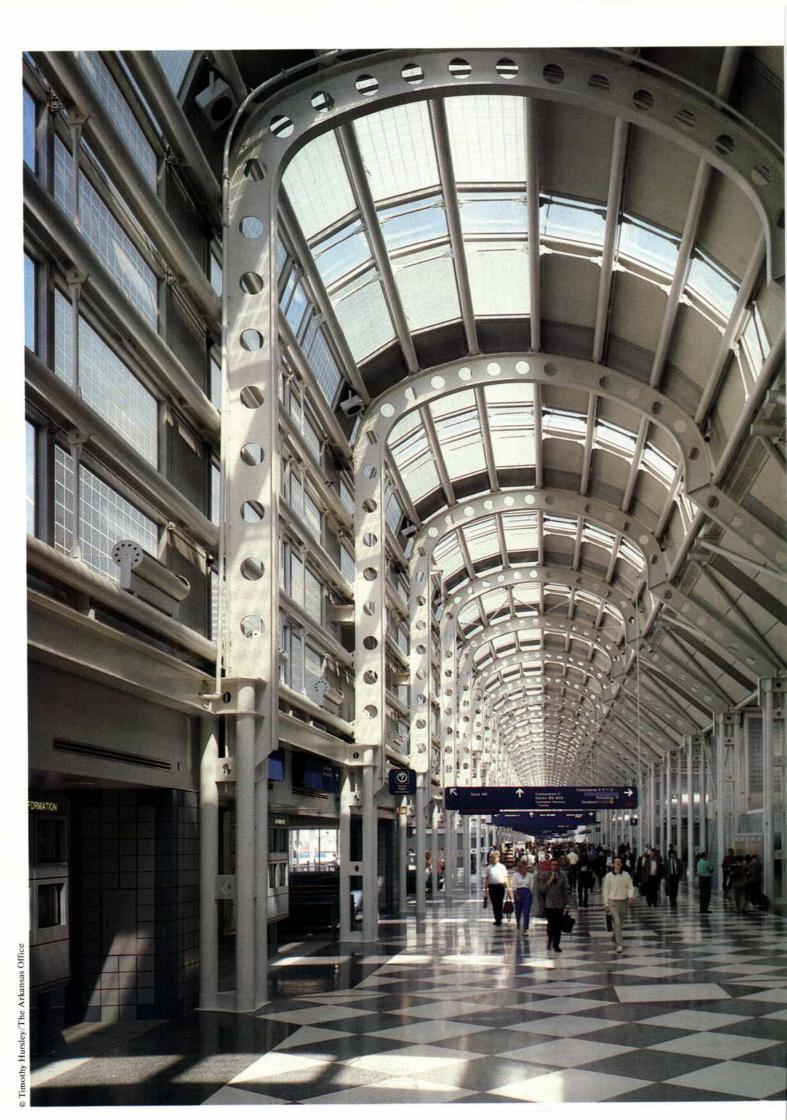




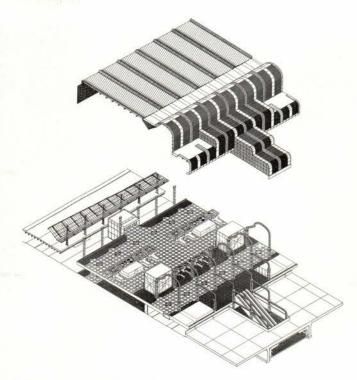
n designing the Monterey Bay Aquarium, Esherick Homsey Dodge & Davis took portions of the old Hovden Cannery, appended new construction including nearly all the public areas, and produced a building that draws people for its "honesty, vitality, and exuberant evocation of a rich waterfront tradition," said the AIA jurors. "What is most surprising is that it looks and feels like the old canneries that John Steinbeck haunted," Carleton Knight III wrote on these pages in June 1985.

The aquarium is a massive complex of 177,000 square feet, but its bulk was reduced by dividing it into what appears to be an assemblage of small buildings. Charles M. Davis, AIA, the principal in charge, told Knight he worked from no written program: "The building just evolved." Exhibits, which focus on the marine ecology of Monterey Bay and its shoreline, are not presented in a linear path as they are in most aquariums. Instead, the layout encourages browsing and random exploration.

The jurors saw in the aquarium a celebration of "both the life in the sea and the life its coastal community has drawn from the sea. It is completely unpretentious and unself-conscious, drawing people to its sympathetic and respectful portrayal of sea life through the power of its Cannery Row imagery."







Soaring Spaces that Celebrate Travel

United Airlines Terminal 1, Murphy/Jahn. By Nora Richter Greer

Regardless of one's approach to the United terminal at O'Hare International Airport—by air, car, or foot—the message is clear: here is a building that celebrates travel as splendidly as the grand glass and steel train stations of a century ago. Here, light-filled, soaring interiors lift the spirits of the weary traveler. Here, high technology is meant to aid and please rather than intimidate. And here, a gentle and consistent architectural hand created a building of great beauty.

At O'Hare an oval-shaped, one-way, two-level access road leads to the United terminal, designed by Helmut Jahn, FAIA, of Murphy/Jahn, and to two terminals designed by C.F. Murphy Associates, Murphy/Jahn's predecessor firm. The United terminal is first on that loop; on the top level, the enplaning area announces itself with a stainless steel canopy highlighted in red and running the length of the terminal. That squared-off canopy is only a shadow of the undulating, mast-supported one Jahn had originally proposed, which fell victim to budget cuts. Now, however, the airline is so pleased with the new terminal that it is reconsidering the original canopy design. Unlike the existing canopy, the original design trumpeted the building's esthetic theme-a rhythmic repetition of parts that gracefully flows from one end of the terminal to the other. As it is, the first sounds of the architectural symphony are the mere ripples of the ticketing pavilion's sawtoothed, stainless steel roof.

Vestibules lead inside to an expansive, column-free pavilion, which is approximately the size of three football fields. The focal point is a row of 56 flow-through ticketing counters. Above the counters steel rods suspend canopies of steel beams painted white and punched with holes. Also at the counters and throughout the complex, electronic and fixed signage is hung by steel rods. Running along the ridge of the stainless steel, trussed ceiling are skylights that are shielded from view by gull-wing baffles. Those baffles filter and redirect natural light by day and

Concourse B's soaring, light-filled, glass and steel vault.



house artificial light that by night is directed toward the ceiling. Add the patterned terrazzo floor and the result is a "technically articulate environment," in the architect's words. Along the far wall security X-rays and metal detectors are meticulously integrated into the overall design, unlike the banal and awkward security walk-throughs found in most U.S. airports today. Mezzanines overlooking the pavilion at either end contain United offices and V.I.P. waiting areas.

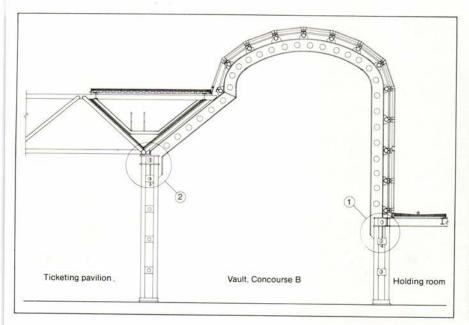
In layout the 1.2 million-square-foot United terminal is a radical departure from the others at O'Hare. Designed in the early 1960s, those Y-shaped concourses have made O'Hare synonymous with long hikes-and sometimes mad dashes-through the airport. Murphy/Jahn instead chose an island configuration: Concourse B runs directly behind and parallel to the ticketing pavilion, and Concourse C parallels B but is separated by an 815-foot apron, the width needed for dual taxiing of wide-body aircraft. Each concourse stretches for more than 1,600 feetapproximately as long as Chicago's Sears Tower is tall. Even though the longest walking distances are roughly the same in the new and old terminals, the island configuration and the inclusion of moving sidewalks significantly eases the movement of travelers in the United terminal. In all, Concourse B has 14 gates; because the entire perimeter of Concourse C is accessible for airplane docking, it has 26 gates.

Upon entering either concourse, one immediately is struck by a splendid sense of light and lightness. This is where reflections of the grandeur associated with 19th-century rail travel begin. As in the earlier genre, the dominant materials of the modern-day terminal are steel and glass, the building's structure is visually expressed and becomes part of the design esthetic, and the heart of the building is a light-filled room.

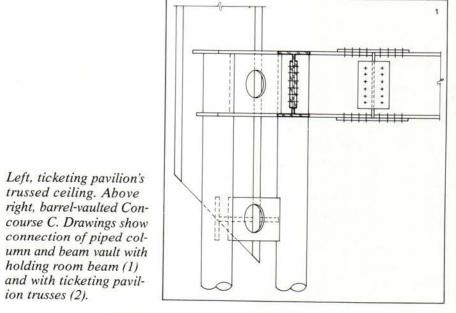
At O'Hare, the grand rooms are the concourses that have vaulted hallways of fritted and clear glass units and aluminum panels anchored to a steel purlin substructure and set on curved steel beams. Concourse B has a half-barrel (or asymmetrical) vault reaching 45 feet at its apex; Concourse C has a full-barrel (or symmetrical) vault limited to 30 feet in height to maintain adequate control-tower sight lines. At the ends of the 50-foot-wide hallways, the vaults diminish in height and are resolved in half domes.

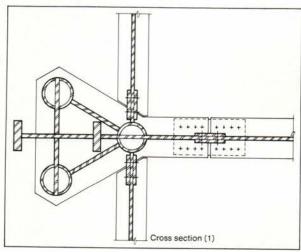
The pattern of aluminum panels and clear and fritted glass units was determined by natural light and solar heat gain properties. Fritted glass panels are used more extensively in this United terminal than any other building in the United States. Made by firing a ceramic frit pattern on one side of the glass, such units let a significant amount of natural light in while reducing solar penetration; they reflect interior lighting at night; and they produce an esthetically pleasing surface pattern.

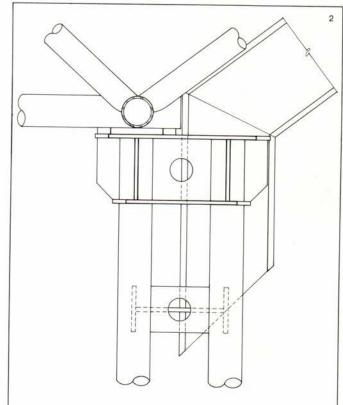
The curved steel beams set at 30-foot intervals rhythmically express the inherent structure of the vaults. To lighten their appearance, the beams were punched with round holes and painted white (exactly like the steel canopies over the ticketing counters). The beams rest on eight-inch steel pipes, clustered together to make columns—once again a technique to create a sense of lightness. Those clusters range from one to five tubes; the number of tubes reflects the amount of load each cluster supports. A meticulous joining of steel parts—what some might consider a mundane task—enriches the entire composition.

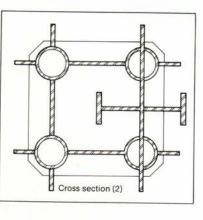
















Where the design falters—if it falters at all—is in the passenger holding rooms set off the vaulted concourses. There, in an average 30x25-foot bay the ceiling drops dramatically. The only moderately comfortable, Murphy/Jahn-designed seating is arranged in a rigid, unmovable formation and adds to the closed-in feeling. At each end of the concourses the holding rooms form a continuous half ring around the dome and seem less constricted. In all the holding rooms, metal ceilings redirect whatever natural light comes into the space. Above the gate podiums and in the holding rooms, metal gull-wing baffles redirect the light that enters through skylights directly above. The curtain wall is a combination of aluminum sandwich panels and clear insulated, tinted insulated, and clear fritted glass units.

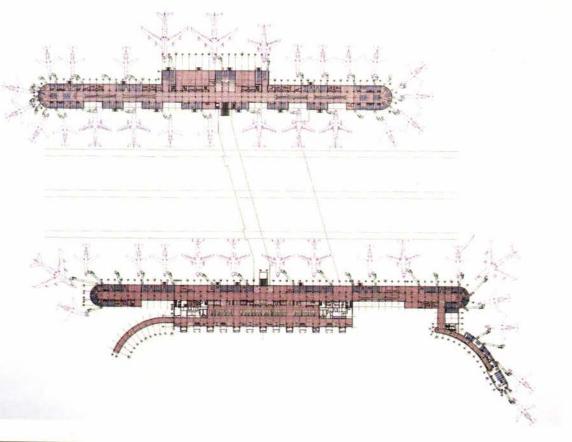
Although an attempt was made to lighten the holding rooms with natural light, those spaces suffer most when compared with the brilliance of the vaulted concourses. On sunny days, the concourses are flooded with daylight; at night, they are brilliantly lighted by metal halide and fluorescent lights. Murphy/Jahn maintains that 100 percent of the lighting requirements during the day are met by natural means. Overall, the United terminal is expected to consume 50 to 60 percent less energy than the two older terminals.

From the exterior, the concourse vaults step down to the two different levels of holding rooms, creating by day a cascading effect—once again an articulation of the architect's deliberate rhythmic composition. Even the details cause a rippling effect—the repetition of clear, fritted, and opaque panels of the vaults and the curved shape and placement of the outdoor lighting, for example. By night, the glow of the interior lights through the skylights creates an entirely different but equally fluid image.

The movement theme culminates in the 52-foot-wide, 815-foot-long pedestrian corridor that connects Concourse B to Concourse C. Placed beneath the apron and reached by escalators and elevators, the tunnel's moving sidewalks pass rainbow-painted, undulating glass walls and side canopies illuminated from the back. (The walls echo those in the underground transit station located elsewhere at O'Hare and also designed by Murphy/Jahn.) Overhead, against a mirrored ceiling, Michael Hayden's neon lights of many colors pulse on and off in an unpredictable, computer-generated order, choreographed to futuristic music composed by William Kraft. It is a fantastic show, one that should enchant even the most hardened of passengers.



Above, the terminal's dramatic glow at dusk, with entrance at left, commuter terminal in center, and the half-barrelvaulted Concourse B at right. Left, straight-on view of canopy and ticketing pavilion. Right, terminal's island configuration as seen in plan.



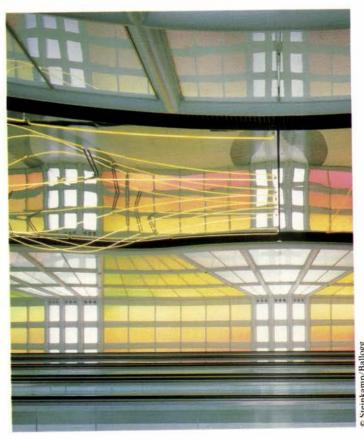


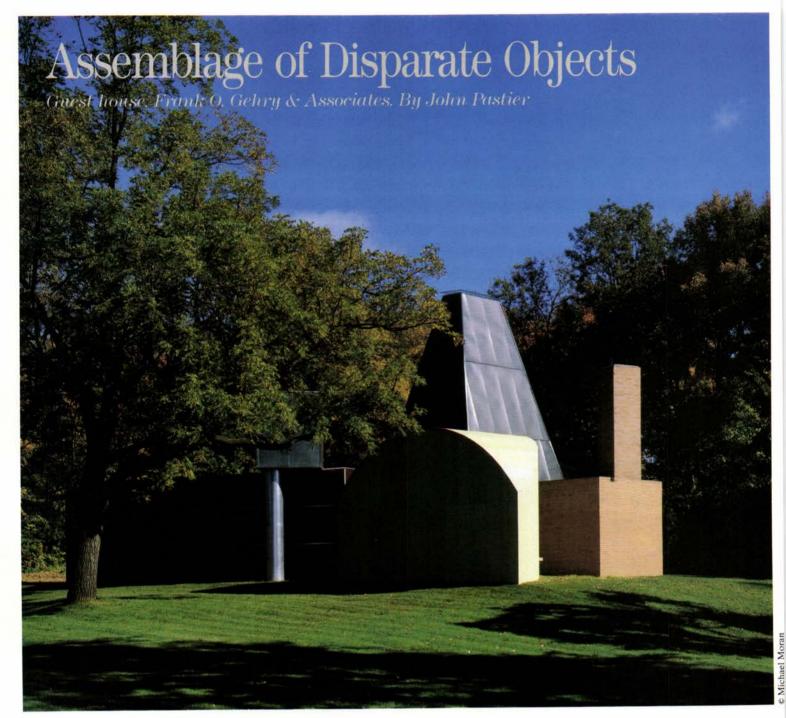
And its delightful magic negates the boredom that one might experience traveling 815 feet in a more typically unadorned passageway.

Next to the underground pedestrian corridor but hidden from view is more technical wizardry-an automated baggage sorting system that borrows scanning technology from supermarkets. This system is clearly the wave of the future, particularly at large airports. The luggage of all departing passengers receives a tag with a coded strip that is read by a laser scanner. Then the luggage is directed down a mammoth conveyor belt toward the proper gate on Concourse B or C. The luggage sorting machine takes up more than two-thirds of the 300,000-square-foot room. Inbound luggage is handled conventionally and delivered to passengers on the lower level of the ticketing pavilion.

Overall, there are few airport terminals in this country that compare in beauty and spirit to Murphy/Jahn's United. One thinks of Eero Saarinen and his design for Dulles Airport outside Washington, D.C. (see page 38). Both architects approached their designs as sequences of spatial events meant to lift the spirits of the traveler, to represent symbolically the aerodynamic nature of flight, and to enhance significantly the comfort of the traveler. The terminals are perhaps most alike, though, in the clarity of detail, the skillful use of materials, the brilliant execution, and the search for an original, dynamic design esthetic. \square

Above, view of escalators connecting concourses with underground pedestrian tunnel illustrates the symbiotic relationship between the terminal's diverse parts. Right and facing page, the 815-foot-long tunnel's light, sound, and motion extravaganza.





This witty and genial guest house in Wayzata, a distant suburb of Minneapolis, forms half of a distinguished residential compound occupied by prominent patrons of contemporary art. Taken together, the original house and its guest quarters provide graphic evidence of how dramatically architecture has changed over the last 35 years.

Both were designed by prominent architects working in their trademark style of the time. Philip Johnson's large main house of 1952 is, exactly as one would expect, a quintessentially rational and modular Miesian essay. This simple, expansive, one-story brick and glass pavilion commands a pastoral view of gently rolling, tree-framed lawns and Lake Minnetonka.

Frank Gehry's small guest house of 1987, sited about 120 feet from the main quarters, is a picturesque and highly subjective conglomeration of sculptural forms. In line with one of Gehry's current preoccupations, it is a village where each room is a little building unto itself. But unlike its articulated predecessors, it joins its discrete elements into an irregular pinwheel.

When the clients, who are the second owners of the house, decided to add guest quarters, they went to Philip Johnson. Occupied with much larger projects, he declined the assignment. They next approached Gehry after reading a profile of the architect in a newspaper magazine. He accepted, but was concerned about the relationship between Johnson's Apollonian pavilion and his

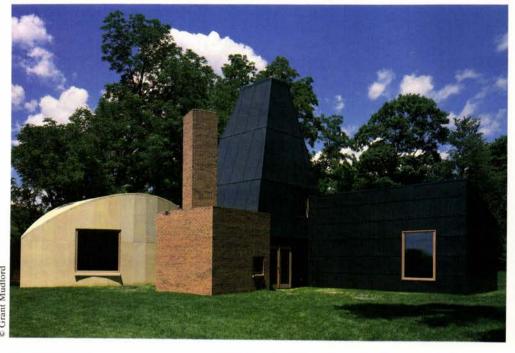
own Dionysian assemblage. Accordingly, he sited it behind a hedge, so that it would not be visible from the main dwelling. The clients, however, are happy with the combination and so have removed the hedge.

From the beginning, the guest house design concept was one of a different form and material for each room. The early schemes were purely orthogonal, except for a simple pitched roof or two, and the forms huddled tightly together. Eventually, the room elements began to separate from one another, twist off the grid, and assume more varied and less conventional shapes. Paradoxically, the final version is simpler and clearer than its compact and purely rectilinear predecessors.

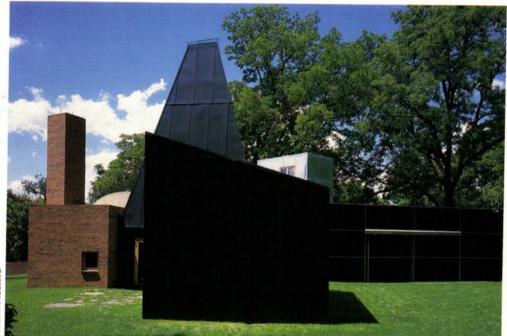
The living room forms the geometric and functional center of the house. The 35-foot-high, truncated pyramid, clad in dark gray painted sheet metal and terminating in a flat skylight, anchors four other elements that project, pinwheel-fashion, from its corners. The largest in plan is a long garage and kitchen wing clad in Finnply, a rich reddish-brown, phenolic-coated plywood normally used for concrete formwork. A skylighted, cube-shaped, galvanized metal sleeping loft is perched precariously atop this form, its overhanging corner supported by a thick metal cylinder.

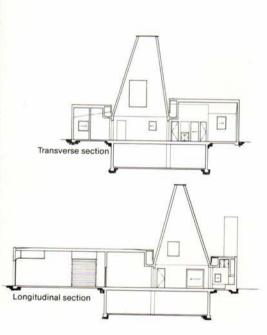
Diagonally opposite this wing is the house's smallest component, an inglenook that has become a miniature room in its own right. Built of brown brick, it too is roughly cubical, with a skewed

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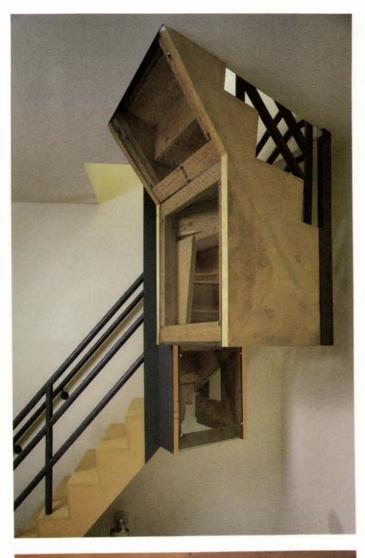


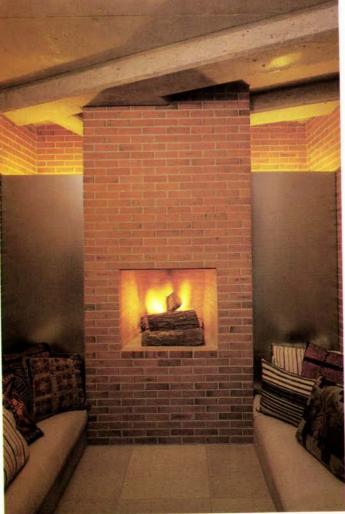






Gehry's guest house, composed of irregular geometric forms clustered around a truncated pyramid that functions as the living room, stands in marked contrast to the main house designed by Philip Johnson in 1952 (top right). Each room, 'a little building unto itself,' is expressed by form and material, drawing from a conglomeration of materials—painted sheet metal, phenolic-coated plywood, galvanized metal, brick, and Kasota stone veneer.





fireplace chimney extending above its roof. A pair of bedrooms engage the other two living room corners. One is shed-roofed and rectangular and sheathed in the same gray metal as the main element. The other forms a circular segment in plan and section and is covered with a creamy Kasota stone veneer.

Some of the interior spaces are relatively simple, but most are not. Both bedroom wings contain articulated bathroom elements, clad in Finnply, that form solid volumes within the sleeping quarters. The stone-clad bedroom is also spatially complex due to its curved wall and vaulted ceiling. The kitchen is punctuated by a steep twisting staircase that leads to the sleeping loft. The stair originally was designed to be enclosed, but during the framing stage Gehry liked the way it looked exposed, so he revised its detailing to allow the underside of one short run to be visible in the kitchen.

The inglenook is relatively simple in itself, but, considered as part of the living room, it represents a dramatic change of scale and compression of space. And the living room itself is dramatic and unusual, being much taller than any of its plan dimensions and having most of its wall surfaces out of plumb. The outdoor spaces also are interesting in that some of them are shaped and sized similarly to adjoining rooms. Diversely sized and placed skylights and windows allow natural light to differentiate the spaces even further.

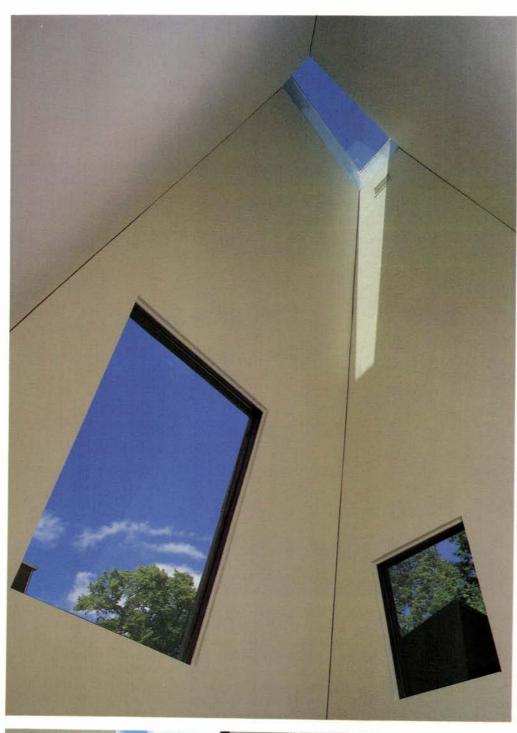
The effect of the entire composition is at once artful and child-like. The simplicity and improbability of some of its forms are analagous to a youngster's drawing of a house, and so is the extreme differentiation of elements through color and shape. At the same time, the ensemble's sculptural aspects and object quality exhibit a well calculated mastery. A generous budget allowed better materials and workmanship than is usual for Gehry, and he deployed those resources with telling restraint. This is clearly one of his finest works.

The evocation of childhood is appropriate, since the clients' five grown children are beginning to produce families of their own, and those grandchildren will be frequent visitors. It is also a thread that runs through many of Gehry's best designs, such as the interior of his own remodeled Santa Monica house, and the unfortunately never built Camp Good Times, in which he collaborated with Claes Oldenberg.

The youthful brio of Gehry's guest house is a nice foil to the calm and self-effacing manner of Johnson's older design. And, taken together, these two efforts form a parallel to Johnson's own house in New Canaan, Conn. His world-famous main structure, being all glass and having no blinds or drapes, totally lacked visual privacy, while his guest suite, built at some physical remove, amply provided that quality by being a nearly solid mass of brick. Just as Johnson made his New England home a study in complementary opposites, so did Gehry provide a quality missing in Johnson's house in Minnesota.

Although this was not a conscious parallel in Gehry's mind, the New Canaan house was part of his design thinking in a different, more intuitive fashion. At first he "didn't want to mess around with Uncle Philip's baby," he said, because he was sure that Johnson was "horrified" when he heard Gehry was doing an addition to one of his works. It was in deference to those assumed feelings that he kept his building on the far side of the hedge. But after completing the design, Gehry realized his living room bore a strong conceptual resemblance to Johnson's conical-roofed and skylighted library in New Canaan, and he called to tell him so. In an ending straight out of O. Henry, Johnson replied that he had just built a chain-link fence pavilion on his own grounds as an homage to Gehry. \square

A series of complex and discomposed spaces defines the interior of the guest house. The kitchen area, linking the garage with the living quarters, incorporates an exposed staircase that winds up to a sleeping loft, top left. A brick inglenook, left, located off the central living area, provides an intimate and simple space in contrast to the larger area and its 35-foot-high ceiling punctuated with irregularly sized skylights, its wall surfaces out of plumb (photos at right).











In real life, this building is far more amiable, visually rich, and appealing than in photographs. Pedestrian- and theoretical-looking in two dimensions, it pops to life in three. It is generically modernist—not '30s, not stylish, not trendy—yet it breaks the rules of modernism. At the same time, it incorporates the lessons of postmodernism and extends postmodernism's boundaries by addressing its key issues of architectural context, history, ornament, and symbol in new ways.

Most telling is the way this public housing block by Eisenman/Robertson for Berlin's International Building Exhibition responds to its context. Peter Eisenman, FAIA, while considering himself a postmodern architect, derides what he describes as "the current postmodern attitude where fragments of a former urban structure are preserved, the bones are reassembled, the skin and flesh restored or hypothetically re-created, and the new assemblage appears as a kind of stuffed animal, embalmed as a form of nostalgia in a so-called natural setting." What Eisenman sought was the opposite of nostalgia, "the reality of remembering and forgetting," as he calls it.

The given site was calculated to heighten both remembrance and the temptation to forget. The building is half a block from the Berlin Wall's Checkpoint Charlie, the main vehicular crossover point between East and West Berlin. Because of this proximity, the neighborhood remains a war-scarred, nowhere place highlighting West Berlin's schizophrenic situation. The other half of a former world capital, the city is an island afloat in the middle of East Germany. Eisenman's housing block is a first act of reconstruction for the neighborhood; his competition scheme was selected because of its symbolism and intellectual approach.

The architect began in a manner reminiscent of former civilizations that built cities on top of earlier ones, often picking up their traces. On his site were vestiges of a 19th-century red

brick wall with cross members. Eisenman configured the building "as an imprint of the ground," a sort of excavated megalith, hoisted onto its side to create a facade. He conceived the whole, he says, "as a wall building, a wall memorial." To indicate West Berlin's dislocation, he sundered the main elevation to follow two diverging axes. The greenish, tiled portion of the facade following the street axis is penetrated twice at an angle by another wall marked by red crosses and resembling a fragment of something larger. Its axis adheres to the Mercator grid to show that West Berlin "is a no-place, a world city cut off from its country," says Eisenman.

Of course the person in the street is unlikely to make these connections. But that person encounters a visually complex, even romantic-looking building, one that is purposely odd and askew. When viewed from the building's corner, the perspective lines of the far wall bearing a red cross make it seem to fly into space, again giving a feeling of dislocation. The dual axis also adds a dimension to the facades, imparting complexity to what otherwise would have been a flat wall.

Yet the building is the obverse of the modern freestanding object. Its gridded and layered precast and tiled elements relate to those of neighboring turn-of-the-century buildings in scale, degree of elaboration of structural elements, horizontal and vertical coursing, and amount of surface articulation. Eisenman endowed his building with the most intriguing surface patterns in the neighborhood just by layering squares and crosses of varying sizes, thicknesses, and colors.

Oddly, the use of color—more subtle, less harsh, more tan than it appears in photographs—doesn't detract from the building's fit into its predominantly gray-tan neighborhood. Without the red crosses, as an English visitor observed, "the building would look dull." You are also apt to read into them far more than

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Left, the building as seen from the corner of Kochstrasse and Friederichstrasse. The Berlin Wall's Checkpoint Charlie is located beyond building at left in photo. Right, in context on Kochstrasse.





the site archaeology Eisenman intended. Somewhat distressing to him is a connection some people have made between the red crosses and the Luftwaffe symbol used by the German air force in World War II. The figure also suggests the International Red Cross. (A red cross on the building's back is also visible from across the Berlin Wall, as though signaling safe harbor.) Eisenman says none of this was intended, but "being able to read a lot into it is part of the richness." He also says that if he had it to do again he would make the crosses less graphic, less bright.

The architect has mixed reactions to other possible points of criticism. He isn't troubled by the predictable graffiti. At street level, the main elevation is composed of a storefront containing a video arcade, a once-white wall covered with black scrawls, the apartment house entrance, another once-blank wall, and a corner restaurant. "The walls can be billboards," explains Eisenman. "The building isn't a monument." On the other hand, he agrees that the building's corner and side-street elevation remain fragmented, lack cohesion. About the new, side-street, sliver building, which tries with limited success to serve as a connector between the new housing and its turn-of-the-century neighbor, the architect is oddly adamant. The sliver looks half-baked, perhaps the work of a lazy architect. It's by Eisenman, who explains, "We wanted [the space] left as an opening. The client insisted on closing it, so we tried to make [the sliver] look like a dumb thing that could have been built today, yesterday, or tomorrow. I didn't want it identified with me or my building. The look and function of a building don't have to be the same."

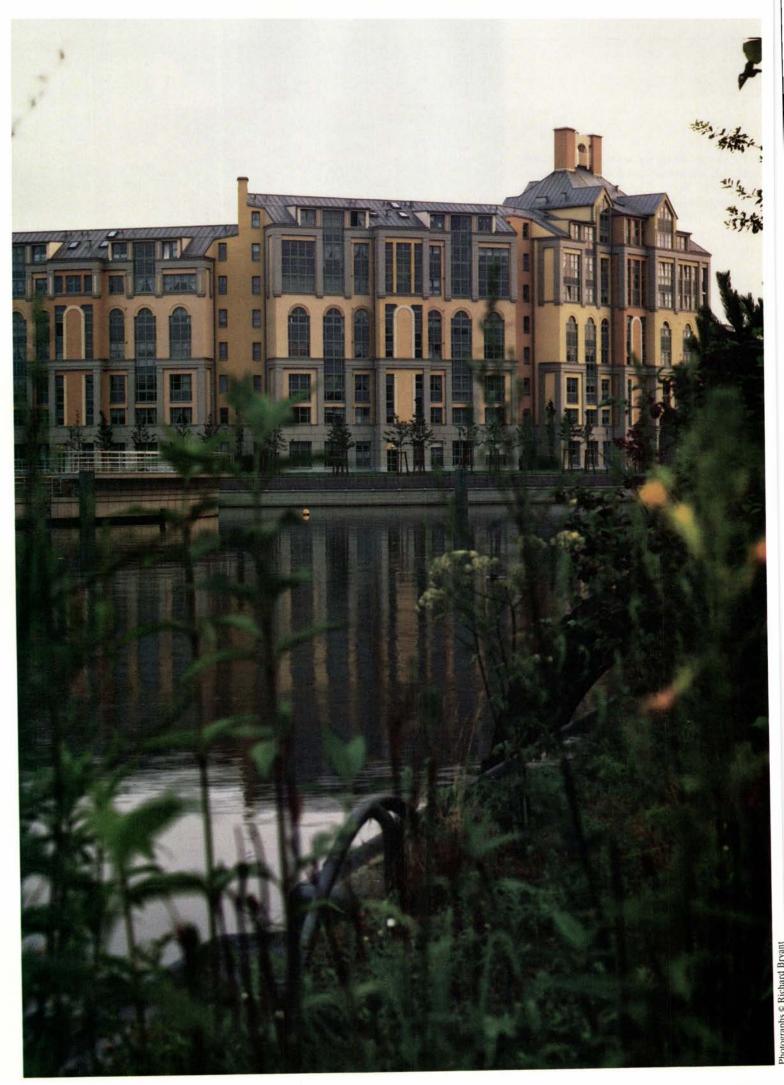
In fact, form and function are as disjunctive in this housing block as are its discordant axes. The exterior gives mostly misleading cues about the interior. For instance, what appear to be glass block stairwells over the apartment house entrances are corridors, and the varied fenestration gives no clues to what's

behind it. In another example, the first and second stories of the building's side-street elevation are given over to a museum memorializing the Berlin Wall, with exhibitions focusing on various forms of resistance to tyranny. The displays extend through a warren of undifferentiated galleries reaching from Eisenman's main building into the sliver beside it and then into the adjoining 19th-century building. As you walk through the museum. you're given no clues to which building you're in, nor do the buildings' exteriors hint at what's inside. "Symbolically," says Eisenman, "the exhibits are not within a building but within a wall." Ever in view from the galleries' windows are the Berlin Wall, Checkpoint Charlie, the guard tower, and buildings with barred windows just a block away, in East Berlin.

The apartments themselves, ranging from 1.5 to 3.5 rooms, are not remarkable by Berlin standards for public housing, though they put America's to shame. While adhering to strict local codes governing almost every aspect of every unit, each apartment has a winter-garden-type room overlooking the street. The only significant complaint is that these rooms overheat in the afternoons because they face west. Some apartments also overlook a rear courtyard and parking lot, but the overall orientation is away from the Wall and East Berlin. Ten of the 37 apartments are designed for the handicapped, with, among other things, panic buttons to alert a resident manager, who seems to care. An additional 11 apartments are for the elderly.

In this building at the Berlin Wall, Eisenman has achieved surface richness and contextual fit and has evoked a sense of a particular past and present without using any of the postmodernist stock in trade. No harping on a phony past. Eisenman's architecture is, therefore, positioned also to address the future, something we've all avoided since we rejected modernism's vision of

things to come.



Waterfront

Waterfront Housing At Once Exuberant and Classical

Tegel Harbor Housing, Moore Ruble Yudell. By Andrea Oppenheimer Dean

The village of Tegel is perched near a harbor of the same name and is surrounded by forested open space laced with canals. It's a bucolic spot, one of the few in West Berlin that was spared in the air raids of World War II. Tegel is also about as far from downtown as you can go before coming up against the East German border. As a result the village and its harbor are a favorite destination for Sunday outings, and Tegel Harbor was chosen by the International Building Exhibition as the site for a miniature new town, including housing and cultural, educational, and recreational facilities.

The ensemble was master planned by Charles Moore, FAIA, and Moore Ruble Yudell, which also designed housing, a library, and a recreational center. Stanley Tigerman, FAIA, Robert A.M. Stern, FAIA, and John Hejduk, FAIA, are among American architects whose "villas" are taking shape on the site. Tegel Harbor is becoming an exhibition of late-1980s design.

Moore Ruble Yudell's recently completed 170-unit, subsidized housing complex at Tegel Harbor is probably the most satisfying example of postmodern architecture yet. It has none of postmodernism's usual thinness, conveys a sense of substance, and eshews the cute, the ironic, the cartoon. It has the stageset quality common to postmodernism, the sense of being a getaway from the grit of everyday reality. But that's appropriate in this instance. For Tegel is the closest thing this cordoned-off city has to a suburb or countryside.

Most fundamental to the project's appeal is its site plan. The architects decided to use the water—partly for its calming presence—as a major organizing element and therefore widened the harbor to pull it right up to the edge of their buildings. They linked all built elements to the water via a sinuous promenade, as well as bridges, walkways, and paths, and the site has been splendidly landscaped by a German firm. The curved complex is layered, with shapes becoming larger, their details more

Left, the building edges the water, curves landward, and ends in an octagonal court, defined by more subdued buildings.



colorful and their colors stronger as they approach the water. The idea, explains principal-in-charge John Ruble, AIA, was "to create big, interesting shapes near the water that can be seen from afar."

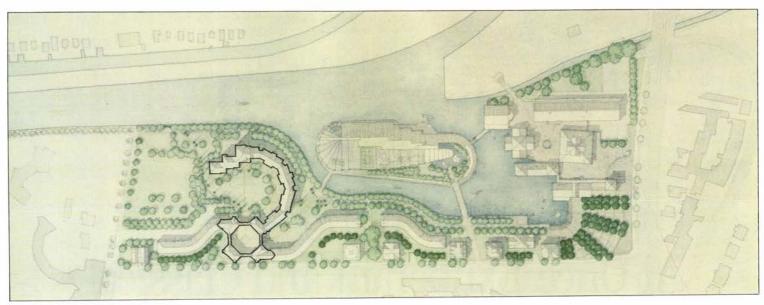
The complex slips along the promenade, then circles clockwise and landward to create a grassy common in the shape of a backward C, and ends in an octagonal courtyard edged by five-story buildings. It is a case of buildings shaping usable space rather than usurping it.

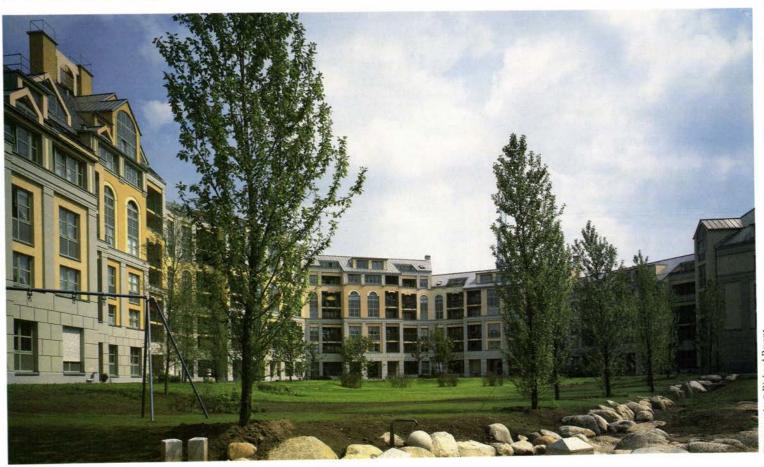
One of the complex's most appealing qualities is its combination of opposites: the informal and formal, the picturesque and

classical, animation and composure. The buildings lining the octagonal courtyard are symmetrical, classical, quiet, and self-contained, while those shaping the common and winding along the promenade are asymmetrical, more colorful, quirky, and exuberant.

From the fifth floor up, the main building is full of dormers and gables and penthouses, over which spills a prominent standing-seam tin roof. Toward the center of the building, it climbs abruptly to form a towerlike element topped by twin chimneys. You can't help but think of Hansel and Gretel—slicked up, grown-up, and graduated to high rise. Ruble explains that the intention was to make the complex "look villagey, spontaneous, very picturesque where it got high, like architecture that is built up over the years rather than being carefully composed."

If the upper portions of the building allude to the spontaneous and vernacular, its lower parts become more formal and classical. Apart from the tripartite organization and rusticated base, which grounds this sometimes frolicsome object, there is the detailing. And this is somewhat puzzling. For the complex's shapes and colors are variations on the village architecture—which is untouched by classicism. Moore's bric-a-brac-like pilasters, cornices, capitals, and the like seem a misfire in this city, since serious classical detailing in Berlin is confined mostly to overblown, authoritarian-looking public edifices, built first by 19th-century imperialists, then by National Socialists (Nazis), and more recently by East German Socialists (Communists). Also, the surface





appliqué makes these very large volumes look even bulkier than they are from some angles—but still thankfully on the benign side of Bofill.

The complex has, predictably, been criticized as overly picturesque, too nostalgic. Even the colors—ocher, peach, yellow, oranges—seem awfully sweet. But they are a welcome lift under Berlin's usually leaden sky. Ruble explains, "We took a risk, because the project is very 19th-century, and some people think it's just quaint and bourgeois and can't bear it. But people have been living for decades in urban houses with flowerpots, and we've designed a building where people can have that. I see a lot of Berlin composed of that." In the end, when we say something is too picturesque or too nostalgic, we mean it's kitsch, or pretty close to it, and Moore Ruble Yudell's complex is too dignified and esthetically inventive to be kitsch.

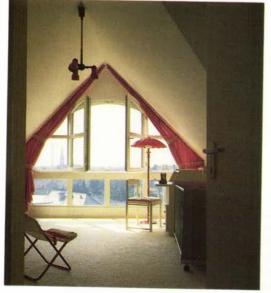
Still another criticism of the complex is that the exterior often belies what lies within, with floor slabs, for instance, nonchalantly crossing large, vertical panes of glazing. Ruble explains that more important than what the modernists called structural honesty was "the requirement of creating an order for the exterior of this large building that you can read from the distance and that feels comfortable up close."

Incredible as it may seem to Americans accustomed to a generally shoddy level of subsidized housing projects that segregate the poor, the units in Moore Ruble Yudell's building receive government subsidy. The amount depends on the resident's income; thus laborers live beside professionals. There are, however, no apartments designed specifically for the elderly or handicapped, as is usual in German public housing, and you see few dark faces here. Still, the project has a public component despite the fact that it is comparable in quality to prestige condominiums in the United States.

Working within Berlin's strict housing codes, the architect used a variety of devices to stretch and open up spaces, such as combining dining and living areas and appending loggias, nooks, and breakfast areas. And because the building is narrow, apartments typically extend through its width, giving views in two directions, cross ventilation, and lots of light.

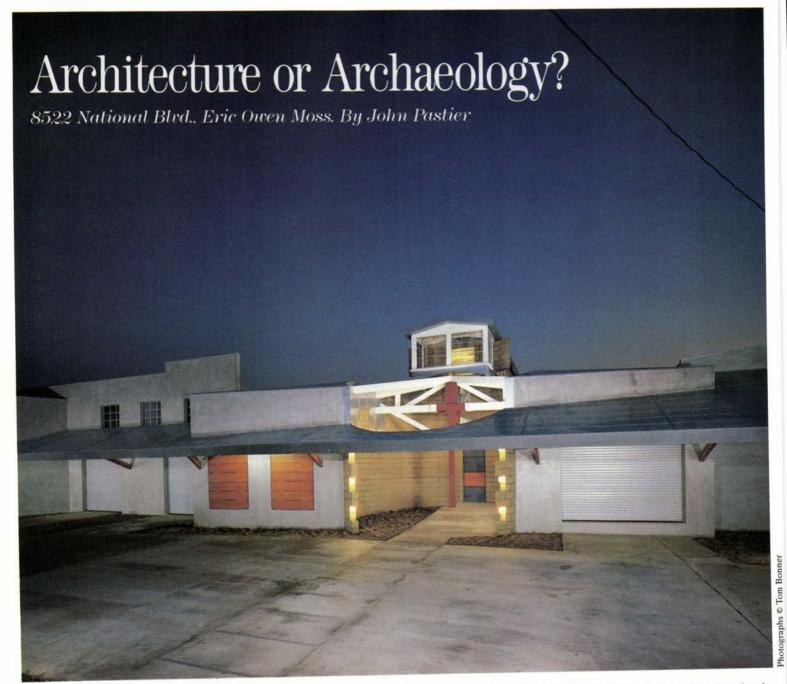
The building was fully rented a year before completion, and there is now a lengthy waiting list. Is it any wonder? \Box







Facing page, the taller building seen from the horseshoe-shaped green it forms. Above, the roofline drops abruptly from a high point, marked by twin chimneys, and the building is terminated by a quiet, anchoring element. Left, dormer apartments.



os Angelenos like to believe that their city is a boundless source of ideas for the rest of the country, but in reality the flow is in both directions. One example of a belatedly transplanted East Coast phenomenon is the glorification of the humble warehouse. A few years ago, Frank Gehry, FAIA, remodeled one as temporary quarters for the Museum of Contemporary Art, and it proved so perfect a match of space and program that the museum decided to make it a permanent facility, sharing the exhibition load with Arata Isozaki's smaller and more polished building a mile away.

And now, Eric Owen Moss, AIA, has done for speculative office space what Gehry did for the art museum. In his remodeling of a sprawling warehouse complex in Culver City, he has skillfully struck a balance between vigorous intervention and a deceptively subtle respect for found context, both inside the build-

ing and in the broader neighborhood.

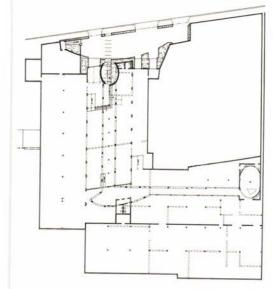
Located midway between Beverly Hills and Los Angeles International Airport, Culver City is something of a Sargasso Sea within the regional landscape. Much of its fabric is nondescript light industry—the film industry was an early settler in the area—and its street pattern is tortuous and confusing. There is no regular grid, and thoroughfares change name and direction with frustrating regularity, or, more precisely, irregularity. The result looks as though the city engineer had crumpled up a street plat and neglected to smooth it out before issuing it to the construction crew.

It is this quality of ambiguity that Moss has captured and celebrated in his remodeling. Only half jokingly, he paraphrases Winston Churchill's description of Russia in characterizing the warehouses: a riddle wrapped in a mystery inside an enigma.

His raw material was not overtly promising, at least in conventional terms. Unlike the imposing and solidly built multistory warehouses that normally have been recycled in the East, this is a somewhat flimsy and sprawling amalgam of several one-story structures built over time.

In one sense, the existing buildings were potentially interesting. Although their object quality was mediocre, their underlying geometry hinted at richness. The site was basically orthogonal, but the front property line was about 10 degrees askew. While most of the walls and column lines followed rectangular grids, some of those elements reflected the skewed frontage. The result was a built-in shift of grid that Moss was able to emphasize and celebrate.

Ellipses mark the beginning, middle, and end of the warehouses' circulation spine. Entrance is gained through an elliptical concrete block forecourt carved out of the existing structure. The front door, a surrealistic sandwich of blue flush metal and varnished paneled wood, leads to a long central spine flanked by two new nonstructural colonnades, each composed of a trabeated frame on its inside face and a segmental arcade on its outer side. Between them, bisecting the spine, is a pre-existing row of wood posts supporting the roof trusses. The existing columns







A five-part journey through this remodeled warehouse complex begins with an elliptical forecourt, facing page, moves into an arcaded passage, above right, shifts within a semi-elliptical middle lobby, above left, then continues down a second corridor before culminating within an elliptical meeting room.

and those of the new trabeated frame are spaced on a module of about 15 feet, and their alignment is consistently askew, reflecting the angle of existing trusses parallel to the front property line. The arcade columns are spaced on a module of about 21 feet, setting up a counterpoint or a dissonance, depending on one's point of view.

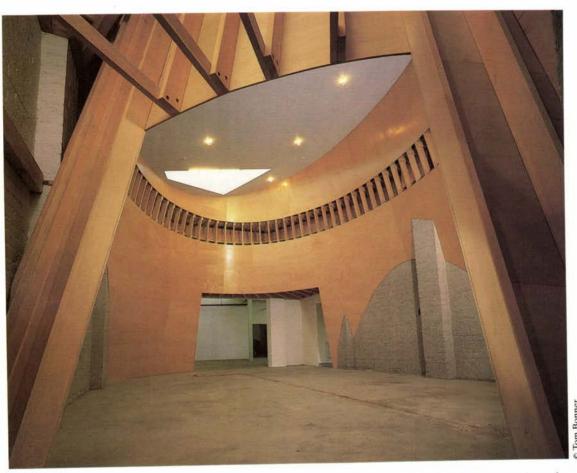
That shifting relationship is compounded by a vertical slippage as well: the undersides of the frame lintels are set at a fixed height, irrespective of floor-level variations, while the tops extend to meet the variable underside of the roof. The undersides of the arches rise and fall with steps and ramps in the floor, while the tops of those elements stop at a fixed datum that is short of the roofline. Toward the rear of the spine, Moss has installed glass partitions on a strict four-foot spacing, setting up still another organizational module. (The warehouse is not yet leased, and these glass walls are prototypes showing how the space enclosure system would look.)

At this point, the main corridor takes a turn to the left. This is marked by a semi-elliptical space formed by the turning right wall. The left wall makes a normal right-angle turn. Beyond this

knuckle, the arched component of the right wall terminates, leaving the frame component to continue alone, while the opposite metamorphosis occurs on the left. These simpler but no longer symmetrical walls continue to the third ellipse, marking the site of a former kiln at the far left wall of the building.

That space is now intended for use as a meeting room. Within the original masonry block walls, Moss has inserted a truncated elliptical cone of birch plywood. In a fascinating demonstration of solid geometry, this pure form produces a complicated edge as it intersects the irregularly spaced pilasters and window of the old room. In some places the plywood extends completely to the floor, but more typically it stops short in a series of arcs. Near its top, a band of plywood has been omitted to expose the underlying framing, and the structure, executed with a shipwright's precision, can also be seen from behind at the corners of the room. Occurring at the end of the processional sequence, this space is the temporal, intellectual, and visceral culmination of the design, combining order with randomness, simplicity with complexity, and rigor with sensuousness.

Moss has underscored the five-part journey through the building with light as well as with bounding surfaces. The sequence begins outdoors, the entrance court being open to the sky, and continues under an existing monitor roof that admits light to the first corridor. The elliptical knuckle is lighted with a large new triangular skylight, and the second corridor is illuminated by a clerestory above its left edge. The meeting room is lighted



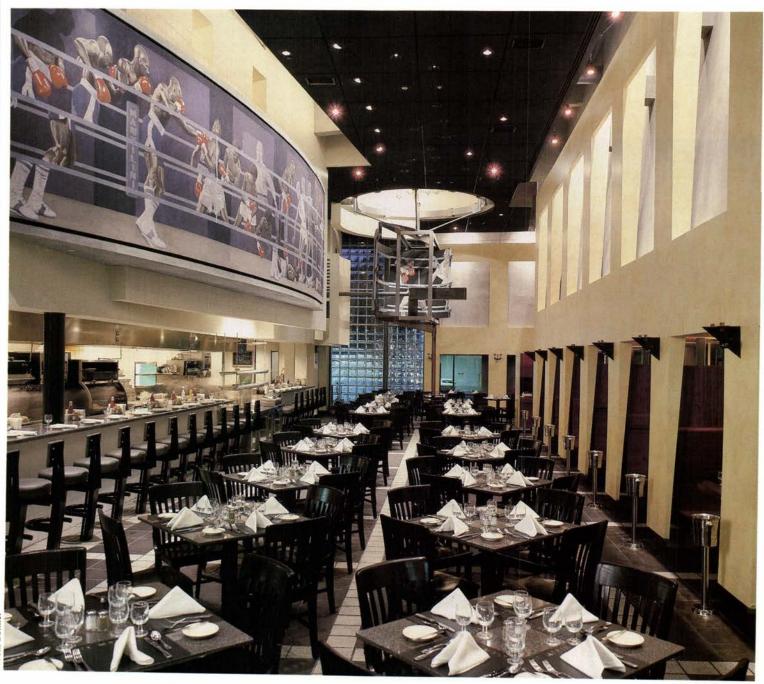
Above, the meeting room's exposed stud framing reveals a plywood cone addition inserted within the existing space.

by a small triangular skylight, and the plywood membrane has been cut away to give full exposure to an existing window.

The noncirculation spaces are not as eventful as the spine, in part because that is the nature of things and in part because the spaces are not yet leased. Developer Frederick Smith will ask the eventual tenants to use Moss as their space planner, so that he will be able to complete his design once it is occupied.

It is the blurring of old and new that constitutes Moss's greatest achievement. Apart from the tour-de-force treatment of the entrance and the meeting room, his interventions are not that easily detectable. There is a temporal ambiguity operating: most of the additions don't look original, but neither do they look new. It is as though someone else had remodeled these buildings in the past, just as someone had added section after section to the building as the need arose, and Moss had uncovered the pieces and perhaps spruced up a few details. The accomplishment here seems as much archaeological as architectural.

At first encounter, Moss's forms may seem to be arbitrary impositions. Upon investigation, however, they prove to be the considered response of someone who thoroughly knows the territory. Having deciphered the riddle inside the enigma, Moss decided that the only proper thing to do would be to wrap it in mystery.



Stylish Space For a Celebrity Restaurant

Kate Mantilini Restaurant, Morphosis. By John Pastier Restaurants are to present-day Los Angeles what Haussmann's boulevards were to 19th-century Paris. Here is where the better classes, or those aspiring to such status, go to meet their peers, to be seen by others, and to show their taste and sophistication in their choice of venue. And, with valet parking being the rule, the splendor of one's vehicle is just as important now as it was then. If anything is a greater sign of achievement and status than eating in the right places, it is owning one of them. Restaurateurs have become celebrities, and celebrities have become restaurateurs. Packaging a trendy eating place is now regarded in L.A. with the same sincere awe as putting together a major movie deal.

The city's gastronomic coming of age began perhaps a dozen years ago, and in those innocent days the primary concern was good food. But the novelty eventually wore off, and ambience became a co-equal ingredient in most ambitious new eateries. At first, some cast their lot with art and were curated as well as decorated. Later and more often, the lure was architecture, or at least design. Morphosis made its local reputation less through its houses than through its five restaurants, and Frank Gehry, FAIA, weighed in with perhaps his least inhibited design for an upscale Mexican restaurant, Rebecca's. Having the right architect seemed to be as important as having the right chef.

Now the pendulum has swung so far that, according to Morphosis partner Michael Rotondi, AIA, "you don't need food anymore." He is referring to last year's runaway success, the Kate

Below, exterior lighting emphasizes the restaurant's layered exterior with the new gray stucco wall set a few feet back from the row of existing tubular columns. Right, axonometric drawing of the space. Far right, looking up through the nonfunctioning orrery to the skylight and the rooftop sundial.



Mantilini restaurant. The cooking at this pricey establishment is not on the level that serious L.A. eaters have come to expect, and the service is spotty, but it seems to make little difference. Customers gladly pay \$3 for a glass of sparkling water or \$8.50 for meat loaf at lunch and feel that it was worth it.

Ultimately, this is a tribute to the architecture. Morphosis clearly succeeded in making a place in the full connotation of the word. Local restaurant writers have remarked that it looks old, or that it looks like New York. Whether these perceptions are accurate, they indicate that something has been achieved, not only in formal architectural terms but also within a layperson's frame of reference.

The building, which is a \$1.5 million remodeling of a 6,400-square-foot, quasi-Miesian banking pavilion, is somewhat frustrating to analyze. On a simple level, it is a striking and stylish space. But it also abounds in apparently unintended contradictions and embodies elements of superfluousness and pretentiousness that smother its real virtues like ketchup poured over veal scallopini.

Client Marilyn Lewis, founder of a profitable chain of coffee shops, asked Morphosis for "a roadside steak house for the future, with a clock." The road happens to be Wilshire Boulevard in Beverly Hills, steaks are on the menu, and the clock is a nonfunctional sundial on the roof that not one customer in a thousand ever sees. Lewis also said, perhaps as a pun, that she wanted "a place where a cabbie could take his fare."

As executed, the democratic and vernacular implications of these requests seem akin to the nature of Marie Antoinette's farmhouse at Versailles. Lewis also wanted a place where a middleaged woman could meet her 20-year-younger lover at 3 in the

morning. That is considerably closer to what has been achieved.

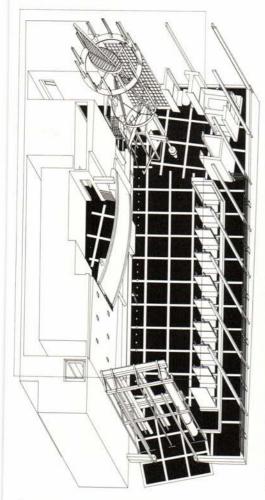
Morphosis has prepared a description of the project that says, in part, "Building, fresco, and sculpture, which are simultaneously discrete and associated, unite within a single framework." (The owner specified a large mural of a boxing match as a program element. Morphosis inserted an elaborate sculpture that wasn't in the program. The architects feel they have integrated these elements with other parts of their design.)

"The building is conceived as a permanent work." (At \$234 per square foot for remodeling, exclusive of kitchen equipment, one would expect no less.)

"A conceptual orrery, piercing through a 14-foot-diameter oculus, summarizes the reflective or interpretive intentions of the project. This mechanism—made of the building (distilling and condensing the essential esthetic fabric)—is in the process of making or describing the building." (An orrery is a working mechanical model of the solar system. Morphosis has designed a large, static, metal sculptural element that reflects some of the restaurant's forms. A needle at the bottom, bent by a recent earthquake, also touches a floor-mounted aluminum plate bearing an etched image of the building's cross section and a perspective of the sculpture itself. The conceit is that the sculpture has inscribed these images.)

"The prickly cactuslike exterior, vacillating between surface and volume, maintains a tactile sensibility. This project requires a 'reading' in terms other than those of sign alone." (There are protrusions on the south wall. Morphosis suggests that restaurant patrons and passersby who do not touch these elements cannot gain a full understanding of the project.)

"A psychological profile of this building reveals aggressive,





obsessive, active characteristics, though tempered by a coolness and somewhat businesslike politeness.

"The interior space is vaguely exterior. Its hall-like quality reflects its public intention. People within this space tend to be extremely conscious of their position." (These statements are accurate, and the last is universal. Patrons of trendy restaurants are extremely conscious of their position.)

The awards jury likened the restaurant to abstract sculpture, calling it "a challenging example of both the art of architecture and the relationship of art to architecture . . . a theatrical setting for dining and for people to see and be seen." These qualities certainly exist at Kate Mantilini, and, in a building whose ultimate purpose is as much entertainment as anything else, they are appropriate. But the architects are not content to be artful or to entertain—they insist on deeper meaning. For example: "The main space was conceived as an interior/exterior piazza promoting the ritual of public exchange and ideas within a milieu which has epitomized the city as a set of individual private events." In reality the space, despite its architectural polish, is conducive less to ideas than to self-conscious display, and less to public exchange than to a sense of exclusivity.

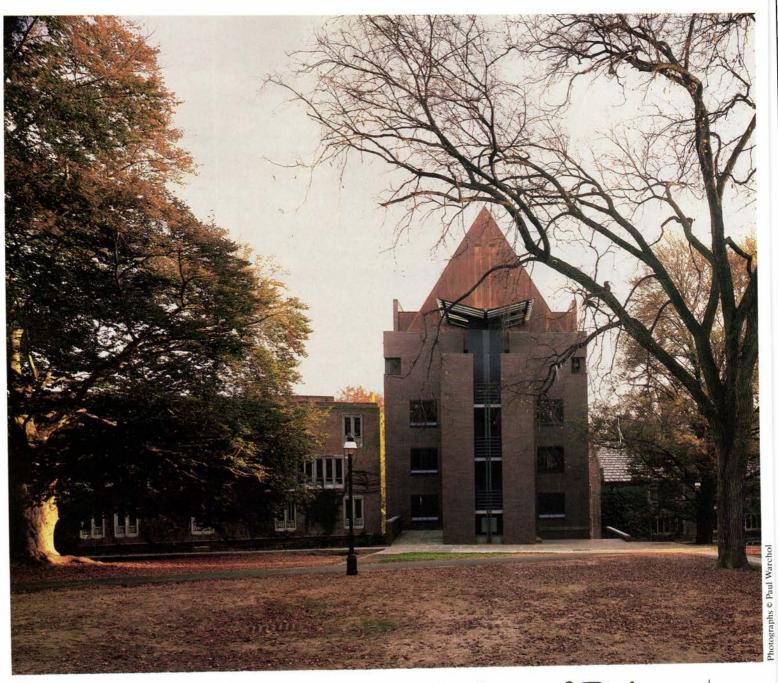
In this sense, the restaurant's orrery is the symbol of Kate Mantilini's strengths and weaknesses. It is visually striking and works well as an object in space. Yet it isn't what it claims to be. Rather than being a model of the cosmos, it refers only to the restaurant's design. (The one reference to the heavens is that ceiling lights are arranged in the pattern of the client's zodiac sign.) It looks as though it should move as real orreries do, and it seems to be making a drawing, but it actually does neither. The drawing is of itself. It is a clearly a piece of sculpture, but

Morphosis partner Thom Mayne strongly insists that this functionless, unoccupiable object is architecture. The nonworking rooftop sundial, difficult to see, is likewise less than it purports to be. There are aboriginal cultures that produce purely visual simulations of working objects as acts of worship and magic. Now, Beverly Hills has its own cargo cult.

Kate Mantilini has an exterior aspect as well, and it is less successful, even in purely visual terms, than the interior. Morphosis removed the original glass walls and left a grid of light, tubular columns at the periphery, setting the new wall back a few feet. Most of that new wall is solid gray concrete, creating an exterior that is visually grim and certainly not supportive of the intentions of public exchange and overcoming the milieu "of individual private events." A row of small outdoor tables affixed to the old structure has proven unsuitable for dining.

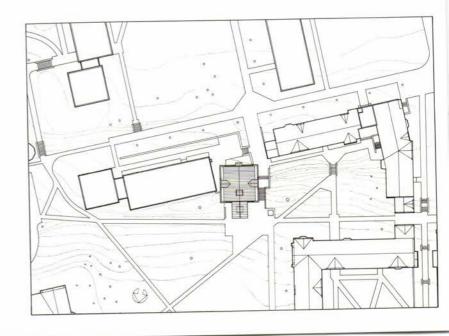
There seems to be some confusion here between architecture and pure art. Mayne has called Marilyn Lewis a good client, not because she contributed to an exchange of ideas but because she allowed Morphosis to do as it wished. The result was a brilliant but self-indulgent exercise that seems to have taken its toll on its designers. Since Kate Mantilini, Morphosis has wisely decided not to accept any more restaurant commissions.

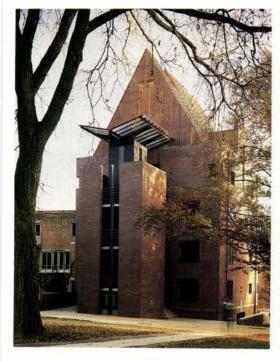
Two years ago, this relatively young firm won its first national AIA design award for a small addition to the Bergren residence (see May '86, page 194.) There, classics professor Ann Bergren was an active client, and the result was a more convincing piece of architecture at about one-thirtieth of Kate Mantilini's cost. With many decades of productive work still ahead of it, one hopes that Morphosis will no longer be mesmerized by its own considerable talent.

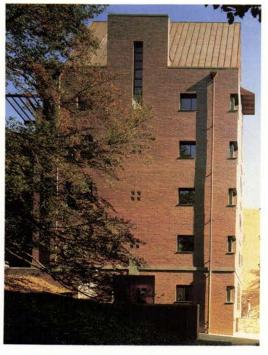


Tower Links Two Sides of Princeton

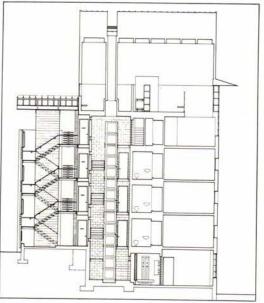
Feinberg Hall, Tod Williams, Billie Tsien & Associates. By Lynn Nesmith

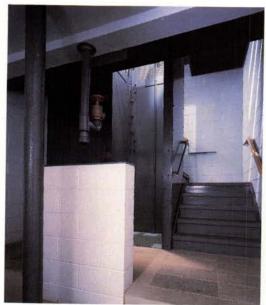






Facing page, Feinberg's soaring stair tower defines a courtyard of the historic upper campus. Left, the main entrance fronts a sloping circulation path along the side of the building. Below left, the severe foyer; below, living area of one top-floor suite.







Feinberg Hall by Tod Williams, Billie Tsien & Associates of New York City is a small residential tower inserted into an extremely tight site at Princeton University along a steeply sloping ridge that separates the historic upper campus from later residential and academic buildings of the lower campus.

Feinberg Hall is 40 feet square and rises to 80 feet. The cladding is Norman aubergine brick with horizontally raked joints and a band of gray-green slate defining the floor line. However, it is the exaggerated pitch of the standing-seam copper roof and stair tower that give this relatively small building its illusions of grandeur.

This 10,000-square-foot dormitory was conceived as a focal point and unifying element for a group of banal, early-1960s dorms and an open-ended courtyard of collegiate Gothic dorms of the 1920s. It effects a respectful transition between its dissimilar neighbors. Rather than orient the building to the grid of the lower campus quad, Tod Williams, AIA, aligned Feinberg Hall with the geometry of Princeton's earliest buildings. This pivotal siting creates a link between old and new while providing a detached yet strong visual presence in the quad. The awards jury called the project "a small gem, an exclamation mark pulled slightly out of the row of buildings in which it sits, creating a little courtyard and bringing identity and a sense of place to its site."

The hallmark of the building, its stair tower, came late in the design process and was based on changes in the building codes for handicapped access and a secondary form of egress. Facing the historic upper campus, the stairway encircles an elevator

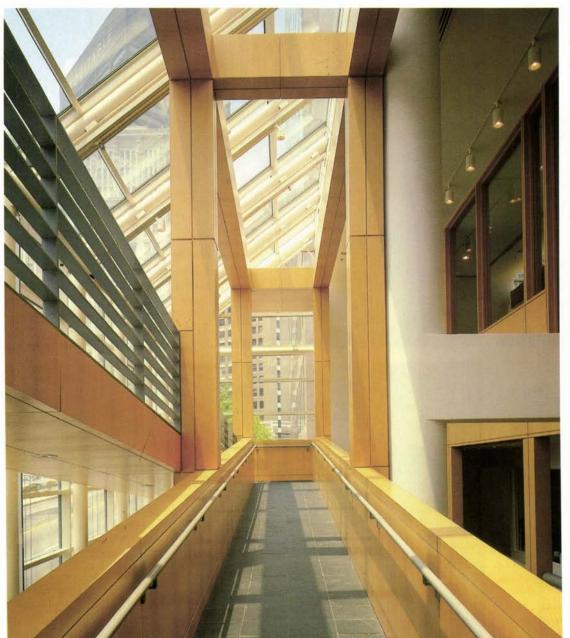
shaft and is topped by an inverted steel and wire glass canopy. The tower is tied to the building at each landing but stands independent. Williams successfully turned this potentially negative element into the building's greatest asset and created a building with two distinct facades.

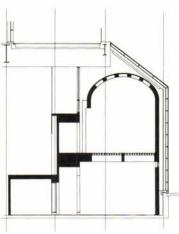
Although the obvious front of the building, the tower is a secondary point of access, not a ceremonial entrance. Facing the lower quad to the south, which the building was intended to define, is a paved terrace and a tall facade with vertical windows but no access. This leaves Feinberg Hall without a front door. The main entrance, located on the west side along the sloping ridge, leads to a narrow and austere foyer with the design idiom of a service hallway or a trendy L.A. restaurant. The interior, open-tread steel stairway spirals a light well that unfortunately has been altered with the addition of safety grates that block natural light and has come to be used as a trash receptacle. The concrete block walls are bared, and the stairwell incorporates hard-edge detailing with exposed mechanical systems.

The interior lacks cohesiveness. Although the suites, surpassing the usual collegiate accommodations, have two bedrooms opening off a large living room, each suite is self-contained and does not encourage interaction among dorm residents. On the top floor are two six-person suites with 30-foot-high loft spaces set within the steeply sloping roof line.

Feinberg fulfills its function of adding another landmark to the Princeton campus. It is not as successful if its primary purpose is to provide a home for 40 undergraduate students.

APCHITECTURE MAN 1000

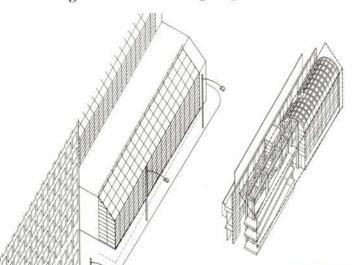






Museum Grafted Onto a Tower

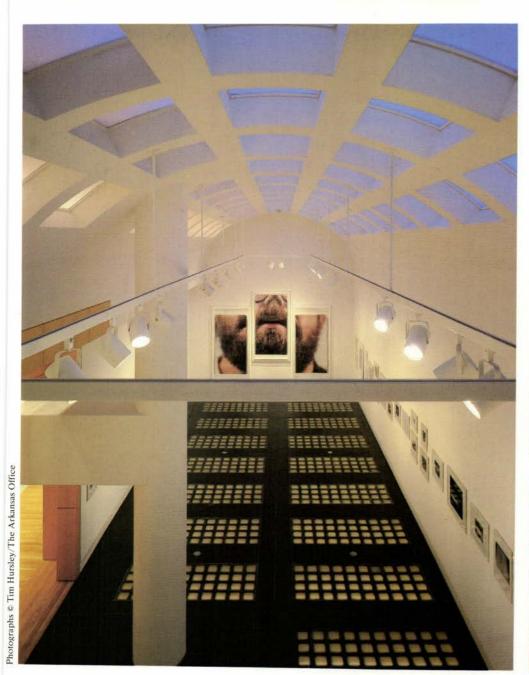
The High Museum at Georgia-Pacific Center, Scogin Elam & Bray. By Allen Freeman



The High Museum at Georgia-Pacific Center in downtown Atlanta is a wood-veneered construction within a glass box. Like a Chinese puzzle, the galleries fit in a fascinating, complex way into their enclosure. They are also very good showcases for a range of art. Among recent examples were large collage portraits by Benny Andrews and a display of early-20th-century decorative art from the High's collection.

The pre-existing glass shell was painfully unsuited for displaying artworks. It is a shed structure protruding like a rectilinear blister at sidewalk level on the skin of a skyscraper, SOM/Chicago's Georgia-Pacific headquarters. South-facing, high, long, and shallow, it was originally intended as a showcase for forest products. With Georgia-Pacific and Metropolitan Life financing the project, the High commissioned Atlanta architect Scogin Elam & Bray (Parker & Scogin at the time) to fit about 5,000 square feet of galleries into this space measuring 140 feet long by 40 feet high and only 24 feet wide.

The museum, a satellite of Richard Meier's Midtown extravaganza, is tucked away at the far end of the Georgia-Pacific lobby, beyond and beside an auditorium; you can see the topside of a coffered vault through the glass side wall of the auditorium. You enter the greenhouse structure at about the midpoint of its long dimension, finding yourself on a platform within an open, orthogonal, wood-paneled frame near the top of the glass shed. Two steps up to your left and you look through an opening near the ceiling of the vaulted enclosure that is the main gallery. To your right, a series of swichback ramps extending about half of the







Facing page, left, outer ramps have painted metal rails that let light filter through; inner ramps have wood-faced parapets. The smaller photograph shows the greenhouse structure; section is through the vault. Above, the vaulted gallery as seen through cutout near the museum entrance. Note tower's intruding structure. Top right, transom affords views into vaulted gallery. Above right, gallery immediately below vaulted gallery.

shed's length leads you down, first to the level of the vaulted gallery and a small museum shop, and then down to the lowest level where there are three more galleries.

In one neat package, the framework defines space, provides circulation, and protects art from sunlight. One end is open and supports ramps; the other is mostly enclosed and solid, sheltering galleries from the sun. The parts are pulled apart—in some cases a distance of only an inch or so—and expressed. Simple in concept, it is geometrically intricate and richly, painstakingly executed.

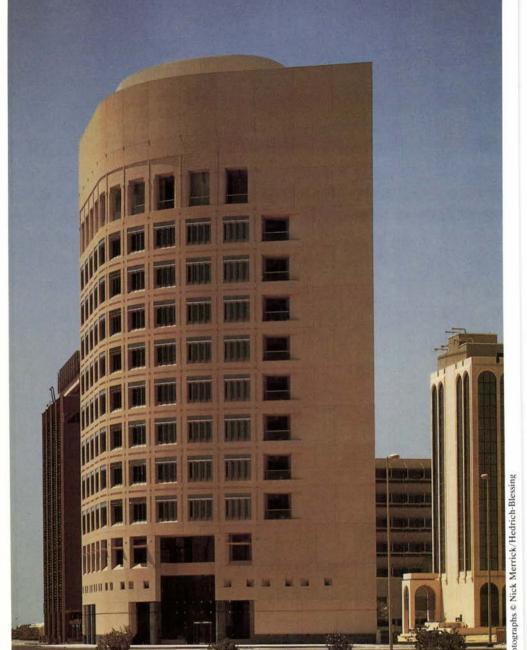
The vaulted gallery, penetrated top and bottom and on two of its walls, is an inner sanctum of remarkable character. Measuring 52x18 feet in plan, it is more intimate than wide-angle lenses make it appear. Five rows of skylights set within coffers run the length of the vault. (For installations of daylight-sensitive art, translucent fabric panels are laid over the skylights.) The floor is a series of glass block panels framed in slate that let artificial light filter up from the gallery below and natural and artificial light filter down.

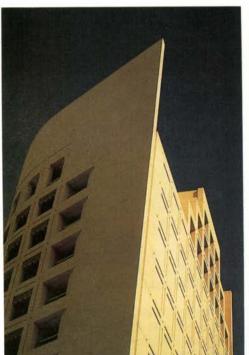
Interrupting the space are a single rounded column and a connecting beam that shoots off to the side. Intrusive and out of scale, they are part of the tower's structure that the architects used to their advantage by tying them to the doorway. The most logical and predictable way to get into the gallery would have been through an opening cut in the end wall directly under the window. This would also have simplified and clarifed museum circulation. But the designers chose to enter the room under the beam and then wrap the doorway in wood pulled in from the paneled hallway. They further layered back the sides of the door and topped the beam with a transom, segregating museum structure from building structure and paradoxically making column and beam integral with the architecture of the room. This also maximized usable wall space. The solution is so convincing that the gallery would seem less interesting without the intrusive structure.

The architects used a narrow materials and color palette: white-painted building structure and galleries, slate and hardwood floors, gray-painted metal rails, and wood paneling of African anigre. The gray metal softens the slate, and the wood, fine-grained and honey-toned, reflects off and mellows out the white surfaces where they meet. The honor awards jurors rightly noted "an obvious delight in surfaces and materials."

They also called the museum "a wonderful example of architectural inventiveness, demonstrating how imagination and skill can overcome extreme challenges and constrictive problems." Most important, it is exemplary interior architecture.

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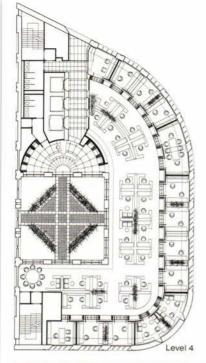
Tower Responds To a Demanding Climate

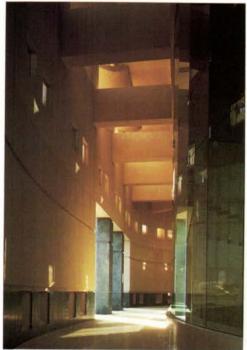
United Gulf Bank, Bahrain, Skidmore, Owings & Merrill/Chicago. By Lynn Nesmith Bahrain, a tiny island off the coast of Saudi Arabia in the Persian Gulf, was the first Middle Eastern country to discover oil. But by the late 1970s Bahrain's oil reserves were depleted, and the country turned to international banking as a new source of revenue. Although its economy has slowed down significantly since the decline in oil prices and the Arab stock market crash, Bahrain is still a world financial center.

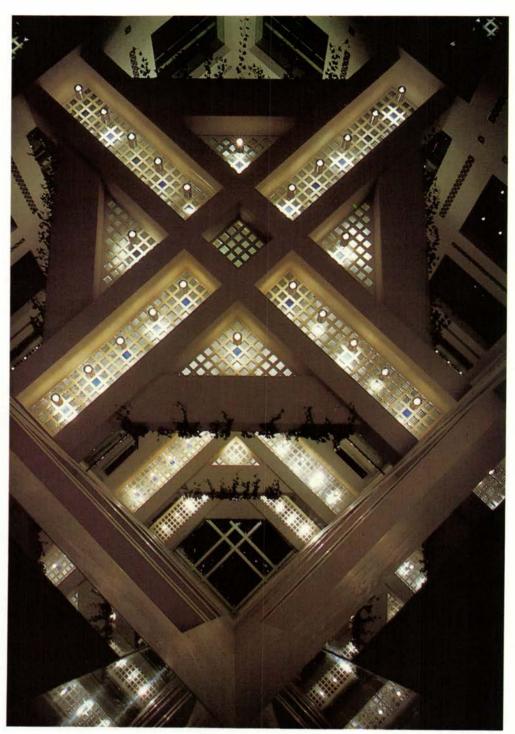
The United Gulf Bank by Adrian D. Smith, FAIA, of Skidmore, Owings & Merrill/Chicago responds to the severe climate and Islamic tradition by turning inward, recalling the National Commerical Bank in Jeddah, Saudi Arabia, by SOM/New York, an honor award winner last year (see May '87, page 170). Although United Gulf Bank's design is a more standard approach to an office building, it is also more sympathetic in scale and more site-specific than the SOM tower in Jeddah. The building's footprint responds to the existing street pattern and the tighter urban fabric of the Diplomatic Quarter, an emerging corridor established for commercial development.

The three-story arcade at ground level along the curved facade shields pedestrians from the harsh sun, wind, and dust, creating a corporate version of the narrow and covered streets of the traditional Middle Eastern bazaar.

The precast concrete exterior wall also was designed in





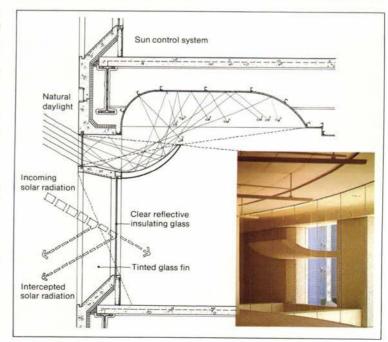


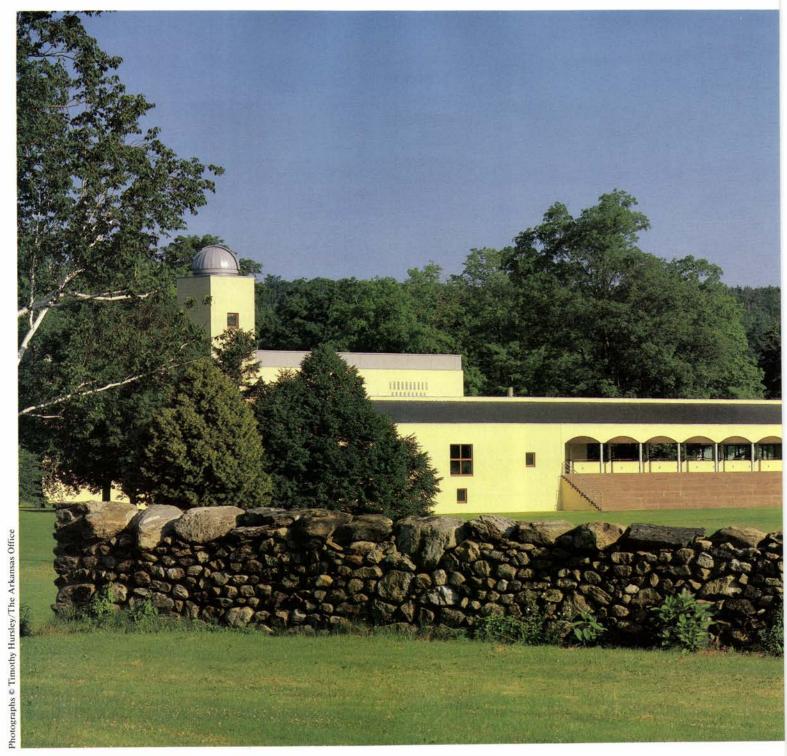
Facing page, the curving facade responds directly to the site. Above, reflected light creates an interesting pattern along the arcade's outer wall. Right, looking up through the terraced atrium.

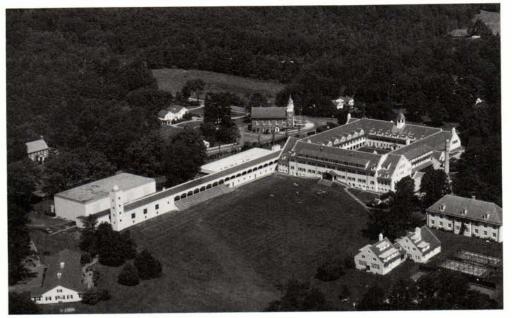
response to the climate. All windows are deeply recessed, blocking out high midday sun, while transparent, vertical, green glass fins, oriented north-south, intercept lower east and west glare but admit light. A transparent glass transom and glass fiber interior light shelf above each window bounce daylight into a cove, providing ambient light for private offices along the building's perimeter (section and photograph at right).

The 12-story building is oriented around an atrium designed to allow light from the upper section to filter down. Open offices surround this light court. Glass block terraces on every third floor subdivide this central space into four 40-foot cubes to establish a scale similar to traditional Islamic courtyards. The bridges allow natural light to penetrate downward, while suspended light fixtures located beneath the blue glass accents provide additional illumination.

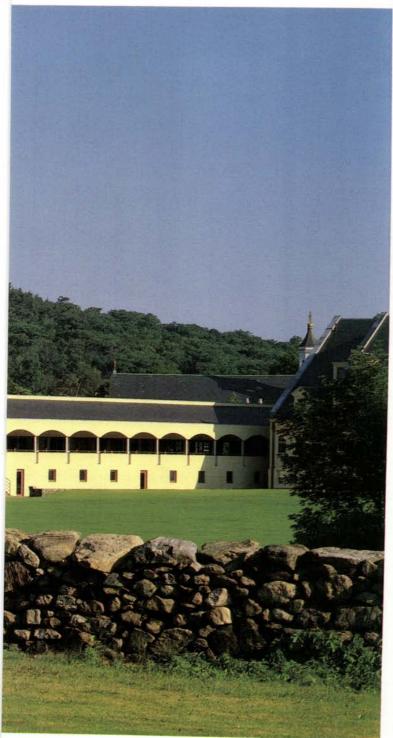
In citing the bank, the jury wrote, "Through its timeless quality and responsiveness to tradition, the bank maintains a strong presence in the city, effectively mediating between an ancient culture and the 20th century to which it is now fused."

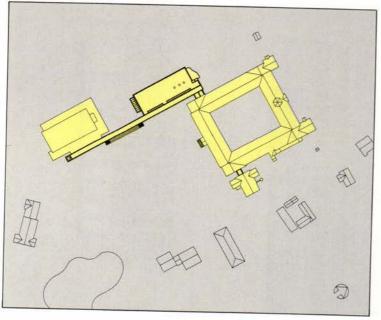






Left, overview of Westover addition as it extends south from Theodate Pope Riddle's quadrangle building, ending with observatory. Building directly behind observatory is 1960s gym, now joined with the main building via addition's arcade. Above, as arcade marches past playing field, bleachers cascade.





Single Stroke Pays Multiple Dividends

Westover School addition, Gwathmey Siegel. By Michael J. Crosbie

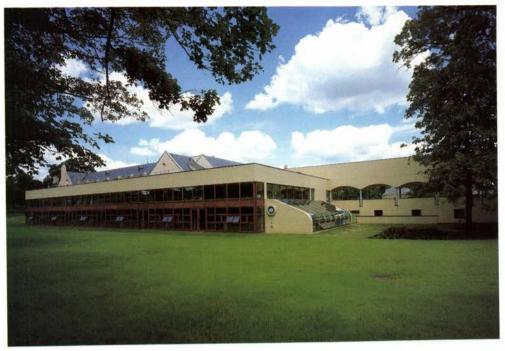
The Westover School, a small, private girls' prep school in Middlebury, Conn., commands a gently rolling site, bounded by a cross-stitch of old stone walls of the type common in that part of western Connecticut. Westover's main building was designed in 1907 by Theodate Pope Riddle, the state's first woman architect. Riddle's building takes a familiar form of academic shelter: a quadrangle, circumscribed by an arcade on all four sides, above which the building rises in ocher stucco, crowned with a dormered slate roof. Punctuating the entry portal is Westover's signature architectural element, a hexagonal cupola, which has become the school's logo (displayed on the yearbook's cover).

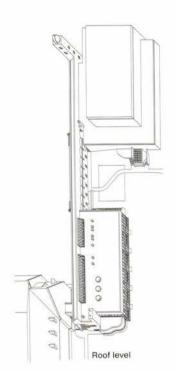
Enjoying a healthy and growing enrollment, by the late 1970s Westover's science department facilities were strained (the number of students taking science courses doubled between 1974 and 1980) and cramped. The biology and chemistry labs were housed in a former stable while physics labs were on the other side of campus in an old infirmary. Another space found wanting was the main library of 22,000 volumes (some of them lining window shelves). The library intended to double its holdings by century's end. Westover engaged Gwathmey Siegel & Associates of New York City to consider how the space crunch could be relieved within the spirit of Riddle's plan, specifically in the form of renovating the infirmary as a science center. Considering the plan of Westover in total, the architect also considered what to do with the forlorn campus gym, a buff brick box of early 1960s vintage, sited some 400 feet from Riddle's quad.

With a master stroke, Gwathmey Siegel solved all the functional problems in a single building and provided Westover with a new chapter in its already rich architectural legacy. The building combines physics, biology, chemistry, and computer science labs with a 40,000-volume-capacity main library, joining the word and deed together, as it were. The architect chose the site, positioning the addition southwest of the main building, beside the gym. To suture this new organ to the body of Riddle's work, Gwathmey Siegel extruded the quad's arcade, interpreting its arches as volumetric, its columns as round. To someone standing in it, the arcade appears to bound away like an inverted wave, springing from column to column. Addressing a playing field to the east, a section of the arcade cascades down in the form of sandstone bleachers. Near its terminus, the arcade becomes a curtain drawn across the gym-uniting it with the campus yet disguising it-and ends with the crisp abruptness of an exclamation point, in the form of an observatory, which recalls Pope's hexagonal cupola.

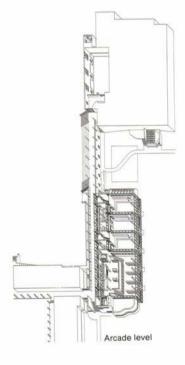
From the air, the addition looks diagrammatic. But its apparent simplicity is misleading. Its section reveals a complex layering of sunlighted spaces (a trademark of the firm's work), a building whose spatial density balances with its glassy transparency. You can look right through this building from the arcade. But in moving through it, you find three bridges crossing a two-story, glass-roofed corridor that parallels the arcade and bounces light down into ground-level spaces—computer labs, study carrels, science faculty offices, and library stacks. The arcade begins to read as a bridge, bounded by space on either side.

The northernmost bridge delivers you to the library's main desk and its reference area, which offer views over the main reading room one level below, to the west, and out to a garden edged by another stone wall. This upper level of the library is illumi-

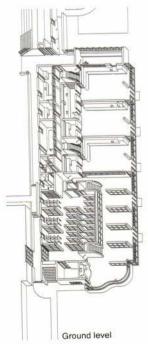












Photographs © Timothy Hursley/The Arkansas Office



nated from above by three circular skylights. At the main reading room level, western light pours over the stacks. At the north end of the two-story reading room is a one-story periodicals area defined by a sinuous wall. The students call this "the piano," and it's a favorite spot for reading, reports librarian Charles Thompson. The piano's wall has a ribbon of glass that perfectly frames a view of the north garden, a view hidden as long as you stand, but immediately revealed when you sit down. The piano's east wall has a stone fireplace, a warm spot by which to curl up and read on a winter's day.

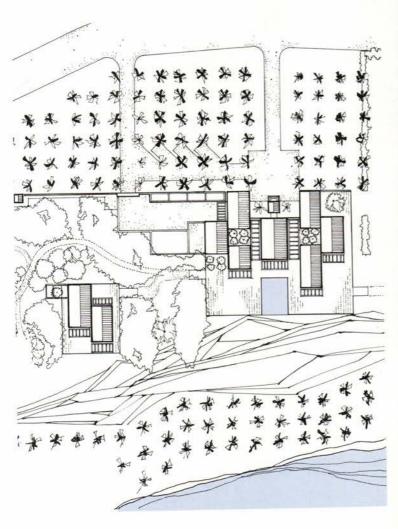
The science labs are dispatched with all the utilitarian directness of the Periodic Table. With cabinets and curtain wall finished in mahogany, they have the feel of an old college lab: glass, metal, dark wood. A treat is to stand at the west wall of the southernmost lab and look north: there's a two-story slot of space that slides from one end of the building to the other, layered with glass walls. On the building's south wall, the piano curve is reconstituted as a greenhouse with direct access from the biology lab.

Left, top to bottom, view of addition's southwest corner with greenhouse; north view of addition next to older building; typical science lab. Above, arcade extending to observatory.

Librarian Thompson told me that Westover's pedagogical philosophy is to allow its students access to the materials of education: lab spaces, the library, and the activities center are kept open for students to use. There are no locked doors. Architecturally, the library/science building reiterates this notion of openness with views between spaces and no barriers between the building's library and science wing. Capturing views of gardens and playing fields, the building also provides students and faculty relief from the cloister. "In a small, private school, where you live on campus, it can get claustrophobic," explains Thompson. "In the cold weather, when it's hard to get outside, this building brings it in to you."

After being occupied for four years, the building's physical condition reveals how the students, some of architecture's toughest customers, care for it. They've treated it well, Charles Gwathmey, FAIA, interprets, "because the craft and care in the building come through, and the students respect it."

The Westover project also allowed Gwathmey Siegel to test itself. "It was our first 'historically contextual' building," says Gwathmey. "It was a way for us to expand our architectural language, while being respectful to a modern ethic. It's enriched our work."



Island House as a Village of Pavilions

Dominican Republic residence, Hugh Newell Jacobsen, FAIA. By Donald Canty, Hon. AIA

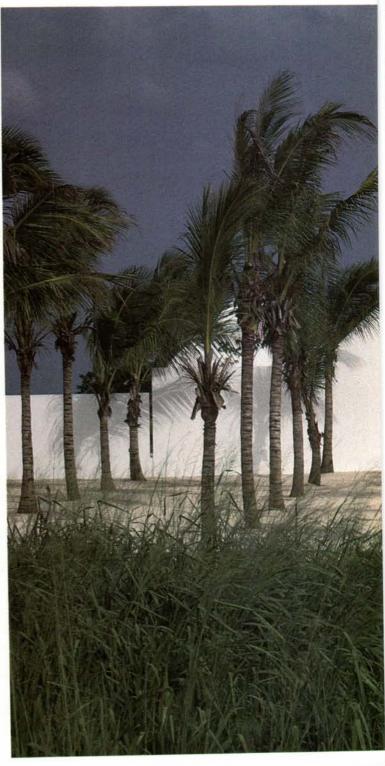
Because this house was built as a speculative venture by the client for a previous Jacobsen house, the architect was free to make it suitable to the exotic locale and a variety of potential uses, rather than to the needs of a particular family. He began with the vernacular, as exemplified by the nearby fishing village of Bahibe, whose housing stock comprises small rectangular boxes with gabled roofs ("Monopoly houses," in Jacobsen's term). What distinguishes them is coloration, mainly pastels with an occasional bright punctuation.

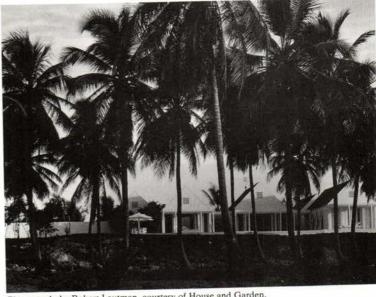
Early on Jacobsen came upon the scheme of making this house a set of small, gabled pavilions. Seven in all, they sit on a continuous podium of travertine, hone-finished so that it is glossy

but not impossibly slippery.

At first he wanted to make each pavilion a different pastel color, but the luxury resort community of which the house is part exercises firm design control, and its first principle is that all houses be white. So Jacobsen achieved the polychrome effect he was after by using a different pastel for the door and vents of each pavilion.

The house stretches like a tiny village across the crest of a





Photographs by Robert Lautman, courtesy of House and Garden, Copyright © 1987 by The Conde Nast Publications Inc.



Above, the entry side of the house with its transitional portico, grass driveway, and newly planted coconut palms. Left, the house on its coral cliff, as seen from the beach with the pre-existing stand of palms. Note the varied color of vents.

coral cliff overlooking a fine stand of coconut palms and, beyond them, the beach. The distance between the house and the water is about 100 yards.

Jacobsen did the landscaping, the furnishings (built by local craftsmen), and the symbolic weather vane above the entry (which doesn't really accurately record wind direction but waves cheerfully and randomly in the breezes). He planted 125 more coconut palms on the site and did an inversion of the landscaping on the entry side. Where there might be lawn there is sand, and the very long driveway is grass.

Jacobsen designed a processional for visitors. As they come up the grass drive the house blocks the sea from view. The road to the site is inland, so "they haven't seen the water for miles," he says. A gabled, slat-roofed portico serves as a transition between exterior and interior, and the front door introduces the

house's use of pastels. As the door is opened a spectacular view of the sea unfolds, beyond the high-ceilinged living room and a pool (photo overleaf).

The pavilions are arranged to make the most of views and breezes. There are no hallways as such—simply paths across the podium, often sheltered from the sun by trellises. Except in the master bedroom pavilion, shutters are used instead of windows, adding to the vernacular aura.

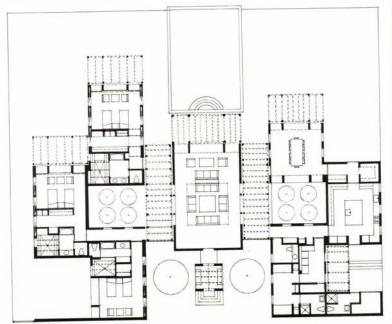
The house has been purchased by a Venezuelan family, which is in the process of adding two more pavilions. Jacobsen also has designed for the family a series of garden "rooms" incorporating a large gazebo that is a delightful and almost literal translation of local architectural idioms.

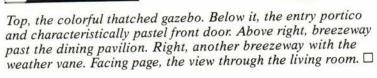
The honor awards jury, terming the house "bright and beautiful," noted that "it is open and thoroughly unself-conscious, totally devoid of affectation, and an elegant celebration of the Dominican vernacular." Citing "the sun-controlling breezeways, courtyards, louvers, and high ceilings," the jury said that the house is "timeless in its simplicity and completely at home on its Caribbean site."

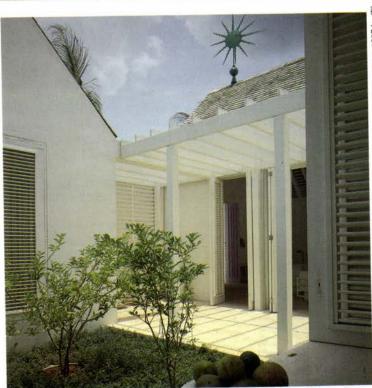












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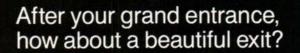
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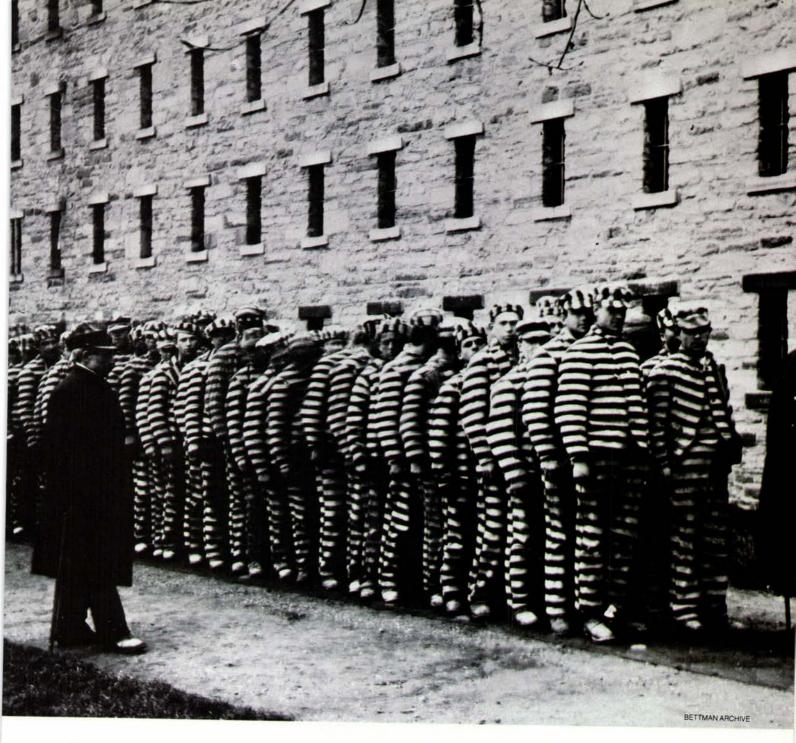
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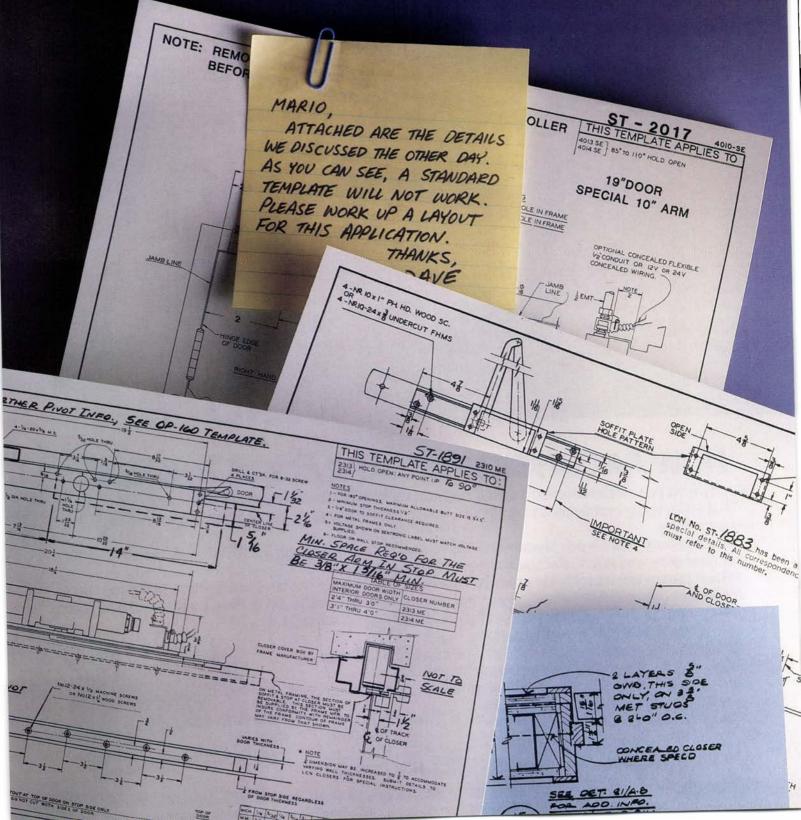
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Programming

By Douglas E. Gordon and M. Stephanie Stubbs

Integration of the art and science of programming with architecture seemed to have reached its heyday by the early '70s, at least in the literature and in the press. Participation by the building user and design for functional need, the parents of this union, found their natural niche in the process of programming; bubble diagramming, matrixing, patterning, and cognitive mapping seemed part of every socially conscious architect's stock in trade. In the short time thereafter, the architectural profession has met an energy crisis, a liability crisis, postmodernism, and a societal transformation—the role model for the entry-

level work force was once the hippie but is now the yuppie.

The rapidity with which these events have occurred and the apparent relative diminution of programming as an architectural topic raise a number of questions. Was programming as an important concern subjugated to brushfire issues, or is it now just taken for granted as part of the design process because professionals now incorporate behavioral techniques as a matter of course? Has the rise of a new architectural style and focus caused a shift in the regard for programming? And if so, how are programmers working with building owners, users, and designers anymore? Architecture conducted a series of interviews to ask: "Where have all the programmers gone?"

Programmers are alive and well, we find. Many are working in the Bay area of California, in the suburbs of Boston, and close to universities all over the country. Sometimes their work is called interior design, space planning, facilities management, or architecture, but under any name they make significant, if not always highly visible, contributions to design firms and to architecture. Robert L. Geddes, FAIA, of Geddes Brecher Qualls Cunningham, Princeton, N.J., notes the programmers' ubiquitous, assimilated presence in the profession by saying succinctly, "They're still around. They've gone to practice."

David M. Harper, AIA, of Harper Careño in Miami says that changes in design approach and philosophy of design really have contributed to the assimilation of programming into the design process. "Basically, programmers have stopped trying to portray that they're working in isolation from the design process and that they were somehow dealing with programming in an unbiased manner with absence of design intent," he says.

The rise of postmodernism has not gone unnoticed by the programmer. Herbert McLaughlin, AIA, of Kaplan/McLaughlin/Diaz in San Francisco says, "The programmers have gone underground into the basements of the buildings with fatuous facades

that postmodernism has brought us. In the past few years there has been a total obsession with style in American life, and it's not just in architecture. If you ask a typical recent college graduate in Manhattan what is the most significant building there, he will probably say 'the Ralph Lauren shop.' Unfortunately, I think this attitude is inhibiting a sense of social ambition and social reform that went along with postwar modernism. The combination of the yuppification of America and the post-Kennedy-era cynicism about the ability of anything to radically affect lives, especially of the

less fortunate, has taken its toll on programming.
Still, programming continues and has done very well in very many instances, although it isn't publicized nearly as much. You have to program a building. You can't avoid it. It's just that programming has been all but eliminated as a separate art form."

Geddes also sees an emphasis today on expression over content. "I think that the advent of postmodernism, which to a large extent is paralleled by the kind of architectural criticism we see in the journals, has not made *performance* of buildings a central theme in the discussion of architecture. There has been the growth of style wars and personality wars. Performance of buildings is very important, and the language of architecture is also part of the performance. The minimalism of modern architecture didn't allow for adequate language, and to a great extent I think we can be in much better shape because architectural language today is much richer and much better."

Wilbur H. (Tib) Tusler Jr., AIA, president of Stone Marraccini & Patterson of San Francisco, describes the effect on practice of postmodernism's search for an architectural vocabulary. "The whole postmodern movement is looking for roots, history, and form. In the interim, the programming process that was the focus of the '60s and '70s has been almost totally bypassed in this search for product. Present focus on product and end result happens almost despite the user. It's more of a formalistic search rather than a growing from the user up. It's almost imposing a vocabulary or dialect unrelated to specific user needs. I think formalism hasn't had an adverse effect on architecture yet, but if it continues for too long, it could."

David Haviland, dean of the school of architecture at Rensselaer Polytechnic Institute in Troy, N.Y., and author of the "Predesign Services" chapter of AIA's Architects' Handbook of Professional Practice, says, "What is happening is an underlying shift from the thinking 20 or 30 years ago that supposed one could make a perfect world. There was a sense

that somehow, if we used more data and more information, then we could fine-tune buildings to support their prescribed functions. What seems to have happened is that we have shifted from a 'let's make it perfect' tight fit to a more loose-fitting approach. There is recognition that buildings are going to be around for a long time and perhaps there should be more emphasis on how we design buildings that will accommodate shifts in people and interests."

Programming seems to have arisen and flourished as a handmaiden of functionally oriented modernist architecture, although there is a strong temptation to pigeonhole it as having sprung full-blown from the humanist 1960s. But Joseph Esherick, FAIA, of Esherick Homsey Dodge & Davis in San Francisco, who has been practicing for more than 50 years, dates it back to the old Beaux-Arts school tradition. "Fifty-six years ago at the University of Pennsylvania, we had a very rigid Beaux-Arts education, and programming played a very important part," Esherick says. "If we were doing a kindergarten, we were urged to go out and look at kindergartens, to talk to teachers, and also to talk to the kids. User participation isn't a new concept. I'm not talking about the formal kind of design training, I'm talking about the way it really worked."

William Peña, FAIA, CRSS's grand master of programming and author of the long-popular Problem Seeking, an Architectural Programming Primer, backs up Esherick's theory and observes another tie to the postmodern era. "Many of the original Beaux-Arts programs that I've seen were very complete programs," Peña says. "This was necessary because the same programs went to all the architecture schools in America, and they needed to avoid leaving the students with lingering questions. The students were designing a make-believe historic architecture. The modern movement came up with a program and a tailor-made design. And now we're in this romantic modern in which we're back to the make-believe buildings again. But if complete programs worked for the Beaux-Arts system, they should work now for today's romantic modernists-the new Beaux-Arts people. However, in any romantic movement expression is more important than content, which may be subdued."

Regardless of its origins, the role of behavioral science in molding the process of programming is undeniable. Programmers today still sing the praises of Robert Summer, Robert Gutman, Christopher Alexander, and Kevin Lynch, the same names that were on the lips of architecture students and practitioners years ago. One gets a sense that the once-burning topic has been dampened somewhat by a too rigidly scientific overload. McLaughlin explains, "Programming was seized by academics and made relentlessly irrelevant. People groping for graduate degrees in psychology needed to conduct studies with so many controls in them to be academically respectable that the studies were totally irrelevant to the concerns of the practicing architect. Consequently, the people who were doing really useful studies, like Christopher Alexander and Clare Cooper, were buried in this totally irrelevant academic bullshit. Programming research and postoccupancy evaluation were entwined and focused around the emergence of new building types, such as public housing, jails, and open schools. They encompassed programmatic and architectural experimentation that was going on at a fevered pitch, but has toned down quite a bit. However, a lot of programming is still done by some very good people."

To state it in gentler tones, architects have extracted the best of "pure" behavioral science and adapted it to their own methods of programming practice. Perhaps the wisdom to accom-

plish this required assimilation over several years. Haviland says, "We [architects] discovered collectively that there was a very strong social-behavioral imperative that could be used to design better buildings. This concept is constantly being rediscovered, and my view is that the behavioral and social side of architecture is just as important now as it ever was. But maybe we've grown up a bit and realized that the information and the knowledge that were generated by observing how people use buildings and then trying to understand how people use them simply can't be translated on a one-to-one basis into principles, guidelines, and specific statements used by the designer the next day.

"Maybe we weren't asking all the right questions, either. I think that so much of what happens in a building is brought there by the people who use it. It's not only their basic needs but also their intentions and aspirations. How an architect designs 'spaces that become places' is based on what users want to do there—that's becoming a more central design question."

Geddes adds, "The behavioral sciences were too linked to determinism. Behavioral sciences compared to architecture is the same as the truth compared to the whole truth. The truth is useful and good, but it does not present the entire perspective."

Tusler emphasizes the need for continuing behavioral studies. "Although some of the work developed in universities was too theoretical to have an impact on the architect in daily practice, I think the basis of behavioral research has to be the universities," he says. "For example, the Health Facilities Research Program, a joint venture with AIA and the Associated Collegiate Schools of Architecture, is currently undertaking a study through the University of Wisconsin at Milwaukee on the effect of environment on Alzheimer's patients. From this we will better understand how such things as privacy, legibility, accessibility, and territoriality affect the Alzheimer's patient's well-being. This study will result in the preparation and publication of a series of design guidelines for use by architects and owners. Focused behavioral research of this sort provides the architect with an expanded basis upon which to formulate design solutions."

How do you involve the client?

A possible result of the dimension the behavioral scientists brought to programming is the recognition that there is an important distinction between owner and user. Although each can have distinct motivations, Tusler uses the word "client" to denote both. "I tend to talk of clients in terms of both the owner and the user," he says. "An owner who is not an ultimate user provides criteria on such things as costing and scheduling, while user groups, regardless of their ownership status, are sources for functional information."

Programming specialist Bobbie Sue Hood, AIA, of San Francisco's Hood Miller Associates, differentiates between what she terms the client and the public, but she isn't always able to include the latter in the information-gathering stage. "We always ask the client to what extent they want to involve the public in the programming process," she says. "Different clients have different needs and different approval processes. So we don't always work directly with the public. In fact, we don't find many clients willing to bring in users. I would say it's about 30 percent who are receptive, and 70 percent don't want to bother with it."

At the earliest stages, involvement with clients-both owner



and users—is as important to the ultimate design as is the contribution of the architect, Esherick says. "We begin to draw a client into the programming process during the marketing phase," says Steven A. Parshall, AIA, director of research at CRSS. McLaughlin agrees. "These days, when you interview a job, people are expecting you to speak with relevance to their particular job and not just go in and beat your breast about your past or your heroism," he says. "To be able to speak about their particular job, you have to do some work on programming even before you have the job."

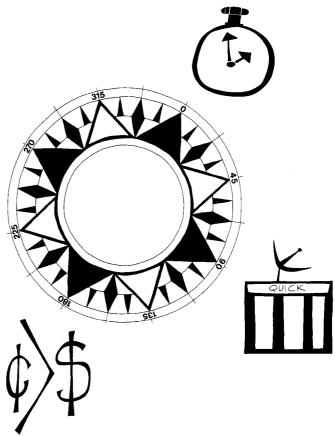
"Throughout the design process, the programmer ideally is involved with the client to the point that he or she should be able to be an advocate of the client's—including the users'—needs and requirements throughout the process," expounds David A. Chassin, AIA, head of the programming group of Hellmuth, Obata & Kassabaum in St. Louis. "We involve clients at the beginning of a project by trying first to understand what

they know of the program."

By getting involved with clients and their programs, the architect achieves a sense of what Geddes calls a seamless web. He sees problems definition as something everyone should work on. "I don't think architecture is a simple translation of quantitative facts. It is not just given to the client. It's an interactive process," he says.

"We believe in being intensively involved with the client," says Tusler. "I've recently started to use the phrase 'bonding with the client' to describe that intensity. In effect we try to identify as closely as we can with the client needs and with the client constraints. At the same time, we use a fairly rigorous analytical approach in terms of volume of work, movement systems, and computer simulation of various activities to try to temper the needs versus wants equation. In other words, users usually want more than the project budget can support. It's very important to understand what they want, but it's also important to have an analytical or objective look at what's being asked for.

"We had a client recently who was building a new medical facility," Tusler continues. "The surgeons had it all worked out. They wanted 12 operating rooms. An operating room may cost \$200,000 to \$300,000 to build, and the yearly staffing costs are tremendous for each operating room. By using computer simulation of the actual scheduling and the wait times, we were able to demonstrate that they could get by with substantially less. The simulation showed that, for 95 percent of the days during the year, nine rooms were adequate and 10 rooms were adequate for 100 percent of the days.



"When working with the client we are also concerned with exposing them to a range of alternative solutions for meeting both their functional and physical goals," Tusler says. "These are based on our own research as well as a broad knowledge of state-of-the-art solutions by others. To this end we maintain a research library and subscribe to more than 100 journals."

Harper sees an advantage to close client interaction that transcends the collection of programming information. It also is, as Tusler alludes, a bonding process by which owners and users feel personally involved in design decision making. "The end product is closer to what the clients want, of course, but the process also lets clients feel they have endorsed the process

and decisions all along," Harper explains.

"Trying to ascertain the client's objectives is a whole process within itself," he says. "I use a diagram of Maslow's hierarchy of needs to explain the process of trying to find on what level the client operates. Particularly within a corporate structure, you have to try to ascertain the difference between the personal level of operation of the individual and the corporate or collective mentality of the organization. Organizations and individuals both operate on levels ranging from the most basic desires, such as shelter and safety, up to the highest levels of self-actualization, including knowledge and esthetics. Maslow's hierarchy helps to link up the communication process to make sure that the architect and the client are talking on the same wavelength."

Client involvement commonly includes program studies from the owner's in-house staff, who are in a position to identify program requirements more effectively and less expensively than an outside programmer, says Jonathan D. Ross, AIA, of the Boston firm Woodward & Ross. "The in-house programmers we've encountered are not necessarily architecturally trained," he adds. "In the several college and secondary school libraries I've worked on, more often than not the library program is written by the librarian and the librarian's staff. Invariably, the program requirements exceed budget limitations. We then review the program with the client and, based on our experience with similar institutions, try to challenge some of its assumptions. For instance, a school with 1,500 students that wants to accommodate 1,200 students in its library is being optimistic. So we look for ways to reduce the client's prepared program but still meet its intention and bring it in line with the budget."

"Some clients will come to us believing there is only one design and only one way to use the site," says Geoffrey T. Freeman, AIA, principal of Shepley, Bulfinch, Richardson & Abbott. "We say, 'Obviously that's an alternative. Let's go back into the program so we can come up to your speed."

"We try to structure the information that we get from people, not to manipulate them but to make sure that the things that people focus on are the real issues that have to be covered," Hood says, explaining the introductory work she does when programming for clients. "One building we recently did had high security requirements, and the clients thought they had to have a windowless building," she says. "We showed them a lot of historic examples and started them thinking about the many design possibilities. We also take tours of buildings similar to what the client wants, and we go through a 'what to look for as you're going through' process, which is extremely helpful."

During architect/user interaction, McLaughlin sees a need to expend some effort educating users as well as questioning them. "We have found that if a user doesn't feel architecturally or programmatically educated, he or she will frequently be reluctant or embarrassed to give you real input," he explains.

"The kind of program that is required by design is not just the functional program, which is what the client usually emphasizes to the programmer," Peña says. "A program has to include site analysis and economic feasibility, which the client is not equipped to give. They just don't know cost. So the responsibility is really mutual between the architect and the client. Of course our clients are a lot more sophisticated now than they used to be. And some of them do have a sense of construction cost and schedules, particularly some of the corporate clients. But still, cost as a measure of quality is a mystery to even our most sophisticated clients. One of the most important tasks that an architect has to do is arrive at some consensus with the client on the quality expected."

Tusler agrees that function is the area of expertise to which the client can contribute the most. The possibilities of space and form in three dimensions, however, are often not fully appreciated by clients, mainly because they have not been exposed to imaginative architecture in the past, he adds. "Moreover, most clients rely on the architect or a construction manager to assure that the project stays within budget as the programming and planning progresses. Some clients prepare a program with in-house staff, but many feel that the objectivity and perspective that an outside programmer can bring is advantageous. It is parallel to doctors trying to diagnose and treat themselves for an illness. They will do better with someone who has a more objective view and specialized training."

What makes a good program?

Clarity of communication is a major component of a good program, regardless of the physical form it takes. A quality program, with both a verbal and a graphic aspect, grows out of concern for the particular site, culture, and uses of the building, Hood says. "It is organized in a way that makes it very accessible to other people; it is a useful document that you keep by your drafting board as a reference," she says.

Chassin agrees. "A quality program should be clear and set all the issues on the table," he says. "It should save time for the designer by raising the right issues. Also, programming is most important for setting and controlling dollars for a project. Clients are starting to understand that programming decisions have more effect on the dollars than decisions you will make further down the line, because during programming you're setting the size and the scope of the project."

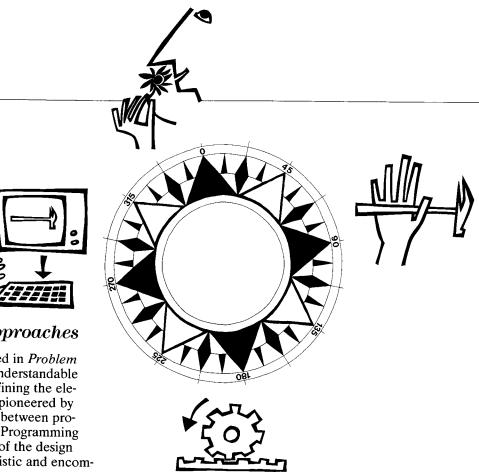
Part of clarifying a program, according to Tusler, is stating the assumptions on which it is based. "We often get programs from consultants and end up almost completely redoing them because we don't know what they are based on. Secondly, a good program describes the function of each space so that the designer knows what's supposed to happen. And then there's obviously a need for clarity and consistency from section to section as far as departments or various functions. The last important part of the communication is the question, does the client buy it? Do they know it's probably a compromise from what they wanted but still agree with it?"

The other important part of a program is intangible. Call it the spirit, if you will. Geddes says, "Besides allocation of resources, time, and scheduling, a good program includes identification of the users' behavior, needs, and satisfactions."

Freeman agrees and describes a program as a space/needs analysis, saying, "The critical part of programming is the client's identification of goals and functions. But the intangible elements—the idea and spirit—are very critical in determining the architect's attitude. A good program also makes the initial concept statement very clear, including short-term and long-term goals. A program can be viewed as an inverted pyramid, and the beginning concept must be sound. Then the intangibles get translated into specifics."

To McLaughlin, a good program is thoughtful with regard to the site—not just the topography but also the surrounding buildings and context. "Programming has a master planning component to it when it talks rationally about the options in developing a site based on the organization of the outdoor spaces," he says. "It also talks very directly and coherently to the possibility of what we call social or celebratory spaces that bring people together or that give the *gestalt* to the project. You could do a program of a Portman hotel and simply describe the lobby as X square feet. But that isn't doing the job in terms of what that lobby is about."

Esherick says you can't separate programming from design. "Programming is design to a certain extent. How you develop any programmatic direction depends on your sense of the project's feasibility. When you get a programmatic idea, you should be able to try it out to see whether the idea works at all. Designers limit themselves in their programming by their sense of what can be done. Sometimes the limitation is detrimental to the process. Having some design ideas along the way is important because it shapes one's sense of what is possible, and thus the program itself. Design ideas tell something of the gaps in your conception."



Programming methods and approaches

The CRSS method of programming expounded in *Problem Seeking* is clear-cut, well known, and easily understandable and so provides a good baseline model for defining the elements that make up a program. The method, pioneered by Peña some 30 years ago, clearly differentiates between programming as analysis and design as synthesis. Programming precedes schematic design, but both are part of the design process. The problem-seeking method is heuristic and encompasses five steps: establish goals, collect facts, uncover concepts, determine needs, and state the problem. Information contained within each step is classified into four components: form, function, economy, and time.

"You must test all four of them—don't leave one out," Peña cautions. "But each project individually will indicate what it wants to express. We have modified the problem-seeking method for engineering and for facilities management—what we do is change function, form, economy, and time to whatever the considerations are for engineering or for management strategy. But for architecture they remain firm." He recommends thinking of the four components as "big baskets. That is preferable to having 28 tiny baskets, and arguing whether an element goes into Basket 21 or Basket 28," he says. "For example, put the information in the 'function' basket even if you could argue whether it's between function and form. I'd say it really doesn't matter, just put it down someplace, and avoid duplication."

Programmers at CRSS regard their programming process as a philosophy as well as a method. Parshall says, "We always are asking ourselves how we can apply the method and principles in new ways to the kinds of problems our clients have. We consider the method 'negotiable,' teachable, and broad enough so that it can be applied to many different kinds of problems. It has an adaptable framework that imaginative and creative people can apply to new kinds of client needs."

Kevin A. Kelly, AIA, director of programming at CRSS, also ties philosophy to the analytical approach to programming. "There are two schools of thought," he says. "One is that fewer programming constraints allow more creative freedom. The other is that the more program constraints you have, the more creative you must be. We belong to the second school. We find that a solid program gives the designer more time to be creative without going through reiterative designs."

Image is another intangible that comes into play in other firms' programming repertoire. "In a lot of our work, particularly for corporations, we also do what you might call 'image programming,' " Chassin says. "What are the kinds of descriptors that the organization has for the kind of facility that it wants? What is its image going to be to the employees and to the community? What sort of message should that architecture or interior get across to the employees or the world in general?

Clients are starting to understand that image is important.

"Ultimately, though, function has to win out over image," Chassin continues. "The building has to work for the organization. We tell our clients that they don't want a building to get in the way of achieving whatever organizational or functional goals they have. We try to go through different scenarios with our clients of what the future might be. We're good at pointing out the facility implications at the beginning of the project. Both the designers and the client need to prioritize requirements and decisions with respect to whether they have to do with form, function, economy, or time. One of those needs will take precedence, but you should collect information in all those areas. I don't think any client feels that those should necessarily be balanced. For instance, one client may say, 'I have to have this building ready for occupancy in two years,' and that is going to take precedence over everything. And all decisions, whether they be related to the programming process or whether they're later on in design development, need to take into account that time is an issue.

Hood describes another quality beyond the problem-seeking method's four elements. "I always want the building to be special and something wonderful—that's probably what's most important," she says. "The elements of programming, like human behavior and life-cycle cost, are all necessary but they're not sufficient—there's another thing beyond all that. It's a synergy to make all the components meld together. This makes a really wonderful building. There's some sort of insight in programming that is the same as design, and it comes from experience."

Almost everyone agrees that client participation is necessary to the creation of a quality program. But who is responsible for extracting that information is another matter, as is how and when programming information becomes design consideration. Just as there is an endless variety of project conditions, so are there many different ways to combine programming and design. On one extreme, the two are totally separate with programming ending at a distinct point and schematic design beginning from there. On the other side is an iterative combination of programming and design that begins when a firm competes for

a project and doesn't end until construction documents are complete. In between are the many variations that the subtle vagaries of individual projects require.

Likewise, there are opposing stances on who should perform programming and/or design. There are programmers who are not architects, programmers who are architects but not design-

ers, and architects who program and design.

Independent consultants who provide programming as a stand-alone service are readily available. Freeman feels that the best such consultants are the facility managers and users who helped devise facility programs and then had the experience of living with the resulting facility. "The problem with the architect's program is that the architect programs too academically, taking numbers, playing out three-dimensional concepts, developing space needs, seeing construction, and then walking away from it," Freeman says. "It is the user who ultimately interprets the design."

Freeman, who works extensively in library design, has seen client representatives develop an expertise for programming over the years of working with architects. At some point, these clients, especially librarians, he says, are able to call upon their own network to develop their own program. Those users at the university who worked with a programmer in the '70s have now become program specialists in their own right and in some cases have become professional consultants, he says.

There's a discussion that rages when a client proposes that a program be prepared by an outside consultant, Tusler says. "The questions in the client's mind are: 'Is an architect going to program too much? And, therefore, should we have somebody who is independent of the architect, and who in some cases may participate in selecting the architect?' It's an old question of conflict of interest. We happen to feel quite strongly that programming and design are interactive, that they can't take place separately. You can have separate people doing them, but as programming commences you need to test the physical reality of what you're talking about. You need to have an architect who can show the client the physical ramifications of what they're saying in words," he says.

Hood is willing to work from an independently prepared program but warns against depending solely on it. "We always go back and validate a client- or consultant-prepared program before we use it," she says. "Every requirement of the program

has to make sense to the designer."

McLaughlin sees another problem occurring when a consultant programmer who is not an architect works independently with a client. "We go into a consultant-prepared program document and frequently we tease out assumptions by saying to the client, 'Now look, this document is making certain assumptions about you, your history, and your future. Are these assumptions correct?' 'Yes,' they'll say. 'If you look at how interrelationships are sketched, the amount of room given to net to gross, and the construction budget, this person was assuming a certain kind of building for you,' we continue. 'Is that what you want?' And half the time they'll say 'no.' "

"Programming is design," McLaughlin emphasizes. "Any time you describe the circulation system of a building, its budget, finishes, net to grosses, et cetera, you're designing a building." McLaughlin concedes that there are situations where the programmer and designer are different persons. But their work proceeds concurrently. "Usually with health-care design, the designer and the master planner are two separate people, but they work together as a team from day one," he says.

Peña believes that programming and design should be separated. "Some architects have trouble separating programming from design in their minds for two reasons," he says. "One is that they want to participate in the process of programming and design. They believe design includes programming and they want to participate in both the analysis and synthesis. The other reason is that some designers don't want to ask questions—they just want to use their talent as designers by producing design after design until the client says 'that's the one.' Rather than plying the talent or trade of analysis, they want to ply the trade of design, and design over and over again. That's what they know best and that's what they like to do with the time that would otherwise go to asking programming questions. You can do that effectively only if the job is a single-family house or some other very small building.

"We have our best success with the programmers and designers who work together," Peña continues. "When the programmer knows what the designer is expecting, in terms of the kinds of information and quantity of information, there is less of a chance of mistranslation between analysis and synthesis. If we have to program for another architect—and we do that very rarely—our program report gets thicker because we need to

explain more."

HOK maintains a separate programming department that includes architects and nonarchitects with a broad range of specialties, but who also work closely with designers as a project management team guides a job through each phase. "A lot of designers are very intuitive and want to jump to solutions before the entire problem is revealed; they may not have the temperament or the patience to dig for items that don't interest them," Chassin says. "That's where a programming group like ours can be most effective. We've got people who like analysis and who are able to interact with clients, look at the information that generates, and decide what's important. They also are able to gather different layers of information—they understand when a particular fact is going to be important and whether they need to get it at that moment or whether they can put it off.

"Whether the programmer needs an architectural education depends on the project," Chassin continues. "Our programming group has everything from a Ph.D. in human/environment relations to architects and interior designers to people with

business and city planning degrees."

Tusler believes that architects make good programmers. "Architects are good at synthesizing a wide variety of information, and we're trained to take incomplete sets of information and make them into a whole," he says. Tusler also believes that programming continues throughout the design phases. "There are layers of programming," he says. "When, during design, one gets down to specifying hardware and indicating which doors are locked on one side or the other or both, that's a form of programming. So I emphasize a continuity of the programmer and designer working together right through the planning and design process."

Whether programming and design are separated depends on the firm, Haviland says. There has to be a strong resonance among the people who develop the program, the people who

design, and the people who run the firm, he says.

"If you have a really good programmer and a really good designer, it's interesting to have them working on the same job, as long as they don't have diametrically opposed viewpoints," Hood concurs. "If you have people who have an overlap in



their fundamental design goals, that interaction often makes the resulting building richer."

"Even though we develop the program for at least half of the work that we do for the government, I can understand why some government entities would prefer to split programming and design," Harper says. "If they are truly interested in purity and unbiased design intent, and don't know the architect, they might prefer that the functions be handled separately. But from the perspective of an architecture firm, we certainly prefer to do it ourselves."

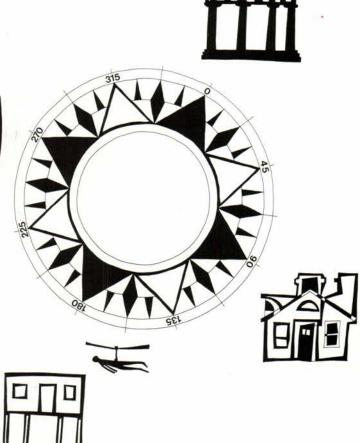
Beyond prescribed methodology

Geddes balks at the idea of trying to establish a set method for programming. Programming is an essential and integral part of what an architect does, but there is not a simple pattern to how it is accomplished, he explains. Unlike the relatively standard relationships of architects with structural or mechanical engineers, Geddes contends, the relationship between designer and programmer is quite variable.

He offers examples of different methods of programming for clients of different background: "We might program in-house and produce documents for approval by a university agency and board, or work from a program study done by a university's librarian with programming continuing as design progresses, or program and master plan as stand-alone services, or serve as the physical planning arm of a client's planning division. When we work with IBM, they give us standard planning requirements that are very complete so that our job starts in a very different way from the interactive approach. In the case of Mobil Corporation, for whom we designed a research laboratory that also had detailed standards, we worked as part of a triumvirate of the corporation, a laboratory specialist, and the architect."

Esherick is also of the "no established method" school. "If you give clients a questionnaire, all they do is fill out the questionnaire," says Esherick. "The questionnaire is completely dependent on how good the questions are. You don't know until you get an answer whether you've asked the right questions, and sometimes you may never know when you've asked the wrong questions. My motto is the two Ls—looking and listening. Sometimes people will tell you that they do this, that, or the other thing, and by observation you find that's not what they're doing at all. It's much more productive in programming to use inductive as opposed to deductive methods. An inductive method is actually not a method at all."

Esherick also is aware of the danger of information overload for architects who delay schematics until everything is known.

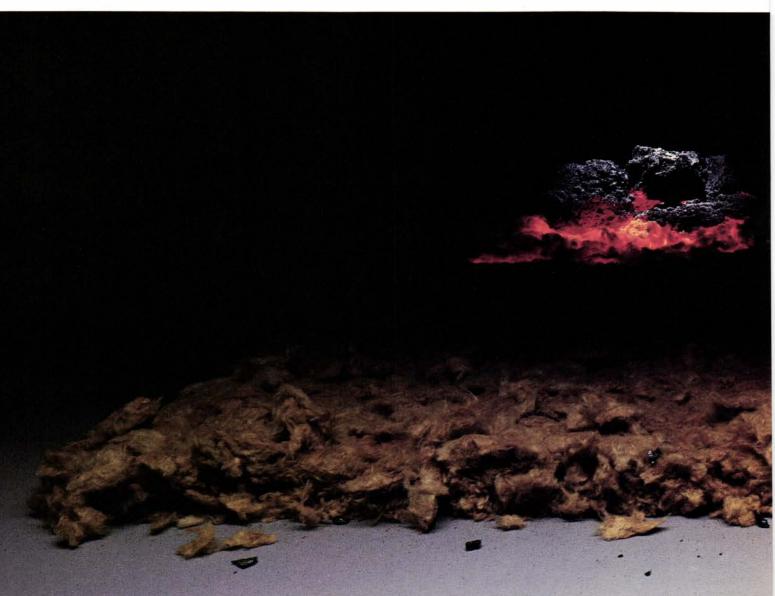


"Years ago I did some studies at Berkeley to try to find the extent to which it is possible to automate the design process," he says. "We'd get students to design and then talk about it. At one point we began to intervene by having the supposedly passive recorder ask from time to time, 'Well, do you have enough information?' We soon found out that it was possible to completely paralyze the designer. The more information they got, the more information they realized still needed to be collected. To me, design is a question of doing the most you can with the least amount of information. The converse is also the case. If you get all the information possible, then you're incapable of understanding or penetrating it. As programming proceeds, one should consider trial designs to see what the consequences are."

Freeman, however, sees more of a set pattern. "It takes three or four weeks for us to take the client's program, break it apart, and rebuild it," he explains. "The first meeting is verbal discussion; in the second meeting we start bubble diagrams with maybe four contingencies. At the meeting after that, the bubble diagram becomes something more representative of the actual space requirements and major contingencies. At the next meeting we've broken the building into layers. At that point we have defined, detailed, and set the priorities of the program, which then has gross implications for site and codes."

Hood finds that the same elements for devising a program occur over and over, but the process changes for each building. "It's tricky because you have to keep the program open-ended for the designer," she says. "But you still need some sort of formal process in your mind or you tend to collect a lot of information that is not needed. The conscious act is not

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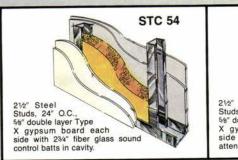


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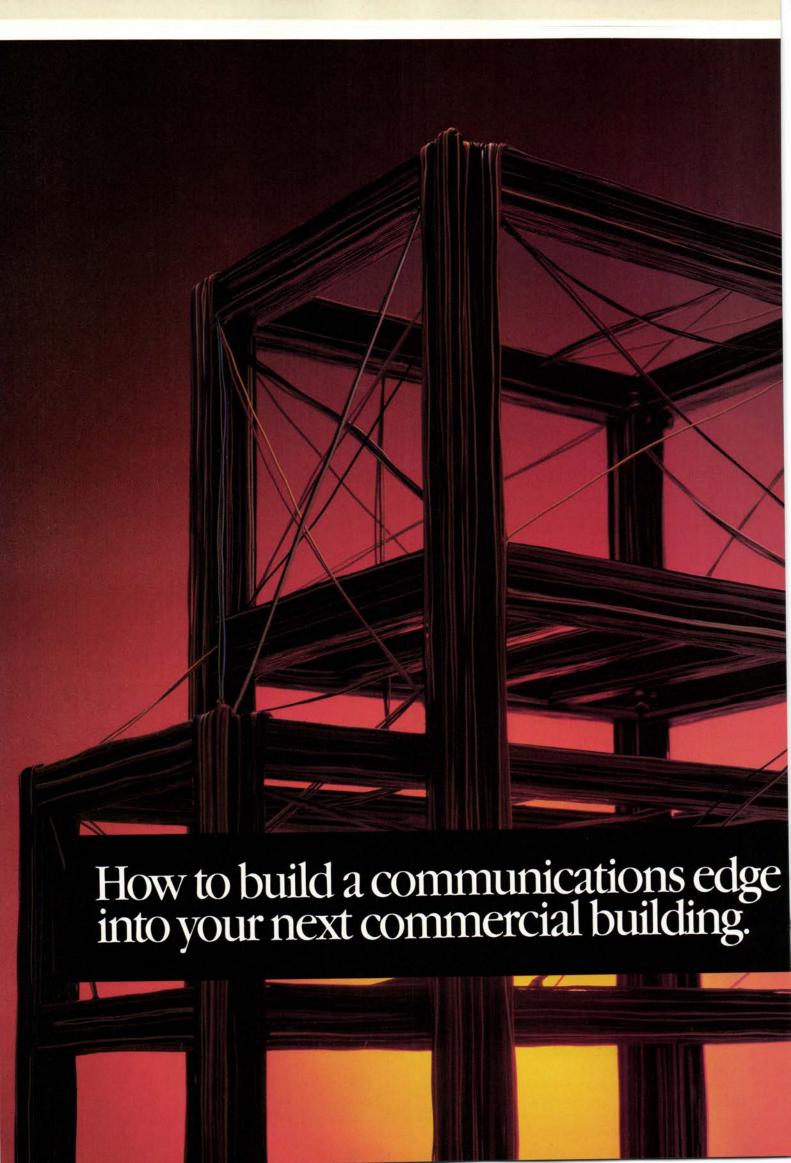
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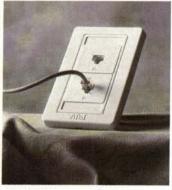
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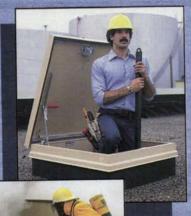
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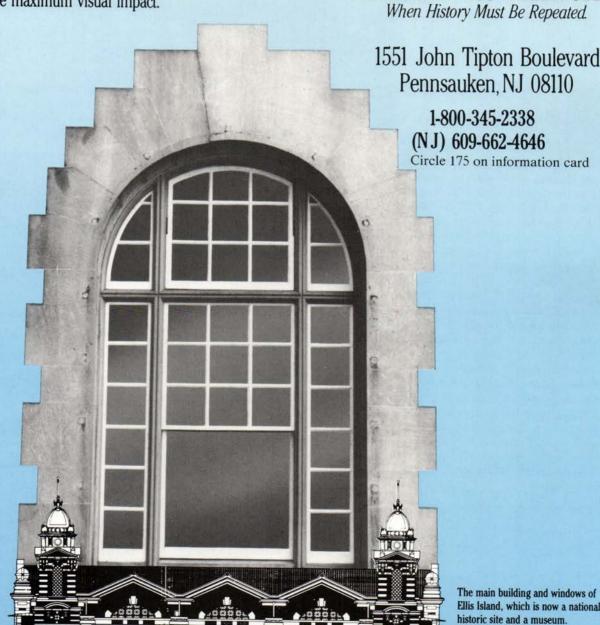
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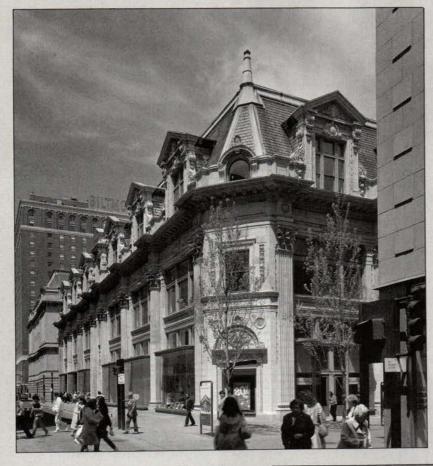
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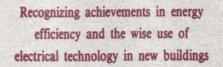
Rhode Island Chapter. Old Providence Journal Building, Providence, R.I. (left); Estes/Burgin Partnership, Providence. This project's architect, praised for extraordinary care in replicating the original building, was said by the jury to have "unwrapped a gem hidden behind an anonymous green screen." The building, designed between 1903 and 1906 by the prominent Boston firm of Peabody, Stearns, was enveloped by steel sheathing in the mid-1950s to conceal the deterioration of its limestone facade. The building has been adapted for retail and office use.

Rhode Island Chapter. Arnold Art Store and Gallery, Newport, R.I. (right); The Newport Collaborative Inc., Newport. The rehabilitation of this 1857 building centers on the insertion of a 380-square-foot, brassrailed mezzanine. Vertical circulation in the original two-story building did not encourage customers beyond the first level, which had 17-foot-ceiling height and only a single, long flight of stairs providing access to a second-floor art gallery. The mezzanine addition allows for a transition space between the two existing floors while expanding the viewing space for artwork. The insertion of a skylight creates an atrium effect, or "visual window," linking the three levels while drawing the customers' attention to the upper gallery. The arcaded mezzanine, with its brass rails, arches, and stepped modulation, transforms an empty space into a sculptural delight as it improves the gallery circulation.



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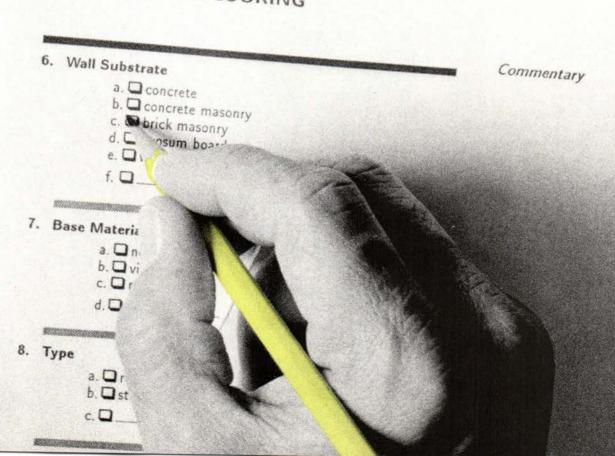
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Boston Society of Architects. Tucker House, Ipswich, Mass. (above); Dean Tucker Shaw, Boston. The jury commended this project for its "successful arrangement of interior elements combined to produce an elegantly simple, restrained, refined project well-resolved in every detail." Located on an isolated wooded highland surrounded by salt marshes, this weekend house is constructed and sited to enjoy the natural environment while preserving its sense of serenity.

Boston Society of Architects. The Blaustein Humanities Center, New London, Conn. (right); Graham Gund Architects, Cambridge, Mass. The Palmer Library, designed in 1923 by Charles Platt and built on a prominently high site, stood as a focal point for Connecticut College for many years before it was abandoned as a library. Now, its rehabilitation into a new humanities center has secured its future position in the community. The jury commended the interior renovation as "whimsical, delicate, and strong all at once."



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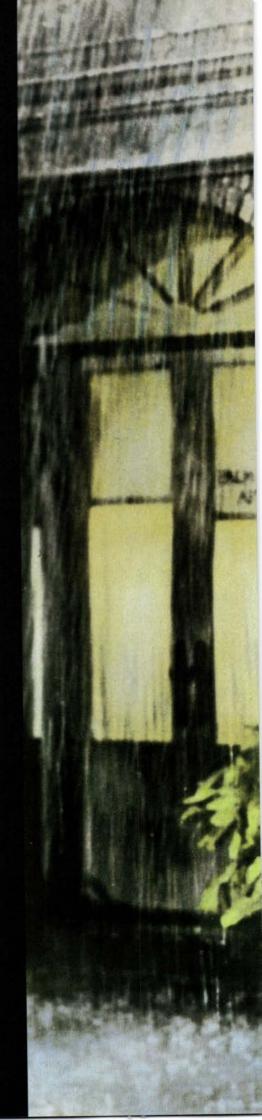
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New England Regional Council. Campus Center, University of Southern Maine, Portland, Me. (right); Moore/Weinrich & Woodward, Architects, Brunswick, Me. An abandoned International Harvester truck and tractor service garage, located on the northern boundary of the campus, was purchased by the university in 1982 for a proposed new student center. The interior adaptation of the garage, with its individual "academic temples and agoralike pavilions" sited along a student mall. preserves the original volume of the space while creating a series of intimate and diverse spaces for student gathering and study. This interior construction was considered by the jury to be closer to urban planning than interior design. The location of the center at the edge of the campus altered the existing campus plan by redirecting commuter parking, pedestrian circulation, and green space around this new focal point.



New England Regional Council. Annie Maxim House, Rochester, Mass. (left): KJA Architects, Somerville, Mass. Designed to accommodate between 12 and 20 persons, this "house" is the realized dream of cranberry magnate George Cowen, who left a 200-acre homestead for the sole purpose of building a residence for local elderly persons in need. While each resident's independence is preserved, a strong emphasis is placed on the importance of a shared communal life in this rural setting. Twelve self-sufficient, one-bedroom units, each 500 square feet, are joined by a glazed porch that encloses a shared courtyard with southern exposure. A 2,500-square-foot common room, where one meal a day is served, encourages communal gathering.

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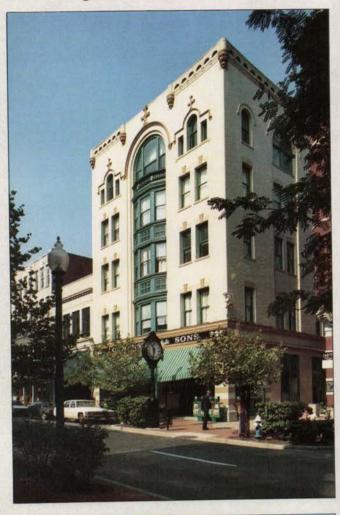
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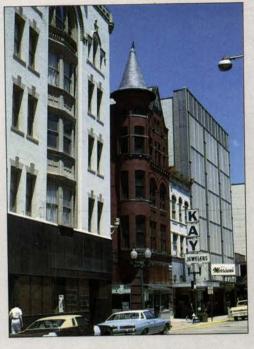
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West Virginia Society of Architects. Pedestrian Walkway (Charleston) Facade Rehabilitation, Charleston, W.Va.; Paul D. Marshall & Associates Inc., Charleston. This project, located at the center of Charleston's downtown commercial district, is part of a general urban revitalization effort. A pedestrian walkway, converted from a side street, links an old shopping district with a new superblock urban mall. The facades of nine buildings, concealed beneath modern extrusions, (above), have been restored with reference to historic photographs and archival research. These buildings, dating from 1893 to the mid-1920s, use a variety of building materials and construction methods that contribute to the rich architectural vocabulary of the restored streetscape. Selection of tree types, street furniture, lighting, and signs was done in consideration of the historic nature of the area. The jury, responding to this rehabilitation project, remarked that West Virginia's architects have shown their best work in the past year through such renovation.

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Architects Society of Ohio. Children's Hospital Medical Center, Outpatient North Facility, Mason (Warren County), Ohio (left and below); KZF Inc., Cincinnati. A facility designed to allow parents to remain with their children to the maximum extent possible before and after surgery, this children's hospital combines a sense of warmth with an interior environment resembling a playroom. The hospital's main entrances and circulation corridors are distinguished by barrel-vaulted construction.



Columbus Chapter. Creative Living Housing Corp., Columbus, Ohio (right); Schooley Caldwell Associates, Columbus. This HUD-subsidized project, located on a corner lot within a residential neighborhood and historic district, consists of 16 residential units designed for severely handicapped adults who nevertheless are able to lead an independent life. Individual rooms are linked by an inner courtyard and an exterior corridor providing personal privacy and ease of movement within a cohesive composition. The exterior, with its high-pitched, hipped roofs and colonnaded porches reminiscent of the early work of Frank Lloyd Wright, blends into the turn-of-the-century residential area. The project is sited with easy access to public transportation.



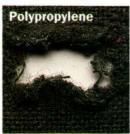
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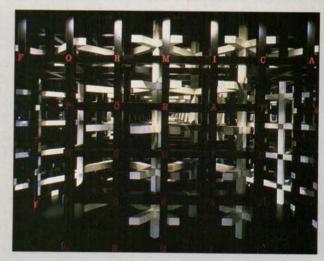
STAIN	REMOVAL METHOD
Coffee, Fruit Juice, Milk, Soft Drinks, Tea, Tabasco Sauce, Wine, Urine	Detergent ¹ /blot/water/blot
Catsup, Chocolate, Blood	Detergent/blot/ammonia ² /blot/water/blot
Mustard	Detergent/blot/vinegar3/blot/water/blot
Spicy mustard (turmeric), Kool-Aid*	Solvent ⁴ /blot/detergent/blot/vinegar/blot/ water/blot
Cooking Oil, Crayon, Lipstick, Mayonnaise, Motor Oil, Shoe Polish	Solvent/blot/detergent/blot/water/blot
Chewing Gum	Freeze with ice cube/scrape/solvent/blot/ detergent/blot/water/blot
Furniture Polish, Ink (Permanent)	Paint remover ⁵ /blot/solvent/blot/detergent/blot/ ammonia/blot/vinegar/blot/water/blot
Furniture Polish, Shoe Polish	Seek the help of a professional upholstery cleaner
Notes on Cleaning Agents	
cleaning agent should be used in an inconspicuo overwetting the cloth and by turning it frequently	leaning agents. A clean, white cloth dampened with the recommended us place to test for colorfastness. Optimum cleaning will be achieved by not to keep it clean. Rings can be avoided by working from the outer edge of the peated until the spot is removed or there is no further transfer to the cloth.
¹ Detergent	One teaspoon neutral powder detergent (e.g., "Tide" or "All") in 1 pint warm water
² Ammonia	A 3% solution
³ Vinegar	White vinegar or 10% acetic acid
⁴ Solvent	Dry cleaning fluid-preferably 1,1,1 trichloroethane
5paint remover	Paint remover with no oil in it
NOTE: Oily and greasy stains—In addition to the rewell to dry cleaners such as "HOST" (Racine Indutte label.	ecommended method, some stains (e.g. perspiration/body oils) respond stries), "CAPTURE" (Milliken) and "K2R" (Texize), Carefully follow directions of the control of the co

^{*}Recommendations based on fabrics finished with Du Pont Teflon* WBC Soil & Stain Repellent for CORDURA. The methods were effective on stains that were allowed to sit untreated overnight. Removal is usually easier when stains are cleaned immediately.

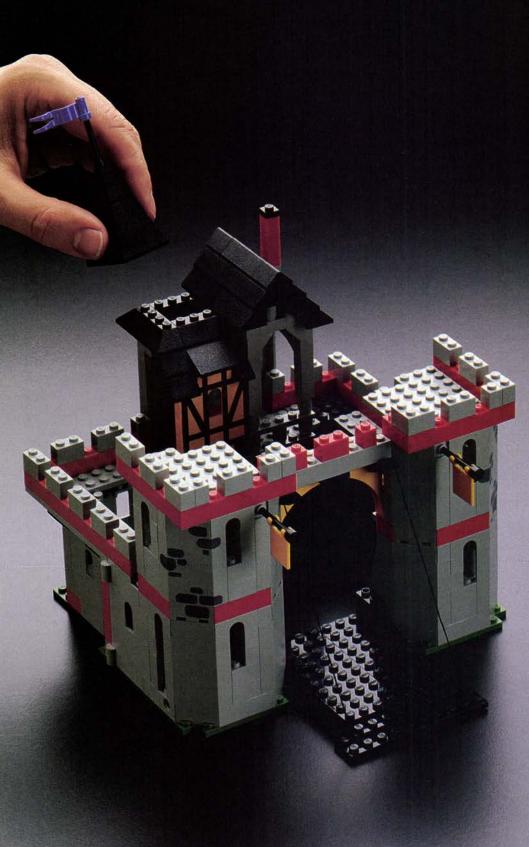




Chicago Chapter. CBOE Bridge, Chicago; Skidmore, Owings & Merrill/Chicago. The jury, glad to see structural expressionism alive and well in 1987, commended this steel truss bridge connecting the Chicago Board of Trade and the Chicago Board Options Exchange (CBOE). Creating the largest contiguous trading floor area in the United States, the bridge provides an environmentally controlled passage for members of the two exchanges. The difference in air pressure between the two buildings is resolved by a revolving door located at the center of the bridge. Raceways for electrical connections between the two exchanges are contained beneath the raised floor of the bridge. Chicago Chapter. Formica Corp. Showroom, Chicago, Ill.; Tigerman Fugman McCurry, Chicago. As stated in the program, the problem was to "create a showroom whose presence is intrinsically of the product, removing all extrinsic allusions." Therefore, the main thrust of the design was to establish the autonomy of its material-Formica. A scaffoldlike sculpture is based on a double grid system expressing the location in Chicago.



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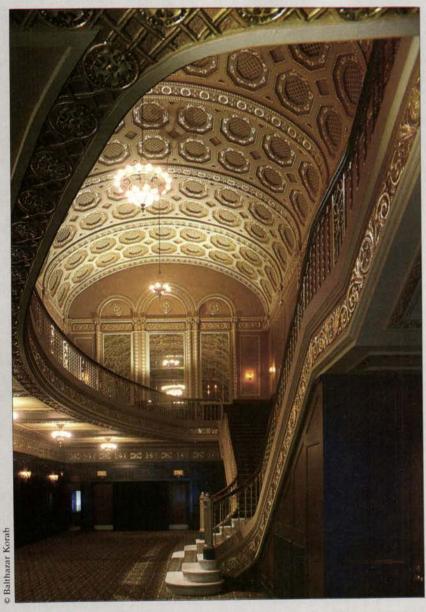
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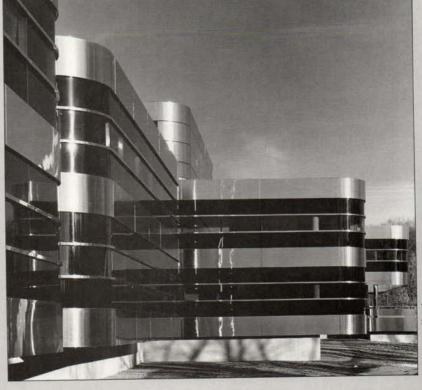
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Michigan Society of Architects. Michigan Theater Restoration, Ann Arbor, Mich. (left); joint venture of Osler/Milling Architects Inc. with Quinn Evans A.CH., Ann Arbor. Built in the 1920s, this ornate movie palace was substantially altered in the 1950s. The city of Ann Arbor, in need of a performing arts center, commissioned the architects to restore and renovate the theater to provide a "fully functional and exciting" center. The original features and surface details of the foyer and auditorium, carefully restored and gold-leafed, recapture the theater's original splendor.

Michigan Society of Architects. Robotics Research Facility, Ann Arbor, Mich. (right); William Kessler & Associates. This stainless steel and glass ITI building was cited by the jury for its architectural expression of the high-tech nature of the work being conducted within. Sited in a natural landscape, the building's streamlined composition provides a marked contrast with the wooded ravine and stream that surrounds it. The facility's offices, research laboratories, and conference rooms are designed to promote employee interaction. Several small sitting areas with views of the ravine are located along the corridor to the laboratories, allowing for chance meetings and informal gatherings.



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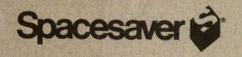
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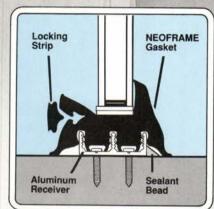


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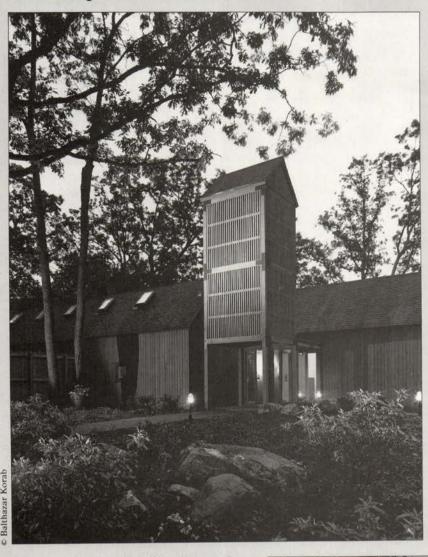
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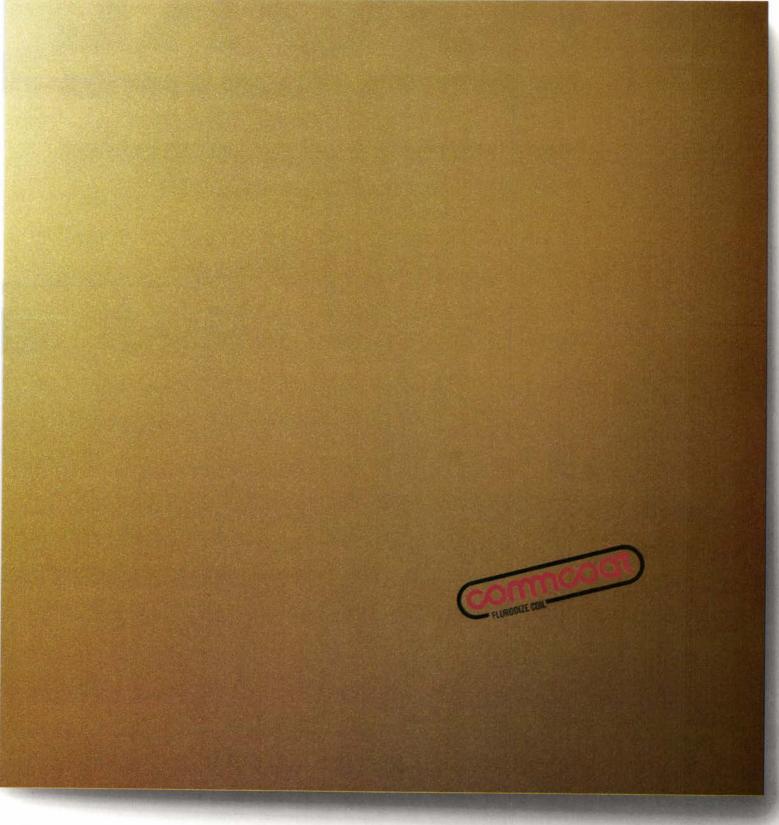
Michigan Society of Architects. Harry S. Peterson Co. Inc., Lake Orion, Mich. (left); Osler/Milling Architects Inc., Ann Arbor, Mich. This corporate headquarters and warehouse, with its use of natural materials, residential sense of scale, and sensitive landscaping, provides an innovative alternative to the usual industrial building type. Located on 10 acres of natural woodland in Orion Township, the building has as its main feature an elegant arrival court and entry tower. The interior spaces, arranged beneath gabled roofs, are designed to take advantage of commanding views of the surrounding site.

Minnesota Society. Facilities Systems Inc. Headquarters, Eagan, Minn. (right); Meyer, Scherer & Rockcastle Ltd., Minneapolis. This building, located in a typical suburban office park, houses the Upper Midwest region of the Herman Miller Furniture Dealership and offices for Herman Miller's regional employees. The building successfully integrates the offices with the showroom in an architectural setting that does not allow one function to dominate the other. Solid masonry construction presents a sense of substantiality in contrast with the surrounding speculative office buildings. The entrance and reception lobby, reminiscent of a grain silo, rises three stories and forms a visual focal point for the composition. A concern for quality of materials is evident in the use of teak and mahogany in much of the detailing.



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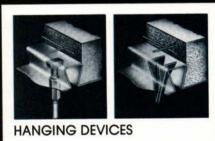
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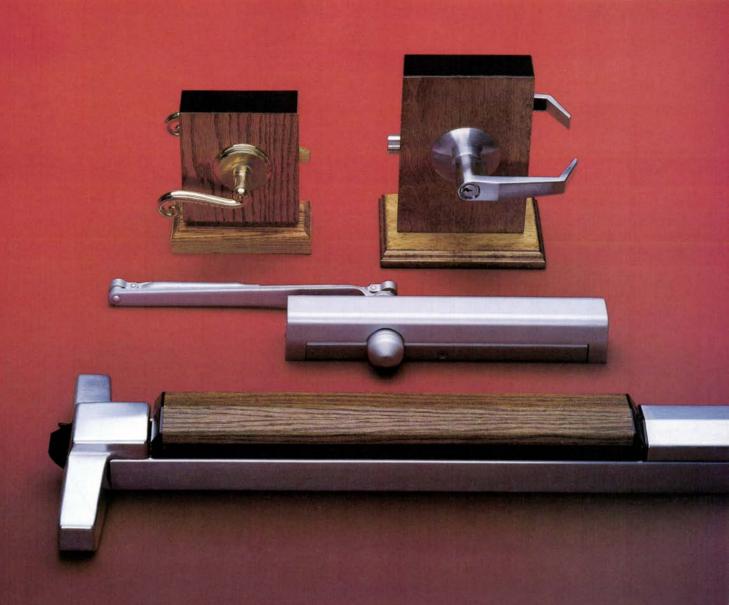


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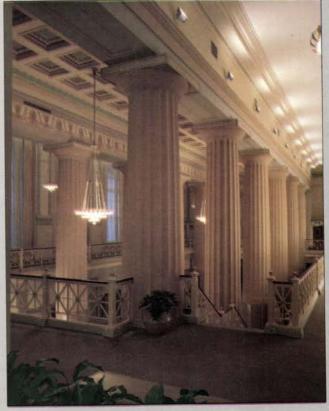
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Kansas City Chapter. Union Hill Arts, Kansas City, Mo. (left); RDM Architecture, Kansas City. This rehabilitation project by Richard D. McDermott, AIA, was cited by the jury as an artful and witty restoration done with an economy of means. The interior of the 98-year-old building, severely damaged by the collapse of the roof and second floor in 1984, was carefully rebuilt and adapted for display of artwork. The front facade, preserved and updated by the addition of an exterior lighting system that defines the existing architectural detailing, achieves a satisfying balance between old and new.

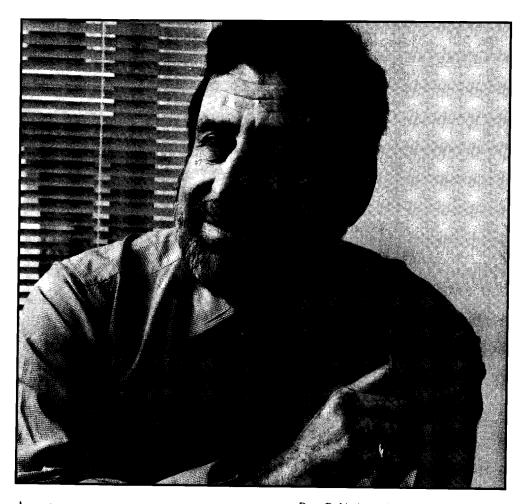
Kansas City Chapter. Federal Reserve Bank Restoration and Adaptive Use, Kansas City, Mo. (right); PBNA Architects Inc., Kansas City. With its public banking functions moved to another part of the building, this bank's main entrance and columnar banking hall sat empty for several years. Its rehabilitation into a visitors' center is part of the bank's effort to put forth a friendlier public image. The project included relocation of the bank's public affairs department, assembly and audiovisual rooms, additional meeting space, fine arts gallery, and a banking system display. The jury commended the architect's work as restoration done in a "distinguished" manner with a "pleasant" use of colors. The jury also recognized this restoration as having achieved its purpose with minimal disruption of the original fabric of the building.



66 None of us studied architecture expecting to be defendants in a lawsuit. Most architects are creative people they may or may not be businessmen, although the better they are in business the better it is—but few expected to be defendants in this changing profession. It's something that has affected me personally, and, I expect, the growth of many architectural firms. It's caused me concerns, maybe burned me out, in spite of the fact that we've won every one of our suits.

In the middle '70s to the early '80s, I felt insurance was the biggest problem architects faced-that and litigation. And it's a continuing problem, no question about it. But I think that today DPIC Companies is with us for our entire future. Although we had only had two other insurers in 69 years, we really moved away from our previous insurer without any hesitation. DPIC was the first insurer that ever discussed loss prevention. And they were the first insurer that ever gave a damn about how we practiced architecture. That makes us very comfortable. Because, really, they are the most important partner in this firm. They provide us with the assurance we need to know they are going to be there. They assist us in undertaking contracts and procedures necessary to try to keep out of trouble in this litigious world. They provide us with legal counsel when there's a problem brewing. In fact, we took advantage of their Early Warning program just this week.

I feel very good about them. 99



Marchin David Dala

Dave Dubin is a principal in Dubin, Dubin and Moutoussamy, a 75-year-old architectural firm based in Chicago. He is past president of both the Chicago and Illinois AIA. We value our relationship with his firm and thank him for his willingness to talk to you about us.

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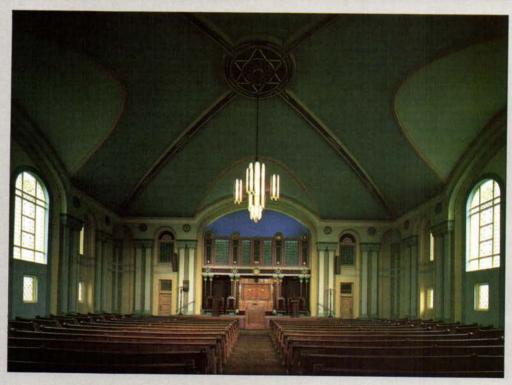
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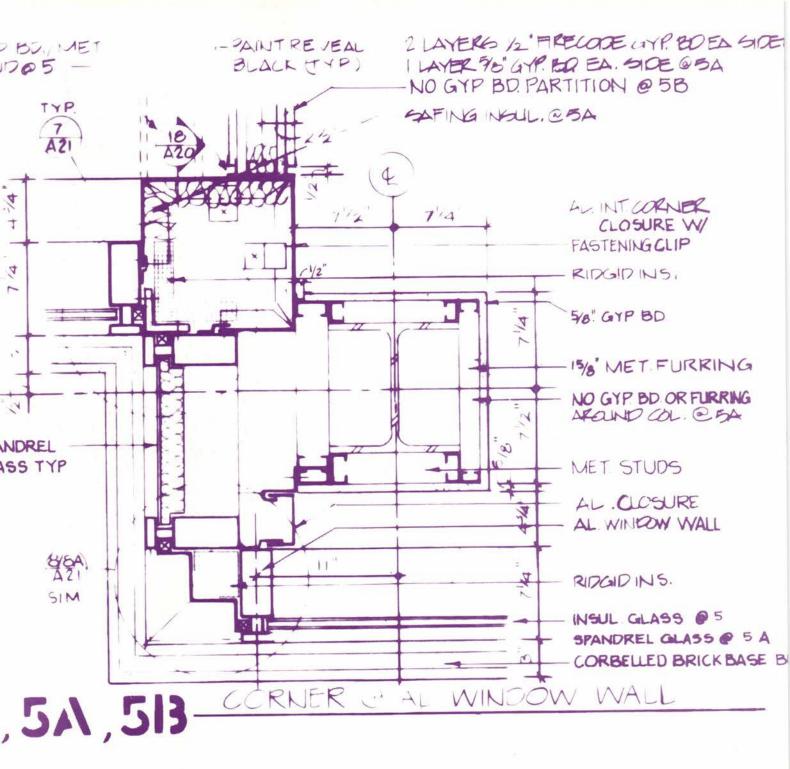
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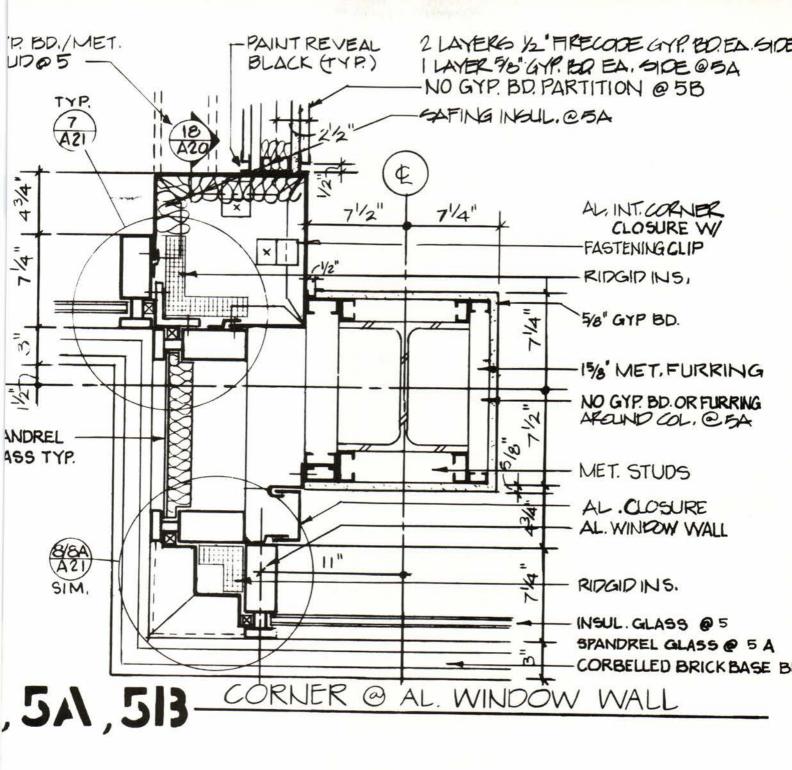


Iowa Chapter. Tifereth Israel Synagogue, Des Moines, Iowa; Charles Herbert & Associates Inc., Des Moines. The extensive refurbishing of this 50-year-old synagogue centered on the repainting of its interior space. Investigation showed that a polychromatic color scheme had been used in the synagogue's early history but was later hidden beneath layers of monochromatic paint. The restoration of the

earlier color scheme, agreed to by the owners, helps to accentuate existing detailing while reinforcing orientation. The intensification of colors around the ark area includes ceremonial and liturgical references, reinforcing the ark as a point of focus. The new color scheme enriches the character of the building while recapturing the theological hierarchy it originally expressed.



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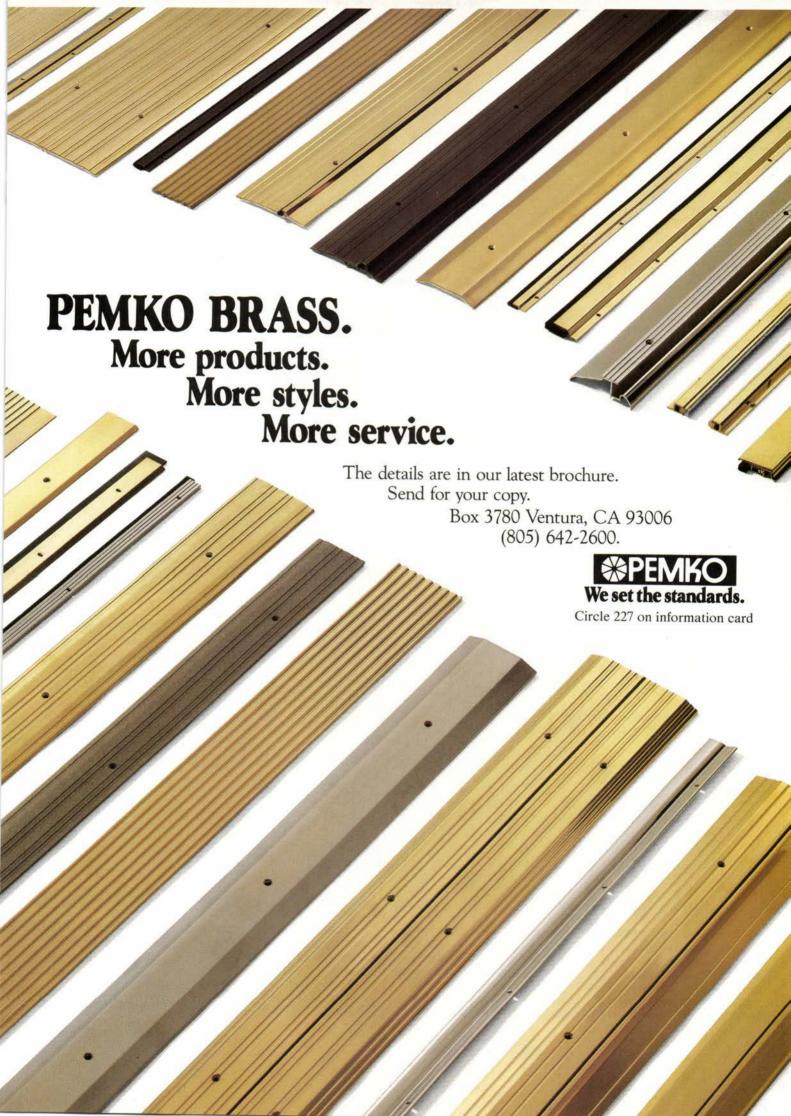
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PRODUCTS



Furnishings

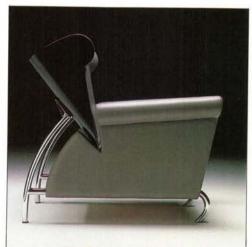


21st-Century Newport

Furniture designer James Sagui brought historical elements into play in the contemporary design of the 21st-Century Newport he created for a show in a Manhattan gallery in 1985. The highboy-type piece measures 20x16x7 and is made of ebonized walnut and Swiss pear, with a mirror insert. Two cabinets with drawers open by use of a push catch, and a quarter round is fitted in one corner.

James Sagui Circle 403 on information card

Products is written by Amy Gray Light.



Streamlined Armchair

Designer Massimo Josa-Ghini strove to make a chair evoking the Moderne 30s era when he designed the Norma 2 tubular metal and leather armchair from the 15-piece Dinamic Collection of tables, chairs, and upholstered pieces. The chair is distinguished by its soft curves and streamlined form. The armchair measures $31\frac{1}{2}x35\frac{1}{2}x28$.

Palazzetti Circle 401 on information card Spyder Table

The Spyder Table (designed in 1986 by Ettore Sottsass for Knoll International) with its four tubular steel, arched legs is reminiscent of an arachnid. A circular glass top with chamfered edges comes in either 47 inches or 53 inches in diameter, and the supporting cross member, made of polyurethane and steel, connects the legs and attaches the glass top to the base. The cross member is available in a matte black or silver finish; the legs come in mat black or high-gloss red, green, blue, silver, dark gray metallic, and mocha. Knoll International Inc.

Circle 402 on information card
Products continued on page 262

Working Chair

The Jefferson chair (shown at right) reclines the same way the user's body reclines, duplicating its geometry. The user's body serves as a lock, keeping the otherwise free-moving chair in place. The chair springs back into a sitting position after the user stands up. The chair's firm padding also shapes it to the user's body.

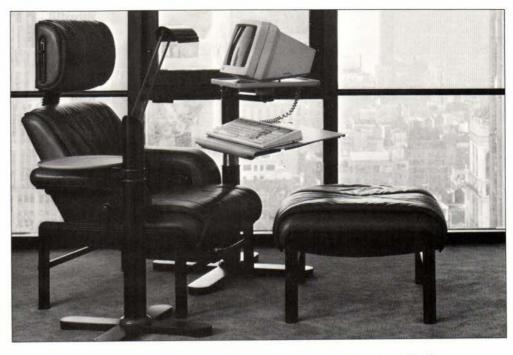
Adjacent equipment can be assembled in many ways to suit the individual task at hand. A table swings over the body of the chair and holds a computer screen, or, tilted, holds reading material; a lamp is adjustable over the chair. A separate footrest or hassock can be used as a spare seat or an extension of the chair. The leather textile chair is offered in six standard colors.

Sunar Hauserman Circle 411 on information card.

Spring Table

The Spring Table shown below, designed by The Burdick Group for Herman Miller, is available in a number of shapes and sizes. Its various parts (top, edge, edge inserts, legs, and feet) can be specified in different colors and materials. The legs are independent, integrally rigid structures with a "knee bend" shape. When used in juxtaposition with another leg or in a cruciform layout with three other legs the support system is imbued with a level of dynamic tension. The legs are made of urethane, insert-molded over steel. The "step back" or "layering" of the leg is designed to achieve structural strength and is soft to the touch. The table edges are extruded and insert pieces are injection molded. The feet are nylon over steel.

The Burdick Group Circle 404 on information card



NEW AND NOTEWORTHY

Sun Control Product

Skylid self-operating insulating louvers are sets of panels that open beneath a skylight to allow sunlight and heat to enter during the day and close to prevent heat loss at night. The sun controls their responsive weight-shifting system. The louvers are oriented parallel to the sun's rays during the day. A manual override allows the louvers to be held in a closed or partially closed position to prevent overheating or to control light levels. Skylid louvers are constructed to withstand intense solar radiation while providing insulation. There are no plastic parts to degrade in the heat and sunlight.

Zomeworks Corporation Circle 410 on information card

Software for Designing Windows

A free DataCad version of Andersen Corporation's computer-aided design tool called Andersen CADD-1 guides the user in selecting the manufacturer's window and patio door products. The program automatically adds the products to computerized floor plans, elevations, or detail drawings and tallies the products selected, including design options and symbol codes, and prepares window schedules and data reports. Using DataCad, the CADD-1 program also features three-dimensional drawing capabilities.

Andersen Corporation Circle 408 on information card

Sculptured Wall and Ceiling System

Sculptra modules for walls and ceilings are intended for large interiors or exteriors where a sculptured look is desired. The 2x2-foot modules are fabricated of polymeric glass-fiber-reinforced concrete 1/8 inch thick. One square foot weighs one pound. The modules are fire-retardant and come in a standard white, with other colors and surface textures available. All modules are manufactured by order only. Inventive Product Design Company Circle 412 on information card

Composite Drainage Line

Mirafi Inc.'s prefabricated drainage composite line satisfies the requirements of most drainage applications and conven-

tional drainage problems.

Miradrain 6000 is designed for singlesided subsurface drainage applications. The flat side of the core fits directly against wall surfaces. It reputedly resists creeping and, by reducing hydrostatic pressure, enhances waterproofing. A thin cross section enables it to take up little space and to attach easily to weep systems. The 6000 is suggested for foundation walls, retaining walls, bridge abutments, and similar structures. Miradrain 6200, similar to the continued on page 264



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Photograph: Motion Picture Industry Pension Plan Office Building, St adio City, CA. Architect; William F. Burch, Architects, Inc., Manhattan Beach, CA. © 1987 Bobrick Washroom Equipment, Inc.

Circle 231 on information card

Products from page 262

6000 product, includes a thin, high-strength polymeric film on the flat side of the core to provide extra protection when applied over soft sheet waterproofing membranes. The film prevents extrusion of the soft membrane into the back side of the core dimples. Miradrain 9000 is a lightweight system specifically designed for under-slab applications on plaza decks. Miradrain 8000 has a chemically resistant PVC core designed for applications where more severe chemical exposure is possible. The 8000's resistance to petrochemicals makes it good for use with underground storage tanks, airports, helicopter pads, and industrial applications. The Miradrain 5000 is designed for applications where two-sided drainage is required. This system is effective for promoting soil stability and removing ground water. Typical uses for the 5000 include cut-off drains in slopes, embankments, and pavement edge drains. Mirafi Inc.

Circle 406 on information card

Railing System

Hewi thermoplastic nylon handrails and balustrades (below) are available in 13 colors and in two diameters. The railing system consists of nylon tubes colored throughout, which are fitted over steel cores, galvanized and chromated inside and out. The tubes are connected with a variety of components (elbows, straight and angled connectors, etc.) of similar material and construction. Hewi systems comply with BOCA building codes. The handrails can be constructed to meet specifications for the handicapped. W&W Glass Products Ltd. Circle 405 on information card



Air Doors

Two new air doors eliminate the need to use two three-foot units in wider entryways. thereby reducing initial costs. Both six-foot units use an internal blower that directs a stream of high-velocity air downward, creating an invisible barrier to insects, dirt, dust, and fumes. The doors also save energy, as the curtain of air helps prevent conditioned or heated air from escaping. Model 72C is for front doors and Model 72CH for back doors. Both models are available with electric heat; they comply with USDA regulations and are approved by the National Sanitation Foundation as well as most local health departments. Mars Air Doors

Circle 413 on information card

Custom Mezzanines

Wildeck steel mezzanines assemble easily to form high-load-bearing overhead levels. Standardized steel components lock together to form a unified column-supported structure. Three systems are available: C-section for light to medium loads, beam and bar joist for wide spans, and beam and beam for heavy loads. A variety of decking is offered, along with many optional accessories. The structure can be expanded to meet future needs and is shipped as prefabricated units. Wildeck Mezzanines Inc. Circle 414 on information card

Movable Floor

An electronic floor-elevating system trademarked "The Movable Floor" was installed in October 1986 in Chicago's Rosemont Horizon Stadium, the first facility in the world to use the floor. It is designed to elevate to specified heights so that all spectators have an optimal view of the playing surface for any sport, ensuring good sight lines.

Additional advantages are that the floor significantly increases the stadium's setup flexibility and cuts overhead operating costs since one person is able to operate the floor. The Movable Floor designed for Chicago's stadium lifts 26,000 square feet of floor, or 2.1 million pounds, five feet in 20 minutes. It consists of 112 hydraulic jacks driven by an electronic monitoring system with fail-safe backups. With a safety factor of four, the capacity of the floor's jacks and hydraulic systems is more than 8 million pounds.

Degen & Rosato Construction Company Circle 415 on information card

Ceiling Lay-In Panels

New Celotone ceiling panels from Celotex are designed to look like corded linen. The directional pattern weaves across the panel surface, simulating raised strands of natural linen fiber. The panel is available in a soft-white color. Additional information and product samples are available through the manufacturer.

Celotex Corporation Circle 407 on information card



Images Reproduced on Panels

Graphiclad panel images (above) make customized designs and ornamentation on flat, lightweight aluminum panels. The images can be solid, geometric, or appear textured or three-dimensional. The three basic types of reproduction available are the photographic halftone, the solid, and the mechanically controlled tint. The finish is available on any type of Cupple's aluminum panel, composite, or sheet. Design patterns are scanned by the manufacturer's computer, digitized, and replicated. The patterns are then phototransferred in the client's choice of fluoropolymer colors to the aluminum panels. The Graphiclad process of halftoning allows for different color values within a solid color.

Cupples Products, division of H.H. Robertson Company Circle 409 on information card

Foam Cutting Machine

The Hot Wire plastic foam cutter for architects who model with foam is designed to allow accuracy of setups and ease of use. A smooth, grid laminate surface of 15\%x24 inches provides twice the work area of most cutters. Black anodized aluminum parts are precision machined for smooth, accurate movements. An overhead arm allows a 12-inch vertical clearance, and it locks for accurate angle cutting. A continuous-feed bobbin keeps extra wire on the arm, allowing quick and easy wire changes. A full-range rheostat provides variable heat levels. The overhead arm and accessories fit inside the base for easy storage and transport.

Packed with five feet of three-inch-thick, high-density plastic foam, the Hot Wire comes with a high-backed miter guide, a 15-inch, positive-lock rip fence, 100 feet of nickel chrome wire, and instructions with tips on working with plastic foam. Coleman & Jones

Circle 416 on information card

High-Technology Office Desk

The Powerbeam desk series, designed to accommodate word-processing hardware and electronic communications equipcontinued on page 267

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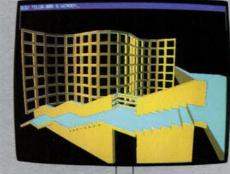
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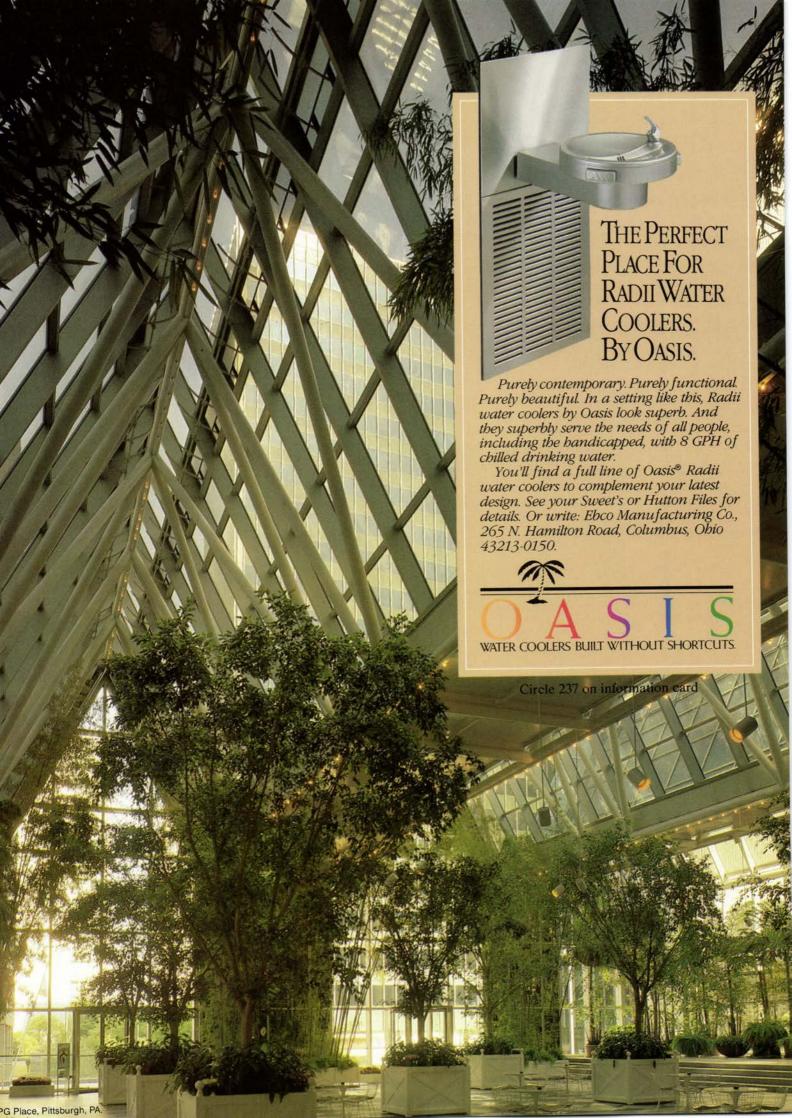


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Circle 235 on information cardinal



Products from page 264

ment features an arterial passageway consisting of a hollow tube with two segregated channels and hinged doors to allow easy access to the electrical circuits and communications cables. By means of up to nine types of Powerbeam connectors, workstations can be linked up to 10 in a series, with wires and cables feeding from one point. A Powerbeam Trestle Support shipped unattached to the desktop allows for continuity of design and a wide range of color choices. Desktops are available in glass, solid wood, or laminate. A T-brace supports long runs of Powerbeam or can be used as an optional desktop base. Also available are bridgelike top supports that enable workstations to be snapped together and wired before the tops go on; quicklock floor levelers; extra-deep file drawers that accommodate computer printouts; and hinged front and side panels.

Kinetics Furniture Circle 417 on information card

Expansion Joints/Spacers

Silicone expansion joints and spacers resist ozone, oxidation, and compression-set at low temperatures; therefore they are useful in highway expansion joints, bridge bearings, glazing gaskets, and other sealing components in the building and construction industry. The most outstanding property of silicone elastomers is their broad service temperature range, designed to exceed the scope of other commercially available elastomers. Silicone base stocks can be compounded to perform for extended periods at temperatures from 150 degrees below zero to 500 degrees Fahrenheit in static applications and from 100 degrees below zero to 500 degrees Fahrenheit under dynamic conditions. ARMET Industries Corporation Circle 418 on information card

Fiber-Reinforced Panel

Eterspan asbestos-free, fiber-reinforced panels are applied as the exterior facing in prefabricated or field-installed steel stud assemblies. The product's dimensional stability permits the construction of panel units up to 25 feet long and a total surface area of 250 square feet. The panels are fastened to the stud assembly with selftapping screws, and the countersunk holes are patched. A glass-fiber mesh is applied to the surface of the panel. A pigmented synthetic or cementitious finish is then applied. R values are dependent on the depth of the stud cavity and the type of insulation used. Eterspan can also be used as a component in fire-rated and noncombustible walls.

Eternit Inc.

Circle 419 on information card

Fire-Rated Poke-Throughs

A flush-mount design is now available for the Hubbell line of fire-rated pokethroughs. The new models offer a lowprofile dimension and an attractive appearance. Once the unit is installed, only an unobtrusive carpet flange can be seen. Hidden beneath each unit's epoxy finish are a specification-grade, 20-ampere receptacle and two low-voltage openings, providing complete service to any office workstation or furniture from a single above-floor fitting. The die-cast aluminum carpet flange lies flush with carpeting and is available in ivory, brown, gray, and black. Two independent, spring-loaded lift covers are self-closing to protect the receptacle when not in use.

Because the fittings do not have to be dismantled for removal, they can be moved and reused easily. The flush-mount pokethrough is available either as a one-piece, fully assembled, and prewired unit or as a two-piece, through-floor fitting. A phenolic insulator in the flush-mount design separates power from low-voltage conductors, providing a single unit that accom-

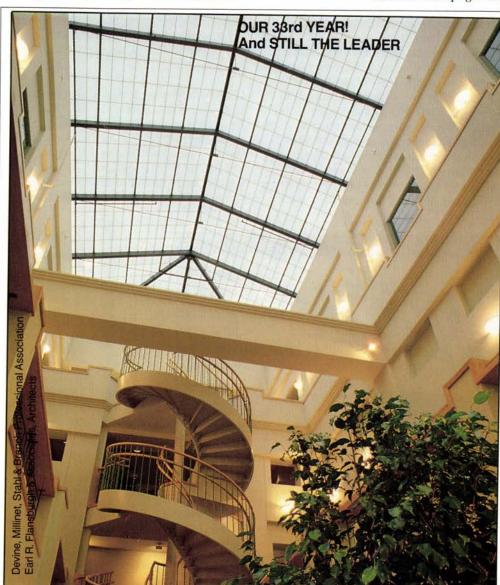
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Hubbell Inc., wiring device division Circle 420 on information card

High-Tech Faucet

A kitchen faucet features a spray head mounted on a retractable hose. The continued on page 268



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Circle 239 on information card

Products from page 267

body is of pressure-cast brass, and the faucets come in chrome and snow-white, powdered-coat, epoxy enamel with a mat black head.

The 58-inch retractable hose has an inner core of nontoxic synthetic polymer with an outer covering of chrome-plated, flexible metal cable. The faucet employs a washerless, quarter-turn valve with ceramic disks.

Abbaka Circle 421 on information card

CREDITS

Rowes Wharf, Boston (page 118). Architect: Skidmore, Owings & Merrill/Chicago. Design partner: Adrian D. Smith, FAIA. Project partner (design development phase): James R. DeStefano, FAIA. Project partner (competition phase): Robert A. Hutchins. Structural engineers: Hal Iyengar; D. Stanton Korista. Mechanical engineers: Parambir Gujral; Ray J. Clark. Studio head (competition and schematic design phase): Joseph A. Gonzalez. Senior architect (competition phase) and studio head (design development phase): G. Joseph Reibel. Project manager: John Kelsey. Senior technical coordinator: Richard Smits. Technical coordinator: Hank Skonieczny. Senior architects: Peter Van Vechten; Dennis DeCapri; John Eifler, AIA; Lyn Eisenhauer, AIA; Peter Fenner; Will Fugo; Richard Garcia; Julie Gross;

Bill Haynes; David Hertzfeldt; Steve Hubbard; Jeff Jarvis; Mike Kuenstle; Lee Ledbetter; Sandy McLeod; Frank Michealski; Dale Olsen; Donna Palicka; Dan Rectenwald; Jean Reibel, AIA; Suzanne Roubik; Ruth Slobin; Indulis Smidchens; Chris Thomas; Scott Thomas; John Vasilion. Geotechnical consultants: Haley & Aldrich. Special marine and civil engineering: Childs Engineering Corp. Lighting: Jules Fischer & Paul Marantz Inc. Acoustics: Cavanaugh/Tocci Asociates Inc. Hotel interior design: Frank Nicholson Inc. General contractors: Beacon/ O'Connell; Perini Corp. Owner: The Beacon Companies.

190 South LaSalle Street, Chicago (page 124). Architect: John Burgee Architects with Philip Johnson, New York City. Associate architect: Shaw & Associates. Interior architect: Hague-Richards Associates Ltd. Structural engineer: Cohen-Barreto-Marchertas. Mechanical engineer: Cosentini Associates. General contractor: Turner Construction Co. Developer: The John Buck Co.

123 North Wacker Drive, Chicago (page 124). Architect: Perkins & Will, Chicago. Design principal: Ralph E. Johnson, AIA. Managing principal: James C. Allen, AIA. Project manager: Charles Anderson, AIA, SE. Senior project designer: August Battaglia. Electrical and mechanical engineer: Jaros, Baum & Bolles. Structural engineer:

Perkins & Will. Landscape architect: Perkins & Will. General contractor: Schal Associates.

Lincoln Centre, Minneapolis (page 124). Architect: Kohn Pedersen Fox Associates, New York City. Partner in charge: A. Eugene Kohn, FAIA. Design partner: William Pedersen, AIA. Managing partner: Robert Cioppa, AIA. Project manager: Robert Barbach. Senior designer: Richard Del Monte, AIA. Design team: Alan Aronoff; Tony Barnaba; Nathan Bibliowicz; Joan Blumenthal; Benjamin Curatolo; Bob Henry; Dow Jarrett; Jane Murphy; Saradendu Narayan; John Thomas. Electrical and mechanical engineer: Steve Dunn & Partners. Structural engineer: Brockette Associates. Landscape architect: Daniel D. Stewart & Associates. General contractor: M.A. Mortenson Co.

One Liberty Place, Philadelphia (page 124). Architect: Murphy Jahn, Chicago. Principal in charge: Helmut Jahn, FAIA. Project architect: Scott Pratt. Manager of production: Ed Wilkas. Design team: Tony Pelipada; Steve Kern; Sudir Shinde; Ted Depaz; Bill Lohmann; Rick Levin; Dan Dolan; Rob Falconer; Dusty Rhoads; Charles Sheppard. Electrical engineer: Flack + Kurtz (Don Hickey). Mechanical engineer: Flack + Kurtz (Norman Kurtz, David Stillman). Structural engineer: Lev Zetlin Associates, Charles continued on page 270

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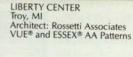
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Thornton, Udom Hongspruke. General contractors: L.F. Driscoll/Huber; Hunt & Nichols Inc.

The American Club, Tai Tam, Hong Kong (page 132). Architect: William Turnbull Associates, San Francisco. Associate architect: M. Moser & Associates, Central, Hong Kong, Principal in charge: Karl G. Smith II, AIA; Moira Moser, AIA. Project managers: Karl G. Smith II, AIA; Danny Cerf; Jones Lange Wootton. Design team: William Turnbull, FAIA; Karl Smith, AIA; Evan Markiewicz. Electrical and mechanical engineer: J. Roger Preston & Partners. Structural engineer: Mitchel, McFarlane, Brentnall & Partners. Landscape architect: Urbis Design Group. Quantity surveyors: Langdon, Every, Seah. General contractor: T.S. Wong. Interior contractor: Pat Davie Ltd. Interior design: William Turnbull Associates, Margaret Simon, Wendy Libby. Kitchen consultants: Unity Engineering Co.

Becton Dickinson & Co. Corporate Headquarters, Franklin Lakes, N.J. (page 138). Architect: Kallmann McKinnell & Wood Architects, Boston. Principals: Gerhard Kallmann, AIA; Michael McKinnell, AIA; Henry Wood, AIA. Senior associates: Hans Huber; S. Fiske Crowell Jr. Design team: Lynn Hopkins, Emily Kuo, Avi Lothan, Susan Shaw, Cary Tamarkin, Tim Techler. Garage: Peter Bacot; Ted Szostkowski. Structural engineer: Zaldastani Associates. Electrical, mechanical and plumbing engineer: Cosentini Associates. Civil and site engineer: Andrew Marshall Jr. Master planner and landscape architect: Morgan Wheelock Inc. Space planning and interior design: Gensler Associates, Architects (New York), with Kallmann, McKinnell & Wood. Specifications: Todisco Associates. Food service: Michaels & Colburn Associates. Acoustics: Bolt, Beranek & Newman and Lewis S. Goodfriend & Associates. Code consultants: Rolf Jensen & Associates. Lighting: Jules Fischer & Paul Marantz Inc. and Terry Chassman Inc. Cost consultants: Wolf & Co. Art consultant: Mary Lanier.

Crosby Arboretum Interpretive Center, Picayune, Miss. (page 144). Architect: Fay Jones & Maurice Jennings Architects, Fayetteville, Ark. Principal in charge: Fay Jones, FAIA. Design team: Fay Jones, FAIA, Maurice Jennings, AIA, Larry Fox, David McKee, Leroy Scharfenberg. Electrical, mechanical, and structural engineer: Fay Jones & Maurice Jennings Architects. Landscape architects: Edward Blake Jr. and Andropogon Associates. General contractor: Burge Contracting Inc. Interior design: Fay Jones & Maurice Jennings Architects.

Lucile Halsell Conservatory, San Antonio, Tex. (page 148). Architect: Emilio Ambasz & Associates, New York City. Principal in charge: Emilio Ambasz. Project director: Dwight Ashdown. Project development: Alan Henschel. Glazing consultant: Erik Hansell. Design team: Frank Venning, Mark Yoes. Local architects: Dan Wigodsky and John Kell, AIA. General contractor: Guido Brothers Construction. Structural engineer: Lev Zetlin Associates. Mechanical engineer: Ambrosino, DePinto & Schmieder. Civil engineer: Pape-Dawson. Client: San Antonio Botanical Center Society.

Carnegie Hall Restoration, New York City (page 154). Architect: James Stewart Polshek & Partners, New York City. Design team: James Stewart Polshek, FAIA. Master plan: Paul S. Byard, AIA (partner in charge); Tyler H. Donaldson, AIA; Timothy P. Hartung, AIA. Design and construction: Joseph L. Fleischer, AIA (partner in charge); Tyler H. Donaldson, AIA (design); Gaston Silva; Cynthia Thompson; Christopher Eseman; Manuel Baez; Richard Basta; Ray Beeler; William Boling; Kurt Carlson; Mike Connell; Olivia Demetriou; Mary Dempsey; Pat Golden; Eva Growney; Lee Harris; Angeline Ho; Herman Howard; May Kirk; Thomas Koloski; Taylor Lauden; Young Lee; Ana Marton; Alice McGown; Sherry McKibben; Townsend Moore; Patricia Morton; Hisayoshi Ota; Adrian Panaitescu; Clement Paulsen; Steven Peppas; Dean Perton; Mark Robbins; Holly Ross; Mark Rylander; Carolyn Senft; Jeanne Stinnett; David Tobin; Louis Turpin; Thomas Viani; Margaret Walker. Structural engineer: Robert Silman Associates. Mechanical engineer: Goldman, Copeland, Batlan & Oxman. Code: Cole-Gillman Associates. Specification: Specification Associates. Construction manager: Tishman Construccontinued on page 274

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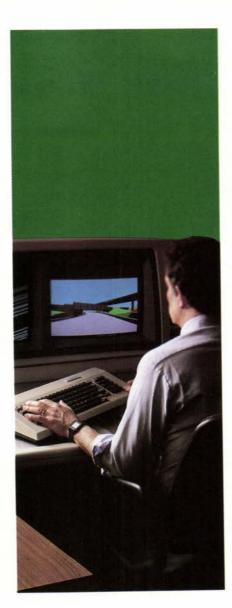
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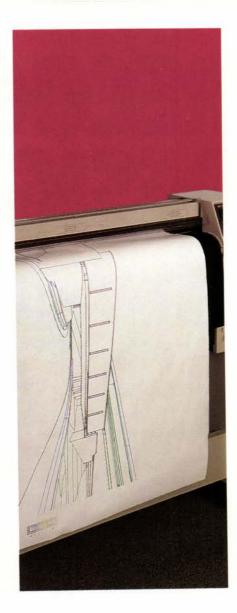
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The Menil Collection, Houston (page 155). Architect: Piano + Fitzgerald, Architects, Houston. Principal in charge: Renzo Piano. Project manager: D. Michael Downs. Design team: Renzo Piano; Shunji Ishida; Mark Carrol; D. Michael Downs; Ed Huckaby; Leland Turner; Bernard Platner. Electrical engineer: Galewsky & Johnston. Mechanical engineer: Ove Arup & Partners with Galewsky & Johnston. Structural engineer: Ove Arup & Partners with Haynes, Whaley Associates. General contractor: E.G. Lowry. Fire protection consultant; Rolf Jensen & Associates. Security consultant: E.B. Brown Associates. Skylight consultant: Curtainwall Design Consultants. Consulting design engineers: Ove Arup & Partners; Peter Rice; Tom Barker; Alistar Guthrie; Neil Nobel; John Thornton. Owner: The Menil Foundation.

Jacob K. Javits Convention Center, New York City (page 156). Architect: I.M. Pei & Partners, New York City. Partner in

charge of design: James I. Freed, FAIA. Partner in charge of management: Werner Wandelmaier, AIA. Associate partner in charge of design: Charles Young, AIA. Associate partner in charge of technology: Michael Flynn. Senior associate/project architect for design: Thomas Baker, AIA. Senior associate/project architect for management: Robert Milburn. Senior associate/resident field architect: John Coburn. Project design team: Beatrice Lehman, AIA; Perry Chin; William Rowe, AIA; Andrej Morawski; Peter X. Ksiezopolski; Walter Patton, AIA; Raymond Searby; Kevin Montgomery; Kirk Conover; Philip Toussaint; Julie Salestrom; Robert Jefferson; Jeffrey Rosenberg. Plaza design team: Vincent Polsinselli; Robert Hartwig; Richard Gorman; Michael Moore; Jennifer Sage; Steve Yablon. Associate architect: Lewis, Turner Partnership. Structural engineers: Weidlinger Associates and Salmon Associates. Mechanical and electrical engineers: Syska & Hennessy and Pierre A. Dillard. Additional consultants: Rolf Jensen & Associates: Jules Fischer & Paul Marantz Inc.; Travers Associates: Robert Schwartz & Associates; Cerami & Associates. General contractor: HRH/WestKing.

Monterey Bay Aquarium, Monterey, Calif. (page 157). Architect: Esherick Homsey Dodge & Davis, San Francisco. Project manager: Linda Rhodes, AIA. Structural engineer: Rutherford & Chekene. Electri-

cal and mechanical engineer: Syska & Hennessy. Landscape architect: Michael Painter & Associates. General contractor: Rudolph & Sletten. Owner: Monterey Bay Aquarium Foundation.

United Airlines Terminal 1 Complex, Chicago (page 158). Architect: Murphy/ Jahn, Chicago. Principal in charge: Helmut Jahn, FAIA. Project architect: Martin Wolf, AIA. Project team: Nada Andric, Tom Chambers, Sanford Gorshow, Brian O'Connor, Jon Pohl. Structural engineers: Lev Zetlin Associates; A. Epstein & Sons. Mechanical and electrical engineer: A. Epstein & Sons. Lighting: Sylvan R. Schemitz & Associates. Fire protection: Schirmer Engineering. Art: Michael Hayden. General contractor: Turner Construction Co. Owner: City of Chicago, Department of Aviation, and United Airlines.

Guest House, Wayzata, Minn. (page 166). Architect: Frank O. Gehry & Associates, Venice, Calif. Principal in charge: Frank Gehry, FAIA. Project manager: Bob Hale. Design team: John Clagett; Greg Walsh. Structural engineer: Kurily & Szymanski with George Richards. General contractor: Joe Boyer & Sons.

IBA Social Housing, Berlin, West Germany (page 170). Architects: Eisenman Robertson Architects, New York City, and Groetzebach Plessow & Ehlers, Berlin, continued on page 279

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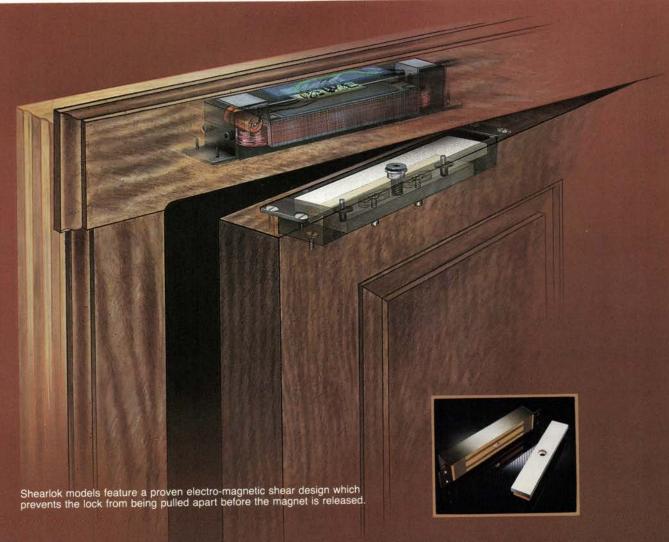
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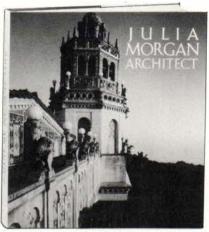
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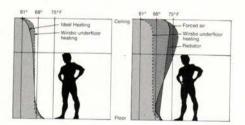
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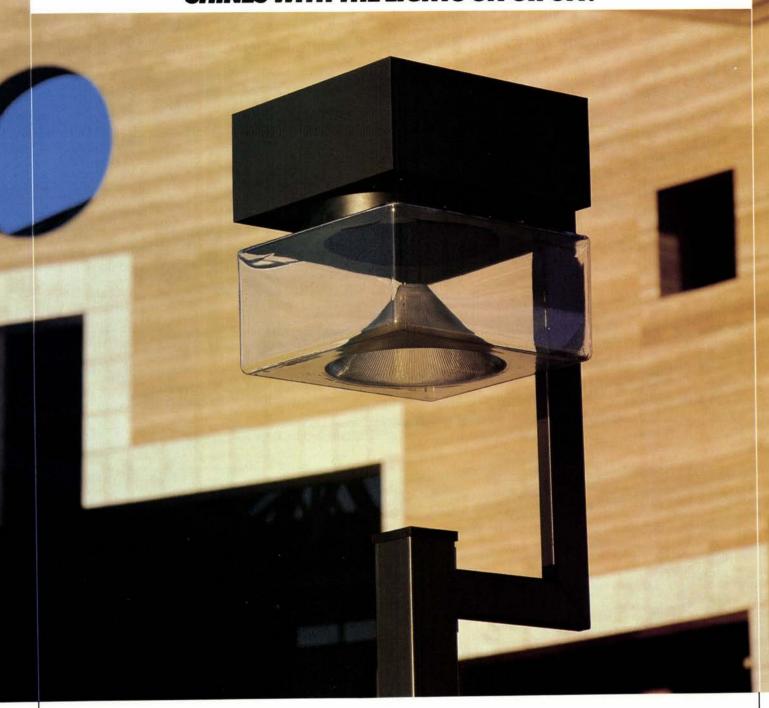
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West Germany. Principals in charge: Peter Eisenman, FAIA; Gunther Plessow. Project manager: Thomas Leeser. Design team: Wilfried Hartman; Audrey Matlock; Doug Oliver; Frank Chirico. Electrical engineer: Braicks & Unruh. Mechanical engineer: Huett & Strauch. Structural engineer: Kranz. Landscape architect: Eisenman Robertson Architects. General contractor: UNITEC.

Tegel Harbor Housing (Wohnanlage Am Tegeler Hafen), Tegel Harbor, Berlin, West Germany (page 172). Architect: Moore Ruble Yudell, Santa Monica, Calif. Principal in charge: John Ruble, AIA. Design team: Charles Moore, FAIA; John Ruble, AIA; Buzz Yudell, AIA. Project manager: Thomas Nagel. Electrical and mechanical engineer: Hähndel, Wolf + Zell. Structural engineer: B.W.H. Hochbau-Gesellschaft, mbH. Landscape architect: Muller, Knippschild, Wehberg Landscape. Construction managaer: Inginieurburo Ruths. Colors: Tina Beebe.

8522 National, Culver City, Calif. (page 176). Architect: Eric Owen Moss, AIA, Culver City. Principal in charge: Eric Owen Moss, AIA. Project associate: Jay Vanos. Design team: Alan Binn, Alfred Chow, Carol Hove, Scott Nakao. Electrical engineer: Paul Immerman. Mechanical engineer: Paul Antieri. Structural engineer: Gordon Polin. General contractor: Kevin Kelley. Lighting consultant: Saul Goldin. Owner: Frederick Smith.

Kate Mantilini Restaurant, Beverly Hills, Calif. (page 179). Architect: Morphosis, Santa Monica, Calif. Principals: Thom Mayne; Michael Rotondi, AIA. Project architect: Martin Roy Mervel. Project team: Eric Kahn; Brendan Mcfarlane; Mahmood Michele Saie. Project assistants: Barbara A. Bester, Brian Blaschke, Truit Roberts, Joey N. Shimoda, Maya Shimoguchi. General contractor: Illig Construction. Structural engineer: Erdelyi-Mezey. Mechanical engineer: The Sullivan Partnership. Electrical engineer: Saul Goldin + Associates. Landscape architect: Burton + Spitz. Food service: The Kitchen Intelligence Agency. Graphics: John Hamersveld. Mural Artrist: John Wehrle. Owners: Marilyn and Harry Lewis.

Feinberg Hall, Woodrow Wilson College, Princeton University, Princeton, N.J. (page 182). Architect: Tod Williams, Billie Tsien Associates, New York City. Principal in charge: Tod Williams, AIA. Project architects: Rick Gooding; Keith Hanadel. Design team: Fred Biehle; Annie Chu; Susan Davis-McCarter; Ralph Gentile; David Heymann; Robert McAnulty; Michael Morris; Billie Tsien. Electrical consultants: Rick Shaver; Beverly Emmons. Mechanical and electrical engineers: Ambrosino, DePinto, Schmeider. Structural continued on page 281



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engineer: Severud-Szegezdy. General contractor: S.T. Peterson & Co. Plumbing contractor: Fred Wendel Corp. Hardware

contractor: General Supply Co.

The High Museum at Georgia-Pacific Center, Atlanta (page 184). Architect: Scogin Elam & Bray Architects, Atlanta. Design team: Mack Scogin, AIA; Merrill Elam, AIA; Lloyd Bray, AIA; Dick Spangler; Gil Rampy; Isabelle Millet; George Johnston; John Lauer. Project director: W. Ennis Parker Jr. Electrical and mechanical engineer: Jones, Nall & Davis. Structural engineer: Browder + LeGuizamon & Associates. General contractor: The Winter Construction Co. Lighting: Ramon Luminance Design. Cost consulting: Costing Services Group. Specifications: Williamson & Associates. Operation funding: Fulton County Arts Council. Operating entity: The High Museum of Art. Owner: GA-MET, a joint venture of Georgia-Pacific Corp. and Metropolitan Life Insurance Co.

United Gulf Bank, Manama, Bahrain (page 186). Architect: Skidmore, Owings & Merrill/Chicago. Mechanical engineer: Pan Arab Consulting Engineers. Design partner: Adrian D. Smith, FAIA. Project partner: William M. Drake, AIA. Structural engineering partner: Hal Iyengar. Studio head, senior designer: Larry K. Oltmanns, AIA. Project manager: William N. Larson, AIA. Studio head, interiors: Klaus G. Mueller, AIA. Senior designer, interiors: Patrick McConnell. Technical coordinators: Frank Heitzman; William T. Wagner. Project team: Anton Janezich; Jon Janicek; Yon Jung; Hal Scheffers; Thomas Schiesser; German Scott. Lighting consultant: Jules Fischer & Paul Marantz Inc. General contractor: Shimizu Construction Co. Ltd.

Library Science Building, Westover School, Middlebury, Conn. (page 188). Architect: Gwathmey Siegel & Associates Architects, New York City. Associate in charge: Jacob Alspector. Project architect: Paul Aferiat. Design team: Howard Goldstein, David Knowlton, Thomas Whittrock. Electrical and mechanical engineer: Flack & Kurtz Consulting Engineers. Structural engineer: Geiger Berger Associates. Landscape architect: Glen Fries Associates. General contractor: F.B. Mattson Co. Interior design: Gwathmey Siegel & Associates Architects.

Residence in the Dominican Republic (page 192). Architect: Hugh Newell Jacobsen, FAIA, Washington, D.C. Project manager: John Murphey, AIA. Electrical and mechanical engineer: Hugh Newell Jacobsen, FAIA. Structural engineer: FDE Ltd. Landscape architect: Hugh Newell Jacobsen, FAIA. General contractor: Fernando Lebron. Interior design: Hugh Newell Jacobsen, FAIA.

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