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# Tanks for the memories.



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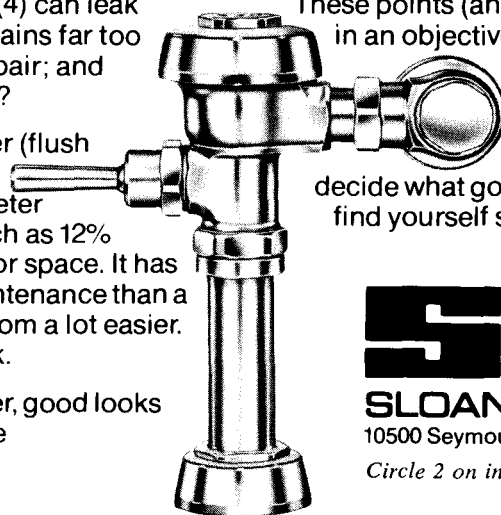
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And with every Sloan flushometer, good looks go with superior function. It can be

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The next time you have to decide what goes in *your* bathrooms, you may find yourself saying, "Thanks, but no tanks."



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home to  
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## EVENTS

**July 6-9:** Course on Passive Solar Energy: Tools for Application, MIT, Cambridge, Mass.

**July 8-9:** AIA Energy in Design: Techniques Workshop, Kiawah Island, S.C. (Repeat workshops July 14-15, Lake Tahoe, Nev.; July 28-29, Atlantic City, N.J.; Aug. 5-6, Monterey, Calif.; Aug. 12-13, Hyannis, Mass.; Aug. 19-20, Lake Geneva, Wis.; Aug. 27-28, Knoxville, Tenn.) Contact Brenda Henderson at Institute headquarters, (202) 626-7353.

**July 9-10:** AIA Energy in Design: Practice Workshop, New York City. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

**July 12-13:** Seminar on Effective Management of A/E Firms, University of Wisconsin, Madison.

**July 12-15:** Course on Low Energy Approaches to Commercial Building Design, MIT, Cambridge, Mass.

**July 12-16:** Course on Marketing Promotion Tools and Tactics for Design Offices, Harvard Graduate School of Design.

**July 15-17:** Second Annual San Francisco Forum on Architectural Issues, San Francisco. Contact: The Association of Collegiate Schools of Architecture at Institute headquarters.

**July 19-Aug. 13:** Multiprotection Design Summer Institute for Architectural and Engineering Faculty, Emergency Management Institute, Emmitsburg, Md. Contact: Shelter-Rad Technology, 2000 Century Plaza, Columbia, Md. 21044.

**July 26-Aug. 5:** Course on Principles of Construction Specifications Writing, University of Wisconsin, Madison.

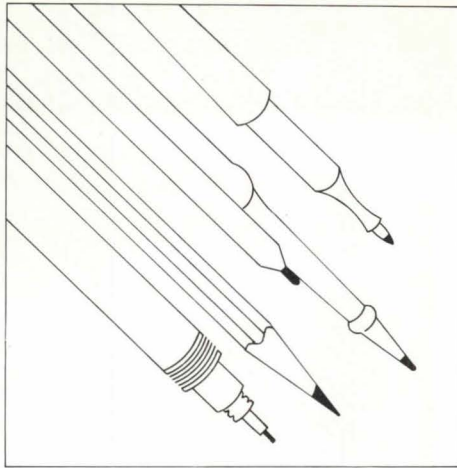
**July 28-Aug. 1:** ASID National Conference and Exposition, San Francisco. Contact: Ed Gips, ASID Conference, 1430 Broadway, New York, N.Y. 10018.

**Aug. 2:** Call for papers for the 1983 International Daylighting Conference, a multidisciplinary forum examining the potentials of daylight utilization in buildings (to be held Feb. 16-18, 1983, in Phoenix). Contact: David Bullen at Institute headquarters (202) 626-7448.

**Aug. 6-7:** AIA Energy in Design: Process Workshop, Omaha, Neb. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

**Aug. 17:** Seminar on Projects Management for Design Professionals, Atlanta. (Repeat seminars Aug. 18, Boston; Aug. 19, Chicago; Aug. 20, Los Angeles.) Contact: PSMJ Seminars, 45 Van Brunt Ave., Dedham, Mass. 02026.

**Aug. 29-Sept. 1:** 7th National Passive Solar Conference & Exhibition, American Section of the International Solar Energy Society Inc., Knoxville. Contact: Passive '82, Department of Conferences, University of Tennessee, 2019 Terrace Ave., Knoxville, Tenn. 37996.



**Architectural Drawings Contest:** Due to the unexpectedly heavy response to our announcement of the JOURNAL's architectural drawings contest, we must limit the number of entries from each contributor to five. Deadline for receipt of entries remains July 9. Winners will be published in September (see page 73).

## LETTERS

**Rockefeller Wing:** It is rewarding to see the Metropolitan Museum's Michael C. Rockefeller Wing featured prominently in your publication (see April, page 62); however, I would like to point out an omission.

The design of the wing consisted of two separate and distinct projects. The first was the fine building, including the Andre Meyer Galleries, which was designed by Kevin Roche John Dinkeloo & Associates as part of the Metropolitan's master plan. The second was the interior architecture and exhibit installation, which was entirely the work of Stuart Silver, principal design consultant, and Clifford La Fontaine, associate designer, starting in 1976. It is essentially the work of Silver and La Fontaine that your article illustrated and refers to at length.

*Douglas Newton, Chairman  
Department of Primitive Art  
Metropolitan Museum of Art  
New York City*

**Sullivan's 'The Germ':** I have read the commemorative (April) issue of the JOURNAL with much interest and noted the numerous illustrations credited to the AIA Archives. This brings to mind the struggles to preserve much of this material and the initial stages of organizing and properly caring for it before I left the Institute. It is gratifying to know that the process has been carried on by a full-time archivist.

There is one item in the JOURNAL's historical fold-out that needs correction. Under 1924, *The Germ* is referred to as included in *The Autobiography of an Idea*. I believe you will find that it is included in *A System of Architectural*

*Ornament* published by the Press of the American Institute of Architects in the same year.

Incidentally, Charles H. Whitaker, editor of the JOURNAL, was particularly desirous that this graphic work of Louis Sullivan should be typographically worthy; that he succeeded is evidenced by the book being included among the "Fifty Books of the Year" for 1924 in the awards program sponsored by the American Institute of Graphics Arts. The designer was Frederic Goudy, to whom the Institute had given its craftsmanship medal the previous year.

*George E. Pettengill, Hon. AIA  
Arlington, Va.*

(Mr. Pettengill was AIA librarian from 1951-73, and archivist until '76.—Ed.)

### of architectural heritage

just beyond the urban sprawl  
lies an architectural element  
painted into the landscape by time  
uninhibited by license  
the style is honest  
responsive to function by form  
and purity through integrity of its medium  
the client was usually himself  
and his need to shelter food for the animals  
equipment for the farm  
and often the animals  
the architecture is simple  
it is referred to as a barn  
its role is well defined in our heritage

leaning  
weather beaten  
landscaped by time  
and painted by nature  
not touched by computerized design  
jet lag  
fast food  
and impossible deadlines  
the american barn stands as a reminder  
of a heritage that was responsive

as day is to night  
and as summer is to winter  
the great american barn is  
a contrast to the congestion  
of the computer solution to urban sprawl  
good architecture matures with dignity  
and the barn seen from a distance  
only for a moment  
is a reminder  
of a simple  
but good  
life

*Larry L. Guidry, AIA  
Lafayette, La.*

**Correction:** A brief in our March issue (page 143) should have credited Kasprisin-Pettinari-De Wolfe Design of Seattle and Peter Hall of Minneapolis as the complete team winning the Missoula, Mont., river-front competition.



# DOVER ELEVATORS

serve two triangles on a square in Nashville.

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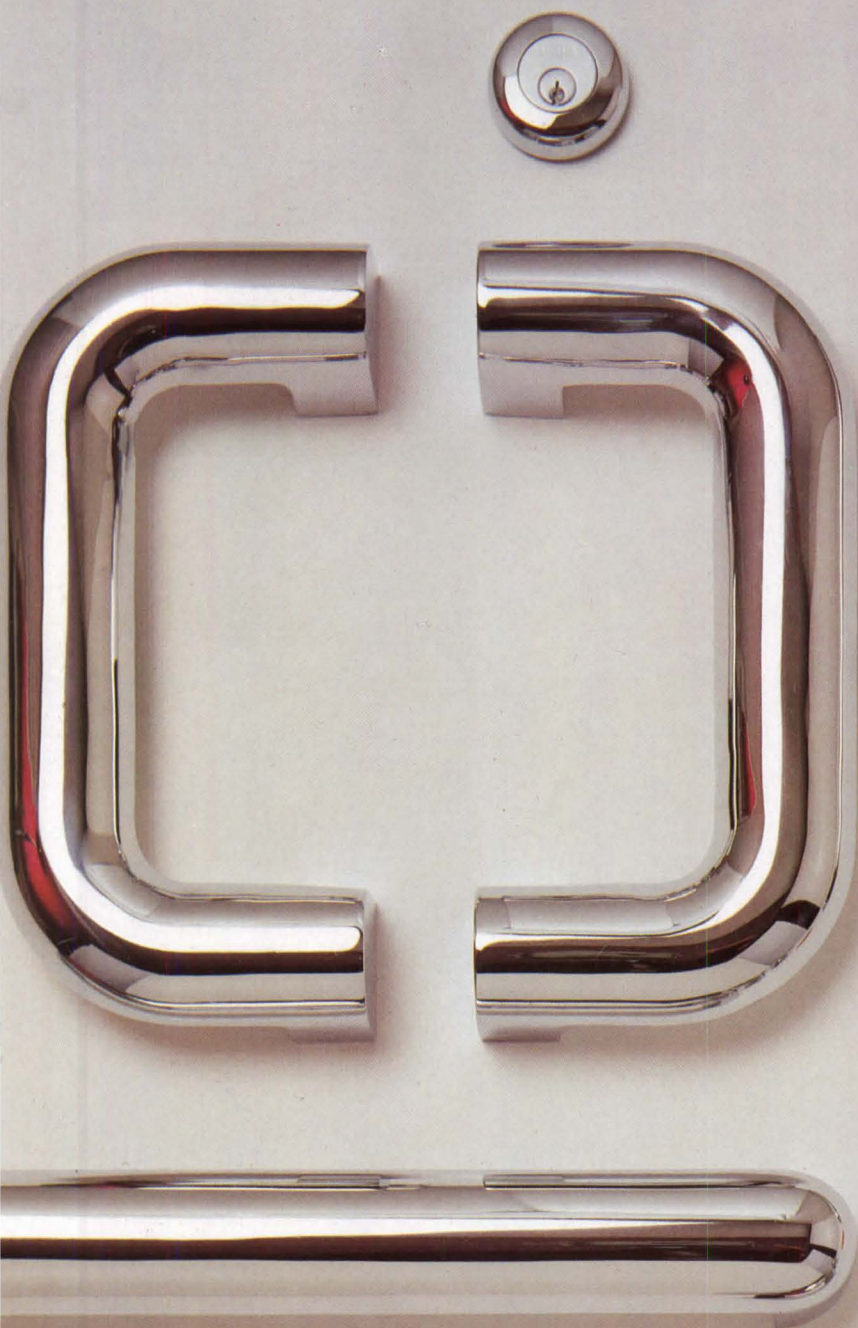
*General Contractor, Radisson Plaza Hotel:* Paces Construction Co., Inc., Nashville  
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Design

## International Style: A Lively Dissection Fifty Years Later

In a way, the International Style originated not in New York or Western Europe but in the intellectual climate of Harvard University where Philip Johnson and Henry-Russell Hitchcock grew to maturity in the 1920s. Hitchcock was graduated in 1924, Johnson in 1930. Two years later, when Johnson was a mere 26 and Hitchcock 29, the two authored the book, *The International Style: Architecture Since 1922*, which accompanied their historic exhibition at the Museum of Modern Art.

This April, 50 years after the exhibit, history was brought full circle with a conference, hosted by the Harvard Graduate School of Design, entitled "The International Style in Perspective." It gave perhaps as much perspective on the architectural climate of the early '80s as the '30s, in part by underscoring the contrasts between 1982 and '32.

Lewis Mumford, now 86, organized, with Katherine Bauer, the portion on housing in the MOMA exhibit and was greeted at the conference by a standing ovation. He spoke less about architecture than of his present profound pessimism: "We are in the deepest crisis mankind has known and what's left to us may not be worth salvaging. I wrote about the atom bomb three weeks after it was dropped and it has hung over us like a cloud ever since. Maybe it's too late; maybe it isn't. Let us pray." In the '30s, as Johnson said, "All of us were convinced we were going to be better; we truly believed in the per-

fectability of man. Why, Lewis appeared at a fund-raiser and happily proclaimed we would all soon be Communist. It was usual."

Much of the conference was a variation on the theme of "the evil that man does lives after him," and many of its discussions focused on the pernicious effects of the International Style. Joseph Rykwert, the British historian, put it most strongly: "It was consumed with alacrity in the U.S., was then re-exported back to Europe in the 1950s and became the greatest architectural catastrophe of all times." Along with others, he also regarded the International Style as father of postmodernism. "If we now have the calamity of postmodernism, we have this group to thank."

With Johnson ever-present (Hitchcock was too ill to attend), but harnessing his usual run-away drive to speak out, historians and critics verbally dissected his early thought as though in autopsy. What, for example, may have influenced him? As David Handlin of Harvard argued, Johnson and Hitchcock could not have been untouched by the arguments raging in Cambridge in the '20s between humanists and mechanists. And, what did Johnson mean by "international?" (It was variously suggested that he might have had in mind: (1) the art historical usage of the term, referring to the inclusive late 15th century Gothic style, (2) an attempt to differentiate the modernists of his choice from the functionalists and (3) the Communist associations with the word. Johnson explained that he had in mind (1) and (2), but not (3).) Hitchcock and Johnson were not the only targets of verbal barbs. Mies, Johnson's intellectual father, and Robert A. M. Stern, his spiritual son, came in for at least as much criticism. Stern, in fact, was singled out as the conference's *bête noire*.

Peter Eisenman, for one, in listing a number of epigrams about the conference, cheerfully remarked, "If Loos was responsible for the phrase 'ornament is crime,' Stern's work is criminal ornament." As

Eisenman also said, the conference showed "how architects have lost the patrimony of their ideas to historians and critics, because the International Style exhibit and book represented the end of ideology and the beginning of packaged ideas. Drained of its moralism, modernism thereafter consisted of empty formalism and dysfunctional symbolism." He illustrated the last by saying that Mies attacked the tradition of the bourgeois house by eliminating the visual symbols associated with it, though equipping it with servants' quarters and other traditional amenities, while Stern's houses, though dressed up in nostalgic garb, lack such requirements of the good bourgeois life as servants' quarters. "It's two sides of the same coin," Eisenman concluded.

Ironically, the conferees, most of whom would probably have harsh words for *From Bauhaus to Our House*, tended to echo Tom Wolfe's assertion that a hoax has been perpetrated by the International Style and that the "posties" are simply modernists in their grandmother's clothing. (Speaking at Harvard earlier in the week, Wolfe compared the conference to "a convention of aging nudists.") In academic, scholarly fashion, quite unlike Wolfe's, speakers and panelists tended to challenge the notion that modernism was either international or a style, yet few spoke to issues surmounting style and, as perhaps a sign of the times, the arguments seldom rose beyond a looking backward.

In grappling with the question of whether the 1932 exhibition was broadly representative of modernist building activity or a propagandist interpretation, for instance, Handlin argued that the show was a response to local, American discussions about modernism. By contrast, Kurt Forster of Stanford University proclaimed it a cosmopolitan and foreign style, but one that simplified and steered clear of difficulties to make appear homogeneous "the fragmented state of European architecture." Johnson settled the argument in three statements, each made hours apart: "Yes, we decided to sweep everything under the rug in order to make an effect. . . . We saw an incredible implosion; everything started looking alike. Russell and I decided it existed and the Europeans weren't seeing it right. . . . We weren't trying to be definitive. For example, we simply couldn't get a Russian building. Russell did the text; I just did the pictures."

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## Design from page 9

If in 1932 the International Style represented at least a portion of the avant-garde, by the end of the Second World War it became the official style, as Stern and others tried to document. Rosemary Bletter of Columbia University, for example, argued that, "After World War II there is evidence for a general acceptance of the International Style, but of the later American corporate phase of the style. Thus, this later period is not, strictly speaking, a continuation of European modernism, but a response to the postwar developments in America."

There was at the conference, as there is elsewhere, a tendency to confuse and couple the terms International Style and modern architecture, a theme that Bruno Zevi, the Italian historian and critic, took up when he called modern architecture not the official style, but a "minority report." Zevi asserted that the "official style" could be interpreted for such a long time as modern architecture for two reasons, in addition to the 1932 exhibit and book, (which in fascist Italy at the time he welcomed as revolutionary). The one was Giedion's *Space, Time and Architecture*, a history based on mechanism, which ignored such influential figures as Gaudì, Mendelsohn, Häring, Scharoun, Asplund, Aalto and others, while presenting Frank Lloyd Wright, whom Zevi called the apotheosis of the modern, as a mere forerunner of modernism.

The second reason, he said, was that the dissonant, antiestablishment language of modern architecture, unlike that of modern music and art, was not codified. Zevi, speaking of architecture as a political and moral statement and of the modern as democratic in spirit, associated classicist, official architecture with authoritarianism and retreat.

Robert Venturi, who the day before the conference delivered the annual Walter Gropius Memorial Lecture at Harvard, attacked the postmodernists for limiting themselves to a new orthodoxy as confining as the International Style, namely classicism.

In a similar vein, Anthony Vidler of Princeton University spoke at the conference of Le Corbusier's return to antiquity, rather than classicism, to "architecture's root rather than an academic reformulation of it in order to renew the possibility of invention." He likened Friedrich Nietzsche's Zarathustra, the hero who sought to regain a child's innocence in order to surpass himself, with Le Corbusier, and concluded, "Zarathustra knew that at every step he would be faced with Robert Stern and the thought drove him mad."

In the end, though, it was Stern who put the International Style in perspective most succinctly when reading from a 1949 es-

say by Mumford: "The unforgivable error, from the standpoint of either philosophy or historic scholarship, would be to identify the modern with one phase or one moment of the modern movement. Modern architecture is . . . an inclusive name for an effort which has a single trunk, but many different branches—branches that sometimes flourished and then withered, like art nouveau. . . . The final process of expressing human purpose, of interpreting in new terms our fresh conceptions of life and personality, has been late in its development, more

## Practice

# Court Upholds Right to Advertise, Holds Code Setting Groups Liable

In two recent antitrust cases, the U.S. Supreme Court ruled that a professional engineering society can be held liable for standards issued by its members and that the American Medical Association and the American Dental Association cannot place restrictions on their members' advertising, solicitation, and contractual practices.

The ruling on standard setting societies came in a dispute between the American Society of Mechanical Engineers and Hydrolevel Corporation, a manufacturer that sold its assets in 1979. In the suit Hydrolevel charged that it was hampered in marketing an automatic cutoff for a boiler by one of the 400 codes and standards issued by ASME. Hydrolevel charged that employees of a competing company, McConnell & Miller Inc. (which since has been purchased by International Telephone & Telegraph Corporation), conspired with employees of Hartford Steam Boiler Inspection & Insurance Co. to obtain the particular standard in question to be favorable to McDonnell & Miller and adverse to Hydrolevel. At the time the standard was issued the executive vice president of Hartford Steam Boiler Inspection & Insurance Co. and a vice president of McDonnell & Miller were chairman and vice chairman of an ASME subcommittee in the boiler and pressure vessel section.

The case involving the three companies was settled before trial. However, in 1979 ASME was found guilty of participating in a conspiracy to restrain trade under the Sherman Antitrust Act. In its appeal ASME argued that it couldn't be held liable for standards issued by its members because they act as volunteers without any enforcement power.

The Supreme Court ruled six to three against ASME and, in an opinion by As-

sociate Justice Harry Blackmun, the majority said that the volunteer members were acting with the "apparent authority" of ASME, making the society liable if antitrust laws were violated. "When ASME's agents act in its name," Blackmun said, "they are able to affect the lives of large numbers of people and the competitive fortunes of businesses throughout the country. By holding ASME liable under the antitrust laws for the antitrust violations of its agents committed with apparent authority, we recognize the important role of ASME and its agents in the economy, and we help to ensure that standard setting organizations will act with care when they permit their agents to speak for them."

And finally, Johnson delivered this message from the ailing Hitchcock: "Tell those people that the International Style was an episode that lasted from 1922 to 1950. That's a very long time for an episode to last. It was the dominant episode of the second quarter of the 20th century." *Andrea Oppenheimer Dean*

Associate Justice Blackmun said that the court wasn't adopting a broad rule that could apply in all standard setting cases, but had simply decided that ASME allowed its standard to be abused. The issue would be more complex, Blackmun added, if the case involved a "good faith interpretation" of a code.

The dissent, written by Associate Justice Lewis Powell, said the court had adapted "an unprecedented theory of antitrust liability" that will subject nonprofit associations to a "crippling burden" of antitrust suits.

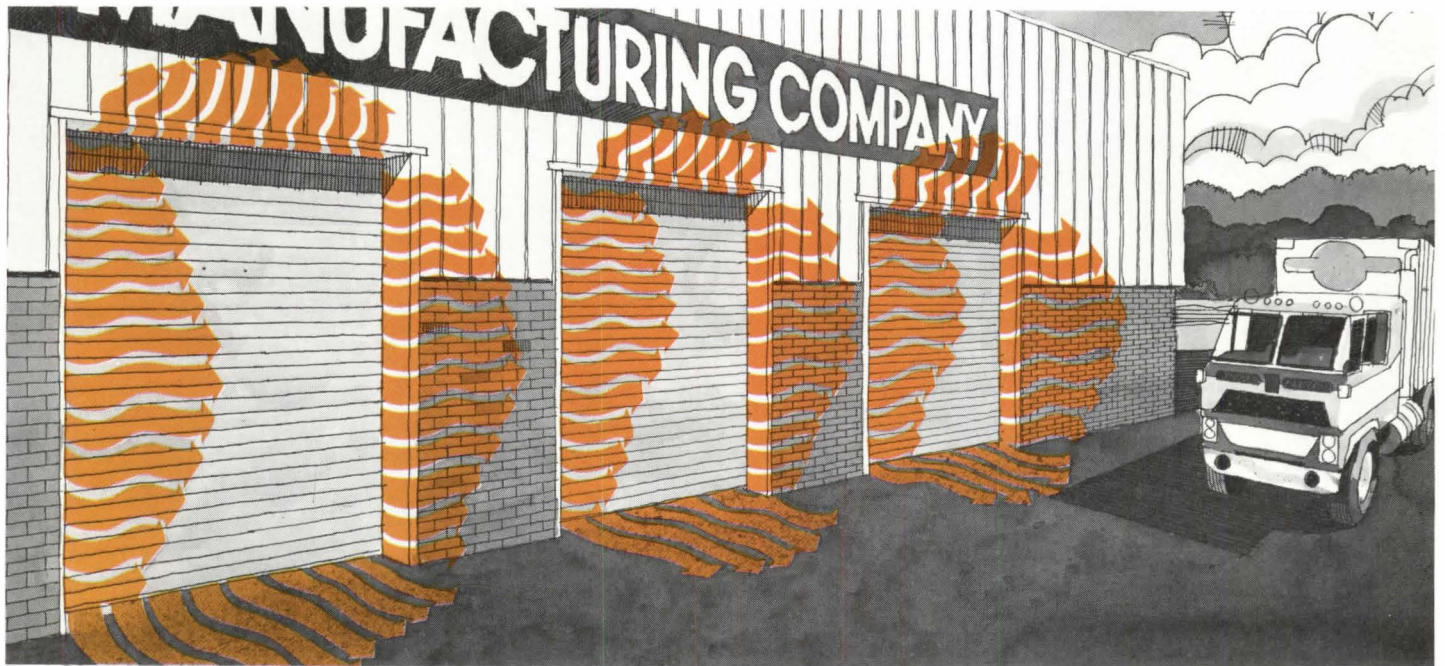
In the other case, the Supreme Court in a tie vote affirmed the Second Circuit U.S. Court of Appeals decision to uphold a 1979 Federal Trade Commission order that AMA and ADA discontinue their restrictions on advertising.

In 1979 the FTC filed a complaint against the Connecticut State Medical Society, the New Haven County Medical Association and the AMA alleging that their ethical codes' restrictions on members' advertising, solicitation, and con-

*continued on page 13*



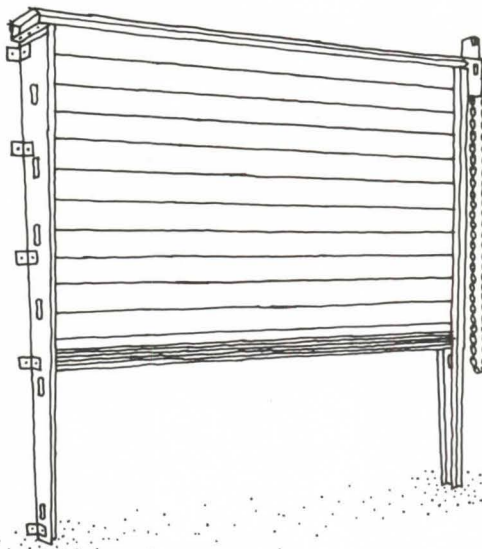
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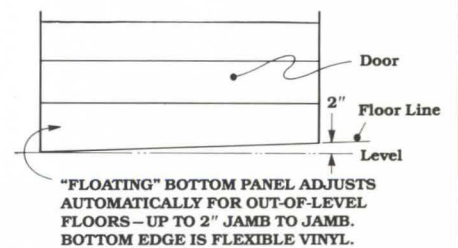
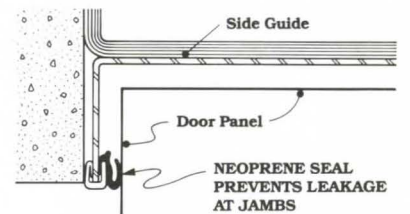
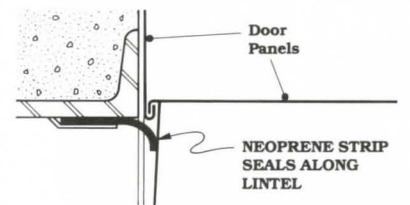
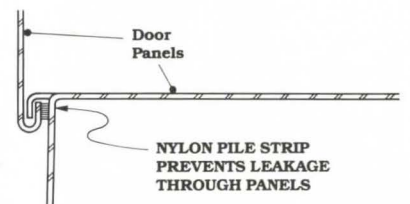
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### Practice from page 11

tractural practices were unfair methods of competition and unfair acts and practices in violation of Section 5 of the FTC Act. In 1979 the FTC ordered AMA to "cease and desist" its advertising restrictions and also challenged ADA's restrictions. ADA voluntarily agreed to be bound by the AMA decision.

At issue were provisions in AMA's ethical code that restricted underbidding by physicians; direct or indirect solicitation of patients or other physicians for referrals; fee-splitting between physicians and nonphysicians; and limitations on advertising that included bans on testimonials, statements intended or likely to create expectations of favorable results, and self-laudatory statements or comparative references.

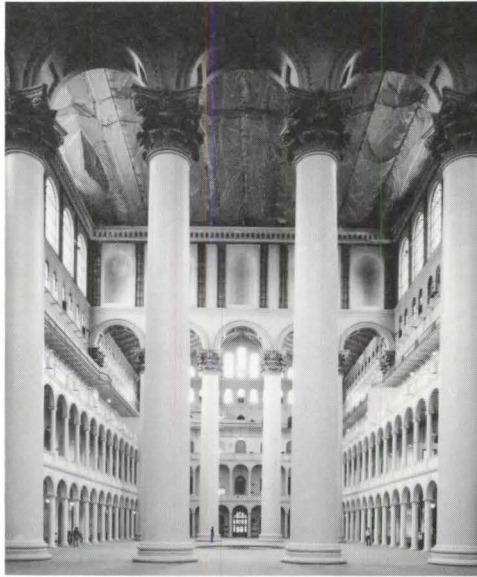
The appeals court found that there was substantial evidence to sustain the FTC's decision and modified it only to allow the AMA to regulate representations it "reasonably believes" would be false or deceptive. In affirming the appeals court decision, the Supreme Court offered no written opinions.

In its review of the case the Supreme Court did not deal with the question of whether the FTC has jurisdiction over professional associations in general. However, a bill currently in the Senate would remove FTC jurisdiction over these associations. The court's decision made it clear that if Congress approves this bill, which would put jurisdiction over professionals in the hands of state boards, state actions that impose restrictions on professionals' advertising would be subject to similar court rulings.

## First Big Exhibit Anticipated For Building Museum in '83

"At the moment," says W. Boulton Kelly, staff architect at the year-old National Building Museum housed in Washington, D.C.'s 1885-vintage Pension building, "the building is our only exhibit." That's not precisely true, although Army engineer Montgomery Meigs' spectacular brick structure is the fledgling museum's finest artifact. Short on funds, museum director Bates Lowry, museum architect and chief fundraiser Kelly, and the small staff are hosting small exhibitions, programming for the future, but concentrating first on getting their building's leaking roof into shape.

Money is the new museum's primary need. Congress created the National Building Museum in late 1980 as a private, nonprofit corporation, putting the Pension building in the joint care of the museum, GSA, and the U.S. Department of the Interior. A start-up allocation of \$2 million was immediately earmarked for roof



repair on the building, leaving the museum dependent on a \$500,000 annual stipend from Interior—appropriated but not yet delivered—and a \$24 million-plus line item in GSA's executive budget, still pending before Congress. Those are capital funds, to be expended primarily for the building's adaptation and restoration.

Restoration is something the museum's massive brick home is in need of. The building, with 15 million bricks the largest masonry building of its time, was widely criticized as "Meigs' big red barn" when first built. Said General W. T. Sherman, burner of Atlanta, "The worst of it is, it is fireproof." A Washington landmark today, it not only still dominates its lowrise environs; it threatens them with terra cotta medallions that tend to fall from its walls. Thirteen medallions have been destroyed or removed, and wooden sheds protect pedestrians entering through its main doors.

Inside, the great hall (above) still impresses. Ninety feet high, it is dominated by a center fountain (recently uncovered) and eight immense columns (each estimated to contain 55,000 bricks). The vast hall, which has housed presidential inaugural balls, an AIA convention, and manacled prisoners awaiting trial in the courthouse next door, is ringed by a two-story arcade, three stories of balconied office space, and several towering storage tiers. Danger is present here, too; parts of pilasters and ceramic ceiling tiles occasionally fall to the floor.

Should Congress pass a budget that includes a \$24-million line item for the museum, the money will pay for repairs and interior remodeling on the building. No architectural program has been written yet, says the museum architect, but "the historic fabric of the building will be totally respected." Kelly adds that with 120,000 square feet of office space available, the museum may consider some private-sector, mixed-use for part of the building.

*continued on page 14*

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### Practice from page 13

Repairs on the museum's most deteriorated facet—its ternal roof—are already underway. The Cooper Lecky Partnership, a Washington architectural firm, has already completed contract documents under an open GSA project contract exempting the museum from competitive bidding and saving six months to a year on the roof repair project—essential, says Kelly, “so we won't be leaked on or rained on.” Future architectural work will be handled conventionally, he says.

The roof repairs involve the most innovative aspect of Meigs' original design for the Pension building—the lantern clerestories atop the building's two long bays. Since the onset of the energy crisis, Meigs has been acclaimed for designing double-glazed operable windows for the clerestories—measures that would induce ventilation and help keep the huge masonry structure cool during Washington's tropical summers. But, says Joe Winters, who has researched the building, clambered around its roof, and done most of the project drawings for Cooper Lecky, there is no evidence to suggest that the clerestories were actually built to Meigs' specifications. The existing window frames match Meigs' drawings, but the glazing is single-pane and inoperable. Cooling has actually been provided by two original, electrically powered, eight-foot ventilating fans placed high in the building's bays—hardly a less innovative solution in 1885. Cooper Lecky's clerestory retrofit—part of the roof repair project—will retain the inoperable single glazing.

Programming for the museum itself—dedicated to all of the building arts—has been underway for over a year. Current plans call for several centers to operate under the museum aegis. An interpretation center is already focusing on exhibits and a film and television program. A documentation center is assembling historical and archival records relevant to building design and construction. An information center is expected to grow out of the documentation effort and mature into a national library and information network linking all the building disciplines with a comprehensive literature retrieval system and building data service. An educational center is also being discussed.

Despite its shortage of funds and the necessary focus on plans for the future, the National Building Museum has put together a reasonably active schedule of building arts exhibits. Tours of the museum's major acquisition—the building itself—are offered every Tuesday at 11 A.M. As part of Washington's celebration of the centennial of Franklin Delano Roosevelt's birth, the museum is also co-sponsoring walking tours of FDR-influenced architecture around the nation's capital. A union-sponsored exhibit on

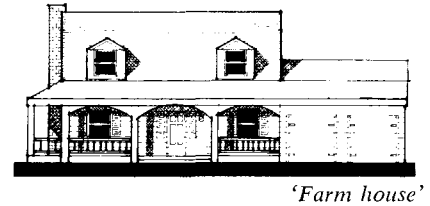
carpentry and the winning entries in ASC/AIA's “Saving Energy in Historic Buildings” student competition have been on display in the museum's great hall. And the museum's first touring exhibition—developed at Smith College and entitled “Speaking a New Classicism: American Architecture Now”—will carry the museum's name to Houston, New Orleans, and Portland, Ore., later this year.

The first major, sponsored exhibit scheduled to open at the museum itself will arrive in late 1983—assuming a sponsor materializes. Entitled “America Abroad,” it will be a critical overview of the State Department's 30-year program involving American architects in the design of U.S. embassies overseas. Clearly a major effort, the exhibit has gained a \$30,000 grant from the National Endowment for the Arts and garnered the cooperation of a number of ambassadors who have served in the buildings in question, including Averell Harriman, Shirley Temple Black, and Bruce Laingen. Thirty embassy building models have been accessioned for the museum's permanent collection, among them works by Saarinen, Pelli, Mies, and Neutra. The promising project is being jointly prepared by the museum's interpretation center and the State Department's office of foreign buildings, headed by William L. Slayton, deputy assistant secretary of state and former AIA executive vice president.  
*Kevin W. Green.*

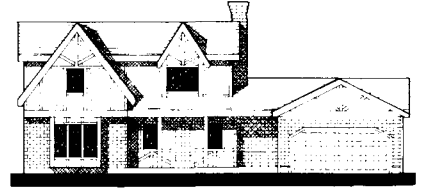
## Modern House Least Favored In Survey of Suburbanites

The housing styles most preferred by middle-class suburbanites are farm and Tudor houses, with contemporary and modern least favored, according to a survey conducted by Scott A. Kinzy, an architect and assistant professor of design at the State University of New York at Buffalo. The respondents also indicated that the most important factor in choosing a new house today is its energy efficiency.

Kinzy's survey was designed to determine whether builders of tract houses were responding to buyers' interests (his work was funded with a grant from the National Endowment for the Arts). To determine which styles were preferable, he presented drawings of six housing styles most prevalent in recent subdivisions in the Northeast and northern Middle West—farm, Tudor, early American, colonial, Mediterranean, and ranch—to 129 homeowners in two subdivisions (one in Hamburg, N.Y.; the other in Grand Island, N.Y.). Also shown were drawings of contemporary and modern style houses, which are offered less frequently in subdivisions. The homeowners were primarily white, middle-class couples between the



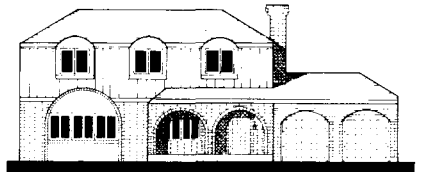
'Farm house'



'Tudor'



'Ranch'



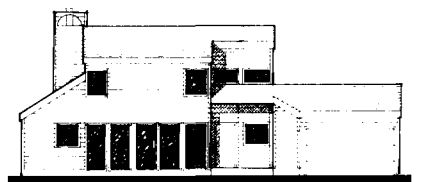
'Mediterranean'



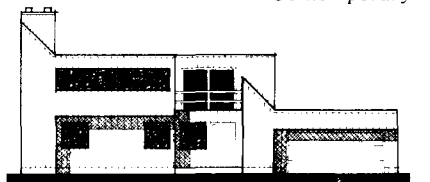
'Early American'



'Colonial'



'Contemporary'



'Modern'

ages of 27 and 45, with an average of two children and incomes of \$26,000 to \$45,000.

The most popular style was the farm house with 25.6 percent of the respondents' votes; 23.3 percent preferred the Tudor; 13.2 percent the ranch; 9.3 the Mediterranean; and 8.5 the early American. Only 7.8 percent selected the contemporary, a tie with colonial, and 4.7 percent the modern.

To further determine the suburbanites' attitudes, Kinzy presented a list of 24 adjectives to the homeowners and asked



them to choose appropriate ones for each house. The modern and contemporary houses were described as "unique," but also "ugly, flimsy, and austere." The colonial and the Mediterranean were called "formal, grand, and high-class." The early American was termed "conservative, plain, and durable"; the ranch, "economical, modest, and simple"; and the Tudor "stylish, complex, and beautiful."

The findings also indicated that the respondents when choosing a house rated price, housing quality, area, maintenance and durability, resale and investment value, site, neighborhood amenities, and privacy above style.

## Architectural Deans Rate Pei Best Designer in U.S.

Ieoh Ming Pei, FAIA, is the deans' choice as the nation's best designer of non-residential structures. In a survey of 58 deans and department heads of accredited U.S. architectural schools, conducted by *The Buildings Journal*, Pei was named as the top designer by 45 percent of the deans.

In all, the deans mentioned more than 200 architects. In addition to Pei, the 10 most frequently mentioned were, in order: Romaldo Giurgola, FAIA, (38 percent of the votes); Cesar Pelli, FAIA, (36 percent); Kevin Roche, (33 per-

cent); Philip Johnson, FAIA, (25 percent); Gunnar Birkerts, FAIA, Michael Graves, FAIA, and Charles Moore, FAIA, tied for sixth; Edward Larrabee Barnes, FAIA, and Richard Meier, FAIA.

Other architects frequently cited by the deans were Gene Aubry, FAIA; Charles Bassett, AIA; Pietro Belluschi, FAIA; William Caudill, FAIA; Peter Chermayeff, AIA; Henry Cobb, FAIA; Peter Eisenman, AIA; Arthur Erickson; Joseph Esherick, FAIA; Ulrich Franzen, FAIA; Frank Gehry, FAIA; Robert Geddes, FAIA; Charles Gwathmey, FAIA; Hugh Hardy, FAIA; Malcolm Holzman, FAIA; Helmut Jahn, AIA; E. Fay Jones, FAIA; Raymond Kappe, FAIA; Paul Kennon, FAIA; Frank Lawyer, FAIA; Tony Lumsden, FAIA; Robert Marquis, FAIA; Albert Martin, FAIA; Gerald McCue, FAIA; William Morgan, FAIA; William Muchow, FAIA; Barton Myers; Gyo Obata, FAIA, and Robert Oringdolph, AIA.

Also on the deans' list are Norman Pfeiffer, FAIA; Antonie Predock, FAIA; John Portman, FAIA; Paul Rudolph; Josep Lluís Sert, FAIA; Paolo Soleri; Daniel Solomon, FAIA; Robert Stern, FAIA; James Stirling; Hugh Stubbins, FAIA; Rafael Soriano; Benjamin Thompson, FAIA; Stanley Tigerman, FAIA; Robert Venturi, FAIA; Tim Vreeland, FAIA; Harry Weese, FAIA; Frank Welch, FAIA, and Eberhard Zeidler.

### Government

## Congress Resists Reagan's Call For Energy Conservation Cuts

At the opening of the energy-themed '82 World's Fair in Knoxville, Tenn. (see page 50), President Reagan claimed that his Administration's energy policy based on free enterprise would ensure that the country "never again will be so vulnerable" to an oil embargo as it has been in the past. Reagan took credit for increased production and lower prices of oil due to decontrol, for an increase in the nation's strategic petroleum reserve, and for what he called "great progress in the area of conservation."

But while Reagan is pushing for less government involvement in the energy field, there are indications that Congress is not willing to go as far as he would like. Although funds for energy programs will probably be reduced for fiscal year '83, there has been no effort to pass legislation eliminating the Department of Energy. And there has been strong congressional resistance to the Administration's proposals to eliminate conservation tax credits and programs.

Reagan's speech was devoted to a discussion of how his Administration has reversed the Carter Administration's energy policies, which he said brought only "gas lines, bottlenecks and bureaucracy." He claimed that in 1981 America produced nearly 90 percent of the energy it consumed due in great part to the new emphasis on free enterprise. He suggested that "all our energy sources" should be decontrolled. As for conservation, Reagan noted that the amount of goods and services that the U.S. produced for each unit of energy increased by 45 percent last year, the greatest increase in 30 years.

In keeping with this philosophy, the Reagan Administration has requested the elimination of the business energy conservation tax credits and reportedly does not plan to request extension of other energy conservation tax credits. Treasury officials insist that the provisions of the Economic Recovery Tax Act of 1981 and decontrol of oil prices make energy tax

*continued on page 17*

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## Manville

*Circle 10 on information card*



## Government from page 15

credits obsolete. The Treasury points to the amount of money that could be saved if these tax credits were eliminated. The Internal Revenue Service reports that in 1978 and 1979 more than six million business tax returns claimed energy tax credits, totaling \$324 million. In the same time period, nearly 11 million personal returns claimed credits for residential energy improvements, costing the government another \$1.1 billion.

However both the Senate finance committee and the House ways and means committee have refused to rescind the business energy conservation tax credits, and there is indication that other tax credit programs will be extended.

Some congressmen have gone a step further. A coalition that includes five congressmen has charged the Reagan Administration with impounding funds appropriated for the solar and energy conservation bank. In a suit filed in April in U.S. District Court in New York, the coalition claimed that the Reagan Administration has violated congressional intent by not distributing the \$21.85 million appropriated for the bank for fiscal year '82.

The bank was created by Congress under the Energy Security Act passed during the Carter Administration to help homeowners and commercial operations finance solar and conservation expenditures. The bank was authorized to subsidize 20 to 60 percent of financing for solar or conservation improvements and was also permitted to issue direct grants to lower-income persons for up to 50 percent of conservation projects. During Carter's tenure, advisory members were appointed, staff was maintained to supervise the bank, and regulations were approved by Congress.

The Reagan Administration's reaction to the lawsuit was to ask Congress to rescind the appropriation, thus terminating the program. However, Congress did not agree. Recently HUD publicly said that it will release the money, although HUD hasn't taken any action.

In mid-May the coalition filed a motion asking the court to order HUD to issue the regulations, to hire appropriate staff, and to distribute \$21.85 million during the remainder of fiscal year '82.

The coalition is comprised of Representatives Stewart McKinney (R.-Conn.), William Green (R.-N.Y.), Richard Ottinger (D.-N.Y.), Stephen Neal (D.-N.C.), and Mike Lowry (D.-Wash.); the cities of Philadelphia and St. Paul, Minn.; New York State; the National Resources Defense Council; Solar Lobby; the National League of Women Voters; the National Audubon Society; NYPIRG/Citizens Alliance; the National Association of Solar Contractors; and solar bank advisory members Paul Sullivan, Joseph Honick,

and Harry Schwartz. The defendants in the case are President Reagan, David Stockman, and cabinet secretaries Samuel R. Pierce Jr., James B. Edwards Jr., Donald T. Regan, John R. Block, and Malcolm Baldwin.

In other action, the House subcommittee on energy development and applications is considering a proposal that would consolidate DOE's three primary federal research and development programs into the building energy research program. In a letter to the subcommittee, AIA Executive Vice President David O. Meeker, FAIA, said that combining the buildings and community systems energy and conservation program with the active and passive solar heating and cooling programs would "permit more efficient usage of the very limited federal funds available for building energy research and facilitate the examination of buildings as dynamic, integrated energy systems." Meeker called the proposed program an "integrated and comprehensive" approach to energy research that would meet the needs of both building owners and occupants to reduce energy consumption and of the building industry to develop cost effective approaches to reducing conventional energy usage.

Key aspects of the program are:

- Buildings should be treated as integrated and dynamic energy-using systems;
- The research program should be based upon the actual behavior of occupied buildings;
- Residential and commercial buildings should be treated separately;
- The research program should be oriented toward the specific needs of those who will apply the research results, namely homebuilders, architects, engineers, appliance and product manufacturers, retrofitters, and buildings owners and occupants;
- The research program should be balanced between near and long-term development work;
- An ongoing component of the program should be research into the health and safety aspects of building energy systems.

Meanwhile, the National Institute of Building Sciences is attempting to raise \$370,000 for a building energy efficiency project that will "focus the resources of the building community on improving building energy efficiency through new business opportunities." The privately funded program will be conducted in two stages. The first will be a "strategy development period" in which representatives of the building community will identify the economic potential for energy efficiency improvements. In the second part, specific programs will be undertaken by the building community to increase the market for energy efficient products and services. *News continued on page 20*

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*This tabletop of CORIAN draws customer compliments at The Carvery, Toronto, Canada. Robert M. Lozowy, designer.*



*Vanity counter and bowl are one-piece molded CORIAN in the Mark Hopkins, San Francisco. J. Ray Baker, designer.*



*CORIAN steps and tub surround in the Presidential Suite, Red Lion Inn, Seattle. Tom Lyons, designer.*

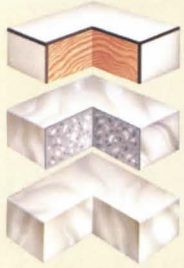


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## President's Commission Shuns Assisted Housing Construction

The President's Commission on Housing would replace federal programs to construct subsidized new housing with a program of direct payments to help low-income people pay their rent. This is one recommendation contained in the final report of the commission, which also seeks elimination of rent controls and adjustments in financing regulations to encourage investment in housing.

The 30-member commission, established last June, presented its findings and recommendations April 29.

Saying the purpose of federal housing programs should be "to help people, not to build projects," the commission recommends a "housing payments program" modeled after HUD's Section 8 program for existing housing. "Allowances are less expensive to the government than new construction," says the report, "and more likely to reach families spending too much of their income for rent." For communities with housing shortages, the commission seeks a housing component added to the Community Development Block Grant program under which states and localities would make decisions on new construction and rehabilitation.

This ties in with the commission's statement that the "extent and rigidity of federal rules" restrict "the ability of local authorities to solve their own problems." Noting that conditions and available funding for public housing vary widely, the commission proposes a project-by-project appraisal that would permit some projects to be sold, some demolished, and others retained as low-income housing within a federal subsidy "cap."

Regarding rent control, the commission says that it results in a reduction in the quality of existing rental housing stock and discourages investment in new rental property and recommends its pre-emption for properties financed by federally insured loans or by loans from federally insured institutions. Pre-emption would be phased in over five years for existing property. The commission cites conditions in New York City, which has rent control laws, the nation's highest average rents and 9 percent of the nation's deficient housing.

The commission's recommendations on housing finance involve revitalization of traditional sources of mortgage finance, plus unrestricted future access of mortgage lenders and borrowers to money and capital markets. Some of the recommendations in the finance package include proposals to:

- Broaden the asset and liability powers

for depository institutions that traditionally have specialized in mortgage finance;

- Provide the same tax incentives for mortgage investment to all types of institutions to help increase the base of mortgage supply;
- Adjust laws and regulations that currently restrict mortgage investment by institutions such as pension funds and commercial banks;
- Remove tax, legal, and regulatory impediments to the development of private markets for mortgage-related securities;
- Place less reliance on federal credit programs as the private sector becomes more able to meet the public's demands for housing credit.

Proposals on home ownership include endorsement of HUD's homesteading program, downpayment assistance for first-time house buyers, removal of tax and regulatory disincentives for the conversion of rental apartment units to condominiums and cooperatives, promotion of house sharing by elderly homeowners, and more "even handed" regulatory and financial treatment for manufactured housing as a way of keeping down the cost of new housing. Specifically, the commission recommends that manufactured houses permanently attached to the land be treated by local governments, federal credit agencies, tax collectors, and lenders exactly as conventionally built dwellings are treated. For "mobile homes" resting on rented rather than owned land, public policy can help owners gain access to financing, tax preference, and a wider choice of locations, says the report.

Housing regulations were also an area of major concern for the commission, which concludes that regulations unnecessarily limit production, restrict consumer choices, and inflate costs. Recommendations include easing requirements for environmental impact statements, instituting negotiated rulemaking for federal agencies with the goal of developing fewer and more effective regulations, putting greater reliance on private sector model codes and standards, and promoting regulatory reform at the state and local levels.

President Reagan initially appointed 25 members to the commission and later added five more. Chairman is William F. McKenna, a Los Angeles attorney, and vice chair is Carla A. Hills, a Washington, D.C., attorney and former secretary of HUD. Staff was drawn from federal agencies, universities, foundations, trade organizations, etc. An interim report, issued last October, dealt with issues involved in housing availability, adequacy, and affordability. A preliminary report on housing finance was released in January. The final report, over 800 pages long, incorporates the previously released material.

## Formaldehyde Ban Provokes Protests by Producers

The Consumer Product Safety Commission recently published in the Federal Register the final ruling banning the use of urea-formaldehyde foam insulation in residences and schools. Meanwhile, hundreds of lawsuits have been filed by people who have suffered formaldehyde-related health problems against the manufacturers and installers of insulation, and a major manufacturer of formaldehyde has completed a study seeking to show that workers exposed to formaldehyde do not suffer unusual numbers of deaths caused by cancer.

The ban, first announced in February, is based on findings that formaldehyde foam insulation presents an unreasonable risk of injury from irritation, sensitization, and cancer because of the release of formaldehyde gas from the product after it is installed. The conclusion is based on tests by the Chemical Industry Institute for Toxicology, in which formaldehyde gas caused nasal cancer in rats and cancer in mice. Other groups, including the National Institute for Occupational Safety and Health and the International Agency for Research on Cancer, have reached similar conclusions.

From this data, the commission concluded that on the average any person living in a urea-formaldehyde foam insulated house for nine years after the product was installed would have, as an upper estimate, a 51-in-a-million additional risk of developing cancer. The commission concluded that there is no generally reliable remedy for eliminating formaldehyde gas problems after the insulation is installed, short of physically removing the product from the walls of the building. And it found some incidences in which even removal of the product did not eliminate the problem.

Manufacturers and installers of the insulation and other government agencies dispute the commission's claims. About the same time the ban was announced, the Environmental Protection Agency concluded that there was not enough evidence—animal or human—to justify any action against formaldehyde. In a survey of its former employees, E.I. du Pont de Nemours & Co. concluded that "cancer mortality rates in the company's formaldehyde workers were no higher than the rates among those who had not worked with the material."

In general, the industry's position is that scientific studies of formaldehyde foam insulation have offered no conclusive proof of health problems and that the ban should be overturned and replaced with comprehensive standards.

*News continued on page 22*





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# Growth in Architects' Income Lags Behind Other Professionals'

From 1970 to 1981, real income for principals and all other staff in architectural firms declined both nationally and regionally, according to AIA's recently published survey of firms.

Over these 11 years, the consumer price index rose 140 percent and the gross national product implicit price deflator (a current-weighted price index) showed a 113 percent increase. But nominal compensation, which accounts for inflation, increased only 59 percent for principals, 80 percent for supervisors (general managers, department heads, project managers, project architects, and project engineers), 66 percent for senior technical staff (job captains, senior designers, senior planners, senior specifiers, and construction managers), 57 percent for intermediate technical staff (usually unlicensed designers, planners, specifiers, etc.), and 70 percent for junior technical staff (unlicensed professionals and clerical staff).

Compensation for architects has lagged far behind that for all other workers in the construction industry and for other professionals, according to the survey report. Unadjusted comparisons for the 1970-79 period (1981 figures were unavailable) shows a 114.2 percent increase for the construction industry and a 194.5 increase for "miscellaneous professionals," which includes engineers, surveyors, accountants, and auditors.

In an attempt to explain the decline of real income for architects, the report compares the real value of construction over the 1970-81 period. Public building construction showed a 32.8 percent decrease, while total private construction and private, nonresidential building construction increased by only 2.1 and 7.9 percent, respectively. The report concludes, "The real values [of both total public construction and public building construction] have declined steadily since 1970 while the real values for both private construction categories show much more fluctuation with some significant increases. Overall, however, the performance of the construction industry in increasing the real economic value of all structures built has been distinctly unimpressive."

The 1981 AIA questionnaire, the third in as many years, was mailed last October to 4,000 firms selected at random. From these, 630 firms responded, a 15.8 percent response rate. Research and the initial draft were the work of Elba K. Brown and David A. Schauer of the University

of Texas at El Paso. Data was current as of June 30, 1981. Among the other findings of the survey are the following:

- The average base salary nationally for principals was \$34,802, and the average extra compensation for principals—bonuses, profit sharing, benefits, etc.—was \$12,344.
- By region, average staff salaries in most job categories are highest in the West, including Alaska and Hawaii, and lowest in the Southeast.
- Principals in firms organized as corporations earn an average base of \$37,964 yearly compared with \$33,154 for principals in proprietorships and \$31,365 for partnership principals.
- Supervisory level employees—general managers, project architects, etc.—make highest base salaries in proprietorships, \$25,226 on average; \$24,123 in corporations; and \$22,222 in partnerships.
- From '70-'81, the average number of principals per firm dropped by 8 percent.

Copies of the survey report are available from Brian Cook at Institute Headquarters. AIA plans to publish additional research, based on data from the firm survey, analyzing the relationship of architects' compensation to economic trends in the construction industry.

## Proclamations, Forums Mark 125th Celebration

AIA's 125th anniversary celebration in Washington, D.C., was marked by President Reagan proclaiming April 18-24 "National Architecture Week"; D.C. Mayor Marion Barry proclaiming "Architecture Week" in Washington; a gala party for 850 foreign diplomats and architects, AIA members, and government officials; public forums concerning urban spaces, historic preservation, and energy in architecture; children's architectural tours; lunch-time events; the opening of the AIA Archives exhibit "For the Record . . . the First 125 Years"; and presentations of citations to three corporations, among other events (see April, page 21).

The President's message, read by Francis Hodsoll, chairman of the National Endowment for the Arts, congratulated AIA for its "many accomplishments. . . . American architects have historically expressed through their work the richness of our heritage and the vitality of our national spirit. They have combined ad-

vances in building technology with design innovation to give exciting new forms to our cities." The proclamation resulted from Senate and House joint resolutions introduced by Senator Ernest F. Hollings, Hon. AIA, (D.-S.C.) and Representative Fortney H. (Pete) Stark (D.-Calif.).

Special citations were given to three corporations that "have assumed a critical role in the development of the architectural profession, the building industry and the built environment." Follansbee Steel was cited for providing "vital information to the profession and for supporting the AIA through 70 years as an advertiser in the AIA JOURNAL"; Owens-Corning for its "significant contribution to the architectural profession's awareness of energy-conserving design principles and for fostering an energy-conscious design ethic through 10 years of its energy conservation awards program"; and PPG for "highlighting new technologies and providing information to the architectural profession through 25 years of continuous participation in AIA conventions."

The public forums, one-hour panel discussions, were held simultaneously April 20 at the University of Maryland, Howard University, and Catholic University. The topic of urban spaces was discussed by Grady Clay, Hon. AIA, Rafael de La-Hoz, Hon. FAIA, and Michael Pittas, director of the National Endowment for the Arts' design arts program, with Michael B. Barker, director of AIA's design department, as moderator. Energy-conscious design was explored by Paul Gapp, architecture critic of *The Chicago Tribune*, Thomas Vonier, AIA, and Russell L. Smith Jr., chairman of the Interprofessional Council on Environmental Design, with John M. Dixon, FAIA, editor of *Progressive Architecture*, as moderator. Historic preservation was addressed by architectural historian James Marston Fitch, Henry J. Browne, AIA, and Katherine Welch, vice president for regional programs at the National Trust for Historic Preservation, with Hamilton Morton, AIA, moderator.

## Rush Joins AIA Staff

Richard Rush, AIA, former senior editor of *Progressive Architecture*, has joined the staff of the Institute as a director of the technical division of the practice department. Rush's responsibilities include supervision of technical publications.

At *PA*, Rush has contributed technical articles since joining the magazine's staff in 1978, and has held major editorial responsibilities for each April issue for the past four years. He holds a B.Arch. from Massachusetts Institute of Technology and a M.Arch. from the Cranbrook Academy of Art.

News continued on page 78



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*The Arts*

## Focusing New Attention on the 'Music' of Architectural Glass

Architecture, so often compared to music, has an enduring and valuable ally in the applied art of stained and decorative glass, which has in turn been called "music for the eye." For it is glass that largely determines the quality of light in our buildings, and the quality of light that largely determines our perception of architectural form. The alliance of architecture and glass may have had its heyday in the rose windows of medieval cathedrals, but its undiminished validity has found eloquent expression in more recent times in the work of Louis Comfort Tiffany, in Le Corbusier's Ronchamp, and in buildings by Antoni Gaudi and Frank Lloyd Wright. Bruno Taut and Mies van der Rohe per-

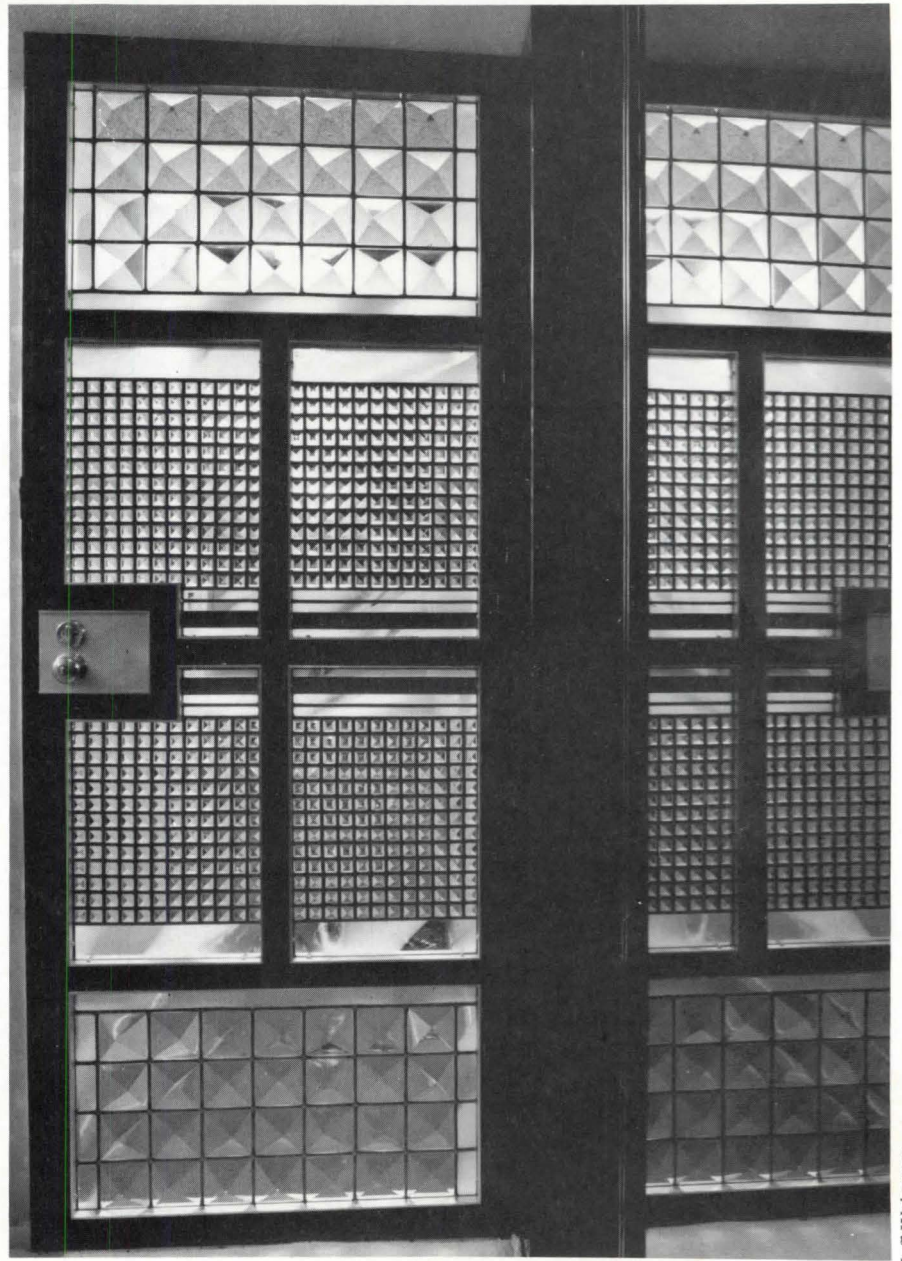
formed pioneering experiments with the effects of glass in building, and Paul Scheerbart, anticipating many aspects of current design, imagined in 1914 a complete system of *Glasarchitektur*.

Even so, everyday practice often neglects the range of effects that glass art can bring to architecture. In December 1981, and January 1982, the San Francisco Chapter/AIA countered this neglect with an exhibit called "Architectural Glass/1981," from which we show a few selections. The show was curated by Arthur Stern, who studied architecture at the University of Illinois and who now operates Stern Studios/Architectural Glass in Oakland, Calif.



Harry Orner





Jeff Weissman

Left, a three-panel screen, 6½ x 8 feet, 'Frozen Music/Opus 23' by Arthur Stern, has a background of gray solar glass. Peter Wickman's 'Natural Order of Things No. 3,' above, incorporates two-way mirrors and dichroic glass (it changes color as you pass). Above right, a 3 x 8-foot door by Shelly Jurs has an aluminum frame, faceted panels by German glass artist Ludwig Schraffrath. Right, an installation designed by Ed Carpenter and executed by Tim O'Neill for the lobby of the Adventist Hospital, Portland, Ore., by architects Howard Hermanson Associates.





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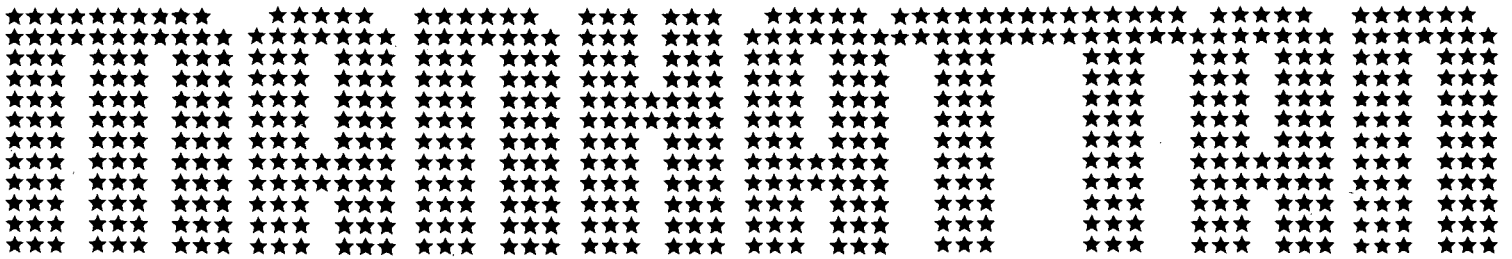
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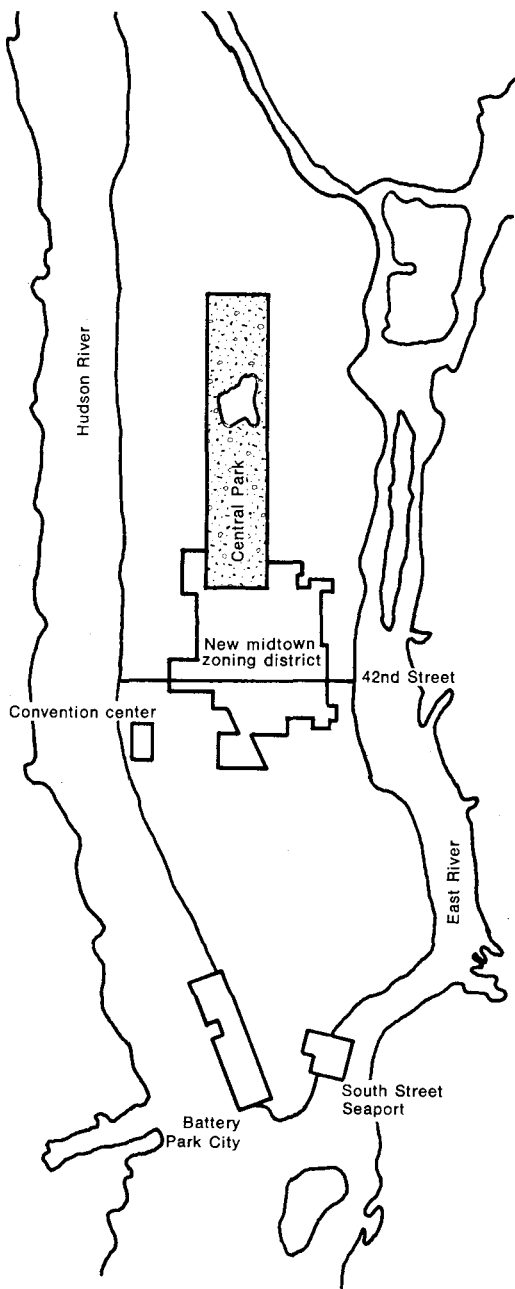
**I**n the five years since we have been doing the mid-May annual of American architecture, which is virtually all about individual buildings, the June issue immediately (all too immediately) following has tended to be about building ensembles, usually acts of urban development and design. So it is with this issue, which begins with the biggest ensemble of them all, the island of Manhattan, and its striking new crop of towers. Whether this can be called an urban design story depends on whether one thinks that public efforts to guide and control Manhattan's development in recent years can truly be characterized as design, which is one of the things that the story is about. Next is a look at another of the nation's growth capitals, Houston, and the buildings that have become its curiously appropriate centerpiece. And after that an account of how growth is being at once welcomed and feared in another, lovelier Texas city.

Finally we look at two examples of a different kind of ensemble in the form of world's fairs. Some would call them frivolous and ephemeral. Yet over the years fairs have had an intriguing role as architectural laboratories. The first example is the current fair at Knoxville. What kind of laboratory it might prove to be is uncertain, but it can't be faulted for lack of variety. The second example is Chicago's Century of Progress exposition of the early '30s, a hauntingly expressive set of pavilions which spoke of both the past and future. We came across photos of this fair in an exhibition of the work of the estimable Chicago photographers Hedrich-Blessing and immediately set about seeking an excuse to show them, which Knoxville happily provided. *D.C.*





*Big town uses a big building boom to break out of the box. By Stanley Abercrombie, AIA*



Manhattan may turn out to be a fine place after all, according to the old joke, if they ever finish it. Certainly they're hard at work on it now. Even for a city that has always been characterized by change, the amount of pulling down and putting up that is currently planned or in process is remarkable. Ignoring for a moment the less upbeat stories of New York's other boroughs, ignoring as well the controversial and literally peripheral proposals such as billion-dollar-a-mile Westway and a landfill project for the East River between 16th and 24th streets, we find enough building activity right in Manhattan to constitute a major construction boom, handily outbooming even Houston and Denver, and more than enough to raise some anxious questions. Such as: Is all this activity good or bad?

But our first question must be: Just what is going on, and why is it happening now, during a general construction slump? Some of the big projects underway—Battery Park City, the South Street Seaport, the redevelopment of Times Square—simply happen to be lumbering their way through the tedious process that big urban projects require. Others, including a crop of two dozen office towers now in construction in east midtown, are the indirect results of a change in zoning regulations for midtown, the first such change in more than 20 years and one that was perceived as making the present scale of development difficult in the future, at least on the city's prime east side. All are the results of impressive zeal and energy on the part of developers (it isn't *easy* to build in Manhattan). While many of these developers have the same family names that have been shaping New York for years—Tishman, Durst, Klein, Fisher, DeMatteis—there are some newcomers among them—the Rouse Corporation from Columbia, Md., Olympia & York from Toronto, John Portman from—well, you all know where John Portman's from. Despite Manhattan's past and potential financial woes, despite deferred maintenance policies that have resulted in the dangerous disrepair of its subways, bridges and other services, despite crime, despite potholes, despite a construction industry reportedly riddled with corruption, despite the highest construction prices in the country as well as some of the highest land costs—despite all this, Manhattan is still the city of the future for many developers, and not just for home-grown ones, either.

*Right, three of the towers changing the city's skyline: Left to right, IBM by Edward Larrabee Barnes, Trump Tower by Swanke Hayden Connell & Partners, and AT&T by Philip Johnson/John Burgee.*







## Waterfront delights and the price of progress.

Olympia & York, indeed, has been described by *The New York Times* as "one of the largest property owners" in the city and "perhaps the most prominent force in New York City real estate." Biggest in scope of all Olympia & York undertakings is what has long been known as Battery Park City and is now being called The World Financial Center. Its site, until recently, was part of the Hudson River, but when excavations were made for the adjacent twin towers of the World Trade Center, there was all this dirt. Instead of having it carted away to New Jersey, the city used it for filling in part of the shoreline, and Manhattan grew by 92 acres. The Battery Park City Authority, the client agency created for putting the new land to use, is a subsidiary of the New York State Urban Development Corporation.

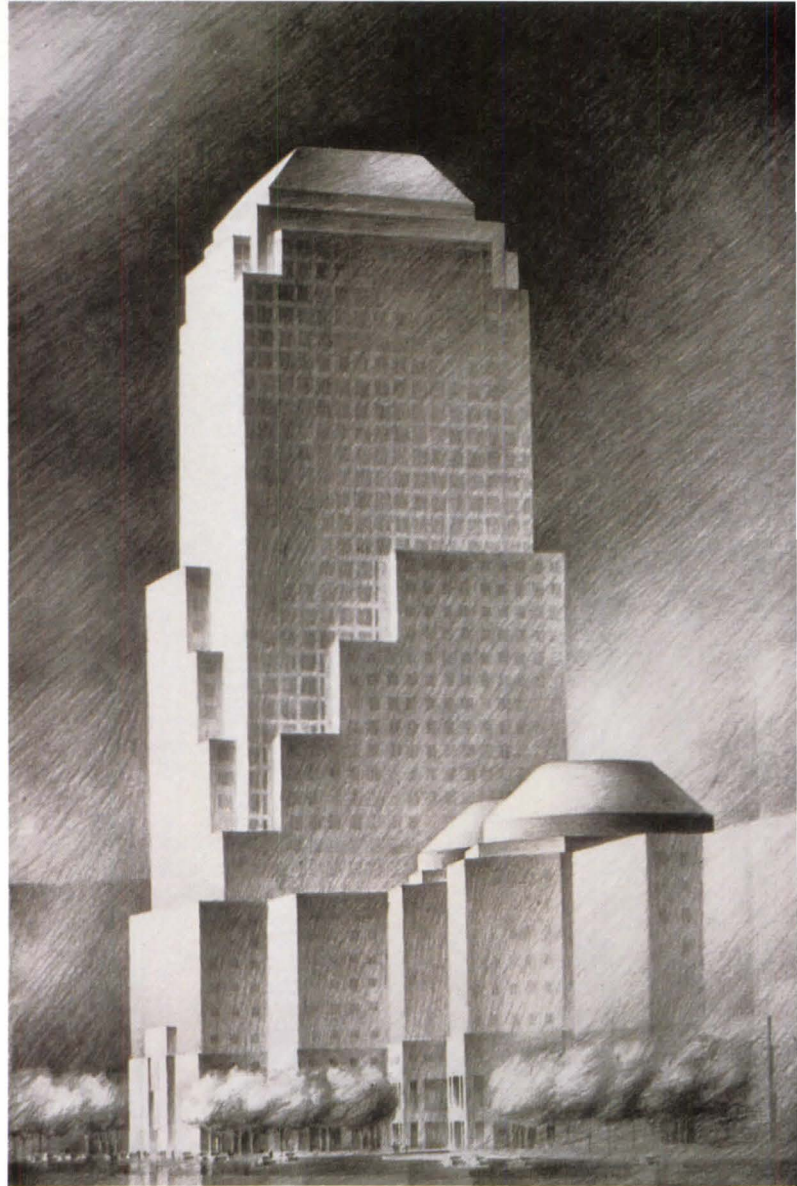
Already well along in construction on the new land is developer Samuel LeFrak's Gateway Plaza, a 1,600-unit housing complex with three 34-story towers designed by architects Jack Brown and Irving Gershon. The World Financial Center will be just inland of this housing and will also stretch several blocks to the north along the river. It is the design—the absolutely fascinating design—of Cesar Pelli, working in association with Adamson Associates of Toronto and Haines Lundberg Waehler of New York. It includes four office towers, ranging in height from 33 to 50 floors, the largest of which has just been leased for its first 35 years by American Express (the rent: \$2 billion). Fashionable buildings are wearing hats again, and each of Pelli's four towers will have a distinctive hat of its own, one a pyramid, one a truncated pyramid, one a ziggurat, one a dome. The towers are sited at varying angles, and their sides are to be enlivened with multiple shallow setbacks that will mark a change in material—largely granite below, largely glass above—as if heavy masonry buildings were being peeled away to reveal more crystalline ones inside. There will also be a pair of nine-story octagonal towers forming a gateway from old Manhattan to its new appendage (vistas to and through Battery Park City having been mandated in urban design guidelines established by Cooper-Eckstut Associates). And, at the base of all this, there will be a wonderland of retail arcades and landscaped courtyards, climaxed by a glass-vaulted winter garden. Pelli's design is intentionally picturesque, rich with potential delights, rich, too, with risks. Which elements of this complex will seem convincing, which simply arbitrary? Given Pelli's skill, we expect to be largely convinced, and we haven't long to wait. All parts of The World Financial Center are expected to be in construction by the end of this year, American Express expects its tower to be finished in late 1984, and the whole 7 million-square-foot complex is promised for 1987.

Almost directly across the island, there are more controversial goings-on along the East River. The Rouse company and its architects, Benjamin Thompson & Associates, having effected widely acknowledged miracles at Quincy Marketplace in Boston and at Harborplace in Baltimore, are now ready to work another in lower Manhattan, transforming a shabby waterfront area—the city's fish markets for over 150 years, a couple of fish restaurants, some run-down remnants of 19th century buildings—into another colorful commercial extravaganza. But not everyone is cheering.

While it is certainly incongruous that this rather derelict district should exist just three blocks north of Wall Street (as it was incongruous for Les Halles' food market to exist in the heart of Paris), there is some charm in the incongruity, and some fear that the district's character will disappear along with its dirt. The improved South Street area may turn out to offer fish-decorated notepaper, fish-decorated salt shakers, and fish-decorated T-shirts, but no fish. Fish smell, after all.

The city had already planned a few years ago, in fact, that the fish merchants be moved to a new wholesale food market at Hunts Point in the Bronx. The merchants said no, thank you,

Jon Pickard



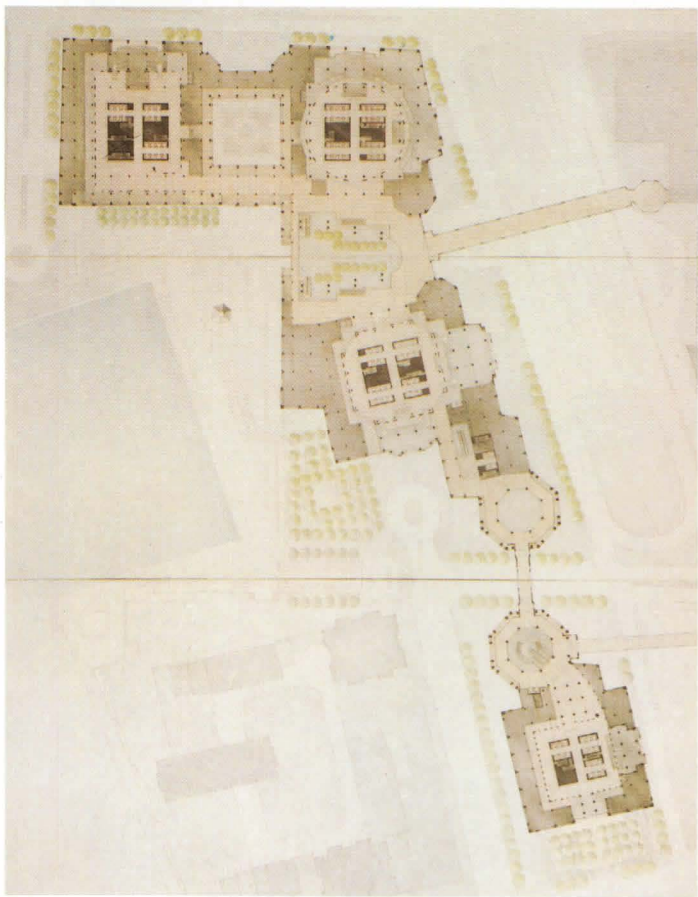
and an agreement was reached allowing them to stay. Whether increased real estate values in the area will eventually force them to the Bronx remains to be seen, but such economic upgrading has to be expected with or without Rouse's involvement. If the area's past character is doomed to be overwhelmed by progress, then probably it is best to have it overwhelmed by the well-planned and attractive progress the Rouse-Thompson team can offer.

The South Street Seaport Museum, founded in the area in 1966, will have adequate headquarters and gallery space and be put at last on a firm financial footing. Other elements of the neighborhood are to be preserved and restored, with such experts as James Marston Fitch (working as consultant to Beyer Blinder Belle) and Jan Pokorny retained for the work. New buildings adjacent to the Rouse project will include two office towers by Swanke, Hayden, Connell & Partners and one by Fox & Fowle. There are worries that these 30- to 40-story buildings will destroy the seaport's character, but part of our delight in the area's buildings is that they are so different in scale (and, therefore, obviously, in age) from their neighbors. To make this contrast more abrupt may make that delight more poignant.

Moving uptown, even before we come to most of the new midtown construction and most of the land affected by the new zoning, we come to Manhattan's major crosstown street, 42nd. There has been an appropriate amount of ballyhoo about plans for the theater/sleaze district of West 42nd, but there is also activity on East 42nd that deserves attention. On the plus side, a tower for Philip Morris by Ulrich Franzen, just opposite Grand Central, that will bring to the area the fine gift of a street level



Kenneth Champlin



Left and above, drawing, model, and plan of Pelli's Battery Park City now under construction. Below, just south of the Brooklyn

Bridge, the site for Rouse's South Street Seaport between new construction by Beyer, Blinder, Belle and the Fulton Fish Market.

Andrew Moore







Cervin Robinson

## E. 42nd refacings, W. 42nd reconstruction.

branch of the Whitney Museum. More doubtful, there is Attia & Perkins' 101 Park Avenue, a block south, replacing what was once called The Architects' Building. The new 101 Park is one of the most awkward of the new building crop, but more about that later. Definitely on the minus side and much more serious is the whittling away of the Grand Central complex itself.

Kent Barwick, the very able chairman of New York's Landmarks Preservation Commission, has remarked that, ironically, it was the loss of McKim, Mead & White's Pennsylvania Station that galvanized public attention to the landmarks issue and brought the commission into being for the protection of, among other treasures, Grand Central Terminal. Yet the terminal by Warren & Wetmore is only part of a complex based on a competition-winning master plan by Reed & Stem, a complex more remarkable even than Rockefeller Center, of interconnected rail, subway and vehicular traffic, of office and retail space, and of a cluster of hotels. While the terminal itself remains unviolated (except by some gross advertising in the concourse), other parts of the complex are suffering flagrant violation.

One victim is Warren & Wetmore's Commodore Hotel, now renamed the Grand Hyatt, just east of the station. In the hands of developer Donald Trump, with Gruzen & Partners as architects and Der Scutt as designer, the old structure was literally defaced, all its projecting elements of limestone trim chiseled flush with the surrounding brick so that the whole building could be wrapped in mirror glass. The lobby areas have been treated with similar abandon, and the city has permitted a glazed restaurant addition cantilevered over the 42nd Street sidewalk.

More recently, Warren & Wetmore's Biltmore Hotel, just west of the station on 43rd Street, has been vandalized. One day last August Barwick mentioned to John Zuccotti, a former chairman of the City Planning Commission, that three interior spaces of the Biltmore were to be considered for landmarks designation. Zuccotti is now the attorney for the Biltmore's owners, Paul and

Seymour Milstein, and the very next day the hotel was closed and a wrecking crew arrived to attack those same three rooms with sledgehammers. According to *The Livable City*, the lively publication of the Municipal Art Society, someone identifying himself as Mr. Milstein prevented a woman from photographing the wreckers at work. "Look, lady," he said, "you had 68 years to photograph this hotel." The Biltmore, like the Commodore, is to have a new face, granite in this case, and will become an office building for the Bank of America. Environetics is the architect. One minor concession to the public outcry: Some salvaged elements of the Palm Court, including the famous Biltmore clock, are to be reconstructed in the office building lobby by Hardy Holzman Pfeiffer Associates.

At the middle of 42nd Street, where it crosses Fifth Avenue and changes its name from East to West, things are looking up for Carrère & Hastings' 1911 New York Public Library. With advice from Arthur Rosenblatt, FAIA, with a promised \$13.3 million from the city and another \$11 million from private donors, it will receive long-needed repairs and restoration.

West of the library lies the part of the street that songs are written about:

*Hear the beat of dancin' feet*

*On the avenue I'm takin' you to,*

*Naughty, bawdy, gaudy, sporty Forty-Second Street!*

But maybe you didn't hear the dancin' feet for all those dope hawkers and gunshots. Some of us are content for the seamy side of the urban character to find expression somewhere, but few are happy to have it here, on a major street and in the heart of an irreplaceable concentration of fine theaters. The city is determined to save the Times Square area from its present denizens, and recent salvation strategies have included:

- a convention center, once planned to be built in the East River at 47th Street to a design by Skidmore, Owings & Merrill;
- a major new hotel by architect/developer John Portman to be built on Broadway between 45th and 46th streets;
- a pedestrian mall to be created in front of the hotel;
- a rejuvenation and expansion of the Port Authority bus terminal;
- a major redevelopment of 42nd Street itself between Times Square (Seventh Avenue) and Eighth Avenue.

Some of these plans have been changed, naturally; some are going ahead. The convention center is now under construction, but designed by I. M. Pei & Partners and at a different site, between 34th and 39th streets and between 11th and 12th avenues. (Yes, there is a 12th Avenue.) It is expected to open in 1984 and is already booked through most of 1986. That it will be a splendid Crystal Palace-type building and that it will be a boon to the city's tourist industry both seem likely, but its new site makes its influence on Times Square and the theater district north of 42nd problematic.

The 2,000-room, 50-story Portman hotel, on again, off again since its initial presentation to the public at city hall in 1973, seems on again for sure. Now that two of the city's finest legitimate theaters, the Morosco and the Helen Hayes, have been demolished to make way for it, even its former opponents must be drying their tears and hoping that it will finally be built. Ironically, it is to rise on the block adjacent to the site of Clinton & Russell's elegant old Astor Hotel, demolished to make way for an office tower just over a decade ago. Ironically, too, it is to replace not only the two theaters mentioned and a third, smaller one, the Bijou, but also a quite respectable 600-room moderate-rate hotel, the Picadilly. The new hotel may do wonderful things for the area, but it could have been even more beneficial if another site had been chosen for it. Architecturally, published drawings lead us to expect a rather severe and unrevealing exterior package and a minimum of street-level communication with its surroundings (a so-called "street cafe" is to be at the seventh floor level), but, lifted up safely inside the box, a drop-dead spatial extravaganza of typical Portman excess.

Planned as a grand forecourt to the hotel is a pedestrian mall,





dependent on the closing of Broadway to vehicular traffic between 45th and 47th streets. This promises to produce a nightmare of traffic snarls and another nightmare of pedestrian snarls, for the group that can be expected to promenade along the new mall is a generally unsavory one. Even with a landscape design by M. Paul Friedberg (from which all benches have been omitted in hopes of reducing loitering time), the mall seems to be one of the worst ways ever conceived of spending \$7.5 million. Officially titled Broadway Plaza, it is already being called "Bike Lanes II" by those who remember the city's earlier bad idea of taking a lane of Seventh Avenue away from cars and giving it to bicycles. When this tied up traffic, the concrete barriers between lanes were simply removed, but the new mall, if built, may be irrevocable, for its supporters have sought to ensure its future by tying it to the hotel construction: Portman has been allowed to design his building so that it extends beyond the property line, beyond even the existing sidewalk, out into what is now Broadway. Unless the city asks Portman to return to an earlier, smaller design, New York will be stuck with the mall, no matter what its effect. Paul Goldberger, in *The New York Times*, reports that the plan is losing support. We hope so.

At least the redesign of the Port Authority bus terminal, by the design staff of the Port Authority of New York and New Jersey, has been a success. The old 1950 terminal has been extended north along Eighth Avenue to 42nd Street, stretching it to a mammoth two blocks in length, and the whole thing has been wrapped with a powerful frame of exposed steel bracing. The result is not dainty, but just fine. Inside, colored glazed brick considerably brightens a space that Goldberger once said "makes an airport seem inviting."

The most critical block of West 42nd is between Seventh and Eighth avenues. With Times Square on the east, the bus terminal on the west, this is the block with the biggest present street crime trouble, the most glamorous past (John Barrymore in "Hamlet," Fred and Adele Astair in "The Band Wagon," Noel Coward and Gertrude Lawrence in "Private Lives") and the greatest

*Far left, between Grand Central and the Chrysler building, vulgarity strikes: Warren & Wetmore's 1914 Commodore Hotel has become the Grand Hyatt. Above left, Broadway theaters make way for the Portman hotel. Above, Grand Central and Pan Am flanked, left, by Ulrich Franzen's new Philip Morris tower and, right, by Attia & Perkins' 101 Park Avenue.*

future potential. The city's billion-dollar scheme for the block, directed by the Urban Development Corporation and announced in April, calls for the renovation of nine legitimate theaters, the redesign of the labyrinthine Times Square subway station and the construction of four new office towers, a wholesale trade mart and a new 500-room hotel. Proposals for specific parts of this redevelopment package have come from 26 developers so far, and three have been tentatively chosen by the city as the primary builders. This is only the latest in a long series of city attempts to change the area, and much remains to be done before construction begins (the review of the proposals, the acquisition of sites through condemnation proceedings, the selection of architects, the approval of specific designs, etc.), but it looks as if, this time, it just may work.

Mention of yet another new hotel among these proposals suggests the strange flux of hotel rooms in the city—some existing buildings, like the Biltmore, being converted to other uses, but, at the same time, many new hotels being built. We have already reported here on the new Helmsley Palace looming over McKim, Mead & White's Villard Houses (see Feb. '81, page 69). There is also talk of new hotel construction and renovation along Central Park West, the Hilton is planning a major expansion, and Carnegie Hall has a new hotel neighbor: the 40-story Parker Meridien by architect Philip Birnbaum. On West 56th between Sixth and Seventh avenues, its exterior is quiet and plain, but Sarah Tomerlin Lee of Tom Lee Ltd., with architect Todd Lee as consultant, has given the public spaces inside an exemplary treatment. A long entrance passage from 57th Street, in particular, flaunts some *trompe l'oeil* effects that are magical.



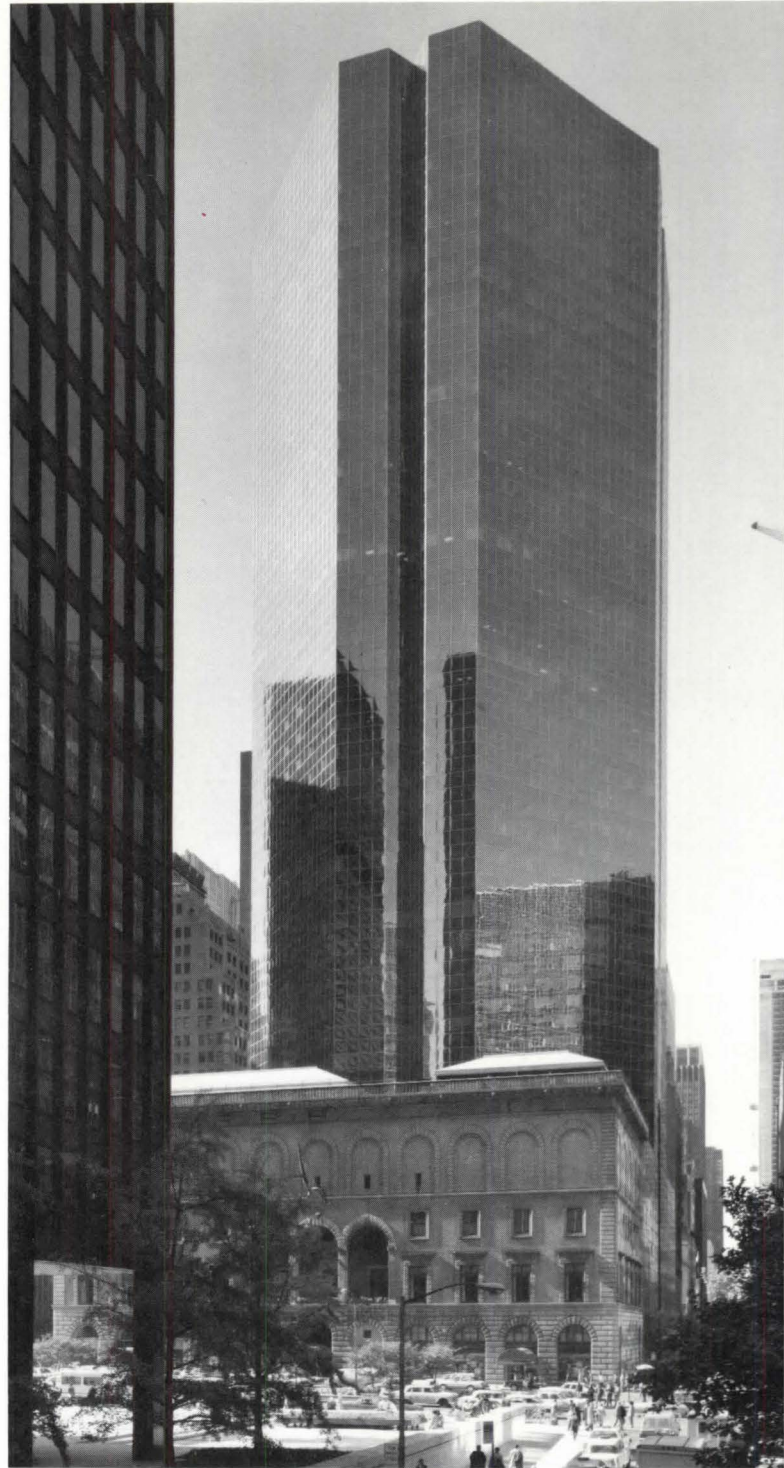
## Big buildings, tight sites, \$10 hamburgers.

But hotel construction at the moment can't hold a candle to office building construction. Which brings us at last to the crop of new midtown towers and the zoning law they were racing to beat. Of greater concern than the quality of the new construction has been the sheer quantity of it. Will the market support it? Will the existing infrastructure of services and transportation facilities support it? Will any reasonable standards of light and air survive it? Will there be such a thing as a midtown hamburger for less than \$10? Not until these buildings are finished and filled with breathing, commuting, lunching workers will the answers begin to be known, but, trying to be as optimistic as possible about a *fait accompli*, it could be noted that alarms about overbuilding in Manhattan have been around at least since Ernest Graham's 36-story Equitable Building of 1915 (which provoked the city's—and the country's—first zoning resolution in 1916), that the air quality, due to stricter control, is better in midtown now than it was a decade ago, and that a decrepit subway system is subject to change. Indeed, if the same tunnels were to be outfitted with the equipment of Washington, D.C., of Paris, of Toronto, or of almost any other city, the increase in transportation efficiency and pleasure would be marvelous. As for sunlight, it could be argued that what is desirable in January is a menace in August, and that nobody ever came to Madison Avenue for a tan, anyway.

Thus sidestepping the as-yet-unanswerable questions about quantity, what is the quality of this new wave of building? To look first at the most looked-at building of our time, how does Philip Johnson/John Burgee's AT&T building really seem, now that it is off the cover of *Time* and up there in the sky? The notorious top, though not yet sheathed, has been framed for several weeks now, and already begins to be a familiar part of the skyline. Is *that* what all the uproar was about? A pediment to shed water is the most traditional way to shelter a building, after all, and breaking the pediment at its crown is the most traditional way of indicating that the form is decorative, not necessary for function. Whether or not it's also been used for furniture, the broken pediment was much used in both the Roman Empire and the Renaissance and is one of the most familiar forms in architecture, and the AT&T top will likely take its place in the skyline quite naturally. It is the base of AT&T that will have the more dramatic effect because of its surprising scale, with the fenestration of the typical floors being the building's least interesting aspect. As a whole, it promises to be the quintessential skyscraper: an awesome, totemic, just slightly overbearing wonder. For all its initial shock value, we can imagine—and we hope Johnson/Burgee will forgive us for this—its becoming the most respectable establishment this side of Seagram.

One block north is Edward Larrabee Barnes' IBM tower, a simpler building in its skin and roof treatment, but more eccentric in its basic shape. At the corner of Madison and 57th, a spectacular cantilever lifts the building free of the sidewalk, and the opposite wall of the tower is angled to allow room for a glazed pavilion. Another new tower nearing completion shares the block with IBM, the Trump Tower by Swanke, Hayden, Connell & Partners. Replacing the 1929 Bonwit Teller store by Warren & Wetmore and Ely Jacques Kahn (Do you begin to suspect a Warren & Wetmore vendetta?), the Trump tower, at this stage, appears to be fine in its way but meant for some other site. How could something so big be misplaced? For this part of Fifth Avenue has a tradition of buildings flush with the property line (on the east side of the street; a setback at about the 10th floor is the rule on the west side) and also a tradition of masonry construction. The Trump tower flouts both traditions, offering instead a glass tower pleated in multiple setbacks.

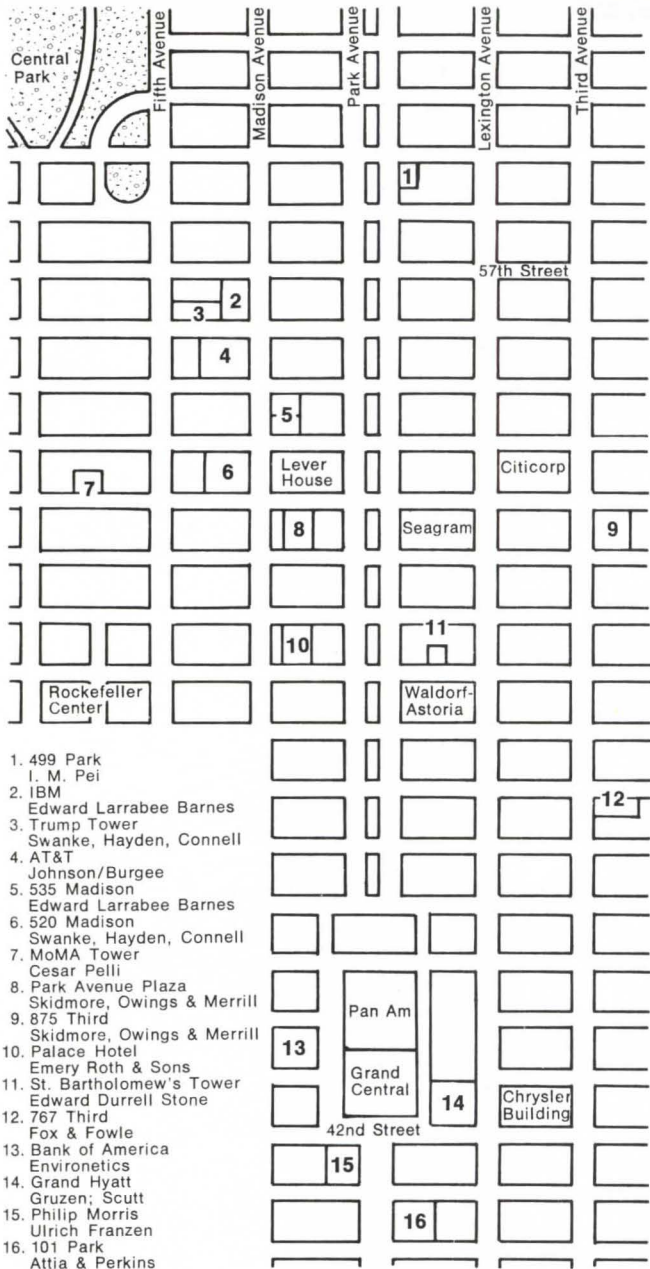
A few blocks away, a couple of the new crop is actually finished and in use; to the north, I. M. Pei's sleek 499 Park (at 59th Street), a dark glass speculative building for developer



George Klein; to the south, Skidmore, Owings & Merrill's Park Avenue Plaza for Fisher Brothers, a building that, strictly speaking, is not on Park Avenue at all but rather midblock between 52nd and 53rd streets, separated from Park by McKim, Mead & White's 1918 Racquet and Tennis Club.

Park Avenue Plaza is typical of the design that the new zoning regulations are likely to encourage, in that it offers none of the outdoor plazas the city once rewarded with floor area bonuses, but rather a through-block passage (*enclosed* in this case) with dining and shopping facilities, open to the public until late at night. It has a splendid ceiling height, some handsome polished green marble and a 50-foot-wide waterfall (more amenities, really, than the new zoning will reward). The tower above, by means of a pale green glass skin and a multifaceted volume that meets the street lines only with narrow surfaces, dissembles as much as it can the fact that it may just be more building volume than its midblock site can comfortably hold; this, too, is probably typical of much future construction. Despite its great bulk and obsessive angularity, Park Avenue Plaza manages to look





Cervin Robinson



Left, Skidmore, Owings & Merrill's Park Avenue Plaza cleverly wedges behind McKim, Mead & White's Racquet Club. Right, beyond St. Thomas church, the carefully considered tinted glass skin rises on Pelli's tower for the Museum of Modern Art (see Oct. '81, page 74).

quite elegant behind the Racquet Club; the saving grace, perhaps, being plain old symmetry.

It is a grace shared by AT&T but by remarkably few of the current Manhattan crop. Certainly a big building needn't be dull, but there is something inappropriate about thousands of people going to work every day in a building that seems to be doing a conga. If the new 101 Park, down at 40th Street, is doing the wildest conga of all, there are certainly plenty of others along Third Avenue and elsewhere that are also willfully capricious. Is this a passing phase, or will its continuance be encouraged by increasingly tight and oddly shaped sites? And what will be the influence on building form of the new zoning regulations?

The zoning change had been the subject of public debate for three years. It was passed by the City Planning Commission in March and approved by the Board of Estimate—the last step needed—on May 13, becoming effective immediately. Its basic purpose is to discourage continued growth on the east side of midtown and to encourage, instead, growth on the west side. It hopes to accomplish this by means of east/west differences in

the permitted floor area to lot-size ratios (FARs). On the west side, floor areas 18 times the lot size will be allowed to be built on avenue frontages, 15 on side streets; on the east side, the FAR allowed will be 15 on avenues, 12 on side streets. Other provisions of the new regulations, briefly summarized, are:

- The curtailment, already mentioned, of the amenities for which a developer will be granted an FAR bonus. A limited bonus will continue to be given for some types of plaza, but there will be no inducement for useless plazas that would not otherwise have been provided. Through-block access will be considered useful and worthy of a bonus; so will improvements to subway stops and entrances; so will midblock parks.
- Encouragement, by means of additional FAR bonuses, of the preservation and rehabilitation of theaters on the west side.
- Increased clarity of the regulations themselves, with the aim of reducing time-consuming city/developer negotiations and increasing the percentage of "as-of-right" building designs.
- A new pair of alternate methods for determining building height and setbacks in accordance with desired sky exposure.





## New rules for a new breed of skyscraper.

What can we expect from the new law? As for the basic intent of the change, a shift of developers' interest from east to west, probably not much. A three-day conference of planners, developers, and architects held at the Bar Association in December and sponsored by *Metropolis* magazine produced a consensus that the city's goal is fine, but the means proposed are too feeble to reach it. Donald Schnabel, senior vice president of Julien J. Studley, Inc., characterized the new regulations as "tinkering" and said that "if the city wants the west side to get going, it must provide an anchor, even if it means 'giving away the store' in terms of bonuses, tax abatements, and site assembly assistance in order to attract that anchor."

With similar skepticism, the Presidents' Council (composed of the presidents of the Architectural League, the Landmarks Conservancy, the Municipal Art Society, the Parks Council, the Regional Plan Association, and the New York City chapters of AIA, the American Planning Association, and the American Society of Landscape Architects) supported the new zoning but expressed concern in February that "the proposed incentives may not be sufficient to shift development interest to the West Side." The council suggested as an alternate a much more restrictive zoning "with substantially lower floor area ratios, such as 6 to 10" for the east side.

The Municipal Art Society in a separate February statement also supported the new zoning in general but suggested that the city's powers of taxation be used to supplement it. The society urged that "tax incentives in west midtown be sufficient to strengthen the differential between east and west that is the goal of these proposals." This option is still open to the city, of course.

And an AIA committee chaired by Theodore Liebman of Liebman, Williams, Ellis, suggested yet another remedy: leaving the east side part of the proposal alone but increasing the west side FAR from 18 to 24, the additional factor of six to be given only for residential uses in mixed-use developments. Liebman saw this as a means of not only encouraging west side growth but also providing needed midtown housing units and fostering a greater difference between east side and west side use patterns. "The west side, with a mixed-use character, could become the pre-

miere place for New Yorkers," he said. "The east side could retain its international prestige." The suggestion was not accepted.

If these criticisms are accurate, therefore, the new zoning is unlikely to effect a great western migration in Manhattan. Other parts of the new regulations, however, may have a subtle effect on the form of new construction, regardless of which side of town it is meant for. Particularly interesting to watch will be the effects of the new two-tiered bulk regulations developed for the Department of City Planning by architects Davis, Brody and Kwartler/Jones. New York's pioneering zoning law of 1916 had established height and setback limits; the zoning law of 1961 had added FAR restrictions limiting total building volume; the 1982 zoning adds further prescriptions about the distribution of that volume, based on a proposed building's effect on the street. It is called a two-tier system because it offers two alternate methods of calculating the bulk distribution; an architect may choose either.

The first method requires that a proposed design conform to the limits of a sky exposure curve devised by Patrick Ping-Tze Too and Michael Parley of the city planning staff. This is a fairly straightforward method of testing a design, although the curve is a bit more troublesome to construct in the drafting room than the simple sky exposure *plane* New York architects previously used, and there are a couple of other complications: First, there are three different curves, one prescribed for each of midtown's three street widths (60, 80, and 100 feet). Second, a building may encroach beyond the prescribed curve and be forgiven if it pulls back from the curve an equal amount (or more) somewhere else.

The second method is more esoteric, based on something called a Waldram diagram, which looks rather like a perspective chart from the planet Krypton. Most architects, indeed, will find using the second method extremely cumbersome without the aid of a computer, a fact that abruptly necessitates a change in practice of many New York firms. A proposed building design is plotted, either by computer or by drafting room drudge, on the Waldram diagram several times, as if viewing the building from two directions for each street frontage. (A building fronting on an avenue and two side streets, for example, would require six plottings.) These plottings are checked against the curve to see how much of the required daylight is cut off from the street in each case, and these results are averaged to see if the design is permissible. Like the first method of calculation, the second method allows considerable design freedom, allowing bulges here in exchange for notches there.

Both methods, in short, appear to encourage eccentric building forms. As Joseph Wasserman of Gruzen & Partners, president of the New York Chapter/AIA, put it during the *Metropolis* conference, "The ordinance seems to suggest you do many things, such as chamfering corners." In the case of our best architects, of course, no amount of design freedom is too much. In the case of those less talented, less conscientious, or more inclined to be self-indulgent, we watch for the application of New York's new zoning regulations with much interest and some apprehension.

So much more could be mentioned here—construction planned or underway by several New York museums, the hot controversy over a tower planned next to St. Bartholomew's church, the growing phenomenon of "sliver" buildings for tiny sites, a restoration program for Central Park, the Upper East Side Historic District, a quite separate new building boom on the Upper West Side—but Manhattan is building faster than we can write about it. The only sensible summary of all this activity is to say that it cannot be sensibly summarized, yet Manhattan lovers must be braced by the realization that this most thrilling of cities continues to make our pulse beat faster, both with exasperation and with delight. To end, as we began, with an old joke: If you don't like Manhattan, just wait a minute and it will be different. □





*Above left, with the St. Regis hotel in the foreground, another view of current construction. Above, the powerful Madison*

*Avenue entrance of Johnson/Burgee's AT&T building takes shape; to its right, Barnes' IBM.*





Photographs by Richard Payne



# Evaluation: Pennzoil as Sculpture and Symbol

*It has played a crucial role in its city's growth and the skyscraper's evolution. By John Pastier*

Among the nations of the world, America stands out in its reverence for the future. Granted that we may sometimes take comfort in nostalgia and that many business decisions seem addressed to the next annual report, but our characteristic vision is of the eternal future—we even take sentimental refuge in it. The past, after all, can be romanticized only within limits, while the future allows total freedom for both wishful thinking and grand dreams.

For decades, our great city of the future was Los Angeles. With its headlong growth, economic vigor, and ready acceptance of technology, it was our paradigm of modern urbanism. But in the past few years, it has lost its will to live a step ahead of itself. Incipient maturity has set in, imperceptibly but inexorably, and now Los Angeles is a future city emeritus, an extitlerholder in good health but just a bit slower and less energetic than the current champion.

Our present city of the future is Houston, its growth propelled by petroleum and unfettered by zoning or planning. Its sprawl and traffic seem to surpass that of Los Angeles itself, but, unlike the California metropolis, it has produced some strong, publicly visible architecture to signal its urban ambitions. One can even argue that the mantle of urban futurity passed to Houston with the completion of a specific building, Pennzoil Place, one of the myriad skyscrapers that have flourished in its steamy climate.

Usually, such a rite of passage would be marked by a structure of exceptional height—a phallic symbol to commemorate adolescent change. In this case it wasn't. The building's strength came not from size, but from ingenious design. One would expect that it would be the product of a Houston architect, young and uninhibited by accepted notions of how things should be done. Again, it wasn't. Its design was the work of a New York

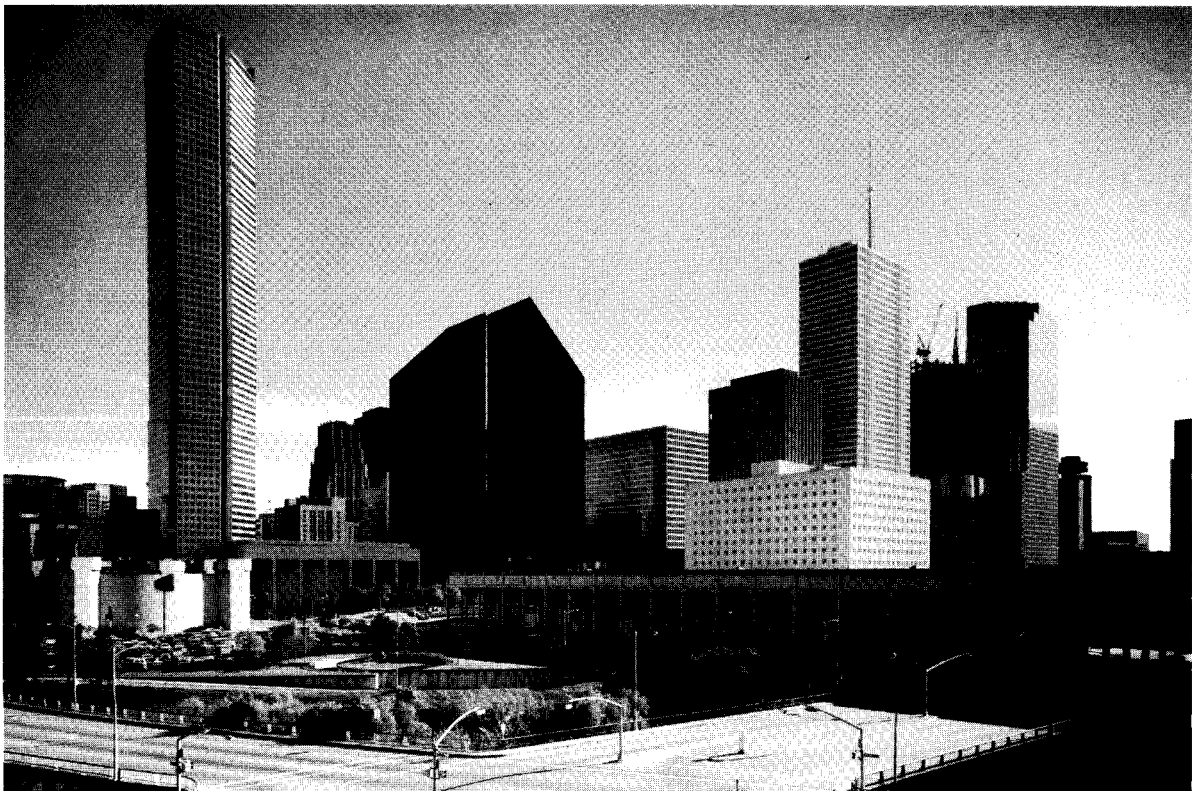
firm headed by a Harvard alumnus in his 70s who had helped bring that most old-fashioned of today's styles—modernism—to the United States.

Pennzoil Place, by Philip Johnson and John Burgee, is a connected pair of towers named Pennzoil and Zapata after its two major tenants. Pennzoil and Zapata are identical on the outside and similar inside. They operate together as sculpture, as architecture and as urban design. Their impact has been discernible not just in Houston, but throughout the country, and their effect has been felt not only by architects but also by developers. They proved to skeptical high-art architects that a developer or investment builder could be just as receptive to innovative design as an institutional client to whom ultimate profit is not a paramount issue. And the towers proved to developers that architects of strong design capability can provide a competitive advantage in the real estate marketplace.

When Pennzoil was completed in 1975, its developer origin seemed just as remarkable as its puzzle-like geometry. In retrospect, that aspect seems perfectly natural, since the developer is Gerald Hines. By some measures he is thought to be the biggest in the field (a distinction he dismisses as secondary to quality), and he is almost universally regarded as the developer who has commissioned the best architectural results over the last decade or so. In a business sense, Pennzoil was just one of a string of successes in his career, but in a design sense it seems to have been a turning point. His previous milestones had been the Galleria complex, by Hellmuth, Obata & Kassabaum and Neuhaus &

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**Mr. Pastier**, a frequent contributor, is a teacher and writer in Austin, Tex., and author of *Cesar Pelli* (1980)







## Good design makes the profitable palatable.

Taylor, six miles west of downtown Houston, noteworthy for its mixed-use pioneering in suburbia, and the 50-story Shell Plaza, by Skidmore, Owings & Merrill, Chicago, and Wilson, Morris, Crain & Anderson, whose design strength lay in the precise and subtle external expression of its innovative concrete structural system, the tallest in the world when completed in 1971. Neither of these projects gave a clue to what was to come at Pennzoil: pure radical architectural form that verged on colossal sculpture.

Postwar American skyscrapers that departed from a rectangular prismatic shape had up until then fallen into two categories: straightforward variations on the standard form, and "sports" such as Frank Lloyd Wright's Price Tower in Bartlesville, Okla., Bertrand Goldberg's Marina Towers in Chicago, Harrison & Abramowitz's lens-shaped Pheonix Mutual building in Hartford, or William Pereira's Transamerica Building in San Francisco. Johnson himself points out the importance of this last structure in fostering acceptance of unconventional designs on the part

*Above, the 10-foot-wide gap between towers seen from the center of the lobby. Right, an atrium entrance. Far right, an office area beneath one of the 45-degree surfaces that top the towers.*

of clients and the public. In this sense, it may have helped pave the way for Pennzoil Place.

In another sense, however, Pennzoil blazed its own trail. Typically, Philip Johnson's designs spring from his seemingly encyclopedic knowledge of architectural history; like the law, his work displays a deep concern for precedent. Of course, like the law, the trick to such an eclectic approach is to choose the appropriate reference, and here Johnson has often excelled. But Pennzoil seems to be more the product of John Burgee's skills at solving concrete problems than of Philip Johnson's ability to select paradigms and styles. Burgee attributes the genesis of Pennzoil's diagonally sliced forms to its siting near the edge of Houston's central business district: "We wanted to link the cultural center with the heart of downtown, and that led to the diagonal passage through the Pennzoil block."

In its built form, this shortcut is composed of two triangular entrance spaces, linked at their remote corners and each covered by a 117-foot-high sloping glass roof. It is doubtful that many Houstonians use this magnificent space to reach the Alley Theater, concert hall, or convention center from the banks, stores, and offices in the center of downtown, but that realization hardly matters. Even if the connection is only symbolic, it is still the root of the Pennzoil design and the initial step of an elegant geometric exercise that Euclid himself would admire.



That exercise consists of placing two rather large office towers on a typical central Houston block measuring 250 feet on each side. Imagine the block filled with a single massive volume 523 feet high, and further imagine that mass sliced like a cake, first along one diagonal and then precisely bisected once again, this time by removing a 10-foot-wide swath parallel to one pair of sides. These cuts would produce four pieces: two large trapezoids and two smaller triangles. Imagine the triangles removed and the tops of the trapezoids cut off at 45-degree angles. Roof over the triangular voids with sloping planes of glass, insert 36 floors of office space into the trapezoids, and the result is Pennzoil Place.

The process of arriving at Pennzoil's forms sounds more complicated in words than it is in visual fact. Similarly, the twin buildings that result appear more complex to an observer's eye than they are when viewed geometrically as plans on paper. Burgee says that "after putting in so much intense work on the problem, it was hard to believe that the solution could finally have been so simple." It is this seeming contradiction of a relatively simple nonstandard form that is perceived as something far more complex than is the essence of Pennzoil's esthetic success. It is a phenomenon that seems more the province of modern art than modern architecture; a minimalist conception that attains unexpected richness in its concrete manifestation, a puzzle that is at once baffling and surprisingly simple to decipher.

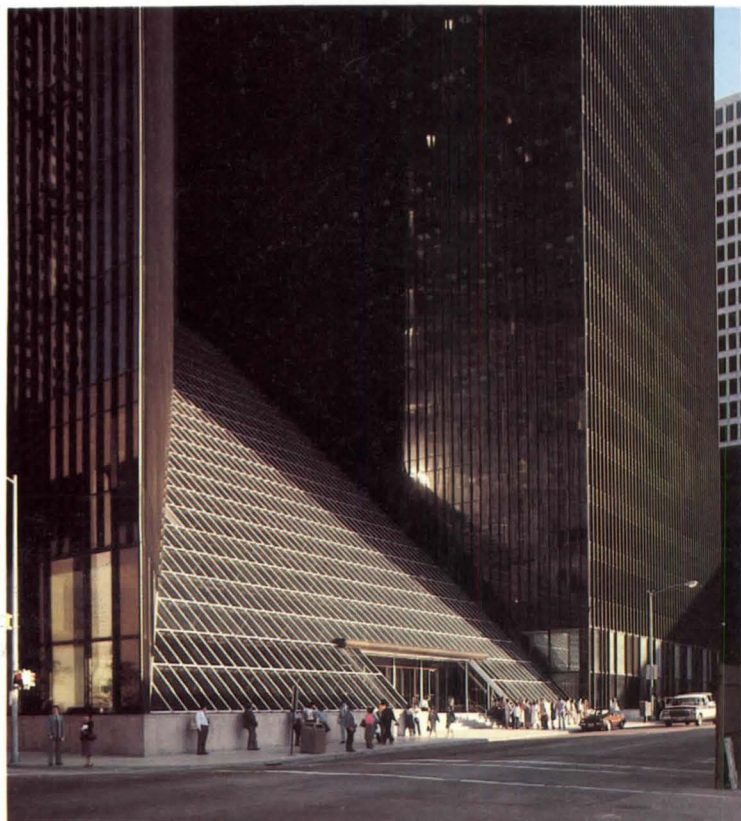
Of course, there have been other buildings demonstrating ingenious geometry and strong sculptural presence, but they have nearly always been hothouse plants for institutional clients who could afford to place art ahead of pragmatism. Pennzoil, however, was a building that had to make a profit in a very competitive marketplace, commissioned by a client whose ability to control cost is just as much part of his fame as his willingness to use institutional-quality designers. Gerald Hines has often said that "good design creates value," but that perception is just as much a principle of cost accounting as it is evidence of his esthetic enlightenment. Hines will spend a bit more than the typical developer's bare-bones figure for construction, but not so much more that his architects can indulge themselves with monumental visions. A mechanical engineer by training, Hines will allot 10 percent more than the minimum budget for architectural "enrichment." Even this is not philanthropy; about half of that money is promptly regained by quicker and more favorable financing for the resultant higher-quality product, and in many cases more than the remainder is earned back by the premium

rental rates that those architecturally superior buildings can command and the greater ease with which their space can be leased. Pennzoil, completed six and one-half years ago, was built for \$28 a square foot, and before it was open its lease rates had risen to \$10 a square foot annually. Hines' great genius is not that he is somehow able to afford good architecture on a developer's budget, but that he can make more money with good architecture than his colleagues and competitors can without it. In our economically dominated culture, he has given architecture a rare form of legitimacy by showing that it can more than pay its own way.

In the specific case of Pennzoil, this financial success is derived not just from its enhanced rentability, but also from the pragmatic advantages of its unusual configuration. Johnson/Burgee's arresting form-making tends to conceal a surprising accomplishment: Without even counting the atrium lobby, Pennzoil's two towers cover 73 percent of a rather large site, and their 1.6 million square feet of space made them Houston's largest office complex at the time of construction. Their floor-area ratio of more than 25:1 represents a building density far higher than that normally found in new American office buildings, even those in Manhattan.

This intense exploitation of land is made palatable in several ways. Even though the site coverage is 100 percent at the ground floor, the lobby roofs meet the sidewalk at a 45 degree slope and lead the eye upward to the great triangular pockets of space between the towers. The towers, in turn, are far less imposing than a single building mass would have been—they total about 43,000 square feet per typical floor, a figure that would have produced a deadly mass in a single tower. Pennzoil can also be seen as a slender 70-story building transformed into two towers of half that height, an arrangement with obvious benefits of scale as well as the practical advantages of reduced structural and elevator costs. The angled floor plans permit outward views and a sense of space despite the proximity of the two towers. But most important of all, the success of Pennzoil's towers as kaleidoscopic forms in space creates the feeling of far less building mass than is actually there. Depending on one's angle and proximity, the towers take on a variety of appearances. At close range, the sloping roofs are minimized or even disappear entirely, while at greater distances they take on increased importance. The towers are clearly visible from the freeways that loop around the north and west sides of downtown, and from a moving car the two forms shift and slide, opening up and closing off the space be-

John Pastier



Richard Payne





## Bold form overcomes a problematic skin.

tween them. The kinetic experience is of course also available to viewers on foot, albeit at a far more stately rate of change.

The 10-foot-wide space that separates Pennzoil's two halves undergoes a similar metamorphosis. Circling around the building, one is able to see the slot only one-fourth of the time, and even then it becomes visible in full width for just a few paces before gradually narrowing down or quickly disappearing. The pyramidal forms also suggest an enigmatic link between this most Middle Eastern of American cities and Egypt, one that is borne out at least by geography: The pyramids at Giza lie on the same 30th parallel that cuts through Houston's city limits.

Unlike the Egyptian pyramids, however, Pennzoil's slightly flatter slopes are merely membranes enclosing space. The floors at the tops of the structures are not as dramatic as one might expect. There are no soaring heights within which the captains of industry convene to decide matters of great moment, just typical 10-foot ceilings, a long sloping window wall, and dramatic views. The very top of each tower, which one might imagine reserved for the most important occupant, is devoted to mechanical equipment. Perhaps this is the most appropriate symbolism after all. Enshrining the gods of cooling and dehumidification in Pennzoil's pinnacle is fitting recognition of their role in a city with Houston's steam bath climate, a city in which existence seems unthinkable without airconditioning. In fact, it was by selling this indispensable product that Gerald Hines began his Houston career.

Pennzoil's atrium lobby is another pyramidal testament to the city's heat and humidity. In a more comfortable climate, the architects and developer might have been tempted to leave these triangular places open, for their shapes were more suited for use as urban plazas than most of the street-destroying voids that have been built since the 1950s. But in a city where even football is played indoors, and given the wind velocities that would be created by the buildings' 10-foot slot, the rational response was to enclose and aircondition. The result is a splendid but hard-edged space occupied by carefully groomed trees and people and bounded by an inclined space frame that prefigures in a less insistent way the structure of Johnson/Burgee's Crystal Cathedral. Portions of the lower office floors look out over this double lobby, and those sections of the building proved desirable enough to command premium rentals.

On its exterior, this sloping atrium canopy meets the sidewalk without any transition—a dramatic gesture, but not one particularly sensitive to the pedestrian experience or urbanistic continuity. Similarly, where vertical walls define the other three-fourths of Pennzoil's 1,000-foot perimeter, there are no enlivening retail functions. Burgee says "We would have preferred tenants such as ice cream parlors, because it's not very interesting to look inside and see a loan officer's back, but if you lease to the tenant who'll pay the most for the ground floor you'll obviously wind up with a bank." By maximizing the rent, Hines also preserved the abstract purity of the Johnson/Burgee design, but only at some expense to Houston's precarious downtown street life. For years, Houstonians have been evolving into burrowing creatures as the street fronts of new buildings have become increasingly more impersonal and monumental, while an expanding network of airconditioned pedestrian tunnels has siphoned foot traffic away from the sidewalks.

Pennzoil's skin is an even more problematic issue. It seems a throwback to Johnson's Miesian period of the '40s and '50s, and prevents the full essence of Pennzoil's sculptural character from emerging. It is composed of faintly reflective bronze glass in a framework of bronze anodized aluminum. These colors are so dark that the building seems almost black on its shaded sides or under Houston's frequently overcast skies, and the complexities of the two towers' overlapping shapes are thus often difficult to perceive. Its detailing is also at odds with its obligation to the

towers' complex form: Rather than being as smooth and continuous as possible, it is busy and distractingly three-dimensional.

The mullions project out six inches and are spaced at an extremely narrow interval of two-and-a-half feet, proportions that recall the hermetic sensibilities of neoclassicists such as Edward Durell Stone and Minoru Yamasaki. The mullions have vertically grooved faces, further complicating what should be a simple enclosure. Johnson defends this three-dimensional fussiness, saying it achieves "an all-over pattern" that complements the building's overall form. Here client and architect are one, for when Hines was asked about the skin, he used the same quoted words in positing its appropriateness and then noted the added cost of the extra mullions. The mind might accept such reasoning, but the eyes cannot. Visually, Pennzoil is a futuristic building in the best sense of the word, but it wears an archaic cloak that does it scant justice. With a lighter skin, both in color and in texture, the intellectual and esthetic intent of the twin towers would have been reinforced. The taut silver cladding that Johnson/Burgee used two years earlier on the IDS Center in Minneapolis is but one of many imaginable alternatives that could have achieved this end.

Fortunately, Pennzoil's form is sufficiently inspired to triumph over its cladding. Photography also helps, for the skin can be made to look good under the right light, and this is a building that is better known through photographs than through actual experience. It is a design of considerable influence, not so much because it has been copied (which it has), but because it demonstrated that unconventional form could be respectable in a serious office building. The geometry of its plan has proven to be less of a direct model than the tapering of its top. Since this example, architects have returned their attention to an issue that was basic to tall building design a generation earlier: How does a tower meet the sky? Today's answers to the question range from abstraction to historicism, with Johnson/Burgee's New York City AT&T Building being the most publicized and controversial example of the latter approach. But even this historicist gesture seems indebted to Pennzoil: Frank Gehry has pointed out the kinship of the split gable in Houston to the broken pediment in New York. Soon after Pennzoil opened, Ada Louise Huxtable declared it to be "the building of the year," a curiously ephemeral but totally prescient designation. In light of the freedom it has inspired in skyscraper design, for better and worse but mostly for better, it would be fair in hindsight to call it the building of the decade.

In the seven years that have passed since its completion, Pennzoil has been overshadowed in certain respects. Hines and Johnson/Burgee have drawn some attention from it with subsequent Houston collaborations: the impeccably skinned trio of office towers at Post Oak Central, built soon after; the soaring "moderne" revival Transco Tower rising 64 stories next to the Galleria, and the flamboyant 56-story Dutch Renaissance Republic Bank Tower, a house of six gables and 84 pinnacles going up directly across the street from Pennzoil. Diagonally across the street stands the recently finished Allied Bank Tower, designed by I. M. Pei and built by Hines, whose 75 stories and 1,002 feet of height are twice that of Pennzoil. (Skydivers took to parachuting off this tower before it was completed, and one unskilled jumper bounced off Pennzoil's sloping top before smashing into the atrium roof. It proved an excellent safety net, and he lived to tell the tale. Despite the freakish nature of this act, it was by no means the first time that someone jumped on one of the architect's designs.)

Beyond drawing attention from Pennzoil, the two adjoining Hines buildings are making it even less of a physical experience and more of a photographic one. Due to nearby parks, some distant views of the towers will remain open, but its once spectacular presence is diminishing as it becomes hemmed in by much taller buildings. This is unfortunate, but not unexpected, for things rarely stand still in the city of the future. □

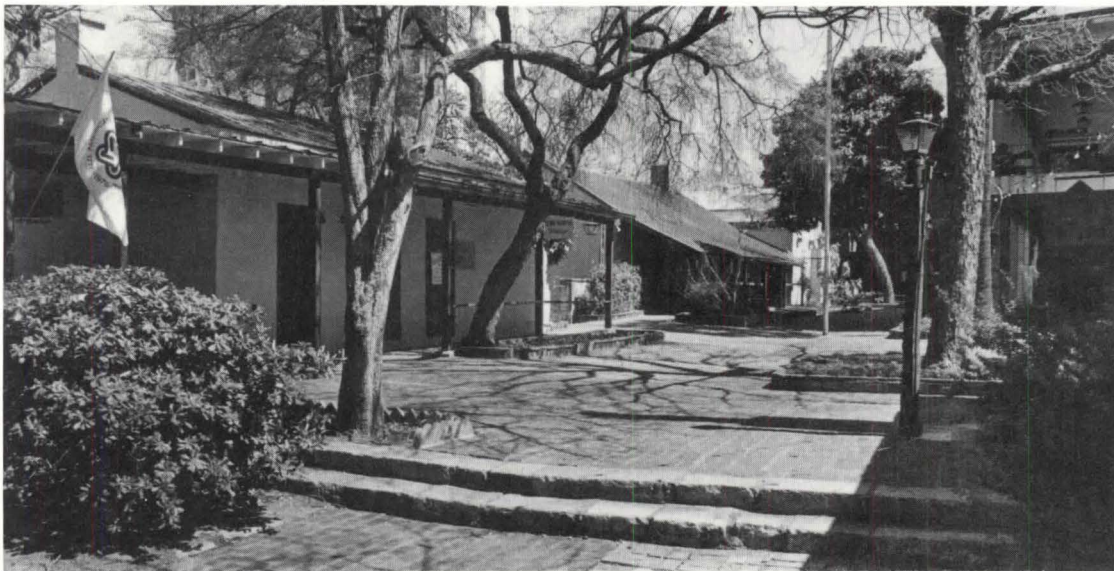






# Avoiding the Houstonization of San Antonio

*Explosive growth threatens the scale and ambiance of a unique city. By Sinclair Black*



Photographs by Sinclair Black

San Antonio is a unique city, 100 years old and composed of a mix of cultural and historical influences richer than any other city in the entire region. It is an American city of European origins with clear and dominant Mexican influences. It is the southern extension of the Midwest, but the Midwestern grid came too late to shape the original central area. It shows little physical but great cultural influence from the Old South and, like every American city, tried its best to be California during the 1950s and 1960s.

San Antonio's economy has been strong and robust at times, at others embarrassingly slow compared to its neighboring cities. It has always been a relatively poor city with almost no industrial base but, in part because of that fact, has always been

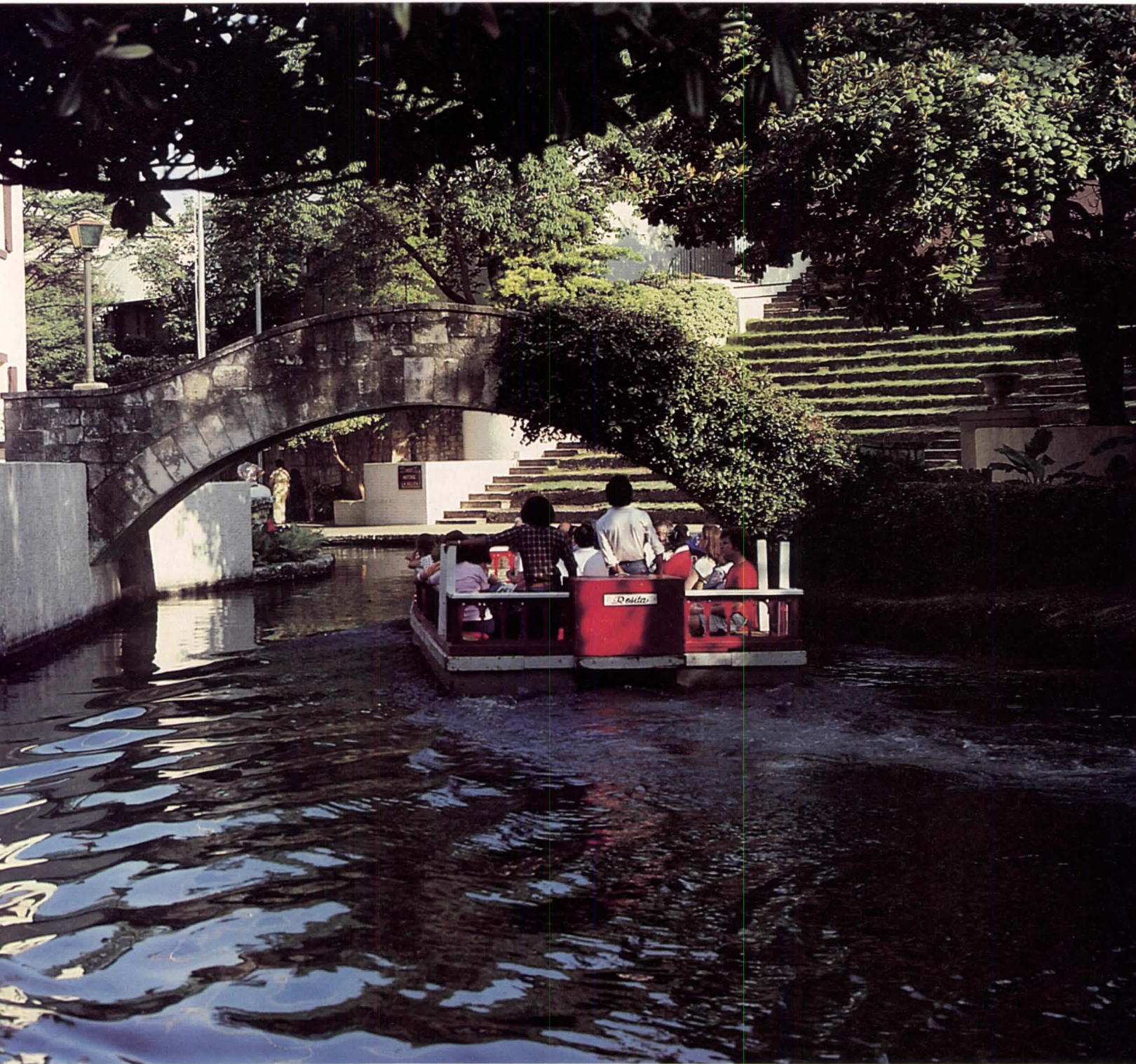
a highly desirable place to live. Its climate is benign with more than 250 days of sunshine and 34 inches of rainfall per year. It sits on the edge of the high plains half in Texas hill country and half in the western extremity of the coastal plain, 50 miles west of the Gulf of Mexico. Its beginning and its future are tied to the abundance of clear fresh water from artesian wells and springs.

San Antonio is a sun-belt city without the last 10 years of flamboyance of neighboring Houston. While other parts of the country are suffering from unemployment and a stagnant economy, San Antonio is in high gear. The city planning department reports a flood of interest in building that represents \$5 billion in investment. The positive implications of what that activity could do for San Antonio are only overshadowed by the well founded fears of what that development will do to this special city.

These were the issues addressed by AIA's urban planning and

**Mr. Black** teaches at the University of Texas school of architecture and practices in Austin with Andrew Vernooy.





*Above, the Paseo del Rio. Nearby, La Villita, the city's first settlement, is being restored (lower photo at left). In upper photo, a late 19th century house in the King William district.*

design committee in an on-site examination of San Antonio in April. The committee heard from a variety of observers of and participants in the city's development.

Local architect Boone Powell, FAIA, outlined the history of a lethargic economy and its mixed blessings. Most of the significant historic assets, as well as the generally small-scaled quality of the downtown, are intact today primarily because of the slow but steady economic growth of San Antonio. Preservation of the fabric and scale of downtown are now understood by many to be the key to downtown redevelopment, along with the famed Paseo del Rio. Powell also described how Hemisfair '68 had created new interest and investment in the downtown area, even

though Hemisfair itself must probably be considered a failure both as a fair and as an integral part of the urban fabric.

Cy Wagner, also a San Antonio architect, reviewed several watershed decisions made in the city's political arena that had set the tone for downtown redevelopment. Locating the San Antonio campus of the University of Texas 16 miles north of Hemisfair, the site that many urban designers preferred, and the completion of two freeway systems—loops encircling the city and the McAlister Freeway joining the central city to airport—focused development on the loop, 10 miles north of downtown.

John Kriken, AIA, of Skidmore, Owings & Merrill, San Francisco, described in some detail the river corridor study that both identified developmental opportunity along the river and proposed an urban design mechanism for San Antonio. Much of the study dealt with issues of size and character, and the importance of preserving the small scale of the downtown area.



## Growth, but with continuity and memory.

Kirken offered this warning to a city that has had only limited past success in stimulating development and is suddenly experiencing a period of economic boom: "San Antonio may be willing to take anything after such a long period of hunger." It is that "anything" that has so many people in San Antonio worried.

There is strong ambivalence about the prospects of rapid growth among San Antonians because they understand the risks as well as the benefits, i.e., the specter of insensitive development and the eventual destruction of their city's special environment as the price for jobs and prosperity.

In San Antonio the topic of Houston is becoming very popular. The question of how to avoid becoming another one is critical. The Houston model of endless freeways punctuated by neatly clipped and truncated towers sporting architects' reputations (like so many designer jeans wearing their labels) seems completely irrelevant in San Antonio.

In the past, San Antonio has been blessed with strong private sector leadership that accounts for many of its success stories. Successes like the river walk, the missions, La Villita, the new San Antonio Art Museum by Cambridge Seven Associates and Greyhound Designgroup and the King William Historic District can all be attributed to individual personalities and dedicated

groups like the Conservation Society. The weak and perishable political structure has been content to merely follow along as a not always willing partner. The real question that faces San Antonio is whether the strong tradition of philanthropic leadership can survive in the face of new political agendas and the enormous political pressure that inevitably goes with enormous developmental pressure.

The committee also heard from Sherry Wagner, author, film maker and urban designer, who urged a new awareness of time as a critical element in urban development. According to Mrs. Wagner's theory, the goal of an urban design process should be the continuity of purpose that comes from clearly communicated consensus images enacted over a long time frame.

She might well have learned these lessons (and probably did) from the long history of the San Antonio river itself. The Paseo del Rio, now considered one of America's finest urban places, is the product of 50 years of slow, patient, deliberate development motivated by a strong image, and carried forward by citizen participation and with a strong continuity of purpose (see July 1979, page 30).

The final speaker at the meeting was Simon Atkinson, for the last seven years head of the Joint Centre for Urban Design in Oxford, England, and now professor of architecture at the University of Texas at Austin. Atkinson developed the idea of an

*Right, the atrium lobby of the new Hyatt Regency Hotel by Thompson, Ventulett, Stainback & Associates and Ford Powell & Carson. Facing page, the hotel in the foreground with the tower of Hemisfair '68 on the horizon at right.*







urban design framework that would constitute a “language” for the city to guide its slow and thoughtful development. That language would deal with the experiential aspects of living in a city and would constitute “a set of clear straightforward goals for evolutionary improvement.” Those goals would generally deal with issues of livability, imageability, memorability and character. He compared a city without a history to a person without memory.

In a city like San Antonio, it is important to identify and preserve the scale and the historic fabric that makes it special. Atkinson observed that neither extreme high nor extreme low densities seem to work, and that like most Texas cities, San Antonio just doesn’t have the critical mass or the activity nodes,

pedestrian networks, and mixed uses that go with higher densities.

The lessons of success and failure are all contained within each city facing urban design decisions. On the success side of the equation San Antonio has a number of assets that teach the valuable lesson of scale, sensitivity to climate, and caring about history:

- The Paseo del Rio, the river development that has become the theme of the entire city as well as the armature upon which most future developmental energy will be based;
- The seven historic districts, which anchor and focus the central city and near-in suburbs. These areas provide valuable lessons about climate, scale, and building in context;
- Brackenridge Park, the sunken gardens, the zoo, the river



## Good signs for surviving the coming success.

itself, and numerous parks, all part of the incredible endowment left by the Works Progress Administration and Civilian Conservation Corps in the 1930s;

- The Missions National Park, approved in 1978, which guarantees the future of five of the most interesting national landmarks in the U.S.;
- La Villita, the site of the original, segregated soldier's housing settlement on the banks of the river, which has survived and provides a record of the entire history of the development of San Antonio.

On the other side of the equation, San Antonio can point not so proudly to a long list of large scale failures, some carefully planned, others never given a second thought:

- The urban freeway system, which has laid thousands of acres to waste, destroyed neighborhoods, and produced an environment that in many cases is simply uninhabitable;
- Hemisfair '68, referred to earlier as a generator of interest and economic development downtown, but which is a disaster zone 15 years after the fair closed. The 39-acre site is little used and, as of now, has no future.
- Urban Renewal in San Antonio, as in most cities, was responsible for the destruction of large areas of city fabric. In San Antonio's case, the areas were usually Mexican-American neighborhoods downtown. Much of the downtown land that is now unused, vacant, and desolate was unnecessarily cleared under this program.
- The growth at the north edge of the city that has resulted from such decisions as that of the University of Texas to locate outside the core has created a nightmare of freeways, speculative

office buildings, and franchised strips equal to and indistinguishable from any other "exploitation zone" at the edge of any city. Mike Greenberg, the architecture critic for the *San Antonio Express News* has labeled this never-never land of fast moving automobiles "loopland."

There are good signs emerging here and there. For instance, the new Hyatt Regency on the river by Thompson, Ventulett, Stainback & Associates and Ford Powell & Carson is almost as modest outside as it is immodest inside and, with the help of a U.S. urban development action grant, it penetrates two city blocks to link the river to the plaza in front of the Alamo.

Another UDAG is being used to extend the development of the river south through the King William Historic District. The same can be done north of downtown to link the new museum with the river walk. The Mercado, or Market Place, was jerked from the jaws of a disastrous urban renewal program and has fought its way back to become an important focus of community life. The Majestic Theatre, one of those incredibly fanciful "theme theaters" from about 1920, has been restored as a theater for the performing arts.

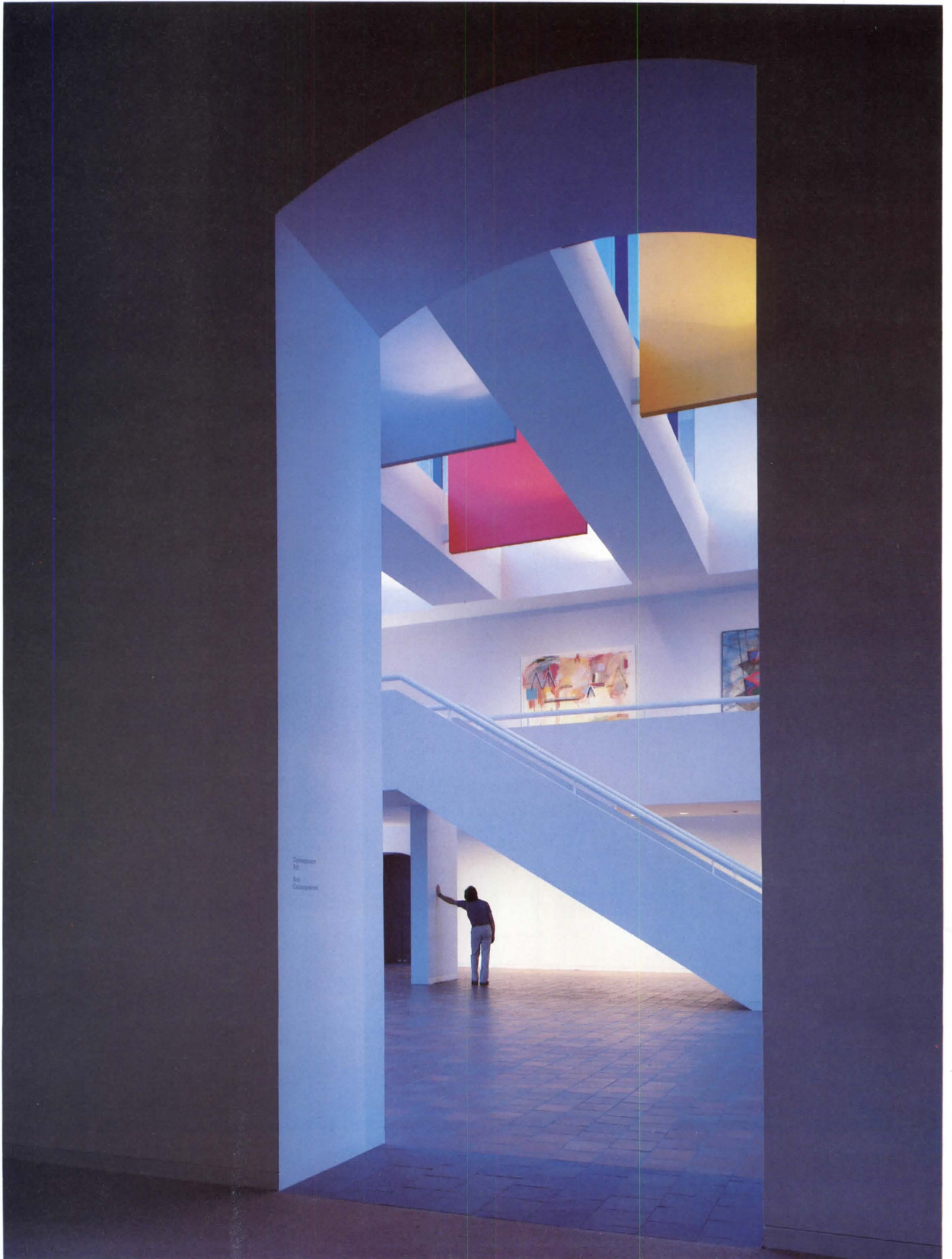
The committee went away from San Antonio wondering if it can survive its coming "success," and hoping that it can. As long as San Antonio looks to itself for direction, as long as new market models based on humane concerns are developed and as long as developers are reminded of the role of time and the value of quality, San Antonio will have every right to expect good results. □

*Below and facing page, the San Antonio Museum of Art, a 1903 brewery adapted by Cambridge Seven and Greyhound Designgroup.*

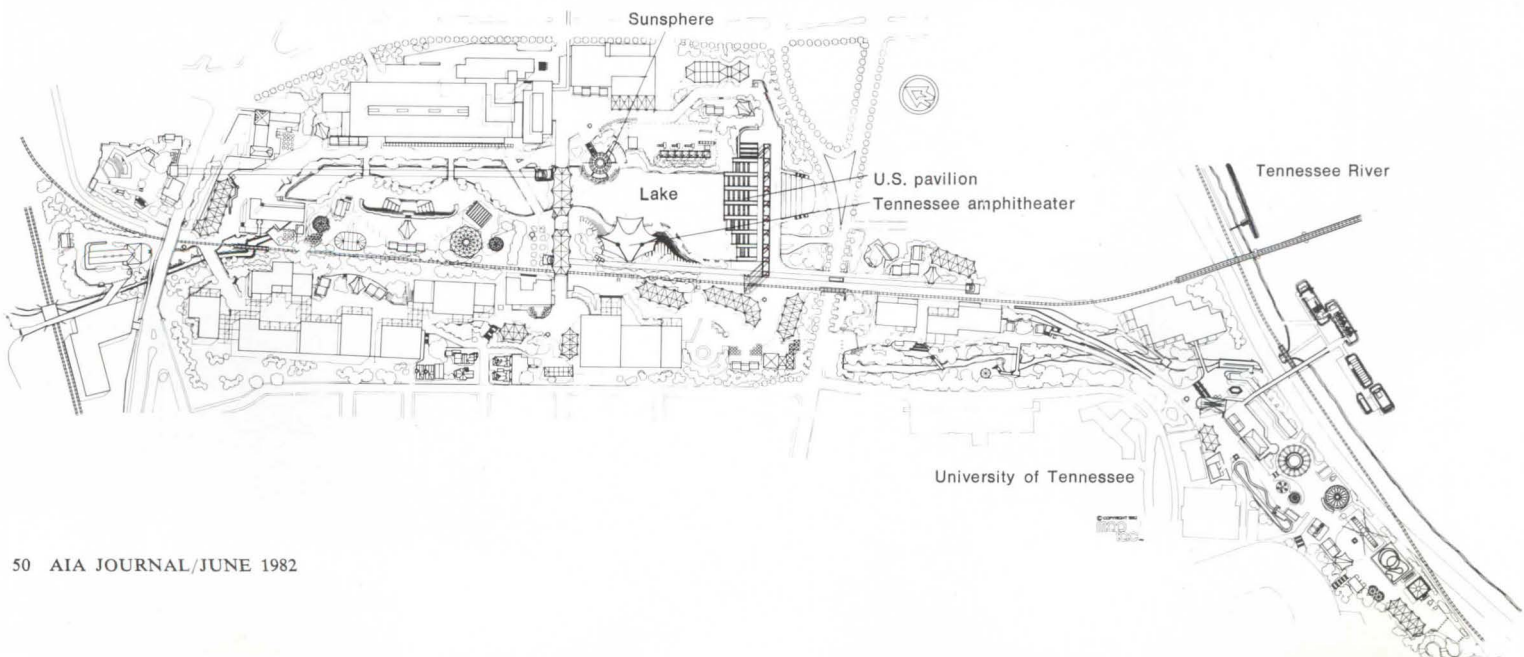
Photographs by Hursley/Lark/Hursley













# In Knoxville, More Festivity Than Energy

*A world's fair full of surprises, architectural and otherwise. Text and photos by Allen Freeman*

Surely the sponsors of the 1982 World's Fair in Knoxville missed a bet when they passed up the Darrieus windmill as the exposition's symbol. With its sleek aluminum blades whirling above a man-made lake (see cover), it is an apt symbol of nondepletable energy and elegantly illustrates the fair's theme, "energy turns the world." And, for purists suspicious of its ceaseless spinning, the fact that this "turbine" is motor driven would be a signal not to take the theme *too* seriously.

Attentive fairgoers will, in fact, find many of the exhibits only tenuously energy related, but they will discover much to delight the eye. The 72-acre site, for starters. It is a shallow ravine between hilly downtown Knoxville and the University of Tennessee campus, and was cut by Second Creek, which empties into the Tennessee River at the south end of the grounds. A team headed by local architects McCarty, Bullock, Holsaple, Inc., and engineers Barge, Waggoner, Summer & Cannon, Inc., has transformed what had become a railroad gulch into a multilevel, accessible fairgrounds with pleasant vistas and efficient circulation. It is fun to walk through the fair and discover unexpected touches, like the huge elm tree (below) saved to shelter an intimate amphitheater near the north end of the fair, and the elevated walkways that shoot over Second Creek, preserving the steep natural terrain where the site cinches near the river.

Second Creek vanishes under the central segment of the grounds into a box culvert that runs directly under the Court of Flags where President Reagan gave an opening day address on May 1. Roughly paralleling the creek and running the length of the grounds is a single remaining railroad track, which is used only during fair off hours. Where the site expands, east-west pedestrian circulation is made on the north end at grade level, in the center of the fairgrounds on the Clinch Avenue bridge, and, farther south, around the U.S. pavilion, right by its entrance. Flow is in a figure eight that connects most of the main buildings. (The Chinese pavilion and, beyond that, the amusement park section, anchor the site's southern tail.)

The fair buildings fit into three general types—temporary, recycled, and permanent. The temporary buildings, especially, complement each other most successfully where McCarty, Bul-



*Above: the man-made 'Waters of the World' lake bordered by the curved concrete pedestal of the SunSphere tower, its base protected with yellow awnings; the slanting blue facade of the U.S. pavilion; and the tension-fabric Tennessee amphitheater. The 72-acre, mile-long fair site (left) extends north from the Tennessee River, at far right in the plan. Right, the elm tree theater and the decorated end of an international pavilion shed.*







## Solar telephones and a dim Sunsphere.

lock, Holsaple had design control, as in the visual play between the rectilinear sheds, which house the international exhibits, and the bright yellow tents that cap the concession stands. The corporate pavilions are the fair's major architectural disappointment, an undistinguished assortment of temporary structures.

A standard shell to house exhibits from abroad was imposed by the Paris-based Bureau of International Expositions. The architects produced steel frame sheds with 24-foot ceilings and 64-foot bays and sited them, for the most part, along the site's western ridge. Bruce McCarty, FAIA, fair executive architect, says he wanted more two-level sheds on the fair's north end, but was restricted by cost. This area, where the pedestrian corridor becomes double loaded with sheds, is the fair's least characteristic and least interesting space, the only point where one loses a sense of the natural site.

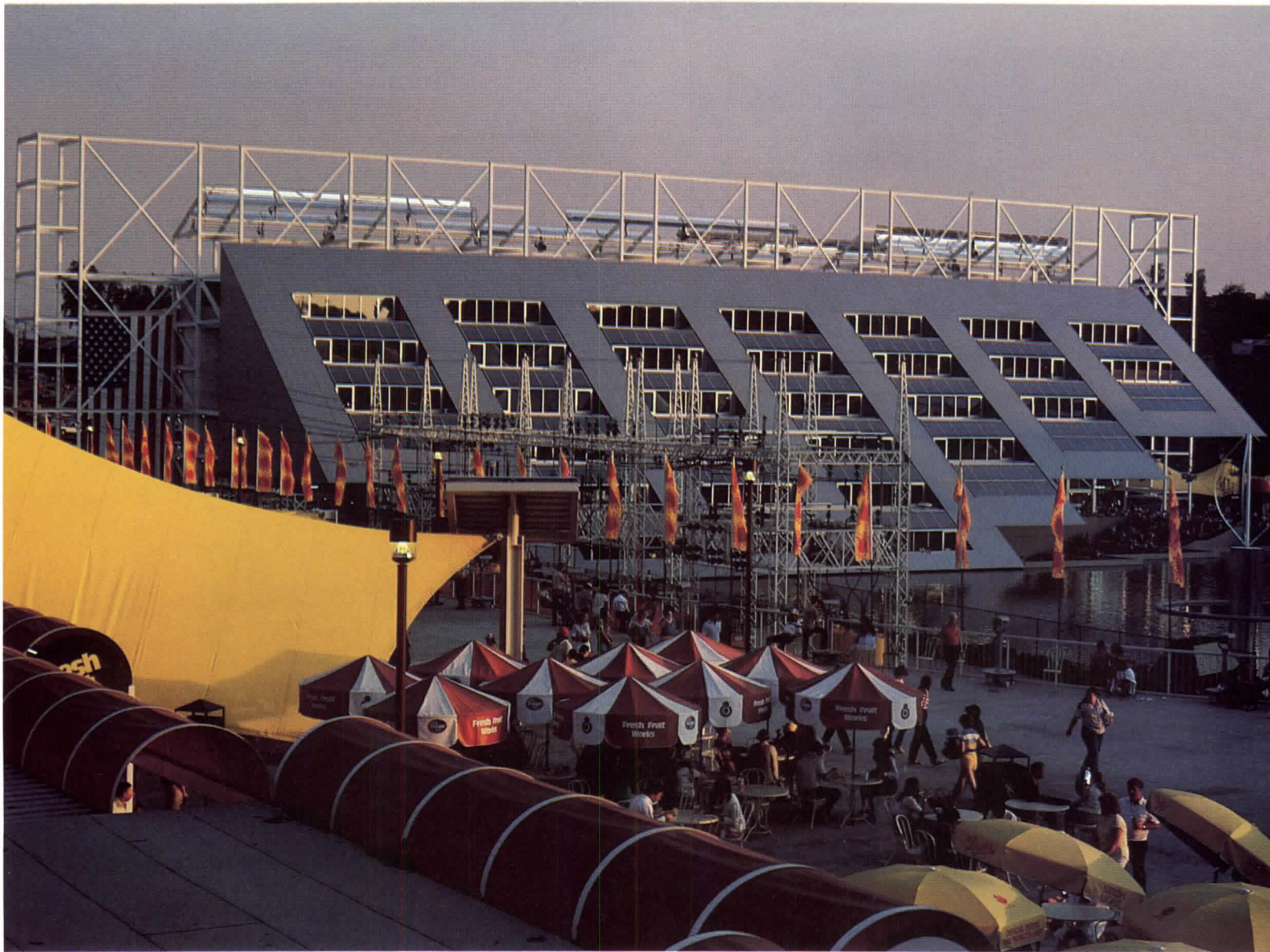
Sprinkled around the northern end of the grounds are 11 renovated structures, ranging from the rambling railroad-Victorian L&N station to a cluster of pleasant frame houses, to the Candy Factory, a chunky masonry industrial building. These old fellows, which house restaurants (one is a beer hall) and exhibits, have been respectfully adapted, for the most part.

Of the new permanent structures, the most problematic is the Sunsphere, ubiquitous symbol of the fair. Prominent on the city skyline, the cumbersome tower also shows up on billboards, placemats, and souvenirs. Ironically, the best aspect of the 192-foot-high tower, by Community Tectonics, is its base, which juts into the lake and provides an attractive outdoor eating space.

South of the Sunsphere, as though hovering on the surface of the lake, is the curious slanting north facade of the U.S. pavilion with its dramatic cantilevered ends. You have to walk around and through the building to appreciate and understand its siting and structure.

Its architect, chosen through a competition, was FABRAP of Atlanta. Principal designer Marvin Housworth, AIA, says several schemes developed by FABRAP during the competition phase had in common a long, horizontal element across the fairgrounds. "We recognized that a major force in shaping the solution was the traffic pattern across the site. . . . The sloping shape was conceived out of concerns about residual use of the building. We sloped the north wall to capture daylight and to adapt to future use."





*Above, the U.S. pavilion's sloping north wall of foam-filled steel panels and insulating glass. Left, its Beaubourg-like southern side, with exposed steel cage inset with escalators, stair towers, elevator shafts, balconies, and office pods. Facing page: above, solar powered telephones and a view through a cluster of international pavilions on the grounds' north end, and below, along the Waters of the World toward the Sunsphere at twilight.*



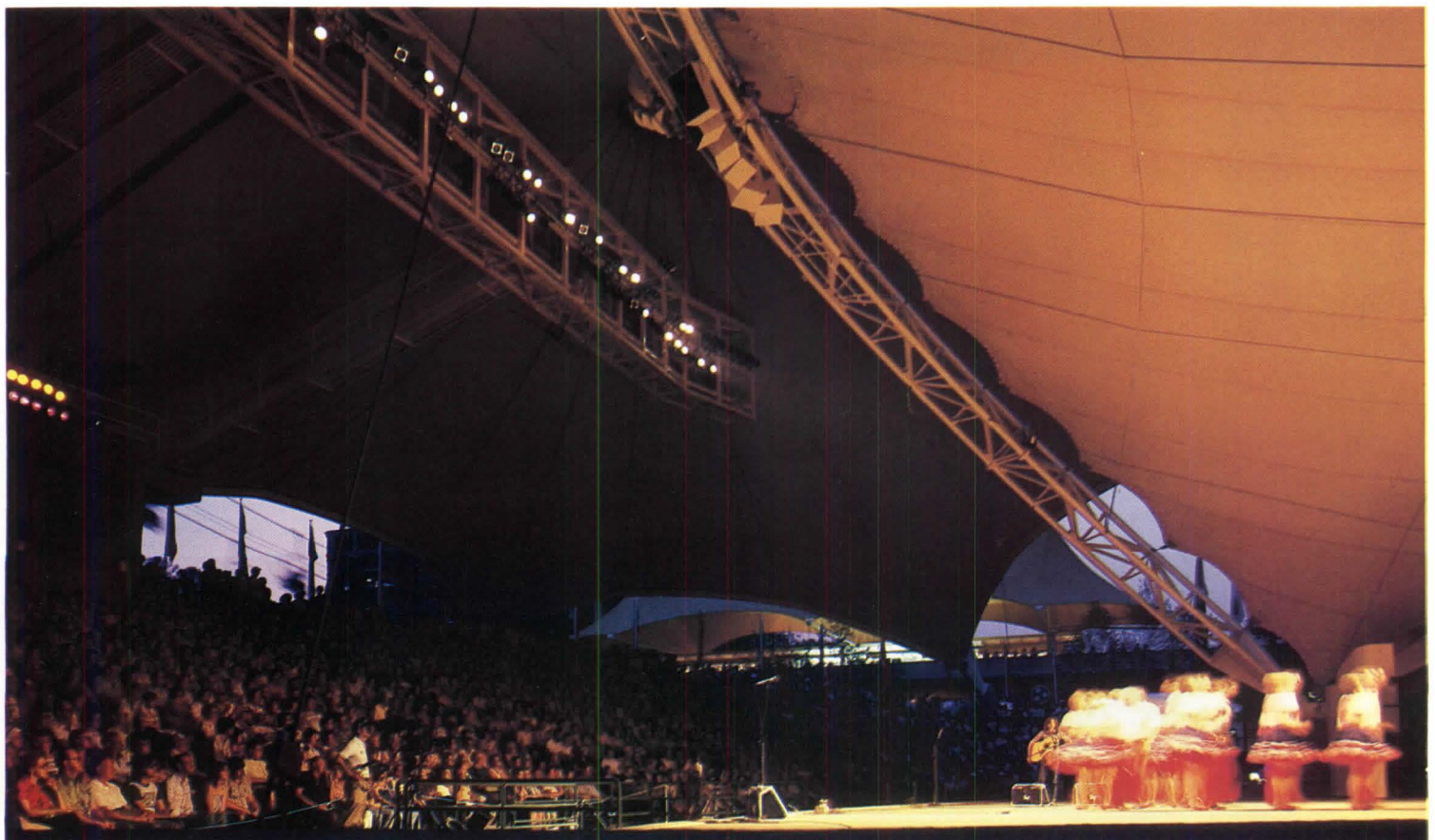
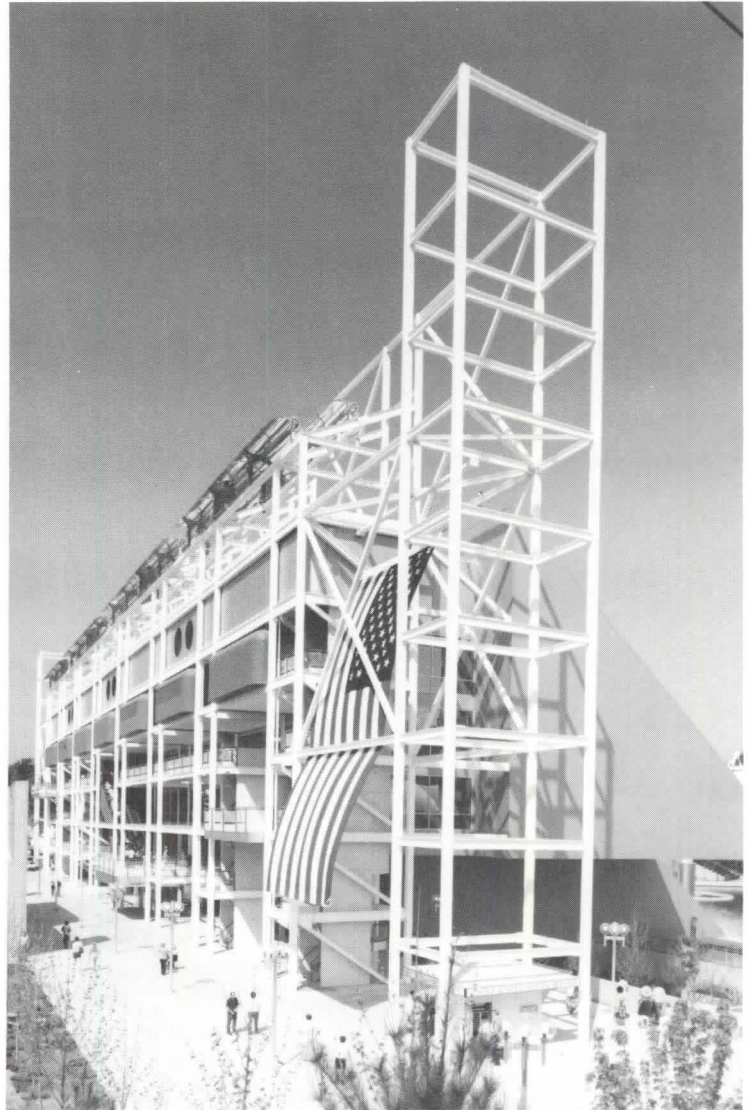
## Technology with a few grace notes.

The vertical south facade is an exposed cage from which slope eight pairs of spine trusses. Four in the center of the building are supported; one at the east end and three at the west are cantilevered. The voids created by the cantilevers lessen the "barrier" effect of the long building by providing north-south vistas at ground level. The stepped west end also shelters an outdoor amphitheater. Inserted like modules within the cage are two blue vertical elevator shafts (only one elevator cab was funded), yellow exposed stair shafts, and red office pods lined side by side high in the structure.

Visitors take exposed escalators to the fifth level and enter the pavilion from a balcony at the southwest corner above the highest cantilever. The interior is open the length of the building. From the fifth level—the sixth has administrative offices and is closed to the public—one descends by stairs and a long ramp through the series of displays arrayed on platforms. At the lowest level is a tunnel leading to the IMAX Theater, which shows a film about energy by Francis Thompson on an enormous 91x67-foot screen. Exit from the theater places visitors back at the base of the pavilion on its south side.

Providing counterpoint to the serious technology of the U.S. pavilion is the Tennessee amphitheater, a felicitous permanent tent of Teflon-coated glass fiber designed by McCarty, Bullock, Holsaple, with Geiger-Berger Associates as engineering consultants. Beautiful from every angle, its stage projects into the lake, its backside is handsomely landscaped, its ramps provide gentle access, and its soaring interior is column-free. It is an ideal place to end a Knoxville summer evening. □

*Right, the U.S. pavilion's wedge profile showing the lesser cantilever on the east end. The 417-foot-long structural cage is surmounted by a row of solar collectors with 4,100 square feet of collector area to handle 10 percent of the building's cooling needs. Facing page, the pavilion's interior with exhibits by Carlos Ramirez & Albert H. Woods. Below, clog dancers in the column-free, 1,400-seat Tennessee amphitheater.*









# 'Century of Progress'

*A remarkable, nearly forgotten fair in a decade of despair. By Nora Richter Greer*

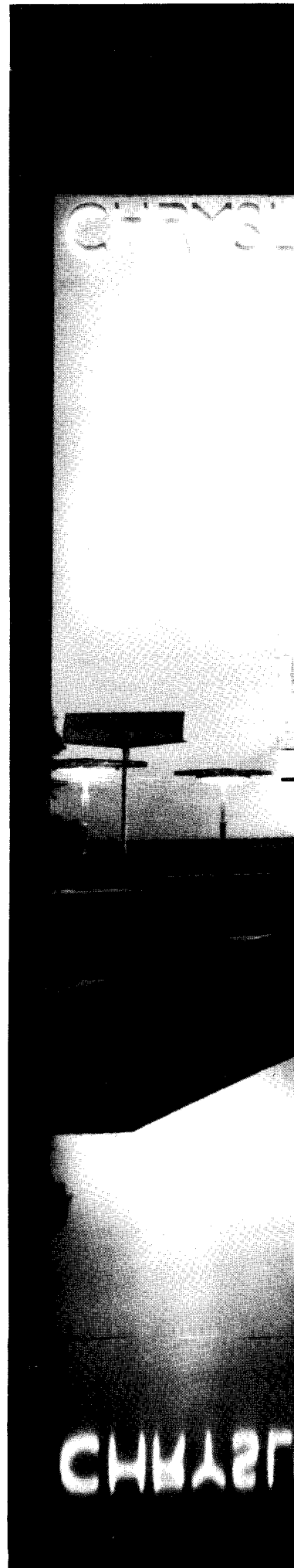
In the gloomy Depression year of 1933, Chicago's Century of Progress was a dazzling display of color and light. In a "futuristic" architectural setting, the fair explored the advances made in science during the preceding 100 years and the effects on industry and everyday life.

The fair was conceived in the boom year of 1927 as a celebration of Chicago's centennial. From the beginning the architectural commission wanted something "radically different" from previous world's fairs. Said the commission's first statement: "The architecture of the buildings and grounds of the exposition of 1933 will illustrate in definite form the development of the art of architecture since the great fair of 1893 [Chicago's neo-classical World's Columbian Exposition], not only as in America but in the world at large."

Located on the shores of Lake Michigan 12 blocks south of Chicago's Loop, the fair's site consisted of 427 acres of land, including a man-made island that was separated from the mainland by an 86-acre lagoon. The site varied in width from about 100 yards to a mile and a half with the only permanent buildings—the Field Museum of Natural History, the Shed Aquarium, the Adler Planetarium, and Soldier Field—on the north end. Because of this irregular site and because it would be a departure from the past, the architectural commission seized upon the idea of an asymmetrical plan for the layout of the fair's buildings. In the end, this permitted great flexibility in design and construction.

*Looking south beyond the U.S. Army camp, below, the General Motors building, design by Albert Kahn, is on the left. Similar in design to other industrial buildings by Kahn during that time period, it had a complete automobile assembly plant that could be viewed by 1,000 at a time. To its right is the Chrysler building by Holabird & Root (also photo right). The central focus of the symmetrical building was four 125-foot towers surrounding an open well. Peeking out from behind the Chrysler building are the steel trusses of the Travel and Transport building.*

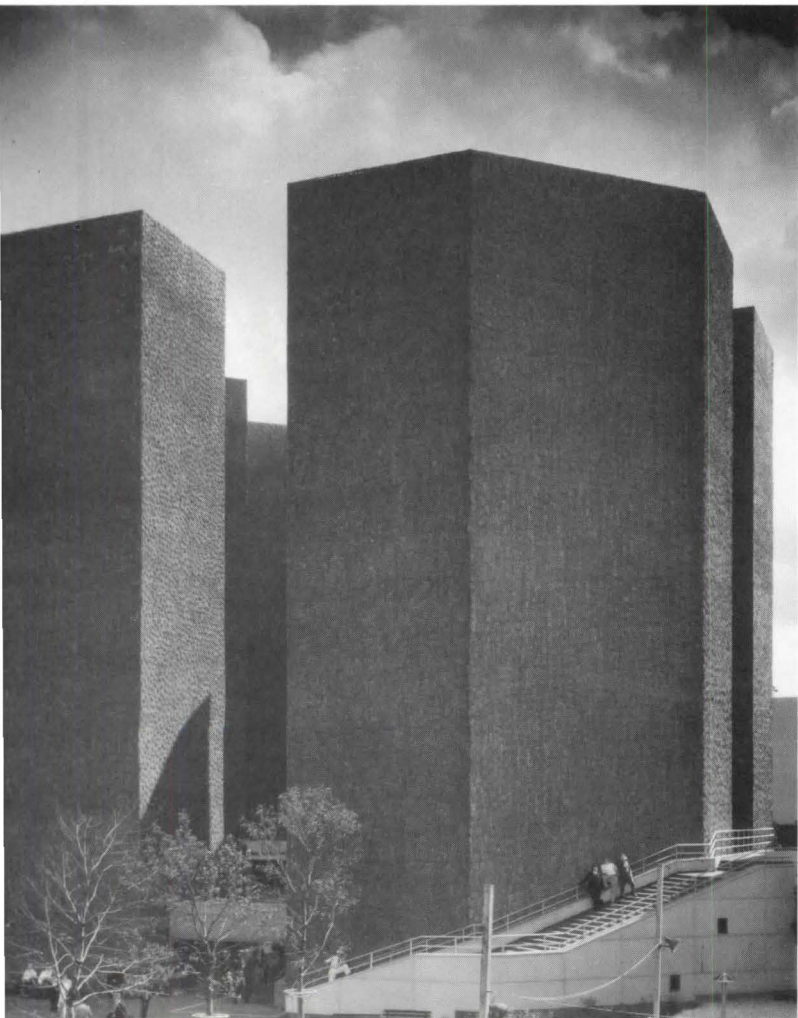
Photographs by Ken Hedrich, Hedrich-Blessing











### Color by day, light by night, and a magazine rack.

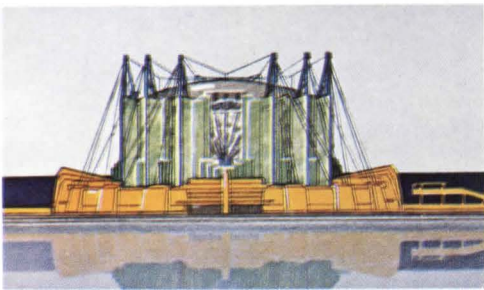
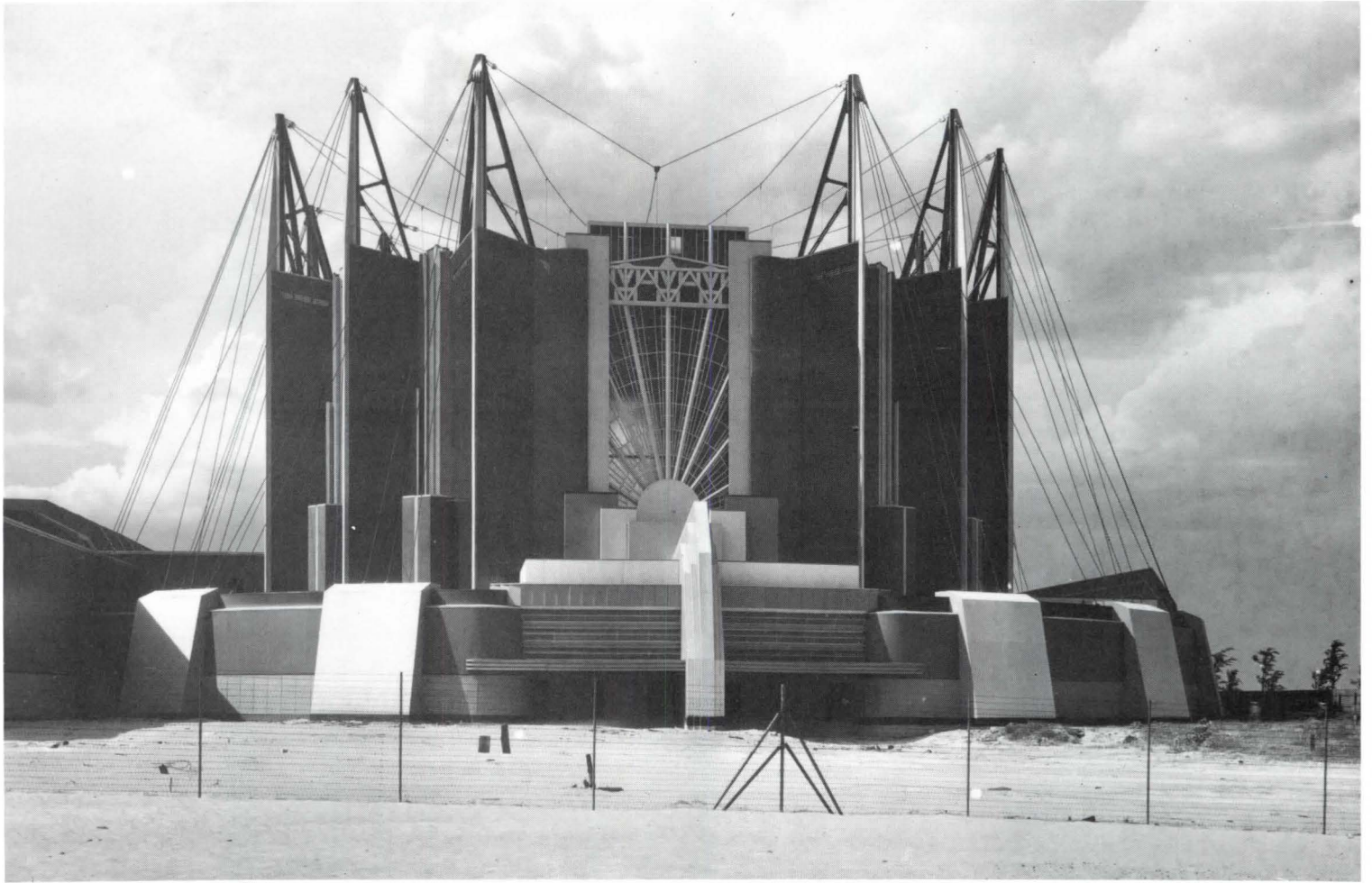
In designing the buildings, the architects turned their backs on the conventional Beaux-Arts look of the 1893 Chicago Fair. Instead, the major influence was the Paris Exposition of 1925 and its art deco designs with some borrowing also from the work of Russian constructivists. On the whole, the buildings were not so pure as the International Style, as they retained classical symmetry in many cases and some traditional architectural symbols such as domes, pylons and colonnades. And, unlike the International Style, the buildings were not function-dictated, but a sort of industrial-design packaging with a “moderne” touch.

To tie together what emerged as a diverse collection of buildings, brilliant colors were chosen. Under the direction of artist Joseph Urban, a lavish scheme of 23 colors (ranging from chrome yellow to bright vermilion to tomato bisque pink) was used to create a “natural sequence” between the buildings. There were usually three or four colors on each building, with approximately 20 percent of all painted surfaces white, 20 percent in blues, 20 percent in oranges and 15 percent black. Solid colors were to emphasize the building block system. (When the fair reopened for a second year in 1934, the scheme was reduced to 10 colors.)

If color was to be the common denominator by day, so was light by night. An elaborate system of floodlights, searchlights and neon was used to create an intensity of light that varied from one footcandle on the facades in an inner court to 15 foot-candles on prominent architectural features.

And, as the “dominant” feature of the fair—similar to the Eiffel Tower in Paris in 1889 and the giant Ferris wheel of the 1893 Chicago fair—a skyride was added, in which double-deck, 36-passenger steel cars transported visitors 218 feet above the lagoon from one 628-foot-high tower on the mainland to another on the island. The cars moved across the 1,850-foot span at an incredibly slow 8 miles per hour. □



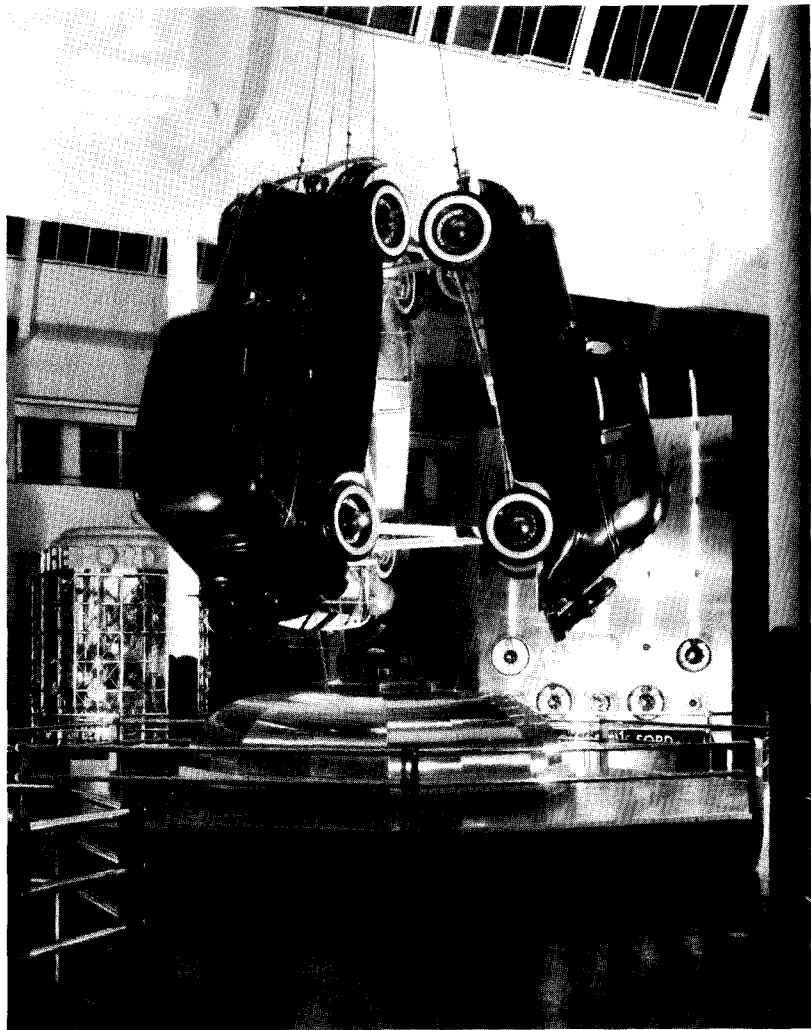
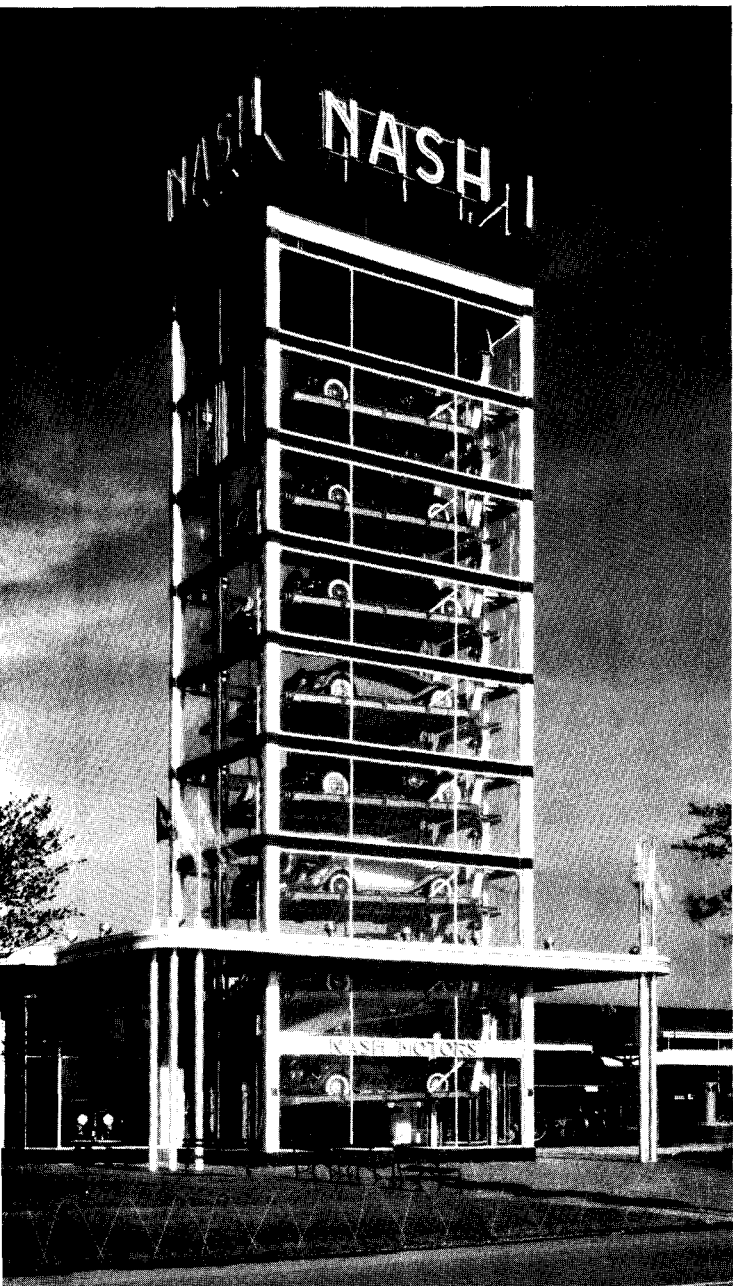


Painted green, with a yellow base and blue trusses, the Travel and Transport building, drawing left and photo above, had a dome suspended 125 feet above the ground by cables attached to 12 towers. Joints allowed for expansion and contraction as temperatures varied, thus earning the name the 'dome that breathed.' It was designed by E. H. Bennett, H. Burnham, J. A. Holabird. The Time, Fortune and

Architectural Forum building, below, by Nicolai & Faro, had gigantic photomurals and the 'longest magazine rack in the world.' On the facing page: above, Owens-Illinois Glass Co.'s multicolored glass block building, designed by Elroy Ruiz, had a 50-foot-high central shaft; in the Communications Garden, below, by Raymond Hood, four 100-foot towers symbolically represented 'massed cypresses.'

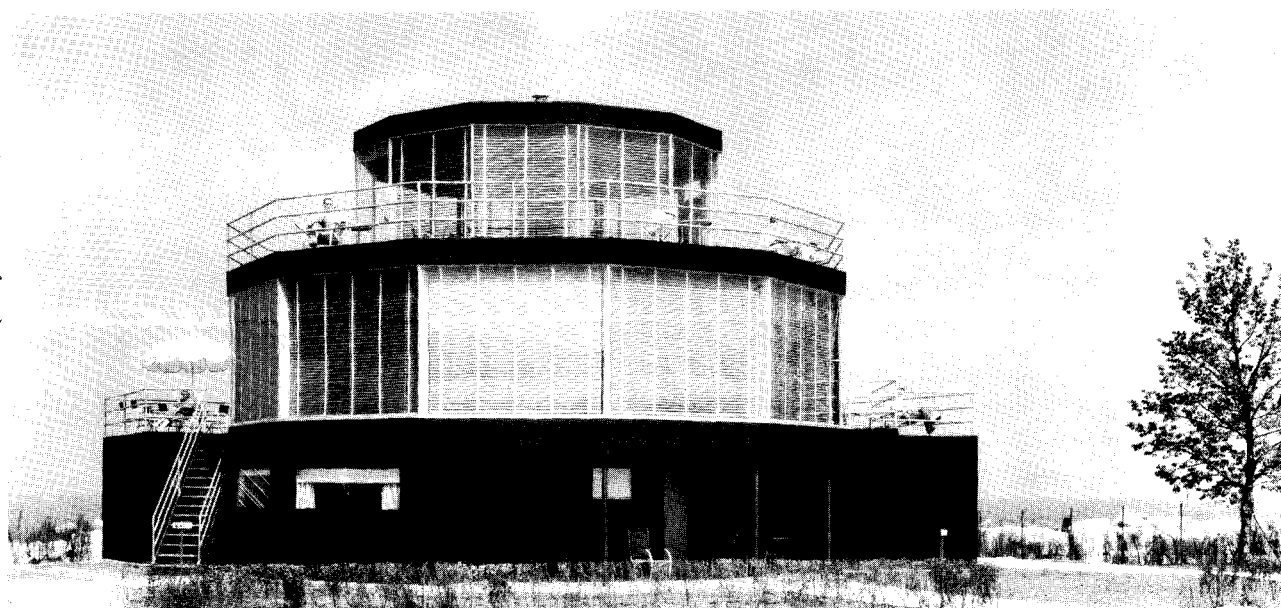




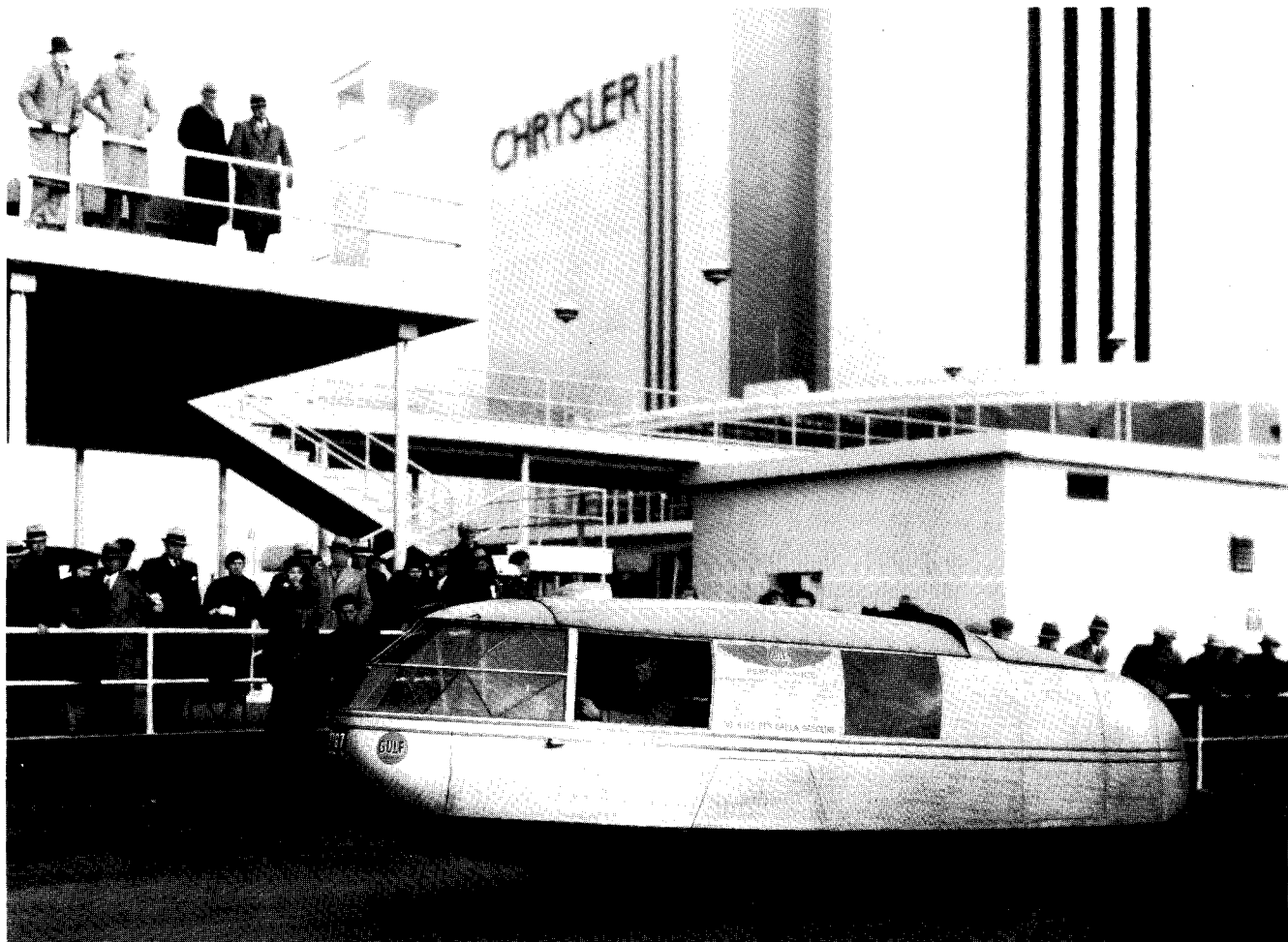


*Bathed by colored lights at night, Nash Motor's 80-foot-tall parking tower had elevator platforms that carried 16 cars, left. To keep up with its competition, Ford Motor Co. added an exhibition hall in 1934, in which three cars were suspended by cables, above. Designed by Albert Kahn to symbolically represent an automobile gear, the building (above right) was later moved to Detroit for use as a display room. On Chrysler's quarter-mile testing track, Buckminster Fuller's Dymaxion car is given a test run, right. Among the 11 exhibit houses was George Fred Keck's 12-sided House of Tomorrow, below. The house is built around a central mast containing all the utilities. The top two enclosures were glass-walled and surrounded by decks. The first floor contained space for an airplane as well as cars.*

Photographs by Ken Hedrich, Hedrich-Blessing

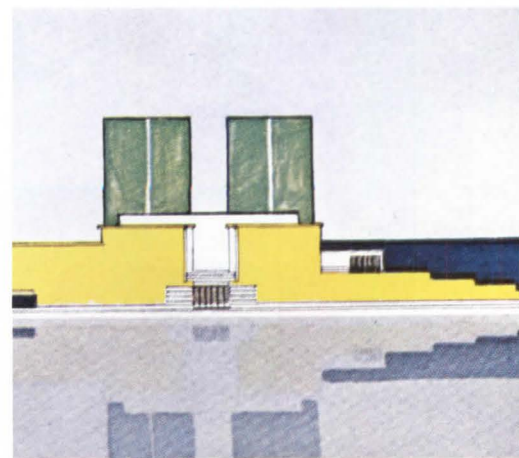
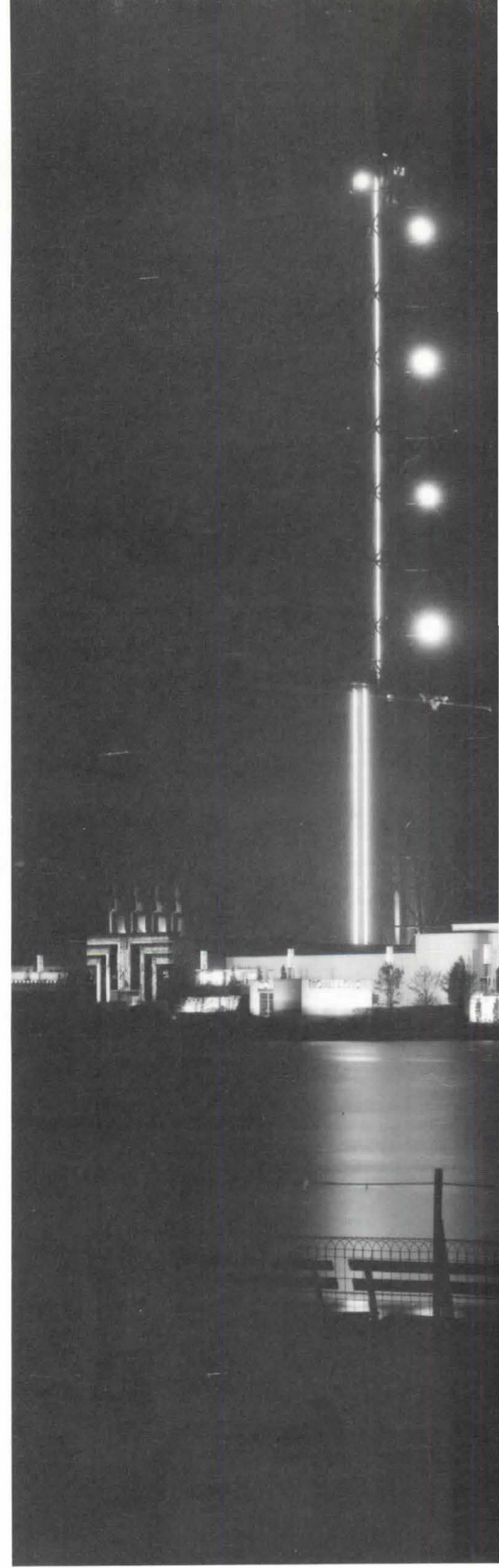




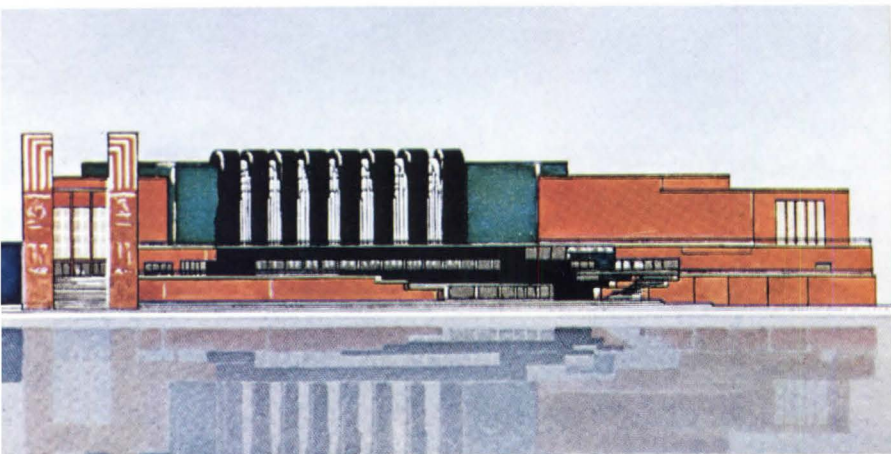




Photographs by Ken Hedrich, Hedrich-Blessing



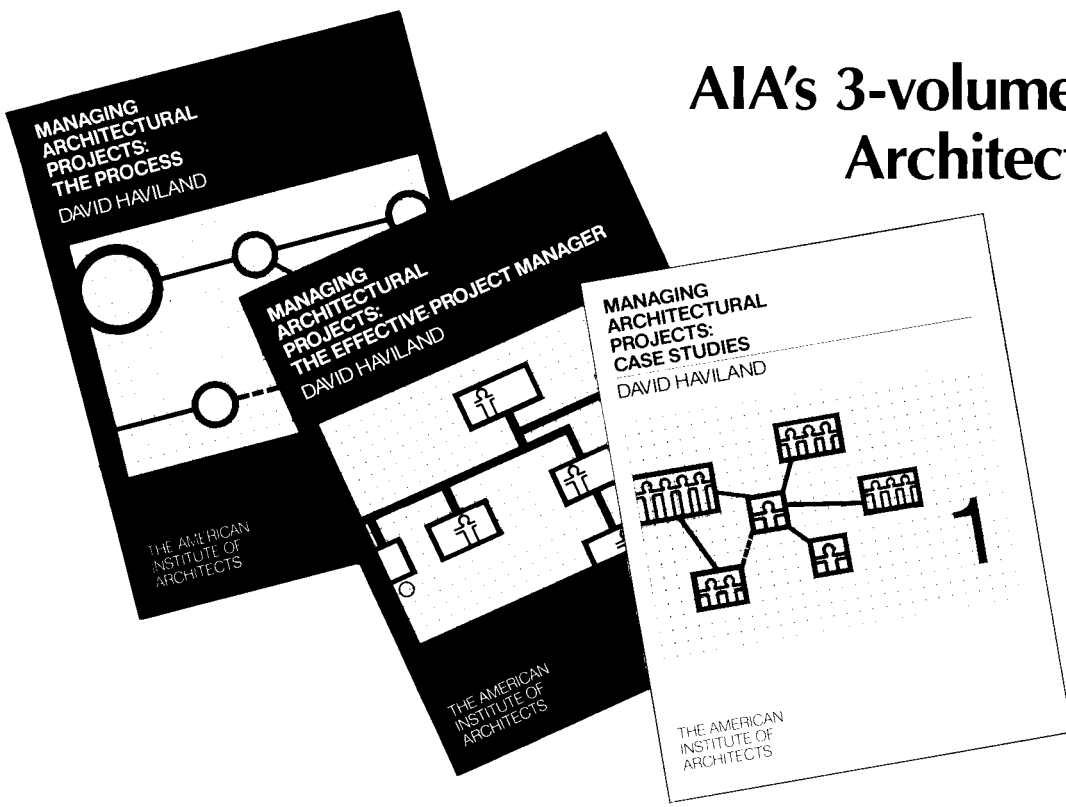




Seen from across the lagoon, the Electrical building was set ablaze with searchlights, above. Designed by Raymond Hood, its great court was to represent a dam, and to simulate flowing water the black columns were lit by 4,300 feet of neon tubes that emitted a soft blue light. Giant art deco figures representing atomic energy and stellar energy (facing page, above) flanked the black columns. On the north end of the building, two 100-foot-high towers with a wide stairway in between marked the lagoon gateway, facing page below. The swastika-like figures represented light and sound. Hood also designed the Communications building and its cyprus garden (see page 58). The orange, white, blue, and black Electrical building was linked to the yellow and green Communications building by an elongated black building block, drawing left.



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# BOOKS

## Working with the Past: Two New Summaries

Including 'the best single volume on the subject,' reviewed by Frederick Gutheim, Hon. AIA

Professor Fitch, meet Miss Schmertz. He has the most to say; she the most to show. It's too bad they didn't connect on their way to the marketplace—and I don't mean Faneuil Hall Market, but the McGraw-Hill Book Co. As it is, preservation-minded architects are probably going to have to buy both James Marston Fitch's *Historic Preservation: Curatorial Management of the Built World* and Mildred F. Schmertz' *New Life for Old Buildings*.

Of course, there are other differences. Fitch takes the high ground, the longer historical view, more global scope, embracing larger theoretical questions and exploring more recent concerns with historic districts, landscapes, planning, and vernacular architecture. Until recently, director of the historic preservation program at Columbia University, Fitch poses the issues of professionalism (explored in greater historical detail by Charles Hosmer in recent books) and inclines more to management of historical resources than to design matters.

With larger format, sumptuous photographs and more telling drawings (not enough to my taste), the Schmertz book is more descriptive if less analytical. Her recycling cases include urban marketplaces, public buildings, campus buildings, commercial buildings, and houses and apartments. There is a generous sampling of that type of building without which the whole preservation movement would probably grind to a halt—restaurants. The more important projects are given far greater detail than in Fitch's book, and Schmertz does not hesitate to provide financial, structural, and other informative specifics. Not all these projects are of large size, and some will be unfamiliar even to close students of preservation work, but the greater significance of

**Mr. Gutheim**, a planner, author, and educator in Washington, D.C., created the graduate program in historic preservation at George Washington University and retired from its directorship three years ago. **Historic Preservation: Curatorial Management of the Built World.** James Marston Fitch. (McGraw-Hill, \$34.95.) **New Life for Old Buildings.** Mildred F. Schmertz and the Editors of the *Architectural Record*. (McGraw-Hill, \$32.50.)



Marvin Rand

their presentation here is in the greater detail and superior illustrations.

Although I believe they should be preserved (because it is all we have), there is no use ignoring the rather indifferent architectural quality of many of our historical monuments. This becomes especially important when considering the lengths to which a highly literal, faithful, detailed preservation should go, and especially when restoration is attempted. The greater costs alone oblige one to ask whether a lower level of preservation would not allow more buildings to be saved. Beyond that, many admittedly historical buildings are rather tiresome, and one welcomes what first rate designers (Hugh Jacobsen, Hardy Holzman Pfeiffer, Edward L. Barnes—to name a few described here) can add to these earlier values.

In the Schmertz volume, Eleni M. Constantine correctly calls for "a quiet, direct rebuilding of the original," as contrasted with "grand costly gestures, daring juxtapositions of new and old, or flamboyant innovation." Quite a lot more could be said by way of amplification of this theme, not least qualities of wit, warmth, humanity. A case in point would be modern lighting fixtures that are needed to brighten the interior environment of buildings whose new or modern use requires them in order to function. Not enough attention has been given the adaptive use of works of industrial archeology and engineering. Given the importance of color, both as originally applied in the 19th century and as an element in revitalizing old buildings, one wishes the color plates in this volume had been selected to convey some practical information of this sort.



Courtesy of University of Chicago

Details from two recent restorations: ceramic tile, California State Capitol (left), and the dean's office, Rosenwald Hall, University of Chicago (above).

It is hard to turn to the tiny, pale gray photographs in Fitch's book, the most pertinent chapter of which is entitled "Reconstruction, Reproduction, Replica: Use and Abuse." (He has a glossary to explain this terminology.) Clearly, it is the preservationist rather than the architect who is being addressed. Many forms of preservation are described, and exemplary preservation accomplishments are cited. Here are the observations in the field of a much traveled specialist, and to those who share these interests, it frequently has the value of an informed guidebook. Recent developments in conservation technology (fiberglass, etc.) are described. While sources are cited, there is no bibliography. At several points, one wishes for more complete, up-to-date, or better citations. But this is a quibble. It must be recognized that this is probably the best single volume work on the subject and one that fills a long recognized need.

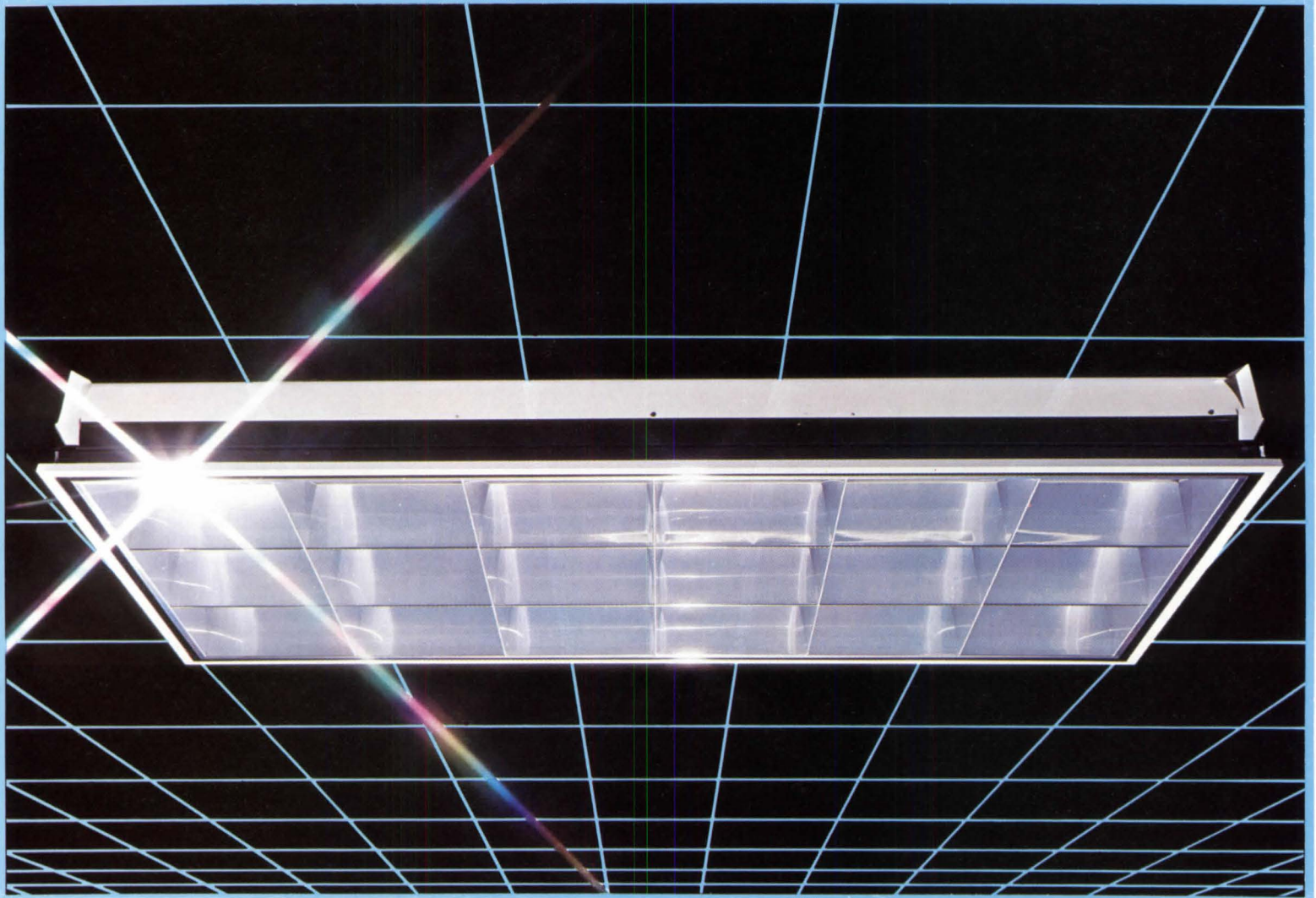
Fitch has written much about historic preservation, but this book is both his most comprehensive treatment of the subject as well as the farthest advanced in the evolution of his thought. He especially

*continued on page 68*



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### Books from page 66

commends the attention of architects who are working in the field, or architects who have translated themselves into preservation professionals. By contrast to the character of preservation/conservation efforts in France and other countries, the "curatorial" managers of which Fitch speaks operate here in the context of our more democratic participatory tradition and the significantly large and talented body of activist amateurs that dominate the field. Fitch is especially sensitive to this and has spoken of it elsewhere, particularly in the National Trust's volume *Preservation: Toward an Ethic in the 1980's*.

### Saving Energy in the Home: Princeton's Experiments at Twin Rivers. Robert H. Socolow, Editor. (Ballinger.)

It is a decade since the National Science Program first funded the most significant investigative program of energy use in the American home. In 1972, that was well before energy was on anyone's political agenda. Rather, there was the research schema that an extended examination of the multifarious energy paths in a house might reveal a kind of man-made domestic energy ecosystem. They could be the counterpart of natural ecosystems that have been studied in controlled research on single sites for extended periods. For Princeton, the Hubbard Brook Experimental Forest in New Hampshire had been studied for more than 20 years with an abundance of results. A poetic parallel was indeed revealed. But along the way the Twin Rivers site of 12,000 people living in 3,000 New Jersey homes 12 miles from the Princeton University campus became the best documented reference for national conservation and retrofit programs in the troubled times since the Arab oil embargo of 1973.

The ecology of energy at Twin Rivers was revealed by the work of more than 100 researchers—faculty and students—and resulted in literally hundreds of formalized reports and papers. This book essentially repeats 11 papers published by Elsevier Sequoia SA as a special issue in the expensive international research journal *Energy and Buildings* (vol. 1, no. 3, April 1978). Both are a direct and readable summary of the research of monitoring domestic thermal histories that provide a comprehensive professional access to the detailed reports of the program. For architects and energy consultants this book should be a prime reference source on hard measured experience, in contrast to the constant pap of arm-waving advice to the homeowner from the local electric utility to turn off the lights, and to use a barbeque for summer cooking.

The preface begins: "We have learned

how to eliminate three-quarters of the energy used by the furnace in quite ordinary, reasonably well-built town houses. . . ." From there the successive house doctors examine "lossiness" (a term borrowed from electrical engineering where it denotes components that dissipate energy), "attic diseases," and many other physical symptoms as well as behavioral and psychological aspects of human occupancy. They proved that in identical housing units human factors can account for 200 percent variations in energy consumption.

Other revelations have less visibility but more important presence. For instance, the increasing concern for indoor air quality and the buildup of interior air pollution in superinsulated or loss infiltration houses is discussed and anticipated (page 88), but does not appear in the index. The term "passive," now so fashionable, is also not in the index, although it is used to describe nonpowered gravity dampers in the text. The note that cigar smoke was used for infiltration detection is an immediate investigative technique that a surprising number of researchers have used to track invisible air movement. The Princeton teams also had access to the most sophisticated infrared photography methods. These shared confidences not only personalize what to some may seem to be an academic exercise, but underline the reality of sleuthful detective work.

Repeatedly, the authors reveal that field discovery is a different universe from laboratory inquiry. The benefit of their scientific persistence is both a neat record of problem searching and a footprint of anticipation for the energy ecology of the American home. *Jeffrey Cook, FAIA, College of Architecture, Arizona State University.*

### Housing. Second edition. John Macsai, FAIA, and others. (Wiley, \$50.)

John Macsai, FAIA, is joined by a structural engineer, a consulting engineer, a researcher, and a real estate counselor in this sourcebook, which considers the many diverse elements that go into a successful housing project. There are separate sections in the 590-page reference work on data gathering, structural components, HVAC systems, plumbing, electrical work, social and behavioral aspects, development and financing, and design methodology. The book, which is illustrated by Alfred J. Hidvegi, AIA, also has a lengthy section on 87 specific projects—highrises, midrises, and lowrises—that is illustrated with photographs and plans, as well as a bibliography.

In the introduction to this second edition, Macsai says that changes in housing since the first edition about six years ago have been "demographic." One of the

still unmet needs in housing, he says, is housing for the elderly. We are now more aware ("if only reluctantly and prodded by codes") of the needs of the handicapped in housing. This edition contains new materials on housing for the elderly and handicapped in a section on design methodology written by Macsai.

Since the first edition, there has been increased emphasis placed upon energy, and energy conservation in this revision is discussed by Harry S. Nachman, a consulting mechanical engineer, in the section on HVAC components. Other additions to this second edition concern advances made meanwhile in concrete technology, and a chapter by Eugene P. Holland, structural engineer, has been expanded to discuss new techniques in precast and prestressed concrete. There is other new information, including the subject of financing, which is discussed by real estate consultant Jared Shales, and on the social and behavioral components of design, covered by James R. Anderson, researcher, department of architecture, University of Illinois at Urbana/Champaign.

The architect who has anything to do with a housing project will certainly want this valuable aid for frequent reference.

### All Stations: A Journey Through 150 Years of Railway History. (Thames & Hudson, \$17.95.)

A modern day Tower of Babel—such is the way Jean Dethier, director of an exhibition at the Centre Georges Pompidou in Paris (subsequently shown at the Science Museum, London), refers to the railroad station. This book is based on the exhibit and includes 381 illustrations, of which 152 are in color. The accompanying text, while brief, is provocative.

The aspects of stations that are considered are "architecture, urbanism, technology, decorum, art, popular culture, politics, strategy, order, discipline, the poetic, and the imaginary."

Emphasis is laid on the two-fold design responsibility for the great 19th century station when the architect was entrusted with the elements of the "passenger building," while the engineer coped with the problems of the great metal "shed" covering the platforms. The former usually followed traditional styles while the engineer adopted innovative ideas of a technological future.

Divided into sections, the book contains not only pictures of the stations themselves, but also of the people in them on the way to and from trains, and of their role in war and politics. The dangers stations face today are graphically illustrated with a reproduction of a Portland, Me., newspaper with four views of the Union Station tower being demolished. Such does not have to be their fate as

*continued on page 70*



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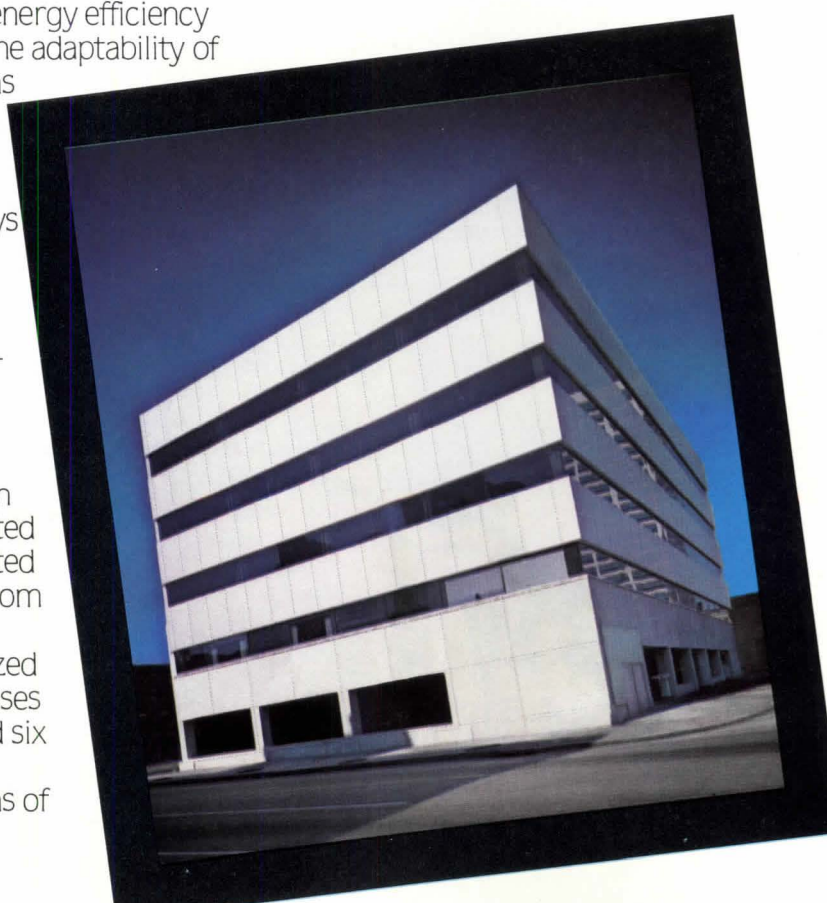
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## Books from page 68

shown by several examples of reuse.

Among the more interesting sections of the book are those on the station in art, and as a stimulus to the imagination, including examples of humor. In all, this is a fascinating presentation of the railroad station in its many phases, from its planning to its ultimate end. *George E. Pettengill, Hon. AIA, Arlington, Va.*

**District Heating and Cooling for Energy Conservation.** R.M.E. Diamant and David Kut. (Wiley, \$54.95.)

The British engineers who authored this book demonstrate the theory and practice of district heating, emphasizing its importance in energy conservation. They are persuasive advocates of heat stations at a distance from consumers as both energy conservers and new sources of growth in the use of coal. They also stress district cooling systems as an efficient means of lowering capital costs of individual cooling and airconditioning systems. In addition to other topics in this comprehensive book, coverage is given to the use of refuse and geothermal energy, nuclear power, pipeline systems, distribution of group or district heat, boiler houses, and fuel storage and heat distribution equipment in dwellings. The authors describe group and district heating systems in the United Kingdom, the U.S. and Canada, Russia, and other places. The book is liberally illustrated with photographs and diagrams.

**The City: Patterns and Processes in the Urban Ecosystem.** Christopher Exline, Gary L. Peters and Robert P. Larkin. (Westview Press, \$30 hardbound, \$14.75 paperback.)

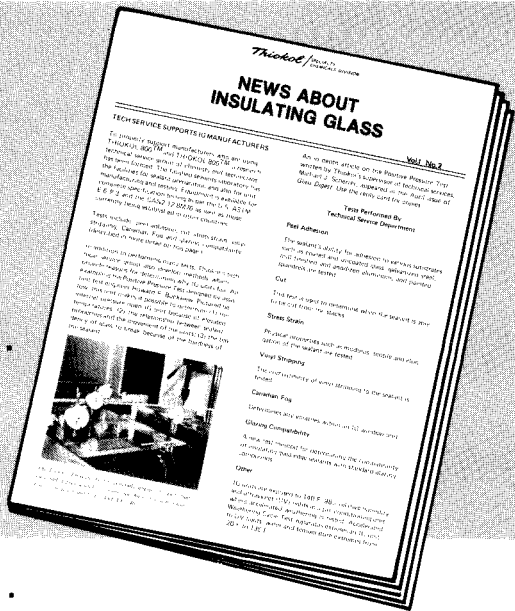
Should you be picking your way through the mine field of urban problems, this textbook on the systems approach might help. It is a textbook designed for geography students and has useful current references to the literature in the field.

**Designer's Guide to OSHA: A Practical Design to the Occupational Safety and Health Act for Architects, Engineers and Builders.** Second edition. Peter S. Hopf, AIA. (McGraw-Hill, \$36.50.)

Those who found the first edition of this book, published in 1975, to be a helpful working tool and reference work will be pleased that a revised and updated edition is now available. As the author points out, there have been major changes in the intervening years to the standards for fire prevention and electrical work, with the elimination "of many previous 'nit-picking' regulations." Hopf has added "new material for self-help," which he hopes "will go a long way toward providing safe working conditions and reducing the probability of receiving an OSHA citation." □



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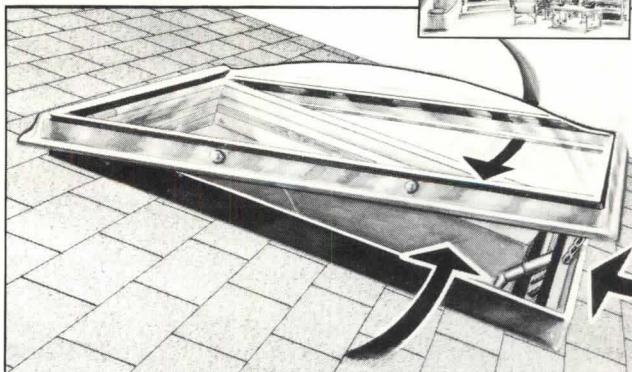
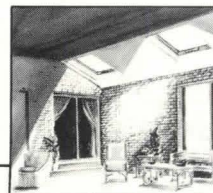


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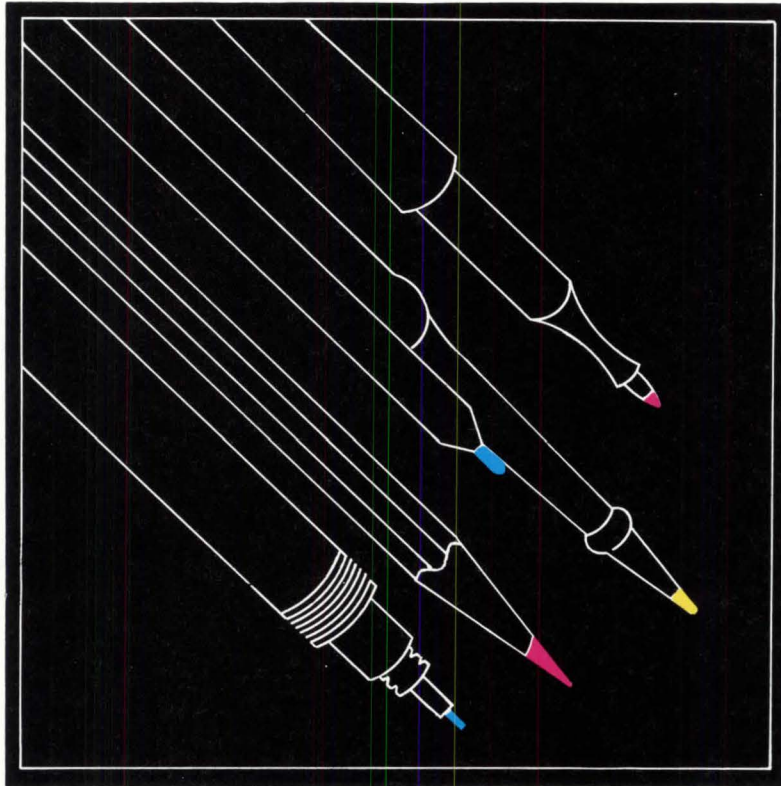


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Eligible: Registered architects and intern architects in U.S and Canada. Deadline for receipt of entries: July 9.

Drawings must have as their purpose to communicate information about the design of a building or complex, be it real, projected or hypothetical. They can be color or black and white in any medium. Please send slides, transparencies or prints no larger than 8x10 inches to AIA JOURNAL, 1735 New York Ave. N.W., Washington, D.C. 20006. Please do not send originals. Each submission should have your name, address and telephone number on it and should be accompanied by a brief description of the subject matter. For further information, contact Lynn Nesmith at (202) 626-7477.





## *Furnishings*

*As resources for design and objects of design.*

*By Stanley Abercrombie, AIA*

No area of furnishings design receives more attention and demonstrates more ingenuity than seating. Here, a design revival from half a century ago and a few recent innovations.

The revival is a 1928 dining chair (1) by French architect and interior designer Robert Mallet-Stevens (1886-1945). Made of lacquered metal, it has been re-introduced by Furniture of the Twentieth Century, Inc., New York City.

Designed in 1965, produced by Castelli of Italy and now available here through a.i. (Atelier International) is Vico Magistretti's Model 896 (2), a foursquare upholstered lounge chair with a construction of solid beech and with exposed legs finished in walnut, rosewood or ebony stain. Of a more insectile character is the Model 23 Allunaggio seat (3) designed by A. and P. G. Castiglione and available through Zanotta of Milan.

The 36M auditorium and conference room chair (4) designed by Leif Blodee for American Seating minimizes clutter by means of its beam-mounted structure and minimizes bulk by folding, when unoccupied, into a thickness of only 15 inches. Seats and backs are available in either wood or upholstered versions.

With a little practice, a whole new sitting posture is possible on the Balans Activ (5), constructed of tubular stainless steel with upholstered forward-sloping seat and cylindrical knee cushion. There are two sizes, one for desk height, the other for drafting table height. The Balans Activ is designed by Svein Gusrud and Hans Christian Menghoel, made in Norway and available in the U.S. through Sam Flax stores.

Another, newer design by Vico Magistretti, also available from a.i. (Atelier International), is Sindbad (6), a collection of chairs, ottomans and sofas. Frames are of black-lacquered beech, seat pads are of molded polyurethane foam, and the removable blanket-like covers are of cotton piqué, brushed wool or leather, attached to the foam pads by clips and Velcro strips. Several brilliant color combinations are offered.

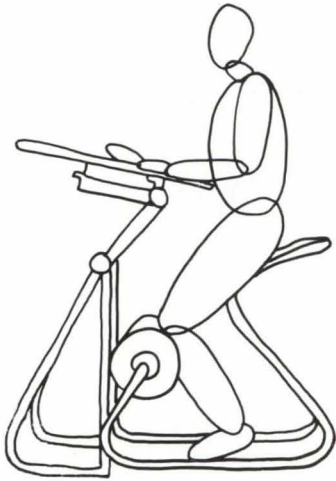




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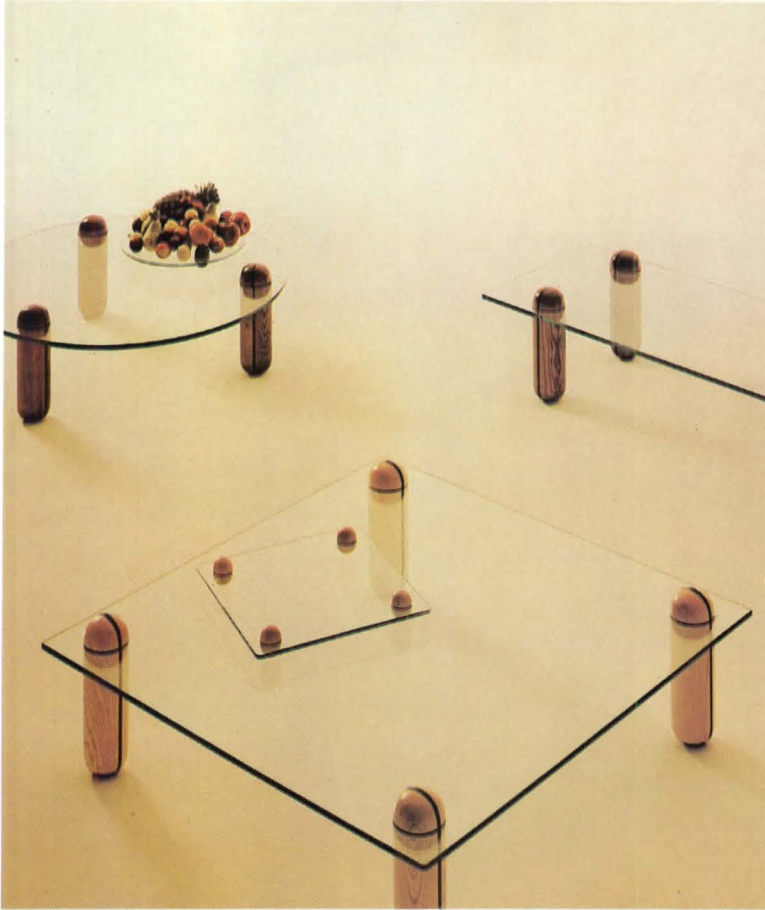


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2

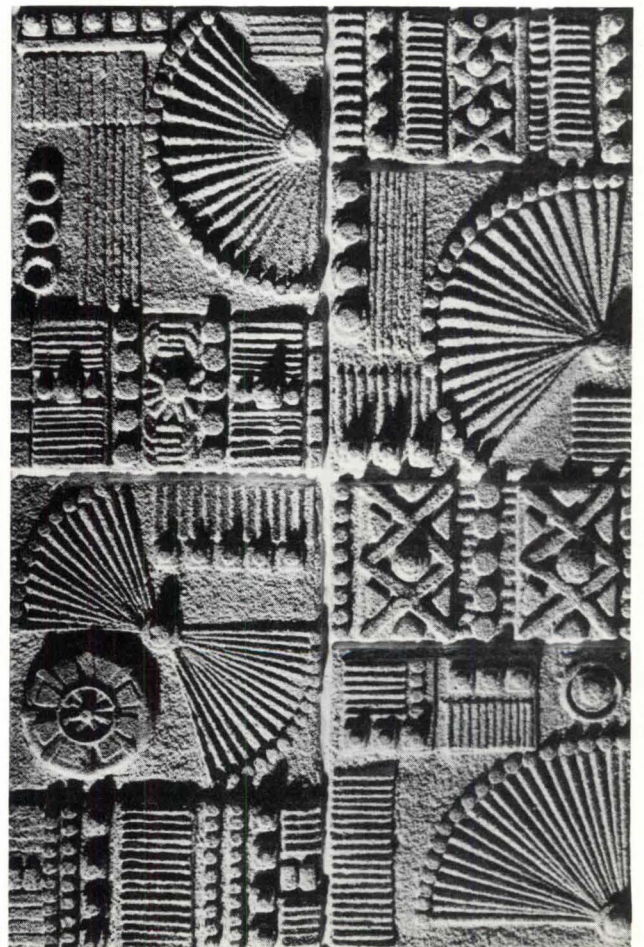
From Longhi of Milan, Italy, are the glass-topped tables (1) with distinctively rounded legs of solid ash, either left natural or stained walnut. Designers are T. Ammannati and G. P. Vitelli.

The 9100 Resin Table Group (2) is designed by Jay Heumann for Metropolitan Furniture. Its one-eighth inch thick polyester resin coatings are available in 18 colors and in high gloss or satin finishes. Three heights and five diameters are offered.

Large, textured, sandcast tiles (3), suitable for indoor or outdoor wall facings or, with a glass top, even for coffee tables, are available from Sculpture Walls of Closter, N.J. The pattern shown here is "Terra"; several others, designed by Eva Birkner, Jacqueline Lemort-Rudolfer and George Holt, are also available. Minimum tile size is a foot square.

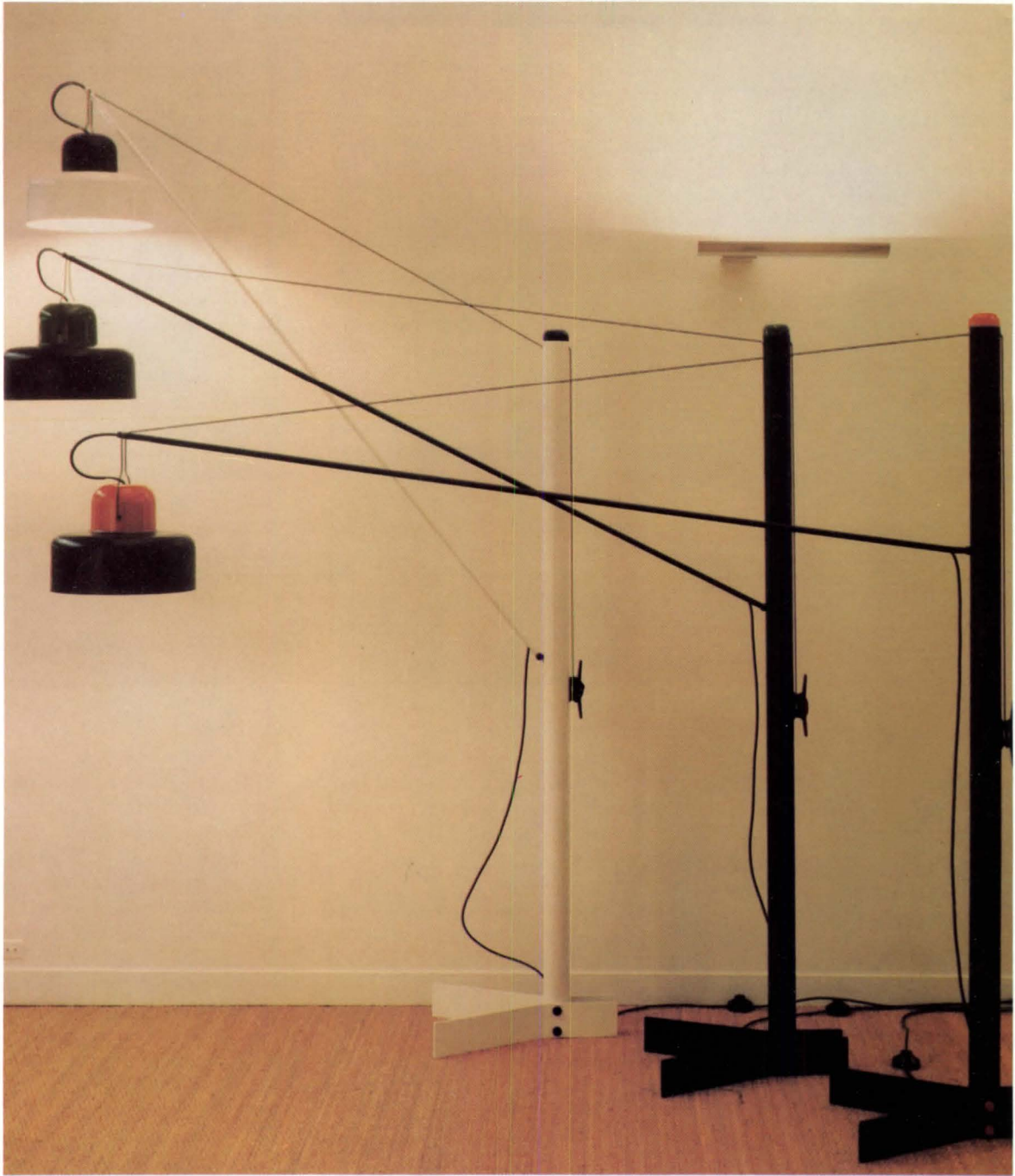
The "Monte et Baisse" lamp (4) designed by Jean Pierre Vitrac for Verre Lumiere, Paris, is of lacquered steel with an aluminum reflector. Color combinations are black with red, black with green, or black and white. It takes a standard 150 watt bulb.

From Thonet is the Communications Task Seating group (5), designed with CRT workers specifically in mind. The designers are Robert Aronowitz and Bernard Katzanek of Robert Bernard Associates. □



3





4



5



## National Trust Recognizes Preservation Efforts for '82

The National Trust for Historic Preservation has presented awards to 18 groups, projects and individuals in its 1982 honors program.

The highest recognition, the Louise DuPont Crownshield award, went to Helen Abell for her "devotion" to historic preservation in Louisville, Ky., and in Jefferson County. Mrs. Abell, a founder of the Commonwealth Preservation Council of Kentucky, a nonprofit, private state-wide preservation organization, is a trustee emeritus of the National Trust.

The other winners:

- The California State Capitol project, Sacramento, for restoration of the 1859 brick structure, which had been declared unsafe for occupancy because of seismic concerns.
- Roger C. Thompson and the State Chamber restoration project, Albany, N.Y., for the five-year restoration of the 1881 Senate Chamber, designed by Henry Hobson Richardson.
- The City of Davenport, Iowa, for encouraging private investment in the redevelopment of the downtown, which resulted in the restoration of Davenport City Hall.
- *Utah Preservation/Restoration* magazine, Salt Lake City, an annual publication for historians, preservation groups, homeowners, builders and architects. The magazine publishes scholarly information on subjects ranging from log cabins to decorative sheet metal to consumers' interests.
- George W. McDaniel, Memphis, historian, author of *Hearth & Home: Preserving a People's Culture* and research director at the Center for Southern Folklore.
- The University of Chicago, office of physical planning and construction and the board of trustees, for undertaking a series of renovation projects on campus.
- Restoration College Association, Inc., Mt. Carroll, Ill., for its continuing education courses for professionals in preservation.
- "The Sautee and Nacoochee Valleys—A Preservation Study," which focuses on rural preservation planning and was directed by Allen Stovall in association with E.I. Design Associates and sponsored by the State Historic Preservation Section of the Georgia Department of Natural Resources and the Sautee-Nacoochee Community Association.
- Rudy J. Favretti, Storrs, Conn., professor of landscape architecture at the University of Connecticut where he established a graduate program in preserving

and restoring historic gardens and landscapes.

- East Brother Light Station, Inc., Point Richmond, Calif., for the renovation of the working light station into a daytime recreation site and an overnight bed and breakfast inn; Thomas K. Butt, AIA, renovation architect.
- Massachusetts Executive Office of Communities and Development, School Building Reuse Project, Boston, a project designed to help the state adjust to a record of school closings brought on by increasing fiscal constraints and a decline in school-age children. (Architects involved in the project are Graham Gund Associates, Inc.; Anderson, Notter, Finegold Inc.; Homer P. Young Associates; Boston Architectural Team; Jester Pope Associates; Constantine L. Tsomides, AIA; Childs, Bertman, Tseckares Associates, and Day & Ertman, Inc.)
- The Arcade, Providence, R.I., for renovation of the 1828 national historic landmark by the Arcade Co., Gilbane Building Co., Irving Haynes & Associates (renovation architect), the Rhode Island Historic Preservation Commission, and the City of Providence.
- Roger Gerry, Roslyn Preservation Corporation, Roslyn, N.Y., for forming the corporation in 1964 as a revolving fund to complement the Roslyn Landmark Society.
- The Moody Foundation, Galveston, Tex., for "personal leadership and generous financial support" in the rehabilitation of maritime properties, historic buildings and commercial districts.
- Mr. and Mrs. Roy Swayze, Eutaw, Ala., for restoring the Southern plantation home of Kirkwood (below).
- G. Edwin Brumbaugh, FAIA, Gwynedd Valley, Pa., active in preservation for 67 years and restoration architect for the Commonwealth of Pennsylvania of the Daniel Boone Homestead, the Ephrata Cloister, Valley Forge, and Gettysburg College.
- George Bauman, Dandridge, Tenn., for restoring the collections and records of Jefferson County as historian and curator in the county courthouse.
- Preservation Action, Washington, D.C., a national citizens lobby of historic pres-

ervation and neighborhood conservation, for successfully retaining federal funding for the State Historic Preservation Offices program in 1981 and initiating a national lobbying network that resulted in the reauthorization of the National Historic Preservation Fund Act Amendments in 1980.

Seven certificates of commendation were also given to public officials for their efforts in promoting historic preservation: Rep. Daniel Rostenkowski (D.-Ill.); Illinois Governor James R. Thompson and the State of Illinois; Helen G. Boosalis, mayor of Lincoln, Neb.; Mitch McConnell, county judge executive, Jefferson County, Ky.; Ronald Nelson Young, mayor of Frederick, Md.; Hernan Padilla, mayor of San Juan, Puerto Rico, and the parks division of the department of parks and recreation, the government of Guam and the citizens of the Territory of Guam, Agana, Guam.

## Harvard Student Wins '82 Reynolds Prize

A Harvard graduate student, designer of a project for a visitors center and museum adjacent to the tombs of the Egyptian pharaohs at Gizeh, has won the 1982 Reynolds Aluminum prize for architectural students. The \$5,000 first prize, shared with Harvard's graduate school of design, goes to Wesley C. Jones.

Jones' design juxtaposes an obviously 20th century building with the massive architecture of the 30th century B.C. "The building appears as a crisp line in the landscape of the Gizeh ruins. . . . The scheme makes a subtle interpretation between the original processional nature of the ancient monuments and today's procession of visitors," said the jury.

Two other students won honorable mention and will each share \$1,000 prizes with their schools. Ali Hocek of the Rhode Island School of Design was cited for his project for an exhibition hall, and Christopher A. Milford of Cornell for his design of an aluminum portable temporary house. A certificate of excellence was awarded to Mark Robert Thompson of Oklahoma State University for his prototype portable ice fishing shelter.

The student competition was juried by Peter Parsons, AIA (chairman), William G. McMinn, FAIA, Ian Taberner, who won last year, and architectural students Kevin C. Bailey of Texas Tech and Ken Gwinner of Georgia Tech.

Winner of this year's R. S. Reynolds memorial award is a facility for sports and social activities in the city of Curitiba, Parana province, Brazil, by Morozowski & Perry Arquitectos, also of Curitiba (see April, page 46).

*Awards continued on page 81*

Photograph courtesy of National Trust for Historic Preservation





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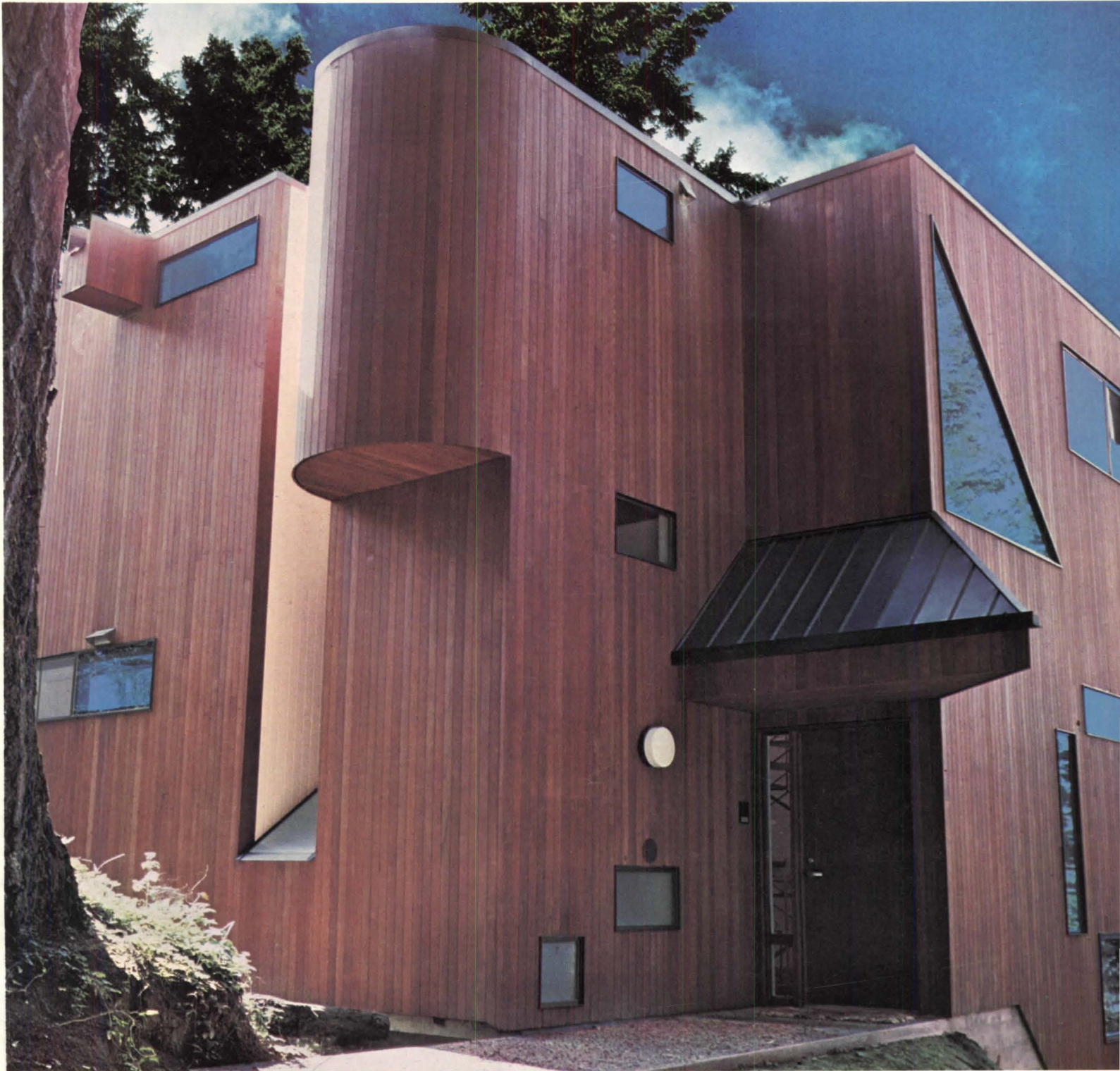
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Architect: Wendell Lovett, FAIA, Seattle, Washington

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