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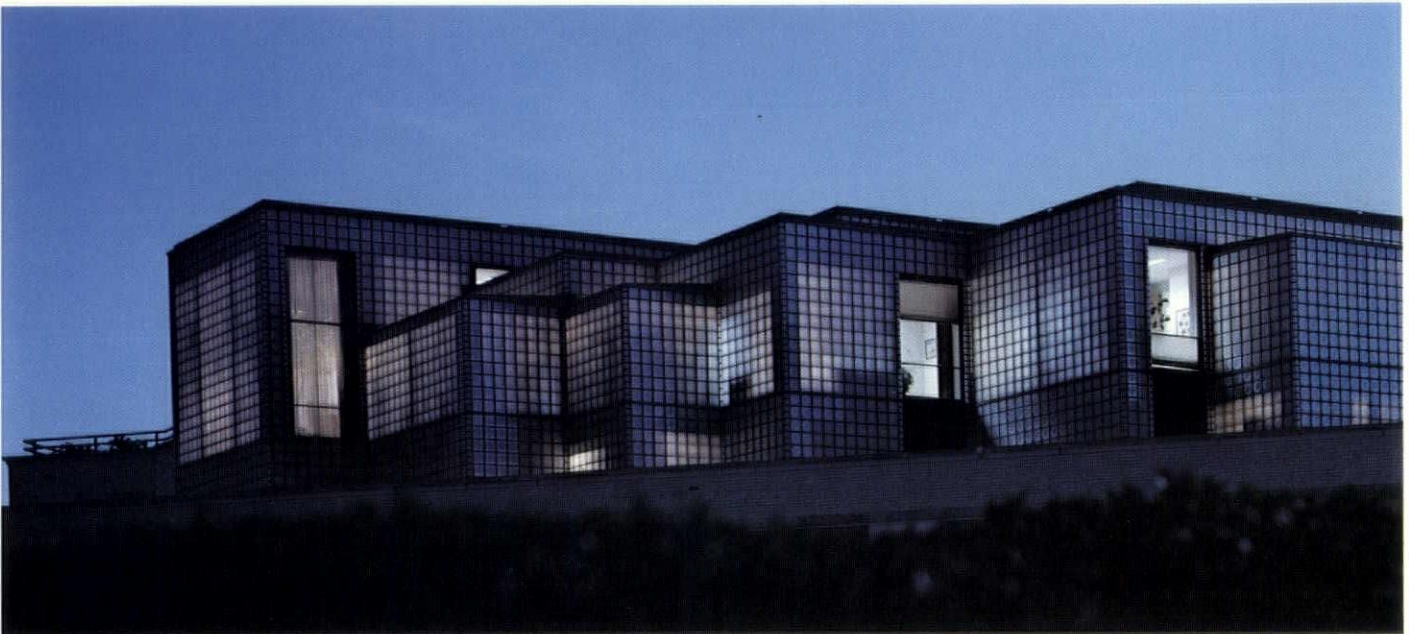




Glass Block Units



Transammonia, Inc. offices, New York, N.Y.
Architect: Gwathmey Siegel



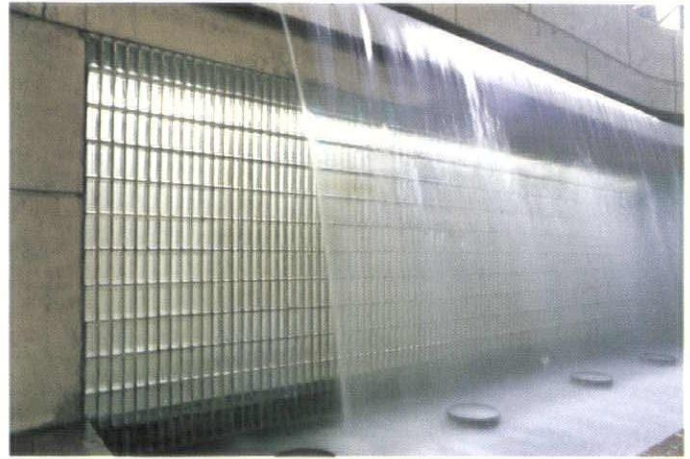
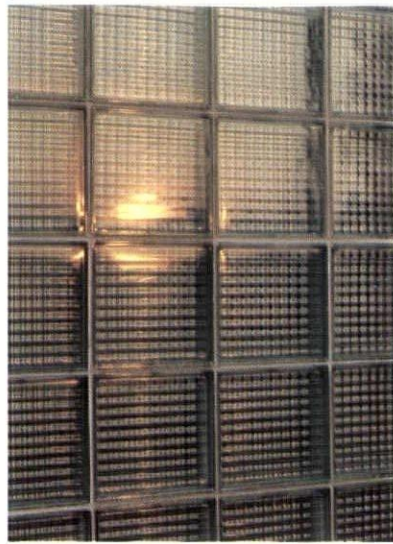
Dr. Pepper Co., headquarters, Dallas, Texas. Architect: Ralph Kelman



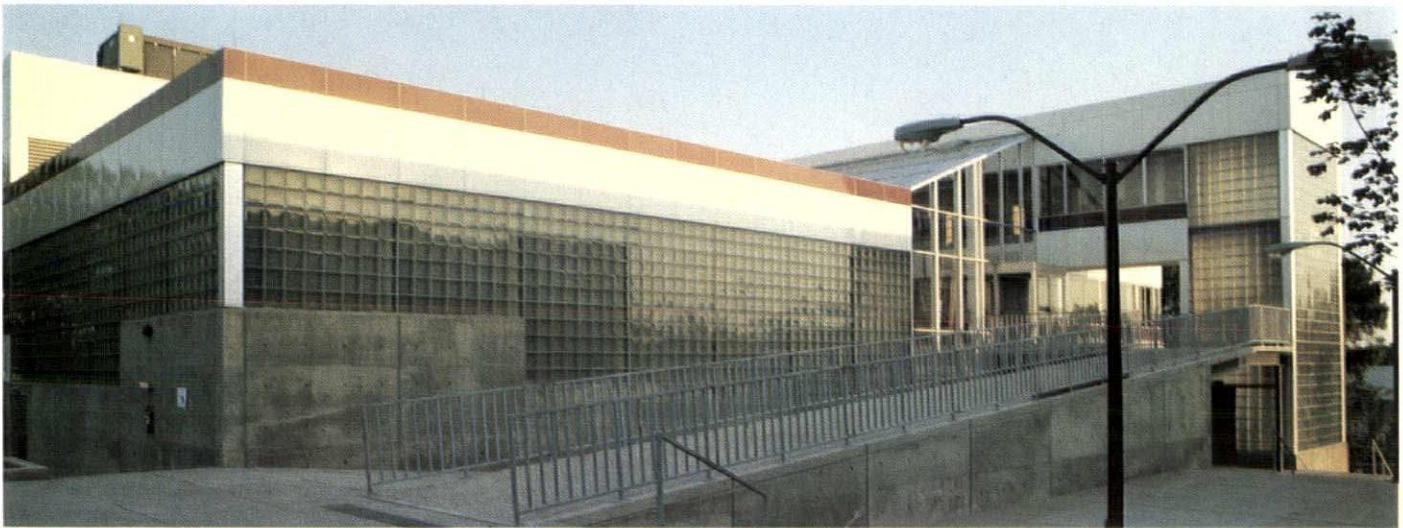
Union County Nature & Science Museum, New Jersey
Architect: Michael Graves



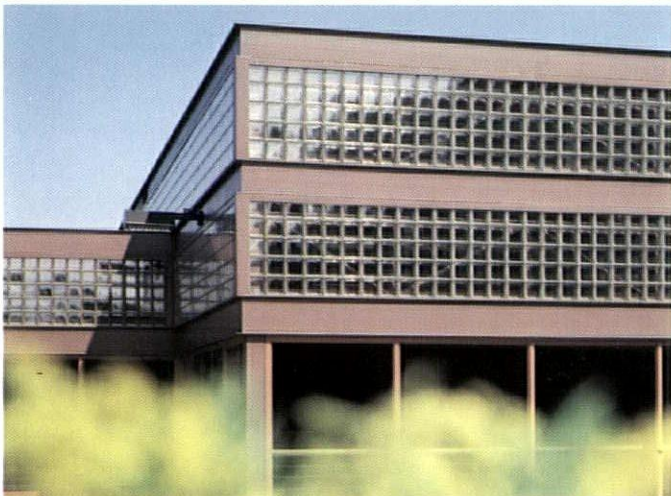
Panarama Towers, Edmonton, Alberta, Canada
Architect: Holland and Rockliffe



SEPTA transit entrance, Philadelphia, Pa.
Architect: Ewing, Cole and Eubank



Lancaster Neighborhood Center, Lancaster, Pa. Architect: FRIDAY Architects/Planners



Cuyahoga Valley Vocational School, Cleveland, Ohio
Architect: Rode • Kaplan • Curtis • Woodard



Jewish Institute for Geriatric Care, New Hyde Park, N.Y.
Architect: Katz, Waisman, Weber, Strauss

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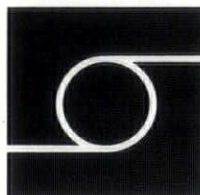
LONG. For interior and exterior malls, pedestrian overpasses, stairways, path systems . . . wherever you need a uniform light source that can go the distance, consider Sterner's Illuminated Rail-Lite. It is constructed of heavy gauge extruded aluminum in one-piece sections up to 16 feet long. It can be mitered to change direction and go around corners. Also available non-illuminated to provide continuity of design throughout the project.

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LINEAR. The usual solution to stairway and walkway lighting has been the use of standard step and riser lighting fixtures. But the light distribution from these fixtures is unsatisfactory because they create mere pools of light. The best solution is the linear light path laid down the entire length of the stairway or walkway by Sterner's Illuminated Rail-Lite.



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EVENTS

Nov. 28-Dec. 2: Course on Marketing Planning, AMA Headquarters, New York City (repeat courses on Jan. 9-13, Royal Coach Motor Hotel, Atlanta and Jan. 16-20, AMA Management Center, Chicago). Contact: American Management Associations, 135 W. 50th St., New York, N.Y. 10020.

Nov. 30-Dec. 2: Conference on Financing World Energy Requirements, sponsored by the Council for Energy Studies, Ilikai Hotel, Honolulu. Contact: Bureau of National Affairs, 1231 25th St. N.W., Washington, D.C. 20037.

Dec. 1: Call for papers, Conference on Architectural Design, to be held May 15-17 in Istanbul, Turkey. Contact: Nigan Bayazit, Faculty of Architecture, Technical University of Istanbul, Istanbul, Turkey.

Dec. 1: Call for papers, National Conference on Urban Design, to be held in New York City in April under the auspices of the journal *Urban Design*. Contact: *Urban Design*, 355 Lexington Ave., New York, N.Y. 10017.

Dec. 1: Applications deadline, Associated General Contractors of America's scholarship competition. Contact: AGC, 1957 E St. N.W., Washington, D.C. 20006, (202) 393-2040.

Dec. 1: Entries deadline, 1978 plywood design awards program. Contact: American Plywood Association, 1119 A St., Tacoma, Wash. 98401.

Dec. 1: Call for papers, National Passive Solar Heating and Cooling Conference and Workshop, to be held in March in Philadelphia. Contact: Passive Solar Conference, Mid-Atlantic Solar Energy Association, Department of Architecture, University of Pennsylvania, Philadelphia, Pa. 19104.

Dec. 1-2: Seminar on Marketing Professional Services, sponsored by New York University, New York City (repeat seminars on Feb. 6-7, San Francisco and Mar. 30-31, Chicago). Contact: New York Management Center, 360 Lexington Ave., New York, N.Y. 10017.

Dec. 1-3: Conference on the Design and Planning of Psychiatric Facilities, Hyatt Regency Hotel, Washington, D.C., sponsored by the Psychiatric Institutes of America. Contact: PIA, 1825 K St. N.W., Washington, D.C. 20006.

Dec. 1-3: Conference on Old and New Architecture: Design Relationship, Mayflower Hotel, Washington, D.C., sponsored by the National Trust for Historic Preservation and the Washington chapters of AIA and the Society of Architectural Historians. Contact: NTHP, 740-748 Jackson Place N.W., Washington, D.C. 20006.

Dec. 2: Course on Loss Prevention for the Design Professional, New York City (repeat courses on Feb. 10, Tampa, Fla.; Mar. 1, Los Angeles; Mar. 3, Honolulu; Mar. 31, Washington, D.C.; Apr. 14, Memphis; May 4, Denver, and May 5, Minneapolis/St. Paul. Contact: Victor O. Schinnerer & Co., 5028 Wisconsin Ave. N.W., Washington, D.C. 20016.

Dec. 5-6: Institute on Outdoor Athletic and Recreational Facilities, University of Wisconsin, Madison.

Dec. 5-6: Seminar on Project Management, sponsored by the Wharton School, University of Pennsylvania, Houston (repeat seminars on Feb. 27-28, Boston; Mar. 20-21, Los Angeles; May 1-2, Chicago, and June 19-20, New York City). Contact: New York Management Center, 360 Lexington Ave., New York, N.Y. 10017.

Dec. 5-9: Course on Solar Energy for Buildings, Hartford Graduate Center, Hartford, Conn.

Dec. 6-10: Health Facilities Design Studio, Iowa State University, Ames.

Dec. 8: Workshop on Color in the Health Care Environment, Green Auditorium, National Bureau of Standards, Washington, D.C. Contact: Brian Pierman, NBS, (301) 921-3126.

Dec. 8-9: Course on Construction Law, Hartford Graduate Center, Hartford, Conn.

Dec. 9-13: International New Towns Association annual meeting, Tehran, Iran. Contact: NTA, 7/7A Grafton St., London W 1, England.

Dec. 12-14: Seminar on Minicomputers, Chicago, sponsored by the University of Chicago (repeat seminar on Jan. 23-25, Atlanta). Contact: New York Management Center, 360 Lexington Ave., New York, N.Y. 10017.

Jan. 10-12: Soil-Cement Seminar, sponsored by the Portland Cement Association, Cement and Concrete Center, Skokie, Ill. Contact: PCA, 5420 Old Orchard Road, Skokie, Ill. 60076.

Jan. 12-13: Energy Users Law Seminar, Tucson, Ariz. (repeat seminar, Jan. 26-27, Washington, D.C.). Contact: Government Institutes, Inc., 4733 Bethesda Ave. N.W., Washington, D.C. 20014.

May 21-24: AIA annual convention, Dallas.

tions for our worthy scholarship fund, which I believe is the only one of its kind in the U.S.

We help students who drop out of school because of economic problems, and in most instances, we have continued our assistance until the student receives a degree. In other cases, we have assisted in graduate school studies that would not be possible without our help. The aid is on a loan basis, and in almost every instance, repayment has been made before the five years after graduation, as our trust requires. The assisted student takes pride in knowing that the help received will be extended to someone else when repayment is made. We have now helped 23 students toward receiving their first degree, and about a half-dozen toward graduate work.

Most of all, I want to say how pleased, proud and delighted I was to read Harriet Rochlin's article (p. 38). I had the privilege of knowing Edla Muir, who was a brilliant architect, in every sense of the word. I have also heard praiseworthy things about Lulah Riggs and Lilian Rice, and I am glad Rochlin mentioned Olive Chadeayne.

It is a privilege to read about women who have made a contribution to the profession. I feel that they, too, would have little patience with those in the past few years who have raised loud voices, assembled all those figures and reports and forced their recognition in the profession simply because they are "women." My favorite professional expression remains: "First an architect, and always a lady!"

Betty Lou Custer, FAIA
Executive Director
St. Louis Chapter/AIA

A Reference Service: We would like your readers to be aware of the service provided by our national criminal justice reference service. NCJRS, an international reference and information service of the Law Enforcement Assistance Administration's national institute of law enforcement and criminal justice, offers criminal justice professionals a variety of information services.

Among these is the selective notification of information programs which regularly provides registered users with announcements of new publications, forthcoming activities and conferences and research opportunities. Some of this material has relevance to those in the social science and environment-behavior fields and readers are invited to make use of this service. By indicating their particular interests on the appropriate form, they will receive only those announcements which are appropriate to them.

To receive this service, the researcher should request LEAA form 1431/2 (registration for service) from: National

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LETTERS

Let's Hear It for St. Louis: We appreciate the mention of the St. Louis chapter/AIA architect button in the August issue (p. 78). We have received several requests as a result. The button is for two good causes: to bring notice to the architect and also to bring attention to dona-

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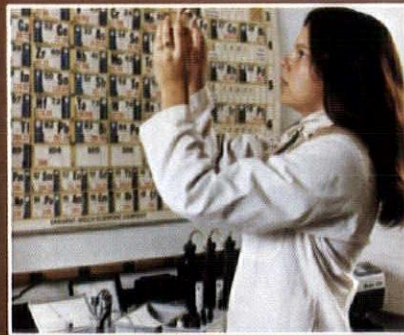
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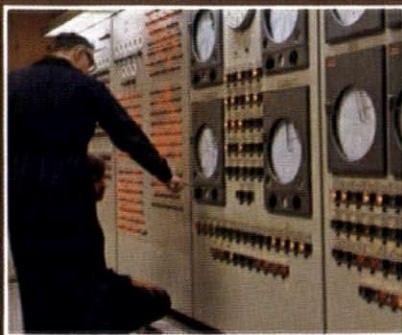


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AIA JOURNAL

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David Dibner Named To Top Position at GSA For Design, Construction

David R. Dibner, FAIA, partner in the Newark architectural, engineering and planning firm The Grad Partnership, has been appointed assistant commissioner for construction management, public buildings service, General Services Administration. His new responsibilities include the coordination of the design and construction of all federal buildings. Dibner replaces Walter A. Meisen, AIA, who is now associated with Daniel Mann Johnson & Mendenhall.

John M. McGinty, FAIA, president of the Institute, says that Dibner "will bring to GSA a great wealth of experience, a knowledge of the practical realities of the task of getting buildings built and a desire to acquire for the U.S. taxpayer the very best in architecture and engineering."

The 51-year-old Dibner, who holds a bachelor of architecture degree from the University of Pennsylvania, has been affiliated since 1966 with The Grad Partnership, where he has been responsible for general management and project development. He also was president of Grad-Hoffman, Inc., a land planning subsidiary, and a partner of Walker-Grad, an interior design services subsidiary.

While at Grad, Dibner contributed to the design and construction of many projects, including the James Forrestal Building, Washington, D.C.; the IBM Data Processing Headquarters, White Plains, N.Y.; the Social Security Administration Headquarters, Baltimore, and the College of Medicine and Dentistry of New Jersey, the Essex County College and the Hess Oil Corporate Headquarters, all in Newark.

Kenneth D. Wheeler, FAIA, a Grad partner, says, "Dave combines a thorough background in many facets of architecture with a unique interest and liking for people. This combination makes him an outstanding manager."

Dibner has been active in AIA affairs, having served for several years on the

committee on professional consultants and on the architect/engineer liaison commission. He also worked on the documents board and is the author of the chapter on "Organizing for Practice" in AIA's *Current Techniques in Architectural Practice* and of AIA's popular booklet on architect/client relationships "You and Your Architect," which evolved from a series of articles he wrote for the *New York Times*. He is also the author of the



well-known book *Joint Ventures for Architects and Engineers* (McGraw-Hill, 1972).

Regarding his work for New Jersey architects, Helen T. Schneider, Hon. AIA, executive director of the New Jersey Society of Architects, says: "Dibner has been one of the outstanding contributors to the architectural profession in our state. He has served the profession long and well in many capacities."

Dibner says that he is "excited" by the priorities set by Joel W. (Jay) Solomon, GSA administrator, in three areas: the art-in-architecture program (see Oct., p. 8), public use facilities, especially in historic buildings adapted to new use, and energy conservation. The art-in-architecture program, Dibner says, will give federal buildings color and life; multiple use by the public will revitalize downtowns, making them more people-

oriented. Two recently announced GSA projects to give new life to old buildings include the renovations of the old post office buildings in Washington, D.C., and in St. Louis (see July, p. 48, and Oct., p. 30).

During his tenure as chairman of the editorial board of *Architecture New Jersey*, Dibner wrote a regular personal comment column called "As I See It." He says that the columns "express how I feel about architecture." Some excerpts:

- "By working together, the owner and architect can produce a solution truly worthy of their complementary talents. . . . It is the team effort that counts. The degree of participation which the owner contributes when added to the competence of the architect provides the formula necessary for an outstanding project. . . . The rewards of this collaboration will be a successful project, well integrated functionally and esthetically."
- ". . . And what of the architect? How has his role changed? As the organizer of this multidisciplinary team, he becomes a new kind of Renaissance man. No longer the doer of everything, he must have the understanding of the broad scope of expertise involved in the solution of today's complex building problems. As in the creation of orchestral music, the sounds are created by the individual expert musicians, but the music results from the leadership of the conductor. So the architect provides creative direction to the team of experts thereby producing truly integrated building design."
- "When will we understand that it takes time to create architecture? In this rush, rush world of ours, it seems to me that while projects are getting more complex, there is less and less time allowed for their execution. We are constantly fighting unrealistic deadlines. . . . Especially with multilayered organizations such as governmental agencies and large corporations, it takes time to properly disseminate information and obtain approvals. . . . Architect and owner must be realistic and allow themselves adequate time during the development stages to carry on the dialogue necessary for proper planning. . . ."

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Going On from page 6

• "As architects, we mold the spaces where people work, study, play, eat, sleep, travel and worship. Consequently, the true measure of our professional competence will be determined by the way our planning provides for people. . . . It is this sensitivity to the human spirit that is the essence of architecture."

Seminar Series to Offer Technical, Product Data

AIA and Producers' Council will jointly sponsor a series of technical seminars around the country designed "to improve the flow of technological information and new building product and equipment data throughout the building industry."

Called the "AIA/PC continuing education program," the series will place heavy emphasis on energy efficiency in buildings. The seminars will be open to engineers, contractors and others in the industry as well as members of the sponsoring organizations.

Commented Elmer Botsai, FAIA, president-elect of the Institute: "With the proliferation of new products coming on the market today, particularly in the energy related field, it is becoming increasingly difficult for designers, as well as contractors, to be knowledgeable and conversant with all these new technical advances.

"Tomorrow's buildings will be extremely sophisticated, requiring a sensitivity and understanding on the part of designers to find new approaches to new challenges."

Botsai points to dwindling energy resources, water depletion and environmental pollution as just a few of the major problems confronting today's designer of buildings. AIA, he says, looks to the nationwide seminars "as an excellent step to advise the architect and other members of the construction industry about the latest techniques being applied by leading manufacturers to solve these problems."

Robert M. Winters, national PC president nominee, says that the seminars "will not be the typical product information type of programs" that PC chapters have sponsored previously. "They will be devoid of commercialism and heavily technical in nature, including such important areas as design systems, interfacing of products and life cycle evaluation," he says.

Winters says that experts and engineers from PC firms will act as the faculty for the seminars. Joint AIA/PC committees will be established on the local level to coordinate efforts and to develop subject and format for the seminars.

New Housing Law Shifts Funds Back to Old Cities

President Carter signed into law on Oct. 12 the Housing and Community Development Act of 1977 (see Sept., p. 48). The legislation authorizes \$14.7 billion in grants over the next three years to help revitalize hard-pressed cities and to provide more decent housing for low- and moderate-income people. The legislation authorizes \$400 million a year for the stimulation of private investment, increased mortgage insurance and decreased down-payment requirements under the Federal Housing Administration.

The new legislation, a continuation of the 1974 community development block grants program, has a different formula for the computation of federal funding levels in calculating how much money each city will receive. The new formula, which will bring more benefits to older, deteriorating cities of the East and Northeast, gives greater weight to the age of a city's housing stock and to population growth lag.

Robert Embry, HUD assistant secretary for community planning and development (see p. 38), said that the new formula "corrects a problem." The old formula benefitted Southern and Western cities, shifting funds away from older cities in the East. The original formula weighed population at 25 percent, overcrowded housing at 25 percent and percentage of residents below the poverty level at 50 percent. The new formula weighs population growth at 20 percent, poverty at 30 percent and age of housing at 50 percent.

Because of aggressive actions in seeking grants under the old categorical programs, some cities in the past received more money than they were entitled to, Embry said. "We're trying to treat cities equally," he said.

At the signing ceremony, President Carter expressed "concern" about the removal of constraints on homebuilding in flood-plain areas. He said he would decide later whether "to come back with corrective legislation next year or whether to try to deal with this administratively."

Liability Ruling Reversed

Architects "are not engaged in construction" when making routine inspections at the construction site and therefore cannot be cited for exposing employees to safety hazards. So ruled the Occupational Safety and Health Review Commission. To be cited, an employer "must perform actual construction work or exercise substantial supervision over the actual construction."

The case on which the ruling was made involved Skidmore, Owings & Merrill,

cited for exposing employees to safety hazards during the construction of the Sears Tower in Chicago. SOM was told in its first appeal that the citations were upheld, but at a rehearing the commission reversed its earlier opinion.

'Shopsteading' New Tack To Bolster Neighborhoods

Not only is Baltimore a pioneer in urban homesteading, a program whereby cities sell abandoned houses to people who agree to fix them up and live in them (see p. 38), but the city has now initiated what it calls "shopsteading." Abandoned storefront buildings, generally dating from the turn of the century, and taken over by the city for nonpayment of taxes, are sold to people who agree to rehabilitate them for such usages as architects' offices, hairdresser establishments and party supply stores.

To date, 15 people have submitted proposals for the restoration of 19 three-story buildings that the city's department of housing and community development has for sale for about \$100 each.

The city estimates that it will cost from \$17,000 to \$35,000 to rehabilitate the old store buildings in order to have them pass local building codes. People who buy the structures must agree to operate a business in the buildings for at least two years. The second and third stories may be used for residences if these floors are also brought up to building code standards.

The aim of the program, for which no federal funding is involved, is to revitalize neighborhoods. Not every business is welcome to apply. For example, those who want to open "gin mills" can go elsewhere. The city will draw lots to select winners of the choice locations.

Health Facility Projects Featured in Portfolio

The current state of the art of health facility design and construction is shown in a 160-page book entitled *A Portfolio of Architecture for Health*. The annual reference publication is intended for use by persons who plan, program, design and construct such facilities. Its content derives from the American Hospital Association's 1976 exhibit of architecture for health facilities, which is sponsored by AHA in cooperation with AIA.

The 77 projects contained in the portfolio vary from hospitals to medical laboratories to medical research facilities. Each project is described by the architectural firm making the submission. The book is copiously illustrated with photo-

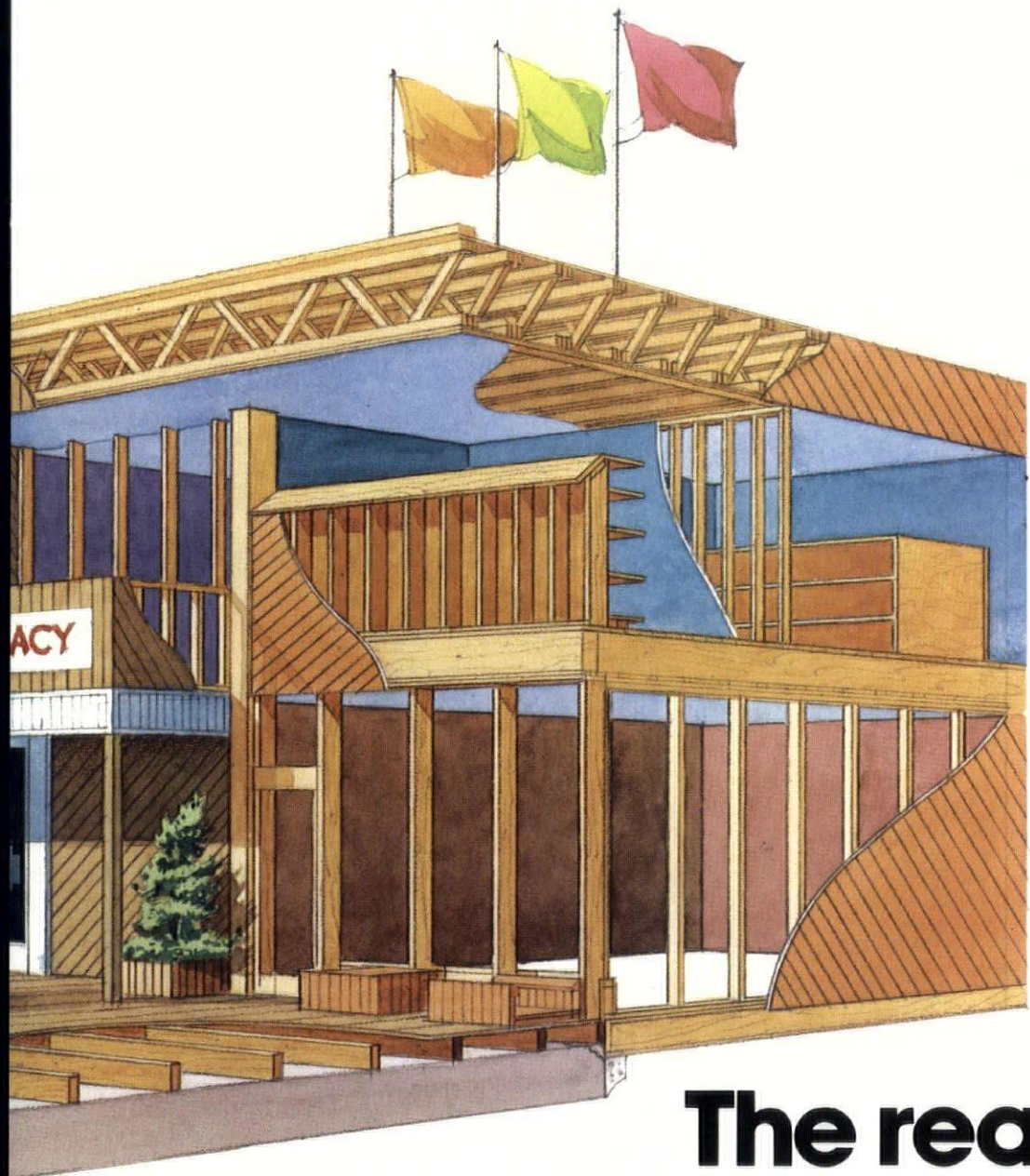
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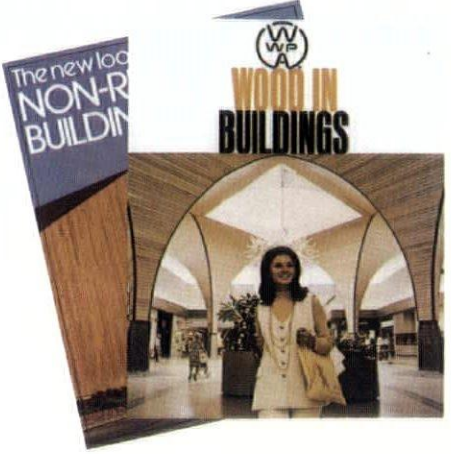
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DESIGN CONCEPT: Civic waterfront project with convention center in background. Cable-structured, tent-shaped restaurant is adjacent to docks and other recreational facilities.

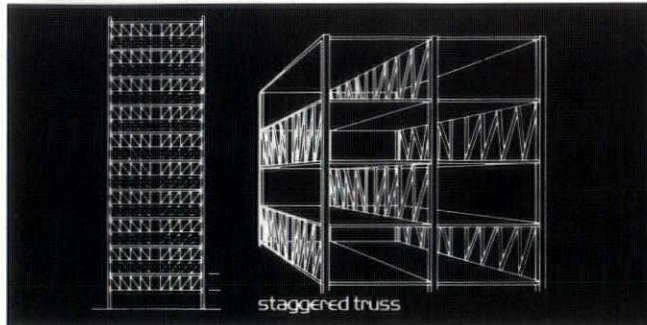
INNOVATIONS IN DESIGN: One of a series created for DAP Architectural Sealants. Design and rendering by Richard P. Howard Associates, Architectural Illustrators, Sylvania, Ohio. Harold R. Roe, A.I.A.

Circle 9 on information card

**Residential tower
\$526,300
under budget...**



thanks to a staggered truss steel framing system.



In the staggered truss system, story-high steel trusses, arranged in a staggered pattern, span transversely between exterior columns.

Interior view during construction shows large, column-free spaces. Typical bays measure 53 ft 6 in. by 22 ft. Bethlehem supplied 700 tons of structural steel for the project.

Elm Park Tower, Worcester, Mass., is a 16-level, 195-unit residential building for the elderly. The 153,900 sq ft structure is being constructed at \$24.84 per sq ft.

In 1973, a plan for a similar building on the same site was \$800,000 over budget. For that plan, a conventional concrete framing system was considered.

What key factor made the big difference? Speed of construction: 16 levels erected in 32 days using the staggered truss steel framing system.

Story-high trusses

Developed in 1965, the system consists of story-high steel trusses spanning transversely between exterior columns of the building spaced 22 ft apart and arranged in a staggered pattern.

The big advantage the system offers high-rise apartments or motel-motel projects is the large clear spaces for complete layout flexibility—in this instance—unobstructed spaces 44 x 54 ft. Clear spaces are defined only by trusses which serve as walls between adjoining living units.

Owners:

Worcester Housing Authority,
Worcester, Mass.

Architects:

Masiello & Associates, Architects, Inc.,
Worcester, Mass.

Structural Engineer:

Theodore/Weaver/Associates, Inc.,
Boston, Mass.

Fabricator:

Northern Virginia Steel Corporation,
Springfield, Va.

General Contractor:

Granger Contracting Co., Inc.,
Worcester, Mass.

The reinforced concrete floor system, supported on steel open-web joists, acts as a diaphragm, transferring lateral loads in the short direction to the truss chords. Lateral loads are resisted by truss diagonals and are transferred into direct loads to the columns.

Columns, therefore, receive no bending moments in the transverse direction. This allows the designer to orient the columns so that the strong axis is available to help resist bending due to longitudinal wind forces.

The trusses, 54 ft long and 10 ft high, are fabricated in the shop and shipped to the construction site ready for installation.

There's another factor favoring the use of the staggered truss framing system with open-web joist floor-ceiling assemblies: open spaces above the ceilings simplify installation of the mechanical and utilities systems.

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The interior of the first level of the tower is column free and contains no trusses. The entire first floor, therefore, could be one large room, if it did not have to be divided into support areas for the tenants.

The tower office, community room, laundry, and community kitchen, plus an area set aside for a future health clinic, are located on the ground floor. The upper 15 stories house one and two bedroom apartments. Ten percent of each type are designed for the handicapped.

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Pittsburgh (412) 281-5900
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San Francisco (415) 981-2121
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Going On from page 11

graphs, plans and drawings. There are three indexes to make the portfolio more useful: architectural firms, facilities and subjects.

The publication (AHA catalog no. 2300) may be obtained for \$17.50 from AHA, Department of Order Processing, 840 N. Lake Shore Drive, Chicago, Ill. 60611.

Two Reports Offer Help In Designing for Students

Because the nation's supply of five-year-olds is diminishing, elementary and secondary schools will have surplus classrooms in the near future. What many people don't realize, however, says a spokesman for the Educational Facilities Laboratories, is that in a few years colleges will have a problem of a shortage of 18-year-olds. If the decline in birthrate continues, the Census Bureau predicts that the student age group (18 to 24 years of age) will increase to 29.3 million in 1980 from 27.7 million in 1975 and then drop throughout the 1980s to a low of 23.6 million in 1995.

What's to be done by college administrators and architects to avert this "crisis of empty college halls?"

EFL suggests looking for new types of students and providing facilities to match their needs.

EFL's broad principles are found in two recent reports entitled "The Neglected Majority: Facilities for Commuting Students" and "Housing for New Types of Students."

EFL points out that millions of the 11.2 million students enrolled in colleges are not typical 18- to 24-year-olds. For example, there are 430,000 single mothers among the 1.5 million women students between 25 and 55 years of age. About 83,000 students in undergraduate courses are more than 55 years of age, and women in this group outnumber men by 2 to 1. There are 1.5 million men and women over 55 years of age in vocational, adult and continuing education courses. There are also 20,000 prisoners and parolees, 155,000 foreign students and 20,000 handicapped students, as well as 293,000 students who are not yet 18 years of age. Thus, says EFL, the concept of a "typical student" is untenable when planning college facilities.

The report on facilities for commuting students describes the need for nonresidential students, who work full- or part-time, to have quiet study spaces provided them. They also may need to sleep on campus after a late class, and because of their irregular eating hours, they certainly need more than the usual dining facilities. The report provides the architect with

many tips on the design of places to study, to eat, to leave children, to rest, to find recreation, to shop, to enjoy the arts.

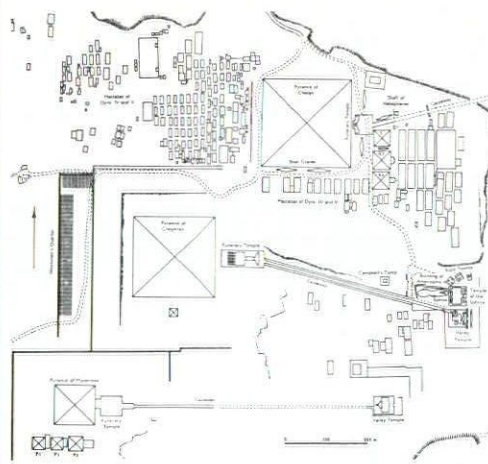
The report on housing for new types of students gives hundreds of examples of how to provide accommodations for other than the "traditional" student. For example, five state and three federal prisons have day release programs for prisoner students. The University of Washington provides for these highly motivated students with a halfway house for prisoners on the fifth floor of a student dormitory. The University of California at Santa Barbara uses an apartment complex adjacent to the campus.

Both books are available from EFL (850 Third Ave., New York, N.Y. 10022) for \$4 each prepaid.

Another Pyramid to Rise For Study of Construction

A new pyramid will be built in Egypt, the first in nearly 4,500 years, by a team of Japanese archeologists, according to a story in the *New York Times*. The project, to take about two and a half months and requiring nearly 10,000 workers, is being undertaken by a team from Waseda University near Tokyo simply to find out how the ancient Egyptians constructed pyramids.

The new pyramid, built of stone blocks taken from three Egyptian quarries, will



be 65 feet high and 96 feet wide along its base. This is about one-seventh the size of the Great Pyramid of Cheops at Giza. The Japanese will experiment with ancient stone-cutting methods, and wooden cranes and ramps will be erected. Estimated cost of the project, which is to begin in January, will be about \$1 million, with financing by a Japanese TV network which will film the undertaking and show it in two specials to the Japanese people.

The Japanese pyramid won't be a tourist attraction, however, because it will be dismantled as soon as it is built and photographed. This is a condition laid down by the Egyptian government which has also stipulated other restrictions, such as

the site for the Japanese venture. The model must be erected at least three miles from the Giza pyramids, for example.

"Maybe it won't work, maybe we will encounter some problems that we can't surmount," a Japanese official said. "But that's okay, too, because we will have learned something anyway."

Sullivan Award Goes To New York City Firm

Davis, Brody & Associates of New York City is the recipient of this year's Louis Sullivan award for architecture, sponsored by the International Union of Bricklayers and Allied Craftsmen. The biennial award, established in 1970, has been given previously to Ulrich Franzen, FAIA, New York City; Hartman-Cox, Washington, D.C., and Philip Johnson, FAIA.

The entries, submitted by both Canadian and U.S. architectural firms, are judged on the basis of the number of buildings or projects in which masonry is a major element, rather than on a single project. The four buildings and complexes submitted by Davis, Brody & Associates were Waterside and East Midtown Plaza, both housing complexes in New York City; a synagogue, and a New York State University campus complex.

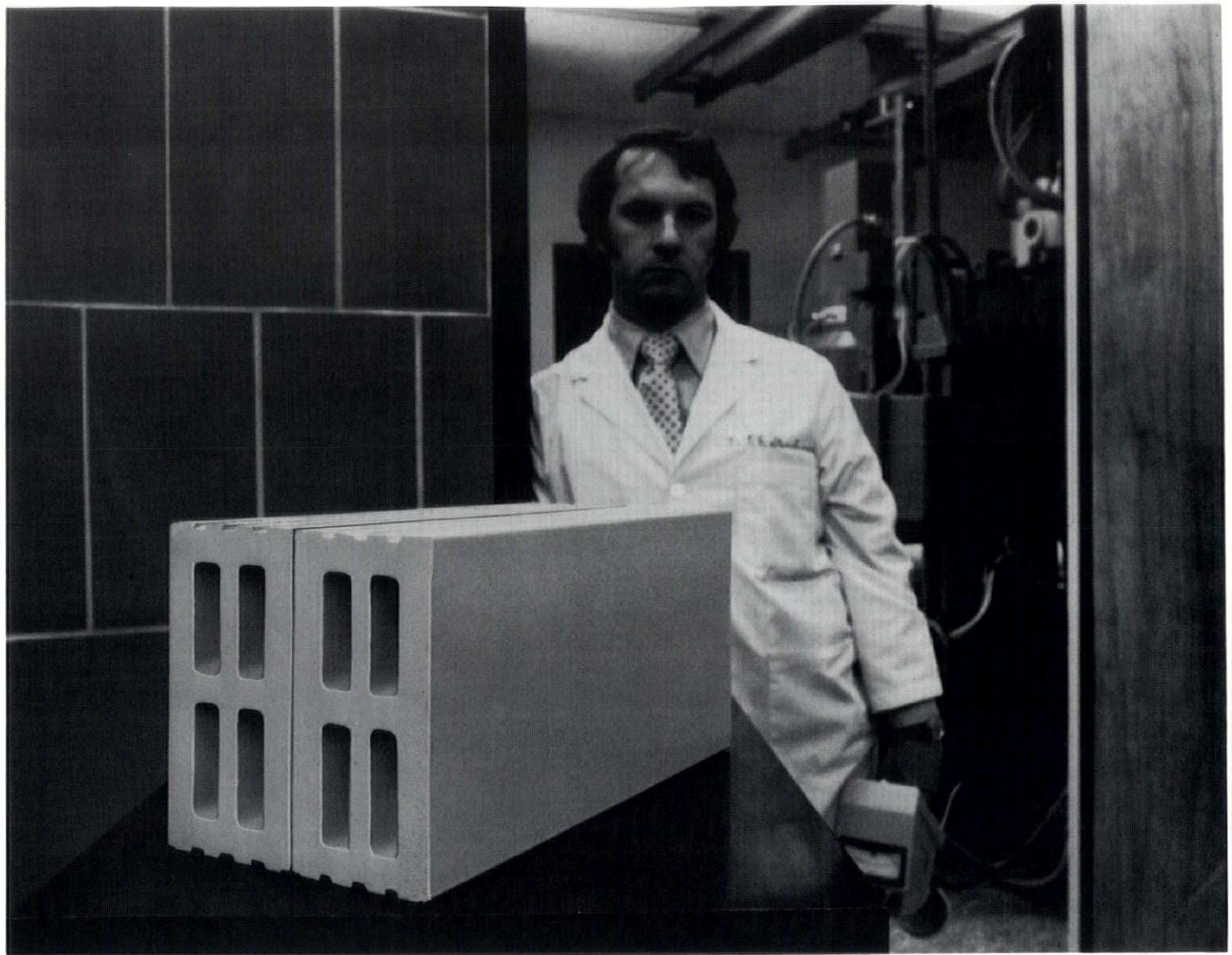
Winners in the awards program, which is administered by AIA, are judged by a five-member panel. This year's jury consisted of Philip Johnson, chairman; George Hartman, FAIA; Joseph D. Hoskins, AIA; Charles H. Cullum, president of the Royal Architectural Institute of Canada, and Lynda Davey, a student at the University of Michigan.

Arts Endowment Grants Promote 'Livable Cities'

Bigger is not necessarily better is the axiom of a new minigrants program announced by the architecture + environmental arts division of the National Endowment for the Arts. Called "Livable Cities," the \$1 million program will give matching grants in amounts up to a maximum of \$30,000 to make cities more livable and more responsive "to people who like to work, picnic in a park, ride a bus or shop near their homes," said Nancy Hanks, Hon. AIA, who recently resigned as NEA's chairman (see Oct., p. 12). The new program, she said, "tells a community to set its own priorities, create projects for solving problems and show the endowment what needs to be done."

Major goals of the new program will be to encourage urban governments to

continued on page 22



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Smith, Hinchman & Grylls Associates, Architects and Engineers, used these performance characteristics of PPG Solarban 550 Twindow units for the American Center:

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| Shading coefficient: 0.18 |
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Owner: American Motors Realty Corporation

PPG: a Concern for the Future



Going On from page 18

conserve energy and resources through the renovation of both older buildings and neighborhoods, to preserve a community's cultural and historic identity, to involve more citizens in the planning and implementation of projects, to encourage the public and private sector to cooperate in making livability a part of the design process, to foster greater public awareness of environmental quality and to bring human scale to problem-solving projects.

In the past, the architecture + environmental arts program has given grants in such categories as "City Edges," "City Options" and "Cityscale." The new program for livable cities goes beyond such specific themes to permit local communities to establish their own priorities.

Nonprofit, tax-exempt organizations, including universities, state arts agencies, state and local governments, regional arts organizations and national service organizations in the design fields are eligible to apply. Priority will be given to projects which offer the greatest promise of being implemented. Funds may not be used for actual construction, renovation or capital investment; rather, the money granted will be used for research, planning and conceptualization of community projects.

The next application deadline is Feb. 2, with June 1 the project beginning date. For application form and additional information, contact: Architecture + Environmental Arts Program, Mail Stop 503, National Endowment for the Arts, Washington, D.C. 20506; (202) 634-4276.

Research Corp. to Develop Solar Safety, Health Code

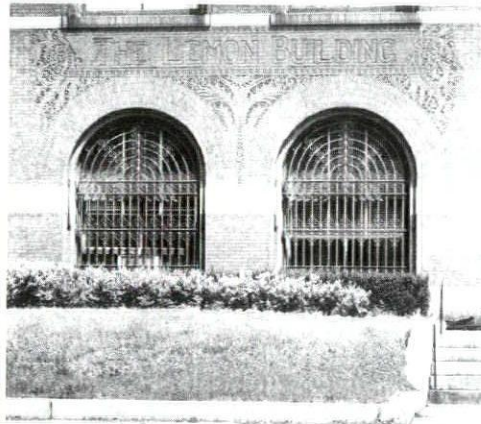
The AIA Research Corporation has been awarded a contract by the National Bureau of Standards to develop model code provisions that can be adopted by local and state jurisdictions as a basis for uniform safety and health requirements in the use of solar heating and cooling systems. In addition to the interim provisions, which are expected to be completed by January, the project, according to NBS, "will provide a framework for the development, adoption and implementation of more permanent model code provisions."

Contracts were also awarded to seven other organizations: the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; the Building Officials and Code Administrators International, Inc.; the Council of American Building Officials; the International Conference of Building Officials; the National Conference of States on Building Codes and Standards; the National Institute of Building Sciences, and the

Southern Code Congress International, Inc. For the commercial segment of the demonstration program, PRC Energy Analysis Co. will also assist in the model code effort.

Recording and Measuring Architecture with Photos

Photogrammetry, the science of measuring by means of photography, can be a valuable technique of recording historic architecture. Details often inaccessible for hand measurement can be recorded easily and scale drawings can be produced in less time than through use of the hand measuring process. This data can then be



plotted to produce an economical and reasonably accurate record of the subject. Costs may rise, however, when exact standards of accuracy are required.

The techniques and applications of photogrammetry are presented in a recently issued report by the National Park Services' office of archeology and historic preservation. Prepared by Perry E. Borchers of Ohio State University's school of architecture, the report is entitled "Photogrammetric Recording of Cultural Resources." He considers photogrammetric recording as a two-stage process: photography and survey control at the site, and orientation of the photographs and measurement or plotting in the laboratory. The data secured at the site, he says, is a process that is an "efficient and quick method for recording structures before their imminent demolition or collapse."

There are numerous case studies in the report. It was surprising to see a photograph of the Lemon Building in Washington, D.C. (above) which was demolished to make way for AIA's headquarters building. The caption says that the structure is "an example of an excellent subject for rectified photography or orthophotography. The carved brick ornamentation could be reproduced in true-scale orthographic projection with full photographic texture."

Borchers says that the decision of what to record by hand measurement and what

by photogrammetric techniques is one to be made carefully. "Time, accuracy, cost and amount of detail will determine whether simple, traditional techniques are sufficient or whether precise instrumentation is necessary." For obtaining "reliable survey data in making an accurate and economic assessment of the means necessary to restore or ensure the stability of a building," he says, photogrammetry is a useful, and often indispensable tool for the architect and engineer.

The report may be obtained for \$1.90 from the Government Printing Office, Washington, D.C. 20402 (stock no. 024-005-00684-2).

Women's Exhibit Planned

The International Union of Women Architects (UIFA) is the sponsor of an international exhibition of the works of women architects and planners, to be held in Paris in June. Those who wish to exhibit may write Mme Solange d'Herbez de la Tour, President, UIFA, 14 rue Dumont d'Urville, Paris XVI, France.

UIFA was founded in 1961 and is made up of members from 40 countries.

Its aims are to promote recognition of women architects and planners of the world, to extend their education and participation in professional affairs and to give its members the opportunity to exchange ideas and to form bonds of friendship.

Information about membership in UIFA may be obtained from Jean L. Young, AIA, Secretary-General, UIFA, 5601 N.E. 77th St., Seattle, Wash. 98115. The fifth UIFA international congress will be held in Seattle in Sept. 1979.

Atlanta's Colony Square Will Undergo Renovation

Atlanta's Colony Square mixed use development will undergo a \$4.85 million renovation designed to "structurally and visually tie the complex together and address sources of opportunity as well as some dissatisfaction uncovered in consumer research," according to a spokesman for the new managers (see Sept., p. 42).

One of the main changes will be a landscaped, terraced cocktail lounge flowing out from the hotel into the center of the mall in the space previously occupied by the ice skating rink. Other renovations include:

- Refinishing and redecoration of the hotel lobby;
- Centralization of the newly fronted retail shopping on the lower level of the mall;
- Enclosure of the escalators and walk-

continued on page 66

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*Engineering News-Record; May 19, 1977



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MEETING THE CHALLENGE OF CHANGE

Circle 15 on information card

Federal Housing Aid, 1940s Style

A *Washington Post* story of late October brought on a brief attack of unwanted nostalgia. Kenneth R. Harney, one of the most knowledgeable housing writers in the capital, reported that top HUD officials had been locked in dispute over a provision of the newly enacted Housing and Community Development Act of 1977 (*see p. 11*).

The provision is the one raising FHA's basic mortgage limit for single-family dwellings to \$60,000 and reducing down payment requirements. It was strongly backed by HUD Secretary Patricia Harris and, not surprisingly, by FHA Commissioner Lawrence B. Simons (who said it would put his agency, once the dominant element of HUD, "back in business").

According to Harney, however, Assistant Secretary Robert C. Embry Jr. (*see p. 38*) demurred. Embry argued, Harney said, that a new wave of FHA-fueled suburban development would "'cream off' the most vital segments of older cities' populations, and ultimately lead to economic decay and housing abandonment in the cities."

This is where nostalgia comes in. For what Embry was predicting is precisely what happened in postwar years, when FHA went on its last suburban spree. Its activities then are almost unanimously cited by urban analysts as a prime contributor to both suburban sprawl and inner-city decay.

Now we're apparently up for another round of the same. Embry asked, at the very least, that FHA aid to new construction be barred from areas where it is "likely to have a detrimental effect on the condition of the housing stock in the central city or is likely to counter . . . policies aimed at decentralization of lower-income and minority groups" (quotes again Harney's).

Higher-ups rejected this qualification. Without it, HUD could be moving from an era of nihilism to an era of counterproductivity. For at a time when some cities are beginning to reawaken, when they are again attracting both developers and new middle-class residents, it would be a long step in the wrong direction to again put a substantial percentage of federal chips on the suburbs. *D.C.*

Evaluation of a Dream Aborted: The New Town-in Town of Cedar-Riverside

What was intended to be a diverse and coherent community has wound up a single, somewhat specialized housing complex. By Judith A. Martin

There may be no more controversial piece of urban development in America than Cedar-Riverside, the nation's first officially designated new town-in town. It has received accolades (including an AIA honor award for its first stage, Cedar Square West). But it has mobilized persistent local opposition which, abetted by recurrent financial crises, has so far stopped further construction cold.

The Cedar-Riverside neighborhood is one mile east of downtown Minneapolis, on the fringes of a late 19th century warehouse/industrial area, and bordering the Mississippi River. The community was first settled by immigrants—predominantly German and Scandinavian railroad and mill workers—in the late 1850s. Like many older inner city communities, it has experienced the full cycle of growth and decline. Its population peaked near 20,000 in 1910 and by the 1930s the cramped landscape of small frame houses on tiny lots was considered one of Minneapolis' most dilapidated areas. Cedar-

Ms. Martin is a research associate for the Center for Urban and Regional Affairs, University of Minnesota, which is preparing a publication incorporating portions of this article.

Riverside's population declined steadily during the 1940s—the populace was also aging and not being replaced by a new generation—and by the early 1950s the first serious proposals for renewing the area had been made.

At this point the University of Minnesota decided to expand its main campus across the Mississippi River and to begin construction of a new campus in Cedar-Riverside. Because the university had the right of eminent domain, the decision for it to carve out 35 acres in the center of Cedar-Riverside could not be challenged. And because the other institutions in the community—Augsburg College and Fairview and St. Mary's hospitals—also initiated large expansion programs in this period, the natural exodus of people was aggravated intensely by external forces.

By the mid-1960s, the university's new campus was in full operation, other institutional expansion was underway, urban renewal was again considered by the city and private developers were beginning to show an interest in Cedar-Riverside. It had become an area in which something simply had to happen because the pressure for change was so great. The institutional expansion that was occurring was having some far-reaching consequences.

Most obvious was the change in population which took place as older residents sold their homes. These were then converted into rental properties and students were the primary market. Cedar-Riverside's Scandinavian immigrant atmosphere gave way to the trademarks of the 1960s youth culture. The impact of this transition was reflected in a 1969 Minneapolis police estimate that Cedar-Riverside was the center of a five-state drug traffic. The central reality for the community, however, was that neither the old nor the new residents had sufficient financial resources to upgrade the community unaided by outside money.

Nine separate companies or organizations came forth with ideas or proposals, or simply began purchasing substantial parcels of land. One of these was a forerunner of the eventual designated developer—Cedar-Riverside Associates (CRA)—then a partnership of Keith Heller and Gloria Segal, two real estate novices. Most discussion about future construction centered on small, walk-up apartment buildings, and the prevalent model for commercial development was Chicago's Old Town area. The thorn in the side of progress in this direction was the ongoing uncertainty about renewal. It made little sense for anyone to make a substantial financial commitment if the city intended to take land here for urban renewal.

Despite the uncertainty, in 1967 the Heller and Segal forces, joined by a local real estate firm, came up with an ambitious plan for the area. Their thoughts were largely guided by Ralph Rapson, FAIA, who on several occasions discouraged any construction which was not of "significant scale."

Their plan strongly prefigured the eventual new town-in town concept. A 50-acre tract in the center of Cedar-Riverside was to be cleared and rebuilt with structures ranging from townhouses to 20-story towers containing up to 7,000 new units at low-income to luxury rentals. There was to be a second story pedes-



Unprepossessing Cedar Street (left), main drag of the university-oriented Cedar-Riverside area, and its looming neighbor.



trian plaza throughout the project, a four-block commercial sector with shops and office space, and separation of pedestrians and vehicles.

Activity in Cedar-Riverside continued at a furious pace. By 1968, 250 land parcels were consolidated out of the 2,500 which existed in 1960; Heller and Segal controlled 180 of these, though their financial arrangements were not always as stable as might have been desired.

A primary concern of the future developers at this point was the condition of Cedar-Riverside in the interim period before redevelopment. Attempts to upgrade the commercial streets were underway and there was a strenuous effort made to attract arts and cultural groups to the area. Perhaps most critical, in view of later events, was the city's decision to abandon total clearance and aim for a gradual redevelopment process which would emphasize improvement and encourage continuity.

Credibility began to accrue to Heller and Segal's plans when they sparked the interest of Henry McKnight, a wealthy state senator with strong conservation interests who was responsible for creating the new town of Jonathan, Minn. McKnight advised them to buy out their partners in order to assure a unified development, and he later provided the capital for this purchase.

The evolution of a plan for housing 30,000 in a tightly knit mix of high and low buildings.

The Minneapolis Housing and Redevelopment Authority's Cedar-Riverside renewal plan, unveiled in late 1967, was less a master plan for development than a flexible guideline. Its major goals included the removal of substandard buildings, elimination of blighting influences and the creation of "an intensively developed major educational, research and health complex with supporting residential and commercial uses."

The plan called for coordinated development on the part of the institutions, public agencies and private interests. It projected a heterogeneous population, mixed in age, income and life style, but essentially oriented toward the community's institutions. It exempted all institutional land from acquisition and conditionally excluded approximately 80 acres on the condition that the private developers devise plans in keeping with the renewal objectives within five years.

The public authority actively encouraged private development in the renewal throughout the process. This meant that most of the land to be developed would

not go through condemnation proceedings. It was also a tacit recognition of the work that private interests had already done to assemble parcels.

The strongest arguments made for maintaining renewal designation by the city were that it would eliminate hold-out parcels that might cripple development plans, and that it would make a write-down of land costs possible. The passage of the urban renewal plan defined Cedar-Riverside as a community about to face radical changes and it clearly stimulated the developers' planning efforts.

But the urban renewal designation did not alter the ideas already formed regarding ultimate intentions. If anything, it expanded the horizons a bit by allotting 100 of the 340 acres for strictly private development. The potential was also expanded by the possibility for substantial federal support through the Title IV new towns legislation.

McKnight, who was by 1969 a full partner in CRA, had received federal new town designation and dollars for Jonathan, and he saw a similar potential for Cedar-Riverside. The development firm was also beginning to attract substantial private investment in the form of limited

On these pages, bristling Cedar Square West meets the streets with buildings of modulated scale, some pre-existing.





and eventual resale to the developers.

The 100 acres were to be 80 percent residential, with the remainder left for commercial, recreational and cultural uses. The nature of the proposed redevelopment was to be gradual but continuous, with each successive stage begun before its predecessor was completed. Upon completion, the community would be home to approximately 30,000.

There were three major interim goals and one long-range goal. The three included the maintenance and operation of sound properties, the development of new business and cultural activities and meeting the growing housing and community service requirements. The ultimate goal was the creation of "... a viable community, well planned, architecturally and esthetically coordinated, and scaled to human requirements to meet the needs and growth of surrounding institutions."

The architectural expression of the ultimate community envisioned for Cedar-Riverside was firmly rooted in the social

an area targeted for families with children would contain smaller buildings and significant amounts of open space, and would be located away from areas predominantly occupied by students.

There were several implicit assumptions in the social planning. Perhaps the foremost was that residents of half of all units would be eligible for rent subsidies. In this same vein was CRA's insistence that all of the subsidized units, including the designated public housing units, would be scattered throughout the entire project.

There were to be no identifiably undesirable areas of the community, and this would be further ensured by providing no obvious clues as to which units were designated for which population groups. Although there would obviously be some differences between a luxury unit and a subsidized one of comparable size (primarily in the extras provided), there would be no distinction in apartment layout or in quality of materials used.

CRA's dedication to creating a community that was truly integrated both socially and economically was challenged by market analyses which underlined the increased expense of this choice, and by lengthy battles with federal housing regulations, but ultimately this vision won out.

Henry McKnight had long considered the potential for massive federal aid to Cedar-Riverside, and in 1970 when Title VII, with its explicit provisions for new towns-in town, became law, approval for Cedar-Riverside as a new community came quickly. In June 1971, CRA was designated sole developer and granted \$24 million in loan guarantees, thus encouraging CRA and the planning team to think in much more expansive and innovative terms, especially with regard to such things as transportation and environmental factors. But in essence it followed the master plan already evolved for Cedar-Riverside.

For its part, the housing and redevelopment authority tried to aid Cedar-Riverside by changing its renewal status to that of a neighborhood development project. The authority also assisted by liberalizing the 236 subsidy regulations to allow individual occupancy and by waiving the stipulation against highrise public housing for families. In the initial proposal for Stage I, CRA asked the city for \$3.3 million of public subsidy in return for providing low-rent housing, walkways and off-street parking facilities, and the response was positive.

After receiving new community designation and selling \$24 million in bonds late in 1971, most of CRA's recurring financial problems were eased temporarily. Its request for land write-down from the city was withdrawn and only one application for funds in excess of the nor-



partnership sales, and significant uses of tax shelter provisions were being made.

The firm's first model of a rebuilt Cedar-Riverside, completed in 1969, included several distinct neighborhoods of highrise and low housing around plazas linked with walkways; separating pedestrian and vehicular traffic; a central core of commercial facilities, and all parking located below the plaza level. Land acquisitions also continued. By late in that year, CRA controlled approximately 60 acres of the 100 scheduled for redevelopment, and the figure rose to 70 acres with allotted street vacations. Twenty more acres were marked for public acquisition

plan. (Rapson had by now been joined on the planning team by Gingold-Pink Architecture Inc., Lawrence Halprin, Sasaki-Walker and consultant Dr. David Cooperman, a sociologist from the University of Minnesota.) Working with CRA's in-house social planner, Cooperman identified the likely residents of Cedar-Riverside. These included: students, preprofessionals, junior faculty members, institutionally oriented families with children, a general medical population, young singles, "empty-nesters" and elderly persons looking for convenience. Specific neighborhoods were to be designed for specific populations. That is,

mal public utilities and street improvement work was made. This was for a grant to build a covered walkway and pedestrian bridge over Cedar Avenue, and for embellishments on the plaza, all of which would ultimately become part of the public pedestrian system. The authority's approval of this subsidy was made possible through a \$500,000 HUD grant.

The National Endowment for the Arts also provided funds for an arts advocate planner. HUD made a \$200,000 supplemental grant to inaugurate some of the "new community" innovations. And the city later approved a major program to upgrade Cedar Avenue—including widening the sidewalks and repaving them with terra cotta insets, planting trees and installing new light fixtures. Private investment was also increasing: By 1974, approximately 135 individuals and eight businesses had invested \$15 million into the project.

Early in 1970, as it became apparent that CRA really was serious about plans for new construction, and that the older homes were scheduled for future demolition, the first evidence of outright opposition appeared. This took the form of a series of open forums by a small but dedicated group of dissidents, most of whom were young people accustomed to political activity.

The first series of meetings established a community union, which quickly started publishing a newsletter. The major concerns of this group included setting up a cooperative for operating social programs in the area, forcing resident participation in the community planning effort and establishing closer relations with the university. The real power of the community union was difficult to estimate. It was not a large group, nor were the participants philosophically agreed about goals and tactics, but it was constantly active.

In 1972, the opponents of development threatened suit over lack of citizen participation in the renewal program. The housing and redevelopment authority responded by appointing some of them to a project area committee to review renewal plans, but also appointed representatives of CRA and the area institutions.

Seeing 20- and 40-story towers of Stage I near completion in the midst of a low-density community, the opponents shifted their emphasis from demanding participation in the planning process to attempting to stop development altogether.

They hit upon the strategy of challenging the adequacy of the environmental impact statement for Stage I, which had been filed with HUD. The statement was a hastily written document, having been drawn up before any sophisticated interest in environmental impact had made itself manifest nationally.

The initial suit, which was brought



against the developer, the city and HUD, was upheld in court and HUD was ordered to write a new statement. The court also issued an injunction against further construction until the EIS was written and reviewed. Thus began a long legal process.

The revised EIS went through a public hearing late in 1974. This HUD-produced document said the proposed second stage of development would have a "positive impact" on the environment and would provide opportunities for a "desirable" quality of life. The development would remove "existing blighting influences" such as dilapidated housing, incompatible land uses and industrial sources of pollution; the only negative impact to be found was the forced relocation of residents and businesses.

Residents and buildings of Cedar Square West and its surroundings both bespeak differences of life style as well as scale.

The opponents, now designating themselves the Cedar-Riverside Environmental Defense Fund, found the revised statement as inadequate as the original one. They charged that it failed to thoroughly analyze relocation problems, that it failed to allow enough low-income family housing and that it failed to incorporate research on the sociological impacts of housing design.

The most prominent arguments against development at the public hearings centered on the need for more open space and the potential impact of highrise housing on child development. Clearly a variety of antidevelopment issues had sur-

faceted; this was partly indicative of the defense fund's uncertainty about which was its best issue, and partly a reflection of the sustained level of hostility to the new town-in town.

The injunction against continued development was doubly unfortunate for CRA, for it coincided with the nationwide recession which struck especially hard at the construction industry. The organization's financial health was predicated on continued construction, even in good times, so the combination of events made the situation fairly dismal. Severe cut-backs in staff size and maintenance activities were necessary, as was the first sub-

Financially, the most critical point for the developers began late in 1974 when the draft of a HUD report labeled the Cedar-Riverside project "clearly not viable." It was the first inkling CRA had that the government might not live up to its earlier financial commitment.

This led to a trading of charges between HUD and CRA in which the central debate concerned whether HUD was creating intolerable financial conditions by withholding assistance until evidence appeared that the project could survive. Ultimately HUD approved continuation of development for Stage II when the EIS was released early in 1975.

The sight of 40-story towers fanned neighborhood opposition leading to a series of suits.

The lawsuit challenging the revised EIS moved slowly through the courts and, while a judgment was rendered at one point, litigation continued.

Because of the extensive publicity and the highly emotional tone which tended to surround the case, the assigned federal judge removed himself from the case and brought in an outsider to hear the evidence.

All sides went over all the issues one more time, though the sifting process seemed to focus more attention on the propriety of high density development for Cedar-Riverside (with all the attendant questions of what density really means, what effects it has on human activity, and so forth).

The initial judgment was rendered in favor of the defense fund and a good deal of language about the deleterious effects of highrise living found its way into the decision. This judgment was, of course, immediately appealed by CRA, HUD and the city, and after two years in court the case recently was declared moot.

Though all of the issues initially raised in 1973-74 have been widely aired, there seems to be as little agreement about the future of Cedar-Riverside now as ever. The level of argument has shifted somewhat, as the major contestants now seem to be the city versus the federal government, with the developer sitting on the sidelines.

Recently the city council appointed a task force to respond to the newest HUD proposal for the community. Density remains the central question; HUD has demanded at least 5,000 new units for Cedar-Riverside while the task force has recommended 1,900 new and 450 rehabilitated units.

There is nearly universal agreement that the task force plan is impractical; the federal government is unlikely to pay two-thirds of the costs for something it finds totally unacceptable. Dissenters on the task force argued that future housing needs cannot be met at this scale and further argued the "service mission" to the city which Cedar-Riverside is supposed to fulfill. (This mission was defined in the 1968 urban renewal plan. No other area would allow high density development within its perimeters and Cedar-Riverside was to absorb most of what was then projected.)

Currently the urban renewal plan seems to be in abeyance, the much touted new town-in town remains a dreamlike apparition, and the threat of foreclosure



Meanwhile, CRA was also experiencing some difficulties with the city of Minneapolis. The project area committee requested that the housing and redevelopment authority change the 1968 urban renewal plan to lower the proposed density for the area, to provide for non-institutionally oriented residents and to provide for more rehabilitation of existing structures. This was taken under consideration with the support of one of the area's aldermen. At the same time, the city began to indicate doubt that the project could proceed as planned even if the legal and financial difficulties were removed. The reason given for this was the continuing disaffection of area residents and, for the first time, of area businessmen.

The city council also began to consider the possibility of replacing CRA with a publicly controlled development corporation, a move which would mean a substantial increase in city involvement in the project—almost \$100 million—as well as a massive infusion of federal money—nearly \$50 million. In the end, the city council rejected the plan for public takeover because of the expense involved.

stantive change in organizational structure. (Heller stepped down as president and William Finley, formerly associated with the Rouse organization, was brought in.)

On top of these difficulties, tenants of CRA properties initiated a rent strike midway through 1974. The strike was settled within a few months, but its underlying cause—some residents' residual hostility toward CRA—remains a problem to this day.

hovers over all discussion of Cedar-Riverside's future. CRA, which still holds title to most of the property, does not yet count itself out, though many missed payments to the government and other creditors discount the likelihood of its remaining sole developer.

The developers now spend most of their time, when not in court, managing both the old and new properties and doing limited planning for a greatly reduced development. No new construction has occurred since 1973 and, given the polarity of viewpoints on the form that new construction should take, it is unlikely to begin again in the near future.

But what of that portion of development already built as Stage I? Between 2,500 and 3,000 people have been living in the 1,300 units of Cedar Square West for over four years, largely ignoring the critical issues which surround them and ignored by the disputants. Stage I is a microcosm of the fully planned community. It has 11 buildings, ranging in size from 4 to 40 stories, a large above-ground plaza with a variety of Californiaesque sculpture and street furniture. Its population is predominantly young, though not primarily students, and contains a much higher representation of minorities and foreign born than is commonly found elsewhere in the Twin Cities.

But on the basis of survey data collected on Stage I in 1974, there is little evidence of the cohesive, socially integrated community which the planning team projected. The residents share extremely homogenous backgrounds and aspirations.

Nor is there much evidence of commitment to the community as a new town-in-town. For most residents, Stage I is clearly fulfilling a pragmatic need for housing which is totally unrelated to their ultimate preferences. It is, however, providing housing close to their institutions for those who had previously been unable to find it.

But this is likely a small comfort to those who optimistically envisioned a population which was both interested in and involved in the community building process. Most residents are highly satisfied by the project's location, its facilities and the personnel, and they're also pleased by the design, construction and maintenance of the buildings. Unsatisfactory elements of the first stage cited by residents include the inadequacy of the elevators, the behavior of children in the project and the behavior of some other residents.

There are few housing complexes in which students and young people are so apparent, and yet still allow others to feel both welcome and comfortable. Despite the similarity of the residents' Minnesota/Midwestern backgrounds, there is a good

Residents of the complex are generally positive but are not dedicated 'new-towners.'

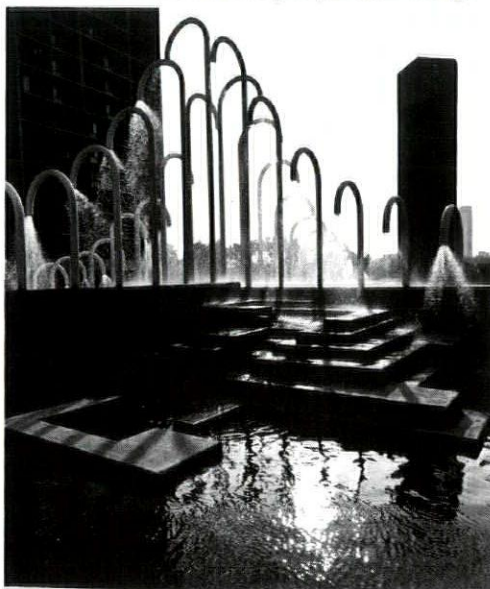
deal more of a socio-economic mix to be found in Stage I than in most urban residential developments.

The overwhelming acknowledgment of the project's convenience as a motivation for moving there dilutes somewhat the planning vision of a dedicated "new town" life style. In a similar way the patterns which emerge regarding the lack of traditional displays of "neighborliness" puncture the public relations view of a happily interacting community. Finally, it is apparent that most residents do not view their presence in Stage I as a long-term commitment, but rather see it as a temporary condition which is acceptable until a more favorable option appears.

Many problems have surfaced in the complex during its first four years. Most obvious perhaps is the upsurge in the number and kinds of undone maintenance chores, partly because of a cutback in maintenance staff and partly due to an increase in the amount of petty vandalism. The number of security personnel has decreased as has the amount of money and attention directed toward information and rental operations. And a small but vocal group of residents for a time joined forces with the opponents of development in calling for an end to new town construction in Cedar-Riverside, and also joined in such activities as rent strikes.

A residents' association appeared in Stage I soon after it opened for occupancy. Though it never managed to interest a majority of residents, the group had 300 members at its peak, and for a time it had a delegation which met regularly with CRA planners to discuss the next stage of development.

The combination of people and things



which comprise Stage I does not correlate perfectly with the planners' visions, but this is neither the fault of the planners nor of current residents. Rather it is an example of the gap in perception which too easily occurs between those who are responsible for initiating something and those who have to live with the results.

There are many things about Stage I which have worked well for the residents, as deduced by the predominance of basically satisfied survey responses and the relative absence of really serious complaints. Stage I is clearly solving a housing problem for many people, and doing so in a fashion that many residents find preferable to available alternatives.

A basic evaluation of the complex would have to conclude that it amounts to no more and no less than some other urban redevelopment efforts, even though it bears the new town label. One stage of development does not create a totally new atmosphere, and the existing contrast between the older sections of Cedar-Riverside and Stage I highlights this limitation.

And yet the complex has had an enormous impact on the larger area, both by heightening its visibility and by providing a rallying point for its opponents. It has been, at the very least, controversial—and this despite the insistent apathy of most residents.

To attempt to evaluate the lessons of Cedar-Riverside is to reopen Pandora's

The buildings of Cedar Square West are grouped around a series of open spaces.





box. Within the community any assessment becomes an ideological stance which must be publicized and defended repeatedly. The shape of future development has been couched in highly moralistic terms which pit the "people" and the "community" and housing suitable for families against a "ripoff" developer and formidable highrise buildings.

The argument has been oversimplified to the point of now being almost meaningless. The larger questions of appropriate in-city redevelopment geared to a future of declining energy resources are being ignored. And the basic issue of who is to decide the future of Cedar-Riverside, along with the more pragmatic issue of who is to finance the future of Cedar-Riverside, remain unresolved and seemingly unresolvable.

At the very least, Cedar-Riverside stands as a lesson for those who venture into the murky waters of inner city redevelopment. For private developers, the lessons are particularly harrowing. One suspects that, knowing what they know now, the major actors in the Cedar-

Riverside drama would choose not to play, were they to choose again. But when questioned about this, Heller claims there is nothing major he would do differently.

Heller and Segal, who nursed a dream to the point of birth only to see it die in infancy, have largely conceded whatever proprietary notions about development they once had. Henry McKnight, who made it all seem possible, died unexpectedly in 1972. As the most experienced of the partners, and the one who generated the least amount of personal antagonism among the opponents of development, he may have been able to formulate a compromise when that still seemed a possibility. But that remains an unknown.

There are now more people living in Cedar-Riverside than at any time since the 1950s, though the community is far from congested. Interaction between residents of the old properties and residents of Cedar Square West is minimal since the decision to live in one place or the other is, in effect, a political one. Residents of the older properties claim a longevity which is not easily substantiated in the

aggregate, while residents of Stage I characterize their stay as transient even if it lasts four or five years. Both segments of the community seem relatively well satisfied with their residential opportunities.

In broader terms, the impact of the community on its residents has been positive. A strong and vocal community of interest has arisen in opposition to development, lending Cedar-Riverside its first signs of "community" in many years. And, for the people who live there, Cedar-Riverside has become an active, vibrant and quite interesting urban neighborhood—something which not even the strongest partisan could have claimed 15 years ago.

The Cedar-Riverside community has been unalterably changed regardless of whether or not any further development occurs. Stage I stands as a monument to the new town-in town idea, and by its very visibility proclaims its contrasting nature to residents of the old houses. Although it occupies only 2.4 percent of the land in Cedar-Riverside, Stage I can be seen from any place else in the community, and thus is a constant rallying point for those who would prevent further intrusions upon the lowrise horizon. In sheer physical terms, Cedar-Riverside is in better shape now than at any time in recent memory.

The old properties look dilapidated, but most have received a fair amount of basic maintenance in the last decade. While similar structures in other parts of the Twin Cities have quite literally fallen down, most of these have been somewhat improved.

The attention devoted to upgrading the commercial areas of Cedar-Riverside has altered the landscape as well. Most of the off-sale liquor stores have disappeared. New bars that have appeared are generally conceded to have "character," meaning they have exposed brick walls, real plants and customers with credit cards.

In response to the increased number of consumers in Cedar-Riverside, and especially the residents of Cedar Square West, a half-dozen new restaurants have opened within the last four years. And many of the fledgling, slightly "counter culture" businesses started in Cedar-Riverside have prospered so much that retail space for expansion has been at a premium.

In any measureable terms, Cedar-Riverside is no longer a declining inner city community, regardless of the shape of future development. This turnaround is largely the work of the people who first envisioned the potential for an undefined something positive to occur in Cedar-Riverside when most others would have written the community off as hopeless. □

Cedar-Riverside as a Work Of Urban Architecture

A failure in some ways, it 'enlarges the vocabulary' of design. By Bernard Jacob, AIA

Will Cedar-Riverside survive? Or will architecture survive citizen participation, neighborhood councils, tradition, environmental impact assessments and all of the regulatory agencies with review and approval powers? But is it not the art of architecture also to accept restraints and in so doing to reconcile the dream and the possible?

The dream of Gloria Segal and Keith Heller, guided and nurtured by Ralph Rapson, FAIA, became at least in part a reality. The towers of Cedar Square West, first stage of the new town-in town, stand out dramatically from the Minneapolis skyline and they are visually as arresting and unexpected as Philip Johnson's IDS Tower a little farther west. The concrete towers are unmistakably apartments. Their surface texture, colors, graphics—although not particularly warm—are of a scale to suggest human habitation.

Ralph Rapson was the primary architect for the project. Rapson, who has headed the University of Minnesota's school of architecture since 1954, has also had a successful and influential practice. His famed Guthrie Theater marked the beginning of a cultural and indeed an architectural renaissance in the Twin Cities. Second and third generation students of his are now practicing and they too signify Rapson's influence on local architecture.

Rapson describes his early activities with Segal and Heller as mostly "keeping them from building." He early pleaded for more land assembly so that a larger, more meaningful project could be built.

As the project developed and the many legal and governmental paradigms unfolded, Rapson became the clients' mentor and guide. He led them on extensive tours across the country and mapped out detailed itineraries abroad. He saw himself as a catalyst whose job it was to contain the many disparate goals and fuse them into design form.

Rapson's concept was quite simply to reflect in the design of the complex the

economic mix and diversity of life styles in the community and in society. His original concept for the complex was for a number of megastructures into which the dwelling units would be inserted—each designed to fit the tenant's particular needs and wishes. Although a more conventional *parti* was adopted, the final design does have a cellular expression which reduces the mass of the towers and gives them their singularly intimate scale. Rapson readily admits his debt to José Luis Sert, whose work he admires.

There are low, medium and highrise buildings which again, in Rapson's terms, mirror the diversity of society. He wished for a seemingly casual order, almost a controlled chaos, accommodating individuality of expression, multiplicity of life styles and economic differences.

Residential highrise buildings are fairly recent in the Twin Cities and the concomitant architectural sophistication and design savvy have been slow in coming. The Cedar-Riverside towers are unique to this area where—except for a few luxury residential towers—the majority of highrise structures have been built for senior citizens. Usually these towers are designed and detailed to give a warm, introverted, albeit sheltering appearance. They are quiet and dignified—often a little dull, too. The Cedar-Riverside towers are a marked and bold departure from what has been built here so far. Their crispness and taut, elegant proportions are refreshing and arresting.

The design has its origins in the post-war exposed concrete school; however, it is not brutal. The exposed form boards are regularly and carefully placed and handsome, the infill details of brick, stucco or glass are simple and competent.

The different building heights and the juxtaposition of the masses do form a nearly chotic assemblage. At street level, the awareness or impact of the high towers is greatly minimized because they do not stand alone visually. They are part of the sequence of masses and heights. Some of the public approaches between buildings are too grand and do injustice to the otherwise very considerate humanity which pervades the project.

The spaces between buildings are handsomely landscaped: planted areas, sculptures, fountains, kiosks, etc. It is precisely in these areas that the tension between building masses is highest. These are also among the most urban and urbane spaces in the Twin Cities.

As design, Cedar-Riverside West is a manifest success. Although it is not at the cutting edge of the most current trends, it singularly contributes to the image of the city. It singularly enlarges the vocabulary and disciplines of highrise residential design. Given the economic restraints, the architect performed admirably, with competence and with inspiration.

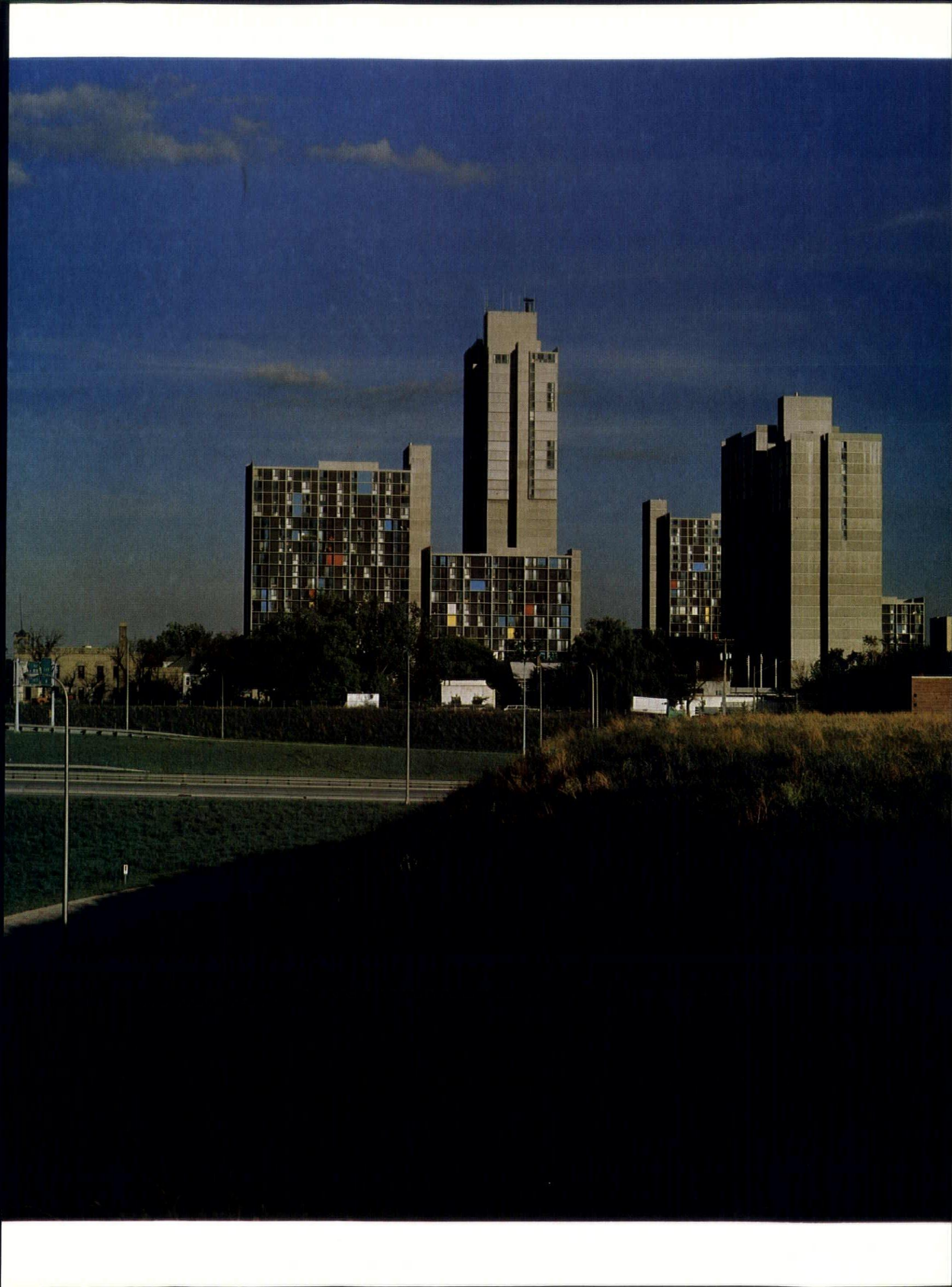
In the design's success, alas, lies also its failure. Its failure is architectural, social and economic. It fails, in spite of itself, because it embodies a living style which is not understood here yet. It anticipates a marvelously intertwined urban setting and intensity which are foreign in these parts. And it also, in spite of its apparent casualness, projects a commitment which many are too inexperienced to accept. Outside of the CBD, Minneapolis is essentially low scale: The ideal is still very much the single-family homestead. Only those who have to and a few others—mostly those "returning to the city"—will accept or choose to live in high density highrise buildings.

Although Cedar-Riverside is indeed a descendant of the modern movement in architecture, it was not conceived in the formative days of social revolution by an infallible master. Rather it was based on extensive research and full awareness of the problems and pitfalls of past high density complexes. It was not that the design team was not well informed.

Although this new town-in town probably will never be finished in keeping with the original plan, the first stage will always remind us of the period when a heightened popular sensitivity to environmental issues coincided with growing neighborhood power in an essentially vulnerable political climate. Nevertheless, the complex is nearly entirely occupied and although some mothers find it difficult to care for their children in a highrise apartment, others have adapted themselves very well. And as time goes on, more and more children in the Twin Cities will grow up in apartments, as they have for a long time all over the world.

It is ironic that Rapson—that humanist and idealist whose main concern was for the individuality of expression of each tenant and whose principal aim it was to create a rich, multifaceted, almost unordered environment—should be accused of insensitivity. Cedar-Riverside was Rapson's largest project to date and probably his finest hour—the design by which he became an architect in the broadest sense. □

Mr. Jacob heads the firm of Team 70 Architects in Minneapolis and is the editor of *Architecture/Minnesota* magazine.



'What It's Like for a Client to Have to Deal with Architects'

A writer wryly recounts her experiences on a selection committee for a school building. By Judith Martin

I feel shy speaking to you, just as a client. You are all distinguished architects—what does a mere client have to offer you?

Besides money, of course.

Instead I'd like to offer my experience. You all know what it's like for an architect to have to deal with a client. Let me tell you what it's like for a client to have to deal with architects.

I spent most of this summer on the architect selection committee of a small school. Foolishly, I tried to do my own job occasionally, as well. The people at my office were beginning to wonder why I kept taking two hour lunches, returning from them looking sleepy, and having such a hard time adjusting my eyes to the daylight. I had seen a lot of slides.

The school is Washington, D.C.'s Georgetown Day School, of which I am an alumna and trustee, and which my two children now attend. When I went to school there, in the '40s, we had the perfect school building, a tumble-down old mansion on Nebraska Avenue which looked like the set for a Tennessee Williams play. A particularly decadent Tennessee Williams play. In a road company production.

But it had all the great innovations in educational design. The house had a ballroom, and since we were overcrowded, we had classes held in each of its four corners. This was the first "open classroom." (Not counting Socrates'.)

We had learning lofts—those spaces to which a child may climb to study in privacy. Ours was an entire classroom: Its door was permanently stuck, so all the children, and the teachers as well, had to climb on orange crates and crawl through the window to it every morning.

All this was in an ecologically rich environment. I had poison ivy for five years of my life without a break.

The building was an education in itself. All you had to do was to pay attention when the headmistress was fast-talking the fire marshal.

Ms. Martin is a staff writer for the *Washington Post*. This article is adapted from a speech she made in September to the Maryland Society of Architects.

Unfortunately, we outgrew this building. We acquired a more conventional one on MacArthur Boulevard, outgrew that, too, and got what we have now: a building at 4530 MacArthur Boulevard for the lower school, and an office building, which we renovated for the high school, a few miles up the street. In between, we have a very long, narrow playing field, called MacArthur Boulevard. That may be the origin of the expression, "Go play in the traffic."

When the traffic got too thick, we decided to build a one-room combination gymnasium and theater. That's how we happened to need an architect.

We had \$350,000. That is, we didn't actually have \$350,000. When I said that the client has money, I lied. What the client has is the expectation of raising money.

We also had a small space behind the high school, now used for parking. I am told that we are required to keep this, in order to have a certain number of parking spaces for students. In my day—when I was in college, never mind high school—the school could simply tell us that we couldn't bring cars to schools, and we believed them. They also told us we couldn't have boys in the rooms, and we believed that, too. It was a long time ago.

So what we have is a funny little space in which to put a cheap, one-room building on stilts. You will all recognize this as a priceless opportunity for an architect to create an historic landmark of the future.

I volunteered for the architect selection committee because I was afraid that otherwise they would put me on the fund raising committee. It's always more fun to shop than to figure out how to pay the bills.

There were five of us on the committee: a lawyer, a banker, an anthropologist, a public relations expert and me, a reporter. Among us we didn't know beans about selecting an architect.

We sent away for the AIA booklet, "You and Your Architect." It told us that the "final criterion must be the 'chemistry' " between us and the architect. That seemed easy. We all know how to select

someone we can live with through chemistry, a conviction which is easier to maintain if you don't look at the divorce statistics.

Some AIA rules we didn't like. For instance, we wanted—we craved—we lusted after—maybe just one little free sketch? A nice drawing with the trees shaded in on the sides? And some sample people in it—those same five sample people who appear in all architects' drawings, walking at that funny angle.

I asked a friend who is an architecture critic why we couldn't have a free sketch. He told me the story, which you all know, of the architect who designed the Sydney Opera House without knowing the terrain—the engineers had to make his pretty drawing fit, and it cost \$120 million instead of \$9 million, and several governments fell over it.

I didn't want any governments falling on my account. But I had a hard time convincing the others. The lawyer, especially, kept saying, "I don't want to buy a pig in a poke." We talked about it for a long time, and then I interrupted by telling him that I had some legal work that needed doing. "I'd be happy to handle it," he said. "Just come around to my office after the meeting."

"No," I said, "just let me tell you the problem quick, and you work up a defense for me. If I like it, I'll hire you. I'm asking some other lawyers to do the same thing."

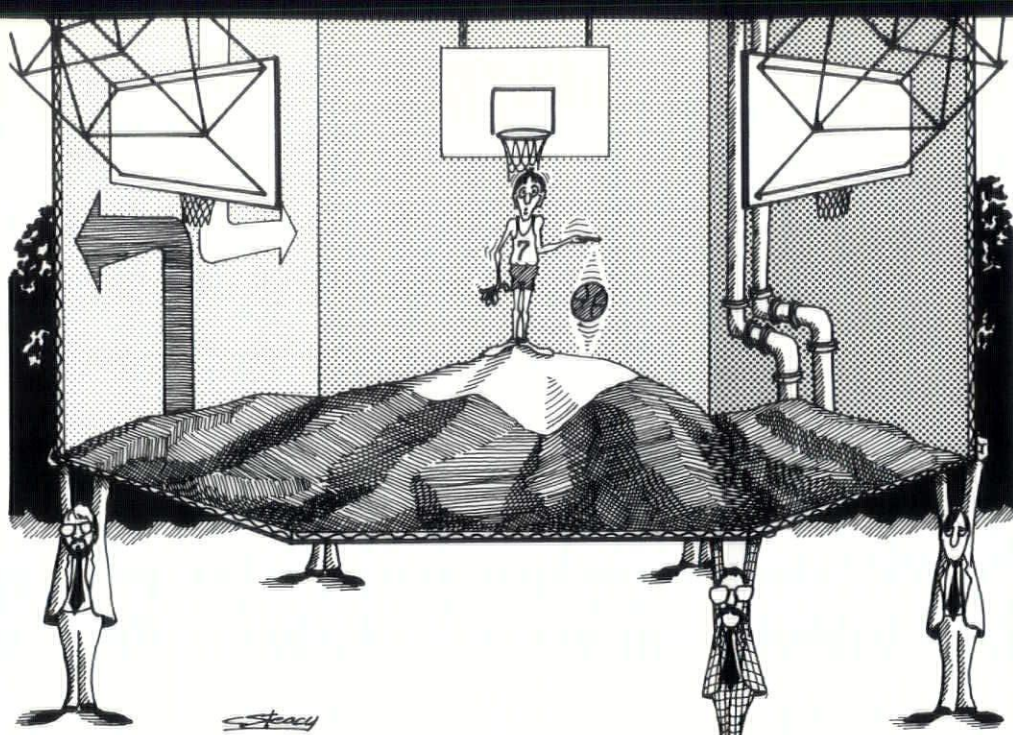
He gave me a look and said, "That's different." But we gave up the idea of the free sketch.

We also gave up the exciting idea of holding a nationwide competition. This was not because a Washington architect told us "nothing good was ever designed from a competition" (how about the White House and the Capitol?) but because we were afraid there wouldn't be a mad rush to fill out the entry blanks.

Instead, we got the names of good architects and asked them if we could visit each in his office and then have them each come and visit us at the school. They were excellent architects, and if I sound critical of them, it's because of the way they handled us, the clients.

We called six, and they all said they were interested. Five of them really were. The sixth was only interested enough to set up an appointment so that the five of us rushed out from our jobs in the middle of the day, through the Washington heat, to wait for him in vain. Not showing up is not a good way to handle clients.

I would not have wanted this architect anyway. When we had visited his office, he had showed us a handsome multilevel building he had designed for another school, but when I asked him how it would be accessible to the handicapped, he laughed and said it wouldn't. I laughed



museum. So I asked what was going on. "Never mind," they said in unison, "it shows where we're all coming from. Where we're all at." Oh.

They had lots of other ideas, such as exposed pipes. This was before Beaubourg was shown all over—about three days before—so some committee members hadn't seen as many exposed pipes as I have, from going under the sink at home to adjust the garbage disposal. Many of them loved the idea. One said, "That's terrific—exposed plumbing, pipes, wires." It would have been a novel idea for solving our space problems—a high school with exposed wiring.

However, the sixth architect was the one we picked. I made the speech for him at the full board meeting, and I thought it was a stirring speech. But one of the other committee members drove me home, and asked me what the hell I was trying to do to a good architect.

I protested that I thought this architect was terrific, and that I had said so.

"No, you didn't," he replied. "You nearly ruined it for him. You said, 'He's going to do us a plain building that will look like a box. No imagination, no drama, no nothing.'"

I had, too. I had said this about a fine architect who does marvelous work. But I had meant it as a compliment. He told us about costs and flooring and bleacher seating, and about how it was going to take longer than we had thought and might cost more, too, and wasn't going to look like much, considering our requirements and space. We had been delighted, because we had believed every word he said.

Later, I wrote up this experience for the *Washington Post*, and the editor received an unhappy letter from one of the competing architects. (I hadn't mentioned names in my article, but I asked him if I could quote his letter here.)

He said that many firms would have been happy to do our project "for reasons of personal satisfaction rather than economic gain." I wish I had known that earlier. I would have voted to have him do our building "for reasons of personal satisfaction." All the other architects wanted a percentage.

The other thing he said was that we should have had architects on the selection committee. I agree that in an ideal world architects should never have to deal with anyone except other architects. But as it is, they are going to have to deal with just plain clients, and I would like to say something on behalf of the client.

He may not have the advantages of the education which an architect has had. He doesn't have an architect's experience. He doesn't have the know-how of an architect.

But if he did, he wouldn't have to hire an architect. □

and asked him what he was going to do about it. He laughed and said, "Nothing, because the whole school is old and inaccessible anyway." I laughed and thought, "So is Harvard, but they're spending a lot of money to make it accessible." And they're not laughing.

The second architect was fun, too. He said he believed in "fun buildings." He had already done a beautiful kindergarten for us, but I made a terrible gaffe when I asked him why its roof leaked. He explained that although he had "supervised" the construction, he hadn't "supervised" it, so he could not be expected to know why the roof leaked.

I was so embarrassed at having mentioned this that I quickly asked what he had in mind for a fun building, and he came right back with, "How about something hexagonal?" For a gymnasium? But they play basketball in a rectangle. "Yes," he said, "but it's always more fun to do something—more fun."

Just when I felt I was learning from him, he stopped teaching. I asked who in his firm might do the project, and he said there was no point in telling me, because I wouldn't know them anyway. I asked what flooring could be used both for a gymnasium and a theater, and he said that even if he told me, I wouldn't understand.

After he left, the headmistress of the school asked, "Do you have the feeling there's no point in talking to us girls?" Yes, I replied, I did. "But us girls got the money, don't we?" she asked.

Then we got an architect who offered us a skylight, just like the Astrodome had. You remember the story. The Astrodome had a huge skylight and grass growing below, but then nobody could see the ball because of the light, so it was painted over, and the grass died and that, children, is how the world got Astroturf. We loved the idea of having a skylight like that. He told us we could black it out during games, and when the room was

used as a theater, we could also black it out.

That got us down to three architects. The next one said he would build us a plain, solid building. It sounded very good. Then, he said, he would turn us over to his interior decorator who would make it exciting. He said they had done a study and found that young people like bright colors more than somber colors. (Do you suppose they got a grant for that study? "Look, honey, you want the bright red fire engine, or the old gray one?")

The designer showed us pictures of rooms decorated with huge yellow arrows veering off this way and that. We wondered how you could shoot a basket up,

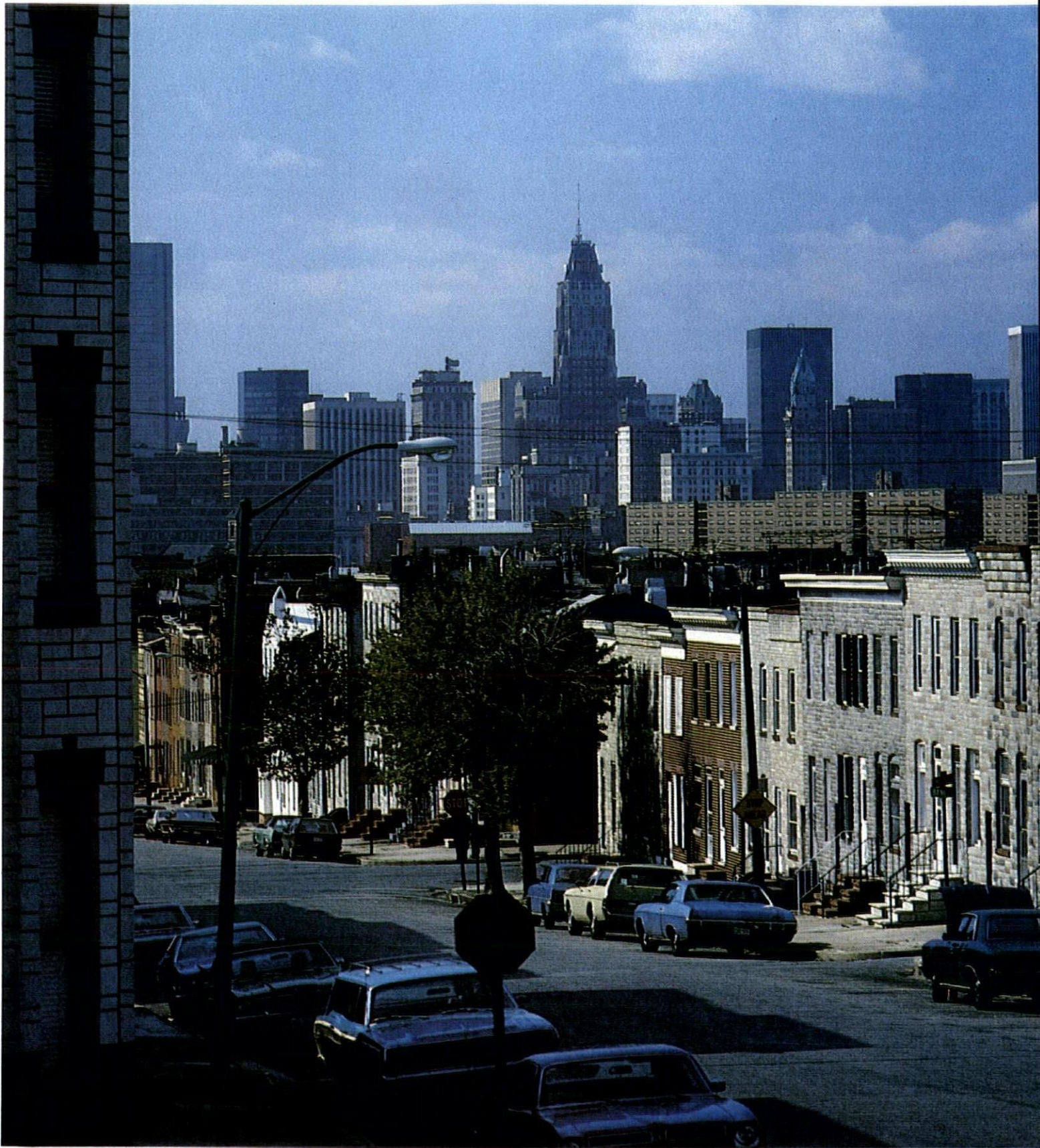
Slides of mountains and men on the moon vs. straight talk about costs and materials.

while an arrow in the corner of your eye pulled in a different direction.

They replied that you had to fill a room with vibrancy, drama and action. What they didn't know was that we already had a plan for filling the room with vibrancy, drama and action—free. We planned to put kids in it.

Next we got a team who showed us two slide shows simultaneously, one for each eye, plus a machine which provided guitar music from the rear. They showed us lovely pictures. There was a meadow with flowers moving in the breeze, a lake bobbing with yachts and skiers climbing a craggy mountain trail. We were impressed. Anybody who can design a mountain like that, I thought, can design my old gymnasium any day.

But they went too far. They slipped in a slide of Man stepping on the Moon, and I knew that they did not design that moon. I recognized the slide. You can buy it at the gift shop of the air and space



Baltimore: 'Fad City' or National Model for Community Development, 1970s Style?

The question takes on new importance as a prime mover in the city's remarkable revitalization assumes a key role at HUD. By Allen Freeman



adaptable to energy innovations and are close to downtown.

Mencken wasn't the only person down on the city. By the 1940s, Baltimore had a sizable inferiority complex. One of the problems was overcrowding caused when the war brought a huge influx of poor Southerners to work in defense-related plants. The venerable housing stock became oversaturated and many of the neighborhoods—the pride of Baltimore—began to deteriorate. Then, there were the familiar postwar city blues of suburban shopping centers and out-migration while the downtown and waterfront were ignored and decaying.

It was perceived as a city with a great past and no future, and if you made it, you were moving on to New York or Philadelphia or Chicago. Many who might otherwise have stayed left because there were few corporate employers in Baltimore for white-collar workers. And, with a small college-educated upper middle class, there was little support of cultural activities and good restaurants and close-in living. It was a downward spiral to nowhere, but with hard work over a period of years, Baltimore has turned itself around. The efforts have centered on four basic strategies: Strengthen downtown, enrich the cultural life, build upon the system of neighborhoods and expand the economic base.

The most celebrated postwar attempt to revitalize Baltimore was the 1954 plan for Charles Center, initiated by a group of businessmen who enlisted the support of the Greater Baltimore Committee. Seen as a keystone between the city hall/financial district on the east and the retail district on the west, Charles Center has become a blend of pre-existing and new buildings of varying architectural quality.

Over the last few years, the city has also undertaken the rebuilding of its Inner Harbor, which had all but vanished behind a wall of decaying, vacant waterfront structures. Replacing them is a series of parks, promenades and pavilions at water's edge. Already in place are the Maryland Academy of Science building by Edward Durell Stone, FAIA; the World Trade Center of the Maryland Port Administration by I. M. Pei, FAIA; a marina, and a playing field.

The Inner Harbor is intended as a focus for city identity, a sort of town square, marketplace and piazza, around which more attractions are to be added over time. To bolster its cultural identity, the city has given financial aid to all four major theaters and has been instrumental in keeping them downtown.

To help support the Inner Harbor attractions and the downtown cultural facilities, the city is building a convention center as a physical bridge between the harbor development and Charles Center.

Baltimore, the brunt of H. L. Mencken's acid pen in the '20s, has become fashionable in the '70s. It is not difficult to see why new attention is being paid to what Mencken once called "the ruins of a once great medieval city." Consider:

- For a country in search of roots, Baltimore offers stable ethnic enclaves: Italians, Jews, blacks, Irish, Germans, Lithuanians, Latvians, Ukrainians and Poles, among others.

- Nationally more attention is now being paid to human scale, and Baltimore is a patchwork of villages.
- Urban renewal emphasis is shifting from clearance to rehabilitation; Baltimore has become a leader in rehab and urban homesteading.
- Energy consciousness has brought us back to clustered housing; Baltimore's many 19th and early 20th century row houses are naturally efficient, are easily



undertaken after a study showed facility big enough for regional... while potentially not entirely... reporting, would have a very bene-... effect on the city's economy. Also... ended was construction of a con-... hotel of at least 500 rooms adja-... the convention center, and this has... subject of some controversy be-... two of the three big downtown... have had some operating... ies.

attracting tourists is seen as one way... raising the city's tax base. Another... this effort has been an aggressive... ing effort in Europe and Japan to... new business that will stem the... dwindling blue-collar jobs.

any reckoning, Baltimore's most... efforts have been in housing and... nity development. A department... that title, the first in a major U.S... consolidate all primary housing... ns, was created in 1968, and its... mmissioner was Robert C. Embry... n a 30-year-old Harvard law grad-... o had served the previous year in... council. Embry, who resigned... is year to become assistant secre-... community planning and devel-... at HUD, recalls that when he... ice, the city was dealing with the... th of the riots and civil disorders... owed Martin Luther King Jr.'s... ation. The first priority was to... still optimism.

feeling was that "Baltimore had... ential, if recognized, of tremendous... in neighborhoods and in ethnic... gs," says Embry; so the city... ok to emphasize the role of neigh-... ds in general, funding neighbor-... ganizations and nurturing com-... efforts. The annual city fair was... to bolster neighborhood pride and... and "by all evidence, it has had... ndous positive effect on morale,"... says.

more's ethnicity is both its... and its weakness, in the view of... ridges, AIA, a local black archi-... former chairman of the Institute's... nity services commission. Strong... nity organizations have emerged

er Harbor (top left), a focal point... ore, is now the home of the an-... y fair. Charles Center (left) is the... community gatherings such as... n Festival last summer. The Me-... heater by John Johansen, FAIA... of photo) is one of a dozen struc-... various architects along a public... at forms Charles Center's spine... ing (photos right), a city-instigated... ment of mostly middle-income... is the design of Montreal's Habi-... tect Moshe Safdie & Associates... owners move in this month.

and fought the right fights such as clear-... ance and freeways, he says, but racist... attitudes remain, to a large extent.

Says Maria Broom, a black, 28-year-... old local TV reporter: "With every... Chinatown or Germantown, you have... barriers for people not to be welcome... Although blacks might want to move up... to Highlandtown, I doubt that any would... because they know they wouldn't be ac-... cepted. I doubt any Germans or Jewish... people would move into Little Italy."

A central tactic in housing has been to... halt all new clearance, carrying out only... those programs that already had been... passed, and to concentrate on rehabilita-... tion of existing housing stock. Maria... Broom asks, as do others, "Where are all

the people who have been pushed out by... rehabilitation?" Embry says much of this... housing has been vacant, which has led to... a sharply reduced city displacement rate... and relocation workload, and, for every... middle-income unit provided by the city... 10 are supplied for low-income people... Baltimore's figures show that public... housing has increased from 10,930 units... at the end of 1970 to 15,728 in mid-'77... a period during which the overall city... population decreased by about 50,000... But the fact remains that the poor and... blacks have limited choices and sub-... standard housing has remained at about... 70,000 units or 24 percent of the... housing stock.

Embry acknowledges that the city



should have done more in helping the low-income communities get a real economic stake in the city, not relying on "trickle-down benefits to poor people."

Reversing the flow of the middle class out of the city has been another key objective, and the city's plan of attack has been to supply attractive housing through homesteading and new construction.

Under the homesteading program, the city sells an existing house for \$1 to a person or family willing to rehabilitate

and live in it. The owner must bring the house into habitable condition within six months, and then complete the rehabilitation and continue living in it for 18 months longer before he gets legal title. So far, homesteaders have rehabilitated 25 small 1830s houses on Stirling Street, 13 houses on Durham Street in the Washington Hill area and, currently, 112 early 19th century row houses in Otterbein, a neighborhood adjoining the Inner Harbor. Another area, Barre Circle, in southwest

Baltimore, will have 150 19th century houses available for homesteading.

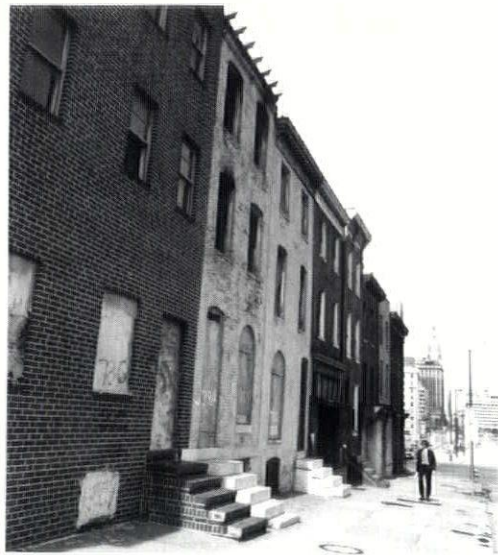
The city's most ambitious attempt to provide new housing is Coldspring (p. 41). The design of Moshe Safdie Associates, Coldspring's plan calls for 3,780 all-new housing units on a 100-acre site several miles out from the city. The first houses are now being occupied and one of the first owners is to be Bruce Brodie, AIA, the 41-year-old native Baltimorean who succeeded Embury as deputy commissioner of housing and community development. He and his family view the project as "a living test of how Coldspring works," he says.

The site includes a former rock quarry, city dump and orphanage, the latter of which remained largely undeveloped because it had been considered too hilly and unsuitable for housing. Several architects were interviewed before Embury and Brodie (now deputy commissioner) invited Safdie to



Paul Musotto (left) has worked as a shoemaker for 56 years on the same corner in Highlandtown ('Hollandtown' in morese). The Polish-German blue brick row houses (below) has changed little since 1870. 17-year-old Musotto arrived in 1900 from his native Sicily. His two grown sons live elsewhere, but many of the tenants have remained with families for several generations.





signer of Habitat at Montreal's Expo '67, for a visit and interview.

Brodie recalls: "We told him we were not interested in another Habitat in Baltimore, but that if he was willing to be flexible and sit in on a lot of community meetings and hear things that are different from an ordinary client-architect relationship, then we would like to consider him." Safdie got the job, and Lawrence Halprin's firm was hired to do landscaping.

Coldspring is high density housing tailored to the terrain: deck houses on the flat land, cluster houses on the slopes and highrises on the quarry site. Prices are in the \$35,000-\$60,000 range on the first houses, and the city is providing mortgage assistance to prospective homeowners.

Although the overall plan for Coldspring includes retail areas, schools and recreation facilities, Brodie sees Coldspring not as a self-contained new community, but rather as a series of new neighborhoods to be integrated into the city's fabric. And, unusual in this city of segregated living patterns, the first owners are two-thirds white and one-third black.

Coldspring development has received community block grant money, and the city has channeled these funds into loans to theater groups for building rehabilitation, but most of Baltimore's share has gone into low- and middle-income housing, says Brodie. "The block grant deci-



Maureen (right) and Blaise Lachowicz and their two small children occupied their 1830s federal style row house a year ago, the first of 112 houses being homesteaded in the Otterbien neighborhood that adjoins the Inner Harbor. The Lachowiczes decided to move from a one-bedroom suburban apartment and chose homesteading as the cheapest way. Says Maureen: 'You have to persevere through paperwork and keep telling yourself it can be done.' Houses (photo above) are sealed, part of a city program of boarding to protect houses from vandalism and deterioration.

Continuity of mayoral support and a variety of tools for rehab and development.

sions haven't been very tough for us, because we had so many old debts to pay—old renewal projects that weren't complete—when Congress abolished the old programs.”

Brodie is an architect, a graduate of the University of Virginia and Rice who spent a period in private practice before going with the city in 1964, and is attuned to the criticism of local architects that many if not most of the plums handled by the city are going to nonlocal architects. But he says the city is committed to the best possible design, that a balance of in-town and out-of-town firms is maintained and that anyway the city takes the advice of the design review board “99 percent of the time.”

Embry, who stresses the importance of good design in creating a new image for the city, is more candid: “Some local firms are just interested in getting contracts. You never hear ‘boo’ from them about a bad building that has gone up. What you hear from them is they don't get the work.”

Ask Commissioner Brodie why Baltimore has succeeded in its housing and neighborhood efforts, and he offers the following:

- His department has been allowed to run as a professional agency with independence in choosing contractors and architects.
- There has been continuous support of housing programs through the administrations of several mayors.
- There have been both continuity and high quality leadership within the department.
- The present mayor, William Donald Schaefer, understands the city's needs, having come up through the city council where he headed a committee that handled all renewal legislation.
- The department has “shaped a variety of tools” for rehabilitation, and uses them in varying strategies to attack individual problems.
- There has been a willingness to take on tough problems. Comments Brodie: “Even 20 years ago, when the tools were meager and urban renewal meant clearance, the city was working to encourage rehabilitation and community participation.”
- Community participation has been carried out “all through the process: planning, design, working with developers, helping to select materials.”
- Federal aid programs have been pursued aggressively, not just at HUD but

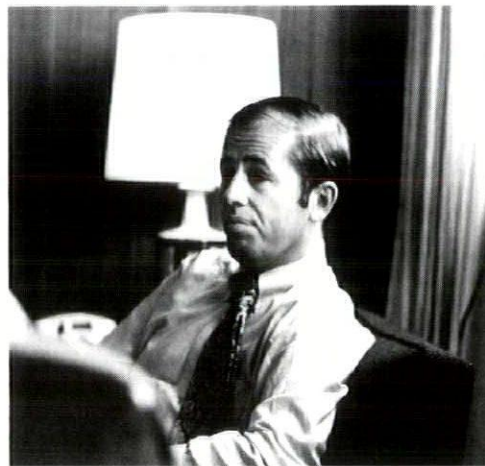
also at the departments of Transportation and Commerce, the Small Business Administration, the Economic Development Administration and other federal agencies.

- Baltimore has also been aggressive in getting money into the hands of those who need it:

For homeowners, the city has undertaken a loan program for rehabilitation. Using money from the sale of city bonds, it makes 20-year loans to homeowners at between 6 and 7 percent interest. Brodie boasts: “We run it with far fewer rules and regulations and red tape than the federal rehab program, and have had very low default rates.”

For prospective homeowners, a finance program is getting started by which the city takes on mortgages in selected areas of the city where private loans are not available.

For small businessmen, the city makes fix-up loans to shop owners within a neighborhood, and then undertakes city improvements in the area—such things as streets, sidewalks, streetlights and trees and flowers.



For developers, the city insures private loans, helping them to obtain financing in some cases and lowered interest rates in others.

What are the chances of other cities replicating Baltimore's successes? Robert Embry is reluctant to suggest what cities should or shouldn't do based on a formula derived from the experience of any one municipality. “Much of the perception of Baltimore represents a certain amount of faddism,” he says. “Baltimore becomes the latest city that is ‘in,’ and receives a lot of favorable publicity, and then there may be a reaction and publicity about how bad it really is. We've seen through that and know that there are good things that Baltimore has done, but there is a great deal more to do.”

But Embry does have a set of priorities to be accomplished at HUD, based on his experiences of the past decade in Baltimore. One is a comprehensive strategy for dealing with rehabilitation. “HUD has a variety of rehab programs, some of

which are conflicting and others that just aren't working,” he says.

He also wants to direct more money into low- and moderate-income neighborhoods, a turnaround from the effect of the community development block grants program to date, by changes in regulations and monitoring (see Sept., p. 48).

Next is to encourage cities to make long-term strategies. “We have found that money is being spent in response to short-term pressures and that cities have not thought through what they are trying to do.” In this year's regulations, HUD is requiring of cities at least a three-year plan—their own, not HUD's. To help cities come up with overall strategies, or just to set up projects in rehabilitation or urban design, HUD is setting up a program of technical assistance.

Another priority is to provide mechanisms to increase middle-income housing in ways that do not displace the poor. “In fact, we have amended our regulations to extend relocation coverage to people who are displaced by private rehabilitators,” says Embry.

Economic development is also Embry's concern: “The major need of cities and of people in cities is to become self-sufficient economically, and that means providing incentives for people to locate and expand jobs. There has not been adequate federal assistance of that kind.” A new action grant program and amendments to the redevelopment act have substantially increased the money and the ability of cities to do things aggressively to build their economic base, he says.

Although Embry refuses to set up Baltimore as a literal model, he implies that a general application of Baltimore's spirit and diligence could make a big difference in turning other cities around. He says: “You find lacking in many cities a certain sense of boldness, a willingness to see the city as more than a supplier of police, fire protection and street paving. Cities have to be willing to take chances—within a fiscally responsible framework—and do things they might not have tried 10 years ago.”

Embry's views take on added significance as it becomes clear that he is rising in influence, not just in HUD, but in the Administration's overall approach to urban problems. Thomas B. Edsall of the *Baltimore Sun* noted in late September that Embry had been designated as No. 1 among HUD assistant secretaries, responsible for dealing with other federal departments, and executive director of the White House urban and regional task force. □

Robert Embry of HUD (above), and quiet Montgomery Street (right) on Federal Hill, home to another generation of Baltimoreans.



BOOKS 1976-77

An editor's choice of the best architectural titles since publication of the Journal's last holiday list. By Mary E. Osman



Helen Keller, that truly remarkable woman who could turn handicaps into assets, once remarked that one of the joys of being blind was to curl up under the covers on a cold winter's night with a good book. Because she read in Braille and had no need for a light, she could snuggle under and never get her hands cold turning the pages. Despite the fact that such an eminent personage as Adlai E. Stevenson (who could make the English language sing) is said not to have cared much for reading, books are a veritable source of life for many people. They are particularly appropriate for gift-giving, and part of the fun in selecting a book for someone is to try to understand the recipient's interests and to match his tastes to a book in anticipation of his pleasure. Thus, the book gift-giving process is a double delight.

With this attitude in mind, the JOURNAL, back in November 1975, asked some architects to list about a dozen books on architecture and its related disciplines that they considered appropriate for Christmas-giving to clients, colleagues or friends. The replies elicited interesting comments about some basic architectural books that have weathered time's chilling winds. One of the more frequently named books, for example, was Frank Lloyd Wright's *An Autobiography*, then available in a 1943 issue. It is good news for this year's gift-giver that this architectural classic can now be bought in a sparkling new edition which is filled with photographs of the master, his family, friends and projects.

But even more intriguing than titles of books were the reasons the architects gave for including a particular book, thus affording the discerning reader an insight into the architect's own philosophy of practice and design—and personal idealism. This bit of serendipity is lacking this time around, for the books noted now are limited to those published in the two intervening years. They are but a supplement to the earlier article. Except for a few newly revised editions, such as Robert Venturi's *Complexity and Contradiction in Architecture*, which its publisher, the Museum of Modern Art in New York



City, calls "one of the most influential titles ever published by the museum," none of the books has the benefit of years of critical scrutiny. Who can say which of them may become a classic, although some critics are already claiming some of the books as such?

As one reviews two years of architectural book publishing in a single effort, it

seems impossible to resist the temptation to search out any philosophical trends that may be evident. There are clearly subjects of the moment, so to speak, which are timely because they attack a current problem. An example is the outpouring of books recently on energy conservation. As reviewer Jeffrey Cook, AIA, remarks, the flood of solar houses has been matched only by the tide of solar books. Some are good; some are inadequate, merely hitching on to a topic covered widely in the news media.

And if memory can be relied upon, four or five years ago brought a half-dozen review books monthly on the subject of urban design and planning, but despite this subject's continuing importance, such titles, at least from the architectural point of view, have tapered off considerably in the last two years.

Maybe, we thought, the array of books indicates a trend in berating modern (or postmodern) architecture, because a number of them do just that, such as Peter Blake's controversial *Form Follows Fiasco*. Another apparent trend is the in-depth study of the works of various architectural firms—both on-going and deceased firms.

Perhaps an influence in this regard has been the exceedingly handsome books published in Japan in which Yukio Futagawa's beautiful photographs are the primary feature. Published in the series titled "Global Architecture," the Futagawa books have covered a host of architects, including Frank Lloyd Wright, Eero Saarinen, Bruce Goff, Le Corbusier. Some people consider them magazines, says Susan Cosgrove, AIA librarian, but the AIA library staff catalogs them as books. The two published in 1977 are on Piano and Rogers' Centre Pompidou in Paris and Marcel Breuer's houses. (This series is available in this country through Hennessey-Ingalls, Los Angeles.) But a real book for sure, edited and photographed by the ubiquitous Futagawa, is one entitled *Kevin Roche, John Dinkeloo and Associates, 1962-1975*, published this year by the Architectural Book Publishing Co.

Other discernible trends, perhaps, are the growing respect for the nation's architectural heritage, exhibited in such books as G. E. Kidder Smith's *A Pictorial History of American Architecture*, and for adaptive reuse, which is the subject of several books, including the delightful *Converted into House*, by Charles A. Frachia and Jeremiah O. Bragstad and the equally intriguing *Rescued Buildings*, by Roland Jacopetti, Ben VanMeter and Wayne McCall. But there is one trend on which there is no doubt whatsoever: Architectural books are more lavishly illustrated, more beautifully designed—and cost a great deal more.

A book list is a very personal thing, and we have exercised a prerogative by setting down at least one guideline. In our opinion, for what it's worth, Christmas book-giving should be done for the pleasure of the recipient—it's not an occasion for giving business tools. Hence, we have not included so-called technical books. Every rule is made to be broken, however, and we have not been able to resist including such seminal books as Richard G. Stein's *Architecture and Energy*, which many critics predict will be read for a long time to come.

Many of the books suggested have been reviewed in this magazine, and still others will be given more comprehensive coverage in forthcoming issues. It also should be pointed out that a number of books have been announced for publication between now and Christmas, which are not included here. They range from Julius Shulman's *The Photography of Architecture and Design* (Whitney Library of Design, \$25) to *Classical America*, edited by William A. Coles (Norton, \$14.95). So if the reader seeks out a bookstore for some of the books suggested, he might look also to see if anything else of interest has been published meanwhile. We don't think you'd go very far astray, however, if you gave the appropriate person any of the suggested books.

For the Trend-Setter:

The Language of Post-Modern Architecture, by Charles Jencks (Rizzoli, 1977, \$18.50). According to Jencks, modern architecture died on July 15, 1972, at

THE LANGUAGE OF

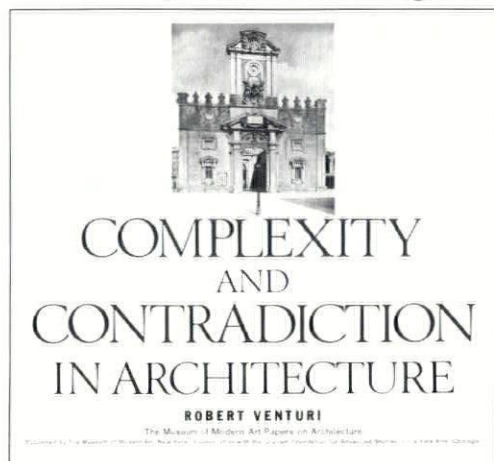
POST-MODERN ARCHITECTURE

CHARLES JENCKS



about 3:32 P.M. in St. Louis when Pruitt-Igoe was dynamited. Failures in public housing particularly have led to the widespread disenchantment with modern architecture, he believes. He isn't all destructive, however, and makes many constructive suggestions about how architecture can work as a language that is understandable.

Complexity and Contradiction in Architecture, by Robert Venturi (revised edition, Museum of Modern Art, distributed by New York Graphic Society/Little, Brown, 1977, \$12.95). The new edition retains the text of the 1966 publication, with notes added to the preface and introduction by Venturi and critic Vincent Scully. The format is enlarged to



present the illustrative materials more adequately. Scully said of the first edition that it was "probably the most important writing on the making of architecture since Le Corbusier's *Vers une architecture* of 1923." And evidently he hasn't changed his mind in the meantime. The book has been translated into French, Spanish and Japanese, and a German translation is in process.

New Directions in American Architecture, by Robert A. M. Stern (revised edition, Braziller, 1977, \$9.95 hardbound, \$4.95 paperbound). Architect Stern divides modern architecture after Mies van der Rohe, Le Corbusier and others of that generation into two camps: the "exclusivists" (Paul Rudolph, Philip Johnson and others) and the "inclusivists" (Robert Venturi, Louis Kahn, et al.). In this revised edition of a provocative book, he sees a debate between younger exclusivists, such as Charles Gwathmey and Richard Meier, and the "solidified" inclusivists, the latter being the first generation of postmodern architecture.

Form Follows Fiasco: Why Modern Architecture Hasn't Worked, by Peter Blake (Little, Brown, 1977, \$12.95). Bound to create controversy, this book denounces the followers of the modern movement as "advocates and promoters of ugliness, of venality, of greed, of social disintegration, of land exploitation . . ." Harsh words. One critic has said that the reader has to "continuously shake off this dripping manifesto sauce to get any nourishing substance" from the book. But there's a lot of conversation here for a Christmas cocktail party.

Supermannerism: New Attitudes in Post-Modern Architecture, by C. Ray Smith (Dutton, 1977, \$9.95). Modernism, says Smith, has revolutionized "our

expectations of architecture, of design vocabulary and of the design professions themselves." It is also "altering our cultural consciousness and reshaping the country." He defines the character of postmodern architecture as being "supermanneristic," which to him is "frenetic and distorted, jazzy and exciting, like contemporary life," but a far cry from the "elegant serenity of classical modern design."

Dimensions: Space, Shape and Scale in Architecture, by Charles Moore and Gerald Allen (McGraw-Hill, 1976, \$12.95). Reviewer John Lobell found this book reminiscent of Venturi's *Complexity and Contradiction*. He liked the simple conversational style of the authors, finding the essays "clear and enjoyable."

Frei Otto: Form and Structure, by Philip Drew (Westview Press, 1976, \$32.75). This profusely illustrated book surveys the suspension architecture of a "third generation" master of contemporary architecture. H. H. Waechter, AIA, in his review found it a valuable contribution to the practicing architect.

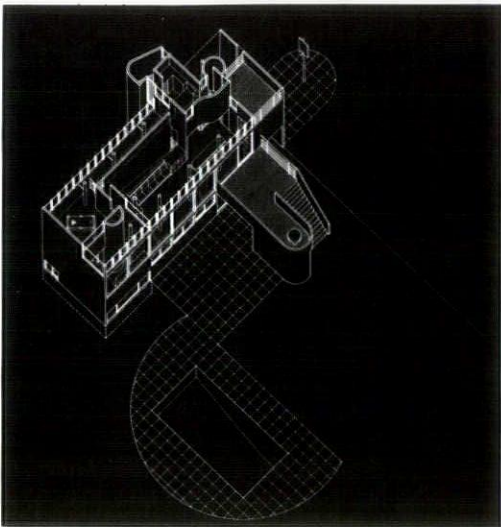
Centre Pompidou (Rizzoli, 1977, \$3.50). A neat stocking-stuffer, this 64-page book gives an insight into the aims of Renzo Piano and Richard Rogers in the design of all those brilliantly painted pipes and boxes. The new art center in Paris is truly a "marketplace of culture."

The Failure of Modern Architecture, by Brent C. Brolin (Van Nostrand Reinhold, 1976, \$11.95). Brolin disputes the tenet that the International Style is appropriate for every culture. Reviewer David Nevens had some minor complaints about the book, but concluded that through its "clear writing" and "marvelous illustrations," it is successful in pointing out the many shortcomings in today's architectural expression.

For Those Who Want to Know How Others Do It:

Kevin Roche, John Dinkeloo and Associates, 1962-1975, edited and photographed by Yukio Futagawa, with a preface by J. Irwin Miller and introduction by Henry-Russell Hitchcock (Architectural Book Publishing Co., 1977, \$49.95). If you stay with this magazine, you will find a future review of this book by Stephen Kliment, AIA, who calls it a "seductive experience" to leaf through this "superbook," with its many photographs of a "quality . . . one has come to expect of Futagawa." Kliment finds the successor firm to the master Eero Saarinen to have kept alive "the urge to innovate with form and materials."

Charles Gwathmey & Robert Siegel: Residential Work, 1966-1977, text by Kay and Paul Breslow, introduction by Philip Johnson (Architectural Book Publishing Co., 1977, \$35). "The complexi-



ties so beloved in the '60s and '70s are in this work, so disciplined, contained in rigid primary geometric shapes . . . that the layman can easily understand the drawings," says Philip Johnson, FAIA. It is exceedingly handsome.

An Autobiography, by Frank Lloyd Wright (Horizon Press, 1977, \$17.50). No sooner was the first edition off the press in 1932 than Wright started revising it. It affords a remarkable insight into the philosophy of this master architect not obtainable elsewhere. Time has not diminished the importance of this book.

Venturi and Rauch: Public Buildings, edited by David Dunster (Rizzoli, 1977, \$14.95 hardbound, \$8.50 paperback). The recent work of Venturi & Rauch is explored in this book which contains many plans, photographs and drawings.

Louis I. Kahn: Complete Works, 1935-74, by Heinz Ronner, Sharad Jhaweri and Alessandro Vasella (Westview Press, 1977, \$77.50). This imposing book covers the work of a master architect who was poetic with words as well as with arches.

Richard Meier, Architect: Buildings and Projects 1966-1976, introduction by Kenneth Frampton, postscript by John Hedjuk (Oxford University Press, 1976, \$35 hardbound, \$15 paperback). This beautifully designed book documents the work of AIA fellow Meier over the past decade. As John Hedjuk remarks, Meier's "dense, solid, obsessive and unremitting work is overwhelming."

Greene and Greene: Architecture as a Fine Art, by Randell L. Makinson (Peregrine Smith, 1977, \$24.95). Noted for their remarkable wood detailing and for their general influence on California architecture, the brothers Greene "stand outside history," said reviewer John Lobell. This handsome volume shows that the houses by Greene and Greene are "as timeless as wood itself."

Architecture: The Design Experience, by Hugh Stubbins (Wiley, 1976, \$18.95). One of the nation's leading architects applies his approach to an analysis of the

design process and other topics of interest to fellow practitioners. Examples of his work range from urban to campus architecture.

The Architecture of Luis Barragan, by Emilio Ambasz (Museum of Modern Art, 1976, \$27.50 hardbound, \$12.50 paperback). The first major book devoted to the internationally acclaimed Mexican architect. A *New York Times* critic called it "the most beautiful book I have ever seen." Indeed, Barragan's projects come through as architectural poetry.

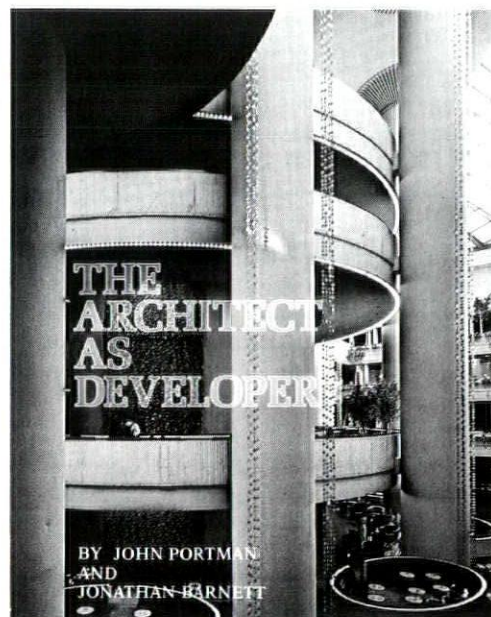
Le Corbusier, by Maurice Besset (Rizzoli, 1976, \$33.75). A large and beautifully illustrated tome on the work of one of the world's most influential architects.

The Architecture of Leandro V. Locsin, by Nicholas Polites (Weatherhill, 1977, \$50). This book on the leading architect of the Philippines is handsomely illustrated with 182 photographs, 48 in color. Polites says that Locsin has left "an indelible stamp on Philippine architecture, though his work spans only 20 years."

Women in American Architecture: A Historic and Contemporary Perspective, edited by Susan Torre (Whitney Library of Design, 1977, \$25, available to AIA members for \$22.50 from AIA's department of publications marketing). Women critics and historians assess the contributions of women artists and architects and discuss the issues facing such women in today's world.

The Open Hand: Essays on Le Corbusier, edited by Russell Walden (MIT Press, 1977, no price given). Collected here are essays by a number of people who shed light on Corbu's life, thought and work.

The Architect as Developer, by John Portman and Jonathan Barnett (McGraw-



Hill, 1976, \$22.95, available to AIA members for \$20.65 from AIA's department of publications marketing). Portman's many accomplishments as architect and developer are recorded in this book

which is replete with photographs and drawings.

Beaux Arts to Bauhaus and Beyond, by Harold Bush-Brown (Whitney Library of Design, 1976, \$12.95). A distinguished educator and practitioner reminisces about some of the architectural giants of this century and writes entertainingly of his own recent experiences in adding a modern wing to a classical style library.

For Those Who See the Past as the Future:

The Prodigious Builders, by Bernard Rudofsky (Harcourt Brace Jovanovich, 1977, \$14.95). Vernacular architecture, says Rudofsky, is an alternative to the sterility of modern architecture. With superb photographs and probing text, he examines the innate humanity of anonymous architecture of the past, contrasting it with modern urban life's dehumanization. A provocative book.

A Pictorial History of Architecture in America, by G. E. Kidder Smith (American Heritage Publishing Co., 1976, \$45, available to AIA members for \$41.50 from AIA's department of publications marketing). In two splendid volumes, Smith covers this nation's architecture, supplying both magnificent photographs and informative text.

Early Architecture in New Mexico, by Bainbridge Bunting (University of New Mexico Press, 1976, \$12.95 hardbound, \$6.95 paperback). Reviewer Jeffrey Cook, AIA, found the material "dominated by understanding and affection." As he said, the book is about "architectural change in the most changeless . . . region of the U.S."

The Architecture of the Ecole des Beaux-Arts, edited by Arthur Drexler (MIT Press, 1977, \$39.95). Four essayists trace Beaux-Arts architecture over 200 years from its earliest origins to its eventual worldwide influence. There are 423 illustrations, including drawings by some students who became eminently successful in the architectural world.

A Gift to the Street, photographs by Carol Olwell, commentary by Judith Lynch Waldhorn (Antelope Island Press, 1976, \$12.95). This is a handsome and commendable contribution to the study of Victorian architecture in San Francisco.

Magnificent Derelicts: A Celebration of Older Buildings, by Ronald Woodall (David & Charles, 1976, \$29.95). Don't look for architectural masterpieces here, but find delight in the 76 full-color paintings by Woodall of old rural buildings.

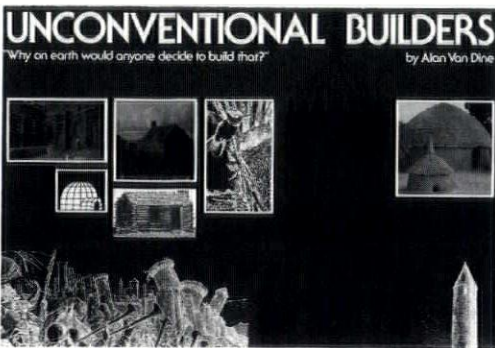
Unbuilt America, by Alison Sky and Michelle Stone (McGraw-Hill, 1976, \$14.95, available to AIA members for \$13.45 for AIA's department of publications marketing). Here is a record of projects that were never built, covering "over 200 years of audacious, curious,

revolutionary, utopian, radical and visionary ideas" in architecture and the environmental arts.

Taken by the Wind: Vanishing Architecture of the West, by Ronald Woodall and T. H. Watkins (Little, Brown, 1977, \$29.95). The text of this book by Watkins sensitively describes the architecture of long-ago pioneers; equally sensitive are Woodall's beautiful illustrations.

The Only Proper Style: Gothic Architecture in America, by Calder Loth and Julius T. Sadler Jr. (New York Graphic Society, 1976, \$19.95). Not a definitive history of Gothic architecture in this country, but an "introduction to an astonishing variety of buildings loosely linked to a common stylistic vocabulary, with a side-glance at the decorative arts."

Unconventional Builders, by Alan Van Dine (Doubleday, 1977, \$19.95). The



author describes 17 "unconventional" structures which vary from the Tower of Babel to a mansion for friendly ghosts designed by Sarah Pardee Winchester which had 47 fireplaces and stairways leading to nowhere.

The Octagon, Being an Account of a Famous Washington Residence: Its Great Years, Decline and Restoration, by George McCue (AIA Foundation, 1976, \$6 postpaid). In reviewing this book, Frederick Gutheim, Hon. AIA, called it an "informative and well-written account of the Octagon" and the "perfect capstone" to its enhancement following its restoration by the AIA Foundation.

For Those Who See with Pen and Pencil:

200 Years of American Architectural Drawing, by David Gebhard and Deborah Nevins (Whitney Library of Design, 1977, \$30). A visual delight for those who admire beautiful drawings.

Architectural Drawings by Helmut Jacoby, 1968-1976, introduction by Derek Walker (Hastings House, 1977, \$20). A master of rendering presents a compilation of his recent work, including presentation drawings for the English new town of Milton Keynes. A beauty.

Presentation Drawings by American Architects, by Alfred Kemper (Wiley, 1977, \$25). Kemper believes that graphics of quality, such as shown in this handsome book, can "communicate the architect's serious intentions to the client"

and also reinforce pride and discipline within the design team.

For Those Who See Buildings as Types:

A History of Building Types, by Nikolaus Pevsner (Princeton University Press, 1976, \$37.50). Profusely illustrated, this book gives insights into how each building type evolved in response to social change.

Temples of Democracy: The State Capitols of the USA, by Henry-Russell Hitchcock and William Seale (Harcourt Brace Jovanovich, 1976, \$29.95). This chronological narrative of state capitols begins with Virginia's capitol at Williamsburg, and ends with Hawaii's 1969 capitol in Honolulu.

Frank Lloyd Wright's Usonian Houses: The Case for Organic Architecture, by John Sergeant (Whitney Library of Design, 1976, \$24.50). Wright's Usonian houses, said reviewer Jane Loeffler, are studies in "economy gained through economy of design." And that's worth study by any architect.

Megastructure: Urban Features of the Recent Past, by Reyner Banham (Harper & Row, 1976, \$20). Critic Banham gives an account of megastructures in total design environments. There are many superb illustrations.



GEORGE C. IZENOUR

Theater Design, by George C. Izenour (McGraw-Hill, 1977, \$49.50). Watch these pages for a review of this book by Martin Bloom, AIA. He praises the "brilliant illustrations and surprisingly graceful prose," advising theater architects to "read and savor" this remarkable book.

Barns of Wisconsin, by Jerry Apps and Allen Strang (Tamarack Press, 1977, \$10). Apps supplies the readable text and Strang, an AIA fellow, the very beautiful watercolors and drawings.

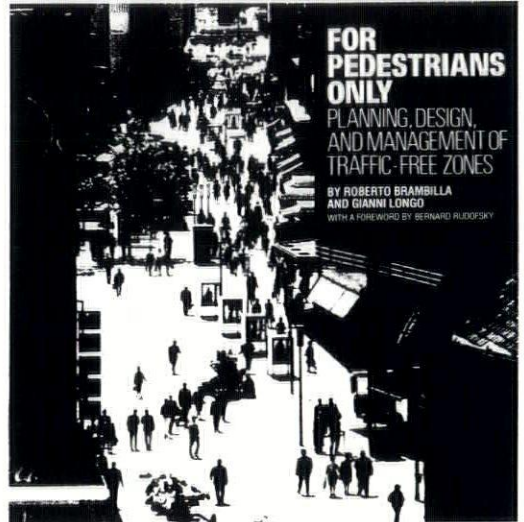
Pioneer Churches, photographs by John de Visser; text by Harold Kalman (Norton, 1976, \$27.50). This handsome book traces the development of religious architecture in North America, viewing this building type as a significant part of our social history.

Bay Area Houses, edited by Sally Woodbridge, introduction by David Gebhard (Oxford University Press, 1976, \$29.95). This engrossing book is about San Francisco's regional architectural phenomenon.

For Those Seeking Urbanity:

Open Spaces: The Life of American Cities, by August Heckscher, with Phyllis Robinson (Harper & Row, 1977, \$20). "Only August Heckscher could have written this valuable contribution to the continuing task of civilizing our cities," said reviewer Frederick Gutheim, Hon. AIA, who sang hosannas for this book. He believes it will be of "lasting importance."

For Pedestrians Only: Planning, Design and Management of Traffic-Free Zones, by Roberto Brambilla and Gianni



Longo (Whitney Library of Design, 1977, \$24.95, available to AIA members for \$22.45 from AIA's department of publications marketing). This is a resource for the creation of humane urban spaces. Pedestrian malls, say the authors, are not "urban idylls" of flowers and trees, but "practical solutions to some urgent urban problems."

A Comparative Atlas of America's Great Cities, by John S. Adams and Ronald Abler (Association of American Geographers and the University of Minnesota Press, 1977, \$95). No city is like any other, as this survey of 20 metropolitan areas confirms. Part of a multivolume project, six years in the making, this is the final volume. It draws together information from separate studies into one magnificent atlas. As the compilers say, "There may indeed always be an England, but an England without London is unthinkable. So is an America without New York City, Chicago and Los Angeles." No wonder that the atlas is reported to be selling like hotcakes, despite its steep price. Worth every cent.

A Pattern Language: Towns, Buildings, Construction, by Christopher Alexander, Sara Ishikawa and others (Oxford University Press, 1977, \$27.50). Alexander, says the publisher, is a prophet. "Who else in this field has had such a comprehensive vision of an ideal environment? . . . [he] will probably last well after other writers of this period are forgotten." This book goes beyond towns and neighborhoods in

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Grain Elevators: Symbols of Time, Place and Honest Building

'They must first be understood as products of specific structural, economic and functional determinants.' By Robert B. Riley

"Thus we have the American grain elevators and factories, the magnificent *First Fruits* of the new age."
(Le Corbusier, *Towards a New Architecture*)

To Le Corbusier the North American grain elevators were a moral lesson in architecture. He admired them for their great primary forms, determined by engineering and unadorned by architectural treatment. He used them exclusively to illustrate his famous dictum, "architecture is the masterful, correct and magnificent play of masses brought together in light," and thought their place in the landscape irrelevant, whether Baltimore or Kansas.

But generations of painters and photographers and novelists have found in them not architectural maxims, but symbols of life on the Great Plains. Many aspects of these elevators are of interest to anyone curious about the human landscape—their construction systems, their economic function in settling the interior third of the continent, their rhythmic spacing, their verticality in a flat landscape—and all these features flow as naturally from functional determinants as does their geometry.

In fact, granaries of all sorts have served as object lessons to those sensitive to the built landscape. The granaries of Spain and Portugal have been admired for their high vernacular craftsmanship and those of the Dogon for their sculptural power. Lewis Mumford has seen the royal granary as a symbol of urbanization in the ancient Orient. But whatever its symbolism, the modern grain elevator, like its antecedents, must first be understood as a product of specific structural, economic and functional determinants.

The grain elevator is essentially a facility which stores *dry, small cereal grains* (as contrasted, for example, with a crib, which stores corn still on the ear, or a silo, which stores moist, fermenting pieces of

an entire plant), which handles grain *in bulk*, rather than in bags or other containers, and which stores, moves and processes grain *vertically*.

The elevator is a creature of the second half of the 19th century. In the middle decades of that century, Western American agriculture shifted from a subsistence farming economy to a cash market economy shipping its produce to the urban centers of the East. The absence of refrigeration or canning made nonperishable grain a logical choice for agricultural concentration. Corn was at this time important mostly for on-farm stock feeding, and oats could be grown almost anywhere; as a result, the farmers of the West concentrated on wheat, which was shipped to the flour mills of the East.

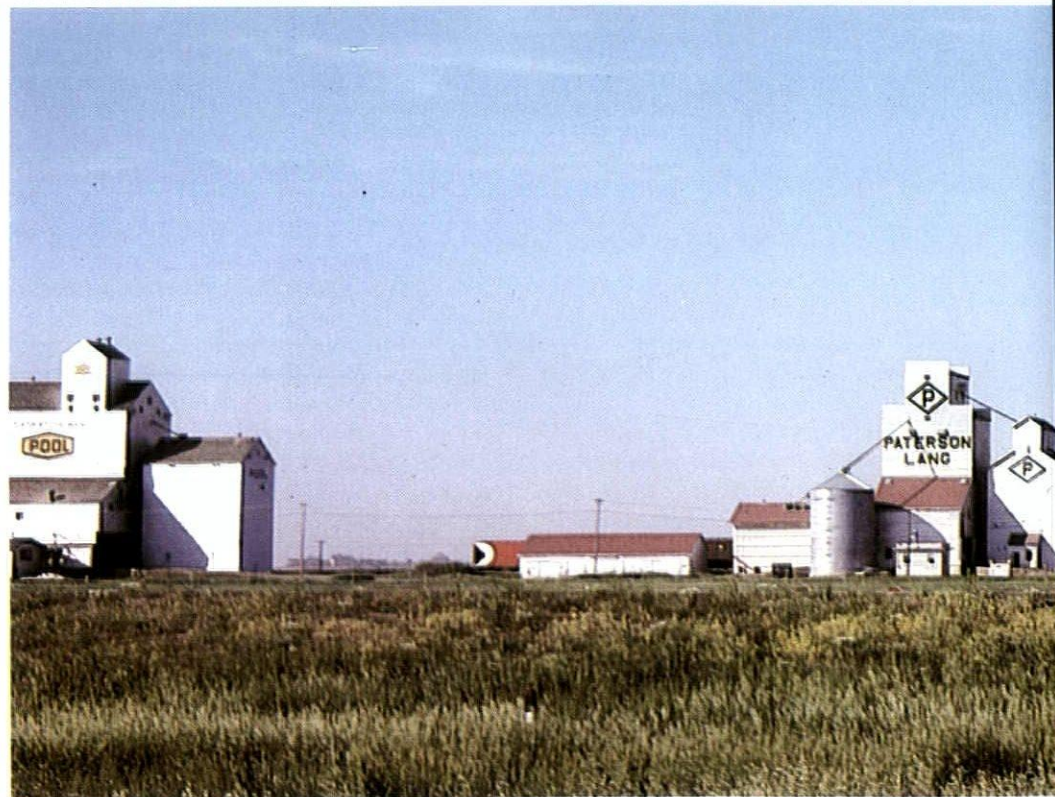
Originally, the farmer shipped his grain in bags, which stayed intact and identifiable all the way to the mill and which were loaded and unloaded by hand. This proved cumbersome and inefficient for mass, long distance distribution, however, and two responsive interrelated changes occurred in the decades between 1840

and 1870—changes not totally accepted in other parts of the world for nearly three quarters of a century. The first was the abandonment of bagged shipping for bulk handling, a technological change which rested upon the simultaneous development of a pricing and grading system making the identification of an individual shipment unnecessary. The second, purely technological, was the introduction of mechanically-driven vertical handling.

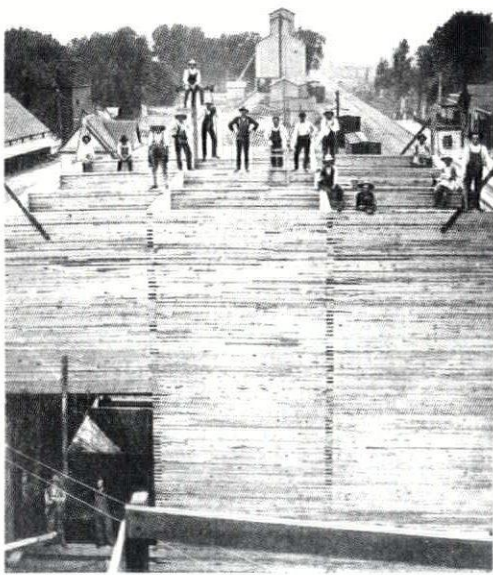
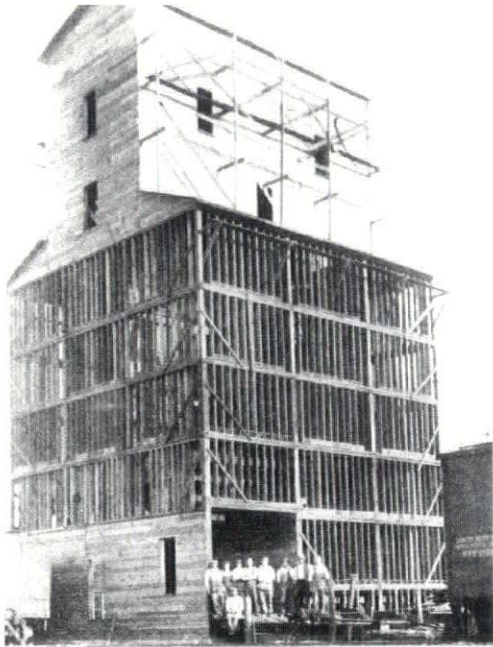
The horizontal handling of bagged grain had been a spectacular bottleneck in the distribution system. As early as 1785, Oliver Evans had introduced systems for handling and processing grain vertically in mills, but the first application in shipping did not take place until 1843, when Joseph Dart used it in Buffalo, at that time the great reception port where Western grain was transferred from Great Lakes sailing ships to the canal boats of upper New York State. A reasonable size sailing vessel at that time might wait seven days to have all its bags transferred; a facility using Dart's system of steam-powered, vertical bulk handling could reduce the transfer time to a morning.

Within 20 years of its introduction, vertical bulk handling had spread through the ports and mills of the Midwest to the smallest county elevator, where formerly grain merchants raced ahead of the railroad construction crews to find suitable hillside locations from which their grain could flow quickly downhill to the grain cars. Until then, country grain storage had been in the form of "flathouses," where bags of grain were housed in long, low buildings, usually of timber framing.

The first "elevators" were often simply modifications of these structures, consist-



Mr. Riley is professor and head of the department of landscape architecture at University of Illinois, Urbana/Champaign, and vice chairman of AIA's regional development and natural resources committee.



ing of the addition of a vertical belt-and-bucket conveyer rising to a cupola from which the grain was spouted to the waiting railroad cars. Transition to the elevator as we know it occurred as the flat, uninterrupted bag storage area was replaced by a series of walled bins for bulk storage with openings at the bottom out of which the grain emptied, to be shoveled or conveyed along a trough to the foot of the vertical leg whence it was raised to the loading cupola. Vertical storage, as distinct from vertical handling, was desirable because of the fact that when grain flows by gravity out of the bottom of a tall, narrow bin much less grain is left in the bin to be shoveled by hand than in a low, flat bin of equal cross section.

The construction of such tall narrow bins proved feasible because of the fact that small grain acts neither as a solid nor a liquid, but somewhere in between. Internal friction produces an arching effect within the mass of grain, which in turn is partly transferred by friction to a downward vertical compression in the bin walls. This means that there is little force exerted on the floor of the bin (as it would be storing either solids or liquid) and the floor can stand unsupported over an emptying trough. More important is the fact that little outward, horizontal tension-producing force is exerted (as it is with a fluid) and the walls can be thin. This was particularly important in encouraging the early use of concrete, strong in compression but weak in tension. Thus,

Elevator construction early in the century, balloon frame (top) and cribbed. Below, a procession of elevators punctuates the landscape of Saskatchewan, Canada.

the striking verticality of grain elevators is a direct function of the static properties of the grain itself.

The construction history of the early elevators parallels that of American construction practices in general. By the 1860s, balloon framing had replaced heavy timber framing. The assembly of many light, easily transported, pre-cut milled studs and boards, cheap and quick and suited to semiskilled labor, for a while proved as popular in elevator construction as in residential and commercial building. But it also had disadvantages. Balloon construction was not always strong enough to resist the pressures of the grain within, particularly during emptying, when dynamic forces partly negated the arching effect of the grain. The many small pieces burned easily, admitted insects and rodents through cracks and retained grain to rot in joints and crevices. The very lightness of the balloon or studded elevators which made their construction so easy also tended to make them tip over with embarrassing frequency in the fierce winds of the plains.

By the 1880s, builders were increasingly turning to cribbed construction, a system of unknown origin in which the elevator walls were solidly built of two-inch-thick planks, four to ten inches wide depending upon the height of the elevator, laid flat, spiked through one another and overlapped at the corners. The result was a stronger, heavier and smoother building.

If cribbed construction was in many ways an improvement over balloon framing, it also cost considerably more and still had one great disadvantage—its flammability. Elevators were located as close to the railroad track as possible;



some still bear signs saying "Warning—buildings will not clear man on side of cars." Sparks from locomotives were a constant hazard, and the courts seldom held the railroads liable for the destructive fires they caused. Sparks from the elevator's own wood- or coal-burning power plant or from corncob burners were an added hazard. Overhanging eaves were particularly dangerous, their projections a readymade lodging for sparks and their dry, thin surfaces ideal for supporting combustion, and builders soon learned to flush them off.

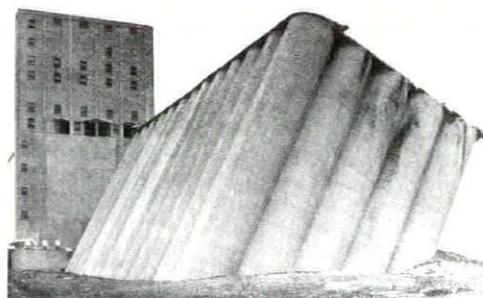
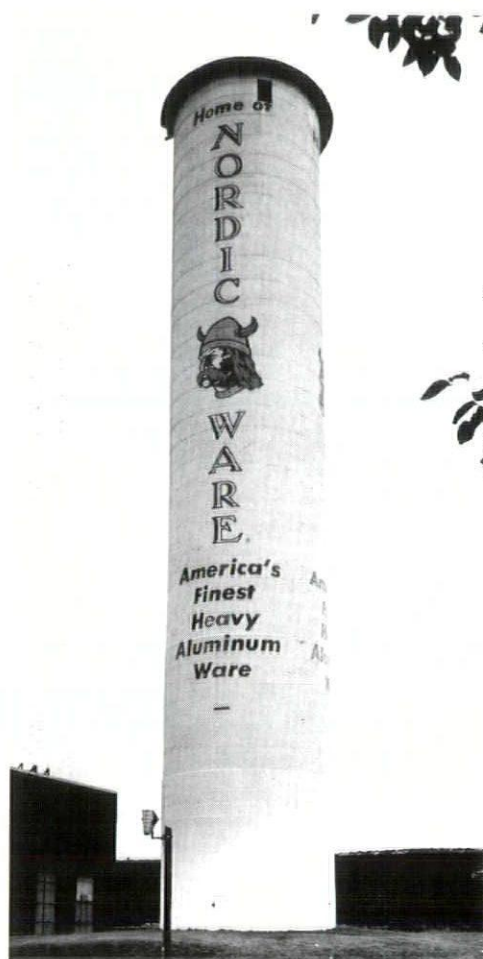
The major improvement in protecting wood construction, however, came from the quickly and almost universally adopted practice of cladding the frame elevators with corrugated, galvanized iron sheeting. By 1900, exposed wood siding and wood shingle roofs had become a rarity. By the late 1890s, operators of the larger terminal elevators had begun to experiment with brick, tile and steel bins, in search of improved strength and fire resistance. In 1900, an entrepreneur

Elevators, now mainly concrete, are commonly surrounded by a cluster of other structures.

named Horace Peavey, impressed by the use of concrete in bridge construction, built the first concrete elevator in North America. Cylindrical, 25 feet in diameter, 80 feet in height, but later raised to 120 feet, it was 12 inches thick at the base tapering to six inches at the top, and had a capacity of 30,000 bushels. Built in the outskirts of Minneapolis, it was called "Peavey's Folly."

Crowds gathered when it was first to be emptied of grain, folk wisdom holding that shifting forces from the moving grain were sure to cause a spectacular collapse. The elevator stood, the *New York Times* reported the fact and Peavey went on two years later to build a concrete terminal cluster of one million bushels—an almost unheard of capacity for the time. The lesson that cylindrical bins of thin concrete walls and minimal reinforcing could be built strongly enough for even the largest holdings was evident and widely publicized.

Concrete quickly became the normal material for the larger terminal elevators but only slowly replaced wood construction in small country elevators. Balloon framing remained the cheapest building method, followed by crib construction. Steel or unit masonry cost still more, and for normal size range, concrete was the most expensive of all. The major factor leading to the eventual use of concrete in even the smallest elevators, despite construction costs, was the high cost of insur-



Top, the first concrete elevator in North America, built in 1900 near Minneapolis. Above, a million-bushel elevator near Winnipeg, Canada, which tipped to an angle of 30 degrees when its slab foundation unaccountably began to sink. Despite the fact that it was filled with some 27,500 tons of grain, the structure withstood the lateral shift of the load.

ing frame elevators against fire loss, insurance which was not only expensive but failed to cover the loss of revenue over a harvest season's downtime.

By World War I, insurance companies had lowered their rates for concrete construction to 15 to 20 percent of the charges for frame structures, and an operator who did well could amortize his higher initial investment within five years of operation. During the first half of the 20th century, concrete construction gradually replaced all other types even for small facilities—particularly as slip-forming, plagued through the first two decades by difficulties in providing a smooth, even

jack lift, became practical. Farmers' and grain dealers' journals were a major force in promoting and publicizing changes in the elevator industry. Readers were reminded of the importance of cleanliness, honest management and good bookkeeping, and shown exemplary building plans and sections along with dramatic photos of collapsed or toppled elevators. Readers were advised not to let the local handyman/carpenter build their structure but to hire a firm specializing in elevator construction, advice which presaged the transition from a vernacular way of building to the highly specialized industrial construction of today.

Innumerable small details of the trade were given particular attention—dampers to eliminate back sparks from cob-burners, flush set-screws to prevent workers catching their clothes and falling to their death or smothering under the incoming load, and even ingenious devices for removing rat droppings from the grain. All this was accompanied with generous amounts of that optimistic, rags-to-riches, free enterprise philosophizing which characterized most U.S. agricultural writing prior to the Great Depression.

Changes beginning in the 1940s have greatly affected the appearance of the country elevator. Grain production skyrocketed during the war and was maintained afterwards through government programs for surplus storage. The growth of feedlots and specialized cash grain farming at the expense of mixed stock and feed farms, when combined with workable techniques of on-the-farm shelling, produced a mass movement of corn off the farm and into the market system. The result was the need for a great increase in the amount and the flexibility of both long-term and short-term storage facilities. (At one time, in fact, the Department of Agriculture offered 2 percent loans for the construction of grain storage facilities but never checked on their ultimate disposition, thereby providing a major source of revenue for the dealings of the briefly notorious Billy Sol Estes.)

One response was the use of low, squat, cylindrical, metal bins fabricated from corrugated, galvanized sections. Cheap, standardized, quickly and easily erected, such bins represented a new approach to grain storage. They are now a major visual and functional element not only of the country elevator but of almost every corn belt farm, where they have largely replaced the nostalgic form of the wood-slatted corn crib. Other shapes now cluster around the elevator, too. Flat storage is still cheaper than vertical if the grain is of only one grade and moved only once a year and the modern elevator is likely to be surrounded by long low metal sheds or, in the biggest complexes, by enormous

steel-plate tanks painted pastel colors.

Horizontal and vertical conveyors, once hidden in the interstices of bins or sheltered under wooden structures, are now sufficiently strong and weather-tight to be free standing—the elevator leg towering above the highest bins, with spouting tubes braced by a network of cables and spreaders reminiscent of a ship's rigging. Corn now usually arrives at the elevator too wet to store, and corn dryers, once seen only at specialized subterminal complexes, are found at every small elevator, where their slick packaging of

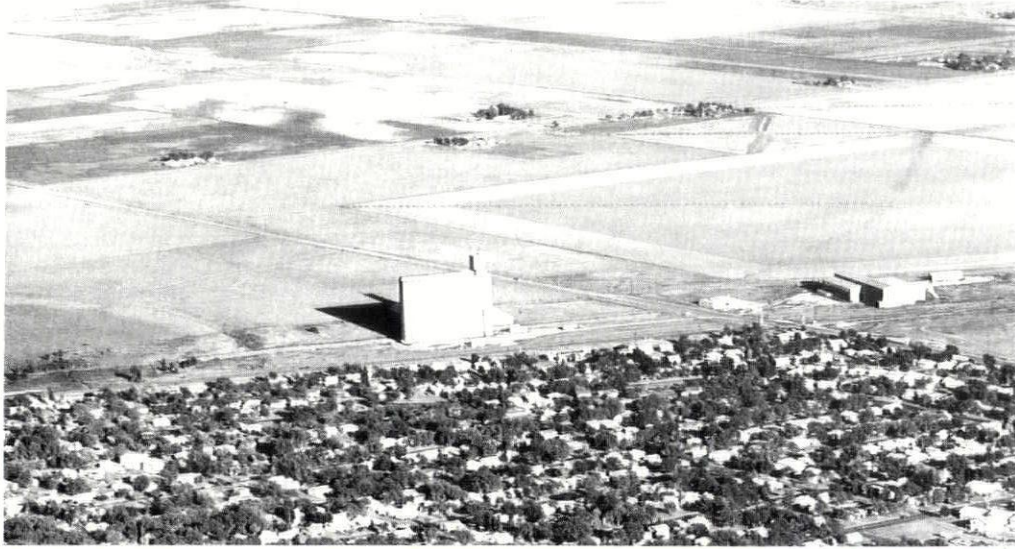
colored steel often rises as high as the bins themselves. With these changes the larger country elevators often look more like an oil refinery than like the older images of a complex wooden shed or lonely white cylinders, but their function and importance remain.

The elevators of the Great Plains dominate the visual landscape partly through their simplicity of form and their verticality in an otherwise flat landscape. But part of their impact also comes from their regular spacing. Always in sight, they measure the traveler's passage with a near

hypnotic rhythm, marking achievement of distance and beckoning on, a slower, dramatic counterpoint to the quick rhythm and small scale of the telephone poles. That regular spacing is as rationally determined as their form. The country elevator served one simple purpose, that of getting the grain out of the farmer's horse-drawn wagon and holding it until it could be loaded into a railroad car. The farmer wanted the elevator as close to him as possible, but within a day's round trip by wagon from his farm over poor dirt roads. On the other hand, rail transport is efficient in inverse proportion to amount of acceleration and braking required, so it was in the railroads' interests to have the elevators as far apart as possible.

Resolution of the farmers' and railroads' conflicting requirements produced, in the great cash grain region of the U.S. and Canada, a spacing of elevators from about three to eight miles apart. The spacing is most uneven, and tends to be densest, in the Eastern portions of the corn belt, where the towns usually preceded the elevators and attracted them. In the Western plains, however, where town settlement tended to pace or even

Left, an elevator stands between suburb and fields near Amarillo, Tex. Below, elevators along tracks at Clyde, Wis.



follow railroad penetration, and where elevators on occasion anticipated both, the spacing is clear and regular, particularly in the southern part of Canadian wheat provinces, where the elevators are spaced at a constant six to seven miles.

Despite all the changes, growth and variation which have occurred in over 100 years of elevator building, there remain only three basic, relatively pure visual types. The first, and oldest, is the woodframed, metal clad U.S. country elevator of the 19th and early 20th centuries, with shed or gabled roofs capping a potpourri of rectilinear, ad-hoc looking volumes. Despite its many shapes of different proportion, it usually achieves a single unified image, probably because of the dominance of a large central mass containing the elevator leg and topped by the loading cupola. These elevators are a classic example of a truly vernacular architecture; they generally were erected without specialized design or labor, and they display a variety of local decisions as to their volumes, shapes and massing, all taking place within a common, clearly recognizable visual-structural form.

The second type consists of the concrete bins with a rectilinear head house and conveyor gallery above. These are the elevators which dominate the Western U.S. plains, and the elevators which Corbu admired. This is also the type which today so often attracts new functions and shapes around it. Although concrete shapes other than round are rare, the largest elevator complex in the Western world, at Hutchinson, Kan., is composed of hexagonal bins.

The third type, unique to the Canadian wheat provinces, shares visual attributes with each of the first two; it shows the rectilinear volumes and pitched roofs of the old U.S. country elevator but the scale and simplicity of the concrete clusters of

the Great Plains. Every railroad town in the Canadian wheat belt seems to contain two or three of these elevators, owned by provincial pools or large companies, built even today of cribbed construction, often to stock plans. Unlike the wooden elevators in the U.S., they are often left unclad, and painted in colors ranging from pale greens and somber browns to bright scarlets and yellows. Visually, they are as striking as the concrete clusters of the southern plains, but the effect is different—their varying colors, rectilinear masses and pitched roofs, with their connection to familiar building shapes, seem to speak “settlement” across the miles of prairie, while the gleaming cylinders of Kansas seem more abstract and less humanized.

Many find in the Great Plains elevators ‘something special—a part and essence of a place.’

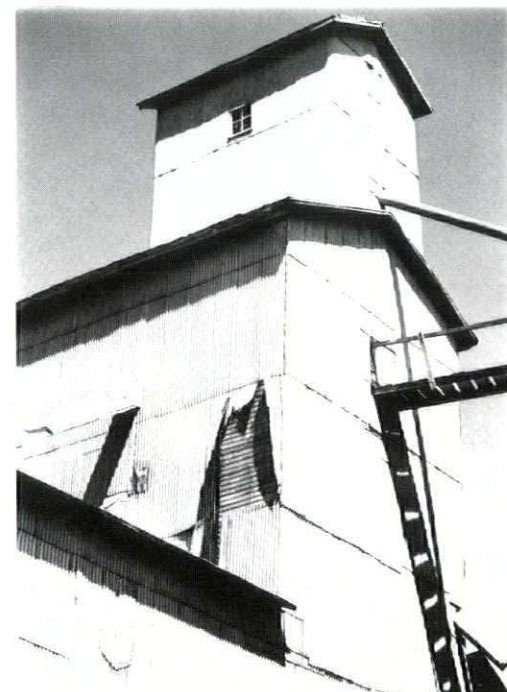
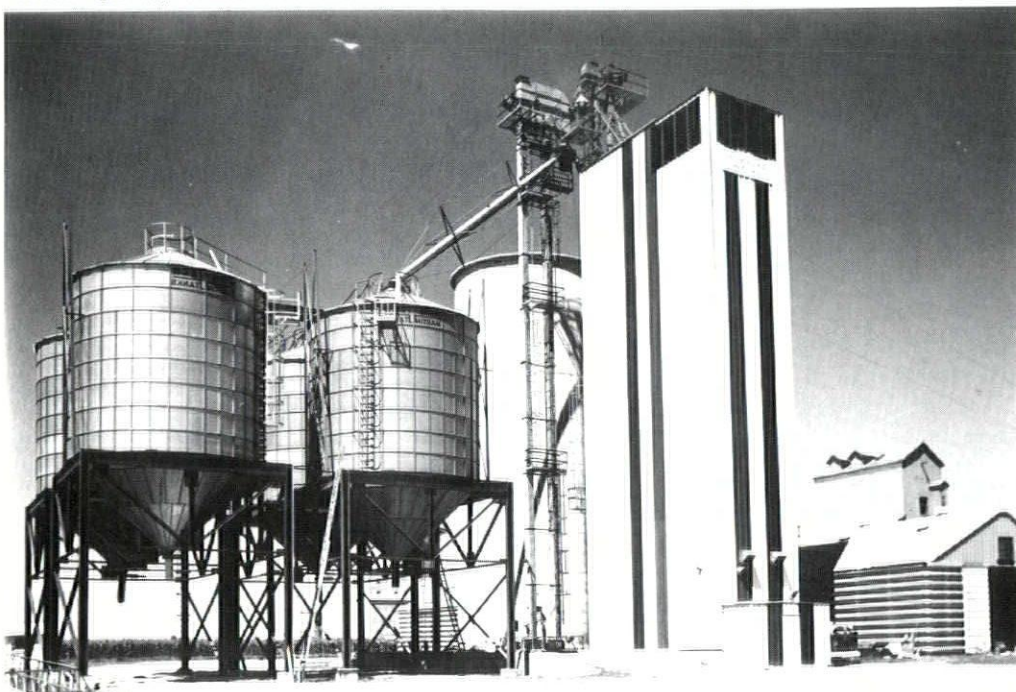
Whatever else one can say of Corbu’s 50-year-old polemics on the relation between architecture and technology, his claims about the grain elevators were correct. They were basically engineering solutions, and they were almost invariably left unadorned. Primary port terminal facilities in other countries sometimes achieved the character of high architecture through impressive brick massing or an applique of classical features, but even the largest of North American complexes were left unstyled, except for an occasional timid molding or parapet along the conveyor gallery at the top. The big U.S. and Canadian terminal facilities, in fact, look much like the older concrete country elevators simply expanded in scale, the exception being an occasional tent roof over flat storage as in terminal facilities in Albany, N.Y., and Memphis.

Architectural treatment of country elevators was even rarer. The periodicals often commented favorably upon drawings emphasizing architectural features—Victorian Gothic bargeboards or cupolas, 1930s streamlining, the occasional monster weather vane or clock—but these features seem usually to have been omitted in actual construction. Architectural treatment, if any, was reserved for the office building or mill which might adjoin a large terminal complex, or the small, detached office at the country elevator, and was commonly just a restrained version of current commercial or residential styles.

In *Vers un architecture* Corbusier admired the design methodology not only of grain elevators, but of planes, automobiles and ocean liners. He saw in them symbols of a new age, symbols which would be accepted by designers and the larger culture alike. Reyner Banham has pointed out that probably only in that particular decade could Corbu have put cars and planes forward as design exemplars, for in the 1930s he and the auto and airplane designers took divergent and almost antithetical directions. As for cultural symbolism, the auto and jet have become symbols more of decadence than of purity to many, and the ocean liner a symbol of, if anything, obsolescence. The grain elevator alone would seem to have satisfied at least a few of Corbu’s hopes. Its form has evolved but remains recognizable, and its design principles remain basically unchanged.

And elevators have become symbols of a sort, if not precisely what he hoped. Architects do still admire them for their

Left, rectilinear corn dryers are now common companions of storage bins. Below, elevator tower and ‘rigging.’ Above right, steel and concrete elevators, old and new.



form and their honest expression of materials and function. A wider audience finds them symbols, too—if not of a new technological life, at least of a regional landscape and culture. Painters and photographers find them appealing, chambers of commerce and agricultural organizations and tourist agencies use them to illustrate brochures, and even the weary

tourist moving across the Plains' interstates may find in them something special—a part and essence of a place.

Happily, they are not just nostalgic symbols, for the country elevator is still alive and well. Many have been abandoned, to be sure, but many are thriving and expanding, taking on functions and capacities formerly reserved for sub-

terminal elevators. The corn belt farmers, in particular, still need an elevator close by, for if they can drive farther in a day by truck than wagon, increasingly large yields and increasingly critical harvest conditions can require several trips in an equally short time to a country elevator complex in which a 19th century wooden elevator, 1920s concrete cylinders and brand new metal tanks or sheds exist side by side.

Country elevators are still insufficiently rare, obsolete or quaint to be included in the current preservationist fashion, but they often survive even when abandoned. The ones which no longer operate sit mainly along unused railroad embankments above the fields, on land useless for farming. Because they are sheathed in metal, their siding, unlike that of many empty barns and corn cribs, has not been stripped to provide “character” in suburban housing developments. They have little salvage value and can still shelter equipment or a temporary stock of grain at harvest time. So they remain, pigeons perching in a broken window, rusting sheathing peeling back to reveal silvery-gray wood beneath, loose sheathing or spouting clanging or creaking in the prairie wind. They are a reminder of an architecture which has changed but has not yet disappeared, and welcome symbols of time and place and honest building. □



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LOF

A Many-Faceted AIA Affiliate Launches an Endowment Drive

The AIA Foundation, seeking \$2.1 million, does far more than merely maintain and operate the Octagon. M.E.O.

The American Institute of Architects Foundation has embarked upon a drive to raise \$2.1 million for new endowment funds. This is a one-time appeal to individual architects, architectural firms, businesses and corporations, foundations and the public at large to invest in the foundation and its programs on architecture and related arts.

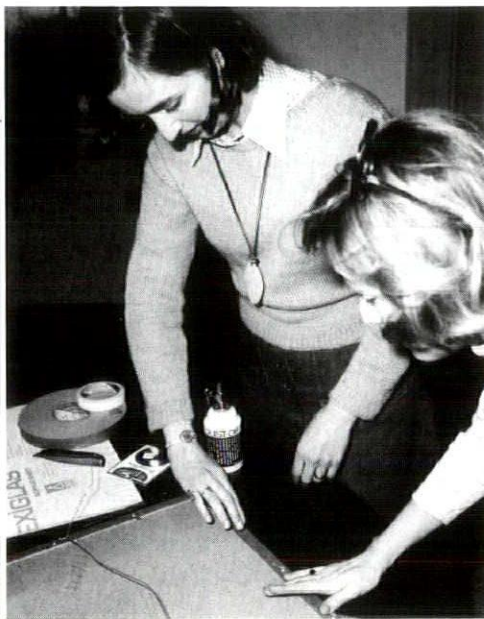
Recognition of donations will be made public in appropriate publications. There are several ways to invest in the foundation, says David N. Yerkes, FAIA, president, to "take full advantage of tax and estate planning."

The foundation, established in 1942, is "headquartered in history" at the Octagon in Washington, D.C. Its purposes, however, are directed not only at preserving an architectural past, but are also aimed at the future—a future in which architecture is rightfully recognized as a key contributor to the nation's social and economic well-being.

"The history of human society is the history of architecture," Yerkes says. "No other art is so essential, none so practically a part of the everyday life of people. The foundation, through the exhibits it sponsors, the publications it provides, the research it initiates and the educational opportunities it offers, is a constant reminder to the architect and the public of how far we have come in the profession, how rich a past we have built upon and how much there is yet to learn."

In the area of that "rich past" upon which the profession builds, many people know that the foundation owns and maintains the Octagon as a public museum, which was accredited in 1972 by the American Association of Museums. Some are also aware that this historic and beautifully restored house in the heart of Washington, a national historic landmark, is also the scene of public exhibitions and lectures. Other aspects of the foundation's work in trying to close the gap on all "there is yet to learn" are less well known.

In the area of education, foundation activities have included the administration of more than \$1 million in scholarships to minority disadvantaged students and of the AIA/AIAF scholarship program in



Interns above; plat of Octagon property (1916), by Glen Brown, AIA, across page.

which annual awards range from \$200 to \$2,000.

In cooperation with the George Washington University, the foundation also provides graduate level training for student interns in museum work. The interns, who are supervised by curator Jeanne Butler, act as an integral part of the Octagon staff and work on special projects in order to receive university credit.

The foundation sponsored a critique by four authorities of the President's 1976 "Report on National Growth and Development." The critique has been used nationwide to stimulate discussion of the report. In bringing issues of environmental concern closer to the local scene, the foundation is sponsoring a public education program on awareness of design issues in rural land use in a nine-county area of Virginia.

In the area of research, the foundation administered a study of alternative career opportunities, conducted by the Association of Student Chapters/AIA (see Aug., p. 49). Also under foundation sponsorship, the AIA Research Corporation investigated and prepared a report on current architectural archival activities, suggesting alternatives for the preserva-

tion of architectural documents.

The foundation helped underwrite publication of the *Journal of Architectural Research*. It published, to critical acclaim, a history of the Octagon's "great years, decline and restoration" (see Mar., p. 64), and was responsible for the preparation of three manuals on the Octagon's restoration, compiled by restoration architects J. Everette Fauber Jr. & Associates.

The foundation's exhibits are part of a larger program of exhibition services. A publication entitled "Architectural Exhibitions," sent to every architectural school and AIA component in the country, notes which exhibits are available on a rent-free basis. Exhibition catalogs, which contain information difficult to find elsewhere, have been prepared for many of the exhibits and are made available to the public.

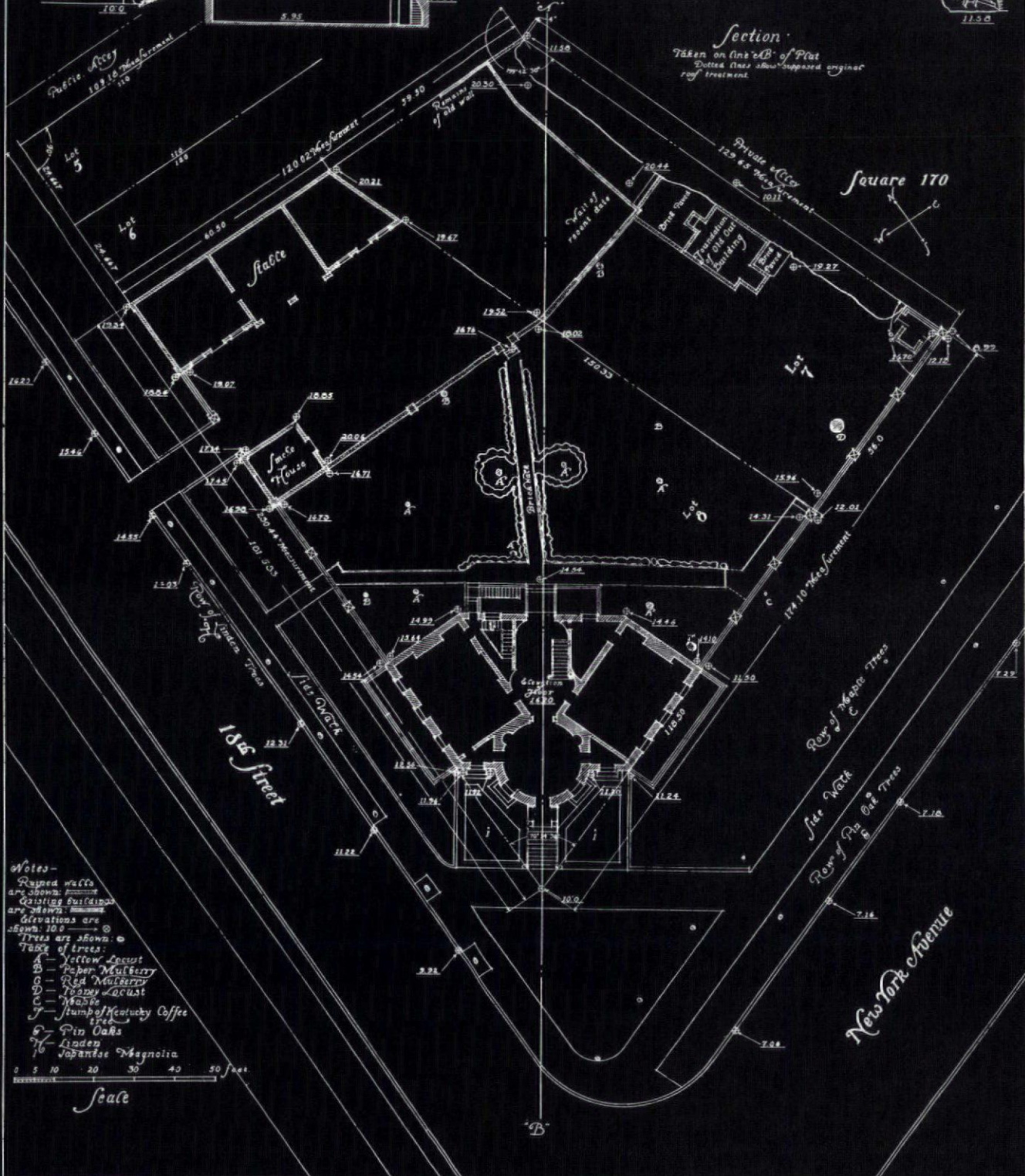
The exhibitions themselves cover an array of subjects—American courthouses, Montana ghost towns, the tall grass prairie, the architecture of St. Louis and the California heritage. In 1976, a major project was the first public display of original 1792 drawings from the competition for the design of the U.S. Capitol and the first exhibition on William Thornton, architect of the Octagon and of the U.S. Capitol. The foundation has brought public attention to the work of Clarence Stein, a pioneering planner of new towns, and has sponsored an exhibition and preservation effort of the architectural archives of the AIA Foundation. It organized a \$250,000 traveling exhibition and publication on "Dolley and the 'Great Little Madison,'" now on view. It also cooperated with architectural students on an exhibition, displayed on Washington's mall in a specially designed structure, on "Life: A Humane Architecture."

The purpose of the AIA Foundation, in brief, is to understand past strengths and weaknesses in order to build intelligently for a long-term investment in the future.

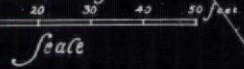
Those who wish to make a gift to the foundation or to learn further about its programs may address inquiries to: Jeanne Butler, Administrator, AIAF, 1799 New York Ave. N.W., Washington, D.C. 20006. □



Section:
 Taken on line 'B' of Plat
 Dotted lines show supposed original
 roof treatment.



Notes-
 Ramped walls
 are shown .
 Existing buildings
 are shown .
 Elevations are
 shown: 10' — .
 Trees are shown: .
 Table of trees:
 A - Yellow Locust
 B - Paper Mulberry
 C - Red Mulberry
 D - Honey Locust
 E - Maple
 F - Stump of Kentucky Coffee
 tree
 G - Pin Oaks
 H - Linden
 I - Japanese Magnolia



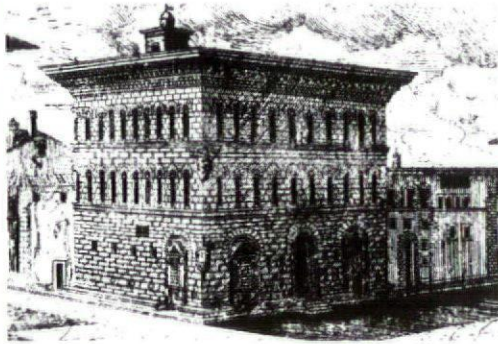
Plat of The Octagon Property

Books from page 49

its presentation of a "pattern language." As Alexander says, "Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use the solution a million times over. . . ."

For Those Who Look to Other Places:

Pythagorean Palaces: Magic and Architecture in the Italian Renaissance, by G. L. Hersey (Cornell University Press, 1976, \$22.50). Renaissance domestic



architecture is examined from the viewpoint of Pythagorean geometry, and if you think such a subject is dull, you are absolutely wrong.

Islamic Architecture, by John D. Hoag (Abrams, 1977, \$37.50, available for \$33.75 to AIA members from AIA's department of publications marketing). A book in the "History of World Architecture" series, this one lives up to the high standard of quality set by its predecessors. It contains a wealth of information, describing Islamic architecture's colorful variety and underlying intellectual unity.

Roman Architecture, by John B. Ward-Perkins (Abrams, 1977, \$37.50, available for \$33.75 to AIA members from AIA's department of publications marketing). Also in the "History of World Architecture" series, reviewers Betty and Robert A. Class gave this book high marks, saying that it gives a "clear picture of the building of the Roman Empire, historically and architecturally."

The Byzantine Churches of Istanbul: A Photographic Survey, by Thomas F. Mathews (Pennsylvania University Press, 1977, \$50). Some of the most beautiful examples of Byzantine architecture are the churches of Istanbul. This richly illustrated book surveys 40 of them.

Ancient Greek Architects at Work: Problems of Structure and Design, by J. J. Coulton, (Cornell University Press, 1977, \$15). A most readable book on Greek architecture as revealed through its architects from the early seventh to the first century B.C.

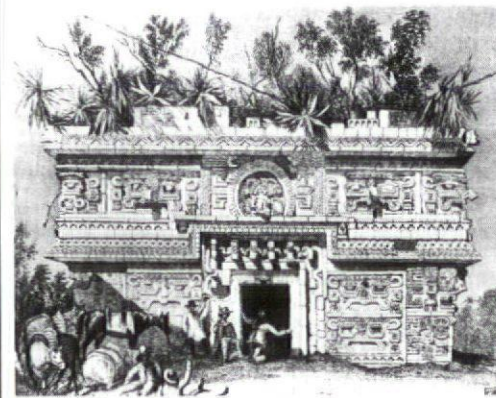
Islamic Architecture in North Africa, by Derek Hill and Lucien Golvin (Archon Books, 1976, \$60). This scholarly contribution considers the Islamic architecture of Egypt, Tunisia, Algeria and

Morocco. It contains 560 plates—photographs by Hill which reveal the remarkable decorative detail of the architecture.

The World of Ottoman Art, by Michael Levey (Scribner, 1977, \$10.95). Architecture to this author is the framework in which other arts "must be accounted lesser, beautiful though they are." The copiously illustrated book traces Ottoman art and architecture from the 13th to the early 20th centuries.

Bramante, by Arnaldo Bruschi (Thames & Hudson 1977, \$22.50). Bramante set the course of Renaissance architecture on a new path, says the author, a path followed until the 19th century. The book tells of Bramante's architectural development from early life in Urbino, Italy, to the high watermark of his career—plans for the reconstruction of St. Peter's in Rome, a plan never completely realized.

Las Monjas: A Major Pre-Mexican Architectural Complex at Chichén Itzá, by John S. Bolles (University of Oklahoma Press, 1977, \$35). Ever since he was at Harvard, John Bolles, FAIA, has



been interested in the Chichén Itzá ruins. This book, based on his years of work and excavation, will surely please architect and archeologist.

For Those with Rescue in Mind:

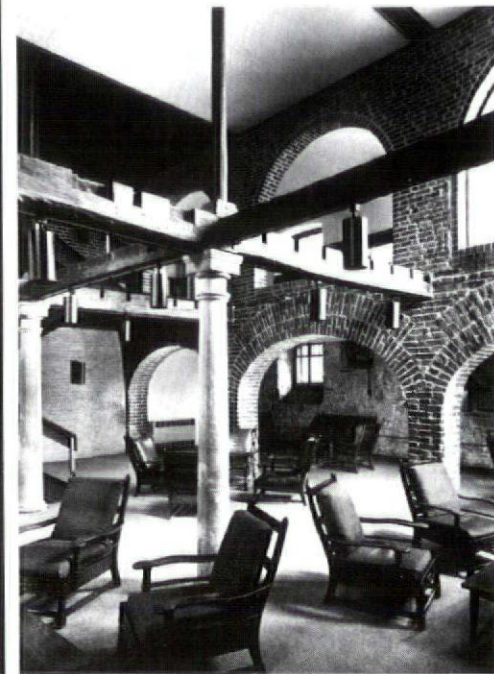
Historic Houses Restored and Preserved, by Marian Page (Whitney Library of Design, 1976, \$25; available for \$22.50 to AIA members from AIA's department of publications marketing). The 18 houses discussed in this book span 350 years of history, representing a wide range of restoration and preservation philosophies and techniques.

Converted into Houses, by Charles A. Fracchia and Jeremiah O. Bragstad (Viking, 1976, \$15 hardbound, \$6.95 paperback). For those who don't see the possibilities in a cannery or a tugboat as a comfortable home, this book is an eye-opener. The more than 30 homes presented show that with imagination even a chicken coop can become a gracious home.

Rescued Buildings, by Roland Jacopetti and Ben VanMeter (Capra Press, 1977, \$8.95). Similar to the last named

book, this one is a photographic survey of what people with ingenuity can do to turn former schoolhouses, skating rinks, fire stations, churches, barns, summer camps and cabooses into homes.

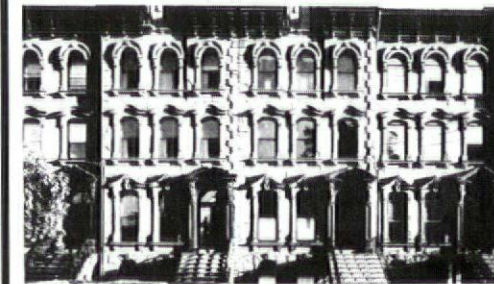
Recycling Buildings: Renovations, Remodelings, Restorations and Reuses, edited by Elisabeth K. Thompson (McGraw-Hill, 1977, \$19.50, available to AIA members for \$18.55 from AIA's



department of publications marketing). Elisabeth Thompson, FAIA, is editor of this book of projects that were originally published in *Architectural Record*. The book documents the many ways to give life to old buildings.

For Those Who Are Visually Inclined:

Photographs of Architecture, by Philip Trager (Wesleyan University Press, 1977, \$24.95). These crisp photographs of structures in Connecticut are to be experienced, not merely looked at, says the



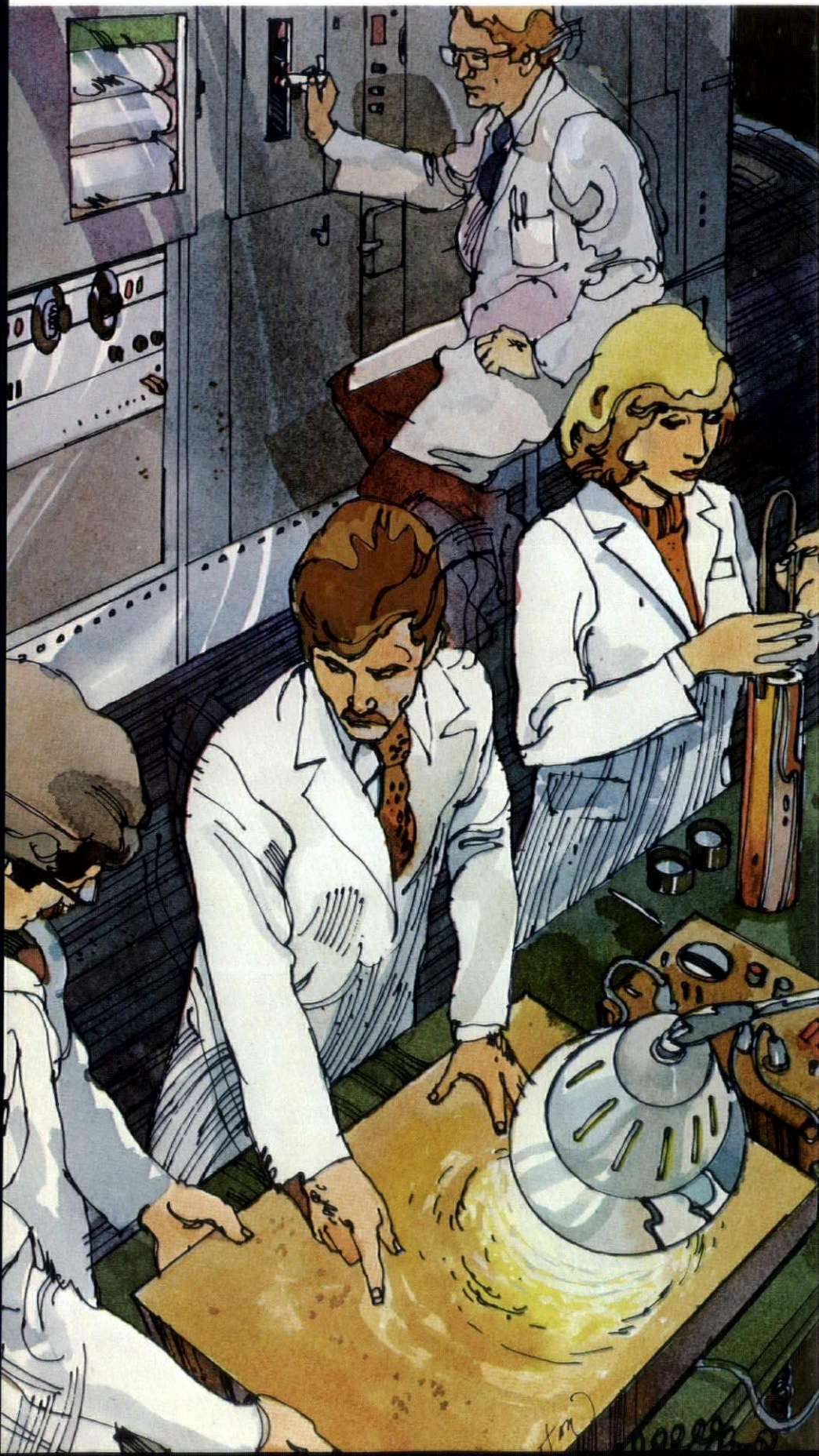
publisher. They are presented without comment, although notes on the various buildings are given at the end of the book.

Architectural Photography, by Joseph W. Molitor (Wiley, 1976, \$22.50, available for \$20.25 to AIA members from AIA's department of publications marketing). A leading architectural photographer discusses his art in a highly specialized subject area.

Grand Design: The Earth from Above, by Georg Gerster (Two Continents Pub-

continued on page 64

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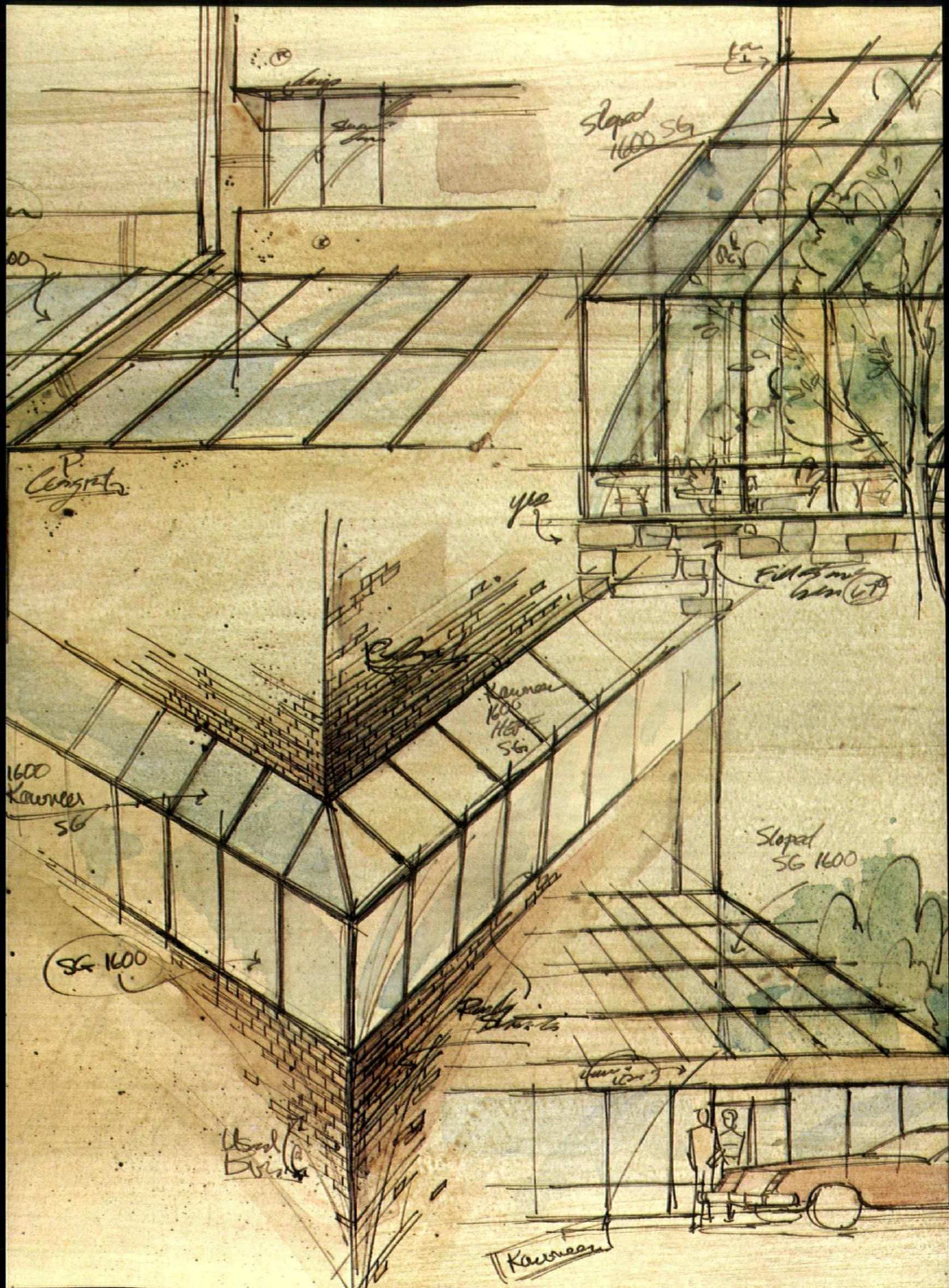
AI - 11

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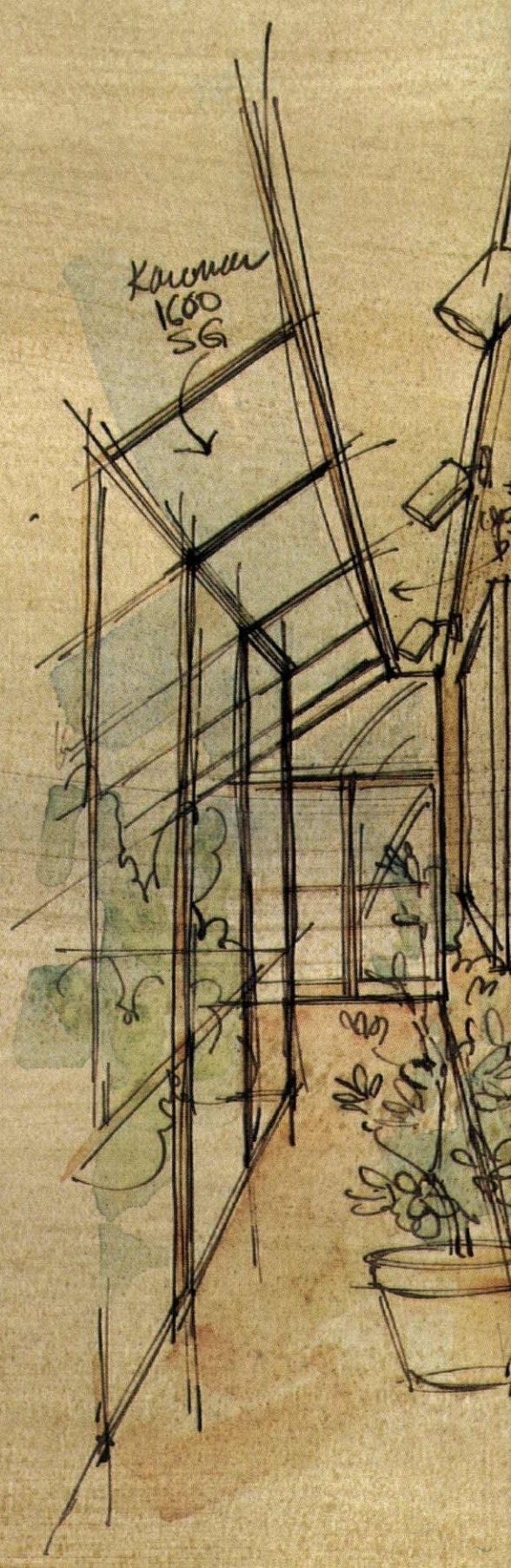
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Books from page 60

lishing Co., 1976, \$50). Reviewer Douglas Haskell, FAIA, called this book a "stunningly beautiful romance recorded by aerial photography over the earth's active landscapes, old and new." He advised earth's co-architects "to learn from Georg Gerster his way to look."

How to See: Visual Adventures in a World God Never Made, by George Nelson (Little, Brown, 1977, \$9.95). This delightfully written and illustrated book is a primer on how to look at the man-made environment. The Garden of Eden, says Nelson, an AIA fellow, was God's "last recorded design, and unfortunately it didn't work. . . . For better or worse, we live in a man-made environment, now facing the question of whether it will work any better than the Garden."

Graphic Guide to Interior Design, written and drawn by Forrest Wilson (Van Nostrand Reinhold, 1977, \$10.95 hardbound, \$4.95 paperbound). Design is really a very simple thing, says this witty AIA member who is architect, author, teacher and artist. He lifts the scales from our eyes in this book as he zeroes in on space, scale, structure, materials, sound, light and color.

Color for Architecture, by Tom Porter and Byron Mikellides (Van Nostrand Reinhold, 1976, \$20). Well, if you want to look at something lovely, it is bound to be colorful. Color expert Faber Birren reviewed this book, finding it "well written and scholarly and meant for intelligent readers and viewers." In his view, architecture requires color, and he hopes this book will "convert others to the same . . . inspiring viewpoint."

For Those with Special Problems:

Architecture and Energy, by Richard G. Stein (Anchor Press/Doubleday, 1977, \$12.95, available to AIA members for \$11.65 from AIA's department of publications marketing). Stein, an AIA fellow, assesses one of the greatest areas of energy consumption—buildings. Jeffrey Cook, AIA, whose review will appear soon, calls it a "significant" book "about the most important architectural redirection since buildings recognized the Industrial Revolution."

Solar Control and Shading Devices, by Aladar and Victor Olgyay (Princeton University Press, 1976, \$7.50). Although we tried to exclude technical books, this classic cannot be denied. Jeffrey Cook in his review of the book called the reissue after two decades "not only a timely reappearance of a generic source book, but an incentive for its use by the broadest constituency."

Designing for the Disabled, by Selwyn Goldsmith (third edition, RIBA Publications, 1976, 20 pounds). Another classic that has proved its right to be included.

Reviewer Michelle Morgan said it is an "unparalleled discussion of the design needs of people with disabilities." She warns that existing solutions are not an end and advises that the book be used as a "beginning point for creative minds to improve upon."

Solar Designing, by James Lambeth (Privately published, 1977, \$10, available to AIA members for \$9 from AIA's department of publications marketing). Energy expert Richard G. Stein, FAIA, found this book in his review of it to be "attractive, engaging and didactically partisan" in many of the things to which he himself subscribes. "Lambeth's inventive search for forms," Stein said, "promises worthwhile contributions in the years ahead."

Perception and Lighting as Formgivers

for Architecture, William M. C. Lam (McGraw-Hill, 1977, \$32.50). A lighting expert goes into the how and why of how a structure can be integrated with the proper lighting. Included are 55 case studies in this handsomely illustrated book.

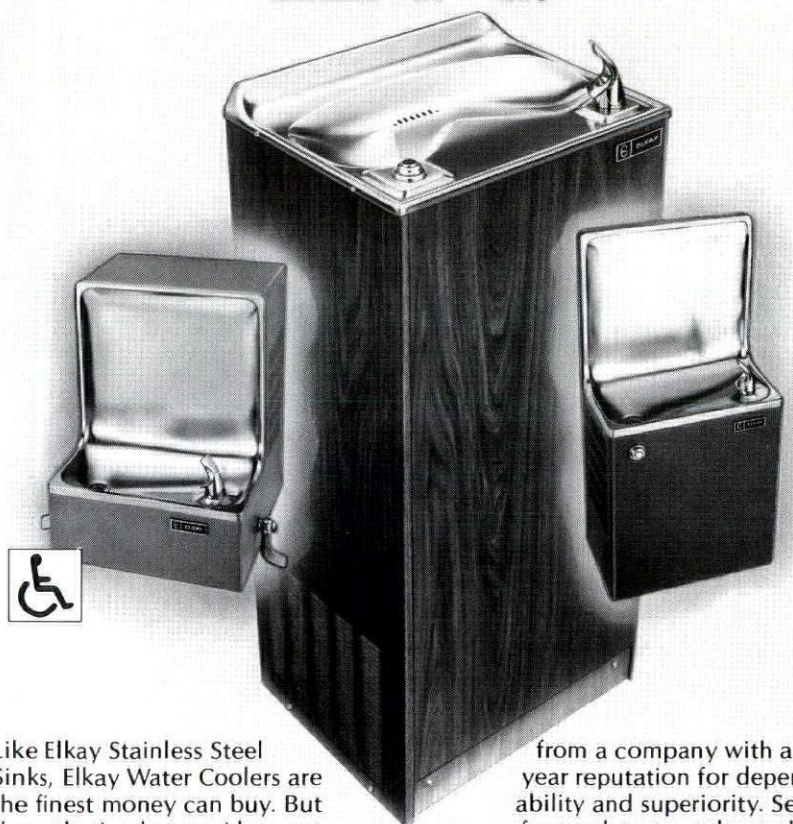
Behavioral Architecture: Toward an Accountable Design Process, by Clovis Heimsath (McGraw-Hill, 1977, \$15.50). AIA member Heimsath has written this book to help the architect create more meaningful designs through the use of recent findings in behavioral psychology.

If after all these suggestions, you still can't find a book to suit someone you have in mind, we will be happy to supply other titles upon request. And finally, the JOURNAL wishes its readers a Christmas filled with good books. □



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Letters from page 2

Criminal Justice Reference Service, P.O.
Box 6000, Rockville, Md. 20850.

Richard M. Titus

Community Crime Prevention Division
National Institute of Law Enforcement
and Criminal Justice
Washington, D.C.

Rumanian Cultural Monuments: With reference to the letter on the Rumanian earthquake in the June issue (p. 2), I wish to commend the gesture of sympathy.

One sentence in Mr. Cezar Lazarescu's letter, however, needs some explanation. He wrote: "Our work and achievements will improve the structure of our cities and will contribute to raising the quality of life, although destroyed cultural monuments can never be replaced."

According to information coming from cities in Transylvania, populated by Hungarians, the government of the Socialist Republic of Rumania does not intend to restore churches and other buildings of historic importance, because their destruction perfectly fits in their plan of eliminating historic documents of that region which are contradictory to the Daco-Roman theory.

Our colleagues in Rumania, of course, have not much to do with this policy. They too are subject to the notorious communist method of manipulating statistics of minority groups and confiscating cultural documents, thus constituting cultural genocide. Details are disclosed in a booklet entitled "Documented Facts and Figures on Transylvania," compiled by the Danubian Research Centre (The Danubian

Press, Astor, Fla. 32002).

The purpose of my letter is simply to inform readers of one of the delicate cases in our troubled world today.

Eugene Padanyi-Gulyas
Architect
Billings, Mont.

The New B141: It is gratifying to see recognition given to the importance of the new edition of one of the key AIA documents in the article entitled "A New Edition of B141 Reflects Changing Client Relationships" in the September issue (p. 56).

It is curious to speculate, however, where and when the gremlins may have played havoc with the quotation attributed to me by making two changes in it.

The quotation, of course, should have said that "the architect has authority to order *minor* changes in the work . . ." not major changes. The architect has never had authority to order major changes in the work unilaterally, and the quotation as printed indicates a "major" change in this regard which, in fact, is not the case. The quotation should also have read, "The role of the architect in change orders is clarified, *confirming* with the owner provisions contained in A201 for many years." Dean F. Hilfinger, FAIA
Bloomington, Ill.

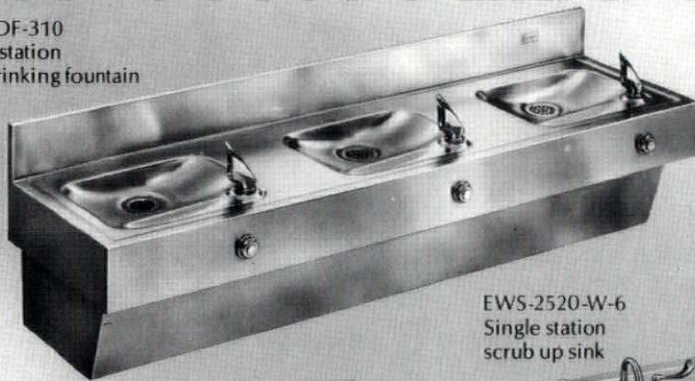


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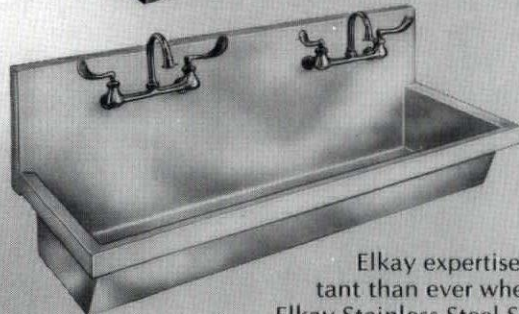
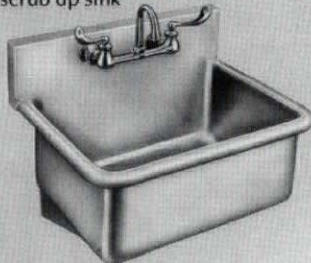


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Careful Reading Suggested: A letter published in the September issue (p. 2) from Carl A. Wangman, executive secretary of the U.S. Tennis Court and Track Builders Association, contends that the *Architectural Graphic Standards*, 6th edition, p. 61, is in error regarding the slope of the surface of a tennis court. "Tennis courts," he wrote, "should never slope from the net." I don't believe Wangman and his associates have looked very carefully at that page. It indicates, both on the drawing and in the written material, that the court should pitch from end to end just as he suggests.

Charles F. D. Egbert, AIA
Washington, D.C.

The U.S. Capitol: As a member of AIA for more than 30 years, it is somewhat discouraging to read in the August issue (p. 12) a report on the controversy about the west front of the Capitol which suits the position of AIA without regard for fact.

The result of the controversy between the House and Senate is, in fact, a joint conference agreement which directed the Architect of the Capitol to prepare contract documents and estimates for both "restoration" and "extension," the results of which will be further evaluated by the House and Senate in 1978.

Albert Homer Swanke, AIA
New York City

Going On from page 22

ways from the office towers into the mall area;

- Construction of a hotel conference center including an amphitheater-style room and smaller rooms in the spaces previously taken by and adjacent to a nightclub;
- Usage of the upper level of the retail area as a design center;
- Installation of a passenger drop-off/pick-up point on Peachtree St.;
- Additional landscaping and lighting at the hotel entrance on 14th St.

Architects for the renovations are Thompson, Ventulett, Stainback & Associates; Howard Hirsch & Associates are consultants for interior design.

Colony Square, completed in 1973 and designed by Jova/Daniels/Busby, was

severely affected by the economic recession. In mid-October 1975, the Colony Square Co. filed for bankruptcy, and earlier this year, Prudential Insurance Co. assumed control of the retail, office and hotel operations while Chase Manhattan Mortgage & Realty Trust took over the residential towers. Completion of renovations is expected early next year.

Block Grant Participation Seen by Harris for States

The nation's governors will play a significant role in helping HUD select and allocate community development block grant funds to small cities within their jurisdiction, HUD Secretary Patricia R. Harris said in a speech at the recent governors'

conference in Detroit. Participation by states, she said, will be contingent upon tangible evidence of interest in assisting local jurisdictions either by supportive legislation or by financial and technical assistance.

The block grants program legislation would enable eligible states to receive millions of dollars next year. Cooperative efforts by states, said Secretary Harris, should cover such areas as control of sprawl, revitalization of older urban areas, development of land use patterns to conserve energy, protection of natural resources, economic development relating to employment needs and allocation of assisted housing to low-income persons and minorities.

Secretary Harris also said that HUD is exploring other areas of potential involvement by the states, including HUD's proposed "regional strategy" for urban problems. The urban regional policy group which she chairs is working on a proposal that would require federal agencies to allocate bonus allotments of discretionary grant funds to communities that promote regional strategies. In the coming year, she said, such an approach would be on a voluntary basis, but would become standard operating procedure for HUD programs in 1979. At that time, all but distressed cities would be required to prepare an areawide strategy to promote the regional policy objectives contained in the community development act.

Seven Tracts Relinquished By the Federal Government

Three state and four city governments will receive federal properties totaling 137 acres worth \$1,455,500, according to Jay Solomon, administrator of the General Services Administration. The federal properties, once used for such diverse purposes as an ammunition plant and river locks, will be used by the state and local governments for equally diverse purposes, such as a community meeting place for senior citizens and a parking lot adjacent to a community center.

Solomon said the state and local governments will spend about \$2.6 million in improving the areas for use by an estimated 730,000 persons annually. Since 1971, GSA has transferred 85,544 acres of federal land worth \$285 million for recreational use to every state, the District of Columbia and the Virgin Islands.

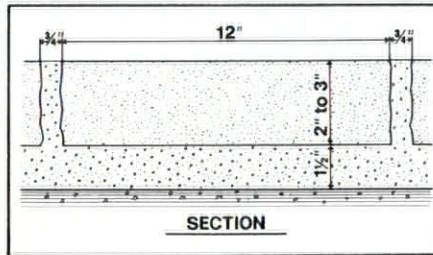
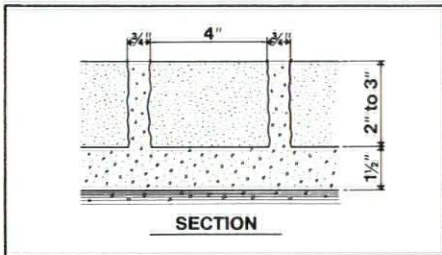
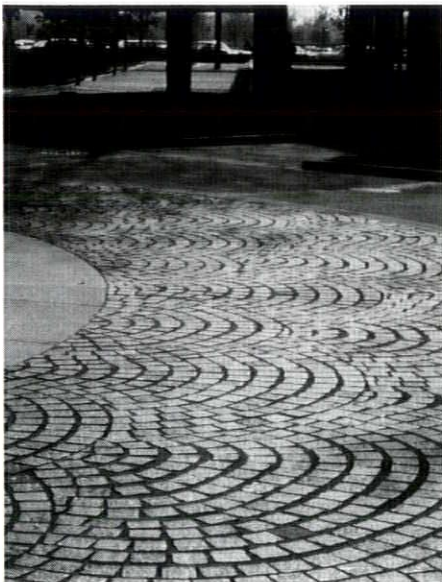
The seven recent transfers are:

- Forty-seven acres of Fort Adams in Newport, R.I., to Rhode Island to enhance adjacent Fort Adams State Park.
- Five acres of the Bayou Plaquemine Lock in Plaquemine, La., to Louisiana for a park to commemorate the history

continued on page 70

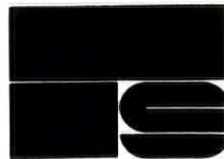
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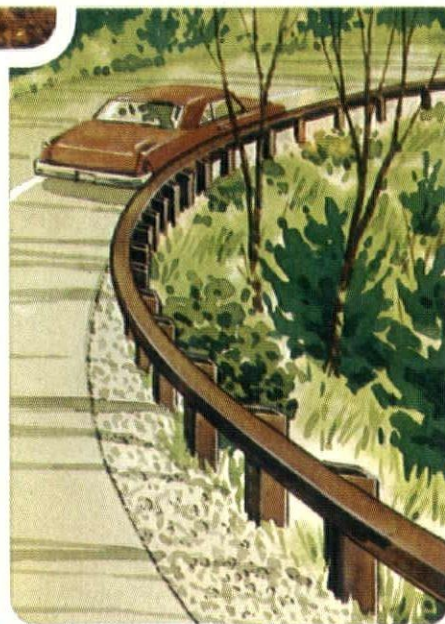
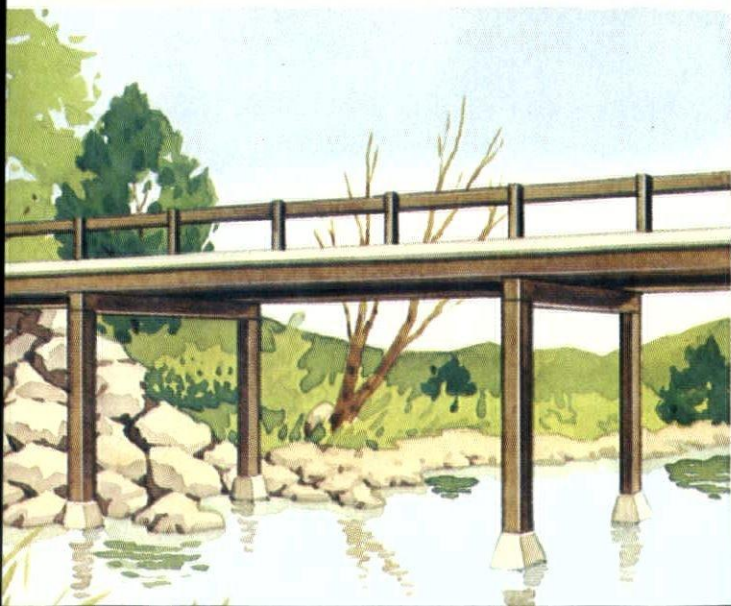
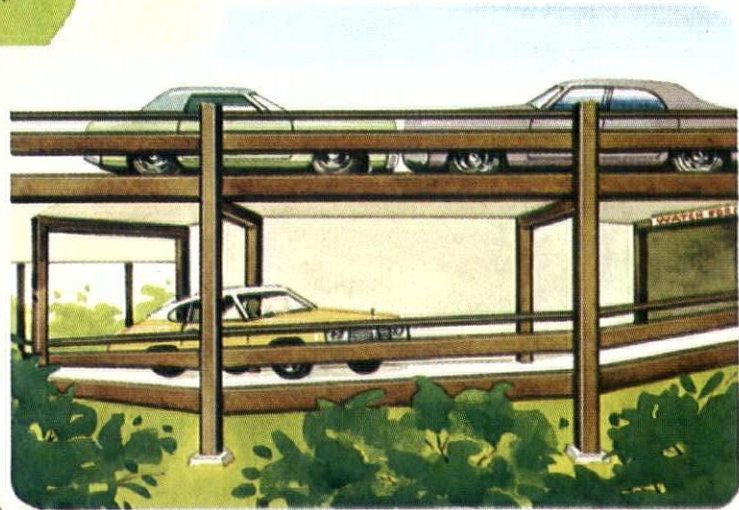
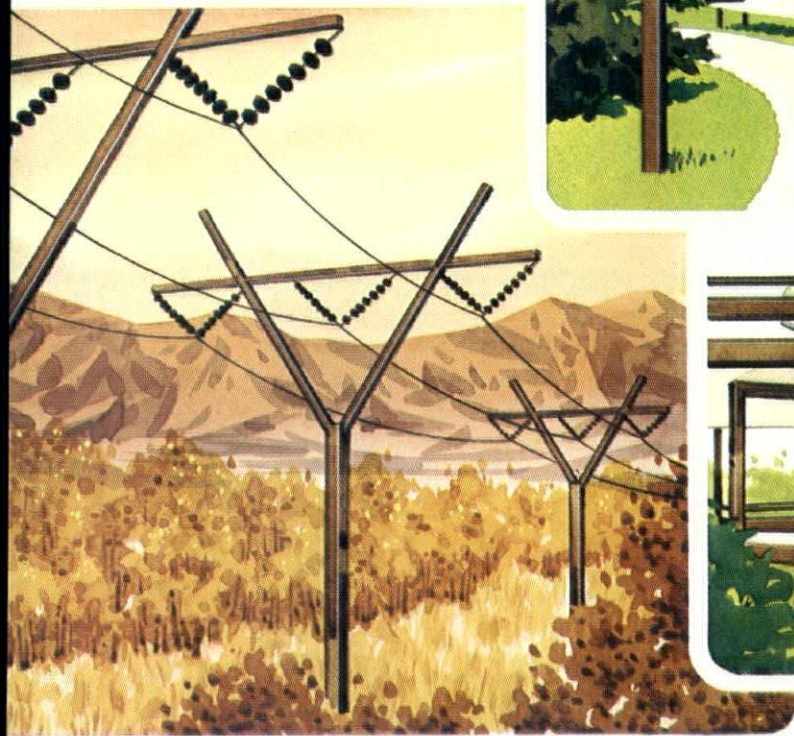
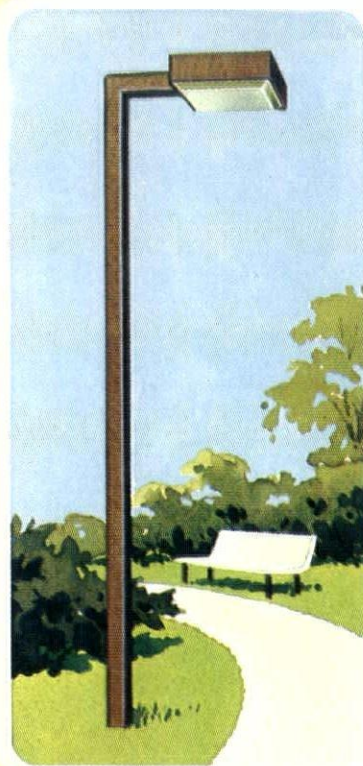
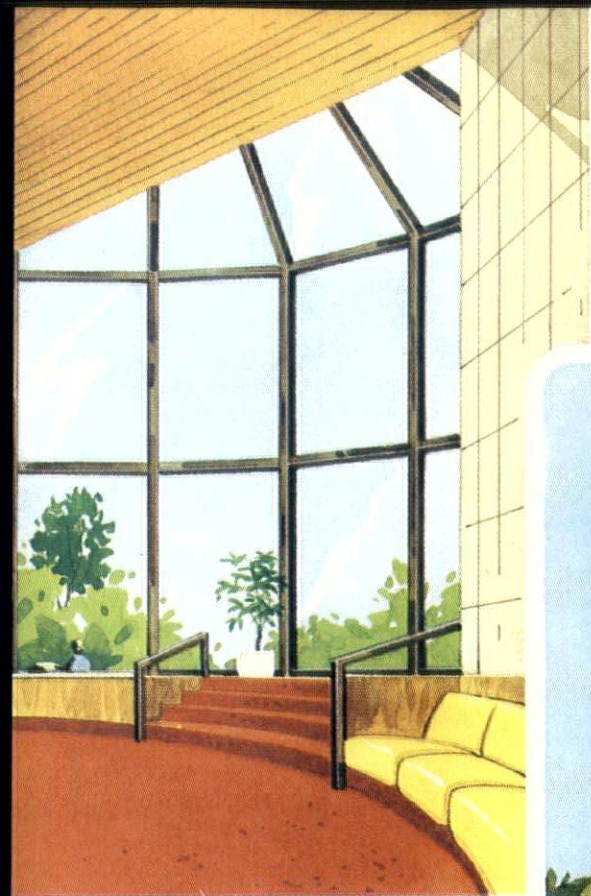
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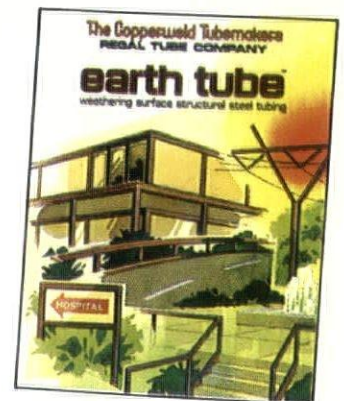
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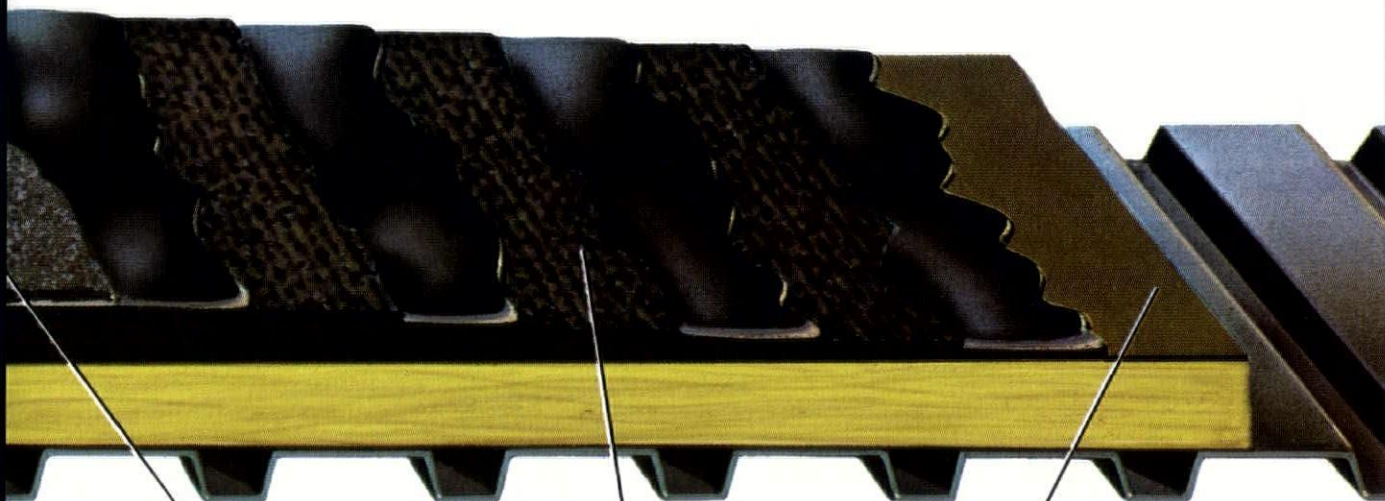
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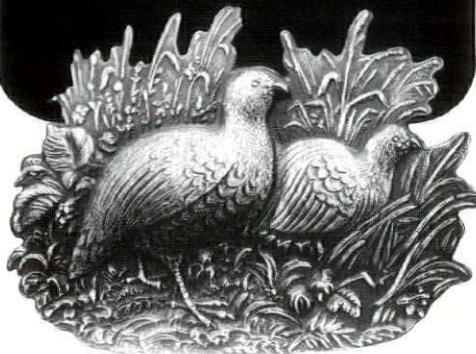
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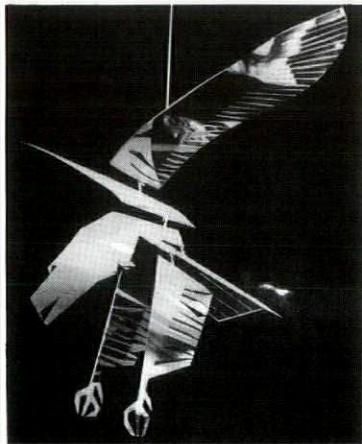
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Going On from page 66

of the concrete navigation lock as a connector between the Mississippi River and Bayou Plaquemine.

- Twenty-seven acres of the old Cornhusker Ammunition Plant in Hall County, Neb., to Nebraska's state game and parks commission for use as a wildlife management area and habitat and public recreation.
- Eighteen acres of the Army Reserve Center in North Huntington Township, Pa., for multiple use as a community meeting place for senior citizens and other groups.
- Fourteen acres of unimproved property belonging to the Federal Center in Fort Worth, Tex., to the city for use as a park for baseball, softball, soccer and football.
- One acre of Adair Air Force Station in Benton County, Ore., to the county to use as a parking lot for an adjacent community center.
- Twenty-five acres of the former Chennault Air Force Base in Lake Charles, La., to the city for a city-county park.

AIP Elects Woman President

Constance Lieder, AIP, a Baltimore-based planning and housing consultant and professor of planning at Morgan State University, has been elected the first woman president of the American Institute of Planners. She served as AIP second vice president for the past two terms of office, and assumed her new responsibilities last month at AIP's annual conference in Kansas City.

Reginald W. Griffith, AIP, was elected first vice president. He is vice chairman of the National Capital Planning Commission, chairman of the department of city and regional planning at Howard University and principal of Reg Griffith Associates, city planners and consultants in Washington, D.C. Marjorie W. Macris, AIP, chief of current planning at the Marin County (Calif.) comprehensive planning department, was named second vice-president.

Job Opening Announced In AIA Practice Division

There is an opening at AIA headquarters for assistant director, practice division. Responsibilities will include assisting the director of the practice division in providing staff services to national practice-oriented committees in the development of practice aids, administering manuscript preparation for major practice publications and editing material submitted by consultants. Also the assistant director will serve as a staff adviser to the liability committee, assisting in generating loss-prevention programs and monitoring the

AIA-recommended professional liability insurance program.

Applicants for the position should have four to eight years of practical architectural experience in drafting room, office and field; a formal architectural education, with a professional license preferred. In addition to writing and editing skills, the applicant should have extensive first-hand awareness of the problems, risks and rewards of architectural practice, especially in the "hard" areas of contract documents preparation, construction administration and office and project management.

To apply, send a résumé and letter of interest and availability to: Robert Allan Class, AIA, Director, Practice Division, AIA Headquarters.

Nine Structures Cited For Use of Concrete

Nine buildings and four bridges were selected for top honors in the 1977 Prestressed Concrete Institute awards program. Special jury awards went also to two bridge projects and a convention center. The winning entries were chosen for their achievements in "esthetic expression, function and economy using precast and prestressed concrete."

The winning buildings are:

- Alagco Batch Plant/Shop, Anchorage (architects: CCC/HOK, Anchorage).
- Dupont Circle Metro Station, Washington, D.C. (photo below; architects: Harry Weese & Associates, Chicago/Washington, D.C.).



- Federal Correctional Institution, Butner, N.C. (architects: Middleton, McMillan, Charlotte, N.C.).
- Federal Office Building and Courthouse Complex, Eugene, Ore. (architects: WEGROUP, Eugene).
- Mallinckrodt Corporate Center, St. Louis (architects: Hellmuth, Obata & Kassabaum, Inc., St. Louis).
- Metropolitan Life Insurance Co. Midwestern Head Office, Dayton, Ohio (architects: Lorenz & Williams, Inc., Dayton).

continued on page 73



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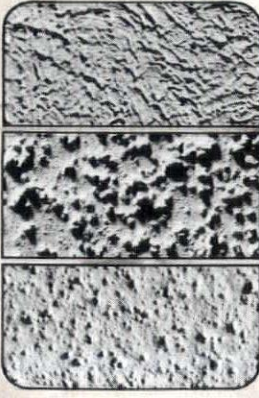
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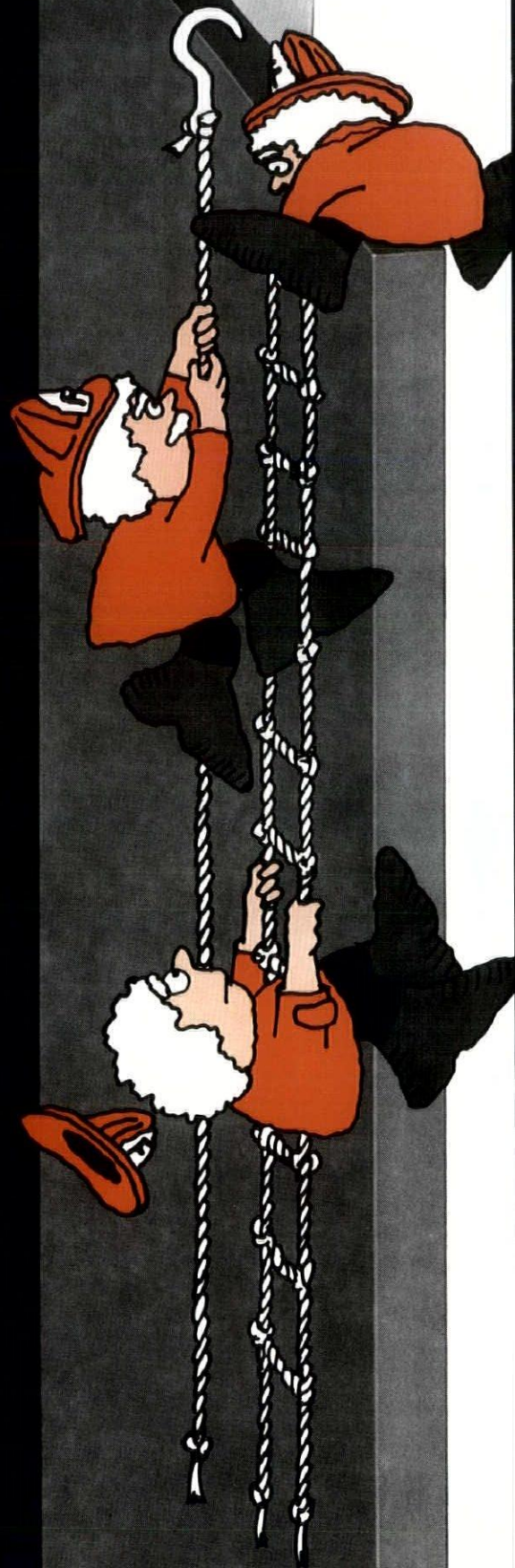
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Continued from page 70

• Nizny Building, Dayton, Ohio (structural engineers: Winsteadley & Associates, Inc., Dayton).

• Southwest Division Office, Safeco Insurance Co. of America, Richardson, Tex. (architects: Iconoplex, Inc., Dallas).

• West Beach Bathhouse, Indiana Dunes National Lakeshore, Chesterton, Ind. (architects: Howard Needles Tammen & Bergendoff, Milwaukee).

Winner of a special jury award was the Georgia World Congress Convention Center, Atlanta (architects: Thompson, Ventulett, Stainback & Associates, Inc., Atlanta).

The jury for buildings was chaired by John M. McGinty, FAIA, president of the Institute. Other jurors for buildings were Albert J. Blaylock, president, Structural Engineers Association of California; Charles H. Cullum, president of the Royal Architectural Institute of Canada, and Leland J. Walker, president of the American Society of Civil Engineers.

AIA Staff Appointment

Steve Biegel, who served as vice president of the Association of Student Chapters/AIA from Jan. 1975 to June 1976, has been appointed assistant director of the federal agency liaison program in the government affairs department at the Insti-

tute. Biegel holds a B.A. in architecture degree from Syracuse University and comes to AIA from the office of Donald Stephens Associates in Albany, N.Y.

Hospital Cost Controls Called Counterproductive

The AIA committee on architecture for health met in Houston in October to consider alternatives to the Administration's cost containment proposal for the nation's hospitals. The committee, composed of 90 hospital and clinic designers representing architectural firms across the nation, concluded that cost controls which set arbitrary limits on hospital expenditures do not guarantee reduced patient bills and may hamper hospital efficiency.

The controls proposed by President Carter would restrict the amounts hospitals can spend for programs other than routine services, plant functions and maintenance. Some services would be consolidated and new construction prevented with hospital operations frozen at current levels; thus, in theory, hospital expenses would level off, as would costs to the patient.

"Controls would restrict building even in situations where remodeling and improvement could yield more efficient service," the committee says. "By allow-

ing equipment, systems and facilities to be used longer than they are functionally effective, the controls would reduce efficiency of normal hospital operations and guarantee obsolescence. The net effect for the patient would be lower quality care, possibly at higher prices."

The committee urges a life cycle cost analysis approach to cost containment as an alternative. It would consider construction, services and other aspects of hospital care as integral parts of a whole. It points out that in a typical acute care general hospital, construction and related expenses account for about 12 percent of the total cost to a patient; 80 percent of the bill goes for such functional operations as salaries, dietary services, laundry, etc., and 8 percent for utilities and maintenance. The committee suggests that effective cost containment should take all these areas into consideration.

The committee supports research into new materials, building systems and construction methods. It urges streamlining building codes and regulations, proposing that safety standards be subject to cost/benefit analysis to ensure a "reasonable balance between cost and assurance of safety and environmental health." It further supports new construction which proves to be the most economic replacement or renewal option.

continued on page 77



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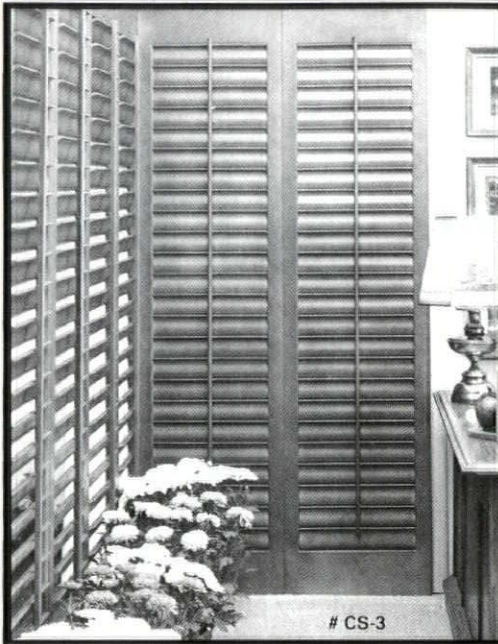
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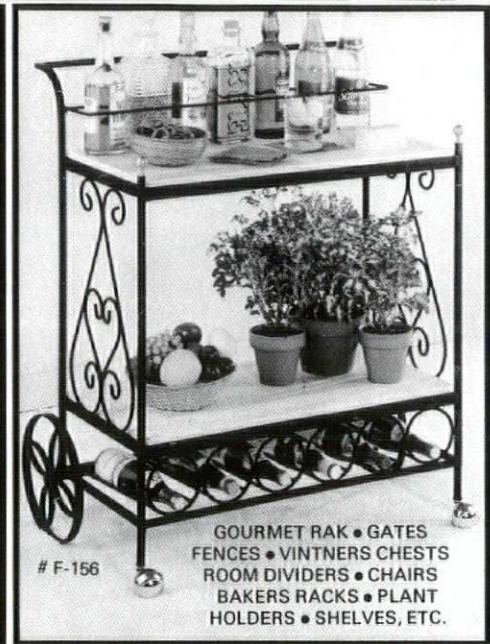
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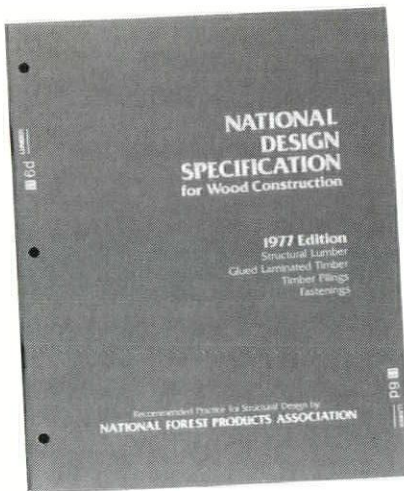
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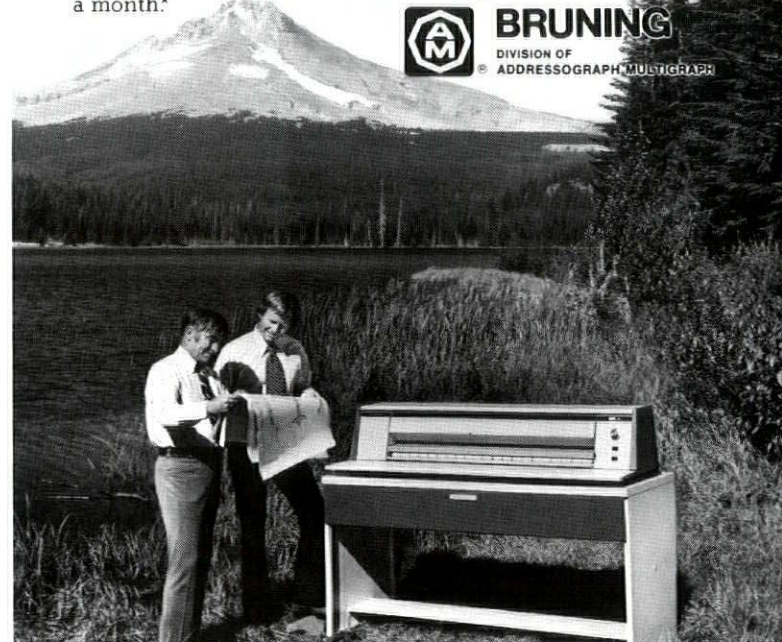
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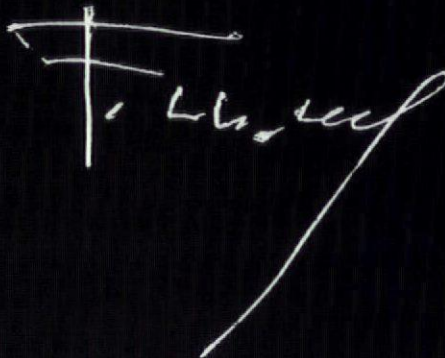


Nearly two decades have passed since the late Frank Lloyd Wright's comment on Follansbee Terne was first published. No comparable product has ever received such an endorsement from such a source, and we reprint his statement here in the belief that time has not lessened its fundamental impact or its relevance to contemporary design.

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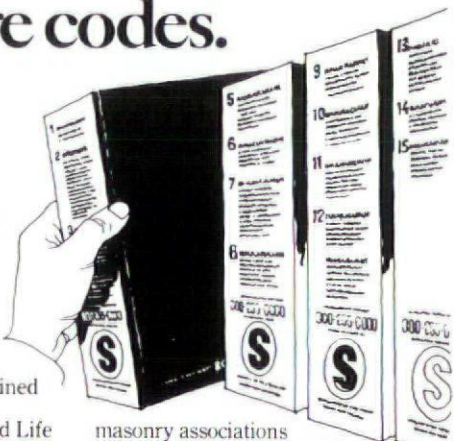
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"Masonry in New and Improved Life and Fire Safety Codes" has been published by the INTERNATIONAL MASONRY INSTITUTE with the cooperation of the Brick Institute of America and the National Concrete Masonry Association. Listed on the back page are national



masonry associations in North America who can be of further help with information or technical counsel on masonry's fire-resistant qualities.

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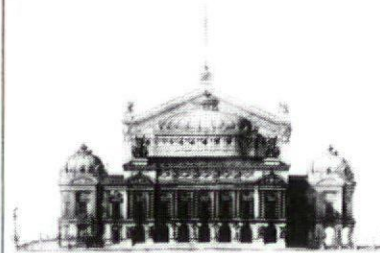


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The Architecture of the Ecole des Beaux-Arts

edited by Arthur Drexler
with essays by Richard Chafee, David Van Zanten, Neil Levine, and Arthur Drexler

Distributed by The MIT Press for the Museum of Modern Art, New York

9 x 11½ inches—449 pp.—423 illustrations, 23 in color—12 gatefolds
\$39.95 through December 1977—\$45.00 thereafter

The Ecole des Beaux-Arts dominated Western architectural theory and practice for two centuries, until the Modern Movement rebelled against it in the early years of the twentieth century. Now that there are signs of rebellion within and against the Modern Movement itself, an understanding of Beaux-Arts architecture has become pertinent to those concerned with the future directions of architecture, and it remains central to those who delight in the school's past grandeurs. This monument of a book will be the primary source of information and inspiration for both sorts of readers.

The book is filled with astonishingly beautiful large-scale drawings of elevations and plans—many previously unpublished and some reproduced as full-color foldouts. They include the work of students who subsequently became pre-eminent as professional architects, Henri Labrouste and Charles Garnier among them.

Complementing the drawings are photographs of the major Beaux-Arts buildings executed in France and the United States, including views of interiors and of works now demolished.

The MIT Press

Massachusetts Institute of Technology
Cambridge, Massachusetts 02142

Going On from page 73

In the control of health care costs, the committee suggests that designers and planners "bring down costs within their influence as an initial measure."

An integrated approach to cost control, the committee believes, would ensure that "opportunities for cost effective architectural solutions are not lost . . . through legislation."

The committee's findings will be considered by AIA's board of directors in the near future to determine if this approach should become AIA policy.

Jason W. Frye, AIA, of Houston will become chairman of the committee on Jan. 1, succeeding William S. Black, AIA, of Boston.

Research Corp. Publishes Earthquake Design Primer

The AIA Research Corporation recently published a book entitled *Architects and Earthquakes* which was developed under a grant from the National Science Foundation (see Dec. '76, p. 38 for a summary of several chapters). The 94-page publication is called a primer by AIA/RC because it is intended "to start architects thinking about earthquakes as architects." Its purposes "are to help architects understand the nature of earthquakes and the basic responses of buildings to the unique forces unleashed by them." It also emphasizes how architectural planning and design affect a building's performance under earthquake conditions.

The book, says AIA/RC, can be used by practitioners and also as an introductory text in architectural schools. It is for sale by the U.S. Government Printing Office, Washington, D.C. 20402 for \$2.20. Order by stock no. 038-000-00331-1. For further information on the AIA/RC earthquake program, contact Earle Kennett, AIA/RC, 1735 New York Ave. N.W., Washington, D.C. 20006.

Deaths

Charles C. Burton, Susquehanna, Pa.

Leroy M. Campbell, Washington, D.C.

John S. Carver, FAIA, Philadelphia

Thomas L. Clemmons, South Nashville, Tenn.

Donald H. Dunbar, Monroe, Mich.

Robert L. Goetz, San Francisco

Warren B. Green, Cheshire, Conn.

Donald E. Hatch, San Francisco.

Donald L. Horton, Birmingham, Ala.

Clarence B. Kearfott Sr., Bristol, Va.

Samuel A. Lichtmann, FAIA, Chicago

Marion R. Marsh, Charlotte, N.C.

Harry A. Pollack, Oklahoma City

Thomas L. Sorey Sr., Oklahoma City

Fred Van Wageningen, Shelby, N.C.

Newslines on page 78

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Newslines

The 1977 lighting design awards of the Illuminating Engineering Society went to designers Hans T. von Malotki and H. Deilmann for lighting at the International Casino at Aachen, Germany, and to designer Rafael Urculo Aramburu for lighting of the Hielotron Ice Skating Rink near Seville, Spain. The awards give public recognition to "professionalism, ingenuity and originality of lighting design."

Office building occupancy rates in this country have improved substantially in the past six months, according to a survey of more than 415 million square feet by the Building Owners and Managers Association International. Occupancy was 90.41 percent in the May survey, up from 89.49 percent in Oct. 1976.

Leon Chatelain, FAIA, of Washington, D.C., president of the Institute in 1940-41, is featured in the 40th anniversary issue of the Washington Building Congress *Bulletin* (Oct. '77) as a founding member of the WBG. He has received many awards and honors from local, national and international institutions and governments. He has served as president of the National Easter Seal Society for Crippled Children and Adults and was

first chairman of the D.C. Commissioners' council on human rights. He retired from architectural practice three years ago.

The 1977 Proceedings of the American Society for Testing and Materials is now available. The 572-page book records ASTM's technical accomplishments and the significant developments in ASTM committees in 1976. Write: ASTM, 1916 Race St., Philadelphia, Pa. 19103.

"Crossfeed" is a newsletter, issued by the General Services Administration, that contains cost-saving construction techniques already in use in federal buildings. A free copy may be obtained from Director of Value Management, Public Buildings Service, GSA Washington, D.C. 20405.

The President's Committee on Mental Retardation has a limited supply of publications which will be sent free upon request. Among the publications are "Mental Retardation: Century of Decision" and "Silent Minority." The committee's address is Washington, D.C. 20201.

Peking's newest landmark is the memorial hall which houses the crystal sarcophagus containing the body of Mao Tse-tung. Built in six months by an estimated

700,000 Chinese working day and night, the building is 105 meters square and 33.6 meters high.

The National Association of Women in Construction has installed Marcella Curry of Corpus Christi, Tex., as its 23rd president. She is vice president and general office manager of Coastal Applicators, Inc.

John E. Wagstaff, AIA, has been conferred the title of "campus architect emeritus" by the University of California, Santa Cruz. Now a private consultant, he had completed 28 years of university service at the time of his retirement. He went to Santa Cruz in 1961, having served as campus architect of the University of California's Medical Center in San Francisco for 14 years previously.

The 1977 Guild for Religious Architecture traveling exhibit, made up of award-winning projects displayed at the National Interfaith Conference on Religion and Architecture, may now be reserved by interested groups. The exhibit is available without charge, except for transportation. Write: GRA, 1777 Church St. N.W., Washington, D.C. 20036.

The National Institute of Law Enforcement and Criminal Justice has announced its 1978-79 visiting fellowship program

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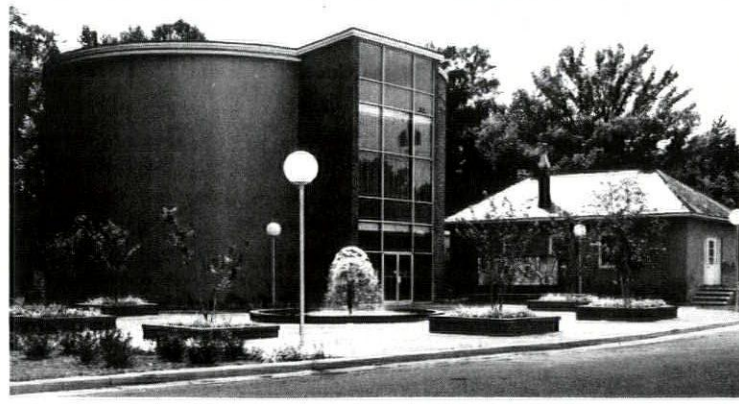
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Find the water tank in this picture.



which offers funds and facilities for studies of important criminal justice issues. It is open to any qualified persons in the criminal justice professions or the academic community seeking support on projects relating to criminal justice and law enforcement. For details, write: Blair G. Ewing, Acting Director, NILECJ, Department of Justice, Washington, D.C. 20531.

The Philadelphia chapter/AIA sees an upward trend in the job market. Peter F. Arfaa, AIA, executive director of the chapter, reports that in Jan. 1977 the chapter's employment referral file contained 30 résumés for registered architects with up to 10 years experience. In September, only three such résumés were in the file. "Recent graduates of architecture schools are being hired; architects are finding employment. These are positive signs," he says.

"Architecture: Seven Architects" is the title of an exhibition of the works of Raimund Abraham, Emilio Ambasz, Richard Meier, Walter Pichler, Aldo Rossi, James Stirling and Robert Venturi. Their drawings, models and photographs will be on display at the University of Pennsylvania's Institute of Contemporary Art in Philadelphia from Dec. 15 to Feb. 2.

The Association of University Architects, whose membership is made up of professionals responsible for the physical development of their institutions, has elected Gae P. Russo of the University of California, Berkeley, as its president for 1977/78.

A mobile information center on solar heating and cooling for residences has been initiated by HUD. The traveling van features back-lighted, projected photos of solar homes, a literature display and audiovisual sequences that describe solar energy in home construction for builders, architects and others. Two persons from the National Solar Heating and Cooling Information Center accompany the van to answer inquiries. For information about scheduling, contact NSHCIC, Box 1607, Rockville, Md. 20850, or call toll free (800) 523-2929 (in Pennsylvania, call 800-462-4983).

"Solar Age," a magazine published monthly for those interested in solar energy, has been named the official publication of the International Solar Energy Society, Inc.'s American section.

More than half of U.S. households now contain only one to two persons, the Census Bureau reports. Between 1970 and 1976, there was a net increase of 9.5 million households. In 1970, husband-

wife households made up 71 percent of the total; in 1976, there was a drop to 65 percent. There were more than twice as many one-person households in 1976 than in 1960. Seven out of ten households consisted of persons living alone or with non-relatives, or of women raising families without husbands present.

The International Federation of Prestressed Concrete will hold its eighth congress in London at the Wembley Conference Center on April 30-May 5. The Concrete Society, headquartered in London, will act as host. Seminars will provide the most current information on such topics as sea structures, prefabrication and seismic structures. There is a special registration fee until Dec. 1 of 150 pounds for Concrete Society members and 175

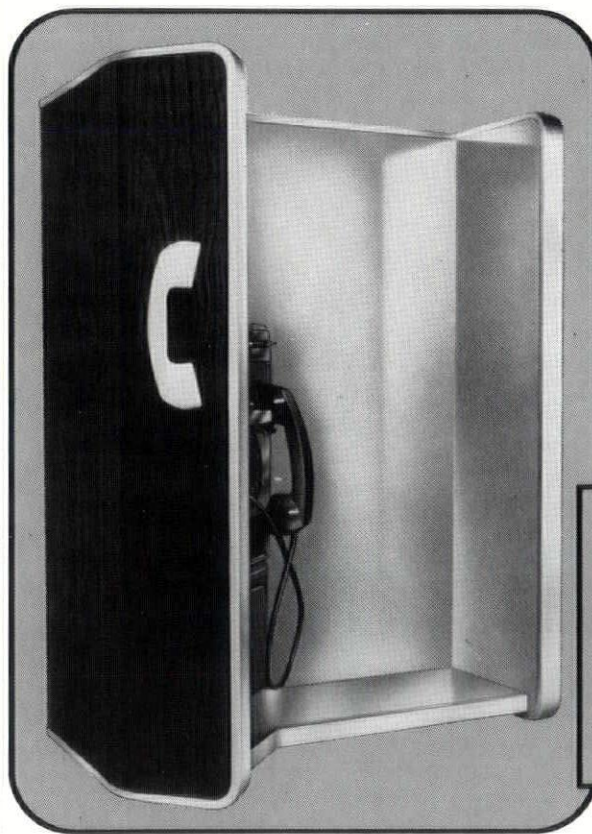
pounds for nonmembers; afterwards, the registration fee will be 200 pounds and 225 pounds respectively. Contact: Concrete Society, Terminal House, 52 Grosvenor Gardens, London SW 1W OAO, England.

The contributions of Gershon Canaan, AIA, were extolled in the *Congressional Record* of Sept. 7 in the form of a resolution submitted by Texas Senator Bill Braecklein. An architect and honorary consul of the Federal Republic of Germany, the Senate commended Canaan for his "many services to the people of Texas, for his contributions to a growing understanding of the state's strong German heritage and for his efforts to build strong ties of friendship" between Texas and Germany. □

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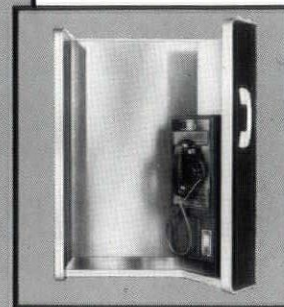
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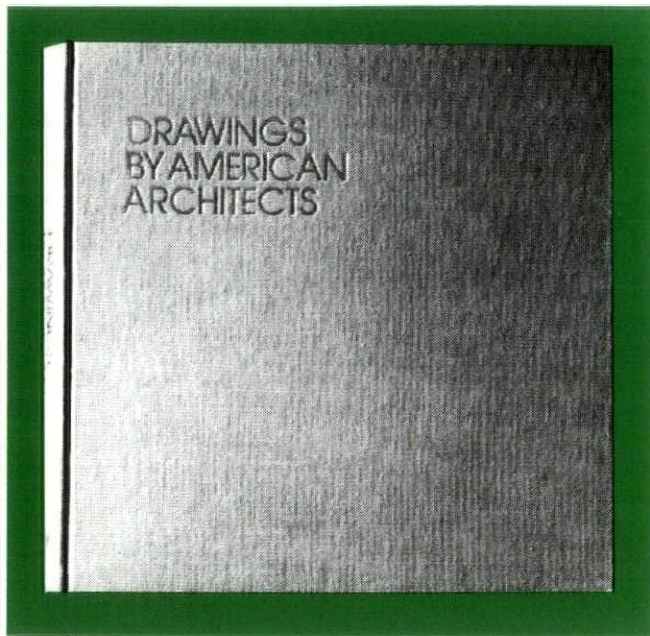
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200 Years of American Architectural Drawing

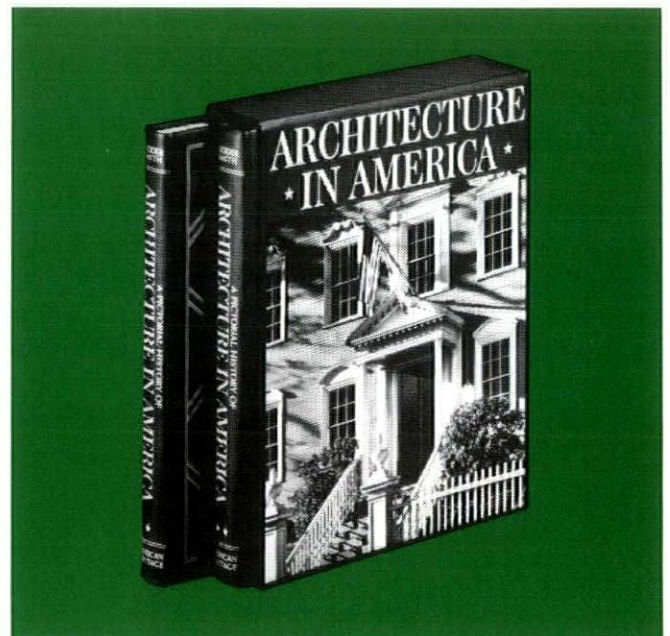
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Drawings by American Architects (Alfred M. Kemper) is a collection of renderings from over 100 architectural offices illustrating a wide range of techniques and various viewpoints. 613 pages. (1973) \$39.95 Non-member, \$35.95 AIA member. Catalog #3M154

Architecture in America (Marshall Davidson, Ed.), all-inclusive and completely American, was published as a Bicentennial tribute to our own unique contributions to world architecture. Exceptional photographs—some 800—selected by G. E. Kidder Smith display historic and contemporary American work. Superb reading, an invaluable historical record. In two volumes. (1976) \$45.00 Non-member, \$40.50 AIA member. Catalog #3M229

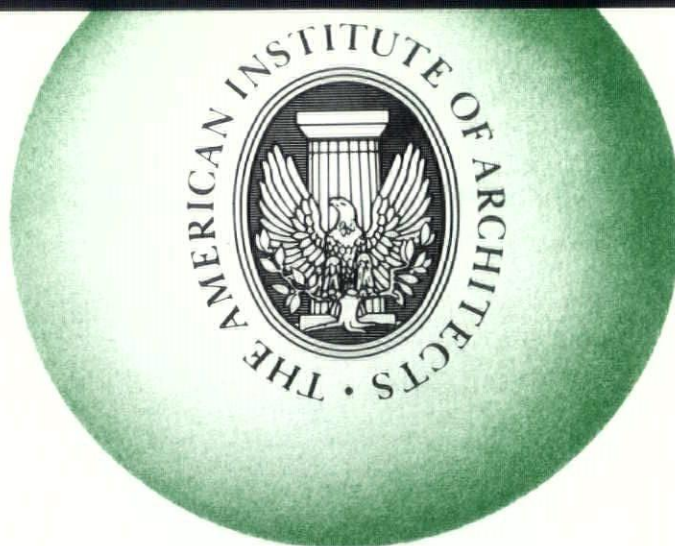




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Reliance Building Jigsaw Puzzle This 400-piece jigsaw puzzle features D. H. Burnham's Reliance Building. One of two in a projected series titled "Architectural Heritage of Chicago," puzzle is done in sepia from a Hedrich-Blessing photograph. Full history of the structure is on back of box. Completed size is 12 $\frac{3}{4}$ " x 19" All sales final. Non-member/AIA member \$7.00 Catalog #4M230

Robie House Jigsaw Puzzle featuring Frank Lloyd Wright's landmark, the second in "Architectural Heritage of Chicago" series of puzzles. In sepia, from a Hedrich-Blessing photograph. History and importance of the house outlined on back of box. 400 pieces. Completed size 12 $\frac{3}{4}$ " x 19" All sales final. Non-member/AIA member \$7.00 Catalog #4M231



Gifts Reflecting the Achievements of Extraordinary Talents

Ten by Warren Platner (Warren Platner) presents ten projects by Mr. Platner, one of the United States' best-known architects, interior designers, and designers of furniture. Sumpuously illustrated, printed and bound, this magnificent volume is an informative as well as delightful gift for architects and non-architects alike. Due to a special purchase, this book is being offered at the unheard of price of \$17.00 (was \$27.50). All sales are final on this limited offer. Catalog #4M276

The Writings and Sketches of Matthew Nowicki (Bruce H. Schafer) is the only publication available containing the work of this unique educator/architect. Though he was never fully acknowledged during his lifetime, the design philosophy of this staunch humanist is a synthesis of several major trends in modern architectural thought. Due to acquisition of the last of this limited edition, AIA is able to offer this outstanding publication at the special price of \$8.00 (formerly \$12.50). Catalog #4M280

Palladio: A Western Progress (D. Guinness and J. T. Sandler Jr.), profusely illustrated, traces the evolution of this architectural style from Italy to the New World by way of England and Ireland. The history of Western architecture has been strongly influenced by the classical simplicity of the sixteenth-century architect Andrea Palladio. Mount Vernon, Monticello, and the White House are examples of buildings in the Palladian tradition. 200 black and white illustrations, 8 pages of color, 200 pages (1976) \$14.95 Non-number, \$13.45 AIA member. Catalog #3M120



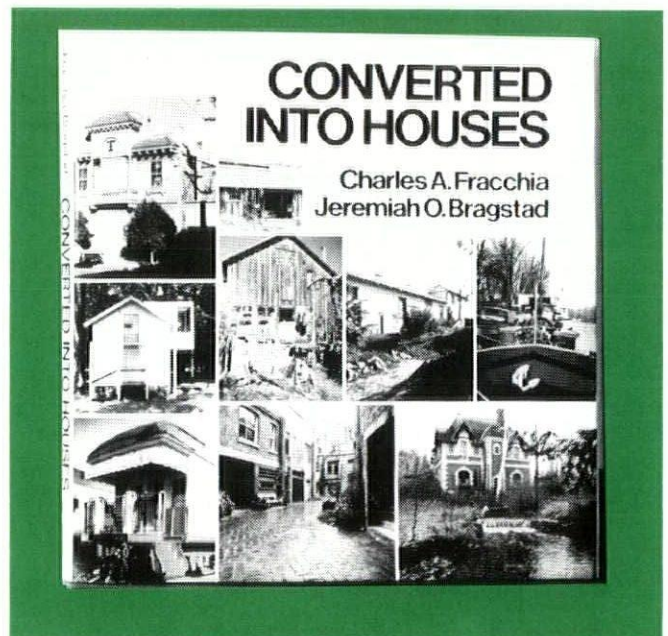
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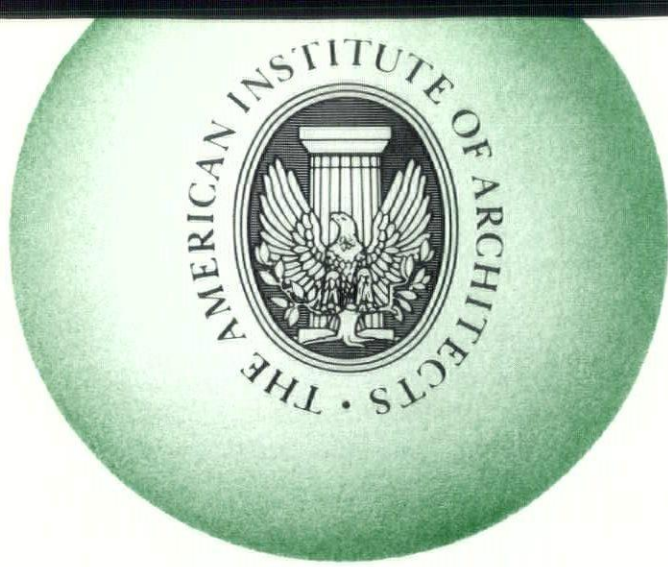
Theater Design (George Izenour) promises to become a classic work on the subject. Introduces general terminology, types of theater design, detailing and defining auditoriums, stages, sight and hearing lines, and the basics necessary to an appreciation of theater design. Concert halls, with their specific acoustical characteristics, are fully covered. Client relationships, budgeting, and building codes are given extensive treatment. Richly illustrated with over 170 photographs and more than 600 drawings (many of fold-out size). 480 pages. (1977) \$50.00 Non-member, \$45.00 AIA member. Catalog #3M281.

Cast Iron Decoration:

(E. G. Robertson and J. Robertson) is a photographic inventory of the forms, national variations, relationships to architecture, and contributions to buildings of cast iron ornamentation. This unique reference work, supported by introductory texts, glossary and bibliography, will be equally valuable to art historians, architects and designers. 521 black and white photographs, 336 pages. (1977) \$27.50 Non-member, \$24.75 AIA member. Catalog #3M290

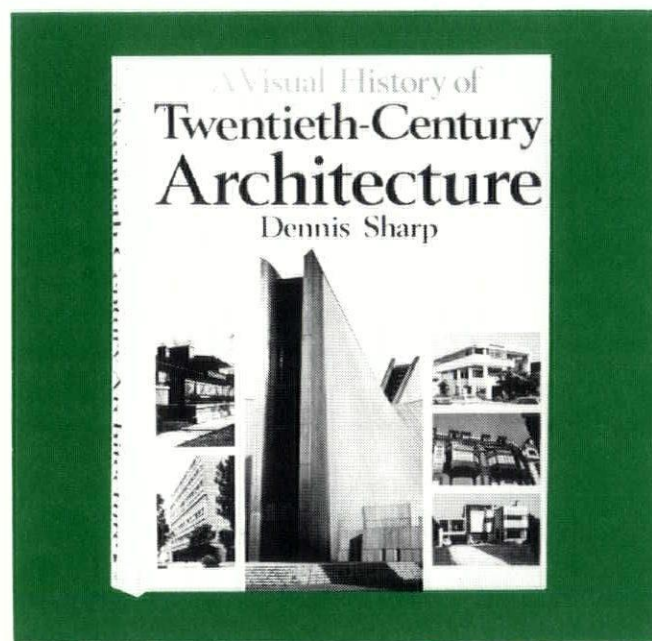
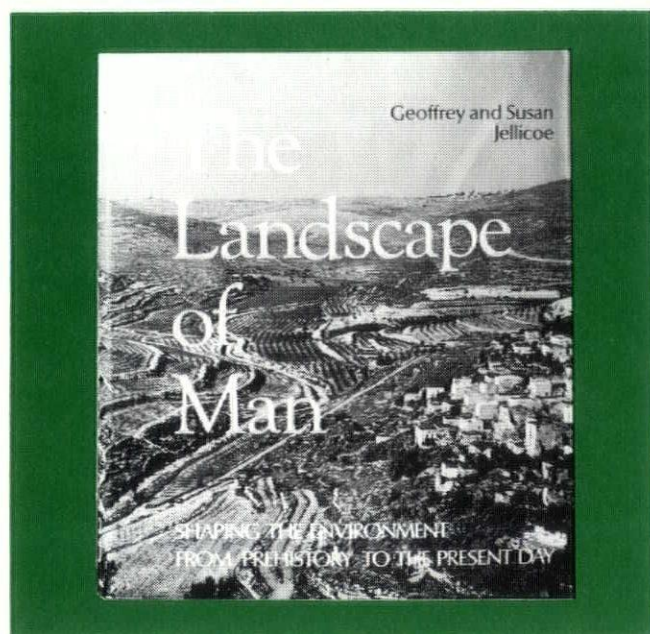
Converted into House (C. Fracchia and J. Bragstad) serves as a guide for creative recycling non-residential buildings into houses. Over 30 dwellings-from-other-buildings, both in the U.S. and abroad, are discussed in lively text. Each dwelling shown as it was and as it is, accompanied by history of use and the process of conversion. 216 color photographs, 96 pages. (1976) Hardcover Catalog #3M228 \$15.00 Non-member, \$13.50 AIA member. Paperback Catalog #3M228A \$6.95 Non-member, \$6.25 AIA member.





Gifts That Encompass Human History . . . and Reflect Its Current State

History of Art, 2nd Edition (H. W. Janson) includes several new and important features created especially for this edition: an illustrated guide to understanding architectural diagrams; four illustrated charts dramatizing and coordinating works of art in time and space; four large maps locating every important site mentioned in text; a comprehensive glossary. New text and illustrations have been added in many sections of the book. The final chapters have been expanded to cover the most recent developments in contemporary art. 1,056 illustrations, including 144 in full color, 768 pages. (1977) \$28.50 Non-member, \$25.65 AIA member. Catalog #3M141



The Landscape of Man (Geoffrey A. Jellicoe) shows how 26 cultures, dating from ancient times to the present, molded their environments to express or symbolize their ideas. 383 pages, illustrated (1975) \$35.00 Non-member, \$31.50 AIA member. Catalog #3M194.

Visual History of Twentieth-Century Architecture (Dennis Sharp) outlines pictorially the development of contemporary architectural styles between 1900 and 1970. 304 pages, lavishly illustrated (1973). \$29.95 Non-member, \$26.95 AIA member. Catalog #3M165



Gifts To Delight the Minds of Children . . . And Capture Their Imaginations

What Can She Be? An Architect (Gloria Goldreich) describes how a building is planned and the architect's instructions are carried out by the construction industry people. For the young reader. Illustrated, 48 pages. \$4.50 Non-member, \$4.05 AIA member. Catalog #3M176

How a House Happens (Jan Adkins) shows the very young reader how a house grows and is brought to life by craftsmen. It begins with roots in the ground and grows up and out to give shelter; like a tree. Fun for everyone to read! Lots of pictures on the 29 pages. (1971) \$5.95 Non-member, \$5.35 AIA member. Catalog #3M287

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Five Stories of Construction are written for all ages. With his impressively detailed drawings and clear descriptive text, David Macaulay explains, step-by-step, the ancient arts of planning and construction.

Castle, his most recent addition to the list, is based in concept, structural process, and physical appearance on several castles built to aid in the conquest of Wales between 1277 and 1305 A.D. 80 pages (1977) \$8.95 Non-member, \$8.05 AIA member. Catalog #3M284

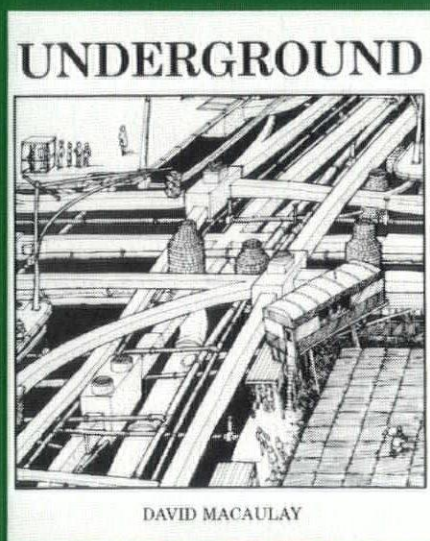
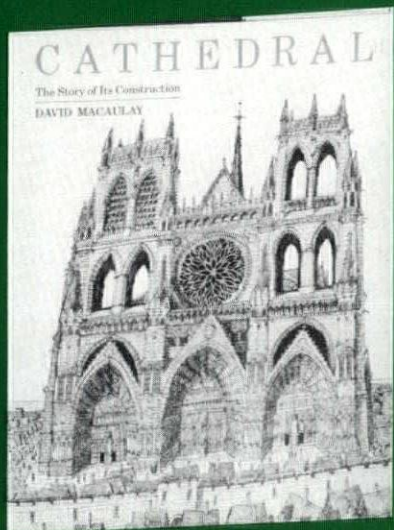
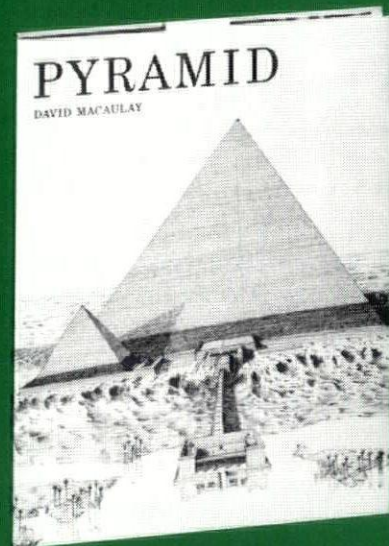
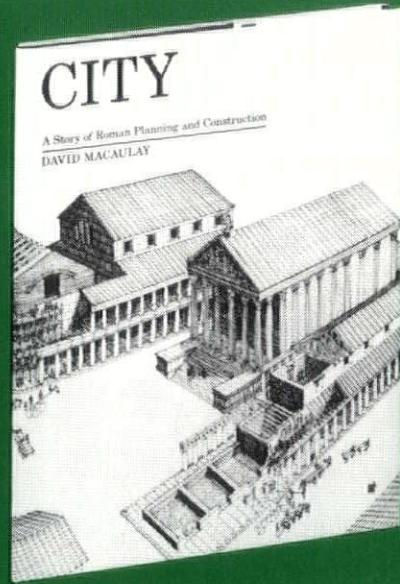
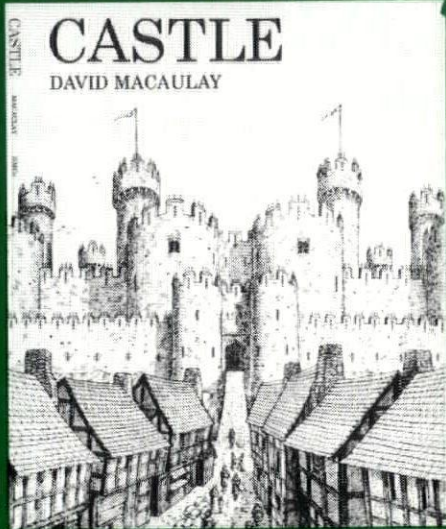
Cathedral, Macaulay's first book, illustrates the creation of a French Gothic cathedral. The story of its almost uninterrupted construction, from the hewing down of half a forest to the placement of the last sheet of lead on the spire, spans three generations. 80 pages (1973) \$8.95 Non-member, \$8.05 AIA member. Catalog #3M192

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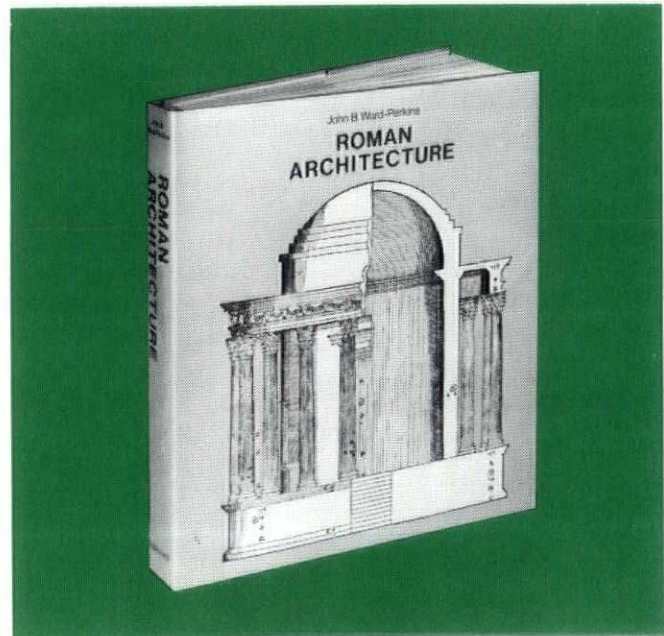
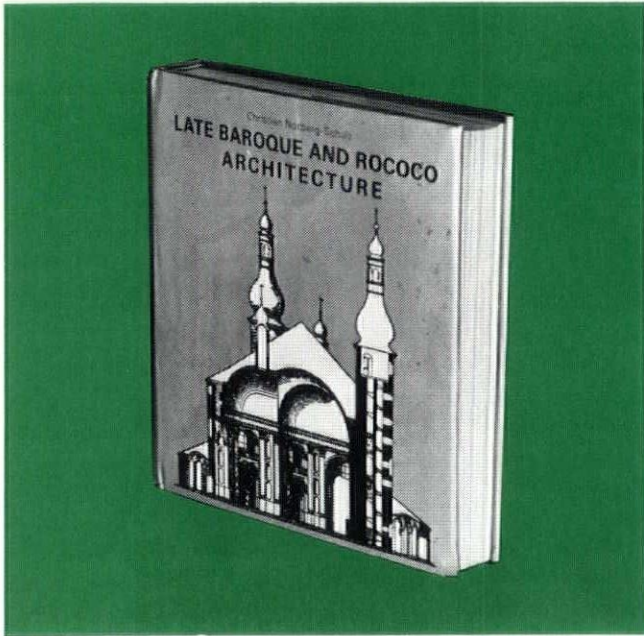
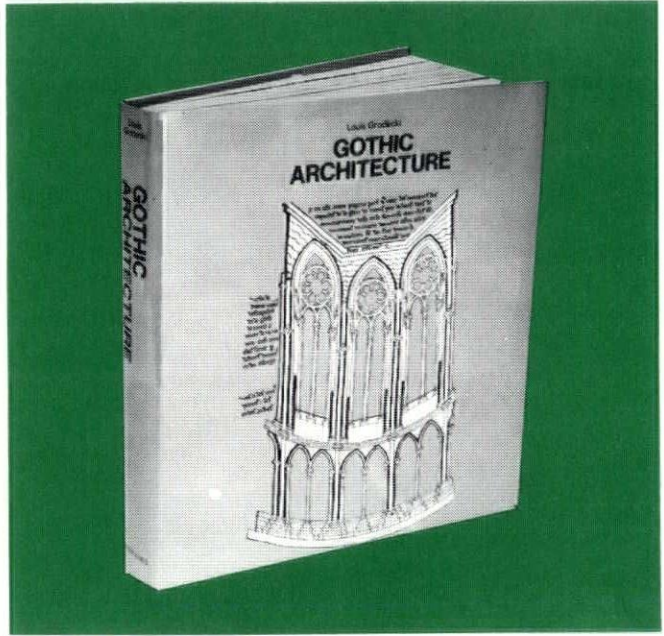
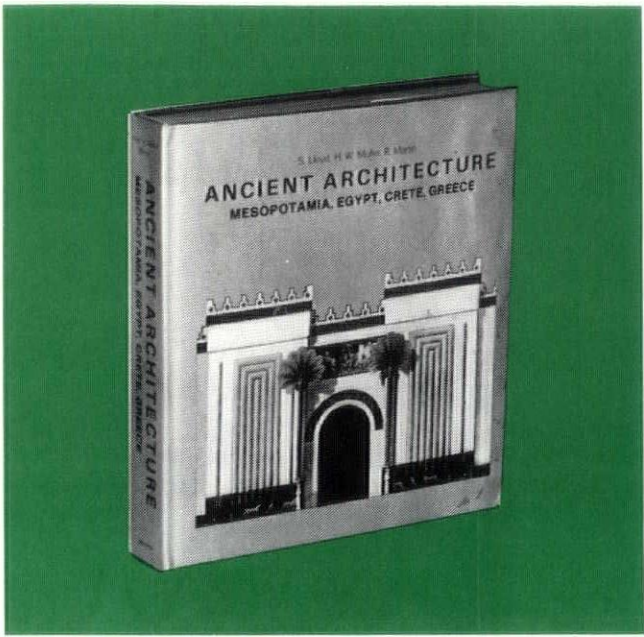
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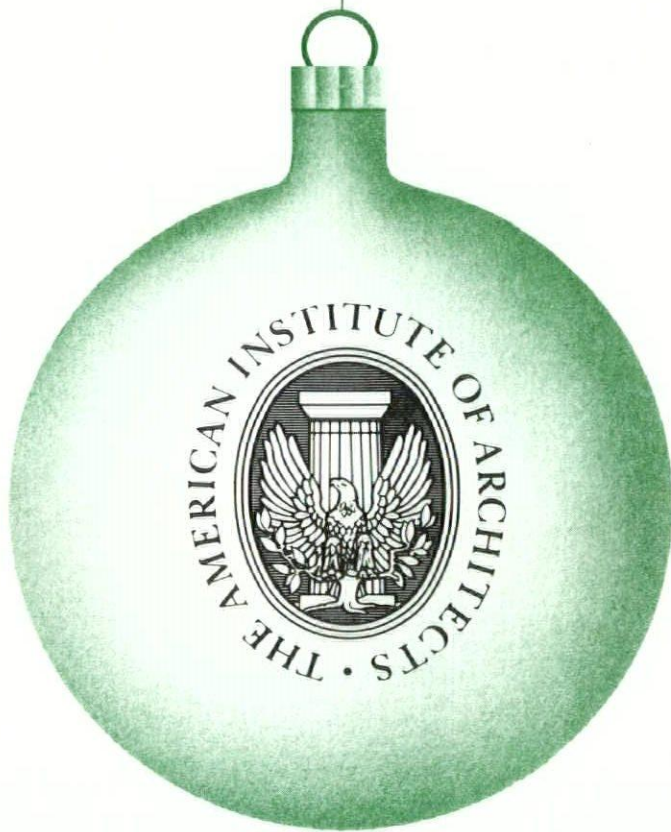
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