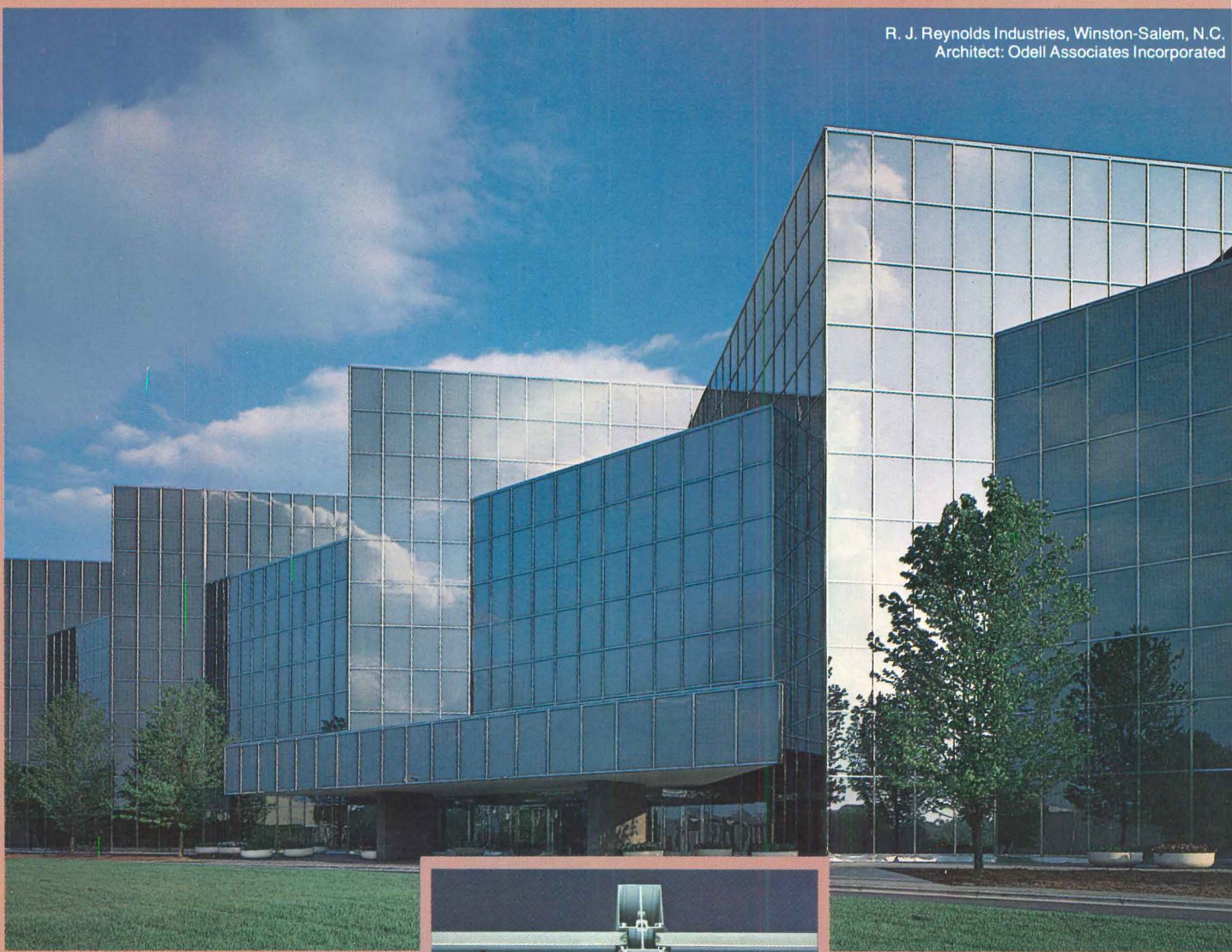




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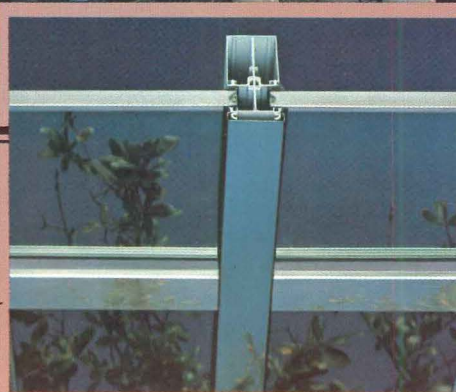
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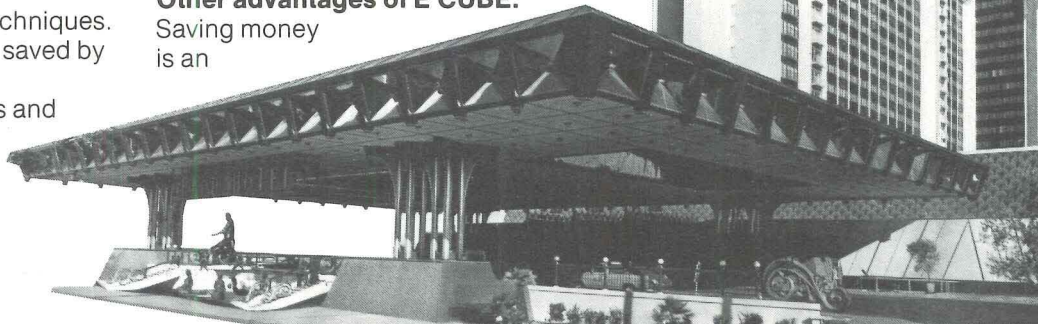
guest rooms were inadequate for optimum guest comfort.

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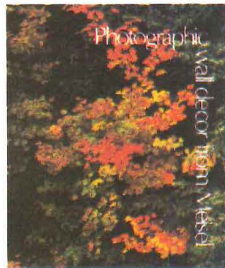
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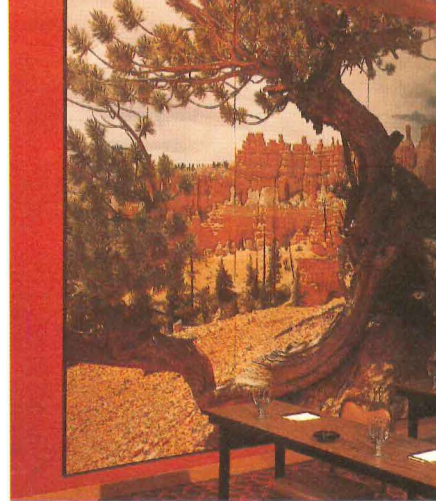
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The AIA JOURNAL, publication number: ISSN0001-1479, official magazine of The American Institute of Architects, is published 14 times yearly at 1735 New York Ave. N.W., Washington, D.C. 20006. Second class postage paid at Washington, D.C., and additional mailing offices. © 1979 by The American Institute of Architects. Opinions expressed by the editors and contributors are not necessarily those of AIA. VOL. 68, NO. 7.



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## EVENTS

**July 6-13:** Program on the Management of Design and Planning Firms, Harvard University, Cambridge, Mass.

**July 12-13:** Solar Program, University of Wisconsin, Madison.

**July 12-14:** Seminar on Architectural Simulation Testing Techniques, Cornell University, Ithaca, N.Y.

**July 13:** Postmarks deadline, Red Cedar Shingle & Handsplit Shake Bureau 1979 annual awards program. Contact: RCS&HSB, Suite 275, 515 116th Ave. N.E., Bellevue, Wash. 98004.

**July 15-20:** International Conference on Computer Graphics, Harvard University, Cambridge, Mass.

**July 16-19:** Institute on Cathodic Protection Design, University of Wisconsin, Madison.

**July 16-20:** Program on Human Behavior and Housing Design, Harvard University, Cambridge, Mass.

**July 16-20:** Program on Techniques for Planning for Neighborhood Change, Massachusetts Institute of Technology, Cambridge, Mass.

**July 17-19:** International Symposium on Practice Development, sponsored by the Ontario Association of Architects and the Royal Architectural Institute of Canada, Toronto. Contact: Professional Development Resources, 1000 Connecticut Ave. N.W., Suite 9, Washington, D.C. 20036.

**July 25-27:** Program on Open Space Planning for Offices, Harvard University, Cambridge, Mass.

**Aug. 1:** Entries deadline, Prestressed Concrete Institute's 1979 awards program. Contact: PCI, 20 N. Wacker Drive, Chicago, Ill. 60606.

**Aug. 2-4:** Michigan Society of Architects mid-summer conference, Grand Hotel, Mackinac Island, Mich.

**Aug. 9-23:** Women's School of Planning and Architecture, Regis College, Denver. Contact: WSPA, Box 102, Palomar Arcade, Santa Cruz, Calif. 95060.

**Aug. 15:** Entries deadline, Owens-Corning Energy Awards, 1979. Contact: Owens-Corning Fiberglas Corporation, Fiberglas Tower, Toledo, Ohio 43659.

## LETTERS

**Architects' Records:** As librarian of one of the larger architectural record repositories in America, and as a director of the Committee for the Preservation of Architectural Records, I applaud the publication of Carol H. Krinsky's article, "The Movement to Preserve Architects' Records" in the March issue (p. 140).

The Athenaeum in Philadelphia enthusiastically endorses the underlying thesis of the article; it is essential that architects assist historians and librarians in the effort to save architectural records. The problem

of ultimate disposition should not be left to younger partners or bereaved spouses. The owner of such materials should ask himself, what will become of these documents when I am gone? Will my successors or heirs preserve them in the face of rising storage costs, or will they send everything to the dump? Am I adequately caring for them now, or might they better be in the hands of a qualified nonprofit research library?

I must take issue, however, with Dr. Krinsky's suggestion that each architect "select up to five of his projects for preservation." The danger in this recommendation has already been illustrated here in Philadelphia. Shortly after the article appeared, one of our most prominent architects notified me that he was selecting from his files five projects for preservation at The Athenaeum. The implication was that the rest of his archive covering a half century of work would be destroyed or left for an uncertain future. In his case, any of Philadelphia's three architectural record repositories would doubtless accept his entire archive, no matter how large it might be.

I am forced to wonder how many architects will modestly assume that their files are unimportant and take the "five project" limit literally?

While it would be valuable to know which projects an architect thinks are most representative of his career, I would maintain that these would not necessarily be the same five an architectural historian would select. Recently, The Athenaeum accepted a major collection of a deceased architect which contained a full set of drawings for an early 20th century gasoline station. The architect would probably not have selected this as one of his five projects, yet the drawings are of great historical interest. Such a limited selection eliminates the possibility of reconstructing the history of a firm and gives virtually no indication of developing maturity, influence of partners, clients' changing taste, introduction of new materials, altered economic conditions and so on—all topics of interest to students of architecture.

Ideally, every document should be saved, regardless of how "significant" the building or design is believed to have been in terms of today's esthetic values. This is clearly impossible, but every architect, architectural historian or layman interested in architecture should pledge that no architectural drawing, office file, photograph or book from the office library will be destroyed until it has been offered to a professionally managed architectural repository with a trained staff and adequate facilities to store, care for and service the special needs of this type of document. This caveat should be engraved on every drawing case and file cabinet containing architectural documents.

It may be said that this is not practical

in areas of the country where there is no active repository, especially in nonmetropolitan areas. But before any records are destroyed, the Committee for the Preservation of Architectural Records or one of the large repositories with a professional staff should be given an opportunity to suggest an appropriate institution. The Athenaeum, for example, accepts 19th century drawings from all parts of the country and regularly suggests repositories for materials not from the Middle Atlantic states produced after 1930. A library or historical society may not accept every item, but with the cooperation of the architect will usually accept more than five projects.

Roger W. Moss  
Secretary and Librarian  
The Athenaeum  
Philadelphia

**Architect of the Capitol:** There are some oversights in the news article "Architect of the Capitol Issues First Annual Report in 47 Years" in the April issue (p. 31).

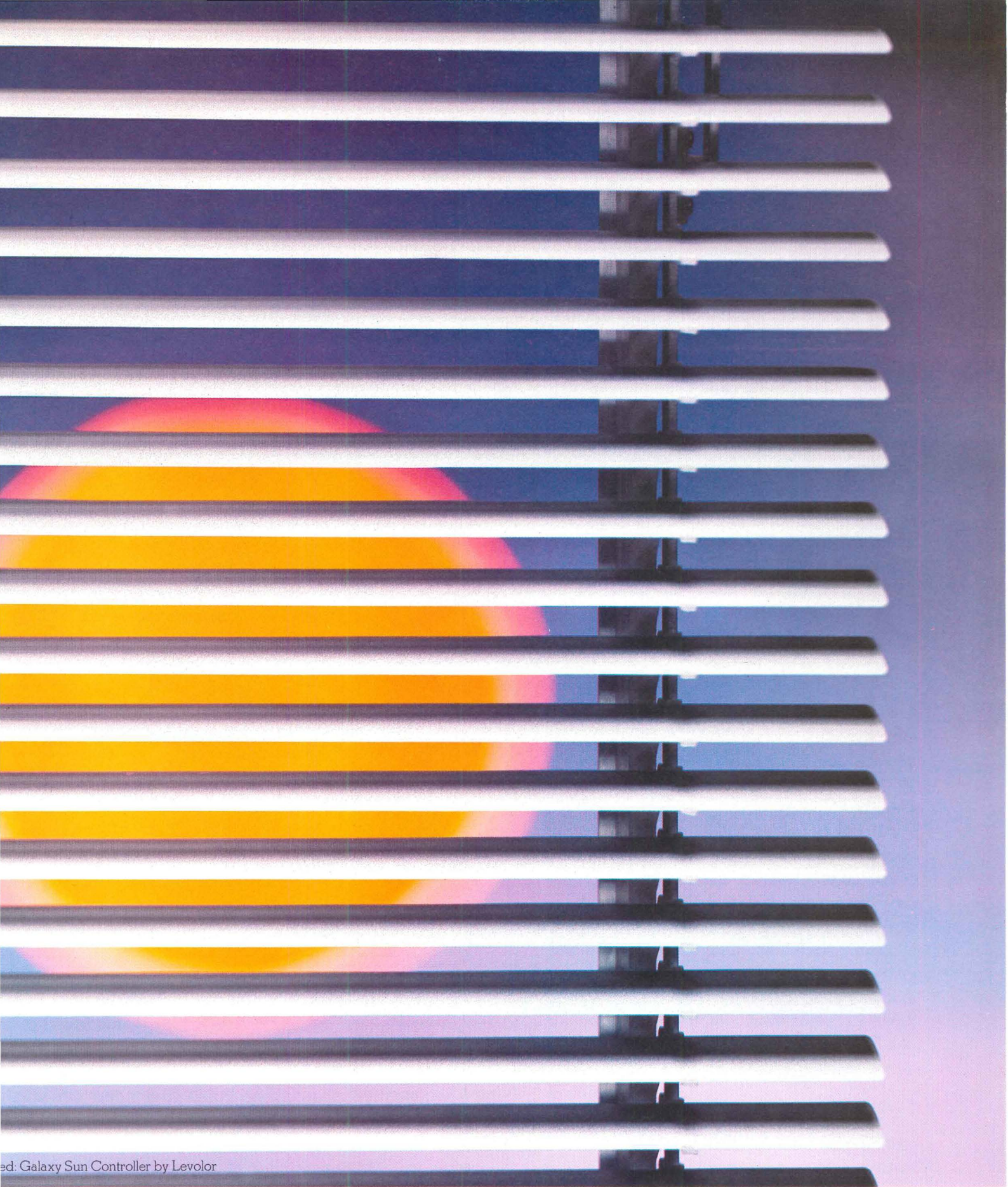
The article says that "the first architect of the Capitol was appointed in 1793. But it wasn't until 1971, when White was appointed, that an architect served in that position." The founding fathers of the Institute must be rotating in their graves! AIA's first vice president (1857-1864) and second president (1876-1886), Thomas Ustick Walter, was also the fourth architect of the Capitol, serving from 1851-1865.

Although there was no AIA in the early 19th century, and no licensing of professions, the title of architect is usually conferred on the second architect of the Capitol, Benjamin Latrobe (1803-1817) and the third, Charles Bulfinch (1818-1829). Of course, the first architect of the Capitol, Dr. William Thornton, winner of the competition in 1793 for the Capitol's design and architect also of the Octagon, was a physician by vocation, but like his good friend, Thomas Jefferson, was a talented and cultivated gentleman in many fields, obviously including architecture. The ninth and incumbent architect of the Capitol, George M. White, FAIA, likes to include Dr. Thornton among the four out of his eight predecessors who were members of the profession.

Incidentally, the last published annual report of the architect of the Capitol was for fiscal year 1947 (in the interim, the reports were collected but not published so the fiscal year 1976 report described the JOURNAL is the first published in 29 years, not 47 years. It covers a period of 15 months, not 14 as stated, because that was the year that the government changed the beginning of its fiscal years from July 1 to October 1. How's that for trivia lovers!

Elliott Carroll, FAIA  
Executive Assistant  
Architect of the Capitol  
Washington, D.C.





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#### Two-way steel frame

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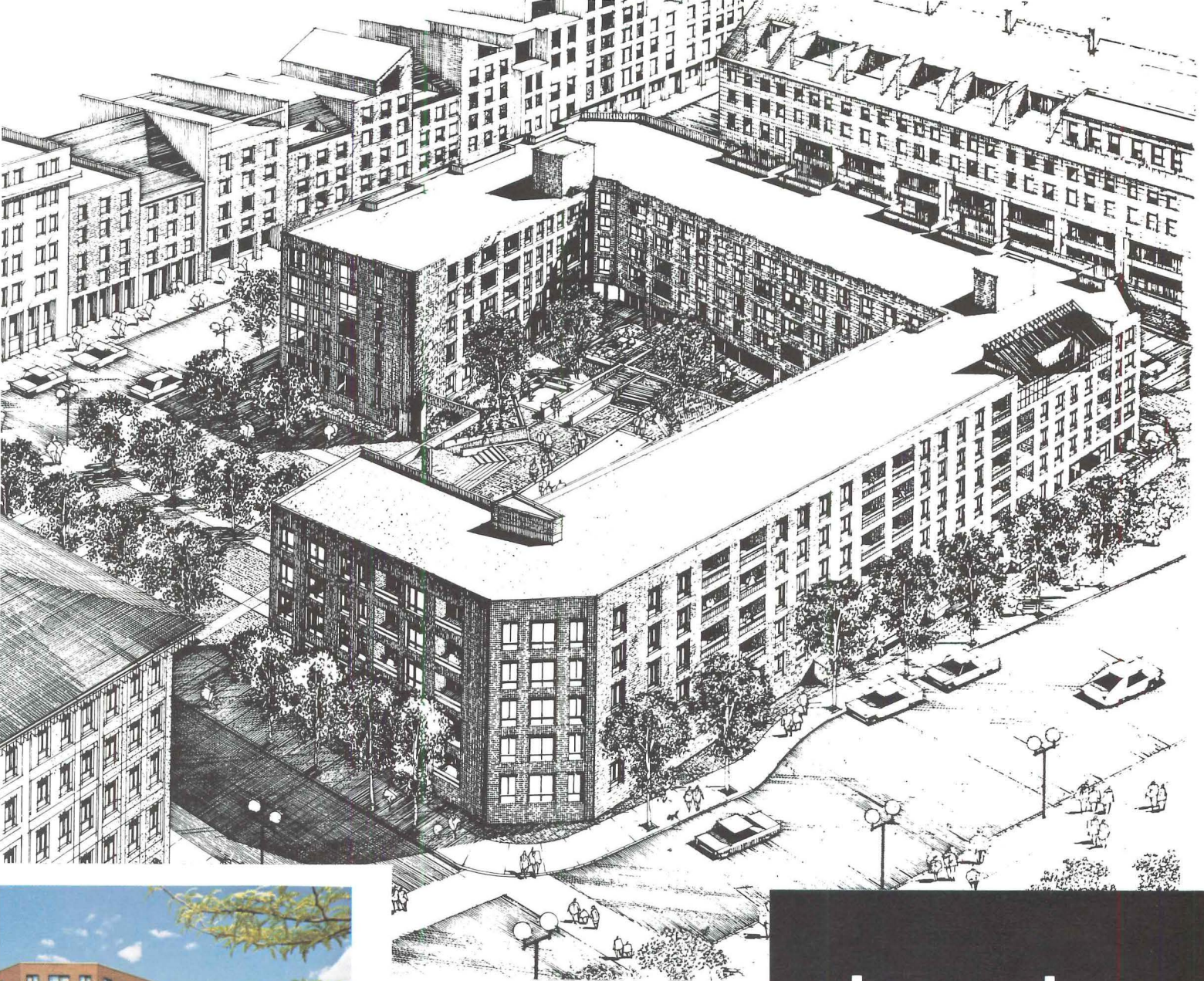
“Steel permitted construction to take place in severe winter weather,” says Mr. Mintz. “If cast-in-place concrete had been used, we would have had to delay this much needed and long-awaited project an additional three to four months.” Bethlehem furnished more than 400 tons of structural shapes for the \$4.4 million project.

ment connections at the interior columns of the transverse frames. Partial moment connections are adequate because of the multiplicity of transverse bents.

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The exterior treatment of the new housing unit is designed to be compatible with the older buildings in the historic district.

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**Credits:**

- Owner:** Ausonia Associates, Inc., Boston, Mass.
- Architect:** Mintz Associates Architects/Planners, Inc., Boston, Mass.
- Structural Engineer:** Engineers Design Group, Inc., Cambridge, Mass.
- General Contractor:** Peabody Construction Co., Inc., Braintree, Mass.

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Architect: Robert Bridges Associates, New York  
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*The Institute*

## Celebrating, and Experiencing, Chicago Architecture

Early last month, AIA's national design conference and Celebration of Architecture event—"Open House: Chicago Architecture"—began with a reminder that to experience architecture is the best way to understand it." The conference ended with a reminder that "we are surrounded by our lasting values. We are our lasting values. . . . We need to continue this process of discussion. . . ." Sandwiched in between had been two days of talking and touring, two days that produced no single statement or viewpoint of architecture over the past, present or future, but two days that proved without doubt that simply being in a city as important to the development of American architecture as Chicago can be as important as anything that can be said about a city's buildings.

This conference was a new approach of the design committee, which in October 1977 revived the idea of conferences such as a much praised meeting in Washington, D.C. That meeting examined in broad brushstrokes the current trends in design (see Jan. '78, p. 49). The Chicago conference sought instead to discuss the principles of design, using one city as a laboratory to illustrate the points. "Focusing through the lens of a city," said Robert L. Geddes, FAIA, introductory speaker, "is



Bob Thall

a very personal way of knowing what we're about." Although the city that hosts such a conference is bound to have an effect on focus and viewpoints, the approach, as the design committee hopes, can be applied anywhere: Four introductory lectures relating to Chicago (but not limited to the city) were followed by an afternoon and morning of tours and a closing session of four more lectures and a panel discussion.

The intellectual substance of the Chicago conference was in the lectures, the tours producing little discussion or reflection. Most of the 150 architects at the conference were from out of town, and for many the trip had the aura of a pilgrimage. Some of them had never been to Chicago before, and the architects played the tourist role to the hilt. On one tour, they clustered like paparazzi trying to get the best angle to photograph an ornament salvaged from Wright's Midway Gardens, now installed in the garden of Richardson's Glessner house. On another, they climbed to the top of Adler and Sullivan's auditorium and perched giddily in the gallery's last row (above). Although much of the emphasis clearly

was on being in Chicago, the architects had come to listen and talk as well as to look. Several speakers mentioned the pragmatic history of Chicago's architecture, but despite the fact that the structural and esthetic innovations born in the city were the result largely of architects who often did not stop to theorize but were swept up in the need to rebuild quickly after the great fire, it seemed important that the visiting architects met in such a "pragmatic" city to talk about ideas.

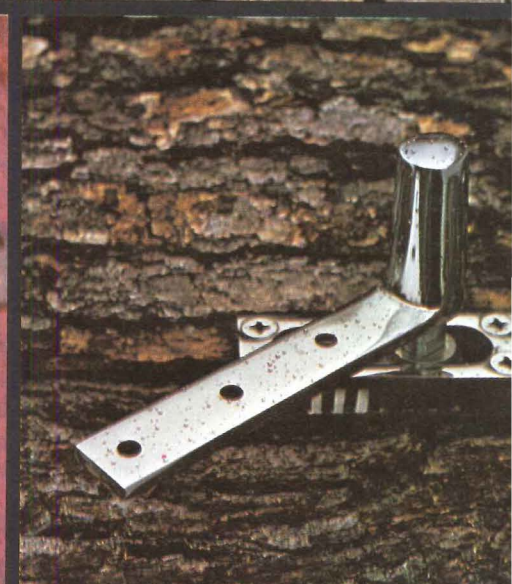
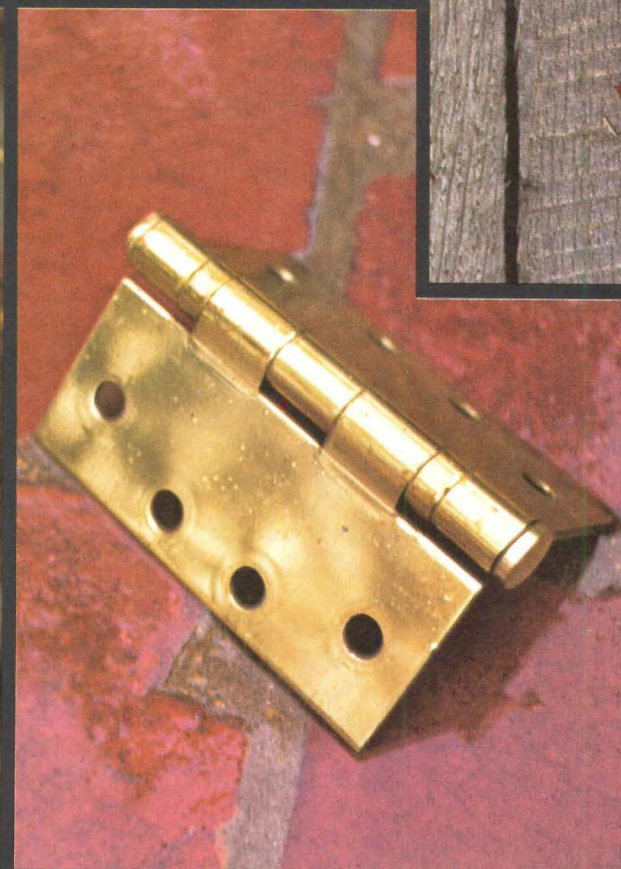
The stated purpose of the conference was to discuss design principles, not simply architectural history. So, beginning with an outline by Geddes of the "essential tension" between historicism and modernism and the underlying attitudes of each toward design (historicism as an attempt to create once again a style of the past, eclecticism as selecting freely from the past to create a new synthesis, modernism as an attempt to create a language of architecture addressed to current issues), the speakers presented what turned out to be personal reflections on the periods of history assigned them or on principles illustrated by those periods.

*The Institute continued on page 15*

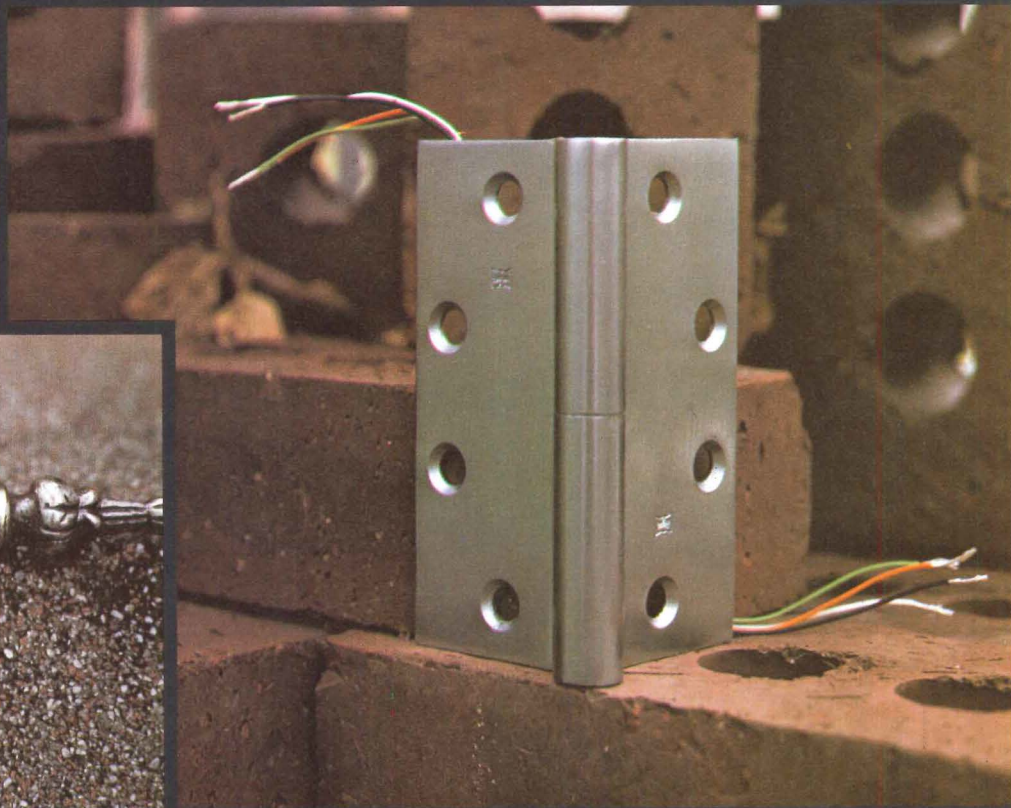
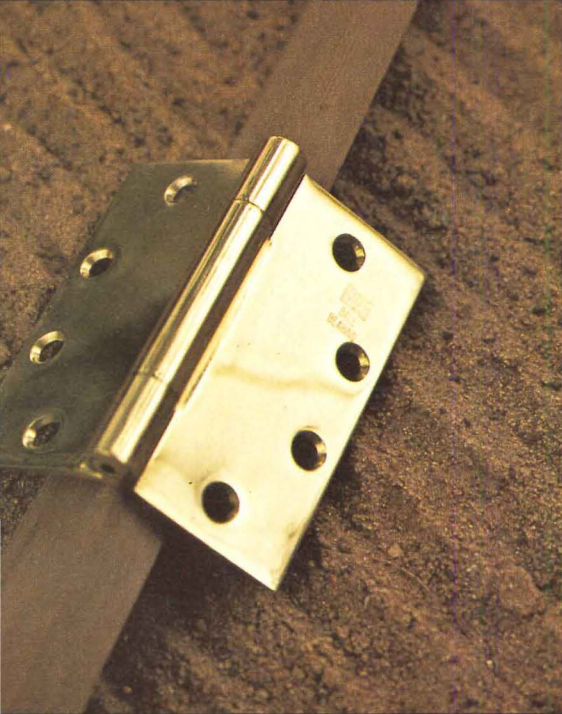
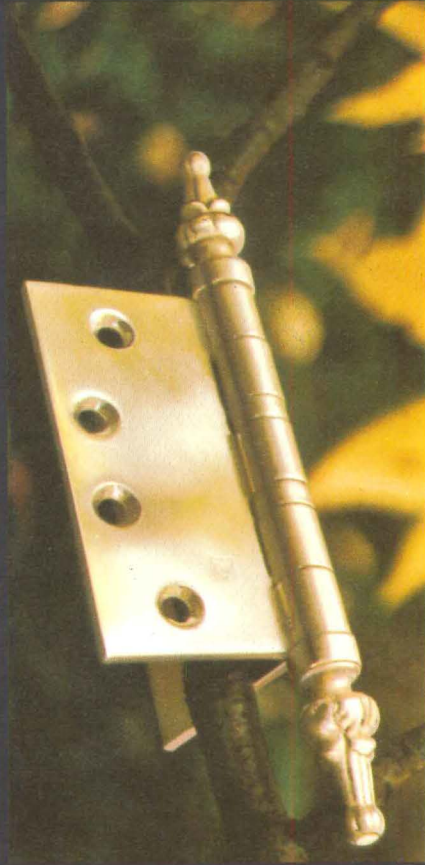
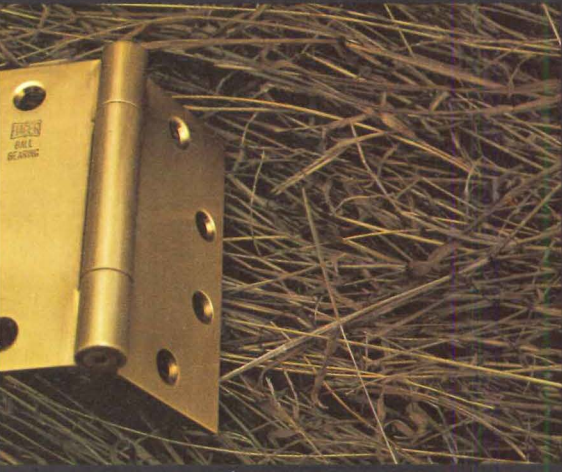
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## The Institute from page 11

If anything can be said about the conference's attitudes as a whole, it is that architecture is now in a period of re-evaluating history and applying revised views to new work. Geddes, for example, illustrated the ups and downs of movements and attitudes with a graph that charted the alternating periods of modernism/eclecticism/modernism of Chicago's architectural history. Did architecture, he asked, reach an early high point of modernism, drop to the decadence of eclecticism and rise to new heights with modernism again? Or is it the other way around? Were the modern periods the lows and the eclectic periods, including the recent eclectic trends, the highs?

If the interests of the architects at the conference are any indicator, the answer to these questions may lie somewhere between the two extremes—two scheduled tours of the eclectic period and the International Style were canceled for lack of interest, but on other tours there was a marked disinterest in recent modernism and a delight with the older Chicago school and Frank Lloyd Wright's work.

The overall effect was not a tightly woven series of talks, however; rather, there was an eclecticism of ideas not dissimilar to architectural eclecticism. The architects at the conference could pick and choose from ideas that were meaningful to them rather than being spoon-fed a preprogrammed conclusion.

Carl W. Condit, architectural historian from Northwestern University, confessed to a "very uneasy feeling about the state of large-scale commercial architecture in Chicago today." In his presentation on the Chicago school, he suggested that the city that had created highrise modern architecture "may be in the business of burying it." He re-examined four Chicago school buildings "to learn how works of utility were transformed into expressive form." He pointed to the Marquette Building, for example, with its vertical emphasis of screens, the "restrained, subdued, plastic quality" of the way the elevation is treated in screens and the tripartite division of the entire building into a base, an intermediary and a top. He talked of the Renaissance Building, with a "system of ornament from the remote past . . . that does not intrude on fundamentals of the building but transforms them into a vivid pattern." And he expressed the fear that when technology is presented "uncelebrated," as it is in many modern buildings, it is not architecture at all.

Jean Paul Carlhian, FAIA, of Boston discussed the eclectic view, noting that Chicago is a "city of new programs," the city that tackled the problem of the high-rise office building and the railroad station and a city of competitions. He argued for the Beaux-Arts principles that a



Bob Thall

*A look at the Chicago school: the Monadnock Building (1891) by Burnham & Root.*

building's facade must reflect the section, which in turn reflects the plan which reflects the function. He came down hard on recycling buildings so radically that the facade does not reflect the interior at all. "This is the real danger today, which is butchery," he said. "We will wind up living in Disneyland."

Chicago architect Bertrand Goldberg, FAIA, provided the conference's only serious discussion of the International Style—not in praise nor condemnation, but questioning whether or not it was really a part of the modern movement. "The question," he said, "is whether Henry-Russell Hitchcock and Philip Johnson (in their 1932 book *The International Style*) created a movement or whether they interrupted a movement that had begun 100 years before." Goldberg's position was that the International Style was an interruption. "We all agree that there was a very strong modern architecture of depth and purpose that preceded the International Style," he said, but in the creation of a rule book, Hitchcock and Johnson codified certain expressions into an art form, causing a stoppage in the creative development of architecture.

Diana I. Agrest of the Institute of Architecture and Urban Studies in New York City presented perhaps the most abstract and theoretical discussion of the meeting. To her, the important need is for reflection, for theory and criticism and for bringing theory and practice closer together. How that can be done is difficult. One problem of architecture is in its fixation on the individual building. Conversely, the city, with its context, history and institutions, serves to tie these individual

expressions together. Here, the forces of intellectual development and of pragmatism come together to bridge their differences. As she explained later in a discussion period, "There is a lot of work in theory and criticism that brings back the concern for the city . . . because cities carry the institutions and symbols and all of culture. So I could see the architect being an interpreter" of the cities.

The next day, the architects returned for a different kind of meeting: lectures aimed more specifically at current and future affairs of architecture and a panel discussion aimed at pulling the entire two-day session together.

Architect George Baird of Toronto traced an undermining of modernism's principles through the 1950s and '60s as he showed a slide of the Piazza d'Italia in New Orleans. This "isn't something from the generation of Charles Moore, but it is something that has gone on within the architectural establishment," he said. Buildings like Kevin Roche's Knights of Columbus tower in New Haven, he said, "place us far from modernism. . . . It is something that has nothing to do with current taste, but sets us up for it." But the greatest change, he said, is the re-emergence of "type," not just as it defines a building's function, but as it orders a structure according to front and back, served and servant spaces and the like. "You have to have a type to refine it," he said.

Indeed, the idea of refining work and moving forward in the development of architecture through that process was central to much of the discussion of the final day. Jacques Brownson, director of Colorado's state building division, and formerly a practicing architect in Chicago, defined two major forces: science (which he defined not as technology, but the "spirit of inquiry prodding those minds who believe that knowledge is infinite") and economy (defined not as cheapness, but an efficient and concise use of resources). He urged architects to keep these ideals while remembering that "building is a natural activity not to be forced—not to be pretentious. Only what is needed. Materials and tools and construction methods change, but the principles remain."

Gerald Horn, AIA, of the Chicago firm of Holabird & Root discussed his firm's own work as a way to illustrate continuity and growth in architectural design. And Harry Weese, FAIA, of Chicago, in a rambling, off-the-cuff series of remarks, expressed pleasure that "the great power struggle of modernism is over. . . . Now we have the opportunity to use anything we want as long as it makes sense." Like Brownson, he stated that "energy and economy of means" will be constant influences on the development of architecture. *The Institute continued on page 18*

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## The Institute from page 15

The sum of the conference—the first day's more theoretical lectures within the framework of historical periods and the second day's combination of overviews and discussions of specific current work—was, as planned, more a look at architecture in general than at the architecture of one city or movement.

But since the conference was taking place in Chicago and a group of architects currently practicing in the city has been getting a lot of notice recently, an inevitable question was: "Where is Stanley Tigerman?" Tigerman and his colleagues of the so-called Chicago 7 were conspicuously absent from the lectures and discussions, and their buildings from the tours. But Tigerman et al., were at Yale for a semester-end jury for a studio he had been teaching, and their buildings are scattered largely in suburban Chicago, places difficult for the tours to reach.

There was some feeling among the conference's organizers also that the presence of a strongly identified group of architects might have swung the conference more toward the discussion of individual buildings and trends as they are developing at the moment and away from principles. Besides, it is interesting to speculate, as things turned out, whether there would have been much interest in a tour of this new work. The most popular trip (which filled two buses instead of the originally scheduled one) was to Oak Park to see Frank Lloyd Wright's work; most of the other interest centered on the Chicago school buildings in the Loop. And Tigerman did show up anyway at the very end of the conference, where he stood on the fringe of the gathering and talked with a small group of friends.

Tigerman's appearance was at the meeting's main "celebration" event at the Rookery.

### Music and awards at the Rookery building (1886) by Burnham & Root.



Three violinists serenaded the architects and office workers who came down to the ground floor entrance court to see what the fuss was all about. The musicians broke into "Chicago" when Mayor Jane Byrne arrived. AIA President Ehrman B. Mitchell Jr., FAIA, presented celebration proclamations to the mayor in recognition of her city's contributions to the development of architecture and to Louis Sudler Jr. for his efforts in preserving the Rookery.

Mayor Byrne drew an enthusiastic round of applause from the crowd when a group from the Chicago Chapter/AIA, dressed as their architectural ancestors Holabird, Burnham, Root, Sullivan and Wright, spoofed the development of Chicago architecture, when "Frank Lloyd Wright" declared, "They tell me there are women architects now. And even women mayors." But there was a message in the skits for the out-of-town architects. Many of the architects responsible for developing the Chicago school were from other parts of the country, too, and each had a different idea of the forces behind the development of his work. Sullivan: "Poetry." Wright: "The Prairie." Burnham: "One hell of a fire and a lot of work." Said John A. Holabird Jr., FAIA, attired as his architect grandfather, "I think what we're trying to tell AIA is that the Chicago school was all America."

That spoke to the essential fact of the conference: that architects from all over were drawn by a single city to look at buildings and to talk about design—and that they would be taking their experiences back home with them. And that at its most meaningful level the 1979 Celebration of Architecture will be more than just proclamations and skits but, instead, experiencing architecture and thinking about architecture in order to make better architecture in the future. *Ernest Wood, editor of "North Carolina Architect"*

## A Report on the Future of AIA And the Profession



The eagle (above) poses in noble hauteur before the Ionic capital known so well to AIA members. He turns his head to the other side, flaps his wings and then takes flight. Takes flight into the future, one presumes, for the sketches are from the recently issued "1979 Long-Range Planning Report" of AIA's long-range planning committee, which early on quotes F. L. Polak: "Thinking about the future is not only the mightiest lever of progress but also the condition of survival." The report "thinks" about the future of the practice of architecture, education of the profession and the public, the government and the economy and AIA's effectiveness.

In 1977, AIA's board of directors resolved that a continuing committee be appointed "to develop a three-year master plan describing the Institute's long-range policies, programs and services." The 1979 committee, chaired by Charles E. Schwing, FAIA, the Institute's president elect, says in the report's preamble that the planning process "had no guidelines to follow when it began in 1978" and that the process "had to build from the ground up." The 1979 committee's first action was to study the 1978 report closely, "with an eye toward learning as well as revision, refinement and updating." The committee says that it has set no priorities on its recommendations since that is the prerogative of the board.

In the first section of the report on the practice of architecture, the committee reaffirms its belief that the "traditional breadth of the field of architecture as the art and science that bridges both humanistic and scientific values to develop facilities that will enhance the life style of all society is expected to become more visible in future practice."

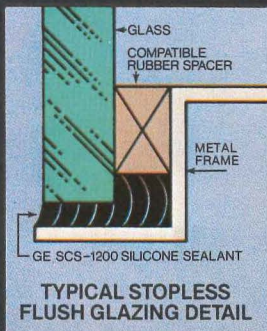
Among its several recommendations this section are that:

- AIA strive to increase public awareness of the architect's role in society through awards programs, public presentations, conferences and publications.
- A strong emphasis within the profession be placed upon design.
- An evaluation be made of current programs and publications for the development of an overall plan for future practical aids. It is pointed out that joint venture practices, for example, "will significantly expand in the five-year future as a means

*continued on page*

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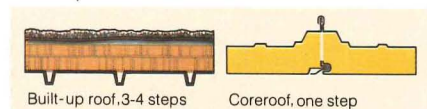
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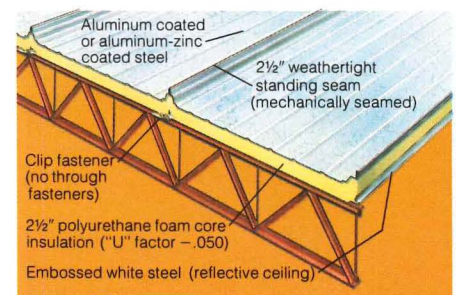
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**Institute from page 18**

dealing with 'expanding' and 'multi-disciplinary' services" and that tools to the practitioner and to keep him informed regarding sound business principles and new techniques have appeared hitherto in a "piecemeal fashion," without the benefit of an overall plan. AIA monitor and evaluate the various uses of technology related to architectural practice and continue "to study methods of improving the architect's performance in providing project cost and time control, two of the major deficiencies of traditional project delivery systems." AIA study the economic condition of the profession, including salaries of employees, compensation of principals and partners, business techniques and those firms which use AIA's management system, with information being current and made available to the membership, providing a basis for action where appropriate. AIA build "within its ranks a consciousness and acceptance of accountability to the public for our architecture, design quality and performance in all areas of practice in our profession." Further, AIA should take the initiative in making its ethical code known to the users of architectural services. AIA develop "effective measures to educate the client and the public regarding the realistic role of the architect and the limitations of the profession" in view of increased liability. If architecture becomes "legally indistinguishable from the product of any trade or business," the architect "will be held increasingly liable for the results rather than the performance within the 'traditional standard of care'" and will "increasingly bear the brunt of consumer protection laws in such areas as warranties, disclosures, plain English contracts, truth-in-lending, employment practices and code compliance." AIA further recommended that AIA "join forces" with other professional groups "to seek common solutions and increased participation in the legislation process." In the section of the report on the education of the professional and the public, the committee points out that AIA's commitment to education "goes beyond the needs of the profession." The committee recommends that priority continue to be given to environmental education and architectural appreciation programs for school and school children; that AIA's component affairs department assume the responsibility for becoming a clearinghouse about successful programs by AIA chapters in the architectural education of the adult nonprofessional; that AIA "enhance its ability to actively support the increase in the number of women and minorities in the architectural profession through expanded or more effective public education, college student information

and scholarship programs.

The committee says that the training of an architect is not the sole responsibility and obligation of architectural schools. In recognition of the importance of the architectural office and its role in the training of competent architects, AIA joined with the National Council of Architectural Registration Boards in the establishment of the intern-architect development program. The committee reports that "questions have been raised" about the program's effectiveness and recommends that prior to the adoption of a policy that would commit further resources and acceptance of responsibility that the program's effectiveness and cost be determined and that the relationship of the intern and school be studied, "as well as the long-term implications of this relationship."

The committee reports that it has "no preconceptions" regarding a first-rate continuing education program but that it is concerned that such a program "be effective and provide the greatest benefit to the membership and ultimately to the public served by the profession." Therefore, the committee recommends that AIA "continue to support actively a continuing education program that is responsive to the needs of the membership" and that such a program include opportunities to respond to a changing marketplace. It recommends that the board appoint a task force to evaluate the current continuing education program "in terms of its effectiveness vis-a-vis cost, development and delivery."

Turning to concerns outside the profession that greatly affect architecture, the committee discusses government and the economy. Pointing to the fact that architecture is a profession "where the practitioner and employees are largely compensated on an incentive basis," the committee asks how the architect can protect himself "against voluntary and possibly mandatory wage determinations that do not account for productivity and incentive compensation." It recommends that AIA collect compensation data "that would permit quantification of the incentive participation in business by employers and employees."

In the important matter of energy conservation, the committee recommends that AIA "expand significantly the flow of information to the public and the profession concerning the opportunities for significant energy savings not only in new construction but existing buildings through conservation and related passive solar techniques."

Looking to the future, the committee predicts demographic changes in the population and economic trends, saying that inflation "will continue to be a problem because achieving both a significant reduction in the budget deficit and an

increase in the money supply will be politically difficult" and that in the next year or two there will be a downturn in the volume of architecture provided. It suggests that economic downturns "are a fact of life." With regard to economic conditions, the committee says AIA should have "on-going strategy" to provide the membership with "viable programs . . . irrespective of economic conditions." It recommends that AIA prepare for the downturns "by studying in advance what types of specialized Institute assistance can be provided the practicing architect."

Architects need to "speak with one voice" to a variety of audiences. How can AIA respond to issues in ways that lead to coherent, concerted action of benefit to both profession and the public, the committee asks. In its final section, the report calls for development of a workable means for promptly evaluating the effectiveness of AIA's programs and services for membership recruitment and retention.

## Five Communities to Receive AIA Urban Design Citations

Five communities have been selected by AIA to receive special citations for community development at the Institute's convention this month. Nominated by the urban planning and design committee, the communities "illustrate the proper relationship between the architect and the public and private sectors," the committee said, offering "models for other communities to follow."

Citations go to:

- Boston, "for involving citizens and professionals . . . in a continuous planning process to develop the environmental, social and land use impacts of transportation corridors and their nodes."
- Birmingham, Ala., "for its restatement of the basic privileges of a free society by making itself accountable to its citizens on a neighborhood by neighborhood basis. . . ."
- Charleston, S.C., "for its daring and constraint as it evolves its unique process of economic development in order to conserve and re-energize its distinctive historic and regional urban setting."
- Baltimore, "for its comprehensive city-wide policies for reconstruction within which it recognizes its historic neighborhoods as the thresholds between its heritage and its future at human and community scales."
- Cincinnati, "for its pioneer department of urban development in which the design professions act so effectively as the catalysts and entrepreneurs of public and private investment in urban and neighborhood revitalization."

*News continued on page 25*

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*Circle 14 on information card*

wards

# Foster Associates' Sainsbury Centre Receives Reynolds Prize

The Sainsbury Centre for the Visual Arts at the University of East Anglia in Norwich, England, designed by the London firm of Foster Associates, is the winner of the 1979 R. S. Reynolds memorial award, given annually for the design of a "permanent, significant work of architecture, in the creation of which aluminum has been an important contribution." The structure, built to house a large collection of art given the university by Sir Robert and Lady Sainsbury, contains under one roof two extensive exhibition galleries, a school of fine arts, a faculty club, a large reception conservatory, a public restaurant and spaces for storage and for workshop activities. The building was completed in December 1977.

The award to Foster Associates marks the first time in the 23 years of the Reynolds award that recognition has been given a second time to the same firm. Foster Associates won the award in 1976 for the design of a country office building for Willis Faber & Dumas at Ipswich, Suffolk, England. This year's jury, chaired by Homer E. Botsai, FAIA, immediate past president of the Institute, on which previous winners Philip Johnson, FAIA, and Billi Walter also served, called the Sainsbury Centre a "unique statement in today's architecture." The jury said the structure "represents the highest achievement of architecture."

The jury praised Foster Associates for the manner in which advanced technology has interwoven into a building of "very human scale." The building, the jury said, creates a sense of personal intimacy.

The roof and external walls of the essentially factory-produced structure provide a system of rapidly interchangeable sandwich panels of aluminum, either sol-

id, glazed or grilled. "The entire inner wall and ceiling lining is a tuneable system of perforated aluminum louvers," the architect explains. "Together, they provide a means to easily adjust natural lighting without disturbing exhibits or gallery users." The building's panels are the first architectural use of an aluminum alloy with superplastic forming characteristics, the architect says. The vacuum-formed outer panels are bonded to fire-resistant foam core insulation.

"Standing on the mezzanine or the upper level entry gives one the feeling of boundless space extending beyond the glass facades at each end," said the jury. "Yet, this is achieved without overpowering the exhibits, the working spaces or the public areas."

## Washington Buildings of Two Generations Get Stone Awards

The Building Stone Institute's 1979 Tucker awards "for architectural excellence in concept, design, construction and use of natural stone" have been won by two buildings in Washington, D.C. In the contemporary stone structure category, highest honors went to the East Building, National Gallery of Art, designed by I. M. Pei & Partners of New York City. Judged "outstanding" in the classification of stone buildings completed at least 25 years ago and still in use today was the Folger Shakespeare Library, designed by Paul P. Cret, whose successor firm is Harbeson Hough Livingston & Larson of Philadelphia.

Two other structures were singled out for "design excellence" citations: the Sarah Mellon Scaife Gallery in Pittsburgh and the Mecklenberg County Courthouse in Charlotte, N.C. The granite-faced gallery is the design of Edward Larrabee Barnes, FAIA, of New York City. Wolf Associates of Charlotte is architect of the courthouse built of Texas shell limestone.

The award winners were selected by a three-man jury: John Morris Dixon, FAIA, editor of *Progressive Architecture*; M. Paul Friedberg, landscape architect and planner, New York City, and Hamilton Smith, FAIA, Garden City, N.Y. The jury said that the East Building by Pei "recalls the classical approach to stone's use, emphasizing sculpture, curves and ornamentation." The Folger Shakespeare Library, dedicated on April 23, 1932, was

praised for the architect's "departure from the classical toward the modern." The stonework, the jury said, "is as magnificent today as it was then, almost 50 years ago."

The Scaife Gallery was commended for the "richness and sensuously beautiful" characteristics of natural stone, while the Mecklenberg County Courthouse was praised for its "elegance and high-quality craftsmanship, inside and out."

## Barnes Given Louis Sullivan Award by Brick Industry

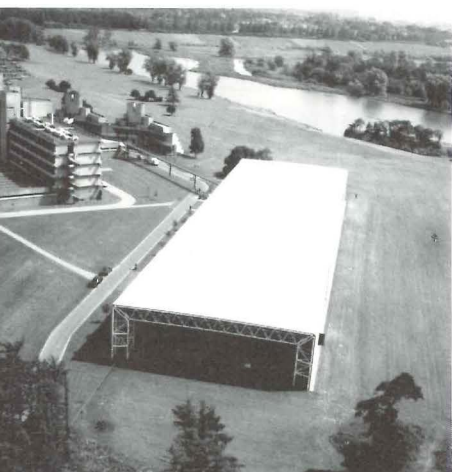
Edward Larrabee Barnes, FAIA, whose architectural practice is headquartered in New York City, has been selected as the 1979 winner of the Louis Sullivan award for architecture sponsored by the International Union of Bricklayers & Allied Craftsmen. The award is given every two years to a practicing U.S. or Canadian architect "whose work is deemed to best exemplify the ideals and achievements of the late Louis Sullivan, the father of modern American architecture."

This year's jury was chaired by Lewis Davis, FAIA. Other members were John H. Burgee, FAIA; Donald Singer, AIA; Arthur Erickson, Hon. FAIA; Alton Parker, associate AIA member, and Jonathan Foster, student at Harvard University. The awards program is administered by AIA.

The jury said that Barnes' buildings over the years "have been uniformly sensitive to their surroundings, restrained in their use of materials, thoughtful and clear." The award, based on the submission of at least three projects, "recognizes design excellence over a long period of time" and is not based on the design of a single building or complex. Previous winners have been Ulrich Franzen, FAIA; Hartman-Cox; Philip Johnson, FAIA, and Davis, Brody & Associates. Barnes will receive the award and the accompanying \$5,000 prize at the International Union's general board meeting in San Diego in September.

**The first Pritzker architecture prize** has been awarded to Philip Johnson, FAIA, by the Hyatt Foundation (Jay A. Pritzker, president). The award consists of a cast of Henry Moore's "Architectural Award" sculpture and \$100,000.

A Pritzker prize will be awarded annually to an architect or firm whose work demonstrates "the qualities of talent, vision and commitment. . . ." Jurors were Kenneth Clark, J. Carter Brown, Cesar Pelli, AIA, J. Irwin Miller, Arata Isozki. Johnson commented, "I know exactly why I got it. It's very simple. I'm very old."



*Awards continued on page 29*

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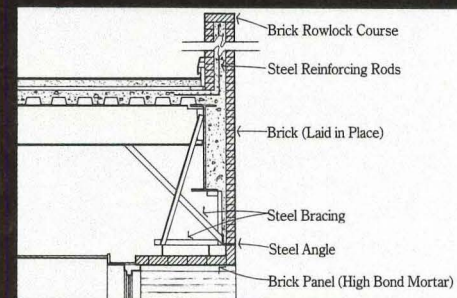
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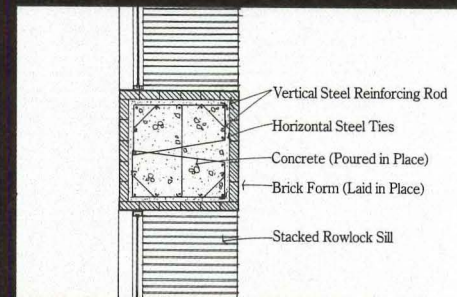
Whether you consider cost, flexibility, or beauty, no other system can match the total performance of Acme Brick and Engineered Brick Design. It's the best all-around choice for your next building commission.

For more details, call collect, 817/332-4101, ext. 36. Or write Acme Brick Technical Services, P. O. Box 425, Fort Worth, Texas 76107.

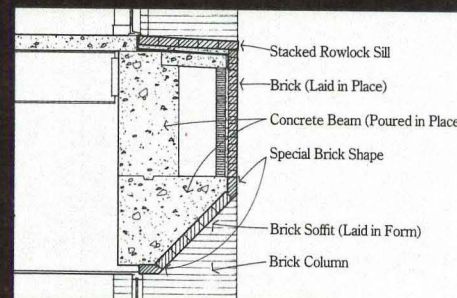
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Circle 16 on information card

Architect-Engineer: Geren Associates, Architects Engineers Planners, Fort Worth, Texas;  
General Contractor: Thomas S. Byrne Inc., Fort Worth, Texas;  
Masonry Contractor: Dee Brown Masonry, Dallas, Texas.

wards from page 25

## Engineers Honor Firm for Ingenious Docking Scheme

The American Consulting Engineers Council has awarded its first prize for engineering excellence in 1979 to URS/Adigan-Praeger of New York City for the firm's design of an intricate docking

system for a massive \$300 million paper mill/power plant. The mill and plant were constructed in Japan and towed to a remote jungle in Brazil.

Drydocking was considered prohibitively expensive, so the engineers dredged a basin formed by dikes around a timber pile support system. They floated the barges into the flooded basin, then emptied the basin and left the mill and plant resting on the piles.

practice

# Design Professions Protest Plan for Federal Profit Guidelines

An economic research organization's suggestion that the federal government establish profit guidelines for professional service contracts based on a percentage cost has brought protest from architects and engineers.

Researchers for Logistics Management Institute (LMI) was hired by the Office of Federal Procurement Policy (OFPP) to develop a uniform federal policy on profits on negotiated contracts. A profit formula based on cost was suggested, with the profit range from 5.7 to 9.7 percent, with 7.2 percent the median, for professional services. A range of 14.1 to 20.7 percent with a 16.6 percent median was recommended for construction and manufacturing companies, based on both cost and capital investment.

COFPAES (Committee on Federal Procurement of Architectural/Engineering Services), in response to the LMI report, said that "there is no evidence of widespread 'excessive' profits to A/E firms on government work. On the contrary, several studies indicate a long-term trend of declining profit of A/E firms. . . . We believe that the proposed policy would have a devastating impact on the private practice of architecture and engineering in this nation, with resulting adverse impacts on the public welfare."

Negotiated procurement accounted for approximately \$55 billion of the \$75 billion in total procurement of goods and services by all federal agencies in 1977. Currently, federal agencies base profit on estimated cost of contract performance and the contracting parties agree upon the costs to be paid for a task, profit is negotiated as a percentage of these costs.

The idea of a uniform profit policy was first suggested in 1972 by the Commission on Government Procurement because it was felt that contractors doing similar work at different agencies operated under varying profit policies. The purpose of a uniform policy is to enable the govern-

ment to acquire goods and services at the lowest cost and to offer contractors profits that are comparable to those earned in the private sector. The LMI report defines profit as "to reward the use of capital resources, the taking of risk and the entrepreneurial function of organizing and managing resources."

COFPAES argues that the proposed policy would not encourage the design of cost-effective government facilities; does not consider the impact of related procurement policies on the actual profits of A/E firms; will not provide a competitive return on capital employed by consulting engineers and architects; does not consider the assumption of risk by A/E firms, and that the data used by LMI include a combination of government and commercial work and therefore do not represent commercial equivalent rates of return.

Two alternatives were suggested by COFPAES. One would exempt A/E firms and other professional service firms from strict application of quantitative guidelines. The second would be to develop a comprehensive profit policy for A/E services that meets all the criteria set forth in the LMI study.

An analysis of the LMI study by Deloitte Haskins & Sells (for COFPAES) points out that A/E firms in the 25-75 percentile range achieve from 3.8 to 14 percent return on cost. "It is difficult," said the analysis, "to believe that a firm earning a 14 percent return on costs would actively seek the opportunity to achieve a 7.2 percent return from the government." In addition, the analysis suggests that the LMI study was inaccurate as to the true nature of profits and that under LMI's guidelines profits would not be 7.3 but 2.7 percent.

It does not seem likely that OFPP will make any definite decision on profit margins this year. Lester A. Fettig resigned as administrator of OFPP in April, and no replacement has been chosen at this

According to ACEC, the docking design permitted the project to be completed two years early and at a cost of \$6 million less than would have occurred under the next most economical approach.

ACEC also gave 14 other honor awards to consulting engineering firms for an array of projects, ranging from a plan to convert sewage sludge and refuse into steam to the design of a restored 1841 aqueduct.

writing. Also, under President Ford's "sunset laws" the authority of the five-year-old OFPP expires Sept. 30. A bill to extend its authority for three years has been introduced by Rep. Jack Brooks, (D-Tex.), but it would sharply limit the agency's authority. The bill would also require OFPP to submit to Congress within one year a proposal for uniform set of procurement policies. In addition, Sen. Lawton Chiles (D-Fla.), introduced a bill that would simply extend OFPP for five years. *Nora Richter*

## Competition Proposed to Develop Alternative Plan for Les Halles

The French Syndicat de l'Architecture is seeking international support in a competition for the urban renewal of the Halles quarter in Paris. The move is in reaction to a proposal for the site by Mayor Jacques Chirac, a plan the syndicate calls "scandalous." According to the syndicate, the technical decisions are "vague and incoherent," the economic decisions are based on a "shallow theory of quick profit," architecture has been "banished" and the Parisian spirit of democracy has been "eliminated."

The aim of the competition is fourfold: to re-establish the role of architecture in the building of a public space; to provide a "realistic appraisal" of an urban center; to give consideration to the symbolic importance of the site (represented by the white space in the map below), and to

*Practice continued on page 32*



## Back to nature with Franciscan New Naturals.

Inspired by Nature, four new colors have been added to the Franciscan Terra Grande palette. The "new naturals" have been designed to work equally well with each other as well as individually. Popcorn, a clean, clear white and Vanilla, a warm creamy white are subtly neutral. Mesa is a rich, red clay color and Chocolate is a deep warm brown.

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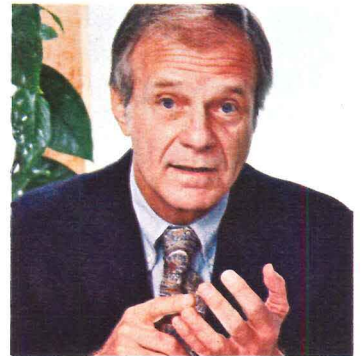
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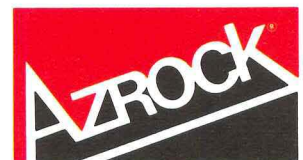


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### Practice from page 29

use the winning project as an alternative to the one proposed "in the hopes of provoking a public debate concerning architecture."

The conceptual competition will require of the entrants a general plan; an axonometric or/and a perspective view; longitudinal and transverse sections, and text to explain the architectural and urban choices. The competition is open to all architects and architectural students worldwide.

The registration fee is \$60 for practicing architects and \$30 for students. First prize will be approximately \$11,500, with honorable mentions receiving about \$2,300 each.

The closing date for registration is July 31; the final date to send projects is Oct. 17. The jury will meet on Nov. 12-15, with announcement of results made on Nov. 15.

According to the proposal, the follow-

ing have agreed to serve on the jury: Roland Barthes, Francois Barré, Henri Laborit, Henri Lefebvre, Philip Johnson, FAIA, James Stirling, Giancarlo de Carlo, Diana Agrest, Bruno Zevi, Marc Emery, Haig Beck and Tomas Maldonado. Other jury members will be selected among local residents and members of the syndicate.

The proposal states that many architects from several countries have expressed their support or desire to participate in the competition. Architects from this country listed are Peter Eisenman, AIA; Philip Johnson, FAIA; Cesar Pelli, AIA; Stanley Tigerman, FAIA, and Robert Venturi, FAIA.

For further information, write or call Association pour l'Organisation de la Consultation Internationale pour l'Aménagement du Quartier des Halles 50, rue de l'Arbre Sec-75001 Paris, France; 260-26-94.

great room shape the whole edifice. What shape? Well, the answer lay in the material. Concrete was cheap. Why not make the forms so concrete could be cast as separate blocks and masses, these grouped about an interior space? Inside, the ceiling between the four great posts became skylight, daylight sifting through between the interesting concrete beams, filtering through amber glass ceiling lights.

Contributions to the Unity Temple Restoration Foundation are tax-deductible, and membership in the foundation may be gained by making a contribution of \$25 or more. For more information, write the foundation at P.O. Box 785, Oak Park, Ill. 60303.

## National Trust Announces Historic Preservation Awards

The National Trust for Historic Preservation honored the 1979 winners of award for achievements in the field of historic preservation in early May during ceremonies marking national historic preservation week.

The following received the David E. Finley award for "outstanding achievement" in the preservation, restoration and interpretation of sites, building, district and objects of state or regional historical or cultural significance:

- Christopher "Kit" S. Bond of Kansas City, Mo., a former Missouri governor (1973-77) who led efforts to preserve the 1892 Wainwright Building, the first steel framed skyscraper designed by Dankmar Adler and Louis Sullivan.
- The Camden District Heritage Foundation and Historic Camden, S.C., for developing a total preservation program involving more than 60 privately owned houses and a Revolutionary War park and museum.
- Lloyd Thomas Smith, president of S/Tool Co., Newton, Kan., for the restoration of the 1879 Monarch Steam Mills building, house his company's corporate offices, as well as dental offices, legal and other firms. This project sparked the rejuvenation of adjoining commercial areas.
- The Viscayans, Miami, for the "exemplary restoration" as a house museum of the James Deering estate (Vizcaya) and its surrounding extensive formal garden.

For outstanding achievement in the preservation, restoration and interpretation of sites, buildings, districts and objects of historical or cultural significance by an individual or organization not necessarily professionally engaged in the field of preservation, the Gordon Gray award was given to:

- The Colonial Dames of America, Chapter Three, and the National Park Service, both of Washington, D.C., for restoration of the Abner Cloud house, a

*Preservation continued on page*

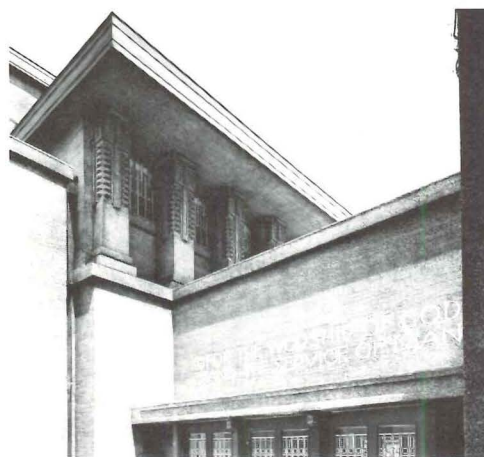
### Preservation

# Fund Drive Launched to Complete Restoration of Unity Temple

Frank Lloyd Wright's first public building was Unity Temple in Oak Park, Ill. (right). It is still used as originally designed, but is badly in need of further restorative work. The Unity Temple Restoration Foundation has launched a drive to raise \$50,000 to continue the temple's restoration, monies which will be matched by a like sum from the Edgar J. Kaufmann Charitable Foundation. Currently, however, the foundation reports that the restoration "has not caught the public's heartstrings or purse strings," and at this writing, only \$5,000 has been raised. The restoration foundation, founded for the purpose of acquiring funds for the temple's repair, is not connected with the Unitarian congregation which still meets in the temple and cannot afford expensive restoration costs.

Late this winter, Building Conservation Technology Inc. in Washington, D.C., completed an analysis to determine the temple's original colors. This is only the second Wright building to have such an analysis made, the first being for Wright's home and studio also in Oak Park. Wright used colors "in a very sophisticated and complex way in Unity Temple," says Don Kalec, consultant to the restoration foundation. "Today's colors are very different from the original ones."

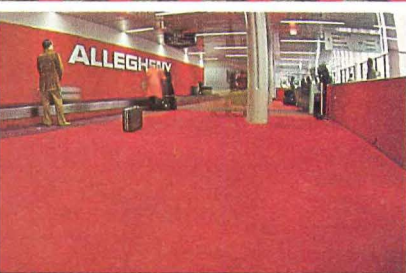
Currently, restoration is being accomplished in the temple's foyer. All additions since 1909, such as bookcases and acoustical tile ceiling, are being removed, exterior and interior doors repaired and



refinished, the room painted with its original colors and oak trim refinished.

Upon the completion of this work shortly, the restoration foundation hopes to turn its attention to the temple's interior, if the required funds are raised. Among the necessary things to be done are restoration and painting of wall and ceiling surfaces, repair of art glass and casement windows and rewiring of light fixtures. Also, the roof surfaces and exterior skylight require work and the heating system for the entire building needs renovation.

Wright called Unity Temple his "jewel." He said that "Unity Temple is where I thought I had it, this idea that the reality of a building does not consist in the walls and roof but in the spaces within. . . . The first idea was to keep a noble room for worship in mind and let that sense of the



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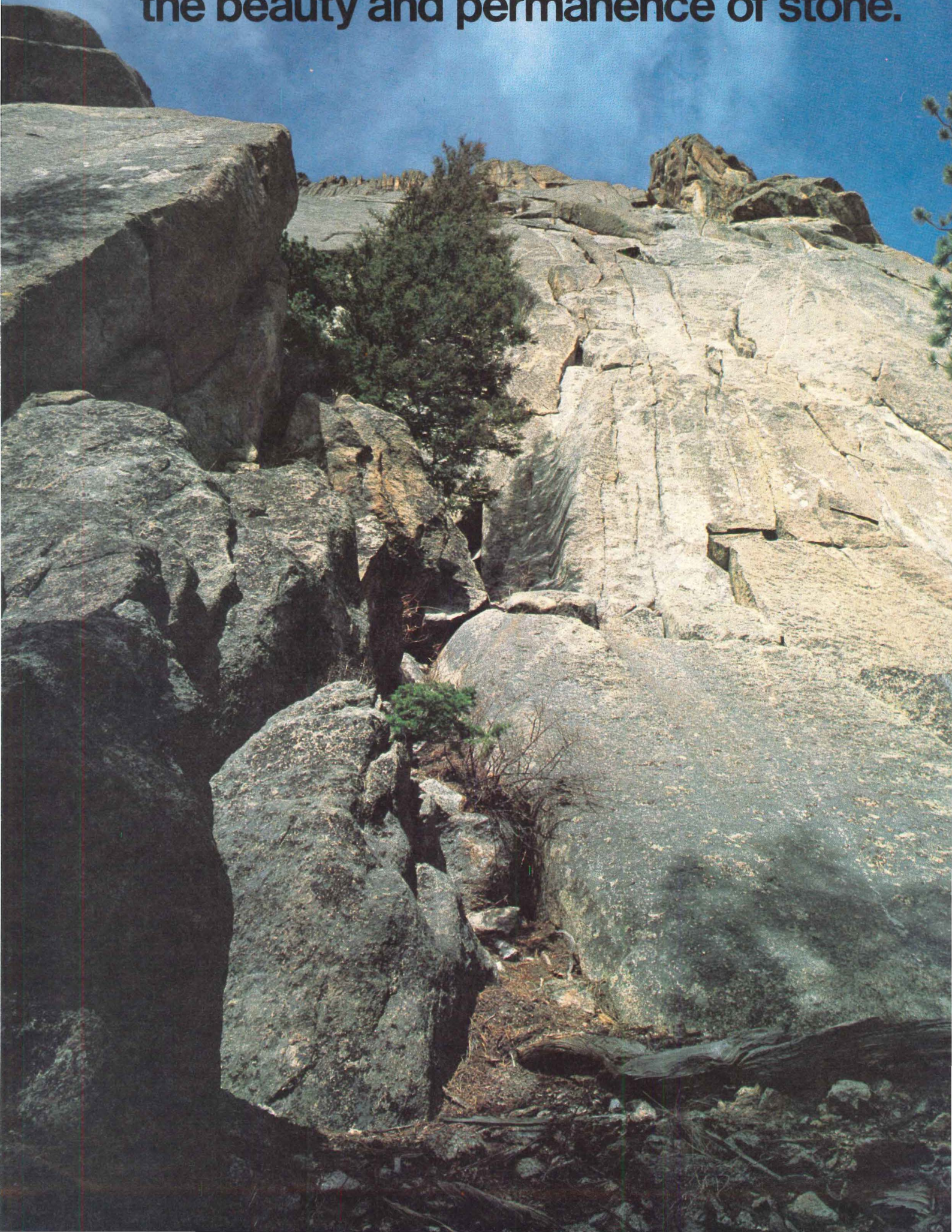
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For information card

## Preservation from page 32

late 18th-century miller's house in the  
C & O Canal National Historical Park.

• Corning Glass Works, Corning, N.Y.,  
for revitalizing the main street of Corning  
by restoring the late 19th and early 20th  
century brick and terra cotta decorated  
commercial buildings (below).



• City of Oakland, Calif., planning de-  
partment for publishing the "successful"  
manual, *Rehab Right: How to Rehabili-  
tate Your Oakland House Without Sacri-  
ficing Architectural Assets*.

• The Old-House Journal Corp., Brook-  
lyn, N.Y., for publishing a monthly news-  
letter of renovation and maintenance tips.

• Franco Scalamanire, chairman of the  
board, Scalamanire Silks, Long Island  
City, N.Y., for providing advice, research  
and materials to more than 500 historical  
societies, museums and government  
agencies over the past 50 years.

• Steward Title Co., Houston, for restor-  
ing the facade of an 1882 building in Gal-  
veston that stimulated revitalization of the  
historic Strand area.

The National Trust's president's award  
for outstanding achievement in the pres-  
ervation, restoration and interpretation of  
sites, building, districts and objects that  
have historical or cultural significance to  
a local community was presented to:

• Delaware Trust Co., Wilmington, Del.,  
for restoring the first floor of the 1853  
Wilmington Customhouse.

• Junior League of Corpus Christi, Tex.,  
for acquiring from the city and restoring  
the 1893 Sidbury house, the last remain-  
ing example of "high Victorian" archi-  
tecture in the city.

• Rose Josephine Boylan of East St.  
Louis, Ill., for her 52 years of active in-  
volvement in the research of the history  
and preservation of important historic  
structures, including a log church and  
mansion.

• The Maritime Museum Association of  
San Diego, for its 52 years of preserving  
and displaying historic vessels and mari-  
time artifacts.

The public service award for outstand-  
ing achievement by municipal, state or  
federal officials who have demonstrated  
significant support for historic or cultural  
preservation was given to the City of  
Evansville, Ind., for committing itself to  
and appropriating funds (more than  
\$500,000) for historic preservation.

## News/Education

### Florida University Introduces Architectural Bubble Gum Cards

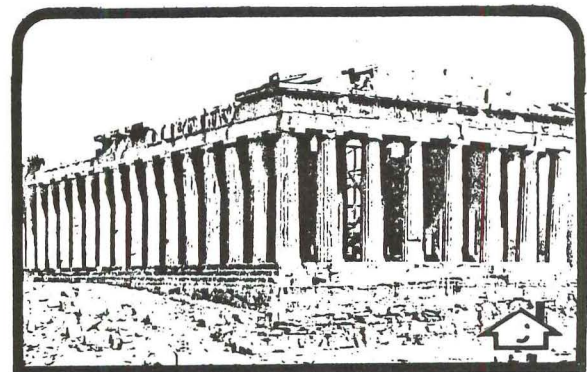
Children and architecture buffs in Florida  
have a new hobby—collecting architec-  
ture trading cards. The cards haven't hit  
the corner drugstores yet, but the school  
of architecture, Florida Agricultural and  
Mechanical University, Tallahassee, is  
promoting architecture through "archi-  
tecture bubble gum, with cards." Collec-  
tors can trade the Eiffel Tower for Men-  
delsohn's Einstein observatory, or Le  
Corbusier's Unité Habitation for the  
Parthenon or Venturi's mother's house  
for Mies Van der Rohe's Crown Hall.  
Presumably, any could be traded for  
Reggie Jackson. (Parthenon card below.)

The cards were first used as "grand  
finales" at two architectural conventions  
for children, organized by Florida A&M's  
architectural professors Grant Genova  
and Linda Searl. The conventions, in  
themselves, are worthy of mention.

In conjunction with the Arts Council  
of Tampa-Hillsborough County, Geneva,  
Searl and a number of A&M architectural  
students sought to open the world of  
architecture to children. The conventions,  
centered around the concept of the house,  
opened with an introduction, "house as a  
system," and a puppet show describing the  
process of designing a house for a family.  
The children then attended one of three  
workshops: airship to the moon with a  
moon architect, energy efficiency game  
and "building your own house." The con-  
ventions ended with a skit showing how  
children feel about their house spaces.  
And the finale consisted of presenting the  
children with bubble gum/trading cards  
and models. (The team from A&M is now  
applying for a grant to make the conven-  
tion's game for classrooms.)

The children at the conventions chewed  
and blew the gum and held onto the  
cards. Left-over supplies were used for  
public relations for the school. The cards  
have proved popular enough to require a  
second edition.

*Education continued on page 38*



★ PARTHENON  
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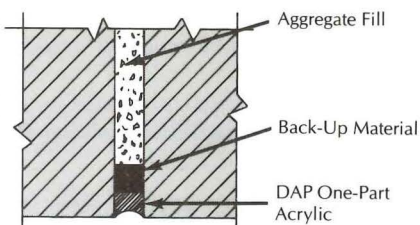
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Seals between joints up to  $\frac{3}{4}$ " wide and  $\frac{5}{8}$ " deep without sag.

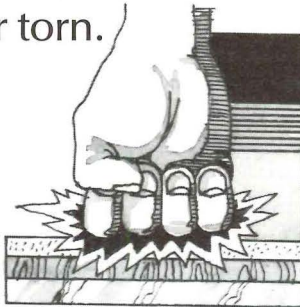


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Design adhesion is achieved, even if elaborate surface preparation is not possible. Stays flexible within its service temperature range of -30°F. to +180°F.

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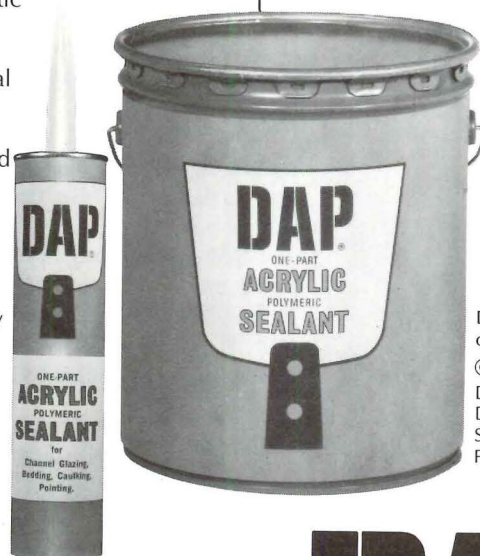
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## Aga Khan Funds Program On Islamic Architecture

His Highness the Aga Khan, leader of some 20 million Ismaili Muslims and a graduate of Harvard University's class of 1958, is providing a sum of money to exceed \$11.5 million for a joint program at Harvard and the Massachusetts Institute of Technology to further knowledge of Islam's architectural past, its contemporary architectural expression and its future directions. The aim as well is to give teachers and architects insights into the relationship between architecture and the values and traditions of Islamic culture.

To be known as the Aga Khan program for Islamic architecture, the project will be governed by a faculty council and will be carried out through the two institutions' Ph.D. programs. In addition to developing increasing numbers of scholars of Islamic architecture, another major goal is the creation of a resource center for the gathering and dissemination of information. It is anticipated that the program will go beyond the boundaries of the two campuses to scholars in related fields everywhere, to professionals in architecture and planning and to teachers in schools of architecture in the Islamic world. Specifically, the program will support four professorial positions at the two universities, create a fellowship program for Ph.D. students, enlarge and coordinate the centers at MIT and Harvard which collect visual materials on Islamic architecture, develop a sophisticated retrieval system to make documentation readily available throughout the world and provide funds for summer institutes.

## AIA/AIA Foundation Scholarships Go to 76 Students

The AIA/AIA Foundation scholarship program has awarded 1979-80 scholarships to 76 undergraduate and graduate students from 49 accredited U.S. and Canadian schools of architecture and one architectural educator. The 77 recipients of scholarships, totaling \$98,500, were selected from 263 applicants.

The recipients of scholarships were selected by the AIA scholarship committee, chaired by Richard Dozier, AIA, of Tuskegee, Ala. Other members of the committee are Leon Bridges, AIA, Baltimore; DeVon Carlson, FAIA, Boulder, Colo.; Jean Young, AIA, Seattle, and Mary Beth Permar, student at Clemson University and vice president of the Association of Student Chapters/AIA.

The scholarship program gives awards annually to students in accredited first professional degree programs in the U.S.

or in programs recognized by the Royal Architectural Institute of Canada. Awards range from \$500 to \$2,000, with selection of winners based on the committee's evaluation of each applicant's academic record, financial need and on recommendations by deans or department heads of accredited architectural schools. Professional applicants' scholarships are given on the basis of proposals for study and research beyond the first professional degree.

Funds in the scholarship program are generated through endowments to the AIA fund and annual donations to the AIA Foundation. Several of the scholarships, administered by AIA through the AIA Foundation, are funded by annual gifts from private corporations in the building industry.

For further information, write Ray Charity at AIA headquarters.

## News/Government

### GSA Reports on Growth of Art-in-Architecture Program

Thomas Jefferson instituted a national tradition when he sought successfully to integrate artworks in the design of the U.S. Capitol. And from Jefferson's time until now, there have been many efforts to create public art that would express the aspirations of the American people. As Andrew Forge, dean of Yale University's school of art, has said, federal artwork should be for everyone, "not just art lovers and collectors; it should strike a response with the tired and the lively, the idle and the harassed."

The nation's first body of public art probably came during the Depression when the New Deal came to the rescue of thousands of artists, commissioning them to design artworks for the nation's public buildings.

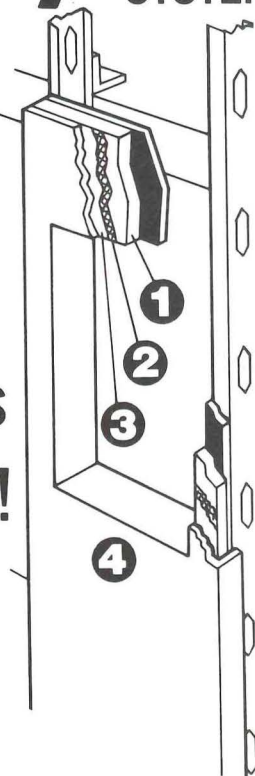
A more recent source of inspiration for federal art was President John F. Kennedy's ad hoc committee on federal office space of the 1960s, which issued the widely acclaimed report "Guiding Principles for Federal Architecture." One of the messages enunciated in the principles was that "where appropriate, fine arts should be incorporated in the design of new federal buildings. . . ."

A response to this challenge came in 1963 when GSA established policy allowing a percentage of the estimated cost of construction of each new federal building to be expended on artworks. This policy ushered in GSA's art-in-architecture program, and from 1963 to 1966, 44 works of art were commissioned. This policy is not federal law, however, and any GSA administrator can order it stopped. This happened in 1966 under President Lyn-

*continued on page 92*

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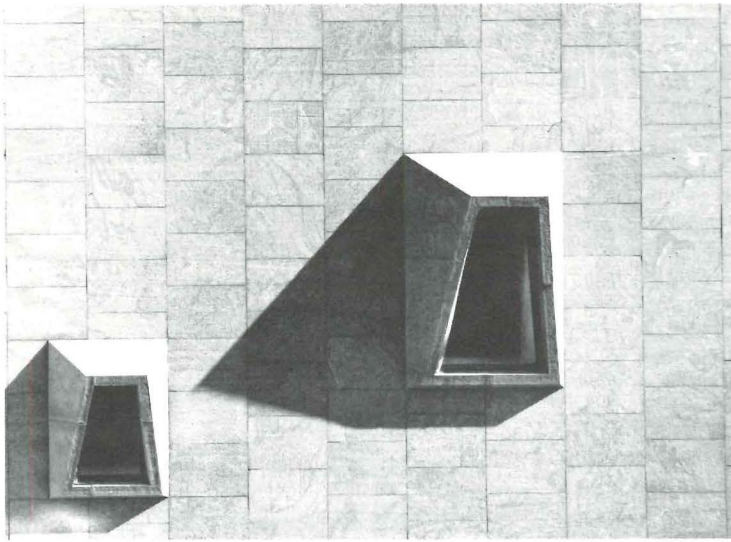
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# AIA JOURNAL

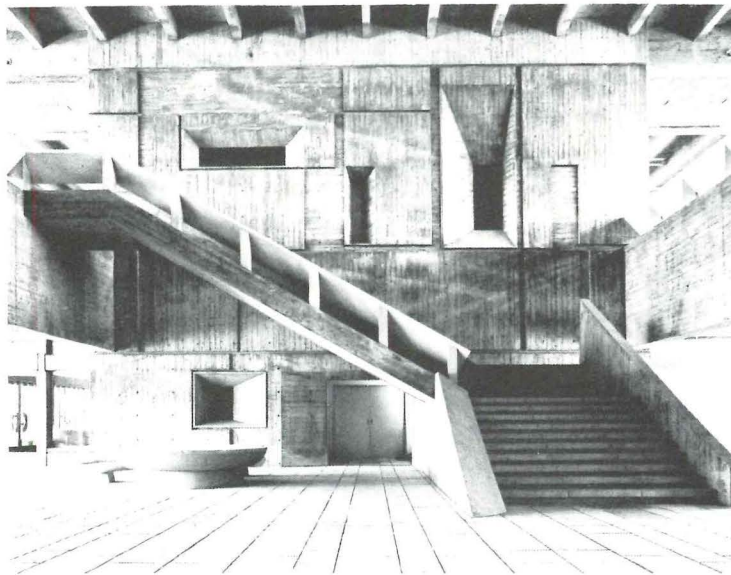


Sir Aston Webb, 1907  
Charles Follen McKim, 1909  
George Browne Post, 1911  
Jean Louis Pascal, 1914  
Victor Laloux, 1922  
Henry Bacon, 1923  
Sid Edwin Landseer Lutyens, 1925  
Bertram Grosvenor Goodhue, 1925  
Howard Van Doren Shaw, 1927  
Milton Bennett Medary, 1929  
Ragnar Ostberg, 1934  
Paul Philippe Cret, 1938  
Louis Henri Sullivan, 1946  
Eliel Saarinen, 1947  
Charles Donagh Maginnis, 1948  
Frank Lloyd Wright, 1949  
Sir Patrick Abercrombie, 1950  
Bernard Ralph Maybeck, 1951  
Auguste Perret, 1952  
William Adams Delano, 1953  
Willem Marinus Dudok Hilversum, 1955  
Clarence S. Stein, 1956  
Ralph Walker  
(Centennial Medal of Honor), 1957  
Louis Skidmore, 1957  
John Wellborn Root, 1958  
Walter Gropius, 1959  
Ludwig Mies van der Rohe, 1960  
Le Corbusier  
(Charles Edouard Jeanneret-Gris), 1961  
Eero Saarinen, 1962  
Alvar Aalto, 1963  
Pier Luigi Nervi, 1964  
Kenzo Tange, 1966  
Wallace K. Harrison, 1967  
Marcel Breuer, 1968  
William Wilson Wurster, 1969  
R. Buckminster Fuller, 1970  
Louis I. Kahn, 1971  
Pietro Belluschi, 1972  
Richard Joseph Neutra, 1977  
Philip Cortelyou Johnson, 1978  
Ieoh Ming Pei, 1979

It seems particularly appropriate in this year of the celebration of architecture to honor—and celebrate—the recipients of the Institute's highest award, the gold medal, as was done at the Kansas City convention. This issue of the JOURNAL is both devoted and dedicated to the gold medalists (listed at left). Much of it deals with the two most recent, whose careers have been parallel in time but fascinatingly divergent in approach. But first, on the following two pages, is a report on the current activities and thoughts of the other five living medalists.



Ezra Stoller



**Kenzo Tange, Hon. FAIA**, now 65, is the Institute's only Japanese gold medalist. At the time of his award in 1966, AIA stated, "He sees architecture in its social relationship always, and he has been responsible for much of the excellent architecture designed for the new community life of Japan which has emerged since the war." If anything, Tange's recent work—in Nepal, Sicily, Mecca, the U.S. and elsewhere—shows an increased concern with the social implications and responsibilities of architecture. He has focused his attention on the third world and "the need for harmony between the natural and the man-made environments and between the contemporary and the historical." Recently, he wrote: "By the year 2000, it will be necessary to build the habita for 4 billion population. . . . In the face of this need, the advanced nations of the world are adopting the luxurious position that construction destroys the environment. Three quarters of the 4 billion habita that will be needed in the next 25 years will be for the oil producing nations and the developing nations. . . . Obviously a gradual buildup from a firmly established basis—the process the English followed—will not serve their needs. They will have to adopt a top-downward process of borrowing skills and knowhow first and building a firm basis later. . . . At no time has it been more necessary to transfer the knowhow of architecture and building industry to all parts of the world. . . ."

He concludes: "For the very reason that our age is what it is, the architect must be aware of his role as the bearer of the burden in environmental and cultural formation. Of course, the participation of governments, enterprises and the people is indispensable to such formation, but the time has come for us to give deep thought to the situation and to the significance of the architect in this process."

**Marcel Breuer, FAIA**, was awarded the gold medal in 1968. He was a member of the original Weimar Bauhaus, a teacher at the Bauhaus in Dessau from 1924-28 and then joined Gropius Harvard's graduate school of design to become mentor for a generation of students, including Philip Johnson and I. M. Pei.

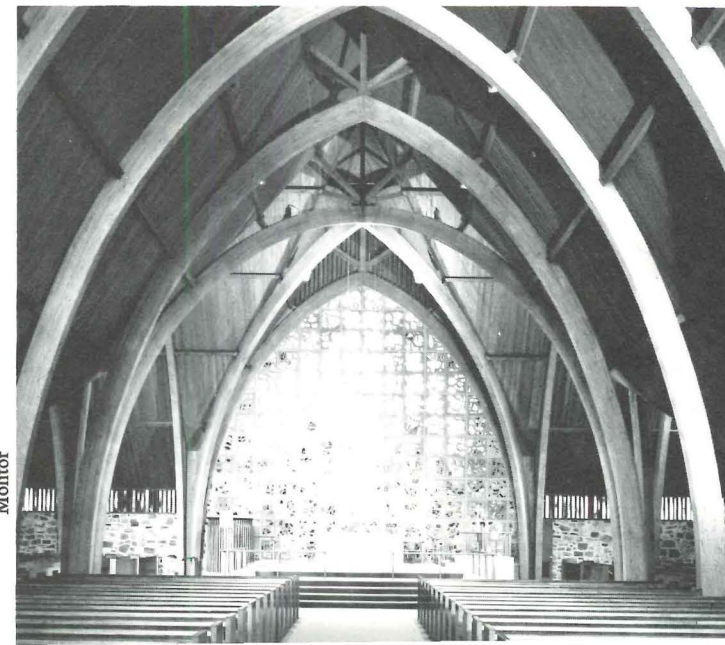
The building Breuer worked on just before his retirement three years ago was the Atlanta public library, now 70 percent complete. Until his recent illness, Breuer, now 77, had been sculpting, designing tapestries and "we hope," says his longtime partner Hamilton Smith, FAIA, "working on his memoirs." Breuer was too ill to be interviewed for this article, and Smith was reluctant to speak for him, saying, "He spoke so well for himself." His feeling about Breuer, however, is "that he has always been a man impatient of labels, feeling that you just can't put things in neat packages. He is also a tremendously tolerant person. He was plenty well enough to have entered the current design controversy, but he chose not to. I don't think he is filled with concern over forebodings about architecture. He welcome new shoots growing off the plants, but thinks that the roots are still in pretty good shape."

**Pietro Belluschi, FAIA**, dean of the school of architecture and planning at the Massachusetts Institute of Technology from 1951 to '65, was awarded the gold medal in 1972. In announcing the award, AIA said, "His churches are known for their elegant spiritual feeling, while in the design of residences he was a leader in the development of a regional style—a Northwest architecture—which is perhaps the only such style in this century."

Belluschi will be 80 this August, lives in Portland, Ore., and remains active primarily as a consultant. As he says, "You name it. I've been involved in so many things. I was consultant to the Chaing Kai-shek Memorial, Taipei, Taiwan; for the University of Jeddah, Saudi Arabia; a University in Ancona, Italy, where I was born, and then on various large projects in America—one in Boston, one in Miami, one in Charleston, symphony hall in Baltimore, symphony hall in San Francisco, two or three churches in Oregon and some houses."

Belluschi is concerned today about the tendency toward "elaborate intellectualizing and fashion" in architecture, and says, "I think a lot of people feel as I do, but are afraid to express it. We should realize," he says, "the damage that a fashionable mind can do in killing the spirit and reality of our lives. We see only the make-believe and the fashionable thing, and once fashion has too much influence on architectural thinking then we debase architecture to a fashionable art."

He goes on to say, "Venturi makes fun of integrity as something for dull people. But I do think that no matter how dull it is you have to have certain principles to go by or else you fall into complete disarray. If the young look at everything as being somewhat phony, they will never be able to think seriously about the social implications of architecture."

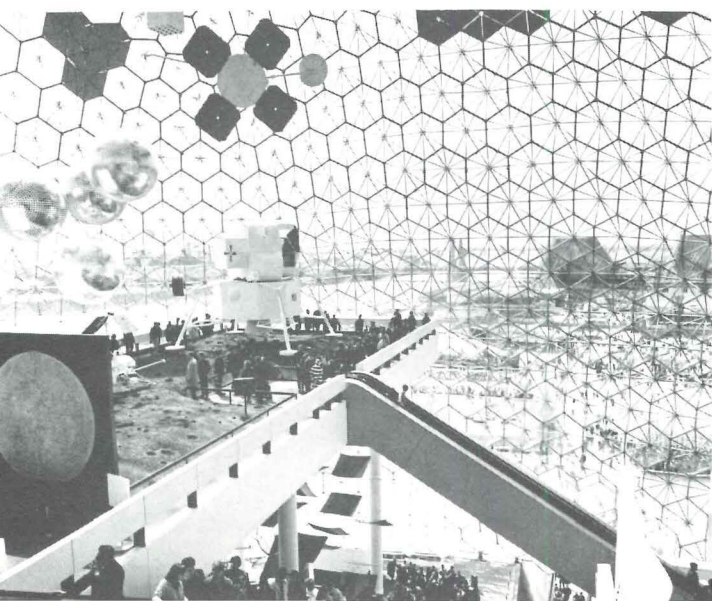


Molitor

**R. Buckminster Fuller, FAIA**, was awarded the gold medal in 1970 for his Dymaxion houses, cars, maps and ways of living, and especially for his geodesic domes, of which 10,000 in 50 countries had already been constructed in 1970. He says there are close to 300,000 today scattered around the planet.

At 83, Fuller is still working overtime, at full steam, in a cluttered Philadelphia office resembling something left over from the counter culture of the '60s. Few of his staff are over 30. "I'm engaged primarily in what I started to do 52 years ago," says Fuller. "That was to see what a little, unknown, penniless individual with a dependent wife and child might be able to do effectively in behalf of all humanity, corporations and nations. I saw the little individual studying total resources, total knowhow, total production capability to do more and more with less and less. My whole preoccupation in 1927 was the supplying of the most advanced science directly to the environment and the accommodation and protection of human life so that someday we might be able to do so much with so little that you could take care of everybody and Malthus would be proven wrong and all our political systems would be wrong and war would be obsolete. It could never again have to be you *or* me. There would be enough for both. That's how I got into geodesic domes and so forth. "Ten years ago," he continues, "it became eminently demonstrable that from an engineering viewpoint a complete retooling of our production from weaponry to livingry would within 10 years have all humanity living at the highest standard of living any humans have known, and we could phase out fossil fuels and atomic energy. We could live entirely on our energy income. Equipment could be designed to harvest the sun energy. Then I discovered, as you will, that all great politics, all great nations, all great governments, all powerful religions, all great bureaucracies and most of business would find it absolutely devastating to have all humanity a success. They're all predicated on humanity being a failure. They say, 'Come around and I'll get you a job. Come around and I'll comfort you. Come around and I'll get you well and get you in heaven.'"

Fuller counts on the enlightened young to change this situation and, in the meanwhile, is creating various prototypes for harnessing energy and creating what he considers to be more accommodating and rational environments for "the humans," as he calls us. One such project is his Spherical Tensegrity Research Station, a city-block sized plastic and steel sphere, kept aloft in space by sunlight. It could, he believes, take over many of the functions of space satellites, including earth resources observation and weather forecasting, while sending solar energy back to earth in the form of microwaves. Fuller is also working on what he describes as "air deliverable, energy harvesting, self cleaning dwelling machines, which can be installed on very low-cost, remote land. Cities," he says, "will be where people converge for all kinds of information exchange, from which they are going to deploy to remote autonomous dwelling machines." Among



Robert Perron

his other involvements is the Old Man River project in St. Louis, which was designed at the request of a 70 percent black community at Fuller's own cost. It consists of a central, moon crater-like shape—the size of four Rose Bowls. Terraced downward and away from its rim are residences that back into the hillside. "It's as if you're on the side of a mountain, something like Berkeley, Calif.," says Fuller. "All the parking and industrial things are inside the mountain."

At a more mundane level, Fuller's activities include frequent lectures and consulting work. He is, at this moment, in China at the request of the ministry of communications and the Chinese national architectural association. "I have no agents, no lecture bureaus. I promised long ago that I would never talk to people unless they asked me," he says. His last published book, *And It Came to Pass*, came out two years ago; he just went to press with the second volume of *Synergetics*. And he has three more books "that have to be written plus enormous amounts of letters to be answered and my archives to keep." He describes his archives as "a record of a human being born eight years before the Wright brothers, of a man coming out of the Victorian world where everybody was inherently divided from one another to one in which we are incompletely integrated."



**Wallace K. Harrison, FAIA**, won the gold medal in 1967. Charles M. Nes, FAIA, then president of the Institute, cited Harrison for "his demonstrated ability to lead a team in producing significant architectural works of high quality" and for exemplifying the "highest order of architectural statesmanship." Among the fruits of that talent for diplomacy are Rockefeller Center and the United Nations building, New York City.

At 83, Harrison still works full time for the firm of Harrison & Abramovitz, which he founded (originally as Harrison & Fouilhoux) in 1935. "We just finished up the mall at Albany and are still working on it a bit. We're also working on buildings at Lincoln Center," he says. In his spare time Harrison paints.

He is concerned, these days, that society is not making use of the architect's traditionally human approach to environmental problems. "The architect has been protective in his role throughout the ages," he says. "He built the pyramids and the fortresses. And today, I think, he could do a great deal in the area of atomic energy plants, for instance, that engineers cannot do, because the architect's approach is a human approach, not a mechanical one. We've wasted our resources because we haven't thought of things in the human context. I think that's part of the architect's job," he says.

About postmodernism he says, "I think it's just another generation coming along and wanting to know all about everything. Maybe the young can find methods of bringing out some of the things we've missed. But the fundamentals don't change. Choisy was as modern as anybody today. We live in the modern world and people are beginning to question whether we're going to go backward. Of course not. The times are modern, the people are modern, the children are more modern than we are. You can't go backward; you've got to go ahead." *A.O.D.*



# Conversations: Philip Johnson

For many of the same reasons that he is highly controversial, Philip Johnson, FAIA, is also a conundrum. For almost 50 years now, he has been at the eye of storms that have transmuted architecture. During the late 1920s and early '30s, when modernism was viewed by most as a foreign and heretical aberration, Johnson became its chief apostle in America, propagating the new faith with missionary zeal through his work as director of the architecture department at the Museum of Modern Art in New York City and through his book, *The International Style*, written with Henry-Russell Hitchcock. No one had modernism become the prevailing orthodoxy than Johnson turned apostate, abandoning first the Bauhaus, then his mentor Mies, embracing first the past, then modernism of a more eclectic stripe and finally an anything goes attitude, saying "Life is absurd, life is chaos. There are no rules—enjoy it." With each shift of ideas came, of course, a parallel change of direction in his architectural work.

The response of critics has been predictably extreme. Most have tended to either elevate Johnson to position of seer or reduce him to self-seeking publicist. So, one argues that "Johnson caricatures his fellow professionals because he is always (roughly) a quantum leap ahead of them." Another is convinced that Johnson may well unite contemporary architecture again and lead it out of both the glass box and the concrete sculpture to a new ecumenical gentility." From the opposing team come such assessments as, "If Philip Johnson has a talent, it is a taste maker's talent: He jumps on a trend with the best of them." "His work has no discernible core of esthetic theory. It is all taste." "Johnson's preoccupation with originality is obsessive."

Johnson, the man, reveals as many apparent contradictions as does Johnson the writer/lecturer and designer. He is always eloquently articulate and outspoken, always elegant, brilliant, witty. He is usually outgoing, full of fizz and as energetic as a young mountain goat, despite his 73 years. But then, at rare moments he will retreat, answering questions cryptically, taking every opportunity to deprecate his accomplishments and talents. No longer now of devilish twinkle in his eyes. He looks downward, somewhat morosely, drumming his fingers on the tabletop—evidence of annoyance, fatigue, perhaps nervousness. Not long ago, Andy Warhol painted a very sober looking portrait of his friend Philip looking far into the distance, eyes hooded, brow furrowed, mouth clamped shut in silence. "Andy made me look like a combination of U-boat commander and FDR in decay," says Johnson.

The most interesting source on the subject of Philip Johnson is Philip Johnson, though he claims not to understand himself at all well.

"Where did my interest in architecture come from? My mother taught us history of architecture and Greek before I went to high school, and when I was 13, I went to school in Switzerland and traveled in Europe. I remember mother dragging me out of Chartres Cathedral when I was 13. I didn't see why everyone couldn't want to stay there all their lives. Then in 1928, I read an article by Henry-Russell Hitchcock and visited Egypt and

Greece. And I realized I was seeing entirely different things from the rest of the travel group. I couldn't understand why the others would always yell at me from a temple and I would always yell at them when they were looking at museums. Then I realized it was architecture. I thought it was impossible to become an architect because I couldn't draw, and still can't. But the sight of the Egyptian temples and the Parthenon was the real turning point. I couldn't believe such a thing could be so emotional, more emotional even than music. So, naturally I had to get into architecture sooner or later.

"Then in 1929, I met Alfred Barr through my sister, because he taught at Wellesley and she was studying there. I was at Harvard studying philosophy and Greek. Never took a course in history of architecture or art. Barr said he was starting a museum [the Museum of Modern Art] the next year and would I head the architecture department. Well, since I didn't even know anything about architecture, I said, 'Yes.' He gathered my enthusiasm and, hopefully, my ability and the fact that I didn't need to be paid, which was very important."

Johnson was the only son of a well-to-do Cleveland lawyer, who divided his estate among his three offspring while they were still young. On his only son the elder Johnson conferred Alcoa stock, which he reportedly thought had little value. Alcoa, of course, flourished, and by the time Philip was graduated from Harvard in 1930 he was a rich young man.

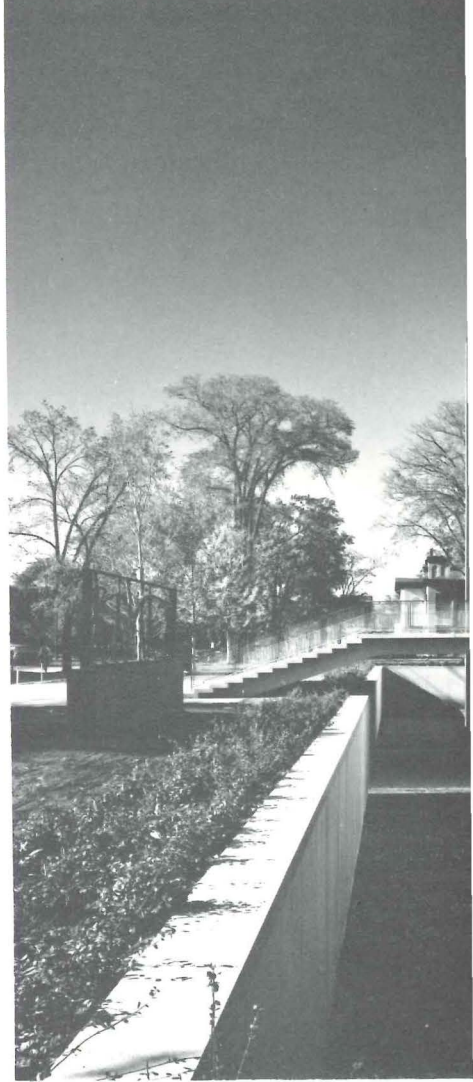
"Then in the summer of 1930," continues Johnson, "I met Russell [Henry-Russell Hitchcock] and we visited every modern building that was available in Europe. I got my interest from his seminal book of 1929, but the idea of doing our book, *The International Style*, was mine.

"I was interested in the propaganda, the presenting of the International Style. It was a religion that we all shared and we thought the world would be a better place for it. It wasn't in our case a socialist aim, the way it was in Germany. The crowds that I knew were all Marxist. But, it wasn't that. We thought pure art, pure simple art without decoration, would be a great salvation, that since this was the first real style since the Gothic, that it would become worldwide and would be the norm of the period. That was our idea in presenting the modern architecture exhibition at MOMA in 1932. And that's exactly what happened. There were, of course, other things going on that we closed our eyes to."

What kind of young man was Johnson? "At Harvard," he says, "I was lonely and reserved, had no friends. My only friend was my tutor, and I didn't enjoy anything."

Didn't he undergo a change, then, even before meeting Barr and Hitchcock? "I wonder," he muses. "Of course, my father was very extroverted, which I've now become. But, no, I never see myself as energetic. And until modern architecture became sort of a religious enthusiasm on my part, I didn't have any focus.

"I'm a hero worshiper type. Always was and still am. I believe in the great man theory of history—still. I mean people like Napoleon and Mohammed interest me. It seems to me the way



## Why be an architect 'if you don't want to design?'

history is counted. I know it's wrong, but that's all right. Everyone should have certain illusions.

"In the late '20s, Mies and Oud, among the architects, were my heroes especially, but never Gropius. Le Corbusier was a rather distant figure. I never could get to know him as well. Whereas to me Mies was not distant. People thought he was. But since I could talk German we had no problems. We shared so many prejudices that it was all right. He wasn't afraid of history, while all the other moderns thought that architecture was only invented by them and Karl Marx, you see. Mies was much broader than the functionalists of the day. And so most of our time was spent talking about—against—the other functionalists. That was the big battle of the '20s and the whole aim of our book. Now it's all so perfectly clear that architecture has nothing to do with functionalism that nobody bothers to argue. Architecture is art. But in those days, that was a revolutionary thing to say."

In 1934, Johnson suddenly abandoned his museum career for a foray into right wing politics. It is a period of his life which he discusses only partially. As Calvin Tompkins wrote in a *New Yorker* profile of Johnson, "[This] mistake seemed to propel him into the one decision he should have taken at the start, which was to become a practicing architect." How so?

"I was childish," explains Johnson. "I ran for the Ohio state legislature and had a lot of fun. But, I'm very poor with people, I don't judge them properly and I don't handle them properly. I'm much too impolitic and too direct and crude. I don't really understand the way other people's minds work. I miss that very much; it's something my colleague, Mr. Pei, has in abundance. He's a wonderful person. Nobody ever said I was a wonderful person."

"But, anyway, I was no good in politics. So, that was a dead

end and I was sitting here in New York twiddling my thumbs and said, 'That's a damn fool thing to do with the rest of your life.' So, I went back to Harvard to study architecture. It was the hardest decision of my life, because I would be 15, 16 years older than the rest of the kids. That seemed awfully hard to take but it wasn't hard at all.

"At the GSD I had a battle with the faculty. They were younger than I, some of them. And they resented me because I was a Miesian already and they were all little Bauhaus people. So, when I was asked to make a design, I would make two, one to get the mark in the class and one because that's the way it should have been. It was a ridiculous battle.

"What did I have against the Bauhaus people? Functionalists and poor designers."

Did he have much to do with Gropius? "No. I had no respect for him and nothing to do with him. Breuer was my teacher. He was very, very good."

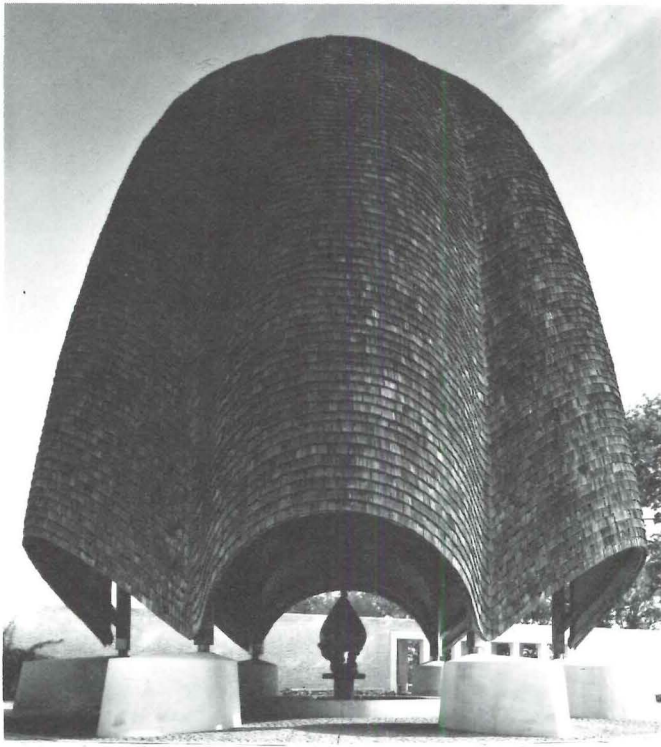
Didn't Johnson at one time call Breuer a "peasant mannerism"? "Yes, something like that," he answers. "I always make the nastiest remarks. But he was a very sensitive artist, extraordinarily original and sensitive in planning and materials. So I learned a lot from him."

Did he know Pei at Harvard? "By the time I got to Harvard he was at MIT. So I didn't see much of him, except I knew him well enough to know he was the smartest man around. He and his wife came to dinner, the first meal I had in the little house I built as a thesis project on Ash Street in 1943."

What possessed Johnson to build a house as thesis project? He wanted to test out Mies' theories and build this crazy thing. It didn't fit the site, according to the neighbors, because it had a wall around it. In New England a wall is considered a spite fence. Neighborliness was not one of our virtues in those days. Just the opposite today."



The glass house, New Canaan, Conn., brought Johnson instant fame in 1949 (across page left). All completed in the first four years of the '60s were Munson Williams Proctor Institute Museum, Utica, N.Y. (left); 'roofless church,' New Harmony, Ind. (below), and the Museum of Modern Art, east wing, New York City (right).



Photographs by Ezra Stoller ©ESTO

In 1945, Johnson opened his own firm in New York City, consisting of one room. Did he ever think of joining an established firm rather than starting on his own? "Oh, no. Why should I?" he says. "That never crossed my mind. Well, not if you have money, you don't. I was lucky, I never worked for anybody. I don't think I would have been very good at it, because my concentration would not have been on what *they* wanted me to do." The single room is now many rooms on the 37th floor of the Seagram Building and employs some 50 professionals. How is it done? "John Burgee really runs the office," replies Johnson. "We don't have a special design staff. John Burgee and I are responsible for everything. We have been together for 12 years now, and he came with a vast amount of experience which I never had. He's a marvelous businessman aside from being a fine designer. And he's of another generation, so I don't annoy him as much as I would someone else. Before him, I had Richard Neutra, you see, who was also very strong. Until John came, the design was pretty much me. But now, I don't design anything and don't check with each other. We don't have other designers, because that's what *we're* here for. What would you want to be an architect for if you didn't want to design?"

In 1946, Johnson returned to the Museum of Modern Art as director of the architecture department, and for a period, the bulk of his design work was private residences, commissions he received mainly through contacts at the museum. The residence that brought him instant fame, however, was the glass house he built for himself in New Canaan, Conn., on a five-acre estate, which grew to 32 acres as Johnson bought adjacent land to ensure his privacy.

"People used to tell me that my glass house was just like a bad copy of Mies' Farnsworth house," says Johnson. "But it was really quite different, and mine was built first."

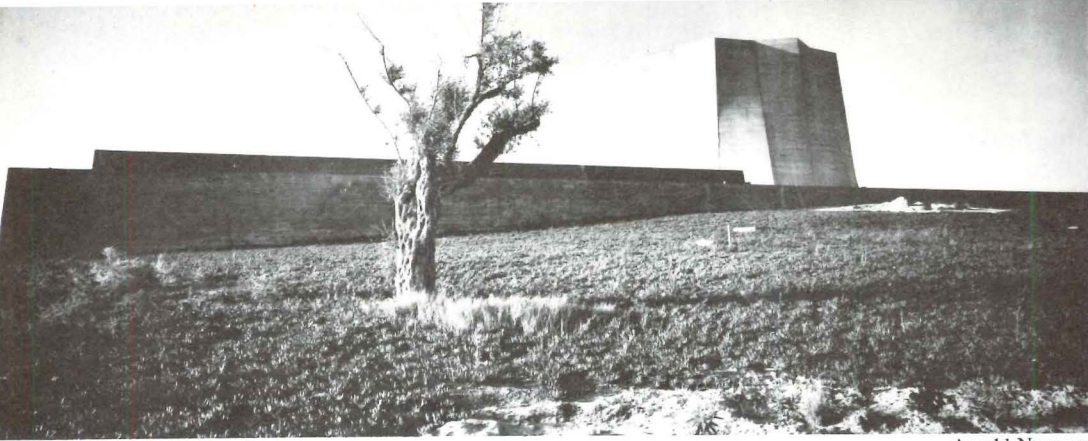
Peter Eisenman in his introduction to the recently published

book *Philip Johnson Writings*, claims that "the Glass House is Johnson's own monument to the horrors of war." He found a caption written by Johnson in 1950 that reads, "The cylinder . . . was not derived from Mies but rather from a burnt village I saw once where nothing was left but the foundations and chimney of brick." Eisenman concludes that the glass house is a symbol of personal atonement and rebirth, "at once a ruin and also an ideal model of a more perfect society; it is the nothingness of glass and the wholeness of abstract form." He considers it "a fitting requiem for both a man's life and his career as an architect!"

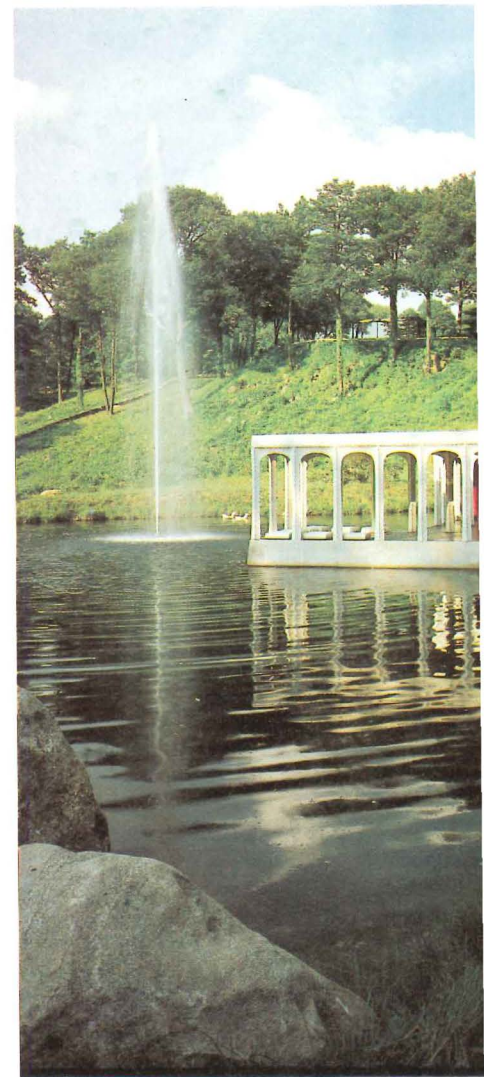
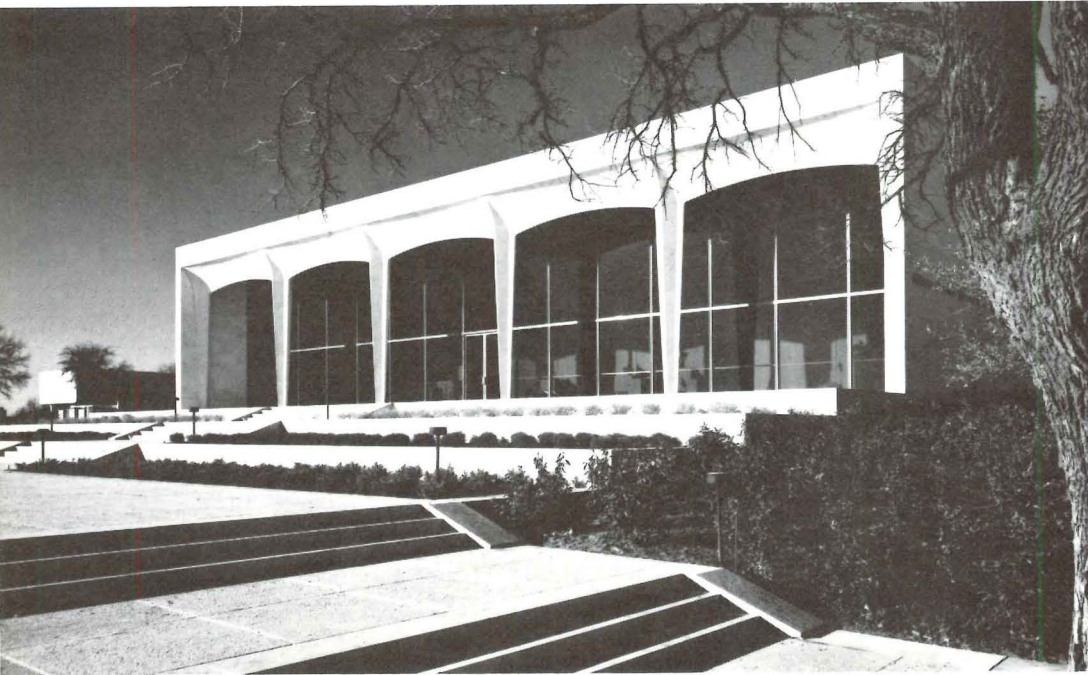
What does Mr. Johnson think of that? "Oh, him and his brick chimney. So silly. It didn't have any relation to those things. It was an architectural device to pin the house down. The circle was a circle because then space would flow around it and not make it like a Mies thing that differentiates or defines rooms. It was a flow instead of a stoppage thing. That's why it was done. But I'm always impressed by anyone who wants to find a symbol where I don't see it. Besides, no one knows one's unconscious."

In 1954 came the Seagram Building in New York, and Johnson was hired to help the elderly Mies who was based in Chicago. "Seagram is all Mies," says Johnson. "I didn't do it. All the copies of Seagram I've seen, not one has copied the only point that made it so great, the double skin. To me Seagram looks just like Mies. It's broad and sits there. It's the calmness, the there-ness. There are no frills, no gesticulation. There's a certain presence that Seagram has without fuss or feathers. There's no compromise. Through Seagram, Mies and I became close again, though I had already gone in a different direction."

In publicizing his "different direction," Johnson was, as always, very direct and outspoken. In 1954, he had resigned his position at the Museum of Modern Art, impelled in part by Frank Lloyd Wright, who advised him to "stop carrying water



Arnold Newman



## Early feelings that 'you have to use history.'

on both shoulders." He lectured at universities in the late 1950s and early '60s, serving for a time as visiting critic at Yale University. His talks to students, informal "seminars" held at the glass house and writings replaced the museum as a forum for Johnson the propagandist—a role he threw himself into, especially since commissions were scant during these years. All his didactic efforts were aimed at puncturing cherished modernist beliefs. "Architecture is art," he proclaimed. "Form follows form, not function (always has and always will). . . . You cannot not know history. . . . Structural honesty is one of the great bugaboos that we should free ourselves from very quickly," and much more in the same vein. The students loved it.

Johnson's design work from the late 1950s to mid-'60s was, as he told the Architectural Association in 1960, "terribly scattered." It ranged from Miesian, through various aberrations of modern, to neoclassicism. The neoclassic work especially is regarded by most critics as a low point in the body of Johnson's work. Johnson, himself, says, "I felt that modern architecture was too rigid and that you have to use history. As a matter of fact, I always did that. The first designs for my glass house had Syrian arches. But, it was a dead end. They weren't very good buildings."

How "terribly scattered" his work was is seen in Johnson's museums of this period. For a while he was considered *the* museum architect. His first, the Munson Williams Proctor Institute, Utica, N.Y., was what one might call industrial esthetic sheathed in granite; the Sheldon Memorial Art Gallery, Lincoln, Neb., was neoclassic, and the addition to the Museum of Modern Art was—modern.

"Museums have always been a fascination to me," explains

Johnson, "because that's where I started. I've never built a big museum; these little regional museums were a lot of fun, because they're like churches were in the past. They represent the only thing that our culture does as a civic symbol. At Utica, for instance, I wanted to make a place to which people would take their Aunt Mathilda when she visited from another town. Some of my museums are criticized for that, for being more civic centers than places to hang pictures. But many of these museums I built had no pictures to hang in them anyhow."

By the late 1960s, the times had changed. Johnson's ideas were considered, especially by students, to be "irrelevant" and with them, architect Johnson. Though he never repudiated his commitment to art, Johnson's unflinching curiosity and empathy for the young impelled him into the fray. Johnson and Burgee spent time planning and designing a number of large, never-to-be-built urban complexes, one in Philadelphia, another in Harlem, a third in the Bedford-Stuyvesant area of Brooklyn. His plan for Roosevelt Island, though, has been completed in part. "We had very little work at that time," he explains. "But urban design is a dead end, because nothing gets built—just more pile of paper. I like to build, not just make schemes. I was terribly envious of Pei—Kips Bay, I thought, was a really fine group. I would have been interested in doing that sort of thing, but nobody asked me. That's why when we started doing IDS in Minneapolis, it seemed like a brand new world.

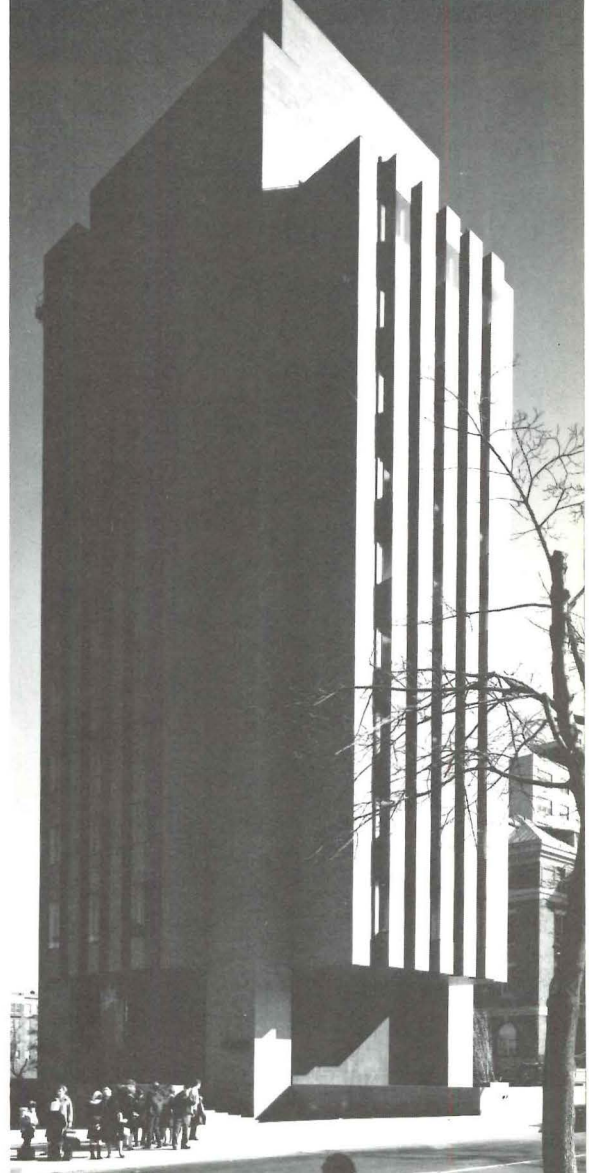
"IDS was the eye-opener for urban statements that could still be connected with the profit system," he says. "We could get to the heart of a city—unlike museums—and affect the lives of millions. Naturally, that's very heady stuff. And we could make a building that from 100 miles away was a symbol of the town, at the same time that we could make a gathering place like an old-fashioned market. It was the turning point of all our work.



Showing the range of Johnson's work during the late '50s through mid-'60s—he himself has called the work 'scattered'—Nuclear Reactor, Rehovot, Israel (across page top); Amon Carter Museum of Western Art, Fort Worth, Tex., (across page bottom); Philip Johnson pavilion, New Canaan, Conn., (left); New York State Theater, Lincoln Center, N.Y. (below), and Henry L. Moses Institute, Montefiore Hospital, N.Y. (right).



Photographs by Ezra Stoller ©ESTO unless otherwise credited



We lucked into a city where the middle was empty. We moved into a city that already existed on two levels, which is wonderful for the Piranesian movement of people. The great joy of my youth, of course, was Eisenstein's "Potemkin" where people came down the hill and crossed over at the same time. We tried to do that at IDS by having people come down the escalators and still be going out the door; we tried to give a feeling of being surrounded with active people."

IDS was completed in 1973. Three years later Pennzoil Place in Houston was in place, and with it began Johnson/Burgee's speaking out of the glass box by changing the tops of buildings," Johnson puts it. "Our client said, 'I don't want an upended glass box.' And we said, 'Why should he have it? How ridiculous, the top of a tower is always important.' So that means we started having fun. I get letters all the time saying, 'How can you take serious art of architecture so lightly?' Well, it seems to be a serious art if you do have fun.

What struck us at Pennzoil was two things. One was the way it looked, the other was sociological. The populist, popular, pop whatever word would fit—the idea of people moving, the proportional changes, the view of the street when you taxied by. Americans really don't like public squares, so we don't have to have that anymore. Hitting the ground on pilotis gives things a light and pee-placey feeling. The whole idea was to have a more ideal approach."

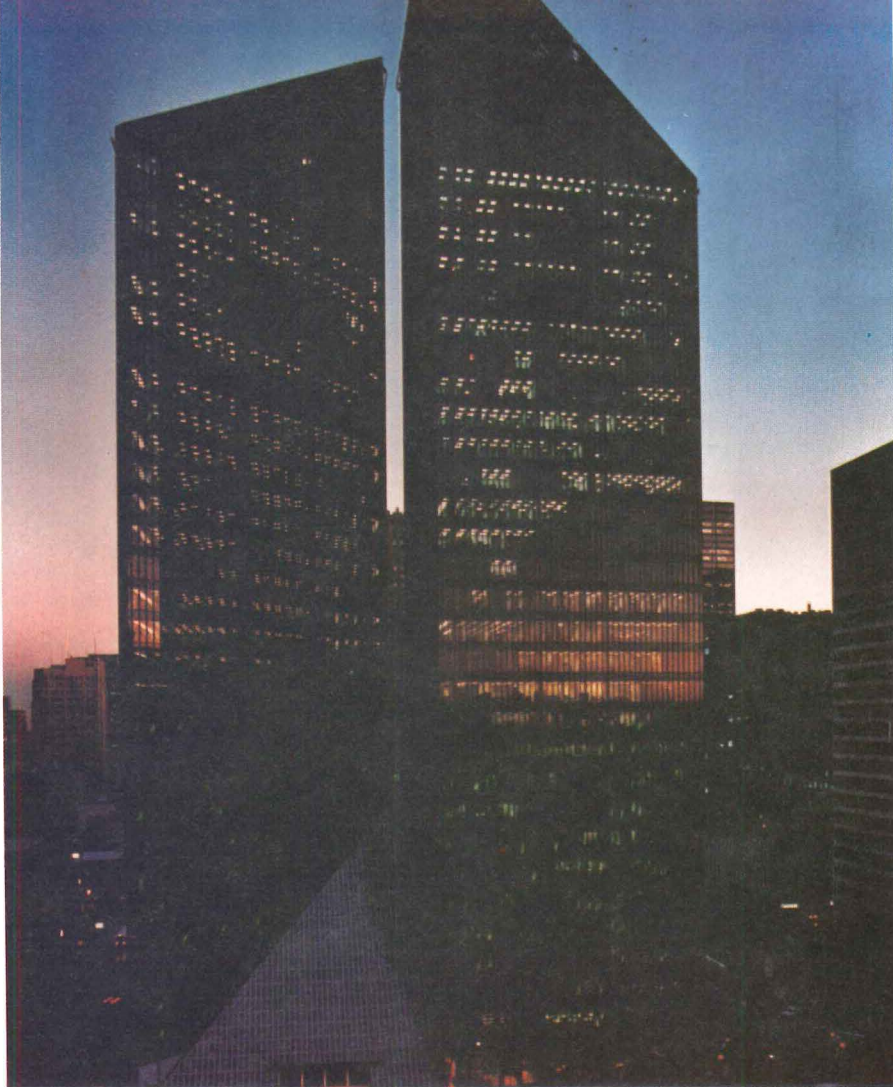
Then, just last year, came the design of the AT&T headquarters building in New York, lauded by some, excoriated by others for appearing on the cover of *Time* magazine in model form. I aloft by Johnson sporting a long black cloak and looking like a cross between Count Dracula and Mephistopheles—the dapper, of course, than either.

"AT&T is a sport," says Johnson. "It's the only thing like that

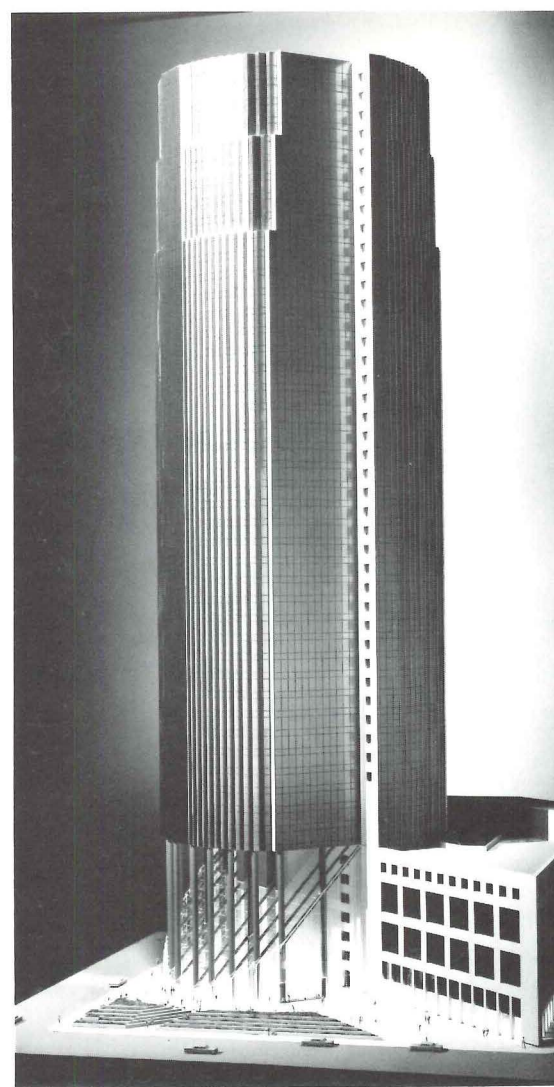
we're ever likely to do. In the first place, it's simply too expensive. The essence of the skyscraper is the pilaster, and the body of AT&T is those pilasters that join all the windows in a vertical stripe. But nobody can see it, because all the models are so small. The irregular rhythm is taken from the '20s; the top is our own. I don't know where it came from. People think it's Chippendale. I suppose it comes from late Roman broken pediments. You have to have a hole there for the steam, so we did it that way. The essence of AT&T cannot be seen. No one has ever done a building that's 60 feet in the air; this is like Karnak with the columns so close together. It's going to be a forest, fascinating to wander through. There will be a galleria that makes Milan's look small. We enjoyed every second. Still do. The building will really be two buildings, as the Empire State is. The top is a recognition statement, but unlike the Empire State the bottom will be a statement all in itself."

With AT&T and his complex of buildings for the Dade County civic center in Miami, Johnson is more and more blending allusions to history and allusions to indigenous architecture. How does he prevent such designs from dissolving into kitschy recreations? "There's a fine line," he says. "Dade County isn't Spanish. It doesn't look like any building that I've ever seen. The spirit of the plaza I got from [Karl Friedrich] Schinkel. The use of the tile roof and the stone I picked up around Miami. But I didn't work on the proportions by looking at the proportions of other arcades."

Johnson has always wanted to be "l'architecte du roi"—architect of the king. At Lincoln Center, his only large public monument to date, he was one of several "architectes du gouverneur," and Johnson says, "I should have done the whole 'pomme' [apple]. In a way, that's why Dade County is better," he continues. "It's much smaller, but I do get a chance to make an assemblage



Steve Anderson



Gil An

## Confidence that 'history will straighten things out.'

of buildings. And he says, somewhat wistfully, "Yes, l'architecte du roi. Pei is l'architecte du Teng Hsiao Ping. That's as good as any 'roi' I can think of. The nearest I can get is being the architect of AT&T, which is as near a king as we have under this particular form of democracy."

Apart from Dade County, he has several projects underway, and speaks about them excitedly. "I'm having such fun. I'm doing a theater in Cleveland, with 19th century overtones, massing of roofs, different shapes, towers. We're working on a headquarters building for PPG Industries in Pittsburgh, using faceted glass. There's a headquarters building for ITEL Corporation in San Francisco, where they don't like flat buildings. So it's round with a perfume bottle top. We're finishing a trio of buildings for Post Oak Central in Houston. The completed one is an adaptation of Art Deco. And right now I'm working on a building that's an adaptation of the houses of parliament—19th century perpendicular Gothic. But I can't talk about buildings in design stages. That \$40 million suit against Hardy Holzman Pfeiffer [for allowing publication of their design for the Purdue Corporation before, claims the company, permission was given] doesn't exactly encourage it."

As in the past, Johnson is keeping his "finger on the pulse," by involving himself with "the kids," as he calls them. "Right now it's the institute I'm closest to," he says. "It's called a silly name [the Institute for Architecture and Urban Affairs, New York City]. I call it the Eisenman Institute, but they don't like that. I always want to keep the connection with the kids. Yes, 'the kids' are now mostly almost 50. It's easier to talk to someone that's from another generation, because then all those jealousies and rivalries don't occur."

How does he view so-called postmodernism? "What they

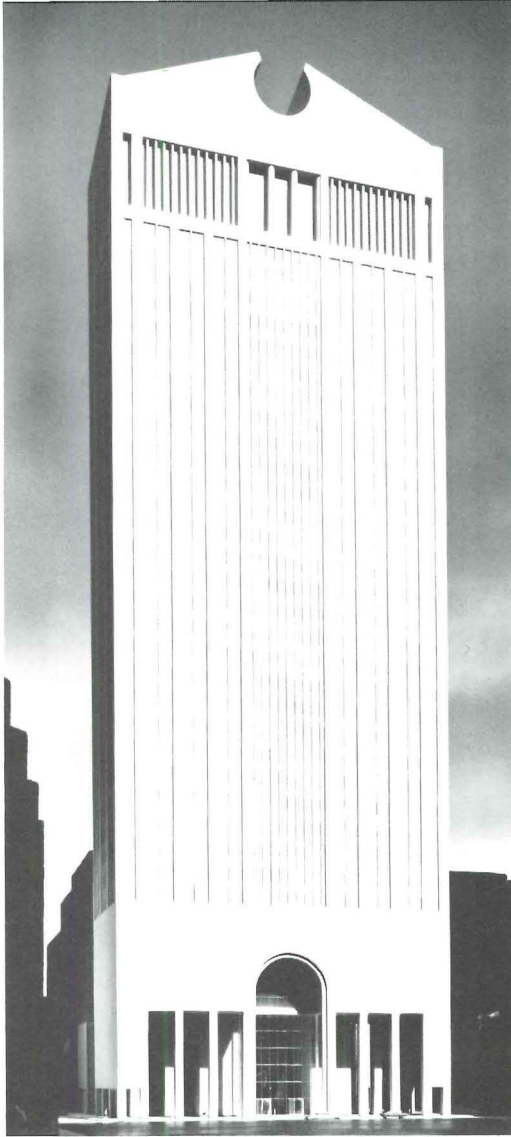
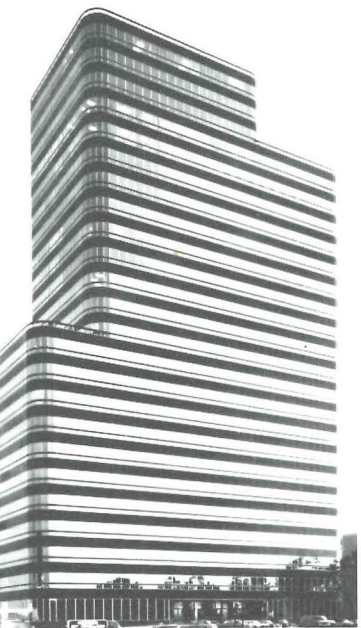
mean," he says, "is what I've been talking about: freedom, freedom from the moralities of the do-goodiness and the dullness of flat top boxes. A very important thing to remember, which people accuse me of not remembering, is that modern is one of the things you're post, as well as being post revivalism and so on. The point is that modern is as much a thing to look at as Lutyens or neoclassicism or Rome or the Gothic. I don't think the changes are as dramatic as the press has it. I haven't not known history since early in the '50s. There was no great Saul and Paul shift in my thinking. I probably exaggerated the changes myself at Dartmouth for dramatic purposes, and, of course, Goldberger and Jencks exaggerate it. That's just the kids making noise and God bless them. What the enduring influence of 'the kids' will be, who knows? They haven't built enough yet."

Which firms or individual architects does he believe made the most indelible contribution to architecture during the '50s and '60s? "The contribution of SOM was vast," he says. "The magazines of the period were practically brochures for SOM. They had a series of brilliant designers and they deserve everything they get. Naturally, they were in danger of becoming stereotypical and commercially minded. Bunshaft's most recent direction is a new vein—fresh and original."

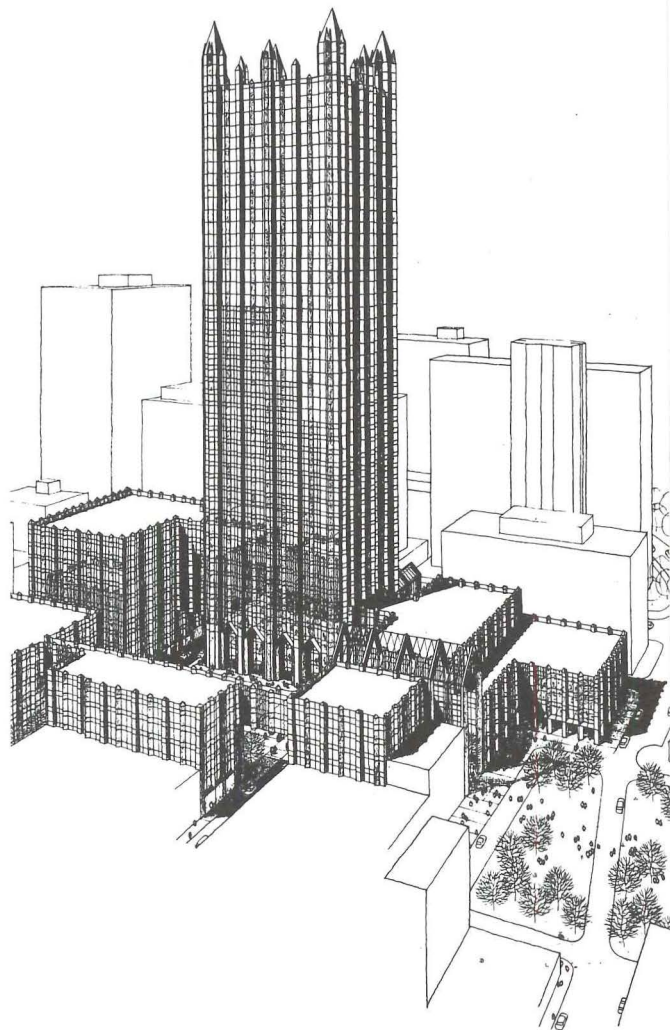
Does he feel volume of work is important in evaluating an architect's contribution? "Not as important as people with big offices think it is and not as unimportant as the people who envy them think it is. What counts is quality."

The most important influence on other architects, believes Johnson, was that of Lou Kahn. "It was his total dedication to his vision that influenced us most. At Salk he gave reign to some shapes that are just unimaginably great; they freed up all of our imaginations. People say he influenced me. I don't feel it in any way, but I always lie about such things out of innocence, so maybe he did."

Johnson/Burgee's work of the 1970s is marked by celebrated high-rises such as the sleekly sophisticated Pennzoil Place, Houston (across page left); IDS Center, Minneapolis (following pages), and ITEL Center, San Francisco (left), in design stages. Showing Johnson's current involvement with historical allusions are the neoArt Deco Post Oak Center, Houston (below); T&T (right), and the PPG Industries headquarters building, Pittsburgh (far right).



Louis Checkman



What does he now think of Frank Lloyd Wright whom he arrogated as "the greatest architect of the 19th century" during his lectures of the 1950s? "I have vast admiration for him, for his revolutionary method of handling interior space—the living room at Taliesin, the lobby at the Tokyo Hotel, the Guggenheim interior. Everywhere he had a chance to modulate interior space and did so to lend excitement. The Larkin building—nobody can handle space like that. People think Le Corbusier's lobby at Chandigarh is good. I don't think so. The shapes are good. Le Corbusier was a shape man. The real room boy was Frankie. My reception of him was one of the first things to change, and fortunately that happened before he died."

How does Johnson explain the seemingly dramatic shifts and changes in his own work? "I'm scatterbrained and I'm a historian," he says. "I see too many sides of things. And that's not good. It's not good if you want to be Richardson or Wright or Pei."

Was that his ambition? "Of course, I wanted to be all three and more, but I never was. I don't think I'm a much worse architect than any others around. It's just that we don't live in a heroic age anymore. We live in an overly self-conscious, humorous, eclectic, split, directionless, religionless world. So, our architecture shows that. Pei's work is varied in another way than mine. He has enlisted Cossutta's work, Cobb's work, Muchow's work and so on. It's a different way of being different, isn't it? The buildings don't look alike. Mine are even more different. Richardson's, though were more different still. At the same time he was doing the bird, he was doing Homedale. I used to think that was terrible and now, of course, I have Gothic going in one room, Spanish in another—much as Schinkel did. He did a classical church and then a Gothic one for the same program. You say a Gothic is more consistent than I, but how about the new Palladian plan for General Foods? Sert? His building down by the

river in New York, you'd never know it was the same architect who did the married students' housing in Cambridge.

"It would be nice to be recognized: 'Oh, that's a Johnson.' But you couldn't have told a Schinkel building, and my buildings might not look so different in the future."

How does he want to be remembered? How doesn't he want to be remembered? "It's funny how little one gets interested in that, since I won't be there to object. We're all interested in immortality, but I don't think the type of it can interest us. Look, all the history books there are in architecture, there are so few good architects. Nobody's going to be a Michelangelo for quite a while, or a Frank Lloyd Wright. So, just what the picture of today's decade will look like, I don't know. It depends on who writes the history books."

Whom does he want as a biographer? "I like the people who like me. I have confidence that history will straighten things out. But it may take a long time. Look at how long the 19th century took to get itself even recognized as a decent period of architecture, and before it was sorted out that Lutyens was a great architect. It took 40 years after his death. Now Mies is right at the bottom of reputation; there isn't anybody who's in the slightest bit interested in him. That isn't going to last, because he was the great contributor of the highrise as it was. When Wright will come into his own, heaven knows. They're still writing such bilge about his being a great democrat when he was the greatest dictator of any architectural school in the world, and all his talk was sheer bilge. 'Til that's all drained out, we won't be told what his fantastic achievements in architecture were."

"During all these changes I've lived through, the desire to do art has been permanent. That's the only thing I've had to keep me going. And the kick you get out of making a shape and a space. It may not be good, but we always think it is at the time, of course, or we wouldn't go on doing it. So, you keep going." □



# Evaluation: Single Complex City Core

*Philip Johnson's IDS Center, Minneapolis. By Donald Canty*

With completion of the IDS Center in 1973 (Philip Johnson and John Burgee, Edward F. Baker, Inc., associated architects), Minneapolis acquired one of the most elegant glass towers anywhere and the beginnings of its first real skyline; until IDS, the building next to it in the photo at right was the city's tallest.

But Minneapolis acquired much more: a tightly knit and fully integrated core. Many elements of this core already were in place. But IDS, a block square complex of four buildings surrounding a glazed court whose roof is shown at left, was like the key piece in a puzzle which, when put in place, makes it whole.

To begin with the tower, it rises 57 stories, six of them service towers, and it has become "the focus, the symbol, not just for Minneapolis but for the upper Midwest," in the words of John Berg, chief of urban design for the city planning department. The tower's great height is not universally admired. Berg himself acknowledges that it had the effect of "shrinking" downtown by making everything around it seem smaller.

Weiming Lu, downtown planner for Minneapolis when IDS was conceived and later urban design chief of Dallas, who has now returned to an urban design post in St. Paul, recalls that there was concern about the scale of the development from the start. Even now, he says, "I feel I cannot escape from the tower. I don't like to go to the Lake of the Isles and see it peeking out from beneath the trees." Indeed, there is scarcely a point in the Twin Cities from which the tower cannot be seen peeking over smaller, and far less distinguished, downtown neighbors.

Despite his problems with size, Lu terms the tower "one of the best of the mirror glass buildings." It was one of the earliest of its kind, and Johnson approached the material with some trepidation. In a highly articulate relating of the design process in *Architectural Forum*, Johnson recalled his fear that "by not seeing through the glass but only at it we would get a monolithic, windowless effect," a building "more boring and tiresome than the usual speculative skyscraper."

To guard against this dread possibility, first the architects used as transparent a glass as we could afford (20 percent daylight transmittance—the material was available with a transmittance as low as 8 percent). Second, we designed deeply projecting mullions and muntins combined with small panes of glass (30-inch on center verticals instead of the more usual 60-inch) to create a network of lines—more the aspect of a birdcage than glass box."

Finally, the architects carved away at the corners of the tower's basically rectangular plan, creating a series of notches which Johnson calls "zogs." As he says, "The 90 degree zigzag of the tall surfaces results in a range of self reflections which make dark vertical bands on the tower, relieving the great mirror surfaces. The zogs also have the delightful dividend of making a crisscross of spandrel bands at dizzying angles to each other."

Johnson's hopes for all of these devices have been realized. This is a tower of strength and character that carries on a marvellous conversation with the sky. It is a giant but not a monolith.

It also works very well as an office environment. Johnson's "zogs" have the executive-pleasing side effect of providing no less than 32 corner offices per floor. And the narrow panes of glass combine with nine-foot ceilings to give even small spaces a feeling of loftiness.



## Penetrating 'funnels' and spreading skyways.

Having said all this, it may seem surprising to say that the tower is far from the most significant part of IDS.

Minneapolis was ready for IDS (and Johnson) in a variety of ways. There was a shortage of first-class office space downtown. The city is home to more corporate headquarters than any in the Midwest on a per capita basis. Yet in the 1950s and '60s it had been "driving companies to the suburbs," in the words of a local planner, by its inability to offer competitive amenities and facilities.

The city had an enlightened business community which in 1955 formed the Downtown Council to do something about the core. The first thing it did was to bring in Barton-Aschman Associates to draft a plan. This led to the creation of the famed Nicollet Mall by Lawrence Halprin in 1967. It also led to the concept of "skyways," second-story pedestrian bridges linking downtown buildings, pleasant if not downright essential things to have, given the Minneapolis winter.

The business leaders also were well represented in cultural circles, as witness Ralph Rapson's Tyrone Guthrie theater and the new Walker Art Center building completed by Edward L. Barnes just before IDS. Notable among the businessmen so inclined is Kenneth Dayton of Dayton-Hudson, Inc., the reigning local department store firm, who is widely credited with bringing Johnson into the IDS project.

Johnson describes the situation he walked into as "an architect's dream." He had receptive clients and they had the abso-

lutely crucial block of the core to build upon. It was smack in the center of the growing skyway system, right alongside Nicollet Mall, between two very large department stores.

The four buildings of IDS Center are the tower, an eight-story office building with a garage below it, a 19-story hotel and a two-story Woolworth's. The other three buildings all have notched edges like the tower's but theirs are more irregular. In the hotel, the notches provide pleasant corner windows in many guest rooms and give the long corridors a zigzag that lessens boredom.

The buildings all are arranged around the perimeter of the site. If some find the tower's height oppressive, it would be hard to make the same charges against the bulk of the complex at street level, given its million-plus square feet size. To the pedestrian the tower disappears and he is circling a block of buildings of similar cladding but interestingly varied height and setbacks.

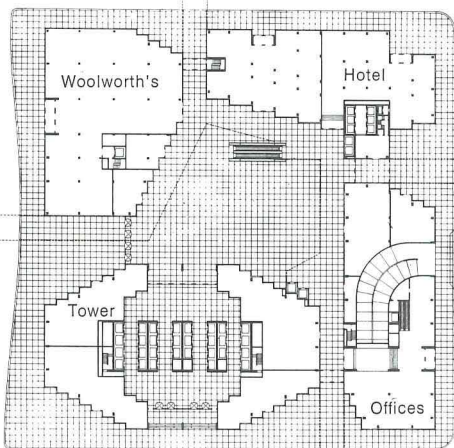
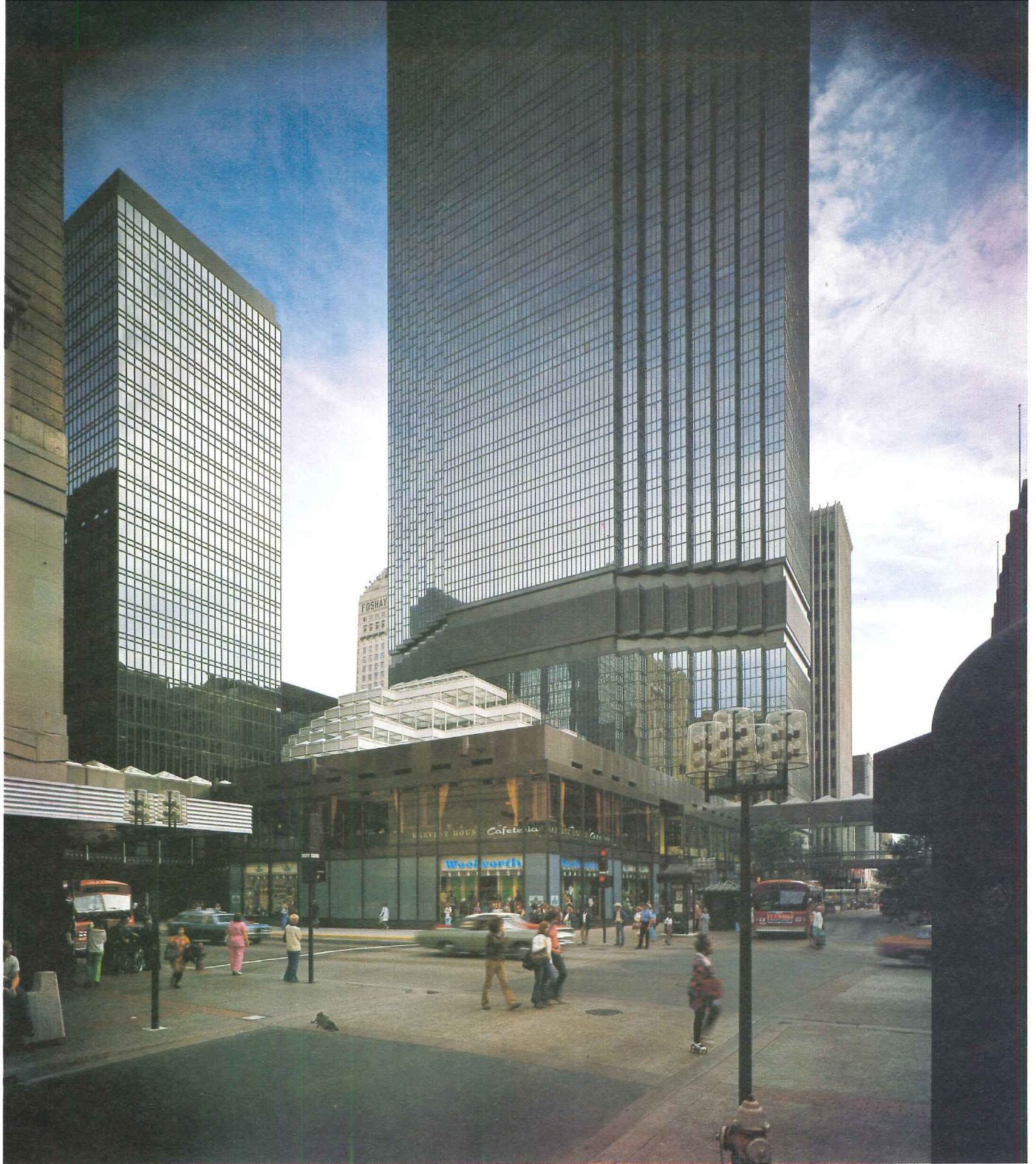
At four irregularly spaced points the pedestrian encounters two-level entryways: skyways passing overhead and at his own level what Johnson terms "funnels" leading into the complex. These are narrowing shafts of space with jagged edges created by the buildings' notched walls. There is a direct entrance to the tower from the sidewalk but access to everything is through the skyways and funnels.

The complex thus keeps a firm if jagged street line. The openings at the funnels are not really big enough to be called (or used as) plazas, with the possible exception of the one facing Dayton's department store.

Instead the public space which IDS gives to the city (and pay-







FIRST FLOOR PLAN

*Far left, Nicollet Mall with the edge of the hotel building projecting into it. Left, the skyway and entrance to the complex from the Dayton's side, largest of the four spatial 'funnels' that lead into the Crystal Court.*



## Frozen space in a soaring central court.

as much taxes on as some entire wards of Minneapolis) is inside—at the heart of the complex. And it is spectacular.

It is called the Crystal Court. It is a roughly pentagonal space rising to an apex of 121 feet, capped by a pyramid of metal-framed glass and plastic cubes. The two levels of entries—skyways and funnels—lead to two levels of shops and restaurants lining all sides except where the tower penetrates. On the floor are cubes for sitting, planters and an informal sidewalk cafe.

It is a highly practical alternative to an open plaza especially, once again, in the Minneapolis climate. And it is, much of the time, a magical place. The cubes overhead act as a kind of rectilinear ectoplasm, giving physical embodiment to the soaring volume—as if space had been frozen. And their geometry against that of the building walls, and their reflections in the walls, create fascinating patterns.

The court is the making of the skyway system, which has been spreading steadily since IDS was built and will continue doing so into the 1990s by present plans. Soon after completion of IDS, Dayton's moved much of its impulse merchandise from the first floor to the second and others stores have followed suit. If anything, Minneapolis' second-story downtown is livelier and more prosperous than ground level—at least during weekdays. It is a shopping environment fully capable of holding its own with anybody's suburbs.

What the court does for the skyways is to give them a point of convergence. It is a kind of Grand Central Station of a two-level pedestrian railroad network. At noon on weekdays, it is as crowded as Grand Central during the busiest of rush hours. People pour through the skyways and into the court (the older skyways, considerably narrower than the ones that came later, can be actually hard to push one's way through at these times). The court is full as life so long as the stores are open (see "A Tale of Two Spaces," Aug. '78 issue).

Unfortunately, when they close it does too, for all intents and purposes. There are two second-level restaurants run by the hotel and a cafe with live music projecting out into the court a level above. There are people in these establishments into the evening and on Sunday, but they look down onto a nearly empty space much of the time.

The hotel and the court have a slightly unsettling relationship. The hotel has no real lobby, no shops of its own and, as noted, shares its restaurants with the court. This guest was delighted with his room, but felt a certain loss of transient territoriality in sharing the public spaces with so much of the public (whereas, in a normal hotel situation, one feels that the lobby, restaurants, newsstand, etc., are, for the duration of one's stay, somehow



Tom Martinson



Tom Martinson

## A landmark for Johnson as well as the city.

partly one's own). This visitor also arrived at dinner time expecting to find a wider variety of restaurants and entertainments available in the court and in the nearby skyway network. Instead, there were just the three places to eat, none offering anything transcending most hotel food.

More varied offerings and things like movies (there was one but it closed) are needed to keep the court—and the skyways—alive by night as well as by day. As it is, they are lonesome and slightly threatening places when the workers and shoppers depart. One Minneapolis mother deeply involved in the city and its cultural life warns her daughters away from there after dark.

This is, of course, not the architect's fault. But it is something that needs attending to before the Crystal Court can fulfill its marvelous potential as Minneapolis' communal living room.

Still, it may be that no single complex has done more for the core of an American city since Rockefeller Center than IDS. Weiming Lu recalls that at the time it was built "the downtown was by no means sure of its future. I think there was a lot of skepticism about why one should actually invest in downtown or revitalize or plan for downtown. I think that IDS provided an anchor and made a statement that downtown was worth saving."

O. D. Gay, executive director of the Downtown Council, says that IDS "had a tremendous impact. It doubled retail space on the skyway level. It has become the focal point of downtown. That's it. Period. All roads lead to Rome. All skyways lead to the IDS Center."

Bernard Jacob, AIA, of Team 70, the only architectural firm with offices in IDS, says that "the center is a manifest success. It has all the drama of people watching. It has access to all of the city. The way it fits into the city is just magnificent."

IDS Center's owners (the initials stand for Investors Diversified Services) were stung recently when a local newspaper termed the complex "one of the last of the big energy spenders" and pointed out that the current state energy code might prevent its replication today. Indeed, IDS is vulnerable to all of the charges of energy waste brought against sealed glass towers. The newspaper did note that total energy consumption in the building had dropped a third since 1973 because of conservation measures, and IDS chief engineer Clint Hedsten has studies to show that its performance stands up well in relation to other recent highrise buildings.

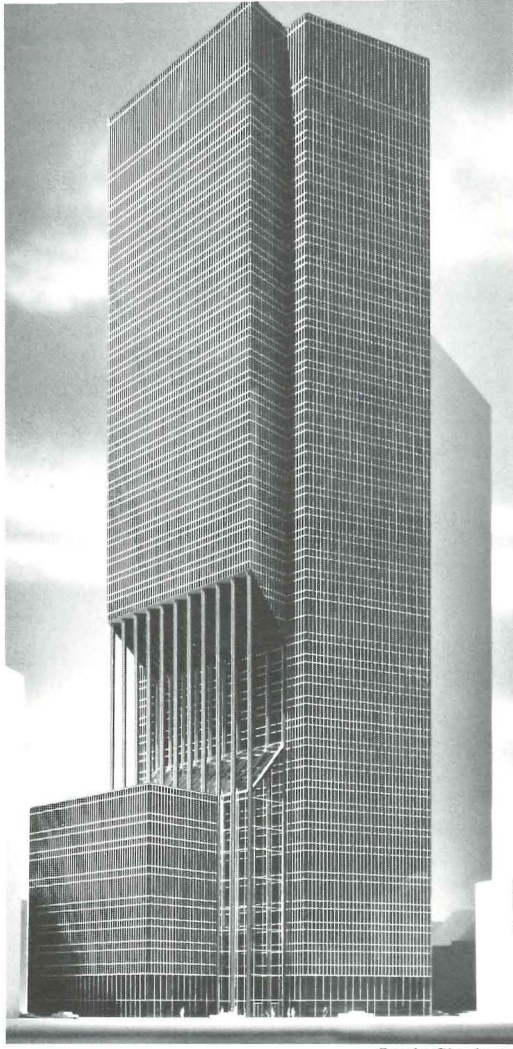
If IDS was a stimulus to downtown business, it is only now that it is stimulating any downtown development of comparable scale. Part of the reason may have been early financial problems. The complex was a costly one, some say because of its architectural ambition, others because holdouts drove the cost of the land out of sight. At any rate, the space took a while to fill up at premium prices and the client suffered.

IDS is now solidly occupied in the upper 90 percentiles and the overall vacancy rate downtown is almost equally minuscule, so two new multibuilding complexes are now in progress: Pillsbury Center by the Chicago office of Skidmore, Owings & Merrill, between IDS and the city's government center; and City Center, directly across from IDS, by SOM, New York City. Both will have towers in the 40-story range. If nothing else, they will make the IDS tower look less lonely at the top, and will modulate between it and the rest of the skyline.

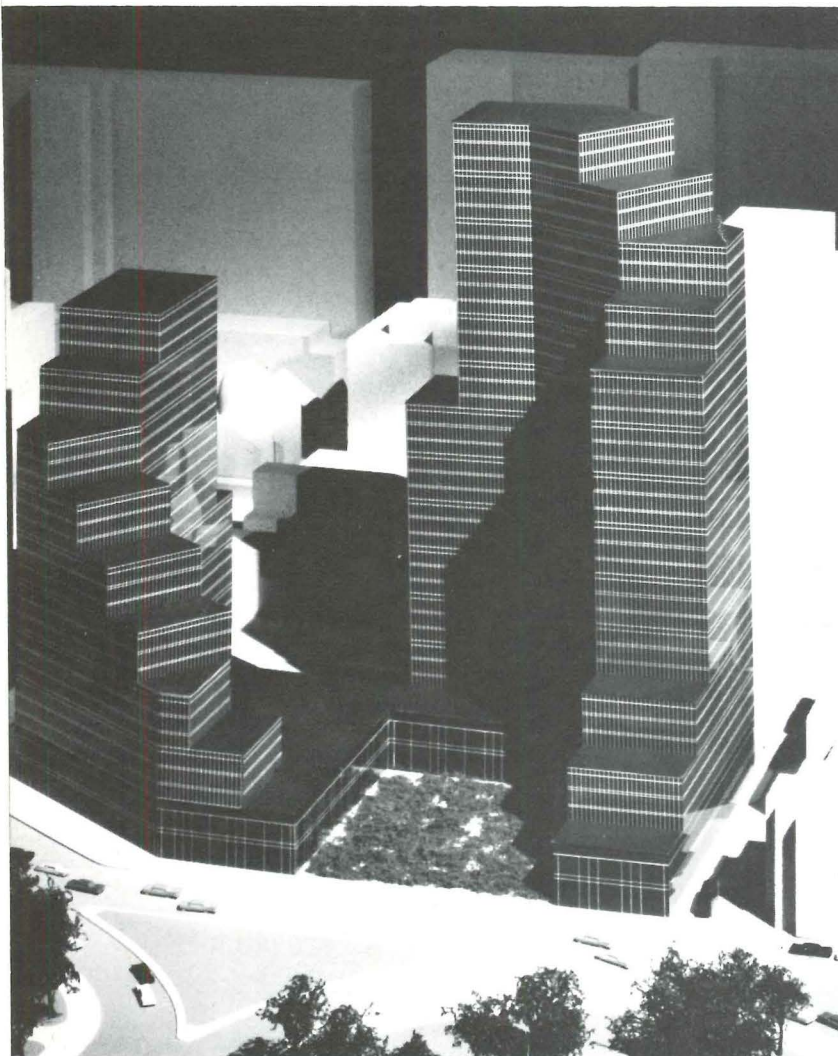
If IDS has played a significant role in the development of Minneapolis, it also has a pivotal place in the work of Philip Johnson. It remains his largest work to date, and it followed a rather uneven group of buildings (see pages 48-51). It belongs with Pennzoil in a series of inventive towers that could be called variations on Miesian themes. Two others, shown at left, sadly never were built. It would have been quite a string.

This was Johnson building upon, rather than rejecting, his personal architectural past, to wonderful effect. It would seem that just as Johnson got to Minneapolis at just the right time, Minneapolis got to Johnson at just the right time. □

*Unbuilt Johnson and Burgee designs of the IDS period for Lehman Brothers in New York (right) and Logan Towers in Philadelphia (below).*



Louis Checkman



Louis Checkman





Cervin Robinson

# Conversations: I. M. Pei

...e consider him old-fashioned. For in the midst of today's  
...nging architectural theories and sensibilities, I.M. Pei, FAIA,  
...ains a self-avowed second generation modernist. "You can-  
...ave an architectural revolution every 20 years," he has  
... "Architecture is not a matter of fashion." Yet, in Philip  
...son's opinion, "Pei's National Center for Atmospheric Re-  
...ch in Boulder was already a postmodern building."

...or most of his professional career, Pei has avoided the lime-  
... He worked behind the scenes as director of architecture  
... developer William Zeckendorf (Webb & Knapp) during the  
...50s and '60s. And while the majority of respected architects  
...e day regarded developers with contempt, Pei used his al-  
...ce with Zeckendorf to revolutionize our concepts of urban  
...gn. In such far-flung places as Denver, Montreal, Melbourne  
... Boston, he succeeded in carefully weaving into the existing  
... fabric large urban spaces of quality and variety. As one  
...c put it, "What the Pei firm has done so impressively is to  
...ade the often warring merchants in a capitalist society to  
...of their own free will, what is usually done elsewhere, in  
...e severely managed societies, by government fiat—and to  
...duce first-rate architecture to boot."

...or such urban diplomacy Pei was suited by temperament as  
... as conviction. He is a gentle man, straightforward yet soft-  
...ken, without airs or quotable quotes, tactful, charming, hum-  
...—and yet—as Hugh N. Jacobsen, FAIA, has said, "He's no  
...scat when it counts." Pei is also a consummate pragmatist,  
...roaching each new situation by weighing the economic, legal,  
...al and political problems surrounding it and letting solutions  
...rge through a constant give and take with his partners and  
...nts. Style, he says with some derision, "is not something you  
...off the rack. Its source must be in the nature of problems.  
...promise, far from selling your values and visions short, is  
...aps the most creative challenge."

...he fruits of Pei's unusual talents have been office towers and  
...rtment towers, university buildings and museum buildings,  
...arch centers and civic centers—distinguished in the main  
...n for their design and technical daring.

...He refined the vocabulary routinely employed in urban hous-  
...pioneering in the use of precast and poured-in-place con-  
...e. And in the opinion of a prominent critic, "At this point,  
... Pei & Partners probably know more about the detailing of  
...s and metal walls than anybody in the U.S. or anywhere  
... "Another has said that Pei "may very well be America's  
... architect."

...I.M. Pei was born 62 years ago in Canton, China, and has  
...ked in the U.S. since coming to America to study in 1935.  
...pent my early childhood in south China," he begins, "and  
...a my father moved the family to head up the Bank of China  
...ong Kong. We stayed there for about seven years and then  
...ved to Shanghai, where we lived until I went abroad. My ar-  
...chitectural training was almost entirely American or Western,  
...rom a technical side, I would say China had almost no in-  
...fluence at all. But since architecture is very closely related to  
...my early years in China must have had some effect on my

...architectural work. But if you ask me in what way it did, I  
...would find it very difficult to answer."

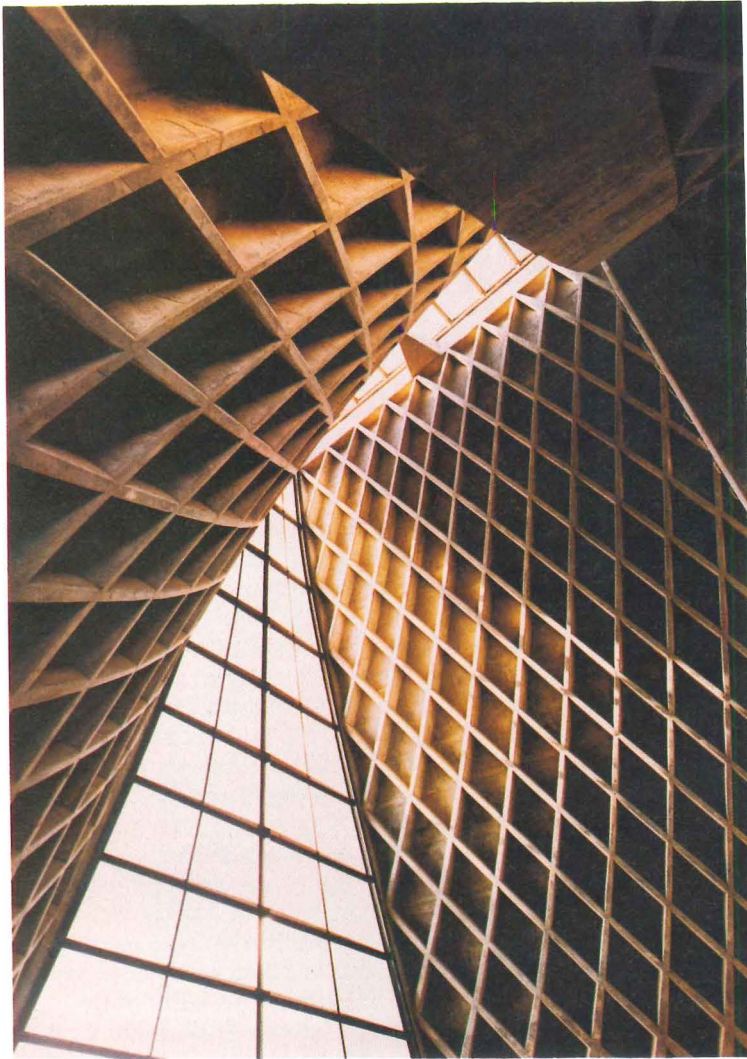
...Two decades ago, Pei made his first attempt to bridge con-  
...cepts of Western and Eastern design with his Luce Chapel at  
...Tunghai University, Taichung, Taiwan. "It was a very self-con-  
...scious attempt," he explains. "I had not witnessed the changes  
...that China had undergone during the 20 years since I had left.  
...My perceptions of China were already obsolete."

...Today, Pei is working for the People's Republic of China.  
..."They asked me to design a small hotel in Peking, and I accepted  
...because it gives me an opportunity to once again get involved  
...in a search for synthesis. Again, I think that whatever I do can  
...just point the way to other architects, the architects in China  
...who will eventually be the ones to find the synthesis. So, I think  
...my role is going to be like a bee spreading the pollen."

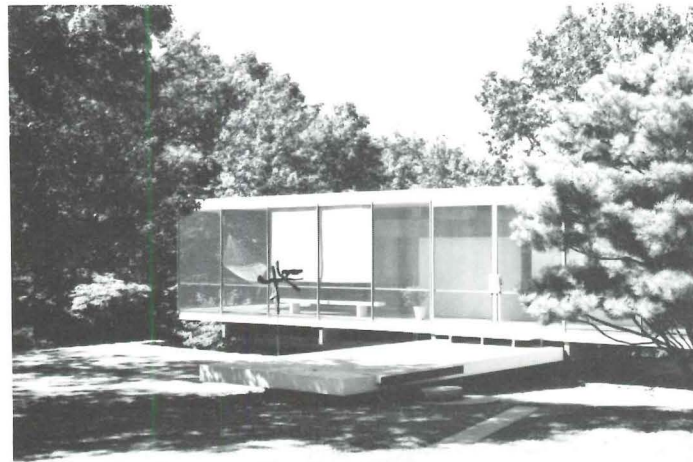
...But wasn't his family considered "an enemy of the people" by  
...the Communists? "In the class sense, I suppose so," says Pei,  
..."because my father was a banker. But he was not a politically  
...active type. He was more an economist than a banker. So, we  
...don't have a strong political tinge in our family. As a matter of  
...fact, many of the prominent bankers in China today were once  
...my father's employees. It is rather natural, in a way, for the  
...Chinese to once again recognize my father's work and make it  
...easier for me again to be accepted. The Chinese today are very  
...pragmatic and they consider the overseas Chinese as a resource."

...Was it the Chinese who took the initiative? "Well, I guess so,  
...indirectly. They don't do it very directly. A group in Hong Kong  
...expressed an interest in helping China to develop its tourist  
...trade. Building hotels is one of the prerequisites of developing  
...tourism. So, my name was suggested."

...Is the hotel likely to lead to more work in China? "If I wish, I  
...suppose it would," says Pei. "But I'm not going to China to do a  
...lot of work. I'm going over there really for two reasons. One is  
...to try to persuade China not to make the same mistakes I've  
...seen made in the U.S. and the Middle East. A city like Peking is  
...essentially a one-story city. But that doesn't mean it's a small-  
...scale city, because it is a city of walls, which knit it into a whole.  
...I was very outspoken while I was in Peking trying to persuade  
...responsible officials not to adopt Western methods and styles of  
...construction without some reference to Chinese cultural and  
...historical traditions. I also mentioned the need for preservation  
...of the existing fabric of the city. Fortunately, I have done  
...enough tall buildings in my life to make my concerns credible.  
...There will be a need for highrises in Peking, but there should be  
...a master plan for the future of the city so that they can group  
...high buildings at a respectable distance from Peking. I consider  
...the entire inner city of Peking a landmark and it would be a  
...great pity to destroy it. The second reason for my going is that I  
...am interested in searching with Chinese architects for a new  
...architectural vocabulary. Neither of the two alternatives open to  
...them is satisfactory. To adapt the old palace style for modern  
...use is unthinkable, nor do I think it appropriate to build ubiqui-  
...tous Holiday Inns and Intercontinental Hotels. I hope to help  
...them search for a third way."



*Luce Chapel, Taichung, Taiwan, 1958 (left and right); Pei house, Katonah, N.Y., 1951 (below and right); University Plaza, New York University, 1967 (far right).*



## The differing influences of Gropius and Breuer.

How did Pei become interested in architecture to begin with? “During my last years in high school in Shanghai, there was a tremendous amount of building,” he explains. “The 25-story Park Hotel was then under construction. I was fascinated by the idea of a building of that height. It was as exciting to me then as the idea of going to the moon is to youngsters of today. I decided that was what I wanted to do.

“My perception of architecture was rather limited at the time, and to me, anything that had anything to do with building was architecture. It wasn’t until I came to the U.S. that I realized one has to be a specialist. I was accepted by the University of Pennsylvania. Before the term started, I decided the school was not for me, because I wasn’t sure that design was my forte. I thought that perhaps building engineering or civil engineering would be more to my liking. So I went to the Massachusetts Institute of Technology instead. Dean William Emerson of MIT—a great educator—was responsible for my change and commitment to architecture. He was not only my dean, but my guardian as well. He treated me very specially. When he said, ‘I’ve seen enough of your work. You will do well.’ I took his advice to stay in architecture. But in terms of design, he had little influence on me.

“When I graduated from MIT in 1940, I was offered a traveling fellowship, but Europe was already engulfed in war and Dean Emerson persuaded me to stay in Cambridge where I worked as a research assistant at the Bemis Foundation. After six months, I joined Stone & Webster where I worked until

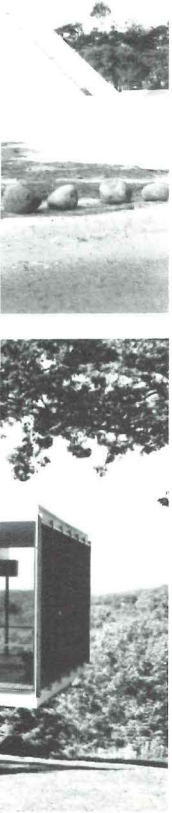
1942. That was the year I married and we settled in Cambridge. After graduation from Wellesley, my wife enrolled at Harvard to study landscape architecture. It was through her that I met some of the professors at Harvard who persuaded me to make application to the graduate school of design. When I decided to go to Harvard to study under Gropius, Dean Emerson was very unhappy. He felt almost betrayed. He was deeply committed to the Beaux-Arts method of education and genuinely felt that the modern movement was mistaken.”

Before enrolling at GSD, Pei volunteered for service with the National Defense Research Committee and worked for two and a half years with an intelligence unit in Princeton, N.J., and Washington, D.C. He returned to Harvard in the fall of 1944 “still hoping to return to China, but my father,” he explains, “had become governor of the Central Bank at a time when the country was in economic shambles. He advised me to stay in the U.S. What happened to China afterward is history. I am forever grateful for his advice.”

What was Pei’s response to Gropius and Breuer who were his teachers at Harvard? “All architectural schools in the U.S. that time were trying to free themselves from the Beaux-Arts,” he answers. “There was a general lack of sense of direction. Gropius and Breuer, under Dean Hudnut, brought considerable excitement to Harvard. I was attracted to it as were Johnson, Noyes, Barnes, Rudolph and many others. There is no question that Gropius and Breuer helped shape my thoughts on architecture.

“In those years ‘form follows function’ was not just a slogan. It was almost a moral imperative. I understood Gropius’ need

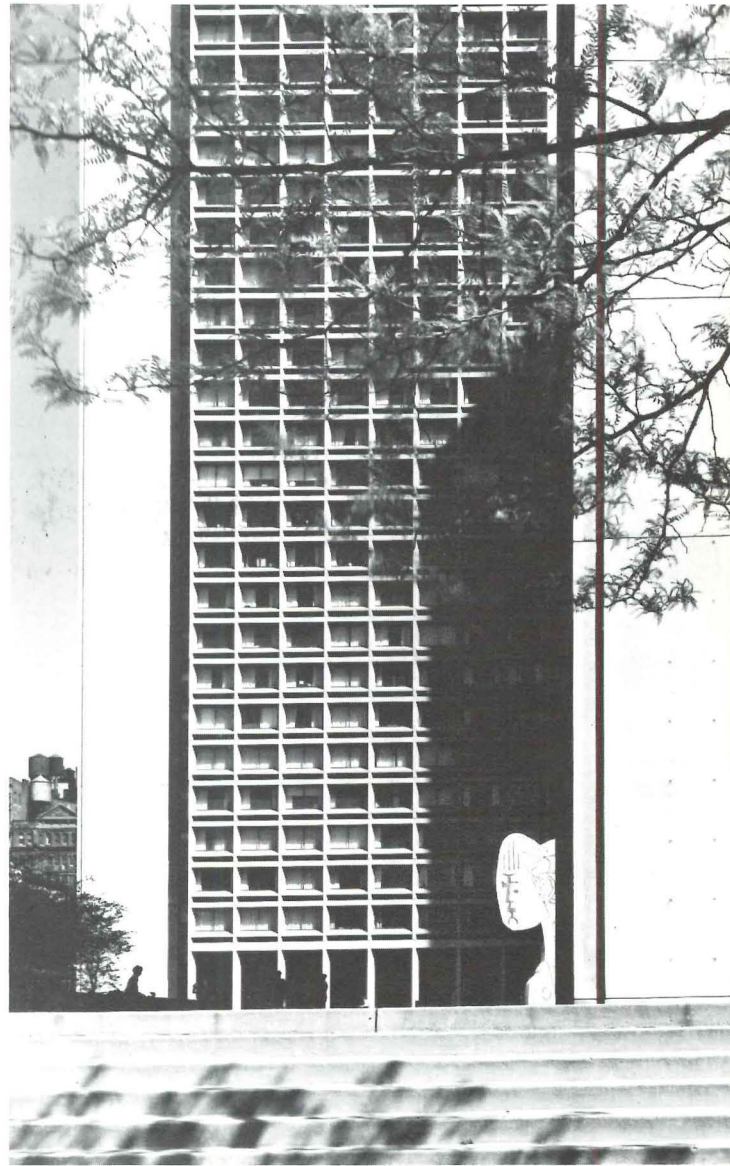




Robert Damora



Robert Damora



George Cserna

...ce a doctrinaire position in order to bring about the change  
 ...t some of us who were in school then thought his functional-  
 ...n was perhaps overly simplistic. Gropius was really a great  
 ...cher. He encouraged discussions in the studio. On one occa-  
 ...n, I took issue with him on the subject of the International  
 ...yle. I thought the differences in cultural and historical tradi-  
 ...ns would result in a variety of architectural expressions. To  
 ...ve my point, I chose as a design problem a museum for  
 ...inese art in Shanghai, which attracted considerable attention  
 ...the GSD. I remember well that Breuer defended my position  
 ...ry strongly to the jury. That was the first time I realized there  
 ...s a difference of opinion on fundamental issues even among  
 ...ose who were involved in the making of the modern movement.  
 ...“From Breuer,” continues Pei, “I learned that to understand  
 ...chitecture, one must understand life. There was much empathy  
 ...between us and we have been close friends to this day. I also  
 ...nk that Breuer was much more influential than he’s been  
 ...ven credit for. A whole generation of architects was influ-  
 ...ed by his early work, particularly in the design of houses.  
 ...hen he first came to this country, Breuer was very interested in  
 ...e use of wood. At that time we had shingles, we had clap-  
 ...ard. But he said, ‘Why not use vertical boards and tongue and  
 ...groove and get completely flat surfaces?’ Breuer started that.  
 ...ou could see it in Barnes’ and Franzen’s work and you can  
 ...en see it in Richard Meier’s and Charles Gwathmey’s work  
 ...day.”

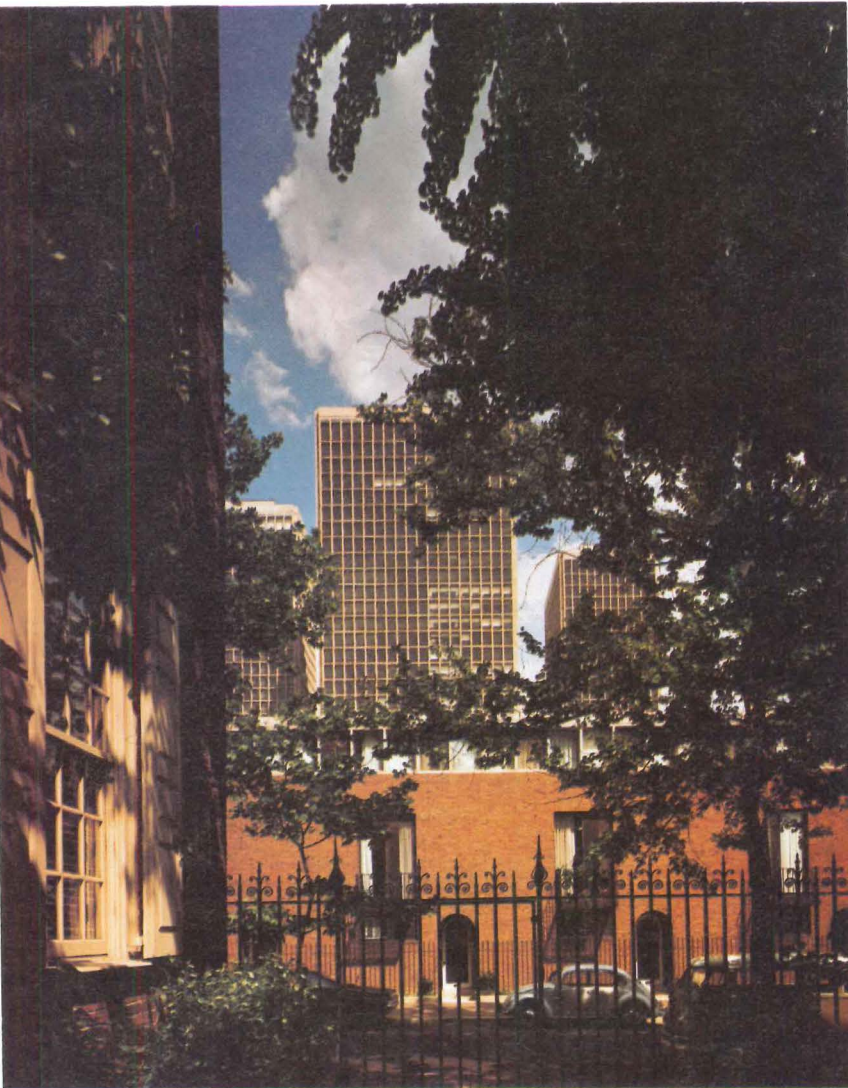
Pei knew Philip Johnson at Harvard and describes him as  
 ...ving been “sort of iconoclastic—and a gadfly. He was the  
 ...ost provocative and exciting person in the school. He shocked

many of us by saying over and over again that he would much  
 ...rather do a bad Mies than a good Johnson. My wife and I were  
 ...among his first dinner guests at the house he designed and built  
 ...as a thesis project. We knew and admired the Barcelona Pavilion  
 ...and the Tugendhut house but simply did not know enough  
 ...about Mies. Johnson was clearly ahead of us at that time. Mies’  
 ...importance became more manifest after a retrospective exhibi-  
 ...tion of his work at the MOMA in 1947.”

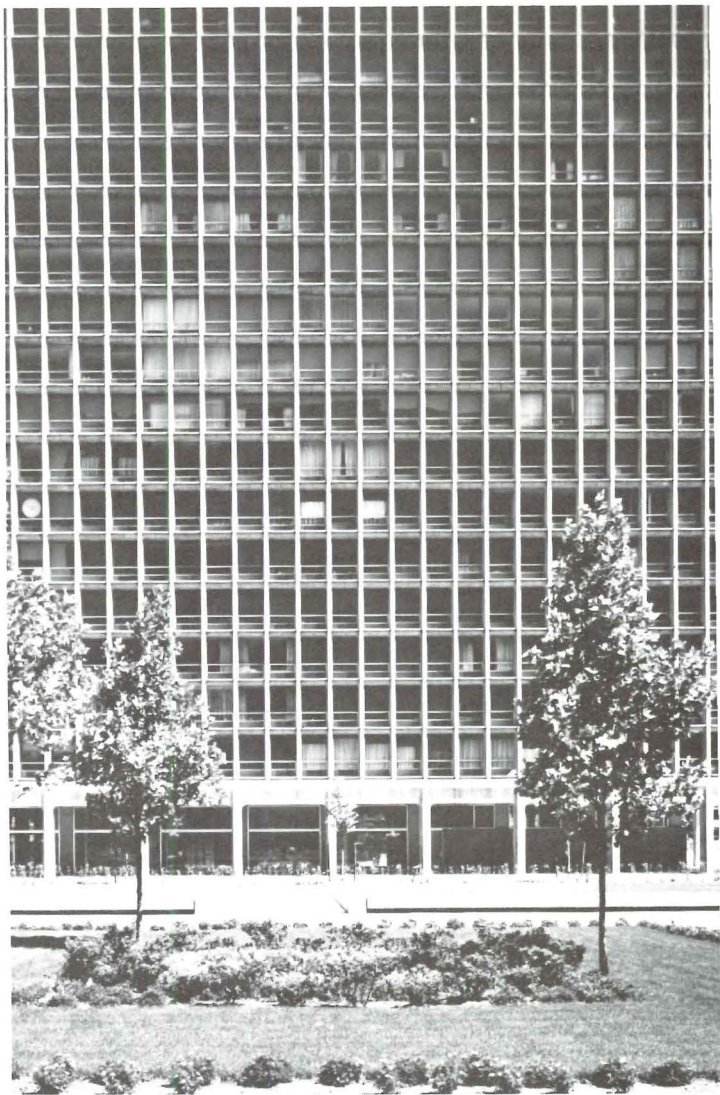
What was Pei like as a young man? “I was impressionable to  
 ...the point of being naive, but very curious. I think curiosity was  
 ...an important trait, because of curiosity I always inquired, and  
 ...when you inquire, you find different kinds of answers. No, I was  
 ...not taken in completely by any one dogma.”

In 1948, Pei accepted Bill Zeckendorf’s offer to create and  
 ...head an architectural department for Webb & Knapp. Zecken-  
 ...dorf felt, according to his memoirs, that “it was about time the  
 ...modern Medicis began hiring the modern Michelangelos and da  
 ...Vincis.” Pei, at the time, was not ready to open his own office.  
 ...“I might at any time decide to return home,” he recalls. “And  
 ...Zeckendorf was willing to hire me though I made it clear that  
 ...my stay might be only temporary.” But there were other reasons  
 ...why Pei accepted the position.

“Real estate developers,” he explains, “are responsible for  
 ...the built environment that we see. Rather than hold them in  
 ...contempt I thought there was a great potential in trying to work  
 ...from within. One could learn something from them, and I  
 ...learned a great deal. The way a real estate developer looks at a  
 ...site is a wonderful lesson for an architect. He looks at the sur-  
 ...rounding properties—who are the neighbors? He looks at the



Robert Damora



Mol

## From Miesian grids to Corbusian plasticity.

transportation systems, since people have to get to the site. The contextualism in the design of buildings was never more powerfully gotten across to me than in association with developers like Zeckendorf.

"The noted architects at the time usually didn't involve themselves in this type of work. The budget was low and constraints many. But I found it extremely exciting. I wouldn't want to do anything differently if I had to start my professional life over again.

"Zeckendorf was a very imaginative person. He never looked for the obvious and had only scorn for conventional solutions to problems. In a way, I find myself approaching architectural problems in much the same way he did in his real estate ventures. He was an idea man, making his mark through ideas, and so are we."

Zeckendorf for his part regarded Pei as "probably the greatest site planner alive . . . a perfectionist, but practical, a pleasant guy to have around."

While with Webb & Knapp, Pei and the 70 designers working for him planned and designed, among other projects, Denver's Mile High Center, the Place Ville Marie, in Montreal, and Society Hill, in Philadelphia. What were the principles guiding their work? "If you build in an existing city," Pei explains, "particularly an old part of a city, you have to respect the existing fabric of the city, as in mending a piece of cloth or tapestry. The opposite to that is what Le Corbusier proposed in the Ville Radieuse in Paris, carving out a piece of Paris and then super-

imposing onto it his radiant city. That is wrong. And we all knew that."

How was this idea applied in Montreal? "The site for Place Ville Marie was once the marshalling yard for the Canadian National Railroad, a 40-foot deep, gaping hole in the middle of Montreal dividing the retail center to the north from the transportation and finance center on the south. Place Ville Marie was the multilevel complex of pedestrian ways unified the once divided city into a whole. As a result, many other projects followed."

Did he have reservations about planting highrise buildings in old residential areas like Society Hill? "I think you must understand that Society Hill was an urban redevelopment project involving city, state and federal participation. The determination on density was made on the basis of the economics of the costs of land acquisition and the amount of write-down permitted by law. I believe there were six architect-developer teams competing for the right to develop the properties. We won the competition because our scheme respected the design forces impinging on the site from the outside as identified by the Philadelphia city planning commission. By concentrating the bulk of density in three highrise towers along the waterfront, it made possible the development of the remainder of Society Hill with town houses—and so preserved the scale of 19th century Philadelphia."

During this period, Pei's work was strongly influenced by Mies, yet the town houses he designed for Society Hill have arches and other allusions to the past. "Yes," explains Pei, "that was intentional, the use of brick and arches was characteristic of the townscape of old Society Hill. Also, the builder wanted two

Society Hill Redevelopment Washington  
 Square East, Philadelphia, 1964 (far left);  
 Kips Bay Plaza, New York City, 1962  
 (middle); National Center for Atmospheric  
 Research, 1967 (below); Johnson Mu-  
 seum of Art, Cornell University, Ithaca,  
 N.Y., 1973 (right).



Rondal Partridge



Nathaniel Lieberman

ry units, because he thought people wouldn't want to walk up  
 more than one floor. The rest of Society Hill, however, was at  
 least four stories high, so we persuaded him to let us go up three  
 levels. There are certain times you have to be insistent with your  
 client, because if we had built two-story houses, they would be  
 much less sympathetic with the older town houses."

In the mid-1950s, Pei began taking some independent commis-  
 sions. "We did the Earth Science Building for MIT which  
 had nothing to do with Webb & Knapp. We weren't fully inde-  
 pendent until 1962. The break was a gradual one. I expressed  
 my restlessness to Mr. Zeckendorf around '55, '56 and he was  
 very understanding, saying, 'You can take some outside commis-  
 sions, but don't forget us.' By 1961 or '62, Webb & Knapp  
 was having financial difficulties and the very large architecture  
 department was a heavy burden for the company. So when I  
 offered to do more outside work, he agreed."

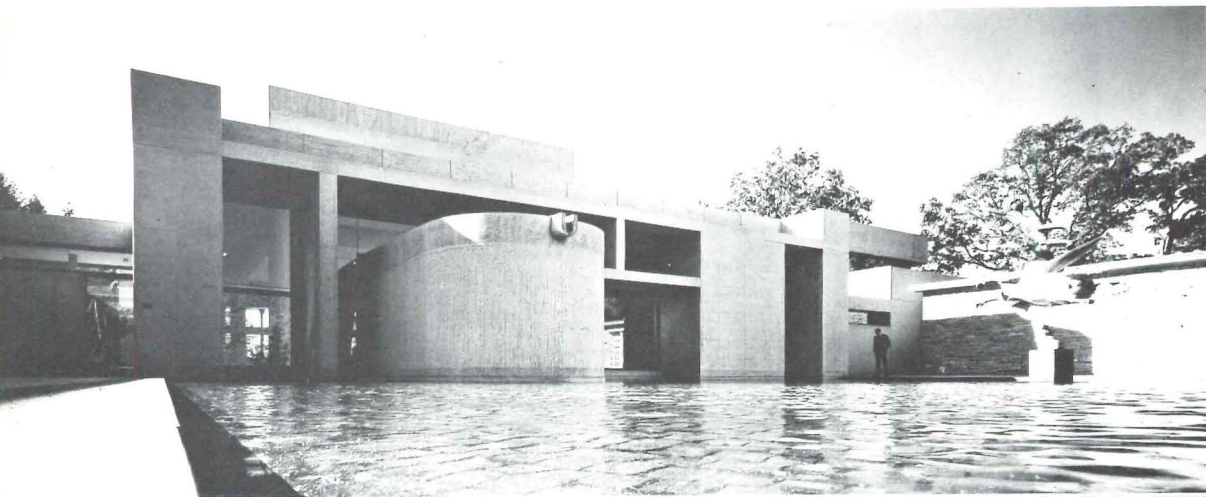
Of the senior staff members who are with I. M. Pei & Partners  
 today, about 90 percent go back to the Webb & Knapp days,  
 according to Pei. How does he run the office? "It really consists  
 of a number of small firms," he says. "We have different project  
 teams and each is independent. My role, because of my seniority  
 and presumably I bring with that seniority a certain amount  
 of experience—is to oversee a number of teams and make my  
 contributions when I think they are needed. I withdraw myself  
 when I think they are not needed. My other partners are grad-  
 ually doing much the same thing, taking on first one project and  
 then one or two more. We have a staff of 140 today; we were  
 15 back in 1971. But with 140 we are doing more work and I  
 think better work than we did eight years ago."

"Some of our early buildings look as though they were done  
 10, 15, 20 years ago. But that's good. It is a healthy sign of  
 growth. When one is satisfied with one's work done 10 years  
 ago, then there is cause for worry."

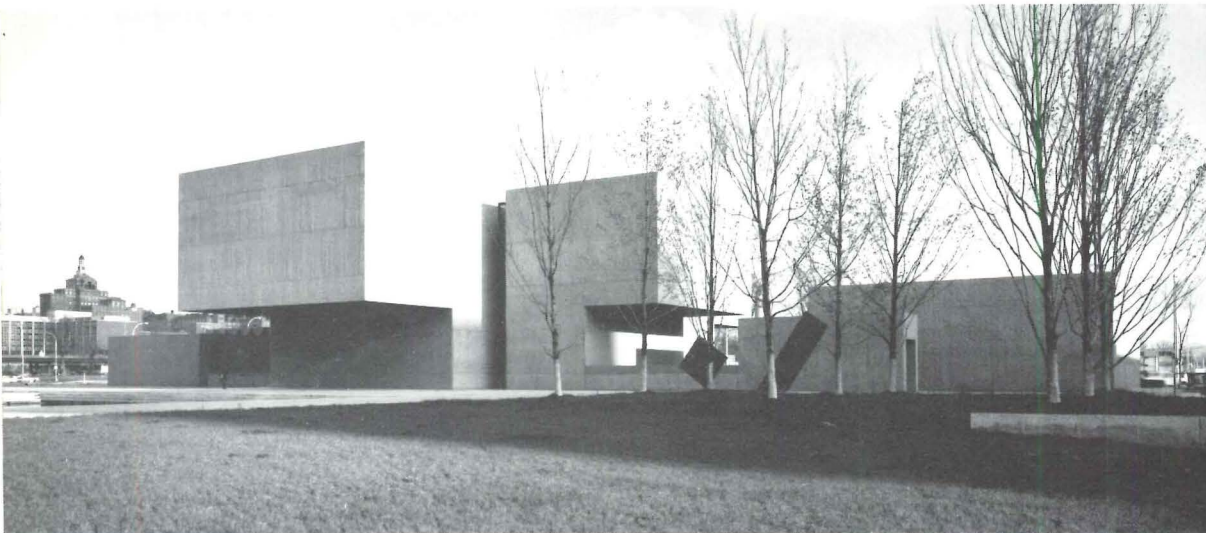
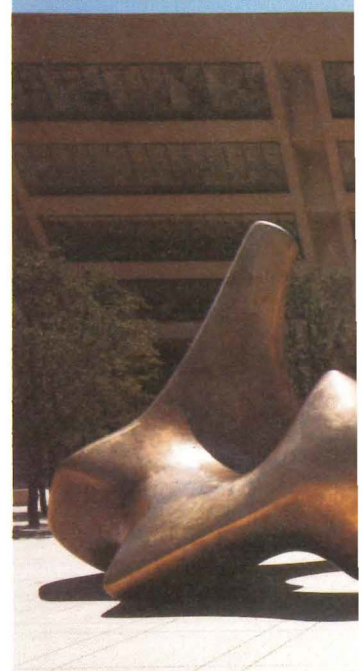
How have Pei's ideas about design changed over the years?  
 "The machine esthetic of Mies, because of its great simplicity,  
 was very applicable to our work of the early '50s," he says. "We  
 were trying to solve urban housing problems at the lowest possi-  
 ble cost and yet, at the same time, develop something that was  
 esthetically satisfying. I found much that I could draw on from  
 Mies for Kips Bay here in New York, Society Hill and Univer-  
 sity Plaza at New York University. Where Mies used steel,  
 aluminum and glass, we used concrete and glass."

"But I found Mies' approach somewhat rigid. 'Skin and bones'  
 architecture does not offer the kind of volumetric and spatial  
 possibilities I was seeking. So we looked into Le Corbusier's  
 work and to a lesser extent, Aalto's and Frank Lloyd Wright's.  
 I think the influence of Le Corbusier was the stronger for we  
 found in his work sculptural possibilities. Our interest in the use  
 of concrete started about that time as it is a material that permits  
 one to express volumes."

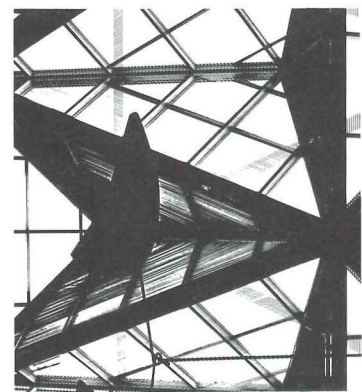
This sculptural quality is very apparent in Pei's National  
 Center for Atmospheric Research in Boulder, which he began  
 designing in the early 1960s. "Before Boulder," he says, "I had  
 always looked over the shoulder of the architects working with  
 me, and I would participate in the concept and occasionally  
 draw a little to test out an idea or to help someone consolidate  
 his own direction." Boulder was for Pei an intensely personal  
 expression, his first.



Ezra Stoller ©ESTO



Ezra Stoller ©ESTO



## Part of 'a generation of builders, not theorists.'

"When we got into public buildings, a new kind of concern entered into our work, and that is the symbolic one," he continues. "Take the Kennedy Library. It's a small building. Yet the building cannot give the appearance of being small because it represents not just Kennedy himself, but the importance of the Presidency during the years when Kennedy was President.

"Similarly, Dallas City Hall had to be more than just an office building. We had to be concerned about people's perception of what the building should be. We chose to make it long and low, because we felt it should contrast with private institutional buildings. There was another reason for making it low. A public building has to have a public space, just as in front of a cathedral there's always a square. If you put a tower in front of a plaza, the plaza leaks everywhere and you end up with no enclosure. A low building embraces the plaza and makes it its own. So the search for the symbolic is very important in this context."

Looking back at the 1950s and '60s, Pei says that "it was a period of great opportunities. We had almost continuous building activity for almost two decades. This created a generation of architects who had little time to reflect. It was a generation of practitioners, putting the ideas of Le Corbusier, Mies and others into practice. It was a generation that said, 'The revolution is won. Now let's roll up our sleeves and get something done.' I belong to that generation."

What architectural firm or individual does he think made the most significant contribution to design during these decades? "I would have to say Skidmore, Owings & Merrill, because they were able to create a very large amount of work of very high quality," answers Pei. "In the process they set standards. They

have gained acceptance for the profession in the corporate world. I think some architects of today tried to make light of their contribution. I believe they will be proven wrong.

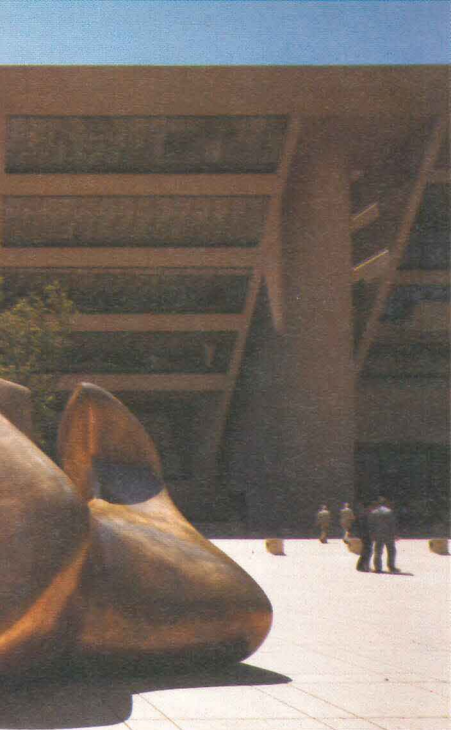
"During the '60s, I consider Louis Kahn an important influence. Because his background was Beaux-Arts, he was steeped in the history of architecture. He created his own forms by adapting forms of the past. He went beyond the first generation of modernists. In my opinion, Salk Center comes close to being an ideal building."

Did Kahn influence Pei's work directly? "Yes, in a formal sense, he and I were probably equally concerned about form. Though, I think Salk Center is much better than the National Center for Atmospheric Research, the formal concerns were the same."

Like Kahn (and Johnson), Pei has designed a number of museums beginning in the late 1960s. The first was the Evers Museum of Art, Syracuse, N.Y. (1968); the most recent is the National Gallery of Art, East Building, Washington, D.C. (1978).

Does he feel that there have been basic changes in approach and form during this decade of work? "Yes," he says. "Both the Everson and the East Building are exercises in form and space. I think, however, the East Building is more successful contextually. Its space is more whimsical in character, while at the same time more complex because of its multiple vanishing points."

How does he feel about the recent criticisms of the East Building? "They were bound to come, for no building is perfect. Frankly, I was happy to see that architectural space can stimulate the visual perceptions of people. The East Building is essentially a place for special exhibitions. With the opening of the study center for visual arts this summer, the East Building will be complete. It has been criticized for not having enough exhibi-



Nathaniel Lieberman

The Des Moines Art Center (top left) and The Everson Museum of Art (bottom left), both completed in 1968, are characteristic of the Corbusian character of much of Pei's work at the time. Left, a detail of his enormously celebrated East Building of the National Gallery of Art, and above, the Dallas City Hall with its Henry Moore sculpture; both were completed in 1978. At right, model of the Raffles International Center in progress in Singapore.



Nathaniel Lieberman

space. This is, in fact, untrue, for there are 90,000 square feet of exhibit space, roughly eight times the special exhibition space of the west building.

Paul Richard of the *Washington Post* said, 'Isn't it a pity that there isn't more daylight?' It's very easy to say that. But where they have daylight, curators are now trying to dim it, for daylight can be a problem. And controlled daylight runs into astronomical costs; so we opted for daylight in the three major galleries on the top floor. There is also criticism that the temporary exhibition gallery is on the lower level. It had to be there to be near the loading and storage areas. Mounting a major show in the Dresden is both noisy and time consuming. This gallery can be shut off without affecting the rest of the museum.

'But criticism,' he continues, 'is always constructive, even when it is unfair. However, I believe good architecture will withstand the test of time.'

Pei is so much the humanist. How does he respond to critics who say that by removing scale elements some of his buildings tend to overwhelm visitors? 'I assume critics were referring to our public buildings such as the Dallas City Hall and the East Building. Frankly, I am not aware that either building overwhelms visitors. Scale perception is very subjective. To me, a public building needs to have a scale that is appropriate to its importance to society.'

How important to Pei is the idea of architecture as art? 'I agree with Philip Johnson that architecture in its highest form is great art. It must also pass another test; namely, how well has it satisfied its social purpose?'

And how does he view so-called postmodernism? 'I think it's not anything new,' he answers. 'But it does do one thing that is good. It makes many architects look back and say, 'Now let's not be so uptight. Let's have a little fun. The battle is won, now

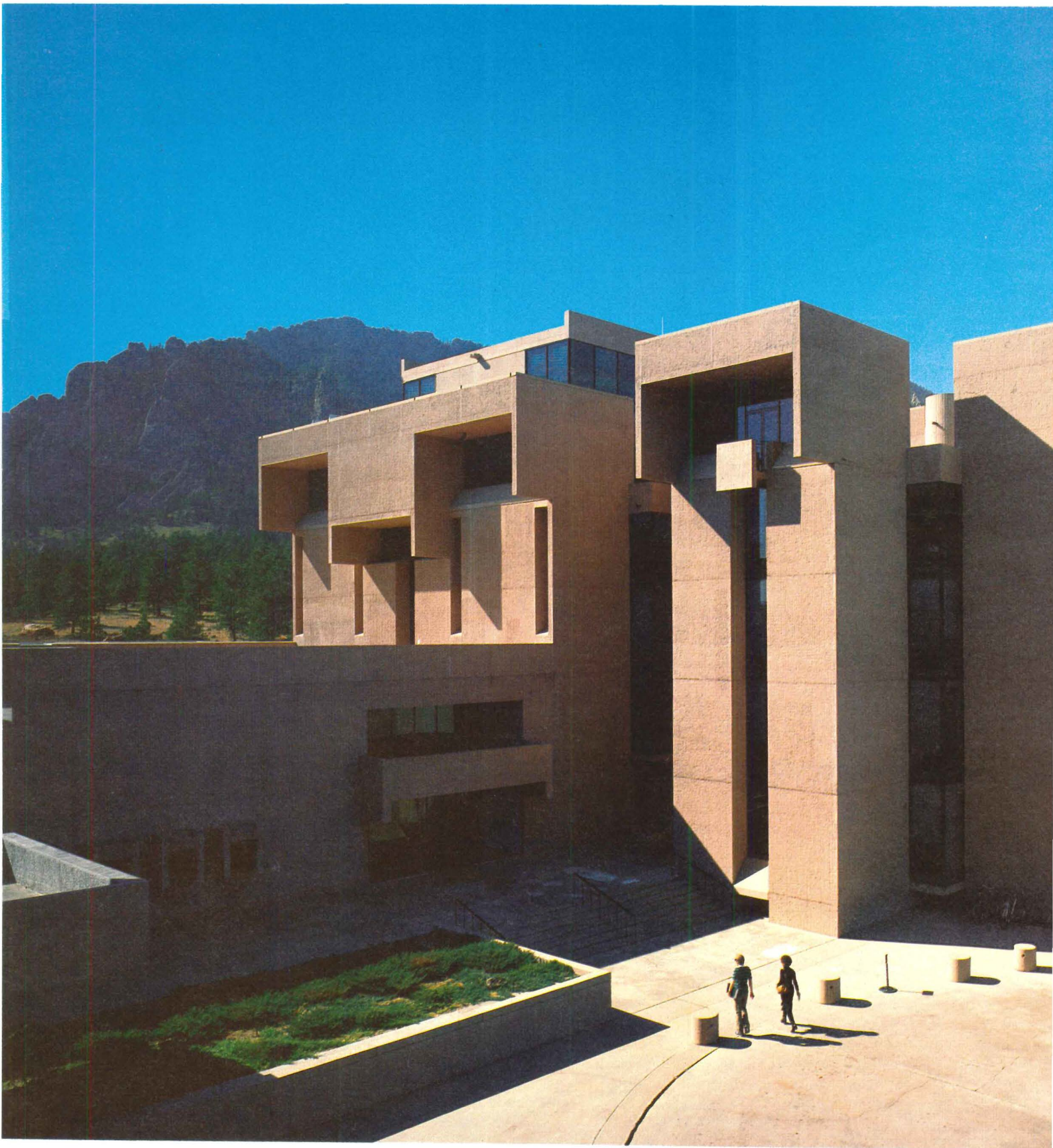
let's search further; let's relax a bit.' That's good. I'm certainly not one to belittle previous generations. I owe a great deal to them, just as the young today owe something to us.'

Pei continues, 'In perspective, the change taking place today is minor when compared with that brought about by the modern movement, which was not a change in style but a break with tradition. In my view no building can stand alone without reference to its surroundings. I would like to make clear, however, that I recognize the importance of the individual building. Ville Savoie and the Barcelona Pavilion are two such examples that come readily to mind.'

On the subject of Philip Johnson, Pei goes on to say, 'Philip is an architect with wit, taste and style. I think his important contribution lies in creating a climate for questioning. We architects tend to be somewhat set in our ways. We need a little stirring up and he is doing just that. I must confess, however, that I find it difficult to follow his many twists and turns. To me, design is a painfully slow process. I think there is too much concern for style and not enough concern for substance today. Architecture is serious business. It is not fashion. In this respect I am a conservative.'

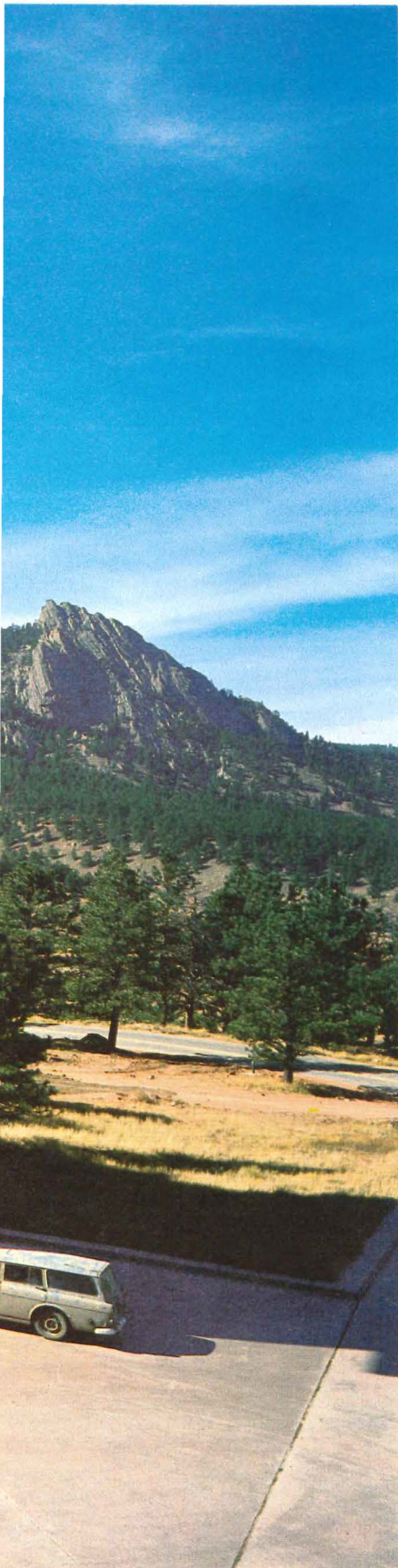
Would it be correct to say that Pei's work is characterized by a sense of almost classical orderliness? 'Yes, I think that is the way I look at life,' he answers. 'Life is kaleidoscopic and heterogeneous. I tend to seek order in life. I like to simplify, not make things complicated.'

What, finally, does I. M. Pei want to be remembered for? 'I believe in continuity and change. I believe architecture is an important art form mirroring life. As an architect I want to build beautiful buildings that are respectful of their environment and, at the same time, satisfy social concerns. I want to be remembered as an architect of *my* time.' □



# Evaluation: From Context to Form

*I. M. Pei's National Center for Atmospheric Research, Boulder, Colo. By Bernard P. Spring, FAIA*



Photographs by Rondal Partridge unless otherwise credited

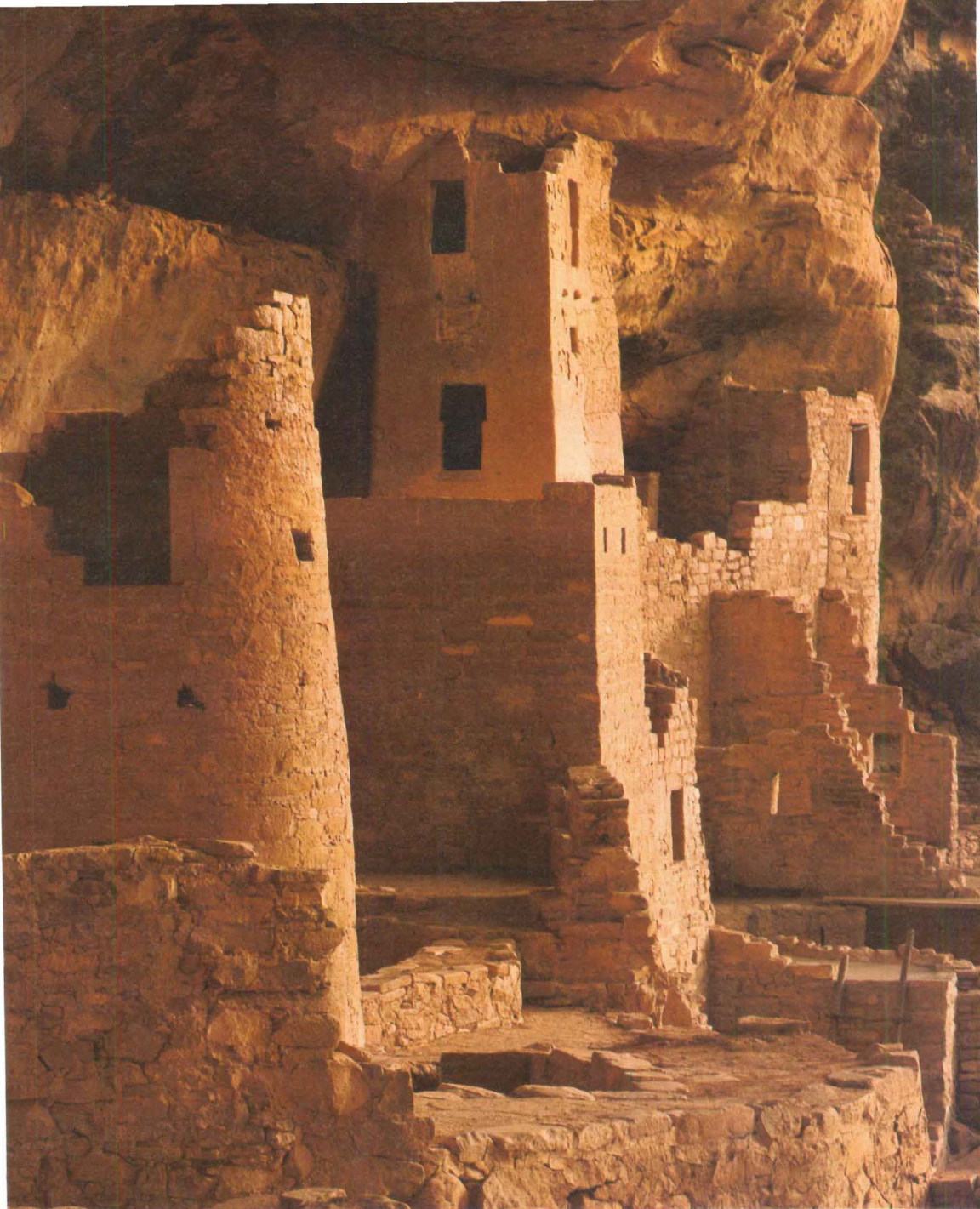
When it was dedicated 12 years ago, the National Center for Atmospheric Research (NCAR) headquarters building provoked the curiosity of the general public as much as it provoked the architectural profession. What was the purpose of the unfamiliar forms and shapes which were so widely shown in magazines and newspapers? The official explanation for the complexity of the rosy-hued building was that the jagged towers and their asymmetrical features were the direct physical expression of a most complex program essential to the kind of scientific activities generated by research on the atmosphere. Today, the activities of the people who work in the building are but a small portion of a worldwide scientific network (much of it electronic and invisible) which circles the earth and reaches from the depths of the oceans to the surface of the sun. The building itself is, more than anything else, a tangible, visible symbol of this unseen web of scientific research.

In 1961, a committee of seven architectural school deans chose I. M. Pei & Partners as architect for the NCAR project. The site selected was one of awesome beauty, atop a 6,200-foot-high mesa in the eastern foothills of the Rocky Mountains on the outskirts of Boulder, Colo. By 1964, the Pei office was to send out to bid a set of contract documents that marked a major turning point in Pei's career as a designer. Up to that time, his substantial reputation had been earned by fitting buildings with familiar programmatic demands such as offices and housing into the context of a dense, urban environment with great sensitivity and refinement.

Recently, I. M. Pei, FAIA, recalled the sense of profound humility he felt in dealing with that vast, open mesa and the superhuman scale of the Flatiron Mountain range, the backdrop for the building he agreed to design. Added to the challenge of the site was an unusual set of program demands developed by NCAR's then director, Dr. Walter Orr Roberts, and his colleagues. Roberts went well beyond his training as an astrophysicist to become a statesman of the scientific community. Almost singlehandedly, he created a new, interdisciplinary field of re-

**Mr. Spring** is dean of the school of architecture, City College of the City of New York, and a former editor at *Architectural Forum*.





David Muench



*Left, the 13th century Indian caves of Mesa Verde that became the basis for Pei's approach to the center. Above, the original design for the center. Budget limitations forced elimination of the south towers, at left in the rendering. The photos show the same elevation, as built.*

## Inspiration from the towers of the cliff dwellers.

search, atmospheric science, and brought it legitimacy and substantial funding. His unique ability to conceptualize both the philosophical and practical aspects of innovative science proved transferable to architecture.

As Pei puts it: "It was more like having a new partner than a new client." Roberts asked for a building that would reflect the inherent complexity of atmospheric science yet remain flexible enough to accommodate changing research programs. He wanted the design to represent the organization with pride yet fit with respect into its glorious setting. Because the timing was right, he got what he asked for.

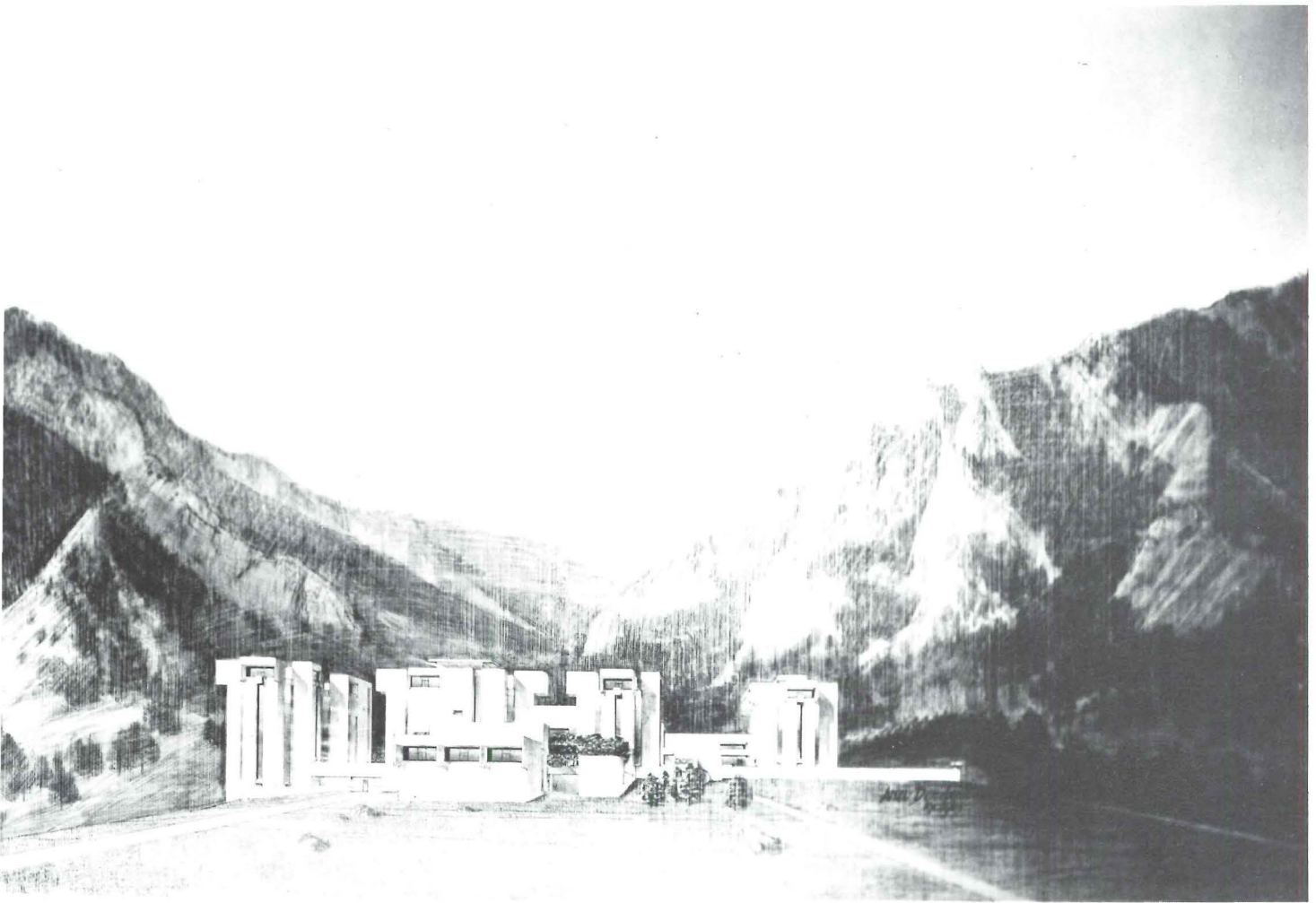
If NCAR had been started just a few years later, Pei would have been obliged to wait for a different commission to bend his earlier thinking about issues of context toward issues of form, his main challenge on this project. The population of Boulder has quadrupled from about 20,000 in 1950 to some 80,000 in 1979. It is a prosperous, research-oriented city, still dominated by the main campus of the University of Colorado (which recently had its student population "capped" at 20,000). Boulder's voters have moved decisively to limit further growth and to preserve its

most beloved visual asset, the unspoiled mountain backdrop.

The NCAR towers were the first and will very likely be the last man-made objects to be built against this backdrop above the 5,500-foot elevation (about 200 feet higher than the city's center). Before the NCAR site could be used, a public referendum was needed to permit a building above the so-called blue line, the highest elevation to which the city would supply public services (such as water). After NCAR was completed, another referendum created the bonding authority which permitted the city to purchase and preserve forever in its natural state all of the mountainside land not already in public hands. With the passage of time, however, most of the people of Boulder have come to see the towers of NCAR as a familiar incident in the sweep of their mountain view, no more out of place there than the Devil's Thumb, an unusual beak-like natural rock formation that juts up at the southern end of the Flatiron range.

This sense of fitness to the landscape was precisely what Pei set out to achieve. The design approach, however, did not come to him easily. There were many false starts. At first, he tried designs using his accustomed vocabulary which articulated structure and skin and achieved a sense of scale in the size and proportions of the windows. These designs created buildings that

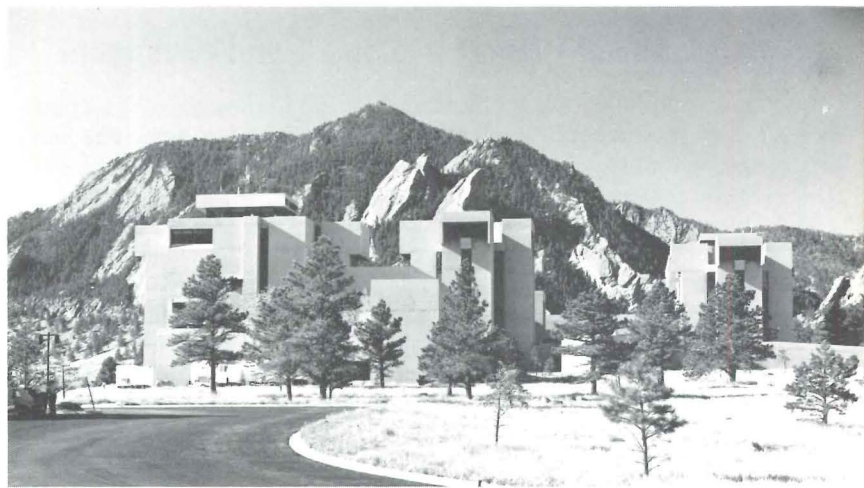


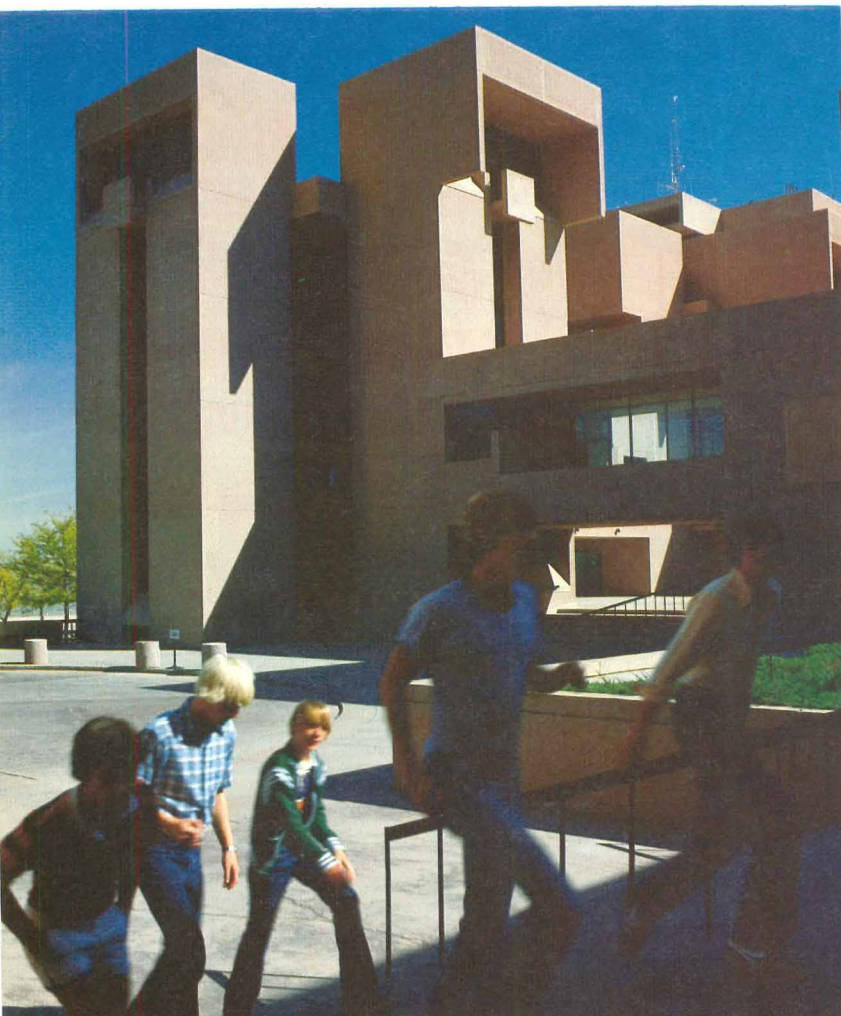


ould have looked like toys in the grandeur of this site. Pei  
umped out day and night on the site, then called Table Mesa,  
n Roberts (in 1975 the name was officially changed to Walter  
Roberts Mesa). He toured the state searching for inspira-  
a. At Mesa Verde National Park in the southwestern corner of  
orado, he found it. There he came upon the 13th century  
s of the Anasazi Indians, built in immense caves in the walls  
he canyon cliffs. The indigenous masonry towers of the In-  
ns were not the least bit intimidated by the gigantic scale of  
ir surroundings. Thus the seed was planted for his concept  
the shape, color and texture of the NCAR towers. The non-  
culated, somewhat monolithic forms of the NCAR design  
wn on these pages reveal how Pei reinterpreted the principles  
Mesa Verde's architecture using the best available concrete  
nology and radically different uses.

The transformation of the meaning of the NCAR complex in  
12 years it has been in use is no less radical. When it was con-  
ved, the programmed activities and the building itself were  
ught of as a discrete unit (as was usually the case throughout  
history of architecture). Yet no program or building could  
e been made flexible enough to anticipate the changes that  
re to take place in atmospheric research. At first, for example,  
as expected that much gathering of scientific data would take  
ce on the large roof deck at the third level of the structure.  
d for a few years, some measurements were made on the cost-  
romenade deck provided there. Presumably this was a major  
ivation for siting the building high above the dust and smog  
he rapidly urbanizing center of Boulder.

Now the most significant data are collected and recorded in  
maginable quantities by satellites, by a specially instrumented  
t of four NCAR airplanes, by 900-foot-high balloons that  
send messages back from an altitude of 100,000 feet, from  
instruments of oceanographic ships and more. What really  
all this widespread work together is the pair of computers





## A variety of spaces for people—and computers.

housed in a 15,000-square-foot addition to the original first basement tucked beneath a level, grassy corner of the mesa. The newest and most powerful of these computers, the Cray-1, is the size of three phone booths and looks (ominously) like a close relative of “Hal,” the domineering intelligent machine featured in Stanley Kubrick’s film, “2001.” This instrument, which began to operate in 1978, cost as much as the entire original building complex. Scientists at 63 locations across the nation have remote job entry equipment which makes it possible for them to use NCAR’s principal facility as easily as the people working in the building.

Yet, the mesa building still houses about 500 of NCAR’s 800 employees and a substantial and varied set of scientific activities. It is extremely overcrowded (it was designed for a population of only 300), particularly during the summer when up to 75 additional visiting scientists and students are somehow squeezed in. The shortage of space is ameliorated somewhat by the 48,000 square feet that NCAR rents in four buildings on the university campus below to house some 200 people. Had Pei’s and Roberts’ original program been built, there would have been 50,000 square feet more office and laboratory space on the mesa. The so-called south towers were cut from the budget by the funding agency, the National Science Foundation. Pei feels these towers were very important to the overall site design concept (see previous pages). They also would have been the most dramatic portion of the structure, growing out of the back slope of the mesa in a way that emphasized the connection of the building to the natural formations around it.

In its present form, the building on the mesa has some of the characteristics of a ship. The well-known “superstructure” of tower-like forms contains only 57 percent of the assignable floor

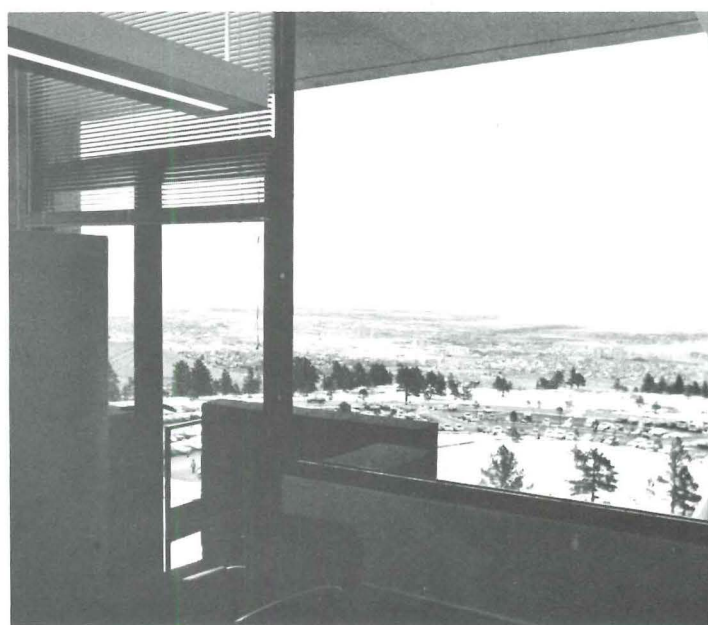
space. Below the main entry level is a vast podium or “hull” that holds 43 percent of the assignable space and an even larger portion of the building’s cubage (because of the large, nonassignable boiler room and fan room). Almost 200 members of the staff are stationed “below decks.” Here we find the rooms filled with the clutter of instruments, wires, vials and pipes usually associated with traditional, bench-related research. Above decks, by contrast, we find mostly desks and bookshelves piled high with papers and punch cards together with racks holding electronic equipment tied to the computer system.

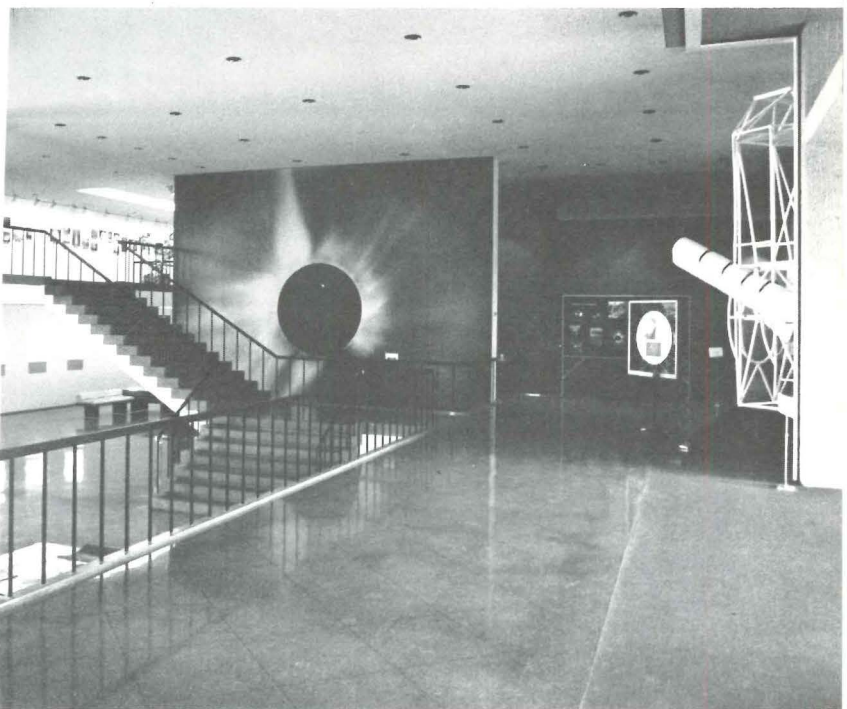
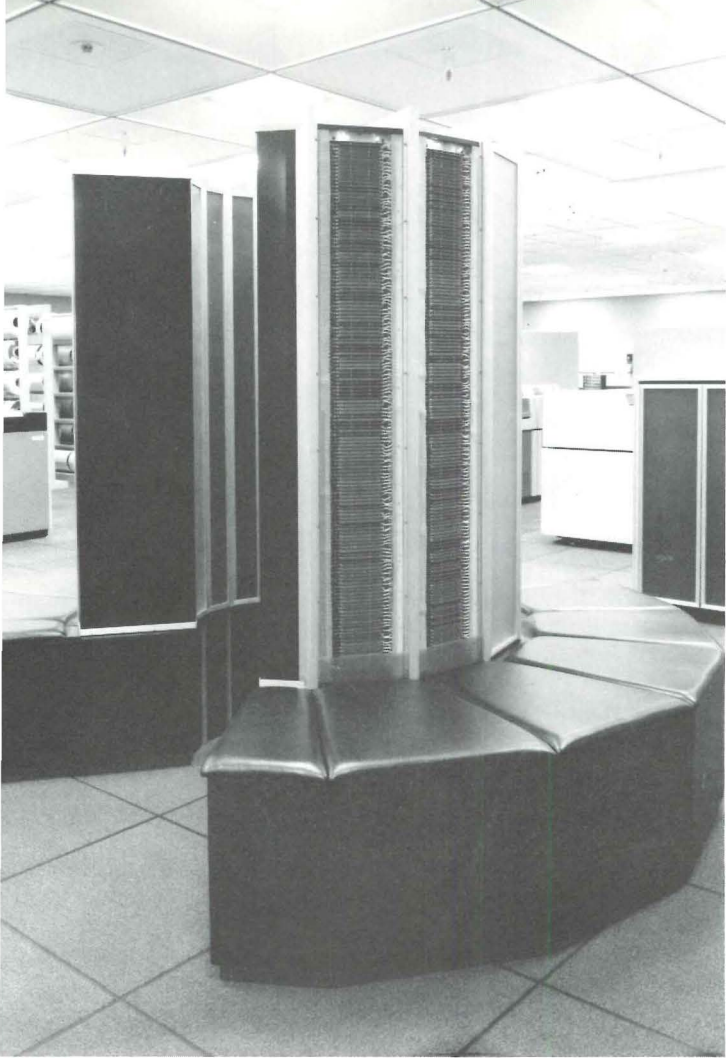
Because it is a facility funded by the federal government, NCAR welcomes visitors, including science classes from nearby schools, who can view exhibits there or descend to a glass-walled room where they may have a look at the central computer equipment. A visitors’ map and the limits of the dark brown terrazzo flooring are supposed to keep outsiders from wandering into areas of research activity. Only the computer space has the locked up security that has done so much in recent years to constrain the atmosphere of public buildings, particularly those in large cities. Other work areas are protected from intrusion only by the complexity of the circulation system which would take most visitors a few days to comprehend.

The large lobby area created for visitors is not one of Pei’s favorite spaces. Only later in his career, he claims, did he come to understand fully the way to design large interior spaces. And indeed, the lobby is the least impressive area in the building. Its quality has been further damaged because the incandescent downlights are turned off in daylight hours to conserve energy. This makes the small, punched window openings glare harshly, although they are supposedly protected by concrete hoods outside and contain tinted glass.

There are unexpected patterns in the use and popularity of the spaces in and around the building. The fountain courtyard and the tree plaza are the most conspicuous and attractive spaces for the visitor. Yet, they are little used by the staff. The mesa catches a downdraft as the wind often spills briskly over the Rockies (sometimes at speeds between 100 and 150 miles per hour). The fountain had to be shut down not only because it spewed a stinging spray in such winds, but because it developed some unconquerable leaks. The open scuppers which drain the balconies on each side of the fountain court are still in operation. As with scuppers used in other parts of the building, they build up huge, deadly icicles overhead in cold weather and spray water against pedestrians and the building’s walls and windows when the high winds blow in warmer weather.

In contrast, the terrace outside the dining area and the bridge leading to the mesa from the second level, outside spaces of no





Left, one of the 'crow's nest' offices at the tops of the towers. Top, the crucial pair of computers that do much of the center's work. Above, a lab. Top right, the spacious Damon lounge. Above right, the less than spacious lobby. Right, an office with protected corner windows.



*The tree plaza (right) is on the chilly north side of the towers. The fountain court (below) has had its fountain covered over because of leaks and the play of high winds. Bottom, the little known University Corporation for Atmospheric Research, which shares the NCAR site and was also designed by Pei.*



### A 'masterpiece of symbolism' and a new sibling.

particular distinction, are filled to capacity in good weather and are occupied by some hardy folk even when the temperature is in the 50s as it was during my visit. Both of these areas have dramatic views and a southern orientation. The lovely tree plaza, unfortunately, lies to the north of the towers and there are very few days when shade is appreciated in the Boulder climate.

Two other staff spaces, the library and the double-height commons room (the Damon lounge), are most attractive to a visitor but get very little use. The library reading area also seems troubled by glare from the large windows facing southeast. The tinted glass is not dark enough to overcome the brilliance of light outside in this crystal clear atmosphere. The Damon lounge is so noble in proportion that any group of less than 20 people may well feel intimidated there.

The very special offices, with wall to wall glass under a giant hood of concrete at the top of each tower, are called "crow's-nests" by the staff. Each can be reached only by an individual circular stairway from the floor below. The crow's-nests are the subject of some controversy. Designed to give deep-thinking theoreticians a breathtaking view of the atmosphere they work



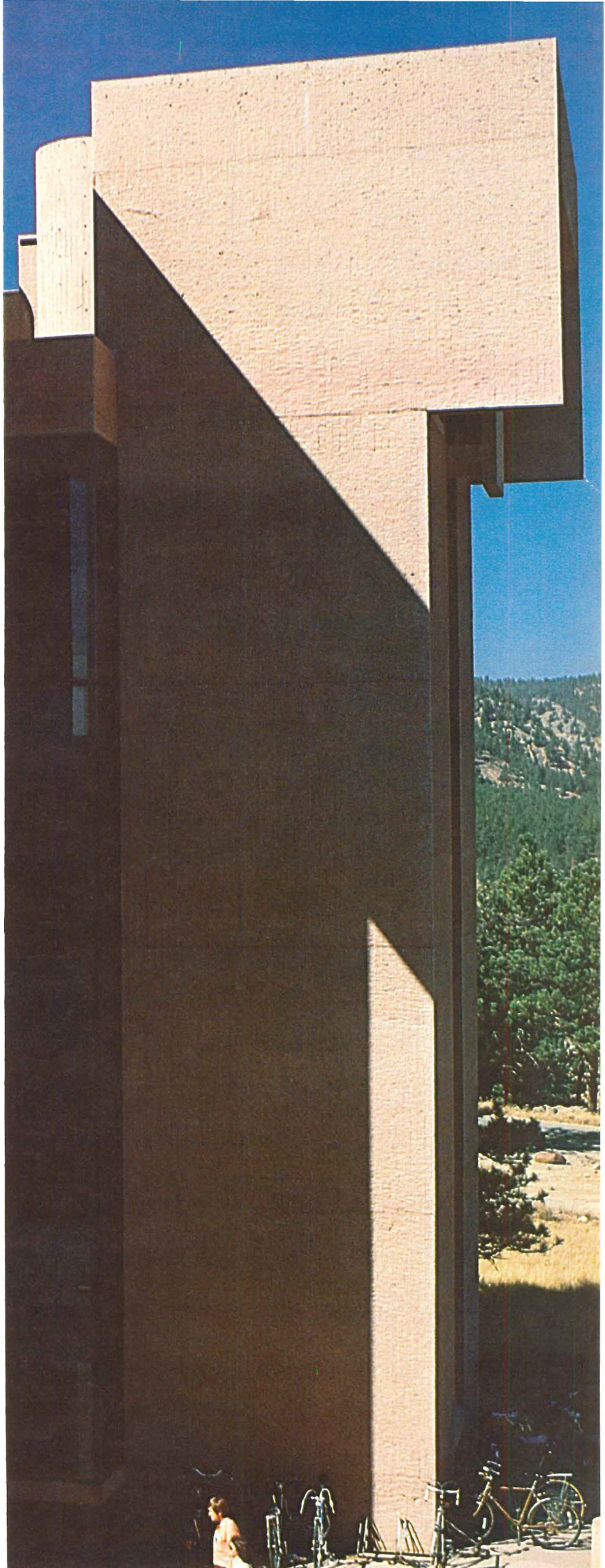
understand through the use of abstruse formulas, the towers said by some administrators to be difficult to assign. Yet, many of the occupants are glad to endure the howling winds and early controlled heating of these spaces and are delighted to work in them.

A strong impression produced by the overall design and detailing of the building is that all the glass areas are carefully protected from the bright sun. A closer look reveals an anomaly. Each tower has large corner windows, totally without protection from the sun. The south-facing office I used during my visit had only a window. It became terribly hot in this room when the sun was shining, even though it was pleasantly cool outside. The existing dual-duct airconditioning system with its individual room controls was unable to compensate for the overheating. Because it is inherently wasteful of energy, the dual-duct system is being replaced section by section as building alterations occur to provide a more energy-conserving, variable air volume system. The planning and design staff at NCAR estimated that about 25 percent of the assignable area of the building has had some substantial alterations between 1972 and 1979. This is about normal for an active research facility. These alterations did not take place in the kind of simply shaped modular space that conventional wisdom tells us is necessary for such a building. Yet, with a few minor exceptions, most of which are the product of overcrowding, the spaces of the building still work well for rapidly evolving uses. The groupings of scientists, originally planned to be in teams of three or four, have grown with the complexity of the research to groups of 30 to 40. The informal, personal contacts which were expected to take place following the strong vertical relationships of spaces in each tower seem to spread horizontally, by floor level instead. Still, the people working in the mesa building are clearly pleased with their work spaces. In spite of, or perhaps because of, all its quirks, the building sustains a unique personality, a special sense of place. This seems ultimately more supportive of good morale and camaraderie than providing all the conveniences of a modern scientific laboratory perfectly in place.

An almost unknown and unpublished building by Pei was added to the mesa site some three years after the completion of the main complex. It is an extraordinary, tiny gem with a gross area of only 4,300 square feet. It proves that Pei's command of superior space was not long in coming. The Fleischmann building, named for the private foundation which funded it, is a further example of the use of the built form to underline the structure of an organization. The government-owned NCAR facility is actually operated by a private corporation, a consortium of participating universities (initially 14, now grown to 47 member institutions).

Robertson, when president of this University Corporation for Atmospheric Research (UCAR), wanted to symbolize its independence from government control. One acre of land in the midst of almost 500 on the mesa site was deeded back to the corporation by the NSF. There, a stunning architectural concept was realized by Pei to house the offices and activities of UCAR. Robertson, when Robertson left the organization to head the program in science, technology and humanism of the Aspen Institute, his successor, Dr. Francis P. Bretherton preferred an office at the center of the action in the main building. Since that time, even in the face of the overcrowding there, it has been difficult to find anyone who wants to move from the NCAR building to the UCAR addition just a few hundred feet away.

A visitor several years ago noticed that the pictures on the walls of most offices included at least one view of the exterior of the structure in its dramatic setting. That exterior image is so strong that it continues to inspire the people who live with it every working day. The forms that I. M. Pei created on the mesa may no longer reflect exactly the activities that go on inside the building. Nevertheless, they endure as a masterwork of symbolism that projects the political and social importance of atmospheric research. □



# The Devil's Advocate and the Diplomat

By Peter Blake

I should probably explain that both Philip Johnson and I. M. Pei are among my closest friends. So you will understand, I am sure, that everything you are about to read has been colored by prejudice.

Philip Johnson is, quite simply, the most infuriating architect and critic this country has produced in the 20th century. For one thing, he simply knows too much—he is so incredibly scholarly that he can wipe the rest of us off the slate any time, with a quip. He is absolutely maddening. His wit is acid, and his stiletti are honed to perfection. I suspect he is probably evil—but not quite as evil as he would really like to be. He is more devil's advocate than real devil.

He is an intellectual of formidable accomplishments: a first-rate historian, a first-rate critic and first-rate debater. His interests (unlike those of most architects of my generation) encompass music, literature, politics, philosophy and all the visual arts. I don't know of anyone in our field today who possesses so large a bag of tricks.

He has done some extraordinarily beautiful buildings, and some that he and I would probably prefer to forget. This is better than par for the course.

I suspect that his spectacular intelligence—his cleverness, really—has sometimes led him astray. For a very long time, he was trying, with each new building, to resurrect a significant historic precedent—a Palladian villa, or monument by Schinkel. Even his Miesian buildings were often inspired by Miesian precedent—which is not meant to sound as silly as it does: He really tried to reinterpret Mies, not to copy him. The IDS building, in Minneapolis, for example, is a reinterpretation of Mies' prismatic glass skyscraper projects of 1919 and 1921, not a copy at all.

I recently learned, with some amusement, that Philip Johnson remembered my comment—a good many years ago—that his glass house was really very European, and that the Farnsworth house by Mies was much more "American." You see, Philip, a very gentlemanly American, tried, for a long time, to be as European as—T. S. Eliot! Whereas Mies, a native of the very heartland of Europe, the place of Charlemagne, was trying to leave all that behind him in a determined search for avant-garde technology. He was looking for someone like Henry Ford; and Philip Johnson was (and possibly still is) looking for Charlemagne.

In that search, Johnson occasionally does a silly building. But even when the result is a little embarrassing, it is so much better than most buildings done by his contemporaries. And the ideas that generated the embarrassment are often enormously stimulating. For example, I am not entirely certain about his Corpus Christi museum—but it *did* resurrect Spanish stucco as a building vocabulary, at a time when everybody else was doing high-tech guts-and-structure.

Philip Johnson, now (incredibly) in his 70s, is perhaps the most successful architect in America—not in the quantity of his work, but in the visibility, the media exposure and generally the quality of his work. His original idol, Mies van der Rohe, used to say that you cannot, or should not, invent a new style of architecture every Monday morning. Philip Johnson, in fact, does exactly that. He is incredibly facile, always a step or two ahead of the rest of the passing parade.

Serious critics accuse him of being a charlatan, or worse. I must confess that serious critics often bore me; and charlatans rarely do. Fortunately, Philip Johnson is a frivolous critic, and a very serious charlatan.

I. M. Pei, who greatly admires Philip Johnson (I suspect the admiration is mutual) shares one or two attributes with Johnson: He is a *collector* of modern art; he is totally devoted to architectural *quality*, and he is very much aware of what is going on in the think tanks of architectural theory.

Beyond that, I.M. is a very different sort of architect. What impresses you most about him is that he is a superb diplomat—an architect totally attuned to his client's problems and aspirations within the constraints of the real world. I.M. is capable of translating an architectural vision into reality, bypassing all the predictably tedious roadblocks, and—ultimately—producing a significant work of public art.

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**Mr. Blake**, editor in chief of *Architectural Forum* in 1964-72 and of *Architecture Plus* in 1972-75, was recently appointed chairman of the department of architecture and planning at the Catholic University of America, to assume his new duties in September.

The way he does all of these things is not simple: For instance, he may weigh all the political and economic and social options—and then, very diplomatically, propose a solution that is, invariably, much more than the sum of parts.

By this I mean that I.M.'s projects start out as individual buildings in a typically urban setting; and then, by "gradual degrees," turn into strategies of urban regeneration.

Wherever I.M. has been active, the impact of his work has gone far beyond the presence of a single building: In Denver, he translated the commissions to three or four isolated, downtown structures into a long-range strategy for urban regeneration. It has worked. Ditto in Montreal. Ditto at Kips Bay, in Manhattan. An so on. In some instances (e.g., with his master plan for the Government Center in Boston) the generating urban idea was powerful enough to take wing without the design or construction of a single I.M. Pei building. Although he is, quite clearly, a superb artist, interested in the thing that is supposed to interest artists (i.e., art), he is at least as much interested in the urban condition. Each of his buildings tends to become the entering wedge in the attainment of some greater, public goal, such as the renewal of a significant portion of a city, or the welding together of previously antagonistic neighborhoods. I.M., one feels, is at least as much interested in the diplomacies of architecture, as in the strategies employed, as in the final result. He is a kind of Chinese *tertium datus*, let loose on the urban, American scene (the melting pot is clearly bubbling over tonight!); whereas Philip Johnson is the designer and maker of urban artifacts, of would-be (and often actual) architectural jewels that affect their environments primarily by setting standards of excellence for others to reach. While Johnson is almost exclusively interested in the art of architecture, I.M. is interested in both the art—and the market for that art.

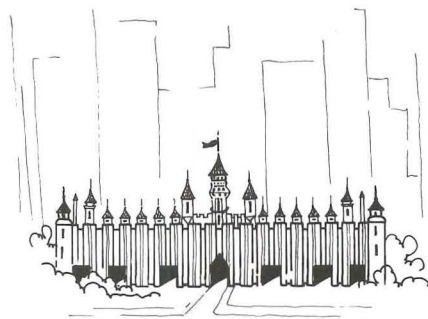
Their personal/professional styles underscore their differences. Although Philip Johnson would, in all probability, be lost without John Burgee (and would have been lost, in earlier times, without Landis Gores or Richard Foster), he does function exceedingly well as a one-man generator of architectural ideas.

I.M. Pei, on the other hand, is a superlative team-player; and the members of his team have often received abundant credit. While there are occasional commissions, such as the East wing of the National Gallery of Art, that are purely I.M.'s own work (and reflect his own, individual preoccupations), many of the projects built by I. M. Pei & Partners have received considerable credit from the "partners"—often decisively so: The 88 Pine Street Building in Lower Manhattan, near the South Street Seaport, is largely the work of Jim O'Neil—a building of pristine, white, Miesian purity. The Christian Science Center, in Boston—that latter-day Vatican—is largely the work of Aldo Costa, a former partner (now independent) with ideological ties to the Ecole des Beaux-Arts. And the shimmering John Hancock Tower, just to the east of the Christian Science Center—the greatest work of minimal sculpture since the Washington Monument—is largely the work of Henry Cobb.

In every one of these buildings, I.M.'s input was probably decisive at a certain moment. But while Philip Johnson's office might be in a certain amount of trouble if Philip were to decide to retire to Kuala Lumpur, say, I.M.'s office would function reasonably well if he were to take a sabbatical. The output of his office might become a bit more diffuse than it is now, but not much more so. Perhaps the best way to compare Philip Johnson and I. M. Pei (as architects) is to imagine what each might do—might have done—for the Convention Center on Manhattan's West Side, a \$350 million complex for which both firms are being considered recently. (I. M. Pei & Partners won out, as everybody knows.)

Had Philip Johnson and John Burgee got the job, the chances are that they would have produced the last and most magnificent palace of our century—a 19th century Crystal Palace, a dazzling structure that would, almost certainly, have caused a major shift in the artistic center of gravity of Manhattan Island, and probably broken the bank.

And what I. M. Pei & Partners are likely to produce is a project designed to generate a more gradual, a less flashy shift—a project designed, eventually, to take all of Manhattan's West Side, and all of Manhattan, a center for the world's people to convene. □



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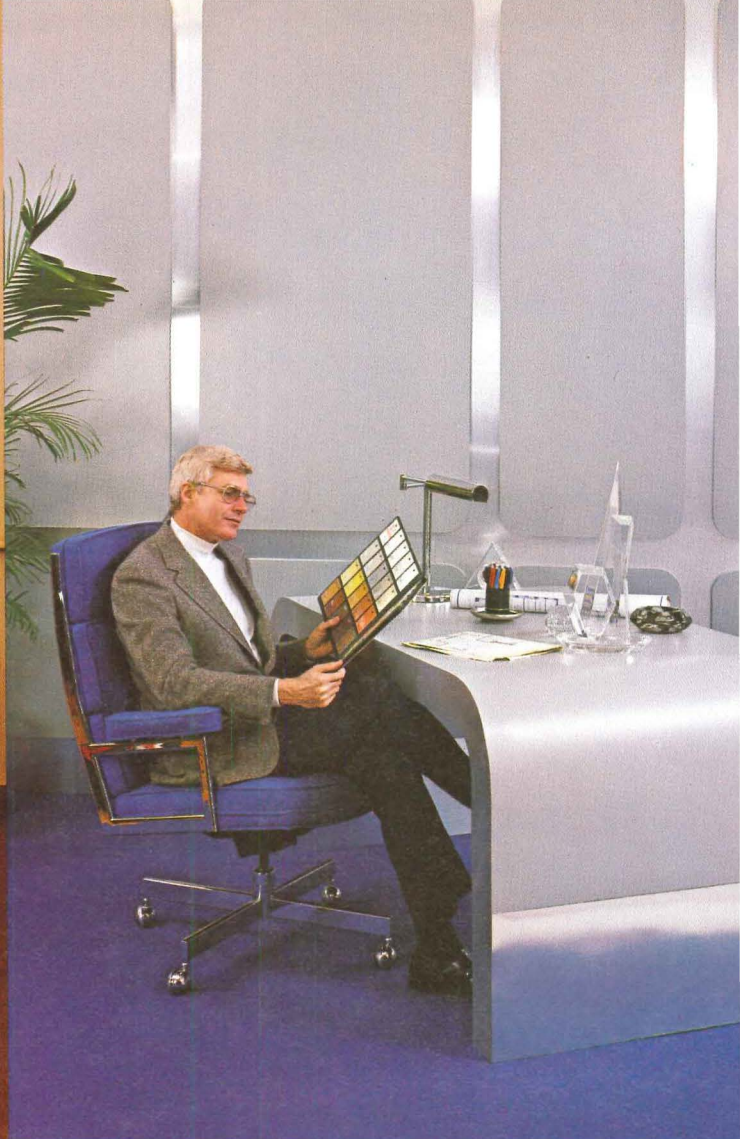
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## Colorful Reminiscences of the 'lieber Meister'

**Apprentice to Genius: Years with Frank Lloyd Wright.** Edgar Tafel. New York: Graw-Hill, 1979. 228 pp. \$19.95. Available to AIA members for \$17.95 in the Institute's department of publications marketing.

Books about Frank Lloyd Wright have been so numerous in the last decade that, daring of Edgar Tafel, AIA, to add another. Yet, his book supplies a real gem in the Wright bibliography. An apprentice in the Taliesin Fellowship since its inception in 1932, Tafel remained with the fellowship for nearly 10 years. This book recalls his life in Taliesin and his work on many of Wright's buildings in that time and is rich in humorous incidents about Wright, his encounters with neighbors and visiting architects and his relationship to his apprentices. To give perspective to his story, Tafel recounts (not chronologically) the story of Wright's growing up in the Middle West, his early apprenticeship in Chicago, his family, his work. While all of this is new, Tafel, because of his long contact with Wright, is able to add a new dimension. Wright's discourse on life and architecture, philosophy and faith in his work is intimately revealed. In addition, Tafel's description of the work in progress during the 10 years he was there is carefully documented.

When Tafel arrived on the scene as a young progressive school product and undergraduate from New York University who wanted to be an architect, he was already prepared for some of Wright's idiosyncracies and determined to learn whatever he could from the master. His introduction to Taliesin was typical: "Young man, help move this piano." Wright was always rearranging. "Wherever he went he insisted on moving furniture—he was always rearranging flowers in their vases."

Life in Taliesin in 1932 was far from idyllic. Tafel and the other apprentices washed dishes, cleaned windows, drove the tractor. In the spring, they plowed and planted. But life was not all hardship. There were picnics and concerts and wine-making. On one occasion, they were "fined" for drinking more than three glasses, receiving a reprieve only after a lecture on organic architecture.



There are intimate stories of the drafting room: "Wright was marvelous to work with. . . . Each day we feared that he'd change what he had settled the day before. . . . If we drew a detail that differed the least bit from what he'd asked for, he caught it immediately. He couldn't tolerate the slightest mismeasurement or faulty coordination.

There are stories about Wright's shopping. He delighted in terrorizing store personnel and in bargaining. On one occasion he bought five expensive hats for Mrs. Wright and asked for a discount. On a trip to Arizona, Wright outfitted himself and his three apprentices in Western style clothes. He had no bank account in those days but carried a fistful of bills in his pocket and paid promptly. He wanted a new Fisher record player. He impressed Mr. Fisher who told him that he could only obtain his product as a retail purchase or an outright gift and offered Mr. Wright the latter. Mr. Wright said he had two drafting rooms, one in Taliesin and one in Arizona and walked out with two sets.

Such stories make up only a small part of the book. Of special interest is the account of Fallingwater, built during Tafel's apprenticeship, where in addition to the design and construction story, we have the intimate tale of Wright and Edgar J. Kaufmann Sr. working together. The story of the Imperial Hotel in Tokyo which Tafel tried to help save, of Wright's Japanese print collection, of his encounters with European architects of the Guggenheim Museum—all are retold with the particular flavor that Tafel is able to add. After all, he was there.

Tafel did grow up, marry and leave the "lieber Meister." But the memory remains.

The book has more than 200 photographs and candid shots, with 32 pages in full color, most of them previously unpublished. *Paul Grotz, AIA*

**Frank Lloyd Wright's Fallingwater: The House and Its History.** Donald Hoffman; introduction by Edgar J. Kaufmann Jr. New York: Dover, 1978. 98 pp. \$5.

At the end of this book, the author says: "Frank Lloyd Wright's last book, *A Testament*, was published in 1957. In it he mentioned Fallingwater as his first dwelling in reinforced concrete, and one which established a new grammar true to the material. He died on April 9, 1959, in Phoenix, at nearly 92 years old.

"For several years more, Edgar Kaufmann Jr. continued to use the house on Bear Run. In September 1963, he announced his intention of giving the house to the public in care of the Western Pennsylvania Conservancy of Pittsburgh. The house and 1,543 acres surrounding it were formally accepted in a ceremony on Oct. 29 as 'The Kaufmann Conservation on Bear Run, a Memorial to Edgar J. and Liliane S. Kaufmann.' That day, Edgar Kaufmann Jr. looked back on his year with the house:

"Its beauty remains fresh like that of the nature into which it fits. It has served well as a home, yet has always been more than that: a work of art, beyond any ordinary measures of excellence. . . . House and site together form the very image of man's desire to be at one with nature, equal and wedded to nature. . . . Such a place cannot be possessed. It is a work by man for man, not by a man for a man. . . . By its very intensity it is a public resource, not a private indulgence."

"As a work of art, the house on Bear Run reveals itself slowly, and never once and for all. . . . There was never any house quite like it before, and there has been none since."

This spirit has been captured by Donald Hoffman in his book, which is not merely a catalog of the structure, but the complete story of Fallingwater. Although the house never received an award or commendation during Wright's lifetime, more than 70,000 people from all over the world visit it each year. [In this magazine's poll of architects (July 1976) for opinions on the nation's most significant works

*continued on page 84*



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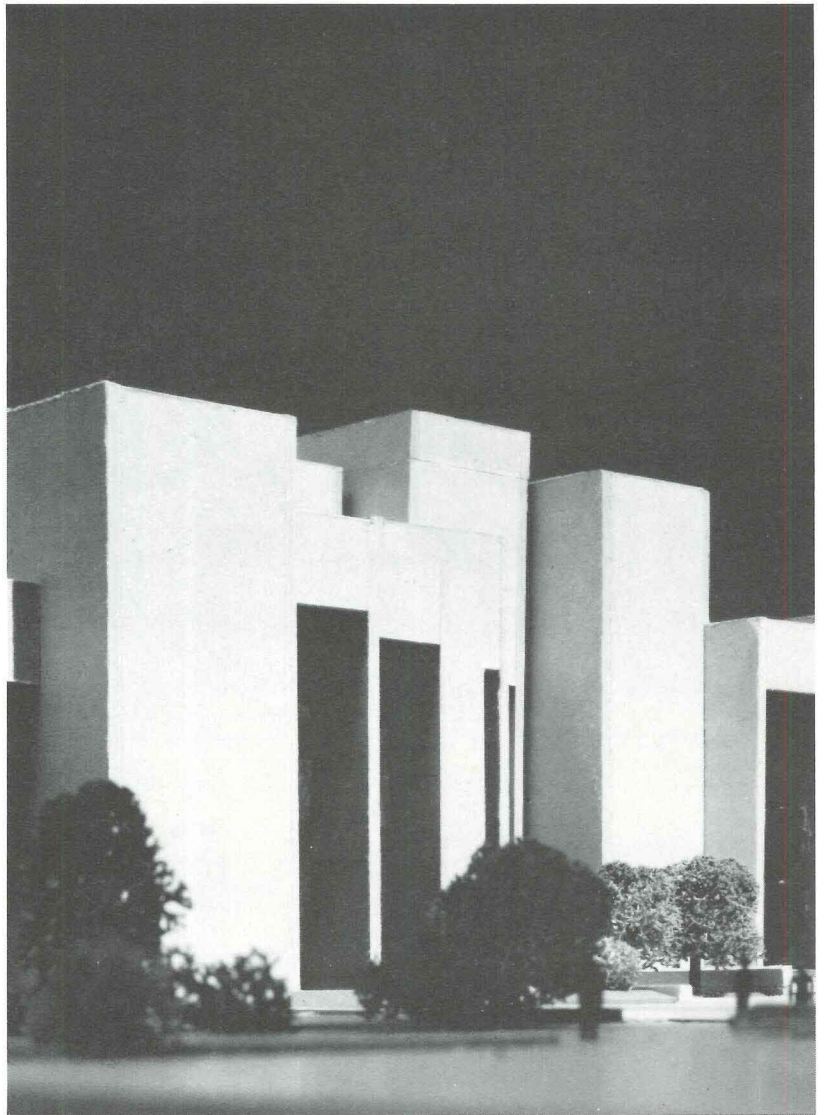
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**Books from page 81**

of architecture in its 200 years of history, Fallingwater tied for second place with Dulles International Airport, designed by Eero Saarinen. *Ed.*]

Hoffman's volume faithfully relates the nature of the land, the forces that brought client and architect together, the design, the building process and its problems.

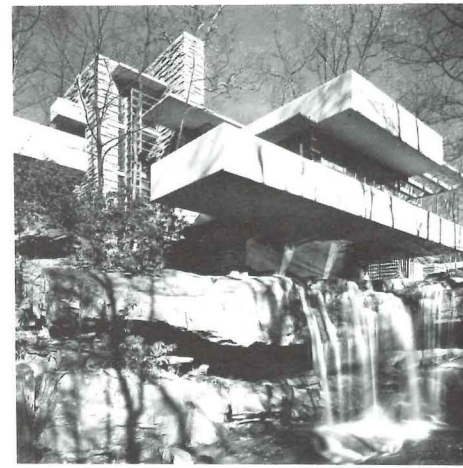
Wright loved Fallingwater as one of his children and he imbued that spirit of love and warmth in us all. It is remarkable that all of us apprentices who worked on the project were only in our mid-20s at the time of its design and construction.

Hoffman has interviewed in depth most of us who were involved and has sorted out the varied reports on the memories—

40 years later—of the people. Through a careful juxtaposition of these interviews and mention of letters Wright wrote his clients, Hoffman has shown how a life-long friendship developed between artist and client. They valued and enjoyed each other.

The volume is well organized. It is basically intended for the visitor to the house and admirers of Wright. There are 100 photographs, sketches, elevations, floor plans and perspectives. The photographs alone could stand as a pictorial essay on the chronological development of the house, emphasizing the marriage of the building to the site and the masterful follow-through of interior design.

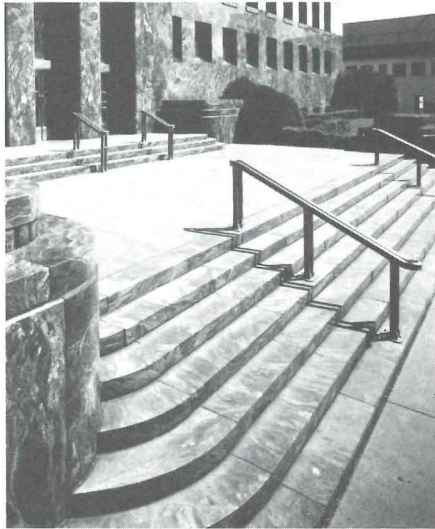
This is an invaluable addition to the



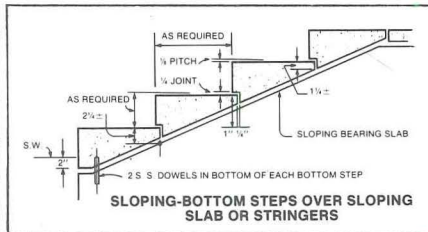
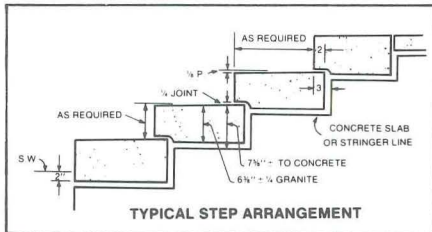
*House and site are one in Fallingwater, loved by Wright as 'one of his children.'*

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documentation of Wright's work. If you can't visit the house, or even if you can, read the book. *Edgar Tafel, AIA, author of "Apprentice to Genius," reviewed on page 81*

**The Poorhouse: Subsidized Housing in Chicago, 1895-1976.** Devereux Bowly J. Carbondale: Southern Illinois University Press, 1978. 254 pp. \$15.

Readers will be stimulated—and possibly enraged—by this book, which offers balanced, systematic and devastating survey of Chicago's subsidized housing. Bowly, an attorney for the Legal Assistance Foundation of Chicago and an architecture buff, has put together a remarkable collection of facts and photographs, letting them speak eloquently for themselves except for brief comments and an overview at the back of the book. The effect is bleak, discouraging, almost nauseating, for what he has assembled clearly amounts to a catalog of failures.

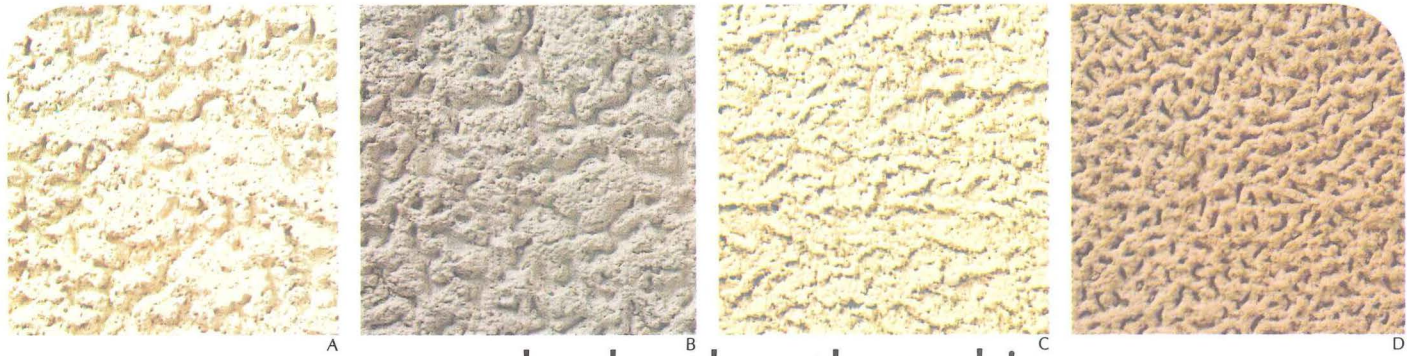
Bowly makes no attempt to apply quantitative tests in evaluating the overall outcome of Chicago's long involvement with subsidized housing. His responses are subjective and personal, a style appropriate to his casebook approach but unlikely to reap much applause among housing scholars. For those who feel, as I do, that these matters are best dealt with by inspection rather than by generalizations and statistical analysis, this will come as no disappointment. Bowly suffers from a good eye for design, understands marketplace realities and carries with him a social conscience both deepened and made practical by years of experience as a lawyer in one of Chicago's most depressed areas. The combination makes his judgments unusually cogent and telling.

The failures Bowly recites are economic, social and political, as befits the subject matter, but the most glaring deficiencies underscored by the Chicago experience are those of the architects and planners who designed the buildings and

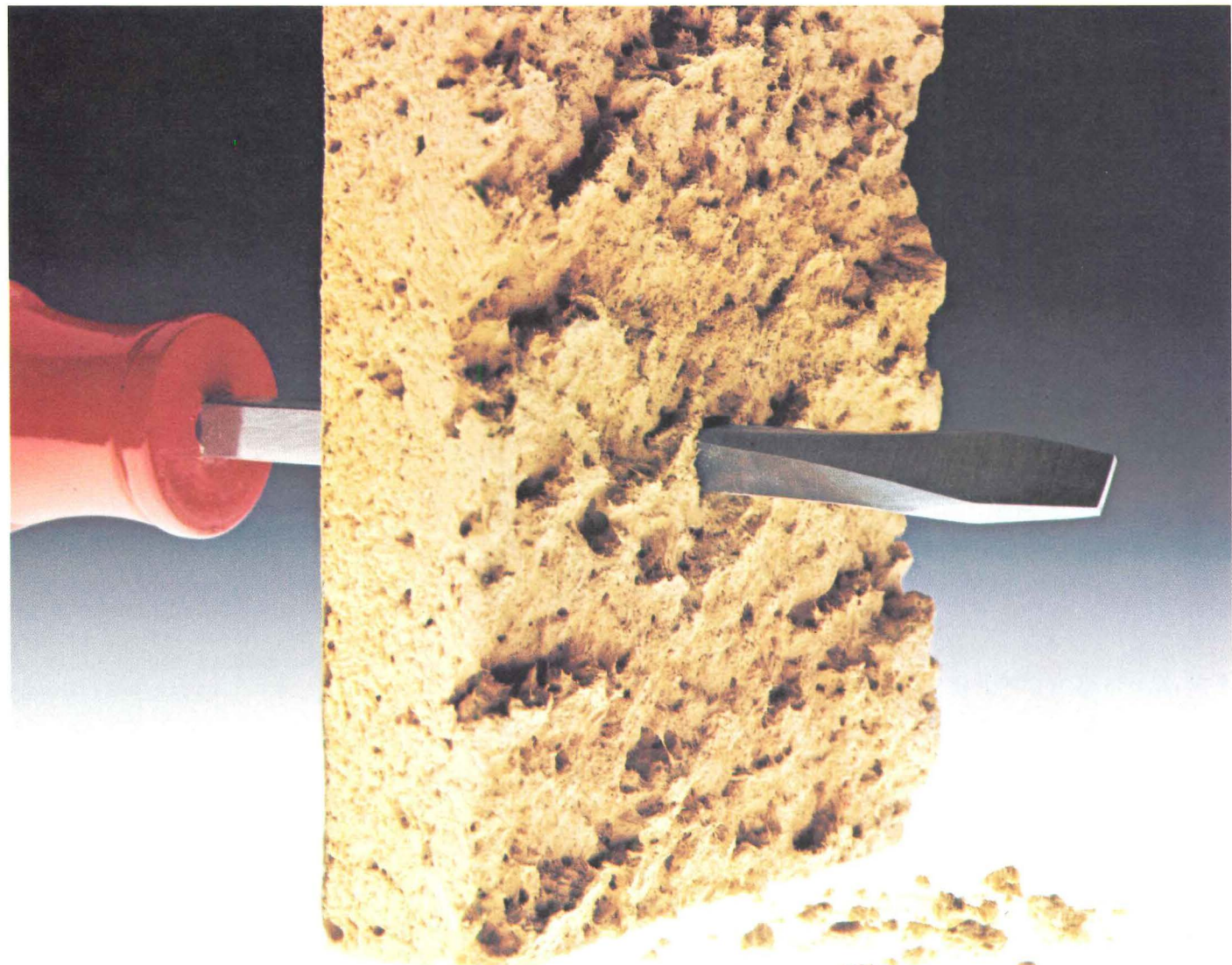
*continued on page 8*

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**Books from page 84**

their settings. Chicago, in this respect no different from other cities, has produced an almost unbroken series of visual catastrophes, pardonable if at all only because of the good intentions of their promulgators.

Project after project demonstrates the barrenness of architectural thinking in this field and of the tenants' lives. Over and over, in case after pathetic case, the ham-handed stinginess of the federal and local housing authorities and the willingness of architects to go along with their demands have produced repetitive, sterile and fundamentally inhuman projects that manifest a brutalist and cynical view of both the tenants and the architecture that is

judged appropriate for them.

The only exceptions occur where the designer has made an ego statement that differentiates his product from the mass, generally in a manner unrelated to the real needs of the occupants or of their communities. No tacky-tacky subdivision of the conventional sort has ever descended to the levels of most of these cases. They degrade the often prominent architectural firms which designed them, the social workers, contractors and politicians who conceived them, the taxpayers who paid for them and the people who have to live in them. Even the tragic slums which they replaced were more habitable in many important ways than these disastrous buildings.

Not every project Bowly catalogs is an unrelieved calamity; indeed, several stand out like jewels in the mud. But what clearly has happened in too many cases is an immense and tragic perversion of good intentions. Fundamentally middle-class Yankee values, willy-nilly projected onto a low-income population that neither shared nor respected them, have led to fully predictable results. The convenience and ineptitude of the administrators and their contractors, the illusions of the social scientists and the design and cost constraints imposed by Congress and the housing agencies helped force these buildings into the mold of Robert R. Taylor homes, Cabrini-Green and similar projects that are still absorbing many millions of dollars in vain attempts to reduce the crime, vandalism, terror and vacancy which characterize them. We will be struggling with the consequences for years to come.

Bowly has done a real service in putting this book together. It deserves a wide readership among design and housing professionals and will, I hope, have an impact far greater than its unassuming title might suggest. *Jared Shlaes, who heads his own real estate consulting firm in Chicago*

**Architectural Working Drawings.** Marvin L. Thomas. New York: McGraw-Hill, 1978. 207 pp. \$17.50.

Subtitled "A Professional Technique," this book is one of a recent rash on the subject and the second with this title reviewed within the past year or so. The one I reviewed before (see Dec. '77, p. 78) was by two professors; this one is by a practitioner. The principal difference is that this author has a distinct bias toward only one way of doing anything discussed in the book; thus standardization is emphasized.

In the preface, Thomas states that this work is not intended as an architectural drafting primer, but rather that readers should have at least a working knowledge of working drawings. This is belied by the usual material regarding here is a pencil, here is the line it draws and here is what is drawn on. However, he makes up for this elementary stuff by doing a short but useful chapter on photodrafting and reproduction processes.

The review in the first chapter of the general purpose and philosophy of working drawings is very useful, and those with experience in the field will benefit from Thomas's perspective. I do object, however, to his indiscriminate use of the term "CSI system" in referring to the data filing capabilities of the *Uniform Construction Index*, much of which is the successor to the AIA filing system of yore. While the discussion in this opening chapter on various project delivery systems is most use-

*continued on page 8*

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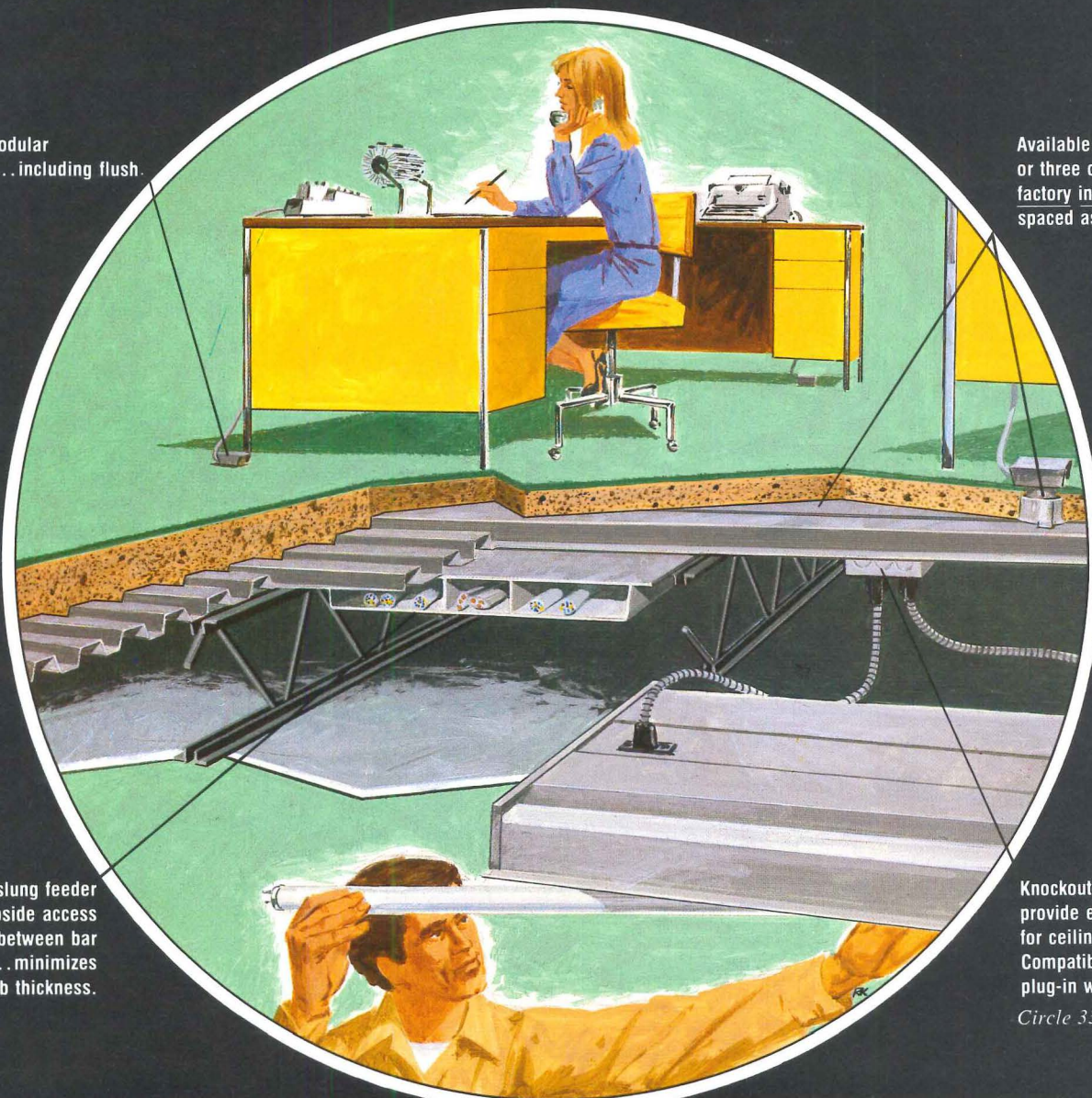
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## Books from page 86

ful, the single paragraph on spelling is gratuitous. The discussion on project records is fine, that on an efficient drafting station unnecessary.

The chapter on drawings and sheet organization is blessedly short, covering paper, sizes, borders, title blocks, organization and the author's systems for identification and referencing. The one on dimensioning shows conventional and modular approaches. That on the metric system is a fine introduction to what is coming, but I disagree with any suggestion of dual dimensioning during a transition period.

The longest chapter deals with detailing and scheduling. Here may be found the author's standards for simplified drawing, schedules, indicators, logs, abbreviations, symbols and similar elementary material. And his last chapter contains various references and checklists.

Thomas's book is carefully thought out and has consistently good and clear graphics. While it has limited use because of the author's single bias toward his own standards, it is professionally done and is a useful addition to the literature. *Robert Allan Class, AIA, Director of the Institute's Practice Division*

**The Mormon Landscape: Existence, Creation and Perception of a Unique Image in the American West.** Richard V. Francaviglia. New York: AMS Press, 1979. 177 pp. \$12.50.

The author of this book—a geographer—says that as a rule geographers close their eyes to landscape. Hence, we know little about the “visual heritage” of cultural groups. “And we know next to nothing about the concept of religion as a motivating factor in the creation of landscapes.” Most studies of religious groups by geographers, he says, tend toward “spatial analysis,” giving no more than isolated clues to the way in which the groups create landscapes.

Francaviglia's study, which involved traveling more than 3,000 miles into that portion of the West known as Mormon country, begins with a discussion of whether a really distinctive landscape can be associated with the Mormons. He finds the Mormon landscape to be a “unique entity, a conscious transformation of the geography of America.”

Fracaviglia then gives his attention to the motives and methods of the Mormons in achieving this landscape and how the landscape has been portrayed in art and literature. His final discussion concerns whether the contemporary Mormon is aware of the differences between his landscape created by his predecessors and the landscape of others. “Mormons see everywhere the strengths and weaknesses of their way of life vividly imprinted in bold and striking patterns: fine, solid religious

and domestic architecture stands opposed to the run-down quality of almost everything else. And yet, everything is related to their culture and persists because of it.”



**English Stained Glass of the Medieval Period.** John Baker; photographs by Alfred Lammer. New York: Thames & Hudson, 1978. 83 pp. \$8.95.

Baker supplies a brief introduction to medieval stained glass and notes for the 83 plates of some of the finest examples. Forty of the plates are in color. As Baker says, there is no substitute for seeing the actual windows, but some of the examples shown can be better seen in the photographs than in their original setting because many of the windows are inaccessible without scaffolding. The example above is from the Priory Church, Deerhurst, England. It is of the early 14th century and is typical of the period in that it consists of a subject set beneath a canopy. St. Catherine holds in her hand the wheel of her martyrdom.

**Gaslighting in America: A Guide for Historic Preservation.** Denys Peter Myers. Washington, D.C.: Technical Preservation Division, Office of Archeology and Historic Preservation, Heritage Conservation and Recreation Service, 1978. 279 pp. \$5.25.

The focus of this guide is upon the types and styles of gas fixtures used in rooms and streets of 19th and early 20th century America. The author points out that modern concepts can influence restoration design decisions erroneously. For example, in a restoration supposed to be representative of the 1860s, a gas mantle was used. Gas mantles were not developed until the 1880s. The aim is to “prevent anachronisms and misapplication of styles of fixtures, their burners and finishes.”

In chronological order, the illustrations and commentary trace the development and technology of lighting fixtures used in many 19th century public, commercial and residential buildings. The guide may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (stock number 024-016-00094-3); make check payable to the U.S. Government Printing Office in the amount of \$5.25 per copy.

**Great Houses of Britain.** Nigel Nicolson. Boston: David R. Godine, 1978. 287 pp. \$30.

With pleasant prose and handsome photographs, historian/scholar Nigel Nicolson guides the reader through 39 properties owned and managed by the English National Trust for Places of Historic Interest or Scenic Beauty. First published in 1965 and long out of print, this book is a reissue in a revised format, with new textual and pictorial materials. Nicolson says houses were chosen to “form a panorama of British domestic architecture from the early Middle Ages until the last century.” Each house is a masterpiece, and the architects include such famous names as Inigo Jones, Robert Adam and Sir John Vanbrugh. Nicolson gives much information on architecture and landscaping, but he also tells delightfully about the social history of the houses and the people who once lived in them. The book, too big to be lugged about as a guide, should certainly be read before a visit is made to any of these incomparable houses.

**Soviet-American Glossary.** Washington, D.C.: U.S. Government Printing Office, 1979. 94 pp.

This is a glossary of building design and construction terms, developed and published jointly by the U.S. and the Soviet Union. It is the first joint publication of these two countries. Indispensable for Americans involved in construction work in the Soviet Union, the glossary is divided into two parts. The Soviet-American portion gives the term in Russian with one or more literal translations, the American equivalent or an Americanized equivalent and the definition. The American-Soviet portion gives the American term in English with the best Russian equivalent followed by the definition.

Project leader for the U.S. side was Robert R. Ramsey, vice president of Leed A. Daly Co., Omaha. Work is already underway, he says, on a second edition, to be published in about two years. Comments and suggestions about the glossary are welcome and may be addressed to the Office of International Affairs, HUD, Washington, D.C. 20410. The glossary is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 (stock number 022-000-00175-2). □

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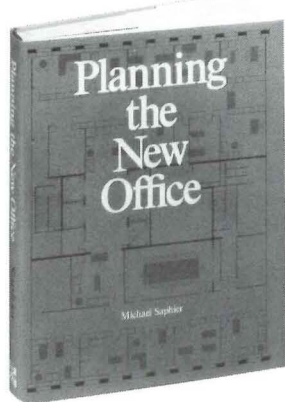
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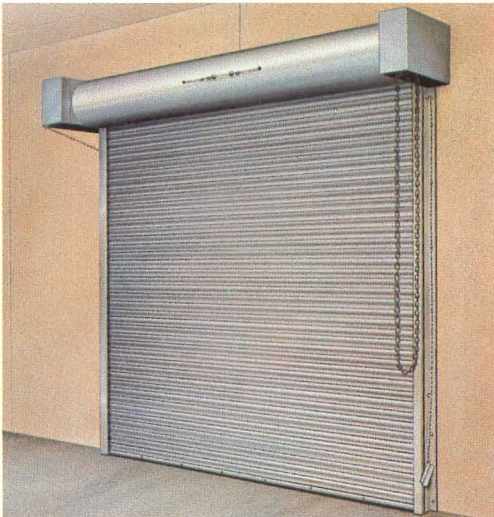
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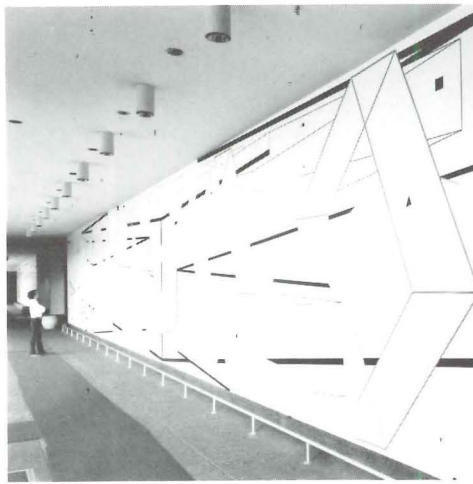
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**Government from page 38**

don B. Johnson when unprecedented inflation in the construction industry increased construction costs.

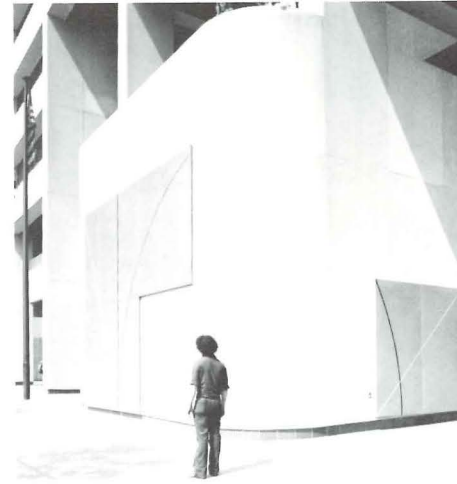
The art-in-architecture program remained dormant until 1972 when GSA Administrator Arthur Sampson reinstated it. And when Jay Solomon became GSA administrator in 1977, he placed increased emphasis upon the arts. He announced early in his administration that funds for artworks would be raised from three-eighth of 1 percent of construction costs to one-half of 1 percent and that existing federal buildings would benefit as well as new structures. At the time, he said that the expanded program would be "more people-oriented, concentrating on humanizing the total design of the working environment." He also said that federal buildings completed within the past few years, where the architect had requested artworks but had been denied for one reason or another, would be reviewed.

During 1978, 37 commissioned artworks—murals, sculptures and craft-works—were completed and 26 new contracts were negotiated. All this and more is discussed in a recent GSA publication called "Art in Architecture Program." The document depicts many artworks in federal buildings completed between 1974 and 1978. Among them are Al Held's



"Order/Disorder/Ascension/Descension," 1977, acrylic on canvas, in the lobby of the Social Security Administration Mid-Atlantic Program Center, Philadelphia (above); Robert Mangold's "Correlation: Two White Line Diagonals and Two Arcs with a 16-Foot Radius," 1978, porcelain enamel on steel, on the Federal Building and U.S. Courthouse, Columbus, Ohio (above right), and Ned Smyth's "Reverent Grove," 1978, Venetian and ceramic tile on concrete, in the courtyard of the Federal Building and U.S. Courthouse, Charlotte Amalie, St. Thomas, Virgin Islands (right).

*continued on page 94*



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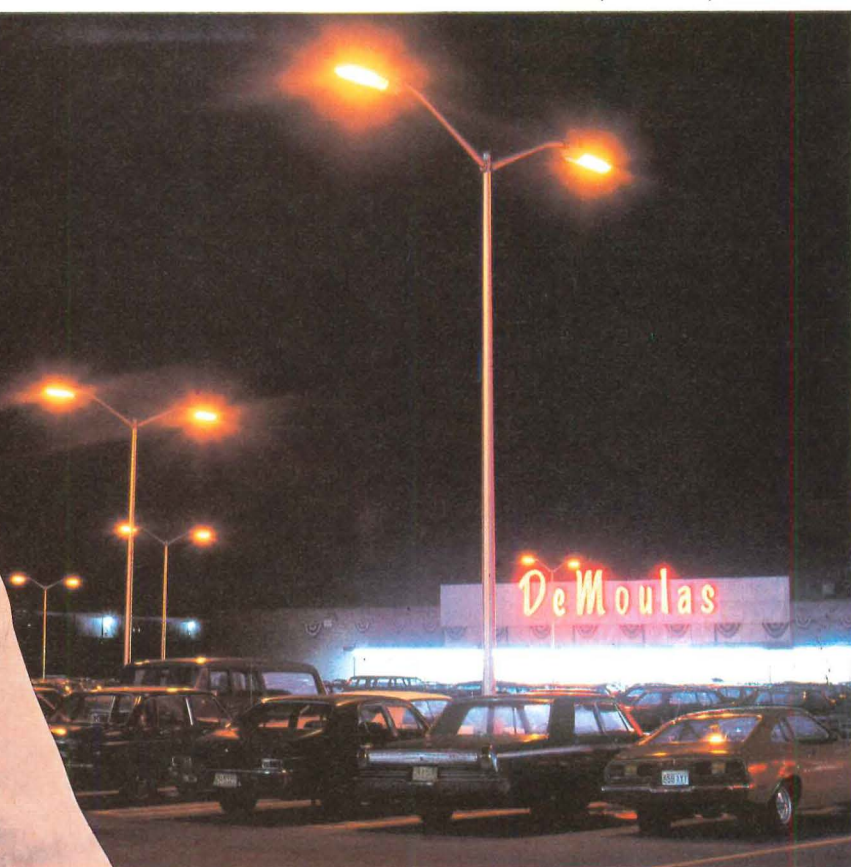
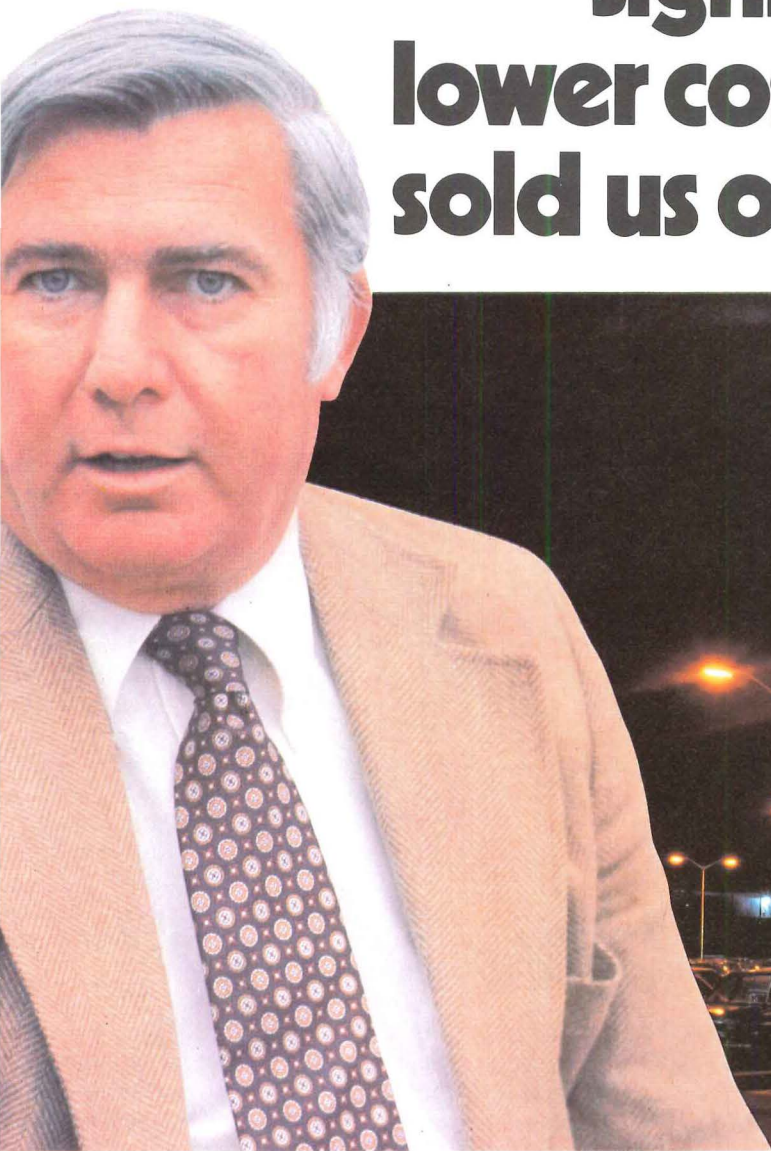
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Applications, quoting reference number 78/1/20, including a curriculum vitae, the names and addresses of three referees and a recent photograph, should be sent to the University Secretary, Deakin University, Victoria, 3217, Australia so as to arrive by 22 June 1979. Applicants resident in North America, Europe or Africa should also send a copy of their applications to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, from whom further details about the position can be obtained.

**Government from page 92**

Under the direction of Donald W. Thacker, architecture director of GSA's art-in-architecture program, for the first time GSA in the past two years has installed works by photographers, ceramists and quiltmakers, as well as commissioning earthworks, lightworks and collages. According to Solomon, who since has resigned as GSA administrator, one of his most satisfying efforts in the art-in-architecture program "was a pilot project in Oklahoma City to incorporate more than 30 works throughout the entire building." They were dedicated in June 1978, with the participation of Mrs. Joan Mondale, wife of the U.S. vice president, whom Solomon calls "one of the nation's most articulate and dedicated arts leaders."

According to the GSA publication, plans for the future go beyond past accomplishments, although much will be determined by the new GSA administrator, Rear Adm. Rowland G. Freeman III. American artists probably hope for attention paid to the words of President Carter at the dedication of four murals by Jack Beal in the lobby of the Department of Labor building in Washington, D.C., on Mar. 4, 1977. The President said: "The arts are a cherished part of the American experience and an important medium of communication in public buildings—they can effectively be used to depict the vitality of our cultural heritage as well as the continuing ability, resourcefulness and imagination of our people. . . ." *Mary E. Osman*

*News/Energy*

**Energy Department Develops  
Solar Design Computer Program**

A solar design computer program called SOLCOST, sponsored by the Department of Energy, gives the architect, HVAC engineer, contractor and others information on the design and evaluation of residential and light commercial solar heating and solar hot water systems. The program calculates heating loads and predicts the annual fraction of heating that could be provided optimally by a solar system. The computer printout gives a cost analysis, including cash flow and payback time based upon projected fuel and utility rates, energy and tax savings, insurance rates and loan data, says the International Business Services, Inc. Solar and weather data for more than 300 cities are included in the computer simulation.

Access to SOLCOST is now available through three methods: by mail through the SOLCOST Service Center, by remote terminal on four national computer networks and by purchase of the FOLTRAN IV software.

Access by mail is through SOLCOST

solar hot water and space heating handbooks, available from the U.S. Government Printing Office, Washington, D.C. 20402. "SOLCOST Hot Water Handbook" (stock number 061-000-00137-9) is \$1. "SOLCOST Solar Heating Handbook with Hot Water" (stock number 061-000-00148-4) is \$1.20.

Four national time-sharing networks give access by remote computer terminal: Boeing Computer Service Co., Control Data Corporation's CYBERNET, General Electric Information Service and United Computing Systems. User's guides to each of these networks are \$5 each.

For the user's guides and for information on the purchase of the software and questions about SOLCOST, contact: IB Solar Group, SOLCOST, 1010 Vermont Ave. N.W., Washington, D.C. 20005; (202) 628-1450.

**NBS Builds Test Center for  
Saudi Arabia Design Prototype**

In Saudi Arabia, daily temperatures range from 79 to 116 degrees Fahrenheit in summer and from 60 to 85 degrees in winter. Such temperature extremes are generated and are contained in a three-story test chamber constructed at the National Bureau of Standards in Gaithersburg, Md., to validate computer models developed by Skidmore, Owings & Merrill for the prediction of how the prototype building and its thermal systems will react in real life conditions of the Saudi desert. SOM, under contract to design a number of buildings for the King Abdul Aziz University, wants to determine the ability of thick walls to moderate temperature swings and cut down on peak period airconditioning needs.

The experiment, a joint effort by SOM and the Saudi university, also has as participants NBS's center for building technology, the Concrete Masonry Association, the Brick Institute of America and several manufacturers.

The prototype masonry building has wall sections consisting of 0.5 inches of plaster, eight inches of high density solid concrete block, three inches of urethane insulation, an air space and an outside brick face. The roof is of precast concrete panels with four inches of urethane insulation and concrete pavers over a waterproof membrane. It is expected that the experiment will give architects and engineers information on such matters as heat transfer in massive and heavily insulated structures.

The test will also be used by NBS to measure air and surface temperatures, humidity, heat flow and air leakage under a variety of outdoor temperatures, window shadings, lighting conditions and solar heat gains. Infrared pictures will be

*continued on page 9*

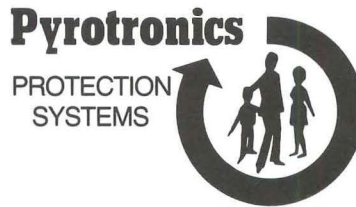


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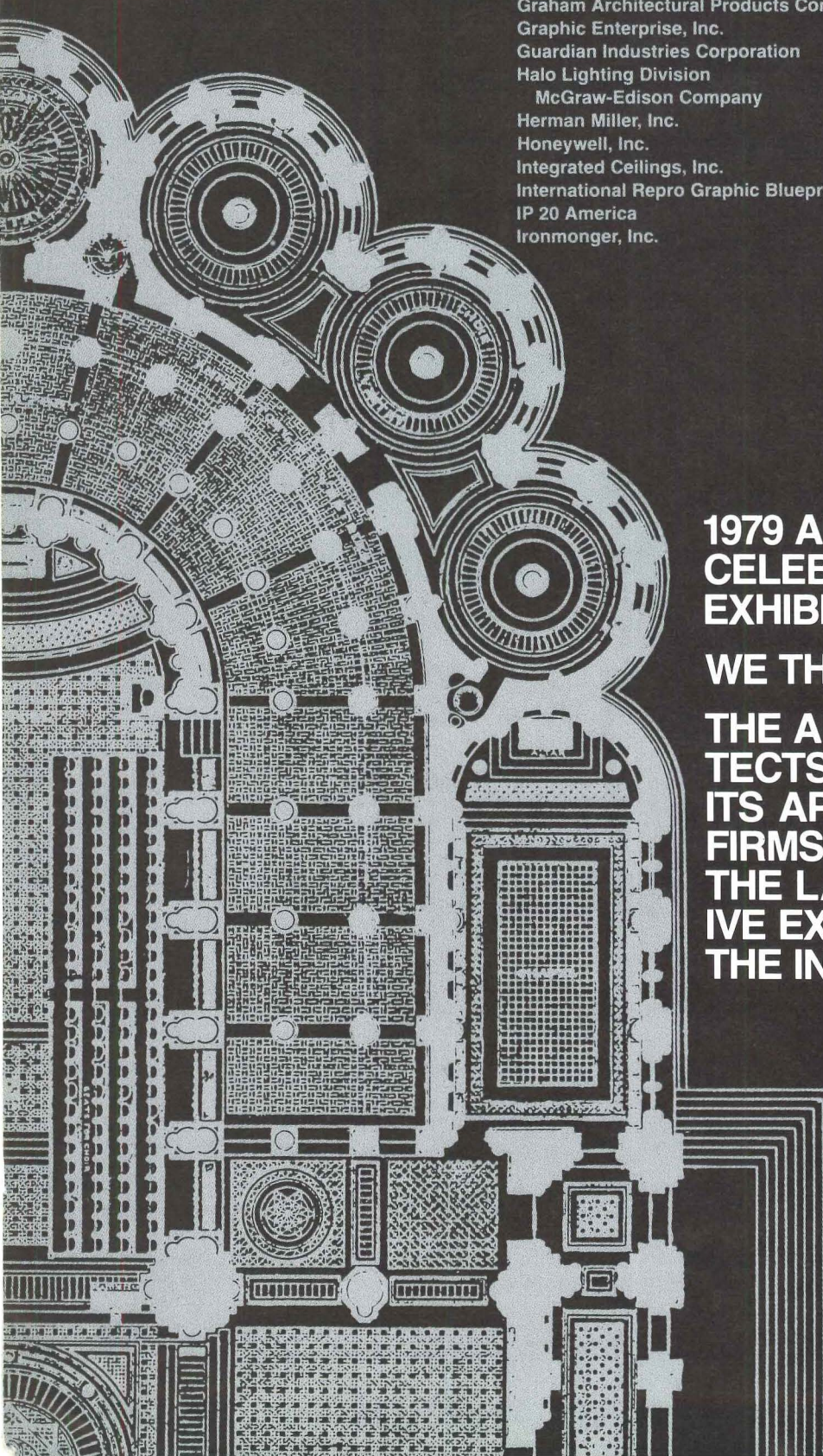
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## Energy from page 94

used to show the researchers relative hot and cold areas.

The project is conducted under the NBS research associate program set up to enable technical specialists from U.S. firms and professional organizations to work at NBS temporarily in carrying out project of mutual interest. For information about the program, write: Industrial Liaison Officer, Administration Building A402, NBS, Washington, D.C. 20234. NBS has seven test rooms that may be used for the evaluation of the thermal performance of buildings, building components and materials.

## U.S. Oil Use Increased Only Slightly in 1978

During 1978, the U.S. consumed 77.7 quads of crude oil a day, the equivalent of 36.7 million barrels, an increase of 1.8 percent over 1977, says the Department of Energy. The term quad is used to shorten a cumbersome unit—quadrillion BTUs. Other figures released by DOE are:

- Total domestic energy production in 1978 was 61 quads, or 28.8 million barrels

of oil a day—1.3 percent higher than in 1977 and 1.6 percent higher than production in 1976.

- Energy imports in 1978 totaled 18.5 quads, down 7 percent from 1977 but up 10 percent from 1976.
- Imports satisfied 23.8 percent of the country's energy needs in 1978, compared to 26.1 percent in 1976. In the three-year period prior to 1976, dependence on imports stayed relatively stable at 19.8 percent.
- Of the energy used in 1978, consumption of refined petroleum products accounted for 48.3 percent, with natural gas use constituting 25.5 percent of the total, a decrease of 0.8 percent.
- Nuclear power and hydroelectric power satisfied 7.9 percent of domestic energy requirements.
- Domestic crude oil production in 1978 was 6 percent above the 1977 level; natural gas production dropped by 1.6 percent; coal production was 5 percent lower.
- Crude oil imports were down 7.4 percent from 1977; refined product imports were down 8.6 percent.
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**Leon Chatelain Jr., FAIA:** President of the Institute in 1956-58, Mr. Chatelain also served as AIA's treasurer in 1954-56 and as a member of many committees. He was a founder and past president of the Washington, D.C., Building Congress, president of the Washington Metropolitan Chapter/AIA in 1935/36, chairman of the National Commission on Architectural Barriers to the Handicapped and a member of the President's Committee for Employment of the Handicapped, receiving a citation for his services in 1962.

Mr. Chatelain, who died on May 6 at the age of 77, also participated in many other civic and professional activities. He was a past president of the D.C. Society for Crippled Children and the National Easter Seal Society. Also, he was chairman of the Benjamin Franklin Foundation and the D.C. Council on Human Relations. He was cochairman of the National Conference on the Rehabilitated Disabled, and was a trustee of George Washington University, as well as a director of several businesses.

In 1930, Mr. Chatelain began his archi-

tectural practice in Washington; in 1956, he formed the partnership of Chatelain, Gauger & Nolan and organized, in 1970, the firm of Chatelain, Samperton & Nolan, retiring in 1974. He participated in the design of many buildings in Washington and elsewhere. In Washington, his work included headquarters for the Washington Gas Light Co., the Equitable Life Insurance Co. and the Retail Clerks International Association, as well as the Westmoreland Congregational Church and the Eisenhower Capitol Hill Center.

Mr. Chatelain was a fellow of the Construction Specifications Institute and held honorary fellowships in the Royal Institute of British Architects, the Royal Architectural Institute of Canada, the Royal Institute of New Zealand Architects, the Philippine Institute of Architects, the Mexican Society of Architects and the Colombian Society of Architects. In 1957, he was awarded the French Superior Council's gold medal.

**Herbert Winthrop Waldron Faulkner, FAIA:** Before his retirement in 1968, Mr. Faulkner designed many well-known structures in Washington, D.C., including headquarters for the Brookings Institution, the *Evening Star* newspaper build-  
*News continued on page 102*

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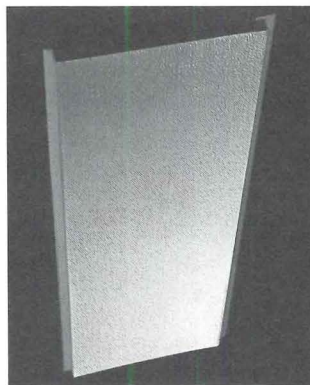
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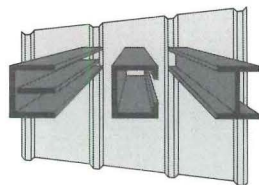


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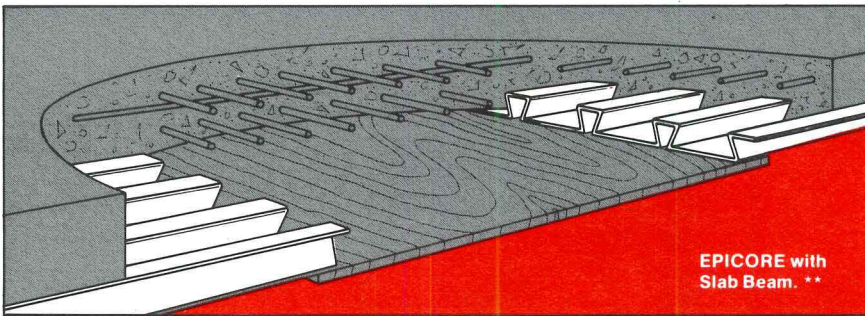
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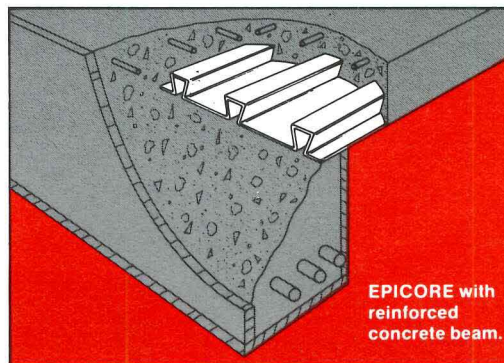
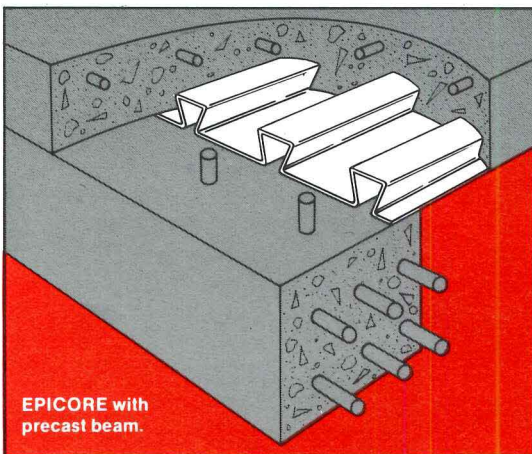
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News from page 99  
ing, the American Chemical Society headquarters, the WTOP Radio & TV Broadcast House and the American Association for the Advancement of Science headquarters. He also participated in the design of the Suburban, Providence and Georgetown University Hospitals and the remodeling of the Old Patent Office Building, which was recycled for new use as the National Portrait Gallery and the National Collection of Fine Arts, winning an AIA honor award in 1970.

Mr. Faulkner, who died on May 11 at the age of 81, earned a bachelor of fine arts degree from Yale University's school of architecture in 1924; following studies in Rome, Italy, he worked in New York City, and in 1927 established his own firm there and in Washington, D.C. In 1934, he moved to Washington, establishing in 1939 the partnership of Faulkner & Kingsbury, which expanded in 1946 to become Faulkner, Kingsbury & Stenhouse and in 1966 became Faulkner, Stenhouse, Fryer & Faulkner.

Mr. Faulkner was president of the Washington Metropolitan Chapter/AIA in 1942-43, of the Washington Urban League from 1938 to 1941 and of the Washington Housing Association from 1947 to 1950. He was an associate mem-

ber of the National Academy of Design and a member of the board of architectural consultants of the Commission of Fine Arts from 1957 to 1960. For a time, he was AIA's delegate to and chairman of the Inter-Society Color Council, contributing articles and books reviews on the subject of color and architecture to this magazine. Among his many other contributions to the Institute was his chairmanship of the library committee from 1954 to 1963. These were the library's professionally formative years when it became recognized as a major U.S. architectural resource center.

**Tiido Piirimae, AIA:** Director of architecture for Rockefeller Center Inc., New York City, Mr. Piirimae was formerly associated with the firm of Harrison & Abramovitz, where he was actively involved in many of the expansion programs of Rockefeller Center. He joined the center in 1978 and was also director of architecture for the center's subsidiary, the Rockefeller Center Construction Corporation. Mr. Piirimae died on April 21 at the age of 45.

He attended the College of the City of New York's school of engineering and earned a bachelor of architecture degree from Pratt Institute, where he later served

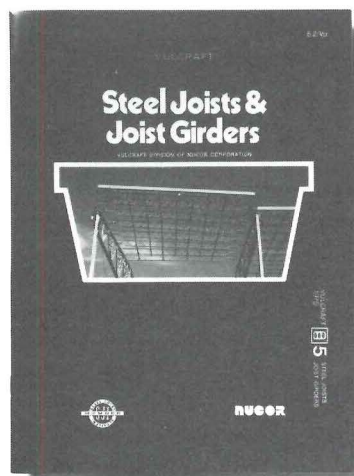
as an instructor in the school of interior design. He was associated in the past with the architectural firms of Wank Adams Slavin Associates, New York City, and Ben & Bentel, Locust Valley, N.Y.

**Beryl Price, FAIA:** A graduate of the University of Pennsylvania in 1933, Mr. Price was registered to practice in nine states and the United Kingdom, having offices in Philadelphia, Loveladies, N.J., and Fort Lauderdale, Fla. Among his works were buildings for Harcum Junior College, Bryn Mawr, Pa., the United Aircraft Vector Division Plant, Trevese, Pa., and the Airport Motel, Philadelphia. He died on Dec. 18, 1978, at the age of 68.

Mr. Price was one of the principal contributors to the success of AIA's convention in Philadelphia in 1976. A fellow of the Royal Institute of British Architects, he was also a member of the board of the Anti-Defamation League, Middle Atlantic Region; the Reconstructionist Rabbinical College, Temple Beth Zion-Beth Israel, and the Albert Lawrence Savings and Loan Association.

He was a former president of the Grays Ferry Community Council and a member of the Long Beach Township zoning board and the Architectural League of New York.

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## BRIEFS

**The Society of Architectural Historians** has presented its Alice Davis Hitchcock book award for 1979 to the Architectural History Foundation, Inc., and to Myra Rosenfeld for the text of Sebastiano Serlio's *On Domestic Architecture* (see p. 106). The book was cited as the most distinguished work of scholarship in the history of architecture published in the two preceding years in North America."

**The Washington, D.C., Metropolitan Transit Authority Metrorail System** has been selected by the American Society of Civil Engineers as the "outstanding civil engineering achievement of 1979." Some 100 miles of Metro are now operational, carrying about 300,000 travelers each weekday.

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**Margaret Taylor**, who had served as executive director of the Rochester Chapter/AIA and director of the New York State Council on Architecture's public awareness program, died in late January at the age of 33. Recently, she was director of marketing for Offices Limited Inc., consultants to architects. At the time of her death, she resided in Manhattan.

**Louis de Moll, FAIA**, a former president of AIA and currently president of the International Union of Architects, has been elected an allied professional member of the National Sculpture Society.

**The National Inventors Hall of Fame** has issued a call for nominations for 1980. Selection for induction is made on the basis of U.S. patented inventions which have benefitted the people of this country. The selection committee is made up of representatives of 31 technical societies across the country. Submissions should

be made before July 31. Information and nomination forms may be obtained from Arthur R. Whale, Eli Lilly & Co., Indianapolis, Ind. 46206.

**Among the continuing education courses** offered this summer by Harvard University's graduate school of design and the Massachusetts Institute of Technology's school of architecture and planning are the following: "Human Behavior and Housing Design" (July 16-20); "Management of Design and Planning Firms" (July 6-13); "Open Space Planning for Offices" (July 25-27), and "Financial Management of Design and Planning Firms" (Aug. 6-8). For additional information, contact: Continuing Education, Gund Hall L-52, Cambridge, Mass. 02138.

**The 1979 Rotch scholar** is Glenn Matsu-moto of Belmont, Mass., who holds a master of architecture degree from Harvard University's graduate school of design. The second winner is Robert W. Hoye of Wellesley, Mass., who also holds a master's from Harvard. Marvin J. Mal-lecha of Claremont, Calif., is the alter-nate. The Rotch scholar receives \$13,000 for nine months of study abroad; the second winner receives \$7,000 for five months of study abroad. □

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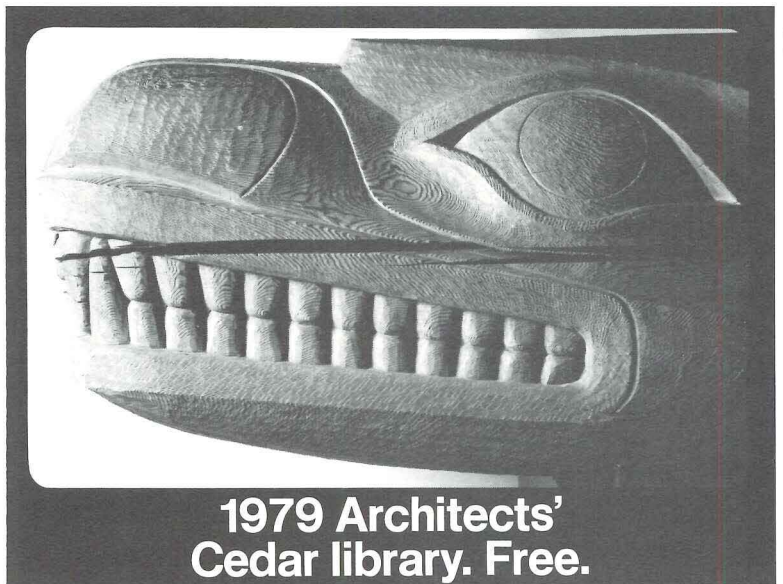
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**Casa de los Amigos**, Redondo Beach, California  
**Architect:** Arthur Hugh Kensler, A.I.A., Los Angeles, CA  
**General Contractor:** J. R. Slaughter Construction Co., Irvine, CA  
**Framing Contractor:** W. C. Froelich, Inc., Buena Park, CA



**Inryco**

an Inland Steel company

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# Beauty that's more than skin deep.

JUN 18 1979  
W... Inc.



Architect: Wendell Lovett, FAIA, Seattle

Enhance and protect the natural beauty of wood with Olympic Oil Stain. Olympic *penetrates* wood to protect from within. Rich linseed oil and micro-milled pigments soak down into the fibers, giving wood a deep, uniform finish that stays beautiful no matter how wet or how dry the weather gets.

For additional information, consult your 1979 Sweet's Catalog. Or write Olympic: Dept. P, P.O. Box 1497, Bellevue, WA 98009.

**Penetrates to  
protect wood  
beautifully.**



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