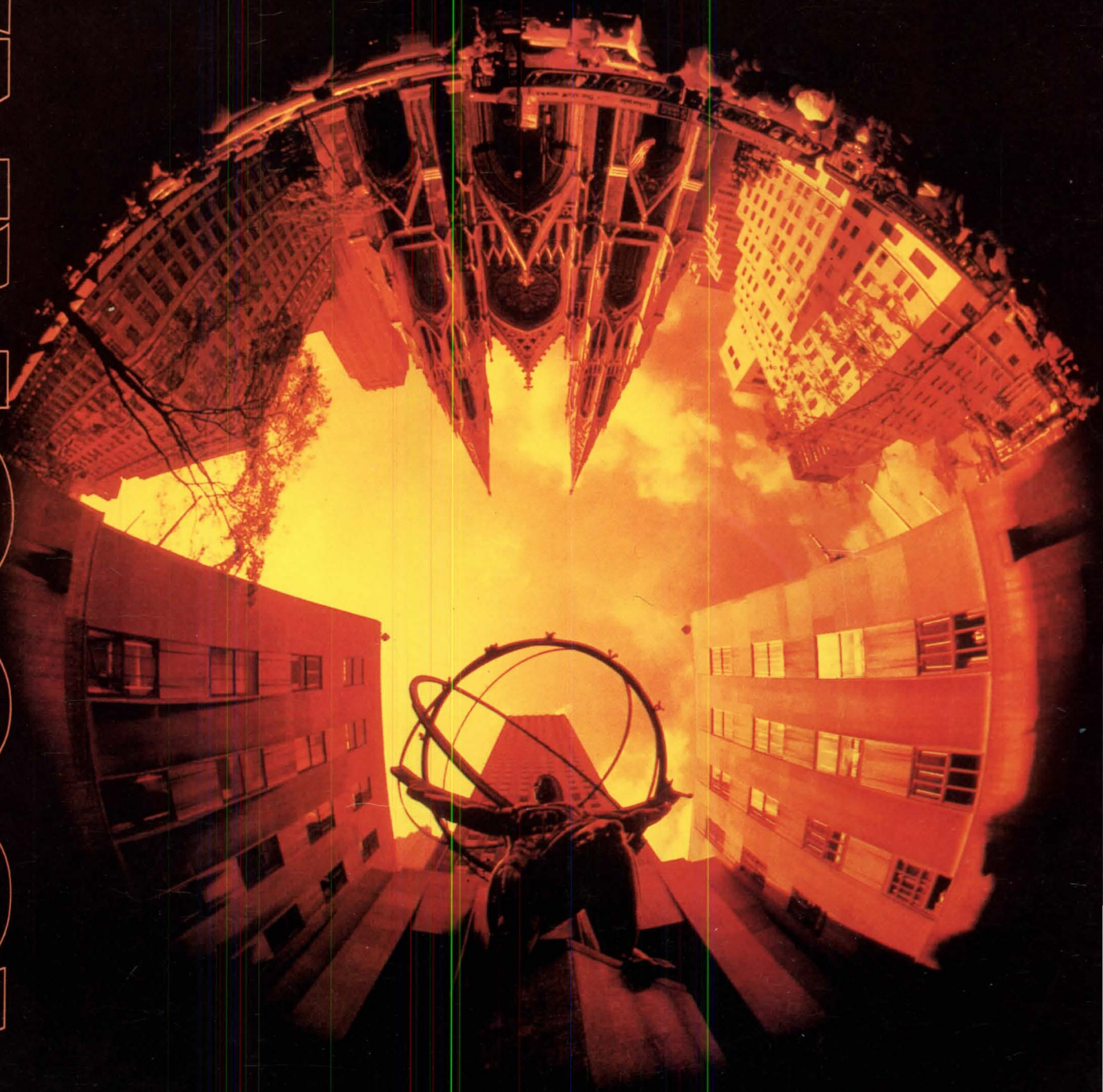


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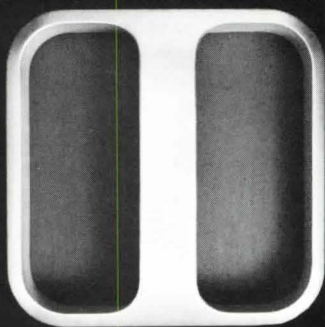
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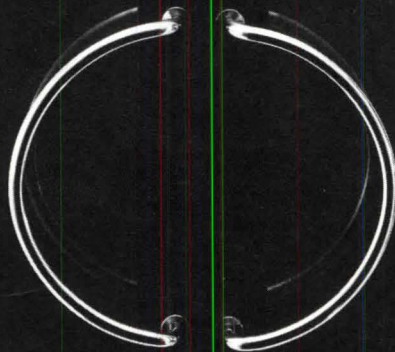


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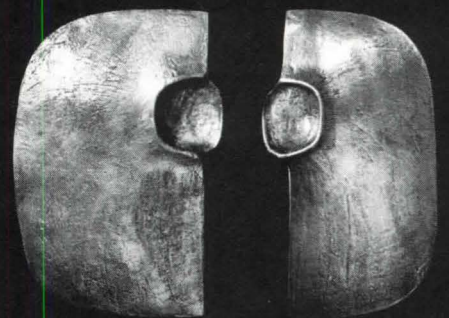
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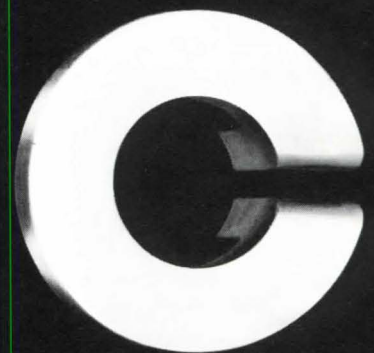
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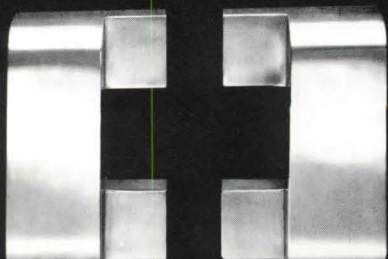
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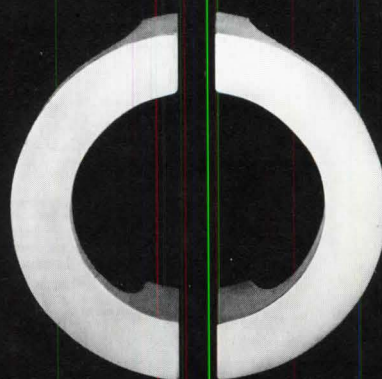
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## EVENTS

**Sept. 28-29:** Workshop on Visual Communications in Architecture, instructor, Julius Shulman. Iowa State University, Ames.

**Oct. 2-4:** Central Regional AIA Conference, Oklahoma City.

**Oct. 2-4:** International Conference on Alternatives to Growth '77, The Woodlands, Tex. Contact: Jon Conlon, Mitchell Energy & Development Corp., 3900 One Shell Plaza, Houston, Tex. 77002.

**Oct. 3-14:** International seminar on Habitat and Energy, Ottawa, Canada. Contact: ECE Seminar, Tower B, 5th Floor, 355 River Road, Ottawa, K1A 0P6, Canada.

**Oct. 4-5:** Architects in Industry annual seminar, AIA Headquarters, Washington, D.C. Contact: Fred Marks, Institute Professional Interests Program, (202) 785-7366.

**Oct. 7-9:** Arizona Society of Architects annual conference, Doubletree Inn, Scottsdale Mall, Scottsdale, Ariz.

**Oct. 8-12:** American Institute of Planners annual conference, Kansas City, Mo. Contact: AIP, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

**Oct. 10-12:** Producers' Council annual conference, Williamsburg, Va. Contact: PC, 1717 Massachusetts Ave. N.W., Washington, D.C. 20036.

**Oct. 12-14:** North Dakota chapter/AIA annual convention, Grand Forks, N.D.

**Oct. 12-14:** Seminar on Solar Energy for Domestic Heating and Airconditioning, Houston, sponsored by New York University's school of continuing education (repeat seminar, Dec. 12-14, Los Angeles). Contact: New York Management Center, 360 Lexington Ave., New York, N.Y. 10017.

**Oct. 12-16:** National Trust for Historic Preservation annual meeting, Mobile, Ala. Contact: NTHP, 740-748 Jackson Place N.W., Washington, D.C. 20006.

**Oct. 14-15:** New Mexico Society of Architects annual convention, Albuquerque Inn/Convention Center, Albuquerque, N.M.

**Oct. 17-19:** National Conference on Noise Control Engineering, Sheraton-Coliseum Inn, Hampton, Va. Contact: Noise-Con 77, P.O. Box 3469, Arlington Branch, Poughkeepsie, N.Y. 12603.

**Oct. 17-21:** American Society of Civil Engineers annual convention, Hyatt Regency Hotel, San Francisco. Contact: ASCE, 345 E. 47th St., New York, N.Y. 10017.

**Oct. 19-21:** Texas Society of Architects annual meeting, El Paso Holiday Inn Downtown, El Paso, Tex.

**Oct. 19-22:** Gulf States Regional AIA Conference, Hyatt House, Birmingham, Ala.

**Oct. 21-23:** New England Regional AIA Conference, Seamens Inne, Mystic Sea-

port, Conn.

**Oct. 24-28:** International Conference on Energy Use Management, Tucson. Contact: CEUM, P.O. Box 64369, Los Angeles, Calif. 90064.

**Oct. 26-28:** Illinois Council/AIA annual meeting, Sheraton-Chicago Hotel, Chicago.

**Oct. 27-29:** New Jersey Society of Architects annual convention, Playboy Resort and Country Club, Great Gorge, N.J.

**Oct. 31:** Deadline for submission of entries, AIA 1978 honor awards program. Contact: Maria Murray, AIA Headquarters, (202) 785-7390.

**Nov. 1-3:** Building & Construction Exposition & Conference, sponsored by the Producers' Council, McCormick Place, Chicago. Contact: PC, 1717 Massachusetts Ave. N.W., Washington, D.C. 20036.

**Nov. 3-4:** Construction Contracts and Specifications Institute, University of Wisconsin, Madison, Wis.

**Nov. 3-6:** Georgia Association/AIA annual convention, Stouffer's Pine Isle on Lake Lanier, Buford, Ga.

**Nov. 4:** Conference on Planning Arts Centers, sponsored by AIA committee on architecture for art and recreation and the Associated Councils of the Arts, Cincinnati. Contact: Harold Glover, AIA Headquarters, (202) 785-7229.

**Nov. 15:** Entries deadline, Concrete Reinforcing Steel Institute design awards program. Contact: CRSI, 180 N. LaSalle St., Chicago, Ill. 60601.

**May 21-24, 1978:** AIA annual convention, Dallas.

## LETTERS

**Railroad Architecture in Savannah:** I read the news story in the "Going On" section of the June issue concerning the proposed federal building to be renovated in Savannah, Ga., under the Public Buildings Cooperative Use Act, signed into law in Oct. 1976.

My firm is currently providing services to Savannah on the site that is adjacent to the proposed office building, for the renovation of several architecturally significant railroad shop buildings that were constructed during the period from 1860 to 1900. These buildings are the last remaining examples of railroad shop architecture to be found in America.

This development will be closely coordinated with the federal renovation program, if it takes place in Savannah. The restoration project in which we are involved is intended to provide a permanent base for cultural groups in the area, as well as a permanent home for local craftsmen to work and display their products. Along with these projects, in the existing railroad roundhouse a visitor orientation

center will be set up which will depict the battle of Savannah, which was fought on the site of the railroad buildings on Oct. 9, 1779.

At this time, the city has appropriated \$250,000 for initial restoration of the building structures system, and is anticipating an amount exceeding \$2 million to provide permanent restoration to the buildings to commemorate the bicentennial celebration of the battle of Savannah on Oct. 9, 1979. *J. Paul Hansen, AIA Savannah, Ga.*

**Honor Awards:** I was shocked and dismayed to read in the May issue (p. 37) that the John Hancock Tower in Boston, designed by I. M. Pei & Partners, had been given an AIA honor award. It is indeed a handsome structure and relates well to its site, but with all of its problems, most of which are public knowledge, and the very fact that legal suits are in process, makes me question the validity of an AIA honor award.

As we are all aware, the architectural profession is in jeopardy, due in part to the inability to adapt to a changing sense of values in the industry. Architects have always been masters in the creation of monuments, but today's clients require more than that. The savvy client looks to the architect for an efficient, functional structure produced with a total knowledge of all systems.

To award this building with what most architects consider to be one of the highest honors achievable in the field of architecture is just one more piece of ammunition for the already suspicious and generally disgruntled potential client.

*James M. Murrey, AIA Philadelphia*

**The Slope of Tennis Courts:** Several members of the U.S. Tennis Court and Track Builders Association have brought to our attention that on page 61 of *The Architectural Graphic Standards*, the slope of a tennis court is in error. Tennis courts should *never* slope from the net.

The guide specifications published by the U.S. Tennis Court and Track Builders Association describe the slope as: "All excavating, filling, compacting, grading and leveling work required hereunder shall be performed so that the finished court surface slopes one inch (1") in each 20 feet (20') on a true plane from side to side, end to end, or corner to corner for previous construction."

For impervious construction, the slope is one inch (1") in each 10 feet (10') on a true plane from side to side, end to end, or corner to corner. *Carl A. Wangman*

*Executive Secretary  
U.S. Tennis Court and Track Builders  
Association, Glenview, Ill.  
Letters continued on page 90*



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AI-9

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## New York State Board Votes to Permit Advertising by Architects and Others

Beginning Oct. 1, architects and other professionals in New York State will be permitted by the official licensing board to advertise their services and fees in the print media. They may also advertise on radio and television, but such information may not include notations of fees, because the possibility of abuse "seemed to be greater in the electronic media than in the printed media."

Although New York is the first state to have permitted such advertising freedom for professionals, other architectural registration boards are said to be considering the issue.

At its meeting late this month, AIA's board of directors will consider the matter of advertising under the Institute's new code of professional conduct adopted at the 1977 convention.

The New York State Board of Regents, which regulates the licensing of all professionals except lawyers and clergymen, voted unanimously in its action. The board, which had been considering new professional conduct guidelines for more than two years, had initially proposed to permit advertisement of fees only in professional directories. However, in the wake of the recent Supreme Court decision which ruled that a complete ban on advertising by lawyers of services and fees is unconstitutional (*see Aug.*, p. 8), the board extended its ruling to permit advertisement of fees for "specified, routine services." It went one step beyond the Supreme Court, which ruled only on advertising in the print media, to allow advertisement of services on radio and television.

The New York State Association of Architects presented briefs at the board's hearings on the issue. Albert Efron, AIA, president of NYSAA, testified that the same rules of professional conduct should bind state and professional societies. "The state board, however, said that this was

not in the public interest," Efron says. "The state board's ruling puts AIA members in the middle between state law and professional ethics," Efron says, "and it also places AIA members at a disadvantage with architects who are nonmembers."

Peter Samton, FAIA, president of the New York chapter/AIA, says, "New York architects now have an obvious choice between AIA's code and New York State's. The result is that architects in our state will be forced to decide for themselves what to do, and AIA may eventually lose out either through membership attrition or through having its code of ethics ignored. We tried to wish the issue away at the convention, but it is still there."

The New York ruling has been attacked by the medical profession. Dr. Joseph G. Zimring, chairman of the state medical society's ethics committee, says that "no decent, honest doctor would advertise." He predicts that less than 5 percent of the doctors in the state will take advantage of the board's ruling, either on the advertisement of services or of fees.

### ABA Lists Types of Items Allowed in Advertisements

During its recent convention in Chicago, the American Bar Association's house of delegates voted to adopt guidelines for lawyers in advertising their services to the public. The new code, endorsed by ABA's board of governors, lists specific items that lawyers may include in advertising.

Permitted are the following: the attorney's name, firm, address, telephone number, legal specialties, age, previous public offices, military service, bar association titles, foreign language ability, bank references, names of clients (with consent) and credit card accepted. Also, the advertisement may indicate fees for initial consultation, a range of fees for

various services, hourly rate charge and information on whether a more specific fee schedule is available upon request. If the figures are not likely to be deceptive, fixed fees may be included, with an indication that actual cost may vary according to circumstances.

The house of delegates also asked that a commission be appointed to monitor developments nationally and that a committee study institutional advertising by ABA on behalf of all lawyers.

The recent Supreme Court decision, which held that an advertising ban was unconstitutional, left open matters of "time, place and manner," ruling only on advertising in the print media. At a press conference, William B. Spann, ABA president, said he saw "no fundamental difference between advertising in the print media and on television." He said there was no objection "to flashing on a screen an acceptable print advertisement."

### ASCE Told to Reinstate Members in Bidding Case

Judge John M. Cannella, a U.S. district court judge presiding in New York, has rendered an opinion that the American Society of Civil Engineers has violated a consent decree made with the Department of Justice in 1972. Under the consent decree, ASCE agreed to remove its ban on the submission of price quotations for engineering services, but the Justice Department started a reinvestigation of ASCE in 1975 when the society suspended two of its members.

Judge Cannella directed ASCE to reinstate the members, saying that their suspension implicitly retained the ban on competitive bidding. ASCE has contended that its action was caused by the members' violation of Article 3 of its code of ethics which deems it to be unprofessional conduct to "attempt to supplant another engineer in a particular engagement after definite steps have been taken toward his employment."

The case involved Y. K. Sunn and George K. Tozer, the two top officials in the Boston firm of Metcalf & Eddy, Inc.

*continued on page 12*



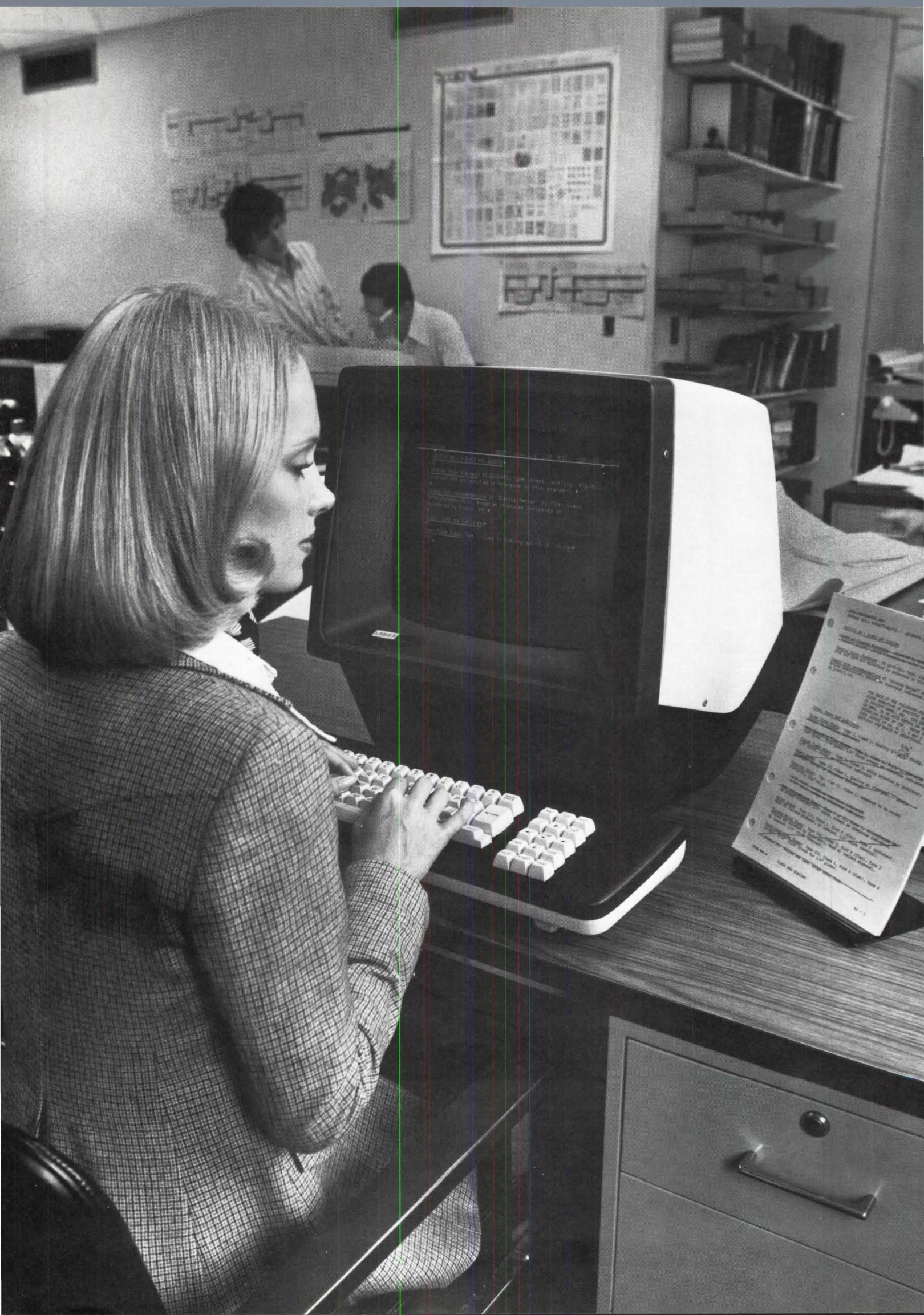
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Going On from page 8

The difficulties started in Dec. 1972 when the board of a municipal water works in Bangkok, Thailand, authorized a committee to begin negotiations with a joint venture of two engineering firms for supervision of a water works construction project. Before the joint venture was employed, but after negotiations had begun, Metcalf & Eddy was asked by the Thai Engineering Co. if the firm wished to submit an estimated charge for the project. The reply was affirmative, and the Boston firm and Thai Engineering later submitted a lower bid than the joint venture and were employed for the contract.

ASCE argued that its disciplinary action was based on the "attempt to supplant" provisions of its ethical code. It also contended that the sole purpose of the 1972 consent decree was the elimination of a ban on price competition, and was not intended to affect submission of price information in other situations.

The consent decree, Judge Cannella ruled, "enjoins ASCE from prohibiting the submission of price quotations for engineering services whenever it occurs." Sunn and Tozer, he said, had only submitted a price quotation and they should be reinstated in ASCE and their records expunged of any mention of the disciplinary action.

The Justice Department had also asked Judge Cannella to order the complete elimination of ASCE's supplanting prohibition, but Judge Cannella found that "the court has before it what is in reality merely a single instance" of the supplanting prohibition. "There is no reason to believe that it has been or will be used to thwart the purposes of the consent decree." He did, however, direct ASCE to refrain from enforcing the supplanting prohibition "in a manner which inhibits the submission of price quotations for engineering services."

At this writing, ASCE has not decided whether to appeal.

According to Nancy Truscott, Institute assistant secretary and legal counsel, the Justice Department has been reviewing AIA disciplinary cases involving charges of supplanting that have been decided since AIA signed a consent decree in 1972.

## UIA Plans Congress Theme

"Architecture and National Development" is the theme of the 1978 world congress of the International Union of Architects to take place in Mexico City. Although national sections will submit papers, UIA also asks individual architects to make submissions. Details about topics and length may be obtained from: UIA World Congress, Melchor Ocampo 463-104, Mexico 5, D.F. Mexico. Closing date is Dec. 31.

## GAO Seeks Tightening For A/E Accountability

The General Accounting Office has prepared a report for Congress on "Procedures Used for Holding Architects and Engineers Responsible for the Quality of Their Design Work" (LCD-76-333, 7-14-77). The report finds that "some federal agencies are not adequately documenting causes for errors and omissions in plans and specifications prepared by architects and engineers in cases involving negligence." It says that the government "should not pay increased construction costs when the A/E is responsible."

The report states that federal agencies have made very few attempts to "pursue potential claims against A/Es." Agency officials have attached "a higher priority to avoiding construction delays than to building a case against an A/E." Other reasons given by the agencies for not following through on responsibility for change orders are that negligence is hard to prove, the government is not damaged by design omissions and administrative costs may outweigh recoverable costs.

The report comments that federal expenditures for A/E work have amounted to about \$300 million a year. To determine the extent to which federal agencies are documenting pertinent facts to determine responsibility for change orders, GAO examined 54 contracts valued at \$534.2 million, the majority being for new projects that were over 70 percent complete.

GAO found that 3,050 change orders valued at \$30.2 million had been issued. Agency officials classified 1,575 of the change orders, costing \$13.4 million, as "design deficiencies." The report remarks that agency officials say the term design deficiency is loosely defined "and used as a mechanism to expedite change order approval to avoid construction delays and spiraling costs." Upon investigation, says GAO, what appears as a design deficiency may turn out to be otherwise.

The report recommends that certain steps be taken to enforce existing procedures. It recommends that the Secretary of Defense and the General Services Administration administrator make sure their agencies:

- "Identify the causes of change orders and determine individual responsibility, document design deficiencies and determine any potential A/E liability for these deficiencies.
- "Enforce A/E liability and recover costs when the A/E has performed negligently. This could be done on a selective basis in instances where administrative costs outweigh recoverable costs.
- "Evaluate A/E performance objectively and exchange this information

among agencies employing A/Es."

Draft copies of the report were sent to various federal agencies, and there was general agreement with the recommendations, says GAO.

The report is being reviewed by the AIA federal agencies committee, chaired by H. Leslie Walker, FAIA, and by the Institute's department of government affairs staff. Bruce Schafer, director of federal agency liaison at AIA, says that "no one could possibly object to placing responsibility for negligence on the A/E if the negligence has been proved. But determination of responsibility is a long process and can be expensive for both A/Es and the government. As the report indicates, the agencies are not fully documenting reasons for change orders according to principles and procedures that have already been established."

## Shingle-Shake Jury Names Three Winners from 234

Three first award winners from 234 entries have been selected in the 1977 awards program sponsored jointly by AIA and the Red Cedar Shingle & Handsplit Shake Bureau. The biennial event honors "architects and their projects which demonstrate design excellence and significant functional or esthetic use of red cedar shingles or shakes."



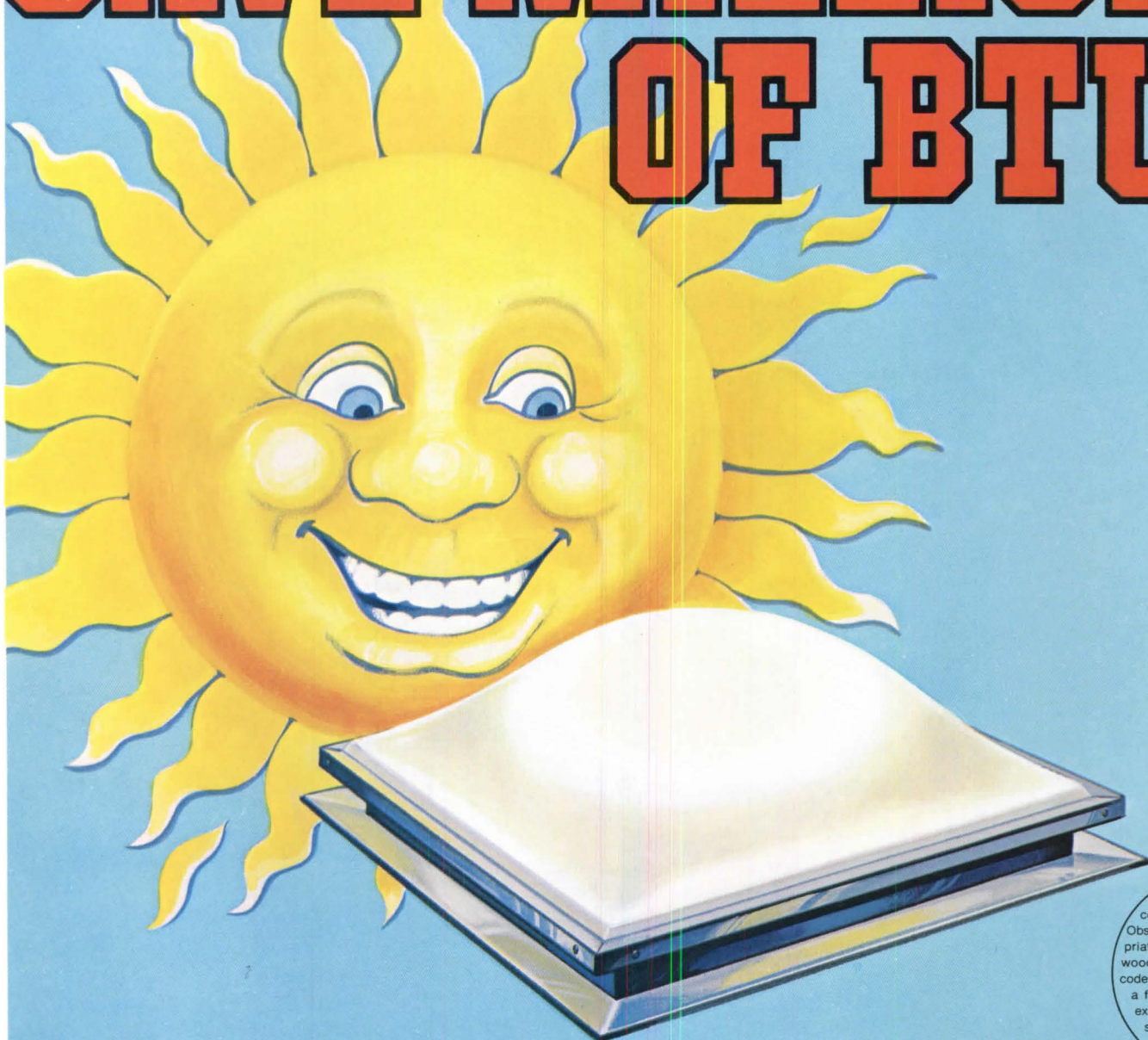
The winning entries are:

- Single-family residence category: Adams residence, Roseau, Minn., designed by Thomas N. Larson, Chestnut Hill, Mass.
- Vacation home category: Embarcadero Condominiums, Newport, Ore., designed by Campbell-Yost-Grube, Portland, Ore.
- Residential multifamily category: Oakes College, University of Santa Cruz, Santa Cruz, Calif., designed by MBT Associates, San Francisco (photo above).

The winners were selected by a jury consisting of Alfredo DeVido, AIA, New York City (chairman); Rodney Wright, AIA, Chicago, and Jane Hastings, AIA, and Al Bumgardner, FAIA, both of Seattle. *Going On continued on page 16*



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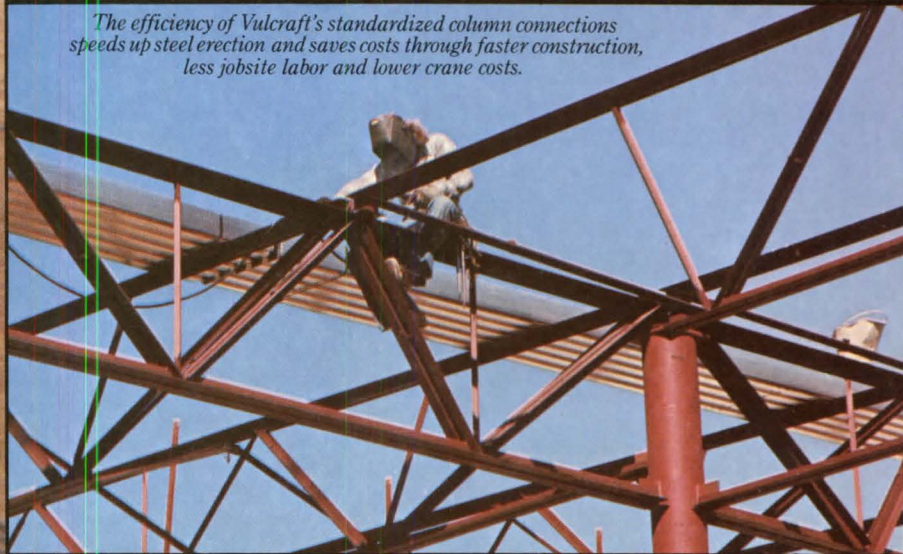
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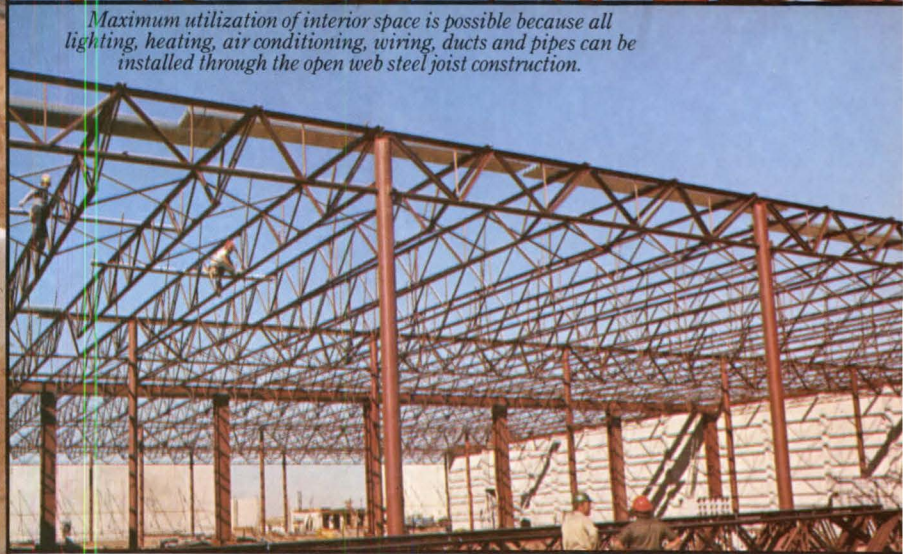


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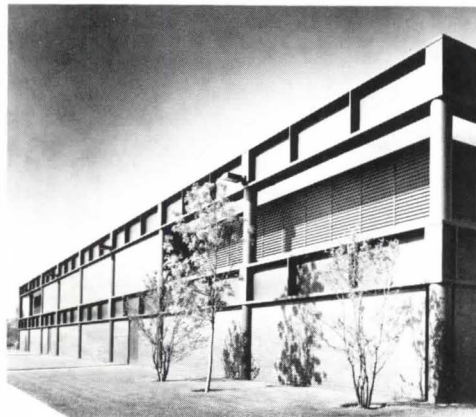


## 19 Steel Frame Buildings Recognized in Competition

Three of this year's AIA honor award winners are among the 19 buildings to be named as award winners in the American Institute of Steel Construction's 17th annual competition for steel-framed structures. They are the Concord Pavilion, Concord, Calif., whose architect is Frank O. Gehry & Associates; Pennzoil Place, Houston, designed by Johnson/Burgee, and the John Hancock Tower, Boston, the work of I. M. Pei & Partners.

The other winning buildings are:

- Prince of Peace Lutheran Church, Burnsville, Minn. (architect: Frederick Bentz/Milo Thompson & Associates, Inc.).
- Coal Street Park Ice Skating Facility, Wilkes-Barre, Pa. (architect: Bohlin & Powell).
- Freightliner Corporate Headquarters, Portland, Ore. (architect: Boutwell, Gordon, Beard & Grimes).
- Larkspur Ferry Terminal, Larkspur, Calif. (architect: Braccia/Debrer/Heglund).
- Chicago Police Training Center, Chicago (architect: Bureau of Architecture, Chicago Department of Public Works, photo below).



- American High School, Miami (architect: Caudill Rowlett Scott).
- National Air and Space Museum, Washington, D.C. (architect: Hellmuth, Obata & Kassabaum).
- Satellite Ball Casting Plant, Chandler, Ariz. (architect: Lester B. Knight & Associates, Inc.).
- John A. Volpe International Terminal, Logan International Airport, Boston (architect: Kubitz & Pepi, Inc.).
- Robin Hood Dell West, Fairmount Park, Philadelphia (architect: John H. MacFadyen & Alfredo De Vido).
- Ramapo College Physical Education Building, Mahwah, N.J. (architect: Mahony & Zvosec/Kenneth DeMay).
- House of Representatives and Senate Conference Facilities, Oklahoma City

(architect: Architectural Associates of Meyer/Brown, Inc.).

- Physical Education Facility, University of Minnesota, Duluth (architect: The Leonard Parker Associates).
- George L. Smith II Georgia World Congress Center, Atlanta (architect: Thompson, Ventulett, Stainback & Associates, Inc.).
- Omni International, Atlanta (architect: Thompson, Ventulett, Stainbeck & Associates, Inc.).
- Hennepin County Government Center, Minneapolis (architect: John Carl Warnecke & Associates).

The jurors were Robert G. Cerny, FAIA; Louis de Moll, FAIA; Selmon T. Franklin Jr., AIA; Stephen E. Johnston, and Walter McQuade, FAIA.

## 'Misunderstanding' Seen On Barrier-Free Criteria

It is an erroneous belief that all federally assisted institutions must eliminate all architectural barriers in three years time, said David S. Tatel, director of the office of civil rights, Department of Health, Education and Welfare, at a recent press conference. He said that HEW's contacts with school, college and hospital administrators "indicate a growing misunderstanding of at least one part of the regulations issued under section 504 of the Rehabilitation Act of 1973." In April of this year, a regulation was issued to implement section 504 which provides that programs funded by HEW must be accessible to handicapped persons.

"The regulations," Tatel said, "do require that enough buildings or parts of buildings be made accessible so handicapped persons can participate in the activity being supported by HEW funds." There is, however, "no prescribed number or percentage that is required. The object is to make the programs of an institution accessible, not every classroom or dormitory room."

An explanation of the regulations issued in July by HEW states that "it does not require that every building or part of a building must be accessible. Structural changes to make the program accessible must be made only if alternatives, such as reassignment of classes or home visits, are not possible."

One alternative to structural changes, Tatel said, might be the use of aides in libraries. The aides could locate and deliver required materials to the handicapped. Another method would be to relocate courses in which handicapped students have enrolled to newer buildings that are already accessible.

Tatel said that legitimate costs imposed by enactment of the law are a serious enough problem "without the additional

headache caused to administrators by unfounded fears." The requirements, he said, will be "less burdensome" than anticipated, once institutions begin actual development of the transition plan.

According to the law, all buildings for which site clearance has begun after June 3, 1977, "must be designed and constructed to be accessible to handicapped persons from the start."

## MASTERSPEC Provides a 'Short Language Version'

The architect who wants specifications for a sauna will find them in the newly developed "short language version" (SLV) of MASTERSPEC, the automated master spec system developed by Production Systems for Architects & Engineers, Inc. MASTERSPEC is a direct method by means of which the small firm is supplied with information about well-established technology that heretofore has been the unique possession of the big office. As comprehensive as MASTERSPEC is, however, the SLV contains additional data even more useful for the small office and for small projects—such as specs for a sauna.

"The SLV," explains John Schruben, FAIA, president of PSAE, "tends to be more applicable to small firms because they are more likely to be working on small projects. The SLV also is particularly appropriate, for example, in cases where the owner is also the builder." The SLV is appropriate in situations where the architect wants to record decisions in a way that will minimize liability exposure through an indication of minimum involvement, Schruben says. "For large projects, the SLV text can be used very handily to prepare the 'nonscope' text of an outline spec for the design phase."

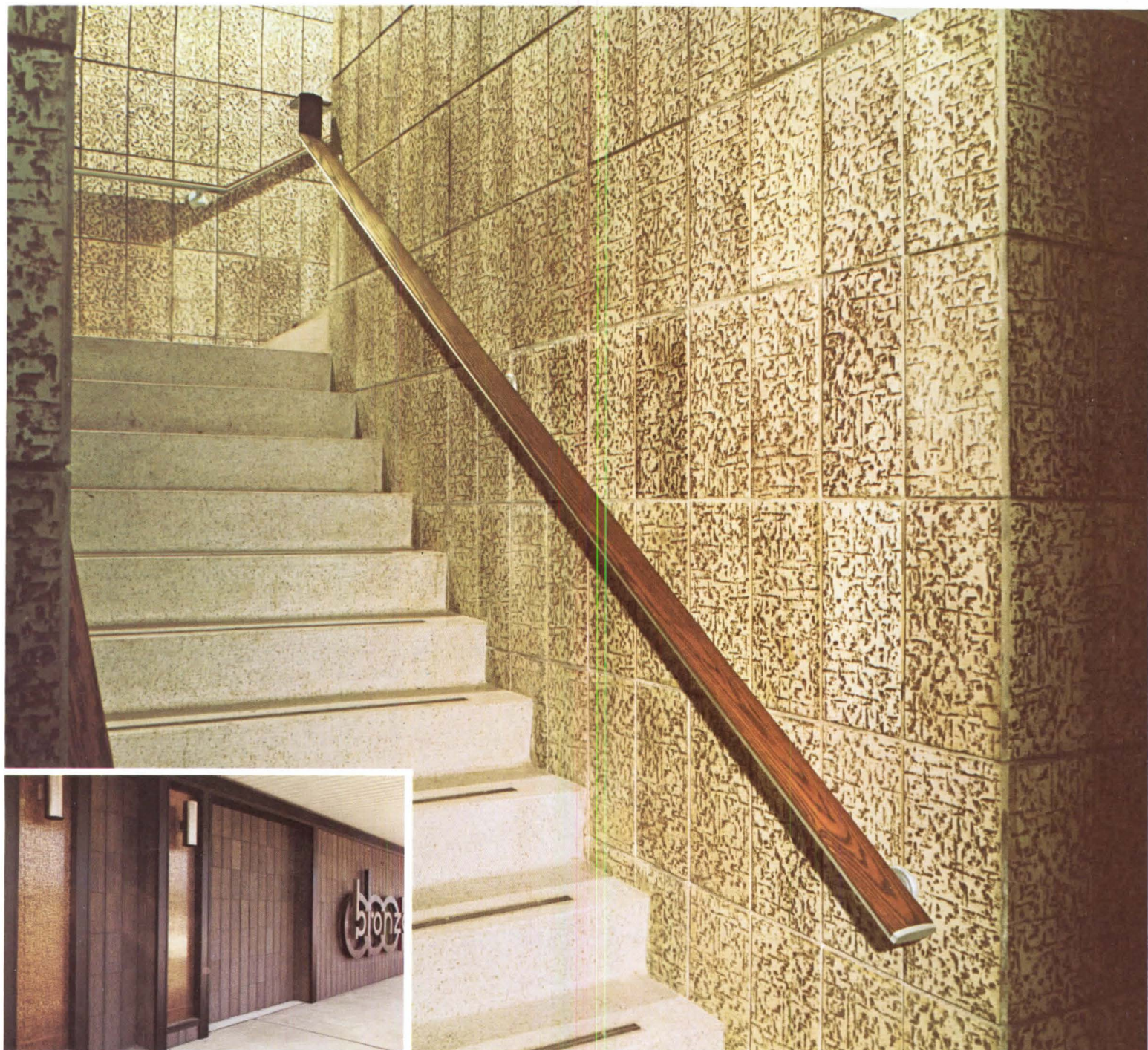
As Schruben explains it, "The SLV skips over most of the 'boilerplate' provisions of a typical 'complete' spec, concentrating primarily on the selection of materials, equipment and systems. It is very lean on installation requirements and enforcement provisions. It assumes that the construction industry beyond the architect's office knows how to perform properly. If not, no amount of spec boilerplate is likely to be of much value, partly because of a typical reluctance to read the specs in the first place."

The average SLV master section is three pages in length, and usually edits for project use to an average of less than a page. Information is kept in the sequence of the three-part format in most instances, but the parts are not indicated.

The SLV is printed on buff paper to help distinguish it from other MASTERSPEC sections.

*continued on page 20*





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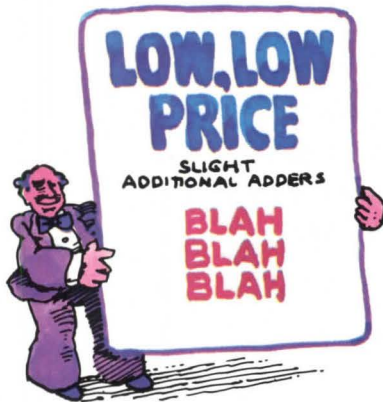
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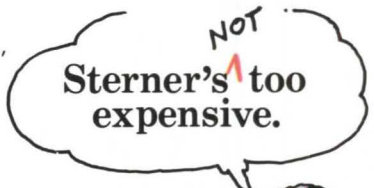
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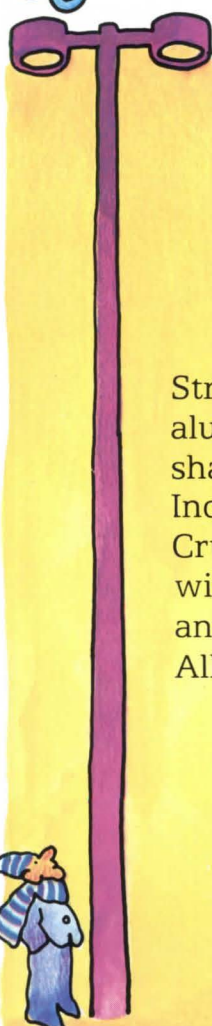
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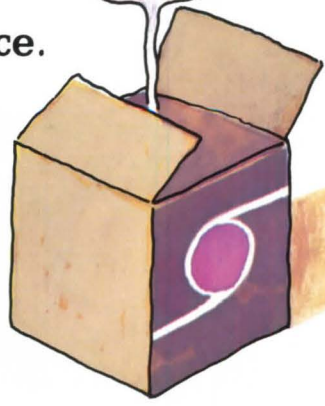
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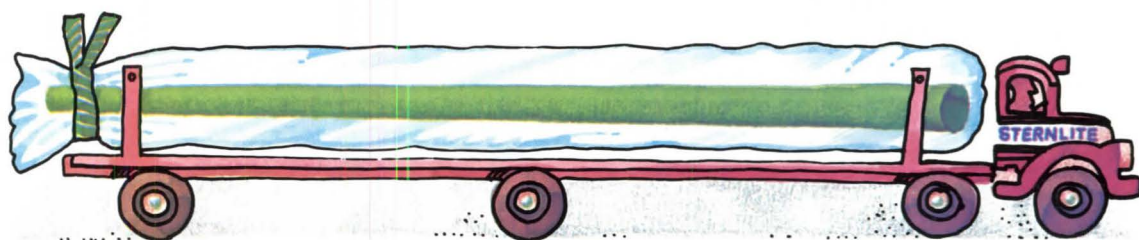
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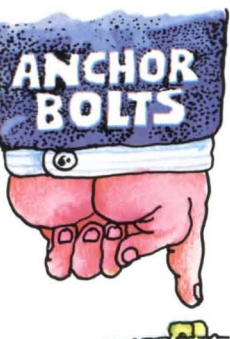


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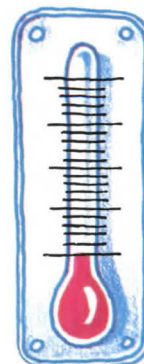


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Going On from page 16

Currently, Schruben says, PSAE cannot offer the SLV by itself as a separate form of subscription. "The user must have the more detailed text and instruction sheets for reference, even though he primarily uses the SLV for producing project specs."

For detailed information about MASTERSPEC and SLV, write: PSAE, 1735 New York Ave. N.W., Washington, D.C. 20006.

## Children's Zoo Named for Architect James Whitford

Since its opening in 1970, the children's zoo in Staten Island, N.Y., went unnamed. In July, however, it was dedicated as the James Whitford Children's Center in memory of its architect. Mr. Whitford, who died in Feb. 1976, was secretary of the Staten Island Zoological Society for 18 years.

The center, said its director, A. F. Coggins, "will be a memorial to a man whose life is a constant reminder of what dedication, loyalty and selflessness can accomplish and contribute to a community." Vincent Gattulo, president of the zoological society, said, "Thousands of children are enchanted every year by the center's imaginative design and, before his death, Jim spent many happy moments watching them enjoy the fruit of his labors."

Mr. Whitford was one of the founders of the Staten Island chapter/AIA in 1947 and served as its president in 1963-67. He also was a director of the New York State Association of Architects.

A third-generation architect, Mr. Whitford studied architecture at Pratt Institute, Yale University, New York University and the Ecole des Beaux Arts. He was the architect of many structures, including apartment houses, office buildings and churches.

## Inquiry into Prison Fires Sought by Plastics Industry

A joint industry-government task force to consider the problem of prison and jail fires caused by arson has been proposed by the Society of the Plastics Industry. A total evaluation of the problem is required, said Ralph L. Harding, president of SPI, because of the fire in June in a jail in Maury County, Tenn., the July fire in the federal prison in Danbury, Conn., and other prison and jail fires set by arsonists in recent years.

He said that following the recent fires there had been talk of "banning this or that material involved. That is a simplistic approach and will not solve the problem. It does not answer what you replace the

banned material with."

What is required, Harding said, is an approach that will require the combined efforts of architects, specifiers, correctional officials, fire experts, fire testing agencies and materials manufacturers. A two-fold approach is needed, he said: "First, the establishment of performance standards for materials, based on standardized fire tests, and, second, development of comprehensive systems and procedures for protecting lives in case fire does occur."

This must be coupled, he said, with preplanning, personnel training, evacuation procedures and proper equipment, such as vent fans, hoses, masks and perhaps automatic detection and suppression equipment. "If correctional institutions are going to continue to use combustibles—whether synthetic or natural materials—they need to protect arsonists against themselves, and to protect others against arsonists," Harding said.

## Religious Architecture Groups to Merge Jan. 1

The Guild for Religious Architecture, the American Society for Church Architecture and the Commission on Church Planning and Architecture have agreed to merge into one organization to be called the Society for Religious Arts and Architecture. The merger, to become effective Jan. 1, 1978, will bring together some 500 members of the three groups who share concerns for the design, construction, financing, operation and maintenance of church and church-related structures.

Members of the three groups in attendance at the National Interfaith Conference on Religion and Architecture in July approved proposed bylaws and elected some new officers and board members.

Rolland H. Sheafor, president of the board of church extension of the Disciples of Christ, Indianapolis, and president of the American Society of Church Architecture, will head the new group. John G. Pecsok, AIA, architect and planner in the firm of Pecsok, Jelliffe & Randall of Indianapolis and currently president of the Guild for Religious Architecture, was elected vice president. Harold R. Watkins, vice president of the board of church extension of the Disciples of Christ and chairman of the Commission on Church Planning and Architecture, was named secretary. Elected to treasurer of the new organization was Dana A. Gangwere, AIA, of Reading, Pa., currently treasurer of GRA.

Seven section chairmen have been elected to head program thrusts for the new organization. In charge of architecture will be Nils M. Schweizer, FAIA, of Winter Park, Fla.

## NASA Seeking Concepts In Outer-Space Assembly

The National Air and Space Administration has contracted with Lockheed Missiles & Space Co. in Sunnyvale, Calif., for a three-year project which would help develop basic concepts for building huge power plants, factories and even cities in outer space. Efforts will concentrate on new technology for basic structural components that are lightweight but strong, and on innovative construction methods.

Harold Bush, manager of the program for NASA, says that a primary objective will be "to find designs that let us fit the absolute maximum of construction materials" into NASA's space shuttle's cargo bay. Once in outer space, workers would assemble the components in "erector-set fashion."

Robert R. Johnson, who will manage the program for Lockheed, says that "scientific support has been growing for the construction of power stations in space that would send energy back to earth in the form of microwaves." The weightless environment of space, he says, could also be "an ideal setting for factories that manufacture certain specialized products, such as perfect crystals for electronic components and other items that cannot be made on our planet's surface as efficiently as in a zero-gravity environment."

If the concept becomes a reality, it is envisioned that eventually it would be necessary to build entire cities in space to house the people needed to operate the factories and to build and maintain power stations and antennas.

This view is consistent with the beliefs of former astronaut Russell Schweickart, who spoke at the AIA convention in San Diego. In an interview published by the JOURNAL in May (p. 58), Schweickart said that "we will be seeing more or less permanent human habitats in outer space by the late '80s, maybe even the mid '80s. This will challenge the whole society, and especially architects."

## Women in Architecture: A Symposium and Exhibit

A symposium directed to women architects is scheduled to take place Nov. 19 at Rice University in Houston. Nationally recognized women in architecture, the arts and politics have been invited as keynote speakers and panelists.

In connection with the symposium, an exhibition which interprets the involvement of women in architecture over the past 200 years will be on display at the Houston Public Library from Nov. 1 through Nov. 22. The exhibition, which took two years to assemble, was organized

*continued on page 92*



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# IT'S TIME TO ENTER THE 4TH ANNUAL CRSI DESIGN AWARDS PROGRAM

Concrete Reinforcing Steel Institute announces a Call for Entries in the 1977 CRSI Design Awards Program. This is the fourth annual program recognizing design professionals by honoring creative design achievement using cast-in-place concrete in which conventional reinforcing bars are the predominant reinforcement.

## HERE'S HOW:

The following requirements correspond to those of the AIA Honor Awards Program. Entries prepared for the AIA Program may be submitted in duplicate to the CRSI Design Awards Program. *However, please also include the descriptive data sheet specified in item 4.* All other entries should be prepared as specified in items 1 through 5. No entry forms are required.

**1. BINDER**—All material must be contained in an 8½" x 11" binder.

**2. PHOTOGRAPHS AND SLIDES**—For every project, submit sufficient photographs (either black and white or color), slides, and plans to properly illustrate the design solution. *All architect and project identification must be removed from all such submitted materials.* Minimum requirements are set forth below:

### Exterior

- One 8" x 10" print showing each exposed side of the building.
- One additional 8" x 10" print showing the immediate environs of the building as these abut the selected side being shown (may be omitted if environs are included in above).

For a group of buildings or an urban project (or segment thereof), one 8" x 10" photograph of the project sufficient to illustrate the concept including relationship to its environs.

### Interior

- One 8" x 10" print.

### Slides

A minimum of five 2" x 2" 35mm color slides must be included for each entry—three exterior views and two interior views. They are to be of completed buildings and emphasis should be on adequate effective slides which show the merit of the project and each facade of the building.

**3. PLANS**—Site plan—at small scale, showing the project and its immediate environs. Floor plan or plans and one or more sections—sufficient to explain the solution. Plans must be at scale, but may be shown in any medium. Scale at discretion of entrant, as large as practicable. Scale must be shown graphically.

Plans must be on 8½" x 11" sheets placed in transparent window sleeves.

**4. DESCRIPTIVE DATA**—To preserve anonymity during judging, submit the following data typewritten on plain white 8½" x 11" paper.

- Description of type of structure.
- Size of structure in total square footage.
- Date structure was completed or scheduled for completion.

## IMPORTANT:

Please provide complete information on the following three sections.

- A. Structural framing system: Indicate which portions of system are conventionally reinforced, prestressed, or precast concrete. (Remember, structure must be predominantly site-cast and conventionally reinforced.)
- B. Unique structural and/or architectural design features: Describe any that deserve special consideration by the jurists.
- C. Reasons for choosing reinforced concrete: Please be specific and include comparisons with other structural systems where applicable.

**5. CONCEALED IDENTIFICATION**—All information requested here *must* be included on a separate typed sheet. Please be certain that *all* spelling and *all* punctuation are absolutely accurate.

- Proper name of structure.
- Name, address, and phone numbers of:  
Architect  
Engineer  
Contractor  
Owner

- All titles or other designations such as consultant, associated architects, project architect, architect in charge, associate architect, etc.

- All city and state locations.

## THE WHAT, WHO, WHEN, AND WHERE OF THE AWARDS.

**Categories of Awards** The program is open to site-cast reinforced concrete structures of all types.

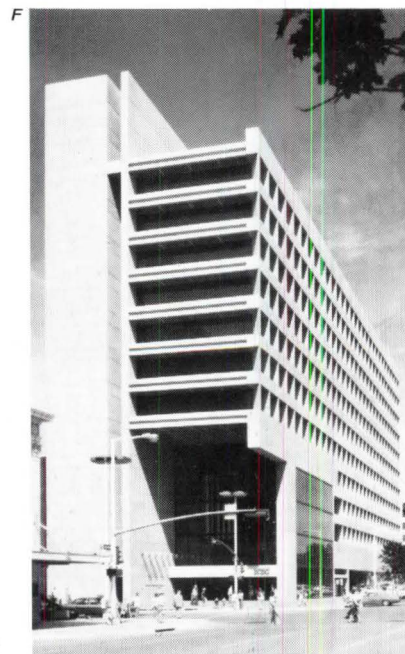
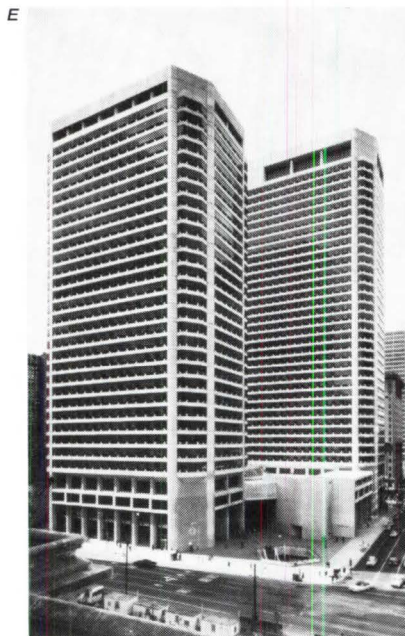
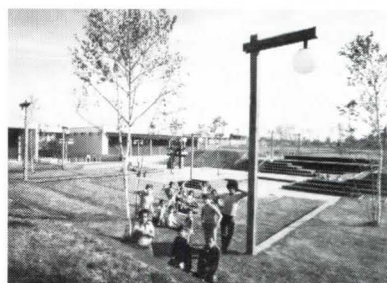
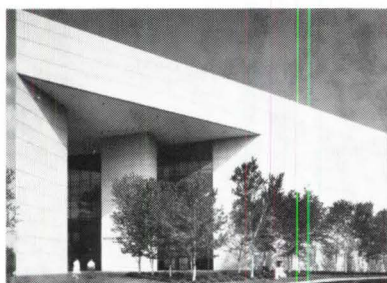
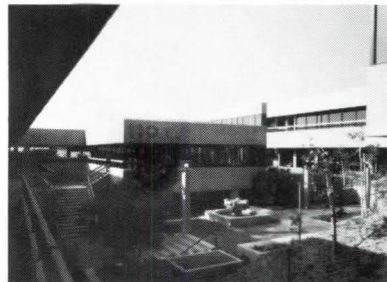
**Criteria of Awards** Esthetic expression, engineering achievement, functional excellence, or economy (or any meritorious combination of these qualities).

**Type of Award** Several Awards will be presented, each equally acknowledging excellence of achievement. Each Award will consist of (1) engraved commemorative plaques for architect, engineer, and owner, (2) publication of the winner's story and structure in print advertising sponsored by CRSI, and (3) presentation of the Award at a special ceremony at the CRSI annual convention held at the Wigwam, Phoenix, Arizona, in May 1978. From each firm submitting a winning entry, one representative (and spouse) will be invited to attend the Award presentation ceremony as CRSI's guests. Appropriate local award ceremonies will be arranged for the remaining members of the winning design firms.

**The Jurists** A distinguished panel of recognized professional architects and engineers from throughout the United States will select the winners.

**Who Is Eligible** The 1977 CRSI Design Awards Program is open to all registered architects and engineers (entrants may be individuals or teams). Eligible structures must be located within the continental United States and have been completed since January 1, 1975, or essentially finished by November 15, 1977.





## 1976 CRSI DESIGN AWARDS WINNERS:

- A HEADQUARTERS BUILDING, ARAPAHOE CHEMICALS, INC., Boulder, Colorado.**  
**Jury Comments:** "Although there is a mixture of spaces, the visual unity achieved looks as though they were made for each other... an energy-efficient building with judicious use of glass."  
**Owner:** Arapahoe Chemicals, Inc., Boulder, Colorado.  
**Architect and Structural Engineer:** A. M. Kinney, Inc., Architects and Engineers, Cincinnati and Denver.  
**General Contractor:** Centric Corp., Lakewood, Colorado.
- B GATEWAY PLAZA, Newport Beach, California.**  
**Jury Comments:** "Pleasant, relaxed, and varied setting... excellent example of an economical and straightforward approach... wide spans offer great flexibility."  
**Owner:** The Irvine Company, Newport Beach, California.  
**Architect:** Robert M. Thomas A.I.A. & Associates, Newport Beach, California.  
**Structural Engineer:** Robert Lawson, Newport Beach, California.  
**General Contractor:** Swinerton & Walberg Company, Los Angeles, California.
- C WOODRUFF MEDICAL CENTER ADMINISTRATION BUILDING, Atlanta, Georgia.**  
**Jury Comments:** "Bold, dynamic architectural solution... use of concrete, both structurally and as a finish material, is sympathetic to functional needs."  
**Owner:** Emory University School of Medicine, Atlanta, Georgia.  
**Architect and Structural Engineer:** Heery & Heery, Architects & Engineers, Atlanta, Georgia.  
**General Contractor:** Batson-Cook Company, Atlanta, Georgia.
- D NEW NORTH COMMUNITY SCHOOL, Springfield, Massachusetts.**  
**Jury Comments:** "Pleasant, cheerful, and exciting in spite of almost impossible site... top lighting and skylighting create bright, attractive interior surfaces."  
**Owner:** Springfield School Building Commission, Springfield, Mass.  
**Architect:** Perkins & Will Architects, White Plains, New York.  
**Structural Engineer:** Perkins & Will Architects, Engineering Division, Washington, D.C.  
**General Contractor:** Daniel O'Connell & Sons, Holyoke, Mass.
- E CENTRE SQUARE, Philadelphia, Pennsylvania.**  
**Jury Comments:** "The linking together of the two office towers with the Galleria becomes an exciting experience... lower levels are uniquely alive."  
**Owner:** Centre Square, Inc., Philadelphia, Pennsylvania.  
**Architect:** The Kling Partnership, Philadelphia, Pennsylvania.  
**Structural Engineer:** Farkas, Barron & Partners, New York, New York.  
**General Contractor:** Tishman Construction Company of Pa., Inc., Philadelphia, Pennsylvania.
- F NATIONAL BANK OF COMMERCE, Lincoln, Nebraska.**  
**Jury Comments:** "The clarity of the total building is well-achieved through the use of simple structural forms and proportions... reinforced concrete has been excellently exploited (in) large entrance."  
**Owner:** NBC Company, Lincoln, Nebraska.  
**Architect:** I. M. Pei & Partners, New York, N.Y. (Associate Architect: Davis Fenton Stange & Darling, Lincoln, Nebraska.)  
**Structural Engineer:** Weiskopf & Pickworth, New York, N.Y.  
**General Contractor:** H. C. Beck Company, Phoenix, Arizona.

**AIA Approval** This program has been approved by the American Institute of Architects and is patterned after the AIA Honor Awards Program.

**Announcement of Winners** To be made as soon after judging as practical.

**Ownership and Publication of Entries** All entries shall become sole property of CRSI. No materials will be returned. CRSI reserves the right to use or publish all entries and accompanying materials in CRSI advertising, CRSI publications or for any and all editorial purposes and by entering, entrant grants a royalty-free license to CRSI to use any copyrighted materials. Such right includes publication of photographs and names of Award winners without compensation to winners.

**Jurists' Decision Shall be Final** Upon entering the 1977 CRSI Design Award Program, entrants waive their right to make a claim against the panel of jurists (or any member thereof), or to make a claim against Concrete Reinforcing Steel Institute (or any member thereof).

### DEADLINE.

All entries must be received no later than **NOVEMBER 15, 1977** at CRSI headquarters (address below).

### MAIL ENTRIES TO:



**CONCRETE REINFORCING STEEL INSTITUTE**  
 180 North LaSalle Street, Room 2111 D  
 Chicago, Illinois 60601  
 Attention: Victor A. Walther, Jr.  
 Director of Marketing

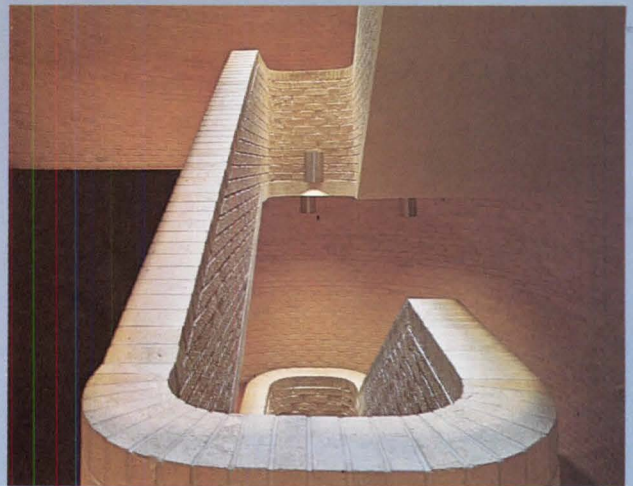
For more information on Professional Membership Program, write to Director of Marketing.



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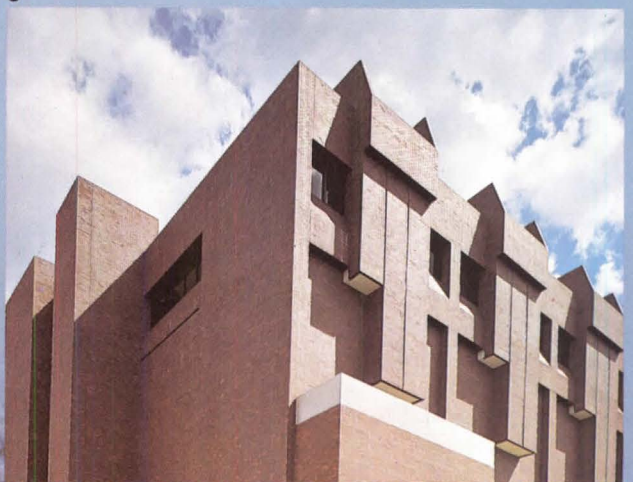
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A. Police Headquarters, New Haven, Connecticut, Orr-deCossy-Winder & Associates B. Sid W. Richardson Physical Sciences Bldg., Texas Christian University, Paul Rudolf in association with Preston M. Geren C. General Studies C/I/R/C, S.U.N.Y. Agricultural/Technical College, Delhi, NY Wm. A. Hall & Associates, Architecture & Planning D. Charles Ennis Residence, Frank Lloyd Wright



# WE STILL MAKE THEM THE WAY WE USED TO. BY HAND.

Today's architects still call on the same masonry craft skills that architects and master builders of 200 —and 2,000— years ago relied on. For masonry is still the best way to build. Still the least expensive.

The mechanics of creating walls with mortar and brick, or block, or stone, have changed little. But technology in the production of masonry materials as well as on-site automation of materials handling have changed enough to maintain masonry's reputation: it's stingy with the tightest budget. In fact, masonry structures are usually lowest in initial cost. Consistently low in operating costs.

Masonry materials have taken on new dimensions, new colors, new textures. And innovative



design has demanded parallel innovations to execute them. Masonry panels afford the architect design flexibility not known before while still assuring unparalleled craftsmanship. Loadbearing masonry systems permit fast, economical construction and afford the designer a broader palette.

The reasons for masonry's ageless popularity are many. Permanence. Beauty. Flexibility. And economy. There is simply no more energy-efficient, durable, easily maintained building material known to man.

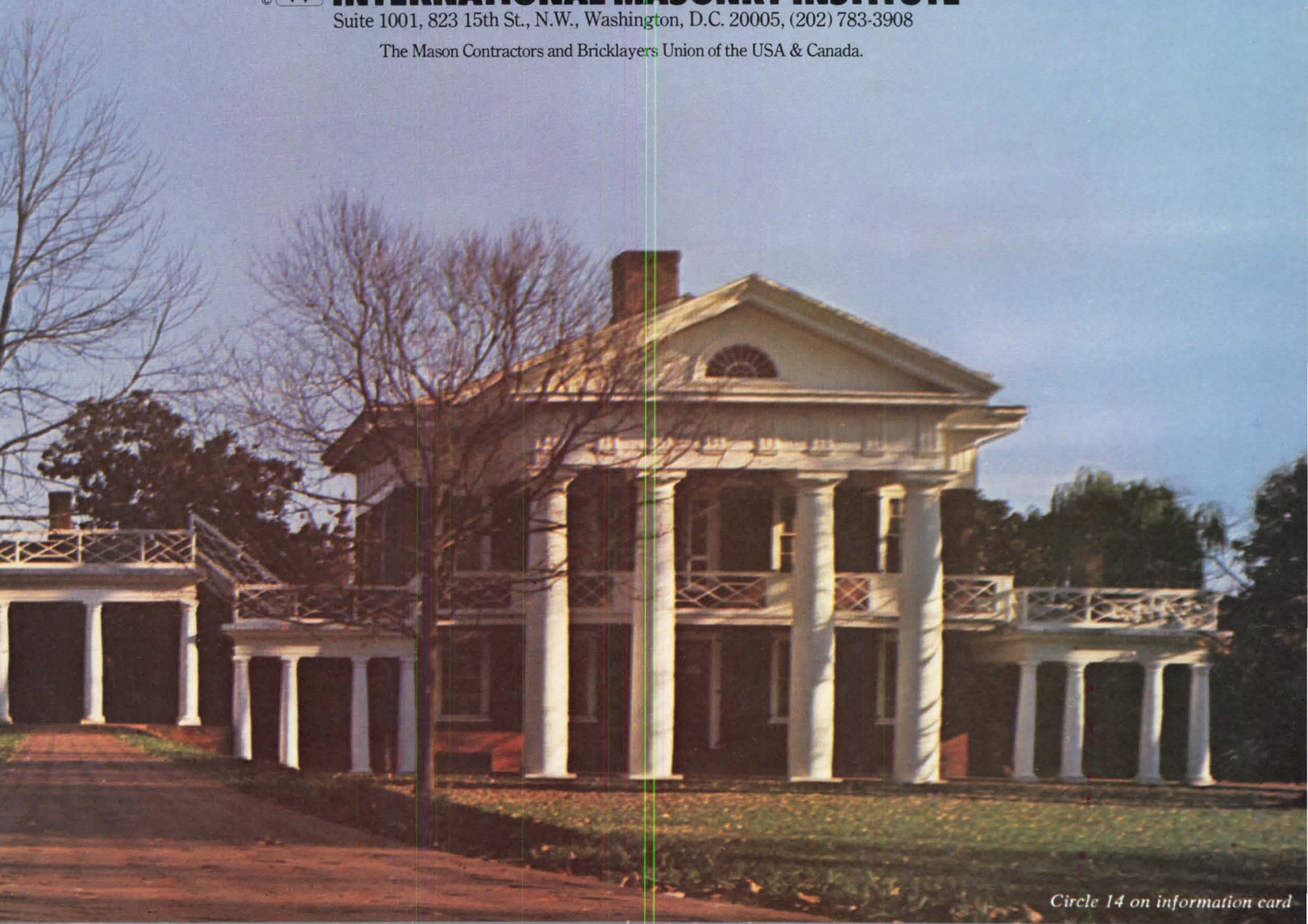
So it's no wonder we're still making them the way we used to. The trowel is still one of the building designer's handiest tools.



## INTERNATIONAL MASONRY INSTITUTE

Suite 1001, 823 15th St., N.W., Washington, D.C. 20005, (202) 783-3908

The Mason Contractors and Bricklayers Union of the USA & Canada.



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# In the ENR 500 League, Shand, Morahan keeps raising its average.

One year ago, we supplied E&O coverage to 24% of the world's 57 largest design-constructors. This year, 35% of this group are our clients.

Of the remaining ENR top 500\*, we've increased our share from 20% to 25% in the past year.

In short, the switch to Shand, Morahan & Company for E&O by big league design-constructors and design firms continues. And for good reasons: Flexible, custom designed coverage. Competitive rates. And the most prompt, courteous service available anywhere.

If your firm can benefit from a better E&O program, let us go to bat for you. Have your broker give us a call.

\*Engineering News-Record; May 19, 1977



**Shand, Morahan & Company, Inc.**

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# AIA JOURNAL

**T**he JOURNAL has a special reason this year for urging its architect-readers to speed their entries to the 1978 AIA honor awards program.

An entry blank was included with the *AIA Memo* for Aug. 15. It should be returned as soon as possible since the submissions themselves must be postmarked no later than Oct. 31, and it takes time to get the awards binders prepared and mailed. Anyone without an entry blank can get one from Maria Murray, director of awards programs, at AIA headquarters, telephone (202) 785-7390.

Once again there will be two broad categories of awards, bestowed by two separate juries, one on new work and the other on extended use (restoration, rehabilitation and adaptive use of existing buildings). Energy efficiency will be a matter of special consideration.

One reason for urging widespread participation in the program, of course, is to help assure that the awards will be representative of the best in American architecture, and of the full range of architectural practice and endeavor.

Our special additional reason is that next May the JOURNAL will inaugurate the *Annual of American Architecture*. The *Annual* will include all of the 1978 award winners. And in addition, all award submissions will be considered for inclusion in the *Annual*.

Our goal in launching the *Annual* is to provide a continuing record of trends and accomplishments in American architectural design. It will be published as an extra and enlarged issue of the JOURNAL, but it will be circulated to interested laymen as well as to our usual professional audience.

D.C.



# MXD

*Detroit's Renaissance Center(right) is the most dramatic example to date of a spreading urban phenomenon. By Colden Florance, AIA*

Standing at the river's edge in downtown Detroit is the amazing Renaissance Center. Unlike anything else in the city, the gigantic crystal castle-like complex with five towers dwarfs and beggars all its neighbors and has a make-believe quality like the Emerald City of Oz, the Starship Enterprise or something out of an Esher drawing.

Renaissance Center also represents a new phenomenon in urban design. Incorporating spaces for a variety of activities, including shopping, work, entertainment and lodging, it is a mixed use development (MXD), a design and development concept regarded by some as a new hope for revitalizing beleaguered American cities.

The moving force behind RenCen (its popular sobriquet) was Henry Ford II; as architects he chose John C. Portman & Associates, whose previous work more than qualified them for the assignment. Having designed Embarcadero Center in San Francisco and Peachtree Center in Atlanta, John Portman, FAIA, understood the magnitude of the undertaking and knew something about the development, marketing and financing dynamics of such a bold enterprise.

Henry Ford's vision, in founding the Detroit Renaissance Committee in 1970,

**Mr. Florance** is a partner in the Washington, D.C., architectural firm of Keyes, Condon & Florance.

was meant to reverse the disintegration of downtown Detroit. The city symbolized, in aggravated form, the distress of cities all over America. The steady flight of business to Detroit's suburbs was draining the CBD, while regional shopping centers, such as Northland, had seriously hurt the retail core. Middle- and upper-income families, meanwhile, were abandoning the city, and postriot images of crime and violence presented a picture of desolation.

The Detroit Renaissance Committee gave impetus to the formation by other business leaders of the Renaissance Center Partnership, which has the participation of 51 metropolitan area corporations. The partnership is the largest private investment group ever assembled in the U.S. for a major real estate development and is responsible for an equity investment of \$137 million. The construction loan of \$200 million was handled by a consortium of 28 banks; permanent financing involves the participation of five financial institutions.

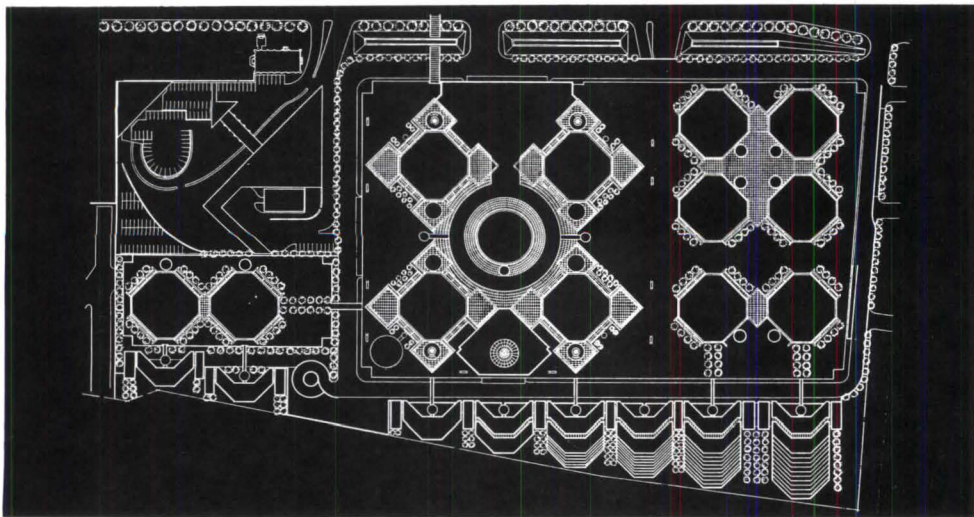
Everything about the RenCen looms larger than life. The centerpiece of the complex is a cylinder housing a 1,400-room, 73-story hotel, the tallest in the world. Sheathed in a taut skin of glass and flanked by four 39-story office towers containing 2.2 million square feet of space, the hotel stands at the center of the 50-acre site on a four-level, 14-acre podium. The podium serves as base for



over 350,000 square feet of retail space, enough for a major regional shopping center. It also accommodates 1,300 cars inside—another 4,100 outside—and is the starting point for six open levels of dramatic space.

The central component is a multilevel public space, centered under the hotel tower, and includes restaurants, cocktail lounges, hotel reception areas, hotel elevator lobbies and meeting spaces.

The space is open throughout, and on its perimeter are ring-like promenades and escalators that are rotated just enough at each level to afford deep views. Where the office and hotel towers meet the podium, there are skylights and from the center outward are controlled views back into the retail spaces.







*Downtown, Renaissance Center and the Detroit River; at left, RenCen's site plan.*

It is in this central space that all the action and excitement occur. The principal material is exposed concrete with a considerable amount of sand-finished plaster at soffits and other similar spots. Light, both artificial and natural, together with greenery and water, are used to meld the whole into a remarkably consistent composition. Sparkle is provided by transparent hangings, fountains, a large, free-standing sail-like sculpture and a multi-story square concrete column with water washing down its four faces. Furnishings are trendy but in keeping with the space, and there is motion everywhere as people move to and fro.

The hotel floors are straightforward and pleasant and not unlike those of other recent first class hotels, except that rooms are shaped like pie slices. With elevators at the center of the cylinder, the inner ring of circulation is convenient and direct. At the top there are three levels of entertainment space—on one a restaurant, on the other two, cocktail lounges. The views over Detroit and across the Detroit River to Canada are stunning. An elevator facing the river takes visitors from the atrium space through the skylight and up 70 floors in a glass tube attached to the larger cylinder.

Unlike the hotel, the office towers are framed in steel, have deeply chamfered corners and are square in plan. The angle at which they sit, cocked 45 degrees on

the podium, heightens the visual impact of the central hotel shaft and gives the exterior of the complex a radial, almost unfolding feeling. On the outside edge of each tower is a glass-sheathed, cylindrical express elevator reaching to the roof; elevators on the inboard chambers only go halfway up. The glass elevator tubes repeat the theme of the central shaft and seem to hold the office towers tightly in place. The main elevator lobbies for the office towers are reached by shuttle elevators from the street level—a situation often confusing to the visitor.

The four bronze towers look like office buildings and contrast markedly with the smooth, undifferentiated gray glass facade of the hotel. Views, as in the hotel, are excellent. Mullions are a contrasting light



beige with verticals attached to the skin. Horizontal mullions, however, stand off from the skin some four to six inches and lend texture, depth and shadow.

The entire complex is heated and cooled by equipment located in two berms of stepped concrete planted with ivy, which stand in from the podium facing Jefferson Avenue and are separated by the access road to the center.

How well the Renaissance Center will succeed in its goals is not yet clear. As Wayne Doran, president of the RenCen, says, "The jury is still out." However, he points out that results to date exceed projections for this stage in development. Office space is 84 percent leased; the Detroit Plaza Hotel is running at 78 to 79

percent occupancy with a strong convention business, and retail space is reported to be 60 to 65 percent leased. Retail activity is the least evident at this point and seems to be the weak spot. Interior finish work is underway for shops, however, and the decision has been made to emphasize high fashion merchandise. To date, nine commitments have been made. There are no major retailers, as in a conventional shopping center, but Doran estimates that there will be 50 stores open by October or November.

There is more yet to come. The original proposal included 1,000 housing units along the river and four additional office towers to the east. Robert McCabe, president and staff director of the Detroit Ren-

aissance Committee, regrets the absence of the housing and thinks it overdue. The recent business recession, however, slowed further development and there are no immediate plans to get on with housing. But McCabe feels there is a strong market for it and wants to see an effort made to introduce new upper-income housing into the CBD.

Just as RenCen's economic viability is still in the wait-and-see stage, so too is its impact on the CBD. Wayne Doran admits that his office space mainly has attracted tenants from other downtown office buildings, but claims that these tenants otherwise would have left the CBD altogether. Charles Blessing, FAIA, of Detroit's department of community and





## As a concept for revitalizing Detroit's decaying core, 'its success remains to be seen.'

economic development (for years head of the planning commission) says that there has been a significant increase in downtown pedestrian traffic since completion of RenCen. Convention business, too, has brought in life and activity. The center has, of course, brought a big improvement to Detroit's tax base, while the city's investment in physical improvements has been minimal.

Signs of new neighboring development activity, however, remain absent. Other than Noguchi's Civic Center Plaza on the waterfront to the east, there is no new construction in sight.

A persistent and justified criticism of RenCen is that it is physically isolated from the city at the ground plane. It is separated from neighboring areas on one side by Jefferson Avenue, and even if pedestrians could easily cross this thoroughfare, there is no strong attraction or magnet other than Greektown, a block of attractively restored shops four or five blocks away. Beyond these limitations, however, the barrier of the concreted berms appears unreasonably formidable and certainly forecloses any future visual linkage to the CBD. Flanking the center to the east along the waterfront is the tunnel to Canada (now owned by RenCen). Beyond it is the Henry Ford Auditorium, then the Noguchi Plaza and finally Cobo Hall. While there is landscaped pedestrian access to the east, it terminates at the blank end wall of the berm.

Probably more important than the lack of immediate pedestrian access is the absence of positive urban design links with the more distant CBD four to ten blocks away. There are no connecting vistas, no discernible architectural relationships and no integration of street patterns.

It is surprising that an organization as sophisticated as the Detroit Renaissance Committee has not promoted an overall design scheme suggesting ways to incorporate RenCen more closely into downtown Detroit.

The DRC has, however, been successful in gaining federal approval for a downtown people mover which may become a reality in just a few years. This people mover, enclosed cars on an overhead rail, will connect the RenCen in a loop with the retail core (Hudson's department store is the flagship), the

*At the periphery of the great cylinder's base (photo left), views around and through from bridges and balconies. Above, RenCen's exterior as the pedestrian sees it.*



financial core and Cobo Hall.

A second important effort on the part of DRC is the proposed Cadillac Center, a multilevel retail project in the vicinity of Cadillac Square. Conceived as a downtown regional-scale shopping center, it would also link to the people mover and a public parking structure. If this project is successful, the CBD would assume some of its former importance as a retail center and, in tandem with RenCen, could be expected to give further impetus to the revitalization of downtown Detroit. Beyond these two important efforts, there seems to be little in the works that would knit the Renaissance Center to the surrounding city. There is always the hope, though, that the sheer presence of RenCen will generate linkage.

Renaissance Center has to be judged on several levels. As a bold and imaginative real estate development, it is truly impressive. And as an effort on the part

of the private sector to respond to the public needs of the city and region, it is indeed commendable. As a concept for revitalizing a decaying central business district, its success remains to be seen and as an urban design concept it suffers because of isolation. As architecture, it is hard to judge. The outside and the inside do not seem particularly related. The shiny exterior seems distinct from the rugged concrete interior and the outside gives no intimation of what to expect inside. And finally, the character of the interior is unsettling. Thrilling on the one hand, it seems bombastic and stagey on the other. Very well thought out and remarkably consistent in design, its plan nevertheless disorients the visitor who must depend on ubiquitous attendants to find the way around.

One thing is very certain, however. People get a tremendous kick out of being there. □



# The MXD as a 'Tool for Treating Blight' and a Design Challenge

*As this form of development proliferates, it is clear that the most crucial issue is its impact on its surroundings.*

Renaissance Center may be our most imposing mixed use development, but it is only one among many MXDs that have sprung up in America during the last decade.

The best survey to date of this type of development is contained in the Urban Land Institute's 1976 publication, *Mixed Use Developments: New Ways of Land Use*, by Robert E. Witherspoon, Jon P. Abbett and Robert M. Gladstone. The authors identify 88 MXDs in North America; 56 of these were completed between 1966 and 1975, and another 17 were in planning stages at the time they wrote their book.

The ULI report defines a mixed use development as a relatively large-scale real estate project characterized by:

- "Three or more significant revenue producing uses (such as retail, office, residential, hotel/motel and recreation—which in well planned projects are mutually supporting);
- "Significant functional and physical integration of project components (and thus a highly intensive use of land), including uninterrupted pedestrian connections, and
- "Development in accordance with a coherent plan (which frequently stipulates the type and scale of uses, permitted densities and related items)."

The concept of mixed use is not new, the report points out. The Greek Agora, medieval marketplaces and the mix of commercial and residential uses found in both American and European 19th century cities were precursors of MXDs. Rockefeller Center, though technically a multiuse rather than mixed use development (because it has no residential component), is a forerunner and certainly qualifies in terms of scale, integration of physical components and overall plan.

A major step in the evolution of MXDs came in the 1950s with the proliferation of the shopping center and its compact organization of mutually supporting activities in a single, high-density real estate venture. First, the strip shopping center and then the regional shopping center emerged as responses to the automobile, suburban growth and the market synergy afforded by collecting multiple shopping opportunities under one roof.

The logical next steps were to include office and residential spaces and to locate these complexes in the central city. Penn Center in Philadelphia, Midtown Plaza in Rochester and Charles Center in Baltimore are early examples of the downtown MXD.

As mixed use became increasingly accepted, a number of new tendencies began to appear. "While Midtown Plaza and Charles Center were initiated by relatively unconventional developers," notes the ULI report, "real estate companies . . . soon became involved. Whereas downtown mixed use development was at first the most dominant, projects increasingly sprang up elsewhere in the central and close-in suburbs. Whereas mixed use development was mainly found in the larger metro area (one million population or more), it increasingly spread at a smaller scale to medium and small metropolitan areas."

In their physical configuration, MXDs tend to be either megastructures, a group of individual structures on a common platform or free-standing structures with pedestrian connections. Whatever their configuration, mixed use developments involve "building for the long haul. It's not

## Claims of a 'far greater catalytic effect' from the MXD than a single-use project.

speculative building where you throw something up as quickly and as cheaply as you possibly can," in the words of John Portman, FAIA.

As the ULI report points out, there is a minimum size or "critical mass" for successful MXDs somewhere in the vicinity of 500,000 square feet, inclusive of parking. Large size is necessary to provide an adequate mix of uses, project a significant public image and capture a large market area. As a rule of thumb, a minimum floor area ratio of 3.0 is needed.

The primary concern of most private developers "is the potential for profit," write Witherspoon and his colleagues. MXDs frequently offer higher financial returns than conventional forms of devel-

opment because of the economies that can be obtained by building on a large scale, stronger demand and higher rent than at competing locations, operating efficiencies once the project is in use and slower economic obsolescence.

"The key motivation of *public* or quasi-public developers," according to the ULI report, "may include a target return on investment, together with broader public purposes such as expanding the community's tax base [though MXDs may require a tax abatement scheme in the early years]; stimulating downtown redevelopment, and attracting or holding middle-income residents 'in town.' These same objectives are also accomplished indirectly by most privately sponsored mixed use projects."

The report speaks of MXDs as "tools for treating blight and decay." It offers the following list of ways in which they perform this function:

- "By introducing residential, transient, and/or recreational activities to areas which were 'dead' during nonworking hours (e.g., Embarcadero Center in San Francisco and the Watergate in Washington, D.C.);
- "By maintaining and improving their own environment over time (e.g., the continuing 'internal regeneration' long recognized at Rockefeller Center and now beginning to appear in established contemporary mixed use projects);
- "By blending with established residential neighborhoods (e.g., Westmount Square in Montreal, Colony Square in Atlanta) where other types of high-density developments were unacceptable;
- "By having a far greater catalytic effect on community development than single-purpose projects.
- "By providing a means for organizing metropolitan growth (e.g., the Galleria, which serves as a focal point for a large and rapidly expanding urban center, conveniently located in suburban Houston and known as City Post Oak).

"Indeed, mixed use has proven the only approach under some circumstances, where fragmented, unfunctional developments were not feasible."

As this implies, MXDs may have a special role to play in this era of heightened environmental consciousness when "high-rise" has become a fighting word to residents of many urban neighborhoods. It offers a tradeoff in public spaces and amenities for the perceived disruption of the neighborhood caused by building at large scale.

The MXD would offer a particular architectural challenge if for no other reason than scale. The ULI report, however, points to other factors that make design particularly crucial.

"More than most real estate projects, mixed use developments must be both



efficient and pleasing from a physical standpoint. Further, physical design success is crucial to the economic results of mixed use projects—in terms of marketability for individual uses; synergy among project components; economies of scale in development; operating efficiencies, and the visual impact of the overall project. While design solutions differ widely, most mixed use projects pose a special set of physical planning problems which go far beyond the architectural engineering concerns of other types of real estate projects:

- “How to accomplish this superior site utilization—including incorporation of natural features and physical and functional relationships with surrounding environs;
- “How to provide for an efficiently functioning infrastructure (including parking, utilities and effective mechanical and electrical systems) capable of servicing the differing demands of each project component;
- “How to position revenue-producing uses so as to provide appropriate emphasis for each, as well as market synergy among all components.
- “How to provide for easy pedestrian

*Embarcadero Center in San Francisco (below) and Baltimore's Charles Center.*

## A need for physical linkages as well as more subtle relationships to the neighbors.

access among project components and to relevant adjacent areas, through positioning of components and through horizontal and vertical movement systems;

- “How to offer outstanding amenities and attractions which cannot be obtained in single-purpose projects (e.g., exciting ‘people places’ capitalizing on the diversity of activities present in a mixed use project); and
- “How to ‘mass’ individual building components in the project ‘community’ so as to create a harmonious, distinctive ‘sculpture’ in total.”

There is no more crucial design issue than the way in which the MXD relates to its surrounding. The ULI report points out with distressing neutrality that the basic choice is whether it should turn inward upon itself or reach out to the community. The case histories which are the most useful and impressive part of the report make clear that most developers and their designers have made the inward-turning choice, with the result that many

MXDs are virtual islands unto themselves.

Clearly, to realize the public benefits claimed for them the MXDs must be integrated into the areas in which they are built. This means, first of all, transportation and other physical linkages to their surroundings (such as the system of skyways which links the IDS Center in Minneapolis to neighboring buildings and is now being extended throughout the CBD).

But it also means establishing more subtle relationships through compatibility of form and materials and modulation of scale if, as is usually the case, the MXD is dramatically larger than the buildings around it. Ultimately, it means simply that the designers of the MXD must take care that it is, architecturally, a good neighbor.

An almost unexplored design challenge is the incorporation of some existing buildings into an MXD (Charles Center in Baltimore stands as the largest example of doing so successfully, but it remains an exception to the rule of clearing the site and building afresh). Blending old and new creates a whole additional layer of development and design problems, but it can also lend a richness to the MXD that can't be achieved in any other way and help assure its acceptance by the community. C.F.





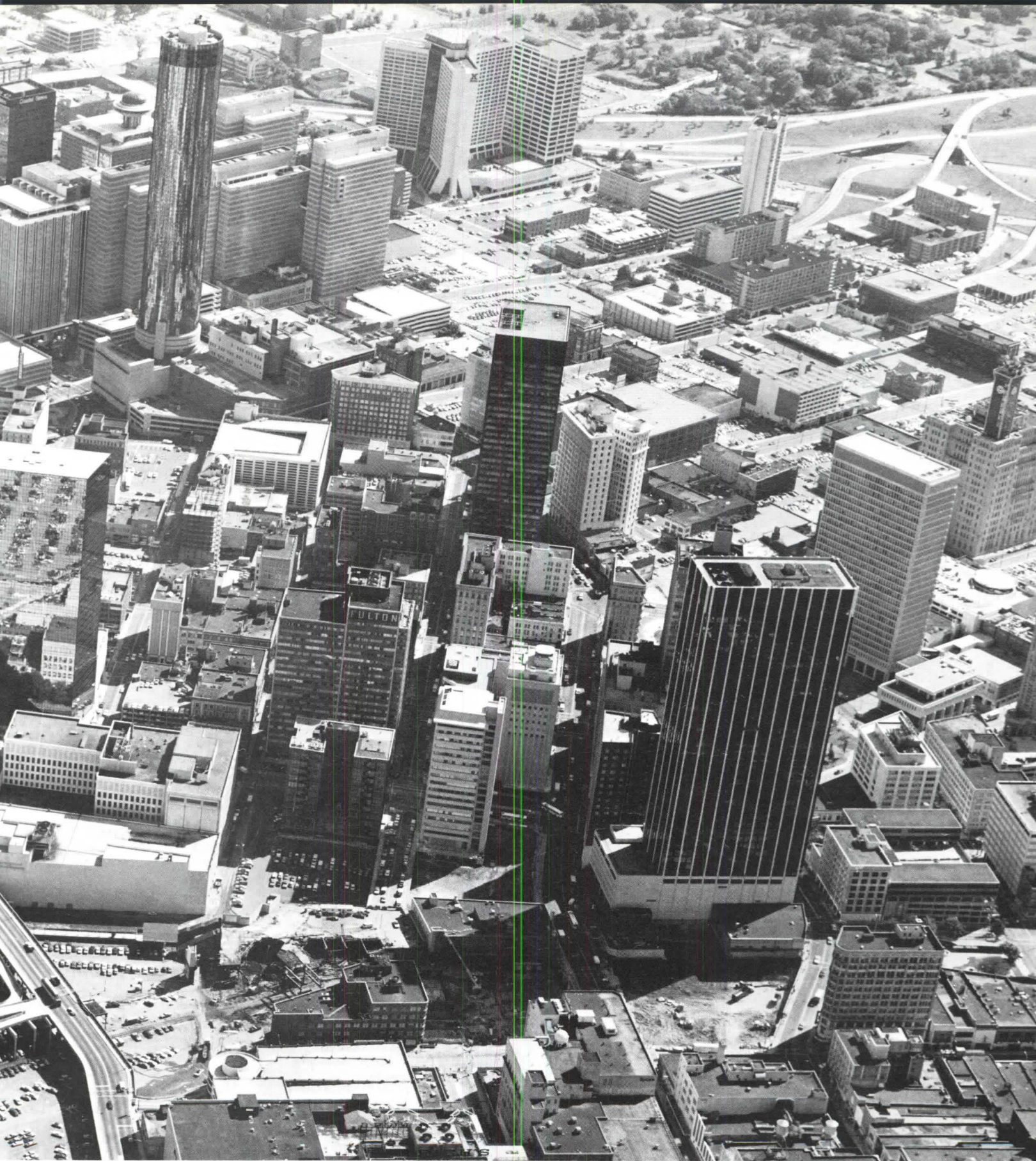


## Introverted Trio of MXDs Dominates Atlanta's New Downtown

*Dramatic in themselves, they are remote from one another and aloof from the everyday life of the street. By Allen Freeman*

With the opening of the Regency Hotel 11 years ago, John Portman's Peachtree Center incorporated its third major use, thus becoming a mixed use development and establishing a pattern for much of Atlanta's subsequent development. There are now six MXDs in Atlanta, according to the Urban Land Institute's survey: two in the suburbs; one a mile or so out from the core (Colony Square, *see p. 42*), and three in the core—Peachtree Center,

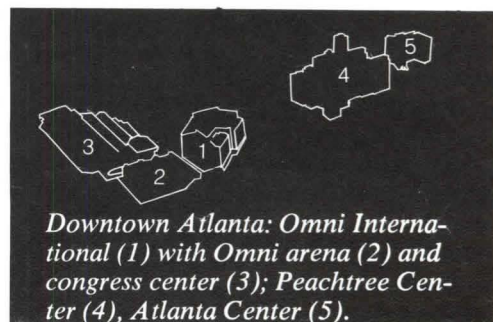




Omni International and Atlanta Center (see Apr. 1975, p. 34).

Recent development within the core, with a few notable exceptions, has been within or around the big three, each of which fits one of the three ULI design definitions of free-standing structures, units arranged on a podium or a megastructure. And their design concepts reflect their sites, which are as varied as their appearances.

Peachtree Center has been developed during the past 15 years as free-standing structures spread along two and a half contiguous blocks on the northern edge of the core. Its major spine is Peachtree Street, along and around which have been grouped five office towers, two convention hotels (the Regency and the Peachtree Plaza), a merchandise mart, a building containing shops and a dinner theater, a bus station/parking garage and, soon to







be built, an apparel mart.

Portman has inserted the buildings of Peachtree Center among existing low and highrise buildings. The office towers present thin edges to the street, and two are set behind preexisting lowrise structures. From the Regency to the Plaza, the pedestrian is aware of being in a coordinated environment, but it is a place with wide diversity of forms, textures and spaces. However, the Peachtree Center scale dwarfs the modest shops and stores on Peachtree to the south.

A block down a steep hill from the Regency's rear service entrance stands Atlanta Center. Built in a single phase, it was designed by Wong & Tung and Maskin & Associates as two major structures—a

convention hotel with a retail base and an office tower—set on a podium that contains parking space for 1,157 cars. The hotel's three wings center on a dramatic, 28-story space, and through this atrium's ample windows, one gets splendid views of the downtown skyline. At ground level, however, there is little for the pedestrian to relate to. The approach from Peachtree Center is along leveled tracks of parking lots. A sunken downtown expressway skirts one corner. The hotel's entrance faces the rear of a hospital.

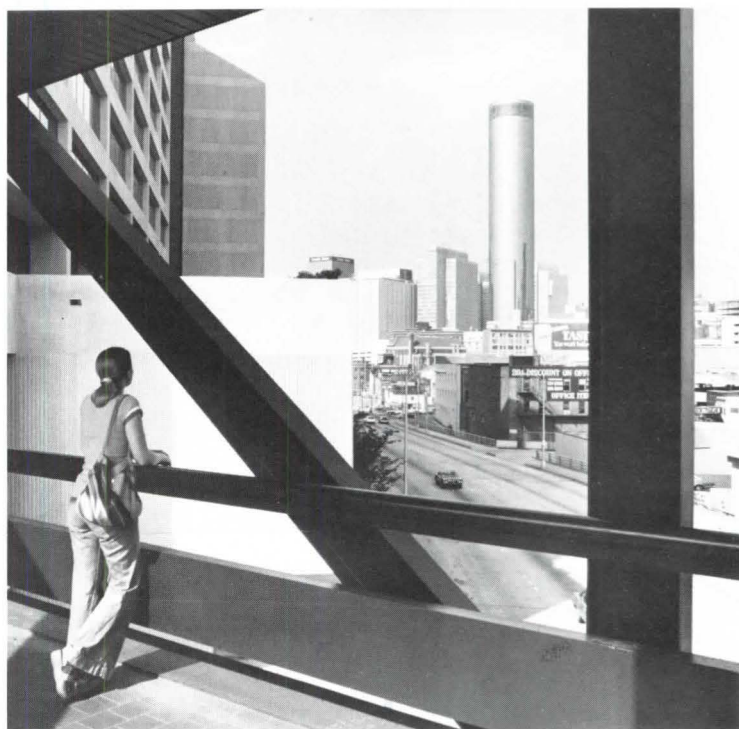
Although Omni International is also isolated from the rest of the core, it does stand adjacent to the Omni sports arena and the Georgia World Congress Center, a sprawling convention facility. But it is

almost totally inward-oriented, designed as a megastructure containing office blocks, a family amusement park, a hotel and retail space. All are centered on perhaps the most dramatic interior space in the city.

Omni International and its two neighbors were designed by Thompson, Ventulett, Stainback & Associates, whose principal in charge of design, Thomas W. Ventulett III, AIA, sees Atlanta's MXDs as catalysts for development. "If each is successful, they will generate successes around and between them," he says.

But the pace at which the spaces between MXDs will be developed is uncertain. Omni International, Atlanta Center and several major components of Peach-





*The spaces around and between Atlanta's downtown MXDs: Atlanta Center and lots of cars (top left); Peachtree Center meets Peachtree Street (bottom left); Peachtree Plaza to Five Points (above); Peachtree Center from north (top right) and from Omni (bottom right).*

tree Center were all conceived, financed and under construction before the recession of the early '70s curbed Atlanta's appetite for filling office space and hotels. The result was deep trouble for several developers—including Colony Square's James Cushman—and a period of anxiety for the rest. But the glut of office space is now diminishing, occupancy rates of the major hotels are in the profitable range

and retail leasing is holding its own. Atlanta's optimists, of which there are many, are even predicting a new round of construction.

The city's movers and shapers are aware of linkage problems within the core. When the rapid transit system was being planned, a group of businessmen, Central Atlanta Progress (CAP), proposed a people mover to connect the three MXDs with the Five Points financial district, Georgia State University and the state capitol complex. The funds to build the people mover are yet to be realized, but CAP and MARTA, the transit authority, are jointly sponsoring a bus route which loops the core to make those connections.

To a large extent, the siting, inward

orientation and lack of integration into surroundings of Atlanta's MXDs are responses to attitudes toward the downtown. The suburbanite or out-of-town visitor can drive into an MXD parking facility, escalate to work or play and leave by car without experiencing the rest of downtown. Meanwhile, the sidewalks in the core are crowded with the less affluent who must wait for buses there because that is where transit routes converge.

Planner Vincent Ponte calls Atlanta's MXDs typical of a "citadel" concept of development that is prevalent throughout the U.S. On the following pages is a description of Montreal's (and Ponte's) solution to the problem of interrelating MXDs.



# In Montreal, Promenades Weave MXDs into an Integrated Core

*For most of two decades, the city has been steadily expanding its subway-linked system of subterranean pedestrian streets.*

Atlanta's and Montreal's cores are quite dissimilar: Atlanta's sprawls on twisting, narrow streets, while Montreal's is compact and densely built on a grid of wide thoroughfares.

Montreal's density, plus the fortunate happenstance of a huge core tract coming on line for development in the hands of an enlightened developer/architect/planner team, has led to a system of mostly subterranean promenades connecting MXDs and other downtown segments. Relating self-contained developments to their surroundings has been attempted piecemeal in several other North American cities, but none has done it on as large a scale or has met with more success than Montreal.

It's a story told many times. In the mid-'50s, the Canadian National Railways brought in U.S. developer William Zeckendorf to build Place Ville Marie, which was planned as four office buildings on a three-

acre podium over a railroad gulch. The architect was I. M. Pei, FAIA, and Pei's planner was Vincent Ponte. Together they planned a shopping arcade under the central plaza and into the areas under the office structures. Pedestrians can enter from adjoining streets or through four sunken courts from the plaza.

By the time Place Ville Marie opened in 1962, the promenade system ran under Dorchester Avenue and Queen Elizabeth Hotel and into the CNR Central Station.

Next came Place Bonaventure, a mega-structure MXD designed by Affleck, Desbarats, Dimakopoulos, Lebensold & Sise. Working with the architects, Ponte laid out two retail levels, an under-street connection with the existing promenade and a passage into a Metro station (photo below). Place Bonaventure, completed in 1967, stacks a trade center of three million square feet, including a five-acre exhibit hall, and a hotel all on a retail base.

Currently in place are the four blocks of promenades from Place Ville Marie to Place Bonaventure, plus smaller segments that have been placed around the other three Metro stations in the downtown. Planned extensions will connect into a single system these elements: Place Victoria, whose tower houses the Canadian stock exchange, and the neighboring Regency Hotel; Place du Canada and the adjoining Windsor Station; Simpson's and Eaton's department stores, and McGill University, whose campus begins four blocks northwest of Place Ville Marie.

"At the rate Montreal's downtown is growing," says Ponte, "by 1987 the system will service 100 of downtown's 185 acres with about six miles of walkways and galleries lined for the most part with shops and services." It will be capable of accommodating half a million people at a time, he says, and will greatly increase the capacity of the area to absorb pedestrian trips.

"The system, 70 percent completed, has already demonstrated substantial relief to

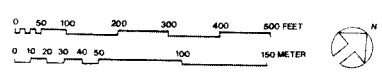
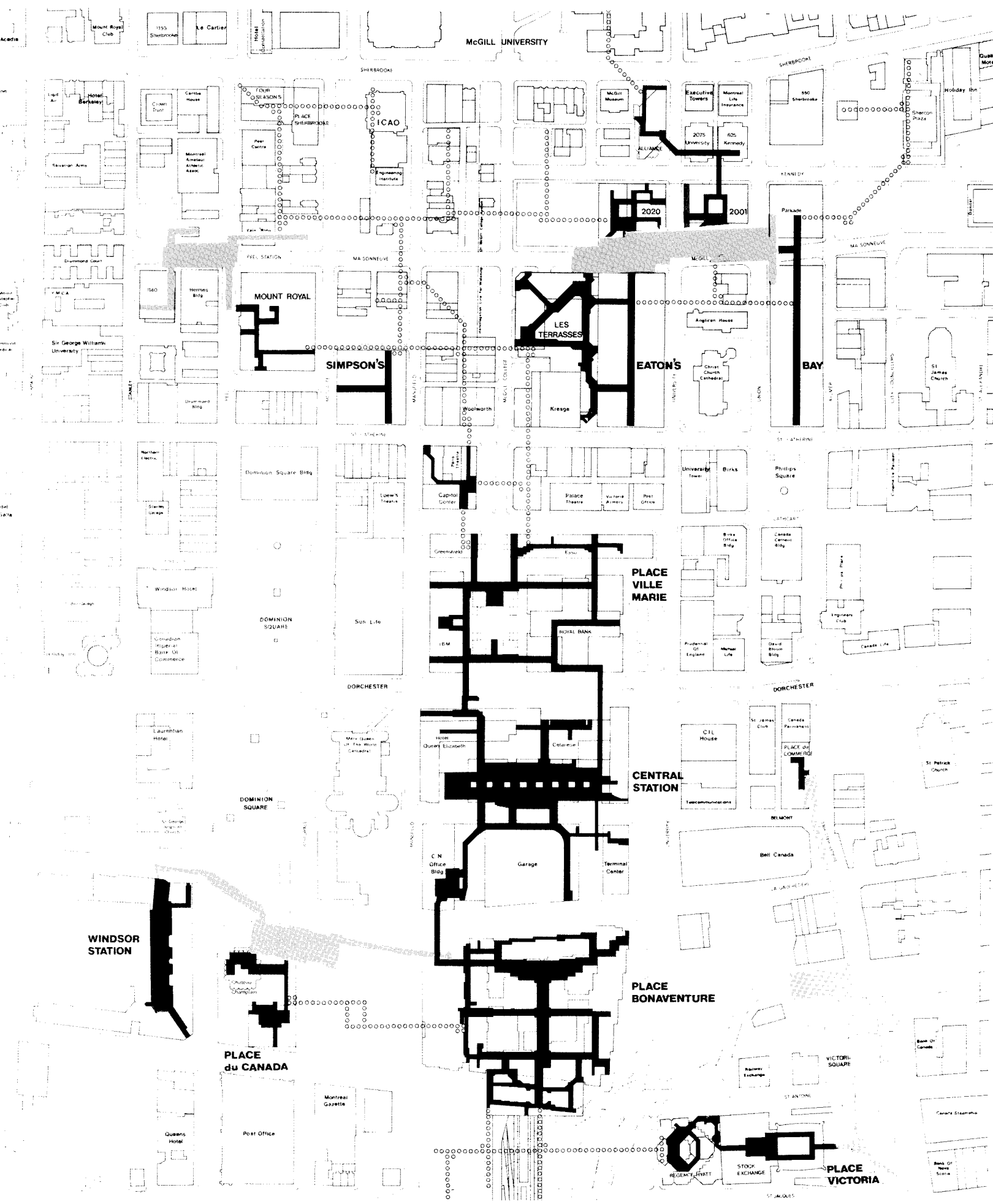
*Place Ville Marie's cruciform tower is in center of photo at right; Place Bonaventure behind it. Place Victoria is the tower at top left; Place du Canada, top right.*













-  METRO MEZZANINES
-  EXISTING WALKWAYS 1976
-  FUTURE WALKWAYS



## The underground is thriving and there is also life day and night on the sidewalks.

traffic at some of Montreal's busiest intersections," he says.

The topography of Montreal's core has proved advantageous for subterranean development because the surface slopes 120 feet in elevation from St. Catherine Street (a block up from Place Villa Marie) to the St. Lawrence River. Terracing and layering into the slope has been the pattern of new developments. Place Bonaventure, for instance, burrows eight stories underground at its deepest point.

Ponte, now a principal with Cossutta & Ponte, likens designing an underground system to planning a new town: "My job is to chart out a pedestrian system that makes sense within the configuration of the city's geography, and to work with the architects to insert a pedestrian system that is logical and usable by people." The Montreal project is being carefully planned to parallel the usual traffic routes that people would take at sidewalk level, he says, and it taps all possible pedestrian inputs, including parking garages.

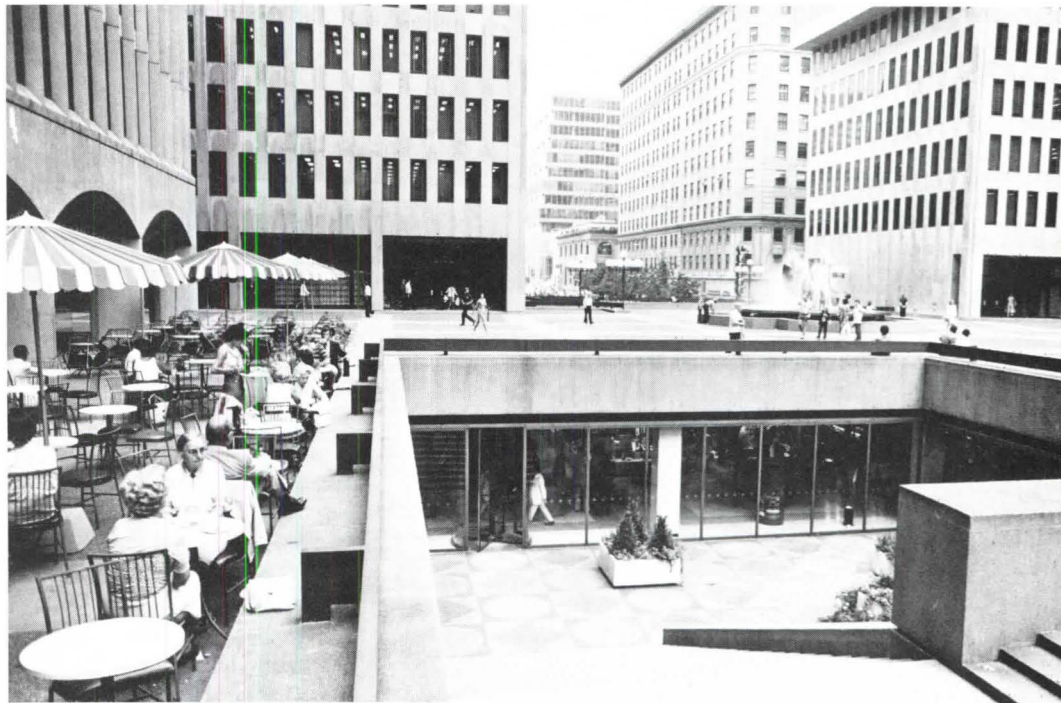
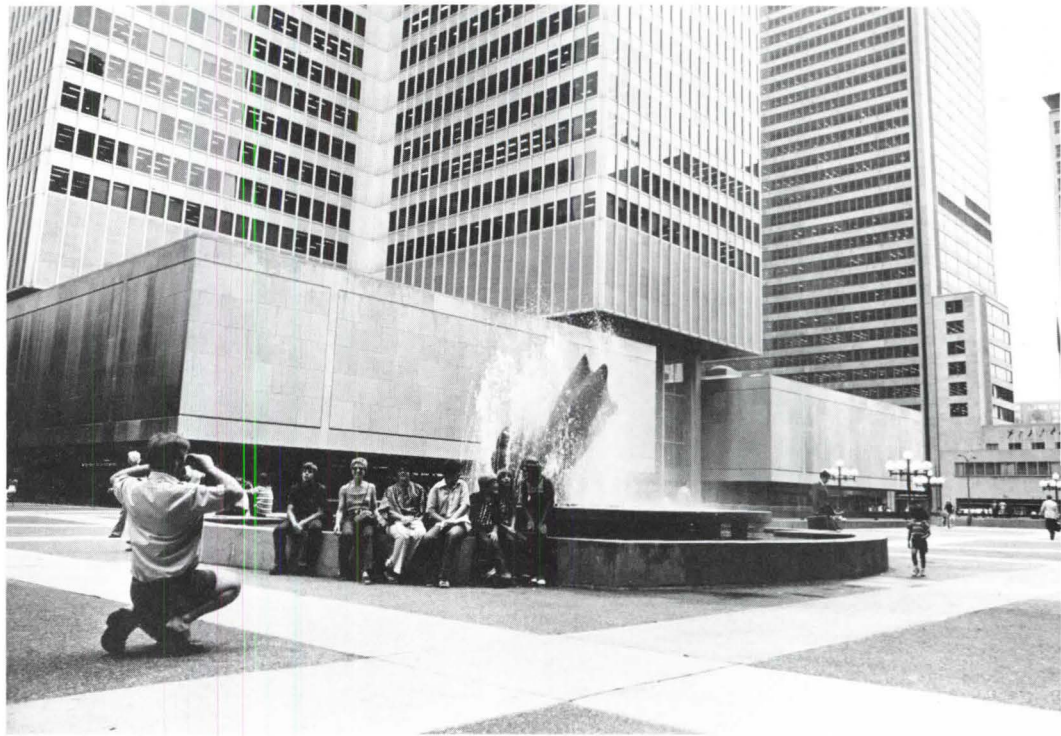
The passages are well trafficked—and at times crowded—and the shops, restaurants and movie houses are thriving. The spaces are kept clean and seem safe, even in the late evening hours.

At grade level, Montreal's downtown sidewalks also are lively and safe after dark. By comparison, Atlanta's are deserted. There is nighttime activity in Atlanta's core, but it is almost exclusively within the protected areas of the MXDs.

Ponte calls these islands of activity in cities across the U.S. "citadels," saying they are direct responses to a certain societal situation, namely the giving over of center cities to the less affluent—mostly blacks—and the exodus of the middle and upper classes to the suburbs with their own suburban citadels, the shopping centers. The downtown MXDs are their equivalents.

Says Ponte: "But no one is going to discount a Renaissance Center or a Peachtree Center as not being something good for the downtown. Things *are* happening downtown; something is being built." *A.F.*

*Place Ville Marie's plaza (top) is a large and lively space defined by the landmark cruciform office tower, the Queen Elizabeth Hotel and three smaller office buildings. An outdoor cafe (middle) edges one of four sunken courts which provide access to the promenade. The glazed courts bring in natural light and provide visual reference points (right). Map at left shows existing and planned sheltered walkways.*





# Evaluation: A Bristling Concrete MXD in a Transitional Area

*Ambitious, financially troubled Colony Square stands at the junction of downtown and residential Atlanta. By Robert J. Young, AIA*

A little over a year ago, I conducted a user evaluation of Colony Square in Atlanta. I interviewed both its residents and people who lived and worked in the neighborhood into which the complex had been inserted in an effort to assess the mixed use development as a social and design concept. How well, for instance, did these people think the complex fit into the neighborhood? What effect did they think it had on the surrounding area? And what did residents like and dislike about living in Colony Square?

Developed by Cushman Corporation and designed by architects Jova/Daniels/Busby, Colony Square is a 3 million-square-foot project which cost over \$100 million. It followed Peachtree Center as Atlanta's second mixed use land development and is somewhat unusual in being located at the edge, rather than in the core, of downtown, two miles north of the

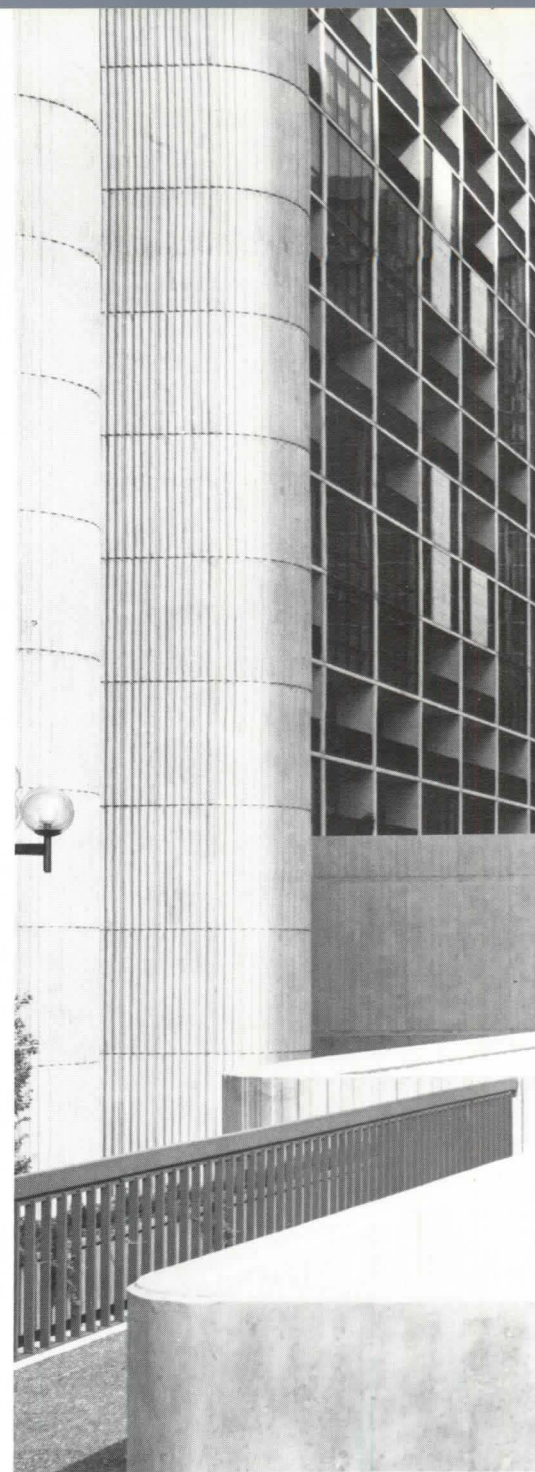
**Mr. Young** is an architect, professional engineer, associate professor of architecture at the Georgia Institute of Technology and chairman of the AIA environmental education committee. His study of Colony Square was supported in part by the National Endowment for the Arts and Georgia Tech.

central business district. Its location—bounded on the north by one of the city's most exclusive close-in residential areas (Ansley Park) and on the south by the declining transitional area of Atlanta's counterculture strip—provides a neighborhood setting of distinct contrasts.

Also unusual for an MXD, Colony Square included residential units from the start. Constructed mainly of concrete, its highrise apartments, condominiums, a hotel and two office towers rise above underground parking and ring a two-level public area and retail mall.

At the time of my study in the spring and early summer of 1976, office occupancy was high, as it consistently has been, although occupancy levels were low for the other major components of the complex. A total of 264 residential units had been constructed, although one condominium structure with 71 units remained unopened. The remaining 97 apartments were 80 percent occupied; of the 96 condominiums, 55 percent were filled.

The residential, hotel, and retail components of Colony Square were completed just in time for the worst recession since the 1930s, and by far the worst economic downturn to hit Atlanta since the end of



*Residential Ansley Park and Colony Square highrises (left), and the central plaza (above) with hotel in center of photo.*



World War II. In mid-October of 1975, the Colony Square Co. filed under Chapter XII of the Federal Bankruptcy Act, asking for protection against foreclosure, and in early 1977 an agreement was reached with its lenders resulting primarily in management changes and a contract for architectural modifications mainly in the retail areas. Although Colony Square's financial problems received a great deal of publicity, it was only one of many large developments in the area facing serious financial difficulties. Because the interviews upon which this evaluation is based were conducted prior to Colony Square's legal settlements, their effect on users obviously can not be assessed here.

Residents of 69 Colony Square condominiums and apartments—which are known collectively as Colony House—





were interviewed, as well as 134 persons who lived or worked in the neighborhood within a half-mile radius of the complex.

Ninety percent of Colony Square residents surveyed were white; 82 percent had completed at least four years of college. The mean age was 46; the mean family income \$37,300, with the largest numbers being employed in marketing/sales/advertising, education and as business specialists. Equal numbers of those surveyed were male as were female, married as were unmarried and only 6 percent of households included children.

Among respondents who lived in the neighborhood, three-quarters were unmarried, 92 percent were white and 56 percent had completed some or all of college. The mean age was 27, the mean family income, \$11,400 and one-fifth were students. Among those who owned businesses or worked in the neighborhood, all were white and well educated—with 70 percent having completed some or all

of college. The mean age was 39; mean family income was \$21,200. Many were employed at management levels or above in retail sales or services.

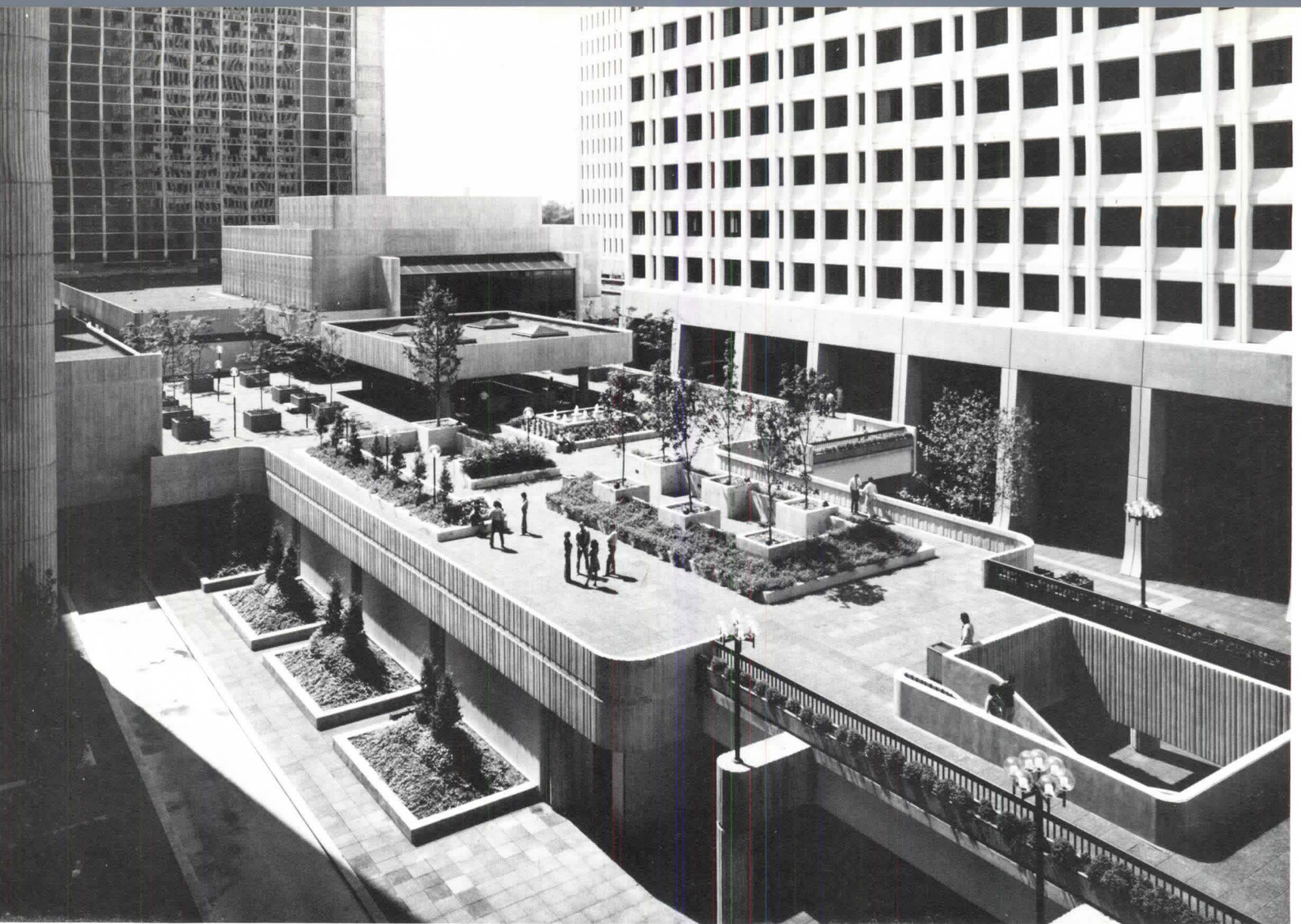
With very few exceptions, respondents from all three categories gave highly favorable answers to questions addressing their overall evaluation of the mixed use concept, the physical fit of Colony into the neighborhood and its influence on the area. The mix of office, residential, hotel and retail was viewed as a good idea by all Colony Square respondents, by 97 percent of surrounding neighborhood respondents and by almost 84 percent of surrounding neighborhood nonresidential respondents. Almost no one voiced a preference for spreading activities out over a larger land area in lower buildings; most respondents felt MXDs were more effective near urban cores rather than in suburbs, and the majority favored construction of more MXDs in conjunction with certain proposed rapid transit stations.

Asked whether they thought Colony Square fit well into the neighborhood, 94 percent of Colony House respondents, 67 percent of neighborhood nonresidential respondents and 87 percent of neighborhood nonresidential respondents answered in the affirmative. The difference in height between Colony Square and the surrounding lowrise neighborhood concerned one in four residential respondents, but much smaller percentages of the other survey populations. The transition between Colony Square and Ansley Park to the north was felt to be successful by almost all of the Colony House respondents.

Surrounding merchants expressed only the most modest concern that Colony Square then or would in the future draw customers away from them. Colony Square inhabitants represented only a small percentage of their clientele.

The neighborhood surrounding Colony Square was seen to be in transition by most (84 percent) of those surveyed in





Colony House, and by half of residential and nonresidential respondents in the surrounding neighborhood. Those living in Colony House viewed the area to the north as being far more stable than that to the south of Colony Square. All groups regarded the development as a very positive influence on neighborhood transition. They saw Colony Square as providing an anchor for the neighborhood, stabilizing and upgrading the area to the north, providing a buffer to the south and a catalyst for area restoration. The influences of the complex on the area to the south was viewed by Colony House residents as less dramatic, and about half said the complex had little or no influence. Primary positive influences were closings and/or demolition of substandard structures, general clean-up and Colony Square functioning

as an anchor for the area.

Just over a quarter of neighborhood survey respondents felt that Colony Square had exerted no influences on the area. Almost all (87 percent) of those who thought it had influenced change thought it was for the better. The most frequently mentioned positive influences were improvement and increased stability in the neighborhood and the influx of "a better quality of people." Higher prices, more traffic and greater parking difficulties were among the negative influences cited.

As a mixed use development or "micropolis," as its promoters call it, Colony Square claims to provide a better urban environment than developments with less diversity. Most employed respondents and especially the one-fifth who lived and worked in Colony Square itself said they

liked being able to work very near their dwelling places. Most working outside of the complex lived within 15 minutes of their place of employment.

Twenty-eight percent of the 58 employed Colony Square respondents interviewed said they and their employed spouses walked to work. By comparison, only 14 percent living in the six census tracts adjacent to Colony Square, 5 percent residing in Atlanta and 3 percent in the metropolitan area walked to work, according to 1970 U.S. census data. Those who were drivers of passengers in cars represented a smaller percentage than in the three comparison areas. Automobile ownership since moving to Colony Square had changed for one-quarter of those interviewed, decreasing for three-quarters of that group. These findings suggest that developments such as Colony can reduce automobile dependency.

A portion of Colony Square's 2,000-space underground parking garage is set aside for its residential users. Although the parking layout received generally high marks, parking costs for residents proved a major sore spot for almost two-thirds of those interviewed, especially since it comes on top of already substantial rents or purchase prices. There was strong feeling that parking space fees should be included in rent or purchase prices or absorbed totally by management. One alternative would have been to include one parking space in the cost of each unit,





*Indoor ice rink (left) is being removed. Major pedestrian entrance (above) from Peachtree Street is little used. Southern approach is transitional area (right).*

with additional spaces at an extra charge.

The micropolis or MXD concept carries with it the promise of a wide range of support facilities and activities, but, at the time of the study, Colony Square fell far short of meeting the requirements of its users. Partially because a large percentage remains unleased, retail space in Colony Square has met only a very small portion of the day-to-day shopping needs of residents interviewed. Only 7 percent of respondents indicated they did most of their shopping at Colony Square. At least at that stage of the MXD's development, the internal mix was not self-sustaining, nor had successful bridges been built to tap potential customers from outside Colony.

Some respondents felt the inward focus of the complex worked against impulse shopping, and the lack of visibility of existing stores to passing motorists and relatively expensive parking kept potential customers away. Merchants can validate parking tickets, but apparently few who might use the shops are aware of this. A grocery store, drugstore and additional specialty shops lead the list of facilities desired but lacking. There was clear desire to see a less exclusive retail mix.

Colony Square also provides few facilities for recreation and leisure, and almost



all (82 percent) of those interviewed said existing facilities did not satisfy their needs in this area. No responses reflected complete satisfaction. Tennis courts, a swimming pool and a health club were most frequently mentioned as lacking. It is felt that creative use of currently undeveloped and/or unleased space could fill these gaps. The Colony Square ice rink, one of the few responses to recreational needs, was judged a desirable part of the complex by almost all Colony respondents (85 percent), and was the major generator of activity within the public spaces which were otherwise often uninhabited. It is ironic that the rink is now being removed as part of the remodeling of the retail area and public spaces in an effort to improve circulation between the retail areas on either side,

which are visually linked but physically isolated from one another. Unless the ice rink is replaced by spaces that generate a lot of activity, this action may be regretted.

Although almost all Colony respondents felt the various elements of the complex are related to one another in a convenient way, considerable concern was expressed over poor or inadequate signage. They especially cited confusion in the parking garage and between the garage and other components. Signage exists throughout the complex, but its understatement, while tasteful, may contribute substantially to a common feeling of confusion and disorientation.

The hoped for synergistic effect in mixed use developments, where the whole is greater than the sum of its parts, has not yet been realized at Colony. Some 72





percent of Colony respondents indicated that the mall and plaza levels had not been functioning as areas where people from all parts of the complex would come together, although some expressed hope that social interaction between the parts of Colony Square would increase with time. Seven of every ten persons interviewed said that the components were working as adjacent, unrelated parts of the whole, and almost half identified their place of residence as Colony House, the residential building, rather than the Colony Square complex as a whole.

Respondents had lived in Colony from a few months to three years, with about 60 percent indicating they had developed friendships with others living there. A certain isolation from the surrounding neighborhood is sensed, however: Three out of four of those expressing a change in degree of neighborhood involvement compared to where they last lived indicated a decrease at Colony. About one in four had much contact with residents to the north (an area with similar demographic makeup), but only one person expressed similar contact with those living to the south. On the positive side, however, the general atmosphere of Colony Square was thought to be "very friendly" or "friendly" by almost all (91 percent), and "indifferent" by the remainder. Although given the opportunity, no one selected the words "unfriendly" or "very unfriendly" for the complex.

With only one exception, individual residence units were felt to be pleasant, and climate control and lighting received high marks. One-third found storage space within units insufficient, and four of every ten would have altered room relation-

ships, with elimination of wasted space and revision of kitchens and bathrooms layouts leading the list of suggestions for changes, followed by reduction of through-area traffic and increasing visual privacy between areas.

With smallish units, some as small as 630 square feet, the possibilities for flexibility are obviously limited. But within the given space, living rooms and dining/breakfast areas could have been made larger while reducing the size of bedrooms and kitchens.

The quality of soundproofing was described as inadequate by 39 percent of respondents. Full occupancy can only aggravate the problem. While remedial action could be taken, soundproofing is a problem best addressed in initial construction and is a feature residents felt they had paid for and not received.

Exposed building materials within Colony Square are almost exclusively concrete. When asked what kind of feeling the use of concrete evoked, about two-thirds gave positive responses with the words permanent, secure and substantial leading the list. The remaining third called it cold, sterile and/or unpleasant. More condominium than apartment dwellers liked the concrete. Although two-thirds of all residents surveyed were happy with the appearance of their dwellings, a sub-

### **Colony has not met all of its objectives, but most residents are pleased with their choice.**

stantial number voiced preference for a wider variety of finishing materials and more use of color. Overall construction quality was judged excellent by 29 percent and good or adequate by another 64 percent, leaving less than 10 percent saying "poor" and no one "very poor."

Safety and security were considered major assets of Colony Square. The only area considered unsafe was the immediate neighborhood to the south. Some 80 percent of Colony House respondents felt very unsafe or somewhat unsafe in this area to the south, while only 5 percent felt very unsafe or somewhat unsafe in the area to the north.

Residential respondents in the surrounding area did not share the same degree of concern over safety and security in their neighborhood as did Colony House residents. Almost all (88 percent) endorsed their neighborhood as a good place to live; 90 percent considered it a good place for their business location. Almost all neighborhood residential respondents (90 percent) planned to continue living at their present location for the foreseeable future, and almost all non-residential respondents (95 percent)

planned to continue in business at their present location.

The only significant complaint of Colony Square residents about the plaza was that it was not lively, which is seen as important, especially since almost all Colony residents expressed a desire for a greater intensity of activity. Given the less-than-complete occupancy of Colony House and the substantial amounts of vacant retail space on the mall levels, a level of activity generally perceived as low or very low is not surprising.

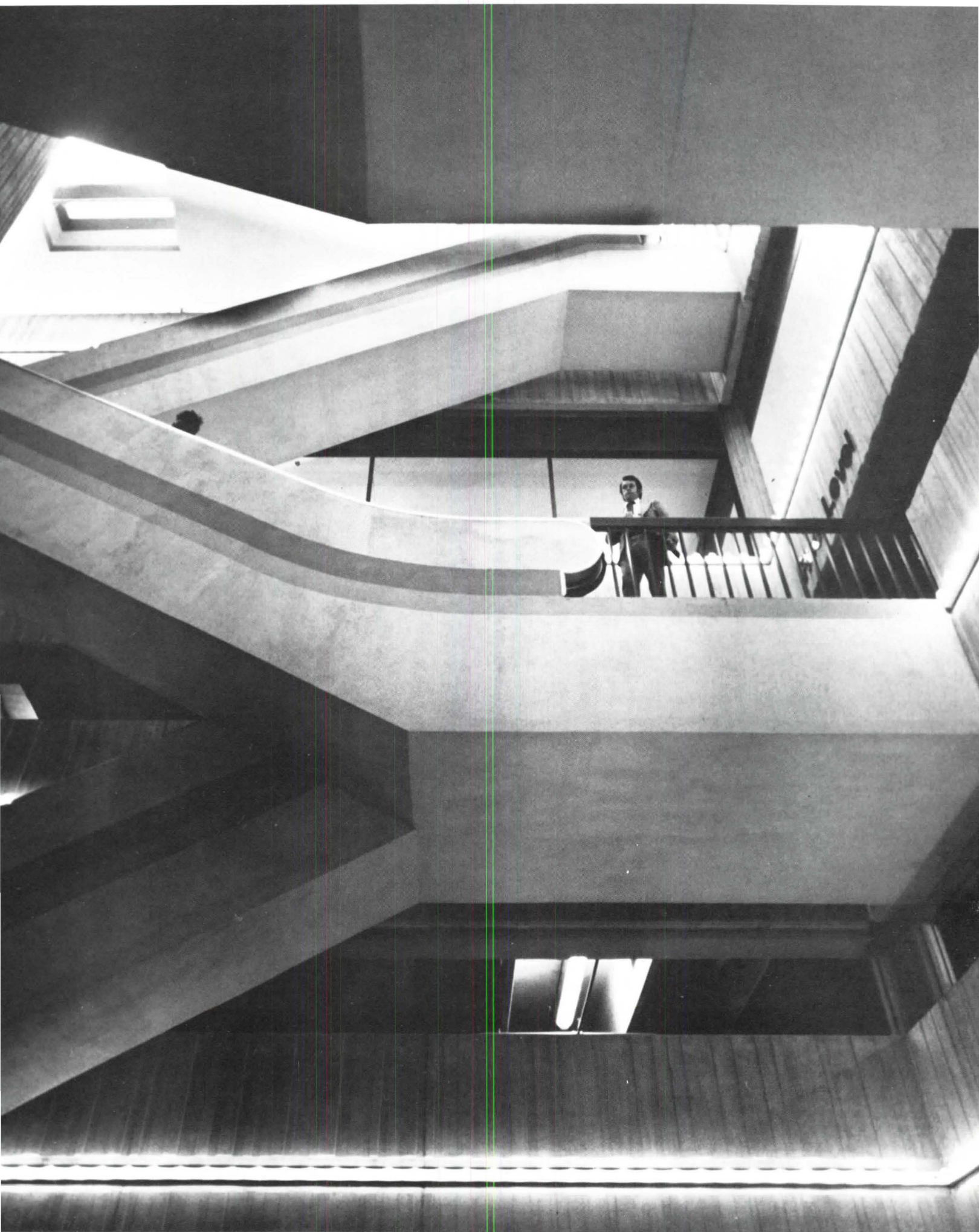
Increased activity might, however, result in some negative effects. The plaza is ringed by structures of different types, and an activity level which would complement office and retail spaces might well intrude upon privacy in Colony House. One in six Colony House respondents said they saw conflicts between their privacy as residents and activities which were currently taking place or might take place on the mall levels.

Overall, the reactions to Colony Square by residents and people living and working in the neighborhood underscore some of the more significant assets and deficiencies of MXDs in general. In an effort to evaluate this Atlanta complex as an urban living environment, Colony House residents were asked to compare it with the areas from which they moved. The majority judged Colony Square much better in terms of security, commuting time and activity mix, and less favorably, but still better, in terms of racial unrest, municipal services and social opportunities. Most considered it about the same in terms of crowding, pollution and sense of community and slightly worse in terms of openness. Over half of the residents interviewed moved to Colony Square from single family residences, so their sensitivity to more confined surroundings should come as no surprise. The main complaint was with the underdevelopment of the complex. Virtually all reported that they enjoyed living at Colony as well or more than when they first moved in, and nine of every ten said they would now select Colony as a place to live if they had the choice to make over again.

Neighborhood respondents, taken as a group, regarded the esthetics, design, planning and layout, together with variety, convenience and concentration of activities as especially good points. They considered the high cost of what they regarded as insufficient and inaccessible parking as bad features. One-third said that "nothing" was especially bad, which is seen as a very positive comment. In general, however, the surrounding neighborhood seemed willing only to peacefully coexist with Colony rather than to be totally integrated with it. □

*Escalator core (right) from parking to plaza.*







# Continuing Debate on Grants For Community Development

*But an emerging consensus that they have realized both the hopes of their designers and fears of their opponents. By Mary E. Osman*

"There is apparently a new consciousness arising among my colleagues," said Senator Jacob Javits (R-N.Y.) when the Senate voted its version of the Housing and Community Development Act of 1977. He said there was a "political change, a demographic change, and it's finally dawned on the senators that every one of them has a big city that is a potential New York." He was referring to the fact that the Senate version of the bill contained a formula for the distribution of funds that would be based on the percentage by which the number of old housing units in a given community exceeded the national average. Thus, older cities of the East and Midwest would fare better than they have under the presently constituted community development block grants program.

Senator Javits, however, did not reckon with House conferees. Despite drawn-out conferences, Congress adjourned on Aug. 6 without presenting the act to the President for signature or veto. At this writing, no date has been set for further meetings to resolve Senate and House differences, which center on whether to accept two or three funding formulas.

The House contends there should be only two—the present one based on population, overcrowded housing and poverty and one proposed by HUD which would weigh poverty, population and age of housing. The local government would have a choice, presumably using the formula that would garner the greater funding. The House also has approved the full amount of \$400 million for each of the next three fiscal years for a new urban development action grants program which would be distributed according to need and promise of success in solving manageable problems in a relatively short time span. Grants would be given on a one-time basis only. Key to the urban grants would be the local government's ability to stimulate private investment in the community.

Some agreements have been reached, such as emphasis upon rehabilitation, with priority given to housing for lower-income people; requirements for broad citizen participation both in the making of plans and in the assessment of a com-

munity's performance in the use of community development funds, and direction that HUD place priority on discretionary grants to small hold-harmless communities. Under the currently constituted block grants program, this term means that such communities would be "held harmless" from losing levels of federal support. A hold-harmless entitlement aids those communities which would have had a decline in funds from amounts received under the old categorical grants program which the block grants replaced.

The controversial new urban development action grants program, which was to have started on Oct. 1, was explained in testimony by Secretary Patricia R. Harris last February. She said that the presently constituted community development block grants program "does not encourage local governments to integrate community development," nor are communities encouraged to "initiate comprehensive programs that fit together development funds from many sources." The new grants, she said, would give communities a flexible method

## Hearings on the program's future gave exposure to a battery of evaluations of its brief past.

for using private investment to alleviate physical and economic deterioration. This would be accomplished in two ways, she said: "first, through economic development activities in areas of population out-migration and stagnating or declining tax base, and second, through reclamation projects in neighborhoods that exhibit excessive housing development." The greater the amount of private investment a community could offer, the better would be its chances of being funded under the program.

When Secretary Harris testified before Congress regarding the act, she said that current block grant funding levels "provide hardest hit cities with only enough resources to carry out maintenance-level activities or to complete existing projects." Small cities also, she said, "still face the problem of declining neighborhoods,

blighted commercial districts and seriously deficient public facilities." Despite all the expenditures, Secretary Harris found little to commend the block grants program as formerly administered.

Her testimony did not stand alone. A battery of evaluations, many of which surfaced during hearings on continuing the legislation, produced a broad consensus. It is that the program has met the fondest hopes of its designers but also the direst fears of its opponents. That is, the program cut red tape and localized decision making, as it was designed to do, but it also drastically shifted community development funds away from areas, and people, in greatest need.

Two urban scholars, Bernard J. Frieden and Marshall Kaplan, in the newly revised edition of their book *The Politics of Neglect* (MIT Press, 1977), put the opposition to the program's on-going projects in a terse manner: "The important news is (1) there is less federal red tape than in the older categorical programs; (2) hardware expenditures and public works are back in fashion; and (3) poor people and minorities are no longer in fashion."

They say that "if the purpose of cutting red tape is not only to reduce uncertainty and frustration among municipal officials but also to speed the time it takes for federal money to 'hit the streets,' then community development block grants must be rated as only a modest success so far." Cities may cry for federal aid, they say, but by mid-April 1976, they "had been able to spend only a third of the \$1.9 billion made available to them."

Critics also agree generally that the program gave short shrift to low-income areas and people. A monitoring study of six major cities by the Lyndon B. Johnson school of public affairs at the University of Texas found that they spent the funds on neighborhood improvement projects and "tended to target efforts at the more conserveable subareas of the city."

A Southern Regional Council monitoring study concluded that lack of adequate performance standards and meager monitoring by HUD resulted in "activities that have a marginal, if any impact on the needs of lower-income residents." Funds for substantial blight removal efforts were dissipated, a problem intensified by lack of sound comprehensive planning, the council reported. Frieden and Kaplan contend that the legislative formula of the program's first years actually shifted money "away from cities with concentrations of poor people and into more affluent communities."

Also, the National Urban League found in its monitoring study of 27 cities that even funds targeted to low- and moderate-income people did not necessarily reach them. Although HUD reported that 71



percent of the funds in the program's first year benefitted low- and moderate-income people, the league's study showed only 55.6 percent of the expended funds aiding this group. A study by the Comptroller General of the U.S. came up with a figure of 55.5 percent.

Herbert Franklin, a Washington, D.C., attorney who testified on behalf of the Potomac Institute, pointed out that if HUD had used the lower center-city-median-income in its calculations instead of the more affluent metropolitan area median, the percentage of funds reaching lower-income groups drops to 47.8 per-

### Focus on areas of need, found deficient in the first year, declined more in the second.

cent. "In other words, as more sophisticated methods are used to evaluate the program, it is becoming apparent that the major federal objective was not adequately served in the first two years."

For two years, the National Association of Housing and Redevelopment Officials has performed a detailed census tract analysis of 149 communities to ascertain the level of funding and types of activities programmed into low- and moderate-income tracts. Data compiled in the first year "indicated a tendency to locate community development activities from low- and moderate-income areas and toward moderate-income areas." The second year showed an intensification in this trend, with the "proportion in low- and moderate-income tracts dropping from 51 percent to 44 percent."

NAHRO finds this trend "not surprising" when related to the type of activities undertaken. The most prevalent activities: public facilities, rehabilitation loan and grant programs, site improvement and land acquisition for new housing. In the first year, 34 percent of the funds went for elimination of blight and slums, as contrasted with 17 percent in the second year, says NAHRO. Nineteen percent was expended for expansion and improvement of community services in the first year, and 12 percent in the second; 9 percent was spent on elimination of harmful conditions in the first year, and 21 percent in the second, while the amount budgeted for conservation of housing stock stayed about the same in the second year—at 22 percent as contrasted with 23 percent in the first year. In the first year, more rational use of land and resources was budgeted at 12 percent and at 15 percent in the second.

"Very little money was specifically earmarked for the expansion of economic opportunity, the restoration of properties of special value or for other community

development needs having a particular urgency, which is similar to what was found in the first year of the program," NAHRO reports. The data also indicate a decline of about 12 percent in funds for areas with high minority concentration and a 10 percent increase in funds for areas of low minority concentration.

In July, Senator William Proxmire (D-Wis.) issued a press release on NAHRO's monitoring study. He said that the findings which indicated that less than half of the money was used for low- and moderate-income tracts revealed "a corruption of both our legislative and moral commitment." He said new HUD personnel had already "taken decisive actions" against those communities which did not conform to the law's intent, and he called for even more. "The time for a massive crack-down to stop this massive cheating has come," he said.

NAHRO's interpretations of policy issues based on its second year of monitoring are outlined by Mary K. Nenno in the April issue of the *NAHRO Journal of Housing*. She writes that the second year furthers NAHRO's "first-year perception of this program as a locally oriented, public facilities and neighborhood rehabilitation function rather than a nationally oriented comprehensive program to rebuild older communities or to shape the development of growing communities. While there is still some evidence that the program is being pulled in both directions (largely in communities with previous urban renewal experience), the weight of the two-year experience to date is toward a program focused on short-term community improvements."

The Comptroller General's report was critical of the monitoring process, saying that when this requirement was followed, it was done in a "cursory and inconsistent manner." A report of the Advisory Commission on Intergovernmental Relations on the block grant program says: "The effect of HUD's laxness is to loosen the administrative controls which Congress clearly envisioned to guarantee that the program be operated in a manner consistent with the expressed national objective of aiding low- and moderate-income persons and blighted communities."

What happened regionally under the program? The Brookings Institution prepared a report under contract with HUD on the program's first year. It found that advantages enjoyed in the past by the New England and Middle Atlantic states shifted to other regions under the block grants, particularly to the South Atlantic, East South Central and West South Central states, due to the high incidents of poverty and overcrowding. There was also a "substantial decrease in the advantage to central cities," as well as a concomitant gain by small communities.

William L. Slayton, Hon. AIA, executive vice president of AIA, testified that the distribution formula used in the first two years did not channel resources to areas of greatest need. "The population factor does not seem to help the bulk of the distressed cities in the Northeast, many of which are suffering loss of population," he said. "Since many cities are also suffering housing abandonment, the overcrowded factor is no longer an accurate measure of housing conditions."

In the program's first two years, according to HUD, more than 4,500 local jurisdictions were funded. Block grants were made to 513 metropolitan cities, 76 urban counties and 740 hold-harmless communities, and more than 3,500 discretionary grants were made. As Secretary Harris pointed out in a speech in July to the National Urban League, there was "no substantive monitoring" to make sure national objectives were met by local governments despite the fact that 1,500 communities were receiving more than \$5 billion in community development block grant funds.

She called HUD a "demoralized and disorganized agency" when she took charge in January. And she has set out to put her own mark on the agency. In April, for example, she issued instructions that low-income housing be given top priority in the dispersal of block grant funds.

In her speech before the National Urban League, Secretary Harris said that HUD has two objectives for the future of

### A pledge by Secretary Harris of closer monitoring and a new emphasis on the inner city.

the block grants program: "revitalization of urban areas by targeting community development funds, new assisted housing and housing rehabilitation programs into deteriorating inner city areas to help them become dynamic, viable places to live, work and raise our families; and providing freedom of opportunity and expanded housing options to people, regardless of race, ethnic origin or economic condition."

She promised that HUD will monitor the operation of the block grant programs and enforce requirements that the program must principally benefit low- and moderate-income people and neighborhoods. Cities that do not accept "their fair share" in providing low- and moderate-income housing, she said, "will no longer receive community development block grant funds."

HUD, Secretary Harris said, "accepts its responsibility to be the advocate of the cities and the poor, and we expect our advocacy to prevail in this Administration and in this nation." □



# Recognizing and Designing for The Special Needs of the Elderly

*A set of 'gerontological design goals' and their application in evaluation of three senior centers. By Joe J. Jordan, FAIA*

In designing buildings for the elderly, the architect must address a group of needs that are seldom explicit in the program. To satisfy those needs is not an easy task; they can be subtle and elusive—difficult to perceive and challenging to fulfill. Most often they go unrecognized, adding to the problems of an already overburdened group. If one of the roles of architecture is to provide a commodious environment, then we must design our buildings in such a manner that they support rather than frustrate the actions of those who use them.

Let us imagine ourselves for a moment, in our 68th year, visiting a public office to inquire about an unsatisfied claim. The lobby directory panel lists the claim officer's name near the top, out of our range of focus or that of anyone else who wears bifocals. In the elevator cab, the floor numbers are etched into the stainless steel plate beside the call buttons—impossible for us to read because of the lack of background contrast. The office corridors present a new problem—the dimly lit hallway has floor-to-ceiling glass at one end, and the blinding glare of daylight obscures the lettering on the room identification signs.

For the elderly, some degree of impaired vision is likely, making even the most commonplace tasks more difficult. The first effects usually appear in the middle years and stretch gradually into old age. But sight decrements are but one common example of a number of physical changes that occur as part of the normal aging process. The sense organs that we have always depended on for accurate information about the environment are no longer sending quick, clear messages. Our behavior must be modified to accommodate the new circumstances. Our actions and our responses to familiar stimuli slow down. It takes a surprising effort to arise from a chair or to open an outside door against the winter wind. Gradually the degree to which our immediate surroundings help or hinder our actions becomes significant, perhaps crucial, depending on the nature and severity of our impairments.

**Mr. Jordan** is a Philadelphia specialist and consultant in gerontological planning.

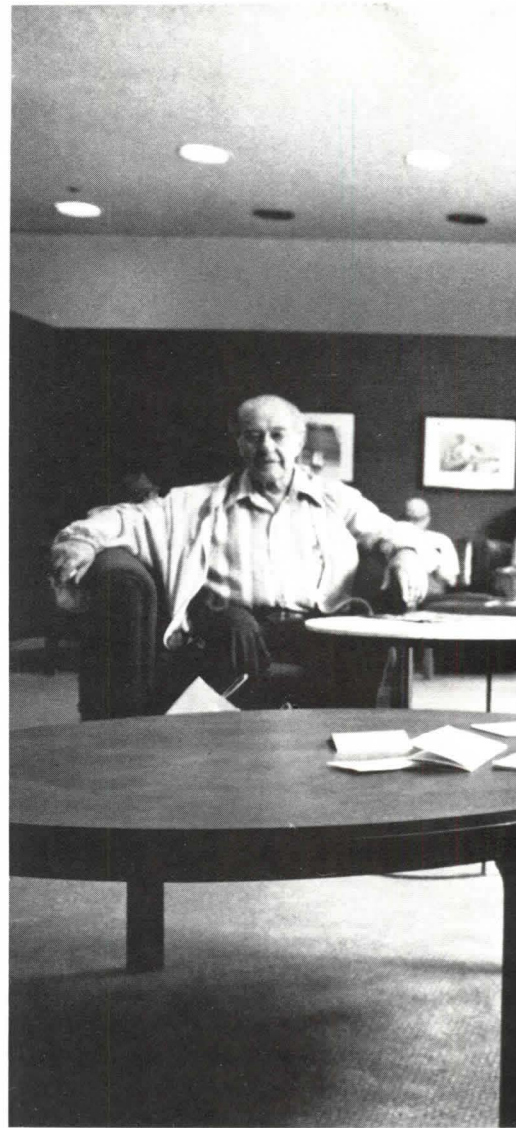
In buildings intended for the principal use of the elderly, the architect has the opportunity—rather, the obligation—to design a facility that becomes a supporting environment for its users. The use of a ramp in place of a stair is certainly not implied; ramps are generally more difficult for everyone except those in wheelchairs. But stairs that are wide enough for two abreast, with continuous handrails on each side, with gentle risers and wide treads, clearly defined nosings and frequent landings, are stairs that will be easier for everyone to use. Design standards and features that create convenient interiors for the elderly need not be obtrusive. It is safe to say that good design for the elderly is good design for everyone (except, perhaps, the very young).

Most buildings are designed to meet commonly accepted standards which assume relatively homogeneous characteristics in the people who occupy them. The child learns to cope with stairs whose risers and treads were proportioned for the longer legs of adults. The person in a wheelchair stretches to reach the light switch which was conveniently positioned for a standing adult.

The child and the handicapped person may be able to cope with some of those environmental problems, but perhaps not with all. So it is with the elderly. As an older person's competence level decreases in relation to a norm, his behavior will be more affected by his environment. Physical settings which a person of average competence may deal with through adaptive behavior may be too taxing for those with a lower level of competence.

This is not to say that all older people are less competent. We must clear our minds of the persistent stereotype of old age as a period of deterioration. We must see older people as individuals with an even greater diversity in terms of health, personality, intellect and overall competence than other segments of society.

With the above reservations in mind, I have developed a series of gerontological design goals which I believe can be helpful in undertaking the design of a facility to be used primarily by older adults. These have grown out of my readings in



the literature of gerontological research and behavioral science, combined with my own observations and experience.

The goal statements, originally developed for senior centers, are applicable to the design of any congregate facility—nursing homes, domiciliary housing, day care centers and retirement communities. The goals are as follows:

**Increase opportunities for individual choice:** One of the effects of aging on an individual's life pattern is to reduce the number of options open to him. The facility should provide an environment that permits the widest possible range of personal choices to the individual consistent with the needs of the group.

**Minimize dependence and encourage personal independence:** The desire to be independent of others' assistance is particularly strong among the elderly. The ability to do for one's self carries a sense of pride and increases self-esteem. Design supports should be unobtrusive so that those who are more competent are not made to feel dependent.

**Reinforce the individual's level of competence:** Environmental supports will help those less able to function on a higher level of competence. We must remember, however, that competence refers to the





*Friends and acquaintances at the Philadelphia Center for Older People.*

means sufficient without excess. It would be unfortunate if a facility were so over-designed with safety aids that the individual felt a loss of independence and thus of self-respect.

**Compensate for sensory and perception changes:** The aging process brings change to the individual's sensory mechanisms of sight, touch, taste and hearing that can result in decreased perceptive ability in any one of them. An older person may be unable to smell smoke, to hear an alarm or to see an obstacle in his path. Such changes do not inhibit a person from absorbing and processing environmental information, but they do imply an increase in reaction time and sensitivity to other stimuli to compensate for losses.

**Recognize some decrease in physical mobility:** Changes in muscular efficiency and coordination may result in a decrease of general mobility and behavior that is slower, less strong, accurate and confident than that exhibited at an earlier age. Walking, carrying, climbing, gripping, lifting, pushing and pulling are all motor functions that can become less adept or forceful during the aging process.

**Improve comprehension and orientation:** Changes in mental functioning brought about by age can result in behavior that includes memory loss, forgetfulness, disorientation and incoherence. Building products that confuse or produce conflicting information about the environment should be avoided. Spatial organization and circulation patterns should be simple and direct.

**Encourage social interaction:** An older person's social contacts are often seriously reduced by retirement from work, loss of health or death of intimate friends, and the moving away of children and neighbors. Some seek to establish new friends and acquaintances in the group setting.

**Stimulate participation:** The loss of status brought about by retirement from one's life work, a reduction in income and even aging in a youth-oriented society can reduce an individual's self-confidence. While the facility can provide other outlets, it is sometimes necessary to stimulate and encourage individuals to participate in new activities.

**Provide individual privacy:** Not everyone desires the same degree of social contact and many may want to use the facility for purposes other than meeting new friends. Opportunities should also exist

for those who want to enjoy more intimate contact with one or two others.

**Reduce distractions and conflicts:** A successful facility may have many activities occurring simultaneously and some of these can conflict with each other. The degree of separation is partly a matter of necessity and partly of choice.

**Provide a safe environment:** Because of reduced levels of physical and mental competence and other insecurities that come with aging, some older persons are especially sensitive to the need for a safe environment. A facility should incorporate safety features that are easy to comprehend and use, both in day-to-day living and in case of emergency.

**Make activities and services accessible:** A central purpose of the program may be to make a variety of activities and services available at one location to older members of the community. The location and design of the facility should make it accessible to the largest number of older people regardless of their physical condition.

**Improve the public image of the elderly:** The appearance of the facility has the capability of changing false notions about the elderly and correcting outmoded stereotypes. Its design should, by its character and esthetic quality, improve the community's attitudes and concerns for its older population.

**Plan for growth and change:** Gerontological facilities are new building types whose form is still evolving. Trends indicate that they will take on an expanded role as providers of services. They are continually increasing in numbers and size and a growing older population means that this trend should also continue.

The above goals were shaped after I studied and evaluated several senior centers which had already been identified as exemplary by knowledgeable people in the field. My study was part of a major research effort by the National Council on the Aging, funded by the U.S. Department of Health, Education and Welfare. From these evaluations, there evolved two books, *Senior Center Facilities* (NCOA, 1975) and *Senior Center Design*, to be published this fall.

In my study, I sought answers to the question: What constitutes a building design—including architectural features, equipment and furnishings—that is most conducive for the optimum functioning of older people? I spent two days at each site, observing the facility from design and functional standpoints; conducting structured interviews with members, staff and administrators, and meeting with them as a group.

Now I would like to reexamine two of those facilities and a third of my own design, testing aspects of each against the design goals as an additional method of evaluation.



## The Dayton (Ohio) Senior Citizen's Center

At the time the Dayton center planned its present building (1967), there were few examples of similar facilities to refer to for design guidance. However, a history of service operations dating back 10 years and an experienced executive director provided the knowledge for programming decisions. The architects were Richard Levin Associates, Inc., of Dayton.

Most of the early senior centers occupied found space in such places as church halls and YMCA gyms. The evolution from make-do facilities to newly constructed ones has meant that quite often new centers have been built around the concept of the "multipurpose" room where most activities take place—dining, card playing, socializing and assembly. It is an unfortunate tradition and will probably persist long after its limitations are fully acknowledged.

One of the striking features of the Dayton center is just such a large (4,500 square feet) multipurpose room adjacent to the main entry. It is truly the center of all activity and functions reasonably well for dances, special programs, dining and card playing. To provide a darkened interior for auditorium functions, window area was kept to a minimum and the room depends on fluorescent lighting. This is not the most attractive lighting environment for a space that serves a variety of social activities. Noise from the adjacent kitchen, particularly after lunch during the clean-up period, has been a problem when other programs are scheduled. The total floor area (28,000 square feet) is large enough so that alternative space arrangements were possible. A different planning approach could have provided

*A small lounge (bottom photo) near the entrance to the Dayton Senior Citizen's Center (below) provides a place for reading or quiet conversation.*

a more appropriate separation of activities—perhaps special areas for dining, lounge and assembly. However, further reference to the goal statements shows that some aspects of the building have been very successful.

*"Plan for growth and change."* Most of the lower level has been set aside for craft activities, and the intensity of use is very high. The high-ceilinged basement has been subdivided into four major flexible spaces by the use of large storage cabinets and material lockers. Such an arrangement invites growth and change, permitting occasional new subdivisions (as some craft activities are added, dropped or expanded) without costly partition changes. The open floor plan also encourages participation since each activity is not isolated into closed rooms. Because those functions need no auditory or visual privacy, the "office landscape" concept seems the ideal solution.

A number of circumstances have combined to create a need for office space that was unanticipated when the building was designed. The building now serves as the administrative headquarters for 11 neighborhood centers and office space is necessary for the program directors that serve them. In addition, new federal programs are now funding additional staff positions but there is insufficient desk space to accommodate them.

*"Minimize dependence and encourage personal independence."* The craft area is subdivided by storage cabinets and the walls are lined with closed and open shelving that members built for their own use in the wood shop. Even personal lockers to store work in progress add to the opportunities for members to take care of themselves without relying on staff assistance. Less successful has been the storage of chairs in the meeting room. The chair carts are piled high with units that are too heavy and beyond the reach of members who must call on custodial help to set up. Again on the positive side is a kitchenette adjacent to the meeting rooms where coffee and snacks are available on a self-service basis.

*"Reinforce the individual's level of competence."* The stairways are especially worth noting. To encourage their use for members' exercise, the stairwells are kept open, brightened by skylights and carpeted like the adjacent hallway. Brick walls and decorative handrails add to the attractive character. More than half of the members use the stairs in preference to the adjacent elevator.

*"Provide individual privacy."* A small lounge off the entrance lobby affords the opportunity for reading or quiet conversation that is not possible in the multipurpose room. Centers need such mini-lounges where personal conversations and intimate relationships can develop.







## The Philadelphia Center for Older People

As the third oldest center in the country, the PCOP had considerable experience to draw upon when it undertook a new building program in 1974. Its executive director, Jean Hansen Fisher, after guiding it through several decades of growth, had clear requirements for the new facility, and these were incorporated in the design by my firm.

The building was organized to take maximum advantage of its corner location on one of Philadelphia's main thoroughfares—Broad Street. Social activities are grouped at ground level with the principal lounges opening out to a quiet garden, while the dining room faces the busy down sidewalk. Sheltered under an arcade, an outdoor cafe for members adjoins the dining room and is screened from pedestrian traffic by wide, low planting beds.

Recreational activities are accommo-

dated on the second floor with a fixed-seat auditorium, craft studios and three interconnecting meeting rooms. One of these doubles as the stage to increase economy of use. Most of the administrative offices and counseling rooms, as well as smaller meeting rooms, lounges and craft rooms, are in the existing four-story PCOP building which connects to the new facility at the first and second floors.

It was apparent from the beginning that outdoor use would be extremely limited by the confined urban site, but a small garden was planned for passive recreation, and this has become one of the most appreciated amenities. The garden's large and exotic specimens create a year-round display, and a flowing watercourse adds sound and sparkle to the scene.

Some aspects of the garden have not lived up to expectations. The fine gravel walk is not the best surface for older people, and women with thin-sole shoes find the walking uncomfortable. Serpentine brick walls made low and wide for seating go largely unused because the

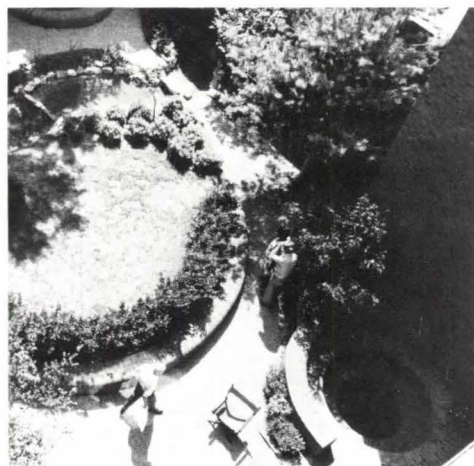
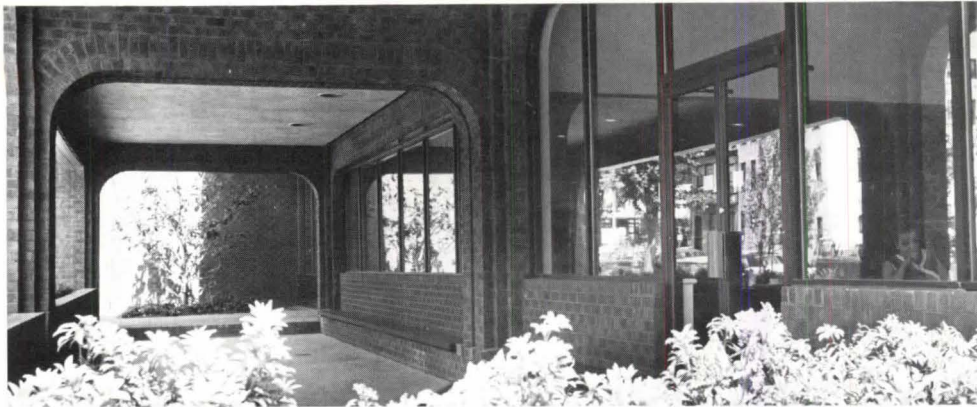
*The Broad Street facade of the Philadelphia Center for Older People.*

members prefer a comfortable chair with a back and arms. The garden could use more paved terrace space—areas large enough to provide conversational groupings of three or four chairs in a cluster.

Probably the best-liked spot in the center is the dining room. It has been likened to a French cafe, and indeed such was the intention of the arcade—to provide protected outdoor dining. Unfortunately, the logistics of setting up and taking down the tables and chairs seems to be too much work for the staff, and the arcade remains unused. It was also designed for outdoor shuffleboard, but there has been little interest expressed in painting the court surface and putting it to use.

The outdoor arcade is perhaps the most controversial element of the building. Probably because the center has been ambivalent about really using it, some neighborhood vagrants have staked out a claim. On warm nights the benches can make a





PCOP's little-used arcade (top), designed for outdoor dining and shuffleboard, and its well-appreciated small garden.

good place to sleep for a local wino, and the arcade is in danger of becoming an attractive nuisance.

On the positive side, the arcade is a distinctive element of the facade which was conceived with the following goal in mind: "Improve the public image of the elderly." The building occupies a corner location on Broad Street a few blocks south of the commercial heart of town. Its distinctive design attracts attention (some refer to it as "the building with the arches") enabling it to fulfill its role as an important public facility serving older people. The prominent entrance attracts curious passersby who enter the lobby to see what's happening inside. The very name of the building, announced on the illuminated sign over the entrance, advertises its function and invites the attention of passing cars. People respond favorably to the building. They like the unusual brickwork, the planting beds and the street trees, a significant public gesture in this barren commercial strip.

"Improve comprehension and orientation." From the entrance lobby, the entire first floor opens up to help orient the visitor. Standing just inside the vestibule, the visitor can see the dining room to the right, the main lounge with the garden beyond, the elevator, stair, coat storage and rest-rooms straight ahead, and to the left, the reception counter. The interiors are arranged in such a way that circulation

paths are always visually open; partitions on one side do not go to the ceiling. Staff members report that blind people who make up groups that the center serves have quickly adjusted to the interiors and can find their way about without assistance.

"Provide a safe environment." Several problems related to safety have surfaced—one serious enough to require remedial action. When it was decided to include shuffleboard as one of the activities of the arcade, we lowered the floor eight inches below the entrance level to act as a backstop for the puck. The change of level in the brick paving occurs beside the main entrance and several members have fallen after failing to notice the step. A gate and railing is planned to control this potentially dangerous situation.

The garden walk crosses the water-course by means of several large stepping stones, and I am concerned that members with poor vision may have difficulty with their footing.

"Increase opportunities for individual choice." Most rooms have their own temperature controls with separate heating and cooling zones. Floor lamps and table lamps in the lounge permit members to select the illumination level that is most comfortable for them. In the same room a variety of chairs and couches have been selected to permit members to exercise choice in comfort and individual taste.

## The Waxter Center for Older People

Among the best-known of the senior centers is the relatively new Waxter center, completed in 1974. In contrast to the Philadelphia and Dayton centers (which are both operated by private agencies) the Waxter center is a public facility built with a bond issue and operated by the city of Baltimore. With the resources of a major city behind it, it is understandably the largest, best equipped and most fully staffed center in the country. A steady stream of envious visitors flows through each week to inspect the building and

try to imagine how they can build the same thing back home.

Designed by the Baltimore firm of Tater & Kelly, the Waxter center is an impressive structure, standing free of its neighbors in a city characterized by rowhouses and party walls. The design itself is arresting: With its curved brick walls and outdoor terraces, the building could hardly be more successful in advertising its presence. It makes a strong public statement about the community's concern and support of the needs of its older population. As a symbol, therefore, it is eminently successful.

The center set out to provide an entry that would immediately convey to the visitor a sense of the activities and excitement of the building. A good part of the ground floor is completely open, comprising entrance lobby, auditorium and dining room as one interconnected space.

The open auditorium has been an interesting experiment. Activities are programmed so that there is always action in the space. The open plan encourages active as well as vicarious participation; it is large enough to be adaptable for many different activities. But it has had its problems, as an examination of the following goal demonstrates.

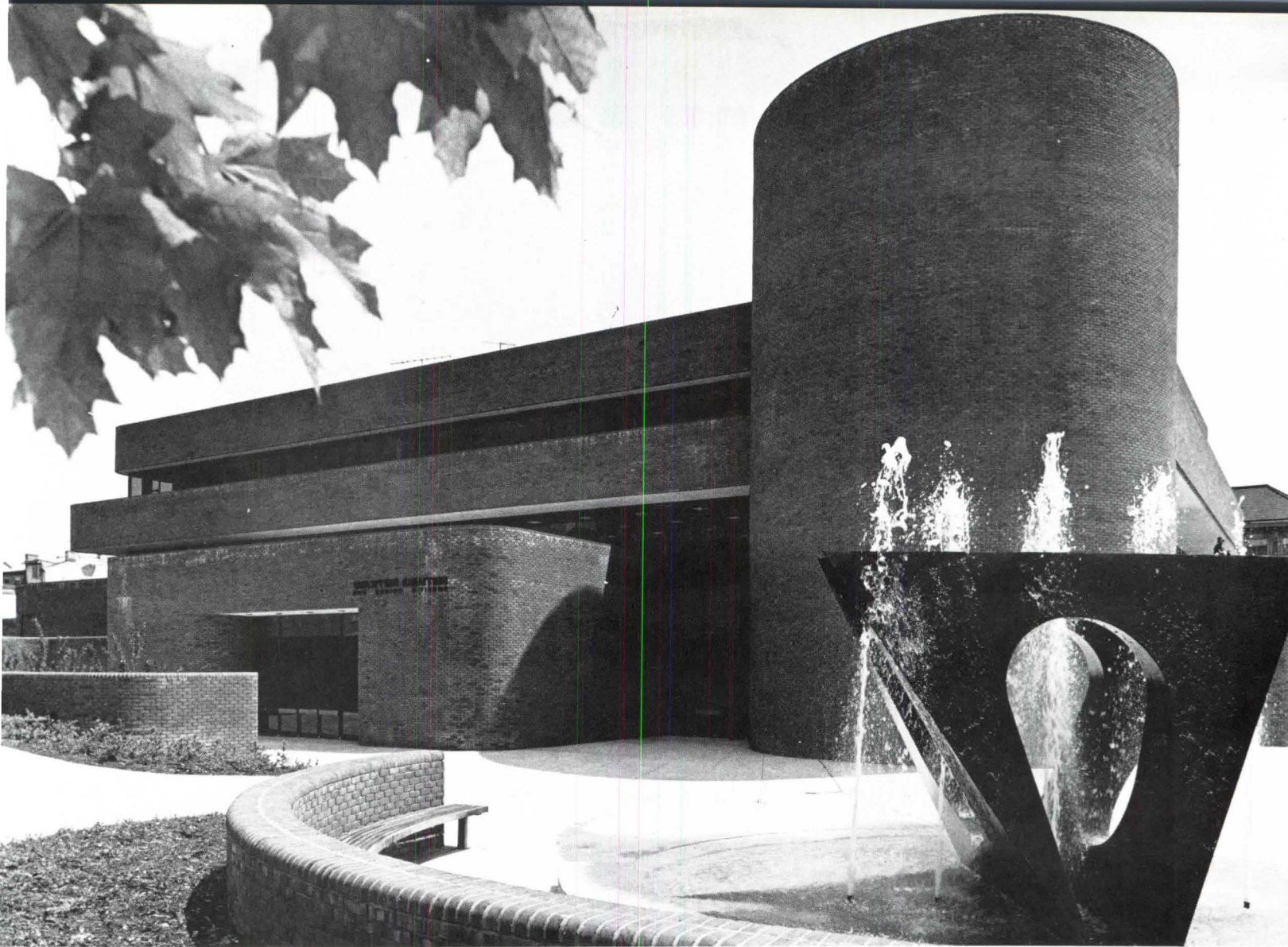
"Reduce distractions and conflicts." Activities in the open auditorium are disrupted by the ringing of the receptionist's telephone in the lobby. The entry area itself is a noise generator which cannot be controlled. The space cannot be closed off for paid performances, nor can it be satisfactorily darkened for films and slide shows.

As a result of these severe problems, the center has installed a perimeter ceiling track to suspend a continuous drapery that can be used to close off the auditorium space for certain kinds of performances and to limit auditory interference. Unfortunately, the noise problem in this group space is aggravated by the absence of any acoustically absorbing material in the exposed concrete coffered ceiling.

Consultation rooms are grouped in an open office space. There are no really private offices. At best they are enclosed by seven-foot-high fixed partitions with open ceilings or by five-foot-high screen partitions, and, at worst, they are simply a desk in the open office area. There is absolutely no privacy for personal consultation, and clients are reluctant to discuss sensitive problems under these conditions.

"Compensate for sensory and perceptive changes." The corridors are short, wide and eventful. Graphic design has been carefully considered: Large, attractive plaques with easy to read incised letters on a strong contrast background designate the principal rooms. Similar plaques show the schematic floor plans to





help members and first-time visitors to find their way.

*"Recognize some decrease in physical mobility."* Space standards for comfort of the elderly should be higher than for other groups. In the dining room, principal aisle widths between chairs have been kept to five feet. This facilitates movement for the handicapped and ensures that easy passage for all members is safe and convenient.

*"Encourage social interaction."* Many centers are forced by space limitations to serve meals in a multipurpose room, but the place where the daily luncheon is served should be attractive and comfortable—not just serviceable. The Waxter center provides the better solution, the separate dining room. Dining can be a wonderful way to meet new people and to really get to know them. The round tables seat seven comfortably, providing ample opportunity to encourage social interaction. Preferable would have been a mix of tables sizes—two-person, four-person and six or more at one table—so that the individual has a choice.

*"Stimulate participation"* and *"reduce distractions and conflicts."* The main lounge on the second floor can be seen as an example of conflict between these two goals. The room serves as a combination lounge/reading room/game room.



*Waxter Center, Baltimore: the open auditorium and reception area.*

Spacious, bright and cheerful, it is very well used. The inclusion of pool tables and card tables stimulates participation and encourages the social mix of men and women.

On the other hand, combining card playing, billiards and lounge means that the space does not serve any of the functions as well as it should. Distractions and conflicts occur and, although it contains bookshelves and easy chairs, it is often too noisy a place for reading. There are

no alcoves or quiet corners in the very open plan.

Reassessment is gaining new adherents every day. Complacency and self-satisfaction (with the way we have been doing things and with what we know) are giving way to the realization that even some of our most respected buildings seldom work as they should. It does pay to look back—to reexamine our projects critically—and to talk with users. This should do more than keep us from repeating mistakes; it should give us a new respect for the importance of satisfying our real clients—those who will use the buildings. □



# A New Edition of B141 Reflects Changing Client Relationships

*Major revisions in one of AIA's basic contract forms involve such key matters as time, budget and cost. By Mary E. Osman*

The business of architecture is as dynamic as society itself. The changing nature of both is reflected in the newly revised edition of AIA document B141, "Standard Form of Agreement Between Owner and Architect." First published in 1917, B141 has gone through 12 editions, but few have seen such extensive revisions as the 1977 edition. The revisions were required, in part, by the new edition in Aug. 1976 of document A201, "General Conditions of the Contract," which contained many changes pertaining specifically to the duties, responsibilities and procedures of the architect, owner, contractor and subcontractor (see Sept. 1976, p. 38). Both A201 and B141 reflect changes that have occurred in architectural practice, as well as modifications in the Institute's perception of what the modern day practitioner should do for the client.

D. J. Hackl, AIA, of Chicago, chairman of the task force which developed B141 (the first chairman was John Rauch, AIA, of Philadelphia), says: "A major portion of the revisions in B141 has been developed in response to client concerns, particularly in regard to time, budgets, responsibility for construction costs, ownership of the construction documents and suspension or abandonment of the project." Rauch remarks: "The last several years have proved that we can't stick our heads in the sand and say we aren't going to deal with client concerns. If we don't provide for them, the owner will just add them into the agreement anyway, or else will say that the form does not reflect his needs and refuse to use it."

E. D. McCrary, AIA, of San Mateo, Calif., current chairman of the documents board, says: "This is a bilateral contract, with responsibilities on both sides. If the owner provides a budget, it must include contingency amounts. If requested by the architect, the owner must disclose what the funding is going to be. Architects should be able to evaluate their financial risks before proceeding with the project."

B141 also demonstrates the need for flexibility in determining and negotiating the architect's compensation. "This is related to making sure that the architect gets paid for work that is actually performed,"

says Alan B. Stover, AIA, director of the documents division at the Institute. "In particular, it relates to the portions of the project which, because of cost reasons, may have been deleted from the final plans. The architect should be paid for work done in developing change orders and also for additional services that may be performed."

The revised B141's thrust in such liability matters as responsibility for cost

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## The new B141 is designed for use in conjunction with the also recently revised A201.

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overruns, for redesigning because of the architect's own errors or omissions or for corrective work required by these errors and omissions, is virtually the same as in the older edition. The new B141, however, emphasizes that the owner cannot withhold payment to the architect because of alleged errors or omissions until there has first been a determination of liability in court or by an arbitration panel. Other liability issues reflected in the new document are the cost of liability insurance and problems pertaining to the statute of limitations.

Various paragraphs have been renumbered and there are changes in format. The compensation pages, for example, have been moved to the end of the document.

The traditional distinction between basic and additional services has been retained. Basic services, as in the previous edition, are outlined in five phases: schematic design, design development, construction documents, bidding or negotiation and administration of the construction contract.

Not all of the architect's responsibilities and authority that are described in A201—the general conditions—are enumerated in B141, such as the clause which provides that the owner cannot terminate the construction contract without the architect's approval. Hence, in presenting B141 to the owner, the architect should also provide a copy of the general conditions

in order to make known to the owner the full scope of the architect's authority at the site and responsibilities during construction.

Among the significant changes in the new edition of B141 are the following:

### **The architect's responsibilities in basic services:**

- Schematic design: A new condition is that the architect will evaluate both the program and budget proposed by the owner, and the schematic design will be based on these considerations. "In previous editions of B141," Stover says, "it was only mentioned that the schematic design be in conformance with the program. The requirement that design be based on both program and budget clearly emphasizes how important the impact of the budget has become." Also, the architect will review with the owner the various project delivery approaches—ways to get the project not only designed but constructed.

- Design development: Again, it is made clear that the design documents are based on the adjusted program and budget.

- Construction documents: B141 stresses that in the preparation of the contract, the architect is only assisting the owner. "The architect cannot perform what is basically a legal function," Stover says.

The filing of documents with governmental authorities is the owner's responsibility, and the architect is only acting as the owner's agent in filing documents, such as application for building permits.

Stover stresses that the architect should have no direct relationship with surety bonding companies. "Sureties send in forms to ask how the contract is progressing. If the architect does deal with such forms, it should be only as the owner's agent and at the owner's request. The danger is that if the architect fills out the forms and reports, erroneously but unwittingly, that the work is progressing well and the contractor goes bankrupt, the surety (on the basis of the statement signed by the architect) might attempt to recover from the architect who volunteered the information."

- Construction: Most of the changes are predicated on adjustments made in the 1976 edition of A201, which restates the established position of the document that the contractor, not the architect, is responsible for construction means, methods, sequences or procedures.

According to the new B141, all the architect's basic services terminate when final payment to the contractor is due, or, if there is not a final certificate for payment, then the services terminate 60 days after the architect has issued the certificate of substantial completion. "The reason for this," Stover explains, "is that it is critical to have a termination date that is ascertainable in order to start the statute



of limitations running on the architect's services."

B141 recognizes that the architect's construction administration responsibilities may not be those defined in the general conditions. "If the architect's construction phase duties are to be any different," Stover says, "then clearly it has to be agreed to by architect and owner, and the actual role of the architect has to be set forth in the construction contract to avoid misleading a contractor or anyone else as to the true extent of the architect's authority during construction. This has been critical in certain cases where the architect did not have a particular form of authority, although the documentation may have indicated otherwise. B141 provides that the architect's authority is limited to what is set forth in the agreement."

As does A201, B141 limits the architect's control or charge of the work. "The architect is not trying to avoid responsibility," says L. G. Shea, AIA, of Detroit, a member of the task force. "Authority has to go with responsibility, and the architect does not have authority over construction means and methods. Also, the contractor does not want the architect to have this authority, since the entire bidding process is based on the contractor's assumption that his superintendent will control the construction operation. This makes it unnecessary for the contractor to anticipate by contingency how much interference with the construction operation the architect would cause by exercising this control instead."

Other changes relate to frequencies of the architect's visits to the site, conditioned by the stages of construction of the project or the specific agreement with the owner. Instead of the vague word "periodic" which has been used to define on-site observations, the document eliminates the word and is more specific as to what really happens.

B141 delineates the architect's role in certifying payment, in that certification is based on the architect's evaluations of the contractor's application, as well as on observations at the site. "Certification for payment," Stover says, "is probably the most important responsibility the architect has during construction and is the prime source of economic power over the contractor. Consequently, the architect should study B141 and impress upon the client what certification of payment really means."

Dean F. Hilfinger, FAIA, of Bloomington, Ill., a member of the documents board, says: "The role of the architect in change orders is clarified, conforming with the owner provisions contained in A201 for many years. The architect has authority to order major changes in the work, provided they do not involve an

increase in cost or an extension of time." As in A201, B141 also provides a provision whereby warranties are forwarded by the architect to the owner for review. The architect cannot undertake a review of warranties, which is essentially a legal service.

**Additional services:** "Many services beyond those in basic services are not known until after the project is under way," Shea says, "but if the owner knows that some additional services will be required at the time the contract is signed initially, then these can be turned into basic services and included in the architect's basic compensation."

"The previous edition of B141 required prior authorization of additional services, but because of a technicality that such authorization was often not obtained prior to the time the work was done, the architect was not paid. So we have removed the technicality. Now if the owner authorizes additional services from the architect after execution of the agreement, it is the same as though he ordered them initially. This provision enables the architect to be paid for work actually done."

B141 also relates to and recognizes such matters as fast-tracking of a project, where the construction is started before the drawings are completed; coordination responsibilities, such as those provided by a construction manager; life cycle costing and energy analysis, and interior design.

Another important change is the "extra work" clause, based on the recommendations of the committee on architecture for health. Revisions in drawings, specifications or other documents required by the enactment or revisions of codes, laws or regulations subsequent to the preparation of such documents constitutes extra work on the part of the architect, for which compensation is due. "For example,"

### **The architect is responsible for making and holding to a time schedule if requested.**

Stover explains, "the Department of Health, Education and Welfare now requires that its new buildings be barrier-free. This is a changed legal requirement that must be complied with. If the architect has to redesign an entire building to meet such a regulation, the work should be paid for."

A new provision relates to time. The architect is made responsible for the preparation of a time schedule and compliance with it, if the owner so requests. "This probably was the most frequently inserted type of provision in the past," Rauch says. "This addition grew out of the review by the architects in industry committee. The timely performance of

the architect's services is just as critical to the owner as a firm schedule for construction."

**The owner's responsibilities:** A requirement for programming by the owner is now included and defined. A new clause pertains to the owner's project budget, based on recommendations by the AIA board in discussions of the A201 financial responsibility clause. The owner is required, if the architect requests it, to provide a statement of funds available and their source. The budget provided by the owner also should include provisions for contingencies for various items, particularly the cost of changes that will occur during construction. "This allows

### **The architect is entitled to payment for all services even if construction aborts.**

the owner to reflect his own experience in establishing budgets on past projects in ordering changes during construction," says Shea.

A statement in B141 clarifies that the owner is responsible for auditing the contractor's application for payment which he feels may be required. "The architect is not an auditor," Shea says. "The architect is required to inspect the contract application and supporting data for general accuracy and conformance with contractual requirements, but auditing is not the architect's responsibility. This becomes particularly important in cost-plus work where auditing is required to verify that the contractor actually did incur certain costs."

**Construction costs:** In this regard, Stover says, the task force tried to listen to what owners are saying and to respond in terms of current good practice. The system of precedence for determining construction costs has been dropped. "The prime purpose of the former provisions," Stover explains, "was to allow the architect to collect compensation when it was based on a percentage fee for work that was designed but not completed. Because the work may have been deleted, it never showed up in the construction cost and the architect was not paid." B141 now provides specifically for this situation, making the order of precedence unnecessary.

"The architect is now entitled to payment for all services under the agreement, whether or not construction is ever started," says Shea. "When a fixed limit of construction cost has been exceeded, the architect is responsible for redesigning without charge to meet the exceeded fixed limit, and when the architect has done so, is entitled to compensation for previous services even if the owner



does not proceed with the project.”

Stover says this has been a big problem: “The architect often was not paid when the owner abandoned a project because of cost overruns after the architect had fulfilled all obligations.”

“The definition of direct personnel expense has been clarified to include, in addition to the salaries of all the architect’s personnel engaged on a project, the pro rata cost of mandatory and customary contributions and benefits, specifically listing such items as employment taxes and similar contributions. This definition is now consistent with the AIA financial management system approach to compensation,” says Donald J. Stephens, FAIA, of Albany, a member of the task force and former regional director from New York.

A sore point in the past between architect and owner has been reimbursable expenses. Under the new B141, reproduction of copies of documents for the

### If the architect is required to carry extra insurance coverage, he is to be reimbursed.

architect’s office use, such as work prints and check sets of drawings, are not reimbursable. If the architect wants to charge for all reproductions, then a modification will have to be made in the agreement. Expense of data processing and photographic techniques, when used in connection with additional services, are also reimbursable items.

Based on recommendations of the liability review task force, B141 now includes a provision that the architect will be reimbursed for any extra amounts paid for insurance coverage required by the client over what is normally carried. “This could include professional liability insurance,” McCrary says. “If it is more than the architect normally carries, then the owner will have to pay for the cost of excess coverage. If the architect is not carrying any insurance at all at the time and it is required, then presumably the owner would have to pay for it.” (In order to apportion the costs of liability insurance to individual projects, members insured under the AIA-commended insurance program should contact Victor O. Schinnerer & Co., Inc.)

**Payments to the architect:** The former B141 contained a schedule which established a percentage of the total compensation payable for each phase of the work. Such matters are now moved to the compensation pages at the end of the document. “AIA has not dictated percentages for compensation in the new B141,” Stover says. “Rather, the architect determines the percentages based on negotia-

tions, office records or other procedures for each of the phases of that project based on its scope.” Stephens says that “this makes B141 more flexible in use with the increased scope of services and the more sophisticated cost-based compensation approach of the AIA financial management system.”

“If the time of construction is extended through no fault of the architect,” Shea says, “the architect is compensated on an additional services basis for the extra amount of contract administration time required, but the time that the architect owes the owner for final inspection remains part of the basic compensation. The owner pays for extra interim site visits that may be required, but the architect continues to provide inspection as part of basic services.”

B141 does not permit the owner to withhold payment to the architect because of alleged errors or omissions. “There first must be a determination of liability on the part of the architect by a court or an arbitration panel, which cannot be done unilaterally by the owner,” Shea says.

**Ownership and use of documents:** B141 recognizes the owner’s rights in the documents, and he is permitted to retain copies of such things as drawings and specifications. The owner, however, is prohibited from further use of the documents, especially if the agreement is terminated for reasons other than the architect’s default. “If the owner wants to use the documents for purposes other than the construction of this particular project, he has to get the architect’s agreement for this additional right which is not a part of the basic agreement,” Hackl says. “The owner may also be required by the architect to indemnify him against any liability imposed after the documents leave the architect’s control, resulting from the owner’s use.”

**Termination of agreement:** A new paragraph allows the owner to terminate the contract if the project is permanently abandoned. “The owner cannot terminate purely for his own convenience,” Hackl says, “but temporary suspension of the project does not permit the owner to drop the architect without being in breach of the contract.”

Termination expenses represent lost profits to the architect for premature termination and in the event of termination, the architect who is not at fault is to be compensated for services performed and for reimbursable expenses. Compensation earned is worked out on a percentage basis, depending upon the phase in which termination occurs.

**Miscellaneous provisions:** One of the new provisions pertains to what the task force calls a “contractual trigger” which makes the statute of limitations start to run. “This is important in instances where the statute of limitations does not have a

### There is now a single form for determining the method of compensation to be used.

clear-cut starting date,” Stover says. “In such instances, several courts have ruled that the statute of limitations does not start to run until the defect or omission is discovered, which could be 20 years down the road. Basically, B141 says that the time period begins to run at substantial completion of this particular contract. Supposing there is a seven-year statute relating to architectural and construction services, then after seven years the architect has no contractual liability under that statute, but may still be responsible to third parties. B141 changes what is called the discovery rule that has been imposed by some courts by having the agreement of the parties fix a definite starting point for the statute of limitations computation.”

**Compensation pages:** Formerly, there were four pages for compensation, each for a different method. The new B141 contains a single form, and the architect determines the compensation arrangement within that format.

Instruction in the use of the forms will be distributed through the AIA handbook supplement service and will include sample ways to fill in the various types of compensation.

Stephens points out that flexibility in the compensation pages is important, “because architects are more and more using hybrid or composite bases on which to be paid. B141 allows compensation that is appropriate for whatever function the architect is undertaking.” Stover gives an example: “During the design phase, the architect may be on an hourly basis and then move to a fixed fee for the preparation of documentation and then to an hourly basis for construction administration.”

The interest clause has been moved here from the body of the former B141. “Architects must be aware of the federal truth in lending laws and state and local laws for consumer protection,” Stover says. “Under certain circumstances, there may be very serious consequences to the architect if this interest clause fails to provide proper disclosure, such as the annual percentage rate. Such consequences may include not only avoidance of the obligation to pay entirely on the part of the client but also may subject the architect to fines or penalties as well.”

The new B141 has followed the traditional documents-development process in that the basic document was prepared by a task force of members of the documents board. In addition to the involvement of

*continued on page 88*



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## BOOKS

**Solar Designing.** James Lambeth. John Darwin Delap, co-author and editor. Privately published, 1977. 116 pp. \$10. (Available to AIA members for \$9 from the department of publications marketing.)

James Lambeth has been concerned with the relationship between architectural form and solar performance of buildings, and for the last six or seven years has been producing a series of buildings and studies that are beguiling and provocative. His projects, point of view and some underlying principles are contained in this book that he has written, illustrated and published.

He is committed to buildings that take full advantage of the sun's heat in winter and reject it in summer without dependence on mechanical hardware or the use of passive systems. He has evolved a plan shape resembling a thick-stemmed Y, with the open face glazed and oriented to the south and no (or minimal) openings to the north, east and west.

Lambeth has also worked with concentrating collectors—actually, reflectors with mirrored facets that are sections of cylindrical surfaces. He calls them lenses and uses them to melt snow at the entrance to an Aspen, Colo., ski lodge and to heat water in a condominium pool.

A brief introductory section of the book has a useful categorization of the different ways to approach solar energy systems, starting with the simplest passive systems and ending with the most complex active systems, followed by a graphic box score of several dozen solar buildings that gives their salient characteristics. This constitutes a useful and explicit prelude to Lambeth's own work.

The book is attractive, engaging and didactically partisan to many of the things that I am. Possibly for these reasons, I would like to state a few doubts and reservations that arose.

First, there is no verified experience of the actual performance of these various structures. If the presentation limited itself to the emotional generation of the forms, there would be less reason to seek this information.

However, many statements that are made as categorical performance summaries do not sound reasonable.

The mirrored wall of the McKamey residence in Fayetteville, Ark., may be there to permit the view, but certainly warding off the sun reaching the north face at sunrise and sunset of the summer solstice does not warrant the solution.

There are questions that should be better answered about the relationship between means and ends. For example, what

is the effect of the snow-melting "lens" at Aspen? Will it eliminate snow or just put a layer of ice on it?

In the Delap house calculations (the house is also in Fayetteville), there appear to be inadequate provisions for infiltration and the opening of doors and windows. There should be performance experience to indicate what correlation there is between prediction and actual consumption.

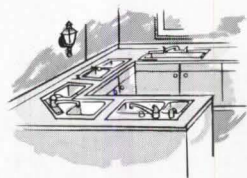
Even with these and similar questions unanswered, the book remains an attractive and interesting one. Lambeth's inventive search for forms that function well promises worthwhile contributions in the years ahead. *Richard G. Stein, FAIA*

**Encyclopedia of Energy-Efficient Building Design: 391 Practical Case Studies.** Kai-man Lee, AIA. Boston: Environmental

Design & Research Center (940 Park Square Building, Boston, Mass. 02116), 1977. 2 vols. \$150.

This work pulls together substantial data on 391 building projects purported to be energy-conscious. Many of the projects are familiar, having been recycled from other sources. A few, however, have not appeared widely in print.

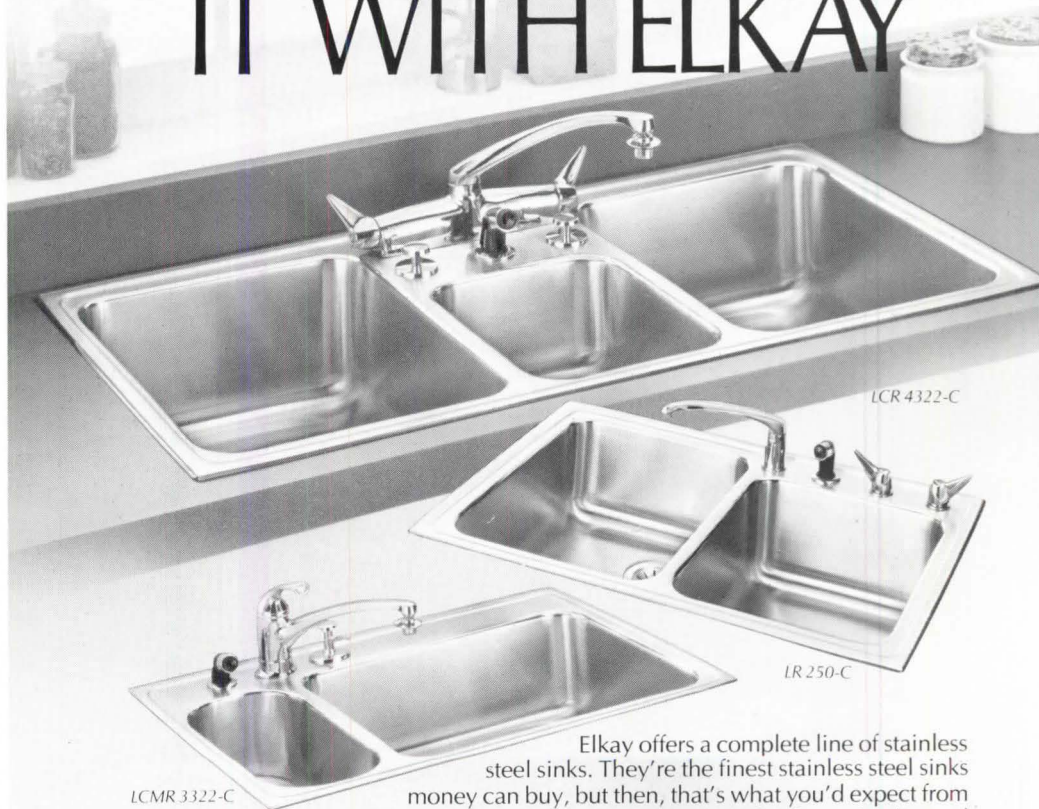
Information on each project is presented in a standardized format which covers the basic scope or objective of the project, energy-conscious techniques employed, materials and equipment used, availability of further information and the reference source from which the information is given for each reference, although one wishes that the work would have included a separate bibliographical listing of all references cited.



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The format is somewhat helpful for making general comparisons between projects with respect to their physical characteristics. Perhaps the book's most useful feature is its system of three cross-referenced indices, the first of which is an alphabetical listing by project title. The second listing classifies projects by building type. As one would guess, the majority of abstracts are on single-family dwellings—194 to be exact.

The remainder of the projects, however, contain a wide variety of types—from an airport terminal and apartments down through a warehouse and a wastewater treatment facility.

The last index is a useful listing of projects classified by techniques or features used—for example, air-type solar collectors, greenhouses, heat pumps, insulation,

etc. This permits users to quickly locate projects which incorporate specific features. In this listing the same project will appear under as many headings as the number of features it uses.

The work contains an abundance of graphical material, including photographs, drawings and diagrams, but the quality of their reproduction is often disappointing.

Overall, the effort makes a significant contribution to the available literature on energy and buildings. It should be of interest and use to any one serious about the subject—architects, engineers, students, researchers. The price tag of \$150 could be a deterrent to some. Conversely, it may be insignificant to those who can capitalize on the information offered.

*Joseph A. Demkin, AIA, Director of Energy Programs at the Institute*

**Survival 2001: Scenario from the Future.** Henry E. Voegeli and John J. Tarrant. New York: Van Nostrand Reinhold, 1975. 115 pp. \$5.95. **Power from the Wind.** Palmer Cosslett Putnam. Foreword by Beauchamp E. Smith; introduction by Vannevar Bush. New York: Van Nostrand Reinhold, 1974. 224 pp. \$9.95.

*Survival 2001* has a sensational flavor. From a supposedly mid-21st century vantage point, a scenario is presented in "futuristic form" which contains some wishful thinking. The blurb assures us that, among others, the "beleaguered power companies" will eagerly welcome the authors' proposals.

Most of the remedies, presented in order to solve problems of energy-saving and alternative power generation, are well known, though some improvements are suggested. Discussed and depicted are facilities to harness the power of moving air, the sun's energy, the ocean tides and waves and geothermal energy. Other examples are the recycling of organic wastes and new modes of transportation.

The most original contribution concerns the technological methods of exploiting ocean waves; the most controversial suggestion is the use of nuclear fission plants. While the described methods have their promises, and will be pursued, the wishful thinking assumes that those substitutes will allow us to continue with the current pace of exploitation of natural resources.

Tarrant's text is not comparable with Voegeli's drawings. There is a lack of technological explanation, but many assurances which sound like public relations talk. Great caution is necessary before accepting such pious statements as "to change or modify the physical nature of Niagara Falls requires courage" and "the beauty must not be compromised," yet "practicality and scientific progress in people's welfare deserves cautious consideration."

The greatest shortcoming, perhaps, is that these technological proposals are not seen as parts of total ecological systems within a given environmental system. If we do not consider these complex interrelationships, then man will have scant prospect of looking back in mid-21st century.

The book contains neither bibliographic references nor index.

*Power from the Wind* is quite another story. All attention is given to the single theme of power generation on a large scale by windmills. It is the story of the Smith-Putnam wind turbine that was erected in 1941 and tested on Grandpa's Knob near Rutland, Vt. The idea of developing alternative sources of power, therefore, goes back 36 years. In fact, it was an old and proved practice before the age of electric energy production.

*Books continued on page 64*

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YOUR REPUTATION.

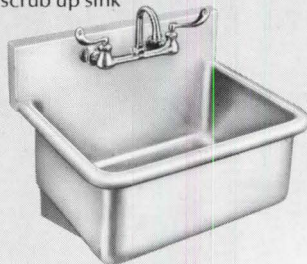


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Associated Architects  
Wellesley, Massachusetts

**—Architects**



*Books from page 61*

The technical presentation, including computations, tables and graphs, as well as cost analysis, are given in great detail. From the standpoint of design feasibility, ecological impact and product development, the venture was most successful and ought to be taken up again. Economic conditions and the urgency of need for alternative power sources have changed. The value of the book lies in its technological detail, based on actual experience with a successful model.

The interesting economic fact is that the developers had to give up the promising venture at that time because no comparable profits were in prospect even with the use of a series of such large turbines. Though this picture may become more favorable with the increasing pressure of

need, the ultimate solution just cannot be linked to the economic fetish of the ever-increasing rate of growth. The book also includes a commendable but brief history of other large windmills.

*H. H. Waechter, AIA*

**Energy and Buildings. Vol. 1, No. 1.**

Lausanne, Switzerland: Elsevier. Approximately \$62 yearly.

This quarterly is an international journal which will report on the results of research activities conducted by the building energy conservation community. It is edited by Baurch Givoni of Israel, A. C. Hardy of England and Maxine Savitz of the U.S. Its executive board is made up of international authorities, including John P. Eberhard, FAIA, president of the AIA Research Corporation.

Vol. 1, No. 1, contains papers from a summer study sponsored by the Federal Energy Administration and held at the Lawrence Berkeley Laboratories, Berkeley, Calif. Among the papers: "Energy Cost of Building Construction," by Richard G. Stein, FAIA; "Energy Conservation Studies," by Fred Dubin, and "Window Management and Energy Savings," by David Claridge.

The subscription price, including air-mail postage, is 155 Swiss francs (about \$62) yearly. Write *Energy and Buildings*, Elsevier Suquoia S.A., Box 851, CH-1001 Lausanne 1, Switzerland. Authors are invited to submit manuscripts to Executive Editor Forrest S. Higgs, School of Architecture and Environmental Design, University of Texas at Arlington, Arlington, Tex. 76019.

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**1977 Solar Energy & Research Directory.**

Ann Arbor Science Special Task Group.  
Ann Arbor, Mich.: Ann Arbor Science  
Publishers, 1977. 286 pp. \$22.50.

Another in the spate of reference works being issued on solar technology, this directory was compiled from "questionnaires distributed to individuals, companies and research facilities." There is no mention of how the selection of recipients was made, and the coverage is incomplete. The directory, in seven sections to reflect the entrant's major area of activity, is classified as follows: energy conservation; manufacturers of solar components; manufacturers of solar total systems; distributors of solar products; design/construction, residences or buildings; solar research, and solar energy—other related areas. Under design/construction, a few A/E firms are listed, some universities and even an organization called the Red Potato Work Collective. This may sound comprehensive, but it is not.

**Habitat.** Réalisation: Sylvia Spring.

Script: S. Spring and W. Tochterman.  
Paris: Produced by Photographic Service,  
Press and Audio-Visual Division, Unesco,  
1976. \$25. (Available in this country  
from UNIPUB, Box 433, Murray Hill  
Station, New York, N.Y. 10016.)

In 48 slides, with accompanying text, Unesco appeals for recognition of indigenous vernacular architecture. Certainly, this should be an important emphasis in the architectural programs of developing countries "in order to promote the rise of architecture that is not merely an imitation of international industrial construction."

No one who has seen the total components of a multistory office building come ashore in containers, ready for assembly, can really believe that this is the whole answer, but in self-housing, in rural areas, in places where the indigenous cul-

*continued on page 72*



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# Hard Working

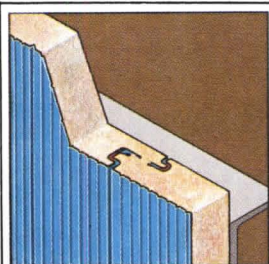
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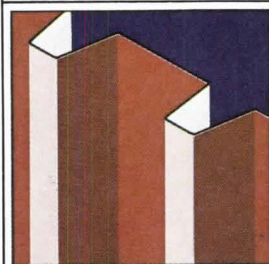
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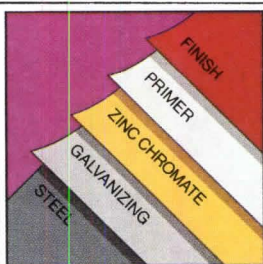
strength that makes possible longer panels, fewer rows of panels and fewer horizontal supports on tall-wall structures. That means fewer laps, too, and erection savings, both in time and in auxiliary structural steel.



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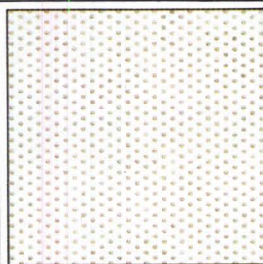
two-coat, oven-cured, factory finish applied over ASTM G-90 galvanized steel. Duofinish 700 is a wall panel finish that doesn't just put up with pollution—it fights back. For less hostile environments, Duofinish 500, Inryco's two-coat, oven-cured, Kynar finish delivers reliable, long-life performance.



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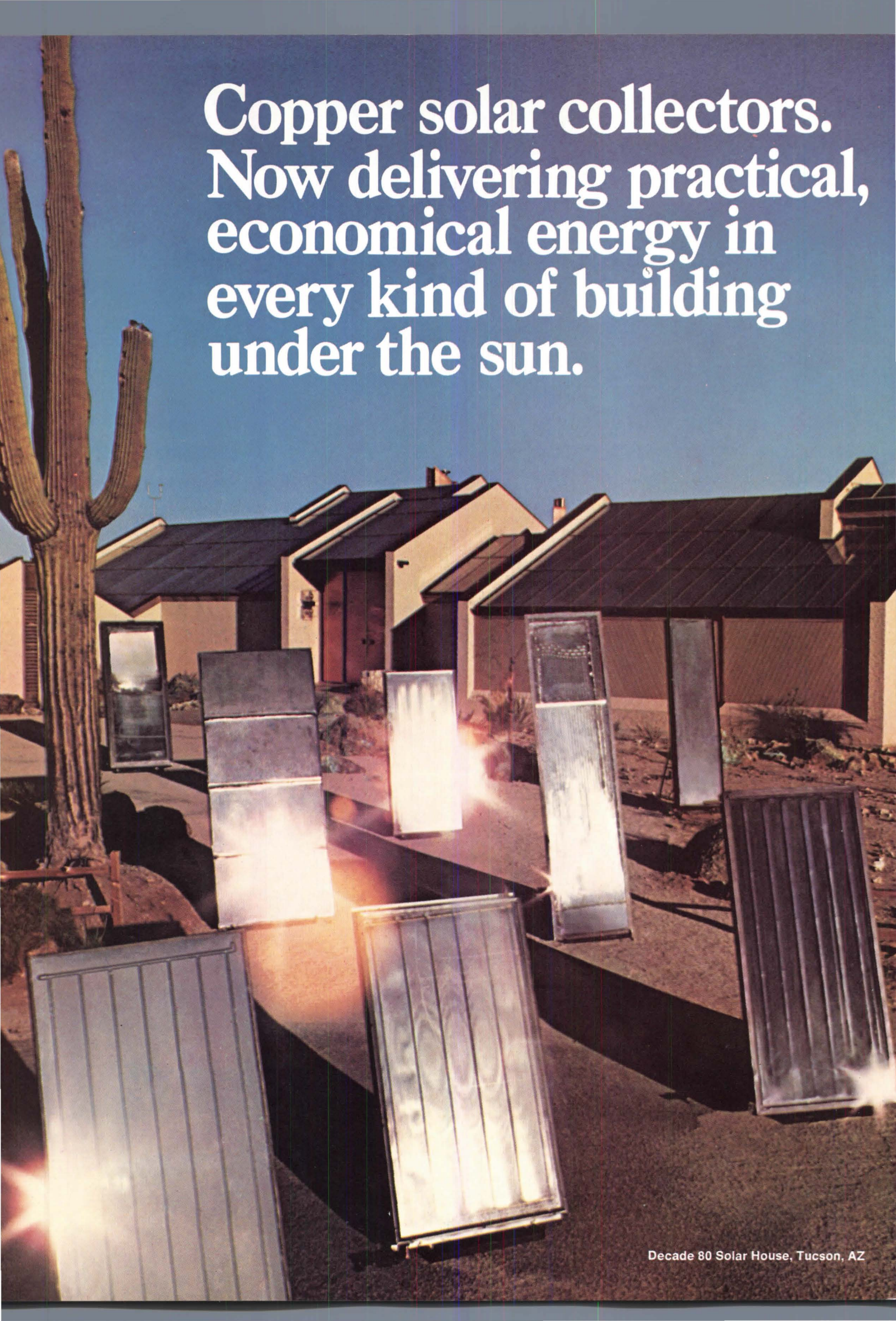
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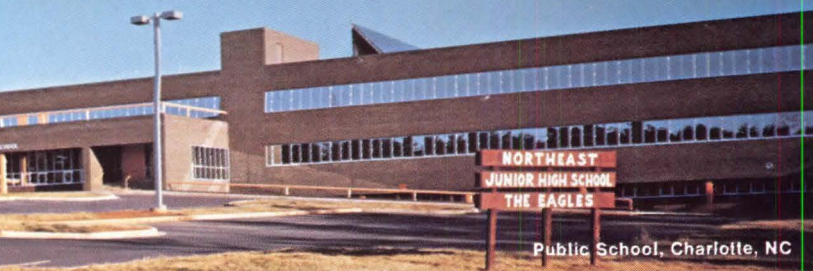
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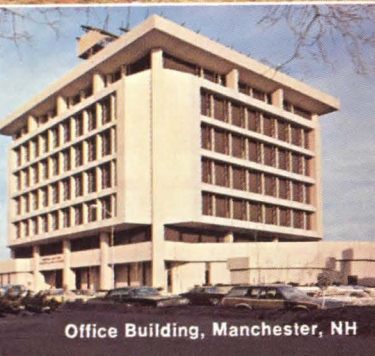




Public School, Charlotte, NC



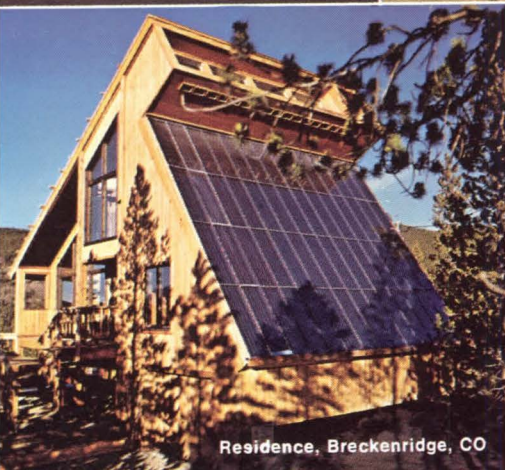
Church, Denver, CO



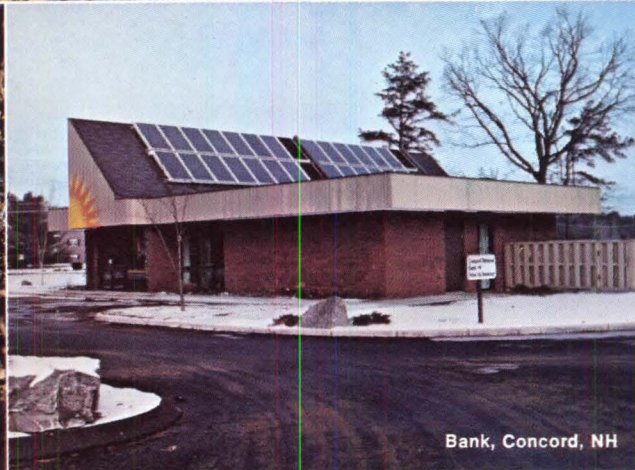
Office Building, Manchester, NH



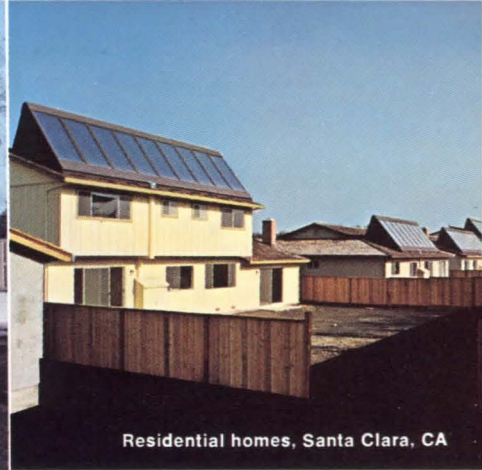
Motel, Temple, TX



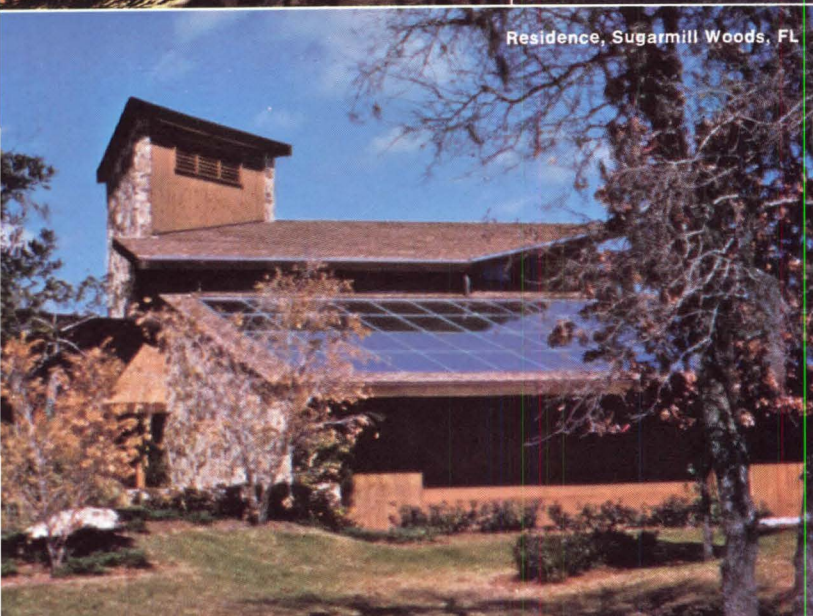
Residence, Breckenridge, CO



Bank, Concord, NH



Residential homes, Santa Clara, CA



Residence, Sugarmill Woods, FL



Residence, Windsor, CT



Townhouse, New York, NY

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Typical copper solar collector showing copper tube and sheet construction.

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# Bold cantilevered design calls for great structural strength...

The owner of First Federal Plaza in downtown Austin, Texas, wanted a distinctive design that would focus on a park-like plaza in front of the building's main entrance.

The architects, 3D/Brooks Barr Graeber White, achieved the desired effect with a unique diamond-shaped structure featuring five stepped cantilevered levels. The apex of the cantilevered levels in front of the six-story building provides a focal point to the entry.

## Only steel could carry the load

According to the structural engineers, W. Clark Craig & Associates, "The large cantilevers carrying the 72- and 90-ft-long walls required by the architect could only be framed in steel."

Competitive framing materials would have required prohibitively deep sections to carry the

## high-strength steel trusses provide the solution



cantilevered loads, which would have detracted from the building's esthetics. In addition, steel proved to be more economical and faster to erect.

## High-strength steel trusses

Three tapered-steel roof trusses, the longest of which is approximately 62 ft, carry the five-story-high, 72- and 90-ft-long cantilevered walls over the plaza. The trusses, 13 ft 6 in. deep at their highest point, are fabricated of ASTM A572 Grade 50 high-strength steel.

The east and west ends of the building are also cantilevered through the use of six-story-high exposed wall trusses. The west cantilevered end projects over the garage entrance to three sub-levels of parking. The east-end cantilever provides a sheltered drive-through area for the bank's drive-in teller units. The spans are 60 ft from the column to the ends of the cantilevered trusses.

The trusses minimized the number of columns required to support the loads. This, in turn, provided the additional advantage of increased interior space flexibility.

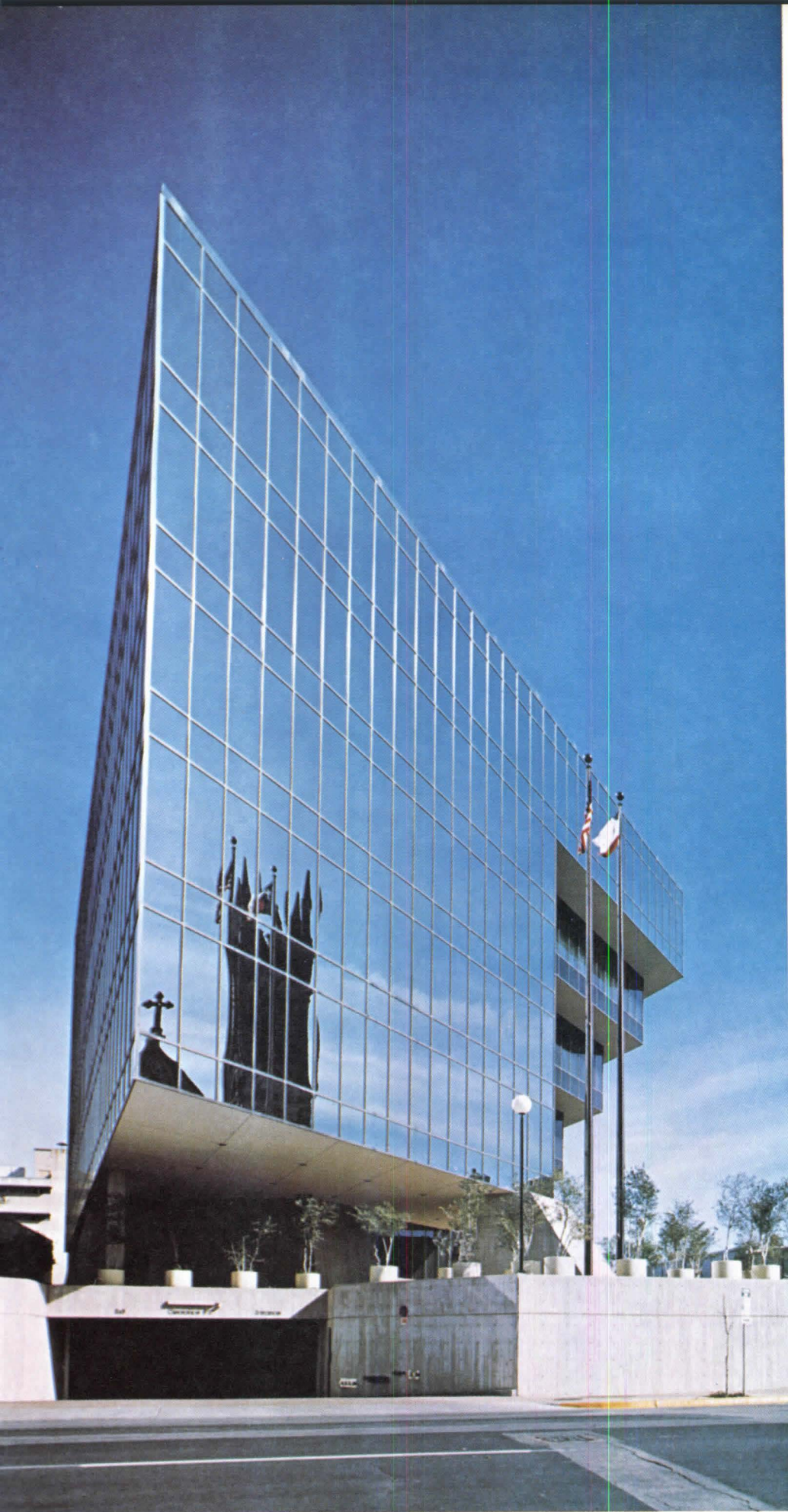


First Federal Plaza, clad in mirrored glass, is oriented on the site to reflect the sun's rays away from the eyes of passing drivers. The wall trusses, supporting the east and west ends of the building, are exposed on the interior to add an interesting architectural element. Three tapered roof trusses support the five stepped cantilevered levels below.



High-strength steel trusses enabled the architects to create a unique cantilevered design for this six-level bank and office building. Bethlehem supplied 340 tons of steel for the project.






Composite design was used to economically reduce steel weight and permit smaller section sizes for the long spans. Composite beams and girders support and combine with the fire-resistive floor assembly of 3-in. composite steel floor deck topped with 3¼-in. lightweight concrete.

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**Owners:** First Federal Savings & Loan  
**Architect:** 3D/Brooks Barr Graeber White, Architects  
**Structural Engineer:** W. Clark Craig & Associates  
**Fabricator:** Capital City Steel Co.  
**Erector:** J. M. Borders Steel Erection Co.  
**General Contractor:** Robert C. Gray Construction Co.  
 All of the above firms are located in Austin, Texas.

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Books from page 64

ture and its building materials are still valid, it needs this emphasis. If there is to be response to local culture and life styles, to climate, light and environment, to the creation of a local but modern architecture, this evidence from the past is filled with lessons for the present. One doubts Tochtermann's assertion that "indigenous architecture is not associated with any architectural or academic rules simply because architects had nothing to do with its development." It will be architects and architects alone who are likely to rescue indigenous building from its neglect.

While the attitude is clear enough, the miniscule text that accompanies this presentation (in English, French and Spanish) is less than adequate. The buildings are not located other than by country, or further identified or described—and the captions suggest the authors themselves do not know. Nothing further is provided as to date, building materials, structural systems, cost or other details. Nor is the suitability of the indigenous types for security, fire, earthquake, typhoons or other conditions mentioned. A romantic and picturesque excellence is asserted without reason.

Taken by themselves, the slides are of good quality for copies, not unreasonably priced, and might be a useful adjunct to a slide library that is deficient in these

elements—as most architectural school libraries probably are. *Frederick Gutheim, Hon. AIA, Director, Graduate Program in Historic Preservation, George Washington University*

**The Railroad and the City: A Technological and Urbanistic History of Cincinnati.** Carl Condit. Columbus, Ohio: Ohio State University Press, 1977. 335 pp. \$15.

Although this reviewer personally found this book much to his liking, it was not what he expected. The subtitle would seem to read much better as "a technological and urbanistic history of the railroads of Cincinnati," because the book is primarily about railroads. There is scant reference to the technology (i.e., manufacturing industries) of Cincinnati.

Condit begins by describing the physical features of Cincinnati—its hills, neighboring streams and the bordering Ohio River with its damaging floods—all factors which were to play a prominent role in the location and development of the railroads. Basically following a chronological approach, Condit recounts briefly the history of the railroads entering the city, describes the various stations, with illustrations of them, and comments on the rolling stock and technical features of the railroads.

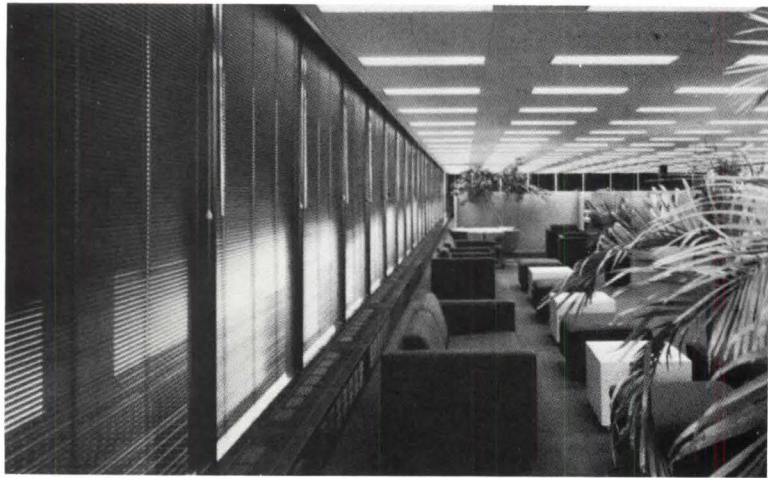
In later chapters Condit describes the competition from the interurbans and various proposals for belt lines and union

stations, prior to that culminating in the Cincinnati Union Terminal. It is in the last chapter on the CUT that one finds some of the expected emphasis on urban planning. Condit describes the terminal in some detail and indicates how it reflected the "megastructural or microubanistic" characteristics of a great railroad terminal. His final analysis indicates his feeling that the terminal was too far from the center of the city to have ever developed its potential as an influence and that a much better site would have been that proposed in 1910 nearer the city core.

Although there are bits and pieces about the interrelationship of the city and the railroads, the book leaves unanswered many questions that come to mind. For instance, the number of railroad employees in Cincinnati and their payroll would seem a more significant piece of data for this book than the engines used by the L & N on its Gulf Coast line. Despite this reviewer's feeling that the author did not fully achieve his presumed goal, this is an interesting and well-written book. *George E. Pettengill, Hon. AIA, Institute Librarian Emeritus*

**Design for Diversity.** Barrie B. Greenbie. New York: Elsevier Scientific Publishing Co., 1976. 209 pp. \$31.25.

This book is about "planning for natural  
*continued on page 76*




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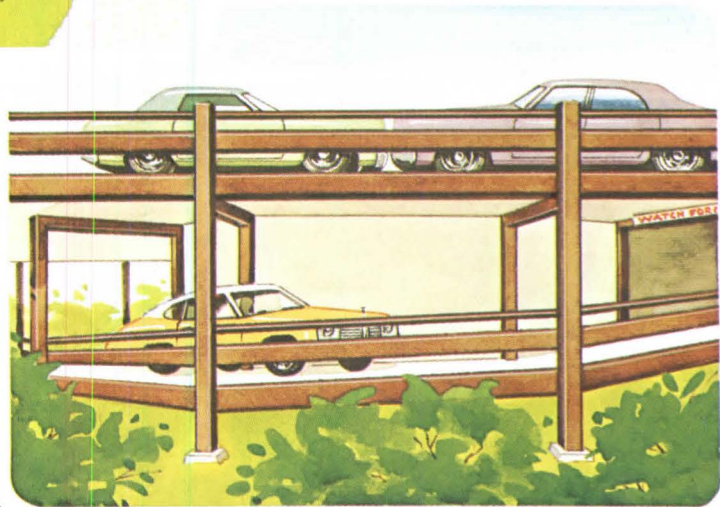
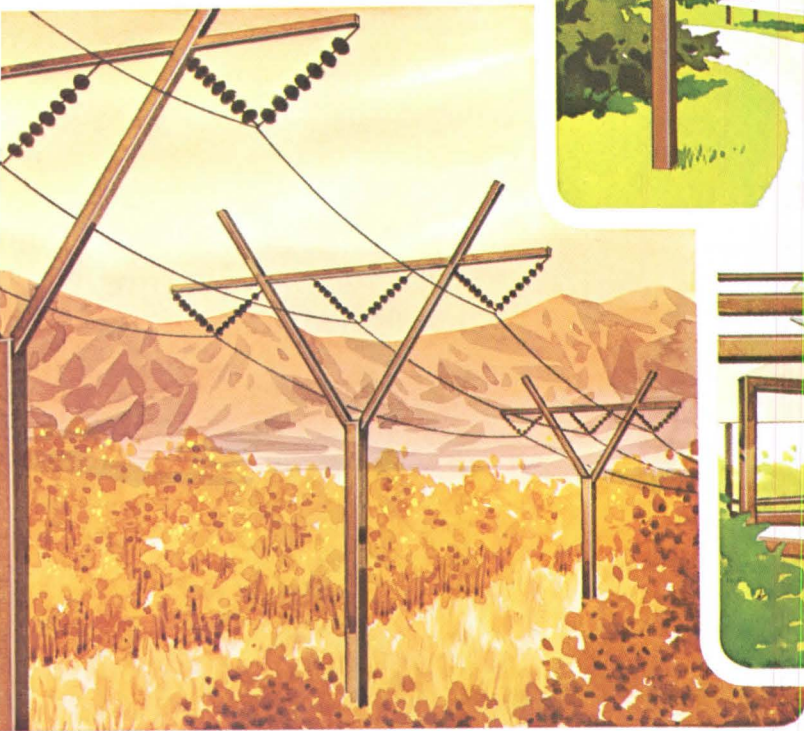
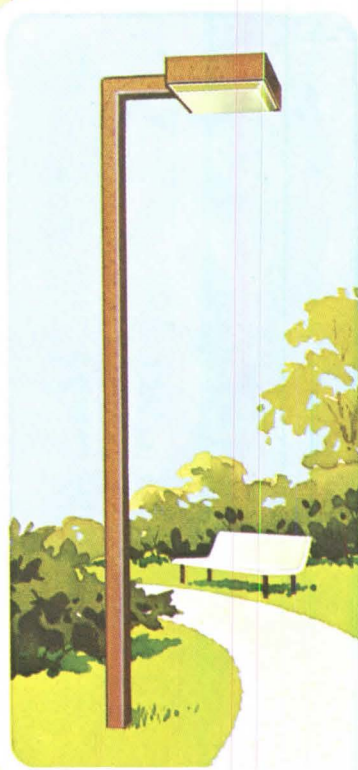
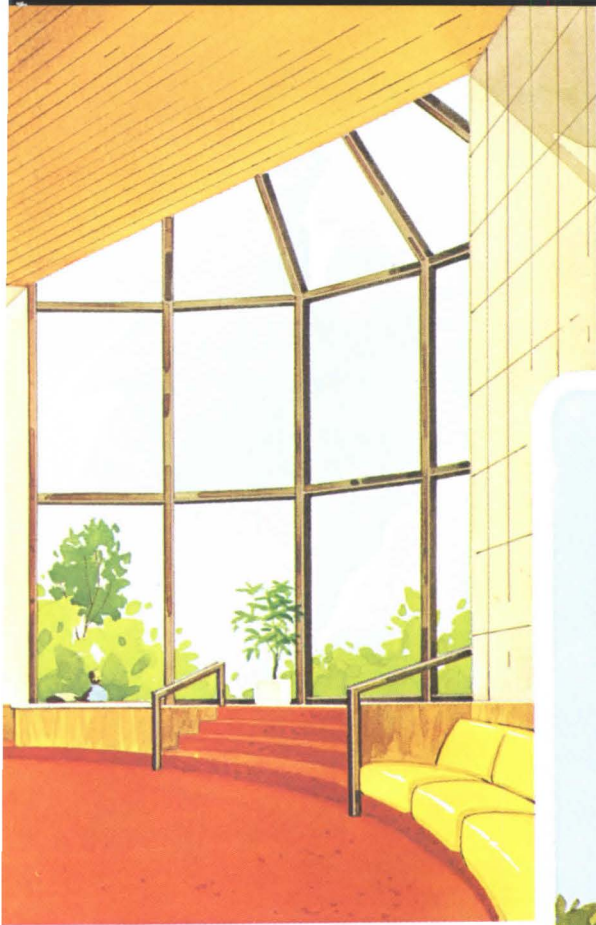


# New Regal<sup>TM</sup> earth tube

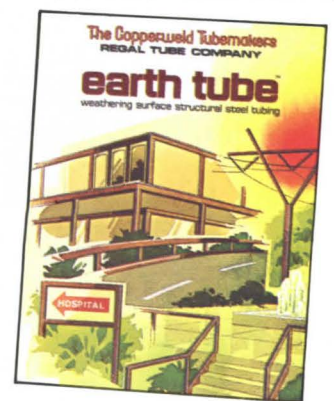
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# "Beautiful," they said. And we

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### Books from page 72

man in the neotechnic environment." It has an ethological approach. Greenbie explains that ethology is a science concerned with the relationship of animals to each other within the environment. In this case, ethology really has to do with human animals. By extrapolating from studies of animal behavior, Greenbie presents a process for examining the implications of territoriality, community and other aspects of the way human beings live in, use, intervene and interact with their physical and social environments. The book makes a contribution to a widespread research effort which is beginning to give us insights into some of the factors which for so long have been missing from our processes of design and planning for people.

The book is divided into three parts. The first section contains an introduction to the need for an ethological approach and is followed by a theoretical definition of ethology. Greenbie calls it a science for planning and design. Ethology is a process of studying interactions. It proceeds from natural observations. It is a study of how and why people do what they do, with the intention of not merely understanding the psychological implications, but also the nature and quality, advantages and constraints and probable long-term outcomes of people's continuing changing interaction with their physical, natural and social environments.

The second part of the book deals with animal studies, and this is used as a model for the third part which focuses on human studies. This third section is, of course, the main thrust of the work. Here Greenbie assembles ethological models for dealing with such issues as space and scale. Using these two concepts, he looks at today's city and suburb, setting up his consideration of the evolution of society.

An example of Greenbie's literary and verbal illustrations is given in an excerpt from *Tom Sawyer*. Tom meets a new boy and they both test their manhood and authority by an escalating series of challenges, such as, "I dare you to step across that line. . . ." Here the intention is to show how people feel their way with each new environmental experience. Tom and the other boy were each trying to determine the limits of their new relationship. How much social space would they allow each other? Such references are skillfully woven into the overall purpose and content of the book.

Greenbie explains that in prescientific days there was a reluctance to appear wrong. This reluctance was due to fear of alienation from social groups. When it comes to aspects of how we live on our planet and within the institutions we have created, it is often apparent that this reluctance to appear wrong—this ignorance—is preferred to a rational series of ideas,

processes and measurements whereby we can begin to understand the system of instincts and values that form the basis for the way we use and live in our environment. This, really, is what *Design for Diversity* is all about. It is a book rich in ideas and well worth reading. *Basil Honikman, Chairman, Department of Architecture, University of Miami*

**Design Cost File: 1977 Composite Prices.** Compiled by McKee-Berger-Mansueto Inc. New York: Van Nostrand Reinhold, 1977. 200 pp. \$29.95.

This compilation of unit costs for labor, materials and equipment will enable the architect to assess the cost/design relationship of alternative building systems. It covers 10 basic systems: foundations, structural systems, column fire protection, roofing systems, exterior walls, interior partitions, plumbing and sprinklers, HVAC systems, electrical systems and finishes. With the data provided, the user can compare similar systems and develop realistic costs in the early stages of a project. The data are also helpful in life cycle cost analysis. The pricing information is based on cost data of 20 city median, and projected to May 31, 1977. As explained in the introduction, it is anticipated that during 1977 there will be a 7 to 9 percent increase in labor costs and an 8 to 12 percent increase in material prices.

**Graphic Guide to Interior Design.** Written and drawn by Forrest Wilson. New York: Van Nostrand Reinhold, 1977. 128 pp. \$10.95 hardbound, \$4.95 paperbound.

"Design is often said to be such a mysterious thing that only very special people can understand it. The people who say this are usually professional designers. This book is based upon the assumption that design is in reality a rather simple activity which we all do every day without making any fuss about it," so says this witty architect, author and teacher. With a minimum of text and a plethora of his inimitable drawings, he explains what interior design is all about. He zeros in on space, scale, structure, materials, sound, light and color—and then he puts it all together again. He says the book "may not tell you anything you did not already have the senses to find out for yourself. If you have learned this, it has been worth my writing and your reading." It is certainly worth the reading.

**Coming to Our Senses: The Significance of the Arts for American Education.** A panel report, David Rockefeller, Jr., chairman. New York: McGraw-Hill, 1977. 334 pp. No price given.

Last we heard, cutbacks in public school curricula, necessitated by budget cuts, were causing a drastic reduction in

arts courses, because they were considered little more than icing on the cake. Almost overnight, advocates for the arts have not only rallied to reverse this trend, but also to encourage a spectacular growth in arts education, similar to that enjoyed by the sciences after Sputnik in the late 1950s.

This is the report of a nationwide study by a distinguished panel of 25 prominent businessmen, scientists, artists and educators, headed by David Rockefeller. It emerges as a strong rallying cry to increase school emphasis on the arts. Says the panel: "The arts must, in fact, be seen as one of the basics . . . they more than any other subject awaken all the senses—the learning pores." The panel claims that the study of the arts instills discipline and motivation to learn, and that there is a high correlation between art-oriented curricula and a reduction in student vandalism.

The book begins with a historical survey of American attitudes toward the arts. ("They [the pilgrims] brought to these shores the Reformation, not the Renaissance, and the gray shadow of John Calvin stretched across their stern and rockbound coast.") After an examination of the state of art education today, the panel makes 98 recommendations. The panel calls for a new federal agency to coordinate information about artists, programs, funding and research, and for a cabinet-level secretary of education. It also recommends that each governor establish a cabinet-level position for the arts and that every municipality form an arts commission concerned with education.

The \$300,000 study, whose end-product is this report, was supported by grants from a number of foundations, as well as the National Endowment for the Arts and the U.S. Office of Education.

### The Architectural Index for 1976.

Boulder, Colo.: 1977. 97 pp. \$9.50.

This magazine sometimes receives requests for information on such questions as what hotels have been constructed recently, who was the architect of such and such a library, what work has John Doe's firm performed recently, what has been written in the architectural press on energy conservation, what new buildings have been erected in Arizona. *The Architectural Index*, an invaluable reference source, usually supplies the answers. The 1976 index is larger than ever. It locates articles in 10 design journals, including the AIA JOURNAL. Published and edited by architect Ervin J. Bell, AIA, and used by architects, the index helps them find information quickly and efficiently.

Back issues to 1951 and a hardbound binder are also available. For information or ordering write: *The Architectural Index*, P.O. Box 1168, Boulder, Colo. 80302.



**Marketing and Promotion for Design Professionals.** John P. Bachner and Naresh K. Khosla. New York: Van Nostrand Reinhold, 1977. 354 pp. \$17.95.

The authors define marketing as "that group of business practices designed to provide management with as effective a tool as possible for controlling the short-, mid- and long-term development of its business organization." Few design professionals, they say, have taken the necessary steps to determine which markets they should be in. As a result, the development of many firms is determined by whoever happens to knock on the door.

Written for both the large and the small firm, the book gives guidance on performing marketing research, showing how to make the most of a firm's experience, personnel and clientele. There are discussions of market planning and organization, personnel relations, promotion and implementation of the marketing plan. The authors give many specifics. In the chapter on promotion, for example, they cover such topics as telephone techniques, type-written correspondence, brochures, presentation folders, newsletters, etc.

**The Coral Buildings of Suakin.** Jean-Pierre Greenlaw. Boston: Oriel Press, 1976. 132 pp. \$24.

Suakin is an island town on the Red Sea in the Sudan. Established by the Arabs in 641 A.D., it later came under the rule of Egypt and then the Turks and subsequently Great Britain. Once the possessor of beautiful examples of Arab and Turkish architecture, the town was abandoned when Port Sudan was built 40 miles to the north. Suakin was too far away to become a suburb, and today its buildings are mostly rubble.

When Greenlaw first saw Suakin in the 1940s, he started drawing the town's buildings, which were uninhabited but still comparatively intact. A decade later, he says, there would have been almost nothing to record, and today's visitor finds it almost impossible to believe that a town was ever there that possessed the beautiful structures that Greenlaw describes and illustrates.

Greenlaw gives the old town a measure of immortality, however, with his insightful comments on its past architecture and his handsome and detailed drawings. He outlines the history of its architecture under Turkish and British rule, providing a wealth of information about the houses, mosques and zawias, military structures and building methods. Those interested in Islamic architecture will find the book a treasure.

**Art Nouveau: An Annotated Bibliography.** Vol. 1. Richard Kempton. Los Angeles: Hennessey & Ingalls, 1977. 303 pp. \$39.95.

More than 1,800 books and magazine articles on Art Nouveau are referenced in this comprehensive bibliography. This first volume includes general works and sections on Austria, Belgium and France. A second volume will cover other European countries and the U.S. The sum of nearly \$40 for this unillustrated work seems excessive. Only libraries will buy perhaps—or likely have use for—such a bibliography.

**Ferrocement: Building with Cement, Sand and Wire Mesh.** Stanley Abercrombie. New York: Schocken Books, 1977. 192 pp. \$12.95.

Ferrocement is made of materials easily found almost anywhere. Its ingredients—portland cement, fine sand and wire mesh—are comparatively inexpensive. It requires neither heavy equipment nor elaborate tools since the mesh can be bent into shape by human hands. It is lightweight, "impressively watertight, rotproof and bugproof," and its strength improves with age. Further, it could be used to fill the need for shelter—simple structures that could be assembled quickly in the wake of natural disasters, could be built economically in developing countries and could provide retreats in woods or at the beach.

Its disadvantages, Abercrombie says, are that it requires time and patience in construction. Also, its rarity works against it, since there are no great bodies of completed buildings or scientifically conducted tests about its behavior and strengths.

Abercrombie thinks ferrocement ought to be given a chance. It remains a largely untried material, and being untried "is a condition with potentially great dangers but also with potentially great opportunities," he says.

He examines materials and techniques in great detail, outlining recommended mesh, sand, cement and additives, storage conditions and proportions. He discusses ferrocement's ability to assume a wide variety of shapes and colors. He gives examples of actual use, which vary from building a flowerpot to construction of a house and a community.

**How to See: Visual Adventures in a World God Never Made.** George Nelson. Boston: Little, Brown, 1977. 233 pp. \$9.95.

In this perceptive book, delightfully written and copiously illustrated, George Nelson, FAIA, who heads his own design and planning firm in New York City, provides a primer on how to look at the man-made environment. The Garden of Eden, he says, was God's "last recorded design, and unfortunately it didn't work. . . . For better or worse, we live in a man-made world, now facing the question of whether it will work any better than the Garden."

So Nelson tells us how to look at the

world God never made. He leads us from the various moods of the simple letter A to manhole covers to fire hydrants to skylines—even to buttons and bread. All the time he is telling us how rich the world is if we would but look. "Blind as the average citizen is," he says, "he can still see better than his car."

A random sampling of his observations: "A license to practice architecture (granted by boards of visual illiterates) is no protection, alas, against visual pollution." ". . . If you ever hear critics arguing about the sanity of a new painter, buy his paintings. It is better to be in the company of a crazy painter than a sane critic." "If the can is thrown away after use, in the great U.S. tradition of littering whatever landscape is within reach, and then run over by a truck, you get a small piece of junk, familiar to anyone exposed to cans and trucks. There is something else to see, however: the transformation of a shiny cylinder into a kind of accidental sculpture."

**Centre Pompidou.** New York: Rizzoli International Publications, 1977. Unpaged. \$3.50.

Published originally by *Architectural Design Magazine* (London), this booklet about the new center of art in Paris (*see* Aug., p. 22) will please architectural readers, whether or not they like the brash, polychrome construction, which has been called a "supermarket of culture." It gives details about the architectural competition for its design and how final plans were evolved. It explains how the structure and its services were developed and also includes comments by architects who participated in its design and construction on their aims and problems. The booklet is copiously illustrated.

**Museum Security.** Robert G. Tillotson. Edited by Diana D. Menkes. Paris: International Council of Museums, 1977. 243 pp. \$15. (Order from ICMS, Room 5112, National Museum of History and Technology, Smithsonian Institution, Washington, D.C. 20560.)

Highly complex psychological motives are often behind the thefts and vandalism of works of art. Thefts are both rational and irrational, forcing museum curators to carefully survey collections to pinpoint objects that require special protection. In addition to theft and vandalism, there are also the ever-present potential damages caused by fire and negligence.

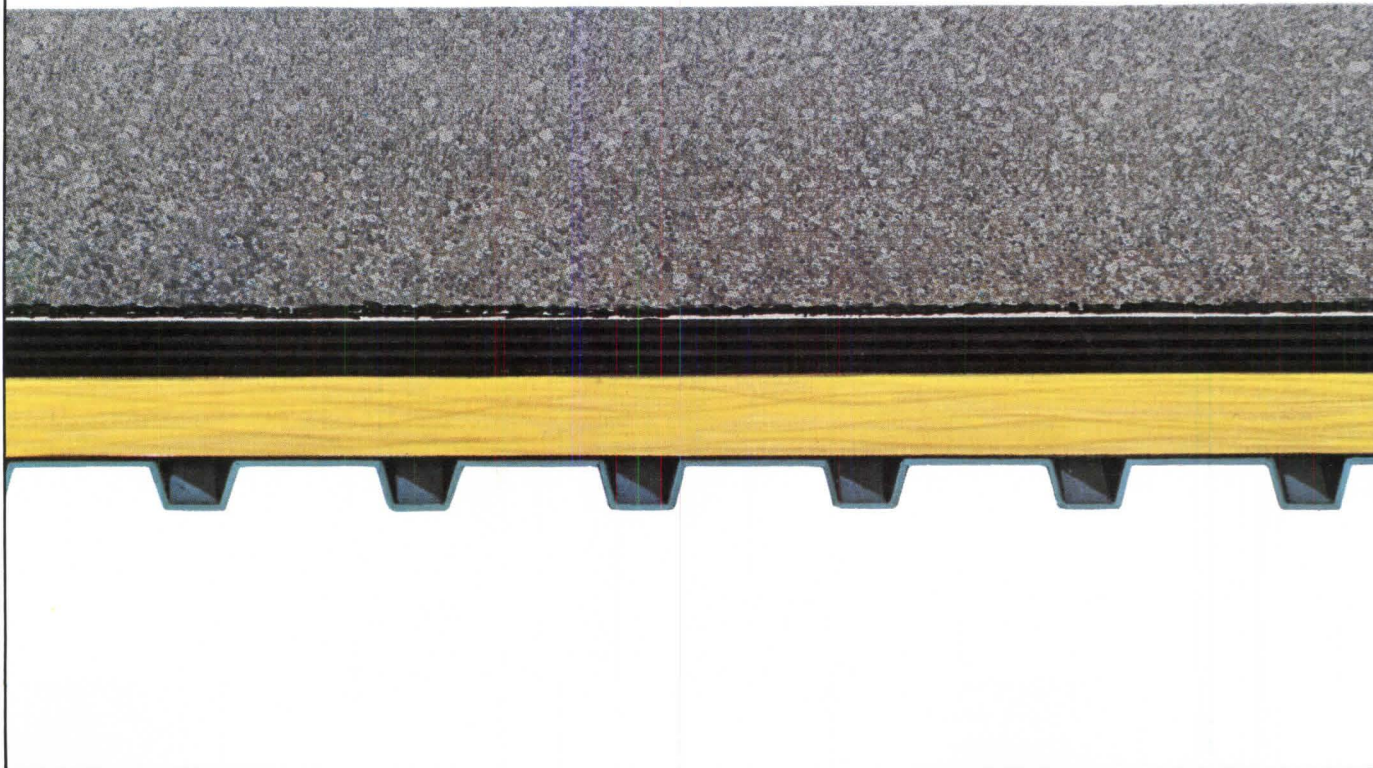
The problem of protecting the world's cultural legacy has reached such proportions that the International Council of Museums formed a committee on museum security. The committee decided that a priority was the dissemination of a bilingual book (English and French) which

*continued on page 80*



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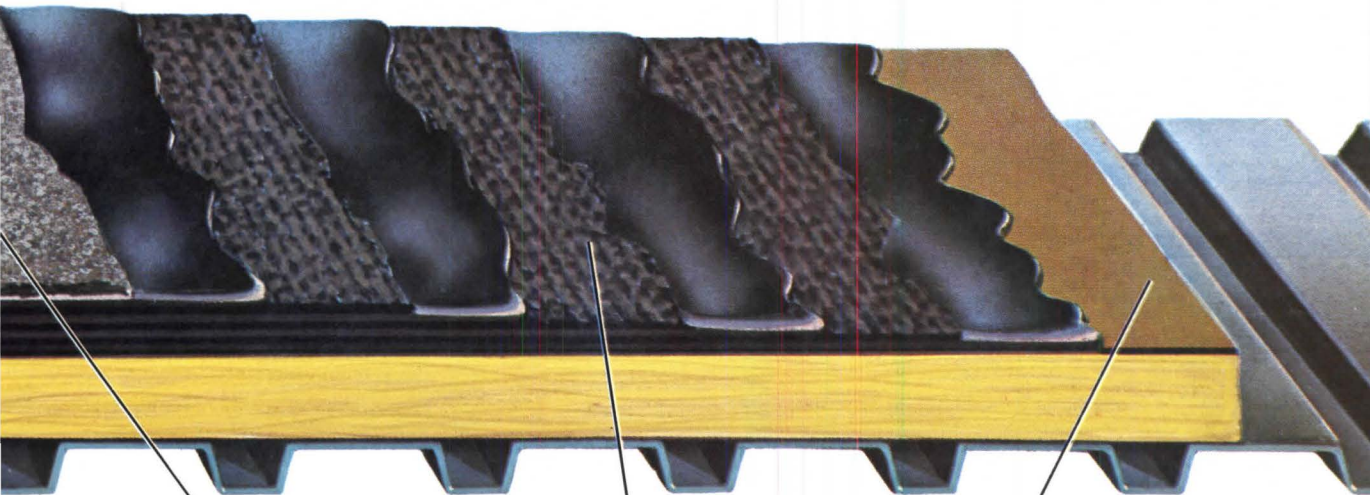
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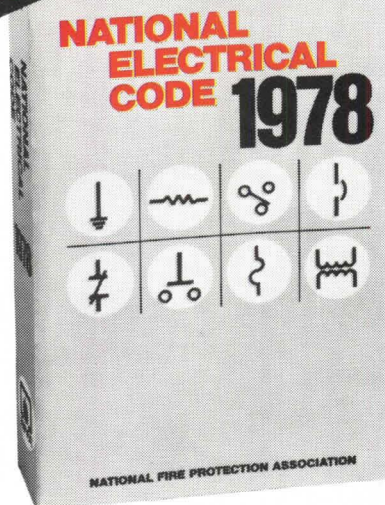
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#### Books from page 77

would provide both small and large museums with a discussion of principles and equipment for museum protection.

The book contains many recommendations on the protection of museums against fire, vandalism, theft and environmental damage. One chapter is devoted to architectural planning, and here is useful advice for the designer on a variety of topics, ranging from site selection to the placement of doors. The book is particularly helpful to those who want information on technical equipment for the protection of both public and nonpublic areas.

**The Statue of Liberty.** Marvin Trachtenberg. New York: Penguin Books, 1977. 224 pp. \$5.95.

What fun to read this book, a thorough evaluation of a piece of period art that has plowed deep furrows into the consciousness of generations of Americans. Marvin Trachtenberg, an associate professor at the Institute of Fine Arts of New York University, puts exactly the right seriousness on his research. The result is eminently readable. Included are chapters on the sculptor (Frédéric Auguste Bartholdi), the derivation of the figure, the site, construction, the pedestal (designed by Richard M. Hunt at the height of his prestige) and the reactions of Americans to this colossal gift from France.

The new and old pictures are marvelous, and they are deftly arranged to complement the text. Too bad they're not better reproduced. The book is well indexed and footnoted.

**What Style Is It?** John Poppeliers, S. Allen Chambers and Nancy B. Schwartz. Washington, D.C.: Preservation Press, 1977. 46 pp. \$3.50, plus 50 cents for postage and handling.

What is stick style? Shingle? Prairie? International? What distinguishes a Georgian structure from one in the federal style? The reader who wants to know will find the answers in this illustrated guide to American architectural styles. "Style," say the authors, "is one of the most used—and abused—words in the English language, particularly when pressed into service in the study of architectural history. . . . But . . . stylistic classification acknowledges that building is not just a craft but an art that reflects the philosophy, intellectual current, hopes and aspirations of its time." The booklet, illustrated with photographs from the Historic American Buildings Survey, is a history in miniature of architecture in America, tracing its development from the 17th to the 20th century.

**Photographs of Architecture.** Philip Trager. Middletown, Conn.: Wesleyan  
*continued on page 84*



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Books from page 80

University Press, 1977. 60 plates. \$24.95.

Here assembled are photographs by Philip Trager scheduled to be exhibited at museums and galleries during the year. The photographs are presented without comment (notes on the structures are placed at the end of the book). The book, says the publisher, is not to be read, nor merely looked at it. It is to be experienced. The photographs are crisp, subtle and handsome.

**Construction Law in Contractors' Language.** McNeill Stokes. New York: McGraw-Hill, 1977. 285 pp. \$19.50:

This book, which will be helpful to the architect as well as to the contractor and subcontractor, gives the basic points of law required by persons in the construction industry in the conduct of day-to-day business. The advice is not intended as a substitute for legal counsel; rather the aim is to help the reader make better use of that counsel. There are chapters on bidding, general contracts, subcontracts, supply contracts, performance, insurance and remedies. Throughout the book are studies of actual cases decided by courts and contracting agencies. Stokes, who is legal counsel for the American Subcontractors Association, writes in plain language, without legalistic jargon. As the note on the dust jacket says, this book won't make a lawyer out of the reader, "but it will provide valuable help in bridging the gap between you and your legal counsel."

**How to Build a House with an Architect.**

John Milnes Baker. Philadelphia: Lippincott, 1977. 190 pp. \$14.95.

Directed to the client, this book outlines the advantages of building a house with an architect. The primary claim that an architect can make to a client, he says, is that the client will get "better value for money spent." Baker explains clearly such things as contracts, specifications, bidding, avoidance of cost overruns, site and floor plans, the design process, the role of the contractor. More than 60 line and half-tone photographs illustrate the text which, as the publisher says correctly, is "enlivened by incidents and case histories from the author's own vast experience."

**The History of Photography.** Johann Willsberger. Garden City, N. Y.: Doubleday, 1977. Unpaginated. \$24.98.

Despite an ambitious title, this is no comprehensive history of photography. It is a good collection of historic photos illustrating technical steps in photography's evolution, photos of cameras in their curious arrays of shapes and sizes, and brief biographies of some of the early greats of photography. A beautifully designed and printed book, it would perk up any coffee table. □

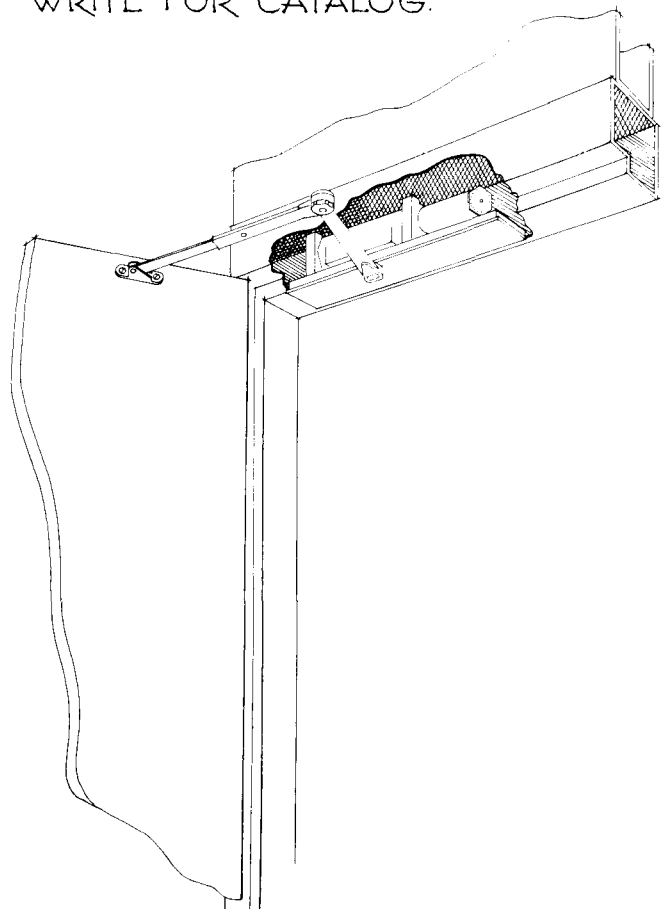
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# Turning Designers Loose on New York City's Grim Subway Stations

Elegant they're not. In fact, one can safely say that most New York City subway station platforms are downright grim and forbidding. In order to demonstrate that even the dreariest among the city's aged subway stations can be transformed into inviting spaces—given superior design talent and a minimum of funds—two civic groups joined forces just over two years ago to launch a pilot project called Platforms for Design.

One was the New York Public Arts Council/Municipal Arts Society, an organization which works with artists, architects, urban planners and communities to develop programs to preserve and enhance the physical fabric of New York. The other was the Arts and Business Council, which is composed of representatives of 45 major New York businesses and an equal number of people from the arts community. It acts as a resource and adviser to corporations on matters concerning support for the arts, while also providing arts organizations with skilled managerial help on a volunteer basis. The project was funded by the Exxon Corporation, and had the full cooperation of the New York Metropolitan Transportation Authority.

The sponsoring organizations invited four New York City architects and designers to choose any station platform in the city and create for it a new and imaginative visual environment. Only three restrictions were imposed on the architects: Their chosen design should relate to an above-ground cultural institution or community, should conform to transit authority materials standards and safety requirements and should not exceed a budget of \$5,000. In November of last year, four redesigned station platforms were officially opened.

At the open-air, elevated Bronx Zoo-Pelham Parkway IRT station (1), Peter Bradford & Associates tried to create a "portal to the zoo." They replaced 34 large advertisements with a huge animal poster dramatizing details and images of various species to be found in the zoo. Says Bradford, "The total visual experience [is] zoo-related, with enough to see and read to provide and, I hope, prolong

the passenger's interest regardless of his intentions to visit the zoo."

At the 7th Avenue IRT Boro Hall station/Brooklyn Heights (2), Samuel Lebowitz Design & Planning used neon to add light, color and movement. The rationale was that "subway advertising is here to stay: Given the poor illumination and generally forbidding spaces that make up the New York subway environment, why not install 'ads' that add light?" The designers chose neon for their simple graphic statements because it is a highly efficient source of illumination which requires less maintenance than others. The neon tubes are protected by lexan-glazed aluminum boxes; the "ads" are based on the same 4x5-foot module used by paper advertisements.

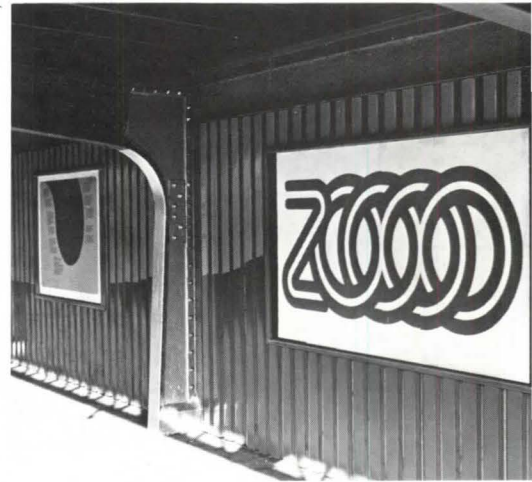
At the 81st Street IND station (Museum of Natural History), Mayers & Schiff Architects-Planners had at their disposal a larger than usual number of poster spaces, organized in an orderly way, with few competing elements. They "provided intense color for viewing from a moving express train to function as a film animation," they explain. "However, here the 'film' is stationary and the eye is moving." The graphic content is a series of squares, each depicting a portion of a dinosaur-like creature, which when looked at adjacent to one another can reveal a variety of fantastic creatures. The designers call it "create-a-creature."

At the 53rd Street IND station (3) at 5th Avenue, Propper/Elman Design/Planning used decorative letterforms in a multicolored interior to communicate travel information to subway passengers. Their intention was to reflect "the excitement of the above-ground vicinity with its many cultural institutions." They also installed a rear-projection visual system within the station area to give subway travelers up-to-date information about offerings at the above-ground cultural centers.

A month after completion of these four projects, the U.S. Department of Transportation's urban mass transportation administration awarded New York City matching grants of up to \$500,000 to beautify the subway system. *Andrea Dean*



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3



3

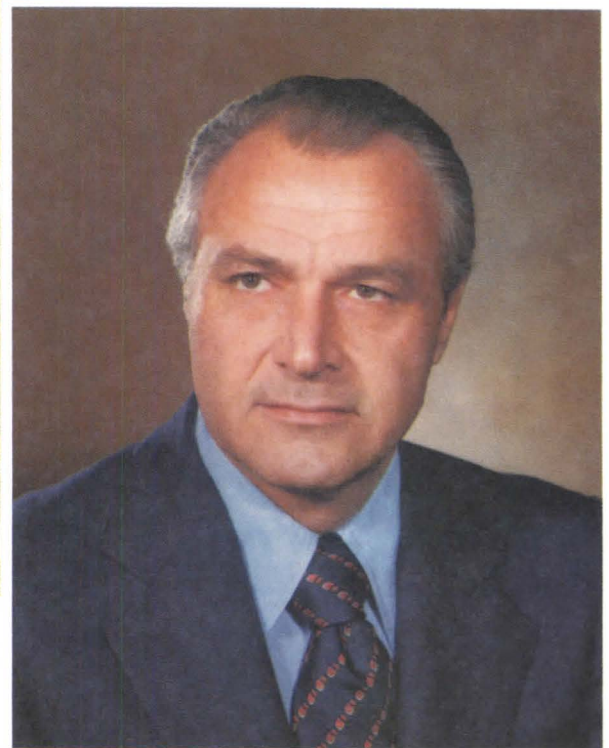






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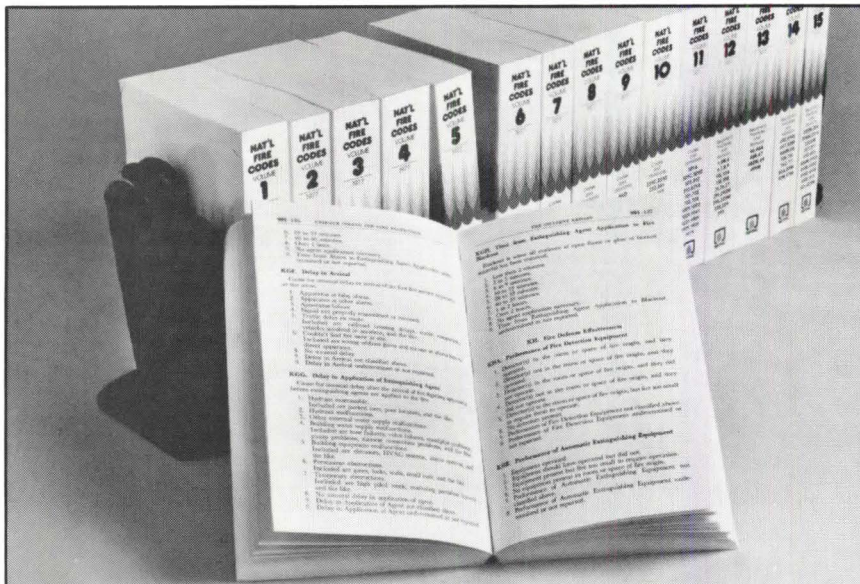
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56

## Work is continuing on an entire compatible family of revised AIA documents.

*B141 from page 58*

the documents board and the task force, others provided ideas and comments.

"AIA members collectively had a tremendous input through their individual letters and inquiries and the problems they called in about," Stover says.

There are several related new documents. B151, first published in 1974, is the short form of the owner-architect agreement—the new edition will be basically a condensed version of the new B141. Two other related documents are B161, "Owner-Architect Agreement for Designated Services" and B162, "Scope of Designated Services."

Stephens calls B161 the "boilerplate" and B162 a comprehensive listing of services based on AIA's compensation management guidelines. Stephens says the architect would normally use B161 with B162.

"Or the boilerplate can be used with somebody else's scope of services, or the AIA's scope of services, which is B162, can be used with somebody else's boilerplate. This provides a great deal of flexibility," he says.

Another new document related to B141 is B171, an agreement form between the owner and the interior design professional (see July, p. 65). The documents board is also working with the housing committee on the development of an agreement form applicable for use in housing projects. "We hope this agreement form will be acceptable by HUD for its projects," Stover says, "resulting ultimately in HUD's retirement of its forms, Nos. 2719, A, B and C."

The 1976 edition of A201 required changes in the architect's construction administration role, and these were set forth in the B142 amendment form, issued last spring.

With the new edition of B141, the amendment form is no longer necessary, except on those projects for which the architect has already contracted for design services. If it is desirable, the former agreement may now be superseded by the use of the new B141.

Orders for copies of the new B141 may be placed through publications distribution at the Institute. The price per copy to members is 80 cents and \$1 to nonmembers. Requests for information about the AIA handbook supplement service may be directed to publications marketing.

Inquiries regarding the revised document and its use may be directed to Stover at AIA headquarters. □



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Letters from page 2

A news story in the May issue (p. 16) outlined AIA's involvement in the model procurement code for state and local governments being developed by the American Bar Association under a grant from the Law Enforcement Assistance Administration. The model code project was initiated in 1975. One of the more controversial portions of the current draft of the code involves the selection of architects and engineers for public work construction projects. Two alternative selection procedures are included—one based on the A/E's qualifications and competence and the other on competitive fees. This model code project is the focus of the following letter recently written by Robert L. Durham, FAIA, past Institute president, to his firm's attorney. Ed.

Dear Bruce:

According to my memory, your office has provided legal counsel for our office for at least the last 15 years. The relationship has been very pleasant.

You will recall that you took care of our needs when we incorporated, and Jim led us by the hand when we sued that doctor who wouldn't pay his bill. On several occasions you and your partners have referred clients to us, and only recently, I suggested that an architect friend seek your professional counsel.

At this point, I am not able to remember just how our relationship began. I surmise that it was because of my personal regard for your senior partner. I am quite confident, however, that I didn't call you to ask whether you wished to be interviewed. We didn't request a printed bro-

chure or a "technical proposal," and, most certainly, we didn't ask you to bid in competition against other legal offices.

With this background, I must express my amazement and dismay that the American Bar Association has seen fit to include a section on selecting architects in a model procurement code that it is currently developing. It puzzles me as to why the bar association should be telling the public how to select architects and engineers under any circumstances. Wouldn't it be more appropriate for the professional design societies to be spearheading such a study?

Now, please don't call me to tell me that I must be mistaken, since I have before me a printed progress report of the ABA committee, chaired by F. Trowbridge von Baur, in which a favored procedure is to seek technical proposals from architects, accompanied by competitive bids. *Competitive bids!* I can imagine your response, Bruce, if I called you with such a request in relationship to legal services.

Perhaps you are aware that members of the legal fraternity in the Department of Justice and the Office of Management and Budget have long urged bidding as the proper method of seeking architects for federal work, but the ABA? Bruce!

A couple of years ago, Congress established a procedure under the so-called Brooks bill which outlines procedures for advertising forthcoming projects, collecting expressions of interest and capability, analyzing comparative technical competence, and establishing preferential rating. Fee negotiation takes place only with the firm chosen No. 1. If an agreement cannot be reached, the client moves on to firm No. 2 so that in no way is the public agency forced to pay an amount which it considers unfair.

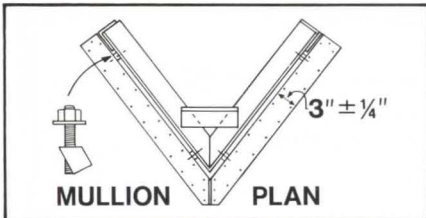
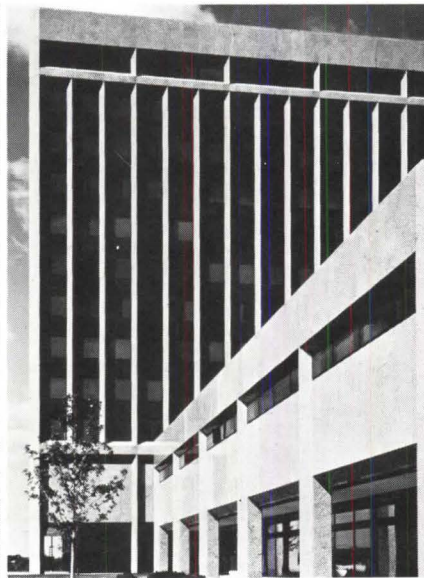
Now, Bruce, we have that unfinished legal problem to handle which I mentioned on my recent visit to your office. I understand why you have refused to give me any idea as to how long it will take you to win the case. But as architects, we have the same problem as we search out the best design and work with our client so that we are positive he is happy with our recommendations. It may take much longer than first anticipated. To place a fixed price on design service before you are well acquainted with your client is totally unrealistic.

In the interest of professionalism, I urge you to write Mr. von Baur at the ABA, stating that even though members of our professions may now be free to advertise, it is fair neither to the public nor our clients to endorse or propose the selection of professional counsel on the basis of the low bid. We have an equal stake in the concept of professionalism. We should be standing together in its defense.

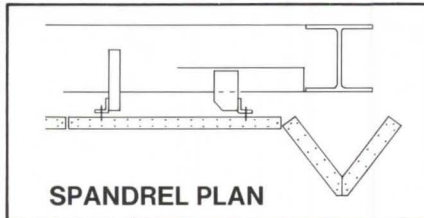
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Going On from page 20

by the Architectural League of New York and opened last March in New York City to widespread critical acclaim.

The exhibition and symposium are co-sponsored by the Rice Design Alliance and a newly formed group called Houston Women in Architecture. The two events will coincide with the International Women's Year Conference on Nov. 18-21, which is expected to bring 10,000 conferees to Houston.

For additional information, write: Ann Barr, Executive Director, Rice Design Alliance, Box 1892, Houston, Tex. 77001.

## Window Design Report Gives Energy Strategies

Well-designed windows are a net gain for energy conservation; poorly designed ones are an energy burden. To provide guidelines for the achievement of energy-efficient windows, the National Bureau of Standards' architectural research section, center for building technology, has issued a report entitled *Window Design Strategies to Conserve Energy*. Prepared by S. Robert Hastings and Richard W. Crenshaw, the report is sponsored by HUD and the Energy Research and Development Administration.

A window, says the report, has six energy functions: providing winter solar heating, supplying year-round daylighting, rejecting summer solar heat, providing insulation during periods of heating or airconditioning, providing air tightness and furnishing natural ventilation during temperate weather.

The report presents 33 strategies to gain energy efficiency, and they are grouped into six major sections that consider site, exterior appendages, frame, glazing, interior accessories and building interior. Under the section on exterior appendages, for example, the strategies consider sun shades, exterior blind rolls, architectural projections, exterior shutters and awnings. Each of the strategies is discussed in detail, with particulars given for the physical phenomena responsible for the strategy's energy performance; summarized energy and nonenergy advantages and disadvantages; esthetic considerations; cost approximations; examples of installations, laboratory studies or calculations, and references to other information.

To continue the example, the strategy for sun screens is the installation of mini-louvers outside a window to shade direct sunlight and yet provide a view. The physical phenomena for energy performance include the geometry of the solar screen and its reflectivity as a material, the sun's

intensity, the layer of still air created by an external sun screen close to the window and the window's exposure to winter's night sky.

Among the advantages noted are the reduction of interior temperatures, daytime privacy without elimination of the view, reduced direct and reflected glare and reduced heat loss in winter. Among the disadvantages: reduction of solar benefit in winter if screens are left in place, interference with window washing and with outswing windows and impeded egress in the event of fire. Esthetic considerations noted are that louvered sun screens tend to darken and to striate the view and appear blackened on the facade. Cost approximations are given for both small and large windows, and examples of their use. Finally, there is a list of six publications for the reader who wants more detailed information. And so it goes with each of the 33 strategies presented.

As the authors say, "A window can be a solar collector introducing valuable energy which can lower winter heating costs; a source of illumination which can substitute for artificial lighting to lower electricity expenditure, and a means of natural ventilation which can postpone the need for airconditioning in the spring and fall, and substitute for airconditioning on cool summer evenings."

*continued on page 94*

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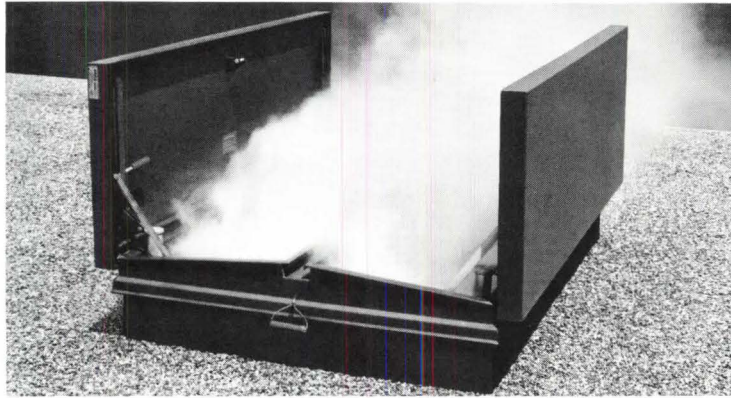
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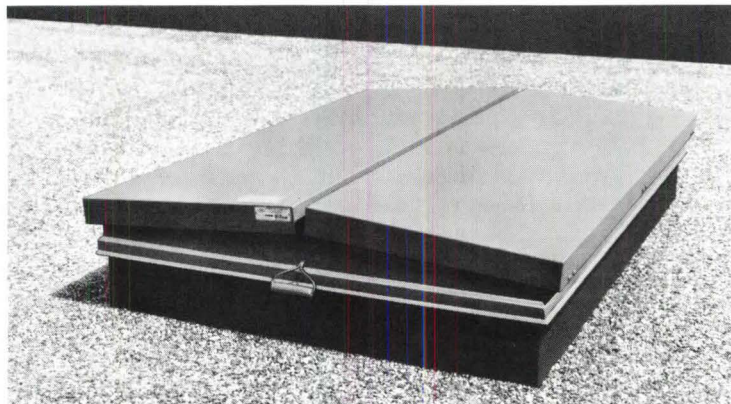
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Going On from page 92

The report, which can aid the professional designer as well as the homeowner, brings needed attention to practical ways in which windows can help conserve energy. It is for sale by the U.S. Printing Office, Washington, D.C. 20234, for \$3.75. Order by SD Catalog No. C13.29/2:104.

## Architects in Industry Seminar Planned Oct. 4-5

An architects in industry seminar will be held on Oct. 4-5 at AIA headquarters in Washington, D.C. Among the topics for discussion will be aspects of energy-conscious design, including engineering principles, land development management, financial budgeting, programming for user needs and postoccupancy evaluation of existing buildings. Also, new information will be disseminated on the license renewal of architects.

Keynote speaker will be John P. Eberhard, FAIA, president of the AIA Research Corporation and former director of the Institute for Applied Technology, National Bureau of Standards. Among the other scheduled speakers are John Haley, AIA, and Michael Sizemore, AIA, both of Sizemore & Associates in Atlanta; Gershon Meckler, former president of the Building Research Institute; Walter Molski, AIA, from Environmental Research in Philadelphia, and Norman Fletcher, a social scientist who is director of personnel at Bell Northern Research, Ottawa, Canada.

For additional information, telephone Fred Marks at AIA headquarters, (202) 785-7366.

## Schluntz Replaces Clarke At ACSA Headquarters

David Clarke, AIA, has resigned as executive director of the Association of Collegiate Schools of Architecture. Roger Schluntz, associate professor at the University of Nebraska college of architecture, will replace Clarke. Schluntz, also an architect, has taught at Nebraska for eight years. He holds a bachelor of architecture degree from Nebraska and a master's degree in architecture from the University of California, Berkeley.

During Clarke's seven years at ACSA, its budget doubled four times, several ambitious grant programs were successfully completed and the joint AIA/ACSA award for excellence in architectural education was established.

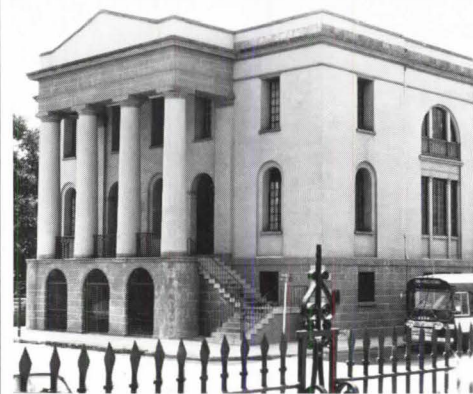
Clarke has accepted an invitation to be a visiting fellow at Yale University's school of architecture. While in residence, he will work on several educational projects and on a book of readings on envi-

ronmental education. Next spring, he will be the guest of French Ministry of Foreign Affairs to study the impact on the curriculum of a new French law governing the practice of architecture, during which time he will visit several schools of architecture. Also, Clarke will continue as executive editor of the *Journal of Architectural Education*, for the coming volume year at least.

## Students Pick Charleston For Convention Nov. 23-27

Charleston, S.C., has been chosen as the site of the annual convention of the Association of Student Chapters/AIA, to take place on Nov. 23-27. The coastal city was selected by the host chapter at Clemson University because of its "unique colonial residential atmosphere" for consideration of the convention theme—"Human Scale." (Photo of the 1827 Fireproof Building below, one of several structures in the city designed by Robert Mills.)

In conjunction with the convention theme, the South Carolina chapter/AIA is sponsoring a design competition on the development of a currently unused area adjacent to Charleston harbor and the



city's historical district. Winning designs will be submitted to the state's development board for further consideration.

One of the keynote speakers will be author and critic Reyner Banham, University of Buffalo. Seminars will be held on a variety of topics, including the redevelopment of the downtown historical district. There will be a Thanksgiving banquet and a Beaux-Arts ball.

The forum is open to all interested architectural students for a nominal registration fee. For further information, write: David Hamilton, P.O. Box 2217, Clemson, S.C. 29632.

## Tour Abroad Cancelled

The architects abroad study tour for London and Helsinki, sponsored by the AIA architects in government committee and scheduled to take place on Oct. 9-17, has been cancelled. Not enough people expressed an interest in the event.

## Deaths

**P. M. Duncan**, New York City  
**Arne G. Engberg**, Albuquerque, N.M.  
**Roland A. Gallimore**, St. Davids, Pa.  
**John F. Gronau**, Altadena, Calif.  
**W. S. Lancaster**, Venice, Fla.  
**George H. Levy**, Elizabeth, N.J.  
**E. Jerome O'Connor**, Washington, D.C.  
**Robert J. Schultz**, Mishawaka, Ind.  
**Samuel G. Wiener**, Shreveport, La.  
**Thomas E. Wingate**, Charlotte, N.C.  
**O. C. Zirolli**, Bridgeport, Conn.

## Newslines

**An endowment fund** at University of Michigan's college of architecture and urban planning has been established in memory of Thomas Adrian Langius, who earned a master's degree at the school in 1963 and was legal contract adviser for the Bechtel Corp. at the time of his death on June 18 at the age of 37. Mr. Langius was the son of Adrian Nelson Langius, FAIA, also a graduate of the school.

**The American Academy in Rome** invites applications for the 1978/79 Rome prize fellowships which are awarded to scholars prepared to do independent work and include a year's residence at the academy in Rome, beginning Sept. 1, 1978. The academy also offers several one-year midcareer fellowships in architecture, planning and design, with residence of six months. Deadline for application is Nov. 15. For application forms, write: American Academy in Rome, 41 E. 65th St., New York, N.Y. 10021.

**"Built to Last,"** published recently by Preservation Press, is a handbook on recycling old buildings (see Apr., p. 59). Its publication was marked by Massachusetts Governor Michael S. Dukakis, federal and state officials, architects and community organizers at Bowdoin School in Boston, an 1896 structure converted to apartments. The book is available from Preservation Bookshop, 740 Jackson Place N.W., Washington, D.C. 20006. The price is \$5.95, plus 50 cents for postage and handling.

**C. William Brubaker, FAIA**, senior vice president of Perkins & Will, Chicago, has been named president-elect of the Council of Educational Facilities Planners. Brubaker will assume responsibilities on Oct. 5, when the current officer, **Donald F. Burr, FAIA**, of Tacoma, Wash., succeeds Darwin Womack as president of the council.

**The Institute for Architecture and Urban Studies**, 8 W. 40th St., New York, N.Y., 10018, offers four courses to explore innovative trends in architecture, beginning



Oct. 3. The courses are "The Last Decade of American Architecture," "The Modernist Vision," "Cities Within Cities" and "Languages of Design." Each will be moderated by a specialist in the field. The courses, open to anyone interested in architecture, will last 10 weeks.

**The Built Environment Education Center** has a new publication called the *BEEC Report*, published four times a year, to "bridge the gap between the world of the educator and the world of architects, designers, preservationists and environmentalists." The annual subscription rate is \$10. For further information, write: *The BEEC Report*, P.O. Box 13507, Philadelphia, Pa. 19101.

**Three graduate courses in historic preservation** are offered this fall by Boston University. Further details will be supplied by Boston University Metropolitan College, 775 Commonwealth Ave., Boston, Mass. 02215.

**The Peoria section, Central Illinois chapter/AIA** has published "Peoria Two," a 31-page booklet on structures of architectural significance in Peoria. The cost is \$3.75, including postage and handling, and the booklet may be ordered from Kenyon & Associates, 735 N. Knoxville, Peoria, Ill. 61602.

**Kenneth Carpenter, AIA**, former Clemson University professor and partner in Carpenter, Dalton & Jacques in Clemson, S.C., has been named head of the architecture department at Ball State University. **Alan M. Voorhees**, who has served as president of the American Institute of Planners and is founder and president of Alan M. Voorhees & Associates, is the first dean of the newly created college of architecture, art and urban sciences at the University of Illinois at Chicago Circle.

**The Society of American Value Engineers** will sponsor a \$1,000 award for the best paper providing an example of value engineering excellence in the construction industry. Called the Richard B. DeMars award in honor of the president of Geupel DeMars, Inc., the program was established by the Indianapolis firm. Deadline for submittal of papers is Jan. 31, 1978. For further information, write Donald E. Parker, SAVE, 1612 Brookside Road, McLean, Va. 22101.

**Robert Traynham Coles, AIA**, of Buffalo, a former AIA staff member, is the recipient of an honorary doctorate of letters from Medaille College. He was cited for "professional achievements in interrelating improvements of social and economic conditions with architecture and urban planning."

**The "Catalog of Standards for Safety,"** newly amended, is designed for easy reference to the Underwriters Laboratories Inc.'s 387 published standards. For a free copy, write: UL, Publications Stock Department, 333 Pfingsten Road, Northbrook, Ill. 60062.

**Quality levels for solar heating and domestic hot water systems** have been established by HUD for residences designed and constructed under HUD programs. The standards supplement HUD's "Minimum Property Standards." The 500-page book is available for \$12 from the Government Printing Office, Washington, D.C. 20402.

**"Innovations"** is the title of a motion picture on public transit, available on loan without charge from Broadcast/Audio Visual Division/OST/S-83, Department of Transportation, 400 7th St. S.W., Washington, D.C. 20590. The 18-minute, 16mm, color sound film shows, among other things, how downtown malls affect the vitality of cities.

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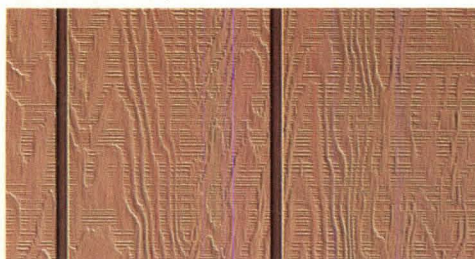
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