

AIA JOURNAL



JANUARY 1968



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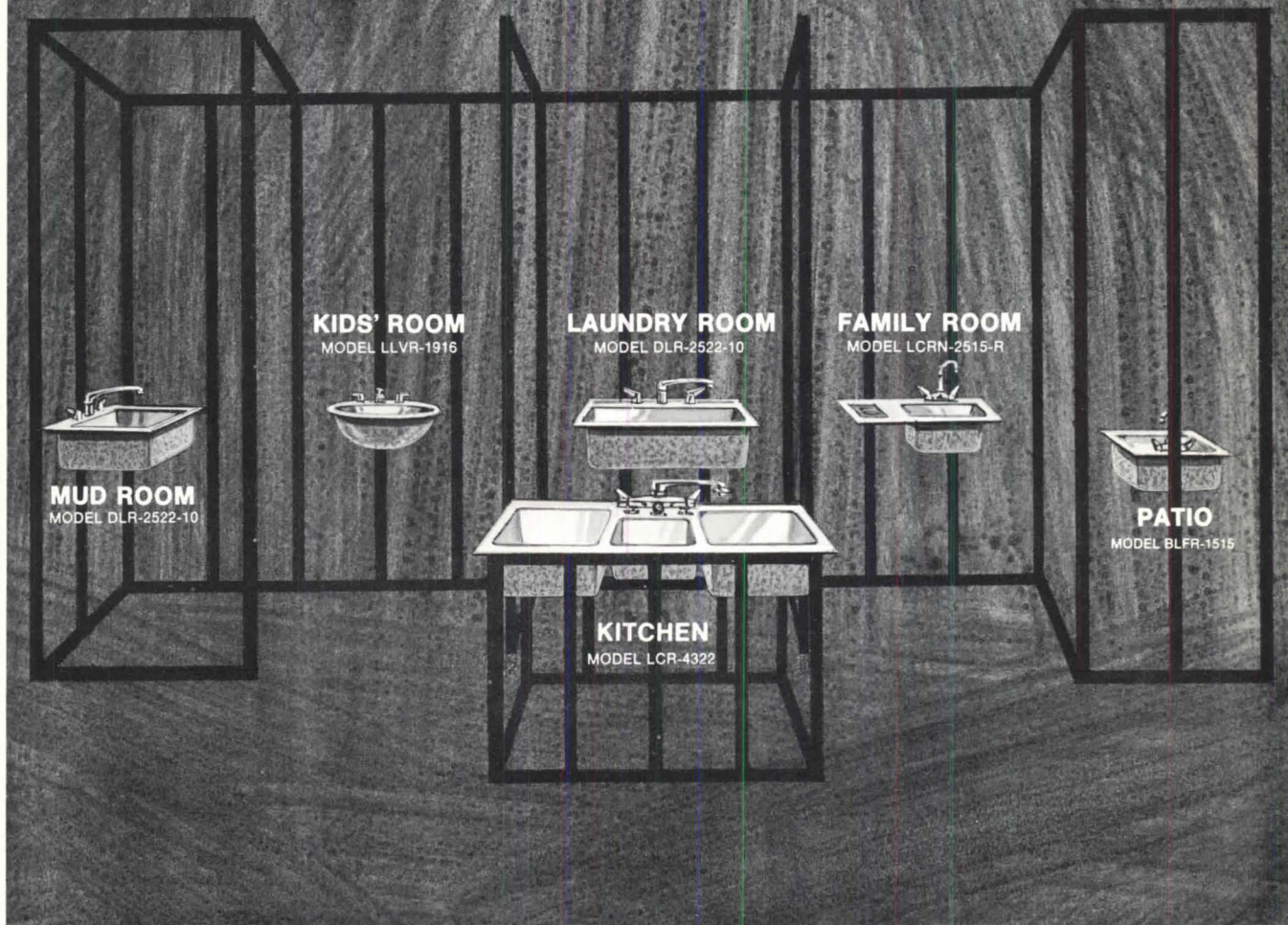


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AIA Journal, Official magazine of The American Institute of Architects, published monthly at the Octagon, 1735 New York Ave. N.W., Washington, D.C. 20006. Telephone: 393-7050.

Subscriptions

For those who are, by title, architects, engineers, architectural employees (specification writers, designers, draftsmen, estimators, planners or landscape architects, and to those in architectural education (faculty and schools), and to libraries, building construction trade associations, and building product manufacturers and their employees: basic rate—\$5 one year, \$8 two years, \$4 to architectural students in US, its possessions and Canada. For the same titles elsewhere: \$10 one year. For all others: \$10 one year in US, its possessions and Canada; \$18 one year elsewhere. Single copy: \$2. Payable in advance. Publisher reserves the right to refuse nonqualified subscriptions.

Change of Address

Give Circulation Department both old and new addresses; allow six weeks.

Second class postage paid at Washington, D.C.

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VOL. XLIX, NO. 1

Comment & Opinion

Artist and Architect: Mention the words "artist" and "architect" in the same breath and other words are bound to follow—like "collaboration," "common bond," "compatibility," "integration" and even "marriage."

The art/architecture relationship is a presupposition to which we tend to give lip service but not much else. There are signs, however, that progress is being made. I can immediately think of three specific items that seem to bear this out:

1. An 80-page book entitled *Washington Artists Today* has made its debut in the nation's capital, and while it will not make the best seller list, it marks a giant step in the right direction. It is a directory of 199 individuals—60 are represented by one photograph each—who sculpt, paint, etch and work in a variety of new forms and media. This particular book is not the first of its kind in the United States—artists in the Pacific Northwest and in the Southwest, for example, have published similar directories—but it is the most handsome of any I have encountered to date.

This one really owes its existence to the General Services Administration, which issued in 1962 a directive for the allocation of funds for permanent art in structures costing over \$200,000. Two members of the D.C. Chapter, Artists Equity Association, were appalled when they saw that the GSA portfolio hardly acknowledged the presence of any local talent. Artists

Equity got busy and here is the result of the chapter's efforts.

2. Our good neighbor to the north, the Royal Architectural Institute of Canada, has produced its first *Allied Arts Catalogue*, illustrating the work of 48 artists. It is the outgrowth of the allied arts section of *Architecture Canada* magazine and its editor-sculptor, Anita Aarons.

In making the selections, these criteria were applied: 1) professional skill and talent to produce work on a scale compatible with the architecture concerned; 2) an awareness of contemporary idiom and imagery rather than clever adaptation or translation of past trends or philosophies; 3) evidence of a strong personal range and development with a capacity to produce a variety of media.

3. The San Diego Chapter AIA last fall inaugurated its biennial Collaborative Arts Awards program on the basis of the artist "as related

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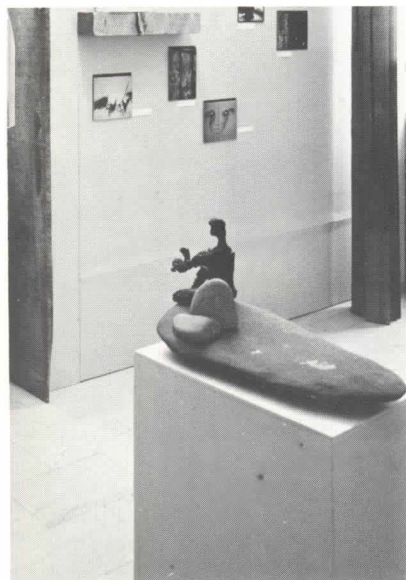
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Cover

The Olympic Games symbol signifies more than a sports meet.

to architecture and the contribution he makes through his work for the betterment of the community environment." A jury consisting of three local architects and a writer combed the country and the chapter arranged for an exhibition of the initial winners—three artists and two landscape architects—at the San Diego Fine Arts Gallery in Balboa Park (see cut).

Getting back to the Washington directory, a fine statement on the role of the arts today is found in a



foreword by Livingston Biddle Jr., deputy chairman, National Endowment for the Arts. He says in part:

"Perhaps the greatest contribution the arts can make to our society lies in what they can do for the individual—for his eyes, his ears, his mind, his senses and, most important of all, his curiosity, his sense of awareness.

"Anyone who wishes to explore the arts—an artist or a member of his audience—sets out on a quest for self-discovery. As this quest continues, so can it become more profound and fascinating and so can the individual increase his all-important faculty of imagination and thus improve himself as a human being.

"In a democratic society the arts can express in exceptional fashion our individuality as well as our joint aspirations and future goals.

"It is significant when a community of artists realizes that its growth depends on its own efforts as much as on the audience to whom its work appeals."

Significant, indeed, for the art/architecture romance cannot even become a trial marriage unless the professionals involved know how and where to seek each other out.

ROBERT E. KOEHLER

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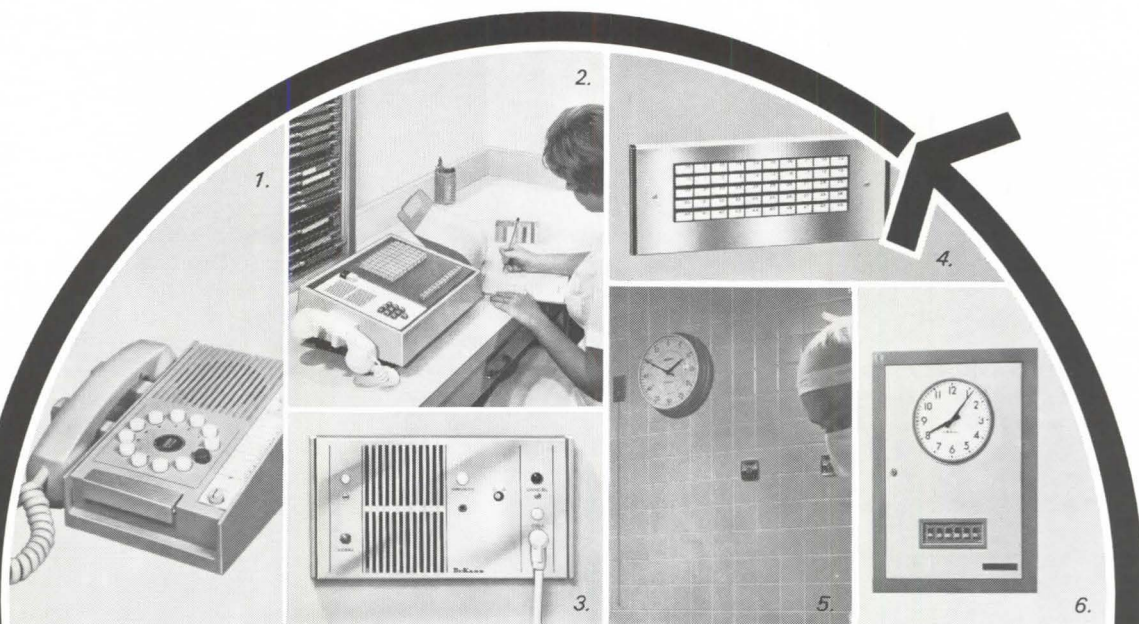
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Newslines

First AIA Critic's Medal To Mumford; McCue Wins Citation for Single Work

Lewis Mumford is the first recipient of the Institute's newly established Architectural Critic's Medal. The Critic's Citation, also awarded for the first time, went to George McCue of the *St. Louis Post-Dispatch*. Both are honorary members of the Institute.

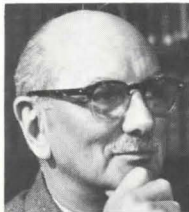
The five-man jury was unanimous in both selections after review of the 38 submissions received.

The Critic's Medal is awarded on the basis of a distinguished career devoted to architectural criticism. The Critic's Citation recognizes excellence in a single work in the same area. Critics in all communications media are eligible.

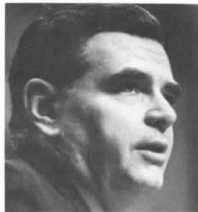
Members of the jury were Dr. Frank Stanton, CBS president; David Brinkley, NBC news commentator; I. W. Cole, dean, Medill School of Journalism; Francis P. Gassner, AIA, chairman of the AIA Committee on Esthetics, and Philip J. Meathe, AIA, Michigan Region director and chairman of the AIA Public Relations Committee.

Mumford, 72, constructive critic on man's environment since the 1920s, comes from Long Island, N.Y. His countless contributions toward improving the urban and suburban scenes, in the form of books, articles and lectures, have brought him an impressive number of honors.

Among them is the 1964 Presidential Medal of Freedom, the na-



Mumford



McCue

tion's highest civilian honor to those who represent creative excellence in the fields of public affairs, the arts and science.

Earlier, the AIA bestowed upon Mumford a special citation for his book *The City in History* (Harcourt, Brace & World, 1961), for which he also received the National Book Award.

George McCue, since 1956 the art and urban design critic for the *Post-Dispatch*, was born in Lipscomb, Tex. McCue, 57, received the Critic's Citation for his contribution in the form of a series of articles to increase the public's visual perception of the St. Louis environment.

McCue won first prize in the newspaper category in the AIA Journalism Competition in 1958 and 1959, and the second prize in 1960. He won citations from the College Art Association in 1958 and 1960.

Both awards will be presented during the annual AIA convention in June.

Unions Move to Organize Architectural Employees; Door Case Opens Problems

Said the letter from the United Auto Workers Union to employees of Detroit architectural firms:

"Most engineers and experienced draftsmen in the Detroit area have rates as good or better than bricklayers, plumbers, electricians, carpenters and tinsmiths. But not at (such-and-such firm).

"Today's serious shortages of persons possessing your high level of technical and professional skills should bring you rates superior to the building trades craftsmen as well as greatly improved fringe benefits. Have you ever wondered why it hasn't worked that way?"

To the wonderer, the letter suggested that he examine both the demands and rewards of his job and, if unsatisfied, return an enclosed card authorizing the union as his bargaining agent.

Similar organizing drives are taking place in other states besides Michigan—in Ohio, Washington, Florida, Mississippi and New York, for example.

Draftsmen, specification writers and other technical employees are signing the cards and many firms—architectural and engineering—are going through the throes of a union drive.

Thronging to Chicago: Nearly 500 architects and engineers gathered in Chicago last month to commiserate with one another during a "Facing the Union Problem" conference. More importantly, they were there to learn of the full

scope of union activity and of countering steps that might be taken.

It was readily apparent the participants had more than an external union problem to face. They also had to take an introspective look at their own practices and locate sources of employee dissatisfaction.

A recent survey of technical salaries paid by architectural firms points to the crux of the problem. Senior draftsmen, for example, are paid these weekly wages: Alabama, \$141; Arizona, \$150; Minnesota, \$178; Illinois, \$193; and Ohio, \$187. Compare these with the national average of the building trades for a week's work: electricians, \$212; bricklayers, \$214; and plumbers, \$216.

To quote the UAW Technical Office and Professional Department, or TOP:

"The architectural employees are dissatisfied because their salaries have not kept pace with those of comparable jobs in industry." Indeed, asserted TOP, "all the elements of a successful campaign are present."

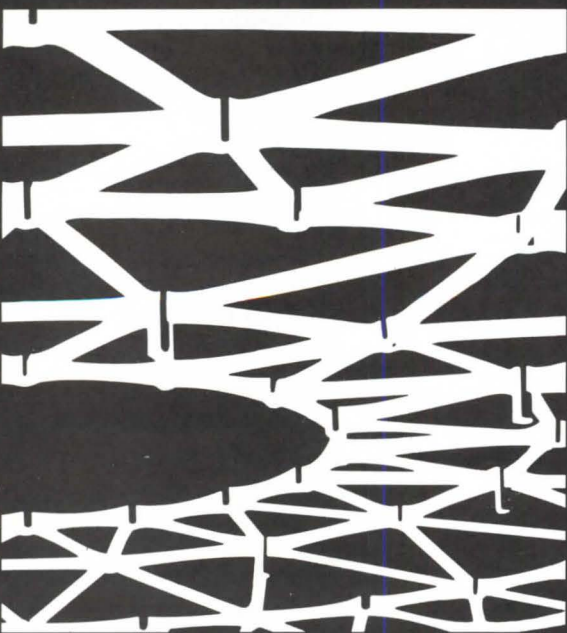
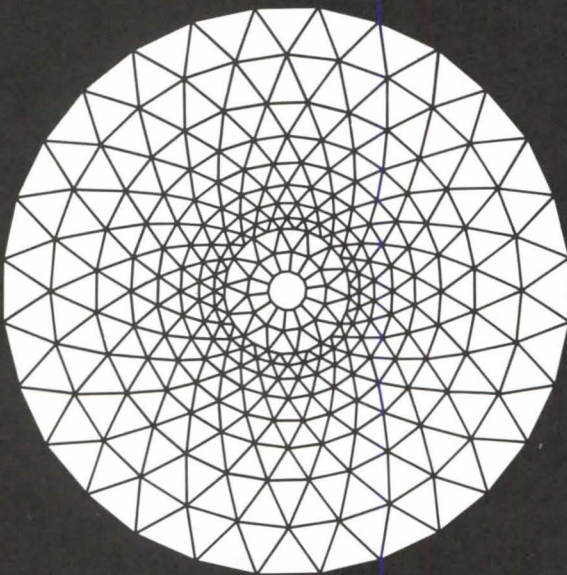
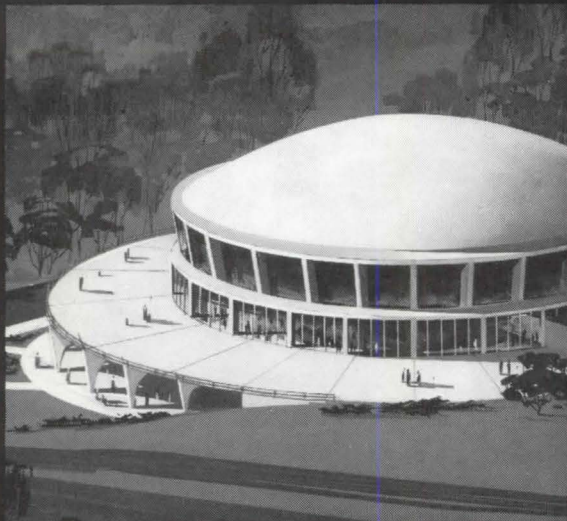
Architects, it was suggested, must face the fact that you can't put professionalism in a pay envelope.

A Question to Ponder: Are draftsmen and other skilled employees tired of hearing that unionism is inconsistent with their specialized skills? If so, union-gear pay scales and fringe benefits can appeal to "professional" draftsmen who earn less than plumbers.

Architects point to low fees as a principal reason for low salaries. It's not that they don't want to pay more, some say; it's just that they can't. Unhappily, architects are the only professionals who continue with fee schedules and modes of determining fees that served well decades ago but today are hopelessly outdated. "We can't avoid unionization," said one architect who thwarted UAW's attempt to organize his firm, "unless we develop some mechanism to improve our fee structure so we can upgrade salaries and fringe benefits."

On another labor front—one of immediate significance to architects—is the potential impact of

Continued on page 9



All of a sudden domes are the easy solutions.

Soon, America will shelter two hundred million people—focused mostly in cities and towns. Every gathering then becomes two—three—four times the humanity of 1950! And in theory at least, the dome should come into its own as the ideal, space-enclosing form. Practically, dome structures present forbidding difficulties on most budgets.

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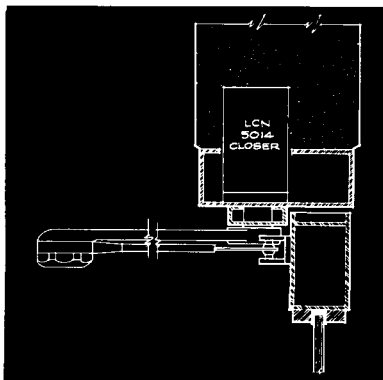
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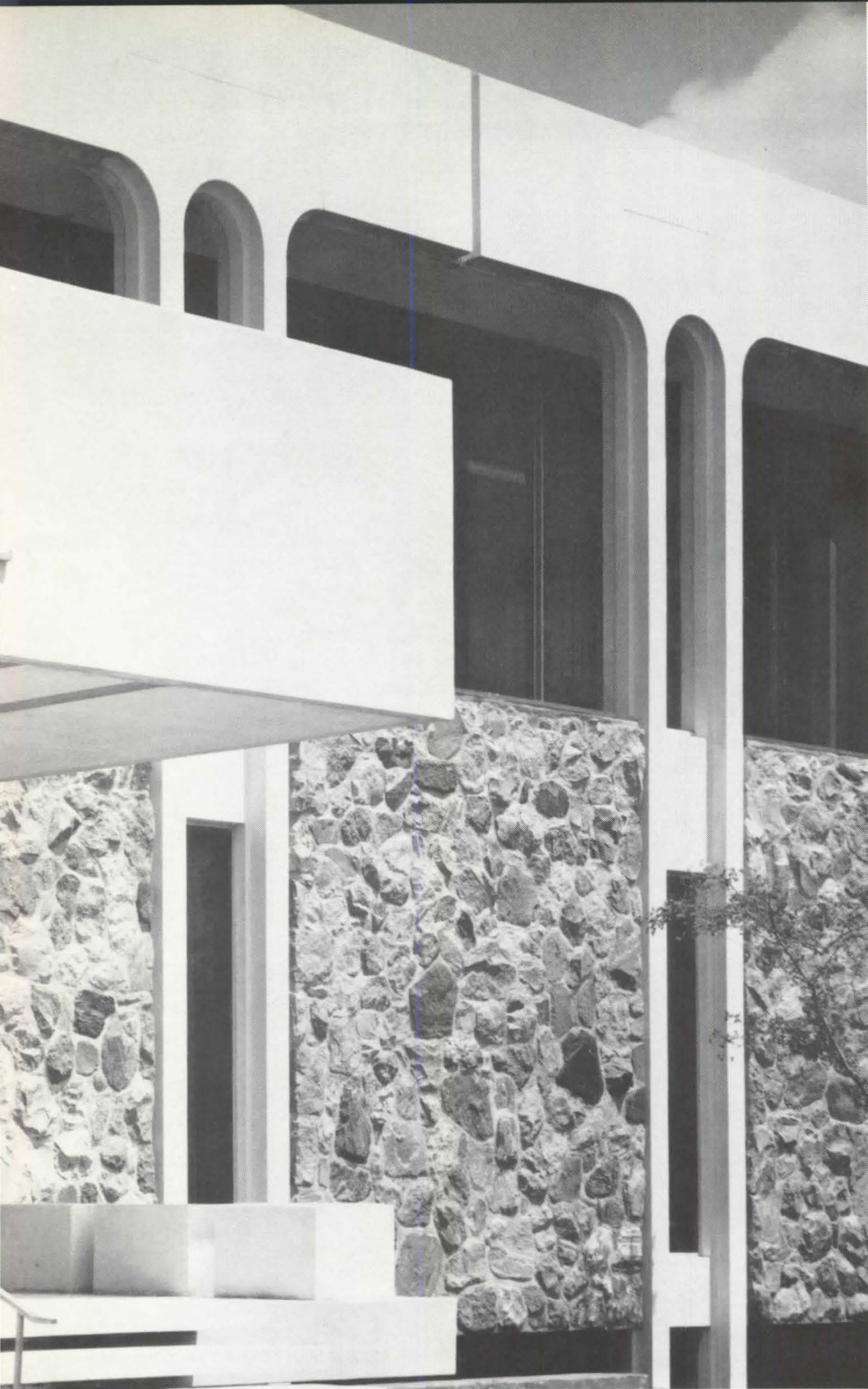


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Newslines from page 6

precedent-setting decisions of the Supreme Court, lower federal courts and the National Labor Relations Board.

"If allowed to stand," the AIA's Philip A. Hutchinson Jr. told the Chicago conference, "the net effect of these decisions will be to 1) impede technological progress in the construction industry at a time when our urban areas are in dire need of major rebuilding, 2) increase construction costs beyond today's all-time highs and 3) limit the design professional's freedom in selecting the best materials and methods to accomplish a building project."

That Philadelphia Case: In April of last year the Supreme Court decided the so-called Philadelphia door case involving a contractor who had to return 3,600 precut doors because carpenters refused to hang them.

"The issue before the Supreme Court was whether the carpenters' union violated a provision in the Landrum-Griffin Act declaring it to be unlawful for any union and employer to enter into a contract whereby an employer agrees to cease or refrain from handling the products of any other employer," explained Hutchinson, director of Governmental Affairs for the Institute.

"A majority of the Supreme Court held that since the union's purpose was to preserve the work of its members, the product boycott in question was outside the ambit of the law's prohibition. The effect being that a labor union may lawfully strike to prevent innovations, improvements and economies in construction so long as it is for the purpose of preserving work traditionally done at the site."

There was a strong minority dissent (the court split 5-4). In any event, the unions won the day; certain product boycotts are now legal. Their victory was fuller than at first supposed by optimists who figured the Philadelphia case would not apply to situations where the designer specified a particular material or process.

Opening the Doors: Since the decision, however, the building trades in Cleveland struck homebuilders to force them not to use prefabricated roof trusses, cabinets and other components. Concrete forms fabricated off the job site were opposed in San Diego. Sheetmetal workers in New York

and plumbers and pipefitters in the Minneapolis area prevented the use of preassembled components.

"It will not be surprising to see cases flowing from the Philadelphia decision dealing not only with preservation of work but also with securing work for union members," Hutchinson said.

While collective bargaining is the keystone to orderly industry/labor relations, Hutchinson warned that there is today "so serious an imbalance that the rights of unions are prevailing over those of employers, employees and professionals."

Labor Threatens to Picket Hire-the-Poor Projects

Threats by New York City construction unions to picket jobs in which slum-dwellers work as laborers is a foretaste of a growing contention between national building trade unions and federal officials.

Model Cities legislation, which calls for "maximum opportunities" for residents of blighted areas to be employed in the rehabilitation of their neighborhoods, is seen by unionists as a peril.

The Department of Housing

and Urban Development strongly favors hiring of the poor. On the opposing side, the AFL-CIO Building and Construction Trades Department fears the overnight creation of an unskilled force toiling for substandard wages. They believe that such a situation could ultimately lead to decreased wages for their own members. "You can't expect them to preside over their own funeral," commented union department president C. J. Haggerty.

Fueling such a fear was a proposal for a "rehabilitation specialist," a lower salaried category of workmen hired for the rehabilitation of the older houses in model city neighborhoods.

Actual construction work under Model Cities is some time off so the job of rehabilitation specialist is, for the unions, an item of preventive—or protective—care.

Notwithstanding reconciling attempts by HUD, no solution is seen so far in the clash between the self-interest motives of labor and the social motivations of government. This is in spite of HUD Secretary Robert C. Weaver's assurance that "we do not intend to tear down one section of the work force while raising another."

Basic Designs for Capital Rapid Transit Applauded; Swift Simplicity Is Key

Another important stop in the planning of the Capital's subway system was reached last month when the Washington Metropolitan Area Transit Authority made public the basic station design for the initial 25-mile stretch within the District of Columbia.

Hailed by the Fine Arts Commission as well as by the WMATA,




Proposed entrance in park setting.

the design is by Harry Weese & Associates of Chicago and Washington.

The stations will be uncluttered, let's-get-going spaces formed by vaulted walls and ceilings, some rising to 50 feet. Coffers in the

Continued on page 12



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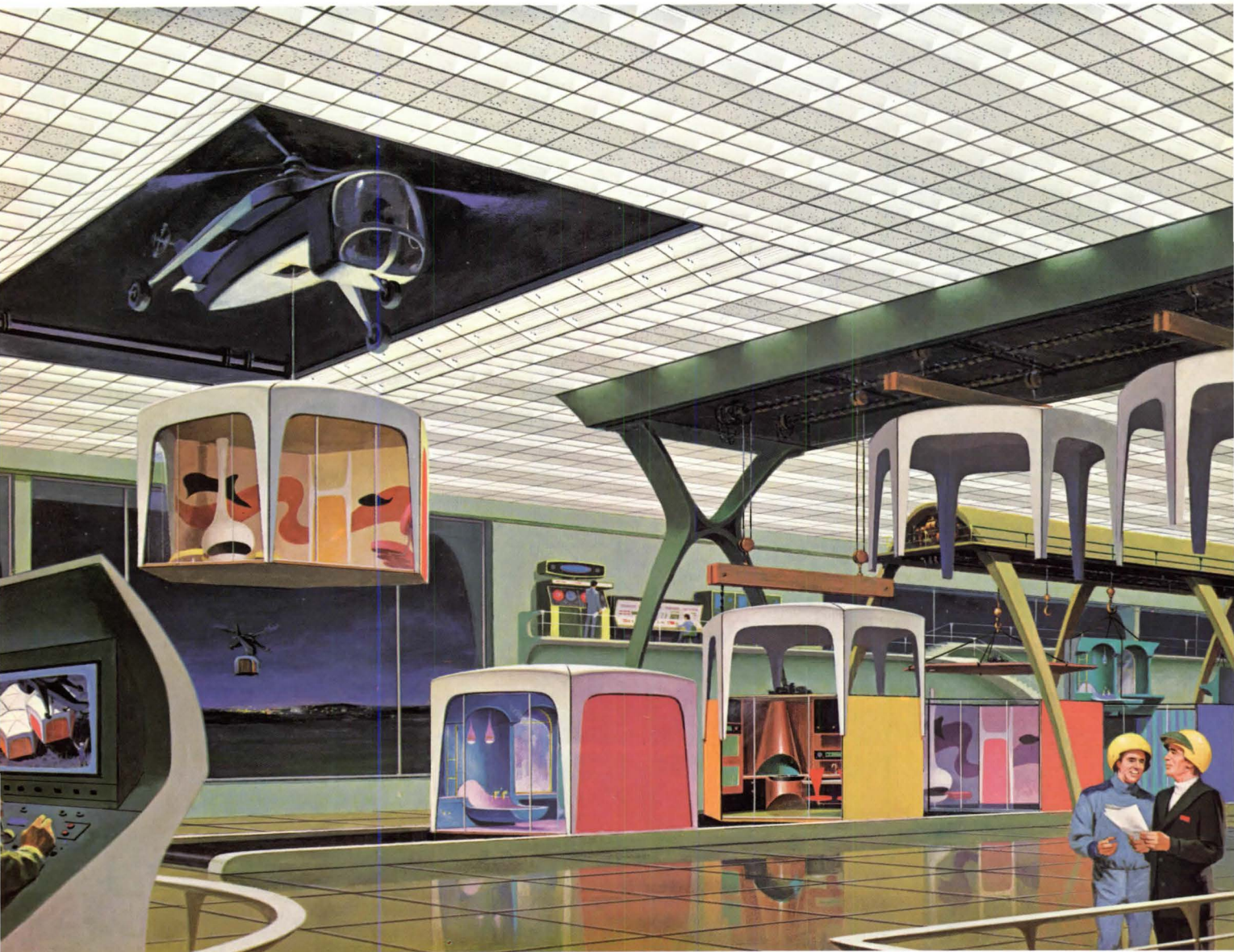
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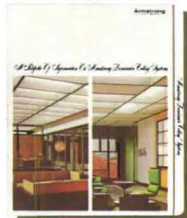
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As for flexibility of functions . . . On air distribution, you get from 1 up to 8 cfm per square foot. And you have six combinations of delivery return to choose from. Delivery, for instance, can be handled through the ceiling panels themselves . . . or through linear diffusers concealed in the ceiling's suspension system. Either way, you get comfortable, draft-free air distribution.

On lighting, Luminaire offers from 30 to well over 200 fc. It uses fewer lamps than conventional fixtures to achieve any given level, with fewer replacements and less wattage.

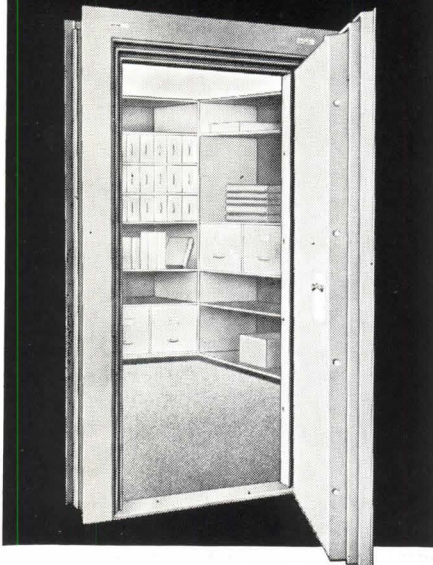
All this is combined with superior acoustical control and rated fire protection. And frequently, with substantially lower installation and maintenance costs.

What we've said here barely scratches the surface. A packet including application-engineering data, installation instructions, and guideline specifications goes a lot deeper. Write for it. Armstrong, 4201 Sage Street, Lancaster, Pa. 17604. Or for more technical data, Circle 211 on information card.



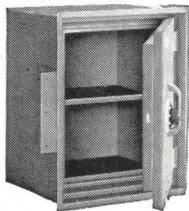
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12 AIA JOURNAL/JANUARY 1968

Newslines from page 10

precast concrete—with acoustic material within—will accentuate the form.

All stations will be 600 feet long and will accommodate eight cars, each of which will have four wide doors to speed loading and unloading. Fare collection facilities and information booths will be on the mezzanines, keeping the platforms free.

Utilities—mezzanines, escalators and platforms—will be free floating. This will keep artistically inclined travelers from testing their writing or pictorial skills on the walls. Furthermore, the floodlighted walls will be void of advertising or posters, a factor that will play up the simplicity of the design.

Twenty-three of the stations will be underground with entrances in parks or under large buildings.

Escalators will carry passengers from street level to the mezzanines. Openings to their shafts will be enclosed by simple concrete walls to protect pedestrians.

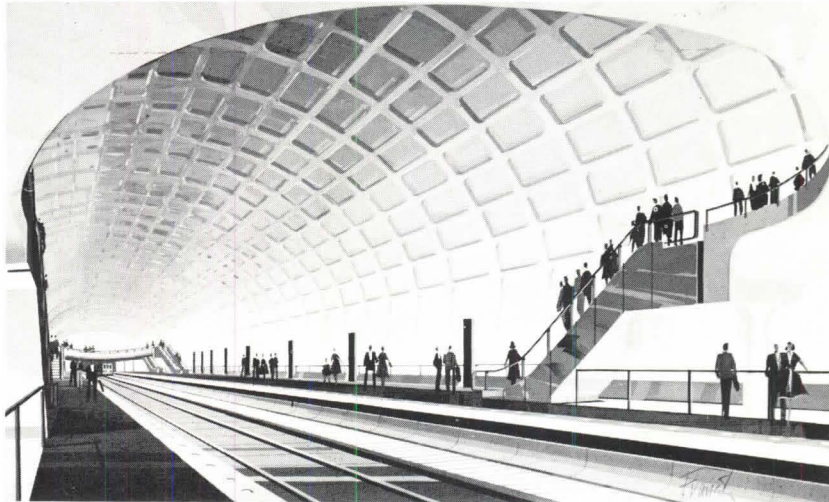
In addition to the 23 underground stations, seven will be at ground level and two will be elevated. Basic design for these has not been completed.

Estimated cost of the 25-mile initial system is \$431 million; the complete 95-mile system, which will reach into the Virginia and Maryland suburbs, will be about \$2.3 billion.

Ground will be broken in the fall for the first station—Judiciary Square—but it will be 1972 before the first trains of the system that is to be a model for the nation start rolling between Dupont Circle and Rhode Island Avenue at Eighth Street N.E. This will be more than 60 years after the *Washington Post* (Dec. 5, 1909) suggested a subway for the city, giving detailed plans and drawings, and about 40 years after the seventh Architect of the Capitol, the late David Lynn, built the Capitol Hill subway for members of Congress.

At that time, Lynn regarded a subway system for Washington as inevitable. *Continued on page 14*

All stations will be light and spacious, though height, width, will vary.



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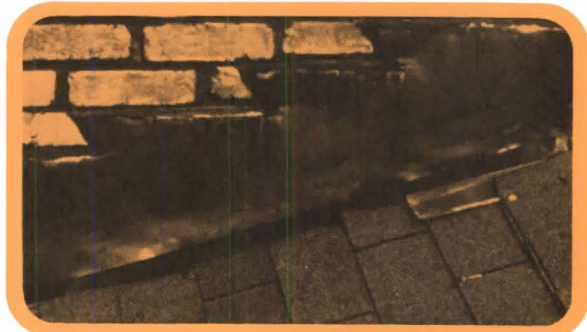
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ASLA Has New Director; Harriss Back in Practice

Alfred B. LaGasse, both a landscape architect and professional organization manager, is the new executive director of the American Society of Landscape Architects.

The 1948 graduate of Texas A&M was executive director and general manager of a merger of groups making up what is now the National Recreation and Parks Association.

Then, last July, he became president of Executive Consultants, Inc., a Washington, D. C., firm specializing in trade and professional organization management and consultation, which in November entered into a two-year management contract with ASLA.

Lynn M. F. Harriss, LaGasse' predecessor, has returned to private practice in Washington, D. C. He served as ASLA's executive director for seven years.

Century-old Thonet Chairs On Display at Harvard

A show of chairs this month at Harvard University's Carpenter Center for the Visual Arts is intended to make visitors stand up and take note of how form can result from industrial process.

The 40-plus items on display are examples of just that. They are the works of none other than Michael Thonet, developer of steam bending and laminating production techniques more than 100 years ago. The result, of course, was the bentwood Thonet chair which today symbolizes both the durability of good design and industrial mass production. It is still produced—one of the few 19th century creations with appeal in the 20th.

Most of the chairs on exhibit at Harvard are loaned by Austrian collector John Sailer. Hailing Thonet as a genius, Sailer points out that in addition to being one of the first industrial designers, Thonet was a craftsman, inventor, architect and large-scale entrepreneur.

When Thonet was ready to build his first factory in 1856, he personally drafted the plans and designed the machines, Sailer notes. Economy minded, Thonet located

Continued on page 16



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AIA JOURNAL/JANUARY 1968 15

the enterprise in the forests of Moravia where beechwood was cheap and labor plentiful.

Public Works Dead Without Environmental Faith

A road is a road is a road—No! A road is part of our environment.

This is the point Institute President Robert L. Durham, FAIA, stressed before a Senate hearing on highways.

Not only roads, Durham emphasized, but all public works—rails, power lines, water and sewer systems, etc.—these are the things that “form the public spine or backbone of our physical environment.”

Asserted Durham: “We must awaken to the fact that by planning and building a federal highway system we are designing America’s environment.”

The hearing was part of a major series conducted by the Senate Public Works Committee. The series represents the first hard look at the decision-making process as it affects the urban environment.

Conducted by Sen. Jennings Randolph (D-W.Va.), the hearings will continue through this month.

Both the decision to hold this set of sessions and the form they were given were influenced by the Institute.

Many of the ideas searched in the current hearings stem from a series held early last year. It was during these hearings that Archibald C. Rogers, FAIA, chairman of the Institute’s Committee on Urban Design, explained the philosophy of the design concept team.

Numerous design professionals have been scheduled to appear as witnesses in order to develop further the hearings’ purpose of devising a basis for major approach policy on all federal public works programs. Those who have already testified besides President Durham are John Fisher-Smith, AIA (whose dialogue with Sen. Edmund Muskie will appear in the AIA JOURNAL next month); landscape architect Ian McHarg, ASLA; planner Norman Klein; and Carl Feiss, FAIA.

Rogers will also appear again.

Dim Hope for Some Salvage Seen as Imperial Succumbs

Right on time, demolition workers started their attack on the Imperial Hotel last month despite Mrs. Frank Lloyd Wright’s last-

ditch attempt to save the 44-year-old Tokyo landmark (AIA JOURNAL, Dec. ’67).

A mere glimmer of hope was left that the main lobby and possibly some other parts of the *FLW* marvel might be salvaged and moved to another location.

Deteriorated both physically and economically, the Imperial will give way to a new, larger hotel.

Architects Asked to Enter Olympic Exhibit Tryouts

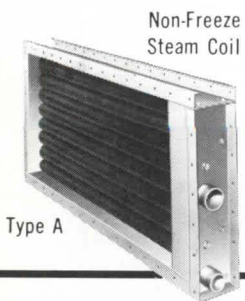
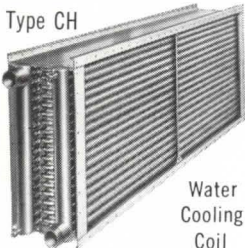
An exhibit of special interest to architects will be shown simultaneously with the Olympic Games in Mexico City next October. Architects of all nations have been invited to compete for inclusion.

The exhibit, “Spaces for Sports and Cultural Activities,” is sponsored by the Organizing Committee of the Games of the XIX Olympiad under the chairmanship of architect Pedro Ramírez Vázquez in collaboration with the International Union of Architects. It is the sponsors’ hope that it will contribute toward a closer relationship between the Games’ athletes, the audience and the architects.

Interested persons were asked to forward 8x10-inch glossy photo-

Continued on page 18

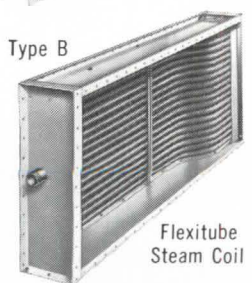
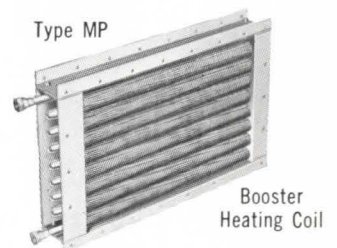
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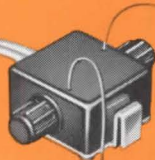
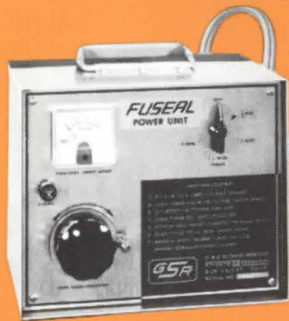
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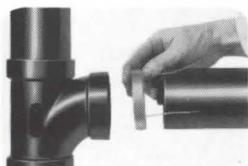
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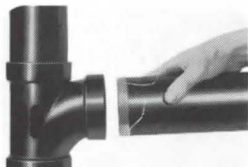
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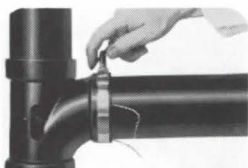
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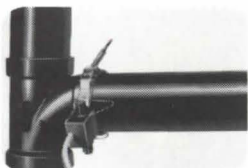
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graphs of the work they would like to present. The deadline has been extended to January 30. Material must be mailed no later than this date to Mrs. Ruth Rivera, Organizing Committee for the 19th Olympic Games, Ave. de las Fuentes 170, Mexico 20, D.F.

Entries will be examined by the Selection Committee next month. Winners, to be informed shortly afterward, will be requested to submit additional material for the exhibit.

M'Cormick Design up in Air But No Longer Suspended

Yes, you have seen it before in another version, the model of the new McCormick Place in Chicago (AIA JOURNAL, Dec. '67). The previous concept, a cable-hung structure, apparently just smoldered away when the city's Metropolitan Fair and Exposition Authority requested that the architects, C. F. Murphy Associates, reconsider their design and restore the Arie Crown Theatre to its original 5,000-seat capacity. The first plan



With model: McCormick boss E. J. Lee, left; project manager Gene Summers.

left room for only a 2,500-seat theater.

The new model is not a final one; it has been approved by the Exposition Authority merely for investigation.

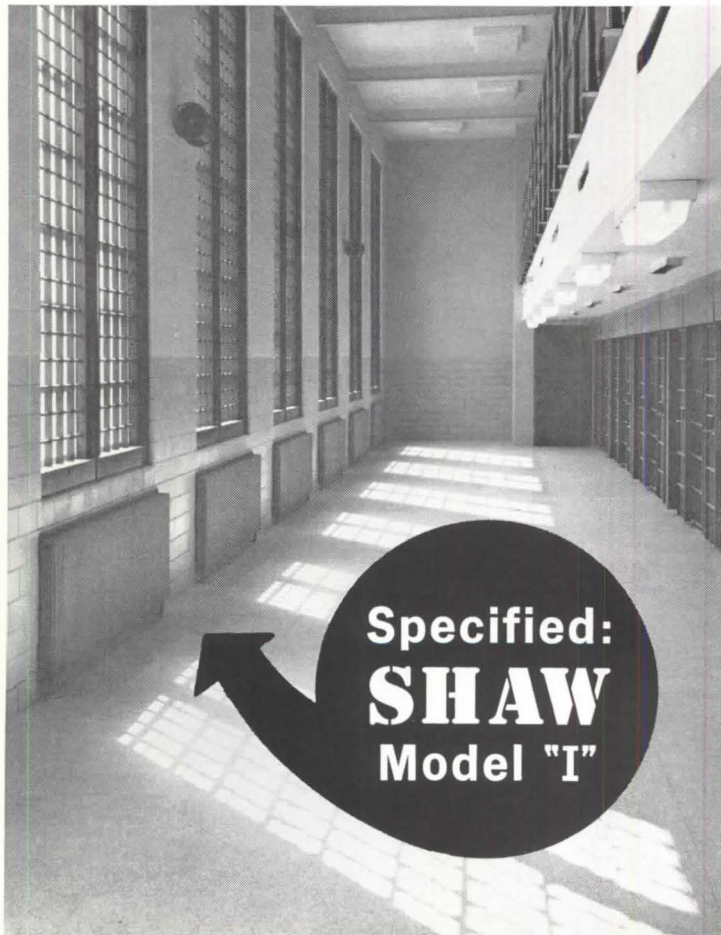
The new concept, like the former, would use whatever is left of the old hall, ravaged by fire a year ago, to the fullest extent possible. Exhibit space, on two floors, would be 600,000 square feet

against 607,500 in the previous scheme and 500,000 in the old structure.

Greenery Spurs Exhibitors To Make Portland the Best

Forewarned that Host Chapter volunteers will deck the hall with flowers and greens, the AIA has challenged exhibitors at the 18th

Continued on page 28



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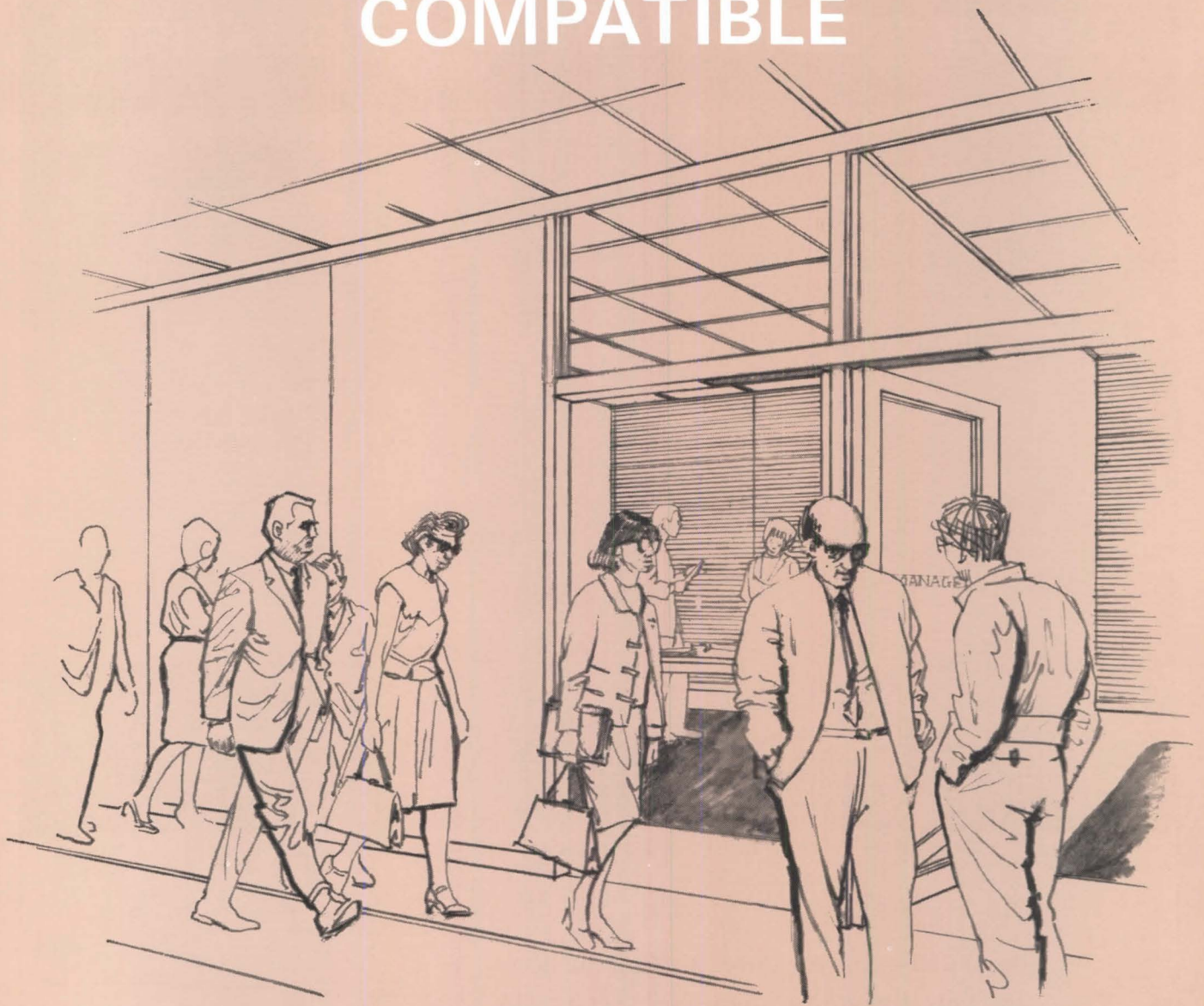
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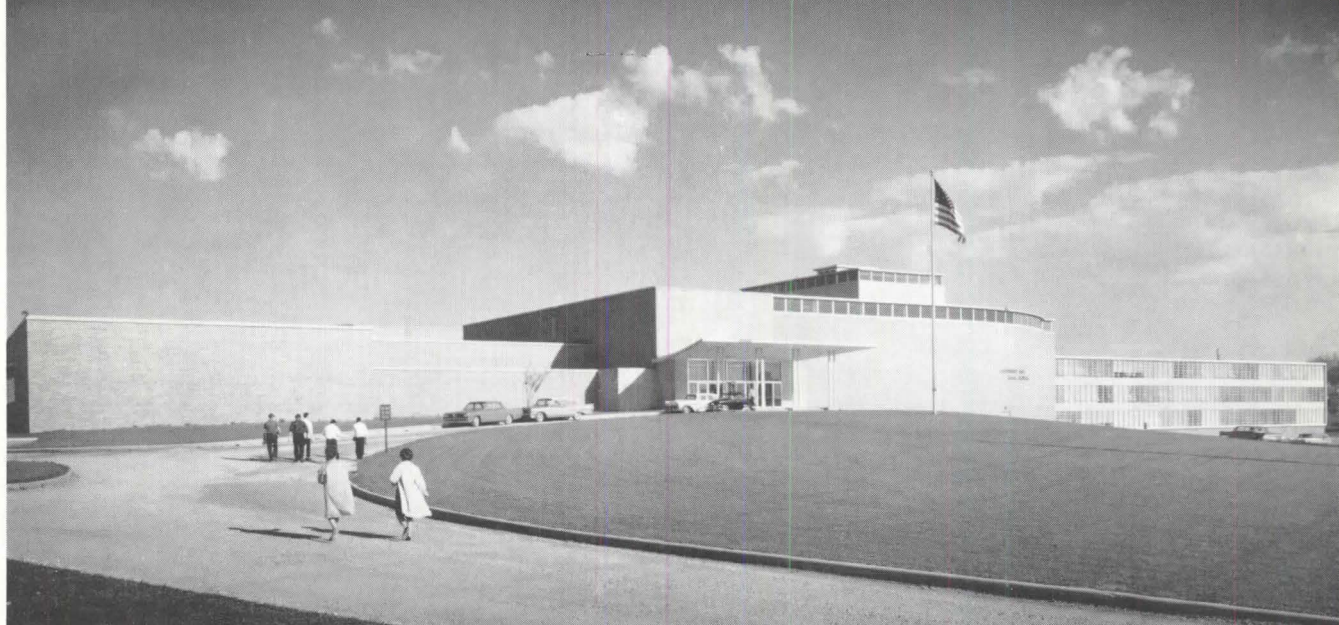
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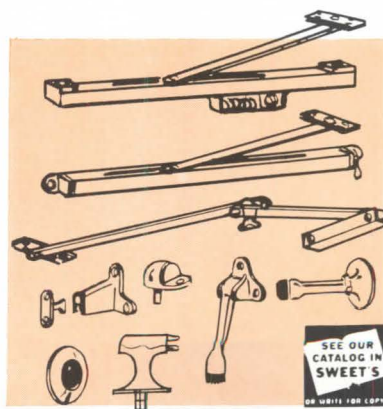
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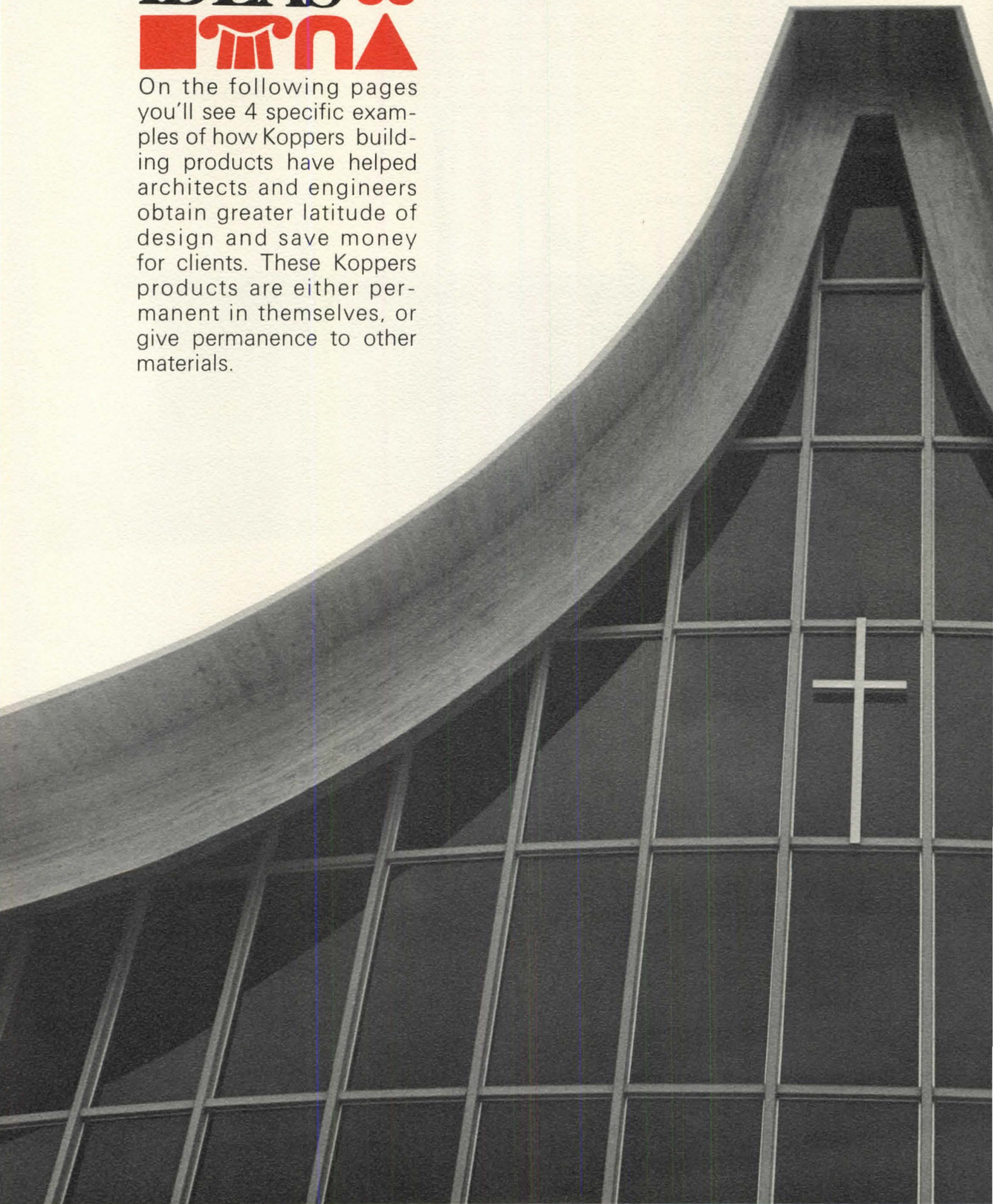
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East meets West over this Southern church to form a roof that looks like an open Bible or a pagoda

Eastern Oriental and Western Traditional architectural styles have been combined to create a pagoda-like roof for the new Baptist church sanctuary in Miami Springs, Florida. But the structure's motif seems to be in the eye of the beholder. Some of the congregation see the roof as praying hands, or an inverted, open Bible. Others get the impression of Gothic architectural style from the cedar-stained, Koppers laminated wood beams and arches soaring 75 feet above the floor.

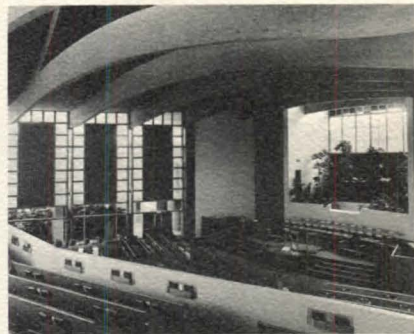
The roof and understructure had to be designed to shelter three areas: the new church education building, the original sanctuary, and the church office building. This called for supports of enormous weight and strength. One of the laminated beams is 141' long, and weighs 15 tons. In lengths diminishing to 114'—to accommodate the site's shape—nine other laminated beams complete the span from main entrance to rear wall. The beams are anchored to the tops of 30' high concrete columns on 14' centers outside the sanctuary proper.

The interior arches are carried to the roof's apex by supporting beams. The total system, including the roof deck, required about a quarter of a million board feet of Southern Pine.

The architect who designed the structure likes laminated wood because, "I can create any shape

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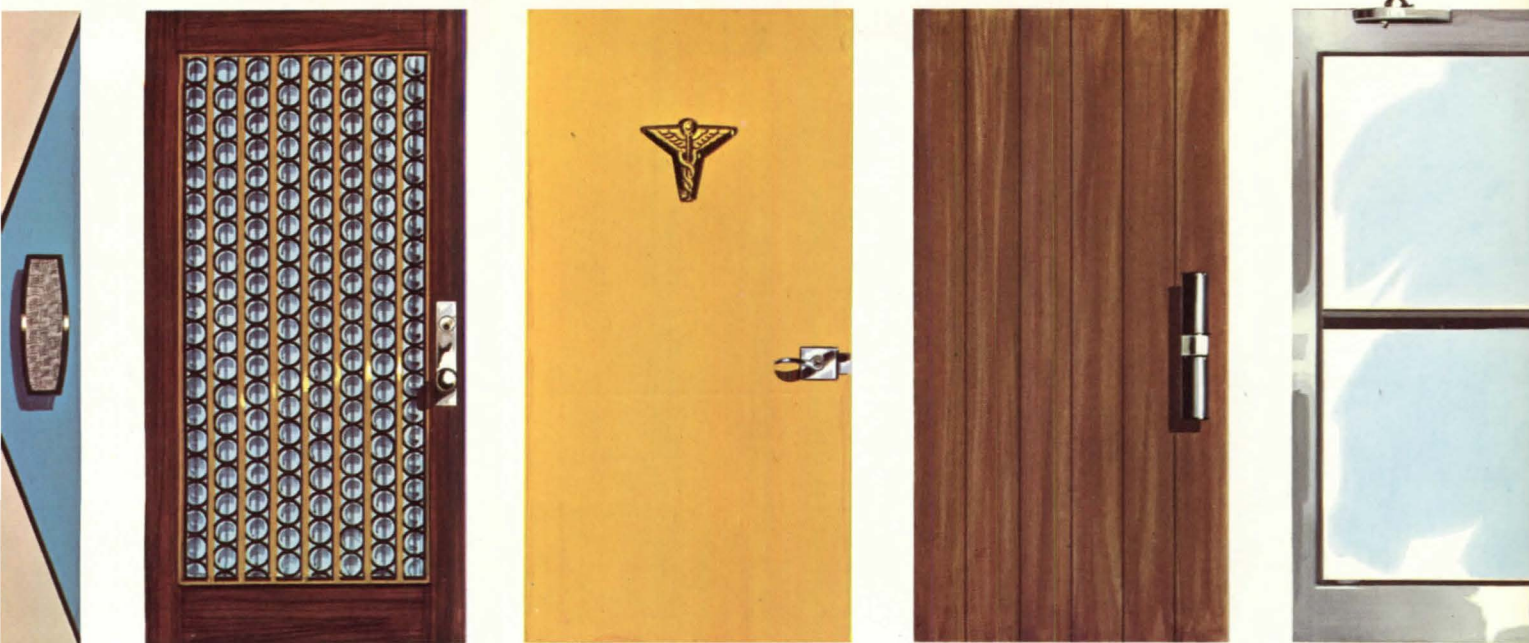
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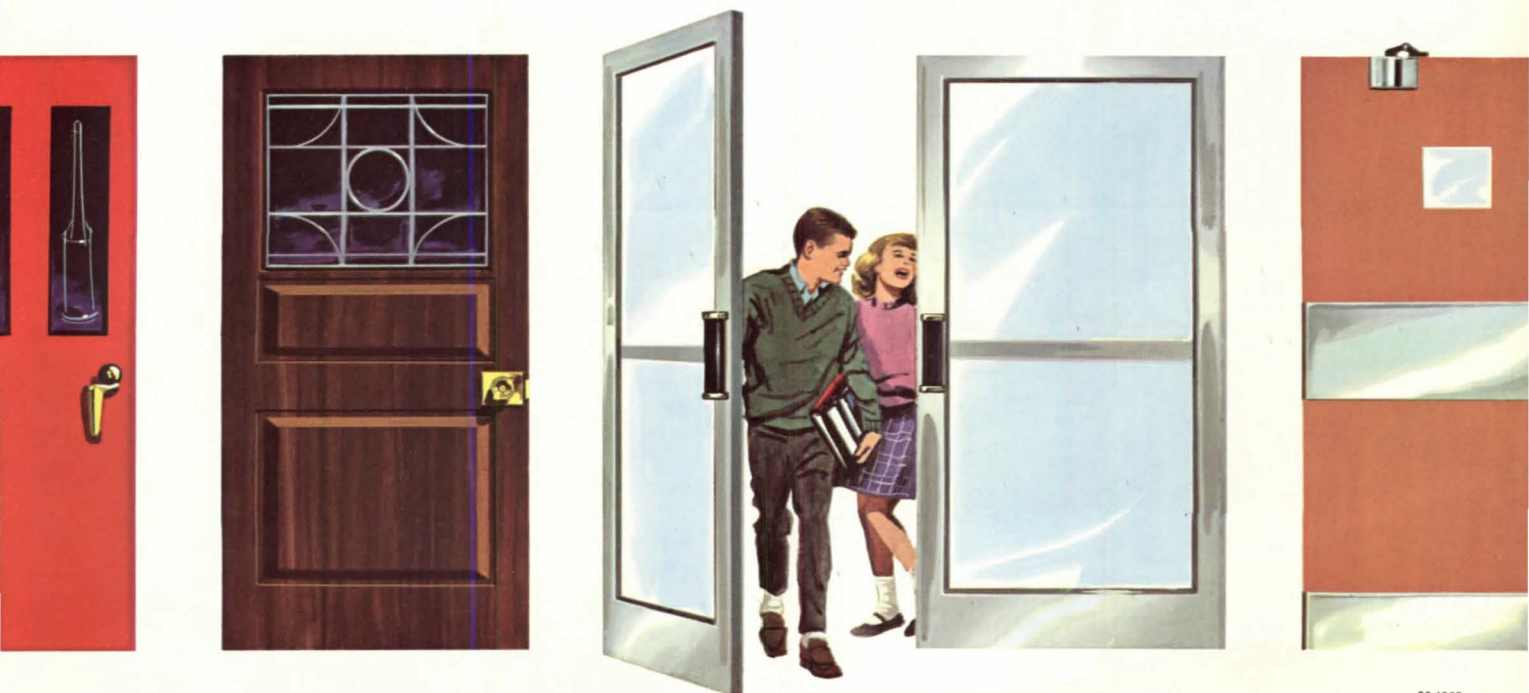
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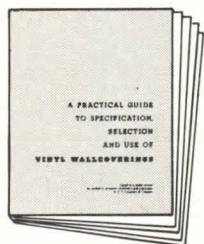
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Circle 213 on information card

AIA Building Products Exhibit in Portland, Ore., June 23-26, to strive for booth excellence that will surpass all previous efforts. Accordingly, the Memorial Coliseum promises to be a colorful backdrop for the exhibits and a gay setting for the various convention activities.

The Coliseum will be a complete center of affairs, housing the architectural displays, registration and delegate accreditation, Host Chapter hospitality lounge, centers for AIA services, information and messages, architectural students' activities, women's and children's activities and convention staff and news operations. A restaurant is on the premises.

New and clean of line, the Coliseum is right in the hub of things: Lloyd Center for all kinds of shopping is only a few blocks away; hotels and motels of importance are nearby. Shuttle buses will operate on regular schedules between these and headquarters.

More than 3,500 members, exhibitor representatives, wives and children are expected to come to Portland for the event. For participants not going on to Hawaii for the second section of the convention, June 28-29, "The City of Roses" will not be such a rough place to be.

**Brick Structural Systems
Not US Forte, It Is Said**

The US is lagging far behind some other countries in masonry technology.

Such, at least, is the opinion of world leaders of the masonry industry who attended the recent International Conference on Masonry Structural Systems in Austin, Tex. Participants numbering 550 came from Europe, Asia, Africa, Australia, New Zealand and the Americas to exchange information on masonry structural systems.

On the face of it, it would seem that this country was on the receiving end of the information exchange:

In 1958, the Swiss built an 18-story building with 15-inch load-bearing brick walls. The US has yet to match this, although in 1966 a 17-story building with 11-inch reinforced brick walls was built in Denver.

In 1964, two French manufacturers supplied prefabricated brick panels for 43,000 dwelling units.

Some of these panels (8 feet high) are 20 feet long. They are shipped from the plants with the windows and doors in place and with the walls already plastered. Their primary application is in high-rise, load-bearing wall buildings.

**Homebuilding Ideas Prod
Interprofessional Efforts**

"The Name of the Game Is Living" was the theme of the 24th annual convention of the National Association of Home Builders, and its basic premise was that today, living in apartments is "in."

The convention, held last month in Chicago, gathered together 34,000 homebuilders, architects, planners, landscape architects and other related personnel to discuss, among other issues, the implications of the multifamily housing boom.

Reaffirmed several times at the convention was the idea of a new trend evolving in the homebuilding trade. As housing construction becomes more complex, due in part to the apartment trend, builders need to seek the help of other professionals. Consequently, new affiliations with the design professions are bringing greater emphasis on good design, it was said.

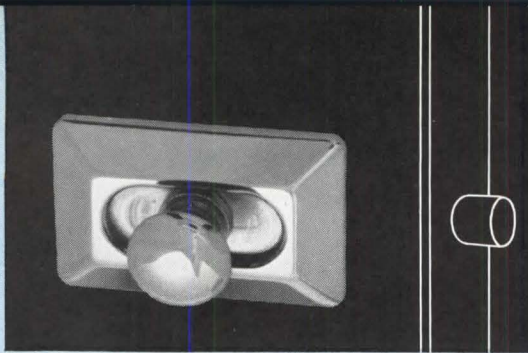
Necrology

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Providence, R. I.
- HERBERT H. BOHACKET
Rochester, N. Y.
- C. C. CLARK
Palos Verdes, Calif.
- MICHAEL HACK
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- EUGENIA LANE
Seattle, Wash.
- ALBERT F. LARSON
Eau Claire, Wis.
- E. L. MILLS
Tacoma, Wash.
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- Members Emeritus
- L. M. GURDA
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Circle 282 on information card



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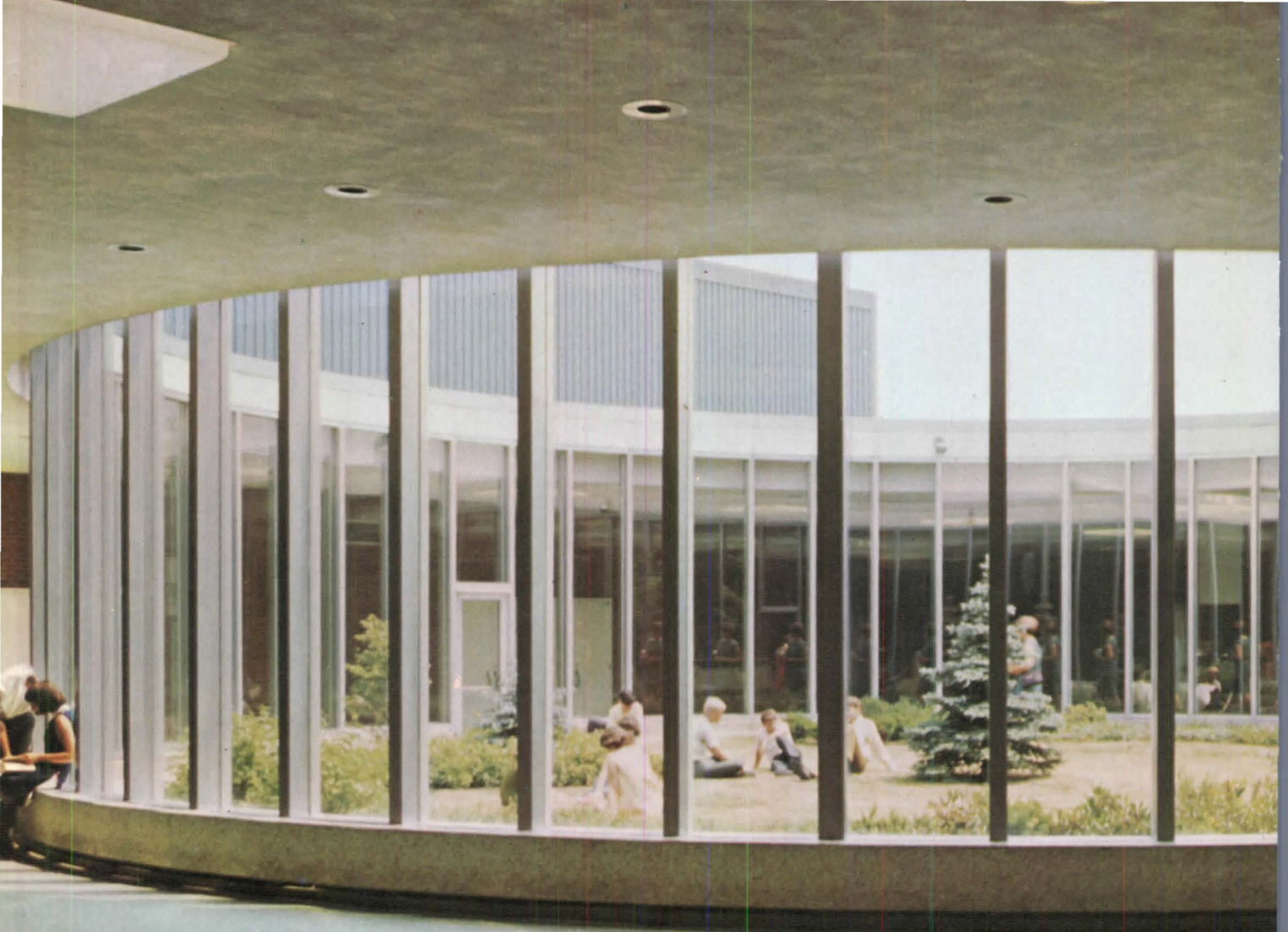
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L·O·F visits a school that generates enthusiasm for learning

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Mount Pleasant (Pennsylvania) Senior High is a single-story, electrically heated structure built around a series of open courts.

There are lots and lots of windows.

A distraction to students?

Says 11th grader Pamela Briner, "I love this school. These big windows are great. I never feel cooped up. If you like to go to school, you do better."

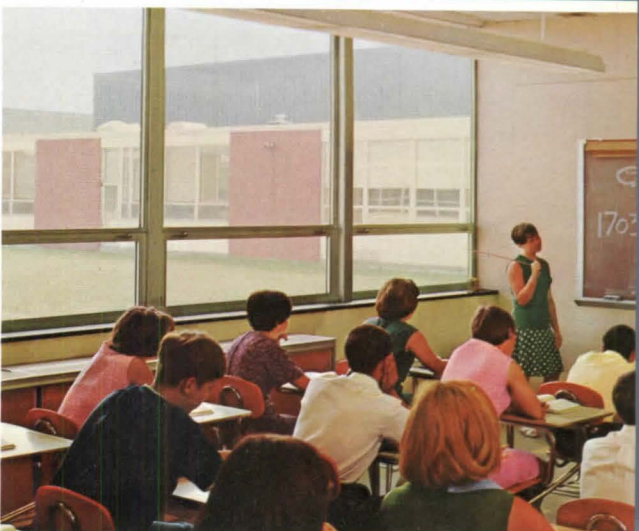
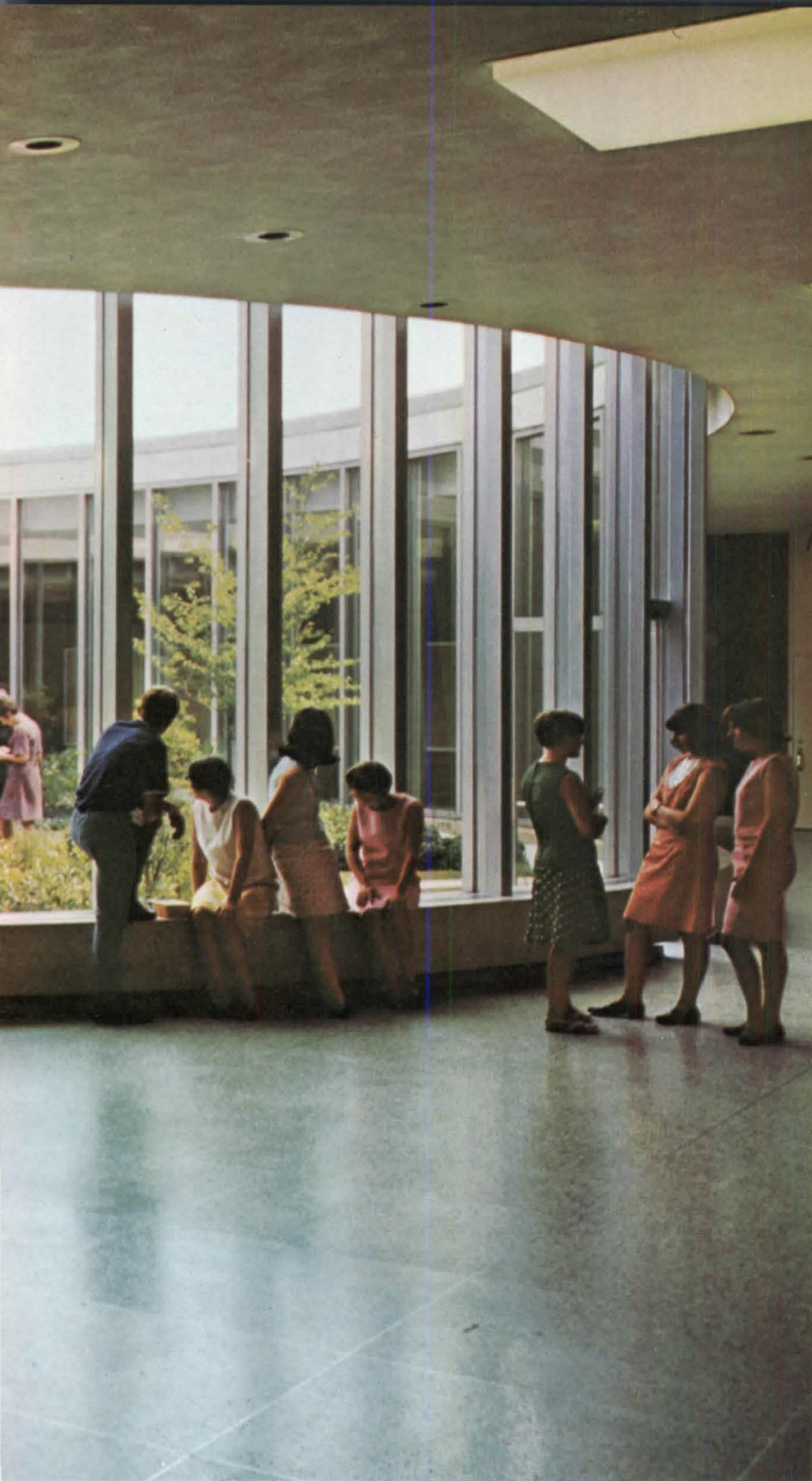
Patricia Briner, a 10th grader, says, "I like the way the school looks from the outside. But once you get inside . . . Wow! . . . that's where the school is terrific. You can see everything that is outside from the inside."

Mrs. Jean C. Shaw, summer swimming instructor, states her views. "The vast expanses of glass are im-

pressive. I like them and so do the other teachers. There is simply no substitute for daylight. Teaching becomes easier, learning is facilitated."

Mr. Francis A. Gallicchio, principal, adds, "When we opened the school there were a few days of relative inattentiveness, but once the novelty wore off it has worked the other way. We are convinced that these large glass areas have contributed to the fine scholastic standing our enrollment enjoys. And there is little doubt that our building design has led to the retention of much of our staff."

Architect Thomas C. Large of Hunter, Campbell & Rea, Altoona, Pa., says, "We wrote in the specs that windows should be an insulating glass since the



Building is electrically heated. Our cost studies made clear that the additional cost of insulating glass over regular single-pane glass would be amortized within a period of time and would then yield annual savings, on the basis of lower heating expenditures. We have used Thermopane insulating glass extensively with uf-flex® tempered plate glass in a number of exterior doors where insulating glass was not required."

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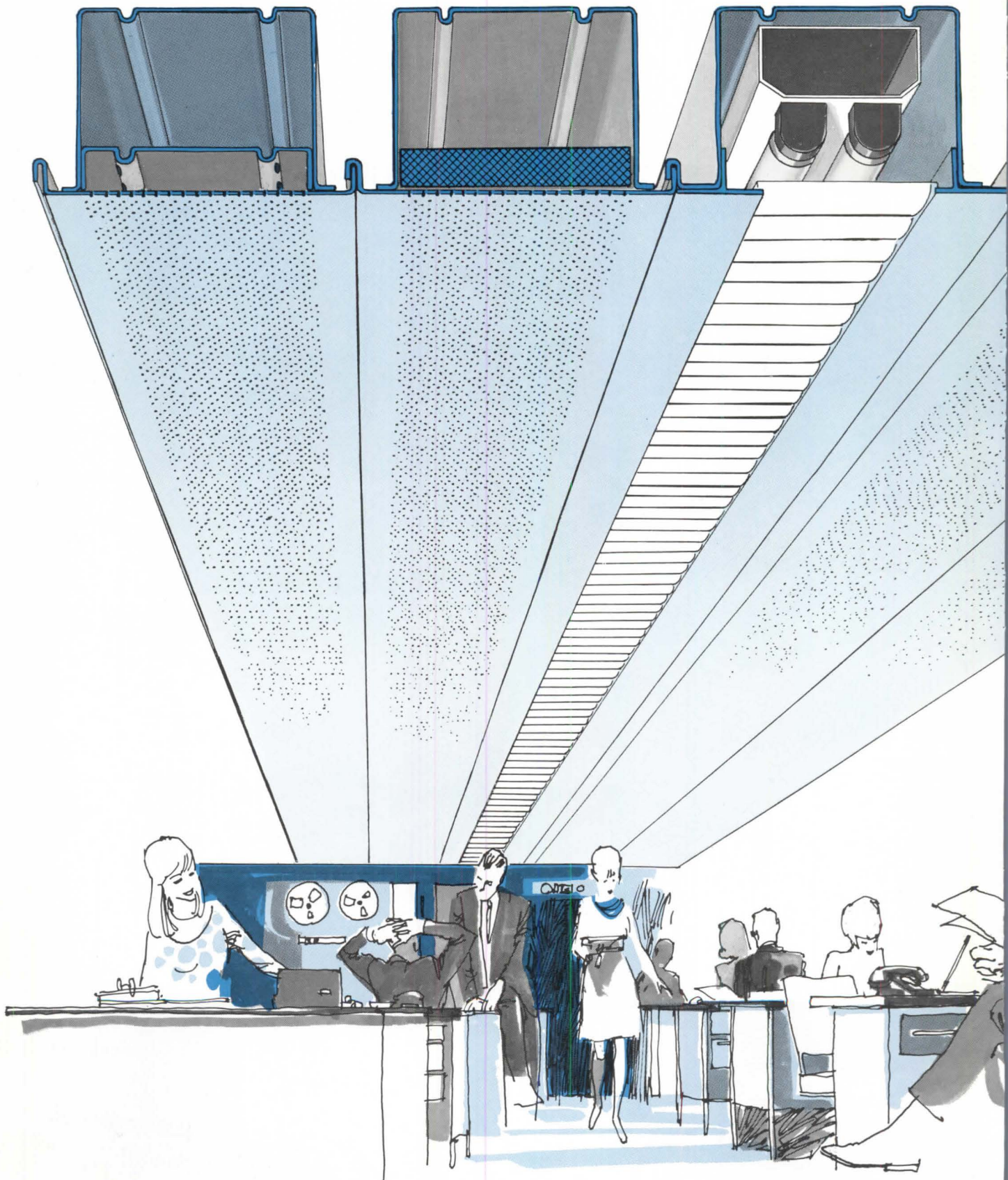
L·O·F Glass Company Toledo, Ohio

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Air Diffusion

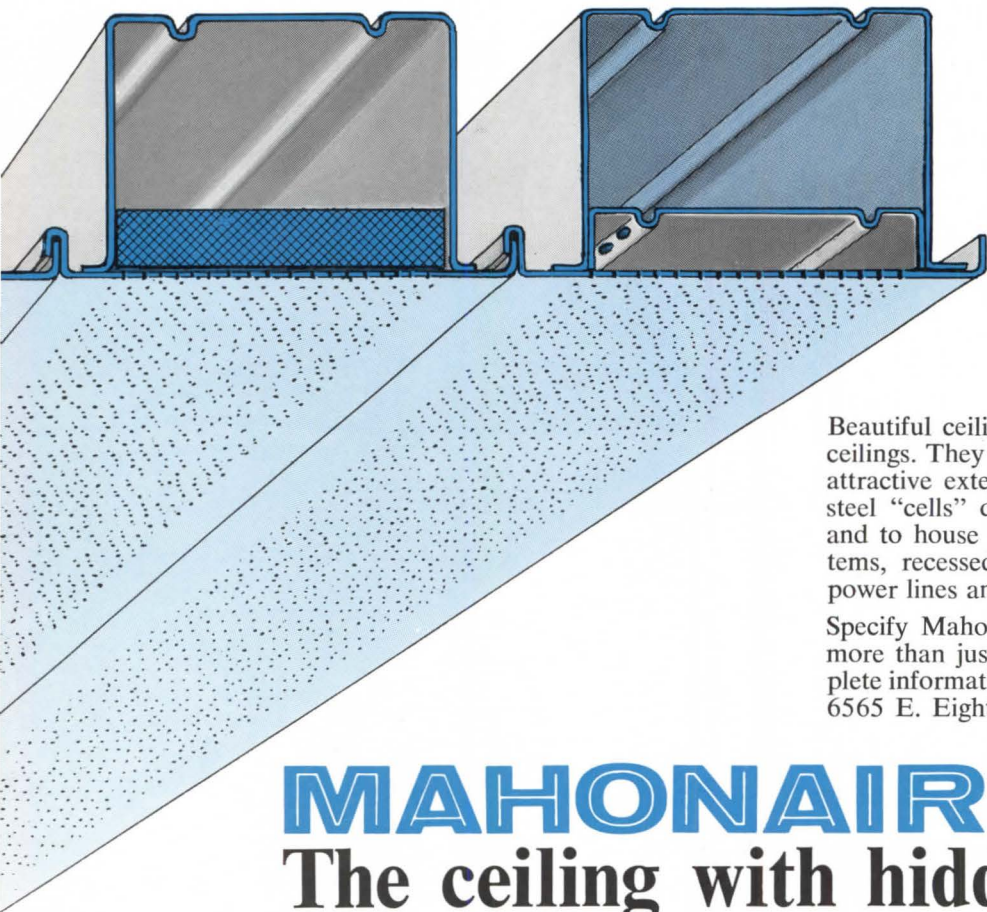
Sound Absorption

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Sound Absorption

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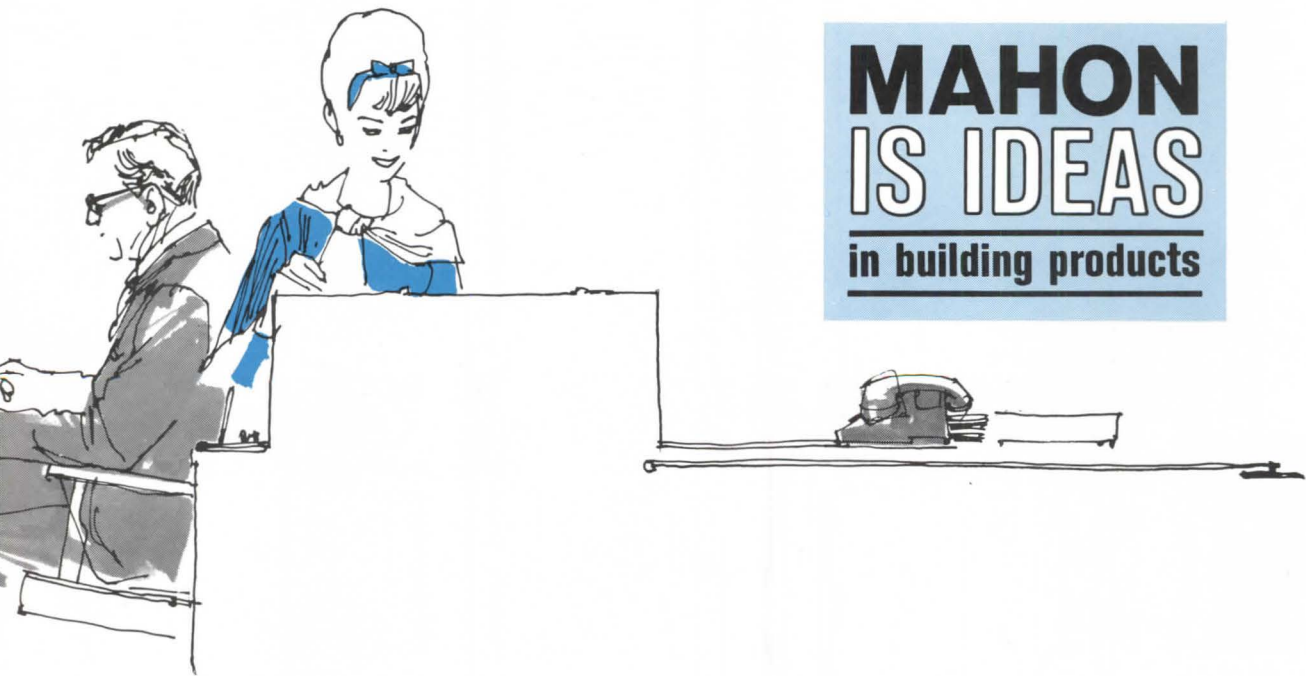


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UNFINISHED BUSINESS

BY WILLIAM H. SCHEICK, FAIA
Executive Director

Smile When You Say That, Stranger

Somewhere in the dim past *homo sapiens* decided that if he had to take a bitter pill, he was entitled to have something sweet with it.

Nowadays it is popular to use wit and humor as the sweet to go with the bitter in the various media of communications. The purposes are several: to make a point, to awaken the audience, to criticize or even insult public figures, a fellow speaker or the entire audience.

When I was a kid and got off my feed, my mom and pop would experiment with home remedies. When one of them worked it saved a doctor bill. If none did, then I was sick enough when the doctor came so that he didn't have to experiment like they do now with \$7 antibiotics.

The first family experiment was usually with castor oil. Pop knew about the bitter and sweet deal, and his idea of compensating for the awful taste of castor oil was to add some port wine to it. He didn't know much about specific gravity and never seemed to notice that the two liquids went down separately and in reverse of the order intended. To make matters worse, I hadn't learned to like port.

Some practitioners of the art of wit and humor handle it as clumsily as pop did with the castor oil and port wine.

Take speech making for instance. How many times have you heard the speaker come to the fifth line in his address about "The Crisis in Our Cities" and then say, "which reminds me of the eskimo, the rabbi and the four-star general." He then tells the joke and everybody laughs to encourage the speaker.

From that point on everything else is very unfunny and tends to put the audience to sleep. The basic

trouble seems to be only the one drop of port wine and too much castor oil. Blame it on the speech writers.

If you think really humorous speeches are easy or cheap to come by, just try to put together a convention program and include a Parkinson or a Cerf in your budget. You might make it up on registration fees at that.

One of the most confusing aspects of modern wit and humor for me is the so-called comedian on the TV variety shows. Ed Sullivan gives this big buildup about the greatest comedian of the age and introduces some guy in a tux who doesn't look like W. C. Fields or Fred Allen and doesn't sound like them either. The great comedians have always made humanity laugh at its own foibles.

These new monologists attack everyone and everything with what the trade aptly calls sick jokes. If you took away their cracks about their wives and their psychiatrists, they would be scriptless. Their success apparently lies in taking the audience through an experience of vicarious revenge. At best they might be called "comics" in a pathological sense.

The newspapers slay me with a strange combination of sweet and bitter in front-page news and pictures. A typical scene is at the airport and shows the Vice President and the Secretary of State welcoming home the Secretary of Defense from Vietnam. Everybody is laughing fit to kill. The related news story is strictly from doomsday. One can only conclude that the cause of the facial expressions was not merriment but hysteria.

The joke-poke technique is widely used these days in such civilized gatherings as conventions, board meetings, symposia

and panel discussions except when same are conducted by women. Members of the fair sex know a dig when they hear one and are not about to let a female digger get away with it just because everyone says ha ha.

Turning to the editorial page of any large daily, you will find some of the truly serious messages for the populace. The writers display fine humorless courage within the limits of good taste and freedom from lawsuits. When the publisher really wants to use the old club he gives that assignment to his famous cartoonist.

Caricatures are regarded as funny and thereby the safest method for committing mayhem. Many a VIP in Washington proudly pins up the editorial cartoon in which Herblock mangled him.

There are no two ways about it. The best way to get your point across is with a laugh. I find my peers most conversant on Buchwald's latest column but very hazy on Lippmann. Mr. B. might be haled into court (or taken out and shot in USSR) for what his humor really means but his hilarious readers would never stand for it.

If you feel like trying it yourself, I suggest getting into a panel discussion on the "Environmental Design Team." (They are going on everywhere.)

Moderator: "Who is the leader of the team?"

Engineer Sam Bogen: "The guy with the client."

Audience and panel: "Ho, ho."

Moderator: "How does the team work?"

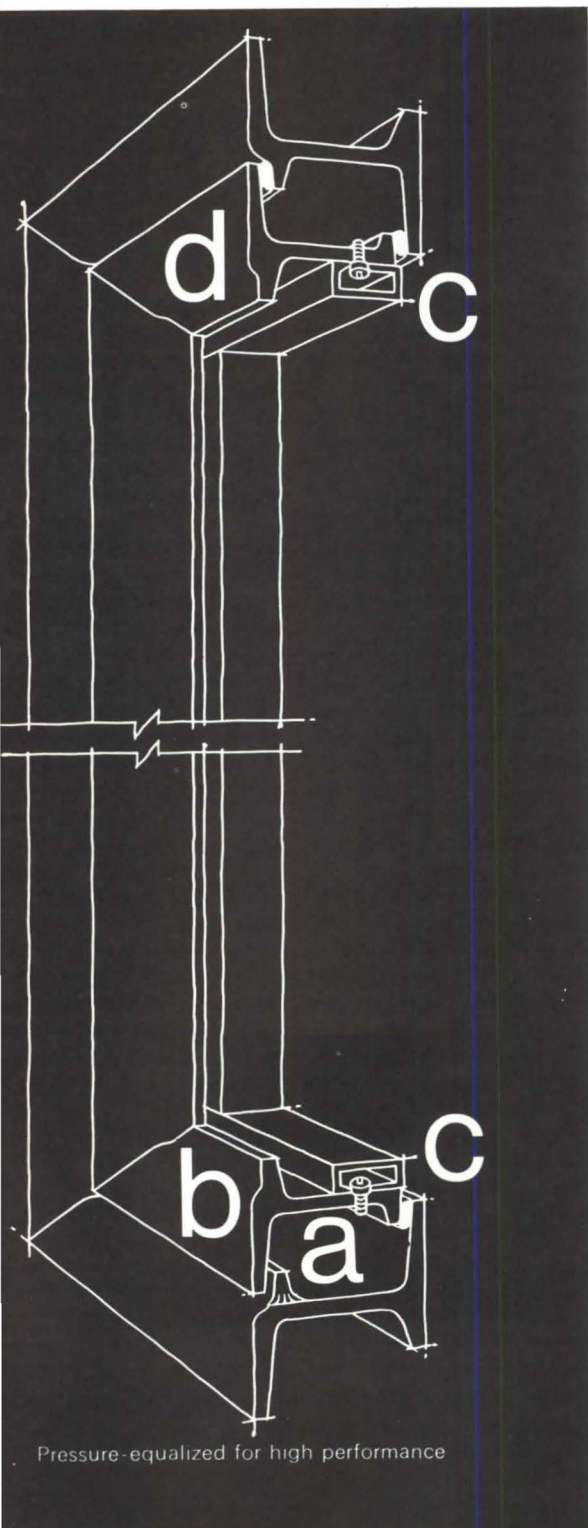
Landscape architect Arnold Vollmer: "Like a permanent floating joint venture."

Audience and panel: "Chuckle."

Which proves not enough people studied Damon Runyon. □

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solve rain, wind and rust problems

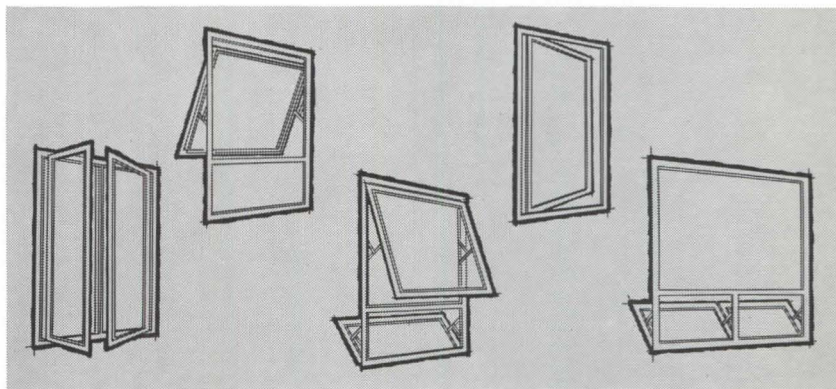


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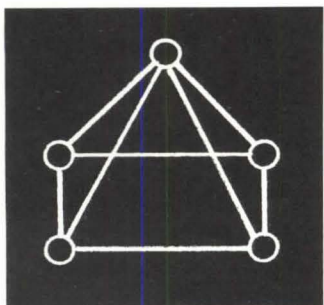
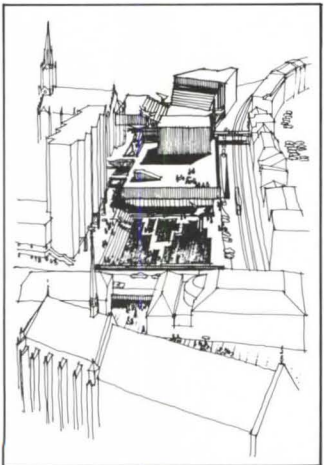
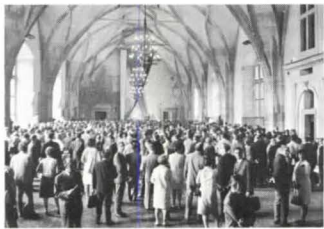
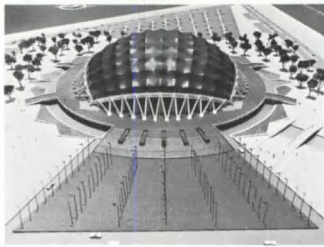


Corridor-installed Bradley Washfountains make supervision a snap, save money in schools! They get students out of toilet rooms quickly. There's no reason for loitering and possible horseplay. And one teacher can supervise wash-up and monitor the corridor at the same time. What's more, Washfountains serve up to 8 people with one set of plumbing connections. So they reduce installation costs up to 80%. In 36 and 54-inch diameter circular and semi-circular models. Available in widest choice of colors and materials. Corridor-installed Washfountains. A bright idea you can use— from Bradley! For complete details, see your Bradley representative. And write for latest literature. Bradley Washfountain Co., 9109 Fountain Drive, Menomonee Falls, Wisconsin 53055.

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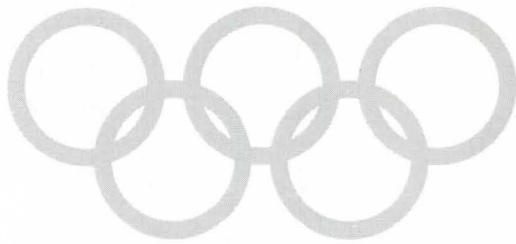
AIA JOURNAL



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ACCESO



An Olympic Preview down Mexico Way

A goodly number of buildings are springing up in and around Mexico City—and most of them are to be fully sprung by October 1968. That's when the eyes of the world will focus on Mexico as she hosts the 100 or more countries that are to compete in the Olympic Games.

Construction of competition facilities, however, is restrained in volume. And what is being built is designed—and situated—with post-Games functions foremost in mind. New structures are as scattered as the existing facilities that will be bent into service for the competitions.

Of five competition facilities under construction (shown on the following pages), the Sports Palace is perhaps the most audacious and will undoubtedly become the symbol of the Olympiad.

This structure is part of the Magdalena Mixhuca Sports City, situated on the plains lying just northeast of the capital. At the opposite end of the city is the Mexican Olympic Sports Center, sited among mountain foothills.

Located still elsewhere is an existing sports installation, the spectacular Aztec Stadium (across page) which accommodates 100,000 soccer fans. It was designed by architects Pedro Ramírez Vázquez, chairman of the Organizing Committee for the Games, and Rafael Mijares Alcerrea, who supervised the construction.

The canopied structure, dedicated nearly two years ago, offers athletes and spectators alike services which have inspired the kudos of "model of its kind." Surrounding it is a parking and circulation system that separates pedestrians from vehicles and facilitates swift emptying after a well-attended game.

An elaborate transportation network will tie the dispersed competition facilities together. Buses will operate over a route known as the

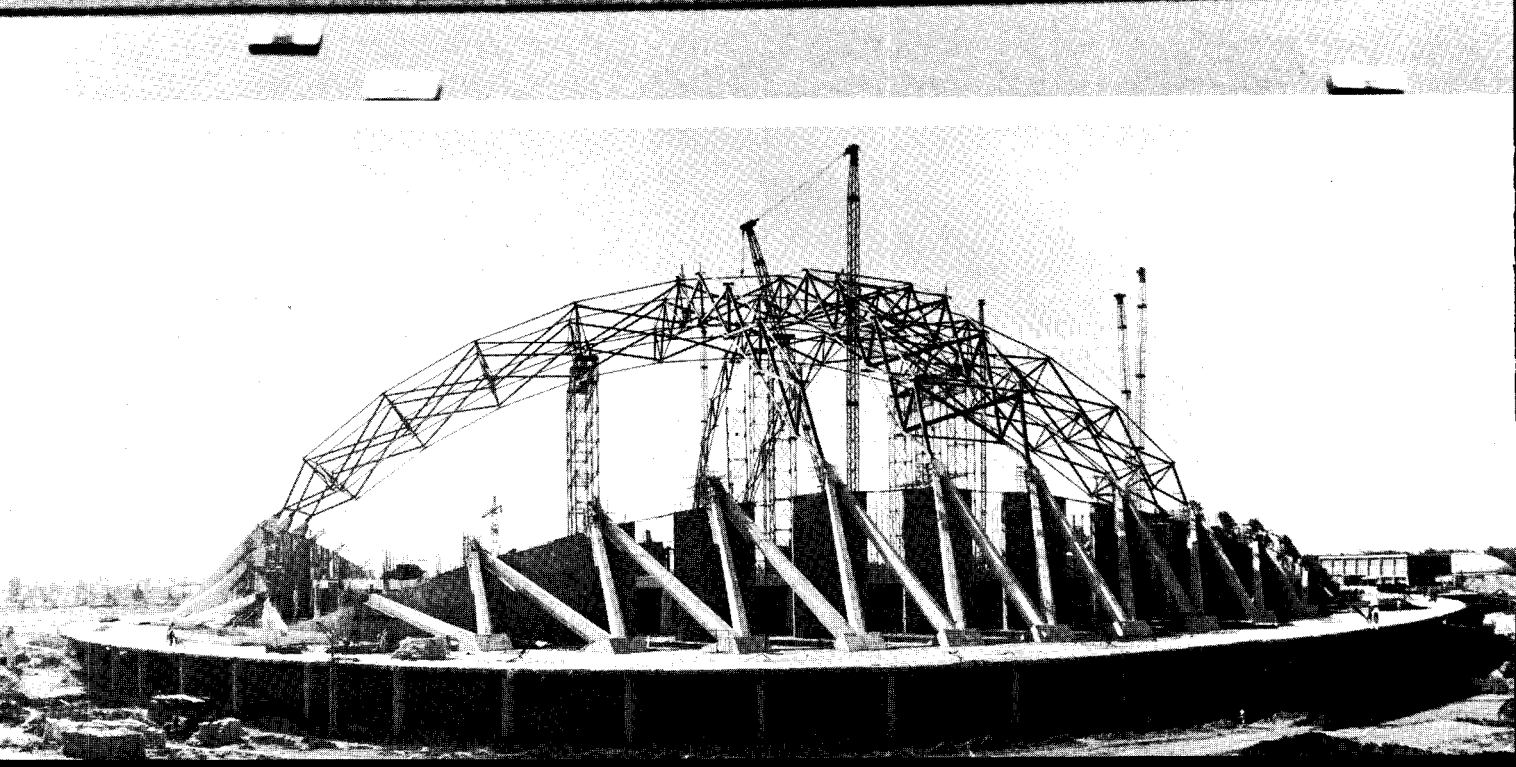
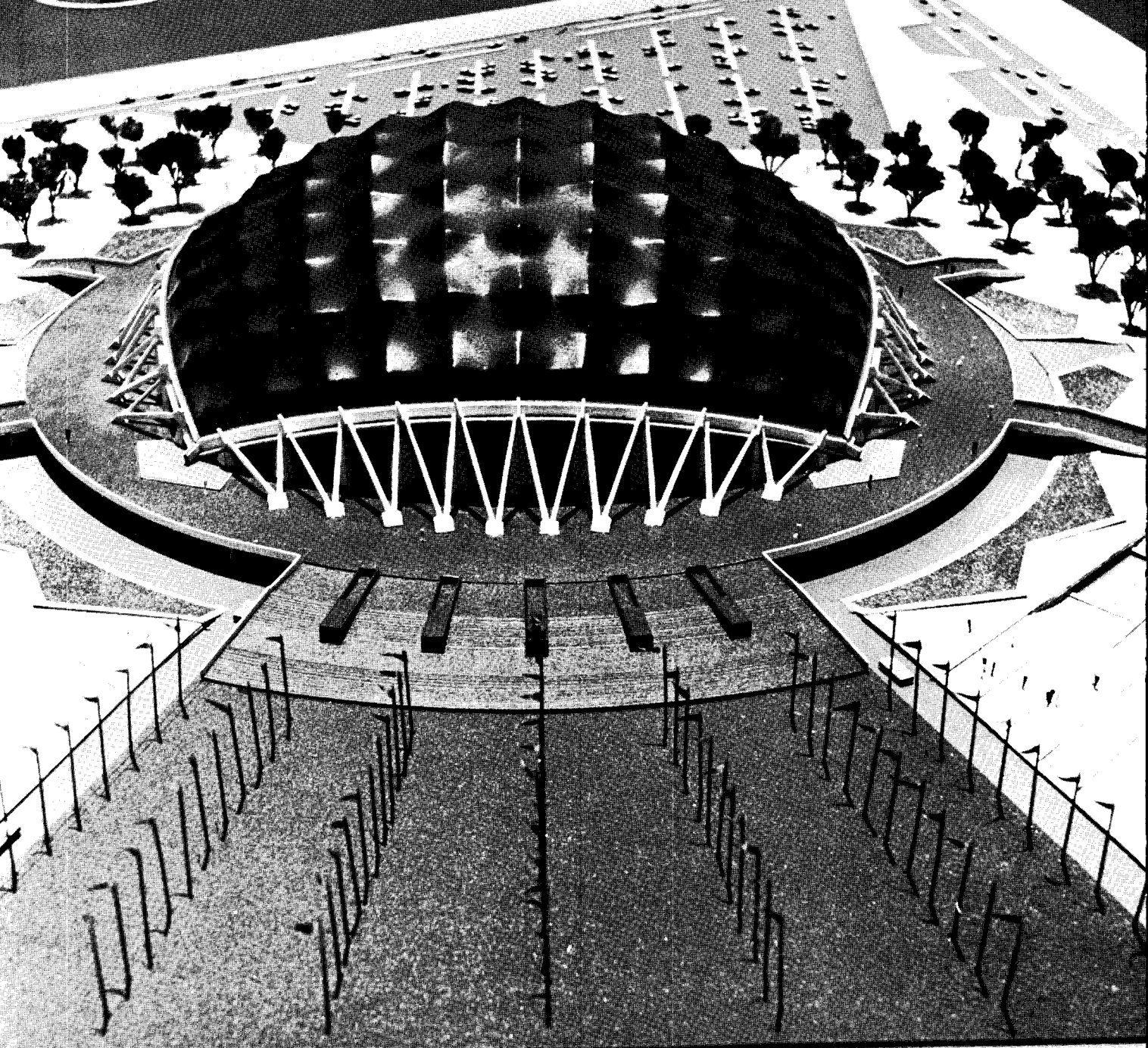
Olympic Line—200 of them for the contestants, trainers and officers, and 100 for the world's press. Also, 2,000 chauffeured cars will transport members of the International Olympic Committee, delegation leaders, etc.

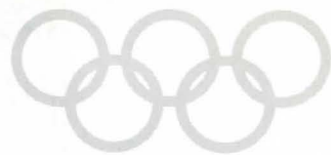
The philosophy behind Mexico's approach to its building program has been summed up by Vázquez in an official report: "The Olympic Games should never be permitted to inspire a program of construction and investments which cannot be turned into permanent assets to society. Otherwise, impractical and costly prestige programs would place the Games beyond the reach of countries undergoing rapid transformation, and they would be especially unwise at this time when the unequal distribution of wealth is a problem faced in every land."

And emphasizing his point, he adds: "In view of the lofty ideals which inspire the Olympic Games, the total investment required should not be on a scale to make any country hesitate in the future to request that one of its cities be considered as an Olympic site."

While the installations for the Games conform to this approach, construction in general in Mexico City is another matter. A score of major hotels and other facilities is being erected to accommodate a surging tourist industry.

Nor is construction limited to the city and its environs. By the time October rolls around, a program will have been completed by the government to improve and add tourist accommodations all along the 1,600-mile border with the United States. Called Pronaf (Program National Frontier), the project is well along at Ciudad Juarez, just across from El Paso, Texas, where such buildings as an art center, a museum and a convention hall are replacing bistros and slums. □





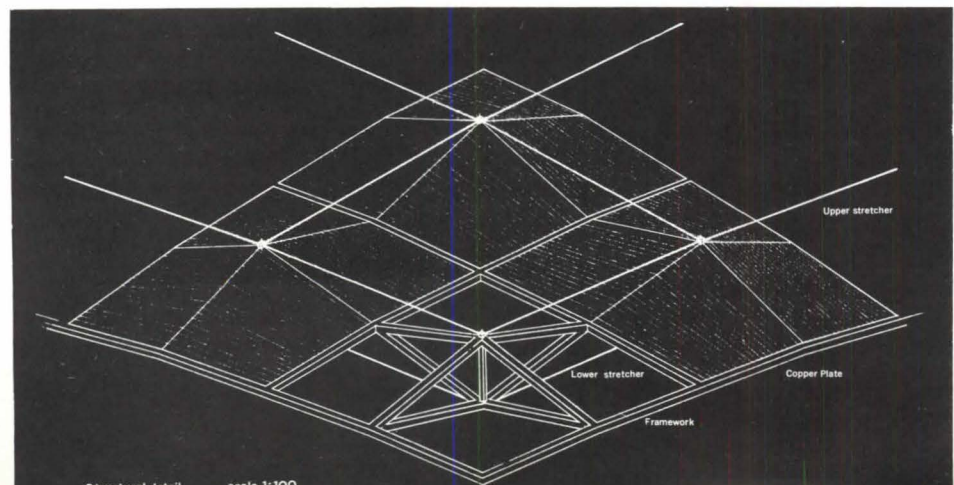
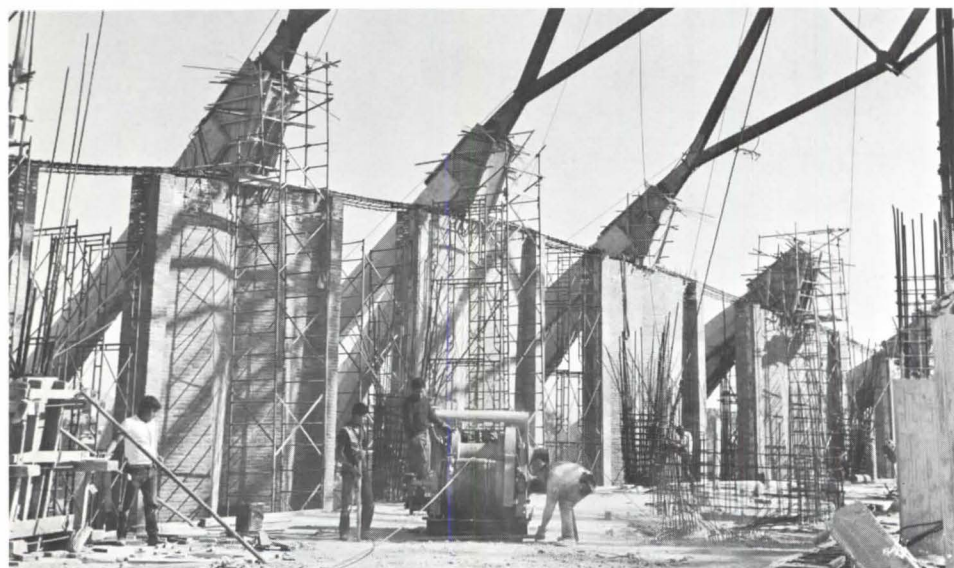
Sports Palace

Felix Candela

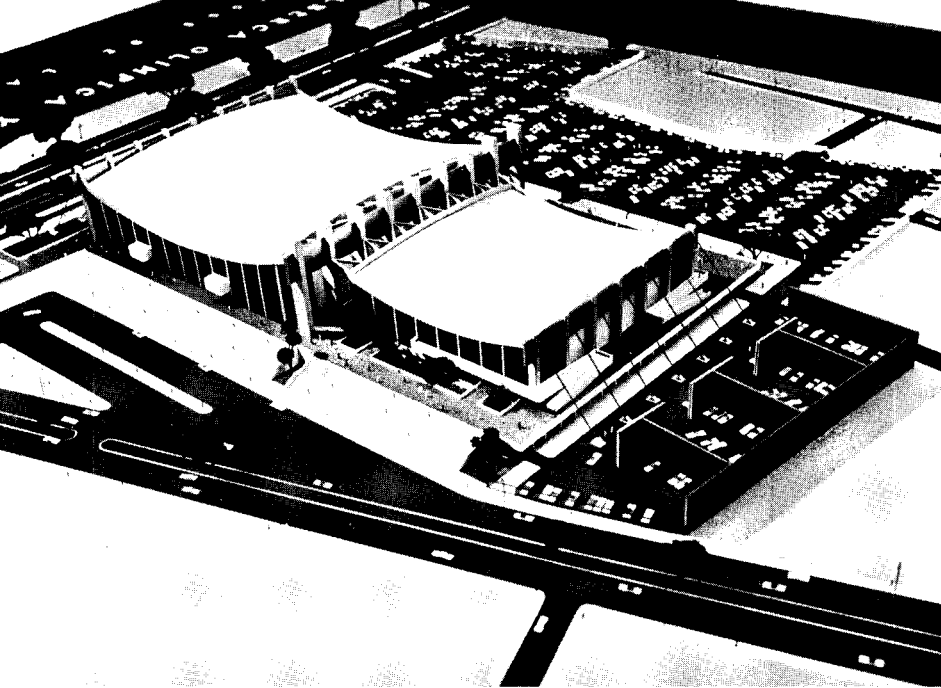
Antonio Peyri

Enrique Castañeda Tamborrel

The winning scheme for the Sports Palace, selected from among 13 submissions in an architectural competition as best meeting design and structural criteria and construction - schedule requirements, consists of a reinforced concrete base topped by a steel-framed, wood-covered dome. Measuring 523 feet across and rising 141 feet above a rectangular arena, the dome will be illuminated by 2,500 lights, facilitating colored telecasts of basketball competitions. It will house 16,000 fixed seating spaces and 8,000 removable ones for use at boxing matches. The structure rests on precast reinforced concrete pilings driven below Mexico City's marshy subsoil to a compact layer about 100 feet deep. A below-ground area will accommodate officials' dressing rooms, storage space, utilities, etc. Parking will be provided for 2,500 cars, and ramps will lead to an elevated platform where cafeteria and refreshment services are to be.



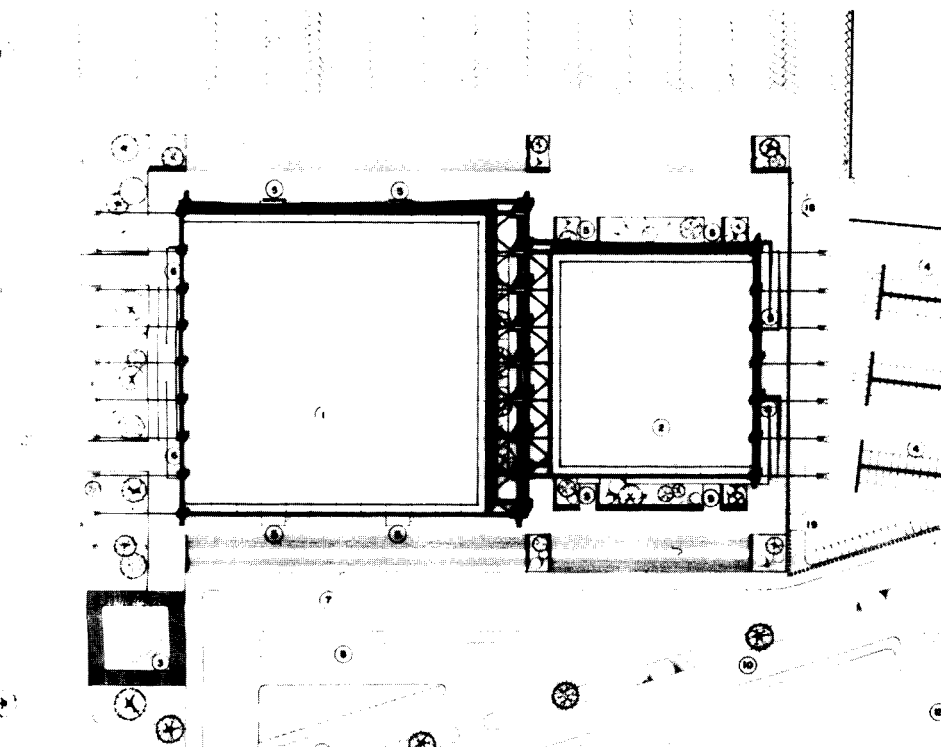
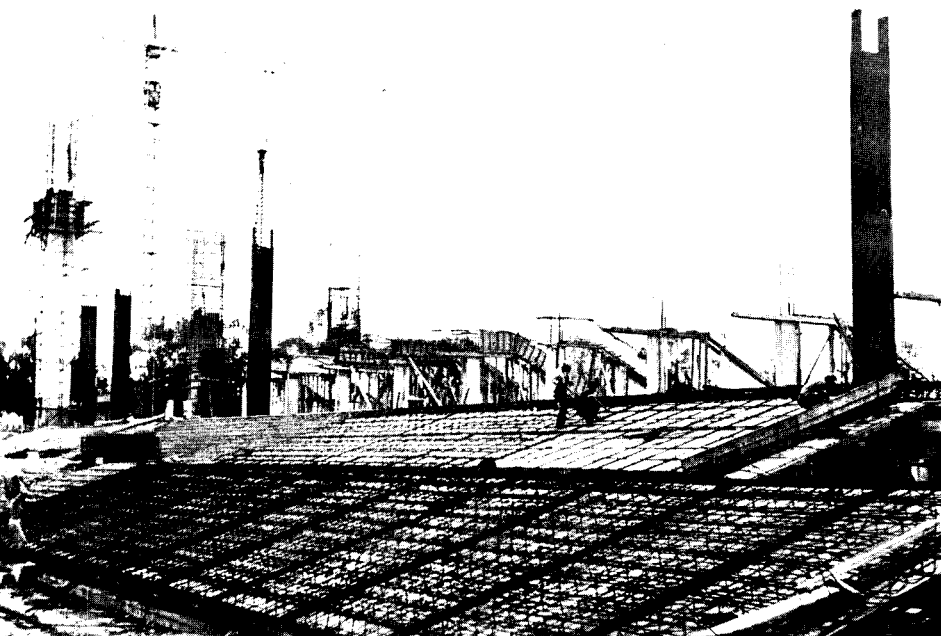
Structural detail scale 1:100



Swimming Pool Gymnasium

E. Gutierrez Bringas
A. Recamier Montes
M. Rosen Morrison
X. Valverde Gerces

The two buildings are treated as an architectural unit, their concrete shell systems allowing column-free interiors. The four-story Swimming Pool will be flanked by seating on two sides for 10,000 spectators who will view water polo as well as the swimming and diving competitions. The three-story Gymnasium will accommodate 5,000 volley-ball enthusiasts in an oval arrangement. An underground parking facility will serve the buildings, located apart from the other Olympic installations on Mexico City's south side.

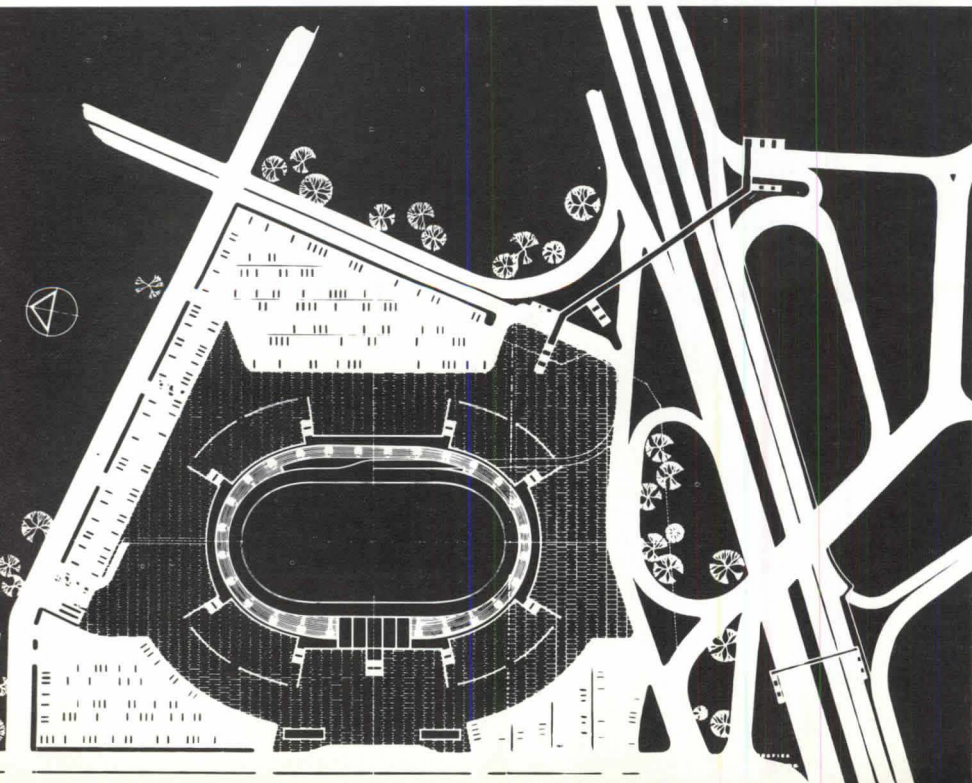
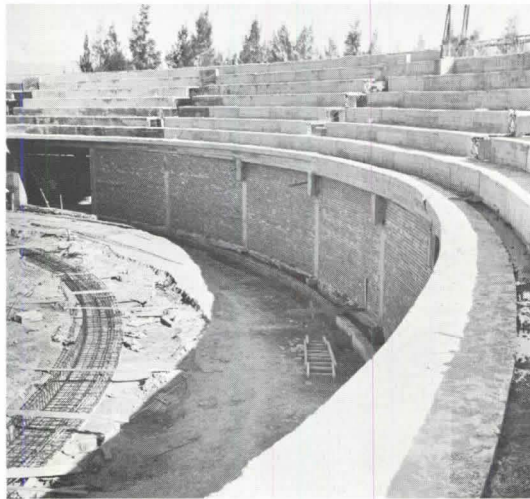


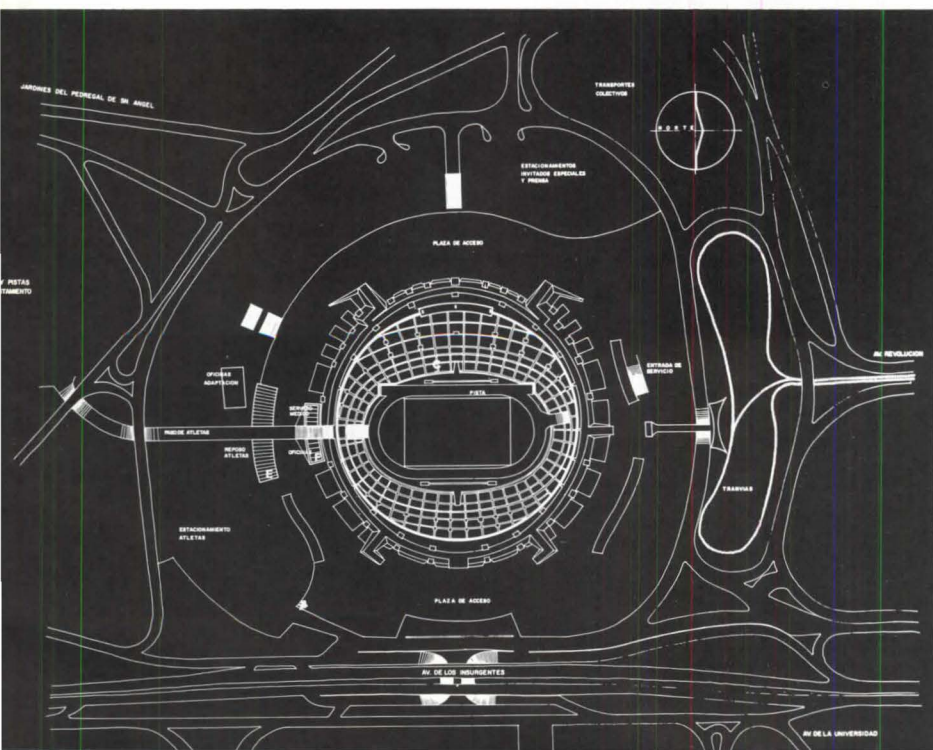
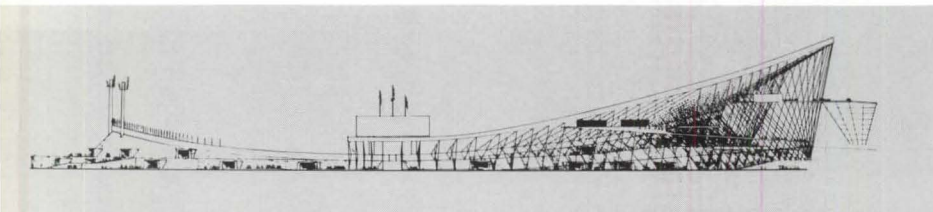
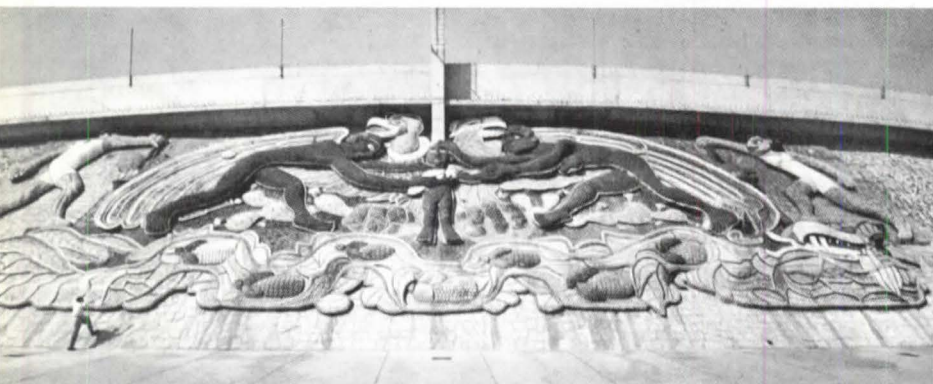
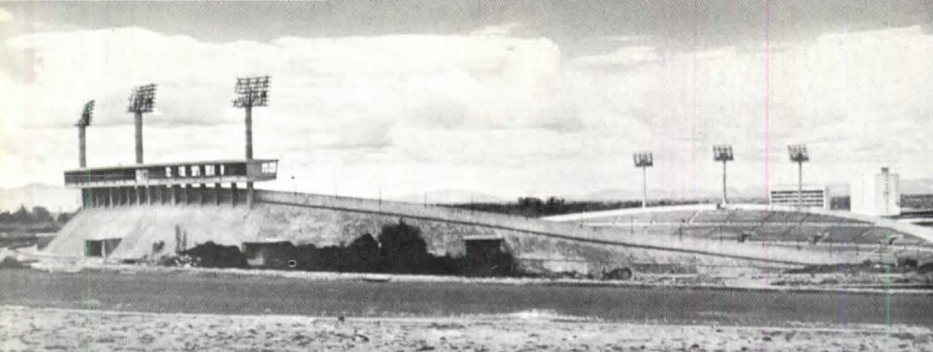


Velodrome

Jorge Escalante
Ignacio Escalante
Andres Escalante

Rising in gentle curves, the Velodrome is part of the Mexican Sports Center and one of two installations for cycling. It is constructed on a base of prefabricated concrete blocks and is surfaced with concrete. Facilities will include a service zone for athletes and a direct entrance for the finish of road races, along with spectator stands.





University City Stadium (Alterations)

The opening and closing ceremonies of the Games will take place in University City Stadium, which is situated on the campus near San Angel. Placed in service in 1952, it is undergoing adaptations for the track and field competitions and for expanded services for the athletes and the press. Ramps are replacing stairways to speed up the emptying of the structure, whose seating capacity is being increased to 80,000 and whose facade carries a polychrome low relief by Diego Rivera. The architects for the original structure were Augusto Pérez Palacios, Raúl Salinas and Jorge Bravo.



Olympic Village

Manuel Gonzalez Rul

Agustin Hernandez

Carlos Ortega

Ramon Torres Martinez

Occupying a 98-acre woodland site about 10 miles from the business district and a five-minute ride from University City Stadium, this project will be put to use after the games as a housing complex for government employees. Its three units—for sports delegations, cultural delegations and the press—will have a total capacity of 10,848 residents. Supporting facilities will provide for shopping, recreation and training. The Press Building, large enough to hold 1,200 persons, will function independently of the rest of Olympic Village. The plaza, during the Games, will feature an exhibition by contemporary sculptors.



THE PHILOSOPHY

BY PETER COLLINS

Architectural Criticism. Few terms conjure up as much reaction in professional circles today. Seldom is there any middle ground. For example, these samplings from three Fellows of The American Institute of Architects:

"It would be a disastrous thing to allow architects to set themselves up in judgment of other architects. Any such criticism should be through official organizations such as the AIA." That opinion comes from Philip Johnson.

A former Institute president, Leon Chatelain Jr., comments: "We must always respect the feelings of another architect and act in good taste."

Gordon Bunshaft, a member of Washington's Fine Arts Commission, declares flatly: "I don't care about another architect's feelings. If he is a bad architect, I will say so."

That's the way it goes. The quotations are taken from a report of the AIA Committee on Esthetics (see AIA JOURNAL, Jan. '66), prepared by Arthur Q. Davis, FAIA, then its chairman. It triggered action by the Board of Directors, who not only commended the report but later authorized the committee to develop, in conjunction with the JOURNAL, a series of critical analyses.

This, then, is the start. The articles, to appear intermittently, will look at the subject in its broadest sense, running the gamut from philosophical and historical aspects to legal considerations, including a critique of a completed project by an AIA member. We can think of no more significant topic for a series in a time that cries for extensive and reasoned discussion of the man-made environment.

THE EDITORS

Any evaluation of architectural criticism, and any discussion as to its purpose and techniques, must presuppose one of two alternatives. Either it is simply a species or aspect of a general activity called "criticism," or an activity which must be considered *sui generis*. Historically, both concepts seem to have emerged in a literary form* at about the same time (i.e., in the middle of the 18th century) when Jacques-François Blondel introduced criticisms of Parisian buildings into his published lecture course and when Denis Diderot included criticisms of architectural drawings exhibited at the biennial *Salons*.

At first sight, the notion that architectural criticism is essentially a species of a general activity called "criticism" seems extremely attractive because we have been led by Renaissance humanists into paying unquestioned homage to the ideal of *Uomo universale* and have been conditioned by two centuries of transcendentalism into accepting the paradoxical idea that generalization is

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so superior to specialization that all forms, ideas and activities can be subsumed within some kind of conceptual unity. Hence the popular architectural notion of *Gestaltung*, whereby "the approach toward any kind of design—of a chair, a building, a whole town or a regional plan—should be essentially identical."

This philosophical concept of organic unity is not peculiar to our own profession, any more than the concept of the "unity of the arts" is peculiar to art historians. It is a general philosophical attitude shared by the Western world for many dec-

* Verbal criticisms of buildings are presumably as old as architecture itself, and some have survived in documentary form, as for example, Bernini's views on French architecture reported in Fréart de Chantelou's diary (published in 1885). However, I doubt if the systematic publication of criticisms of buildings by architects, art critics or teachers of architecture antedates 1750, though occasional critical allusions to architecture are to be found in essays and satirical verse.

OF ARCHITECTURAL CRITICISM

ades, whereby pedagogy is now conceived as something independent of, and superior to, what is taught; and salesmanship is now conceived as something independent of, and superior to, what is sold. It is thus only natural that we should initially regard criticism as something independent of, and superior to, what is criticized.

It may, however, be more fruitful, in the present context, to take the alternative point of view and consider architectural criticism as a very special activity related only to architecture. In so doing, we may also profitably subdivide this activity into four categories: popular criticism, lay criticism, professional criticism and self-criticism, considering each in turn.

Popular Criticism

By popular criticism I mean architectural criticism intended for the general public, and it will at

once be apparent that the purpose of this type of criticism is radically different from that which we associate with journalistic criticisms of music, drama and the graphic arts. In general, the public reads criticisms of concerts, plays and exhibitions to find out whether to take the trouble of visiting them. But it bodes ill for the future of architecture if the popular critic of buildings is concerned simply with evaluating their scenic attraction.

There is, of course, nothing wrong with regarding architecture as a form of entertainment. Guided tours round the Lincoln Center are as innocuous as guided tours round the Piazza S. Marco. But the fundamental values of both groups of buildings extend far beyond the reactions of gaping tourists; and it is characteristic of the misapprehensions which can be caused by this kind of criticism that the greatest popularizer of the church of St. Mark, namely John Ruskin, had not

Criticism by visitors to popular places such as Lincoln Center is more than anything a form of entertainment.



the slightest understanding of, or sympathy with, Catholic liturgy or beliefs. Similarly, the architectural qualities of an opera house can only be assessed by people who enjoy operas, who have attended numerous operatic performances in this particular building, and whose experience of other opera houses gives them a basis for comparative evaluation.

These assertions may seem unnecessarily restrictive; but even if they are only partly true, they suggest that architectural criticisms acceptable to the popular press are of little value except as public relations and a means of advertising the architectural profession.

Lay Criticism

By lay criticism I mean not only the layman's criticisms of buildings seen or occupied but, most important of all, his criticisms of projects for commissioned buildings. Neither of these aspects of architectural criticism has received the attention it deserves, mainly, perhaps, because even when records exist, they are often incomplete or fragmentary. There are, however, a number of surviving published records which are particularly instructive, such as the various reports of Congressional or Parliamentary committees on the design of government buildings.

For example, there can be few more instructive chapters in the history of architectural criticism than the debate held in the British House of Commons on March 1, 1824, when Soane's enlargement of Westminster Hall (then used as a court of law) was subjected to parliamentary attack. During the debate, Henry Bankes opined that "there was no modern architect whose works could be entirely commended," and objected to "the abominable taste in which new buildings of a different order of architecture had been grafted onto the old Gothic." Grey Bennet, taking full advantage of parliamentary privilege, asked who the architect was, "in order that the public might know whom to avoid." Charles Tennyson "animadverted in strong terms on the incongruous absurdities that were manifested in the modern additions of mongrel architecture." Sir J. Mackintosh said that "the system of undistinguishing destruction with respect to ancient royal palaces, and other venerable buildings, which had been so prevalent of late years, was not in unison with the feelings and sentiments of Englishmen," and demanded that new buildings should be in accordance with the *national* character (i.e., Gothic). Sir T. Baring referred to Nash's Brighton Pavilion as "the Kremlin." Even the Chancellor of the Exchequer "regretted quite as much as his honourable friend, the existence of the unpleasant excrescence of which he had so deservedly complained."

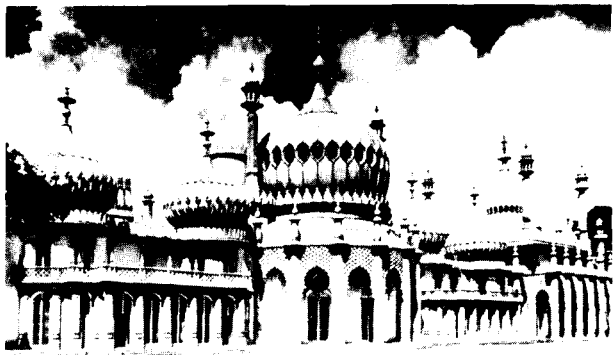
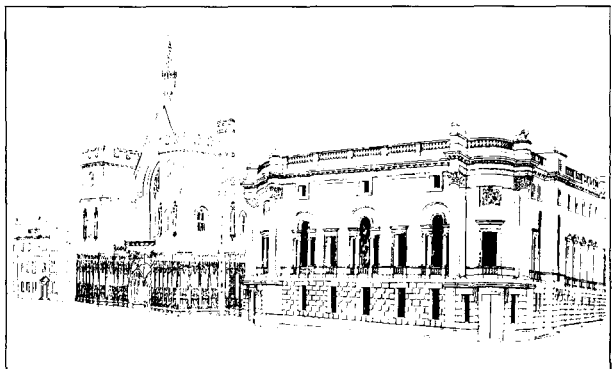
As a result, the House of Commons decided by a vote of 43 against 30 to establish a committee to inquire into the state of the Law Courts then being erected at Westminster Hall. The committee's report was tabled on May 14, 1824, and as a result, Soane was obliged to make many radical alterations which can be seen on the drawings preserved in the Soane Museum.

Extracts from this debate have been quoted extensively because they suggest that laymen had far more influence on the development of the Gothic Revival in England than historical textbooks might lead us to suppose; and in our present age, when there is so much emphasis on architects' architecture, it seems important to stress the effect of clients' opinions in influencing architectural design. Conversely, in an age which still sympathizes with the 19th century romantic notion of the artist as either a heroic rebel or an intrepid pioneer, it seems worth emphasizing that no architectural criticism can afford to ignore the client's attitude both before and after the completion of a building.

Professional Criticism

By professional criticism I mean criticism of architecture by architects for architects, and this can be subdivided into two groups: the criticism of finished buildings and the criticism of preliminary drawings. The professional usefulness of adequate and skillful criticisms of finished build-

Westminster Hall, subject of constructive lay criticism with significant results, and Brighton Pavilion.



ings is indisputable. Nevertheless, "adequacy" and "skill" are difficult terms to define conscientiously and may well imply notions which the editors of architectural periodicals will find impossible to accept.

For example, I have gradually come to the conclusion that no building can be assessed adequately in environmental terms unless the critic himself has lived in that environment. I doubt if any building can be assessed adequately in functional terms until many months after its occupancy. I do not see how full justice can be done to the architect's final design unless a wide selection of preliminary drawings and models are both illustrated and discussed. But editors of architectural magazines can hardly be expected to be sympathetic to theories of criticism which demand so much space, so much delay and so limited a choice of critics.

On the other hand, the criticism of preliminary drawings—especially competition drawings—has proved itself historically to be the most useful and vigorous type of professional criticism, and this was, generally speaking, the only type of criticism published in architectural periodicals a century ago. By escaping the futility of proposing ameliorations for the immutable (a dilemma inherent in all but the most lyrical criticisms of finished buildings) it enjoys both the validity and responsibility we associate with criticisms of the performing arts. Being concerned solely with the *interpretation* of drawings or models, the critic has as much right to speculate on their ultimate effectiveness as the architect responsible for their design.

It is for this reason that this type of criticism constituted the historical origin of modern architectural education. The *concours d'émulation*, introduced systematically 200 years ago, have persisted because they provide the only method of comparing architectural solutions to a given problem and creating an awareness of the many possible relationships of small-scale drawings or models to the structural and spatial realities they are intended to represent.

In some schools of architecture, those who teach design are specifically described as "design critics." In other words, our profession has instinctively recognized that, as far as the process of *creativity* is concerned, the essence of architectural education is architectural criticism. One might even go so far as to assert that the criticism of drawings and models intended to constitute projects for future buildings constitutes the only activity really worth describing as architectural criticism; for the so-called "criticism" of buildings which have already been erected is seldom at its best except when it is a type of history—an objective description of selected significant facts.

Unlike architectural journalism (where the evaluation of a building will only arouse public interest if it either describes novelties or condemns mediocrity), the criticism offered to architectural students by experienced practitioners and scholars is securely based on the knowledge that the audience is not only deeply involved but constantly on the alert for any inconsistencies or inadequacies in the evaluations given. A student demands that criticisms of his work be lucid analyses of specific virtues or failings, and not simply witty expressions of sentimental enthusiasms or dislikes. If a design, which a student thinks is brilliantly original, should seem in the critic's opinion to be neither, then that opinion must be justified verbally with clarity and erudition. If the student's novelties are manifestly inappropriate or unconstructable, he must be given convincing and experienced arguments for their suppression.

Such criticisms are not recorded or published. They are not subject to those methods of electronic information retrieval which constitute the criteria of academic or literary stature. But they are powerful forces available for improving the environment in which we live. For each student can be made to see that the dialogue between his teacher and himself is simply an exercise in one aspect of the process of design, which he must learn to perform in solitude once his academic training is at an end. For there is no difference between criticism and self-criticism except the number of people involved.

Self-Criticism

The intrinsic involvement of criticism in the creative processes of literature and music is beyond dispute, so widespread is the evidence provided by marginal corrections and revised scores. But this involvement is just as great in all the creative processes of the human mind, even if its evidence in some disciplines is more obscure. The distinction made by our leading structural engineers (such as Mario Salvadori) between "design" and "analysis" is, in fact, a distinction between intuition and self-criticism, even though the essentially mathematical quality of this criticism seems to set it apart from the more subjective and frequently uncertain self-criticism of the architect.

Nevertheless, every evaluation of an intuitively conceived form is a criticism, and criticism implies criteria. How to establish architectural criteria, and how to use them, is beyond the scope of this essay; but if what has so far been written has demonstrated the practical value of architectural criticism, both architectural practitioners and architectural students can at least be encouraged to work out the criteria for themselves. □

FREEHAND FREEDOM

*For better detailing—and better,
faster, cheaper drawings*

BY CHESTER E. ROEMER, AIA

A new drawing and drawing production system developed at Hellmuth, Obata & Kassabaum improves the quality of contract documents, yet substantially reduces the hours of drafting which have traditionally been a necessary and costly part of architectural practice.

The result is that HOK project architects can use more of the time allocated to each project for

The author: Mr. Roemer is executive vice president for production and construction services, Hellmuth, Obata & Kassabaum, Inc., St. Louis.

thoughtful detail planning because less time is required for the mechanical processes of drafting. We believe it is an approach that produces a more carefully designed building and increases HOK's internal efficiency.

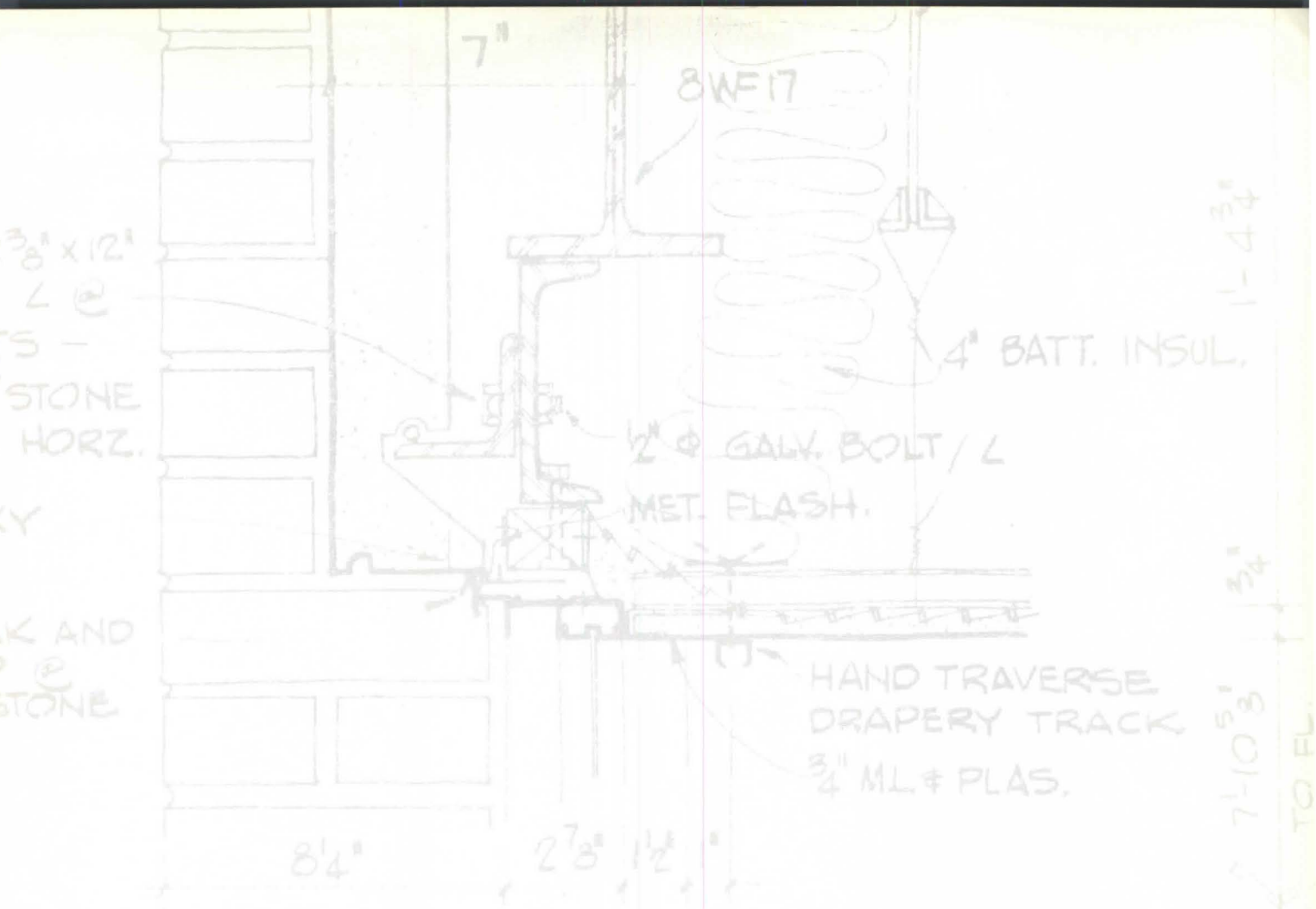
The system makes use of contemporary reproduction techniques, but adds a new ingredient by prescribing freehand drawing of details on small sheets of sketch paper. These details can be drawn quickly, then collected, pasted or taped to large pieces of linen, then photographed and reduced to a size suitable for presentation as the final bid documents.

Only floor plans, elevations and sections which must be drawn to minute scales are still produced with the aid of instruments. This represents less than half the work usually done for any set of finished documents. The details, which comprise the bulk of the job in terms of time, are produced as accurately in freehand form as they were with instruments and in much less time—and as intended. A conservative estimate is a 20 percent saving in drafting time.

Development of the new system began as project architects within the office realized there was more drawing than needed. Details were being produced in sketch form and turned over to draftsmen who drew the thoroughly detailed final bid documents.

But, as Robert Stauder, a project architect and a HOK vice president, pointed out, "We found these first sketches were nearly good enough to be used in the final documents. They were drawn to scale and contained all the necessary information. We realized we could eliminate some of these extra drafting steps."

The HOK office was also aware that drawing and redrawing meant that more visual and written information was being added to the sketches produced by the architects and draftsmen preparing the bid documents. Sometimes, these men, in their desire to make a personal contribution to a



building, took liberties or supplied unnecessary or even confusing notes and graphic elements.

So Stauder, Herbert Koopman, also a project architect and vice president, and Elbert Picker, chief specification writer, met with George E. Kassabaum, FAIA, principal in charge of production and construction services (and first vice president of the AIA). The four discussed the need to revise drawing procedures and considered the possibility of a new system built around freehand sketches.

Kassabaum told his architects to go to work on the new system and he kept in close contact as they developed procedures.

"They worked this up on their own," Kassabaum said. "When it was first presented to me, it seemed worth a try although there were doubts.

"However, now that we have completed drawings on the initial projects and are well into documents for three more, there is no longer any question in my mind that the quality is as good or better than ever. Our own labor costs are much lower. That is a hard combination to beat."

The decision to use freehand techniques, where possible, forced HOK to develop an entirely new production procedure in order to get the most out of the drawings.

First, it was obvious that drawing on large sheets of paper, which has always required archi-

ects to reach and strain into uncomfortable positions, would make freehand drawing impossible. The problem was solved by producing individual details on small pieces of buff paper, placed over graph paper to provide grid lines for scale. This allows the architect to draw in his most comfortable and most efficient position.

Because the project architects know that their sketches will be final, they exercise a bit more care in thinking through their preparation. Thus the project architects, chosen because of their experience and skill, directly solve most of the important detail problems, rather than passing them on to others.

Furthermore, the information contained in the project architect's decisions is communicated in the fastest and clearest possible manner to the engineers and other collaborators on the job. Errors of translation are reduced.

This type of production system allows a number of supervised architects to develop particular details simultaneously for one of the large linen sheets. The results of each man's work are brought together on the segments of buff paper and applied to the linen with rubber cement or transparent mending tape.

Several types of paper, backing sheets and applicators were tested. The combination of buff paper, linen and rubber cement or transparent

tape was found to be best because it could be photographed clearly, while the lines of the buff and the applicator were invisible. The negative becomes the permanent record to be used in final printing.

When changes become necessary, the outdated detail is removed from the original linen sheet and replaced with the corrected drawing. Then the sheet is rephotographed.

Part of the photographing process is the reduction of all sheets to one-half size, permitting architects to draw larger (a free-hand accommodation) and sharpening the final product.

HOK has found that offset reproduction on small sheets is much less expensive than blue-printing for large projects. For one large project, the cost of drawings produced on offset was \$9,000 as against a projected total of \$26,000 that would have been needed to reproduce the same work on blueprints.

While this kind of saving is significant, Picker emphasizes that "what is more important is that the system is encouraging us to review not only the drawings themselves but what should be drawn in the first place."

"The elimination of duplication of efforts of skilled men is the heart of the system," added Picker. "We're not telling architects to throw away their instruments. We are saying that it is no longer necessary to have one detail produced by three different people at three (basic detailing, final detailing, drafting) different stages."

Stauder estimated a 35 percent time saving in preparation of working drawings for one building, the Math and Modern Language Building at the University of Missouri's St. Louis branch.

Joseph F. Shaughnessey of the Gamble Construction Company, general contractor for the university building, said he found the drawings "very readable."

"Actually, I didn't notice it until I examined the drawings rather carefully," Shaughnessey said. "Then I could see they were freehand. But no details have been sacrificed and the drawings are certainly faithful to scale."

Perhaps the most dramatic use of the new system was its application on the Gateway Tower Building, the new headquarters for CBS and a number of major business operations in St. Louis.

Koopman and his associates in just two weeks produced a set of drawings that were informative enough to allow the bidding process to proceed. Further detailing had to be done as construction preparations were being made. The work was not finished until the building was on its way up.

Herbert Gruber of the C. Rallo Construction Company, the general contractor on Gateway Tower, said the job "could not have been done" using normal drawing techniques and that the

drawings he received were at least as clear as ever, even though the building was "detailed as it went along."

In addition to the Gateway Tower, Koopman applied the new system to the St. Benedict College Library, now under construction in Atchinson, Kansas.

HOK has produced contract documents under the new system for a number of other projects which are now in the bidding or early construction phases.

Each of the men in the office has developed his own mix of freehand and device-aided drawings.

Said Koopman: "The whole key is flexibility. You let each person work the best way he can. This allows the system to take advantage of individual skills. We are finding that many of the younger men in the office can do a first-rate free-hand sketch of most any detail."

Still, Koopman, Stauder and Picker all feel the development of the system may produce a new problem in the training of architects.

Picker explained, "The beginning stages of drafting were valuable in teaching the younger men. Once you eliminate this drafting work, you increase the demands on the new men and on the schools that are training them."

If this is true, the challenge is being met by the younger men in the office. "In fact," Picker said, "most of the men in the office are working harder than ever because they feel challenged. The documents are better since boredom from merely redrawing someone else's sketch is eliminated."

The ultimate results of the new system are increased accuracy and efficiency which benefit both the project and architect.

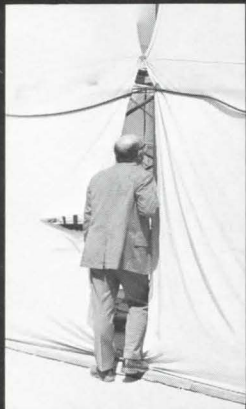
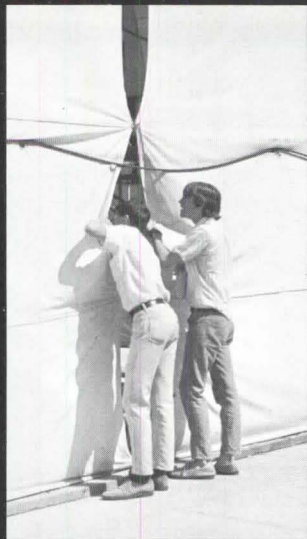
"We may spend as much time on a project as before, but we're using that time much better," Stauder pointed out. "More than half of the drawings we do are details which can be done free-hand."

"Now, we don't have to tie up a lot of men doing unneeded work. As a result, we have more time to think out our problems and find better solutions. This is the purpose of architecture."

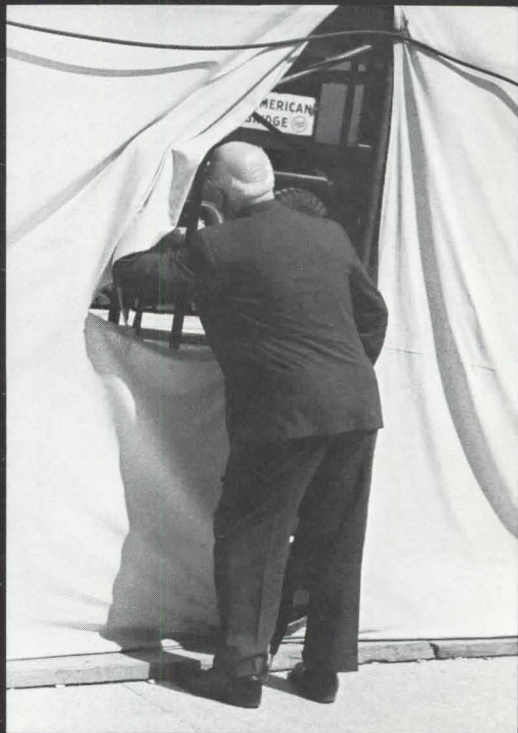
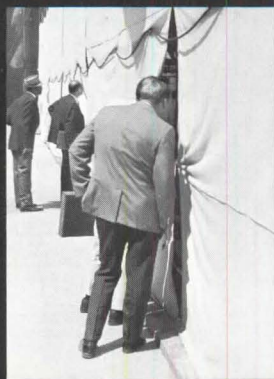
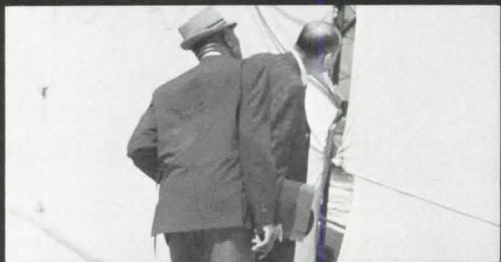
Picker, who not so long ago presented a description of the system to the Conference on Production Management in the Architectural Practice at Pennsylvania State University, believes it is having a profound effect on the quality and value of building design within the office.

"Of course, it's difficult to demonstrate this since we don't draw a project two different ways," he said. But because of optimum efficient detailing, he added, "we firmly believe our new jobs are being bid lower than we could have expected under the old system."

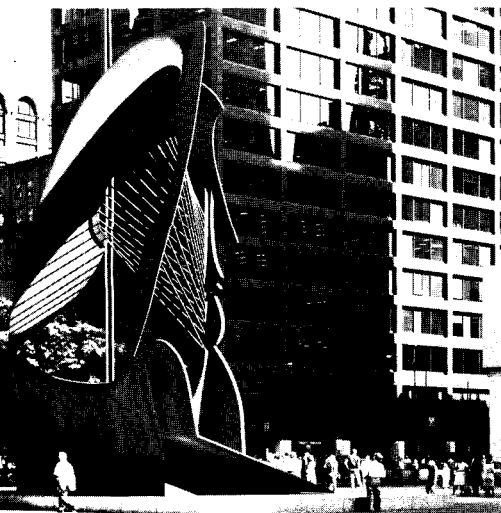
Commented Koopman: "We think we are putting the manpower where it counts." □



The Longer You Look..



...the More You See



Why try to understand art? "Why not try to understand the song of a bird? Why does one love the night, flowers, everything around one, without trying to understand them?" asks Pablo Picasso. "If only (people) would realize above all that an artist works of necessity, that he himself is only a trifling bit of the world, and that no more importance should be attached to him than to plenty of other things which please us in the world, though we cannot explain them."

To Chicagoans, the Chicago Picasso is no trifling bit. It has become, in its six months of residence, an important part of the cityscape. Nameless, shameless, it soars 50 feet from a plaza, 162 tons of spindly steel which time and the Windy City climate will turn the same russet brown as its companion artifact, the Chicago Civic Center.

Why Picasso for Chicago? Because "Picasso was our only choice," according to William E. Hartmann, FAIA, partner in Skidmore, Owings & Merrill of Chicago, associate architects of the Civic Center.

When the Public Building Commission of Chicago decided to leave room for a Civic Center plaza, the architects, C. F. Murphy Associates, agreed that a monumental sculpture should be its focal point and the work of the greatest artist alive—Picasso.

Why Chicago for Picasso? Because Chicago was sold him. The city was brought to him in his Riviera studio in the form of models and photos and reminders that from Chicago stemmed Sullivan, Wright, Hemingway, Sandburg.

When Chicago started to think Picasso about four years ago, William Hartmann, always interested in art, was chosen to approach the artist. His route was through the leading American authority on Picasso, Alfred Barr, who, via Allan McNab of the Art Institute of Chicago, sent Hartmann to Picasso's friend, Sir Roland Penrose, the writer whose latest work *The Sculpture of Picasso* has just been published by the Museum of Modern Art. Sir Roland advised Hartmann to write Picasso, warning him that "Picasso hates answering letters" and therefore he would receive no reply.

Hartmann wrote and received

no reply—but on Sir Roland's suggestion he, Charles F. Murphy, FAIA, and Norman J. Schlossman, FAIA, of Loeb, Schlossman, Bennett & Dart, also associate architects of the Civic Center, met with Sir Roland on the French Riviera and proceeded to Picasso's home on a hill outside Mougins.

What they showed him and told him aroused the old man's interest, and he picked up the beat of the robust, pulsating city he never set foot in.

During the following months, Hartmann kept his interest alive, sending him photos and news about the progress of the Civic Center and wooing the artist with gifts from America: a Sioux Indian war hat, a Chicago White Sox blazer, a Chicago Cub cap.

Without ever committing himself one way or another, Picasso had the preliminary studies finished in May 1964.

A year later he had completed two models. After much deliberation he chose the more airy and graceful of the two. It was winged off to Chicago, where questions of fabrication, erection—and financing—remained. Then the Woods Charitable Fund, Inc., the Chauncey and Marion Deering McCormick Foundation and the Field Foundation of Illinois offered to underwrite the cost.

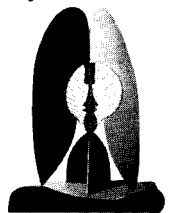
From Picasso's 42-inch original a 12½-foot model of wood was constructed. In August 1966 Hartmann brought photographs of it to the Riviera. Picasso put his signature on each with his blessing: "Bon à tirer."

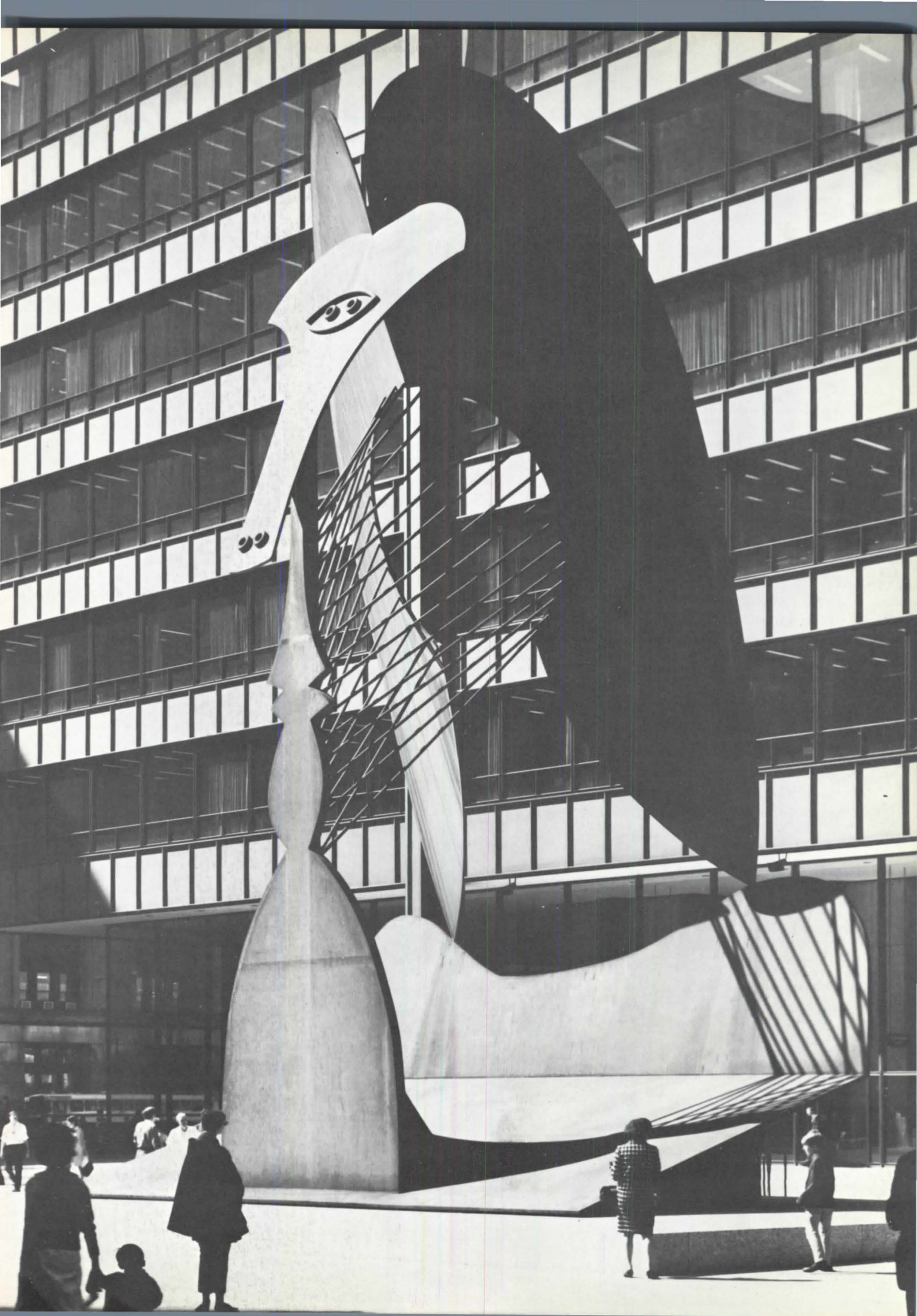
Cautiously, Hartmann brought up the subject of a fee. Picasso would accept no money. His design was a "gift to the people of Chicago."

During construction, a message was sent off to the maestro: "Should the welds and spatters on the handmade steel maquette be reproduced in the full-size sculpture?" "No," replied Picasso, "it should be built like a building."

So it was. The maestro had designed a work of art that could be reproduced from shop drawings without his supervision.

And now it is firmly rooted in the plaza, the Chicago Picasso. Hated, loved, leaving no one indifferent. Noted one Chicagoan: "The longer you look, the more you see. That's art." □





ETHICS

Blurred

BY ROBERT H. MUTRUX, AIA

Legend has it that a young man once asked his merchant-father, "Dad, what is meant by 'a question of ethics?'" His father responded with the usual exaggerated inflections, "I sell a customer a suit; he pays me cash, but he forgets to pick up the change. Now, do I keep it or do I split with my partner—that, my son, is a question of ethics."

Society's most tantalizing and most durable problem could not be more simply presented. This simple situation which involves neither law, religion, taste nor conscience invites equally viable interpretations by at least six parties: the father,

The author: Mr. Mutrux is a member of the architectural-engineering firm of Fletcher-Thompson, Inc., Bridgeport, Connecticut.

his partner, his son, the customer and the reader. The Bureau of Internal Revenue makes the sixth. Perhaps the young man was satisfied; it is more likely that he "came out by that same door where-in he went" and, like Faust, "knew as much (about ethics) as he did before."

It was simpler once. In the days when an entire clan responded unanimously to a given set of circumstances, the resulting code became the "ethic," but there was no sound reason, nor a peaceful way, to impose that particular reaction or code on the neighboring clan. What was originally the Ethic soon became ethics and, ever since, this elusive abstraction has been preceded by a question mark.

Your neighbor at dinner is under a dark cloud because he lists his name in heavy print in the business directories. You see the cloud but, by some trick of professional myopia, he does not. In fact, if pressed, he could no doubt deliver an impassioned eulogy himself on ethics just as he sees it. There is obviously a barrier between you.

Another acquaintance, well known for his participation in large projects, is equally well known for his massive campaign contributions. This,

somehow, does not mar his affable nature or his savoir-faire, nor does it adversely affect his real or attributed affluence. And if he asks to sit next to you, you accept his company with your usual good grace.

A third man is a pillar of the church and, judging by the weight of his support, that pillar might be of solid gold. His support is graciously and publicly acknowledged (tax deductible as well) and never questioned, though it is bound to influence the chancery or the vestry in his favor in spite of his protestations.

It is easy to see where the perennial question of ethics begins, but where, in the complex interrelation of society and business, does "community of interest" cease and "conflict of interest" rear its ugly head? The Judiac religion gave us the Ten Commandments and, though a breach in specific areas may occasionally go unpunished, it does not go unacknowledged. The Golden Rule provides a reasonable, if only relative standard; we are justified in clubbing our neighbor if we honestly don't object to being clobbered ourselves. And it does provide an acceptable basis for human relationships to the point, at least, of making it an unwritten rule to make a hand-signal before turning to the left.

The world of art makes its own rules, and they change by the generation and by the gallery. The man who doesn't know the rules, who only knows what he likes, doesn't injure his neighbor (so long as he keeps his pink plaster objets d'art off his front lawn). The law, no matter how asinine or idiotic or slow, is at least fairly clear-cut. But at this point we run out of accepted precepts and we have to rely on local custom. This is the periphery of the vast no man's land where things begin to get blurred and stay that way. Custom does more to add to the problem than to solve it because custom is based on the hard core of human nature, and it is part of human nature to enjoy the continual tightrope of uncertainty, to see how far it can go with impunity.

Throughout the hazy area of ethical relation-

ICS: or Presupposed?

ships, the transgressor who "gets away with it" is as often as not admired and applauded. The unjust steward in the New Testament who robbed his employer blind in order to set up his own future was highly commended by that same employer. The students in Spanish universities who cheat at finals are praised for the ingenuity of the *chuletas* by which they smuggle information into the classrooms. The students at the Air Force Academy were tacitly and almost universally respected for violating the military code and not squealing on their confreres.

If it had not been for some powerful backstage machinations on the part of the Greek gods, Hector would never have been dragged by the heels thrice around the walls of Troy. The picture of Jove himself with his myriad disguises, ranging from a bull to a swan to a shower of rain, has a rather Rabelaisian charm which makes us forgive him, but his conduct was certainly unethical from the point of view of the naiad and the nymph, not to mention his wife. If Bismarck had not purposefully tampered with certain diplomatic dispatches, history in Europe of 1870 might well have taken a decidedly different course. Still, we are a little mystified with Javert, the police chief in *Les Misérables* who was the willing victim of his own rather exaggerated principles. The seesaw teeters endlessly, somewhere between Niccolo Machiavelli and Jesus Christ, and humanity is made up of a little of each, in varying proposition.

Ethics is like beauty and truth and justice; no one is admittedly agin' it. Ethics is a little more like virtue, and those who have seen enough "*nouvelle vague*" movies have some idea of the expanded dimensions of that aspect of the human condition. Ethics is like the dictionary of the Académie Française, which has been in the works for over a century and a half and in which a total of 40 immortals are now starting on "g."

Ethics is a vast amorphous jungle on which a galaxy of great names has expended much time and fine print and has left the question unanswered. If you wade through Aristotle or Hobbes

or Spinoza or Bentham or Adler, you will not find a single paragraph which deals definitively with the man who has designed a fine building at a reduced fee—nor, for that matter, any recommended disposition of the character who turns up with a perfectly dreadful building at the standard blue-book rate. There is not, to my knowledge, a single word about the firm which maintains a million-dollar public relations staff and carefully avoids a single cent for paid advertising. (If the subtle distinction escapes you, you are in excellent company. Anyone who owns a television set or who has ever attended a town meeting knows that the visible, audible personality is the most obvious paid ad for any concern regardless of his annual salary.)

The disturbing fact remains that a moral code which will meet the putative ideals of the profession is still as vague as it was in the marketplace of ancient Athens. Socrates dealt with it in theory and, according to the Britannica, so did enough others to fill six columns. In the end, however, its application is an entirely different matter.

Perhaps the only realistic course is to adopt a plan which depends neither on custom nor conscience but on human dignity alone. It is the adoption of an unwritten code which antedates the French and American Revolutions, the principle of noblesse oblige. The first and most venerable of all professions, whose accreditation goes back to the first verse of Genesis, has a background which demands to be dignified first of all by its individual practitioners. Like noble breeding, its inherent lineage presupposes a deep moral obligation to preserve its high standards; and its future lies not with the architects' collective conscience but with the respect in which architects hold themselves and their colleagues.

There is a bare possibility that if each master builder saw the profession in the light that it deserves, the perennial question of ethics might answer itself, without benefit of the impotent, tongue-clicking accuser and the wrist-slapping committee. It is worth a try. □

The AIA and the UIA

A personal report on the Ninth Congress in Prague and a frank appraisal of our participation — or lack of it

BY JOSEPH WATTERSON, FAIA

"All in all, the International Union of Architects is a wonderful organization—we should continue to work harder to repair what is unsatisfactory in it and do what we can to bring about greater involvement by American architects." So said one working commission member upon returning from the UIA Congress in Prague.

"I will tell you quite frankly that in my opinion absolutely nothing was accomplished by the assembly. . . . Two full days were spent in covering an agenda that could easily have been covered in a morning. . . . It was a thoroughly boring and futile week." And thus spoke an official delegate of The American Institute of Architects after his return from the congress.

What's the matter? Where does the truth lie? Is the UIA getting anywhere, and even if it is, is AIA participation in it worthwhile? AIA delegates and working commission members asked themselves and each other these questions when the Prague sessions were over.

The answers, of course, lie within the individuals themselves. Those who pitched into the meetings and participated to the fullest extent

The author: Mr. Watterson, special assistant to the Secretary of the Interior for the past two years and former editor of the AIA JOURNAL, is a corresponding member of the AIA Committee on International Relations.

came away full of criticism but also full of enthusiasm. Those who simply sat on the fringe and grumbled about the discomfort of their old-fashioned hotels and the shortage of taxis came away full of criticism, period.

Since I accepted the assignment from the AIA Committee on International Relations to report the proceedings, I shall recount my own experiences and observations, interlarded with com-

ments by others. However, I think it best to go into some detail, for it is high time the AIA membership at large knew more about the UIA and felt some responsibility toward it.

First of all, let me say that I enjoyed practically every minute of it and I feel that most of it was of some direct benefit, either to me personally or to the two organizations I represented: the AIA and the Department of the Interior. I was away three weeks, taking in the whole works—the seminar in Poland of my working commission (Sports and Recreational Facilities), the commission meetings in Prague, the assembly and congress.

At the seminar in Katowice, which is a rather bleak industrial city in Silesia, we had three days of meetings and a three-day bus tour of southern Poland. The papers at the meetings were of moderate interest and value; some of the discussion was better. The speakers were largely content simply to recount how they do things in their own countries. The same criticism could be leveled at me, for I showed slides of facilities in the United States, from the landscaped area in Washington Square Village in New York and the Kennedy Playground in Washington to the marina in Everglades National Park and the Houston Astrodome. At least, everybody seemed interested.

The bus tour, however, was much more illuminating. On the outskirts of Katowice there is a 250-acre park, reclaimed 15 years ago from land that had been strip-mined. The park contains beautiful trees and gardens, a zoo, an 80,000-seat stadium, all sorts of playing fields and an incredible hillside layout of swimming pools such as I'm sure exists nowhere else. There are six or eight pools for all kinds of swimmers and non-swimmers, including one with a wave machine, and terraces for sunbathing, cafes, restaurants and a hotel. I was told that on a summer Sunday there were often 250,000 people there.

We went to Krakow and other cities large and small and saw gymnasia, stadia, swimming pools

both indoors and out and, at Zakopane, in the mountains of the south, an Olympic ski jump with seats and standing room for 22,000 spectators. All these facilities, of course, are state-built and -operated and have been completed during the past 10 or 15 years.

There were 16 commission members in our group, from all the Socialist countries of eastern Europe, as well as from France, England, Norway, Spain, Italy, Switzerland, Holland, Austria and Japan. There were also a number of observers from Poland and Czechoslovakia. Everybody mixed well, and during the bus trip we had as much fun as any bunch of sightseers regardless of the babel of tongues. Two-thirds of them knew English more or less, and school-boy French made communication possible with the others. We wound up the tour, before being dumped out in a dreary railroad station at 10 p.m. to wait for a 2 a.m. train to Prague, at a mountain restaurant where we wine and dined and pledged everlasting friendship and international understanding in free-flowing vodka.

I almost didn't make it to Prague—I shudder to think of where I might have landed! I had used up

my Czech visa on my eastward trip, coming through Prague en route to Poland, but I was assured that I could readily get another one at the border on my return west. The train got to the border at 3 a.m. and when the guards found I had no visa they said "Niet." My Polish and Czech architectural friends tried to explain, but the final answer was "Only for nine American dollars." Not Polish money, not Czech money, not a traveler's check—and I had only three bucks. We had quite a hassle until finally the wife of the Norwegian architect, bless her heart, overheard our arguments and stuck her hand out of her compartment with an American ten-spot. Money never looked so good!

Prague is one of the grand old cities of Europe: very romantic, very picturesque, full of fascinating, crooked streets and fine squares. There has been very little new construction since the war—the hotels, in fact, are mostly pre-World War I—but a tremendous face-lifting program is underway. The facades of buildings everywhere are covered with scaffolding, but few workmen are apparent. The major buildings have already been beautifully restored, and the Czechs have showed

Q: What do the initials "UIA" denote?

A: Union Internationale des Architectes (International Union of Architects).

Q: What are the aims of the UIA?

A: 1. To unite, on a democratic basis, the architects of the entire world.

2. To strengthen international bonds of friendship and intellectual, artistic and professional ties.

3. To develop progressive ideas in fields of architecture and town planning as well as practical application for the welfare of the community.

4. To represent the profession at an international level.

5. To see that the social and cultural roles of the profession are recognized by public opinion and by official and semi-official bodies.

6. To maintain public confidence in the integrity and ability of architects by demanding the highest moral and professional standards from its members.

Q: When was it founded?

A: Although international organizations have met since 1867, the UIA was formally created in Lausanne, Switzerland, in June 1948.

Q: Who finances the UIA?

A: The funds of the UIA consist of dues plus donations. The US dues are paid by the AIA, much as

US participation in the Olympic Games is privately supported. Also, much like the Olympics, national representation by most other members is government-subsidized.

Q: What are the politics of the UIA?

A: The UIA proposes to maintain unrestricted contact between the architects of all countries irrespective of national and political frontiers or differences.

Q: What is its membership?

A: There are 65 member sections representing a total of 75 countries.

Q: What is a "section"?

A: 1. A national section represents the architects of its country. US architects are represented by AIA through the Institute's Committee on International Relations.

2. A regional section represents architects in countries not represented by any national section. (Example: A regional section, East Africa Institute of Architects, represents the architects of Tanzania, Uganda and Kenya.)

Q: Who directs the UIA?

A: 1. The assembly, which is composed of delegates from the sections. The number of delegates depends upon the number of architects the section represents. At the 10th Assembly, or business session, in July 1967 in Prague, the US section had seven delegates and four

alternates. The next meeting is to be in Buenos Aires in 1969.

2. The executive committee, a 20-member body, conducts the UIA's business between assemblies. Henry L. Wright, FAIA, presently represents the US on the executive committee; Daniel Schwartzman, FAIA, is his alternate.

3. The statutory seat of the UIA and its secretariat are in Paris.

Q: What is a "congress"?

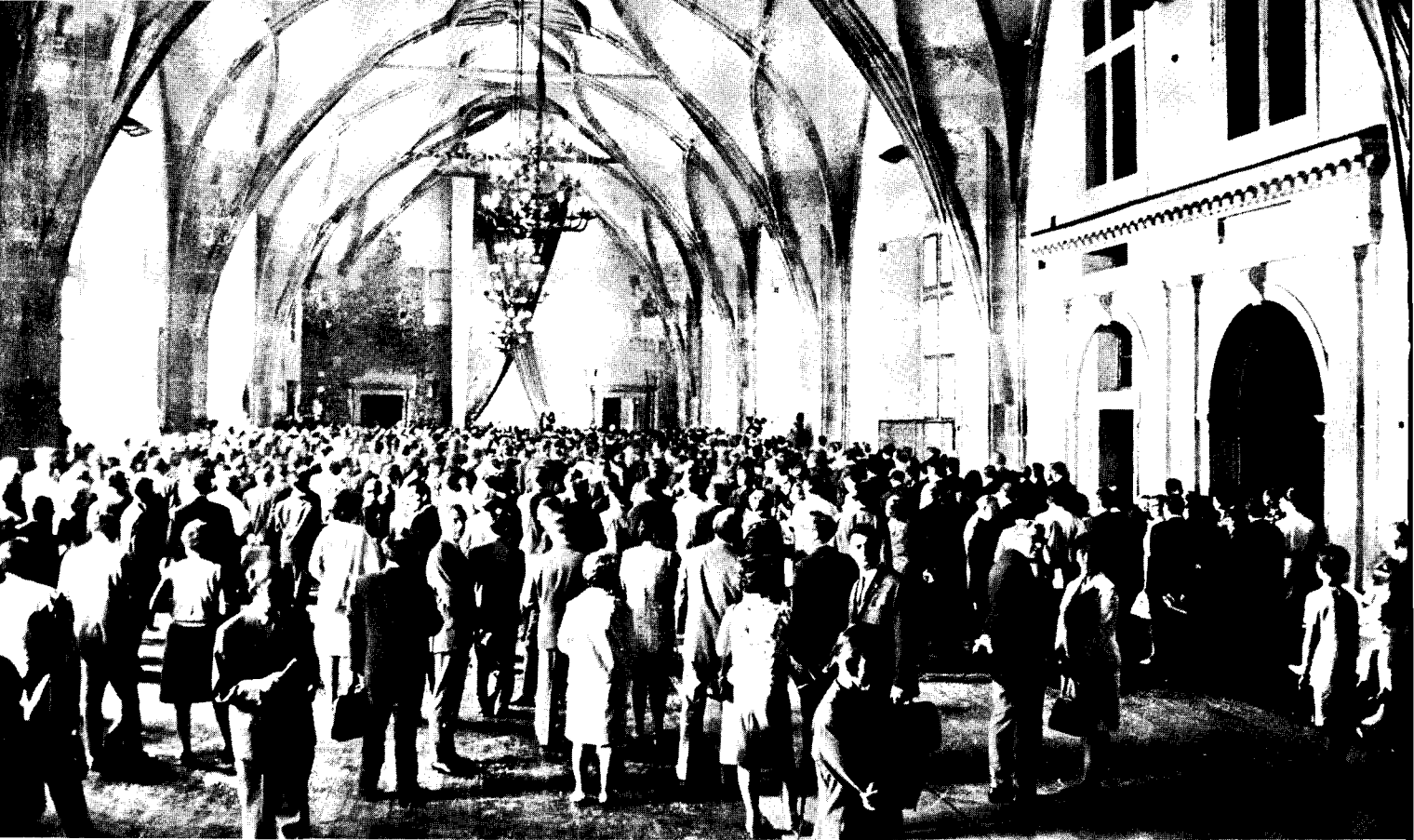
A: A convention—with a program, theme and speakers—planned by the host section. The Ninth Congress in Prague last summer was held in conjunction with the 10th Assembly.

Q: What are "working commissions"?

A: Committees set up by the executive committee to examine the manifold questions which concern the profession. Presently there are five commissions: Town Planning, School Building, Housing, Sports and Recreational Facilities, and Practice of the Profession.

Q: What is a UIA "seminar"?

A: It is a seminar approved by the UIA executive committee and organized by a section. (The UIA Fifth Seminar on Industrial Architecture will be held in Detroit, May 19-26, 1968, and has been planned by the Detroit Chapter AIA under the auspices of the AIA.)



The congress opens in Prague Castle's Great—or Wladislaw—Hall, designed by Benedikt Rejt and completed in 1500.

great skill and taste in adapting the old castles and palaces to their new uses as museums, libraries and government offices.

The formal opening of the congress was held in the Great Hall of Prague Castle, the ancient pile on the crown of the hill overlooking the river and the city which started abuilding a thousand years ago. The Great Hall is one of the finest interior spaces I have ever seen, vaulted with sinuous late Gothic stone ribs which seem to defy all structural sense. Held after the session was a reception with music on the terrace on the ramparts, with all Prague spread out at our feet.

The headquarters of the congress were in the Wallenstein Palace, in a fine, high room, from which we strolled through the gardens to the meeting rooms of the several working commissions, some in severe, workmanlike rooms, some in rich salons with carved paneling, murals and oriental rugs. Speaking for my own commission, these three days of meetings were rather dull, for the talk had mostly to do with procedures and plans for future meetings and seminars; however, there occasionally was good discussion.

These meetings were followed by the two-day meeting of the assembly, the business meeting of the UIA, attended only by official delegates. Former AIA President Henry L. Wright, FAIA, who is the American member of the UIA Executive Committee, was unable to come at the last minute so he asked me to sit in for him at the assembly. There were five AIA officers there as official dele-

gates. UIA President Eugène Beaudouin presided over the meeting. It was a bit of a scramble, for no established rules of order are followed, and everybody can get up and harangue as long as he likes. The business consisted of admitting five new national sections to membership: Australia, Iran, Malta, Sudan and Syria, bringing the total of member countries to 75.

Then the proposed reorganization of the UIA structure (which is sorely needed) was discussed. Former President Sir Robert Matthew, Hon. FAIA, outlined his proposals, and Secretary General Pierre Vago gave his, which consisted primarily of a lot of much-needed additional help for him. This was followed by debates by delegates from a number of nations, including Turkey and the Scandinavian section, both of which had submitted quite radical reorganization proposals. After some pretty hot discussion, the outcome was a resolution that the new executive committee appoint a working group to draw up a report to be submitted to the assembly at the Buenos Aires meeting in 1969. This group has been appointed—and wisely selected—and will hold monthly meetings in London.

After rambling discussions of the statutes and regulations, Jean-Pierre Vouga, president of the Committee of Liaison of the Working Commissions, gave a report on his extensive study of the working commissions. He felt that the system is no longer meeting its aims, but that the commissions' colloquiums and seminars had been quite

successful. (It would seem that it doesn't matter what you call them—it's the organization of the meeting that counts.) However, he favored the more open dialogue of the seminars, with which we could all agree.

Frederick G. Frost Jr., FAIA, UIA delegate to the United Nations, and Sir Robert Matthew reported that there was a slow but satisfactory evolution taking place in the UIA's relations with the UN. A Polish delegate, who had been asked to make a study of the UIA's possible role in the aftermath of natural disasters, reported that the UIA should support the creation of an international organization for technical aid to the affected areas, and that contacts with UNESCO should be reopened looking toward collaboration of the architects in this field. Daniel Schwartzman, FAIA, reported on the problems of international competitions, stressing that member architects should refuse to participate in those not approved by the UIA.

There were several other items of business, not of particular interest here, ending with the elec-

tion of new officers. Beaudouin's term of office had not expired so he continues as president; Vago was re-elected secretary general. However, he felt his majority wasn't large enough to indicate confidence, so he resigned, as he has long wanted to do. Rallied by Sir Robert, the delegates gave him an enthusiastic rising vote.

All of this sounds as though the assembly conducted a respectable amount of business, but it took two days and was accompanied by long harangues by delegates from obscure countries who apparently just wanted to get on the record, with occasional wild interruptions and much racing around the floor. There was also a tirade by the North Vietnamese delegate, culminating in a direct insult to the United States. Our delegates reacted promptly and it was expunged from the record. One of the first places for the UIA to reorganize is in the conduct of its assemblies, which should be set up on the basis of accepted parliamentary procedure and orderly conduct.

The congress consisted of four days of meetings on five different topics, with prepared pa-

The Wallenstein Palace, designed mainly by Italian and Dutch architects, is headquarters for the UIA Congress.





Housing for industrial workers in Piestany near Bratislava, where the Town Planning Commission holds post-session.

pers. Our own Louis A. Rossetti, AIA, was chairman, or "president," of the group dealing with "Industry and the Working Environment." After the papers there was supposed to be discussion from the floor, but seldom was there time for it.

The US members were very little in evidence at the congress meetings. One member reports, "I became discouraged after the opening session and did not attend any of the working sessions. I understand that at least one of the Monday afternoon sessions was a fiasco in that of the four scheduled speakers, one took up the entire time, which had been reduced from 2½ to 1½ hours." Others complained that no Americans were among the speakers—or even in the audience. One might suspect that the Americans' lack of support and interest had something to do with their lack of participation. I can present a little better picture, for one of the sessions I attended, "Man and the Landscape," was chaired by a Canadian who kept strict time on his speakers and limited them no matter how long their prepared papers were. As a result there was good discussion, in which I participated; but I must also add that there was only one other US member in the room, and he stayed only a few minutes.

The final closing ceremony of the congress was impressive in its staging but otherwise dull. It was held in a magnificent old cast iron and glass hall left over from some exposition—judging by the art nouveau glass I would say from the '90s.

What was it like to be behind the Iron Curtain? To tell the truth, I was never aware of it. Both the Poles and the Czechs seemed like any other people, socialism was nowhere apparent nor talked about. The Polish people are as a whole materially better off than they were before, for theirs was not a highly industrialized country. The Czechs are in a different situation, for they knew industrial prosperity before. I saw no signs of the

very rich, nor of the very poor. The architects will tell you privately that they feel frustrated. There is little opportunity for creative expression, and since all their work is done bureaucratically, there is no personal follow-through. But they cheerfully plug away at it.

As hosts, the Czechs went all-out. There was something to do every evening: receptions by the Prime Minister, the Lord Mayor and others, theater and opera. The working commissions were grouped together in hotels, which facilitated social intercourse; they made a valiant effort to furnish buses for most occasions; and individually the Czechs (and in my case, the Poles) were friendly and altogether charming—they couldn't do enough to see that we enjoyed ourselves.

On the other hand, listen to one of our members: "Language barriers prevented any real interchange of thoughts and ideas. . . . The Socialist countries kept very much to themselves. . . . America seems to be thoroughly unpopular at present." Then listen to this one: "I can't understand why we don't go to these congresses when there is a wonderful opportunity to meet and socialize with individuals and fellow professionals from other nations. . . . This participation in a city's environment and its culture and present civilization would not have been possible except through a congress such as this."

"Czechoslovakia was a depressing country with an enormous contrast between its people, its countryside and its cities and those of Germany and Austria. An example of their uncivilized state was the fact that a martini was available in only one hotel!" Offset that one with: "My family and I had a most fascinating and rewarding time in Prague. We talked with scores of people in all walks of life, from a girl electrician to a professor of economics. We visited private homes, drove into the villages around Prague with Czech friends, gained a tremendous insight

into what has become of this country which used to be the most technologically advanced nation in eastern Europe.”

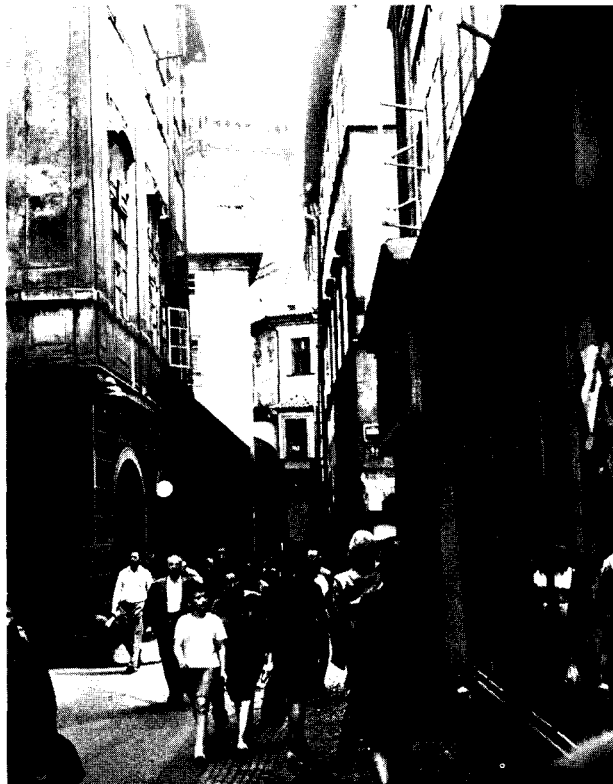
I think the answer is that you find what you are looking for; you take out of such an affair as much as you put into it. Therein lies the reply to the complaint that the AIA seems to get little benefit from its membership in the UIA. Out of its \$2.3 million budget it spends \$8,000 on international relations, of which \$5,000 goes to its UIA participation. Out of 20,000 members, 15 or 16 are sent, or go on their own, to an international congress.

The UIA is full of faults; it's often stuffy and pompous and it's weighted down with paper. But on the human side it works; it brings fellow architects together, and through its working commissions it is trying to provide a system for the interchange of ideas and techniques. It is the

American members of the working commissions who are enthusiastic over the UIA—while still being highly critical—for they are contributing toward it. It is the official delegates who go unbriefed and often unwilling who take a sour attitude toward it. This can and must be corrected by a larger and more whole-hearted cooperation from Institute members, and hence from its Board of Directors. The UIA desperately needs some Americans in its topside, but we can't just demand that our men be put into high office. We've got to show sincere interest and genuine participation. That has been utterly lacking in the past, except on the part of a very few individuals.

There were 2,000 architects at the congress. If 500 of them—or even 100—had been from the US, we would find ourselves full participants and in a position to help improve its structure and its service to the international profession. □

Steps leading from the ramparts of the castle, street in the Old Town and the new Prague. Three-year-old experimental housing project has apartments providing full hotel services and a shopping court joined with an arcade.



Reports from UIA Working Commission Representatives

(The Sports and Recreational Facilities Commission report has been incorporated by its representative in the preceding article.)

Practice of the Profession

Represented by 23 national sections, the commission prepared an authoritative Statement of the Professional Stature, Rights and Responsibilities of the Architects of the World [Caractère Libérale] and conducted the following surveys:

- number of architects in each country and their ratio to the total population
- industrial building components
- international and architectural education standards (this and the preceding topic now under the jurisdiction of other commissions).

Among its current tasks, the commission is dealing with these concerns:

- relationships with engineering consultants
- an answer to "Bureau d'Etude"—organizations not headed by architects offering comprehensive professional services direct to clients
- professional standards for architects practicing in other countries
- relationships of government architectural bureaus to private architects.

Looking to the future, the commission will cover such areas as architectural research, organization of the architectural office and standard contract forms and procedures.

The commission believes it imperative that the AIA be heard on any problems which affect the world stature of the profession and any regulations which affect architects practicing in foreign lands. Of importance, too, is assistance to architects in developing countries.

DANIEL SCHWARTZMAN, FAIA

School Building

For the second time the US representative was president of the sessions, which drew 17 nations to Prague. The papers presented at the San Francisco meeting held in June 1966 have been distributed to the UIA by the commission. Meanwhile, three other projects are near publication:

- a vocabulary of school building terms in four languages, funds for which are being sought from UNESCO in order to issue this extremely useful glossary
- a book on school buildings for vocational-technical education, with each country represented by one example
- a paper on industrialization in school construction, under study for two years.

It has been resolved that a seminar be held on the social role of the school, which would include representatives from the commissions on Town

Planning and Sports and Recreational Facilities. The results of the seminar, if approved by the executive committee, would be distributed via publication.

The main study for 1968 is high school buildings; the secondary one is facilities for handicapped children. MARIO C. CELLI, FAIA

Town Planning

Preparation of graphic material to provide a common language for town planning, maps, charts, etc., is a major project nearing conclusion under the direction of the delegate from Switzerland, Marc Saugey.

The late Arthur Glikson of Israel led an active committee on man and the environment, and a preliminary report had been assembled prior to his death. Arthur Ling of England heads a committee on the environment of work. Nikolai Baranov of Russia has prepared a substantive study of the optimum size of cities for committee review. Gustav Gusti of Rumania heads a committee on Residential Unity in the Neighborhood and the City, with special emphasis on tying together zoning, transportation and utilities. This writer has presented a report on historic preservation in the modern city, on which work is continued.

The 1968 meetings will be held in Sophia, Bulgaria, whose representative, Luben Tonev, is commission chairman. Members would be happy to receive an official invitation from the AIA to assemble in the US in 1970. CARL FEISS, FAIA

Housing

Primary among the commission's goals is to work with problems in developing countries. The commission will have an opportunity to study first-hand one kind of solution when it meets in Agadir, Morocco, this year. As a result of the 1960 earthquake which caused 12,000 deaths in that city, new housing has been constructed to take care of critical needs.

It was determined in Prague that the commission should be divided into subcommittees based on geographic areas (such as the team composed of the Mexican representative and this writer) and that these smaller groups should meet prior to the Agadir sessions to establish objectives for discussion and study.

The commission, which is composed of delegates from about 20 countries, provides each with an opportunity to think in objective terms about problems facing his own nation and to evaluate principles that apply in specific cases. Surely, the parameters for supplying new housing in the low-income bracket may not be so different as some may imagine. A. QUINCY JONES, FAIA

Four Swiss Theaters

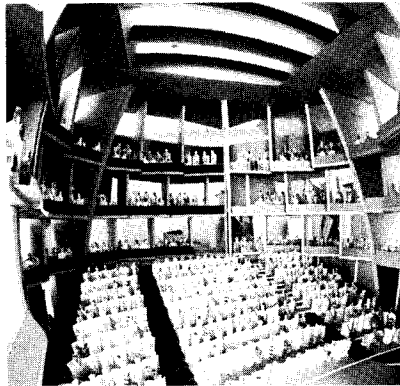
Pierre Zoelly puts the proscenium in the spotlight

BY ARTHUR C. RISSER, AIA

The philosophy of theater design in the United States in recent years has tended to shift from a direct confrontation of actor and audience to one in which the actor is partially and, in some cases, totally surrounded by the audience. However, of the projects submitted by architects to the screening jury of the Theater Architecture Exhibit of The American Institute of Architects and the American Educational Theatre Association, and of theaters selected for exhibit, the design concept of most retained the traditional axial arrangement.

Pierre Zoelly, AIA, of Zurich, Switzerland, has based his design for four theaters on two concepts of audience seating, both of which are rooted in the design of the proscenium opening. One is used when the dimensions of the proscenium are fixed and the other when the proscenium plane is restricted.

Zoelly believes that the most important aspect of theater design is "to seat the maximum number of people within that space around the proscenium plane which offers them good visibility and hearing." It has been his paramount design



model view. In each, the auditorium resembles the interior of an egg, but in Hardy's music chamber both audience and performers occupy the same environment, whereas in Zoelly's theater only the audience is seated in the "egg," the performers being separated by the restricted proscenium opening. The proscenium in the theater of Winterthur is similarly restricted both in height and width, but there is a forestage and an orchestra pit.

When the proscenium is not dimensionally limited by the program, Zoelly believes that "one could envision the entire plane as a photographic diaphragm contracting down to the size of a single man or expanding fully, limited only by the theater housing itself and depending upon the theatrical effects desired for production." The theaters at Basel and Neuchatel follow this principle.

The program for the theater at Neuchatel required an unrestricted proscenium plane and no enclosed side stages. As a result, the width of the theater building established the lateral dimensions for the acting area and the vertical proscenium limit approached full fly-tower height. In this project, as well as in the one at Basel, the roof over the audience was designed for an "open-air theater."

In all of the theater projects an effective use of the sites has been made with respect to traffic conditions and surrounding structures.

Because of their traditionally proscenium orientation, Zoelly's

theaters would not find acceptance in this country by directors who believe that theater must "happen" in the streets or in the marketplace. Neither would they receive the approval of directors inflicted with the urge to alter at will the position of the audience with the performer in an attempt to create a more intimate relationship between them. Current theater architecture has borne the brunt of much criticism from theater artists, some of which may be justified with respect to certain backstage and front-of-house facilities. But until contemporary theater directors make up their minds, decide definitely what they need in the way of actor-audience relationships and learn how to communicate their needs to architects, theater design will remain in a state of confusion.

Zoelly's theaters reflect definite conviction of a specific production philosophy: They are designed with a concern that the audience be able to see and hear what takes place on stage and they indicate an attempt to provide for the actors' needs backstage. The direct confrontation of actor with his audience provided by the proscenium theater has merit. In the final analysis, a well-designed proscenium-style theater is more adaptable to various kinds of production than theaters which have no style and attempt to satisfy the fantastical whims of an experimentally minded director.

It is not that innovations and experimental laboratory theater facilities are not necessary; they *should* be built and used. In the same way, theaters in community and civic centers where the audience comes primarily to be entertained are valuable—whether the resulting experience is enlightening, encouraging, discouraging, painful or saddening. In all cases, there is theater. It exists because someone had something to say that mattered.

The theaters of Pierre Zoelly on the following pages indeed reflect such a purpose.

The author: Mr. Risser, who is on the faculty of the School of Engineering, Wichita State University, is on the AIA Committee on Auditorium and Theater Architecture.

objective "to animate the auditorium with people, in the belief that the audience and actors prefer to view others of their kind rather than observe blank side walls or acoustical baffles."

The first concept, which is illustrated by the theater in Zurich, "expresses the pure geometry of piling people around a hole in a wall of fixed dimensions in such a way that all can see and hear approximately equally well what is happening behind the hole." There is a similarity between this theater and the Chamber Music Hall designed by Hugh Hardy, AIA, for the University of Toledo, shown here in a

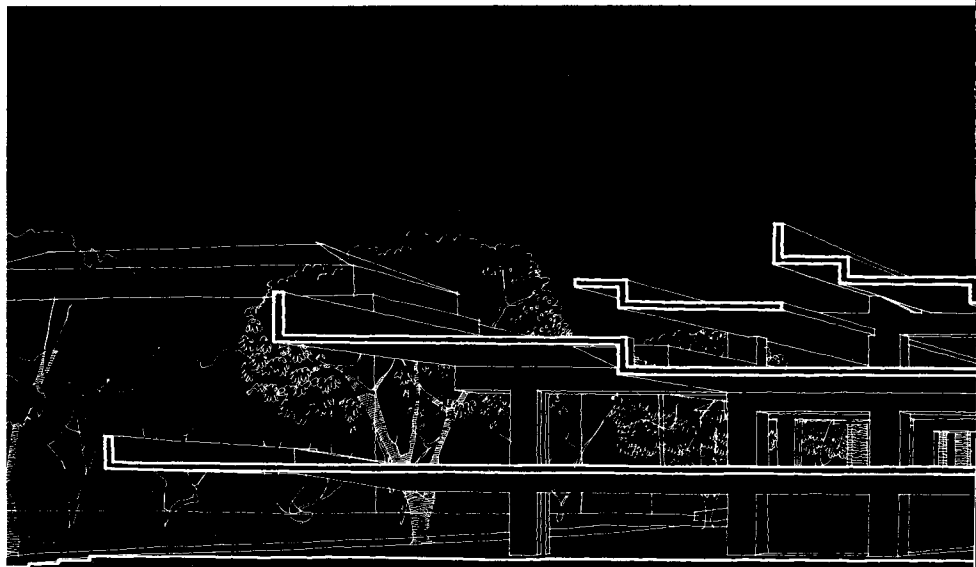
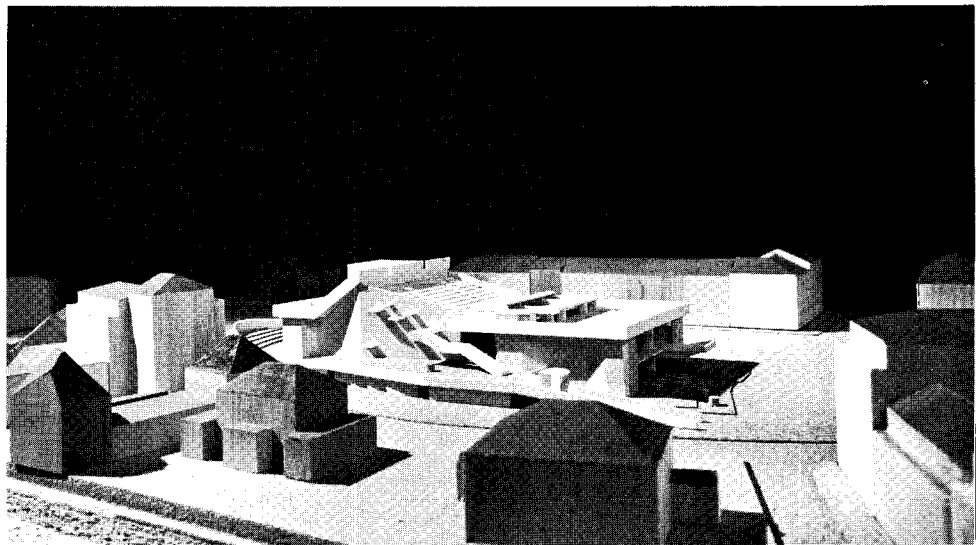
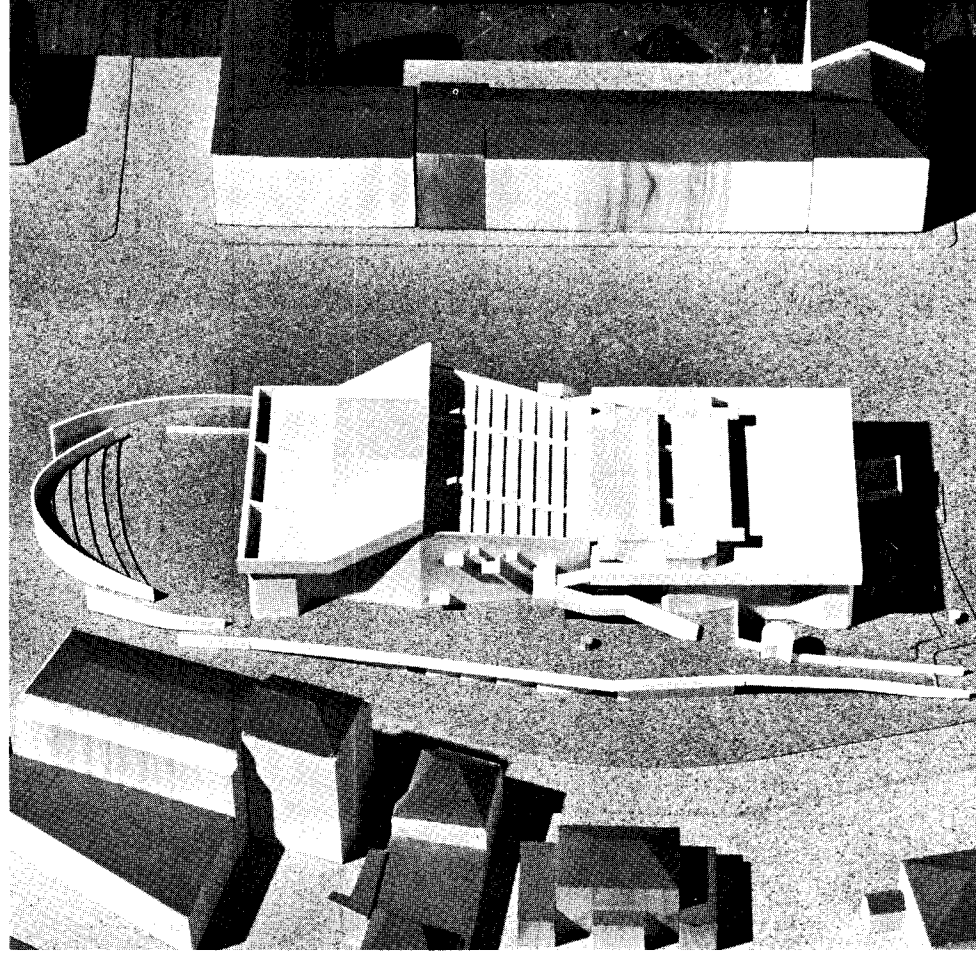
Neuchatel

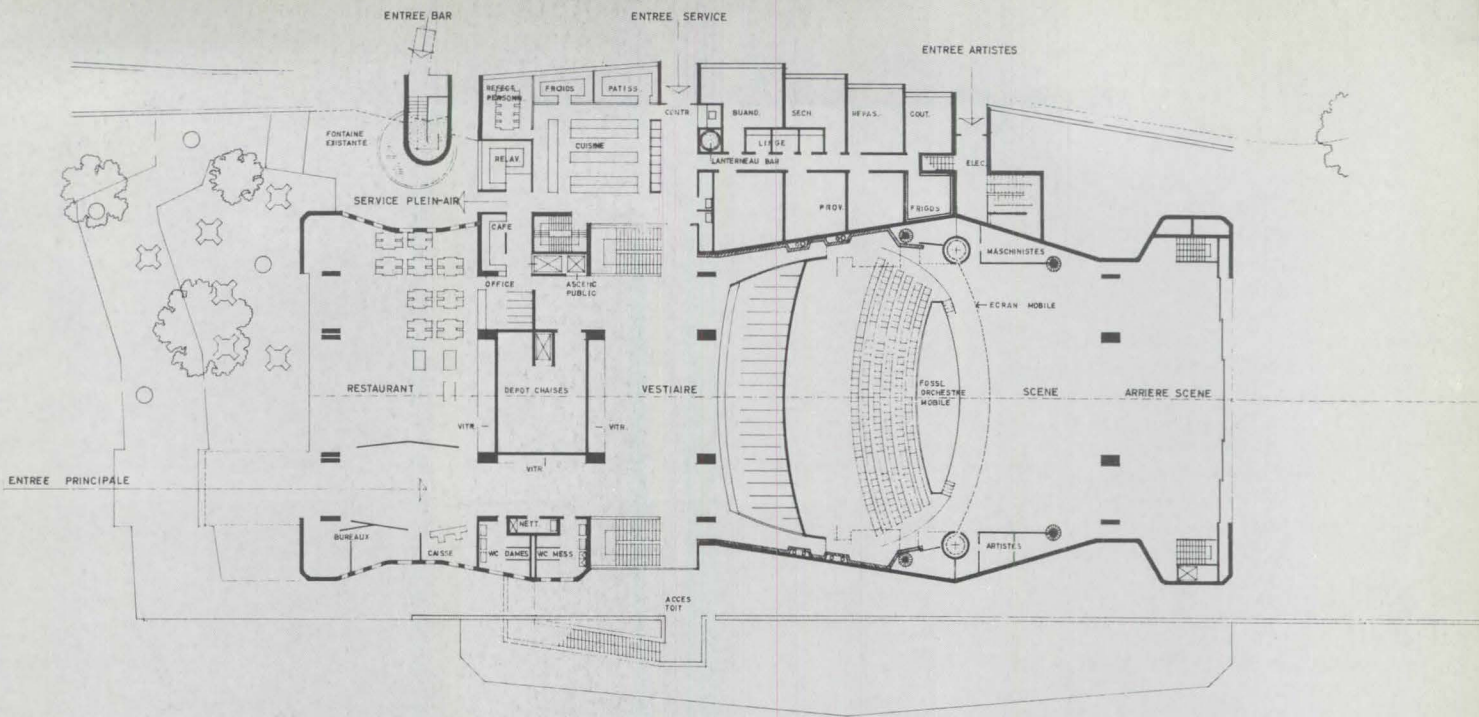
(870 seats)

This building was siteless in the conventional sense. In point of fact, it sat within a park but bore no particular relationship to the city buildings of Neuchatel. With minor alterations, this theater would probably fit most site situations one could imagine.

With an unrestricted proscenium plane and no enclosed side stages required by the program, a pure interpretation of the diaphragm conception was possible. The width of the theater itself established the lateral dimension for the acting area and the vertical proscenium limit approached full fly-tower height. The roof over the audience was designed as outside seating and a "roof foyer" was included which was accessible for "open-air intermissions" from the main hall below. The stage back wall opened up completely into a walled-in rear court that could be used for experimental open-air shows, introducing large crowds and vehicles onto the stage or accommodating other whims of the director.

An extremely economical structural system was designed which both emphasized the axial nature of the architectural scheme and improved the acoustical qualities of the auditorium space. Four longitudinal concrete frames carried the entire building, and within the auditorium hall the beams themselves became punctured deflection surfaces, laterally braced by two concrete lighting bridges. The two continuous nonbearing side walls were conceived of as rigid curtains which contained necessary building services and provided additional refractive qualities to the hall. Architecturally, this resulted in a building where one could walk the entire length in a functionally varied spatial sequence but still feel within one conceptual unity.

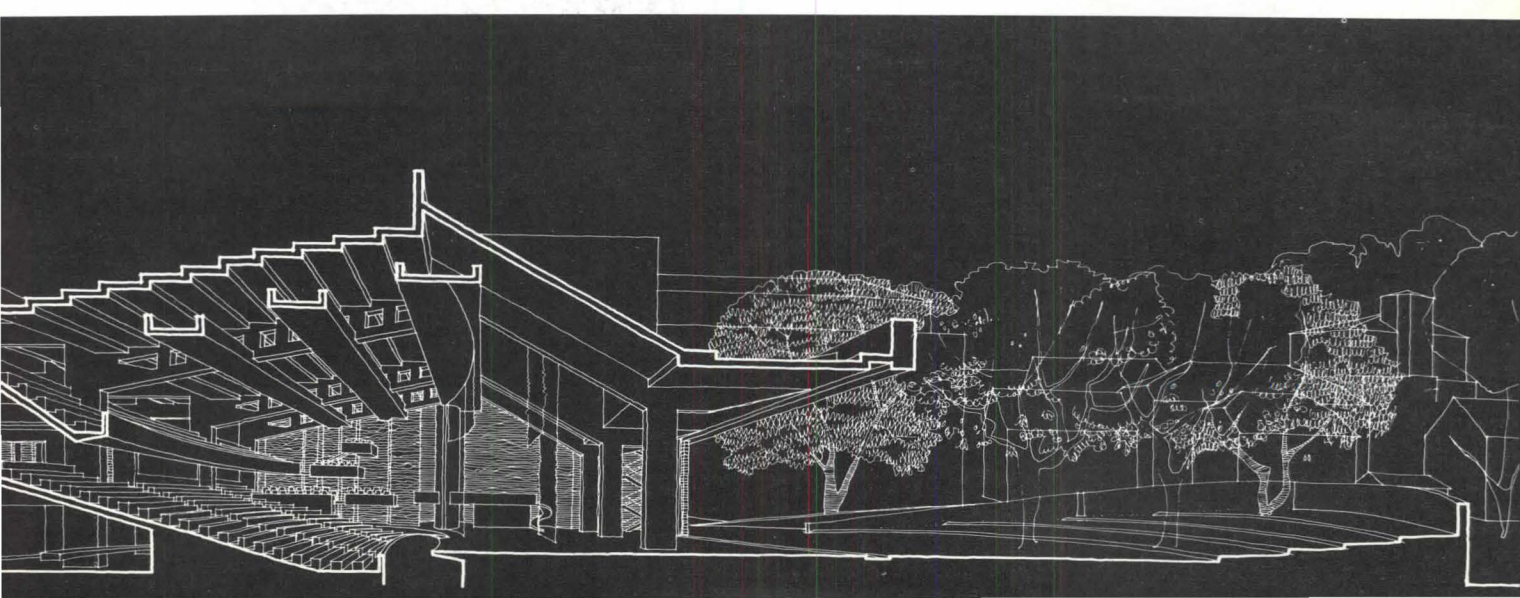
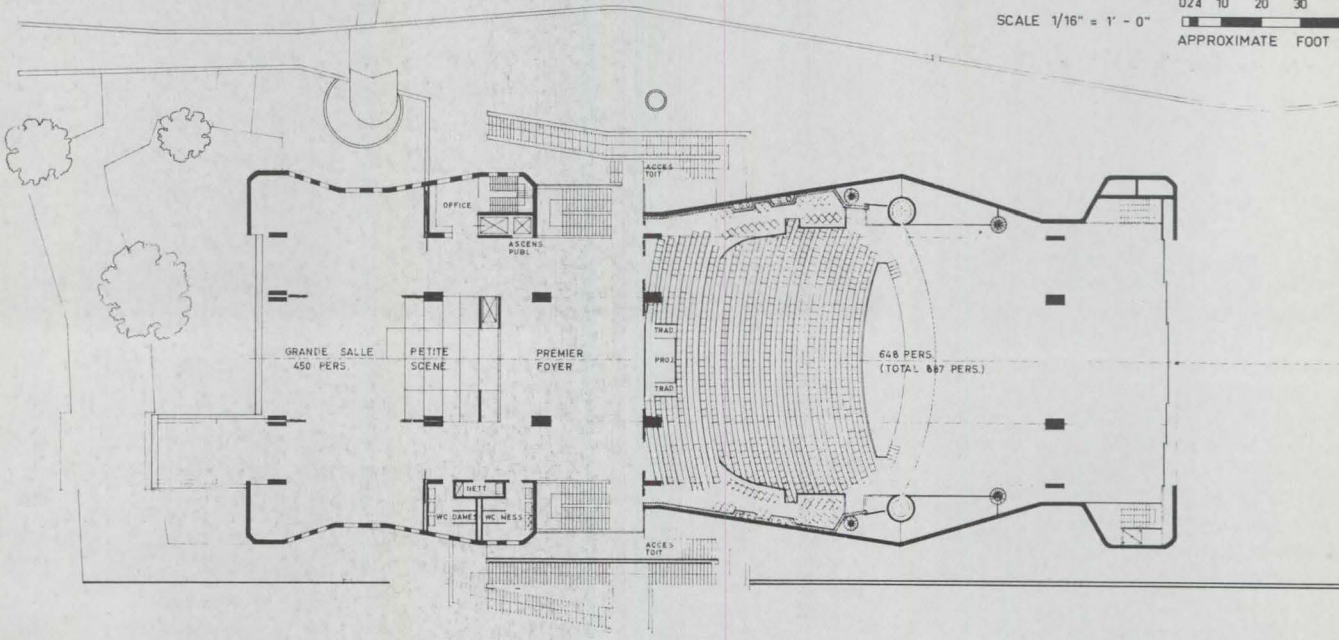




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APPROXIMATE FOOT SCALE



Basel

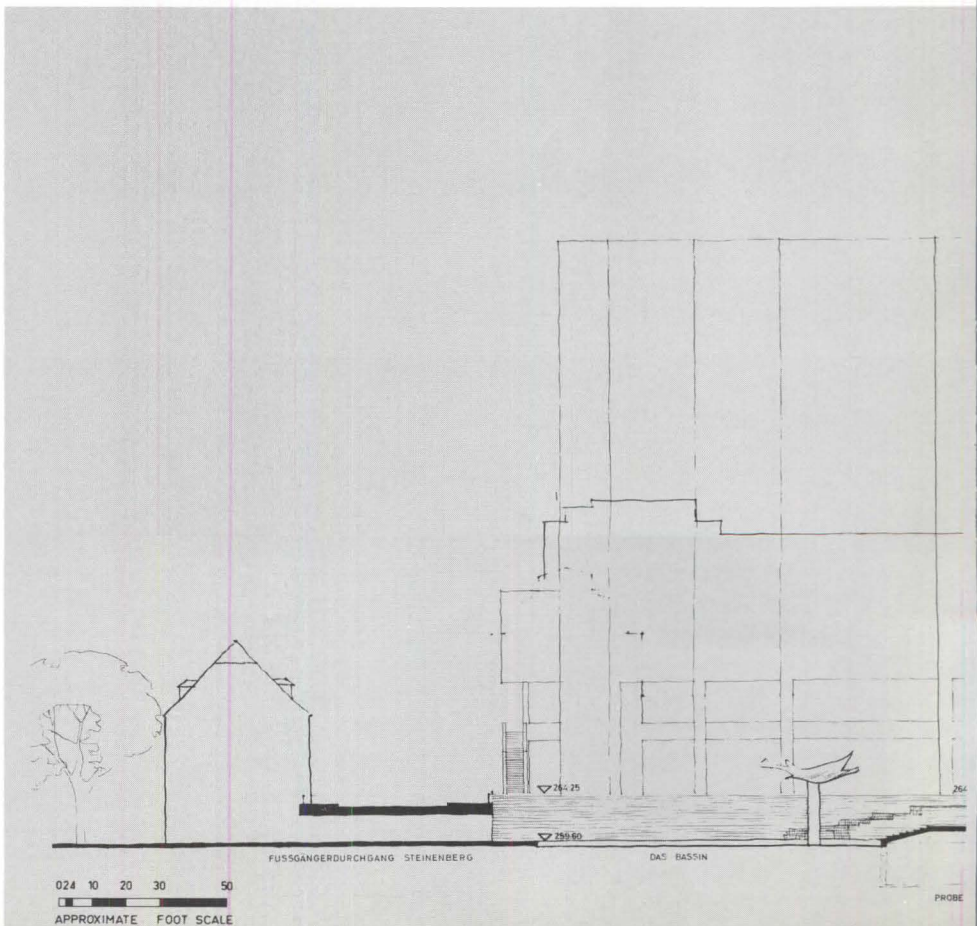
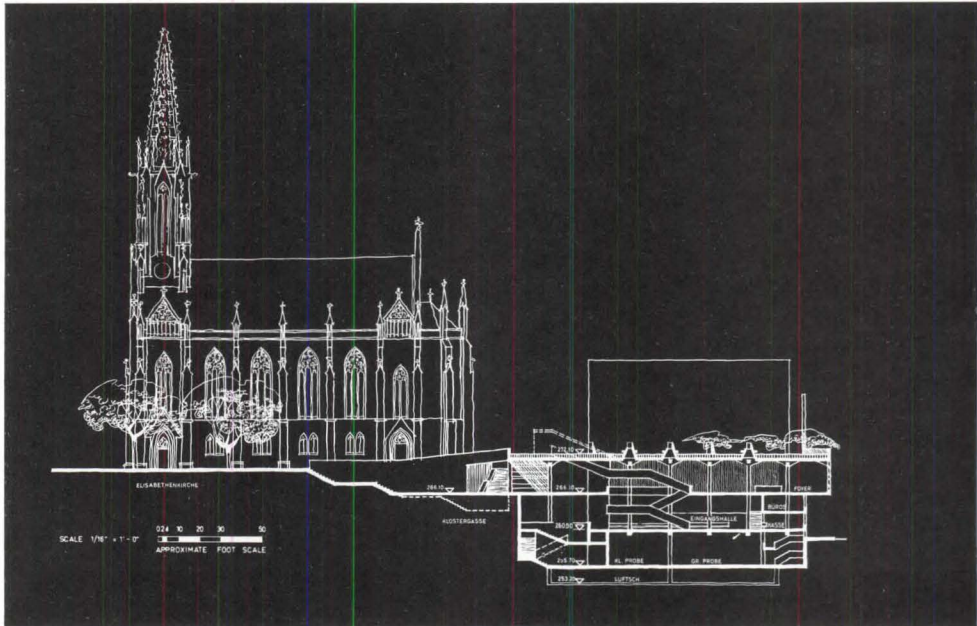
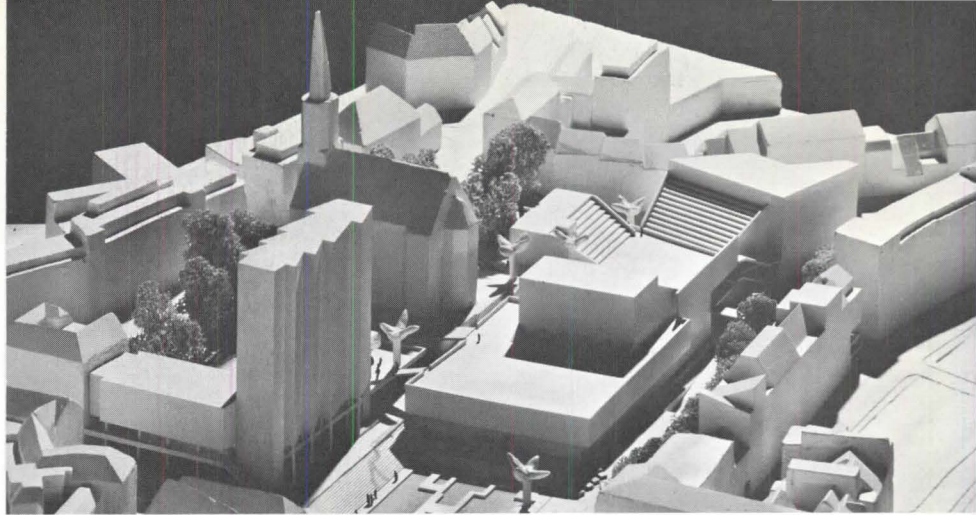
(900 and 300 seats)

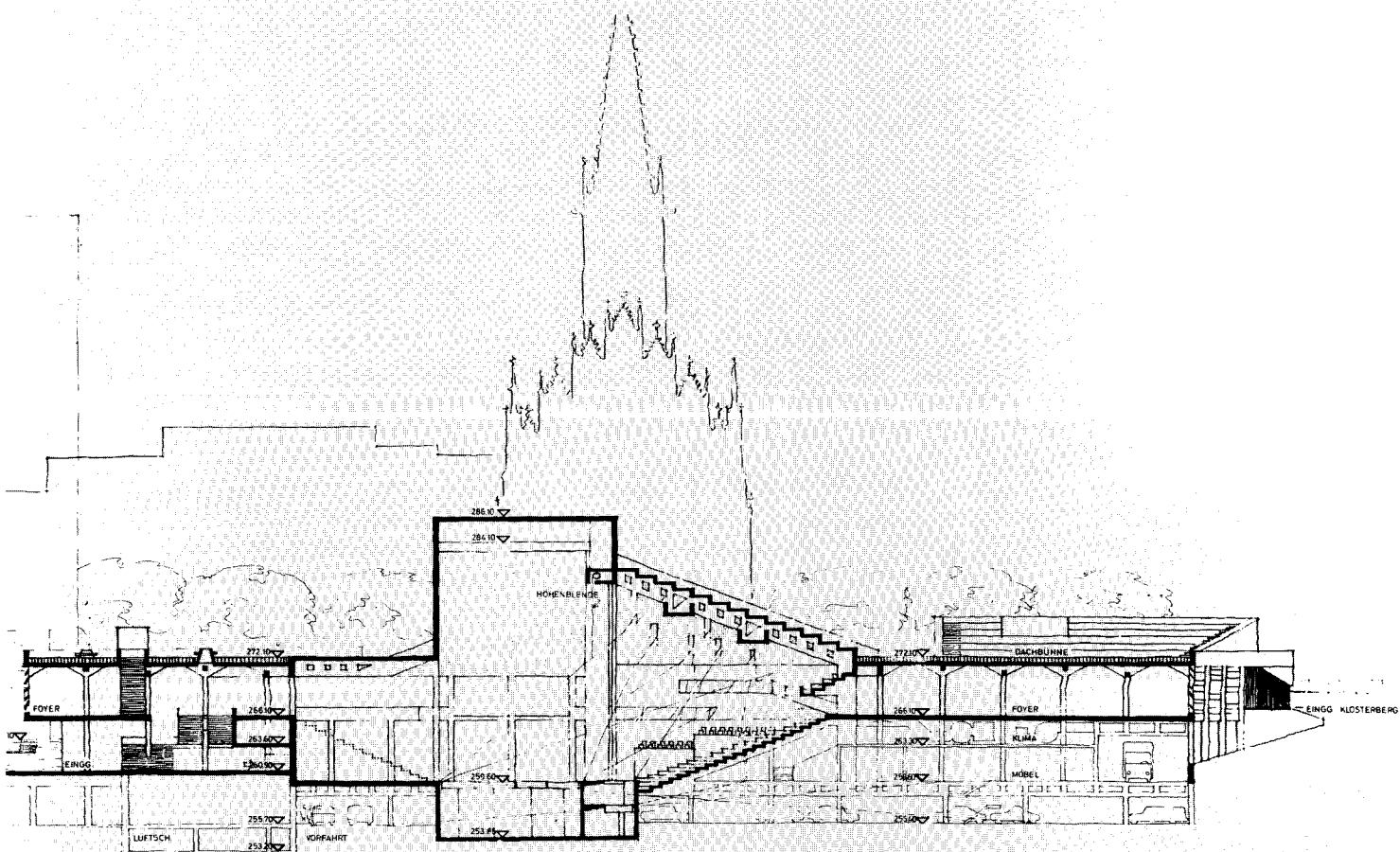
Two theaters were included within the first building stage, a third (at a slight skew) was envisioned as a later addition, pending some demolition. The site was tightly cloistered within an urban setting. Instead of seeking to expand the site visually to include the surrounding city, an attempt was made to further isolate the open areas of the site and, by using roofed areas, create an elevated city plaza to function as a "spontaneous theater" (Corbusier).

The access problem was resolved through three approach levels: from the lower court at street level, from the level of the church directly into the foyer and from the roof plaza level. This solution provided maximum theater accessibility from internal and external parking as well as direct foyer connections within the immediate site.

Since there was no restriction placed on the proscenium size, the diaphragm concept was applied to all theaters within the complex. The larger side stage of the main theater could be filled with seats and opened to the foyer, simulating a partial arena theater. With the roofs over the auditorium halls utilized as outdoor seating around the plaza, the sometimes objectionable fly-towers became welcome baffles to city noise and provided the projection rooms for outdoor theater performances.

The structural conception was similar to Neuchatel in that every attempt was made to integrate the structural system with the acoustical requirements. A series of simple concrete beams did most of the load-carrying work and added deflective surfaces to the auditorium spaces. Within the foyer spaces, where the structure became necessarily more modular and natural light more desirable, the column shear connections to the roof slabs were accentuated by a skylight capital.





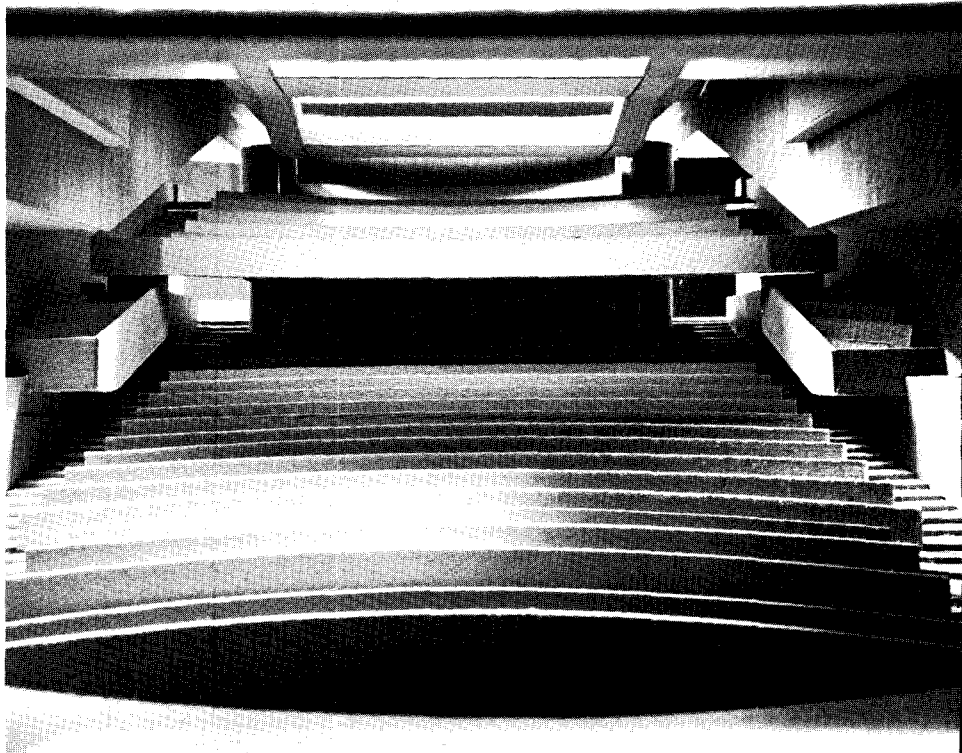
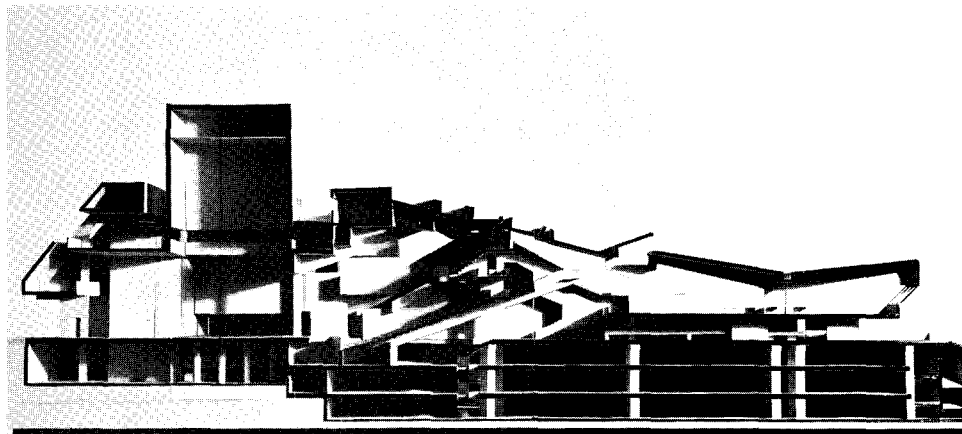
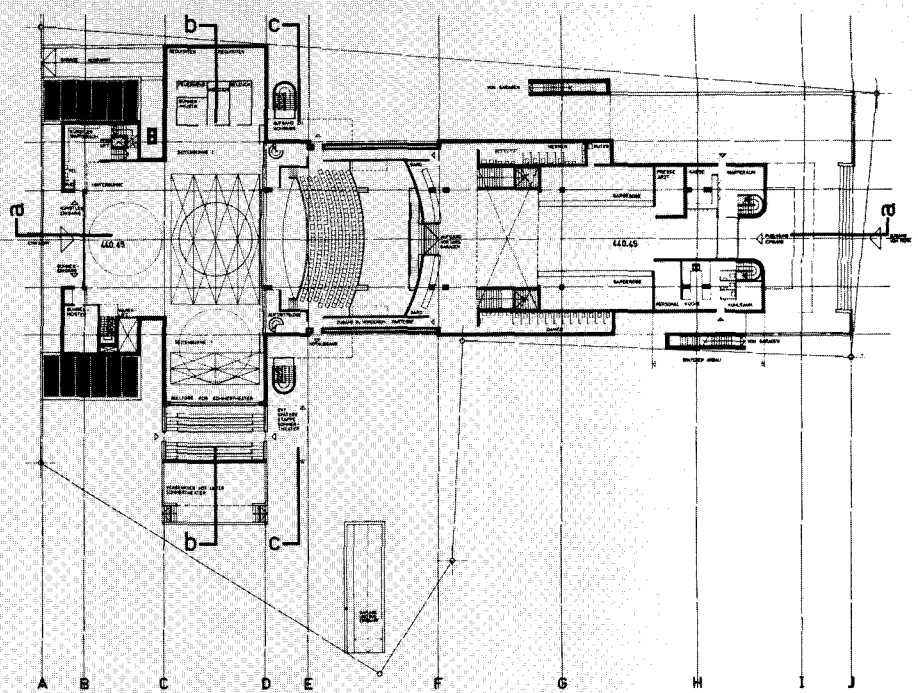
Winterthur

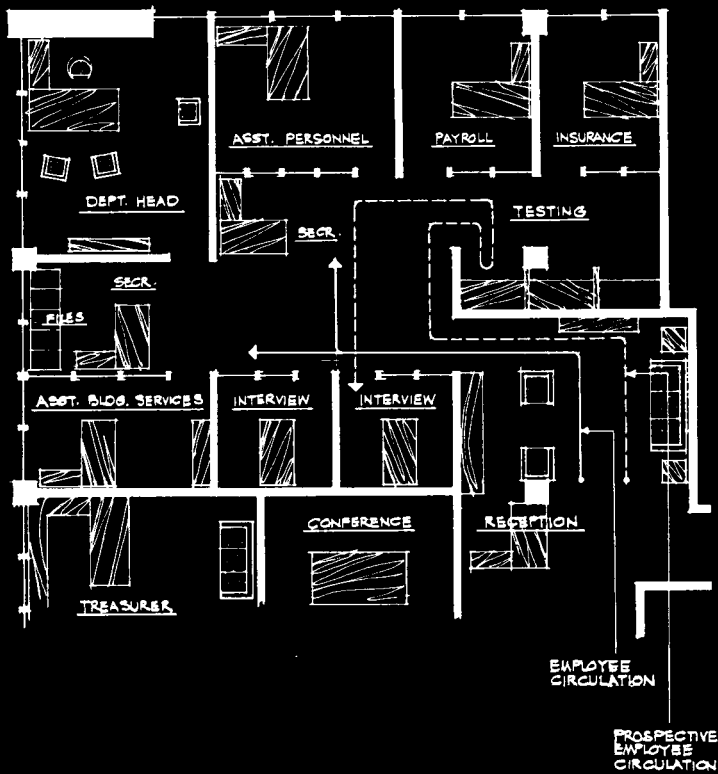
(800 seats)

The site was centrally located and sat opposite a large park which included most of the city's cultural buildings. Primary pedestrian access to the theater was from this park; taxi and auto drop-off was provided under the auditorium adjacent to the main cloakroom. In the same sense that Neuchatel's theater was a siteless building, one could easily envision this structure, by itself, on numerous other sites with only minor alterations.

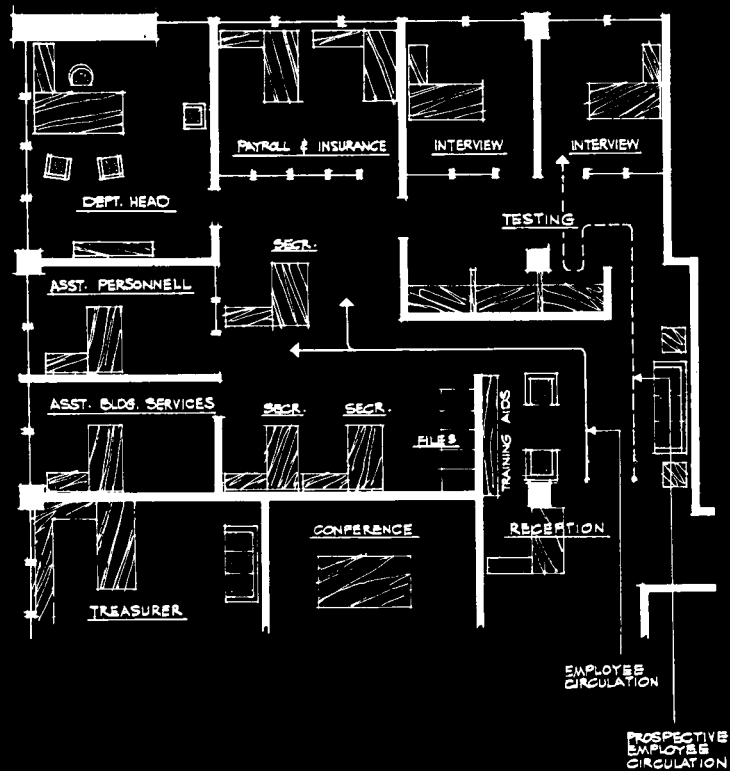
The proscenium was restricted in height and width which precluded the implementation of an open-air theater on the roof. However, the general diaphragm conception was applied to the horizontal stage opening with the addition of permanently masked forestage areas beyond the fixed limits of the proscenium and small acting areas at a level above these masks. The actors' dressing rooms were wrapped around the tower, providing additional deflective surface within the auditorium hall. These were illuminated indirectly by light reflected from the four fly-tower walls. The larger side stage was trapped and a requested summer theater built into the main stage apparatus. Structure was supplied for temporary or permanent enclosure should this hall ever be required to function as a student or rehearsal theater. Like Neuchatel, stage servicing was accomplished from street level directly to the backstage.

Basically, the structural system was like that of Basel and Neuchatel in that two huge longitudinal beams, flanking the proscenium, did most of the load-bearing work and functioned acoustically in a similar fashion within the hall. The main differences in structural conception were the use of the tower as an anchor and buttress for longitudinal beams and the addition of lateral concrete frames. The side walls were also load-bearing. The continuity of the roof slab was broken to vent air or accentuate structural or functional change with natural light.





ORIGINAL PLAN



REVISED PLAN

When a Sociologist Gets into the Act

BY C. M. DEASY, FAIA

A study of techniques used in applying the insights of a behavioral scientist to the planning solution of a savings and loan headquarters.

The sociologist who reports his observations on group behavior will rarely add footnotes suggesting that the information may have a bearing on building design.

Furthermore, it may not be at all apparent that the kind of group studied was very much like the ones we deal with in planning an employees' cafeteria or a dormitory lounge. It might have quite an effect, but the possibility that this data will fall into the hands of an architect, when he needs it most, is somewhat remote.

In view of the very substantial benefits that might be derived by incorporating this kind of knowledge in the planning process, and assuming

The author: Mr. Deasy is a partner in the firm of Deasy & Bolling, Los Angeles architects.

that few architects have the time, energy or aptitude for mastering this field by themselves, it would seem reasonable for the profession to effect some form of liaison with the behavioral sciences and turn to them for advice. This, at any rate, was the course we pursued in an effort to include behavioral considerations in our own planning procedures.

The project in which we elected to test this idea was a new headquarters building for a savings and loan association in downtown Los Angeles. The development of a program of requirements, in the normal sense, had been completed. The building was under construction, an exhaustive analysis of departmental operations had been made and schematic layouts for all the floors were finished. There were no particular problems in the client's operations that suggested the need for special consultation and no apparent reason why we should not proceed to complete the work on the basis of the information we had. We recognized, however, that a large number of people would be using the building and that anything we could do to ease personal strain and improve interpersonal relations within this group would be a worthwhile contribution both to the individuals and our client.

Consequently, we started a search for a consultant in social psychology that led us to Dr. Thomas Lasswell, professor of sociology at the

University of Southern California. He had never done anything of this kind before, didn't know of anyone else who had ever tried it, but was keenly interested in the possibilities of this type of collaboration. His academic credentials were flawless, but the most persuasive statement he offered was that he wasn't certain the effort would produce practical results. Being accustomed to consultants who have a positive answer for every conceivable question, such candor was extremely impressive.

We reviewed our findings with Dr. Lasswell and, in effect, asked this question: "Given this data, can you, drawing on your knowledge of human behavior, advise us of behavioral factors we should take into account in planning these spaces to accommodate the needs of the people who will use them?"

His response consisted of a report which defined five social-psychological goals of the client, analyzed each department in the light of those goals and concluded with some data on group interaction that was relevant to our planning problems. The report was in no sense a prescription for planning nor did it offer pat answers for our problems. For the most part it raised questions.

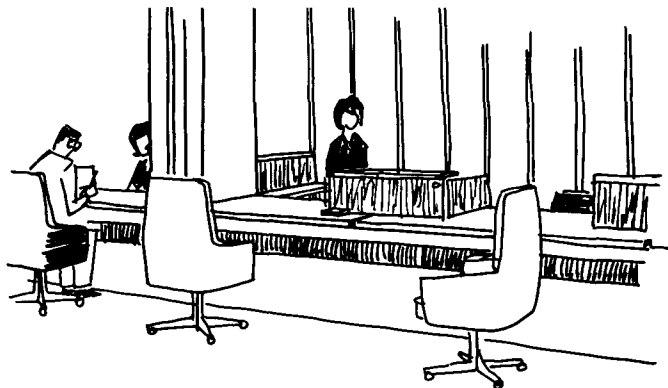
Raising questions may not seem to be a very useful contribution, but, in fact, it proved to be extremely beneficial. These often concerned matters that the architect is not normally aware of and for which his design solution provides an unconscious, perhaps inappropriate, answer. The general effect was that we as architects, and ultimately the management of the association, were forced to face issues we might otherwise have ignored. We had to define precisely what our objectives were in each situation.

The key to the value of the report lay in the statement of goals. Their simplicity was somewhat deceptive. "Maintaining the Value of the Product" refers not only to the services the association offers its customers, a primary concern for any business organization, but also to the need of any individual or unit to feel that they too are providing something of value to the total organization. In a similar way, "Maintaining Control" is not concerned with policing personnel but to the far more subtle mutual-control effects resulting

from the personal contacts between executives and employees brought about by patterns of movement within the building.

"Efficient Functioning" refers here to social-psychological considerations rather than traditional "time and motion" concepts. It recognizes that every individual has some personal goals that may, at times, be in conflict with the general goals of the organization. The individual's desire to get a good lunch, for example, may be in conflict with management's desire to have him return on time so that relief schedules won't be disrupted.

In Dr. Lasswell's words, "The object is not so much to design this building so that everyone in



it will be happy as it is to design it in such a way that it is possible for everyone in it to compromise his individual goals in favor of the total organizational goals."

The body of the report analyzes each of the departmental operations in terms of the five goals. While it is not possible to review here all of the issues that were considered, some generalized examples may clarify how this analysis affected our planning.

From an efficiency standpoint, the savings department would have elected to have the cages designed so that each teller could handle the maximum number of depositors in the minimum amount of time. The advantages in reduced payroll are obvious. The report indicated, however, that to many depositors the act of turning over their savings to a relative stranger was a rather important event and suggested that the association take steps to indicate that they regarded it as important too. Both goals are perfectly legitimate, of course, and this instance illustrates how easy it is to achieve efficiency from one point of view while losing it from another point of view.

Our solution offered one set of fast-service windows and another set where the customer sits in a high backed swivel chair at what amounts to a private desk where he has the undivided attention of a teller who is also seated.

The analysis of the employees' cafeteria didn't present this kind of dilemma. It did point out that this was more than a money-losing fringe benefit.

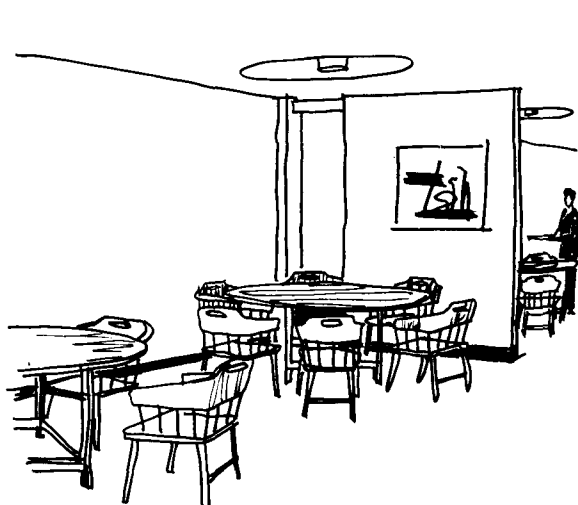
Under the right circumstances it could be a place where a good deal of interdepartmental liaison occurred almost unconsciously. The result was an employee dining room with some banquette seating but a majority of large round tables. It is quite unlike most institutional cafeterias and is intended to make it easy for new employees to be assimilated, minimize the formation of cliques and encourage the mingling of people from different departments.

The problem of "mutual control" received careful consideration. While an executive exercises direct control over the people in his department, they also exercise a degree of indirect control over him, and this may affect his actions more than he imagines. When his office is located so that he knows what all his staff is doing and they all know what he is doing, this effect is strongest. Under such circumstances he may feel compelled to be at his desk, setting a good example, when the larger interest of the organization might be better served if he were out of the office learning new techniques or developing new business. Perhaps this explains the marked preference of most executives for completely closed offices with an "escape" door.

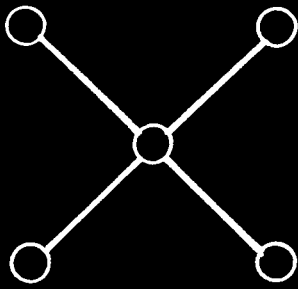
While there may be some employees who would be happy if they never saw their bosses, most of them want this contact. Isolated jobs are sometimes hard to fill, and part of the reason must be due to the fact that the employee who has no contact with management can hardly expect much recognition or reward for his diligence.

Our solution was to plot alternate paths of movement through the building so that no executive would be stuck at the end of a long cul-de-sac and no employees would be isolated. While the present plan accomplishes this, we are aware that modern business organizations change at a rapid rate, and it is not at all clear how these subtle relationships can be maintained.

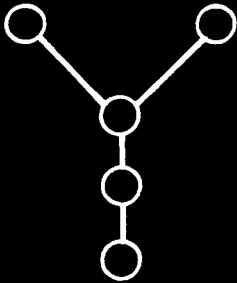
In general, we used the data contained in the report as we would use any program require-



CENTRALIZED GROUP NETWORKS



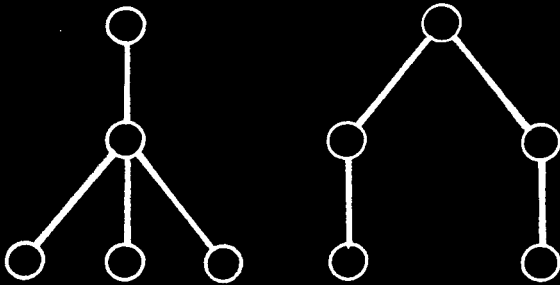
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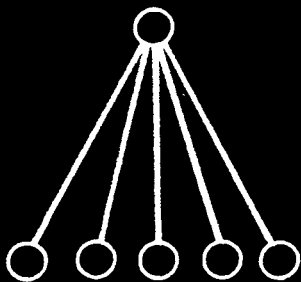
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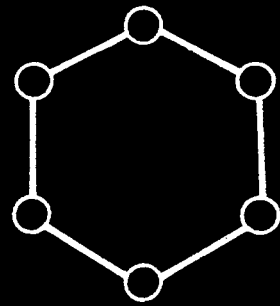
Chain



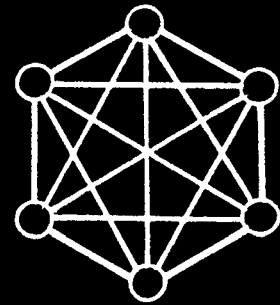
Variations



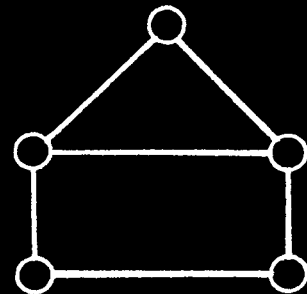
DECENTRALIZED GROUP NETWORKS



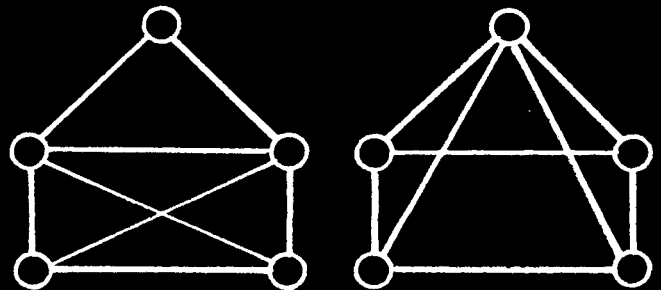
Circle

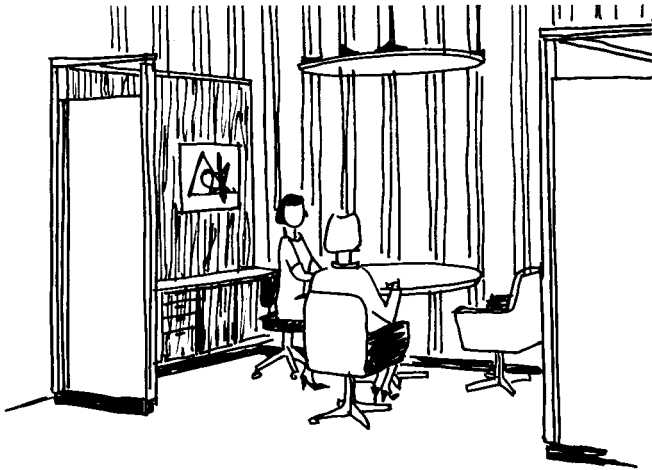


All-Channel



Variations





ments. Wherever possible, we accommodated the behavioral requirements. When they were in conflict with the operational requirements, we made adjustments that seemed to be in the best interest of the overall project.

The furnishings of the new accounts offices illustrates such a compromise. This is where a prospective depositor makes his first, and most sensitive, contact with the association. Dr. Lasswell suggested that the normal barrier between customer and staff—a desk—be eliminated here in order to establish the feeling that the new accounts officer was allied with the depositor in working out his problems rather than acting as the agent of an impersonal corporation. The operations of this department are such, however, that flat surfaces for the signing of documents are essential. As a consequence, we introduced a round table in the cubicle which will accommodate a group who might open a joint account and still permit the individual who wants a conspiratorial privacy to shift closer to the attendant.

The examples cited here are indicative of the types of questions that were raised and our efforts to resolve them. It does not cover the full range of questions by any means. We were, in fact, greatly surprised that so many social-psychological issues could be identified in what is essentially a normal kind of architectural project. Our surprise does not mean that we have ignored the needs of the people we were providing facilities for in the past. On the contrary, we have labored hard to resolve their requirements as we understood them, but it is now clear that good intentions and intuitive solutions are not an adequate substitute for systematic investigation.

While this study resulted in many detailed changes in our schematic plans and affected our design solutions significantly, it did not lead to any unique physical forms or arrangements. The visitor to the building will find it difficult to identify any unusual features that can be attributed to the social-psychological factors' study, though he may conclude that the overall impression is

somewhat different than he is accustomed to seeing. The one exception would be that, regardless of department size, there is no area with more than nine employees in a group.

The division between groups may be subtle—a line of equipment, wall panels or a space frame—but nowhere will be found the open "bullpen" area so typical of the large corporate operation. These "imaginary" walls subdivide the floors into a series of interlocking spaces that permit movement in almost any direction. This solution is intended to provide a variety of traffic paths through the floors and resulted from the suggestion that the optimum group size to which an individual can relate comfortably ranges between six and nine. Beyond this size, groups tend to break into subgroups, regardless of management's desires in the matter.

Based on this experience, it is our feeling that a systematic investigation of behavioral considerations can be of real value in architectural planning. While this was something of an experiment with obvious weaknesses, it proved to be an extremely productive experiment. Recalling other experiments we have attempted, we would be happy if a fraction of them had turned out as well. Certainly the study would have been more effective if it had been started earlier in the planning process, before so many irrevocable decisions had been made. A far more important deficiency, however, is the feeling that we have not reaped the full potential benefit of this approach simply because we have not wholly grasped the implications it holds for architecture.

The positive results from the study are substantial. Not the least of these is the fact that the attitudes of *all* the people affected by the building were considered: public, management and staff. Even the custodian and the mailroom clerks were taken into account. This procedure has a remarkable effect in clarifying objectives. It called attention to the fact that "efficiency" may be seen in quite a different light by each of these three groups and establishes the alternatives from which a choice must be made.

The behavioral program hardly makes the architect's work easier. It offers no solutions, only a better description of the problem. There are more factors to take into account and more conflicts to resolve. These problems are offset, to some degree, by the fact that the purpose of design becomes clearer, the target in better focus.

One of the unexpected benefits of this study was the increased awareness of everyone involved in the project that architecture is primarily concerned with people, not things. If the task of the architect is construed to be perfecting space for human use, this, in itself, would have to be considered a development of substantial value. □

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Revolutionary Champions

From out of the past have emerged anew the names of two architects who truly looked to the future, Etienne-Louis Boullée and Claude-Nicolas Ledoux. Precursors of the heavy cubist outlines of 20th century architecture, these 18th century Frenchmen are featured in an exhibition now on tour in the United States, "Visionary Architects of the Late XVIIIth Century." Also included in the exhibition are works of Jean-Jacques Lequeu, who long before his time anticipated the late 19th century's trend toward bourgeois bad taste.

The collection of their works was conceived and assembled by two curators at the Bibliothèque Nationale de Paris. With a complete vote of confidence, the Bibliothèque not only has lent the 147 drawings, plans and engravings to the University of St. Thomas, Houston, but also has given St. Thomas *carte blanche* to lend the collection to others.

Boullée (1728-99) is credited with helping to launch the neoclassic trend in architecture. A pupil of Jacques-François Blondel, Boullée became a professor at 18 and taught at the Civil Engineering School. His influence was considerable though few of his designs were ever built, soaring as they did beyond the means of any possible patrons. Instead, they were used for educational purposes only.

Boullée designed a stadium for 300,000 people which he envisaged "at one end of the Champs-Élysées, in order to offer the public easy access and convenient outlets." Others of his drawings, too, show a style of architecture suited to the mass civilization born with the Revolution.

"Buried architecture" is Boullée's expression. He outlines the

progress of his idea thus: "A thought came to me, as novel as it was daring—namely, to offer the picture of buried architecture. . . . Starting from the thought that the skeleton of a building is an absolutely bare, unadorned wall, I decided that to turn out the picture of buried architecture I would have to proceed so that my production would be satisfying as a complete whole. At the same time, the viewer would sense that a part of it was underground and out of sight."

And on "architecture of shadow": "I was in the country, walking along a patch of woods by moonlight. The shadow I cast in this light aroused my attention. . . . I was deeply impressed by the shadows of the trees on the ground. . . . I tried to discern a composition in the shadow." The value of shadows so influenced Boullée that he proclaimed himself "the inventor of shadow architecture."

Ledoux (1736-1806), also a Blondel pupil, was launched on his successful career when the decoration he made for a coffeehouse at age 26 made him an immediate hit. Four years later he designed a townhouse for the Count of Hallwyl; other important commissions followed.

Ledoux was a protégé of Madame du Barry. This brought him the commission for a château at Louveciennes and the appointment as official architect to Louis XVI.

One of his fondest dreams came true when he was commissioned to build a salt factory between the villages of Arc and Senans, since this gave him the opportunity to plan an entire model city. However, it was quickly far beyond the limits of the program. Funds lagged, and construction was stopped after five years. Others of Ledoux' high-

ly imaginative projects brought him similar disappointment.

Ledoux' plans show that he fully foresaw the many model industrial towns proposed by architects and philanthropists in the 19th century.

Lequeu (1757-1825?) never did reach the fame of Boullée and Ledoux, but some of his designs are surprisingly ahead of their time. Many of his flowing forms and bizarre, but carefully studied curves anticipated art nouveau.

Lequeu's career started out pleasantly enough with a scholarship, the commission of a city hall in his native Rouen and of several country houses, but he led a life in poverty and loneliness mixed with madness. While Boullée and Ledoux sought to get away from the excesses of the baroque, Lequeu's drawings often seem like a throwback to it.

After St. Thomas, "The Visionary Architects" exhibit will be in the City Art Museum of St. Louis from Jan. 22-Feb. 27, in the Metropolitan Museum of Art in New York City from April 15-May 13, and in the Art Institute of Chicago in May-June.

Louis I. Kahn, FAIA, who lectured at St. Thomas on "The Visionary Architects," was inspired to write the following:

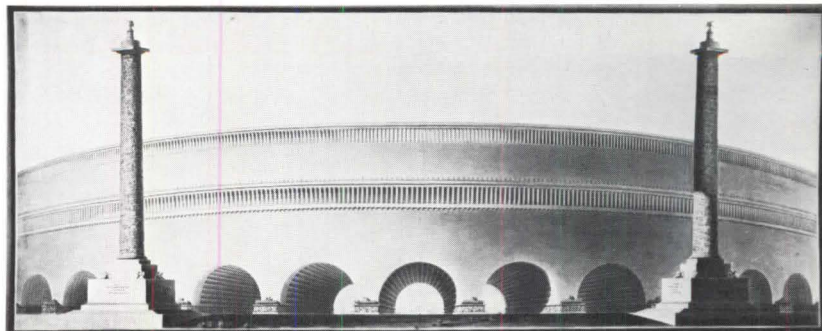
Spirit in will to express
Can make the great sun seem small

The sun is
Thus the Universe.

Did we need Bach
Bach is
Thus music is.

Did we need Boullée
Did we need Ledoux
Boullée is
Ledoux is
Thus architecture is.

Boullée designed his stadium, right, "to fulfill moral and political needs." Ledoux' model city and salt factory, left. Deploring industrial centers he visited, Ledoux stressed the importance of foresight, planning and study.



This administration building is "painting" itself



Rocky Mountain National Park Administration Building. Owner: National Park Service, George B. Hartzog, Jr., Director. Architect: Edmond Thomas Casey, Taliesin Associated Architects of The Frank Lloyd Wright Foundation. General Contractor: Kunz Construction Co., Arvada, Colorado. Structural Fabricator: PeCo Steel Corp. (formerly Aladdin Iron & Steel Corp.).

Location: Rocky Mountain National Park, Estes Park, Colorado. Exterior: bare USS COR-TEN Steel that "paints" itself as it weathers and needs no painting. COR-TEN steel develops a tight, dense, attractive oxide coating that seals out corrosion, heals itself if it is scratched, and looks better the longer it weathers.

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Iran and Soviet Central Asia*

A STUDY TOUR OF ISLAMIC ARCHITECTURE AND ARCHITECTURAL DESIGN

July 14th to August 22nd, 1968

Leader: Dr. Charles Adams, Director Institute of Islamic Studies of McGill University, Montreal. Also English speaking touristic couriers in all countries.

Itinerary: New York, Istanbul, Kayseri, Urgüp/Göreme, Gülsehir, Konya, Bursa, Istanbul. Istanbul, Teheran, Isfahan, Shiraz, Meshed, Quom, Pahlevi. By ship over the Caspian Sea (one day) to Baku in Azerbaijan. In Turkmenia and Usbekistan: Ashkabad, Tashkent, Samarkand, Bukhara, Khiva (Kwarazm). Return over the Caspian to Teheran and New York.

Architecture and architectural design are the greatest glory of the early Islamic civilizations in the ancient Middle East. Here are the buildings of the Samanids and of the Shahs of Kwarazm (Khiva), of the Great Seljuks of Persia, of Tamerlane and the Mongols (Samarkand and Bukhara). Isfahan and Shiraz are justly famous for the incredible beauty of their monuments.

The Seljuks of Asia Minor, with their capitals Konya and Kayseri, have left us an abundance of splendid and exotic buildings: caravansereis, medical schools, palaces, fortresses, mosques and mausoleums—all of the 12th and 13th century. The art of the early Ottomans will be seen in the enchanting city of Bursa. Here, the tiled walls and coupolas of the mosques are green, not blue as in Samarkand and Isfahan.

Istanbul is one of the great art cities of the world. The most beautiful of her mosques were built by Sinan, the architect of Suleyman the Magnificent: Suleyman Mosque, Sehzade, Sokullu, Mihrima and Rüstem Pasha. Also, Sultan Ahmet and Eyup will be seen. The museums are fabulous: Archaeological Museum, Islamic, Byzantine, Topkapi. Then, there are the great churches of Byzantium: St. Sophia, St. Irene and others. Finally, the Bosphorus and the Marmara Sea.

The most impressive of the non-Islamic monuments to be seen during this journey are Persepolis and Passargade, the capitals of Xerxes and Cyrus the Great (near Shiraz), the subterranean towns of Gülsehir and the fantastic byzantine rock churches of the Göreme Valley.

A wealth of objects of the minor arts of the regions and the period will be seen in the Seljuk museums in Konya and Kayseri and in Iran and Tashkent: Pottery and Tiles, Carpets and Textiles, Sculptures, Woodcarving, Miniature Paintings, etc. The Topkapi Palace in Istanbul and the Melli Bank in Teheran have world-famous and stupendous collections of jewels.

Beautiful, exotic and ever-changing scenery on the entire tour.

For general reading: Tamara Talbot Rice, *The Seljuks*; Ulya Vogt-Göknil, *Living Architecture—Ottoman*; David Talbot Rice, *Islamic Art*.

All inclusive cost from New York: US \$2450.00. Credit Plan available: \$500.00 before departure, balance in 21 monthly installments after return. Low cost credit.

Tour includes all expenses: first-class hotels, rooms with private bath or shower, all meals, all transportation, also jet economy class from New York to New York and all flights on the itinerary. Reservations cannot be obtained through commercial channels. Please write for detailed itinerary, printed booklet, etc. to: **Dr. Charles Adams, Institute of Islamic Studies of McGill, McGill University Campus, Montreal, Que., Canada,** or write to the organizers.

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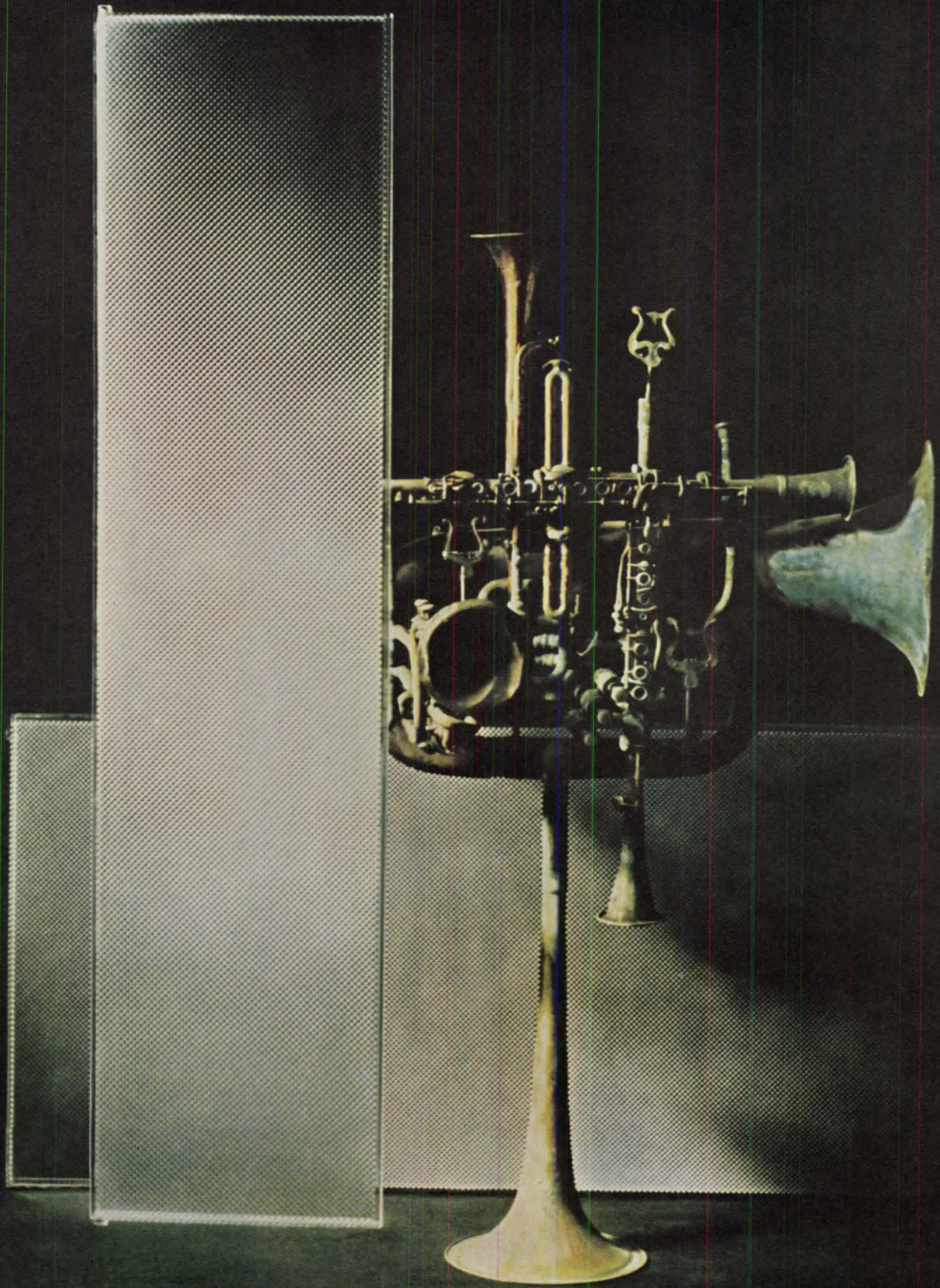
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When a Practitioner Goes Public

Robert Berne, AIA, chief architect of the Office of Civil Defense, re-defines the role of the architect in government at the annual AIA Student Forum in Washington, D.C.

In his field of responsibilities, the architect in government stretches somewhere between the "government architect" and the private practitioner. He is actually closer to the latter from the professional point of view. His functions in government do not include designing buildings, making working drawings, writing specifications or inspecting jobs under construction; yet his architectural training fits him quite uniquely into the niche of a government career.

The architect, by virtue of his education, experience and ability, is not a designer only in the esthetic sense of the word. He is also a designer in the much broader concept of being a coordinator and an administrator—one who has the unique faculty of being able both to create environment and to organize the many details that make up the complicated end product we know as architecture. And architecture and the architect are the keys to the largest industry in the world—building.

Of perhaps equally mammoth proportions is another industry—the federal government. Chances are that some of us will find it to be the ultimate vehicle for our vocations. What background could be better suited for such a career than that of the master planner—the architect?

What kind of architects have we had as civil servants in the federal government? One of the first achieved prominence before this country was born. Perhaps his best-known work is the University of Virginia. And a few miles from that, his own home, Monticello, by far the finest of its day, containing many features conceived by a well-disciplined and ordered imagination. I refer, of course, to the architect of the Declaration of Independence, the third President of our country, Thomas Jefferson.

Since those early days of our government, there have been many distinguished architects in public service. For a current example, under the able direction of August F. Hoenack, AIA, architect and civil servant, a continuing program of research into the best ways to

plan for hospital services, constantly changing with new discoveries and techniques, has been carried on for a number of years at the Public Health Service of the Department of Health, Education and Welfare.

The work produced by Hoenack's staff is public property, available to all architects for the asking. Its members perform a service to the entire profession of architecture, which no single firm could hope to perform by itself. Their final goal is better hospitals.

Several years ago, the AIA elevated to the rank of Fellow the distinguished gentleman Karel H. Yasko, special assistant to the Commissioner of the Public Buildings Service in the General Services Administration. Yasko has been responsible for the designs of many federal buildings across the country, but he did not receive the honor for actually designing buildings. He received it as a very capable administrator of a public buildings program. As an architect, he has the experience, capability and background which qualify him to select those private firms that he knows to be capable of producing the best architecture for the taxpayers' hard-earned dollars. In that capacity, he renders a valuable service to his country which cannot possibly be done as well by anyone with a background other than architecture.

Before assuming his present duties, Yasko held the position of state architect for Wisconsin, a responsibility he took on in 1959 following many years of private practice.

Many other architects in government today have brought into public service the valuable heritage of the private practice background. One of them is Ralph Warburton, AIA, special assistant to the Secretary for Urban Design in the Department of Housing and Urban Development. Warburton assumed his post a year ago after having worked in seven different private offices, including Charles Luckman Associates in New York City and Skidmore, Owings & Merrill in New York and Chicago.

Another example is Emile de Armas, director of preliminary planning service in the Veteran Administration's Office of assistant administrator for construction. After having taught hospital plan-

ning at Columbia and George Washington Universities, de Armas was involved in private practice in Shreveport, Louisiana, and New York before assuming his present position.

The point I am trying to emphasize here is that these men hold their present key positions in government because of their private practice backgrounds.

There was a time when the average architect in government actually practiced architecture as a government employee by working on the boards as designer or draftsman or by writing specifications. This was most prevalent during the Depression when private work was almost at a standstill and during World War II when national emergency dictated extreme measures.

During the period since the war, largely through the efforts of The American Institute of Architects, the picture gradually changed until the role of the average architect in government has evolved from one of practitioner to his present one of administrator and coordinator in a position of trust, responsibility and decision-making, many times involved directly with his colleagues in private practice. He plays an important role in insuring that our tax dollars for public buildings are wisely spent. The better the caliber of architect in government, the greater that insurance will be.

Should the architect abdicate such a responsibility, I for one would not care to predict the consequences.

For those who might be considering a career as an architect in government (note that I did not say a government architect) I have one suggestion. Before entering government service, prepare yourself with a good many years of experience in private practice.

Take your state board examinations to qualify as a licensed architect and at the same time get certification from the National Council of Architectural Registration Boards. I strongly advocate, furthermore, that the Civil Service Commission establish this as the criterion to determine professional status in government service.

Don't enter *public* service until you know what *private* practice is all about. Such knowledge is the greatest attribute of the architect in government. □



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The Big Fire: Its Why and Wherefore

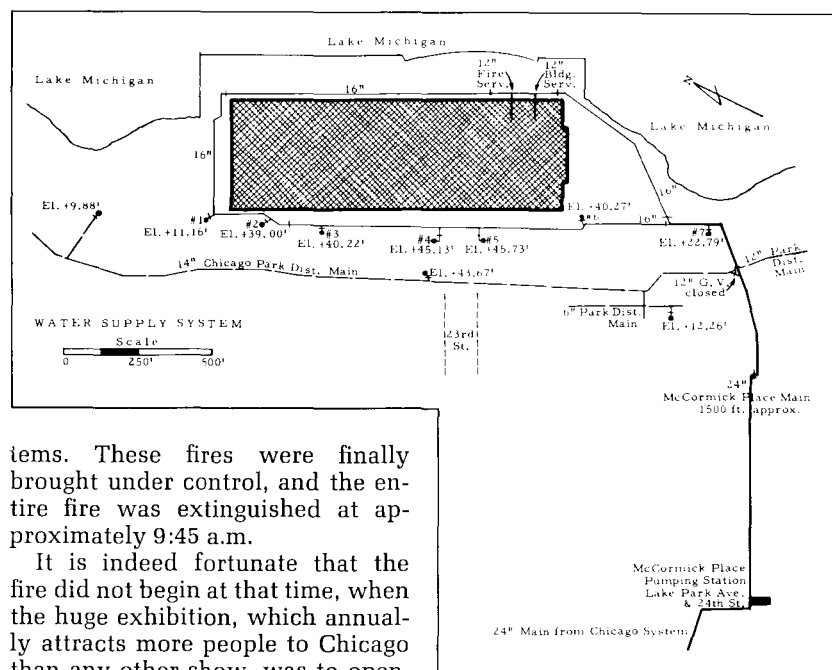
Samuel A. Lichtman, FAIA, a member of the Mayor's Committee to Investigate the McCormick Place Fire, uses that group's report as the basis for his observations. He also is chairman of the Commission for the Preservation of Chicago's Architectural Landmarks.

Smoke was detected arising from the rear of an exhibition booth at approximately 2:05 a.m. on the main floor of Chicago's McCormick Place on Monday, January 16, 1967, subsequent to the completion of the setup for the semiannual exhibit of the National Houseware's Manufacturers Association. This booth was located on the west wall of the building, approximately 200 feet from the north end.

Upon investigation, a rapidly spreading fire was detected, and after feeble attempts failed to quench it, the fire department was notified some six minutes later. Its response was almost immediate. Three arriving engine companies initiated an interior attack on the fire by connecting hose lines to three hydrants on the west side of the building. Water was obtained for a short time from one hydrant and from a booster tank on a high-pressure fire truck, but two hydrants directly in front of the building at the 23rd Street ramp could not be used.

By 2:31 a.m. five alarms and four special alarms had brought 94 pieces of fire fighting equipment (including two fire boats), three Civil Defense units and over 500 men to the fire, which by that time had engulfed the entire main floor. Water to fight the fire could only be obtained by arranging pumpers in relays to get water from Lake Michigan and from hydrants on South Parkway, approximately 1/4 mile west. The time it took to set up these relays over great distances severely handicapped the firemen in their initial efforts and forced them to abandon their interior attack on the fire.

Within a period of 30-45 minutes after the fire alarm was first received by the fire department, the intensity of the fire and the resulting high temperatures had caused the roof trusses to fall, collapsing the roof. Exhibits on the two levels below the main floor were ignited through the floor sys-



tems. These fires were finally brought under control, and the entire fire was extinguished at approximately 9:45 a.m.

It is indeed fortunate that the fire did not begin at that time, when the huge exhibition, which annually attracts more people to Chicago than any other show, was to open.

The building, which was virtually destroyed by the fire, is located on the Lake Front at 23rd Street. Its location was, and in some respects continues to be, a subject of controversy. Many were the voices of individuals and groups (including the Chicago Chapter AIA) that opposed the use of the lakefront for this facility, but its proponents were successful and it was completed in November 1960.

The building was approximately 1,130 feet long on its north and south axis and 350 feet wide on its east and west axis, with a gross area of approximately 395,000 square feet per floor. It was laid out on a structural module of 30x30 feet and had three floors, at elevations of 7 1/4 feet, 20 feet and 42 feet respectively. The 42-foot level was the main exhibition level. The Arie Crown Theatre, seating approximately 5,000 on its main floor and balcony, was located at the south end of the building and extended through all three floor levels.

The building was constructed on land that is the property of the Chicago Park District and was not subject to the requirements of the Chicago Building Code. Provisions for vertical circulation and exits were more than ample. The structural system was of reinforced concrete below the 42-foot level and structural steel above it. Structural steel columns supporting the

roof were fire-protected with metal lath and plaster to a height of 31 feet above the 42-foot level. The structural steel roof trusses and roof construction were unprotected. Stairs, partitions and ceilings were of incombustible construction. Mechanical systems provided heated or cooled air to all three levels.

Fire protection on the exterior consisted of six fire hydrants on the west branch of a 16-inch main that looped the building, one on a 24-inch main from the McCormick Place pumping station at 24th Street and Lake Park Avenue and three, also on the west side of the building, on a 14-inch Park District main connected to the 24-inch main. On the interior there were 1,122 automatic sprinklers and 69 fire hose racks at various well-distributed locations.

The exhibition levels were not sprinklered nor were they divided into smaller areas by fire walls. Each hose area had either 100 feet or 75 feet of 1 1/2-inch fire hose and a 2 1/2-gallon fire extinguisher. In addition, there were 18 fire alarm boxes connected to the Chicago Fire Department at strategic locations throughout the building.

Water was supplied by a pumping station, owned and operated by the Metropolitan Fair and Exposition Authority (operators on page 92

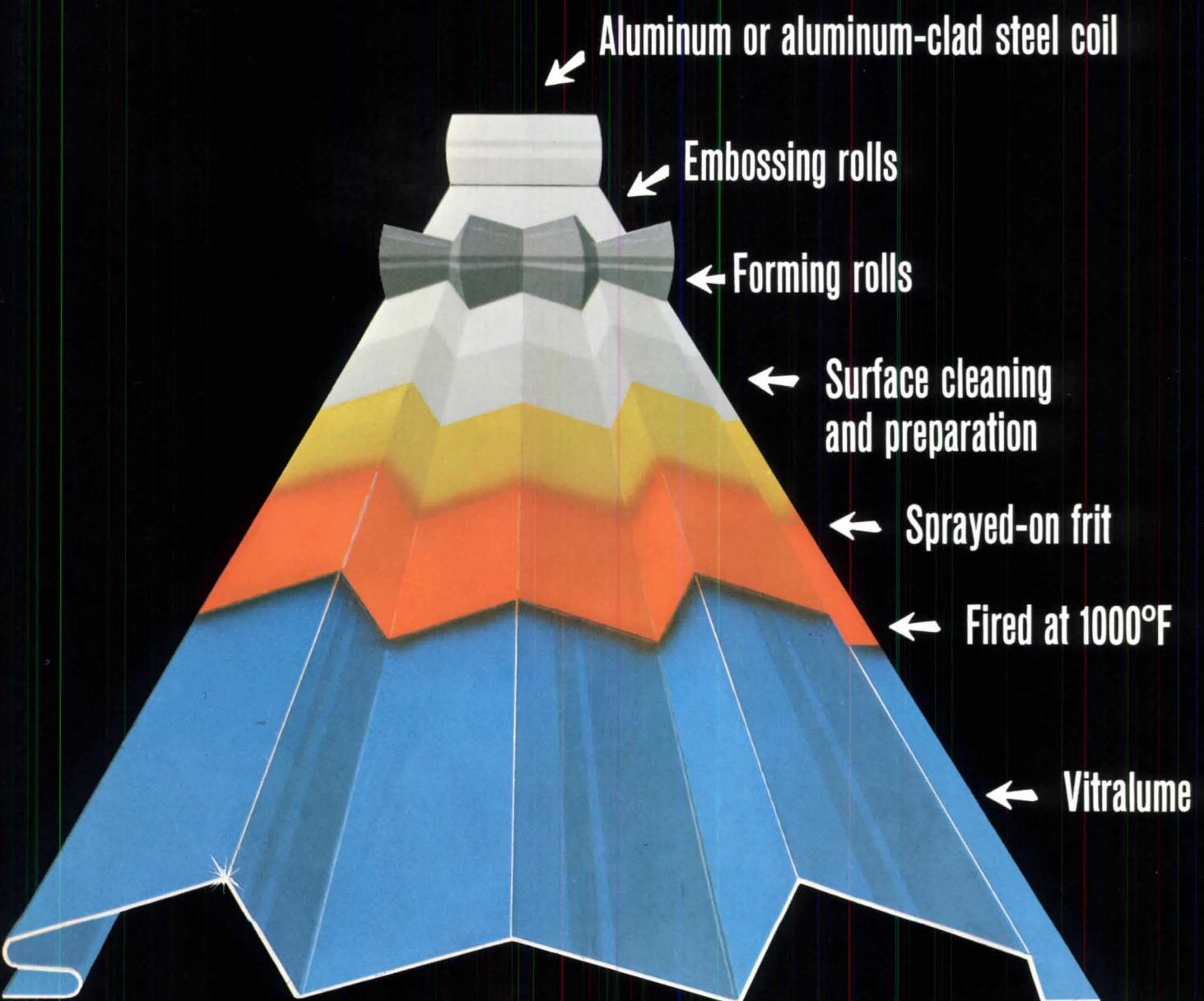
Continued on page 92



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Ming Dynasty, circa 1500 A.D.
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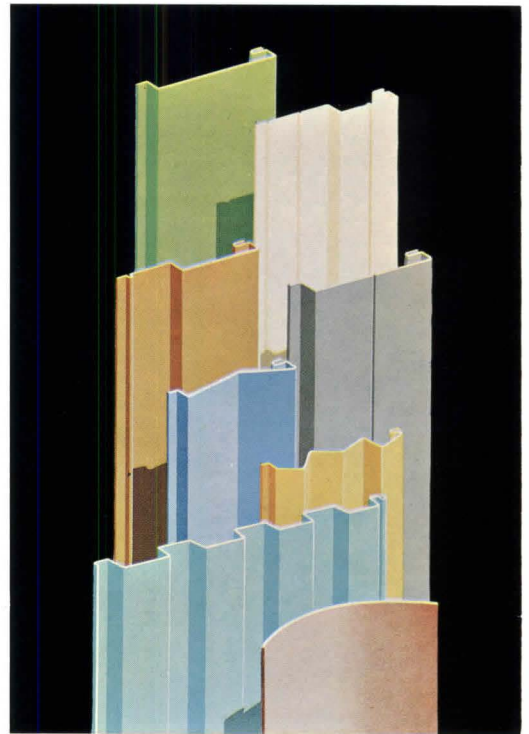
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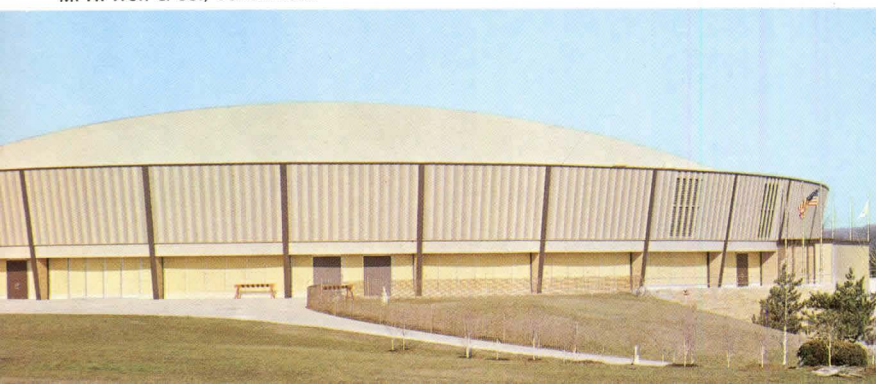


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ABOVE—MENASCO MANUFACTURING CO., Euless, Texas; Wyatt C. Hedrick, Architect; Cadenhead Construction Co., Contractor.

BELOW—THE PHYSICAL EDUCATION AND MILITARY TRAINING BUILDING at Southern Illinois University, Carbondale, Ill.; The Perkins & Will Partnership, Architects; M. H. Wolf & Co., Contractor.



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The Big Fire from page 89

McCormick Place), on the west side of the Illinois Central Railroad right-of-way at 24th Street and Lake Park Avenue. In this station were four pumps, each with a capacity of 2,500 gallons per minute, electrically operated and arranged in sequence to maintain a constant pressure of 35 to 40 pounds per square inch according to demand.

The lack of proper training of building personnel in the use of the existing hose reels and fire

extinguishers was probably a factor in their failure to extinguish the fire when it was first detected. The inability of the fire department to obtain a constant flow of water from the hydrants at McCormick Place could be traced to the malfunctioning of equipment in the pumping station, which prevented operation of all 2,500-gpm booster pumps.

In addition, four hydrants that were relocated because of the construction of the Stevenson Expressway were completely shut off at the gate valves in the hy-

drant branches and were inoperable at the time of the fire.

These deficiencies, in the opinion of the writer, can be charged to those responsible for the operation and maintenance of the McCormick Place Exhibition Hall.

A special committee was appointed by Mayor Richard J. Daley to investigate the fire and to make recommendations for such revisions to the city's building code as would be needed to prevent a recurrence of this disaster and to provide proper protection against fires and subsequent building destruction. The members spent months in examination of the building, its equipment and all pertinent data that could be gathered.

From these investigations certain recommendations for amendments to the building code have been made:

1. A new occupancy classification for exhibition halls, covering capacities and separations between halls of certain areas.
2. Fire protection of structural steel, governed by clear height above floor, combustible quality of building contents and/or sprinkler systems.
3. Height and area limits of exhibition halls.
4. Automatic smoke and heat vents in buildings with automatic sprinklers and unprotected structural steel.
5. Protected storage areas for combustible packing cases and cartons.
6. Automatic cutoff of ventilating systems in case of fire.
7. Automatic sprinkler systems.
8. Corridor widths and travel distances to exits in exhibition halls.
9. More rigorous requirements for flame resistance in materials used in construction of exhibition booths, for exhibitors' electric wiring installations and for portable fire extinguishers in each booth.

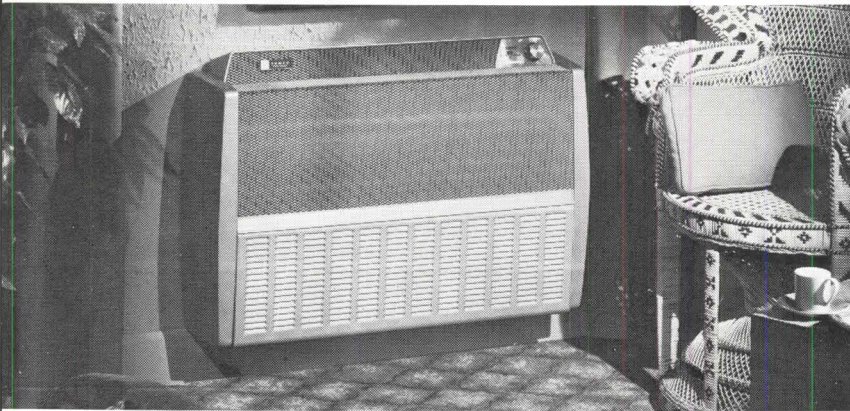
Tests are in progress at the Underwriters' Laboratories to determine design requirements for sprinkler systems in exhibition halls and their effect on the protection of requirements of structural steel at various heights. The results of these tests should be of great value and assistance to architects and engineers.

The disaster that occurred at McCormick Place should bring home to architects the need for constant attention to the necessity of eliminating fire hazards in buildings they design. Facilities for fire fighting and easy access to them cannot be overlooked. □



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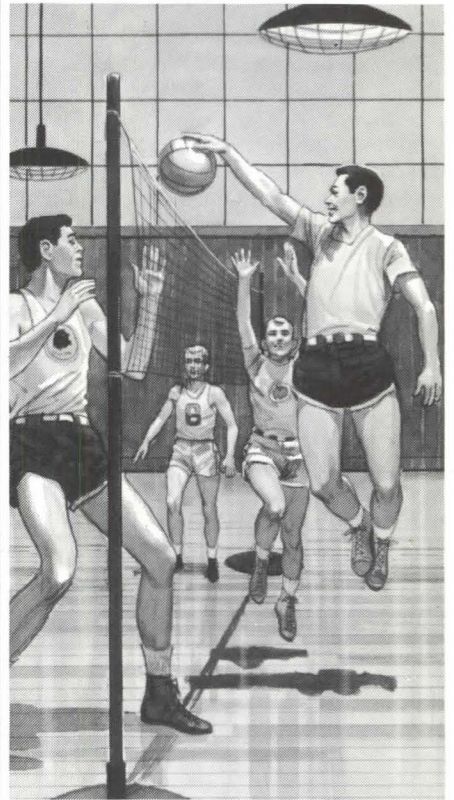
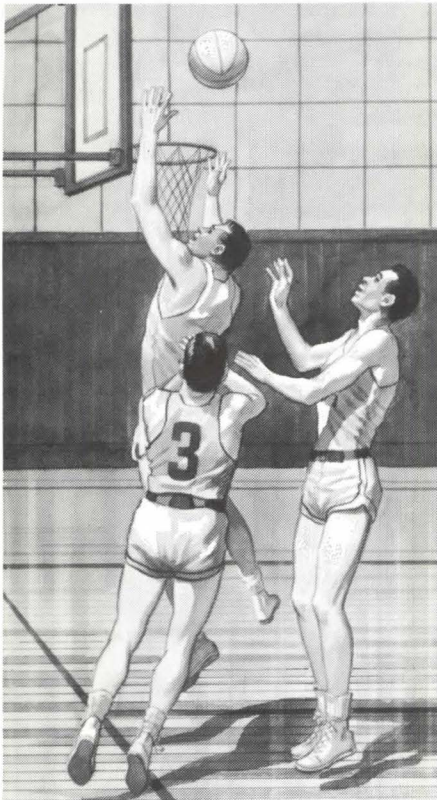
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REFERENCES: Sweets Architectural File, section 13n

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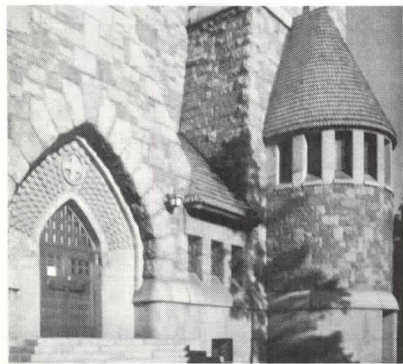
A Guide to Finnish Architecture. J. M. Richards. New York: Praeger, 1967. 112 pp. \$10.

"Architecture is the art for which Finland is famous," states Richards in this excellent book. More than a guide, as the title modestly implies, it is an interpretative study.

Richards, editor of *Architectural Review* for some 20 years, writes well, and he is well informed about Finland and Finnish life. He knows the climate and topography, and he has been a keen observer of the manner in which architecture is affected by the forces of nature and by the temperament of the Finnish people.

His aim in this book is "to bring an account of modern Finnish architecture into the same perspective as that of earlier times and to link the two together; a logical process because the influences that shaped Finland herself—her history, her climate and topography and the temperament of her people—are the common thread on which the story of her architecture must be strung."

Richards begins with a study of fortresses, dealing primarily with the three large medieval castles at Turku, Hameenlinna and Savonlinna. Chapters follow on churches, medieval and later, manor houses,



civic buildings, wooden townhouses, styles of the later 19th century, national romanticism and Art Nouveau, the beginnings of modernism (1928-1940) and, finally, modern architecture after 1940. Illustrative plates throughout the book have accompanying detailed explanatory comments.

How did such a small, geographically remote nation, with limited resources and a relatively brief cultural history become a country so highly respected in matters pertaining to architecture? Richards' com-

ments in answering this question are provocative, and one is led to compare the United States with Finland as a result.

Richards first cites Aalto's inspiration and example, crediting this architect's genius as one explanation for the phenomenon. Secondly, he states that architecture as a social and esthetic undertaking enjoys a prestige in Finland, and much attention is given to it in the nation's press. The third influence, Richards believes, is the "prevalence of the competition system" with nearly every major new building being the subject of an architectural competition.

Moreover, the results of the competitions are heralded widely in the press. Another reason, says Richards, is that the population is youthful; another is the rapid industrialization of the country which has emphasized new techniques and resources. The sixth reason is what Richards terms "the discipline imposed and the challenge presented by severe climatic conditions." Finally, there is the "intense consciousness" of national identity and its expression in architecture.

Richards summarizes his admiration of modern Finnish architecture: "The achievement of the best of the modern Finnish architecture is that it manages to be scientific without being inhuman, regional without being provincial and individual without being whimsical or egocentric."

For the reader who wants to pursue the subject, Richards has provided a short list of books on Finnish architecture written wholly in English or partially translated into English. A complete English edition of this work was published in 1966 by Evelyn in London.

MARY E. OSMAN

Space, Time and Architecture: The Growth of a New Tradition. Sigfried Giedion. 5th ed., revised and enlarged. Cambridge: Harvard University Press, 1967. 897 pp. \$17.50.

First published in 1941, this is a classic which should be among the first books a young architect acquires for his own library. It has been through five editions, 16 printings and several translations since that time.

The present edition contains new material, including a discussion of recent works of such architects as Gropius, Le Corbusier, Mies van der Rohe, Aalto, Tange, Sert and Fumihiko Maki. There is additional material on Frank Lloyd Wright and a new chapter on Utzon and

one on the International Congresses of Modern Architecture.

The section on "Space-Time in City Planning" has been supplemented by a new essay on "Changing Notions of the City," which traces the structure of the city throughout history and probes present-day attempts to deal with urbanization. Finally, the conclusion has been expanded to include a discussion of the limits of the organic element in architecture. There are 81 new illustrations.

The Essential Japanese House: Craftsmanship, Function, and Style in Town and Country. Photographs by Yukio Futagawa; text and commentaries by Teiji Itoh. Tokyo: John Weatherhill; New York: Harper & Row, 1967. 419 pp. \$25.

It weighs a "ton," and it is certainly not a book you would read in bed with any degree of comfort. At any rate, it is primarily a volume of photographs, with introductory statements and commentaries interspersed throughout. There are no color photographs, which at first may seem unfortunate in a book of this kind, but a closer examination of the photographs reveals that some of them are startlingly beautiful in their simplicity.

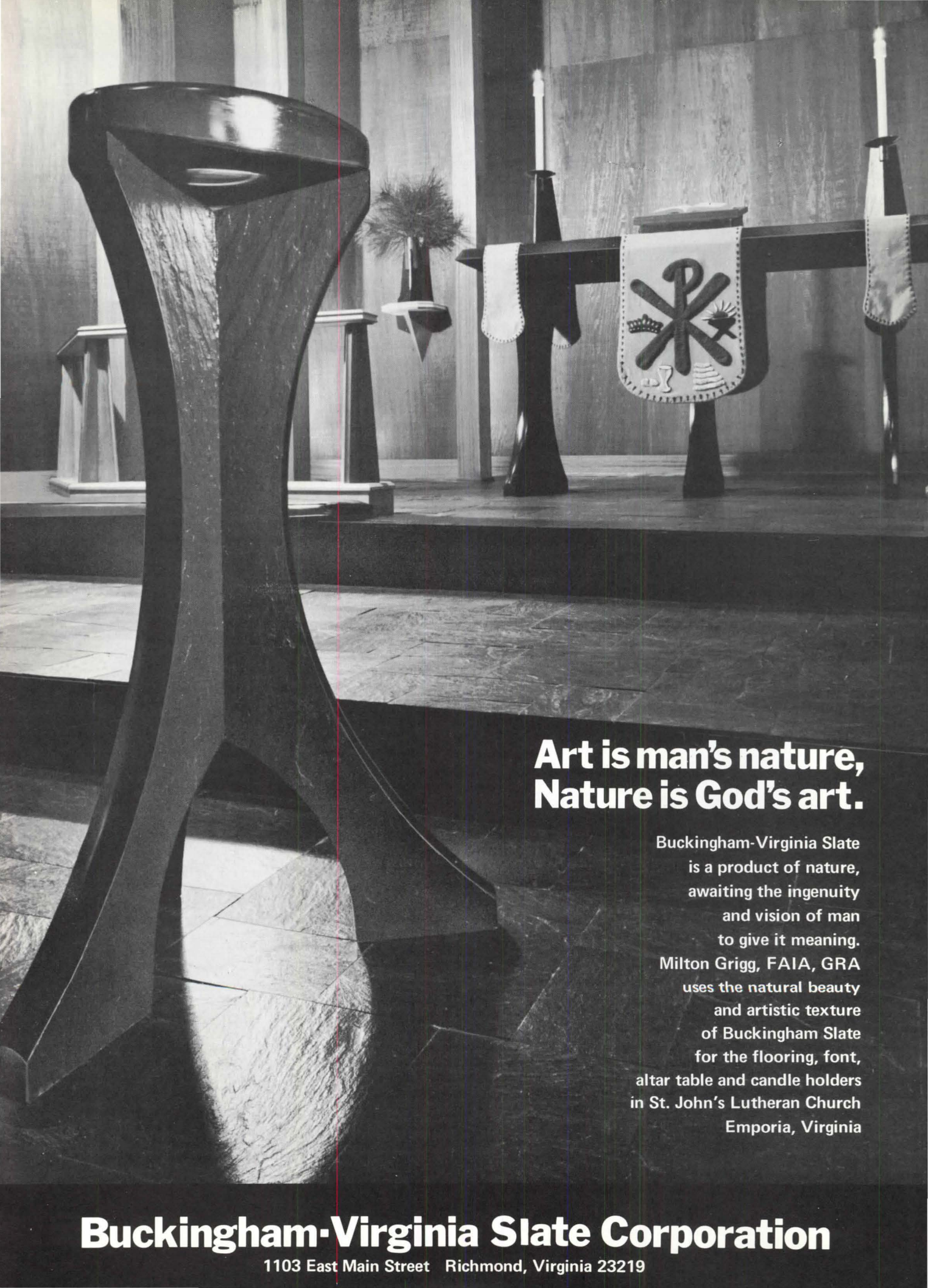
The book covers the architecture of traditional houses in 10 representative regions of Japan. The Japanese word for traditional houses is *minka*. The term does not include mansions of the aristocracy nor the palaces of the rulers. The *minka* are houses of the farmer, the merchant, the public servant. They are not rural and provincial, some of them having been built in urban centers such as Kyoto and Osaka. They do reveal regional characteristics, however, and show that the architecture has been influenced by geographical conditions.

The houses studied here were constructed for the most part during a 250-year period, beginning with the 17th century and ending in the 1860s with the downfall of the Tokugawa shogunate. The houses are still standing.

As presented in this book with the revealing photographs and the informative text, the houses are an invaluable source of information regarding construction techniques and structural materials. They also afford an insight into Japan's social life and esthetics.

Futagawa and Itoh are responsible for the book, *The Roots of Japanese Architecture*, published

Continued from page 100



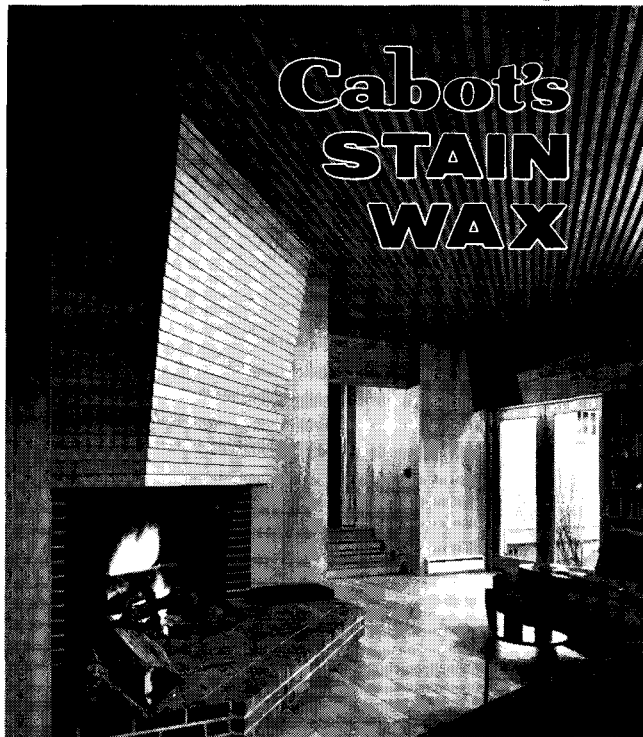
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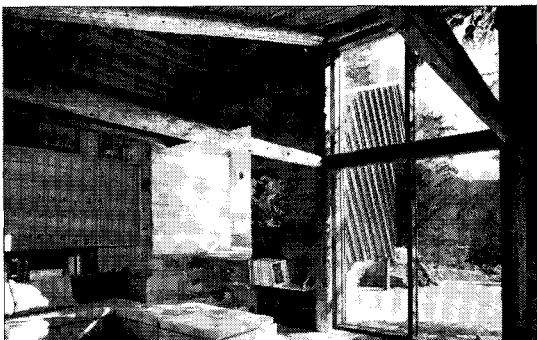
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Calendar

National

- Feb. 12-15:** American Society of Concrete Constructors Annual Convention, St. Francis Hotel, San Francisco
- Mar. 2-8:** American Concrete Institute Annual Convention, Statler Hilton Hotel, Los Angeles
- Apr. 16-17:** American Society for Testing and Materials Seminar on Standardization, ASTM Headquarters, Philadelphia
- Apr. 22-24:** National Association of Architectural Metal Manufacturers Annual Convention, Shoreham Hotel, Washington, D.C.
- Apr. 30-May 3:** National Conference on Religious Architecture, Statler Hilton Plaza, Miami Beach, Fla.
- May 6-10:** Society of Plastics Engineers Annual Technical Conference, Americana Hotel, New York City
- May 7-9:** Consulting Engineers Council Annual Meeting, Statler Hilton Hotel, New York City
- June 16-22:** International Design Conference in Aspen, Colo.
- June 23-29:** AIA Annual Convention, Portland Memorial Coliseum, Portland, Ore., and Ilikai Hotel, Honolulu (June 28-29)
- July 20-27:** Central Pennsylvania Festival of the Arts, Pennsylvania State University, University Park

AIA Regional and State Conventions

- Mar. 13-15:** Michigan Society of Architects, Hotel Ponchartrain, Detroit
- Apr. 4-6:** Middle Atlantic Region, Greenbrier Hotel, White Sulphur Spring, W. Va.

AIA Committees and Related Meetings (At the Octagon unless otherwise noted)

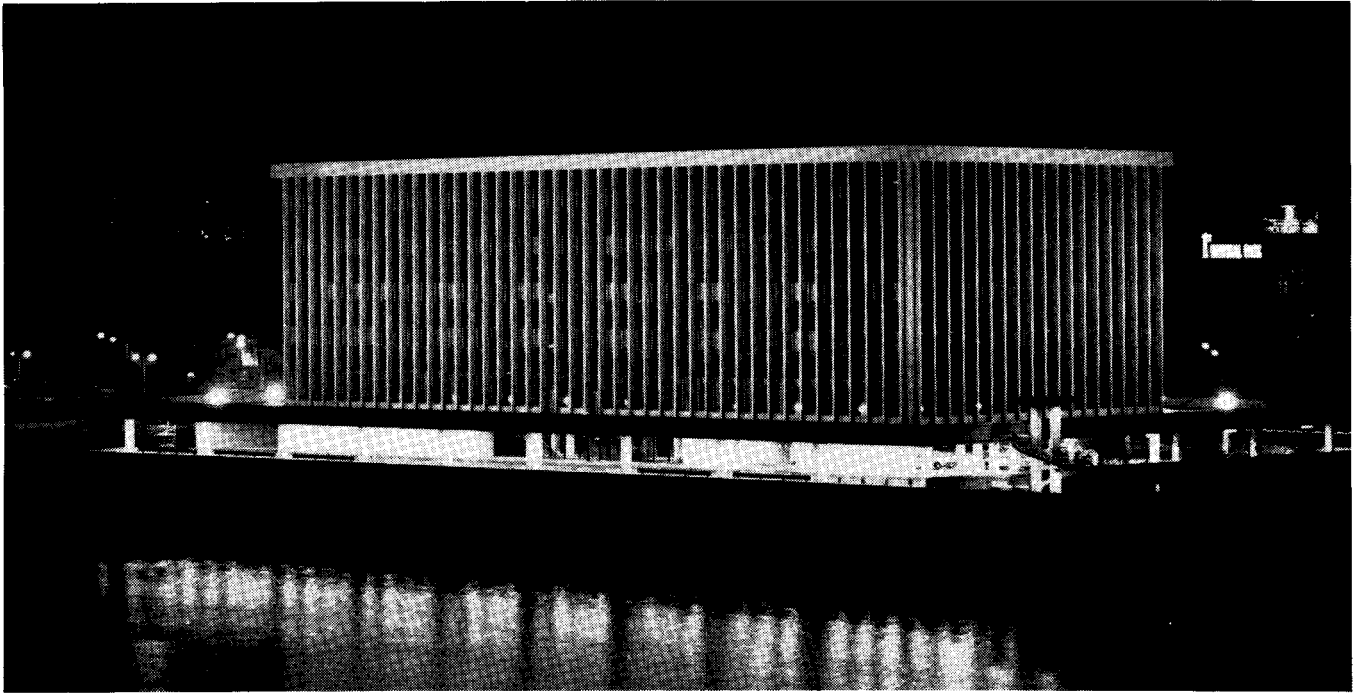
- Feb. 16-17:** School and College Architecture, Atlantic City, N. J.
- Mar. 6-8:** Honor Awards Jury
- Mar. 20-21:** Reynolds Memorial Award Jury
- Apr. 21-24:** Board of Directors, Grove Park Inn, Asheville, N.C.

International

- Feb. 17-25:** International Trade Exhibition, Munich, Germany
- July 1-2:** National Council of Architectural Registration Boards Annual Meeting, Princess Kaiulani Hotel, Honolulu

Tours

- Around South America Architectural Trek, 21 days, departing March 26, 1968. Arranged for AIA members with special group fares by United Travel Agency, Inc., 807 15th St. N.W., Washington, D.C. 20005.
- Mexican Architecture and Interior Design Seminar-Tour, meeting Mexico City, Feb. 25, 14 days. Repeated Sept. 15. Reservations accepted in order received with deposit of \$50 per person, airmailed to T. H. Hewitt, Apartado Postal 5-251, Mexico 5, D.F.
- Greek Settlements Through the Ages, July 6-13. Organized by the Athens Center of Ekistics. Applications must be sent to the ALFA Tourist and Travel Agency, 35 Voulis St., Athens 118, by May 6, with a deposit of \$52.50 (first-class hotel) or \$42.50 (third-class hotel).



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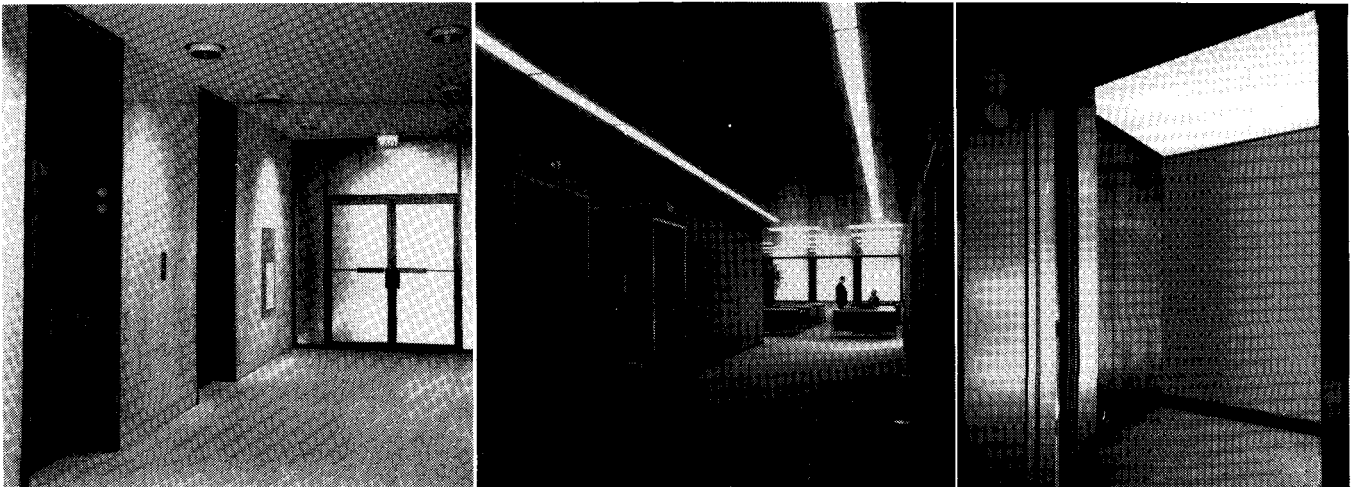
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in 1963 (AIA JOURNAL, Nov. '63), which received favorable reviews. The present book in its Japanese version won them the Mainichi Press Cultural Publication Award.

Colour and Architecture. Konrad Gatz and Gerhard Achterberg. New York: Architectural Book Publishing Co., 1967. 279 pp. \$22.50.

This is not a treatise on the psychology of color, nor is the book concerned with interior design. Its focus is on the external appearance of a structure where color is used "to fit a building into its environment and to reflect its function."

Effective use of color, the authors explain, is dependent upon a practical knowledge of the materials used for the exterior of a building. It is necessary for the architect to know such things as effects of weather and atmospheric pollution upon the material as well as something about maintenance problems and costs and about construction difficulties. Surface treatments and kinds of paint have to be considered in relation to the material itself.

This book's 46 pages of explanatory text are given over to a study of the general requirements of external walls, followed by a survey of materials and techniques for supplying them with color.

The remainder of the 279 pages are illustrative examples of the way color has been used successfully in a variety of buildings from family houses to hospitals to colleges to churches to offices and so on. There are almost 500 photographs, most in full color, accompanied by captions which give information about them.

The authors are German architects who seem to have the practical knowledge necessary to handle the subject competently.

Karl Bitter: Architectural Sculptor, 1867-1915. James M. Dennis. Madison: University of Wisconsin Press, 1967. 302 pp. \$12.50.

Karl Bitter, penniless and friendless and a deserter from the Austrian army, migrated to the United States in 1889 at the age of 22. A few weeks after his arrival he came to the attention of Richard Morris Hunt, the architect for the affluent, who was looking for a sculptor to embellish the mansions he designed. Bitter's success was immediate, and as Hunt's protégé he was able to turn out an amazing



quantity of decorative sculpture in the Viennese manner.

In 1895 Hunt died, and this ended the first period of Bitter's career. As Dennis writes, "In place of wealthy patrons seeking such private ornamentation Bitter discovered the original American patron for architectural sculpture: the government." Bitter's time was consumed by projects for public buildings, monuments and expositions. He became successful as an administrator of sculptural themes for large expositions, and directed and designed impressive schemes. Dennis marks 1907 as the beginning of the third and final period of Bitter's work, which ended with his tragic accidental death in 1915. This was a time when his style matured, and he abandoned some of the characteristics of baroque sculpture, replacing them with elements he discovered in Greek archaic sculpture. During this period Bitter participated in planning large projects both sculpturally and architecturally. He also interested himself in the beautification of New York City. The Plaza in New York became his "personal City Beautiful project," and his last work is the figure of "Abundance," which so delightfully crowns the Pulitzer Fountain of the hotel.

Dennis points out that steel and glass buildings of today accommodate little in the way of architectural sculpture. The freestanding compositions, the wall hangings and the fountains are rarely "conceived and carried out in conjunction with the architect as an integral part of the structure and its immediate setting. Bitter would have regretted this development. He was concerned in his own time about the separation of art and

architecture, and this book reveals interesting insights into the subject as seen by the sculptor. It is a worthy contribution to the history of the development of art and architecture in the United States.

Building Structures Primer. James E. Ambrose. New York: John Wiley, 1967. 121 pp. No price given.

Ambrose is an associate professor in the department of architecture at the University of Southern California, and he has written a straightforward book that can be understood by persons who have never studied nor intend to study engineering analysis and design. "Nothing has been assumed with regard to the reader's background preparation," he writes, "except an interest in the subject."

For architectural students who want to delve more deeply into the principles of structural behavior, Ambrose has included an annotated bibliography; a glossary of terms; and questions for discussion or examination, written assignments and work projects. The five major topics covered in the book are the meaning of structure, elements of synthesis, elements of analysis, elements of structural definition and building structural systems.

Design and Planning 2: Computers in Design and Communication. Edited by Martin Krampen and Peter Seitz. New York: Hastings House, 1967. 177 pp. \$10.

The 1966 Conference of Design and Planning convened at the University of Waterloo, Ontario. One of its aims was to inform designers about computer technology.

The editors of the proceedings here presented claim it was perhaps the first design conference in which the speakers were computer specialists rather than designers. The volume is intended "to answer specific questions on the potentialities of using computers in the design of environments, buildings, products and communications."

Contributions regarding the problems of visualization by still pictures and by moving pictures are grouped together in the first part of the book, followed by more philosophical discussions about the impact of computers on the design process and about the uses of the computer in industrial design. Finally, there is a survey of graphic data processing equipment for computers. For those unfamiliar with computer terminology, the editors have provided a glossary of the basic vocabulary. □

Letters

Postscript by an Author

EDITOR:

In regard to my article "The Building Committee . . ." which appeared in November, it now occurs to me that I omitted one important aspect of the subject.

The architect should, in all social courtesy to his committee, and to himself in charity and sound business policy, inform its members that in using public or semipublic funds, they are obliged to follow his council in areas of professional judgment or opinion. He should further inform them that this obligation is a legal one and that the language of not so doing is "misuse of public funds." If this is not sufficient to keep committeemen's hands off the engineering, esthetics and specifications, the word "felony" will usually bring the naughty ones up short.

As an architect who has too often tried without success to argue an infelicitious point, it is presently observed that bringing along a lawyer to speak on controversial matters will keep the architect's hands clean for future happiness in the sphere of progressive cooperation toward common goals.

ROBERT I. HOYT, AIA
Santa Barbara, Calif.

Can Anyone Help Sally?

EDITOR:

We read with interest the Unfinished Business column by Andrew F. Euston in the September issue, particularly in his reference to the Litton, Lockheed and General Dynamics proposals for mass production of floating warehouses.

Triton Foundation currently is under contract to the Department of Housing and Urban Development for a rapid preliminary design and cost feasibility study for a floating satellite city, and it is in this regard that we would like to obtain whatever information is available on the warehouse proposals.

Could you tell us whom we might contact in order to acquire such data?

(Mrs.) SALLY FISHER
Triton Foundation
Cambridge, Mass.

One Architect's Misfortune

EDITOR:

The historical narrative "Tower of Skulls" from the land of Persia (Iran) may be of interest to architects of this day.

While some designers of our era might deserve similar treatment for perpetrating questionable and tasteless eccentricities upon the public, they are fortunate that presidents and other governmental heads have neither the power nor the inclination to pass judgment upon them.

BENJ. FRANKLIN OLSON
Architect-Engineer
Chicago, Ill.

The following is reprinted with permission of the publishers from *The Pageant of Persia* by Henry Filmer, copyright 1936, by the Bobbs-Merrill Co., Inc., R. 1964, by Henry Filmer:

In the village of Khoy, Persia, stands a tower 80'-0" high which was one of two similar towers adorned by the head and horns of wild goats taken in an extraordinary hunt by Shah Ismail.

A similar tower once stood in Ispahn after a great hunt by the cruel Shah Sefi who was entertaining the ambassadors of Tartary, Moscow and India.

While the meat of the animals was being consumed at a great feast, an architect was summoned and ordered by the Shah to make ready a tower of the goat heads taken in the hunt.

When the tower was raised to a reasonable height, the architect, full of good spirits, entered the banquet hall to tell the king that for perfect symmetry, the tower lacked the head of some great beast as a crowning feature.

"You are right," said the Shah, "there could not be found a head more appropriate for the purpose than your own."

Whereupon the architect was executed and his own head surmounted the tower which he had designed.

More Humor Needed

EDITOR:

I have read with increasing pleasure and a chuckle Bill Scheick's "The Last Time I Saw Paris" on the Unfinished Business page in the October issue.

It seems to me that the intimate tone and refined humor of his reminiscing are a quality which is sorely missed among the strictly technical- and professional-sounding articles in our magazines. For this reason, more of the same kind of writing should be welcomed in the JOURNAL.

JOHN HANS GRAHAM, AIA
Arlington, Va.

Asides

Next Month: Serious attempts are underway to enrich primary and secondary education with visual and environmental programs. An overview account tells of such efforts and is accompanied by reports of two specific projects being conducted by AIA chapters—one in Philadelphia, the other in San Rafael, Calif.

In other articles for February, a futurist spells out in plain language a new concept which combines the design professions with the behavioral sciences to effect a more responsive environment; a practitioner-educator approaches architecture from the Triad Theory and finds that the three legs—form, function and economy—should be long and also equidistant; a consulting designer describes a simple method to aid architects in the visual matching of colors; a former redevelopment official looks at urban design in terms of the public official and the architect's relation to the latter; and an Institute Fellow records some Iowa landmarks in a portfolio.

A Move Up: Neil E. Gallagher, who joined the AIA JOURNAL staff in the fall of 1965, has been promoted from assistant to associate editor. He came to Washington from New Jersey, after 13 years of newspaper experience.

Picasso in New York: While we were taking a new look at Chicago's controversial Civic Center sculpture for this issue, we learned that another by the 86-year-old Spanish born artist will be erected at New York University's Washington Square Center. But there'll be no doubt about the subject this time, for Picasso himself has named it "Bust of Sylvette."

The 60-ton sand-blasted concrete work, the first of its kind in the western hemisphere, will be executed by the Norwegian artist Carl Nesjar on the site, a 100-foot-square grass plot bordered on three sides by the 30-story apartment towers designed by I. M. Pei & Partners. R.E.K.

PHOTO & ART CREDITS: P. 4—Harry W. Crosby; 38—Duane Michals; 40 (top)—Miguel Cervantes; 40 (bottom), 41 (top, center), 42 (center), 43 (center)—Casasola; 45 (bottom)—Oscar Cortes Gasca; 48 (top)—courtesy Trustees of Sir John Soane's Museum; 53—Betty Ritter; 54 (top)—Photo Ideas, Inc.; 54 (bottom), 55—Public Building Commission, Chicago; 60—Wolf von Eckardt; 61, 62, 63 (bottom, left & right)—Elaine K. Sewell; 63 (top, left & right)—Joseph Watterson, FAIA; 65—Gil Amiaga.

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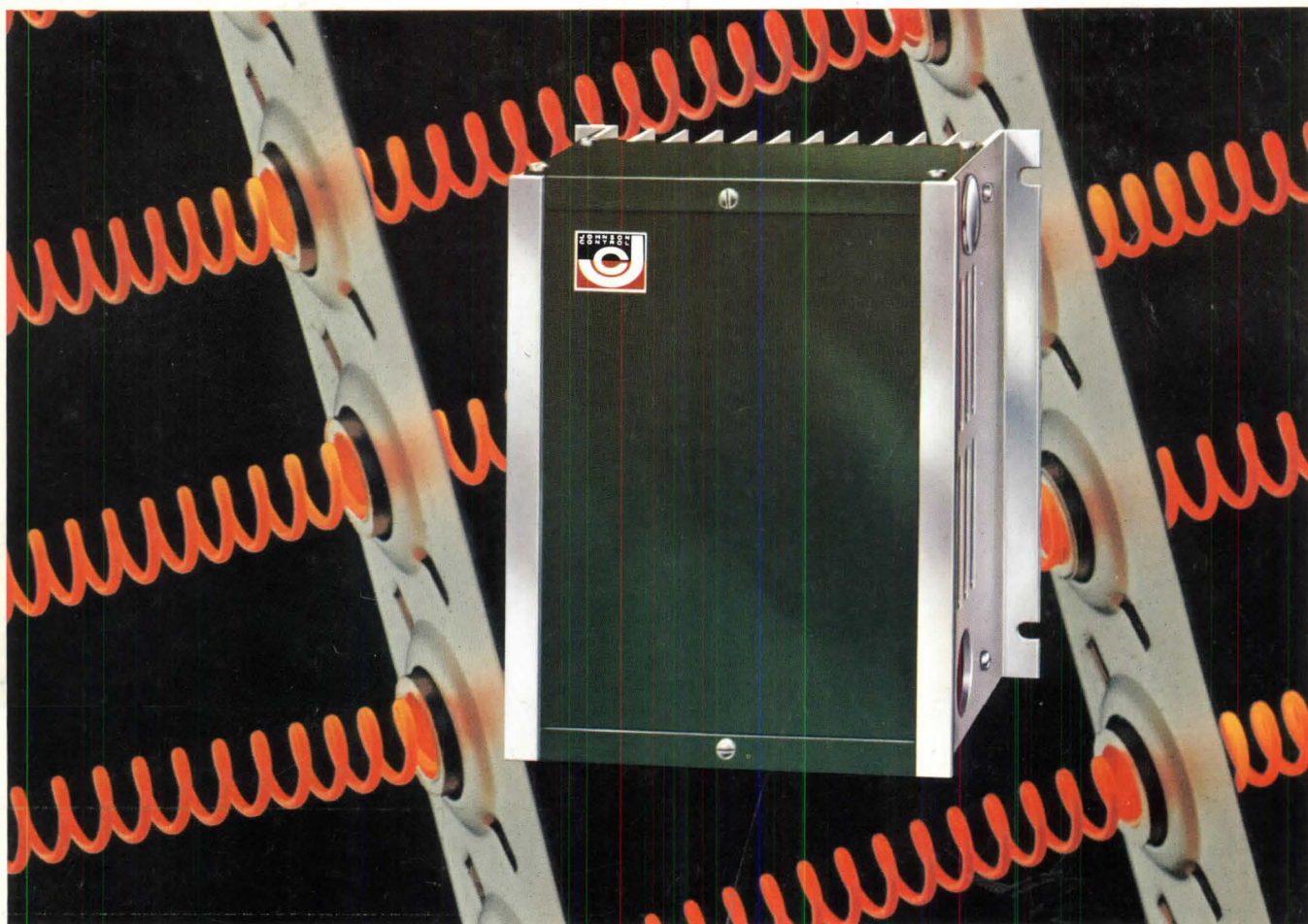
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