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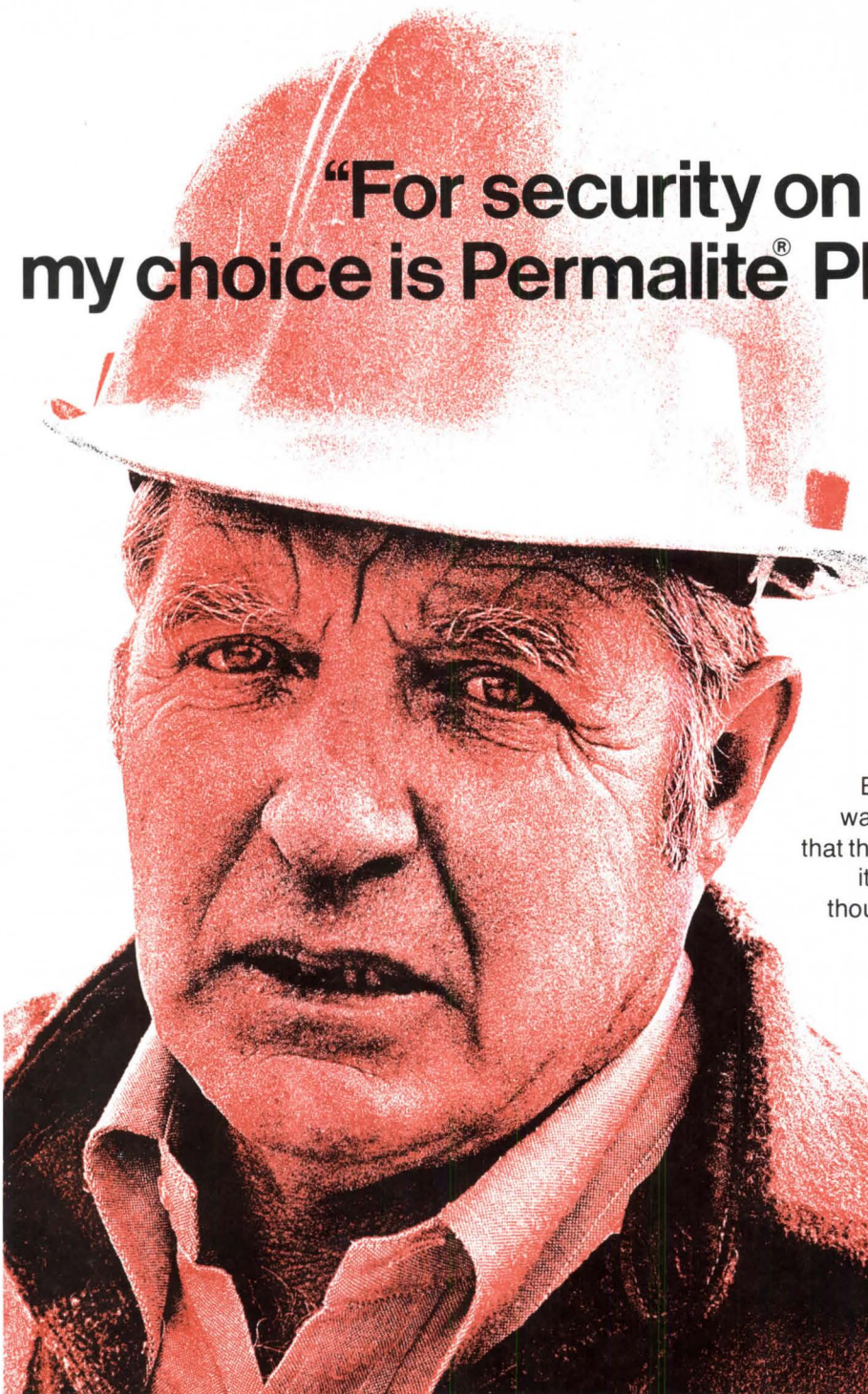


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**Cover:** Photo by Doug Tomlinson of downtown Dallas

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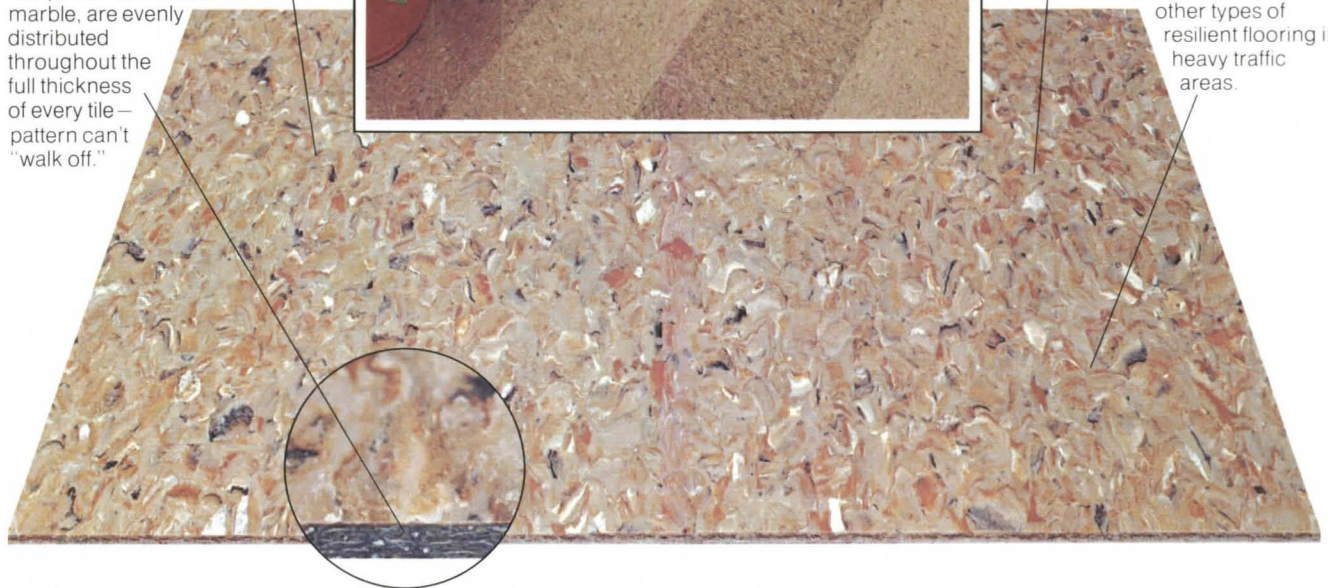
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## EVENTS

- Apr. 1:** Workshop on Thermal Inertia in Architectural Walls, University of Texas, Austin.
- Apr. 2-5:** American National Metric Council annual conference, Atlanta. Contact: ANMC, 1625 Massachusetts Ave. N.W., Washington, D.C. 20036.
- Apr. 3-5:** Conference on Land Use, Water and Energy Resources, Iowa State University, Ames.
- Apr. 3-5:** Workshop on Life-Cycle Cost Application, Washington, D.C., sponsored by AIA and American Consulting Engineers Council. (Repeat workshops May 3-5, Chicago; July 19-21, Boston; Aug. 16-18, Seattle; Sept. 20-22, Kansas City; Oct. 9-11, Atlanta; Nov. 15-17, Anaheim, Calif.; Dec. 6-8, Denver.) Contact: ACEC, 1155 15th St. N.W., Washington, D.C. 20005.
- Apr. 3-8:** Course on Preparation and Organization of Construction Specifications and Related Documents, Miami, sponsored by Construction Specifications Institute. Contact: Department of Conferences, Florida International University, Tamiami Trail, Miami, Fla. 33199.
- Apr. 5-8:** Association of Collegiate Schools of Architecture annual meeting, Tucson, Ariz. Contact: ACSA, 1735 New York Ave. N.W., Washington, D.C. 20006.
- Apr. 5-10:** Society of Architectural Historians annual meeting, St. Anthony Hotel, San Antonio, Tex. Contact: SAH, 1700 Walnut St., Philadelphia, Pa. 19103.
- Apr. 6-7:** Seminar on Meeting Requirements for Making Facilities Accessible to the Handicapped, AIA Headquarters, Washington, D.C., sponsored by the National Center for a Barrier Free Environment and the National Easter Seal Society for Crippled Children and Adults. Contact: Margaret Milner, NCBFE, 8401 Connecticut Ave. N.W., Washington, D.C. 20015.
- Apr. 11-12:** Conference on How to Evaluate Energy Management Control Systems and Solar Screening for Windows, Shoreham Americana Hotel, Washington, D.C. Contact: Solar Science Industries, Inc., 10762 Tucker St., Beltsville, Md. 20705.
- Apr. 13-15:** Gulf States AIA regional convention, Biloxi Hilton, Biloxi, Miss.
- Apr. 14-15:** Symposium on Positions in Architecture III, Rhode Island School of Design, Providence.
- Apr. 16-18:** Inter-Society Color Council annual meeting, L'Enfant Plaza Hotel, Washington, D.C. Contact: Fred W. Billmeyer Jr., Department of Chemistry, Rensselaer Polytechnic Institute, Troy, N.Y. 12181.
- Apr. 20-21:** Course on the Government Official and A/E Contracting, New

Orleans, sponsored by COFPAES. Contact: Arnold Prima, AIA, Institute Headquarters (202) 785-7374.

**Apr. 21:** Institute on the Hospital Based Medical Office Building, Phoenix, sponsored by the American Hospital Association. Contact: AHA, 840 N. Lake Shore Drive, Chicago, Ill. 60611.

**Apr. 24-26:** Seminar on Solar Energy, San Francisco, sponsored by New York University. (Repeat seminar May 15-17, Dallas.) Contact: NYU Conference Center, 360 Lexington Ave., New York, N.Y. 10017.

**Apr. 24-28:** American Society of Civil Engineers national spring convention, Pittsburgh. Contact: ASCE, 345 E. 47th St., New York, N.Y. 10017.

**Apr. 25-27:** Wisconsin Society of Architects convention, Fontana, Wis.

**Apr. 25-28:** International Conference on Innovations in Urban Transportation, Pittsburgh, sponsored by the Advanced Transit Association. Contact: Howard S. Wilcox, Inc., 300 Board of Trade Building, Indianapolis, Ind. 46204.

**May 21-24:** AIA annual convention, Dallas.

## LETTERS

### The 'Whereabouts' of a Chilean Architect:

Alejandro Rodríguez Urzúa, who served as a full professor at the University of Chile and collaborated on the founding of the school of architecture at Concepción University, was the architect of many Chilean projects. He also served as city counselor of Concepción and vice president of the government's housing services corporation.

He was relieved of his public positions following the demise of the Allende government and went into private practice. On July 27, 1976, he left his office by car to pick up some plans from the engineering office of Carlos Sandor and Enrique Schlesinger. He has not been seen since, although his automobile was seen entering and leaving the detention camp of Tres Alamos in Santiago, with military personnel in control of the vehicle. The detention camp has been emptied of its prisoners as part of the Chilean government's "process of democratization." But Mr. Rodríguez remains missing.

Amnesty International has taken his case, and he is identified as No. 255761 of Concepción, Chile. AI researches cases to verify to the best of its ability that no person searched for is "detained" for advocating violence or because they are criminals.

AI has received the following replies to its inquiries: Feb. 28, 1977, from the Chilean Ministry of Justice: They do not know when Mr. Rodríguez is, and there

is no warrant for his arrest. May 3, 1977, from the Chilean Ministry of the Interior: the same information as above. Aug. 9, 1977, from the Colegio de Arquitectos de Chile: They don't know where he is, although they have contacted the government which has no order of detention. Aug. 17, 1977, from the Chilean Mission to the United Nations: The ambassador does not know where Mr. Rodríguez is, but he does know there is a warrant for his arrest for the "common crime of assault." Dec. 13, 1977, from the president of the supreme court of Chile: Rodríguez is wanted in connection with an automobile accident in which a person was hit. (The time element in this recent revelation is not known, but AI is attempting to learn when the accident took place and who was driving the car.)

Support for Mr. Rodríguez is urgently solicited from AIA members, components and student chapters and from other interested persons. Letters of inquiry may be directed to the president of Chile, the faculty of architecture at the University of Chile in Santiago, the Colegio de Arquitectos and the coordinator of humanitarian affairs and the assistant secretary of state for inter-American affairs at the U.S. State Department.

*Richard Burnham, AIA  
Hanover, N.H.*

**Cataclysms and Politics:** As a former Rumanian architect I know Cezar Lazarescu, president of the Union of Architects of the Socialist Republic of Rumania, well. His letter about Rumania's devastating earthquake was published in the June '77 issue (p. 2). I cannot see anything wrong with the sentence from Mr. Lazarescu's letter quoted by Eugene Padanyi-Gulyas in the Nov. issue (p. 65). We all know that the Rumanian earthquake turned many buildings into piles of debris in 70 seconds of horror, leaving nothing to be restored.

It seems to me that Mr. Padanyi-Gulyas refers to distorted geographical and historical facts for political purposes. The earthquake was not felt in Transylvania; the cultural monuments to which he refers, even if his assumption is true, are located in the southern part of Rumania, far away from Transylvania.

We should all know what is happening in our country of origin, or in any other country, but we should not use an unfortunate cataclysm to promote a political issue in a distorted manner.

*Zottu L. Panu, AIA  
Jackson Heights, N.Y.*

**The Role of Design:** In 1969, one of our guys remarked that "the last of the old masters have died—now we can create bad architecture."

*Letters continued on page 7*

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### Letters from page 5

The recent AIA conference on design was a discussion of that possibility. Jane Rippeteau's coverage in the January issue (p. 49) was excellent.

But in a sense, it seems as though the question posed by the conference itself is unanswerable, for architecture can be neither a "work of art" nor a "working object." It must be both. Our task is to close the breach between art and science, between esthetics and technology, between form and structure.

The participants hardly dealt with the implications which nature, man and construction have upon our design effort. They were overshadowed by the older issues: subjectivism of the artist and the objectivity of the technologist. The middle ground was indeed empty.

*Robert Lawton Jones, FAIA, AIP  
Tulsa, Okla.*

As always, this is a changing world. There is no "movement from modernism"—we have simply reached the ultimate formalistic "rococo" stage of the International Style. The lack of meaning in modernism as a movement is evident to everyone. We have run the gamut of possible architectural fashion in its most extreme forms, from neobrutalism through antiarchitecture to the ultimate machine of living, Centre Pompidou. Tastemakers will have a hard time making anyone believe that architectural fashions can have more meaning than the cyclical narrowing and widening of men's neckties.

The easy days of architectural magazine publishing are over, when periodicals were an essential tool for keeping the profession informed of the stylistic movement's progress. Architectural schools, after their binge of advocacy, and the profession (there is really nothing new in buildings' serving the needs of humanity) will have to buckle down to the task of doing our jobs with more of an eye on perfection than on flair. Accountability is no more than a public's way of demanding competence and perfection.

Whether we like it or not, a professional's performance will be increasingly judged according to the artistic rather than the stylistic uniqueness of his work. New problems of artistic expression will ask for new solutions, but the emphasis will have to shift from *new* to *solution*. It is more important that a building should be appropriate in its "feel" than that it should have a shock effect by being different from anything ever created before by man.

In this world where the medium *cannot* be all the message any more, we will have to dig deeper into artistic expression to make sure every project has a distinct message—something we want to say, that we *have* to say to everybody who enters

the building, thereby experiencing a part of life.

Besides being a craft, architecture is an art. It is an art that is not only easy to experience, but the experience of which is virtually forced on mankind. We have to think in terms of the creative process to give any insights into architecture as an art. We have to think in terms of spatial definitions and relationships, articulating them with the help of structural elements and accenting them with textures and materials. We must think of people and the parts of their lives for which we provide the scenario. With the material means at our disposal, we as architects suggest and imply possibilities of life styles, inspire feeling and ultimately boost their vitality, their will to do more for their fellowmen.

A new project is not just a new opportunity to express a personal idiom. It is disturbing to see a building and not be able to say whether it is a church or a courthouse, but to know immediately that it is the work of a specific "prima donna" of the modern movement. It is indeed a celebration to see the modern movement run its cycle and clear the deck for real artistic expression.

*Peter Keleti, AIA  
Kansas City, Mo.*

**Correction:** There are some errors in the captions for my article entitled "New Mexico Continues to Build on a Rich Heritage of Solar Design" (Dec. '77, p. 38).

The interior shown on page 40 has this caption: "The speculative house 'Solar One' has an 'anonymous-looking' solar yard." Actually, it shows the greenhouse collector patio of the speculative first solar house at First Village, now the home of Doug Balcomb.

The color interior on page 42 is captioned as New Mexico State University's demonstration solar house. In fact, it is the interior of the Danny and Renée Martinez solar house.

*Jeffrey Cook, AIA  
Tempe, Ariz.*

**'The Umbilical Cord' of a Windmill:** It is ironic (perhaps intentionally so) that the windmill featured on the cover of the energy-oriented December '77 issue displays a prominent umbilical cord connecting it to the local electrical power system. In all likelihood, most (if not all) of the water lifted to the storage tank shown gets there by means of an electric pump.

Not to disparage current efforts to revive an interest in windmills, it is well to keep in mind the engineering realities involved and to view in proper perspective the very minor and very specialized role which such energy sources can play.

*G. H. Aster, AIA  
Chief, Design-Drafting  
Pacific Gas & Electric Co.  
San Francisco*

## AIA Convention in Dallas Will Focus Its Sessions on Professional Development

The 1978 AIA convention is intended to be a significant departure from previous conventions. Titled "A Time to Learn," the convention will zero in on professional competence, using its sessions to refresh, fill in gaps and bring up to date the education of practitioners.

The man behind the convention is Institute President Elmer E. Botsai, FAIA, whose own practice is substantially devoted to finding and correcting the mistakes of architects and other members of the building team. "To compete effectively and profitably in today's marketplace, architects must begin now to learn new skills, put a sharper edge on existing tools and techniques and explore new markets for their services," Botsai says.

Among the workshops will be one on solar design to be led by Jim Lambeth and Don Watson, both authors of books on the subject. Weld Coxe, Philadelphia-based management consultant, will lead a workshop on marketing in the 1980s. President Botsai will lead a session on avoiding water infiltration—the number one cause of legal action. Staff from the AIA Research Corporation will hold sessions on research opportunities and funding for architects, as well as on the design of earthquake-resistant buildings.

A seminar called "Design in Transition" will feature architects Peter Eisenman, Frank O. Gehry, Michael Graves, Charles Gwathmey, Charles W. Moore, Cesar Pelli, Robert A. M. Stern and Stanley Tigerman. Each will have 30 minutes to present his design philosophy.

The following morning, Philip Johnson, FAIA, the 1978 Institute gold medalist, will take the previous day's speakers through a "give and take" session centered upon the state of architecture today. The session will be open to the entire convention and to the interested public.

AIA members who attend workshops and seminars will receive .35 continuing education units (CEUs) in educational

credits, with transcripts kept on file at AIA headquarters.

According to a preconvention survey conducted by AIA in which members were asked to indicate sessions that they expected to attend, sessions on energy-conscious design and solar design were the most popular, with marketing close behind.

Among the topics that will likely come up for discussion in the convention business sessions are advertising by architects and design/build.

This year's convention has been structured so that noncompeting time periods are allocated for each major segment. Business sessions will run daily from 9 A.M. to noon; exhibits will be open from 11 A.M. to 3 P.M., and seminars and workshops will be conducted from 2 to 5:30 P.M.

Exhibitions will be located in the East Hall of the Dallas Convention Center in 100,000 square feet of space. More than 100 exhibitors will feature a wide range of products and services, with considerable emphasis placed upon energy-conscious design, production technology and design quality.

The master design of the exhibit area is under the direction of Peter Wolf Associates of Dallas. The exhibit area will be the center of convention activity. In addition to four theater areas for in-depth seminars, a major host lounge will be constructed in the exhibit area to function as a place for informal conversations and exchange of information on a daily basis.

The host Dallas chapter/AIA (chairman: Jack Craycroft, AIA) is planning a variety of educational and social events. There will be a downtown Dallas tour, including the new city hall (I. M. Pei & Partners), Thanks-Giving Square (Johnson/Burgee) and Reunion (Welton Becket & Associates). Other tours will visit schools and institutions. And there will be a special museum tour to include Louis I. Kahn's Kimbell Art Museum and Philip Johnson's Amon Carter Museum of Western Art in nearby Fort Worth. Another chapter event will be an evening at the Dallas Theater Center, designed by Frank Lloyd Wright.

## Development Policy Office For U.S. Recommended at White House Conference

"The traditional federal response to urban and rural problems is to pass out special purpose funds to satisfy constituent groups," said David O. Meeker, FAIA, who will assume the Institute's executive vice presidency next month. "This has resulted in federal actions which are piecemeal, uncoordinated and generally ineffective."

Meeker was voicing a recurrent theme at the recent White House Conference on Balanced Growth and Economic Development. He went on to recommend that an "office of national development policy" be established to better coordinate federal programs. The office would develop consistent urban policy targets and goals balanced with economic, environmental and social objectives.

"If the federal government cannot manage its affairs to the level it demands of virtually every citizen," Meeker said, "then the support of the American people could be seriously jeopardized." Establishing an office of national development policy, "while no panacea, could offer a theme—a new beginning."

Meeker, again expressing a near consensus of the conferees, stressed an increased state role in social, economic and physical development. "The states should have more responsibility in implementing federal objectives in the areas of civil rights, housing, employment, health, environmental protection and other pertinent national policies," Meeker said.

All opinions expressed at the conference will be presented to Congress and President Carter for possible inclusion in the forthcoming urban policy. The 500 participants, representing a broad range of economic, social and political interests, deliberated on major questions such as why some regions get more federal funds and programs than others, why some cities boom while others decline, why industries settle in some regions and avoid

*continued on page 14*

While last winter's energy shortage was literally turning workers and students out into the cold, many people were working hard to do something about it.

We honor some of these architects and engineers with the 1977 Owens-Corning Energy Conservation Award.



At one time it was merely prudent to conserve energy. Now, it is a matter of survival.

For years now, experts have been predicting energy shortages. Last winter their predictions came terrifyingly true.

Lack of sufficient energy resources closed thousands of businesses and schools. Suddenly, America was in a crisis. A crisis that wouldn't pass over by itself.

In recognition of this urgent need, architects and engineers have been searching for new and better ways to make their projects more energy efficient.

The sixth annual Owens-Corning Energy Conservation Awards program honors some of those people who, through creative efforts, have

designed buildings and mechanical systems that make significant contributions towards this goal.

This year, the Awards Jury made a special point to underscore the philosophy used in establishing the winners.

The panel—comprised of architects and design engineers—all felt that "energy conservation could not be separated into just architectural envelope or just engineering systems. That every entry had to be examined for its total contribution to conserving energy. And only in a case where a project had a particularly outstanding solution could it merit an award for just architecture or just engineering."

For 1977, there are four winners and three honorable mentions. The winners are illustrated on the next four pages. The honorable mentions are as follows. We hope you'll appreciate them all as much as we do.

**Honorable Mention, Institutional Category**

Rowe Holmes Associates, Tampa, Florida, for the College of Business Administration Building, University of South Florida, Tampa, Florida.

**Honorable Mention, Commercial Category**

Ellerbe Associates, Bloomington, Minnesota, for the Western Life Insurance Company, Corporate Offices, Woodbury, Minnesota.

**Honorable Mention, Governmental Category**

Moore, May and Harrington Architects Inc., Gainesville, Florida, for the Air Terminal at Gainesville Municipal Airport, Gainesville, Florida.

**The 1977 Energy Conservation Awards Jury**

- Jack E. Tumilty, President, Jack E. Tumilty, P.E. & Associates, Consulting Engineers, Tulsa, Okla.
- Walter R. Ratai, President, Walter R. Ratai, Inc., Consulting Engineers, Glendale, Wisconsin.
- David A. Pugh, General Partner, Portland office of Skidmore, Owings & Merrill, Portland, Oregon.
- Jack D. Train, President & Director of Metz Train Olson Youngren, Inc., Architects, Engineers and Planners, Chicago, Illinois.
- Robert C. Metcalf, Dean of The College of Architecture & Urban Planning, University of Michigan, Ann Arbor.
- Charles C. Law Jr., Acting Assistant Commissioner of The Office of Construction Management, Public Building Service, General Services Administration, Washington, D.C.

For more information about the winners, write to A.B. Meeks, Owens-Corning Fiberglas Corporation, Building Products Operating Division, Fiberglas Tower, Toledo, Ohio 43659.



**Winner: Special Category (Residential)** Lee Harris Pomeroy, Jack Lebduska, Pomeroy, Lebduska Associates, Architects, New York City.

**Project: Bedford Mews, Bedford, New York** A 160-unit townhouse condominium development with many energy efficient features. In addition to overall conservation planning and design, twenty-eight units will have factory-made solar systems including collectors, packaged energy recovery devices, water-to-water heat pumps and hot water storage. These systems will provide heat and hot water at a low \$331 a year, saving approximately \$436. In addition, the development's outdoor swimming pool and 3,000 sq. ft. clubhouse will be solar-heated for an estimated \$2,300 annually. A \$1,900 savings.



**Winner: Governmental Category** Stewart Daniel Hoban, Stewart Daniel Hoban Associates, Architects, Washington, D.C.

Arthur Cotton Moore, Arthur Cotton Moore/Associates, Architects, Washington, D.C.

William L. Pulgram, Associated Space Design, Interior Planning and Design, Atlanta, Ga.

William Marshall, McGaughey, Marshall & McMillan, Project Management and Contract Documents, Norfolk, Va.

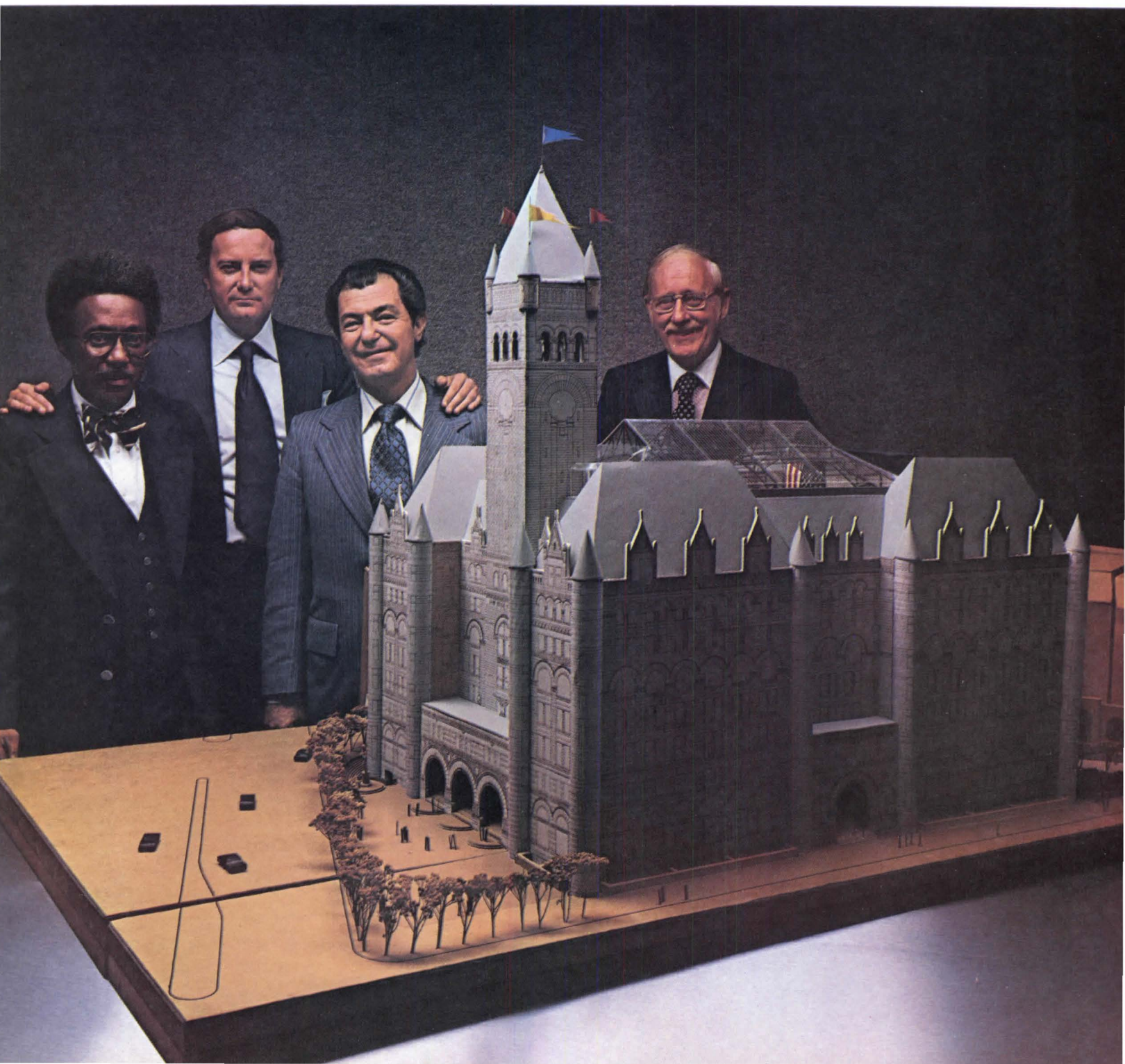
Wershon Meckler Associates, P.C., Mechanical Design Engineers, Washington, D.C. (not pictured).

**Project: Old Post Office Building, Washington, D.C.**

The inside of this 1899 Romanesque Revival building is being converted into a modern, imaginative and

energy-efficient office building with a museum, art galleries, restaurants and stores.

The giant cortile skylight—covered over for years—will be reglazed. An unusual system of “thermal louvers” installed beneath the skylight will work as solar collectors. A unique air-conditioning system using chemically dehumidified air, plus window awnings and thermal insulated glass, will further minimize energy needs. Estimated annual fuel savings: up to 25%.



**Winner: Special Category** Warren L. Custer, H.F. Lenz Company, Consulting Engineers, Johnstown, Pennsylvania.

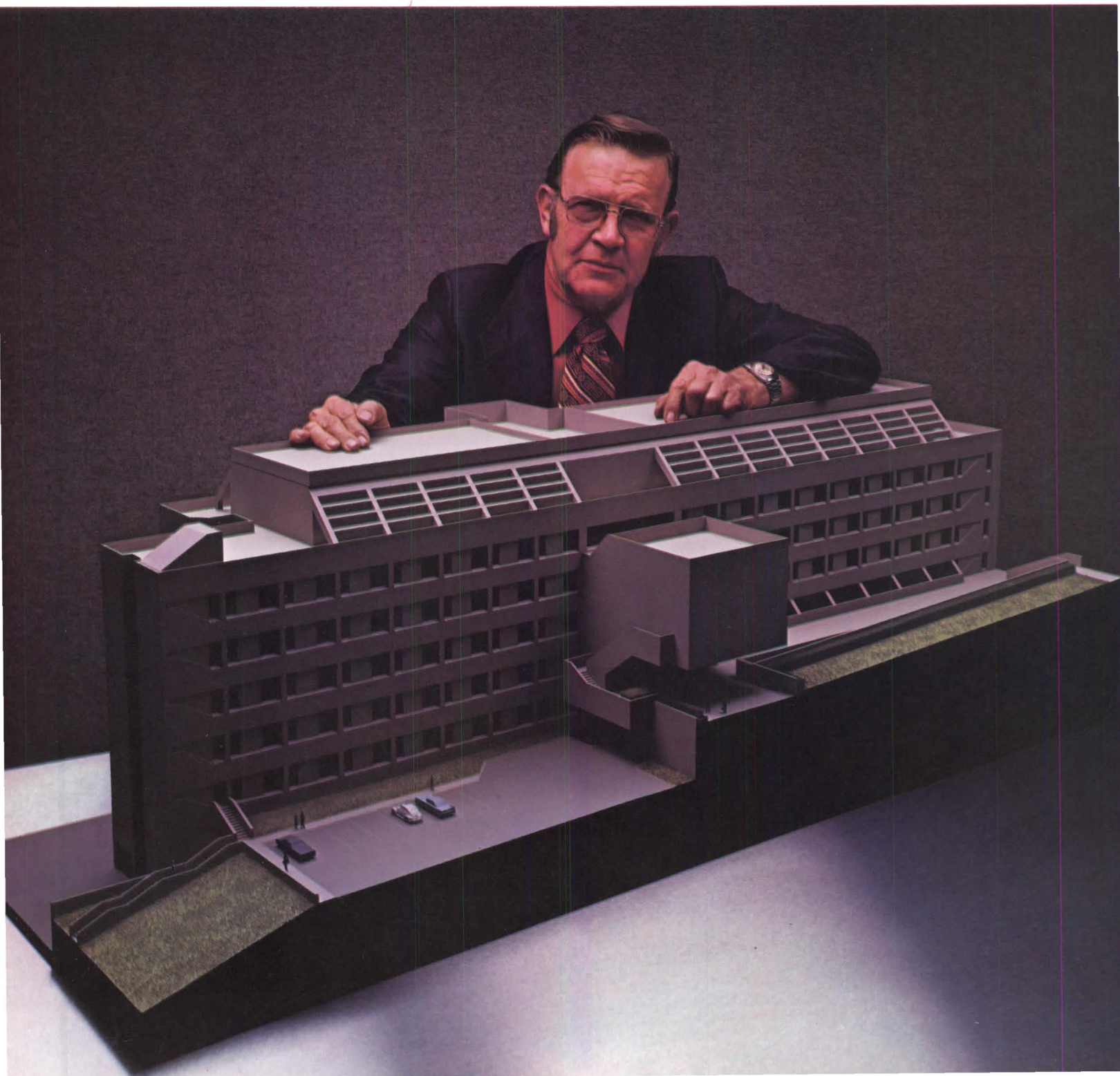
**Project: Carnegie-Mellon University's Science Hall, Pittsburgh, Pennsylvania** This huge 335,588 sq. ft. building had a traditional, oversized, air-handling system using 100 percent outside air. This required costly preheating and reheating.

Key to the redesign was a smaller air-side system that separates contaminated air from the science lab, and recovers heated air from the rest of the building.

This highly efficient system uses the adjacent

buildings in the campus complex as a heat sink— heating the entire 557,059 sq. ft. with recovered energy.

Cost: approximately \$925,000. Annual fuel savings: about \$300,000.



**Winner: Commercial Category** Gunnar Birkerts, Gunnar Birkerts and Associates, Architects, Birmingham, Michigan.

**Project: IBM Office Building, Southfield, Michigan**

A building that's uniquely energy efficient. Its two-color exterior curtain wall keeps its interior cooler in summer—warmer in winter.

Its "sill reflector" system—a reflector below the outside window line which bounces sunlight off a reflector above the inside window line—reduces the lighting load by one half.

Combined with an air recovery system, estimated annual fuel savings: \$111,000.



Going On from page 8

others and why some local and state governments provide too many services while others provide too few.

In addition, speakers addressed issues such as energy policy, water supplies, environmental concerns, hard-core unemployment, inflation, tax bases, uncoordinated federal programs and the lack of state and local involvement in the formulation of federal programs.

Speaking for the National Forum on Growth Policy—which consists of AIA and eight other architectural, planning, housing and engineering groups—Chairman Lane L. Marshall called for more coordinated federal efforts in three main areas: the central city and its metropolitan frame; housing and neighborhoods,

and environmental and economic development.

Marshall, president of the American Society of Landscape Architects, said that metropolitan areas share a common problem—internal imbalance of population, resources, jobs and facilities. “Political and economic barriers are sharpening between suburb and central city,” Marshall said. The middle class moves to the suburbs, while the central cities remain a catchment for the disadvantaged.

“In the absence of strong national policy, the urban fringe will continue to develop in ways that both ravage the natural environment and ‘lock out’ lower-income and minority households who might choose to move from the central cities,” Marshall said. Therefore, national

policy should strive to re-create economically viable activities in older areas of the cities.

Focusing on housing and neighborhoods, Marshall said that because the federal government acts as a passive financier of low- and moderate-income residents, it fails to help local government finance additional social service costs.

“This economic and, ultimately, racial distinction in federal policy must be eliminated. It undergirds racial and economic isolation in metropolitan areas and cuts off the rural poor from national benefits, while middle- and upper-income households benefit more or less automatically,” Marshall said.

A re-emphasis of the neighborhood as the basic building block for revitalizing and preserving communities is essential, Marshall added. “Housing cannot be separated from its neighborhood. Yet, few public programs stress physical, social and environmental development of integrated neighborhoods.”

Because environmental protection and continued economic development have clashed without equitable compromise and resolution, “guidance must be afforded at the national level as to how both objectives may be pursued to the benefit of the country,” Marshall said.

At the final session of the conference, the participants presented to President Carter their consensus prescription for our economic future—a “declaration of interdependence”—an altered role for the federal government with more local and state input.

“This nation cannot afford to let its central, state and local governments—and their separate administrations and regulatory agencies—live in splendid isolation,” the participants suggested. “For a healthy economic condition, government must obtain the confidence of the business community and nonprofit organizations.”

President Carter told the conference that he wanted to “underline the inadvisability of the federal government trying to discipline a society that relies on free choice.” He said it would be better to concentrate on relieving the “human problems” that result from shifts of population and industry, rather than trying to contest the “inevitability” of such changes.

## Chameleon Tower

The Art Deco tower of the Empire State Building in Manhattan was floodlit with stripes of red, white and blue for nearly three weeks in February to honor the birthdays of Presidents Washington and Lincoln. This color celebration was to be followed by green lights in March to commemorate St. Patrick’s day.

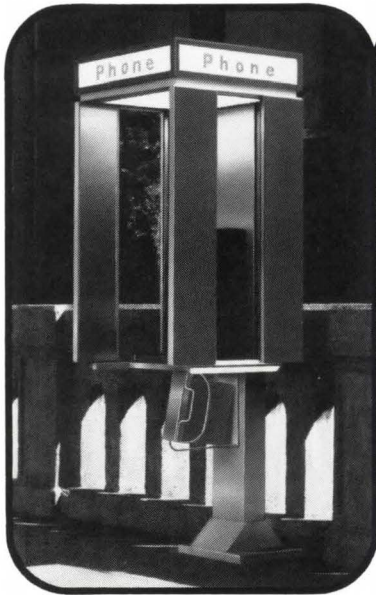
The tower encompasses the top 30

*continued on page 22*

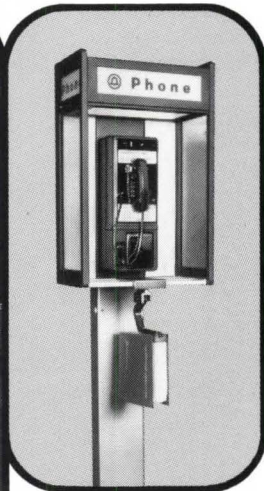
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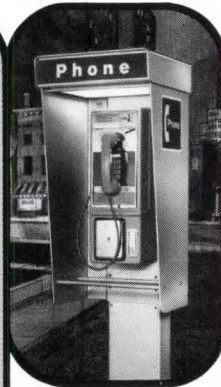
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**"Antron" III controls static shock.** "Antron" III nylon offers built-in protection against static shock. Its nylon sheath and core of polymeric conductive material is designed to control the generation of static electricity comfortably below the level of human sensitivity. This protection works well in all locations, including areas where relative humidity is extremely low. Extensive Du Pont tests confirm "Antron" III maintains effective static control even after 3 million traffics, repeated vacuuming and regular

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shampooing.

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**Why Upjohn chose "Antron" III.** The Upjohn Company wanted carpet outstanding in low maintenance, wear

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Write, Du Pont Contract Carpet Fibers, Centre Road Building, Wilmington, Delaware 19898, for a manufacturers' resource list, a commercial office building specification guide, a maintenance manual and an "Antron" III anti-static brochure.

Magnification of 250X "Antron" III nylon showing hollow filaments and round, anti-static filament.



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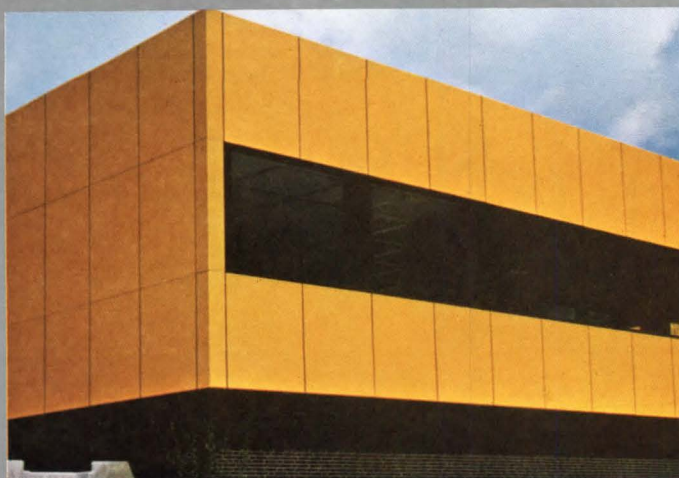
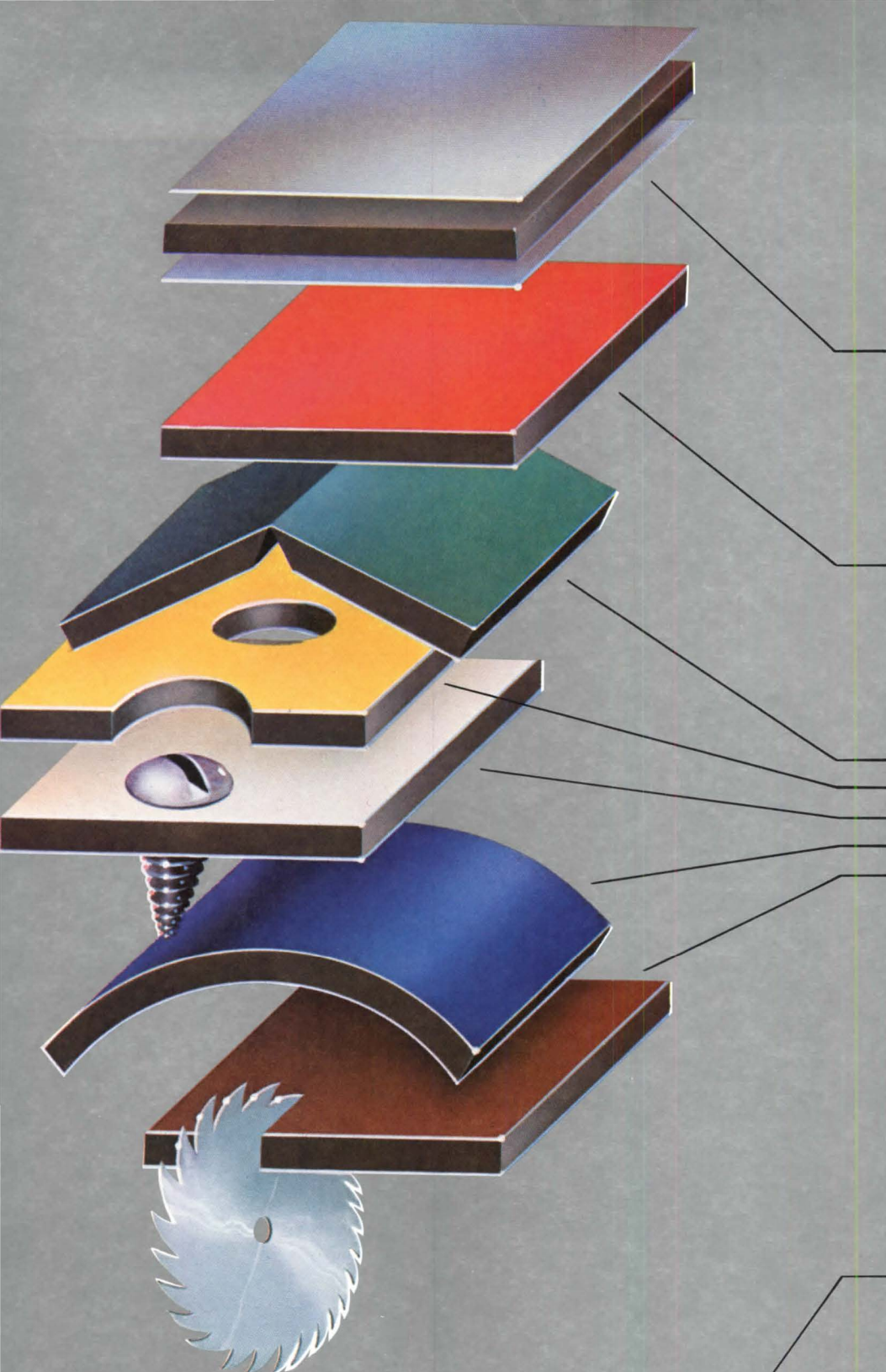
## The Next Step:

To learn more about how ALUCOBOND material can work in your next project, phone or write:

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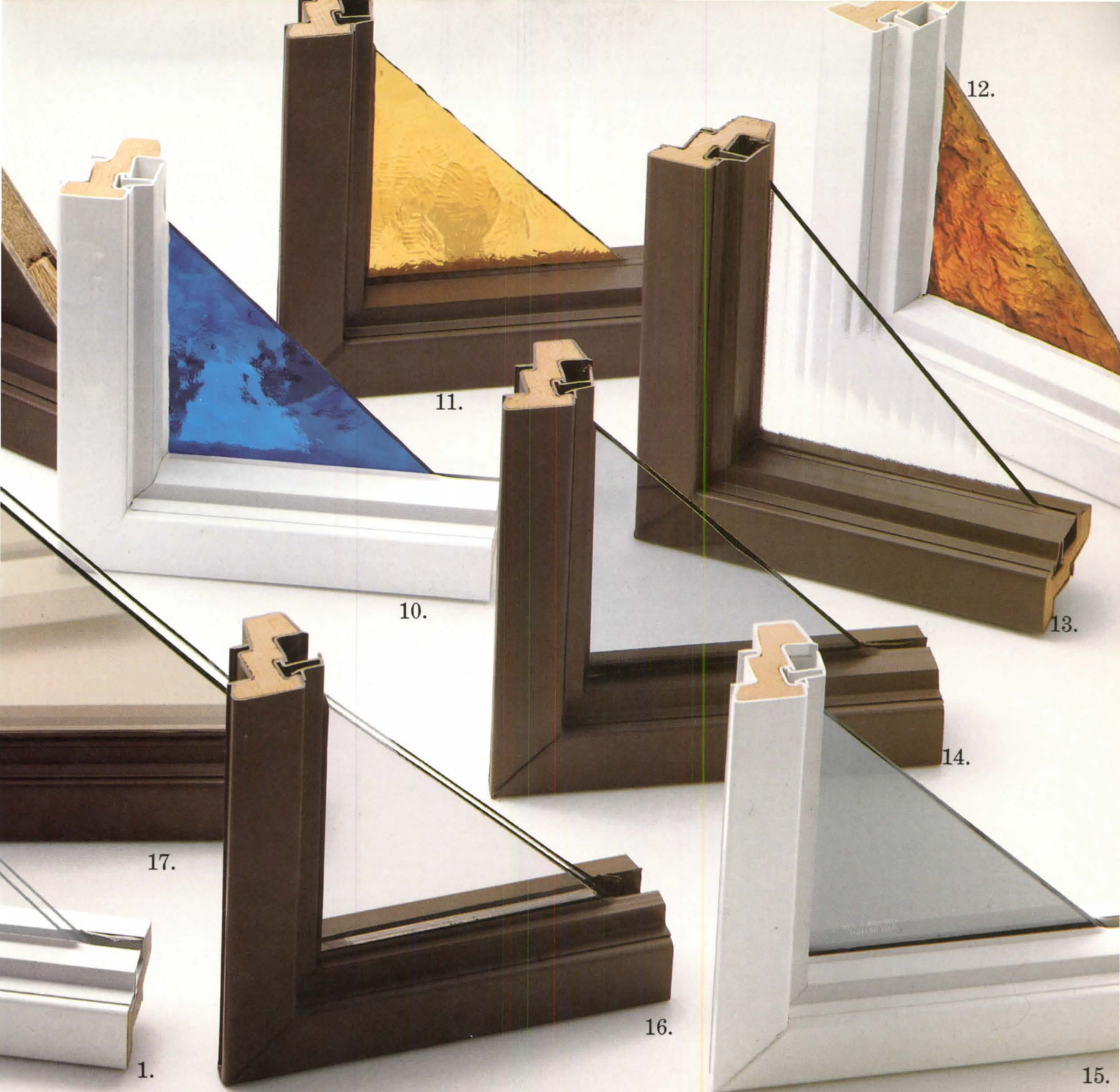
7. Glasweld® panels distributed by PPG. Opaque spandrel reinforced mineral panels. Mineral color surface. 31 colors.

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Circle 11 on information card

Going On from page 14

floors of the structure, and it takes three and a half days to install the various plastic gelatins used to color the tower. Work often is delayed because temperatures determine whether workmen can handle the plastic gelatins. They are so delicate that they must be handled with ungloved hands. It's 10 degrees colder up there, nearly one-quarter mile high in the sky, and winds are sometimes as strong as 50 miles an hour.

## AIA Names Eleven to Honorary Memberships

Eleven persons who have made "distinguished contributions" to the architectural profession or its allied arts, including four who have been associated with AIA component organizations, have been selected for honorary membership in the Institute.

The following will be inducted at the AIA convention in Dallas in May:

**Sarah Booth Conroy**, architecture and design writer/editor for the *Washington Post*, who has "promoted the cause of quality design in architecture and the arts for the past 28 years."

**Jane Dougherty**, executive secretary of the Washington (D.C.) metropolitan chapter/AIA and an Institute staff member from 1957 until she assumed her chapter duties in 1971, who serves as treasurer of the Middle Atlantic regional council/AIA and was secretary/treasurer for host chapter functions during the 1974 AIA convention.

**Robert Gutman**, professor of sociology at Princeton University and a pioneer in the study of the relationship between environment and behavior, whose writings and teaching have brought him to the forefront in the study of architecture and its influence on urban society.

**Patrick K. Harrison**, an urban planner currently serving as secretary of the Royal Institute of British Architects, who has inspired the creation of government agencies in the United Kingdom responsible for the quality of the built environment.

**Suzanne Keller**, a professor at Princeton University's school of architecture and urban planning for the past 10 years, who has played a key role in the understanding of architecture as a social art through numerous articles and reports on the behavioral impacts of new buildings and communities.

**Inez Kirby**, who started to work for the Columbus (Ohio) chapter/AIA in 1957 and has promoted the profession to the general public, particularly in the creation of a strong relationship between area architects and the Columbus school system.

**Florence Cawthorne Ladd**, assistant dean for academic administration at the Massachusetts Institute of Technology's school of architecture and planning, whose studies of the urban environment have resulted in new definitions of urban problems.

**William B. Moore Jr.**, vice president and general manager of the Reynolds Metals Co.'s architectural and building products division, who is in charge of the various Reynolds architectural awards programs, sponsored by the company and administered by AIA.

**Rosemary Schroeder**, executive director of the Dallas chapter/AIA for 20 years, whose contributions have included her involvement with the Dallas policy goals study and the establishment of the local community design center.

**George L. Wildgen**, executive director of the Arkansas chapter/AIA and executive secretary of the Arkansas State Board of Architects, whose numerous writings include articles on urban design and planning and architecture.

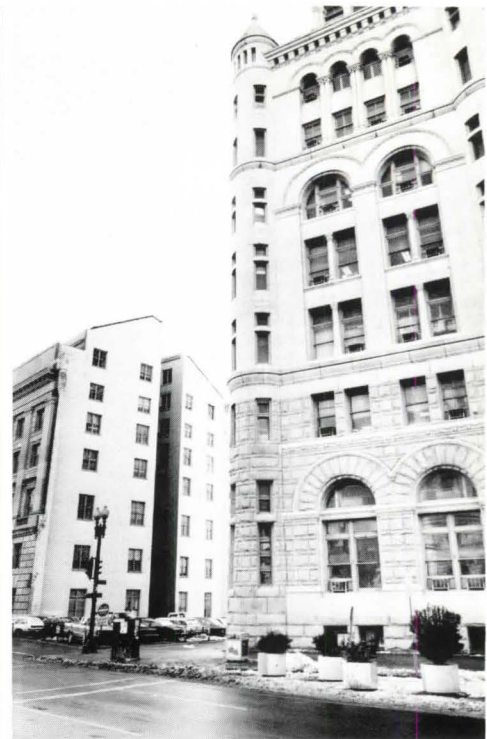
**Marilyn Wood**, a New York City-based dancer, choreographer and teacher and head of a group of artists dedicated to "Celebrations in City Places," whose experimental approaches to dance have contributed a new dimension to city life.

## Siting Problems Unsolved In Post Office Restoration

Although the fine arts commission has endorsed GSA's design plans for the restoration and adaption to mixed use of the old post office building on Pennsylvania Avenue in Washington, D.C., a site problem is still unsolved. The problem concerns how to relate W. J. Edbrooke's Romanesque post office to the neoclassic architecture of the Federal Triangle.

Renovation plans are based on a design won in a GSA competition by a joint venture of McGaughy, Marshall & McMillan of Norfolk, Va., in the Washington firms of Arthur Cotton Moore /Associates and Stewart Daniel Hoban/Associates and the Atlanta-based Associates Space Design, Inc. (see July '77, p. 48). The building would contain federal offices and also such public amenities as shops, restaurants and spaces for the performing arts.

J. Carter Brown, Hon. AIA, chairman of the fine arts commission, describes one site problem as the "truncated stumps, the bleeding amputated limbs" where the triangle meets the old post office (photo above). When the adjacent Internal Revenue Service structure was built, a semi-circular wall was left unfinished in anticipation that the old post office building would be torn down and replaced by a neoclassical building. The wall remains unfinished, and a parking lot has grown



up around it. The fine arts commission questions how GSA could soften the design conflict between triangle buildings.

As a result of the commission's concern, GSA has begun to study and will have the master plan for the triangle revised. The study will address the entire area to coordinate landscaping and other improvements, according to a GSA spokesman. In addition, two entrances of the old post office building may be redesigned—the northeast and south entrance.

Interior restoration of the old post office building is expected to begin this summer.

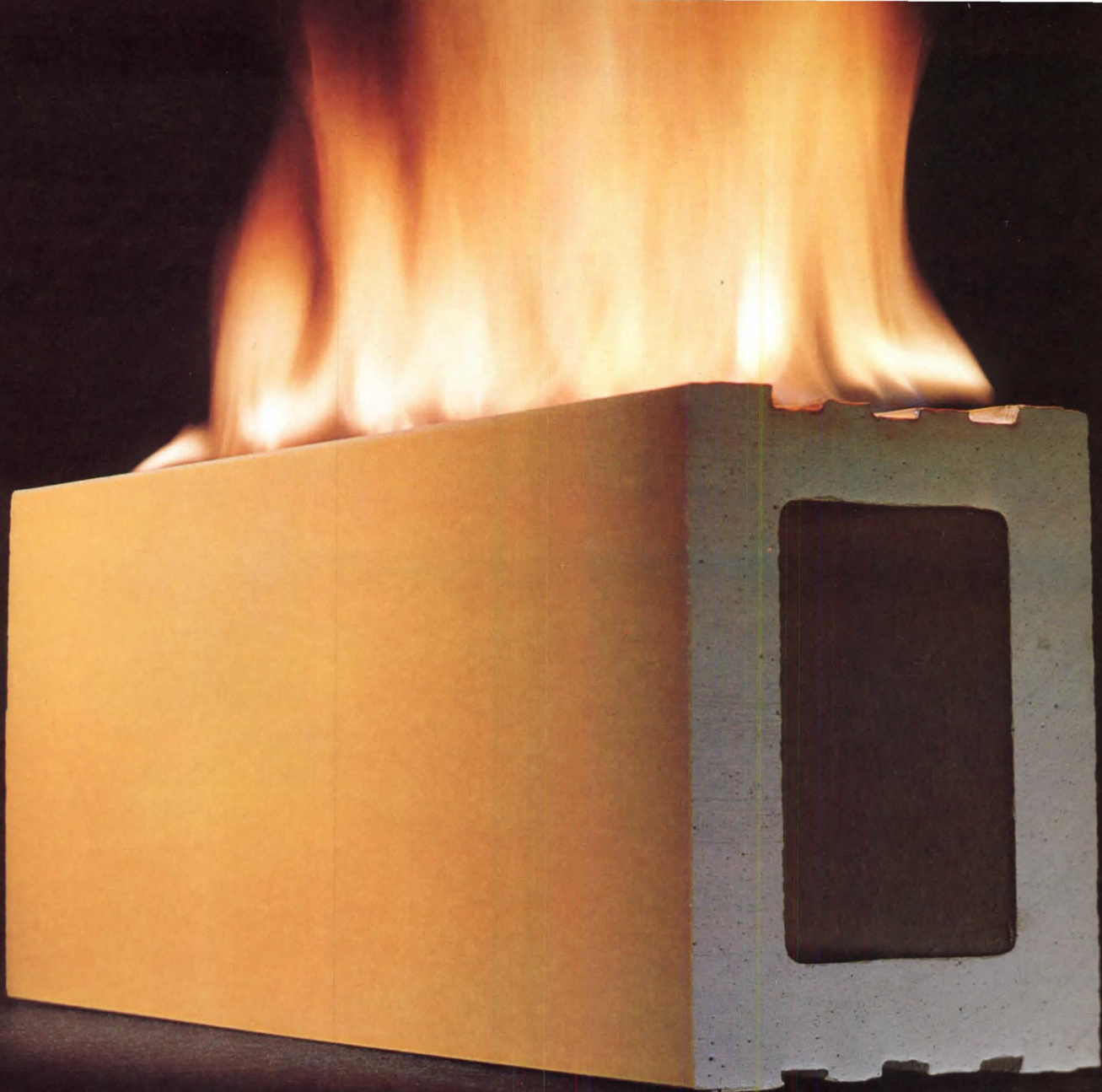
## Professional Advertising Is Surveyed in New York

Despite the fact that architects in New York State have been permitted by the official licensing board to advertise since last October (see Sept. '77, p. 8), there is little evidence that architects are advertising. A recent survey by the *New York Times* of advertising by professionals tells of dentists and lawyers who now advertise—some declaring that it pays—but no mention is made of architects. And George S. Lewis, FAIA, executive director of the New York chapter/AIA, reports that he has seen no advertising by architects in local papers.

The *Times* article reports that since the ruling by the Supreme Court on June 27, 1977, banning advertising by lawyers as unconstitutional (see Aug. '77, p. 8), lawyers around the country "have been experimenting cautiously with advertising." Guidelines were offered by the American Bar Association in a 50-page

continued on page 26

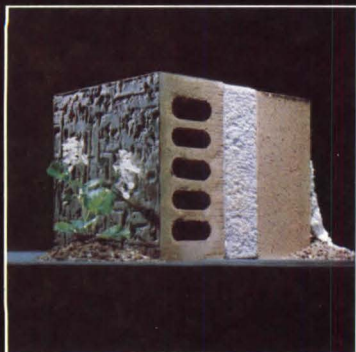




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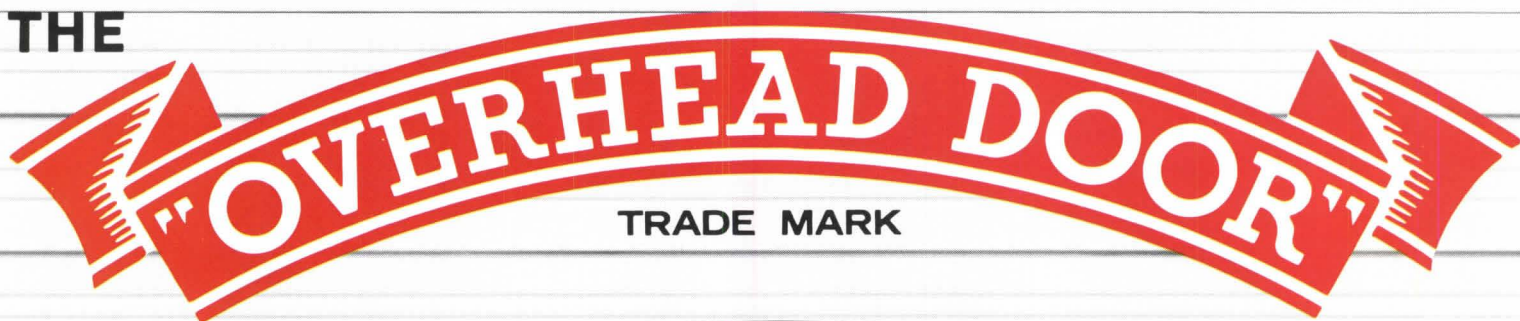
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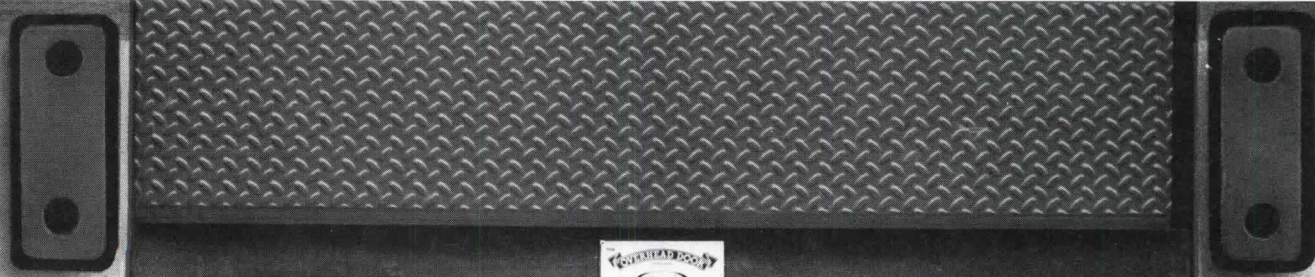


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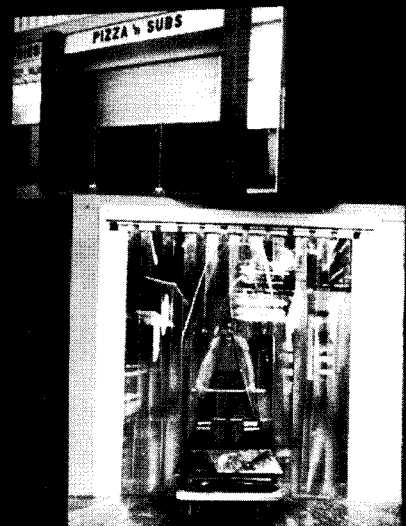
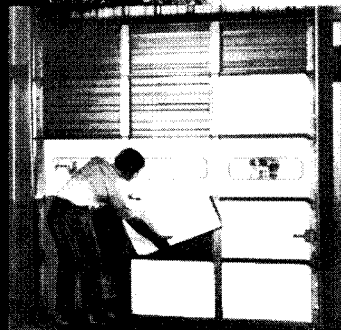
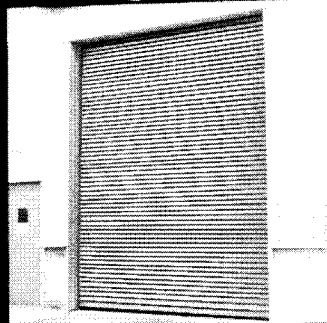
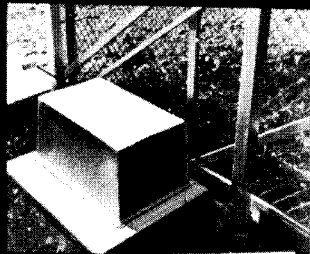
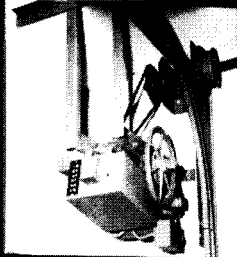
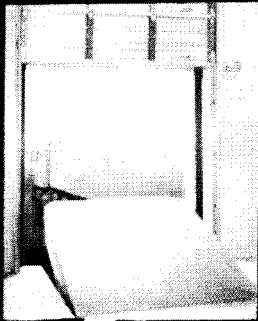
And we've perfected the greatest new advancement in door counter-balancing. The Posi-

tension<sup>®</sup> drum. This breakthrough in door counter-balancing offers safer, trouble-free operation you can depend on.

Plus, all of our products are backed by fast, reliable installation and service by our distributors who give you a full year's warranty on workmanship, materials and installation.

We could tell you more. But we believe in short stories. We invite you to tell us yours.

Overhead Door Corporation,  
P. O. Box 22285  
Dallas, Texas 75222/(214) 233-6611



Circle 13 on information card

Going On from page 22

code which says that advertisements could include information about a lawyer's education, military record, specialty, bank references, fees and willingness to accept credit cards.

The American Medical Association and the American Dental Association are currently contesting Federal Trade Commission complaints that the societies are restraining trade by endeavors to limit information that doctors and dentists are permitted to include in advertisements.

The newspaper reports that "professionals who have begun to advertise in New York say that it has caused a jump in their practices, in many cases at the price of criticism by some of their colleagues." Indeed, one dentist on Long Island said that since advertising, his practice "has increased by at least 500 percent."

A fellow dentist, however, said that prices are lowered in such advertisements because of lower quality and by use of techniques not "universally accepted." Advertising, he said, puts dentistry into the category of a business. "Dentistry is a step above a business. It is a profession," he said.

The newspaper finds that currently most advertising by professionals is concentrated in the suburbs. It cites as one reason the lower price of advertising in smaller circulation newspapers and another as the thin spread of population which makes it difficult for a professional to build up a practice quickly without some kind of notice.

According to the *Times*, among professionals "lawyers are the ones to advertise most heavily." In New Jersey, for example, a spokesman for the state's bar association said that "at least 25 lawyers had placed advertisements since the Supreme Court decision."

Medical doctors are taking least advantage of advertising, says the newspaper. Dr. Lawrence Essen, president of the New York County Medical Society, said that while information should be available to the public in order to make informed decisions, the medical society "is adamantly opposed to solicitation of patients in the public media as contrary to the public interest and to the ethical principles of our profession."

George Lewis believes that larger architectural firms in the state will never be interested in advertising. "They don't think this is the way to get clients," he says. He concedes that small firms in smaller towns may find advertising advantageous.

At recent AIA grass roots meetings, Elmer E. Botsai, FAIA, president of the Institute, said that he believes that 90 percent of architects are opposed to advertising, "although it probably will come

soon." He continued, "I personally don't like it. I don't intend to do it. I just don't see how advertising will help the public or tell people the type of architect they need." Currently, AIA's rules of professional conduct ban advertising. The subject will be discussed at AIA's convention in Dallas in May.

## HUD Budget Expanded for Housing and Communities

The first complete housing and community development budget of the Carter Administration has been announced by HUD Secretary Patricia R. Harris. The 1979 fiscal budget, starting Oct. 1, 1978, projects appropriations of \$10.981 billion, up a half billion over 1978, and outlays of \$9.8 billion, \$1 billion over 1978. To carry out expanded activities, the budget projects a HUD staff increase of 1,410 employees.

According to Secretary Harris, the new budget projects the use of the full \$3.750 billion in block grants authorized by Congress for 1979, an increase of \$150 million over 1978. Another \$400 million is budgeted for the urban development action grants program, which is intended "to help communities battle economic blight and unemployment through public and private financial initiatives and reinvestment."

Secretary Harris also recommends legislation that would create an urban extension service, funded at \$10 million. As a HUD spokesman explains this new program, there are now many housing and community action programs which require considerable skill at the local level where such expertise may currently be lacking. The legislation, if passed, would authorize HUD to fund agents, individuals and groups who have knowledge and experience to aid local communities, thus making more effective and creative use of federal moneys.

The budget also earmarks \$20 million for urban homesteading, bringing the total authorized to date to \$55 million. It proposes rental assistance for 400,000 housing units and nearly 300,000 subsidized housing starts, compared to 51,000 starts in 1976.

Thrusts for the new starts would be provided by use in 1978 and 1979 of \$1.5 billion in low-interest money to attract builders and developers to construct new apartment buildings for low- and moderate-income people. Also, a half-billion dollars in low-interest money would be made available in 1978 and 1979 for financing mortgages for apartment houses for moderate-income people. HUD maintains that such action would attract middle-income people back to cities.

The budget encompasses a number of

rehabilitation activities. For example, Section 312 rehabilitation is envisioned as a major tool for the renewal of property, and it is proposed as a permanent program, with a record \$125 million in loans.

The budget also provides \$800 million for an estimated 25,000 units for housing for the elderly, including \$50 million exclusively for housing for the handicapped, especially the nonelderly.

Secretary Harris says that there will be changes in the way Section 8 housing programs will be used. "In addition to developing a new moderate rehab program, the existing housing program will be utilized to promote expanded freedom of choice for low-income Americans," she says. Special efforts, she noted, will be made to address the problems of racially segregated low-income housing.

The required budget authority for multiyear, long-term commitments is \$39.7 billion, but Congress "will have to approve only \$33.3 billion because unused assistance housing budget authority available from prior years will be carried over," Secretary Harris says.

## HUD to Shift Emphasis To New-Towns-in-Town

Since 1970, HUD has helped finance 13 "new community" developments. Now HUD plans to scrap the unsuccessful communities and turn to a new-town-in-town approach.

In announcing this change, HUD Secretary Patricia Harris admitted the new community program has been "plagued by a series of financial disasters." The program, mostly low-density "satellite" developments located outside city limits, began as a federal attempt to halt suburban sprawl.

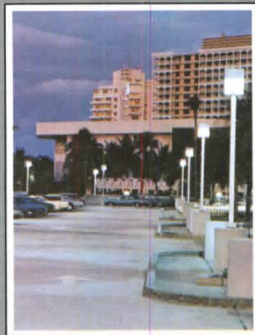
Of the 13 communities, seven have been foreclosed or put up for foreclosure—Newfields, Ohio; Jonathan and Cedar-Riverside in Minneapolis; Ganada and Riverton, N.Y.; Flower Mound, Tex., and Park Forest South, Ill. Six other communities may be salvageable—St. Charles, Md.; Maumelle, Ark.; The Woodlands, Tex.; Soul City, N.C.; Harbison, S.C., and Shenandoah, Ga.

"We are not closing out those existing new communities that are viable and are meeting our national and local goals," Secretary Harris said. "We intend to support them, and to make them stronger and ultimately self-sufficient." The salvageable communities will receive HUD grants for public facilities and other help.

Secretary Harris blamed the failure on the Ford and Nixon Administrations. "There was a total lack of support from the Nixon Administration. There was mismanagement and there were bad deci-

*continued on page 34*

# The basic forms of light.



## **Crouse-Hinds LSL/LRL luminaires for area and walkway lighting.**

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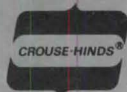
And they perform as beautifully as they look. They distribute light evenly where you want it. And compared to globes that waste light, the Crouse-Hinds luminaires use fewer units to meet your minimum light-level requirements.

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Lighting Products Division  
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KAWNEER-LIMIT STOP

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## **Kawneer Limit Stop Hardware**

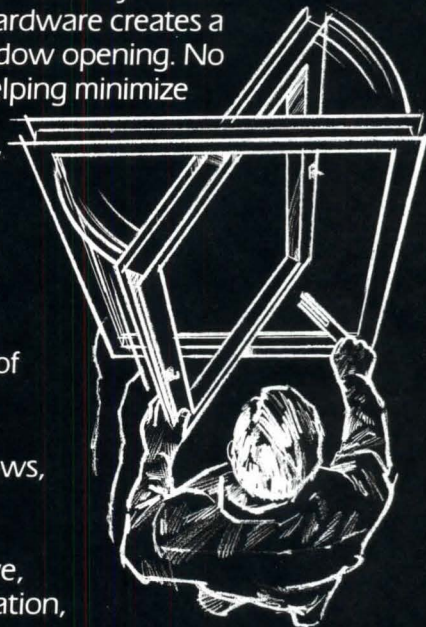
To many administrators of buildings where people work, learn or recuperate it has become apparent that a permanently closed window may not be as safe as once thought. The recent history of power failures and "brownouts" are proof that there are times when fresh air is what is really safe. In fact, many life safety codes now specify a ventilation requirement.

## **Introducing The Prudent Alternative**

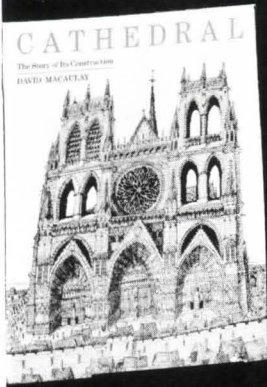
Kawneer Limit Stop Hardware for vertically pivoted windows is a sensible compromise between the "ultimate" safety of permanently closed windows and the safety of fresh air. Limit Stop Hardware creates a "ventilation position" of four to six inches of window opening. No further. The limit arm restricts further opening, helping minimize the dangers of a fully open window.

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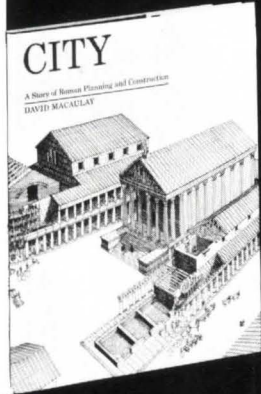
Kawneer Limit Stop Hardware is available exclusively on Kawneer Vertically Pivoted Windows, the same Kawneer windows which offer high performance and ease of operation. For more information, contact your Kawneer representative, or write: Kawneer Architectural Products Information, Dept. C, 1105 N. Front Street, Niles, MI 49120.



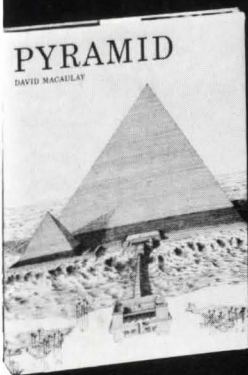
**KAWNEER**  
ARCHITECTURAL PRODUCTS



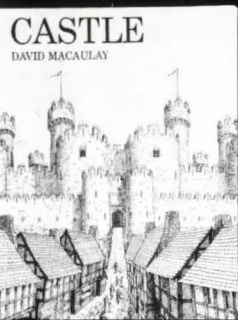
**Cathedral,**  
#3M192  
\$8.95 Non-member  
\$8.05 AIA member



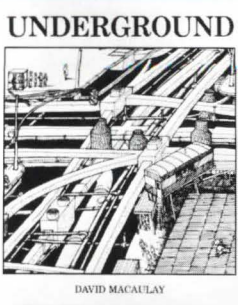
**City,** #3M193  
\$7.95 Non-member  
\$7.15 AIA member



**Pyramid,** #3M282  
\$8.95 Non-member  
\$8.05 AIA member



**Castle,** #3M284  
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\$8.05 AIA member



**Underground,**  
#3M283  
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\$8.05 AIA member

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## Welcome to Dallas

Architectural acceptance of Vecta Contract is vividly evidenced in two Dallas projects of international significance, I. M. Pei's Dallas City Hall and Hellmuth, Obata & Kassabaum's DFW Regional Airport.

Braniff International's DFW concourse is widely considered as setting a standard by which other such facilities are judged. It is estimated that over twenty million passengers have used the departure lounges since the concourse opened in early 1974. Vecta Contract's Zermatt Seating System, equipped with exclusive Braniff panels, furnishes seating for 1,400 passengers.

The Dallas City Hall, acclaimed as one of the five best public buildings in the United States, is certain to receive exceptional attention during the 1978 A.I.A. Convention. Vecta Contract products will be recognized—some as classics, others as avant-garde and bold.

In the latter genre are Karin chairs and KDX tables for dining areas. Chair frames, of Finland plywood and melamine laminate, are color correlated to the KDX tables. The Mayor's office, executive offices and conference rooms contain other Vecta Contract furnishings: KDX and I-frame tables in genuine oak and mirror chrome or bronze; Chamberlin executive conference chairs in mirror polished aluminum and leather; Colville sofas/chairs.

If your flight to Dallas originates or connects with any of the following airports, you will find them furnished with Vecta Contract's Zermatt or Tappo Seating Systems: Braniff terminals at JFK, O'Hare, Miami, New Orleans, Denver, Houston, Corpus Christi, Oklahoma City, St. Louis, Tulsa, Ft. Lauderdale, Republic of Panama. Departure lounge seating in the following airports: Lubbock Regional; Detroit International; Knoxville Dickerson; Cleveland Hopkins; Great Falls International; McCarran International; Allentown-Bethlehem-Easton; Kalamazoo; Baltimore-Washington; Mirabel (Montreal); Vancouver International.

Vecta Contract, primary supplier for the Dallas Host Lounge, also furnished the Host Lounges for the Atlanta and San Diego A.I.A. Conventions.

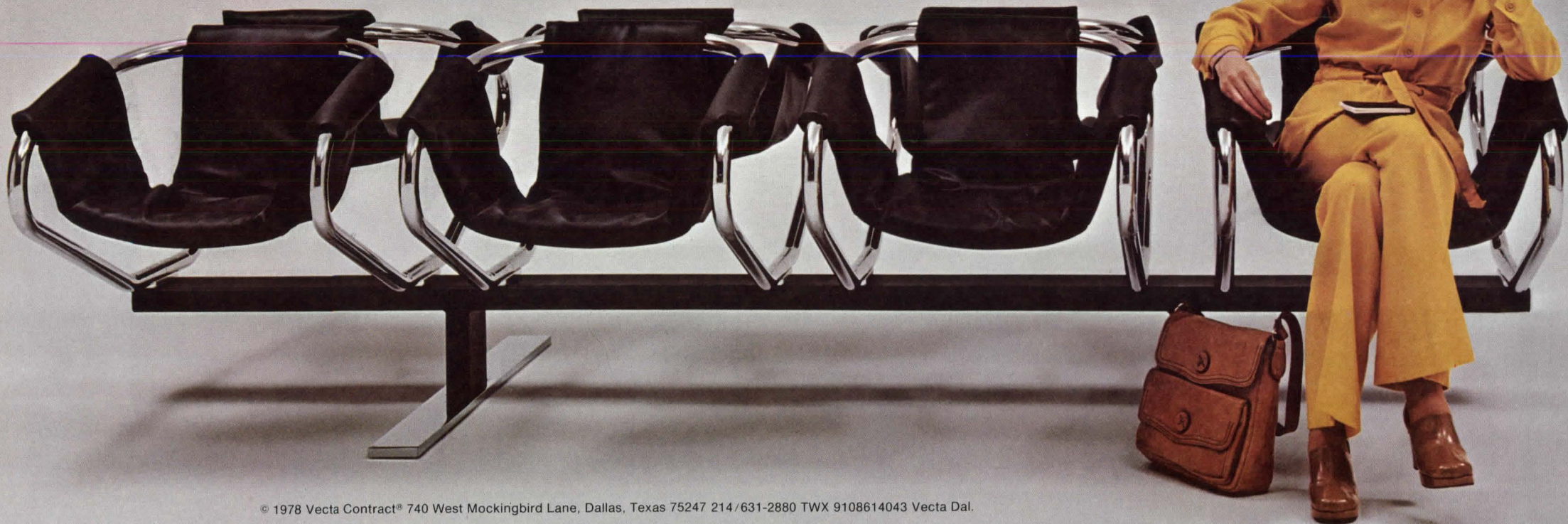


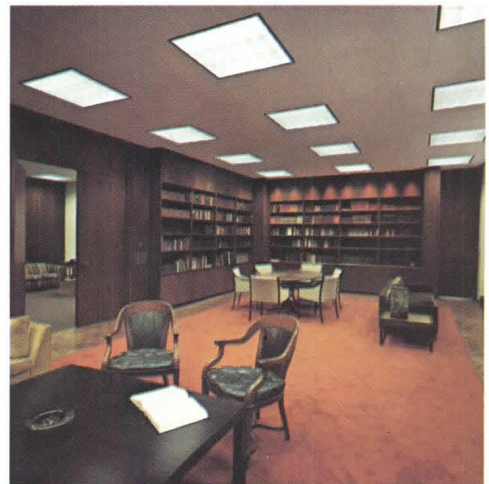
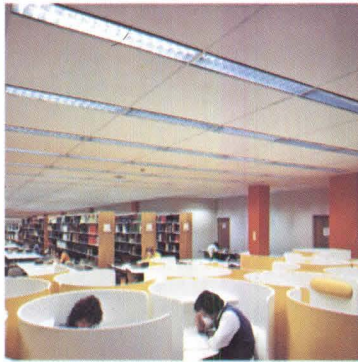
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Zermatt Cantilever System visually floats continuous forms of tubing from a single structural beam, either in back-to-back or single row configurations. Tubing and base feet offered in a choice of mirror chrome or fourteen heat-fused Thermoset colors. Modularity permits addition of ash tray tables between any seats without sacrificing space. Seat slings are easily removed or replaced — sans tools — although the method is not obvious to the uninitiated. No discernible motion transfer from one occupant to another. Great luggage storage underneath. Maintenance and other advantages proven many times over in major installations — including world's two largest airports.

Zermatt® patented U.S.A., Canadian patents pending.  
Designed by Duncan Burke and Gunter Eberle.





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General Office Building  
Miami, Florida  
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*2' x 2' with 40W U-lamps*

Montgomery Ward Headquarters  
Chicago, Illinois  
Architect: Minoru Yamasaki & Associates  
Consulting Engineer: Joseph R. Loring & Associates  
*2' x 4' four lamp*

Blue Cross - Blue Shield  
Oakland, California  
Architect & Engineer:  
Skidmore, Owings & Merrill (San Francisco)  
*4' x 4' custom surface*

Bank of America  
World Headquarters  
San Francisco, California  
Architect & Engineer: Wurster-Bernardi &  
Emmons, Inc. and Skidmore, Owings &  
Merrill (San Francisco)  
*1' x 8' custom*

Walker Bank  
Salt Lake City, Utah  
Architect: Fowler, Ferguson, Kingston & Ruben  
Consulting Engineer: Nielson Engineering Co. (Salt Lake City)  
*3' x 3' surface with gold baffle*

Northeast Junior  
High School  
Charlotte, North Carolina  
Architect & Engineer:  
Ferebee-Walters & Associates  
*20" x 4' two lamp for 5' x 5' ceiling  
module - 70 fc at 1.8 watts per  
square foot*

Traders & Merchants Bank  
Spokane, Washington  
Architect: Groesbeck-Pasold . . . Architects  
Consulting Engineer: Aztech Design  
*4' two lamp*

Penrose Library,  
University of Denver  
Denver, Colorado  
Architect: Hellmuth-Obata &  
Kassabaum, Inc. (St. Louis)  
Consulting Engineer: Herman  
Blum Consulting Engineers, Inc.  
*9" wide one lamp troffers—total  
lighting load 1.9 watts per  
square foot*

American Life & Accident  
Louisville, Kentucky  
Architect & Engineer:  
The office of Mies Van Der Rohe  
*3' x 3' six lamp—3 Level Switching*

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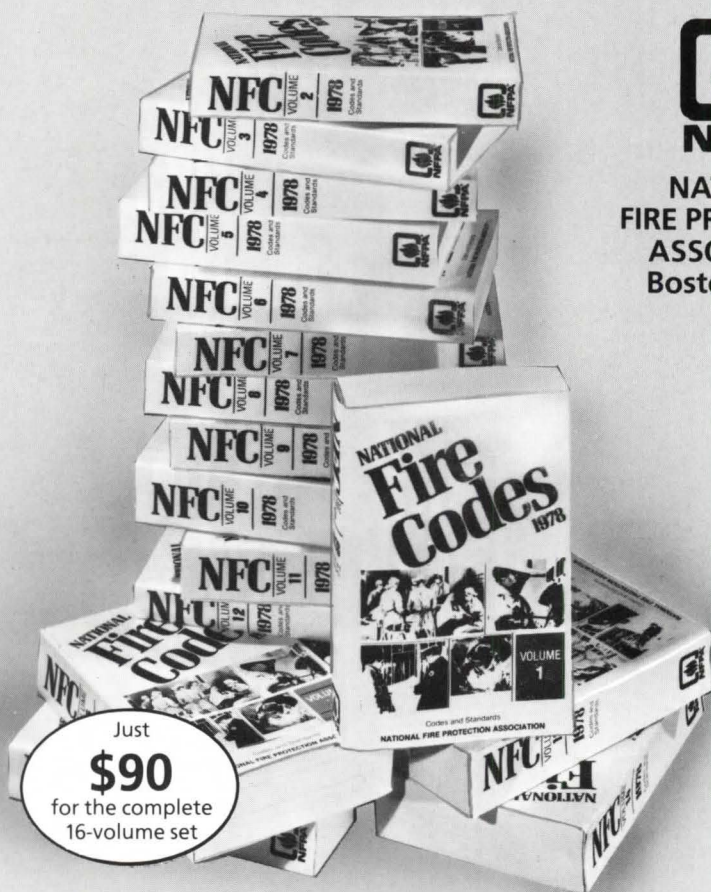
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Going On from page 26  
sions," she said.

With a reorganization of the program—abolishing the new communities administration and creating the new communities development corp.—concentration will change to an in-town approach. "Within six months, we will announce the first Carter Administration new-town-in-town. This policy is to be more in keeping with HUD's goals to revitalize urban areas," Secretary Harris said. However, she emphasized that first the existing communities must be stabilized or foreclosed.

"I am confident that it will be possible for us to move to the new-town-in-town program because we will have reduced the drain on, and the cost to, the federal government caused by the existing new communities program," Secretary Harris said. She did not say how much money HUD has lost on the existing program, but another HUD official said the new communities have so far defaulted on \$149 million in government backed bonds and notes.

## New Definition Voided For Small Businesses

The Small Business Administration (SBA) has decided not to redefine what constitutes a small business relative to architectural and engineering firms. Last September, the SBA issued proposed new regulations which indicated that \$3.5 million average annual receipts would constitute a small business for both architectural and engineering firms. Architectural firms have been categorized as small if annual receipts are less than \$2 million; engineering firms are classed as small if annual revenues are below \$7.5 million.

AIA, through its federal agency liaison committee, opposed the proposed regulations, as did the Committee on Federal Procurement of Architectural/Engineering Services (COFPAES) which represents, through its member societies, nearly all consulting engineering and architectural firms in the U.S.

A letter from John M. McGinty, FAIA, then president of the Institute, to the SBA stated that PL 92-582, known as the Brooks bill, "provides an opportunity for all interested A/E firms to 'compete' for federal work. With respect to small businesses, it is important to note that the proposed size standard, namely \$3.5 million average annual receipts, would permit approximately 95 percent of all architectural firms to be defined as 'small businesses.'" McGinty said the proposed standard size was "too high" and requested a reappraisal.

COFPAES also reported to the SBA, through its chairman, Robert O. Drange,

*continued on page 38*



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*Circle 20 on information card*



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Because protecting what's under it is what a  
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Why? Experience is one reason. Over 100 years  
of solving roofing problems. Quality is another.  
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expertise. J-M's technical resources are  
unmatched in the industry. And don't overlook  
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**“Keeping the water out.  
That's what this business is all about.”**

— An architect friend of ours

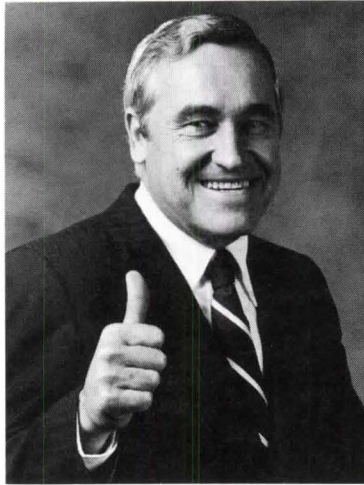


**Johns-Manville**

*Circle 21 on information card*

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*Reece A. Overcash, Jr.  
President & Director  
Associates Corporation  
of North America*



"There were many things to consider before we moved our administrative offices. Location, communications, resources—they were all important factors. But what really made us decide on the Southwest Metroplex was their attitude.

"It's an attitude reflected in how they manage their cities.

"You see it in their views on corporate taxes—there are none.

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The right attitude.

Dallas/Fort Worth  
The Southwest Metroplex 

*Going On from page 34*

that "adequate compensation" for A/E services obtained by federal agencies now exists under the Brooks bill. The law, said Drange, is based on open competition by A/E firms and selection is determined upon demonstrated competence. "It is thus apparent that in terms of procurement procedure a dollar size standard, whether it be the proposed \$3.5 million, or some other figure, will have no practical effect or serve any purpose" since more than 96 percent of both architectural and engineering firms would then be small businesses. Even if there were a preference program for small A/E businesses, which there is not, Drange said, "it would hardly serve any public purpose to establish that virtually all firms would qualify for the set-aside or preference."

The SBA has not announced why it has decided to rescind the proposal. At any rate, the Institute's federal agency liaison program will make an attempt in 1978 to acquire adequate data on small business firms. "Then, if the SBA makes further proposals," says Bruce Schafer, director of the program, "we will have sufficient information to deal with the matter."

## Carter Budget, Tax Plan Questioned by Institute

AIA has expressed concern that President Carter's proposed budget for fiscal year 1979 may result in continued inflation because of its continued high level of deficits. "If high interest rates are used to combat inflation, the combination of the two will be more damaging to the construction industry than any other sector of the economy," said David Meeker, FAIA, who will assume the executive vice presidency of the Institute next month.

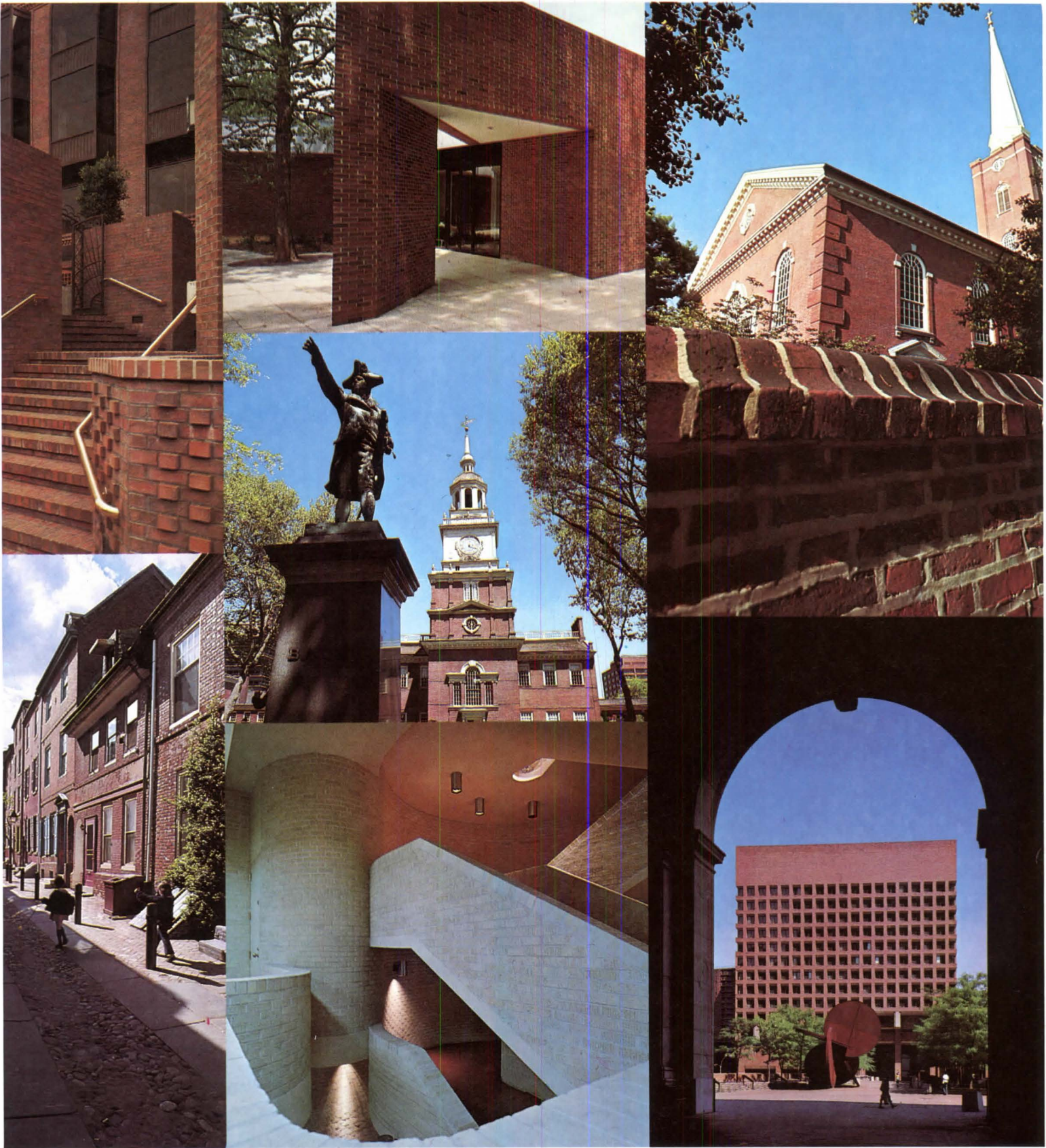
The statement on President Carter's economic proposals continues: "In regard to the tax plan, the Institute strongly questions and objects to the decision to limit the extension of the investment tax credit to a very narrow class of buildings, namely factories and utilities, rather than extending it to all commercial buildings, including rental housing. We believe this latter category of structures will need the added incentive since their tax liability will be increased by reductions in allowable depreciation and other changes in the President's proposal. In addition, this decision may result in a bias against urban areas with service-based economies, which include some of our older cities.

"We do not believe the current funding level proposed is adequate to the task, if we continue to provide federal aid to our cities and citizens within the current framework of federal assistance. However, we are encouraged by the President's

*continued on page 110*

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**"An efficient building... a great building"**  
**ELEVATORS BY DOVER**

The quotation above is from Armand C. Stalnaker, chairman and president of General American Life Insurance Co., describing his company's new headquarters building in downtown St. Louis.

Two giant triangles, housing offices for 400 people, are joined by a central rotunda rising the full height of the building. In the center of this unifying core are three pentagonal elevators with glass walled cabs. Bridges lead from the elevators to curved halls opening onto the offices.

Dover Geared Traction Elevators were selected for this unusual building whose geometry makes it

both distinctive and functional. For complete information on Dover Elevators write Dover Corporation, Elevator Division, Dept. G, P.O. Box 2177, Memphis, Tennessee 38101.

**DOVER**

General American Life Insurance Co., St. Louis  
Architects: Johnson/Burgee Architects  
General Contractor: McCarthy Brothers Co.,  
St. Louis

Dover Geared Traction Elevators installed by  
General Elevator Engineering Co.

# AIA JOURNAL

## DALLAS

is a place in between,” wrote the articulate local architect James Pratt, FAIA, in a 1976 issue of *Texas Architect* on the city. “It was a last Western outpost of the cotton culture to the east,” he continued, “and it is at the edge of the plains to the west, with marginal vestiges of the Latin culture to the south. From the north it is on the edge of dying arctic winds and from the south it is on the edge of moist breezes from the Gulf.”

And later, “Dallas began as a horse town, grew because of its aggressiveness in bringing the railroads here, then had to fight to the Supreme Court to break the railroad straightjacket around its throat. Since World War II it has made the transition to an auto-dependent town with great ease of personal movement for those with cars, but with all the physical discontinuity which that condition implies.”

Dallas, Pratt concluded, “is not as worldly as Houston, nor as provincial as San Antonio. Its early influences—commercial, financial and architectural—all came from the Midwest, and it still feels like a Midwestern town.”

To this visitor, nevertheless, the city that Dallas first brought to mind was Atlanta: a suddenly erupting, still expanding downtown surrounded by a plethora of exceedingly comfortable residential neighborhoods.

In this issue, we deal mainly with the public and communal aspects of Dallas and its region. But one should keep in mind Pratt’s observation that Dallas is “a private place. The city shines best in the living room, at the table or around the pool.”



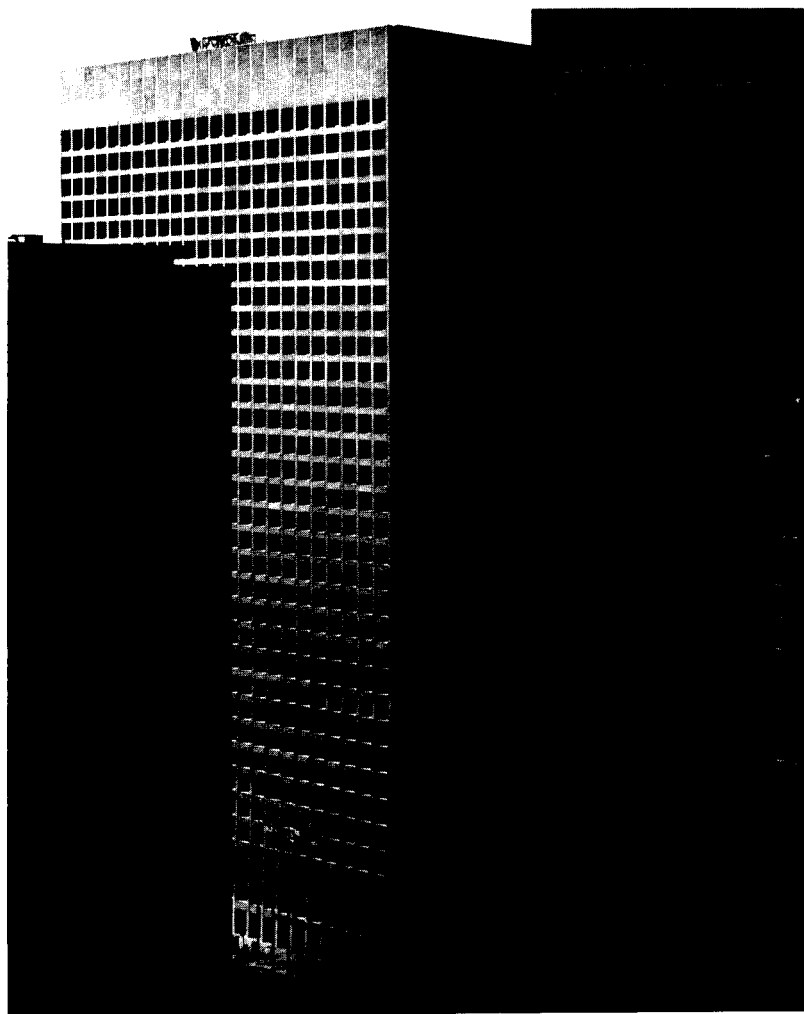
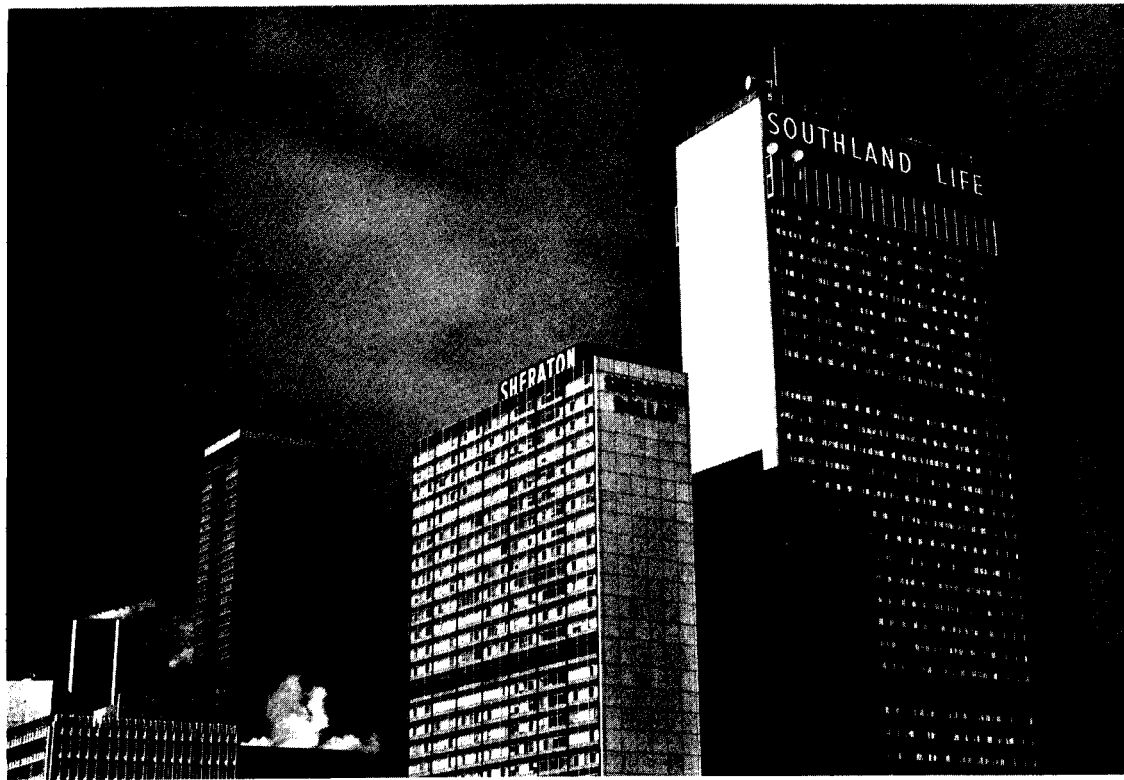


**Downtown Dallas** rises from the relentlessly flat landscape in an eruption of vitality. There is little in the freeway-laced fringes to indicate that a city is impending until the tightly clustered skyline comes into view. Downtown's last major spurt of growth came in postwar years; now another is underway (see following article.) The resulting environment, James Pratt says gently, "generally expresses individual rather than collective effort." And also, "There is no coherence to the context in which the new work is placed." Says another Dallas architect, with a wave toward what seems an infinite horizon, "On country like this, anything you build is an improvement."



*Allen Freeman*

**Faces.** The increasingly dense core of downtown is like a living museum of the Curtain Wall era of American architecture. The walls span a generation from the 1950s' Southland Center (upper right, Welton Becket & Associates) and Republic National Bank (gleaming above, Harrison & Abramowitz, Gill & Harrell) to the mid-1970s' First International Building (background of photo at right, Harwood K. Smith & Partners, Hellmuth, Obata & Kassabaum), the city's tallest. One Main Place (foreground of photo at right, Skidmore, Owings & Merrill, Harwood K. Smith & Partners) rises above an underground concourse that was originally intended to be linked to an elaborate multilevel circulation system, spreading over much of the core, and one day may yet be. In this almost-dizzying array of modernity, earlier, sturdier facades such as that at far right provide welcome if all-too-infrequent relief.



*Dallas photographs by Doug Tomlinson except as noted*

**Spaces.** Behind the often bland facades there are some surprises. Within the sprawling Apparel Mart on the edge of the city is the cavernous—in fact, cavelike—room below (designed by Pratt Box Henderson & Partners, the first-named being the architect quoted earlier). At right is Dallas' Art Deco jewel, the Great Hall of the Hall of State at Fair Park, built in 1936 for the Texas centennial exposition. (For more on Fair Park and an exterior view of the hall, see following article.)

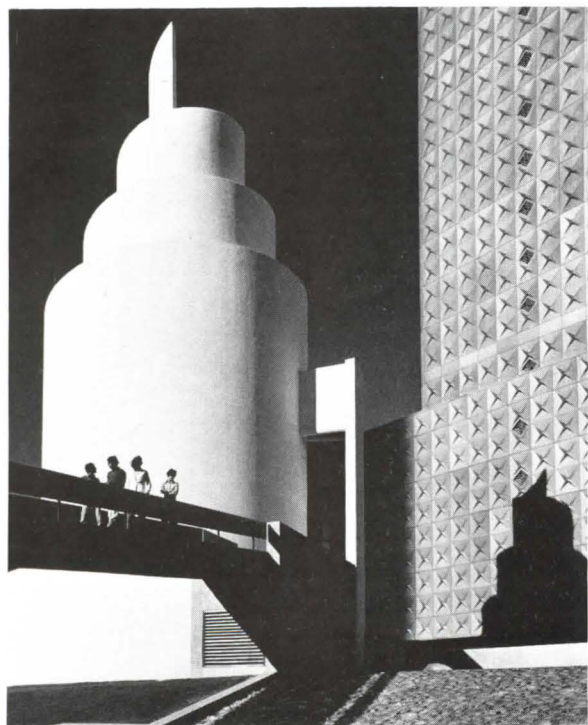
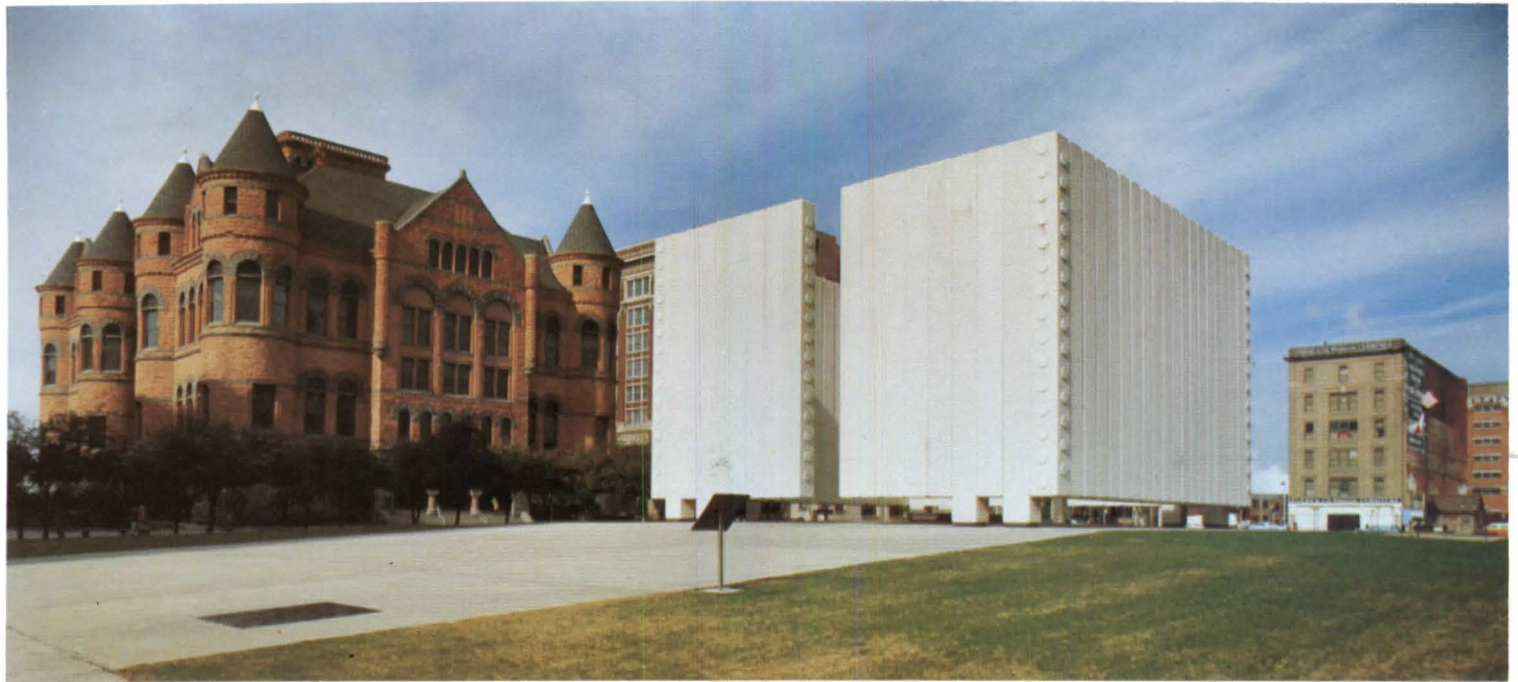






THE STATE OF TEXAS HAS PASSED ON AND BECOME  
A CONSTELLATION WHICH ALL FREEMEN AND  
FREE WOMEN MUST REVERENCE AND ADORE - THE AMERICAN UNION 1890





**Monuments.** Philip Johnson, FAIA, has made two singular, if somewhat disquieting, contributions to downtown spaces. His JFK memorial (above) is a 50-foot square concrete "cenotaph" open to the relentless Texas sun and empty except for a gray-black granite plaque.

The memorial stands in front of "Old Red," the Romanesque 1891 Dallas County courthouse. Shorn of its 200-foot clock tower in 1919, used as state offices for roughly the last 10 years, it is now being returned to its original use. In the right rear of the photo is a small log cabin reputedly built by original settler John Neely Bryan as the first building in what was to become the city. The site of John Kennedy's assassination is roughly a block beyond and to the left of the memorial in this view.

Across page is Johnson's Thanks-Giving Square, a one-acre triangle in the very heart of downtown. From a mazelike pattern of paving, greenery and water rises a swirling white concrete chapel (left) as a single cantilever. The interstices between swirls are stained glass.

The chapel is nondenominational and the square was built by a religious foundation mainly with private donations, but one observer totaled up some \$10 million in public involvement. Notwithstanding, the square is surrounded by a four-foot wall and its gates are locked every evening at 5.

**Civic Symbol.** The brand-new Dallas Municipal Building is easily the nation's most dramatic seat of local government since the Boston City Hall, a burly, angular structure of finely crafted concrete by I. M. Pei & Partners with Harper & Kemp. Yet when Pei spoke about it at a 1977 Dallas AIA chapter function, he did not speak of drama, or sculpture, or symbolism, but of a gift of space. Originally the city had set aside a seven-acre site for the building, but Pei, after a study of the surrounding area, persuaded his clients to acquire an additional approximately 10 acres for a pedestrian plaza (atop a 1,400-car garage) and future addition of other public facilities.

*Dennis Brock—Black Star*



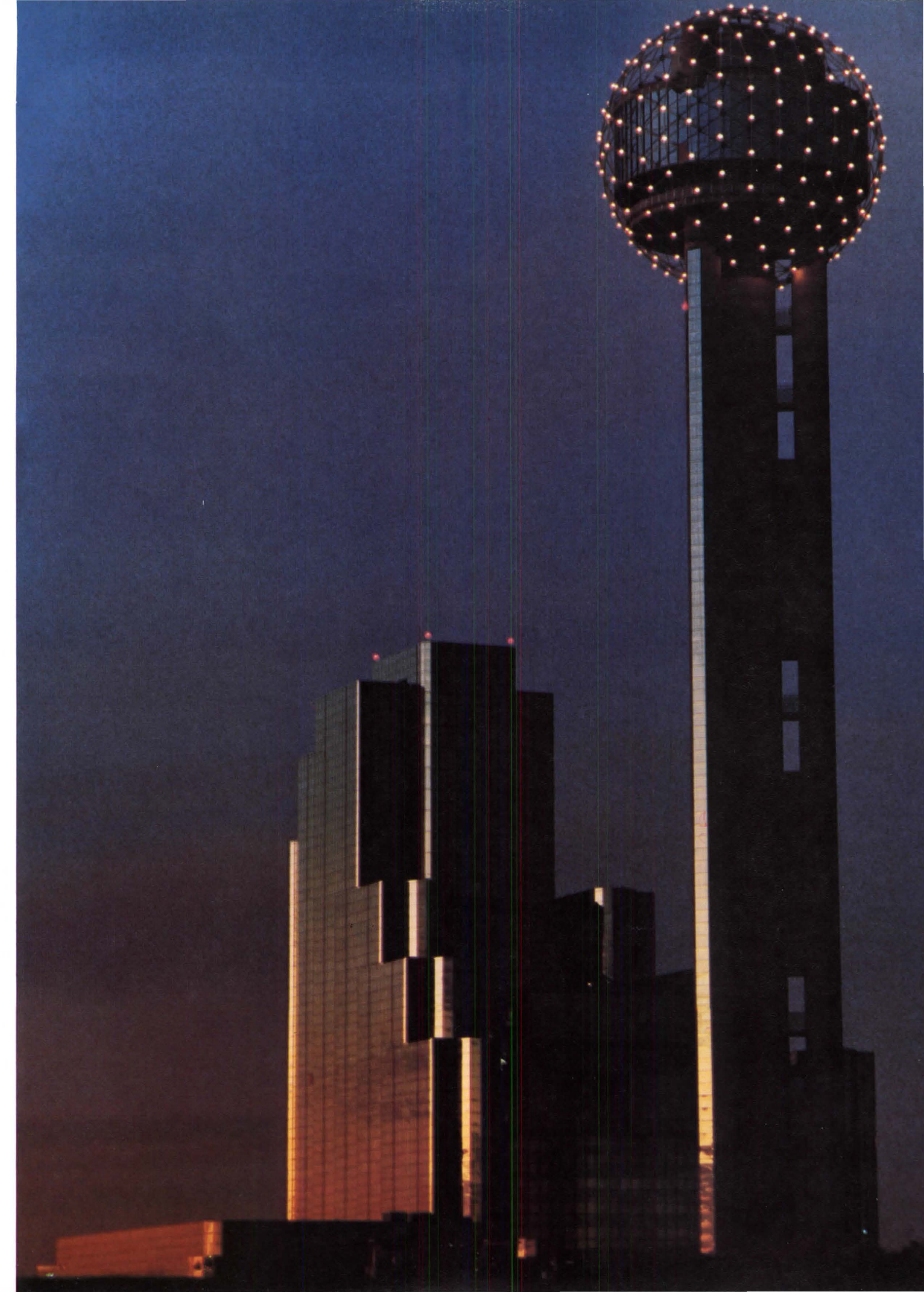


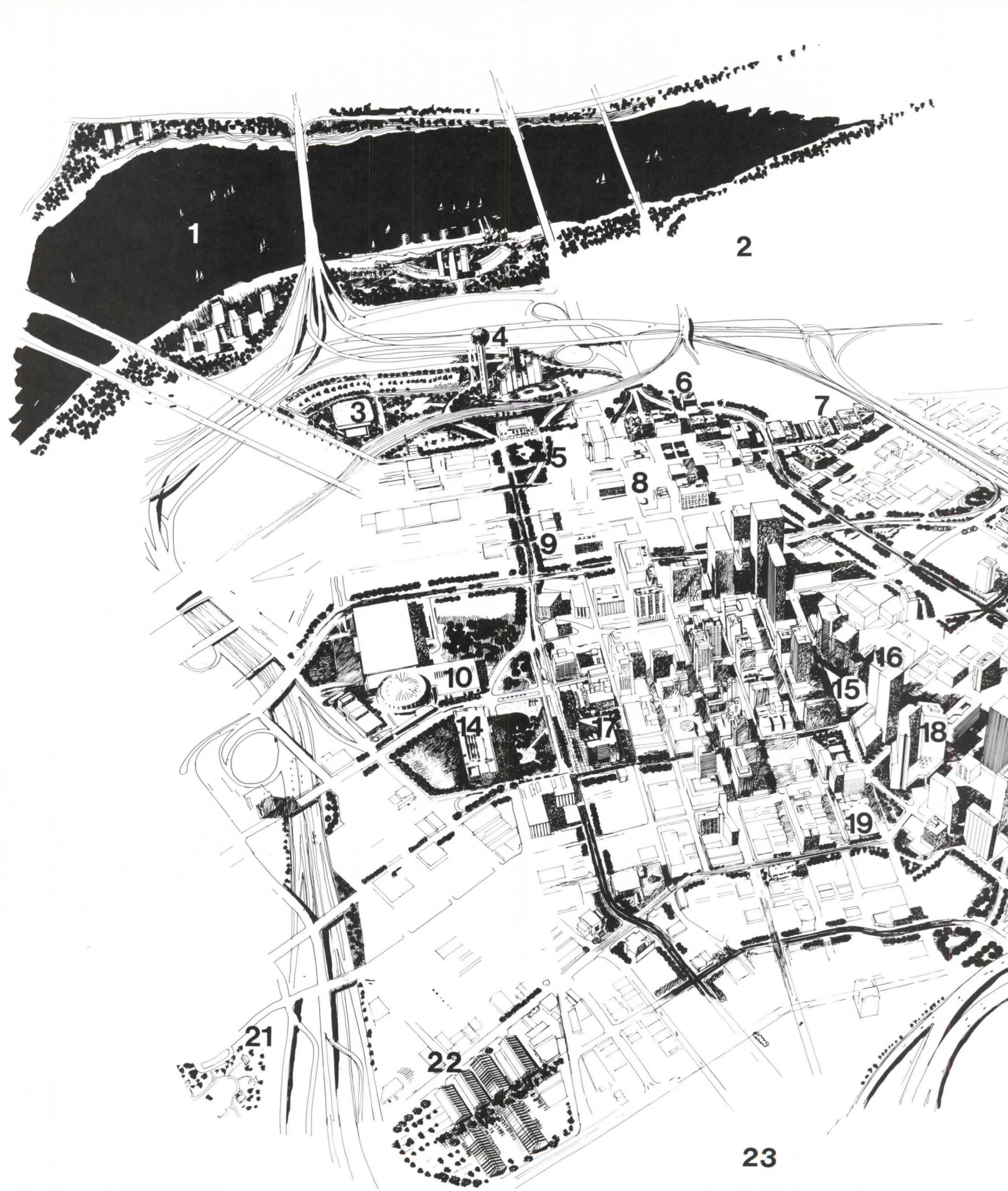
Mel Armand



**Evolution.** Over the last decade, Dallas has been assembling a collection of historic (or simply quaint) old buildings on City Park (below), site of a spring that was the city's first water supply. They stand as a reminder that the city has come a long way in a short time to the point where it is the locus of such investments as the \$75 million Reunion (right, Welton Becket & Associates). First phase of the project, about to open, includes a 1,000-room Hyatt Regency Hotel clad in mirror glass, a 50-story "theme tower" and reconstruction of Dallas' 1914 Union Terminal with an underground link to the hotel. Eventually Reunion is projected to grow into a full-scale MXD covering some 50 acres. Its design brings to mind James Pratt's concluding words: "Dallas doesn't know it yet, but it lives in the future." *D.C.*







**Shape of Things to Come:  
Downtown Dallas with Presently  
Planned Developments Added**

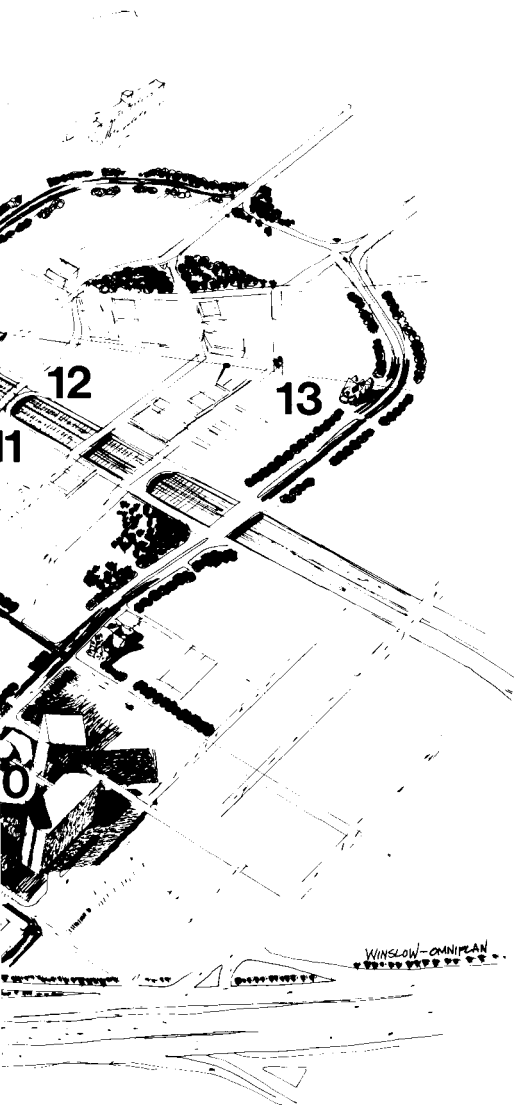
- 1. Proposed town lake
- 2. Proposed lake housing
- 3. Sports arena
- 4. Reunion
- 5. Union Terminal
- 6. Texas School Book Depository
- 7. West End District
- 8. Kennedy Memorial

- 9. Tree-lined boulevard system (Ponte plan of 1969)
- 10. Convention Center
- 11. Possible art museum and symphony hall
- 12. New Woodall Rodgers freeway
- 13. Trinity Methodist Church
- 14. Civic Center
- 15. Thanks-Giving Square
- 16. Republic Bank



# Planning Is No Longer a Stranger To This Land of Laissez Faire

*Dallas' phenomenal growth continues but with a new sense of how the pieces, old and new, can fit together. By Nory Miller*



Like most of the “new” cities and all of the frontier ones, Dallas just grew. It’s always had plenty of space and plenty of freedom, especially where developers were concerned. And as the city’s pull on companies and jobs has increased, skyscraper after skyscraper has been thrown up downtown, and subdivision after subdivision on the fringes.

Much of the growth is quite recent. Of its 1.8 million people, some 40 percent are new since 1960. Growth continues—3,200 acres are “urbanized” each year—and there is room for more, even within city limits (at least 25 percent of Dallas proper is undeveloped).

Dallas’ economy is strong and getting stronger. It is to Houston and Fort Worth and the Southwest in general what New York City is to the Northeast—its financial and market center.

If Houston has the jump on the oil industry (at least the big names), then Dallas has the banks, the federal government offices, the insurance companies and independent oil companies, not to mention spectacular successes like Texas Instruments. Dallas is the furniture showroom for the Southwest and the fashion kingpin. It is also an aircraft center and the place to have your jet customized (the Saudis have their winged victories “done” here).

Over \$1 billion of new buildings is under construction or announced. Unemployment is half the nation’s average and new people are absorbed into the expanding economy of the whole Dallas-Fort Worth area at the rate of 1,000 per week. The Metroplex, as they call it, is third only to New York and Chicago in number of companies with a net worth of over a million dollars.

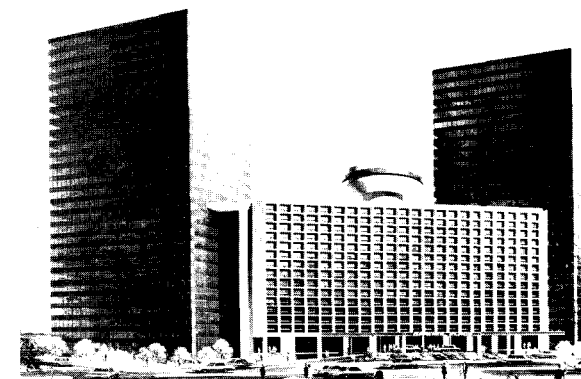
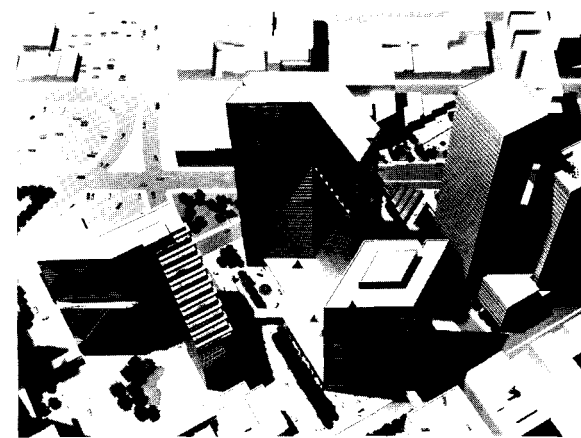
Looking to the future, Dallas has just arranged for direct flights between its airport and London and is negotiating for rights to Tokyo. There is even talk of a Dallas Olympics.

It is a “go” proposition, as they say, and this forward hurl has had, unexpectedly in this developers’ paradise, its parallel in urban design and planning, almost as a latter-day City Beautiful movement.

Perhaps it can be traced to the pride of the conservative ruling “old families,” or to expectations of new settlers—almost half the population. Perhaps it is just because Dallas is not too big, and it is not yet too late. Perhaps Dallas, like its industrial revolution City Beautiful precedents, just wants to celebrate its good fortune and garner a little recognition.

In any case, it all became evident back in 1965 when then-Mayor Erik Jonsson began surveying thousands of citizens about their Goals for Dallas. (As chairman of Texas Instruments, Jonsson had taken one look at Dallas’ crisis-to-crisis bureaucracy and declared it was “no way to run a business.”)

With 60,000 votes cast, the number two goal turned out to be improving the design of the city (overhauling the government was number one), with historic



*Coming: Mixed use Dallas Center by I. M. Pei (top) and Plaza of the Americas by Harwood K. Smith.*

17. Central Library
18. Dallas Center
19. Majestic Theater
20. Plaza of the Americas
21. Old City Park
22. Proposed expanded farmers market
23. South Boulevard District, Fair Park
24. Swiss Avenue District



preservation, neighborhood conservation and downtown revitalization in the top 10.

In 1969, the department of planning was reorganized and greatly enlarged and in 1971 an urban design division was added to it.

To head this division, Dallas imported Weiming Lu from Minneapolis where he had spent 12 years as a planning official during that city's heyday of metropolitan government, downtown renewal and cultural coming-of-age.

Lu, who had learned architecture at his father's knee in mainland China and engineering and planning in American universities, brought ideas and experience and an innate, politically astute perseverance.

Part of his strategy has been to combine immediate, visible successes with long-range planning tools such as inventories and enabling legislation. Another part has been to embellish the city's budget allowance with a variety of grants from HUD, the National Endowment for the Arts, volunteer contributions from the community, etc.

The strategy has paid off these last seven years, not only in numerous awards (including a 1974 HUD design award and honorary membership in the Texas Society of Architects), but in the improvements to Dallas as a city to live in.

High on the list of priorities (and successes) have been historic preservation and neighborhood conservation. From a city that used to consider preservation a handful of Victorian houses dragged to a little park off downtown, Dallas has learned to use the tools of preservation not only to save irreplaceable buildings but to build communities.

The first step was the revitalization of the deteriorating but once elegant inner-city neighborhood of Swiss Avenue. With solid backing from Swiss Avenue residents and copious newspaper support, the city council was induced to pass a preservation ordinance in 1973. Since its passage, three landmarks and three historical districts—Swiss Avenue, South Boulevard and West End—have been designated as landmarks.

Like most such laws, the ordinance allows a preservation committee to make such designations (using the urban design division as its staff) and, with approval from the city council, to suspend demolition of a designated structure up to 240 days. After that, it's a put up or show up proposition with the city's either finding a buyer, being the buyer or letting the wrecking crew go ahead.

The impact of designation on Swiss Avenue, however, was immediate and enduring. More than \$1 million of private money has been reinvested in the area

*Swiss Avenue historic district (above) sparked back-to-the-city movement.*

and the property values are up two to three times. Proud residents have begun conducting annual house tours.

Its success in turn has sparked a whole back-to-the-city movement. Inner city neighborhoods are being reclaimed and their new (and old) residents are turning to the city for help in terms of design review controls and downzoning (a thousand acres of Old East Dallas have now been downzoned, way beyond the original 12 blocks of Swiss Avenue).

The new neighbors have formed a Historic Preservation League that works with local banks and has even published a promotional booklet called "Intown Dallas" focusing on the six neighborhoods within three miles of downtown that are busiest with the urban pioneers.

More unusual was the designation of South Boulevard as a historic district in 1976. Once a thriving Jewish neighborhood, it had long since turned black and was also showing serious indications of turning into a slum. Designation coupled with some city investment in street maintenance and improvement is hoped to reverse this trend.

The city used a 701 planning grant to do a full survey of potential designations, identifying 50 buildings and nine districts.

It has also been busy generating new tools to make its intentions more effective. During the past year, Dallas began a revolving fund with \$150,000 of community development block grant funds that will be used as collateral to banks that make loans to preservation groups to save buildings. This way, explains Weiming Lu, the \$150,000 is worth \$600,000 to \$1 million in loans generated.

Lu's urban design staff also made a study of the building code with an eye toward adapting it to preservation goals without endangering safety. There were 24 recommendations for changes, all of which have been adopted. Meanwhile, the various preservation organizations have gathered together under the banner of the Dallas Heritage Council.

Tools outside preservation that have been used to strengthen neighborhoods include detailed analyses of each area's physical advantages (a "visual form survey") with maps at the same scale as zoning maps for eventual use in design review procedures. The city has also published a series of 55 widely distributed pamphlets for neighborhoods on subjects such as how to get city services, how to shop for a mortgage, do a festival, get a zoning change.

As much as possible, Lu tries to get not only a broad base of support but a broad base of participation. For instance, Dallas' Mexican-American community, El Barrio, was the scene of a months-long planning process that began with the community saying that what it most needed was improving Pike Park for the annual Cinco de Mayo festival and as a general meeting center.

The urban design staff then moved into a little office in the neighborhood, and

*The Exchange (left) came down but Trinity Methodist Church (right) is renewed.*

began to win the community's confidence and muster its help in redesigning the park. The result is now being constructed with community development money and should be ready before the next May 5.

One thing Dallas remains in conflict about is just what to do about Uncle Sugar. Not long ago, the mayor found himself in the odd position of leaving a city council meeting where council members had just turned down the prospect of Comprehensive Employee and Training Act jobs money to catch a plane to Washington to plead for HUD funds.

Dallas has never had urban renewal. Instead, a couple of years ago it invented the buy-back program with the characteristic goal of stimulating private development. The city promises three things to a developer who is willing to invest in

### **The tools of preservation are used 'not only to save buildings but to build communities.'**

land within two miles of the heart of downtown: that it will assist the developer in obtaining any necessary rezoning; that it will make street adjustments and build the required public facilities, and, most unusual, that if the developer's plan fails to be realized, the city will buy his land back for a minimum price. This way the developer doesn't completely lose his shirt, but neither does Dallas.

Only recently has anyone shown interest in this offer. Discussions are now underway with an entrepreneur, well known for his ability to build low-cost houses, to do an 80-acre, \$85 million housing development on a site close to downtown.

The inner-city neighborhood to which Dallas has put its greatest attention is

downtown itself. Efforts have gone well past the obligatory downtown mall to include city stimulation of both recycling and new construction.

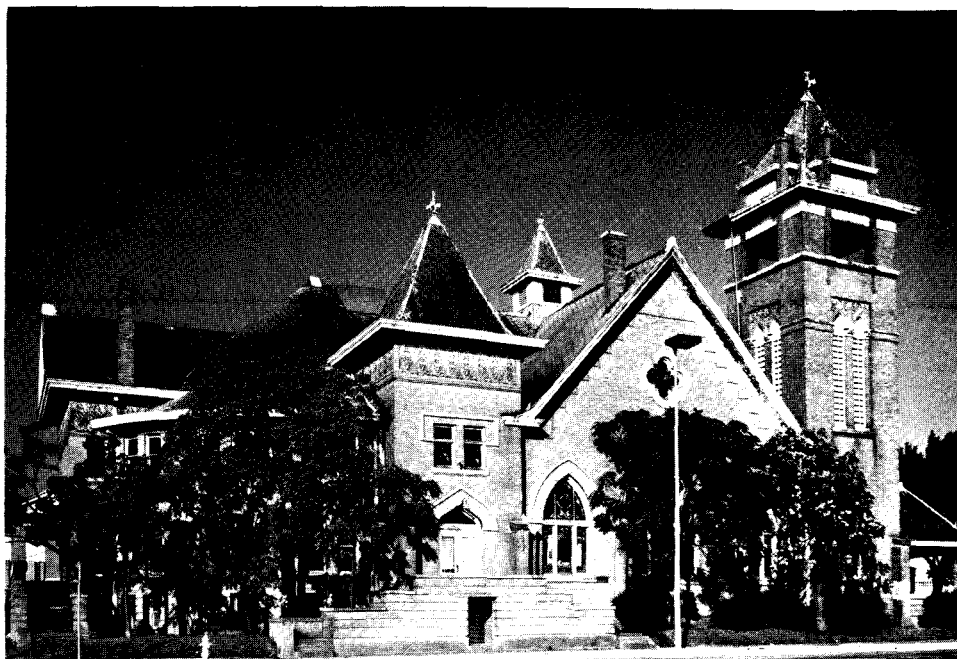
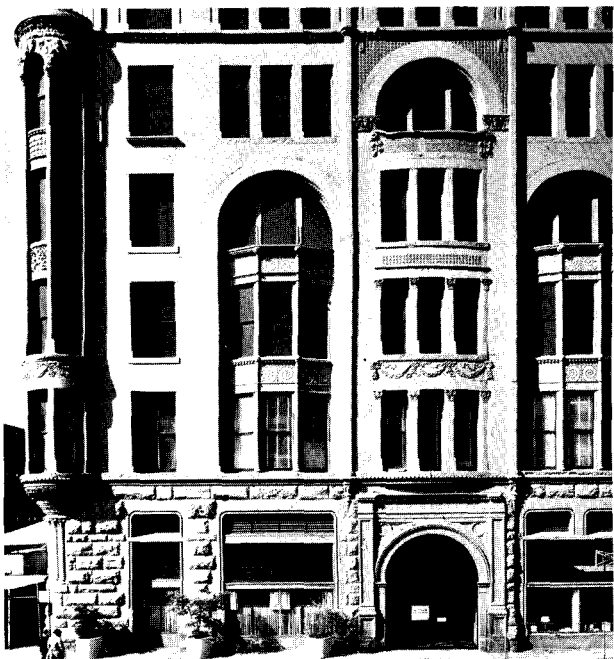
In 1975, the West End historic district was designated and downzoned from 20 FAR (floor area ratio) to 8. A warehouse area on the edge of downtown, its lofts are being turned into offices, restaurants and the like. The city has given the go-ahead on a five-block, \$80,000 mall.

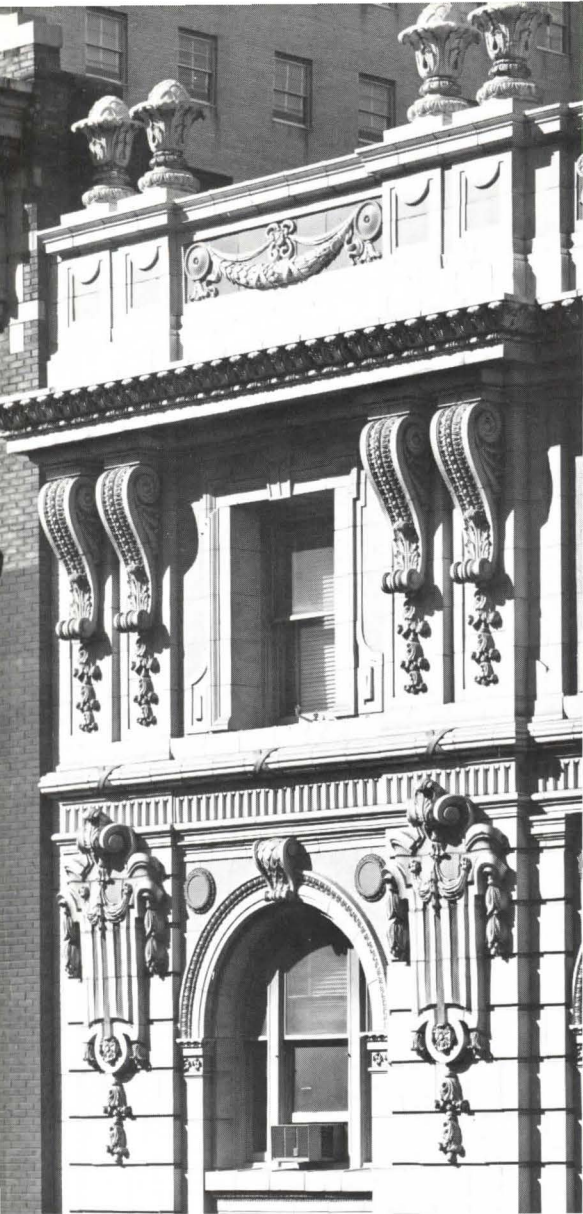
West End is the site of Philip Johnson's Kennedy Memorial. It is also the site of Dallas' biggest landmark failure. Three of downtown Dallas' five 19th century buildings belonged to a community college located around the court in which the memorial stands. The college wanted to tear the buildings down and it was too hot a political potato for the brand new landmark machinery to touch.

Demolition was stalled via the Texas Antiquity Act through several layers of the justice system, but the Texas Supreme Court finally threw the case out on the grounds that the act was vague. It had, after all, been written to protect not landmarks but treasure from sunken ships. The three buildings are now demolished.

On the other side of downtown, the city bought Union Terminal, an abandoned railroad station designed by Jarvis Hunt and located near the new municipal center (p. 50), and entered into a joint venture with private interests not only to recycle the station but to develop 50-acre, \$210 million Reunion (p. 53).

Union Terminal is being used by Amtrak and hopes are that the second floor will someday be a restaurant. Meanwhile, the city is constructing a new library and talking about a multipurpose arena for sports and pop concerts, both in the same area. Also, a federal reserve bank building is scheduled for construction nearby.





*Majestic Theater (above) may be recycled if arts groups leave Fair Park (across) for downtown.*

Meanwhile, private entrepreneurs may be turning from isolated buildings to integrated mixed-use development as they begin to build up Dallas' northeast side of downtown. I. M. Pei & Partners, who just finished the municipal center, has nine-acre Dallas Center under construction. To be built in three phases, Dallas Center will consist of four buildings—a 30-story office tower, 51-story office tower and hotel, a 400-unit garden-terraced apartment building, and a 10-level garage—all connected by skywalks and a three-level shopping mall with restaurants, boutiques and movie theaters.

Nearby will be Plaza of the Americas, a \$100-million office and hotel complex designed by Dallas architects Harwood K. Smith & Partners, to break ground this spring. Focus of the design is a 15-story atrium surrounding a mammoth ice arena.

Most recently, what Dallas has been up to is full-scale cultural planning. When nine of the city's major arts institutions came to the city for support, they found a sympathetic city manager, George Schrader, and sympathetic new mayor,

Robert Folsom, as well as extremely sympathetic Weiming Lu. "Most of what I do," says Lu, "is help other people to improve the way they live. But when they build new arts facilities, I'll be the first to use them."

The result was a \$58,000 study by Kevin Lynch, president of Environmental Design in Cambridge, Mass.; his former student Stephen Carr; with assistance from Lu and E. G. Hamilton, FAIA, of Dallas. The city underwrote almost half the cost of the study, which was finished last November.

The situation basically is this. Most of the city's arts institutions—pretty much everything but the Dallas Theater Center and Theater Three—are located in Fair Park, an Art Deco delight no longer in such a terrific neighborhood. The park is shared in October with Texas' annual state fair, an event that brings almost as much discomfort to the boards of these institutions as it does new visitors.

On top of this, the buildings that house many of the activities are no longer adequate in size, acoustics, stage requirements. And the recent boom in public participation in the arts that would ordinarily give Dallas' institutions a reason and chance to grow is thwarted by the limitations of physical plant.

The planning process was a series of alternatives developed by the planners and responses by the arts groups. It turned out that most of the groups wanted to move downtown—to the same area of downtown but not in a formal arts center like New York's Lincoln Center. First choice was the northern sector, for its many available sites, parking and the possibility of secondary uses like shops and restaurants reinforcing the life of the art world.

Most eager to build are the art museum, which has hired Edward Larrabee Barnes, FAIA, and the symphony, which is talking to Cyril Harris—way before funding or site is in hand. The museum is especially anxious as the future of a handful of valuable Dallas art collections is uncertain without a new building. Dallas' Theater Center, now in a Frank Lloyd Wright building in Turtle Creek, farther out, had hired Kenzo Tange three years ago to design it an adjacent building. If everything is pulled together in a larger effort, it hopes to ride along in order to reactivate its original plans. The ballet is interested in renovating the old Majestic Theater, located in the same northern sector of downtown and once a vaudeville house, later converted for movies. The smaller theaters want a "theater complex" nearby.

The Carr, Lynch report actually went much further than calling for new buildings. Something, says the report, must be done to revitalize old Fair Park, where

the present art museum and music hall are located, to capitalize on its educational museums and land and make it into a family recreation and cultural center. The report also called for the city to become involved in sponsoring art in local communities.

Meanwhile, there are a few details. A price tag, for instance, of \$60 million or more. Nonetheless, there is talk of a bond issue as early as this June, to raise money for site acquisition.

Thus far, the city council has endorsed the consultant's report (which calls for public underwriting of 25 to 50 percent

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## **'Most recently, what Dallas has been up to is full-scale cultural planning.'**

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of capital costs), pledged continuous city support of the arts and appointed a committee to oversee the task. At the moment, Dallas' support of the arts is just under \$1 million a year.

The city's interest in conserving natural resources is also quite recent. Dallas is so untouched with immediately apparent topographical charms that one of its own architects cracked: "With a landscape like this, anything you build is an improvement."

The first, and only, major encounter with a developer on conservation grounds was in 1975. Developers Fox & Jacobs planned a \$200 million housing project called The Woods. However, part of the 2,000 acres designated for the project was the ecologically fragile White Rock escarpment area. The urban design department worked out a new road scheme (replacing the developer's intentions) that, along with soil erosion controls, coverage allowances, etc., saved the escarpment and in the process saved both developer and city money.

The city saved \$1.5 million in road construction costs, a figure Lu is wont to throw around as proof that his department is a bargain at \$200,000 a year.

The groundwork for further successes has been laid through an exhaustive ecological study of Dallas, with the material fed into a natural data bank. Last year, also, Dallas adopted flood plain management guidelines.

In addition, there have been museum exhibits on urban design; a controversial but effective sign ordinance; new street signs, and, now, a new Goals for Dallas program and a new zoning study to bring the code up to social and ecological standards.

In a mere seven years, it is quite a record. Urban design and planning may be on their way to being a "go" proposition in Dallas, along with the economy. □



# Dallas-Fort Worth: Metroplex and MegaAirport

By John Pastier

## 1. The Sibling

Once dazzled by the size and dynamism of Dallas, it is easy to overlook its smaller, lower keyed neighbor to the west. Like many other large urban centers, it is Fort Worth's fate to be the number two city in its metropolitan area.

But it is first among seconds: By continuing to grow to an estimated population of 410,000, it has pulled ahead of all the others in that category including St. Paul, Oakland, Long Beach and Newark. And despite its position on the wrong side of the hyphen, it is no mere satellite, but rather a city whose special character complements and balances that of its bigger sister with an almost ecological aptness.

Dallas reflects Southern, Midwestern and even Eastern influences in its development and ways of doing business, but Fort Worth is undiluted Texas. In Dallas, a Cowboy is a high-priced football star; in Fort Worth he sports a lower-case "c," wears pointy boots and hangs out at the stockyards on the city's north side.

Dallas is a place of self-made men and corporate newcomers while Fort Worth is one of influential old families. Dallas is a city full of real estate entrepreneurs dealing in an arena as fast paced and heavily leveraged as Chicago pork belly futures, whereas downtown Fort Worth businessmen have for decades built only to house their own operations and are just now beginning to include significant amounts of uncommitted rental space in their office projects. The downtown Dallas skyline flashes large expanses of glass and metal, but Fort Worth's core is still mainly built of masonry.

From these comparisons one might conclude that Fort Worth is utterly conservative and unadventurous. That isn't so, according to Dallas architect James Pratt. He finds the smaller city more liberal than his own in presenting "Oh Calcutta!," major rock concerts and other

**Mr. Pastier** teaches urban design and architecture at California Polytechnic State University of Pomona and at Southern California Institute of Architecture.





*Above, First Christian Church, John Portman's Fort Worth National Bank and, in the distance, Tandy Center; at left, Tandy's triple-decker mall and skating rink. Despite recent additions, downtown's texture is predominantly older, masonry buildings (right).*

events that are not welcome in Dallas. Pratt also claims that Fort Worth's moneyed class, when building homes, is more individualistic and less afraid of displaying its wealth.

And if you're wondering whether Fort Worth may be lacking in taste and sophistication, consider that this self-designated "Cowtown U.S.A." is emerging as a major art center, with three solid museums (including one, the Kimbell, which is housed in what is arguably Louis Kahn's most transcendent building).

The three museums are clustered less than two miles from a downtown of surprising interest. It is anchored on the north by a splendid 19th century courthouse whose silver domed tower culminates the view up Main Street. Its southern end is occupied by Philip Johnson's recent Water Garden, a three-block amalgam of civic plaza, park, pools and fountains whose jazzy design falls a bit below the standard set by the best of Lawrence Halprin's work, but clearly surpasses Johnson's own downtown plaza for Dallas' Thanks-Giving Square.

John Portman's 37-story Fort Worth



National Bank is the tallest building in town. This mirrored octagonal tower is entered through a three-story tall bridged and balconied space shared by a banking hall, building lobby and circular restaurant. Another recent work, the Fort Worth municipal building, wraps city offices around an atrium and fountain. Although not as complex and sophisticated as the new Dallas city hall, it is

good levelheaded architecture and may well be Edward Durell Stone's most direct and unaffected opus since his New York Museum of Modern Art.

Downtown's most significant project is Tandy Center, a multiblock grouping of twin office slabs, parking structures, a department store and a three-level shopping galleria flanking an atrium that contains an ice-skating rink and is criss-

crossed at mid-height by a delicate pair of freestanding trussed escalators. Its architecture is careful and competent; its blending of movement and activity skilled. A free private subway line connects the center to a remote parking lot on the banks of the Trinity River, and underground passages will link up with a new central library now under construction. Tandy Center is sure to give considerable vitality to the city core, particularly after dark.

These are the architectural high points of the downtown, but its greatest asset may be not in its landmarks as much as in its permeating spirit—it is a comfortable, well-scaled, human place that is

visually diverse and a pedestrian's delight. Much of this quality can be traced to its street grid: square blocks 200 feet on a side, and street widths averaging less than 70 feet. Traffic engineers no doubt curse these blocks, which are among the smallest in America, for their impeding effect on the free flow of automobiles. But Jane Jacobs would love them for the wide choice of pedestrian paths that they allow. These blocks also make walking comfortable by creating a scale that is easy on one's feet and uplifting to one's psyche.

*Louis Kahn's Kimbell Museum (below) and (bottom) Philip Johnson's Water Garden, on the edge of downtown.*

From a commercial standpoint, they yield a high proportion of valuable corners and sidewalk frontage. And the scale of buildings is naturally restricted by the smaller parcels that such a street pattern produces; this tool is an esthetic and psychic plus.

These qualities were recognized in Victor Gruen's classic 1956 downtown plan, the first in the country to propose an automobile-free city core ringed by freeway loops and interceptor parking structures. That this influential vision was never carried out prompted Edmund Bacon, FAIA, to call it "the only unborn child who has produced hundreds of grandchildren." One of those grandchildren has returned home, for the city's planners and Lawrence Halprin have developed a two-phase city center design that includes several of Gruen's earlier proposals in a less ambitious and more easily achievable form.

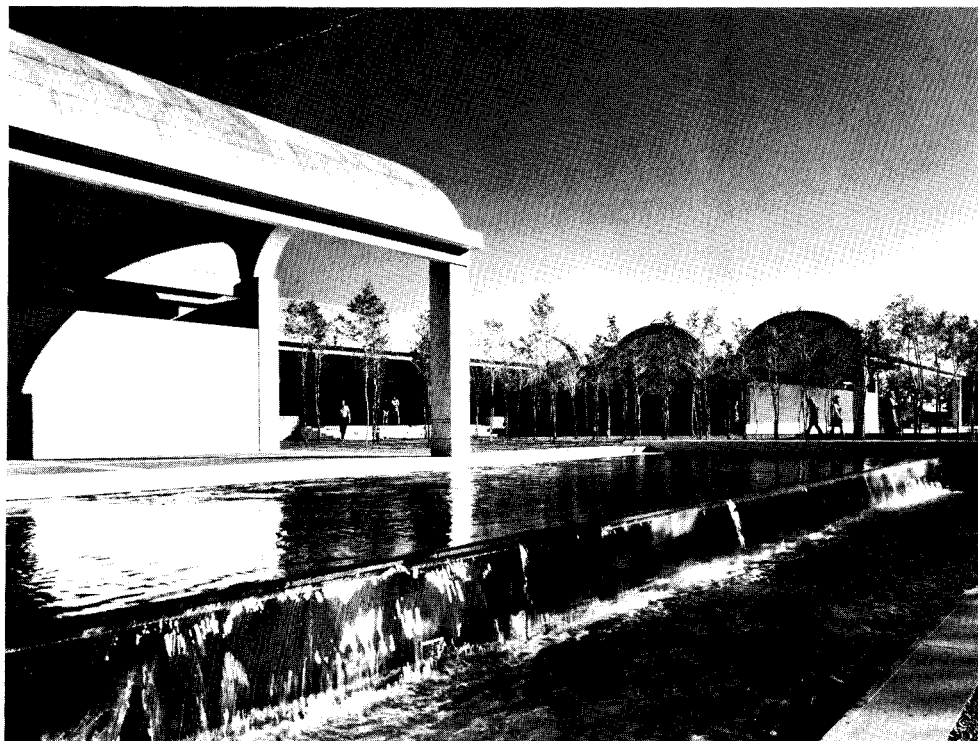
The plan deserves success, but one would hope that it could succeed without strongly changing the flavor of Fort Worth. It would be nice if the city could keep its quaint 1920s masonry skyscrapers, its revolving electric rooftop signs announcing building names, time, temperature and weather forecasts and its Christmas tradition of outlining its larger buildings with thousands of funky little yellow 40-watt incandescent bulbs. With luck, downtown Fort Worth might find a way to prosper and grow a bit without losing those folksy, comfortable-as-an-old-shoe qualities that make it such a pleasant and unexpected contrast to Dallas.

## 2. The Region

The downtowns of Dallas and Fort Worth are the prime anchors of a regional pattern typical of cities that have grown up in the motor age. This metropolitan area is dispersed, largely suburban even within city limits and low in density (there are only two people per acre in the two core counties and one-half person per acre in the 11-county metropolitan area). It is dependent on automobiles, built around highways, and predominantly new. The metropolitan population has more than doubled within the last 25 years.

By now, the two cities have grown into what is essentially one contiguous swath more than 50 miles wide. This pattern is not consistent in texture, but resembles Swiss cheese, with the holes created by natural obstructions or by frequent pockets of undeveloped land left in the wake of leapfrogging development.

Political jurisdictions reflect this urban spread and fragmentation. The two central counties contain 63 incorporated





cities, an unduplicated phenomenon in Texas where liberal annexation laws permit large cities to absorb peripheral territory easily. Including Fort Worth and Dallas, five of these cities have populations over 100,000. Several of the smaller municipalities are enclaves within the boundaries of the two largest ones. Perhaps symptomatic of this situation, regional planning is weak. There is a North Central Texas Council of Governments, but it is locally conceded to be lacking in power.

The regional landscape and urban form is largely the product of three forces: hydrology, the Texas highway department and a freewheeling market mechanism.

The flood plains of several branches of the Trinity River and their adjoining bluffs are large enough to influence the regional pattern, and, surprisingly, there are also a dozen lakes and reservoirs close by the two largest cities. The former features have been stressed as urban design determinants by Dallas city planning department staff working under Weiming Lu. Regionally, some greenbelts and parks have been developed or proposed in conjunction with the flood plains. Similarly, some of the lake shores are the sites of parks or water-related residential development. As often as not, however, the lakes and flood plains seem to act as interruptions to developmental patterns rather than catalysts for integrated urban form.

The Texas highway department is an efficient and well-funded body whose effect on regional patterns has been highly visible. Many of the freeways are flanked by parallel frontage roads which facilitate highway-related commercial development. Dallas' Stemmons freeway in particular takes on the character of a developmental spine, but unfortunately its adjoining groups of office buildings are uninspiringly designed and sited. (Ada Louise Huxtable is said to have remarked that they look as though they have been dropped by helicopters.)

Several other main roads are also magnets for highrise development, including the Central expressway, the North Dallas tollway and the crosstown Lyndon Johnson freeway. These three, along with the Stemmons, give Dallas a scattered linear array of highrise structures that extends 10 miles northward from downtown and rivals that core in quantity of buildings, although not in their height.

The former toll road, now free, connecting Fort Worth and Dallas has also attracted specialized development. About midway between the cities is a fun zone that contains several mass entertainment attractions, including a wax museum, a Lion Country Safari, the major league baseball stadium and the hugely success-



*The Dallas-Fort Worth turnpike, flanked by unanchored development, including Arlington baseball stadium (lower left) and Six Flags Over Texas (lower right). Dallas-Fort Worth airport is at top.*

ful Six Flags Over Texas theme park. This district is also the site of the largest local campus of the state university, at Arlington.

Shopping centers naturally follow the dispersed residential pattern, and the most fashionable retailing has gravitated to the most affluent suburbs, north Dallas and western Fort Worth. The ultimate local indicator of status, of course, is Nieman-Marcus, which has suburban branches in Fort Worth's Ridgmar Mall and in Dallas' North Park shopping center.

Ordinarily, all this dispersion would be a threat to downtown health, but

Texas law essentially prohibits branch banking so that city cores have a strong economic trump card. Thus, the Dallas-Fort Worth metropolitan area exhibits an interesting combination of dispersion and centralization. The pattern is unusual in that it has two hubs, and those two may soon be joined by a third—the Dallas-Fort Worth airport. So far the effects of this immense addition to the landscape have been diffused throughout the region rather than manifested locally. In time, however, the airport may well create its own strong node of commercial development. If so, an already unusual regional form would become even more individualistic in its physical configuration while remaining archetypical in its emphasis upon change, its use of transportation to conquer great distances, and, above all, in its economic determinism.



### 3. The Airport

As early as four years ago, when the gargantuan Dallas-Fort Worth airport opened for business, it was clear that architecture was not what that \$875 million undertaking was really all about. This is not to say that it was architecturally unsuccessful or inadequate, but rather that the art of building was overshadowed by the airport's unprecedented scale—it was the world's largest—and its regional implications, effects upon users, and by its labyrinthine internal circulation and distribution systems.

The nation's architectural press has effectively confirmed this conclusion by not publishing any major articles about the airport since it opened. (The architects were Hellmuth, Obata & Kassabaum and Brodsky, Hopf & Adler; associate architects were Preston M. Geren Jr., FAIA, and Harrell & Hamilton.) But now, with the passage of time, it is apparent that the original architecture has gradually been transformed by tenant improvements and alterations, much as a beekeeper's hive is filled in by its occupants.

Perhaps this state of affairs is a warning that architects' influence is narrowing

in an increasingly complex and technocratic society. Or possibly it reflects a less than comprehensive definition of architecture on the part of people who labor to keep the profession informed. Whatever the reason, the omission is surprising, for the Dallas-Fort Worth airport (or, as the luggage tickets say, DFW) is one of America's great cultural monuments. It embodies and celebrates our wanderlust and impatience, our fascination with motion for its own sake, our stereotyped notions of Texan ambition and boosterism, our hard-dying growth ethic, our continuing profligacy of energy use, and, above all, our never-ending desire for innovation.

It is easier to love the airport as a symbol of our society than as a functioning transportation center. DFW does have its undeniable achievements: It handles more commercial flights and passengers than any other installation in the Southwest, pays its own way (albeit with the help of some direct and indirect subsidies, estimated at \$300 million), has reduced most of its initial operating problems and has helped effect a discernible unification between its two rival host cities. Nonetheless, opinion outside the north Texas region seems tepid at best, and some knowledgeable observers are unhesitant

*Dallas-Fort Worth's semicircles and runways cover an area greater than that of Manhattan Island. At far right, planes cozy up to one of the terminal buildings.*

in pronouncing it unsatisfactory. In his book *Airport Systems Planning*, Berkeley professor Richard de Neufville terms it "a financial and operational misfortune . . . an embarrassingly inconvenient and expensive airport." One planner at Los Angeles International Airport (which serves 60 percent more annual passengers than DFW in a far smaller and older facility) is even more blunt, calling it "a turkey whose time has come and gone."

The popular press too was unexpectedly critical of DFW when it opened, citing its sprawling distances, balky passenger shuttle system and charges to ride that shuttle, to use the toilets, to drive on the access road and even to use the change-making machines necessitated by those other tariffs. Basically, most of these objections leveled by specialists and journalists can be traced back to the two basic decisions made by DFW's administrators and planners: the airport's size and location.

Together, those factors virtually decreed a project of unprecedented cost and



operational complexity, at a less than convenient distance from the two cities it was primarily meant to serve.

Location presented a dilemma, since the centers of Dallas and Fort Worth are 31 miles apart. At best, a regional airport would have to be at least 16 miles from one of the cities. DFW is sited about midway between the two downtowns, but several miles north of the axis connecting them, so that the closest terminal building is about 21 highway miles from downtown Dallas and 23 from downtown Fort Worth. These distances translate to bus fares of \$3 to \$4, and cab fares of \$14 and higher. Telephone calls to the two downtowns are 25 cents, but that charge appears less extreme ever since the basic rate was raised to 20 cents for local calls.

Although options for location were limited, there was considerable leeway in setting a size for DFW. The choices that were made were grandiose and questionable. One of them, the decision to make this the world's largest airport in acreage, could be defended on grounds of availability of relatively cheap (\$3,700 per acre in 1968 dollars) and relatively vacant land, the necessity for generous buffer zones, and the possibility that space demands for future aircraft would increase. Still, at 17,500 acres, DFW is larger than Manhattan Island with four extra Central Parks thrown in, and far larger than any of the country's major established airfields.

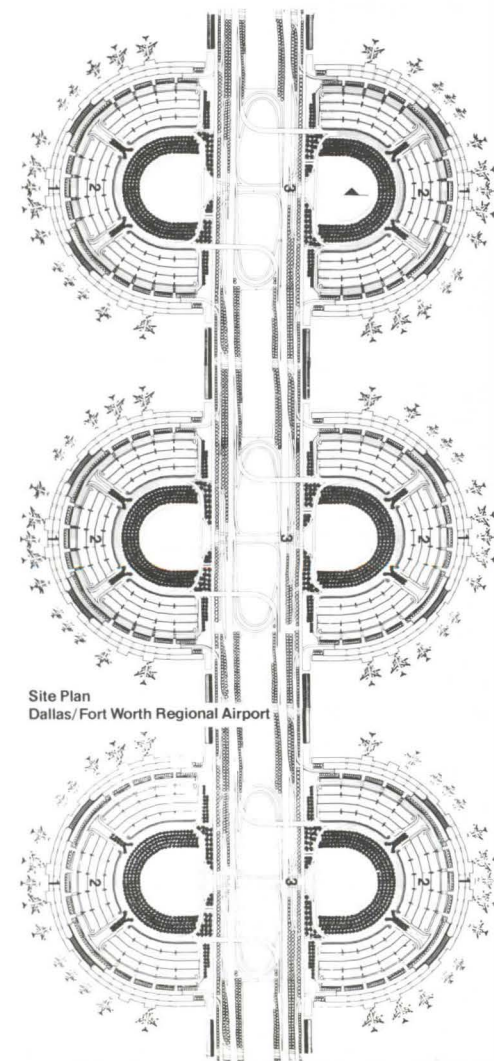
The decision to make DFW the world's largest in terms of ultimate passenger capacity is far less understandable. Its design capacity after expansion is about 150 million annual passengers—10 times its present traffic, or roughly equal to the combined passenger volume at the

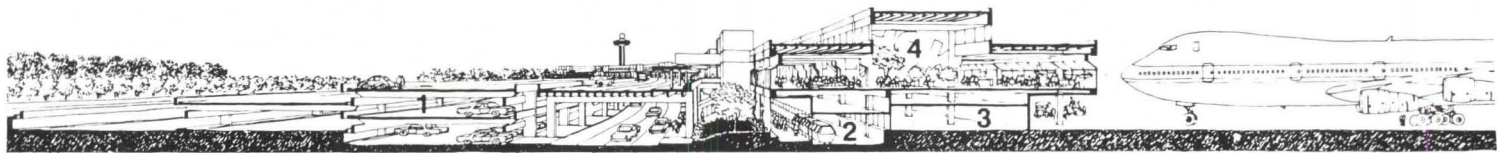
world's six busiest airports.

Obviously, this requirement mandated a master plan of vast distances and awesome statistics. If DFW were ever built to its design maximum, it would contain 13 terminals, each a half-mile long, lined up in a double row stretching nearly four miles. Cargo terminals at either end of this procession would extend its length to seven miles. Internal transportation for both passengers and employees would clearly be a major problem. Human scale, comprehensibility and user orientation would inevitably be impeded in a work of such staggering scope.

But from one perspective—regional politics and economics—the concept of the world's greatest airport had a certain appeal. Perhaps only a project so spectacular could have induced the public and private leadership of the two rival cities to work together effectively. This unprecedented municipal cooperation was no small accomplishment. Dallas architect David Braden, FAIA, calls it "the Texas equivalent of Anwar Sadat meeting with Menahem Begin." Indeed, discussions concerning a single regional airport and unsuccessful attempts at its creation date back as far as 40 years prior to the 1968 DFW groundbreaking.

Once underway, however, detente between Fort Worth and Dallas did not stop with the airport. The North Texas Commission, comparable to a regional chamber of commerce, was formed to recruit new business to the area using the huge airport as one of its major inducements. Local leaders also persuaded the U.S. Bureau of the Budget to marry the two metropolitan areas into a single 11 county statistical unit. (Flushed with success, they dubbed their new realm "the Metro-





1. Parking Decks 2. Transit System 3. Airline Offices 4. Terminal

plex.”) This was more than a bureaucratic technicality, since it allowed Dallas-Fort Worth to supplant Houston, literally overnight, as the metropolis of the Southwest. Although this victory may be short-lived (current growth rates indicate that Houston could regain its crown by the next census), it is clear that DFW’s ambitious scope has resulted in a somewhat elevated metropolitan consciousness and an expanded regional economy. Four years after opening, it is the world’s seventh busiest airport with eight million passengers annually—three times the regional population. An astounding proportion of Texas’ air traffic passes through DFW: 55 percent of all passengers, 56 percent of all cargo and 63 percent of all air mail.

This activity has been accommodated in just four of the ultimately planned 13 terminal structures. These semicircular arcs line up on either side of a 600-foot-wide traffic spine that extends four miles between toll plazas and seven miles between its connections to the public high-

*From parking (left) to plane (right) is a short trek over an automobile access road and into the terminal, which spans the Airtrans right of way. Across page, a lower level drop-off point.*

ways. Each terminal building resembles an enlarged half of Bernini’s colonnade at St. Peter’s in Rome, but rather than embracing a grand pedestrian plaza, it instead cradles a 2,000-car parking lot. This plan provides great convenience for passengers arriving by automobile, since they can usually park within a few dozen yards of their departure gate. On the other hand, it precludes a compact overall pattern for the airport and its structures. The resulting distances are so great that the designers gave up on the pedestrian altogether—it is physically impossible to walk between airport buildings, or from the buildings to the outlying parking lots.

Tippets-Abbott-McCarthy-Stratton, the DFW master planners, thought to overcome this lack of proximity by specifying an automated passenger shuttle to link the

various terminal structures to one another, to remote parking areas for employees and passengers and to the 600-room Airport Marina Hotel near the airport’s center. Known as Airtrans, the shuttle is a low-speed (17 miles per hour maximum) electric vehicle the size of a minibus, running on rubber tires in a trough-shaped concrete guideway either singly or in two-car trains. In addition, open cars carry containerized freight along the same right of way.

Airtrans was a brand-new piece of technology, rather like San Francisco’s trouble-plagued automated rapid transit system, and many of its bugs had to be worked out in day-to-day operation. At first, Airtrans was so unreliable that backup buses had to serve 44 percent of the passengers. After four years of improvement, an unlucky 2 percent of Airtrans patrons still find themselves involuntary bus riders. Even for the lucky majority the ride is amazingly slow and rather jerky, bumpy and swaying. It is also fairly noisy, considering its rubber

wheels and low speed. The monorails in Disney World and downtown Seattle, in comparison, provide a more speedy and satisfying ride.

There are five separate routes running on various segments of a tortuous 8.2 mile right of way, each overlapping and interlocking with the other four. Each of the 14 Airtrans stations, resembling pristine, scaled-down subway stops, is served by two or three routes, at least one of which will take the passenger to any given station. Passengers must take care to board the correct train, and, since every route is a counterclockwise loop, must also be alert in departing; for if they miss their stop, they cannot simply go back but must continue all the way around again.

Entry to the Airtrans stations requires a quarter, but there are no change makers, either human or mechanical, at the entrances. Inside, passenger service agents provide explanations and assistance to riders. One particularly helpful and energetic agent, Pam Palazzetti, holds car doors open for tarrying passengers, greets each arriving train with an announcement of the airlines served by that stop and gives departing passengers directions to the boarding gates. On the job since DFW opened, she understands passenger reaction to Airtrans: "This is confusing to a lot of people. It would scare me half to death. But the system has gotten better—you wouldn't believe how much better."

Human presence and judgment have softened the mechanistic character of Airtrans, but cannot expedite its operation. For example, a trip from the Continental terminal to the hotel took nearly 12 minutes from station door to station door. This is equivalent to an average speed of 6.5 mph, and, because Airtrans routes are so convoluted, the train must travel a mile and a quarter to connect destinations 2,000 feet apart. If walking were possible in this case, it would take two-thirds the time consumed by DFW's computer-guided marvel.

Airtrans is as expensive as it is slow. The 25 cent fare does not come close to meeting expenses, which total roughly \$1.25 for each short ride. This deficit requires a \$5 million annual subsidy which absorbs one-fourth of the landing fees collected at DFW.

Thus, DFW provides maximum convenience for passengers arriving by automobile, but in doing so makes connections between terminals impossible by foot and inconvenient and expensive by machine. This priority would be justified in most other major city airports, since passengers arriving by ground transport exceed those transferring between flights by about a three to one ratio. But DFW has the second highest proportion of transfer passengers in America, and these passengers actually outnumber those ar-

## Ease of arrival by auto at the expense of convenience for terminal-to-terminal transfer.

iving by surface transportation. Quite clearly, the form taken by this airport is not in keeping with the unusual nature of its function as a transfer point.

But appropriate or not, when seen from above, this master plan produces a monumental visual image that is surprisingly effective in formal and metaphorical terms. The high-speed traffic spine, with its flanking terminals that in turn are flanked by taxiways and runways, all combine to produce an ensemble that does expressive justice to the intricate patterns of movement within. The bold straight lines in this vast diagram—the central spine and outer runways—align themselves exactly north-south and accommodate the swiftest and most energetic traffic: ground vehicles arriving and departing, and the great jets taking off and landing.

The cross-links and curves correspond to slower and less direct motion: cars and buses making looping 270-degree turns into the terminal areas and then proceeding in arcs once there, and the barely visible Airtrans pods grinding patiently along their labyrinthine paths.

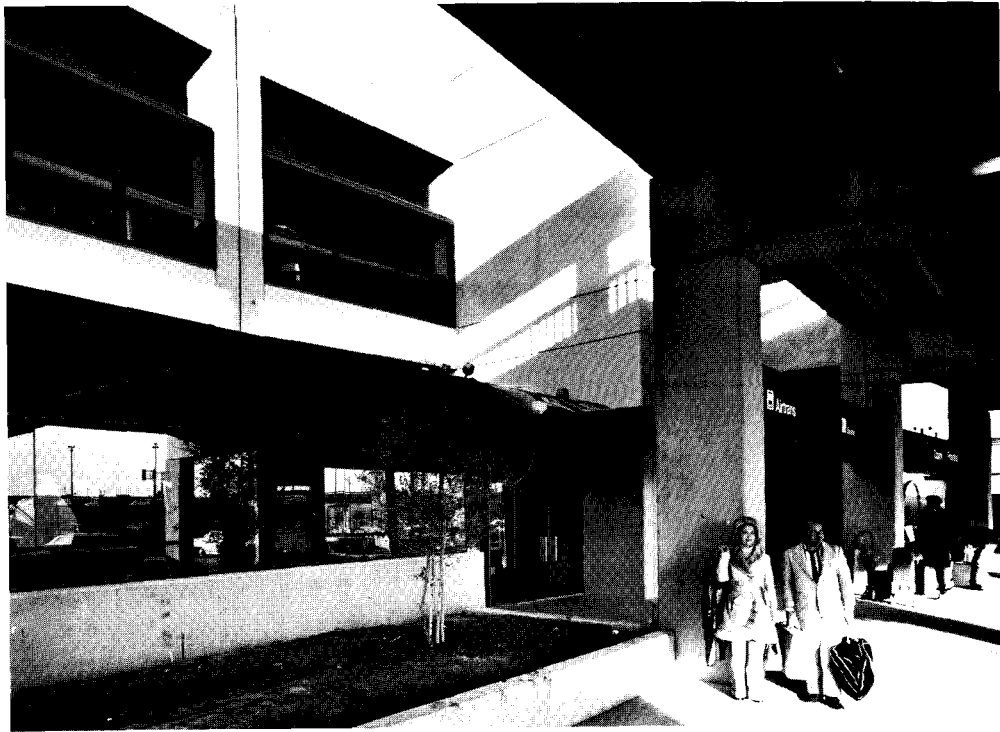
To a technology freak, this must be an image of unspeakable beauty and a ballet of high drama. Even to someone rather ambivalent about the joys of all this high energy hardware, the large-scale view of DFW can be awesome in an almost archeological sense. Perhaps this is the Stonehenge of the American prairie, a place that is as much a monument to its

own technological rituals as it is a purposeful construction.

Down at eye level this mystic design is no longer easily discernible, so that most of the magic flees from the airport's imagery. At closer range, the structures' abstractness becomes unsatisfying and schematic. There is a lack of architectural conviction and significant detail in the repetitious terminal buildings and particularly in the hotel. Although these buildings are not offensive, they do not approach the quality of even a courageous failure such as Eero Saarinen's TWA terminal at Kennedy Airport, much less that of a self-assured success such as his Dulles Airport terminal. The one exception to this bland collection of DFW buildings is the not totally graceful but nevertheless strongly articulated control tower designed by Welton Becket & Associates.

The architects for the airport were able to invest the interiors of the terminal buildings with greater degree of distinction than the exteriors. Built on a radius of nearly 900 feet, these immense arcs are framed by handsome warm beige concrete structural system composed of pre-cast beams that fit nicely into boldly bracketed columns. There are normally three 40-foot transverse bays, and intermittently raised roof sections permit clerestory windows and double height spaces as required within. This simple spatial modulation and intelligently revealed structural system help create a scale and level of detail highly appropriate to a terminal ambience—neither too bold nor too fussy.

These buildings are of Brobdingnagian length. The shorter terminals verge on 2,000 feet, and eventually will be expanded to the full semicircle of roughly



half-mile extent. Fortunately, the mixed tenancy of most terminals and the punctuating effect of the various concessions serve to break up that length fairly well. Typical users, moreover, would not need to traverse much of any terminal's length since most functions repeat every few hundred feet, and since passengers are expected to take Airtrans over long longitudinal distances. The only people likely to walk through a terminal from end to end are restless pacers and sightseeing architects.

The basic interior shell has been diversified and frequently enlivened by the installations of various airlines, most notably Braniff, and by food, drink, newsstand and gift shop concessions. At times this variety of visual treatment flirts with esthetic chaos, but that precarious state of affairs seems preferable to the excessive consistency known as the airport blahs. In one classic respect, the DFW interiors fall short: As in nearly every other transportation terminal, the seating arrangement is a rigidly antisocial array of immovable straight rows.

User reaction to the airport covers a wide gamut from strong satisfaction to virtual hatred. Employees like it best, seasoned out of town travelers least and local passengers stand somewhere in between.

An Atlanta market analyst, who spends about \$15,000 a year on air fare, says of DFW: "It's the pits. I've had to lay over twice because of the way it's laid out—I got stuck on Airtrans. I fly to the top 100 cities in the country and find that small airports are best. This place accommodates the inadequacies of the airlines

least—it compounds them. You can't dash between terminals."

Another frequent traveler, Austin architect Edward Maurer, AIA, is even more outspoken: "This is the biggest abortion. It's not made for people—travelers—it's all for baggage and the convenience of the airlines. I hate the place. You can't change planes conveniently. They have a machine that gives you two choices: It eats your luggage or loses it."

Diana Folds, a local resident seeing off a friend, finds the airport "beautiful—not functional but pretty. There's no place to lie down when you miss a connecting flight. They need lounges, couches and coffee shops that stay open past 9. Love Field (the old, close-in Dallas airport) is better and cheaper."

Ross Pinkepank, also a resident of the region, says, "I like it very much. I often meet people who fly in on business. Most don't like it. When they get off the plane, people don't know where to go, and their luggage is slow. But I like the convenience

*Below, an Airtrans station and ticket counter; right, Braniff's terminal.*



of being able to drive in and pick up people at the door."

Sandy Burr, a gift shop salesclerk, likes working at the airport, but also hears many passenger complaints about insufficient eating places, four- to six-hour layovers and inadequate signing and departure announcements. Many passengers come to the gift shop to get change for Airtans or to seek directions. In general, concession employees and ground transportation personnel informally provide information and services that would normally be the airlines' or airport's responsibility. This assistance is provided with genuine Texas friendliness and is one reason DFW works even as well as it does.

Ruby Lefler, a Texas International Airlines customer service hostess, deems the airport better than its counterparts in New York or Los Angeles. Many of the passengers' problems are not necessarily DFW's fault: "People don't read the signs. . . . They come with a preconceived idea that this place is going to be big and confusing." She prefers this big airport to smaller Love Field, but finds the Austin airport even easier to work in.

A Braniff pilot considers DFW "the airport that makes my job easiest. It's one of the best airports ever designed, safety-wise." However, he concedes that connecting between airlines, which is a problem in every airport, is especially difficult in DFW, and offers the judgment that Tampa's airport is the best for passengers.

Thus, the answer to any question about the adequacy or success of the Dallas-Fort Worth Airport must depend upon one's role and viewpoint. Since more of us are passengers than are airline personnel, airport employees or leaders of the Metroplex, the most democratic answer would have to be that the builders of DFW attempted too much too quickly, not unlike the builders of the Tower of Babel or of Beauvais Cathedral.

However inadequate and costly this airport may be to many of its patrons, it still seems to deserve some grudging admiration. It must be understood that DFW's purposes were as much political as they were rational, and as much symbolic as they were functional. If it is an operational inconvenience, it is also a cultural landmark of the first order.

Whether it is, in the words of former Secretary of the Interior Stewart Udall, "a monument to our technological arrogance," or whether it is a more benign celebration of our optimism and curiosity about things untried, is an endlessly debatable question. What is more certain is that the Dallas-Fort Worth Airport is a Texas structure in scale with its state, and must be counted as one of the seven wonders of our volatile world, at least for the time being. □



# Space Colonization: Reaching Into the 'High Frontier'

*Congressional hearings and two pioneering books focus increased attention on man's future off the earth.*

Twenty years ago this year, the U.S. entered the space age, sending Explorer I, its first successful satellite, into orbit on Jan. 31, 1958. And on Oct. 1 of that year, unprecedented legislation was passed in the National Aeronautics and Space Act.

The triumphs that have occurred in the intervening years were described by witnesses in recent hearings on future space programs before the House committee on science and technology. The witnesses told of how this nation met the initial challenge of space so that today the U.S. is "without peer in space science and technology," said Frank Press, director of the President's office of science and technology policy. He said that the question is no longer "Can the U.S. master space?" Rather, the question must be "To what ends should the U.S. employ its space capabilities and resources?"

Nearly all of the witnesses spoke of the "revolution" before us. Robert A. Forsch, administrator of the National Aeronautics and Space Administration, said that we appear "to be standing on the threshold of several interlocking revolutions in our perceptions of space activity; indeed, in some cases, we are already well into the first phases of such revolutions without, perhaps, having had time to recognize this fact."

Another witness who spoke of revolution was G. Harry Stine, author of 20 books on science, technology and astronautics, including *The Third Revolution* (Putnam, 1975), which concerns primarily the industrialization of space. He testified that the U.S. space program consists of three separate, sequential activities: scientific exploration, commercial utilization and human habitation of space.

Space colonization, he said, "may not take place in this century, but it will take place. It will not cost us billions of dollars in a lump sum or even in a series of payments stretched out over 20 years. It will be the logical evolutionary growth of space industrialization, something that cannot take place until space industrialization is an economic success. . . ."

Gerard K. O'Neill, a professor of physics at Princeton University, also testified. He said that we have two alternatives in

meeting urgent problems "that far transcend in scope and time scale the duration of one American presidency. How to solve growing shortages of energy, how to reverse the present worldwide sink toward poverty, hunger and military confrontation over diminishing resources." One way, he said, "is to accept the inevitability of catastrophe, and do nothing, except monitor global resources, slow the pace of decline by conservation and be ready to accept the harsh limits on human freedoms that an eventual global steady-state will impose."

Another approach, however, is to "reach for the high frontier," O'Neill said. The House concurrent resolution 451 (see Feb., p. 19) which was under consideration in the hearings says in part: "This tiny earth is not humanity's prison, is not a closed and dwindling resource, but is in fact only part of a vast system rich in opportunities, a 'high frontier' which irresistibly beckons and challenges the American genius."

O'Neill is probably the nation's most articulate spokesman for the high frontier. His book, *The High Frontier: Human Colonies in Space* (New York: William Morrow & Co., 1977, 288 pp., \$8.95), has received the Phi Beta Kappa award as the best science book of 1977. A review of it by Charles H. Holbrow, chairman of the department of physics and astronomy at Colgate University, follows as an explication of O'Neill's thoughts on space colonization.

Holbrow recently edited, with Richard D. Johnson of the Ames Research Center in Moffett, Calif., a book published by NASA's scientific and technical information office. Entitled *Space Settlements: A Design Study*, the book has been called the "most comprehensive engineering study of space settlements yet undertaken."

It is available for \$5 (Stock No. 033-000-00669-1) from the U.S. Government Printing Office, Washington, D.C. 20402. *Ed.*

*The High Frontier* which is a feat of the creative scientific imagination. It will stimulate the imagination of readers of all

disciplines. Gerard K. O'Neill, a professor of physics at Princeton University and the leading proponent of permanent human habitations in space, presents a collection of his fascinating ideas and arguments supporting the feasibility of setting up communities of human beings off the earth. We are invited to speculate on and contribute to the creation of an entire new world.

Why should we set up space colonies? Is it technologically possible? Who would go? What would they do? How would they earn livings? Who would pay for construction? There is a myriad of practical questions.

There are even more social, political and psychological questions: How would the inhabitants organize and govern themselves? What would it be like to live off the earth where death by vacuum would be a half-inch away, where the nearest habitable planet might be four or five days' travel? O'Neill's attempts to answer many of these questions make extraordinarily interesting, if at times confusing, reading.

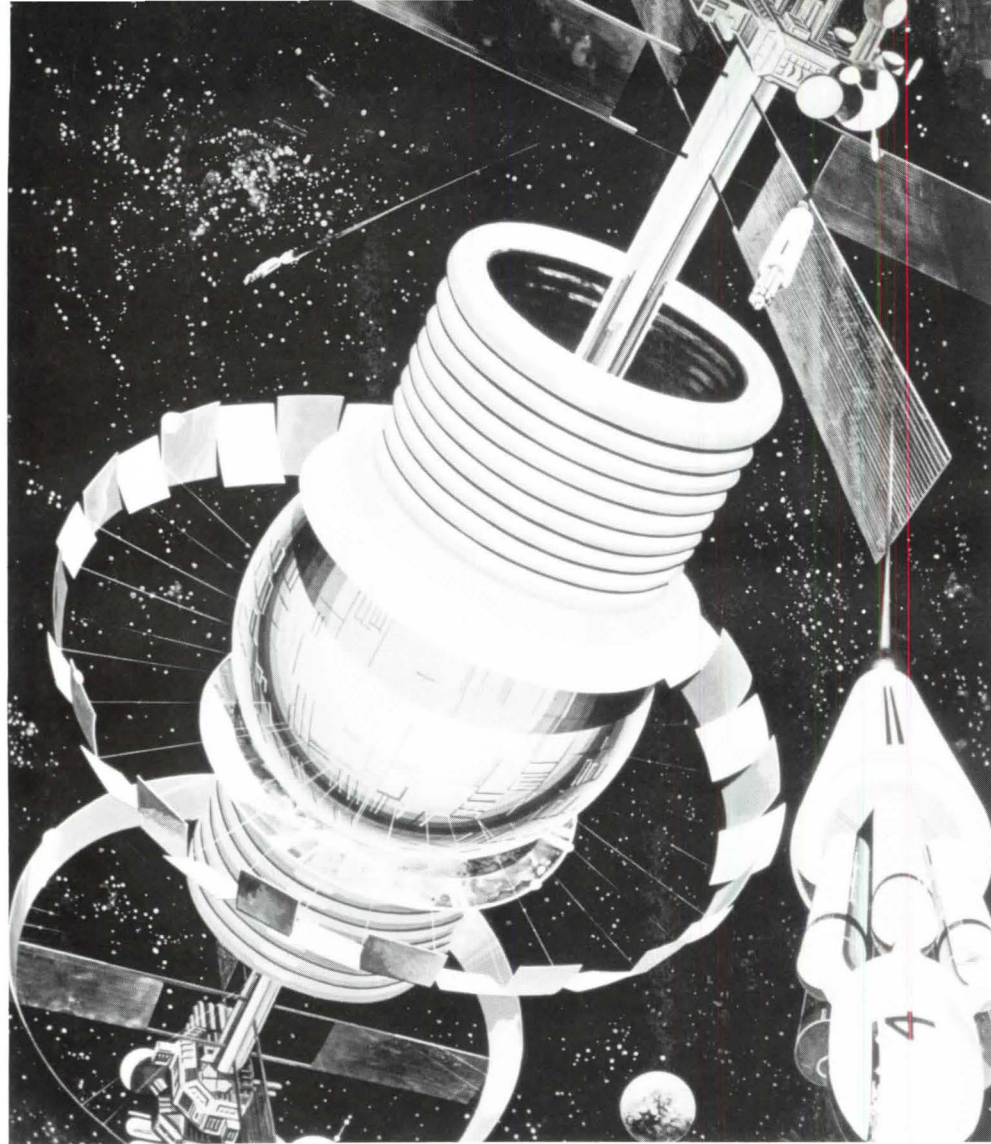
Placing himself firmly in the company of some of the great dreamers and thinkers about outer space, such as Tsiolkovsky, Bernal, Oberth, von Braun, Cole and Ehricke, O'Neill writes: "Our goal is to find ways in which all of humanity can share in the benefits that come from the rapid expansion of human knowledge, and yet prevent the material aspects of that expansion from fouling the worldwide nest in which we live."

In a dozen chapters O'Neill makes the case for leaving earth. We can do it; we can build our own miniplanets in orbit. The technology exists to do this on a surprisingly large scale. He describes three stages of the evolution of such space cities or islands. He would start with Island One, a sphere three-tenths of a mile in diameter in which 10,000 people would live. Next would come Island Two, a sphere over a mile in diameter holding 140,000 people. In perhaps 50 years, we could build Island Three, a cylinder 20 miles long and 4 miles in diameter, in which 10 million people would live.

We ought to do it. O'Neill reviews the terrible problems of population growth and energy shortages and argues that by living in space we will be able to continue for several hundred years the kind of economic growth that has brought prosperity to the developed nations of the world. That prosperity will permit us to evade paying the "fearful price" that doomsayer Robert Heilbroner predicts for humanity on the basis of the evident limitations of earth.

Sustained economic growth would bring other benefits, thinks O'Neill: "I confess to a humanitarian bias in the design that I suggest. Technological revolution is a





dently shrinking resources of our world. He has also made major technological contributions to the ideas on which we base our hopes of living in space within a generation.

Despite the appeal of the idea and despite O'Neill's contributions, the book is deficient in several major respects. It is badly organized; it is a jumble of ideas with lines of argument that are quite hard to sort out. I suspect that the book was written without a particular audience in mind and so it falls between stools.

The very ordering of the chapters confuses. By beginning with a discussion of Island Three—the ultimate model—and only several chapters later introducing Island One, O'Neill is apt to confuse the reader about what is supposed to come first. The tendency to confuse what will come later with what will come first recurs. We do not get to “first tasks” until chapter 9. There is also a great deal of repetition, perhaps, because several parts of the book are earlier writings, used with little change.

The problem of the intended readers shows up in several other places. The inclusion of the delightfully clever idea of causing pairs of Island Three cylinders to change their direction so as to point continuously at the sun by connecting them with a compression tower at one end and an extension tower at the other assumes the readers are physicists. The beauty and ingenuity of this application of conservation of angular momentum is unlikely to be appreciated by anyone else.

On the other hand, inclusion of several pages about the search for extraterrestrial intelligence, a topic only peripherally connected to space habitats, appears to be intended to appeal to a general readership. Its effect is to distract from the central purpose of the book.

Sometimes the information appears to be intended for engineers, but because the book is for a general audience, tables of engineering data are converted into prose. The effect is often deadening. So is the economic prose: “If the builders of a plant must pay 10 percent interest on their capital, and amortize it over 30 years, even a nine-hundred-dollar-kilowatt plant during its amortization period will supply electricity of only 1.1 cents per kilowatt-hour.”

O'Neill appears to have started out to write a coherent unified argument justifying space habitation on broad general grounds. Characteristically, he attempts in the second chapter to place the problem in a broad theoretical context. He lays out four guiding principles for use of technology to help human beings. Technology should (1) give access to energy, and resources should be for people of all nations, (2) lead to decentralization rather

*continued on page 119*

powerful force for social change; and in choosing among several technical possibilities I have been biased strongly toward those which seem to offer the greatest possibilities for enlarging human options, and for breaking through repression which might otherwise be unbreakable.”

There are potential pleasures of living in space. Muscle-powered flight should be possible; swimming, and especially diving, in low-gravity pools would be a curious experience—the multiple somersault off the board should be within the reach of the least adept of us. (It will also be a curious experience for the underwater swimmer when he or she finds that in reduced buoyancy the time to reach the surface is surprisingly long.) There are also a couple of ponderously delicate references to sex in zero-g. (Why it should be any more attractive than sex in one-g eludes me, but perhaps this is meat for the cover for the paperback edition.)

There are economic benefits to be had. A considerable amount of effort is spent arguing that space communities can supply earth with large amounts of electrical energy from orbiting satellite solar power plants. These would be manufactured in space from materials obtained there, at first from the moon and later from asteroids.

The crucial argument which is not

made until more than half way through the book is that goods to be used in space can be obtained more cheaply there than from earth because of the saving of launch costs: “For any product whose use is to be in or near free space, high above earth, production at L5 will save the life cost, about \$430 for every pound produced. A worker at L5, producing 20 tons of finished products annually, will be turning out a value of \$19 million per year, beyond the intrinsic value of the goods, simply because of the saving in lift costs from earth.”

O'Neill makes the case for space communities in great detail, carefully qualifying his assertions. Subject to the qualifications, the arguments are sound. The qualifying remarks are severe in many cases: Many numbers cannot be known to better than a factor of two—that includes costs as well as answers to technical questions. When these uncertainties are compounded, many of the results are admittedly very speculative.

The idea that people may use space for their benefit by direct occupation is immensely exciting. It is an idea of great positive merit and O'Neill is to be greatly praised for his work in stimulating public interest. He has played a central role in bringing to our attention an antidote to the feeling of despair induced by the evi-



## Relating New Buildings to Old Through Design

*A National Trust conference brings together architects and preservationists and generates a debate on legislating guidelines for respect. By Nora Richter*

"Change in the built environment is inevitable," according to James Biddle, president of the National Trust for Historic Preservation. "However, we assert that the change must be orderly, deliberate and in some relationship with the structures now existing.

"Insensitively designed and obtrusive structures can create an atmosphere of visual chaos and false progress. We assert that through such insensitive design a block loses its integrity, a neighborhood

or other area loses its cohesiveness and a city loses part of its unique character."

Biddle spoke to architects, urban planners and designers, preservationists, design review board members and journalists recently gathered at a two-day conference on old/new design relationships. Held in Washington, D.C., the conference was sponsored by the National Trust, the Latrobe chapter of the Society of Architectural Historians and the D.C. metropolitan chapter/AIA.

The addition of new buildings to older neighborhoods is hardly a new phenomenon. But achieving a harmonious design relationship is more difficult than ever before because of the vast choices of materials and styles, according to keynote speaker Robert Burley, AIA.

The problem is more complex in adaptive use, preservation and additions to older buildings. "If the new requirements are properly introduced, the fabric of the structure is strengthened and enriched—

and its life expectancy is increased. If the new requirements are introduced in the wrong manner, then the fabric is torn and weakened to the point that it may have to be abandoned," Burley said.

Given the complexity of design choices, should there be specific design guidelines? Jean Paul Carlhian, FAIA, said yes:

"Careful analysis of the existing groupings or the building itself, the sensitive determination of the essential characteristics," should determine the design of the new structure. He proposed these guidelines:

- Height: "If an area is described by a uniform height, transgressing a prescribed height is a crime. Imagine what would happen in Washington, D.C., if you abandoned the 120-foot height [limit on buildings] and if you had the Washington Monument dwarfed by some ego monument."

- Color: "In a predominantly uniform colored area, the use of materials resulting in a jarring color contrast is incomprehensible."

- Spaces between the structures: "If you have an area with buildings of different height, different styles, what brings them together is the space between them."

- Alignment: "Alignment in facade, alignment in a vertical plane" is essential. "Park Avenue as an avenue was destroyed by the Lever House."

- Texture: "Thank heavens for landscaping. It hides a lot of horrors."

- Additions: "First thing to do if you are going to add to a building is recognize its generating idea."

- Volume and mass: "The attempt to introduce vastly spread out structures among isolated buildings, in spite of an effort to break up the facade with articulating expressions, is seldom successful."

- Facade treatment: "It is difficult to mix vertically articulated structures with horizontal structures. It is important to think of the proportion of voids to solids. Organization of the openings is something to watch for."

In addition, Carlhian criticized the "new mania" for reusing facades in an insensitive manner. "It is spreading like a disease throughout the country," he said. "And if it keeps on, by 2050 we will be living in a real Disneyland world of make-believe facades behind which are recycled buildings that have been adapted to new uses. I just find that unacceptable."

Speaking against guidelines, Giorgio Cavaglieri, FAIA, said, "The attempts to legislate harmony and appropriate design, in order to secure the public's acceptance, favors mediocre solutions." Cavaglieri stressed that "good design is the result of artistic qualities, of careful study of the proportions and forms and of their expression of the building's use."

Other speakers advocated a range of guidelines from very strict to permissive. John P. Conron, FAIA, suggested prob-

lems resulting from too strict guidelines.

Conron decried what he called the Santa Fe syndrome—an ordinance which decrees that all structures in that New Mexico city's historic district must reflect the pueblo-Spanish architectural period. This stifles creativity, he said, while a more relaxed ordinance allows for a combination of the old and the new.

"Our respect for the historic fabric of the city must not only condition our consideration and review of new buildings, but must demand our consideration for the local streetscape and the total cityscape," he said. "We must design the city-

### In courtrooms, a balance shifting from private to public rights in matters of the built environment.

scape to enhance the preserved old and the proposed new."

There is growing recognition of design review boards and guidelines by the public, courts, architects and planners. Recent court decisions indicate that the balance is shifting from private to public rights in matters of the built environment. "Litigation will probably end up supporting the local historic district commission rather than the private property owners," said William J. Tinti, city solicitor of Salem, Mass. "Not only is design review here to stay, but we have really observed in the last few years only the morning light of it."

Indeed, the architect is increasingly faced with community review boards. There was a general consensus at the con-

*Trentman House (left), Hugh N. Jacobsen's infill in Washington D.C.'s Georgetown; (below) Portsmouth (N.H.) Library redone by Perry, Dean, Stahl & Rogers.*

ference that such groups can have a positive effect on the built environment, but only when they consist of a broad range of professionals who can address technical as well as esthetic problems.

But why the need for review boards in the first place? One benefit of the review process is that here "the issue of design relationship between old and new architecture is faced most squarely," Burley said. Mrs. John Symonds gave another reason: "Architects and planners have failed in their attempts to determine the fate of our cities." Mrs. Symonds, chairman of the historic district commission, Annapolis, Md., added, "The public, by default, inherited the job of urban preservation and took back the most valuable part of their cities, the historic districts, and created review commissions."

If guidelines are set and the design review board is waiting, how does the architect approach the old/new design problem?

A building must have an integrity between the inside and the outside," Carlhian said. Charles N. Tseckares, AIA, an architect experienced in adapting interior spaces to new uses, agreed: "A lot of preservationists and architects are ignoring the interiors. Often when interior spaces of older buildings are redesigned, ornaments and interior structures are destroyed which could have enhanced the compatibility of interior and exterior." In addition, interior rehabilitations sometimes fail to utilize hidden interior spaces such as lofts, arches, basements, he said.

To illustrate, Tseckares mentioned his adaptation of the Webster House in the Back Bay area of Boston for office space. "As you enter the building, there is a monumental stair. If the stair had been destroyed, the whole building would have been destroyed." In keeping with the



neighborhood ambiance, fluorescent lights were not used in the office space. In his interior rehabilitation of the Old American Building in Boston, from manufacturing plant to office space, Tseckares said that maintaining older elements such as cast-iron railings and wooden decorations enhanced the economic value of the building.

The economic realities of adapting older structures to new uses is the driving force of rehabilitation efforts. "The throw-away economy has run out," warned Adolph DeRoy Mark, a Philadelphia architect. "The salvage and reuse of all sorts of old materials has become an economic reality. We can no longer afford the senseless squander of a natural resource, salvageable building materials."

Mark advocates the reuse of old facade textures—mosaic textures—broken ornaments, capitals, old walnut doors and other elements found in the New Jersey



*A controversial appendage to the Vendome Hotel (above); below, an addition to Park Street Church—both in Boston.*

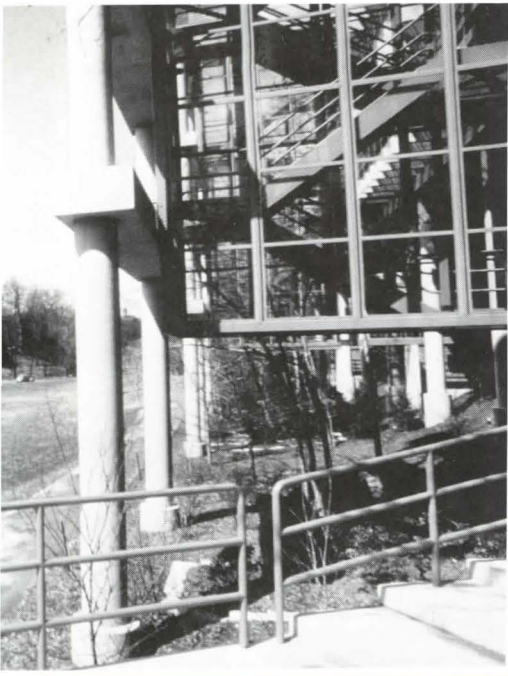


dumps. Having concentrated on rehabbing row houses in Philadelphia, Mark suggests maintaining the front facades or redesigning new ones to blend with or imitate the old. But walking into his houses, one enters the modern world. Skylights and open courtyards let light into once darkened interiors. Refound lofts and basements create exciting spaces.

One of the most challenging tasks is designing a new addition for an older building. Roger P. Lang of Perry, Dean, Stahl & Rogers in Boston, attacks the problem with a three-step analysis. First, he said, analyze the context of the neighborhood and existing constraints such as zoning, other regulations and space limitations caused by trees, lot size and streets. Next carefully analyze the building itself. "What is the essential characteristic? Be respectful of the original building." Third, determine the functional reason for the addition and how the existing building can be renovated for additional space.

Lang illustrated the point with his firm's addition to the Park Street Church in Boston, which needed space for schoolrooms, administrative offices and social affairs. The church, constructed in 1803, is distinguished by a superb steeple. The architects chose a modern exterior, while the interior relates to the church by utilizing its existing walls. A skylight yields an unexpected view of the steeple and the Boston skyline.

The firm's addition to the Wellesley College science center is less successful, Lang said. Although the Wellesley campus is "undisturbed Gothic revival," the science department wanted the addition to reveal its technical and mechanical functions. The architects designed a vigorous structure, "perhaps as close to the



Centre Pompidou as we have achieved on this side of the ocean," Lang said, while conceding that it relates poorly to the rest of the campus.

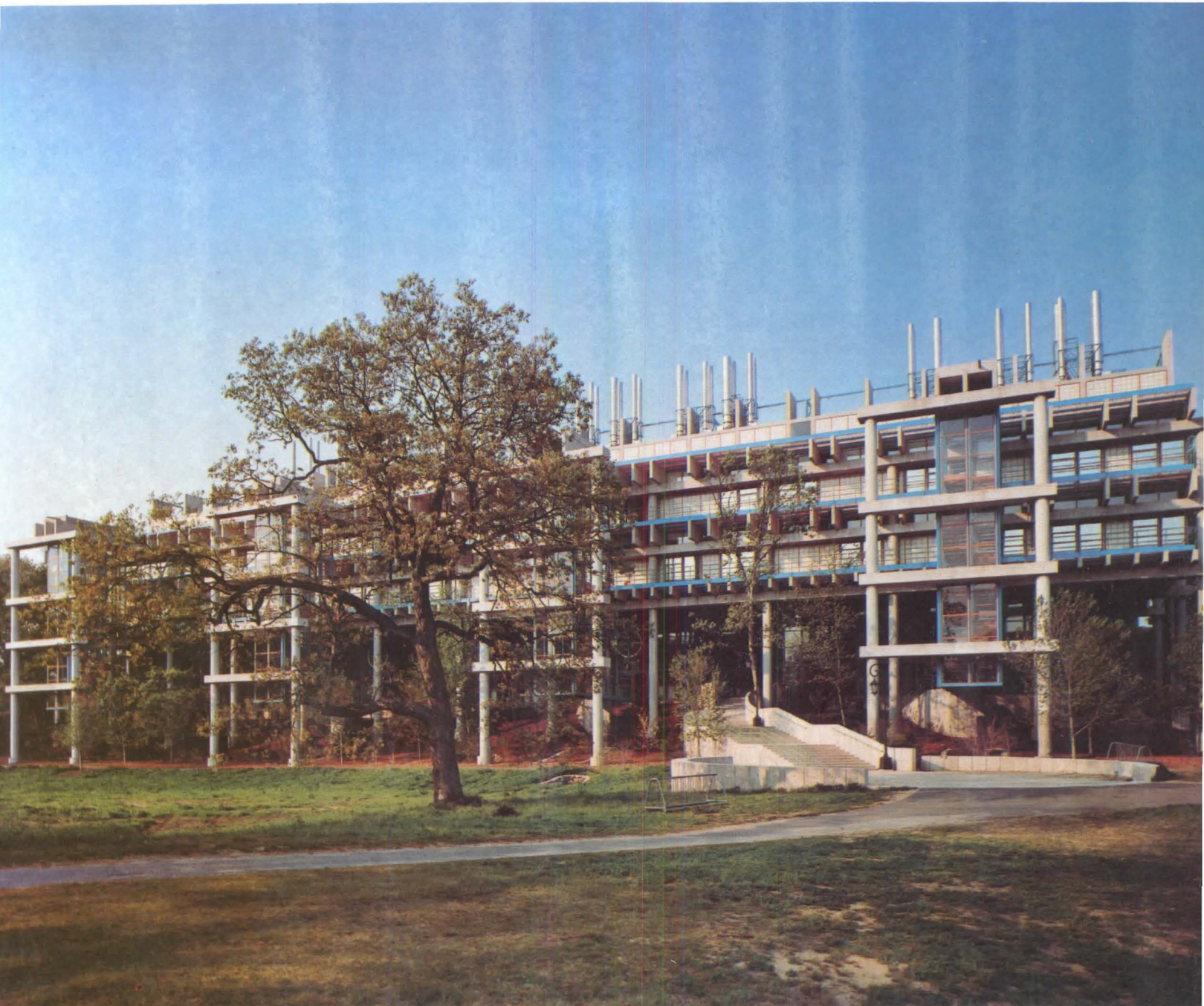
What about the design problems of filling a gap in a given streetscape? The solution depends in part on the size of the gap, according to Louis Sauer, FAIA: "If one is designing a contemporary house in a row of otherwise traditional town houses, then one respects tradition. But in filling a larger gap, a block, for example, it is the street scale, rather than the unit scale, which is important. And, always, one must take into consideration what is across the street."

Sauer's Newmarket in Society Hill, Philadelphia, is an example of infill architecture considered sensitive to its historic surroundings. One side of the square block

*Wellesley College science center, a contrast to the largely Gothic revival campus.*

is located on the Delaware River; the other three sides are garnished with historic residences and commercial buildings. A modern glass and steel market is tucked behind these buildings, while the entrance respects existing facades on the street. "Inside and outside respond to different design criteria. The context of Newmarket is its most important design determinant," Sauer said.

Clearly, architects will continue to grapple with old/new design relationships. As Burley said, "The healthy growth of a community should be a natural process, reflecting new requirements and evolving from one stage to another, rather than a series of radical confrontations. . . . It is the work of many architects and of planning commissions, developers, owners and private citizens—a whole series of composers, conductors, performers and audiences over a generation or more of time." □



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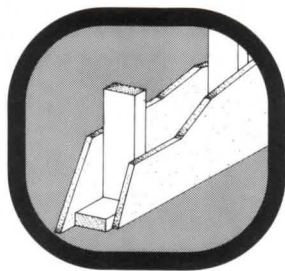
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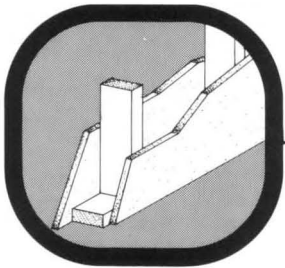
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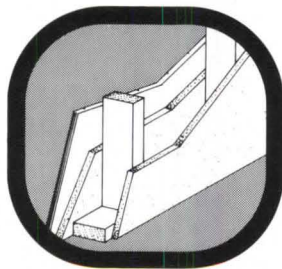
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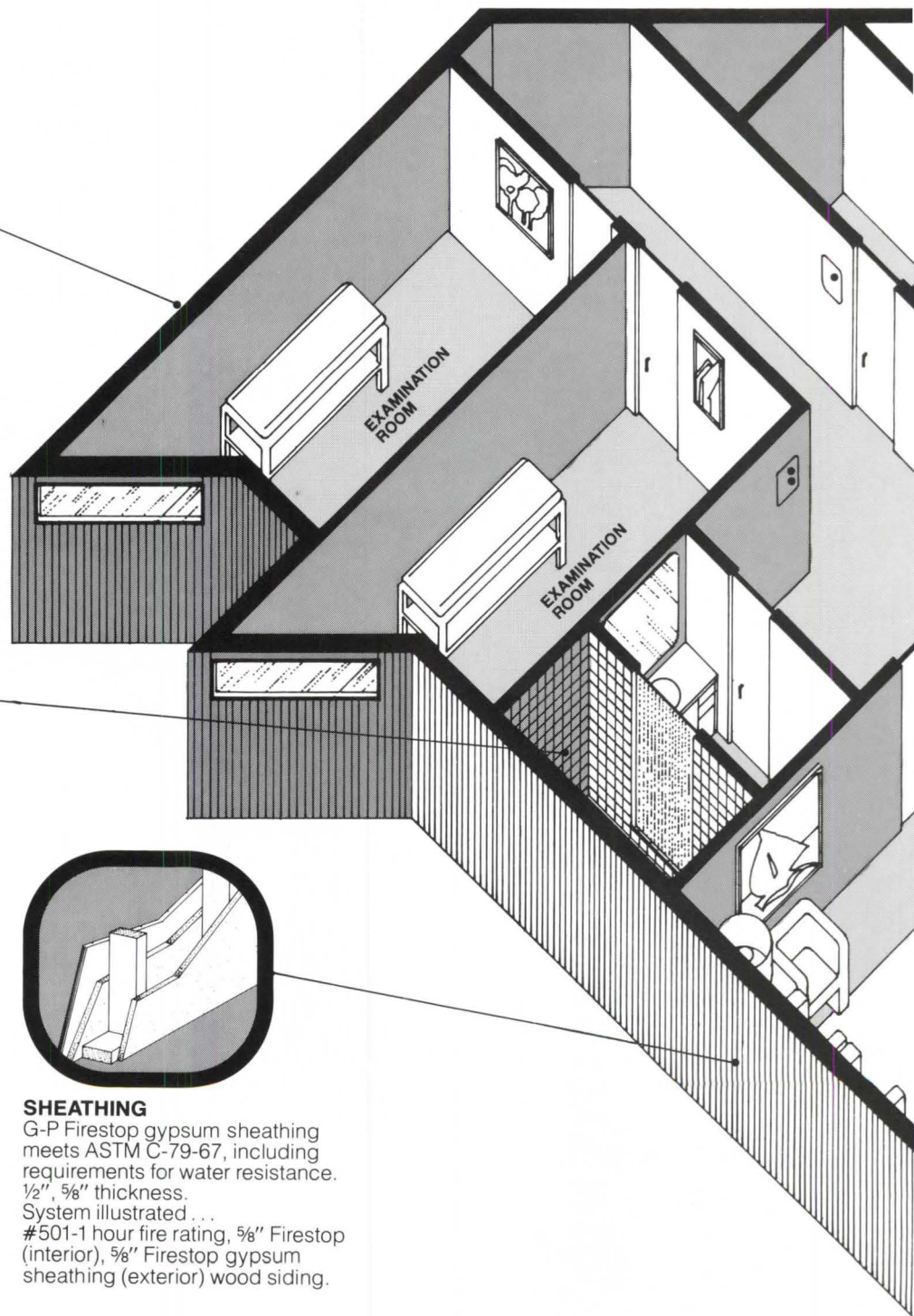
System illustrated . . .  
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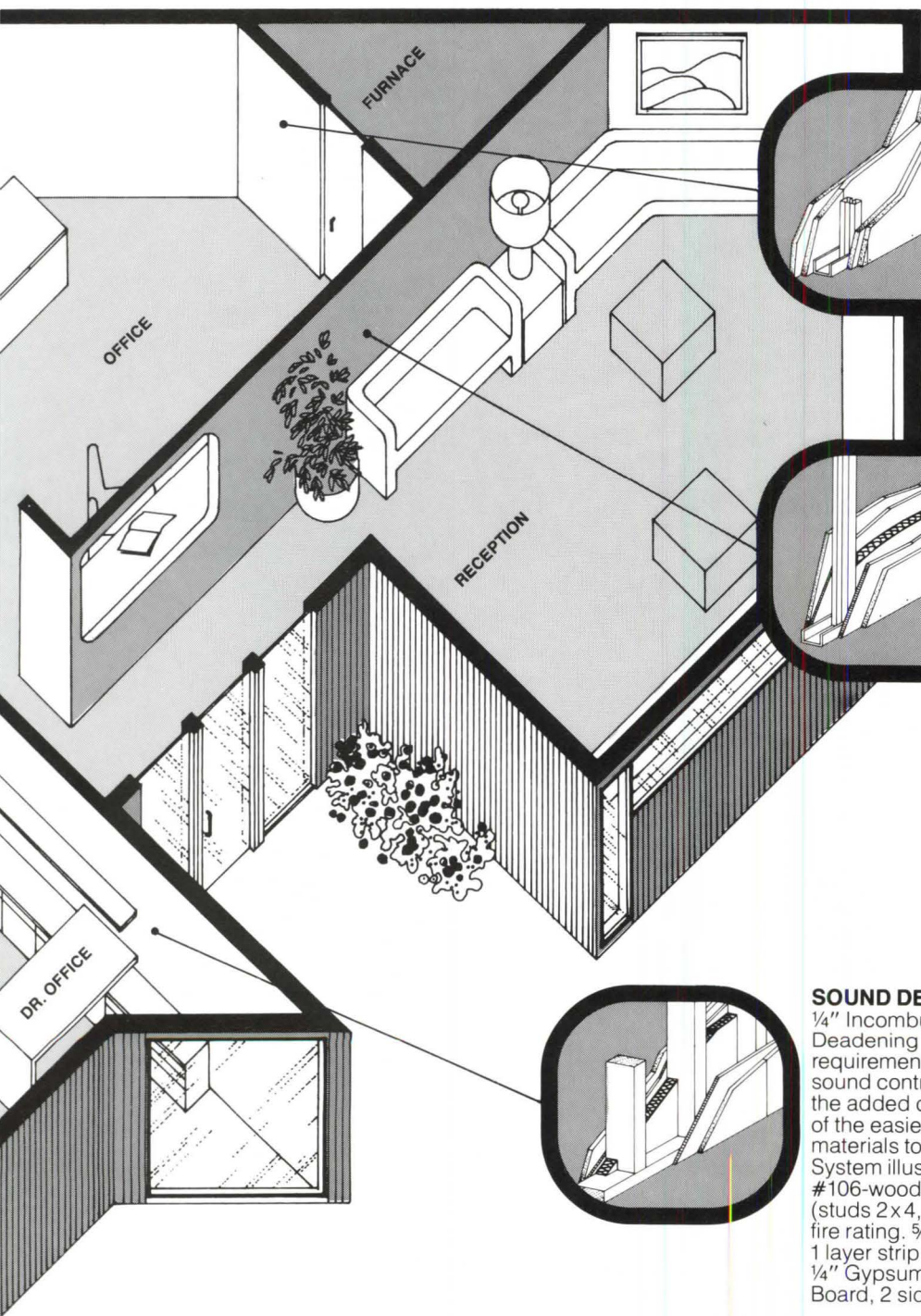


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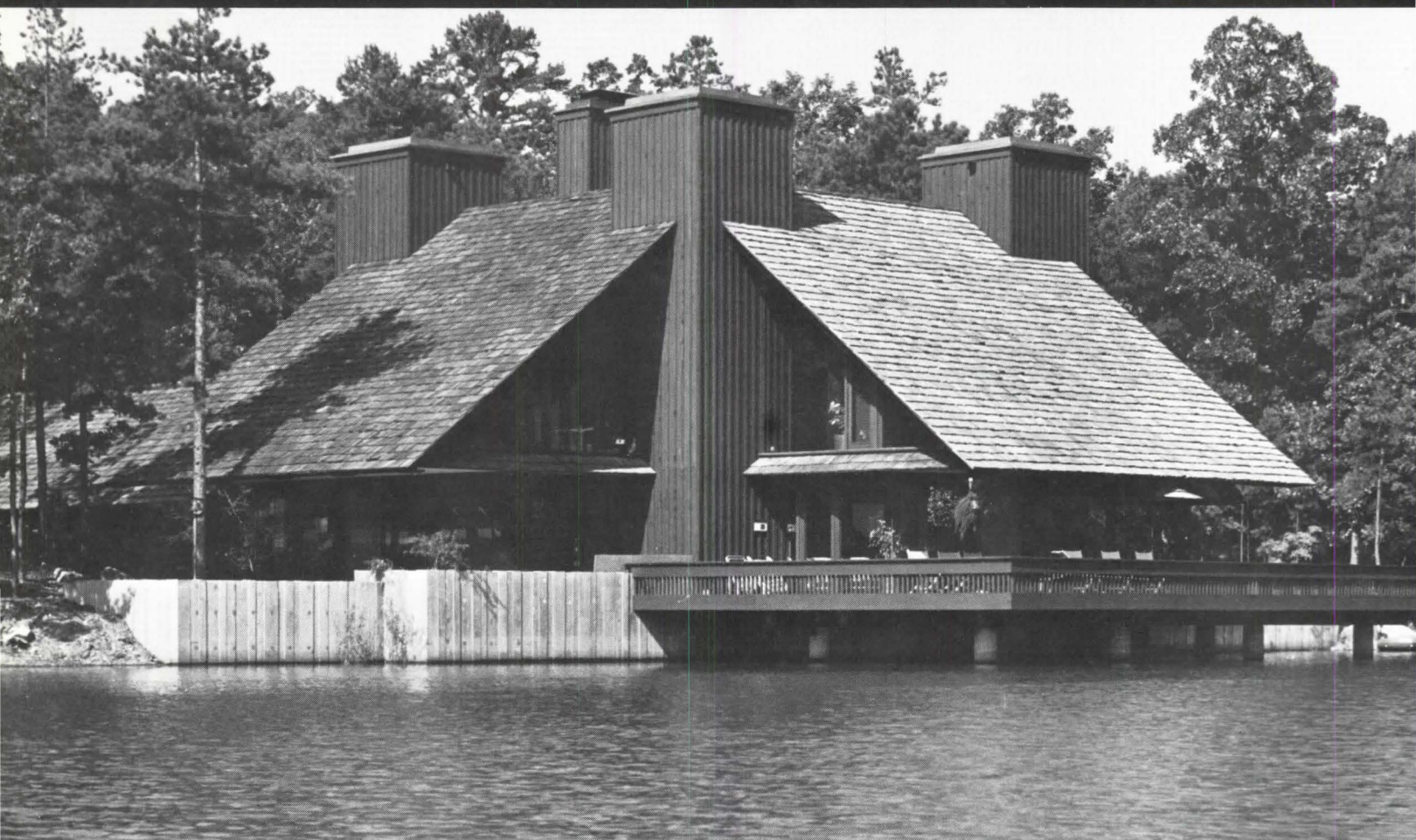
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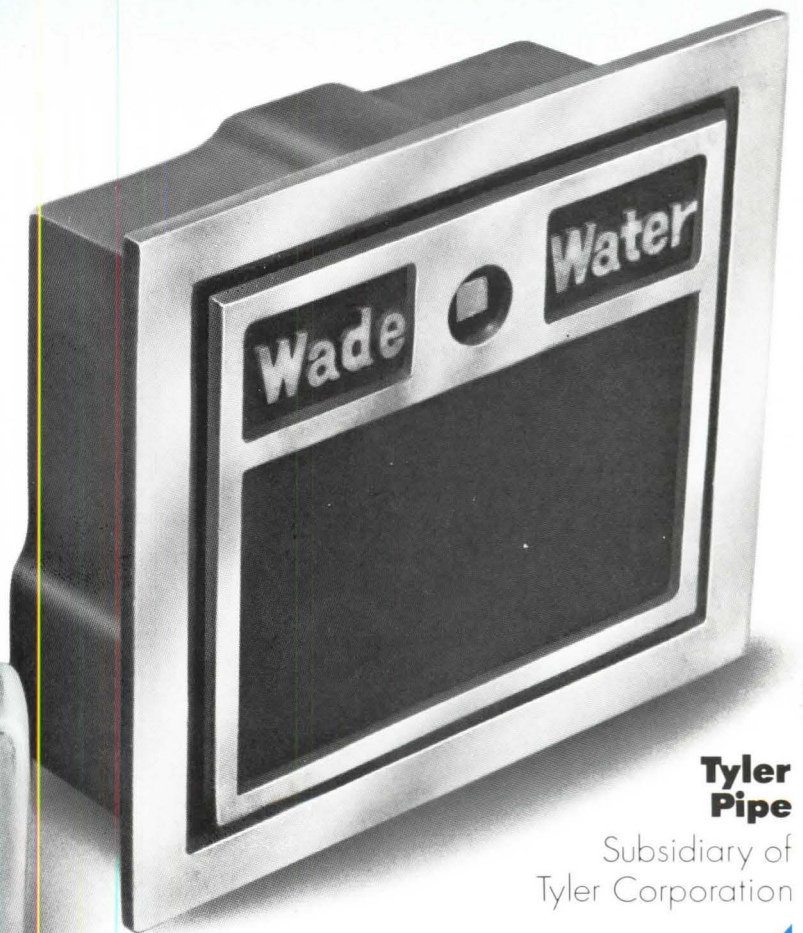
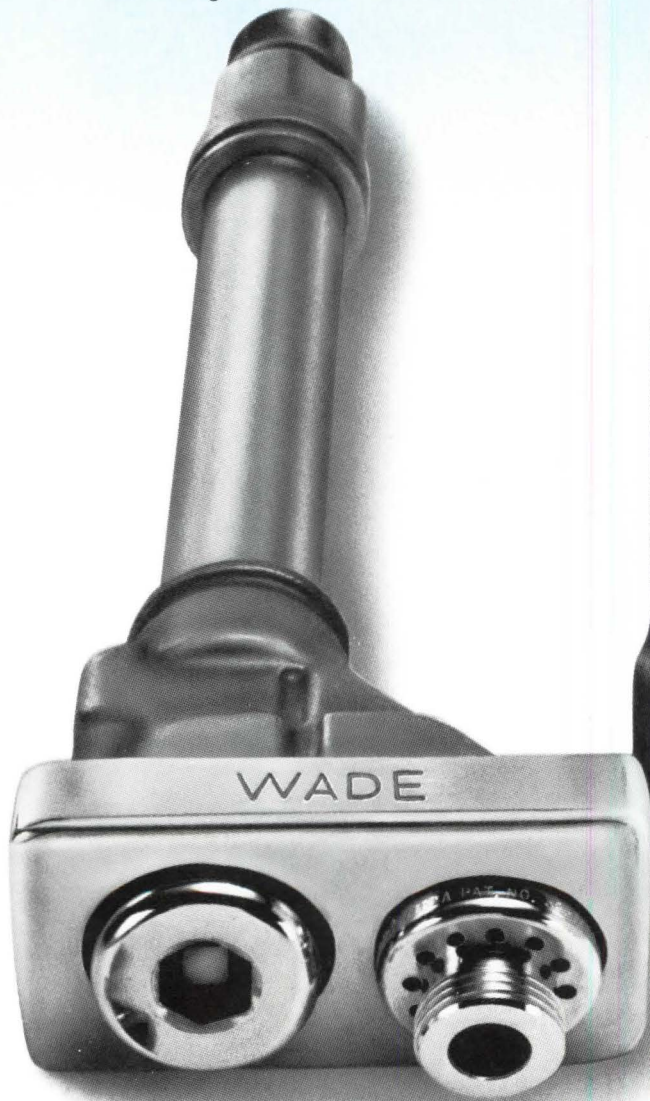
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## Modern Architecture Once Again Pronounced 'Dead'

**The Language of Post-Modern Architecture.** Charles Jencks. New York: Rizzoli, 1977. 104 pp. \$18.50 hardbound, \$10 paperbound.

One encounters a sense of repetition in reading Charles Jencks. The book under review is no different. It is an amplification of one of the major preoccupations of his previous books: *Architecture 2000*, *Adhocism* (with Nathan Silver), *Meaning in Modern Architecture* (edited with George Baird), *Le Corbusier and the Tragic View of Architecture* and *Modern Movements in Architecture*. His output is prodigious, and it is apparent that he is in a great hurry to say something about architecture. Yet, perhaps because of this haste, a certain feeling of incompleteness results.

In *The Language of Post-Modern Architecture* Jencks takes as a whipping boy "modern architecture," and (again) pronounces its "death." Modern architecture, as he interprets it, was tied to a rationalistic bias that prevented an effective communication with its users and the public. Drawing an admitted "caricature," he notes that this "son of the Enlightenment," as personified in Mies' IIT campus, communicates the wrong meanings: The boiler house reads as a cathedral and the chapel, a "dumb box," reads as the boiler house. Crown Hall becomes the "President's Temple." Many other easy targets are noted: the pillbox-marble doughnut shape of Bunshaft's Hirshhorn, the giant phallus of Pei's Christian Science Church Center and the mortuary image of Hertzberger's Old Age Home in Amsterdam. The humor, though, is slightly dampened by the inclusion of the more tragic failures, at least in human terms: Pruitt-Igoe and Robin Hood Gardens. Tied to the concepts of universal form, technology, functionalism and social reform, "modern architecture" rejected a theory of effective communication and rhetoric. When it did communicate, it was either an inadvertent meaning or a rational image unacceptable to the public.

For Jencks, "An architect's primary and final role is to express the meanings a culture finds significant, as well as elucidate certain ideas and feelings that haven't previously reached expression." If the architect disagrees with the culture's direction, his job is to design dissenting buildings that "ironically" criticize and communicate the values that are missing. There are perhaps a few misguided souls who would still like to add some of the other Vitruvian principles.

Emerging from the wasteland of "modern architecture" is a new synthesis that, Jencks feels, is multivalent (a favorite



term) and pluralistic, an architecture that makes use of local vernacular elements and cultural references, a "radical eclecticism" of sorts. All of the *au courant* terms are used: "language," "signs," "codes," "symbols," "metaphors," "syntax," "semantics," "semiotics," "indexical" and "iconic." The solutions are predictable: highway culture, Las Vegas, Robert Venturi, Robert Stern, Herb Greene, Bruce Goff, Michael Graves, Charles Moore, Beverly Hills movie star homes, etc. Even Ronchamp is worked in. Also included, although perhaps slightly less familiar to American readers, are the works of Lucien Kroll, Kiyonoro Kitutake, the Barcelona group, Ralph Erskine and other young British architects. In conclusion, Jencks briefly considers the work of Antonio Gaudi and the *modernismo* movement as an example of the pluralistic symbolic language he seeks.

The issues that Jencks seeks to engage are important, but behind the wit, the argument leaves one with an uncomfortable feeling. Where does caricature leave off? The "death of modern architecture" is only too easy to exploit, as is the current multiplicity of directions. But is the application of literature and linguistic studies really the solution? Jencks' explanations are so superficial that "metaphor" and "symbol" frequently become confused with simple "ideas." Any of the current studies in perception or psychology are evidently to be disposed of with all the other baggage of modernism. The sociological interest of architects has been such a failure that it should never again be mentioned. Technology, structure and programming are all better handled by someone else. In the place of all this, the architect will study the metaphors and semantics of a Hollywood house and "gay eclectic" interior decoration—certainly an overstatement on my part—but no less so than the high-pitched cocktail party chatter on Jencks' part.


In sum, the book has an element of importance about it, but the issues are only obliquely and incompletely addressed. It is a thin book, not only in size and padding (large repeated illustrations and lengthy captions repeated in the text), but also in its glib content. This is too bad since Jencks has the talent and the knowledge to give us something far better and more considered. *Richard Guy Wilson, Associate Professor of Architectural History, University of Virginia*

## Three Utopian Planners

**Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, Le Corbusier.** Robert Fishman. New York: Basic Books, 1977. 332 pp. \$13.95.

Does architecture exist when the plan is complete, or only in constructed buildings? A simple quandry, perhaps, but one that must be confronted each time a historian tries to judge an architect's accomplishments. Robert Fishman judges no

*continued on page 100*



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# A Participatory AIA Conference On the Design of Arts Centers

*It produced a set of hypothetical buildings and new lines of communication between architects and clients. By Jane Merkel*

The arts centers of the future may be influenced by a group of hypothetical buildings conceived in Cincinnati. More than 200 architects, arts administrators and artists spent three days in teams designing mock art centers at the so-called Arts Centers/Design-in, a participatory conference in planning cultural facilities and spaces. The conference last November was sponsored by AIA's professional interest committee and the American Council for the Arts, with a grant from the National Endowment for the Arts. Participants—I was one of them—came away with specific ideas, programming techniques and a more sophisticated insight into what an arts center might be.

Most who attended expected or hoped to be planning arts facilities in the near future. Some had experience in design, others had experience as users of cultural facilities, but only a few had extensive experience in planning arts buildings, either as designers or clients.

By the end of the conference, all the participants had planned a center. One team had produced a complete "design," with sketches of plans, elevations and all the programmatic requirements satisfied. Not only had the participants become aware of new questions, possibilities and approaches to finding design solutions, but they also had more confidence in their abilities to produce a design.

One outstanding participant was Robert Applegate, AIA, of New Albany, Ind., a partner in the firm of Walker, Applegate, Oakes & Ritz. He was a member of a team assigned to design a mixed-use cultural center in an old building. When his teammates adjourned, after a day's hard work, he stayed on with a few die-hards to work out some unfinished details.

Late that evening, the teammates returned to find him alone, putting finishing touches on the scheme. Not only had he solved the principal problem that had remained unsolved when they left (how to incorporate a restaurant into an atrium

**Ms. Merkel** is architecture critic for the *Cincinnati Enquirer* and an instructor in art history at the Art Academy of Cincinnati.

space), but he had fully resketched the plans and had even drawn elevations to complete the design.

Annette Anderson, the AIA facilitator for Applegate's team, who knew the old Baltimore building into which the hypothetical center was to be placed, commented: "It even looks like the real building." Applegate had never seen it.

Anderson's approach, like that of the other facilitators, was low-keyed. She allowed the group to find its own pace and direction, letting its natural leaders emerge. And, although she had been involved all along, she expressed surprise and pride in the team's accomplishments. She is a community planner who teaches architecture at the University of Tennessee in Knoxville. Her expertise involves group leadership, which she utilized during the conference. She was able to assist without actually leading the group, and her respect for her teammates made it possible for her to do so. This respect, in turn, contributed to the team's ability to function effectively.

The Arts Centers/Design-In was devoted largely to programming. It began with a keynote address by William M. Peña, FAIA, senior vice president of Caudill Rowlett Scott in Houston. He explained his programming techniques with spirit and self-deprecating good humor, using slides of charts to illustrate, elucidate or emphasize his ideas.

Peña advised the audience to "organize the information the whole team has into useful form" by following a five-step process: (1) Establish goals; (2) collect, organize and analyze facts; (3) uncover and test concepts; (4) determine needs; (5) state the problem. He said that it is essential to go through those steps in that order. He also advised discarding irrelevant information and saving some ideas for the later phases of design. He said a designer cannot work effectively with more than seven major ideas at one time and therefore it is necessary to avoid an "information clog."

In a talk laced with psychological insights, William Sturmer, a management consultant from Marblehead, Mass., urged the group to welcome the confusion

that comes with a group's free interchange of ideas.

Next, the conference divided into 16 design teams of about 15 people each. Each team had a mix of architects, artists and administrators. Four types of projects were to be designed. Some designed a "small arts center in a suburban area of a major city." Others worked on a "large arts center in a major city" or a "rehabilitation/adaptive reuse project in a major city." The largest number of groups, however, worked on a "medium-sized arts center facility in a city of medium density."

The first few hours of the Saturday morning session were devoted to finding a way to work as a group. Teammates introduced themselves more fully than they had the night before, explaining the kind of expertise they might be able to offer. Several leaders began to emerge. In Annette Anderson's group, one leader was a free lance arts consultant, Ralph Brugard, from Scarsdale, N.Y. He urged the group to "preprogram," to decide what kinds of activities the center might wish to incorporate.

Ellen Dressler of the Mobile, Ala., Arts Council suggested that the center be modeled on one being created in her community to offer art classes, workshops, exhibitions and performances to meet community needs and to compensate for the very limited arts program in the public schools.

Drawing on my own experience in museum work and teaching, I encouraged the team to focus on those community needs it could satisfy most effectively—to teach those courses for which especially able faculty could be found, to offer performances tailored to the talents of available actors and musicians.

Soon a center began to form in Brugard's imagination. He called it "centrum." And as he described it, his teammates helped to particularize and define it. The possibilities that had been presented were crystallizing into a concept, and these early stages of planning were hesitant and confusing as the group planned the hypothetical structure.

Teammates had some difficulty assuming roles as planners until they naturally fell into the ones they play in real life. After a while, quite naturally, administrators talked about community needs and funding. The theater people explained how sets are created, shipped, stored and employed. I pointed out the importance of flexible, secure gallery space, emphasizing ceiling heights and lighting. The architects considered entrance, egress, movement. Eventually, the team began to function as a real group of programmers, fluctuating between special interests and overall goals. Observers drifted in and out, but the team was little distracted.

**Participants realized they had 'developed a capacity to work with others to solve problems.'**

and does adaptive use work in private practice. Thomas Hand, a Cincinnati native, practices with a firm in Boulder, Colo., where he received his architectural training. Robert Fehlberg, FAIA, a partner in CTA, a 68-man firm in Billings, Mont., "the cowboy architects," as he calls them, has been involved in arts center design both as an architect and as a private citizen. Allan Berkowitz, AIA, a former cabinetmaker, is designing a theater in Kansas City, and Annette Anderson works with a variety of community groups in her city planning practice.

The group's proposed project was the first thing Charles Dagit Jr., AIA, mentioned the next morning in "Summaries of Yesterday's Design Experience." Dagit, a partner in the Philadelphia firm of Dagit/Saylor, and a panel of observers discussed the similarities and differences in the various teams' approaches. None of the other teams had realized a design so completely, but then none of the others had Applegate working late into the night.

The procedures, however, were basically the same in each group. Peña's methods were applied, not slavishly, but

generally. There was a "real honesty in the exchange of information," as a panel member said. Also, "All of the sessions seemed to be more of a program-in than a design-in," as they had to be with the limited time available.

One difference between the mock design sessions and real ones was that tempers rarely flared. Curiously, this difference was barely touched upon in the summaries. Interests rarely conflicted in the design-in because real entrenched interests only existed hypothetically.

Most of the groups found that they had all the human resources within the team that they needed to solve the problems at hand. As the participants opened up and ventured their suggestions, considerable expertise and information emerged.

Dagit's panel noted that the turning point to productive planning came "when the people began to realize that the people were the program, when the people began to realize that they are all experts." The value of the conference was that the participants became aware that "they didn't have to go home with 12 answers." Dagit assessed it as "people realizing that they had begun to develop a capability to work with other people to solve problems."

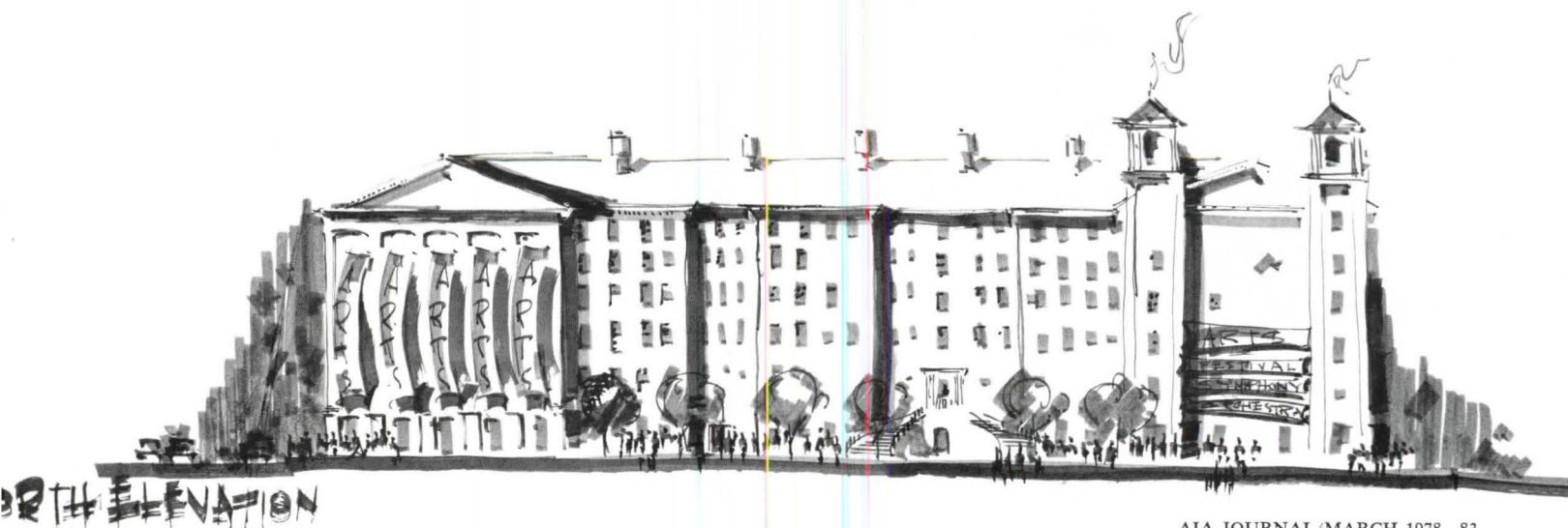
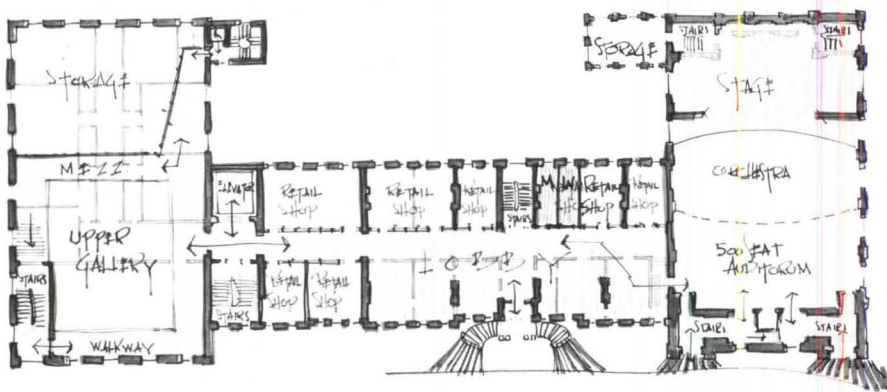
One value of the design-in that may not have been anticipated by the sponsors was the personal associations that were fostered. Probably because teammates worked together so closely, for so long, on a specific project, they got to know a number of people fairly well. In this way, the Arts Centers/Design-In differed from other conferences I have attended. The members of Annette Anderson's group, at least, have been in touch with one another since the conference, sharing ideas on a continuing basis. □

Midway in the morning, one wall was covered with brown paper, on which areas of concern were listed such as administration, gallery, auditorium, participants, instruction. One by one, and then in twos and threes, members of the group came up to outline the spaces, facilities and equipment each category might require. The chairs, which had been arranged in a circle, moved into a U-shape focused on the chart. There was much moving around as teammates added suggestions to the chart, conversed in small groups, refined their suggestions, assessed the overall scheme. The goals became defined; requirements and suggestions were specified; priorities were established.

After lunch, more paper was provided. This time it was white and it was placed on the floor. That is when Bob Applegate took the pen, and schematic sketches began to take form. At this point, the emphasis shifted from the analytical programming phase, which involves taking things apart, to the creative design phase, which involves putting things together. The architects were clearly the leaders during the design phase.

The architects in Annette Anderson's group came from a variety of backgrounds. Warren Gran, AIA, from Brooklyn, N.Y., teaches at Pratt Institute

*The Applegate team's plans for adapting a Baltimore building to a cultural center.*



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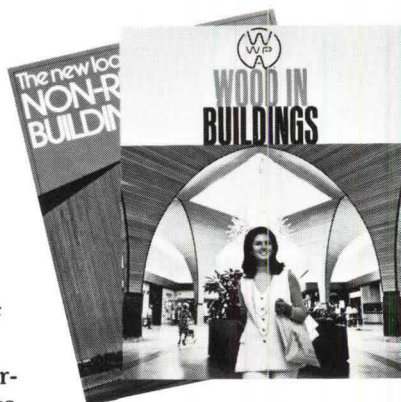
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# Structural steel "system" cuts cost of Boston area schools.

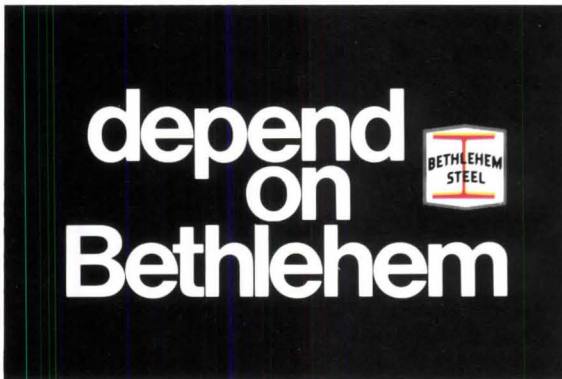


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Boston's Public Facilities Department has sponsored the development of a pre-designed, pre-engineered structural steel system that has been adopted for more than \$180,000,000 of new school construction in the Boston area. Known as the BOSTCO system (see box), it establishes guidelines in advance for structural framing, snow loads, fire proofing, and many other structural details. Developers were the Engineers Design Group, Inc. of Cambridge.

The BOSTCO system has been successfully used by a number of schools in the Boston area. Two schools are illustrated here, one in the city and one in an outlying area.

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**Andrew Jackson/Horace Mann Community Schools, Boston (Opposite Page)**

**Architects:** Peirce, Pierce and Kramer/  
Korslund, Lenormand & Quann, Inc., Boston, A Joint Venture  
**Engineer:** Engineers Design Group, Inc., Cambridge  
**Steel Fabricator:** Antonelli Iron Works, Quincy

**Cape Regional Technical High School, Harwich (Below)**

**Architects:** Drummey Rosane Anderson, Inc., Wellesley  
**Engineer:** Engineers Design Group, Inc., Cambridge  
**Steel Fabricator:** A. O. Wilson Structural Co., Cambridge



## The BOSTCO System.

This structural system is based on a structural grid consisting of steel columns, one to six stories in height, and steel beams. The grid utilizes secondary members 10 ft on center to produce structural bays which may vary from a minimum size of 20 ft by 20 ft to a maximum of 30 ft by 50 ft. A 5¼-in. composite slab spans the beams. In order to provide a stiff floor system without paying an undue cost, the beams have been designed for composite action with the slab. Holes in the webs of all of the internal beams allow smaller piping and electrical distribution to be placed within the layer of the floor-ceiling envelope occupied by the structural system.

Long-span structures (clear spans exceeding 50 ft), such as gyms, pools, and auditoriums, are supported by beams and columns

and long-span joists at 5 ft on centers. Bays are restricted in width to 20, 25 or 30 ft in the primary direction. The length of the bays is determined by the requirements of the individual projects; however, the bay length is a multiple of 5 ft.

Foundations, other below-grade work, and grade slabs are not strictly part of the system; however, their design must be accommodated to the constraints of the system. Stairs, stair towers, and other similar secondary structural elements are also non-system, but must also obey system constraint insofar as their design affects the system's work. The external appearance of the schools is not affected by the system, and can, therefore, widely vary.

# A Playground That Welcomes the Handicapped

*A New York City competition produces designs for accessibility in both the plan and the equipment provided in 'multiuser parks.' By Nora Richter*

The traditional playground should accommodate handicapped as well as able-bodied children, goes the thinking of the New York City department of city planning. So, the department conducted a statewide competition (cosponsored by the city's department of parks) for one multiusers' playground and commissioned a local architect to design another.

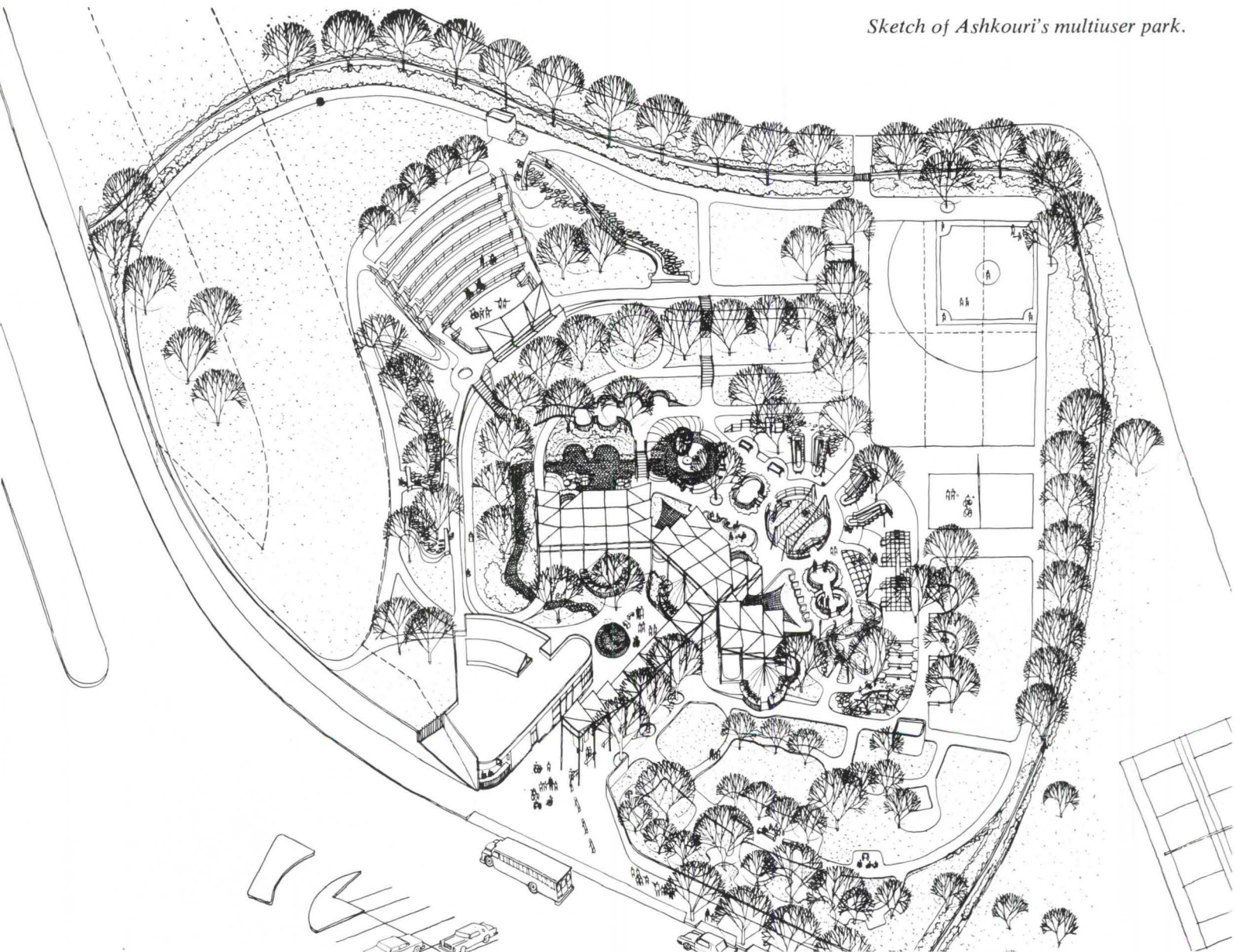
More than 165 teams of New York State architects participated in the competition for the playground to be con-

structed on 2.6 acres at Flushing Meadows-Corona Park, Queens, N.Y. The winning design by Hisham N. Ashkouri of Rockville Center, N.Y., modifies the traditional playground equipment—swings, sand areas, water and climbing bars—for handicapped children. In addition, the entire playground is accessible to the wheelchair-bound or mobility disabled. The runners-up include Paul Benowitz and Secundino Fernandez of Rye, N.Y., Richard Dattner, Thomas Bittner

and Joseph Smith of Richard Dattner & Associates, New York City, and Robert M. Toole of Saratoga Springs. The \$800,000 playground is to be built with community development funds.

Since the park will be used by all types of children, the playthings are designed accordingly. For example, the swings will be nylon-coated chairs with two levels of straps. A chain, when pulled, will start the swinging movement at the top. Thus, either a handicapped or an able-bodied

*Sketch of Ashkouri's multiuser park.*



child can swing himself. There will be a gently stepped ramp paralleling the slide, so a child who cannot walk can ease himself up backwards, using his shoulders, back and arms. The see-saw, designed by Michael Wurmfeld, will have aluminum hoops at each side. A child who doesn't have use of his legs can propel himself with the hoops. This design also helps a child when more weight is on his partner's side.

Ashkouri designed special games for the children, including an 1880s railroad, a traffic game and a water wheel. The railroad consists of flat cars equipped with a double-handled crank which drives the cars. A fence around each car protects wheelchair passengers. In the traffic game, the child will maneuver a tricycle, car or wheelchair around the tracks. Traffic will be guided by road signals. A water wheel to be operated by the children moves water down a "stream" that runs through the park. In the summer, the children can wade in the stream.

At the park's entrance will be an information and first aid center and a plaza surrounded by a shaded area. Under the shaded area will be sand play areas with wheelchair cutouts, designed so that all children can play together; climbing areas which are, in effect, open "rooms" of rope nets, climbing ropes and soft surfaces; a music carillon to orient blind children, and the loading platform for the child-operated railroad. In one corner of the park a small amphitheater is planned. Each seating row will be slightly elevated and allow for children to walk or wheel in, thus eliminating a special area for children in wheelchairs. In another corner will be a multipurpose sports field, and surrounded by trees and other vegetation, a picnic grove will occupy still another corner.

The park is designed to accommodate 150 children at a time. Saul Nimowitz, the department's project director, antici-

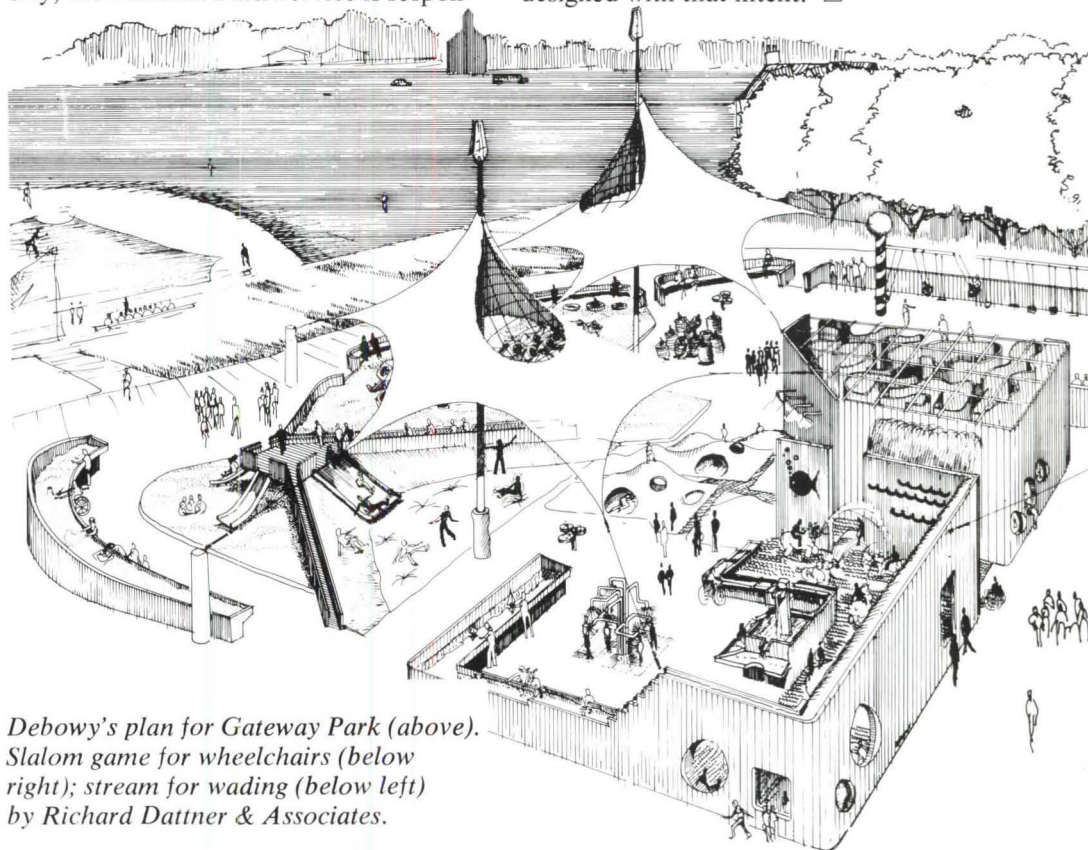
pates that once the park opens (summer '79), it will be immediately overbooked, since some 60,000 handicapped children in the New York City public schools could use these facilities. Although parks for handicapped children exist elsewhere in the city, they are not designed for nor open to both handicapped and able-bodied children.

The planning department also has plans for a multiuser beach park on 13 and a half acres of Gateway National Park in Queens. This park, designed by Arthur Debowy, AIA, would include a swimming pool, beach facilities, basketball courts, picnic areas, table games, a playground and a miniature golf course for both the handicapped and able-bodied.

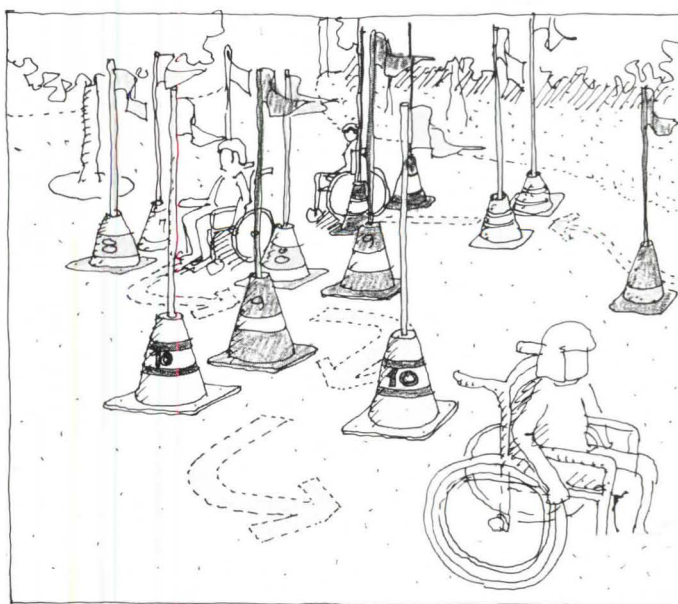
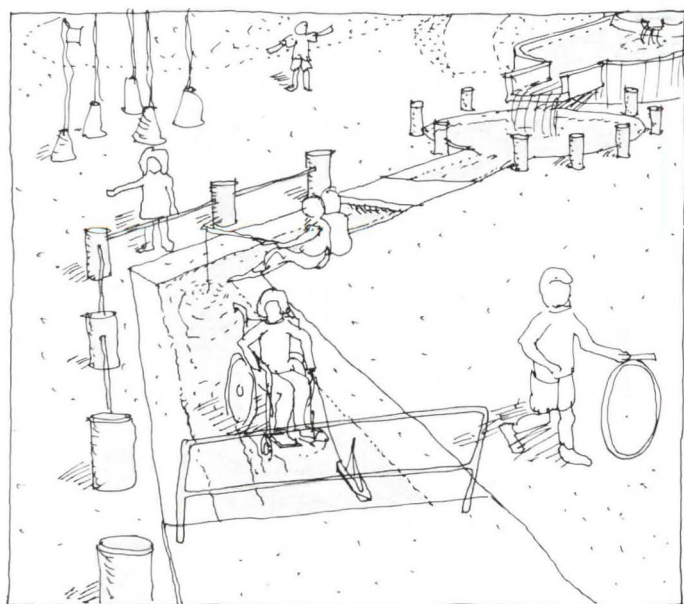
Since Gateway Park is on federal property, the National Park Service is respon-

sible for any developments. The park service intends to equip the park with toilets, showers, lockers and ramps for the handicapped, but the department believes Debowy's ideas could be incorporated. (Gateway National Park is now being planned.) The planning department has presented Debowy's proposal, but the park service, according to Nimowitz, has not approved the \$40,000 needed for a feasibility study.

Given the great number of handicapped or mobility disabled people in New York City, Nimowitz feels certain that multiusers' parks are much needed. Such parks would allow families to relax and play together instead of isolating those with special needs, the planning department says. Both multiusers' facilities are designed with that intent. □



*Debowy's plan for Gateway Park (above). Slalom game for wheelchairs (below right); stream for wading (below left) by Richard Dattner & Associates.*



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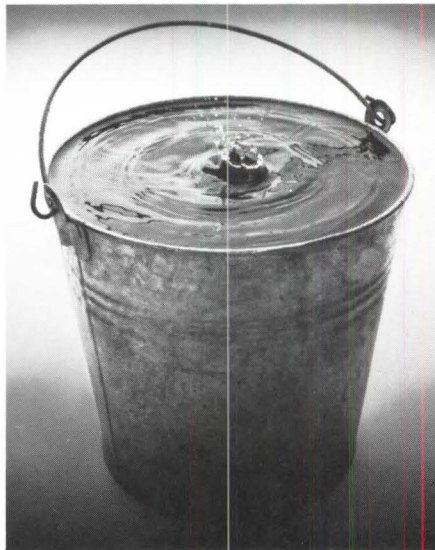
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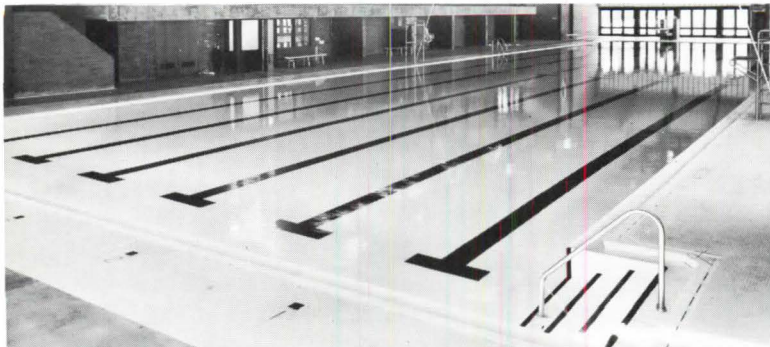
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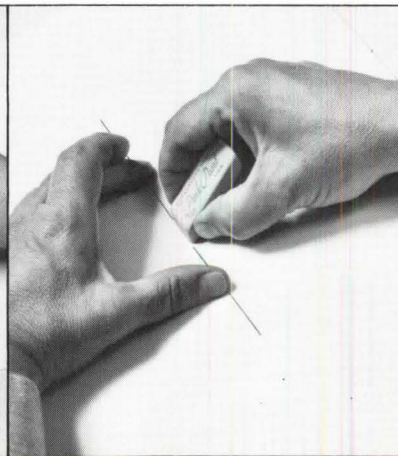
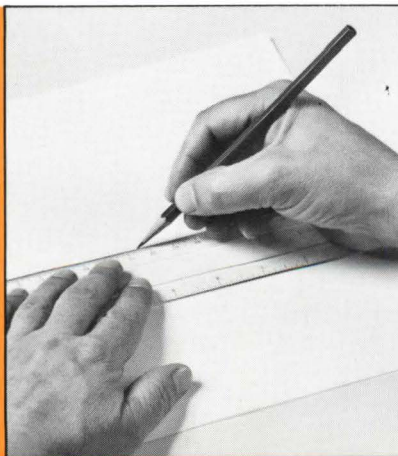
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# The Third Annual Boston Sandcastle Competition

*Architects and others vie for the 'coveted golden shovel award.'* By Mary E. Osman

A "stately and whimsical celebration" took place one day last summer at Steep Hill Beach, near Ipswich, Mass. The event, which drew thousands of area residents and visitors, gave members of the Boston Society of Architects (BSA) and others an occasion for "constructive fantasy" as they participated in the third annual sandcastle competition.

Winner of the coveted golden sandcastle shovel was William Conklin, AIA, of the New York City firm of Conklin & Rossant, for his single-handed creation of a solar city of sand. BSA reports that "one malcontent was heard grumbling that, as usual, the big jobs are going to the out-of-town firms." Conklin evidently had his heart in the sandcastle competition, having arrived at the work site via air shuttle and rented car.

The competition, sponsored by BSA, the Children's Museum, Harvard Univer-

sity's department of landscape architecture and Water Music, Inc., was judged in four categories: (1) architects and landscape architects, (2) kids, (3) families and (4) none of the above. Architects competed in all four categories; some created intuitively in the solitary way of traditional masters; some acted in the contemporary fashion and were members of sandcastle design teams.

Competition rules said that the castles "should not stagger the imagination" and that they should have "human scale, either real or imagined." Entrants were warned "not to pick plants" for the adornment of the sandcastles.

People brought picnic lunches and sustaining libations to aid them in their flights of fancy. There was music by the Cambridge Symphonic Brass Ensemble and other entertainment. The annual event was, as in years past, one of the "more

graceful and gentle festivals in the Boston area," in the words of one participant.

As the day of fun and sandcastle-making came to a close, many competitors, bystanders, eggheads and television crews were seen climbing the sandy cliff to their cars for the homeward trek. But many "die-hards" remained on the beach to wander through the soon-to-be ruins of a community born only that morning."

The golden sand shovel was presented to winner Conklin by jury member Donald Stull, AIA. Other members of the distinguished jury were Jan Adkins, author of *The Art & Industry of Sandcasting*; Lois Craig, director of the federal architecture project; Woody Flowers, mechanical engineer; Fred Golinko, designer, and David Maurer, designer. □

*Rules said to keep the sandcastles to 'human scale, either real or imagined.'*





*The winning Conklin design of a solar city (left) was born to live but a day, but what a day it was. Some people worked on design teams (above); others created in solitary fashion. Creatures of the sea (below) were a popular subject.*



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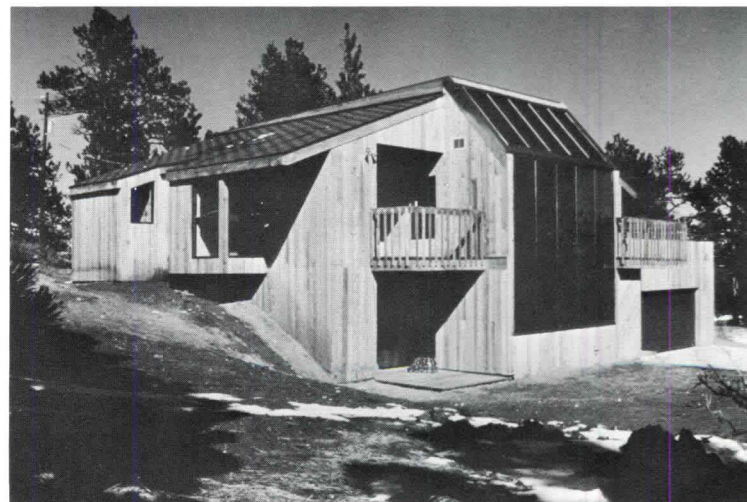
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*Books from page 80*

built works by the three utopian planners who are the subject of his study, for none of their utopias was erected *in toto*. Instead, he aims to recapture the historical context which gave birth to the planners and their plans, granting their respective utopias (Ebenezer Howard's Garden City, Frank Lloyd Wright's Broadacre City and Le Corbusier's Radiant City), the unity of architectural form and social content their architects gave them.

Fisherman's eminently readable study of the problem of urban planning in our time proceeds via an assumption, carefully developed in well-structured, heavily faceted prose. It suggests that study of three urban philosophies, united ultimately by their creator's individual

commitment to making their plans reality, will identify for us the ideal city of our century.

Yet, that is not where Fishman rests his argument. When the time comes to decide what we have learned from the three, he introduces the pessimistic attacks on the utopian concept itself of Jane Jacobs and Richard Sennett. *Deus ex machina* substitutes for a truly integral solution.

The author's consistency of approach to three quite different planners and his seamless arguments leave one somewhat worn down. A negative response to the book? No. Thinking back to my excitement while reading the first of the three studies, that of the author of *Tomorrow: A Peaceful Path to Real Reform*, better

known under the less Victorian title of *Garden Cities of Tomorrow*, Ebenezer Howard, I attributed the sense of discouragement to a feeling that Jacobs and Sennett are right. Their thesis, that no one person, even a Wright (to employ but the American example), ought to be able to make a choice for anyone but himself, and that "a disorder that brings freedom, diversity and maturity is thus preferable to the bland, deceptive pleasures of harmony," grates on my own sensibilities and, I think, Fishman's, too. Harmony need not be bland. Freedom and diversity can be beautiful, and why should I, or anyone else, have to look upon someone else's misguided efforts at building when we could, instead, have the beauty of architecture?

Eventually, we still must ask, "Must architecture be built?" Fishman offers what seems to be an equivocal yes. Since "the very concept of the ideal city appears to belong to the past," the fact that none of these three idealists saw his work fully built condemns the concept of utopia forever to oblivion. Such concepts "exist—preserved in the blueprints, drawings, books, articles and letters on which their creators lavished so much hope and genius. . . . The plans endure, unchanging and unconsummated." The only thing that is real and dependable is change itself.



More than this bleak outlook of the historian's perspective is, must be, available. Fishman's consideration of only paper documents avoids the possibility of partial success. Howard's concepts spread fully half way around the world—from Letchworth, England, to Christchurch, New Zealand. Corbusier's Unites were built not only in several French cities, but even in Berlin. Wright's Usonian houses, any of which would have graced a Broadacre City, dot the U.S., along with other buildings whose types were part of his utopian scheme.

Visits to any of these might convince us all that architectural flesh and blood is testimony far greater than historical documents. The built work of these, and other, utopian designers still have their influence on today's practitioners of the architectural art.

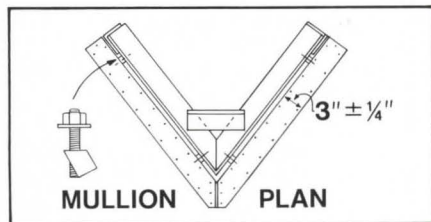
The book is far more than its facts; it is  
*continued on page 106*

# Granite.

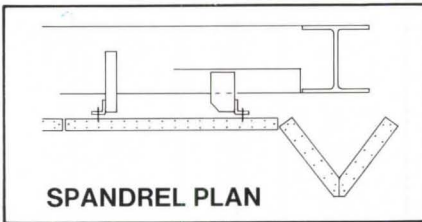
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S-1

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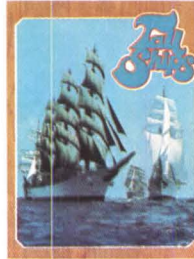
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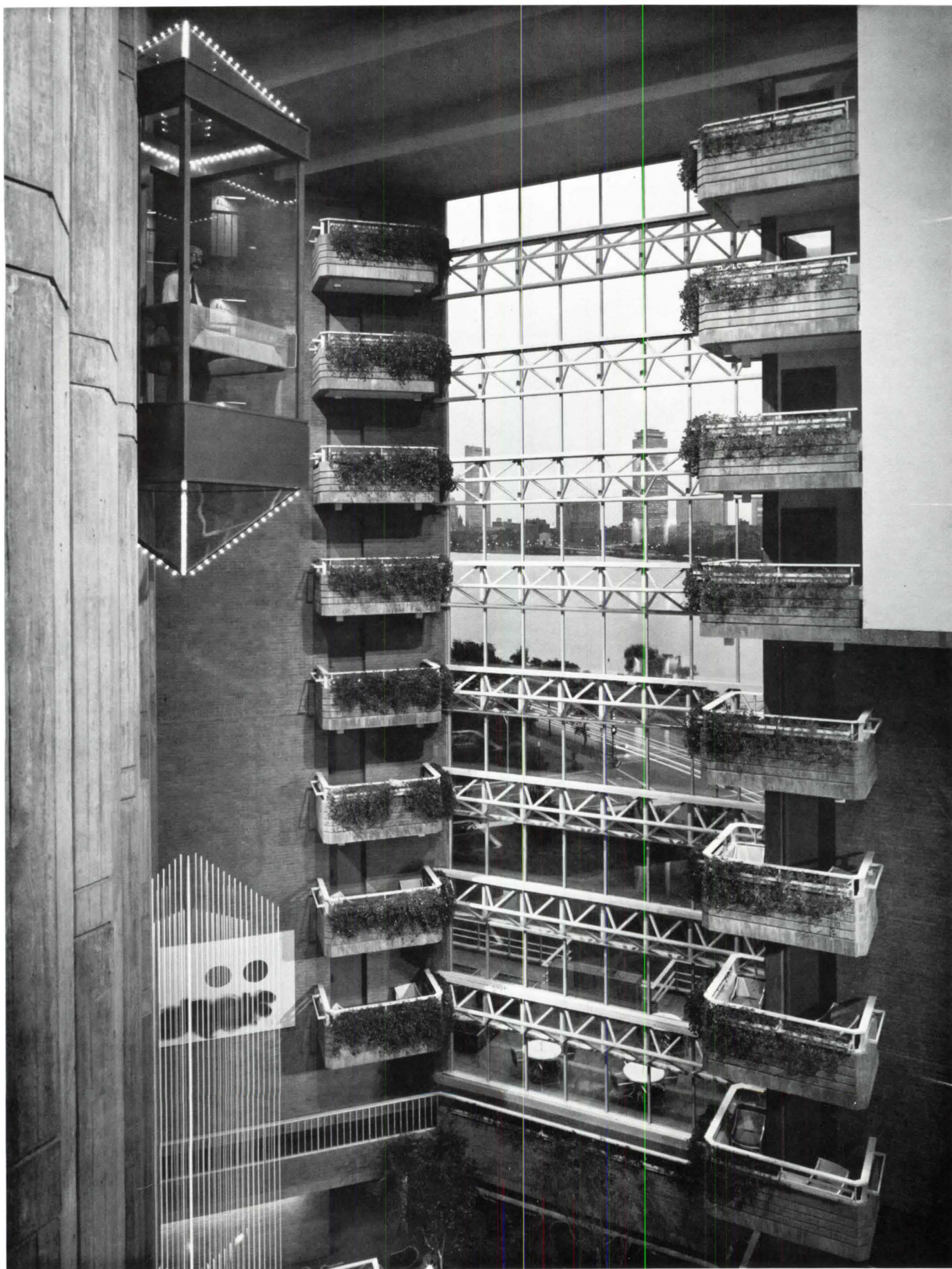
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*Circle 43 on information card*

*Books from page 100*

also a challenge to each of us to decide where we should go now that an external force, energy shortage, may force us to unite as no Corbusier, Howard or Wright could do. Maybe now we will be forced to look at what they built, and build what they said we should build. *William Allin Storrer, University of South Carolina*

**The Architecture of Walter Burley Griffin.** Donald Leslie Johnson. Melbourne: Macmillan Co. of Australia, 1977. 163 pp. \$14.95.

Had it not been for winning the competition to design a capital city in Australia, Walter Burley Griffin (1876-1937) might be remembered as merely another one of the romantic followers of Frank

Lloyd Wright. The five houses in his Rock Glen development in Mason City, Iowa, of 1912 (the same year as the Canberra competition) rank among the most original achievements of the Prairie style. But it is Griffin's work in Australia, and later in India, that makes him a notable figure in the recent history of architecture.

Mainly because of his removal to that geographical and architectural frontier, Griffin's reputation has been somewhat in eclipse (Wright referred to him as "a draftsman who went to Australia"). His work with Wright and his own American practice have been adequately discussed in books such as *The Chicago School of Architecture* by Mark Peisch, and Allan Brooks' definitive work *The Prairie*

*School: Frank Lloyd Wright and His Midwest Contemporaries*, but there has been a need for a comprehensive study of Griffin and particularly of his contribution to Australian architecture. That need has been admirably met by this book.

The story of Canberra, with all its frustrations, disappointments and political dealing, has been covered elsewhere, but the real value of this book is its discussion of Griffin's other work in that new land. He, almost alone among architects then practicing there, understood that Australia was the home of a new society and that its special climate demanded an indigenous architectural expression. Publicly misunderstood and badly treated as he was in Australia, Griffin did much to chart that country's architectural destiny, especially through his introduction of modern town planning principles.

Griffin's Newman College for the University of Melbourne offered an alternative to the then popular English Gothic and showed that it was possible to create an architecture that was both contemporary and traditional. The chapter devoted to Griffin's municipal refuse incinerators (which were both functional and beautiful) illustrates another aspect of the designer's career and points up his understanding of the architect's social and economic role.

Griffin's Cafe Australia (1915), a subtle translation of Art Nouveau and Prairie style, showed a direction that contemporary architecture could take while still supplying the human need for decoration.

Similarly, his provocative Capitol Theatre, also in Melbourne (1921), was the logical creative union of his admiration for Louis Sullivan and his love of pre-Columbian art, and is still "one of the finest cinemas in the world."

Probably Griffin's most significant work in Australia was his development of garden suburbs and particularly his own Castlecrag along the north shore of Sydney Harbor. Although the project, with its stone houses snugly nestled into the earth, was not a financial success, it did express Griffin's philosophy of land planning. Not only was Castlecrag, in Johnson's words, the "first statement of architecture inspired by and derived from Australia," it also demonstrated Griffin's feeling for the natural beauty of his adopted country and his desire to preserve it. Not surprisingly, Frederick Law Olmsted was one of his heroes.

This early ecologist's understanding of landscape (he titled himself "landscape architect" on his Canberra entry) and his attempt to grasp the total historical, social, economic and not just topographical spirit of a place found its fullest expression in India, where he moved in 1936.

*continued on page 108*



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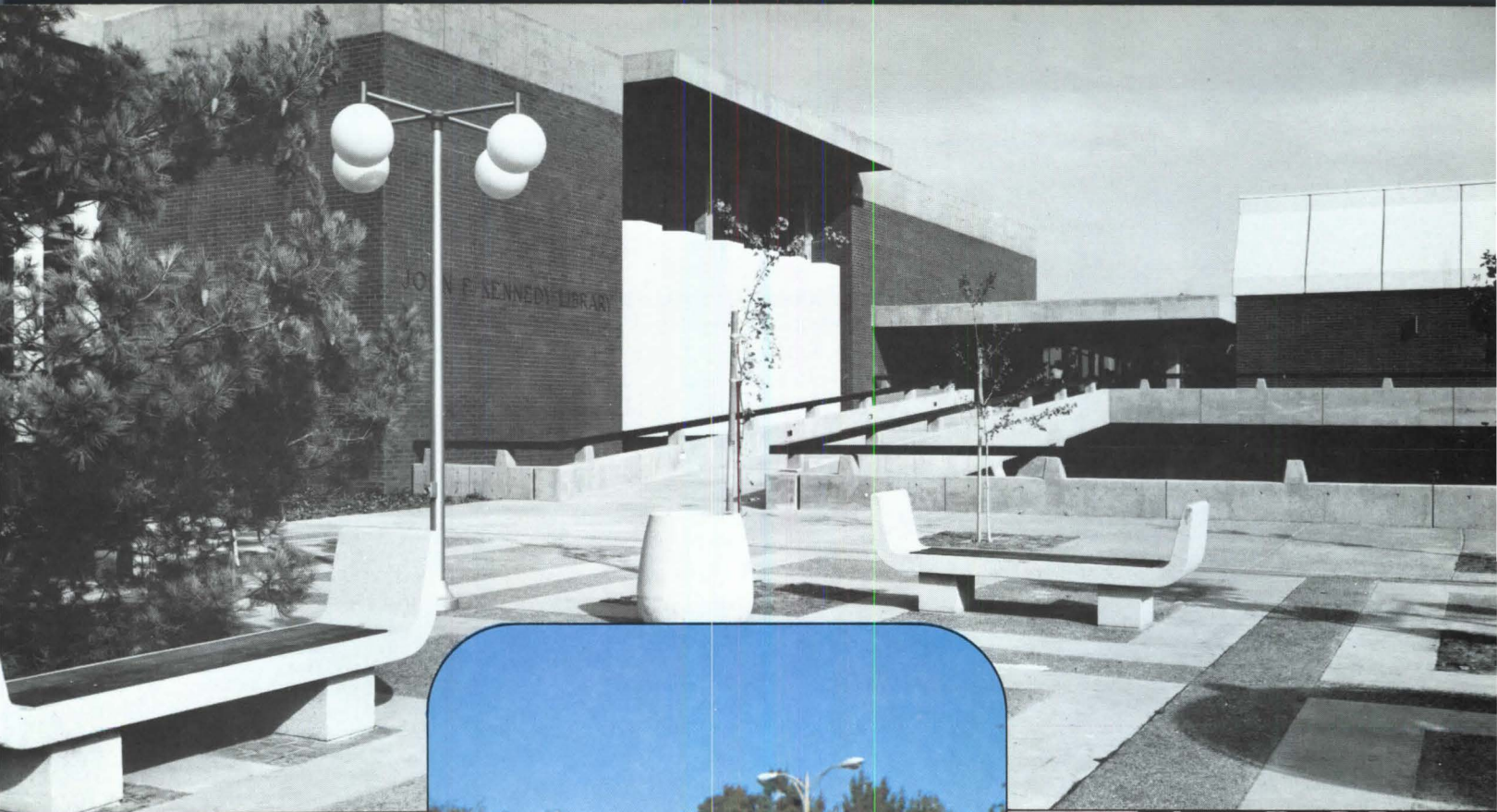
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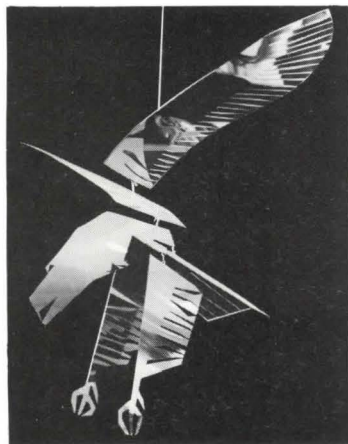


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### Books from page 106

Though he died after only 15 months in Lucknow, he was able to produce a number of projects and buildings that best express his love of landscape and natural ornament, as well as his own anthroposophic beliefs.

Donald Johnson's book is a model of scholarly and well-supported research, containing balanced critical judgments. It is handsomely produced and has abundant photographs, plans and drawings, including exquisite color renderings of some of the Indian work. The book no doubt will become the standard work on that forgotten romantic—a "naturalist in architecture" who professed the philosophy of "man living in and with his landscape." *William Morgan, Associate Professor of Fine Arts, University of Louisville*

**The Architect: Chapters in the History of the Profession.** Edited by Spiro Kostof. New York: Oxford University Press, 1977. 371 pp. \$19.50.

This excellent anthology on the history of the architect's education and practice originated in Spiro Kostof's lectures on the subject at the University of California, Berkeley. He endeavored to stimulate students to take an interest not only in the history of building, but also in the way architects have been trained, found commissions and made a contribution to society.

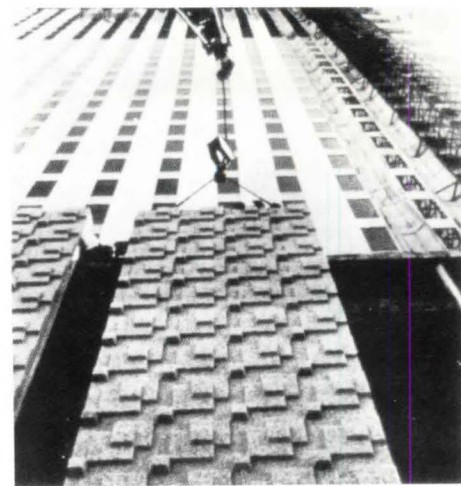
Kostof's collaborators, who cover the field from Roman times through developments in Europe to the emergence of the architect in this country, are William L. MacDonald, Leopold D. Ettlinger, Catherine Wilkinson, Myra N. Rosenfeld and John Wilton-Ely. Joan Draper discusses the importance of the Ecole des Beaux-Arts in the rise of the American architect.

After describing with much charm his Beaux-Arts upbringing, Joseph Esherick tells the story of his conversion to the modern school. It is a good account of how the modern European movement—released by the revolutions after World War II and expressive of great social change—became primarily a stylistic influence in this country. Strangely enough for an account by a California architect and teacher, nothing is said about Erich Mendelsohn's influence as a teacher at Berkeley.

Perhaps the most enlightening contribution is Gwendolyn Wright's account of women's neglected position in architecture. The few examples of women fighting for their rightful position as practicing architects bear witness to their talents and untiring efforts as well as to the size of prejudices which must yet be overcome.

Kostof's book ought to find its way as a text into all schools of architecture. It will also interest lay readers.

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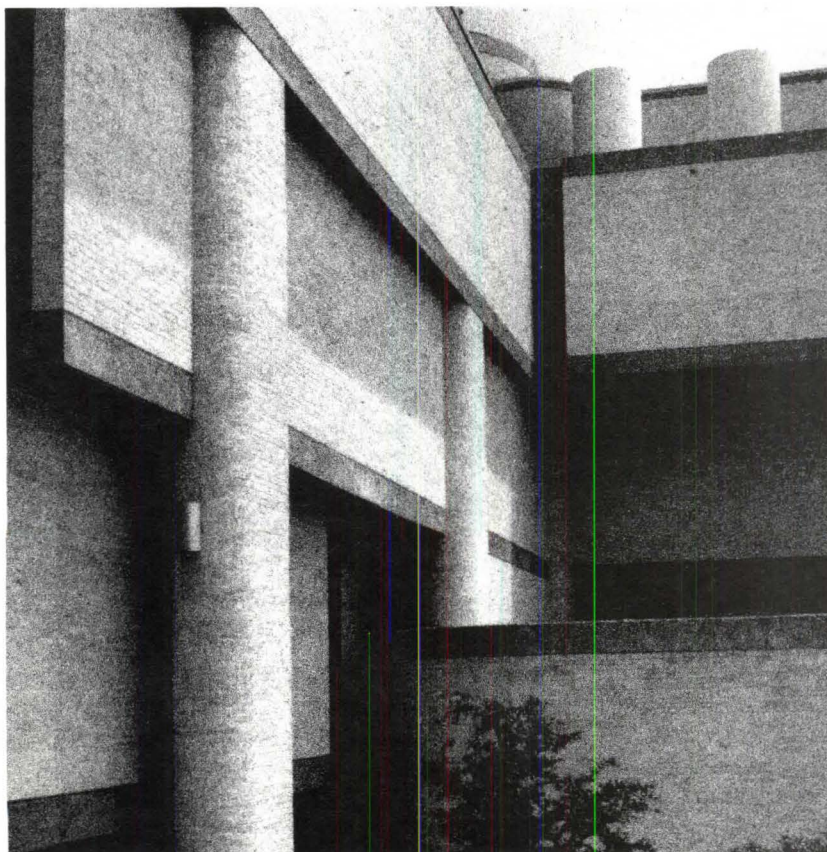
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Going On from page 38

initiatives in reorganization of the federal government and development of a rational system of delivery."

President Carter's first budget to Congress estimates government spending in FY 1979 at \$500.2 billion, an increase of \$38 billion over FY 1978's budget. Revenues are estimated at \$439.6 billion. The deficit of \$60.6 billion would be smaller by 1.2 billion than in FY 1978. Critics, however, are already estimating that the '79 deficit will be closer to \$80 billion, citing less revenue and more government spending as reasons.

The President's budget message emphasizes that there are limits to what the government can do about social problems. President Carter said that "resources are limited and that government must discipline its choice and its scope. . . ." He called the recommended expenditures "restrained," but said they nonetheless were "directed toward overcoming our nation's critical problems." Nominally, outlays for spending are up by 8 percent over FY '78, but some economists estimate that after inflation they will amount in reality to only 2 percent.

Regarding expenditures for urban programs, President Carter said in the budget message: "I view a workable urban strat-

egy as an important link in a well-articulated domestic program and essential to the recovery of the national economy. This budget includes increases for many programs benefitting urban areas and supports several efforts to improve these programs." He said that soon he would send Congress "a set of further proposals dealing with the nation's urban problems."

## Dues Deadline March 31

Mar. 31 is the new deadline for payment of annual AIA dues, the result of changes in Institute bylaws made at last year's convention. The change to move the termination date of delinquent members from Aug. 31 to Mar. 31 was made in order to prevent reinstated members from having to pay two years' dues, plus reinstatement fees. Under the previous policy, a terminated member who wanted to be reinstated had to pay current dues for that year and reinstatement fees, as well as dues in arrear. Now, such a financial burden is prevented, and the reinstated member does not have to pay the previous year's dues.

Delinquent members, who will receive a termination notice mailed on Mar. 6 as required by the bylaws, are urged to respond prior to the Mar. 31 deadline.

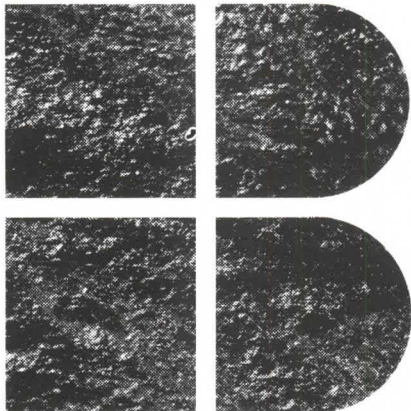
## Bibliography Compilation Offered by AIA Library

One of the services offered to AIA members by the Institute's library staff at headquarters is the compilation of bibliographies. Now the staff has prepared a bibliography of bibliographies—a cumulation of 65 listings that range from architectural humor to value engineering. Titled *Bibliographies for Architects*, the publication, in loose-leaf form for future insertions, is available for \$4 from AIA's department of publications marketing.

The cumulation is in three sections: an index by subject matter, the library's book holdings on the subjects covered and periodical articles. The books noted may be borrowed by AIA members—up to six books at a time. There is no charge for this service, but the borrower pays return shipping charges. The periodical articles bibliographies are intended to help members locate information in a local library or in the practitioner's own office. The AIA library does not lend periodicals, nor does it have photocopying facilities.

Requests for books and for bibliographies not covered in the publication should be directed to the AIA library.

Going On continued on page 116



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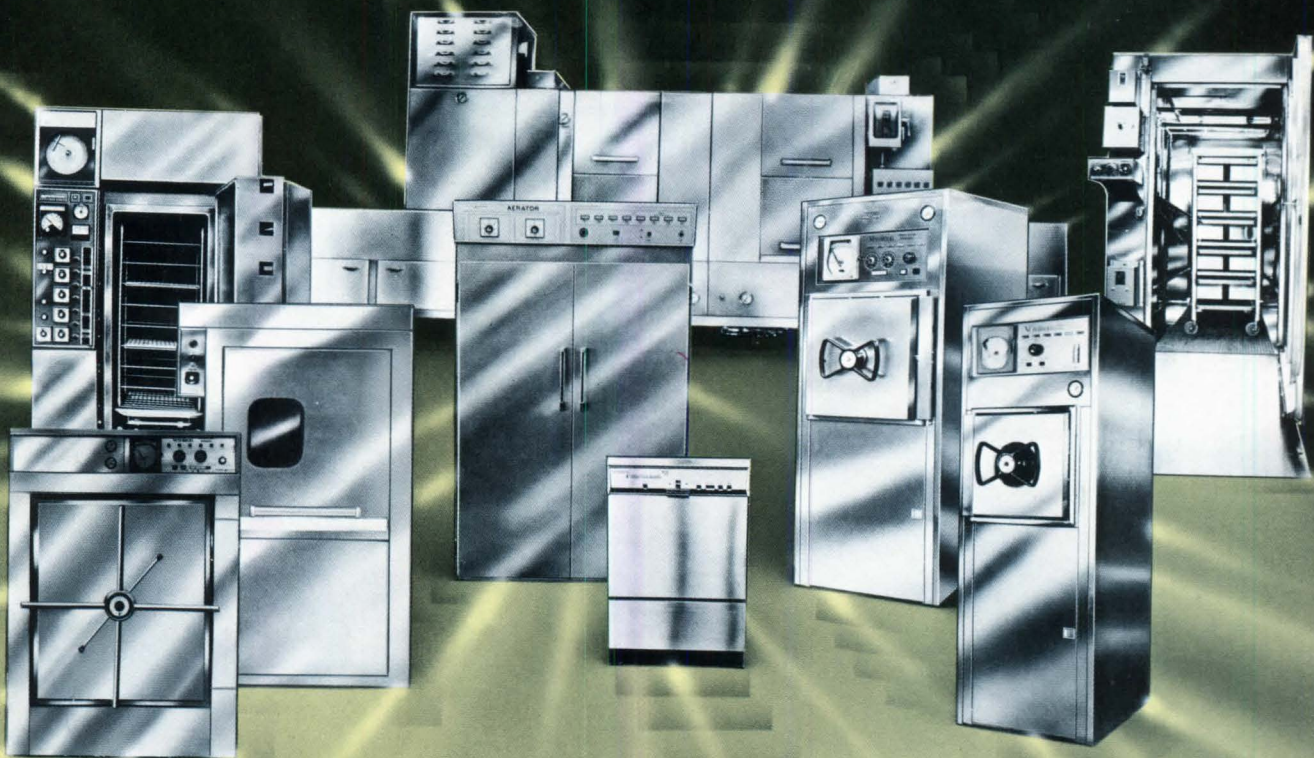
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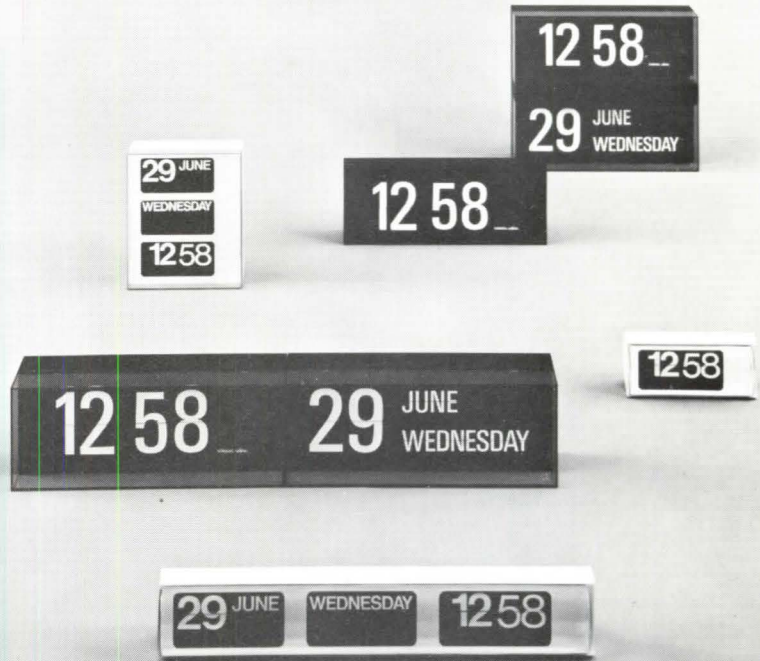
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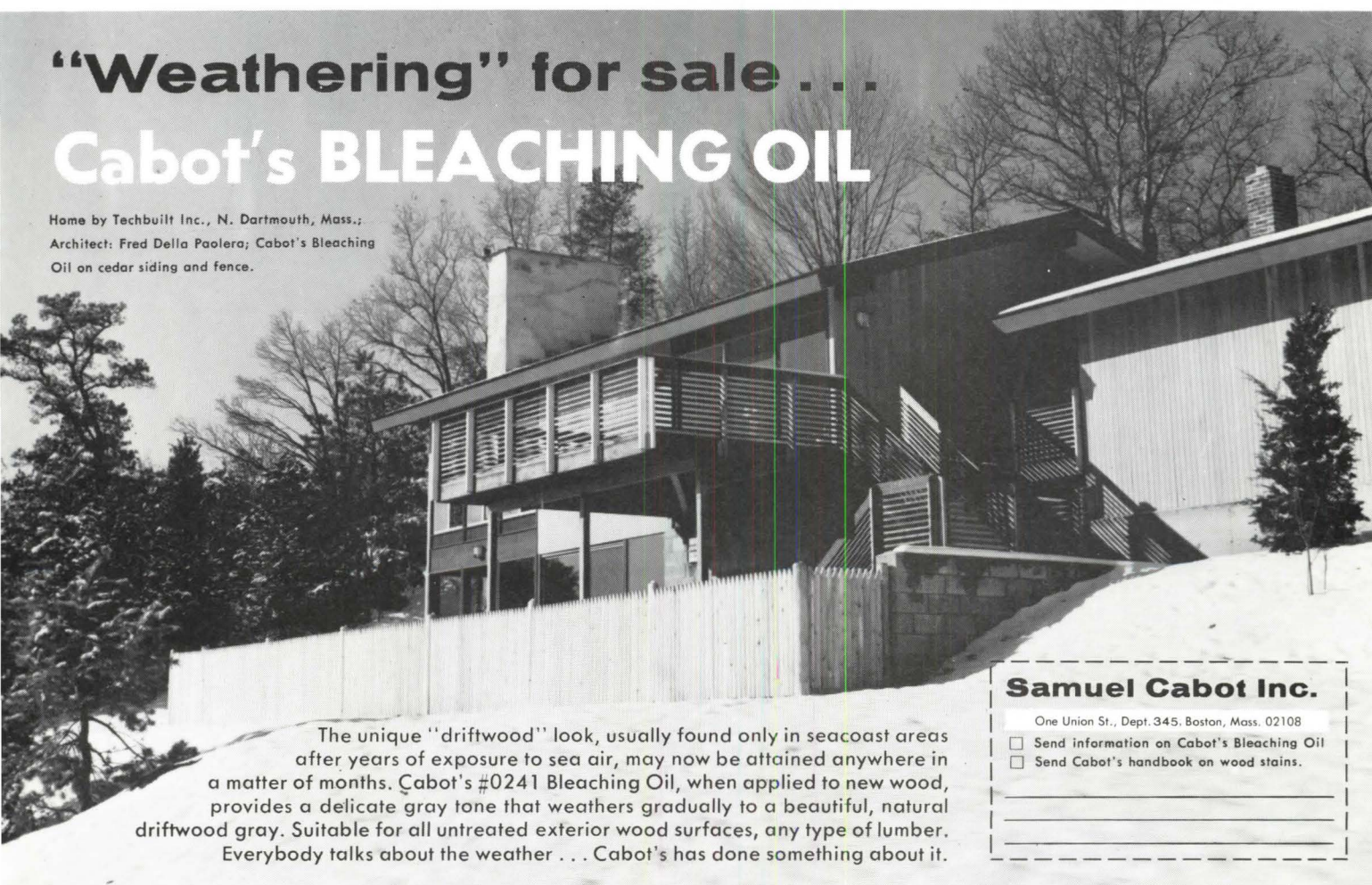
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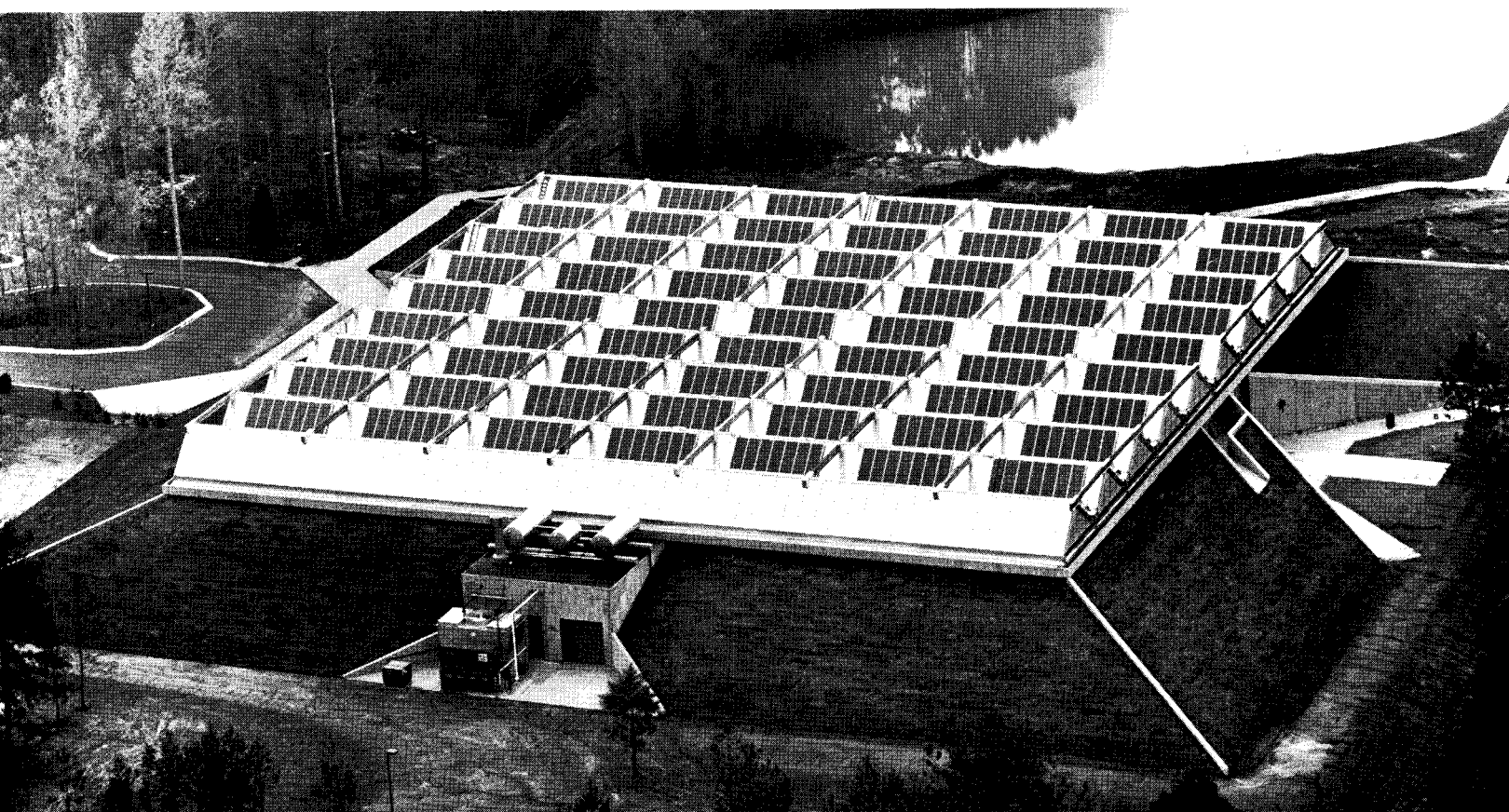
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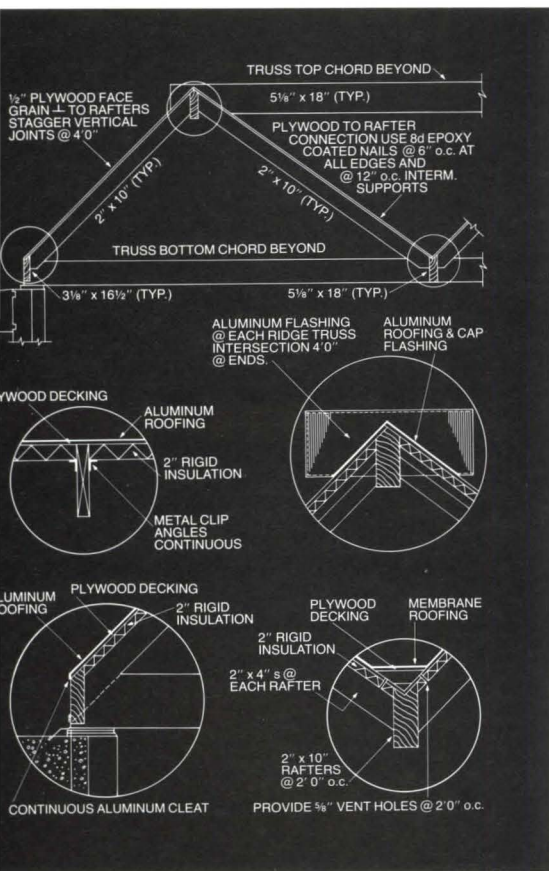
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## Plywood Design Series-2



Shenandoah Solar Recreation Center: Shenandoah Development, Inc., owner; Taylor and Collum Architects, Atlanta, Georgia.



## Solar design. The large economy size.

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The roof is a folded plate system of wood trusses and 1/2" CDX 32/16 APA grade-trademarked plywood attached to diagonal truss members and rafters at the same slope. The plywood is

sheathed with reflective aluminum, and collector panels are mounted on the south slopes.

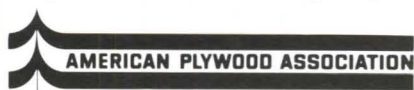
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Going On from page 110

## Quarterly's First Issue Focuses on Solar Design

Volume 1, Number 1, of *Research & Design*, a quarterly of the AIA Research Corporation, has been published. Edited by Kevin W. Green, the periodical is intended for the practicing architect and aims at "demystifying research," says John P. Eberhard, FAIA, president of AIA/RC, in an introductory "word of welcome" to the new periodical.

Eberhard reminds readers that the amount of money spent on research in this country amounts to more than \$35 billion a year. In contrast, architectural fees per year amount to less than \$2.5 billion. "The architectural community could double that income by tapping into just a fraction of the nation's research and development spending," he says, "and as we intend to show you in *Research & Design*, the potential there is clearly no small fraction."

The first issue of the quarterly concentrates on solar architecture, telling how AIA/RC "is exploring the complex matrix of energy and design and discovering that the problems of an energy crisis in the built environment can best be solved by the problem-solvers themselves—architects."

The issue also contains a profile of the nation's new Department of Energy, with suggestions on "tapping into the huge federal research and development market." Included also are news of research and innovation in design and abstracts of recently completed research projects.

Individual subscriptions are available at \$15 a year in the U.S. and possessions and \$30 a year elsewhere; single copies are \$4 each. Subscriptions may be placed with: *Research & Design*, AIA/RC, 1735 New York Ave., N.W., Washington, D.C. 20006.

## Winners Named for GSA-Type Competition

Weyerhaeuser Co., in a design study similar in some respects to those initiated by GSA for the restoration of the old post office buildings in Washington, D.C., and St. Louis (see July '77, p. 48, and Oct. '77, p. 20), has selected two firms as winners in a conceptual competition for the company's forest products export facility at Dupont, Wash.

Weyerhaeuser invited four engineering and consulting firms to submit designs after narrowing a list of 50 applicants to 10 semifinalists.

Top winner is Jaakko Poyry & Co., an engineering consulting firm in Helsinki, Finland, which will share a cash award

with the runner-up, D'Appolonia-Dravo, a joint venture from Pittsburgh. The two top winners, as well as the two other competing firms, will receive fees to cover the costs of the design study.

J. H. Weaver Jr., Weyerhaeuser's manager of construction resources and coordinator of the design study, says that major elements from the studies will be incorporated into the final design of the facility.

## Insurance Plans Merged For Institute Members

AIA has consolidated its various insurance plans for Institute members, their families and employees under a single central administrator, the Association Administrators & Consultants, Inc. (AA&C) of Irvine, Calif. In addition to administering the plans nationwide, AA&C is also charged with placing coverages with companies which in its judgment will yield the most benefit to the insured.

Under AA&C direction falls AIA's plans for accidental death and dismemberment, hospital income, major medical and disability income. In addition to these plans, AIA will be offering for the first time to architectural firms a new comprehensive employment/employee group life and medical insurance plan.

Early in 1977, the AIA benefit insurance task force, established to make a detailed review of existing member benefit insurance coverages, recommended to the board of directors that the five existing plans, then administered by five different companies, be placed under one administrator. The task force had found that the various administrators' commissions and administrative fees on gross premiums ranged from 20 to 25 percent. This, reported the task force, "is extraordinarily high for group insurance plan rates and therefore increases the cost to the consumer (AIA members and their employees)."

The board accepted the task force recommendation and various companies were interviewed before AA&C was selected. AA&C currently administers insurance programs for architects in California, Arizona and Minnesota. Before the choice was made, AA&C's "techniques, systems and physical plant" were investigated by staff and AIA insurance counsel.

William G. Wolverson, Hon. AIA, Institute assistant treasurer and controller and staff member responsible for AIA's member insurance benefit plan, says that "all cost savings will be passed on to the insured AIA members. It is to be a membership service."

The board also approved the recom-

*continued on page 123*

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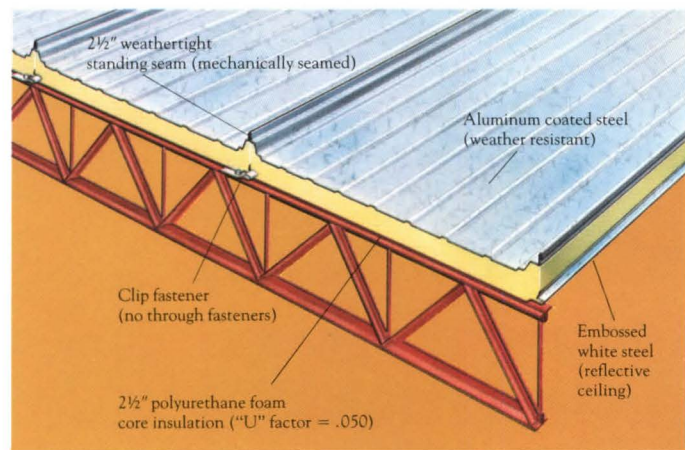
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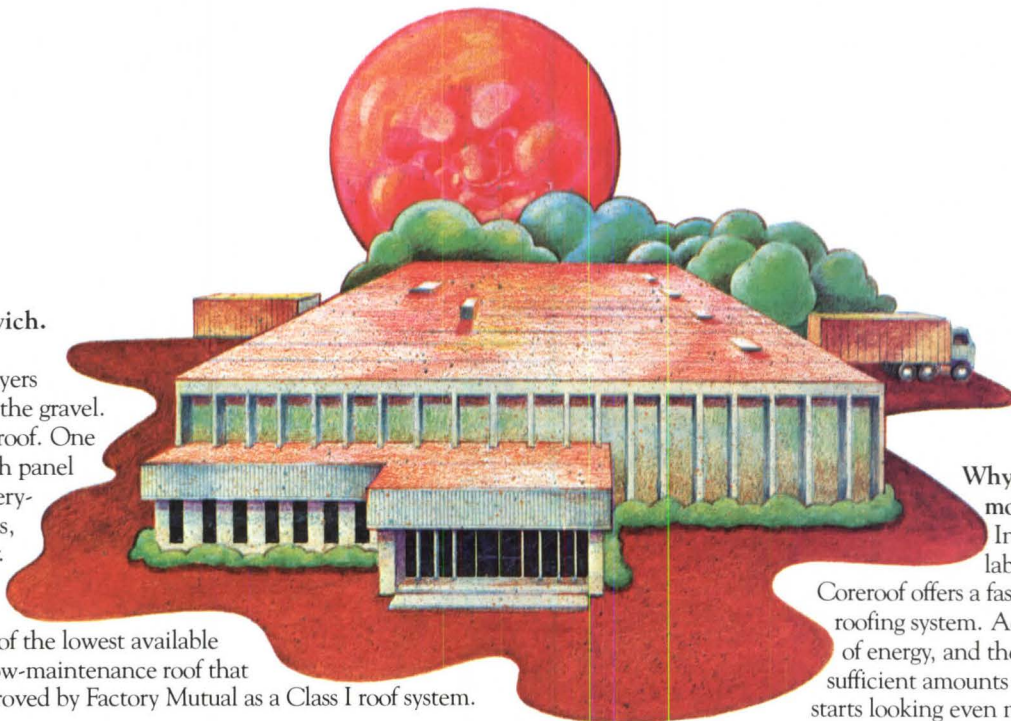


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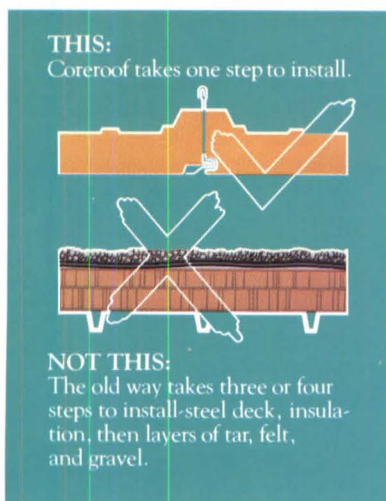
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# Tacoma's R/UDAT: Focusing Interest on a Sleepy Downtown

*Recommendations include a public plaza, an arts center, pedestrian skyways and a new system of one-way streets. By Peter McCall*

Tacoma has been described by its own citizenry as "one of the largest small towns in the country" . . . "the neglected step-child of Seattle" . . . "a city with great potential, but. . ."

Located 30 miles south of Seattle on Puget Sound and in the shadow of Washington State's awesome Mount Rainier, Tacoma has problems that go deeper than its image. Its downtown has steadily declined during the past decade as merchants and small businesses have moved to outlying shopping centers. Blocks of empty stores blemish a once vibrant commercial area.

The city of 157,000 maintains a healthy economy based primarily on the Port of Tacoma—considered one of the world's five best deep-water ports—and on military installations, aircraft and lumber. (Tacoma is still called the lumber capital of the world.) Yet, there has been a progressive weakening of its central core. A major blow came in 1972 when one of the nation's largest lumber-based firms, Weyerhaeuser, moved its headquarters from the central city to outer suburbia. In addition, three major department stores have moved to regional shopping centers and government offices were shifted to a new location. Other employers have joined the exodus.

**Mr. McCall** is editor of the *AIA Memo*.

A few private developers have invested substantial sums of money in downtown, bringing significant physical improvements. But, downtown Tacoma still looks like a "ghost town" on weekends.

Comments by Tacomans summarize problems in the downtown area:

- "It is essentially the lack of activity . . . people are not comfortable coming downtown at different hours."
- "We get to the point where we're just about ready to pass over the threshold into what I consider a great city, and then we can't seem to stand that—so we slip back."
- "The chronic problem in Tacoma is . . . the lack of imagination, or business inertia. I think that the private community has never been as progressive as we'd like to see it."
- "The philosophy of the city is that the private sector should be required to assume the leadership in economic development and that the government should stand by and assist them as required, using the various financial and other tools."

Last autumn, a R/UDAT was invited by the Southwest Washington chapter/AIA, along with the City of Tacoma, the Port of Tacoma, the Tacoma Area Chamber of Commerce and the Downtown Tacoma Association, to examine downtown problems and explore solutions.

Members of the team were: Michael

Cunningham, a New York architect and environment/urban planner; Garland S. Anderson Jr., a Houston planner and developer; Elbert Bishop, a city planner and attorney in Boston; William S. Donnell, president of a Chicago real estate and brokerage management company; Joseph G. Madonna, a public development official and lawyer from Columbus, Ohio; Peter Hasselman, AIA, a Washington, D.C., architect and urban designer; C. Todd Heglund, a Minneapolis transportation engineer, and Don Shaw, a Pittsburgh-based waterways and shipping specialist. The team was assisted by architectural students from Washington State University—Bob Asahara, Randy Benedict, Loren Cannon and Paul Franks—and from the University of Washington—Anthony Ching, Oscar del Moro and Marshall Rose.

The team arrived in Tacoma the evening of Oct. 27 for an orientation with local architects and city officials. During their intensive four-day visit, the R/UDAT members took tours of the "study area" and adjacent neighborhoods via bus, helicopter and on foot, and met with concerned citizens, community leaders and resource groups. The 95-page report, outlining the team's recommendations, was published overnight (Oct. 30) for presentation to the Tacoma City Council and the public, Oct. 31.

After working around the clock and assimilating an overwhelming amount of facts, the R/UDAT made recommendations for:

- A public plaza on the northeast corner of the existing pedestrian mall (Broadway Plaza);
- A cultural and art center near Broadway;
- A streetscape and green space plan;
- A new downtown hotel adjacent to the Bicentennial Pavilion (city auditorium);
- Marina facilities;
- A pedestrian skyway system in the financial district;





- New parking facilities in the old city hall area;
- A system of one-way streets;
- Stabilization of residential districts through new moderate-income housing and neighborhood economic development;
- Conversion of Union Station into a major transportation center (rail, bus, local transit and water).

The report proposes to upgrade the nearby residential district by making it part of the downtown planning process. It also focuses on transportation and parking systems, the financial district, the port and waterway.

The comprehensive development plan addresses the needs, strategies and objectives of the "study area"—from Sixth Avenue South to 23rd Street. It is designed to maximize tax returns to the city, generate employment opportunities, develop vacant land for the "highest and best use" and redevelop adjacent neighborhoods.

The team cited the attitude of Tacoma's leadership as one of the major obstacles "to turning the downtown around." Its report says: "Few business leaders appear to appreciate the social and economic significance of a viable city center; most consider it one of many parts of the city. They see no more reason to promote it than to promote the city's other commercial areas."

"Tacoma's problem is not the lack of competent leaders; it is a lack of institutions that have massive stakes in the downtown, or even in Tacoma as a whole," reports R/UDAT.

"Finally, and perhaps most important, the city has something of a power vacuum," which further complicates downtown revitalization.

Says a Tacoma architect: "The R/UDAT report may have upset some of the business leaders, but it certainly generated a lot of interest in downtown again."

"R/UDAT has been an excellent experience for Tacoma," comments the city's architect-Mayor Gordon Johnston, AIA. "It has stimulated significant interest in a cross section of the city. People have been calling my office expressing a desire to be involved in implementation of R/UDAT's proposals." The city council is planning a session to determine the city's role, and the chamber of commerce is seeking to assume a leadership role.

Local R/UDAT coordinators Robert Jones, AIA, and Arthur Forbes, AIA point out that "the visiting team of experts can only fix the starting point for the future continuing effort for the community. The team has furnished the know-how, suggestions and insights. . . . However, the people within our community must organize the program and implement it with perseverance." □

## A vision of 'people of taste and cultivation re-creating in space the beauty spots of the earth.'

*Space from page 71*

than centralization, (3) reduce the scale of institutions and systems to more human size and (4) have a useful lifetime of development of several hundred years.

He also proposes five goals for humanity, and lays out three requirements for meeting these goals. Clearly, the intent is to show that only space settlements can meet the three requirements that lead to the achievement of the five goals while conforming with the guiding principles. But the general framework gets lost in the specifics of the individual models and the fictionalized accounts of space dwellers. It is not at all clear that the specific examples satisfy the guiding principles.

O'Neill's description of life in space seems to assume that the settlers are white-collar professionals with the tastes and expectations of that group. Entertainments proposed are those "we would expect in a small, wealthy resort community on earth: good restaurants, cinemas, libraries, perhaps small discotheques." There is reference to ballet and a gentle speculation about surfing in a later model. There is a short description of a community of 10,000 with a balance of teachers, students, doctors and other workers.

As depicted by O'Neill, they are largely people of taste and cultivation re-creating in space the beauty spots of earth. Yet O'Neill describes their economics as those of small communities producing a very limited variety of heavy goods. Refining, metal forming and construction are the major jobs. Because of the need to produce saleable goods to pay a return on the investment required to build the communities, the pressure will be strong to concentrate on goods for export. Most other goods will be imported from earth. There will be a continuing problem of a trade balance.

The word "colony" has been expunged from official discussions about living in space. The State Department has seen to it that the federal government view the word with "extreme prejudice" out of deference to the sensibilities of the developing nations. A realistic account, however, should recognize that these communities are very much colonies. The economics of space push very hard toward a kind of plantation organization, a mercantile mentality. The effects of this mentality can be muted by self-conscious awareness of the dangers of the attitude, but the realities of the situation cannot be completely overcome. Earth dwellers will look to space dwellers to provide a return on

investment, while space dwellers will look to earth for their very existence for many years after settlement begins.

And who will go? Who has gone in the past? Not so very many of the established professionals. Life on a new frontier is always difficult. It is lonely; it is dissociated from all that is familiar. The malcontents will go; the dispossessed will go; those who have little to lose and anything to gain will go. Some idealists and some adventurers will go. But most of us will stay home.

For those who go it will not be a particularly nice place. Like the settlement of British colonies in North America, it will offer a hard life. It will be settled by those for whom life on earth is desperate either economically or ideologically. Only after several generations, when things become relatively well organized, will space colonies attract really enormous numbers of immigrants such as flowed into the U.S. toward the end of the 19th century.

Two other of O'Neill's four guiding principles call for fostering decentralization and for a more human scale of institutions and systems. It is true that a space city of 10,000 is smaller than most cities on earth. But to view that smallness as fulfillment of the guiding principles is naive. Such a city will be part of an enormous system at first, connected to earth by links almost surely bureaucratic in nature and distantly removed from the colony. There is confusion here about what constitutes a system—a system should be a collection of institutions and technology that affects and controls the lives of colonists.

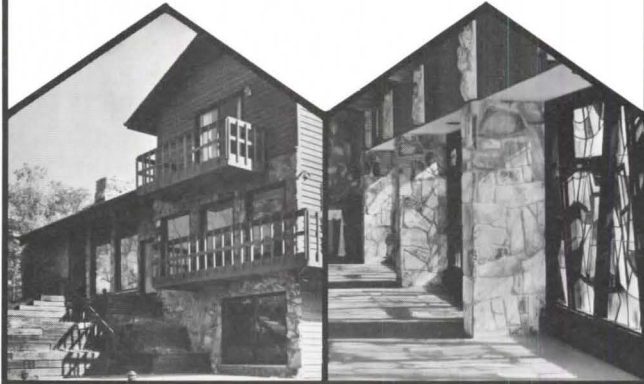
From that point of view there is very little that is human scale in space colonization. It is not a hardy individual with a double-bladed ax hewing out a clearing in the wilderness. It is a group of people in an exceedingly hostile environment very much dependent upon their complex machinery and upon their home planet for essential technology and supplies.

It may come to pass that the colonists will achieve independence after a hundred or so years, as the U.S. did from Britain. The independence may even be economic as well as political. On the time scale proposed by the fourth guiding principle, that may be a satisfactory outcome, but it will be irrelevant to the first three generations or so of space dwellers.

There is also a certain naiveté in O'Neill's arguments about population growth. Space will take only a small part of earth's surplus population just as America has taken only a small part of the surplus population of the world. That small part established in outer space and supplemented by a steady emigration from earth will then populate space. We will be like bacteria in a culture, infecting

*continued on page 120*

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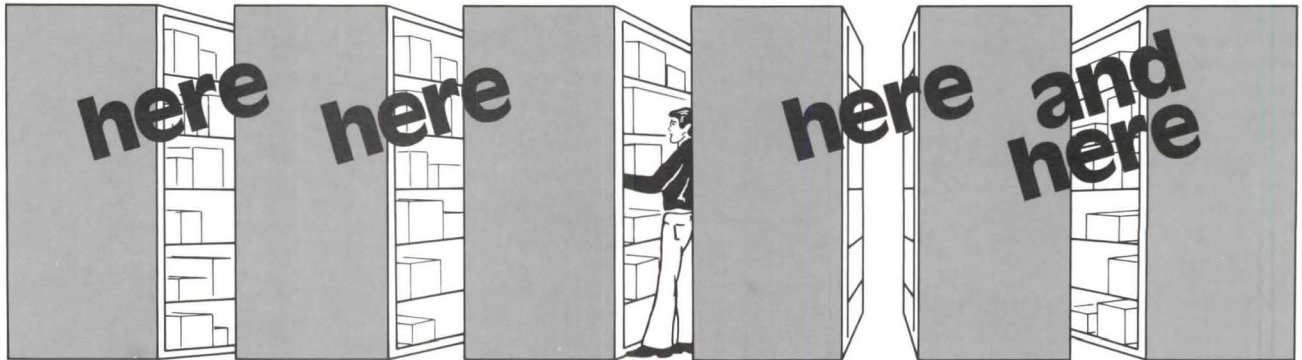
Space from page 119

adjacent cultures. We will send over a few spores and from them grow entire new populations. Because colonization does not occur by massive population transfer, it is silly to exclude the possibility of setting up habitations on the planets or on the moon on the grounds that they would be too soon overpopulated. It will take several hundred years to populate the moon or any other planet at rates of population transfer that are at all likely.

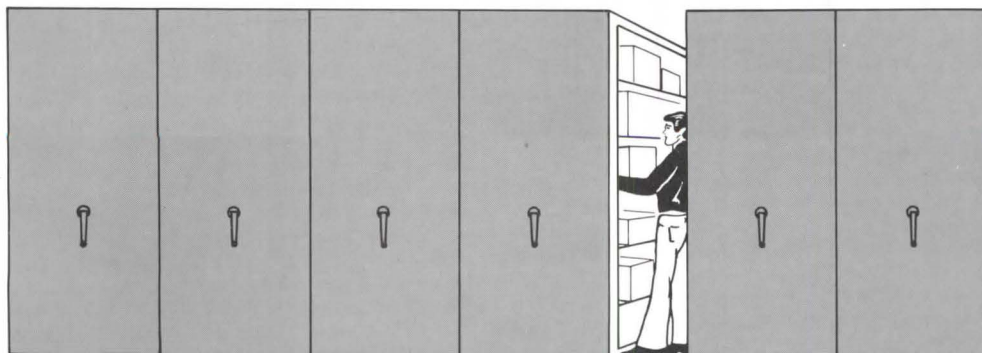
O'Neill sees life in space as pleasant and benign. It may become so some day, but it will be a day so far in the future that it does not deserve more than passing discussion now. More attention needs to be given to demographic and socio-economic realities of colonization.

I may disagree with some aspects of O'Neill's description of life in space; some of it is too good to be true—but I too want to go forward into space. I believe with O'Neill that the salvation of humanity is there. We need energy and material resources. But most of all we need that frontier. I think that frontier is as important to the people who stay behind as to those who go. It offers hope and stimulates openness to change; it is a psychic valve as well as a physical one. We must as a nation and as mankind together pursue the idea and the dream O'Neill has set before us. □

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mendation of the task force to form a board of insurance trustees. The board is to be comprised of a component executive, an AIA staff executive and five other individuals appointed by the AIA executive committee. The insurance trustees will work closely with AA&C in an effort to bring to AIA members "a good and affordable insurance package," says the task force.

Inquiries regarding insurance plans may be directed to Wolverton at Institute headquarters or to AA&C, 18872 MacArthur Boulevard, Irvine, Calif. 92715. Collect telephone calls may be placed to the latter at (714) 833-0673.

## HABS Drawings Offered

The complete collection of 34,000 measured drawings in the Historic American Buildings Survey has been microfilmed and is now available for purchase. Included are all the drawings made of selected, historical structures in the 50 states, Puerto Rico, the Virgin Islands and the Canal Zone that were prepared under the auspices of the National Park Service (NPS) and transmitted to the Library of Congress (LC) between 1933 and 1976.

The complete microfilm edition consists of 66 reels of 35mm, silver halide, safety base microfilm; the purchase price is \$690, including postage. A complete set of electrostatic prints, reduced to a size convenient for filing, may be purchased for \$3,975.

Either microfilm or electrostatic print copies of individual state collections may also be bought. Prices vary from \$9.50 for the microfilm and \$13.50 for the prints for Alaska to \$14.50 for the microfilm and \$147 for the prints for New York. Inquiries about prices may be directed to: Prints and Photographs Division, Library of Congress, Washington, D.C. 20540.

The first major step taken to compile a graphic record of the nation's historic buildings was undertaken in 1933 when the NPS employed architects, draftsmen and photographers under federal relief programs. In 1934, the NPS entered into an agreement with AIA and LC to conduct the survey on a permanent basis.

## May 3 Sun Day Events Planned Across Country

A nationwide "Sun Day" is planned for May 3 in thousands of communities across the country. The day will "lead the U.S. into the solar era," say the event's planners, a coalition of environmentalists, educators, labor leaders, consumer group representatives and others.

The day will begin with a sunrise celebration at the place where the sun first hits the U.S.—Cadillac Mountain in Maine. Later, New Yorkers will join in a sunrise concert at the United Nations. "We expect that communities across the country will create their own ingenious events to celebrate the sun," say Peter Harnik and Richard Munson, Sun Day coordinators. Citizen groups in Boston and in Atlanta, for example, are planning solar fairs; people in Montana are organizing a traveling energy road show, and Californians will have dozens of happenings, including an exhibition of paintings of the sun. Thousands of schools and universities, will organize teach-ins.

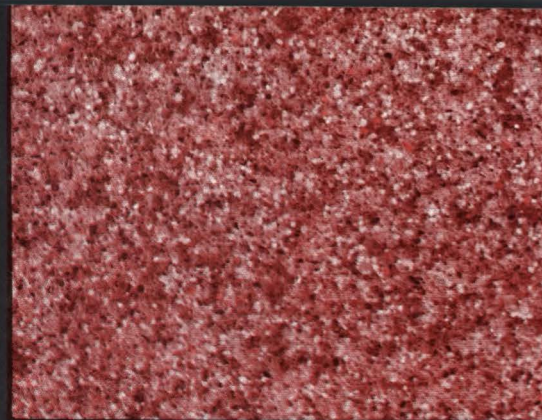
"Solar energy is technically feasible and economically sound right now," says Denis Hayes, chairman of the Worldwatch Institute and of the Sun Day board of directors. "To begin the transition to a solar era, we need only an educated market and an organized political constituency."

"The Sun Day coalition represents a powerful new political force," says Harnik. "Its members have a wide variety of interests in solar development. Solar technologies, for example, provide safe, secure jobs for labor unions; reduce energy bills for consumers and farmers; create energy self-sufficiency for community groups; reduce pollution and resource exploitation for environmentalists, and eliminate the reliance on centralized power sources that concern civil libertarians."

## Deaths

**Clark R. Ackley**, Lansing, Mich.  
**Preston Andrade**, New Delhi, India  
**Harry Barrett**, Washington, D.C.  
**Victor J. Basso**, Detroit  
**Harry B. Brainerd**, New York City  
**Daniel B. Bridges**, Marietta, Ga.  
**Thomas V. Craycroft**, Baltimore  
**Henry Davis III**, Bala Cynwyd, Pa.  
**John A. d'Epagnier**, Silver Spring, Md.  
**C. W. Doll**, St. Petersburg, Fla.  
**Lucien E. D. Gaudreau**, Baltimore  
**Truman F. Goyt**, Lansing, Mich.  
**Warren C. Howard**, Warren, Ohio  
**Eric T. Huddleston, FAIA**, Lancaster, N.H.  
**Gilbert A. Johnson**, Rockford, Ill.  
**Michael Keenan**, Phoenix  
**Christopher J. King**, Vermontville, Mich.  
**Carl Kressbach**, Jackson, Mich.  
**John W. Little**, Clearwater, Fla.  
**Alvin R. Moore**, Key West, Fla.  
**Humphrey Nolan**, Charlottesville, Va.  
**Edward W. Olson**, Parkridge, Ill.  
**Alice S. Pardee**, Pontiac, Mich.  
**Maurice J. Patlen**, Silver Spring, Md.  
**Charles A. Popkin**, Albuquerque, N.M.  
**George M. Rasque**, Spokane, Wash.

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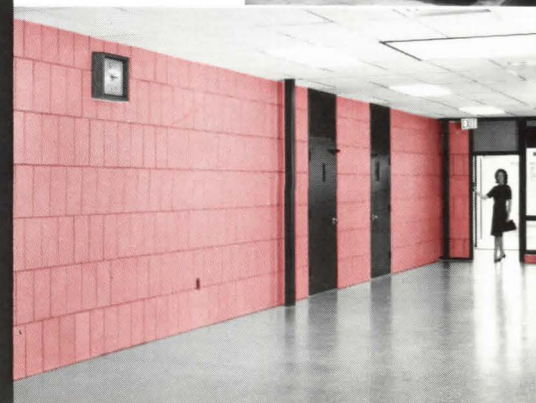


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**John B. Reschke**, Middle Village, N.Y.  
**Alexander Richter**, Garrett Park, Md.  
**Marvin S. Stephenson**, Whitewater, Wis.  
**Peter S. Vanbloem**, Sea Cliff, N.Y.  
**Charles V. Wayland**, Boise, Idaho  
**Walter Thomas Williams**, Hawthorne, N.J.  
**Harold N. Wolfard**, Berkeley, Calif.

**Sidney L. Katz, FAIA:** For 25 years, until 1973, Mr. Katz taught architecture at Pratt Institute, then becoming dean of the graduate school of architecture, a position he held at the time of his death on January 26 at the age of 63. He was a member of the New York City-based firm of Katz, Waisman, Weber. He was the chief designer of the new Bellevue Hospital in Manhattan and of the Coney Island Hos-

pital in Brooklyn. He received an award from the Long Island chapter/AIA for the design of the Jewish Institute for Geriatric Care in New Hyde Park, L.I.

Mr. Katz, who at one time was president of the National Institute for Architecture in New York City, earned bachelor's and master's degrees in architecture from New York University. After graduation, he worked for several firms before establishing his own firm in 1945. He was one of the designers of the General Motors building at the 1939 World's Fair.

In addition to practicing with his wife Taina Waisman, AIA, Mr. Katz worked with his daughters, interior designer Sirkka Katz Hoffman and architect Liisa Katz Sclare, and with his son-in-law, architect Donald Eliot Sclare, all associated with the firm.

## Newslines

**Gruzen & Partners**, headquartered in New York City, has won the 1978 Walter Taylor award for school architecture given by the American Association of School Administrators. The jury cited the Murry Bergstraum High School for Business Careers in Manhattan as a "bold, handsome structure that reflects outstanding credit to the architectural profession."

**"Neighbors: Conservation in a Changing Community"** is the title of a color film documentary available on free loan through September. Prepared by the Conservation Foundation, it explores the experiences of residents of Boston's South End, once an urban renewal area and now committed to urban conservation. For booking information, write: "Neighbors," Suite 107, 1815 N. Fort Myer Drive, Arlington, Va. 22209.

**President Carter has appointed Richard H. Jenrette** chairman of the Advisory Council on Historic Preservation. Jenrette is chairman of the board and chief executive officer of Donaldson, Lufkin & Jenrette, Inc., of New York City. A former trustee of the National Trust for Historic Preservation, he has been active in the restoration of a number of historic structures.

**E. James Gambaro, FAIA**, of New York City has been elected second vice president of the National Sculpture Society. He is a past president of the Brooklyn chapter/AIA.

The sixth edition of **"Architectural Graphic Standards"** by Ramsey and Sleeper (1970, \$47.25) may be considered a best seller. John Wiley & Sons, the publisher, reports that more than 150,000 copies have been sold. A new edition is now in preparation.

**President Giscard d'Estaing of France** met with more than a thousand French architects to discuss the fundamental importance he attaches to architecture, says the *UIA Bulletin* of Jan. 1978. "He is therefore one of the few heads of state to have publicly taken such a position on this matter," says the newsletter, which is published by the International Union of Architects.

The 1978 **Arnold W. Brunner fellowship** awarded by the New York chapter/AIA is open to any U.S. citizen engaged in the profession of architecture or its related fields "who has a professional background more advanced than is implied by four or five years of training." Proposals for the \$7,500 grant for advanced study must be submitted by April 3. Details

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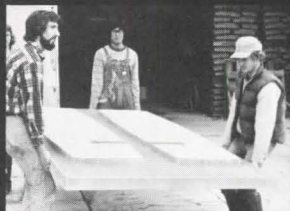
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### Newsletters from 124

may be obtained from: New York Chapter/AIA, 20 W. 40th St., New York, N.Y. 10018, (212) 730-1221.

**Charles M. Sappenfield, FAIA**, dean of Ball State University's college of architecture and planning, has been elected chairman of the board of the Indiana Architectural Foundation. The organization promotes environmental education for professionals and the public.

**Joseph A. Wilkes, FAIA**, of Washington, D.C., has been elected president of the National Center for a Barrier Free Environment. He is also liaison to AIA for the National Easter Seal Society's professional advisory council. The NCBFA was established in 1974 to coordinate the drive to make America free of physical barriers that restrict the mobility of disabled people.

**A director of planning** is wanted by the Tulsa (Okla.) Metropolitan Area Planning Commission. The position, open on April 1, pays \$23,500 to \$33,000. A master's degree in urban planning and 10 years experience or combination are required. Inquire: Dr. Norman Hyne, TMAPC, 200 Civic Center, Tulsa, Okla. 74103.

**Robert Bliss, FAIA**, dean of the University of Utah's graduate school of architecture, is helping complete the curriculum for a new college of architecture and planning at Kuwait University. He has been responsible for programming, curriculum development and recruitment of a core faculty.

**Petroleum imports** for the four weeks ending Dec. 30, 1977, averaged eight million barrels per day, 4.5 percent below the 1976 level, 24.8 percent above 1975 and 31.7 percent above 1973, says the Department of Energy. Domestic demand for all petroleum products during the period averaged 19.5 million barrels per day—4.9 percent less than the level for the same period in 1976, 8.8 percent above the 1975 level and 11 percent above the 1973 level. Demand for gasoline for cars was 0.9 percent above the demand in 1976 and 10.2 percent above 1973.

**"Passive Energy Design Concepts"** is the title of a 76-page booklet available free from the National Solar Heating and Cooling Information Center. It details passive solar design ideas which grew out of a recent study by Rensselaer Polytechnic Institute and is extracted from a larger study performed by RPI for the

New York state energy research & development authority. The center's toll free number may be used for receiving data on the latest testing and standards information, technical reports on HUD's residential solar demonstration program projects and other information. To order the booklet or to tap the center's data resources, interested architects may call (800) 523-2929; in Pennsylvania, call (800) 426-4983, or write: Solar Heating, Box 1607, Rockville, Md. 20850.

**"Guidelines for Rehabilitating Old Buildings"** is a booklet available from HUD which offers principles to consider when planning rehabilitation and new construction projects in older neighborhoods. Also available is a leaflet on "Historic Preservation Loans" which describes the program implemented by HUD in Oct. '77. For copies, write HUD, Washington, D.C. 20410.

**G. Thomas Eatman, AIA**, vice president of Robert & Associates in Atlanta, is the 1977 recipient of the Ivan Allen trophy given each year to a member of the Atlanta chapter/AIA. The award, established in 1957 by the city's business and civic leader Ivan Allen Sr., recognizes and encourages greater civic participation by members of the architectural profession. □

## Spring/Summer 1978

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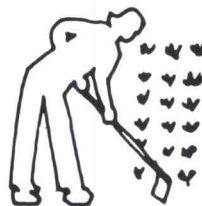
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