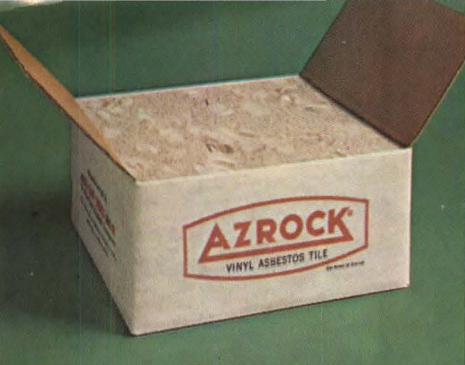


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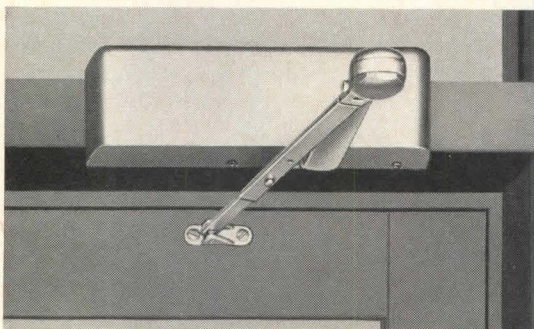
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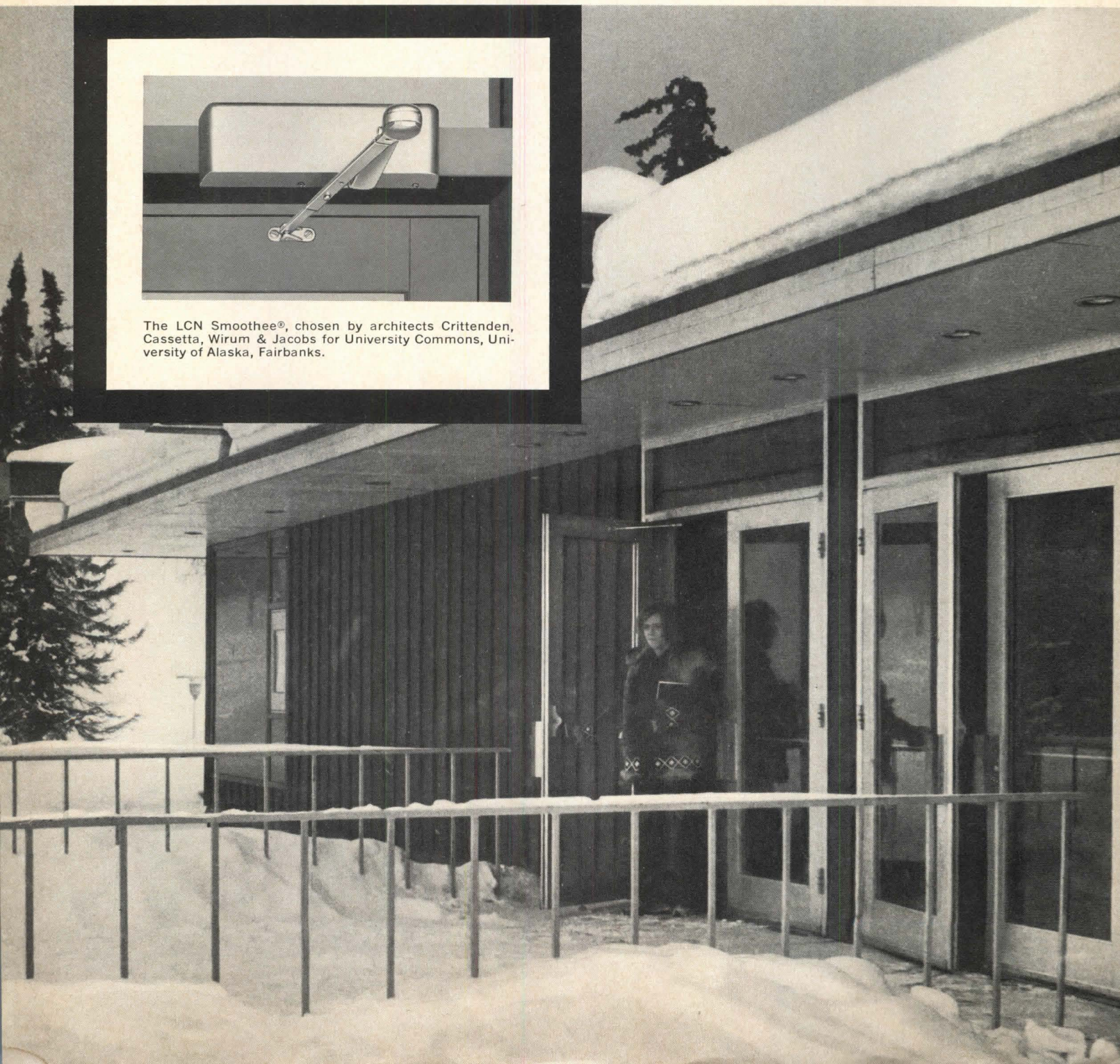
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Progressive Architecture® January 1969

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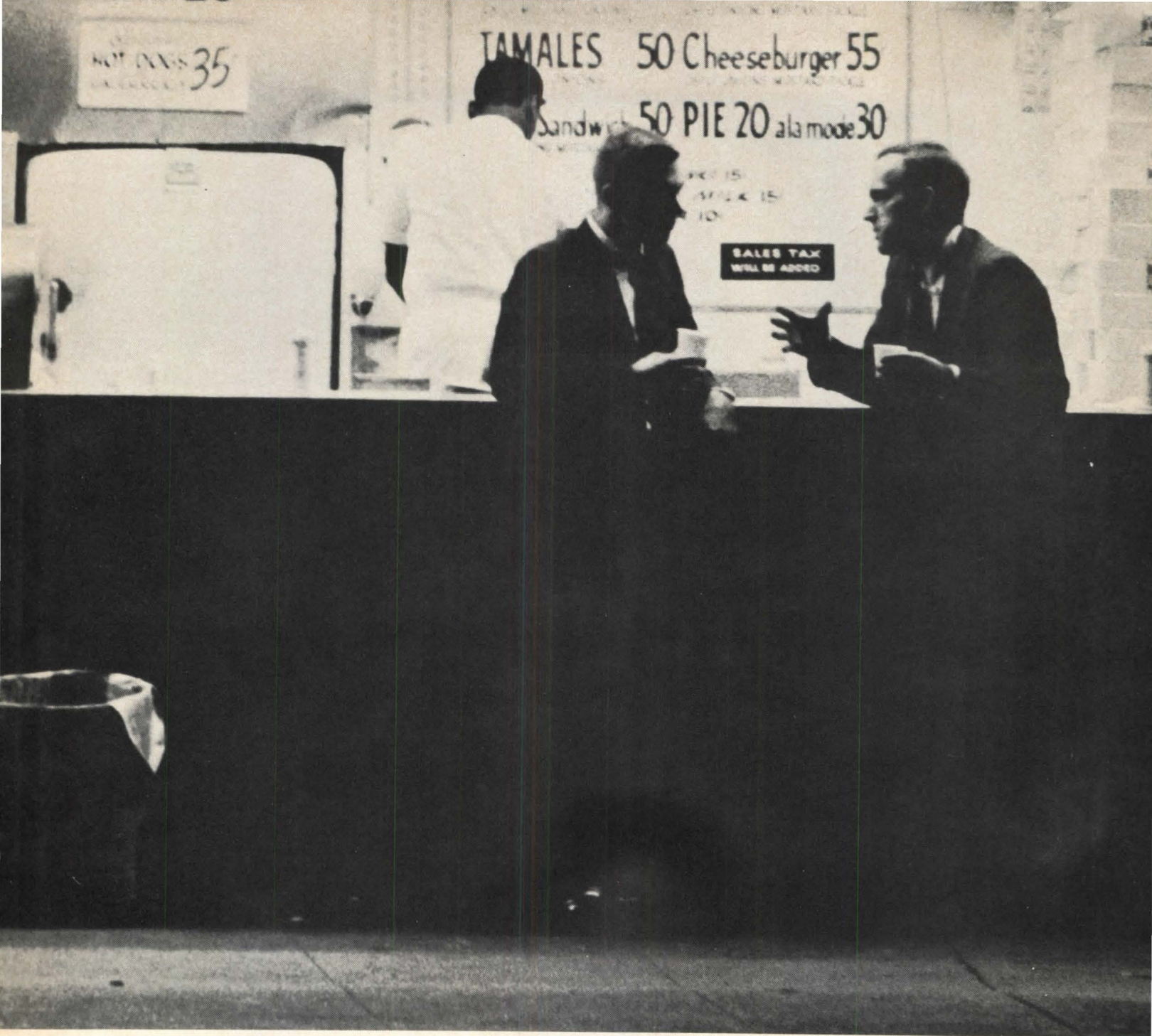
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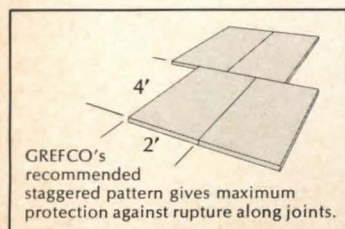


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VIEWS

Architectural Critic?

Dear Editor: Re the NOVEMBER 1968 P/A: Cut the Venturi —. Make fun of GM; tweak Rudolph; spoof all these guys who take themselves too seriously; commission someone to do a design study of Flooding Major Portions of the Midwest; but forget all about the Philadelphia School.

That includes Kahn and Giurgola.

R. DEAN MERIDITH
Philadelphia, Pa.

Ego Boosting

Dear Editor: Last week, I read with interest your article in the NOVEMBER 1968 P/A concerning a fire station in Columbus, Indiana. By coincidence, I passed through Columbus this very weekend and saw the building first hand.

Permit me to congratulate the architects. They have succeeded in making this building conform to its surroundings. One can scarcely distinguish it from barber shops, garages, and delicatessens in the same vicinity. They certainly have concealed the fact that an architect had anything to do with it.

I must congratulate you also for selecting such pedestrian buildings to publish. It has bolstered my ego considerably.

DONALD J. RICHARDS
Chicago, Ill.

UDG Responds to Critics

Dear Editor: We were astonished to read your editorial reply in the NOVEMBER 1968 P/A VIEWS column. The letters from Messrs. Melniker and Keifitz gave their opinions on some complex issues. We would have appreciated it if you had extended the courtesy of permitting us to comment at the time these letters were published. Instead, you decided to assert that we had somehow supplied you with inaccurate information. We remind you that we made available to you official City publications explaining both the projects in question, where we feel these projects are fully and accurately described.

Although we welcomed your interest in our work, and were happy to submit it to public scrutiny and discussion, we were aware that the matters involved were complicated, and that it might be hard for

you to report them to everyone's satisfaction. We were willing to live with the consequences of your perhaps inevitable inaccuracies, but invidious comments and snap judgments are no help to anyone.

THE URBAN DESIGN GROUP
New York, N.Y.

Cheers for the Profane

Dear Editor: Cheers for Venturi & Rausch (p. 118, NOVEMBER 1968 P/A). Others talk; they produce. Vigorous and evocative little buildings, too. A most promising partnership to tame the sacred and the profane. Move over purists, mannerists, experimentalists, brutalists, theorists. We've found some architecture.

GREGOR WILLIAM GREER
Hudson, Ohio

Teaching Drafting in Jamaica

Dear Editor: Re the article "Closing the Drafting Gap" in the NEWS REPORT, OCTOBER 1968 P/A, which reports on a training program set up by the firm of Eggers & Higgins to train draftsmen using an "in-office" system of training: I was extremely intrigued by it, particularly since my firm has been using this method of training for the past 10 years. I have made several observations over the years and have come to the following conclusions:

■ Students have to be trained intensively for at least one year to put them on a certain "wavelength" so that they can understand instructions, and it is only at this stage that they can be given any work in the office. I do not agree that any student, short of being a genius, can learn enough in 16 weeks to be of any use in an office.

■ It would help if students were paid during the period of training, but this remuneration should only be minimal.

■ It is not necessary for the organization to be large in order to undertake training programs; neither is it necessary or practical to hire a full-time teacher. In my own organization, we have programmed courses of some 60 exercises which last over a period of one year. The students are taught elementary design, photography, technology, and, of course, working drawings, including perspective and presentation techniques.

■ It is very necessary for the draftsman and/or technologist to understand the design processes, and, as a result, it is imperative for him to do a certain amount of design, however elementary.

WILSON CHONG
Kingston, Jamaica

More on October

Dear Editor: Re p. 205, OCTOBER 1968 P/A: Please consider these psychedelic flashes for C. Ray Smith's walls:

■ What is it like to be so blunted that you must exist in a room stripped bare of any abhorrent (*sic*) — yes, that's the word — familiarity, and conversely jerk about twixt orgasmic flashes of the Falls. (Imagine. It doesn't put out the fire. Which phenom turns you on the most.)

■ Sorry you have to let your fireplace wall serve double duty. Maybe next year you can afford something less weirdo.

■ Lights may flash, celluloid may click and whirl, but architecture will go on and on in spite of any wonders of the world in your living room.

■ If you are in such pain, why don't you shoot yourself.

Otherwise, the most absorbing issue of the year. Thank you very much.

DON EASTWOOD
Kansas City, Mo.

Dear Editor: The OCTOBER 1968 P/A had "content" and we were pleased to have been part of it. The magazine's continuing vitality is obviously due to a swinging staff and a hopping profession (with nervous universities). It *seems* to make us all more contributive than was true in the previous decade.

MORT KARP
JIM LAMBETH
Fayetteville, Ark.

Viewing Ewing

Dear Editor: The attitudes exhibited in Alexander Ewing's letter (OCTOBER 1968 P/A) are, I think, among the root causes for much of the shallowness that is apparent in a great majority of contemporary American architecture. They are attitudes that too often produce a mannequin architecture — an architecture that implies that buildings are nothing more than stylish envelopes manufactured to enclose, protect, and partition work and/or living space, an architecture that is all skin and no guts.

The "multidisciplined organization" that produces buildings whose "quality" they judge by the fact that they "do not leak" are in great measure responsible for the architect being "pushed . . . more and more toward a relatively minor position in the biggest industry in the land." They are being pushed into this position because they have abdicated their place as designers.

There can be no quarrel that a client has a right to expect that his architect will research the problems presented in the design of his building, operate as closely as possible within the budget that he (the architect) has prepared, propose architectural solutions consistent with the building's program, structural and mechanical systems, and so on. But these are

Continued on page 12



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help it—and you can. Only a man's signature
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600 ft.

1965

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Chicago
600 ft.

500 ft.

1958

Executive House
Chicago
370 ft.

1961

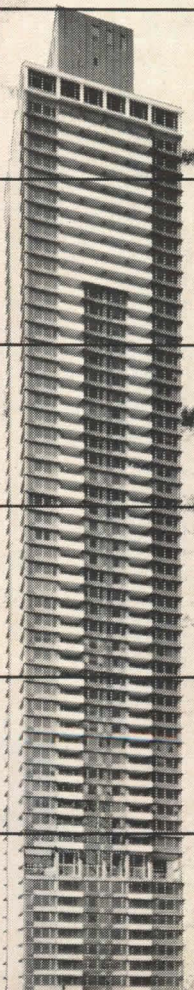
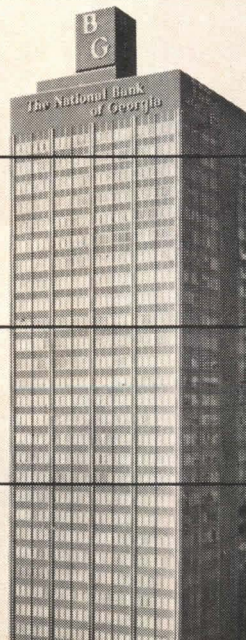
The National Bank of Georgia
Atlanta
390 ft.

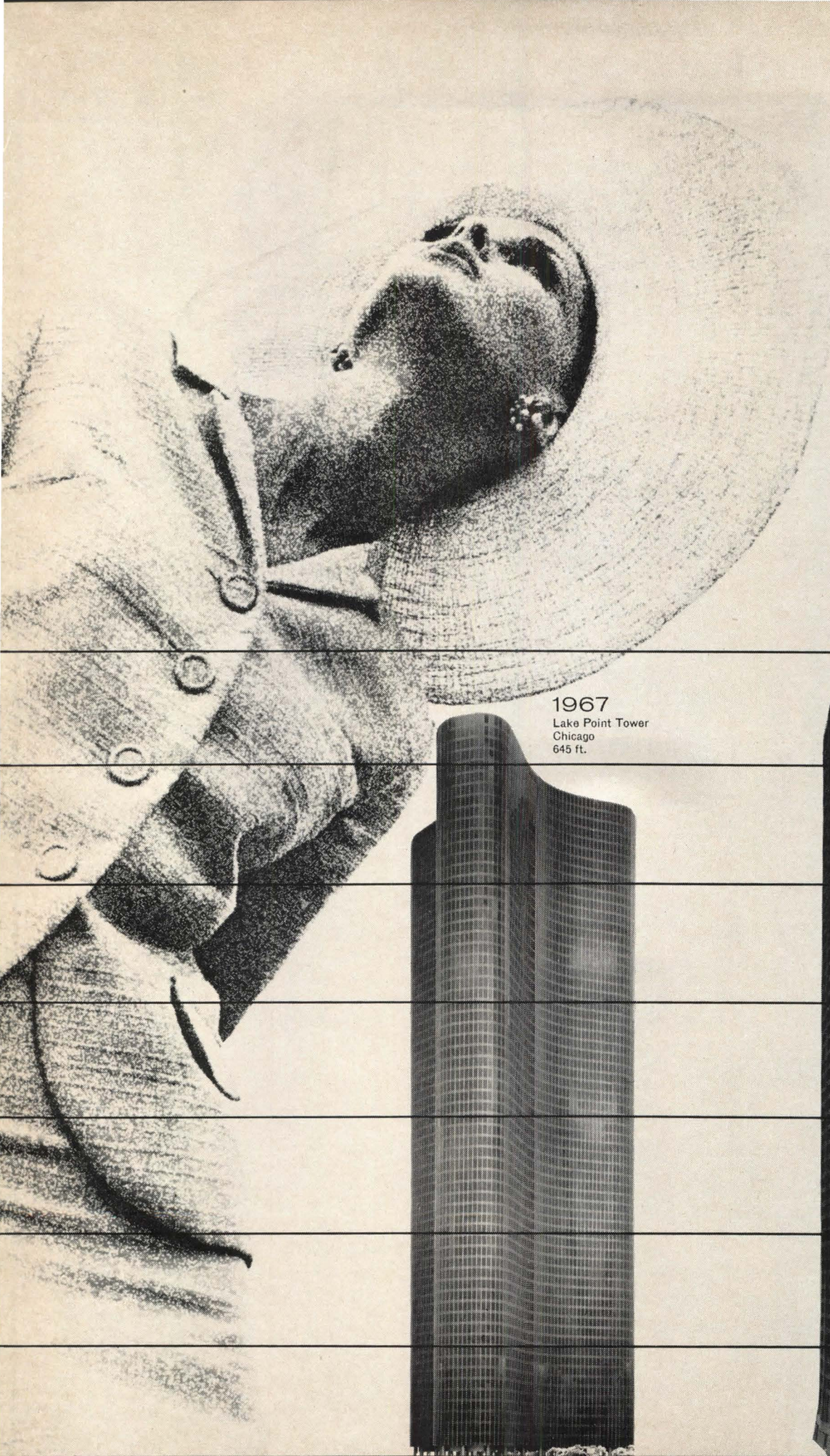
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300 ft.

200 ft.

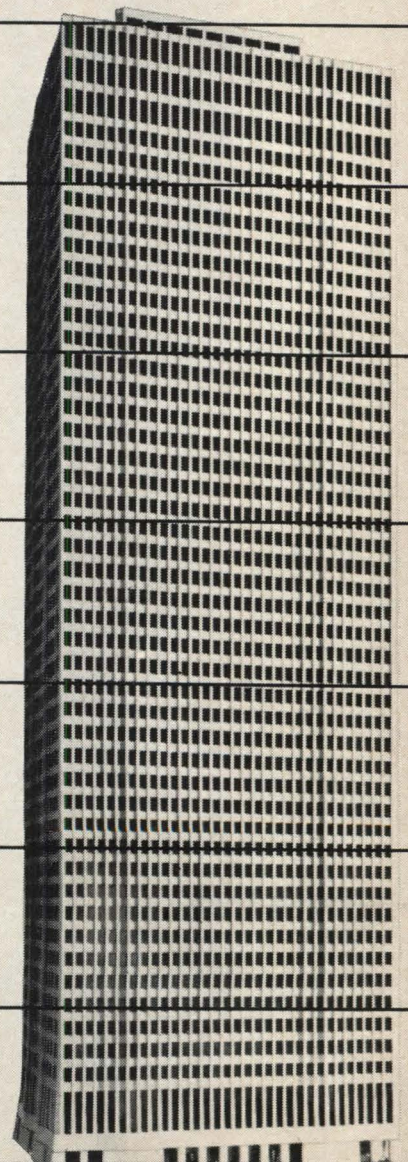
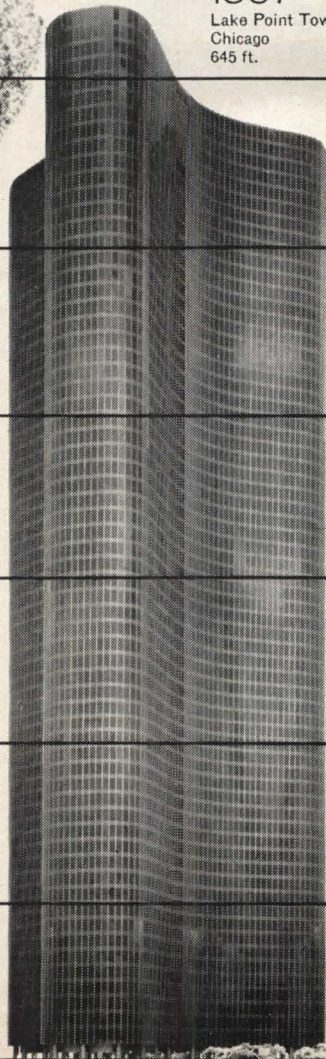
100 ft.





1969
Shell Oil Bldg.
Houston
714 ft.

1967
Lake Point Tower
Chicago
645 ft.



Continued from page 6

among the architect's fundamental professional responsibilities — ones that every conscientious practitioner fulfills as a matter of routine. This does not distinguish him in any way; it simply establishes his right to consider himself a conscientious member of the profession.

So if the architect finds himself being pushed more and more into a minor role, it is largely because he has elected to pursue the pragmatic and routine functions of his profession at the expense of the design functions. For it is as a designer, with the intellectual and technical abilities to

create buildings that are as spiritually satisfying as they are functional, that the architect distinguishes himself as a necessary and unique entity.

Three cheers for the "intellectual path."

DAVID ZALMAN
Philadelphia, Pa.

"Redevelopment" Strikes Again

Dear Editor: In reading the SEPTEMBER 1968 P/A, I was disturbed to find the caption "Boston Advocates Solve Housing Problems." The jist of the article is that a group of my students and I have been able to solve the problem confronting several families in Lower Roxbury — in fact,

the problem has not been solved. Although the class had prepared designs and working drawings and began making arrangements with private developers to help in the construction phase, the building we hoped to remodel was torn down by the Boston Building Department. This was after the building had remained vacant for years and after the redevelopment authority told us they would help us acquire the property. The authority says they are sorry there is "bad coordination" between themselves and the building department. So, as a result of bad coordination, the five families are still in desperate need of housing (one family has already been served an eviction notice).

I hope you will bring the reality of the situation to the attention of your readers. Perhaps it will help architects understand the operations of agencies that are supposed to be concerned about the environment.

ROBERT GOODMAN
Assistant Professor of Architecture, MIT
Cambridge, Mass.

"Thoroughly Unsound" Critic

Dear Editor: In the SEPTEMBER 1968 P/A article, "Student Housing Comes Alive," you show a dormitory at Franconia College that has five levels of occupancy and is constructed entirely of wood with a single outside wooden staircase. Perhaps the housing has "come alive," but it is questionable how long the students will stay alive, since they have built a perfect firetrap.

I am concerned that unsophisticated architectural students will swallow this piece of stupidity whole.

This is not the only instance that leads me to believe that your editorial staff frequently fails to apply careful analytical thinking to things that may be pleasing to the eye but are thoroughly unsound.

EUGENE HENRY KLABER
Quakertown, Pa.

[Since there was more than one means of egress, we are led to believe some of our readers do not take the time to read plans —Ed.]

Small-Timers Fight It Out

Dear Editor: According to a letter published in VIEWS, SEPTEMBER 1968 P/A, small-time planners are "imposing their petty views" on the freedom of architects via zoning ordinances. Well, perhaps if there were not so many small-time, incompetent architects (and developers) in this country who can't (or won't) concern themselves with a design relationship beyond the confines of a single building or piece of property, we could have the

Continued on page 16



Takes the scatter out of washroom design

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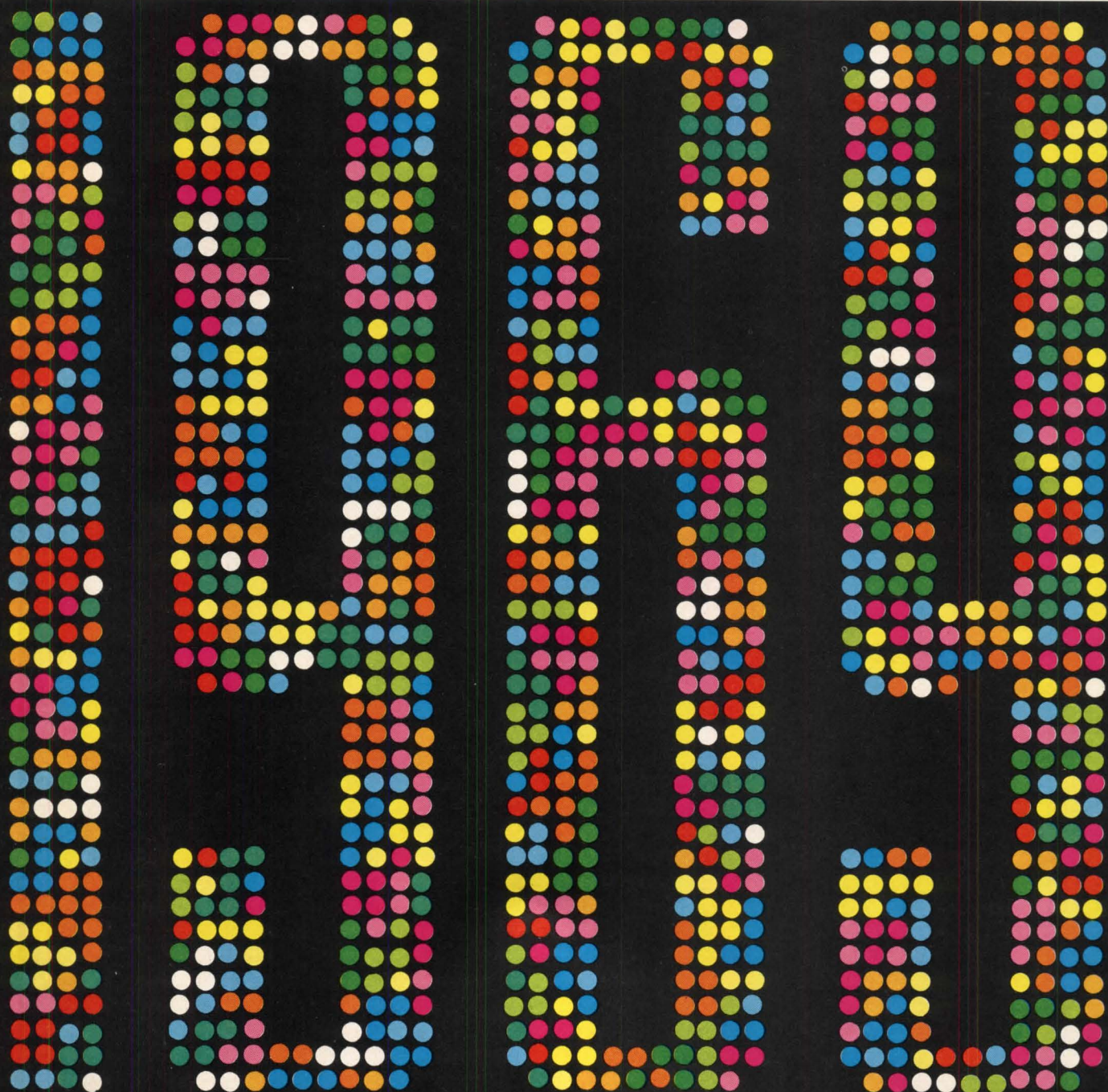
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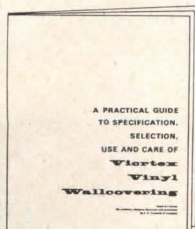
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16 Views

Continued from page 12

"simplified" zoning codes called for. Come to think of it, if everyone was honest we wouldn't need half the laws we now have.

CARL G. LINDBLOOM, AIP
A Small-Time Planner
West Trenton, N.J.

[As long as planners and architects waste time exposing each other as small-timers and incompetents, the real controllers of cities will continue to regard and treat them as such.—Ed.]

FLLW Article Praised

Dear Editor: High compliments for the article on F.L.L.W. (SEPTEMBER 1968 P/A), to which I made a small contribution. I was most interested to read the profound remarks of Dow, Harris, Goff, Jones, and others, but cannot see where Charles Moore fits into our group.

Incidentally, I feel a correction should be made. P/A referred to me as a "former Taliesinite" (p. 141). I have never been a member of the fellowship, but only a close personal friend of Mr. and Mrs. Wright, Wes Peters, and other older members of the group. I do not want the Taliesin group to feel as if I'm trying to pass myself off as a former member of the fellowship, and I hope they do not get the wrong impression if they've read the piece.

I feel this article is one of the most significant to be published in any journal in many years.

KARL KAMRATH
Houston, Tex.

Black Towns Applauded

Dear Editor: I have read with interest the article "Black New Towns," AUGUST 1968 P/A, by Prof. Galantay of Columbia University. I am a black man myself and have also written on the question of black separatism ("The Case for Two Americas," in *The New York Times Magazine*).

Although I personally feel that the Black New Towns proposal is not the ultimate solution to our racial problem, I was favorably impressed with the quality of Prof. Galantay's research, and I could probably even support an effort to launch one or two such towns on an experimental basis.

P/A is to be congratulated for uncovering and publishing so useful an article.

ROBERT S. BROWNE
Assistant Professor of Economics
Fairleigh Dickinson University
Teaneck, N.J.

CORRECTION:

Stuck, Frier, Lane & Scott, Inc., are associated architects for the Northeast Arkansas Regional Service Center, pp. 219-220, OCTOBER 1968 P/A.

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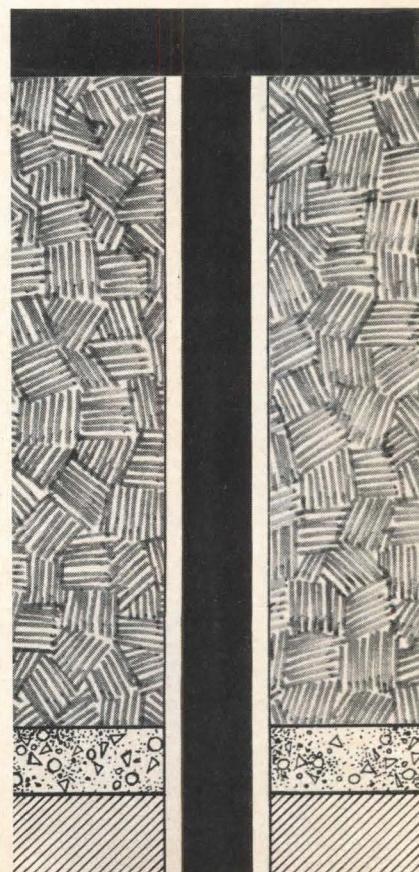
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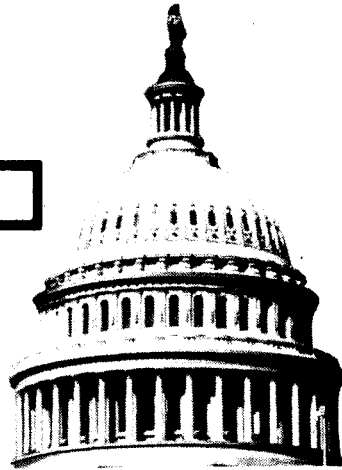


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Lighting a commercial tower

Built in airspace over an intersection, this skyscraper integrates office tower, shopping concourse, street movement systems and a subway. It posed a variety of lighting problems, all solved by luminaires and lenses by Holophane. To see how, turn the page.

Lighting Problem

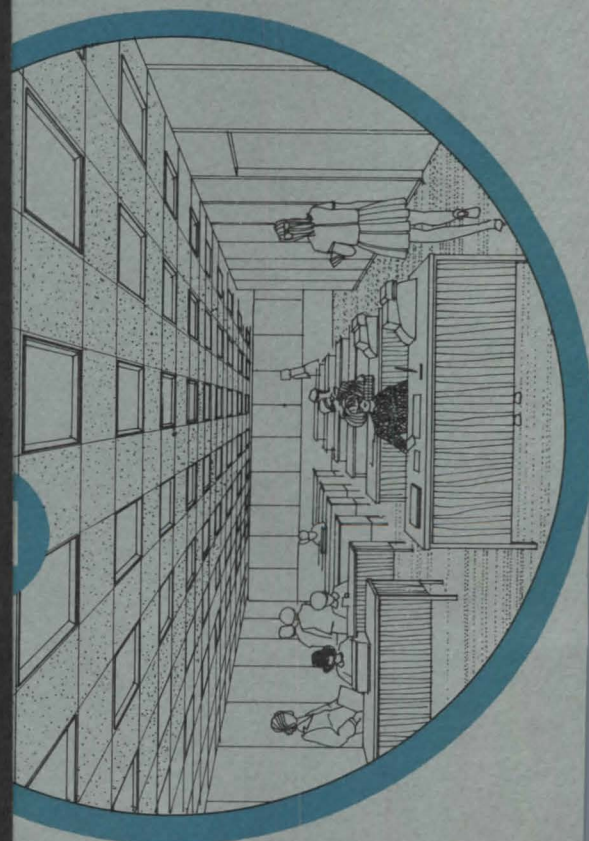
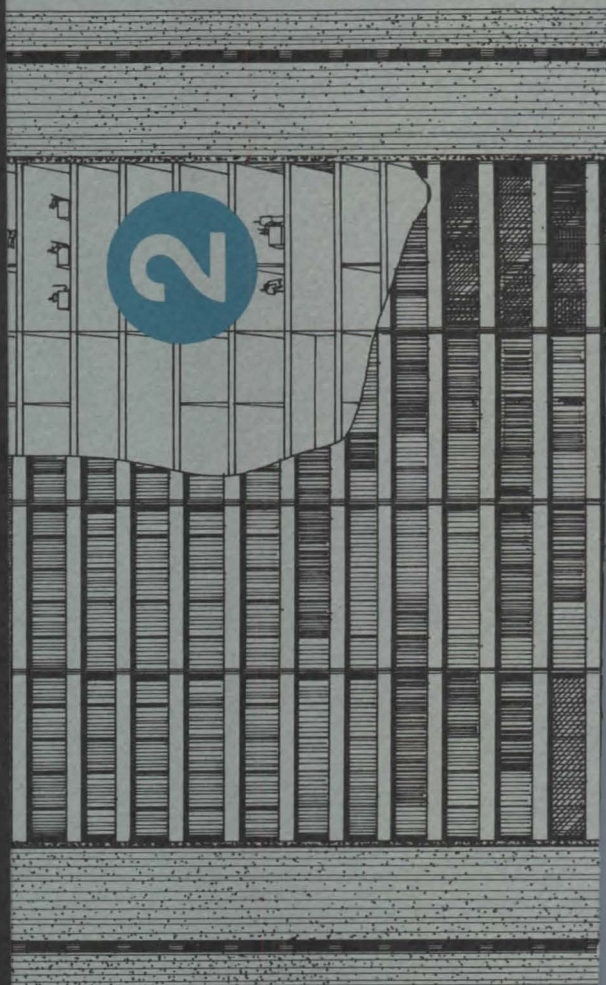
Shopping mall is actually a converted street. It has an uncluttered geometry that focuses on the office tower. Luminaires for such an area have to be cleanly styled, tasteful and unobtrusive.

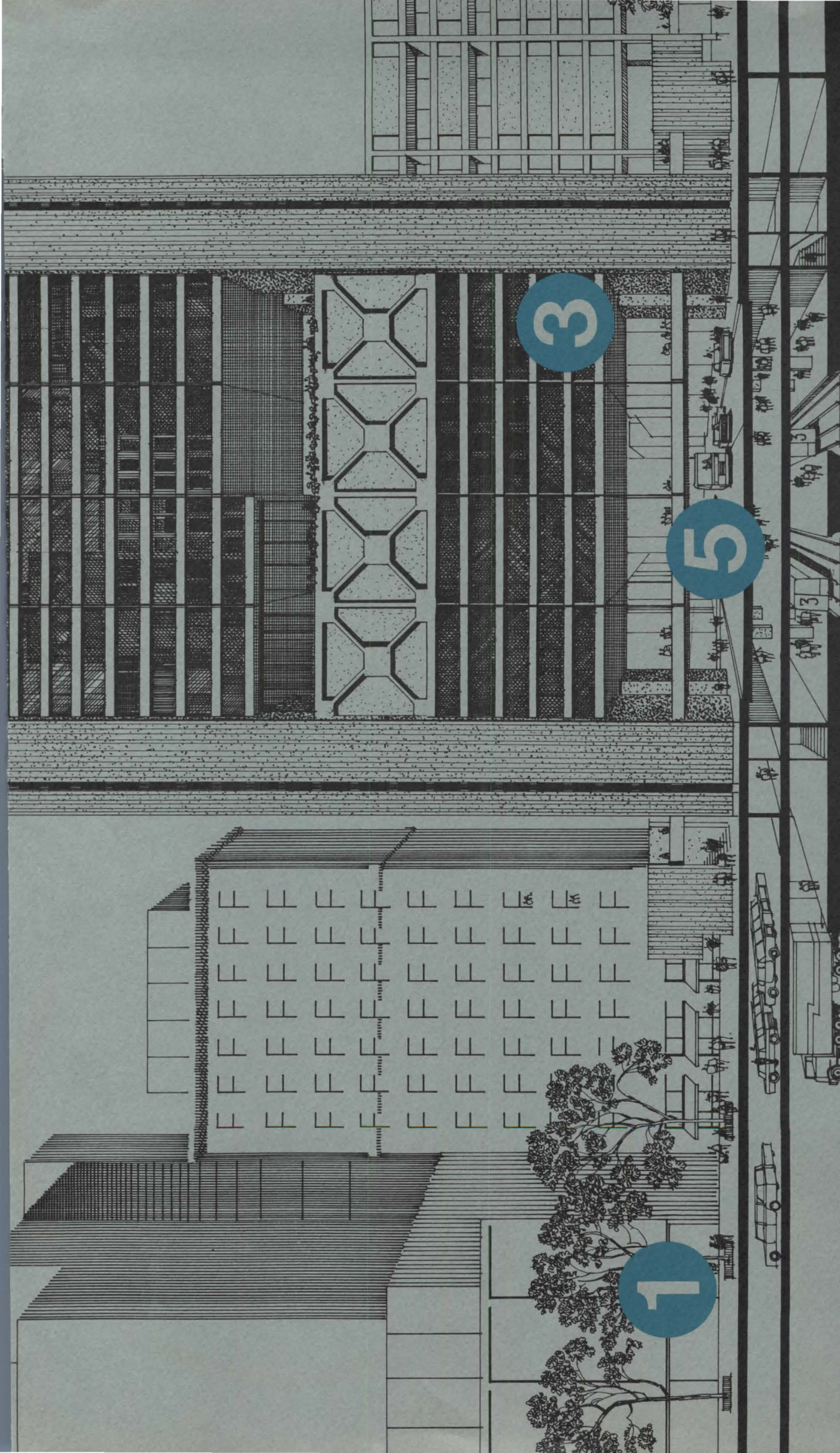
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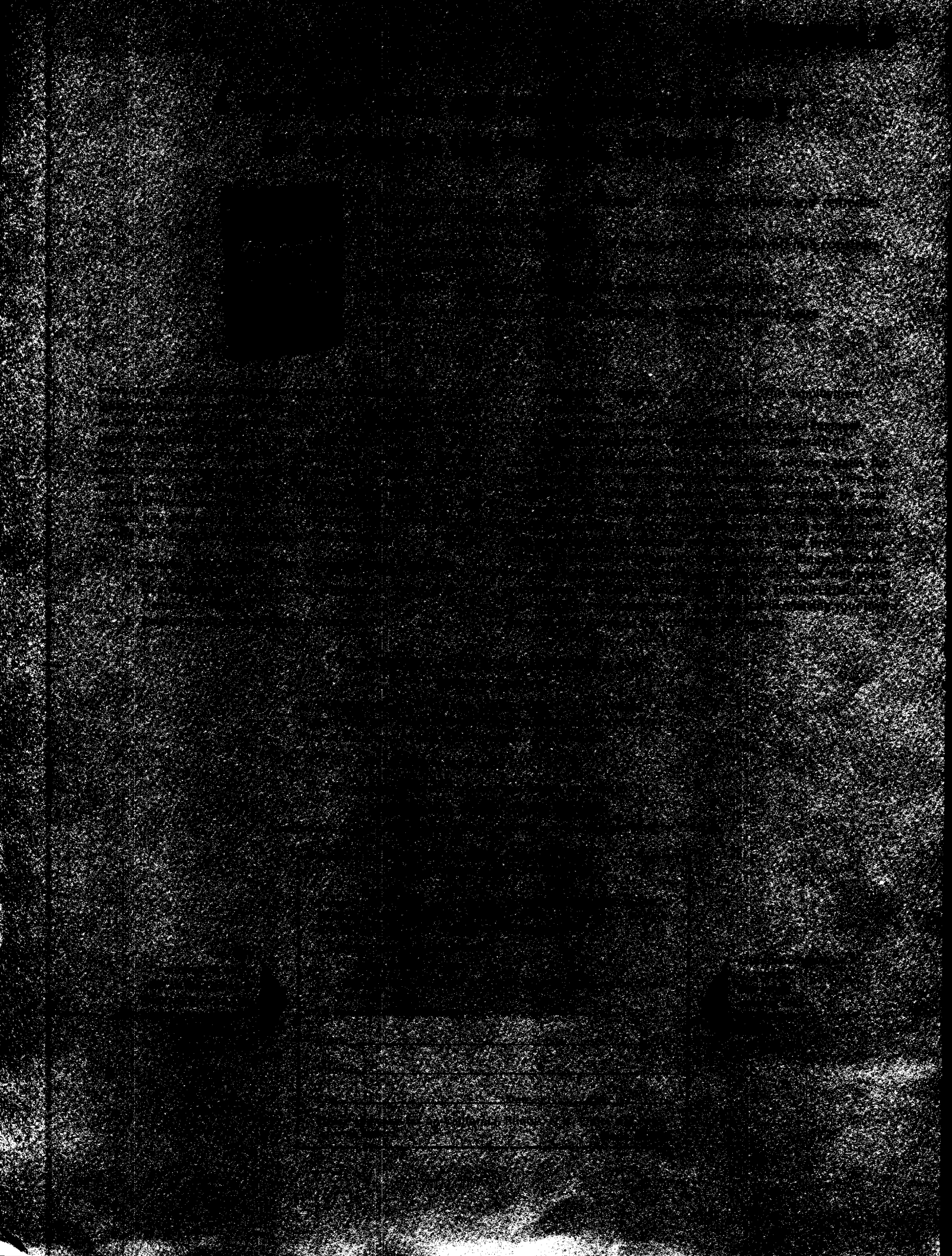
Underpass at street level passes vehicular traffic through the building. A specialized area such as this needs lighting equipment designed for its unique characteristics.

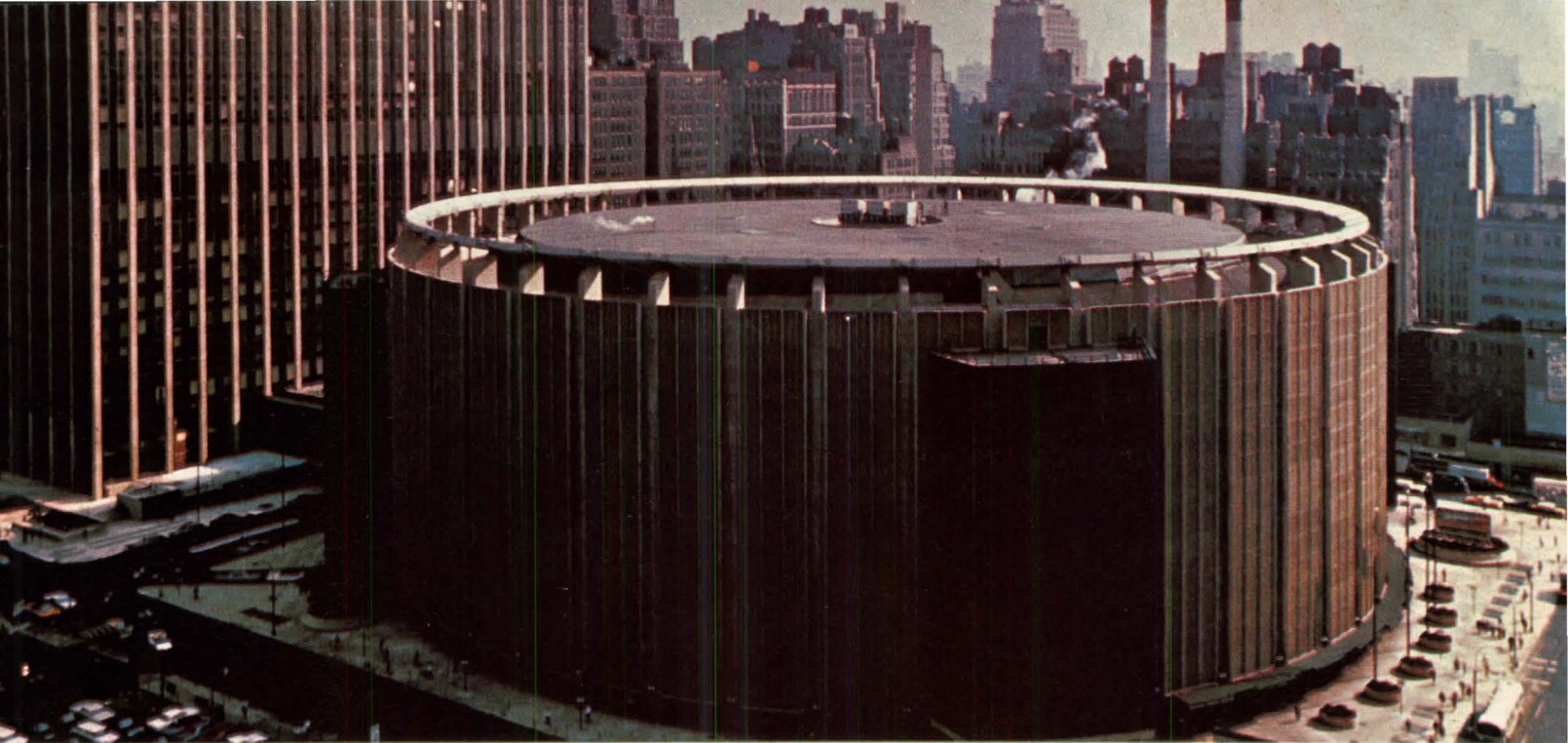
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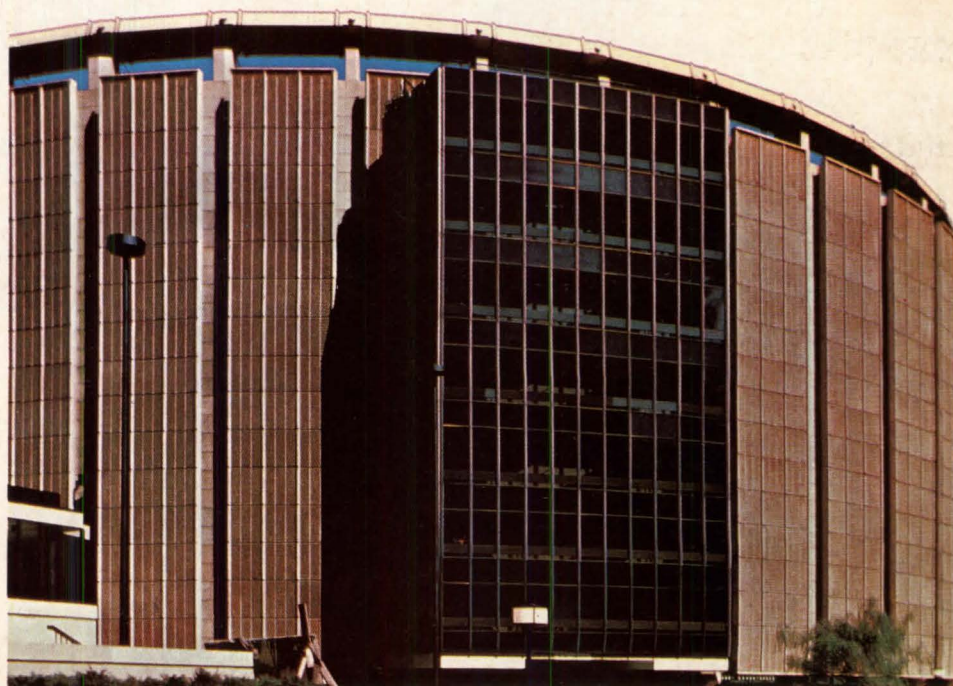
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HIGH "T" IN THE GARDEN



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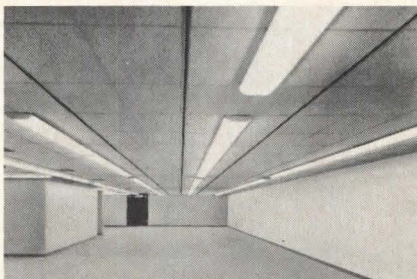
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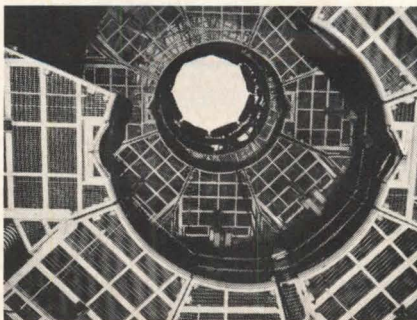
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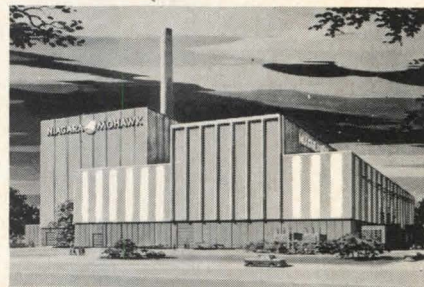
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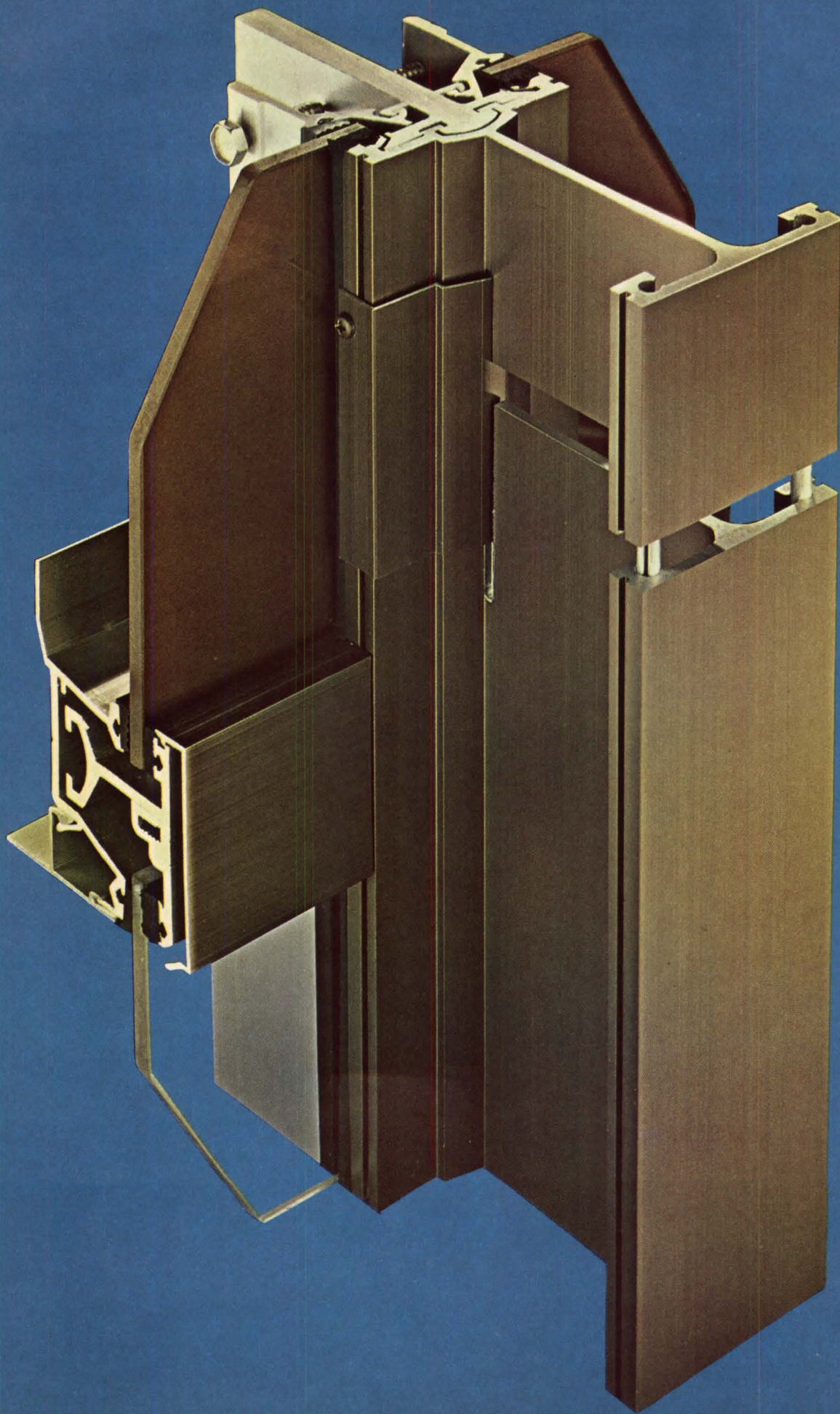
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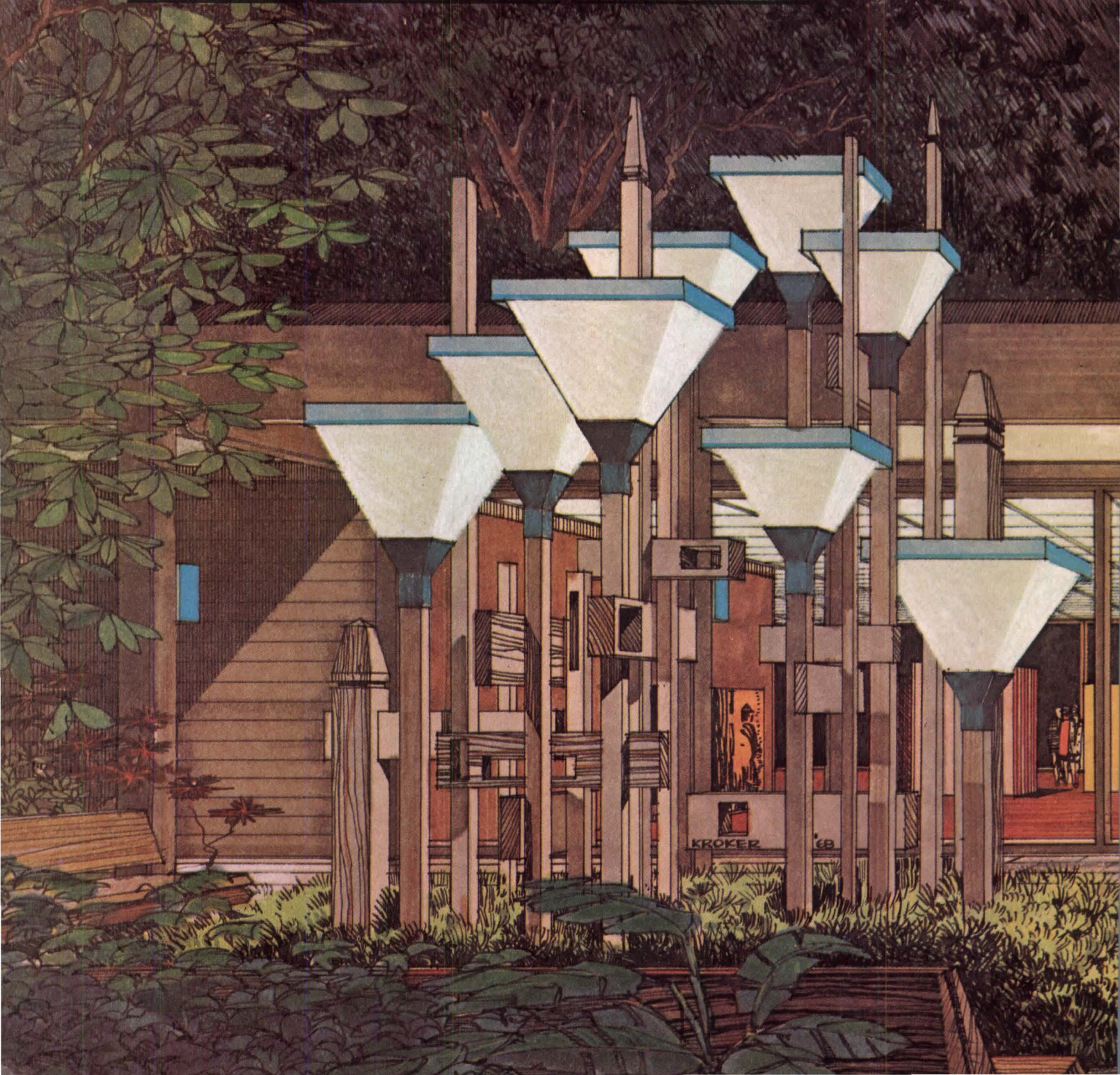
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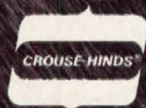
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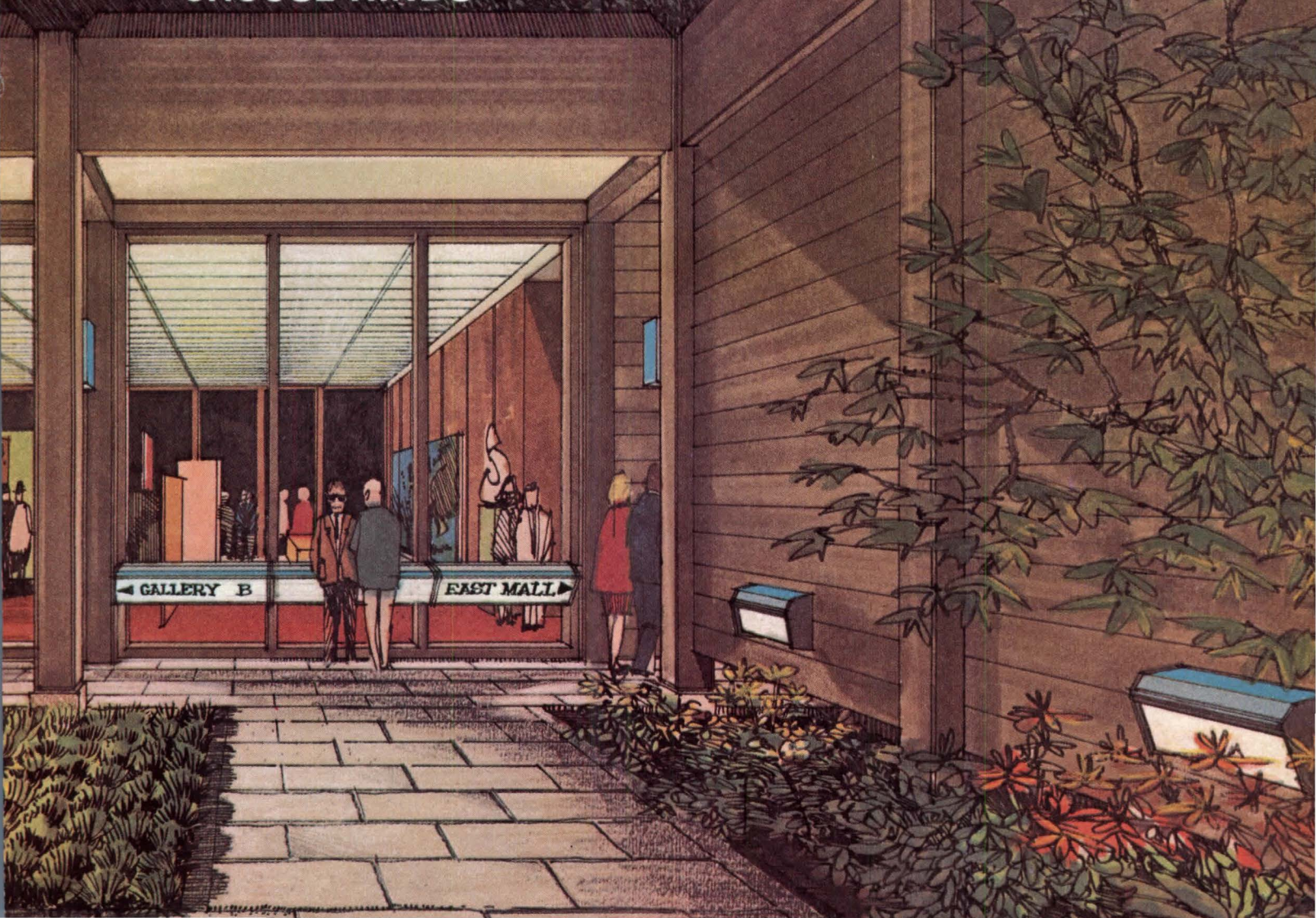
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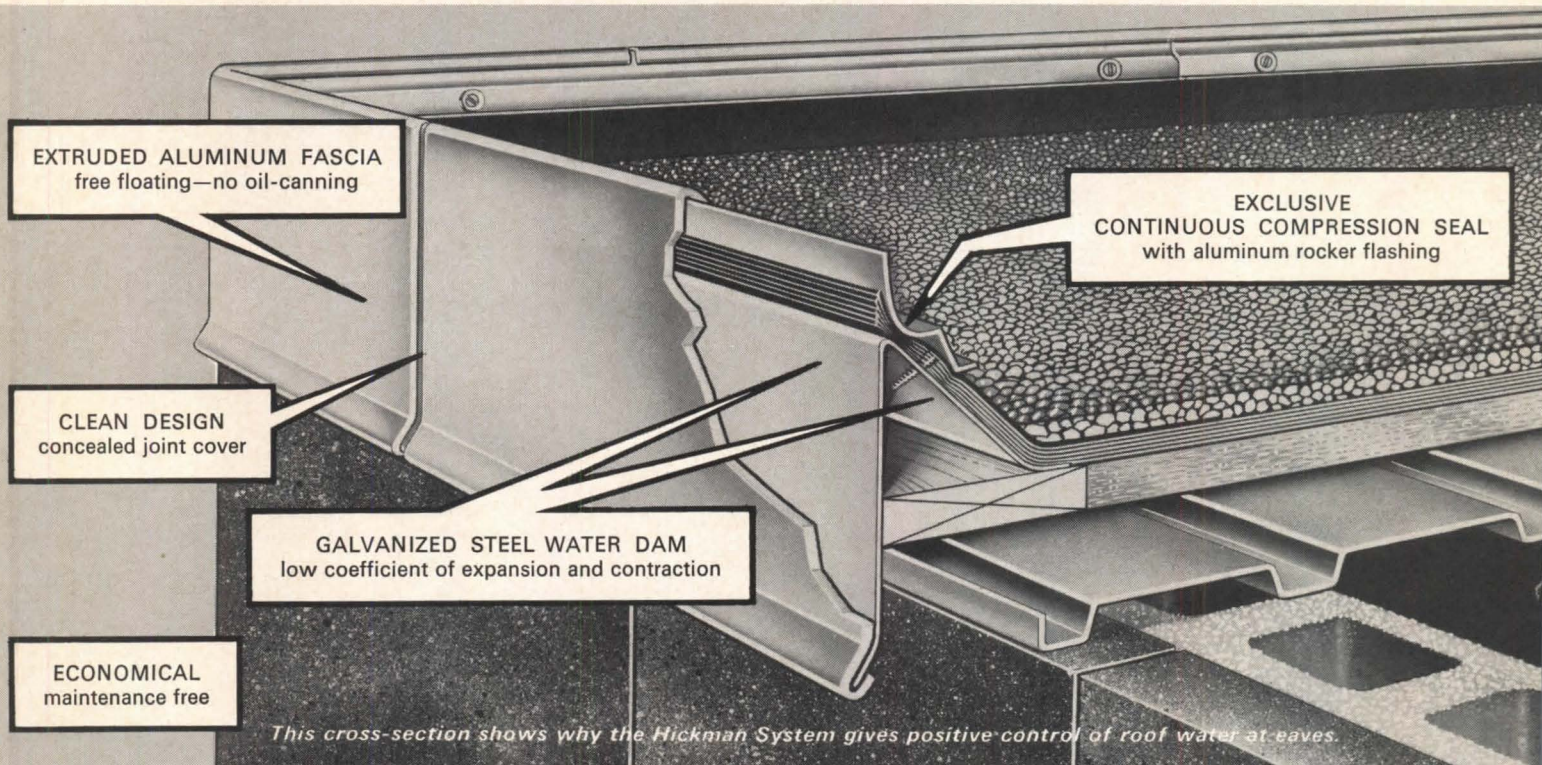


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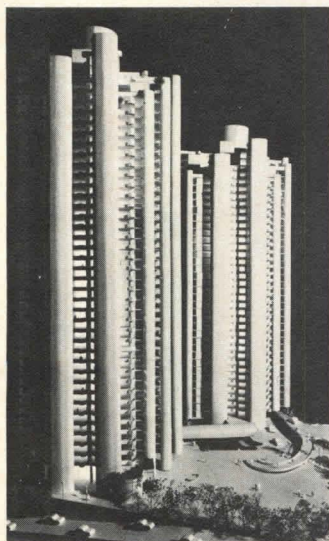
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P/A NEWS REPORT

Progressive Architecture's Monthly Digest of Buildings, Projects, People and Products

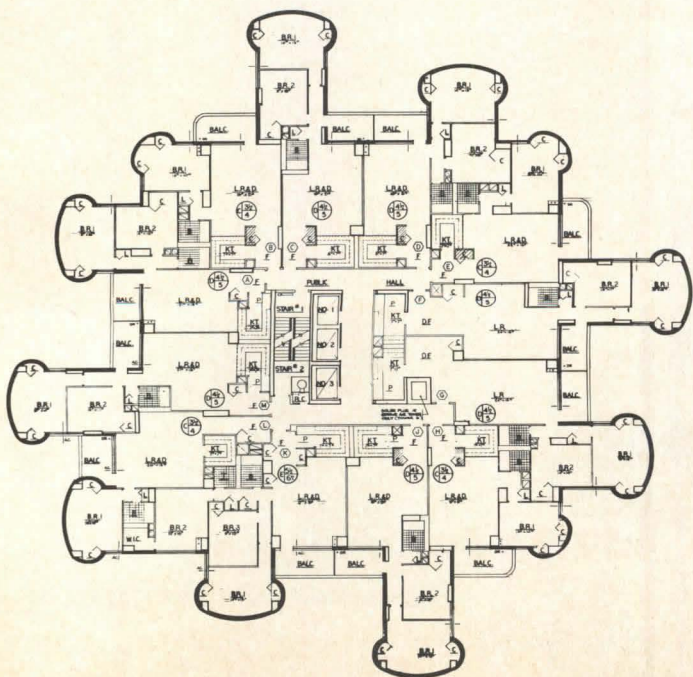
January 1969

NO DRABNESS IN RUDOLPHIAN TWINS



NEW YORK, N.Y. You could call the towers twins, but one of them, at 42 stories, is two stories taller than the other. They will rise on air rites above a Bronx subway storage yard owned by the City of New York. As designed by the office of Jerrald L. Karlan of New York, with Paul Rudolph as architectural design consultant, Tracey Towers are remarkable departures from the drab sameness of the city's usual middle-income housing sponsored under the Mitchell-Lama program.

The city is providing a 90% mortgage based on the final cost, currently estimated at \$34,400,000 for the entire complex, which will include 36 three-bedroom townhouses. The obligation will run 50 years, and during 30 of those years the project will have a 50% exemption of real estate taxes. The sponsor-builder of Tracey Towers is DeMatteis Development Corporation. "He really knows his way around the city," remarks Paul Rudolph of Frederick DeMatteis, who guided the project through the city bureaucracy in record time. According to Rudolph, the builder originally had round towers in mind. But Rudolph balked at the pie-shaped rooms that would have resulted; and his solution was towers whose rounded vertical projections give the buildings an illusion of roundness, while permitting rectilinear rooms. Each apartment has at least two, sometimes three, exposures, with views of other parts of the building. "Mitchell Lama projects don't have to be slab construction," maintains Rudolph, who has proved it. Now what will the excuse be?



David Eggers, Whitney Young, Jr., and graduates.

FROM CLASSROOM TO DRAFTING ROOM

NEW YORK, N.Y. "You are pioneers. . . . You are the Jackie Robinsons of architecture," observed Whitney Young, Jr., in addressing eight graduates of an experimental draftsman training program set up by the New York office of Eggers & Higgins (see p. 71, OCTOBER 1968 P/A). Young reminded the audience of his remarks to the AIA convention last June when he berated the profession for its lack of social involvement. "As I said at Portland, architecture has not been distinguished by its social programs." Young, and everyone else, seemed pleased with the results of the 16-week program. "This firm is to be commended," he said. "Mr. Eggers, you are the Branch Rickey of this program."

Of the 11 young men and women who started training last summer (sponsored by Eggers & Higgins and the Vocational Foundation Inc.), eight graduated. One dropped out for personal reasons, and "we fired two," says David Eggers frankly; "they weren't coming in." The eight who finished are at work as junior draftsmen, five with E & H, one with Emery Roth & Sons, one with Kahn & Jacobs, and one with the office of Alfred Easton Poor. Their education will continue, of course, but without the aid of a formal part-time teacher. During the initial 16 weeks, the students received daily afternoon instruction from a teacher who

set up the teaching schedule and saw to it that the students worked on E & H projects, learning the meaning of details as they went along. Finished drawings turned out by the class include much of the detail and the site plan for a small E & H project. But of course, their education is just beginning. A new group of about 10 will start training this month.

At least one architect, Wilson Chong, of Kingston, Jamaica, thinks the Eggers and Higgins approach may not be valid (see VIEWS). In a paper delivered at the Union Internationale des Architectes' Paris conference in 1965, Chong told of his problems in trying to train draftsmen in his office. His program consists of a carefully scheduled series of exercises that last a year, and not until that time is up does Chong feel a student has the grasp of the design process he needs to be a good draftsman.

Just how long Eggers & Higgins' new junior draftsmen will remain junior is probably up to them. In taking high-school students for the program, E & H hopes they will gain a group who take pride in the drafting skill. But at the same time, they are encouraging the students to go just as far as they can. "Wouldn't it be wonderful," says Dave Eggers, "to see someone from this program go on to school and actually become an architect."



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COMMITTEE TO CHOOSE NEW ARCHITECT FOR AIA H.Q.

WASHINGTON, D.C. In the continuing story of the AIA's attempt to erect a new headquarters building, the big news—who will succeed Romaldo Giurgola as its architect—is still awaited. Last month, however, the AIA selected a committee to recommend a new architect. Committee members, chosen at a meeting of the board of directors, are: Max Urbahn of New York, chairman; Rex Whittaker Allen of San Francisco, first vice-president of the AIA; Edward Charles Bassett, San Francisco; Romaldo Giurgola, Philadelphia; G. Harold W. Haag, Jenkintown, Pa.; Morris Ketchum, New York; Willis N. Mills, Jr., Stamford, Conn.; I.M. Pei, New York; and Philip Will, Jr., Chicago. The AIA placed no limit on the time the committee can take to come up with a recommendation.

CONSTRUCTIVISM RECONSTRUCTED

HANNOVER, GERMANY If, to Americans, restoration or reconstruction is usually associated with the artistic or architectural achievements of other centuries, to the Germans its associations are equally likely to extend to 20th Century modern works that have been damaged or destroyed by Nazi philistinism. One such work, intimately connected with the spirit of the Bauhaus and the development of modern art in the 20's and 30's, has lately been reconstructed (see photo) at the Provincial Museum of Lower Saxony.

The Chamber of Abstracts was a rather small room, designed by El Lissitzky in 1922 specifically to house Constructivist art at the museum in Hannover. It was an attempt to relate directly all the details and materials to the art work exhibited. Faceted walls appeared to change in texture as the viewer moved; colorful sliding panels on which pictures were mounted could be moved at the will of the beholder, and mirrors were placed behind sculpture so that one seemed to see both sides of the sculpture simul-

taneously. All this tended to give the viewer a sense of participation in the display. But, for individuals such as Walter Gropius, Lazlo Moholy-Nagy, Piet Mondrian, and Alexander Archipenko, it became not only an appropriate frame for modern art, but also a work of art in itself. Before its destruction by the Nazis in 1936, the Chamber of Abstracts contained works of Picasso, Lissitzky himself, Gabo, Mondrian, and others.

The widow of Alexander Dörner, who, as director of the Provincial Museum in Hannover, commissioned the Chamber at a time when modern art was rarely accepted by the museum public, made funds available for reconstruction. Architect J.L. Bayer worked carefully from



sketches and photographs to produce a nearly perfect replica of the original room.

Although no museum has ever attempted to reproduce the Chamber directly, it was a prototype for later design displays sympathetic to the type or period of the art exhibited. The museum's present directors see the reconstruction not merely as an historical object, but as a display system that is still valid, and one that may again encourage the careful integration of art and design.

TOWARD ORGANIZED LIABILITY PROTECTION

WASHINGTON, D.C. After two days of earnest discussion at AIA's headquarters in Washington, some 15 representatives of various segments of the construction industry decided to push further on an AIA-sponsored plan for formation of a "Construction Industry Foundation."

As envisioned in the discussions, which were chaired by Robert C. Cerny, chairman

of the Cerny Associates of Minneapolis, the "Foundation" would be a forum within which "all components" of the construction industry would review industry problems, effects of advancing technology, clarify responsibility and attempt to "improve both the efficiency and relationship" within the industry. Not unnaturally, much of the early discussion centered on the question of responsibility and protection of the owner in disputes between subcontractor, contractor, engineer and architect.

The 15 men who sat through the discussions represented AIA, the National Society of Professional Engineers, the Associated General Contractors, the American Bankers Association, the National Electrical Contractors Association, the American Subcontractors Association, and various other groups and individuals. There was no question as to their belief that

the idea of a "Foundation" was a good one; the only question was whether it could be funded and made to work in an industry with as many diverse interests as construction.

Nevertheless, the group decided to hold two further meetings: A joint session on January 3, in Washington, of a temporary finance and a temporary organization committee to work out details of funding an estimated \$500,000 yearly budget, and of insuring that all segments of the industry are properly represented.

The group also set a date of February 27 (with time and place to be announced) for another session of the original members, for discussion of progress and perhaps to take formal steps toward actual organization.

J. Winfield Rankin, AIA's Administrator of the Department of Institute Services, acted as secretary for the temporary group. — E. E. H., JR.



THROUGH A GLASS DARKLY

WASHINGTON, D.C. Assignment of temporary offices to President-elect Richard M. Nixon brought a sudden, \$17,000 headache to the outgoing Johnson Administration.

Problem was a set of tall, bay-type windows that proved to be unwashable, even though they were in a brand-new building facing "The President's Square" (Lafayette Park) just across the street from the White House.

The building is known officially as "FOB 7" — one of two nearly identical, tall, red-brick structures facing each other across the block-square park — and is part of a \$30-million rehabilitation project

that was enthusiastically supported by Presidents Kennedy and Johnson. They were designed by architect John Carl Warnecke.

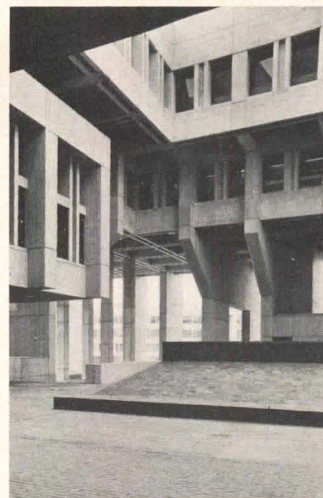
The windows have been unwashed for more than a year (since the time the buildings were occupied) because they have been considered too dangerous for window washers to open, according to the General Services Administration. When the tall, narrow windows (there are some 1244 windows in the two buildings) are opened on their pivots, the bronze frames have a tendency to rack or twist — an action that could shatter the glass. In addition, the two-story high windows on the ninth and tenth floors (where Nixon was given a 27-room, 12,600 sq ft suite), are in the form of bays, and thus are easily thrown out of alignment.

GSA proposes to spend the \$17,000 to install pole-operated latches to help keep the windows tight; replace key-operated taper bolts with square-nosed plastic bolts; install additional weatherstripping, and make other changes. "Of course," said an unidentified GSA spokesman, "there's no certainty the problem can be fully corrected, anyway."



Photos: Randolph Langenback

Boston City Hall.
Public courtyard.
South entry hall: 135' high.



B.C.H. NEARS COMPLETION

BOSTON, MASS. Although the new Boston City Hall has been shown officially to the press, it is not yet finished. Designed by Kallman, McKinnell & Knowles in association with Campbell, Aldrich & Nulty, the building will be formally dedicated in mid-February.

Since the complete competi-

tion-winning City Hall Complex is not yet finished — it will include the great landscaped plaza, connecting the complex with other important elements in the Government Center — P/A will delay publication of the project until a fully detailed, completely informed critique can be offered.

CALENDAR

The 1969 National Conference of the U.S. Institute for Theatre Technology will convene March 17-20 in Los Angeles at the Hollywood Roosevelt Hotel. Information on program and registration is available from Tom Lehman, USITT Conference Registrar, c/o Beckman Auditorium, Caltech, 1201 E. California Blvd., Pasadena, Calif. . . . The first International Encounter on Building and Humanism will be held in Cannes, France, March 10-16. Designers, city planners, architects, engineers, industrialists, doctors, sociologists, and others are invited to participate in discussions, debates,

and meetings on topics of interest to those involved in any way in city planning. Write for full details to: Construction et Humanisme, Tour Nobel, 92 — Puteaux, France . . . "Man and His Urban Environment" is the title of a conference to be sponsored by the department of environmental health, University of Cincinnati. The program is scheduled for March 19 at the University's Tangeman University center. Details can be obtained from: Dr. Ernest C. Foulkes, Acting Director, Department of Environmental Health, Kettering Laboratory, University of Cincinnati College of Medicine, Cincinnati, Ohio 45219.

AIR TERMINAL EXPANSION FOR THE SECOND JET REVOLUTION

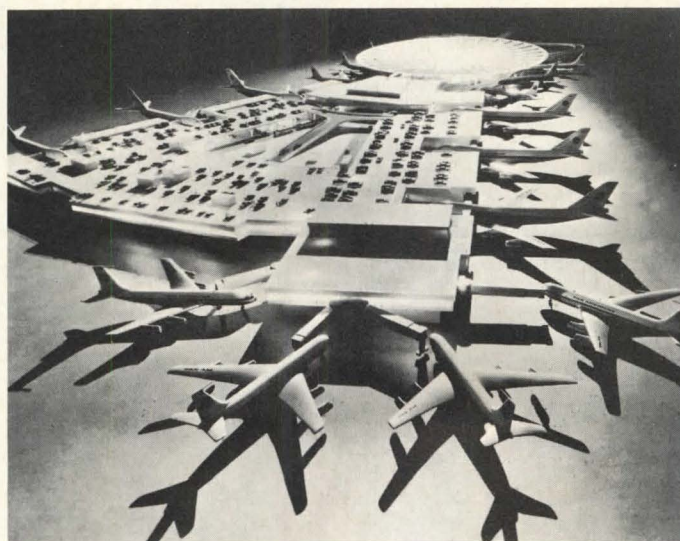
NEW YORK, N.Y. By 1971, according to Boeing, there will be 186 of their 747's landing at and taking off from 45 cities throughout the world, 21 of them in the U.S. The first of these giant jets will be delivered to Pan American, which has ordered 25, and to Trans World Airlines (22) later this year. They will herald what the poets of press agency are calling the Second Jet Revolution. The 747's and the other giants will carry up to 500 passengers, and, although they will operate comfortably from existing runways, they are expected to overtax existing ground facilities alarmingly. If just 10 of these giants were to land within an hour at, say, Chicago's O'Hare field, 5000 persons looking for 10,000 or 15,000 pieces of luggage would converge in the already crowded terminal. It is a scene awesome to contemplate. But the airlines have contemplated it and some of them are at work expanding their passenger facilities to handle the greater concentrations of travelers.

Two airlines with expansion programs already underway are TWA and Pan Am. Work is progressing on the **TWA terminal** at Kennedy International Airport in New York, and it may be completed in time for the inauguration of that airline's 747 service early in 1970. TWA is adding a new wing (1), planned for in Eero Saarinen's original design of the terminal, that will provide 10 new aircraft gates. The \$20-million Flight Wing One, linked to the main terminal by a 221' tube-like bridge, will double the terminal's floor space. (Flight Wing Two, in operation since 1962, east of the main terminal, has 26,000 sq ft; Flight Wing One will have 151,394 sq ft.) The work is being done by the old Saarinen office, Kevin Roche John Dinkeloo & Associates. As can be seen in the rendering, Flight Wing One (left) will have a rooftop heliport. The only structural change planned since the rendering was made is to provide gates that allow aircraft to park nose-into the terminal, eliminating the long flexible boarding arms.

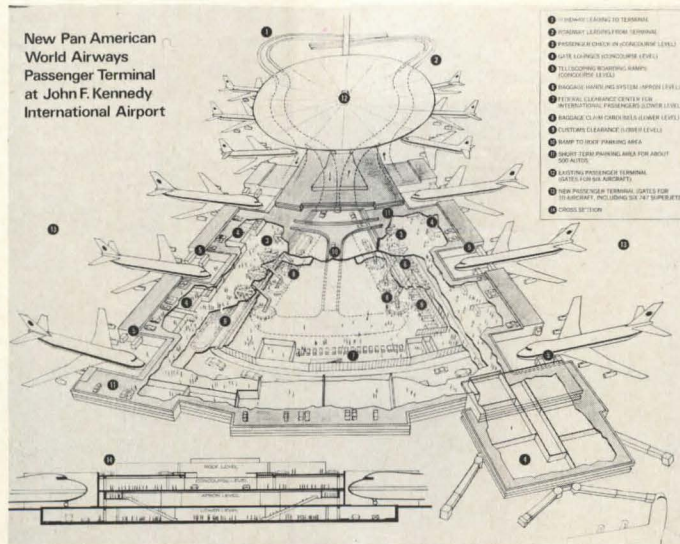
Pan Am is adding a \$50-



1 TWA Terminal expansion.



2 Pan American Terminal addition.



3 million, pie-shaped, four-level wing (2, 3) to its circular terminal at Kennedy, which will add 10 gates to the terminal's capacity. Pan Am estimates that, at peak hours, it will be able to handle 3000 passengers and 6500 pieces of luggage.

A ramped roadway runs through the terminal wing, looping to a rooftop, short-term parking area. Departing

passengers can leave their cars, buses, or taxis and check in at any one of 56 counters. In all, the addition, designed, as was the main terminal, by the New York A-E firm of Tippetts-Abbott-McCarthy-Stratton, will add 655,000 sq ft to the original 101,680 sq ft area.

Both Pan Am and TWA will have customs facilities in their new wings.

MODEL PEELS FOR SNORKEL FILM

HARTFORD, CONN. The model for the addition to Pan American's Kennedy terminal is large (5'-6" x 11'-6"), costly (somewhere in the five figures), and intricate. The intricacy comes both from the meticulous detail with which the 1/16" to 1' model is put together and from its take-apart construction: layer by layer the model can be snapped open and peeled down, revealing the terminal's functions.

This intricacy is not unusual, of course; Charles Luckman & Associates had a peel-apart model of Madison Square Garden made. But what may set the Pan Am model apart is that halfway through its construction modelmakers Robert Hurwit & Associates of Hartford, Conn., were told that it would be used in photographing a snorkel lens film. (Snorkel filming equipment has been used effectively in creating amazingly realistic walk-through sequences of cityscape models; it is used less frequently in filming models of individual buildings.) "We didn't have to change the model in any way," recalls Hurwit in talking of the decision to give his model star billing in a snorkel film, "but we did have to add more color and more activity." They beefed up the number of small-scale cars and buses and baggage and people with which the model is studded. In all, there are about 350 cars and 1500 people, and, in Pan Am's 8-minute film, as the camera takes a viewer on a tour of the model, it seems to have much of the bustle of a real terminal, as though filmed by Renais, who gave the world *Last Year at Marienbad*.

The model is plexi-glass, clear in some places, painted with acrylic paint in others. There is a seam down the center, and on either side sections snap off, revealing the layer beneath. In all, 14 sections fit into the four shipping cartons Hurwit & Associates designed. Yet, despite its complexity, the model is simple enough so that anyone working with it can take it apart without written directions. As snorkel filming becomes more widespread, we will be seeing more of these models.

GIANT RENEWAL IN HARLEM: A NEW PATH

NEW YORK, N.Y. A 172-acre urban renewal project, affecting 50,000 persons in Harlem, is, according to its administrators, the largest ever undertaken in this country. Just moving out of the planning stage, the project differs from conventional urban renewal in both its approach and its results, and if it fails to become a prototype for future efforts, it may at least establish a direction worth exploring more fully.

The project takes in an area in Harlem between West 145th St. and West 127th St., and St. Nicholas and Amsterdam Avenues — an area that contains 1479 existing buildings and 50,000 residents. Of the buildings, 859 will be rehabilitated and 620 torn down; of the residents, all 50,000 will remain. Clearance and rehabilitation will proceed in phases, to subject as few residents as possible to temporary displacement at any one time. The general plan also calls for new construction.

What is news about the project, however, is the way planning has been carried out by New York's Housing and Development Administration (HDA) under the Federal Urban Renewal program. Instead of administering the project from its downtown offices, HDA set up a field office on the project site, and its representative worked directly with planners and community to coordinate their ideas and iron out disagreements. Only when consultants and the community — repre-

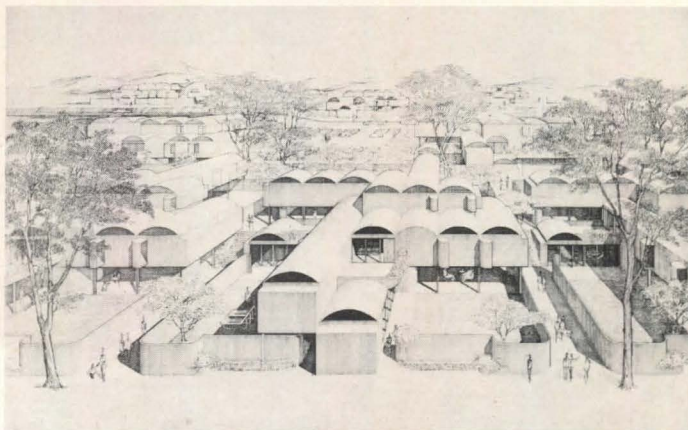
sented by the St. Nicholas Park Community Council, a conglomeration of 40 neighborhood groups — had agreed on a proposal did HDA's man in the field return to the city's offices to get official approval. There was no running up to Harlem to show residents of the project area what was bound to become of their neighborhood; and there was no encounter with residents angered at being left out of the planning process. On the contrary, HDA project director Herbert Morris frequently found himself arguing on behalf of the citizens' proposals before city officials annoyed because they felt left out. In most cases, Morris succeeded in winning officials over to the community's thinking.

For example, Morris found himself siding with the community in a basic disagreement over the most advantageous kind of present and future development for the St. Nicholas area. Consultants Ifill, Johnson, Hanchard, a predominantly Negro architectural firm, some of whose members live in Harlem, felt that the city's view of Harlem as essentially and most properly a residential area was a reactionary dream, based on the days when Alfred Vanderbilt rode in an elegant carriage through tree-lined boulevards. Consultants and community agreed that what was most important for present-day Harlem was the retention of existing industry and the provision for more. Their

plan, therefore, calls for horizontal zoning, so that high-rise housing can be provided above new industrial sites. Since the site proposed for redevelopment is on a gentle grade, with railroad and truck routes quite near, Ifill, Johnson, Hanchard, and Candeb, Fleissig & Associates, the planning firm, felt that it was

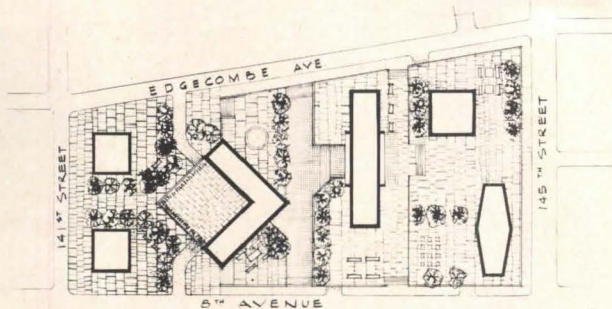
particularly well suited to mixed use. The different types of facilities would be layered into the hill, with industry at the base, commercial above, and housing at the top of the heap. The plan has preliminary approval from HDA and the City Planning Commission, and site acquisition will begin immediately.

RUDOLPH VARIES A THEME

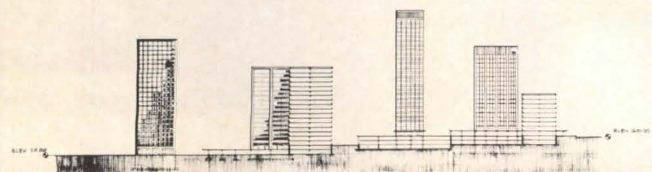


NEW HAVEN, CONN. Paul Rudolph's concern with the possibilities of three-dimensional prefabrication and with the uses of trailer-sized housing units that can be trucked to the site gets further play in a 148-unit housing development for the New Haven Redevelopment Agency. Like Ft. Lincoln (see p. 48), the project at Wilmot Road and Brookside Ave. is 221(d)3 (although there is also some state money involved), and, as in the former, Rudolph is working with a basic 12' x 60' module. Modifying it in length to make differently sized units, Rudolph arranges the module in an L shape,

which is reiterated throughout the site. Each individual unit, containing two, three, four, or five bedrooms, comes with a small garden, and a ground-level porch that can eventually become an additional room. Two variations on the basic module give a sense of additional space: a vaulted roof raises the ceiling to 9'-8", and bay windows that fold into the module for shipping, then fold out at the site, break up the otherwise rectilinear façade. Occasionally, a module can be added on top of another. When this is done, a circular staircase is shipped inside a module and assembled on the site.



Site plan.



Preliminary design includes industrial space below grade, commercial at grade level, and high-rise housing.

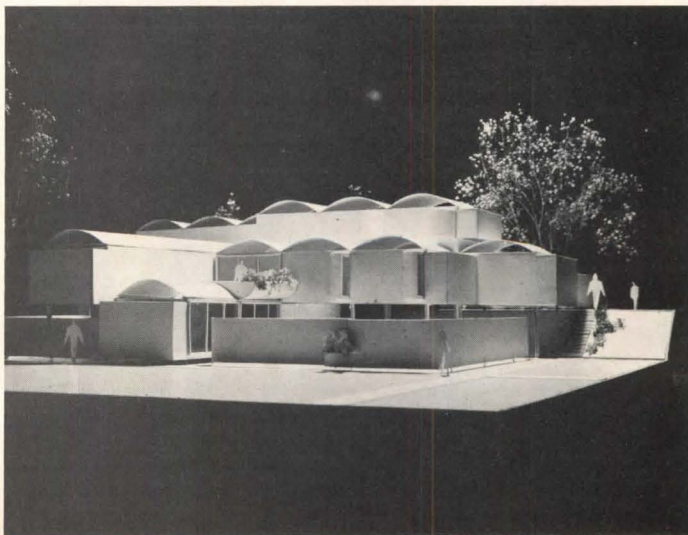
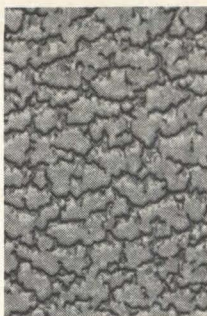


Photo: Yugi Noga

Textured Steel

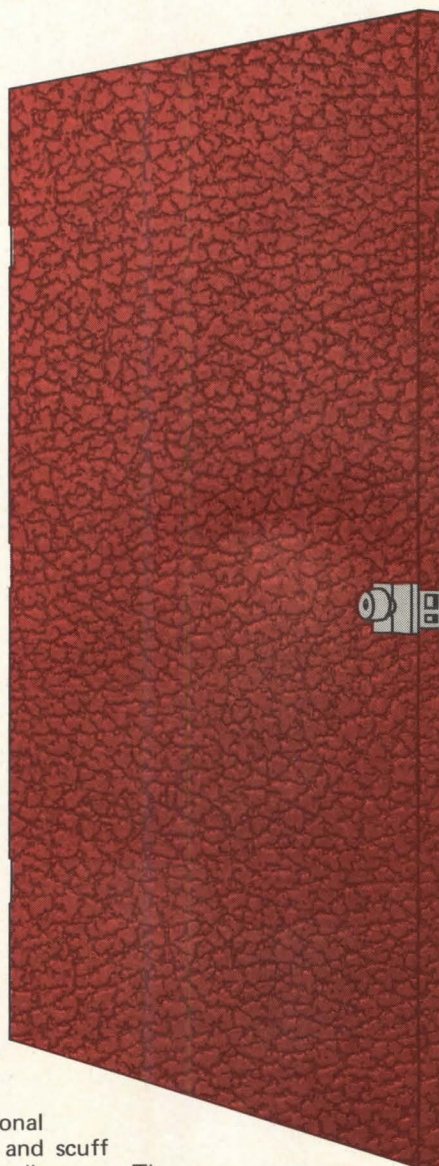


+



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WASHINGTON METRO: AN UNDERGROUND MODEL



WASHINGTON, D.C. Concrete, white granite, bronze and brick are the materials for a prototype subway station developed for Washington's Metropolitan Transit Authority by Harry Weese & Associates. Now undergoing engineering and cost analysis, the model shows what may become one of the 51 subway stops in the 86 station rapid transit system approved at the polls last November (see p. 39, DECEMBER 1968 P/A).

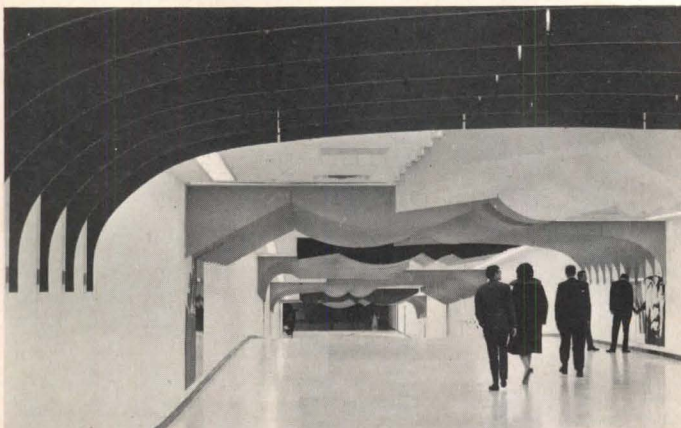
Station platforms will be 600' long and 13' wide, and the crown of the indirectly

lighted, vaulted roof will be 30' above the tracks. Escalators move passengers from the train level to 30'-wide, suspended mezzanine platforms and from there to the street.

"I think this is perhaps the most beautiful design we have had before us in a long time," commented a member of the Fine Arts Commission.

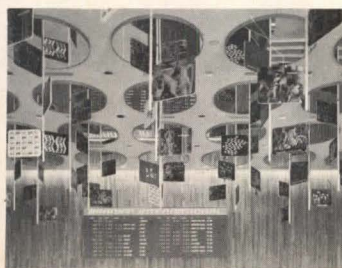
Wherever possible, the Authority plans to have passengers emerge from below-ground into parks or squares, a fitting culmination of what looks to be a pleasant underground experience.

TERMINAL IN THE BRANIFF MOOD



DALLAS, TEX. Braniff International Airlines went to some lengths to transform the plain plane; now it has come up with a replacement for the turgid terminal.

Braniff needed expanded facilities until the new Dallas/Fort Worth regional airport is ready sometime in the 70's, so it has tacked an addi-

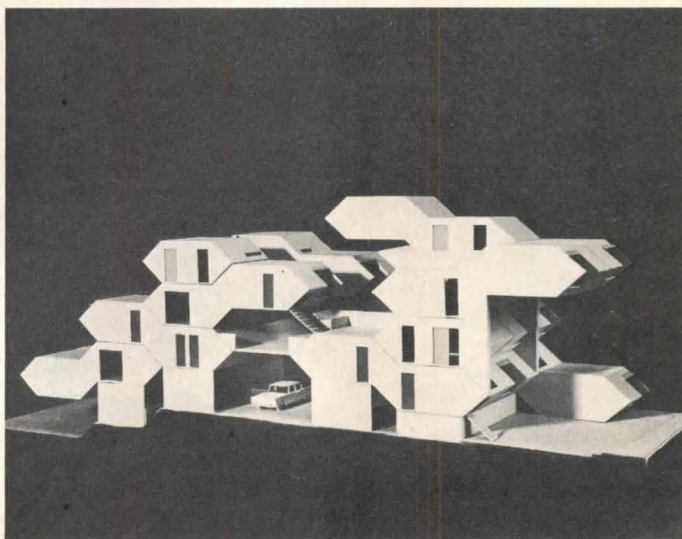


tion on the existing terminal at Love Field in Dallas to bridge the gap. What will happen to the \$9-million addition when different quarters are ready is still not decided, but in the meantime Braniff has a passenger terminal that may be as easy on a traveler's eyes as it is hard on his legs. Although there are long stretches of corridor and terminal between flight check-in and boarding gates, getting there is fun.

"Most air terminals look like direct descendants of bus stations," says Braniff chairman Harding L. Lawrence. "We believe air terminals should be beautiful and exciting and precondition passengers to enjoy their flights."

As a traveler enters the terminal extension — for which Jack Corgan Associates were architects and for which

Harper & George Inc. were designers of everything else from light fixtures to graphics — he notices a ceiling patterned by travel posters suspended from 6' poles. Behind the shimmering silver-tiled, ticket counters are super-graphic murals. In the baggage claim area, great prismatic mirrored chunks are fastened to the ceiling reflecting the baggage rotating on the carousels below. On the walls of the long corridor between check-in and gate lounges are angled mirrors. The effect of the interior is that of a discothèque with plane announcements substituting for rock and roll. But there is something for everyone. On the second level are restrooms with beds for elderly travelers, and a playroom with a jungle gym for the next generation.

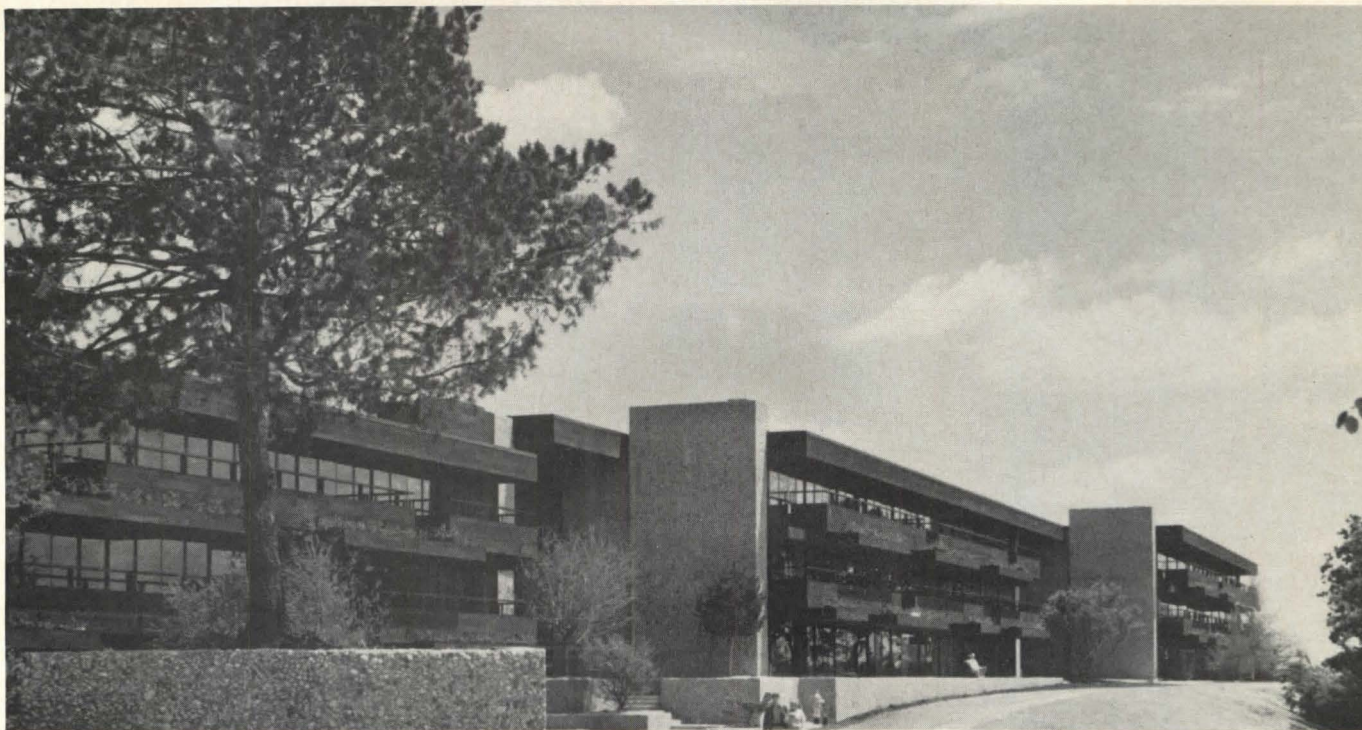
FROM BATTLEGROUND TO TESTING GROUND:
WASHINGTON'S URBAN EXPERIMENT

WASHINGTON, D.C. The Federal Government and the District of Columbia are cooperating in an experiment intended to serve as a large-scale test of advanced housing technology and design. If it succeeds, it could bring nationwide attention to the feasibility of providing low-cost, architecturally distinguished housing in one- to two-thirds the time needed for construction of conventionally built housing.

Scene of the experiment is Ft. Lincoln, a 335-acre tract that served as a battleground during both the War of 1812 and the Civil War, and was,

most recently, the home of the National Training School for Boys. When the school moved to greener pastures in West Virginia approximately a year ago, its old site became surplus Federal land.

In August 1967, President Johnson directed HUD Secretary Weaver to begin feasibility studies for a new community of low- and moderate-income families. With HUD financing preliminary studies, The National Capitol Planning Commission, the District of Columbia government, and the Redevelopment Land Authority, acting as clients, selected a 20-acre Phase I proj-



Flexicore decks cantilever for balconies; are faced with rough-hewn cedar. Bronze-tinted glass is used throughout.

New Playboy Club-Hotel has 200,000 sq. ft. of Flexicore deck in six guest wings

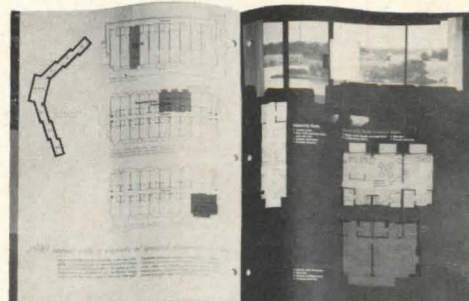
The beautiful new Playboy Club-Hotel at Lake Geneva, Wis. is a year-round resort and convention center.

Its 300 rooms include a variety of special accommodations including the Hugh M. Hefner penthouse, large enough for 250 party guests.

Flexicore concrete floors and roofs were used for fire-resistant, sound-deadening construction throughout the six residential wings. The eight-inch decks have a two-inch concrete topping, earning a 3-hour fire resistant rating from national laboratories.



Flexicore erection went ahead during winter months in below freezing temperatures.



Send for our new booklet on the Playboy Club-Hotel. It contains photos, floor plans, structural details, and descriptions of the luxurious accommodations. Write The Flexicore Co., Inc., P. O. Box 825, Dayton, Ohio 45401.

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2 ect area, to be used as a prototype for planning the remaining acreage. Construction will be financed under section 221(d)3 of the Federal Housing Act.

For the larger portion of the site, Edward Logue has been commissioned to do the planning, with David A. Crane as consultant. For Phase I, Moshe Safdie, Paul Rudolph, and Harry Weese, with Brown, Wright & Mano were invited to design and develop individual housing projects using advanced techniques, such as prefabrication, and new materials.

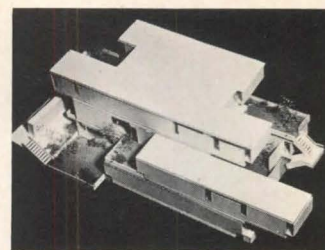
Unfortunately, the Safdie-designed project (1), which was to consist of precast, pre-finished concrete units stacked on site, has already been rejected as too costly to qualify under 221(d)3. The design proposed by Paul Rudolph (3, 4) provides 200 units of one to four bedrooms; cost studies are not yet complete. The scheme calls for trailer-type units, 12'x60', with sections that fold out to create porches suitable for conversion to additional rooms. "I'm fasci-

nated by the fold-out idea," says Rudolph. "Looking back on my earlier work, I can see that it's something I've been working toward for a long time." Dwelling units will be arranged in clusters, so that private yards will face inward, rather than outward toward the street. The design can be modified to work either in wood or steel. If wood is chosen, fabrication will be done by one of the mobile home manufacturers; if steel is used, Fruehauf Corp., the national trucking concern, will manufacture, deliver, and stack the units on site. Having the manufacturer take care of actual erection of the units will, hopefully, eliminate friction among subcontractors and unions. Fruehauf's expertise in stacking large units is drawn from its experience in piling containers in ship holds within a tolerance of $\frac{1}{16}$ ". Construction should take six to nine months.

Harry Weese and Brown, Wright & Mano use a precast panel system to provide two types of housing: back-to-back row houses with a total

of 54 three- to five-bedroom apartments, and a seven-story building with 120 apartments for the elderly (2). Row houses have well defined front yards to facilitate individual sales if the plan finds favor with the public. Estimated construction time for both types of housing is 12 months.

Actual construction of approved projects has been delayed somewhat, partly because area residents are anxious to insure that schools will be available for new families when they move in. The Logue-Crane master plan does call for a school, and an architect is scheduled to be named soon to design the facility. It is likely that a "systems" method such as California's SDS will be used to get a permanent building up in minimal time. Another reason for the delay may be the

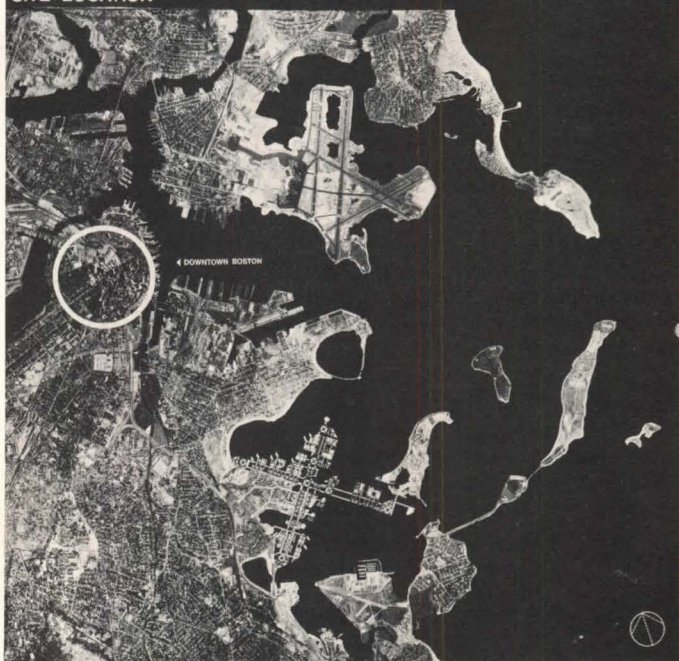


4 change in administration. "You know, they originally planned to call it Lyndon Village," Rudolph points out. "If Johnson had sought another term, the project might have been pushed along faster."

In any case, Weese's housing for the elderly, the only Ft. Lincoln project to be run by a Federal agency (the rest will be managed by a non-profit sponsor, not yet designated), is scheduled for groundbreaking sometime this month. Timing of other projects is still indefinite.

BOSTON, 1976: CONFIRMING THE REVOLUTION

SITE: LOCATION

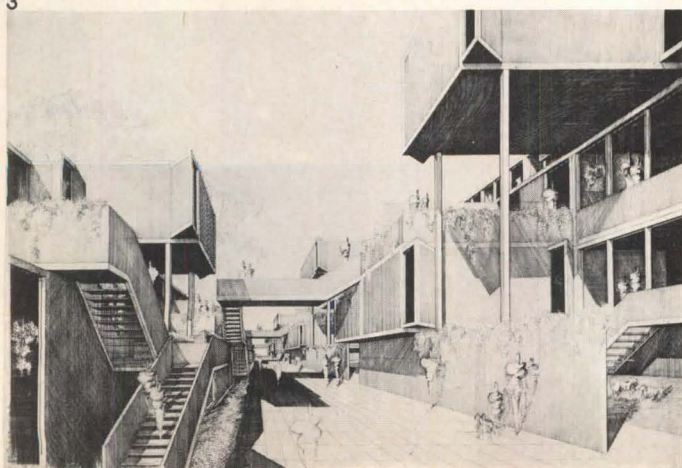


BOSTON, MASS. "One if by land, two if by sea" were the instructions given Paul Revere and Billy Daws that April night in Boston. Boston is still thinking of the sea, two hundred years later, not as a source of danger but of potential development. The only "if" involved in a scheme to develop part of Boston harbor and one of the harbor islands depends on the city's decision whether or not to enter a bid to host a 1976 Bicenten-

nial Exposition.

Philadelphia has already proposed to build a mega-structure exposition above the Pennsylvania Railroad tracks near 30th Street (see pp. 130-131, JULY 1968 P/A), and, if Boston does enter the race, a decision between the two proposals will be a difficult one.

Designed by Jan Wampler, with Chu Yuan Lee, John Kriken and Robert Hanna, under the direction of Charles





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ARCHITECT: TAEGER & ASSOC.

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Hilgenhurst, who is director of urban design for the Boston Redevelopment Agency, the proposal is as much one for a prototype community through which to study some thorny urban problems as it is one for an international exposition. At the end of the exposition, Boston would have a community of 40,000 persons located on 515 acres above Boston Bay between Oyster Point and Thompson Island. It would be built on a framework, either fixed rigidly above the waters of the bay or floating on them. "The platform concept," explains Wampler, "accomplishes a great deal. First, platforms will be much cheaper than landfill and will take less time. But, equally important, the platforms over water will not destroy the marine ecology of the area and will not interfere with natural tidal flow." Wampler envisions the floating platforms being moved to new locations as further development indicates, and in general the urban water site will be an integral part of the exposition, served by both water and land transport, a

sort of instant Venice. "Our intention is to use the exposition as the fulcrum to speed up intelligent use and development of the shoreline," Wampler contends. Although the planning is being kept flexible "so we will not be planning and building a community which will be obsolescent, or even obsolete, in 1976," it will offer individuals a chance to participate in their environment, to choose and develop their own type of neighborhood, to have privacy, but at the same time to have easy and ready communication with neighbors. In short, what the designers are offering is a community that encompasses the best of both urban and suburban living, eliminating the worst. Yet it is not a utopia. For one thing, it is based on established concepts of American life, and, for another, it is seen as a core element in the future expansion of the area.

During the Exposition, visitors would have the opportunity to live on the site, in the prototype community, while visiting the exhibits and recreation.

MAINTAINING COOL ON CAMPUS

BENTON HARBOR, MICH. The body of water that will entirely surround Lake Michigan Community College is not, as one might suppose, Lake Michigan. It is, instead, a man-made, spring-fed lake created when low-lying sandy soil was drained to provide a site for the new school, and it will serve as more than scenery for the expected 5000

Berien County students who will attend the college. The 18-acre lake is planned as a site for all-season recreation as well as a part of the heating and cooling system to be used to cool water for air-conditioning.

Much of the remaining acreage on the site (the site is 229 acres, including the lake) will be covered by



trees, some of them belonging to orchards, since the site lies in the midst of Michigan's fruit belt. Others will be seedling pines, planted under the supervision of the state Department of Conservation.

Architects Harry Weese & Associates have sited buildings at the end of a long axis, with a raised central plaza topping the roof of a mechanical area that does require light.

Phase I of the project, now under construction, includes the lake, library (at the back of the site) cafeteria, plaza, and half of the long classroom building at the left of the plan. Buildings will be constructed with brick cavity walls and concrete framing, with roofs, copings, and soffits of lead-coated copper. Cost of the entire complex is estimated at \$10 million, or \$30 per sq ft.

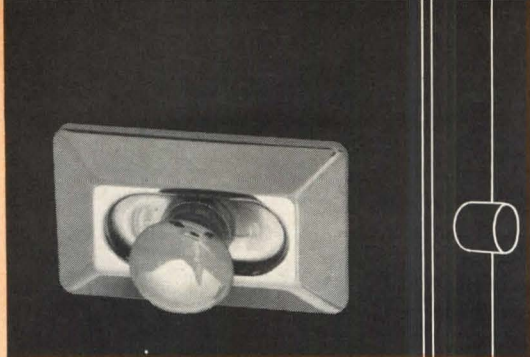
BILLIARD PARLOR INTO LIBRARY

PASADENA, CALIF. The survival of at least one historic house from the famous Five California Architects Period — Bernard Maybeck, Greene & Greene, Irving Gill, Rudolph Schindler — is assured for the nonce. It is the Gamble House of Greene & Greene (1908), which the brothers designed for a terraced site in Pasadena. Presented to the city and the University of Southern California by members of the Greene family two years ago, the building now houses, in its

former billiards room, a library of the works of the Greene brothers plus Historic American Building Survey drawings from the Southern California area study; data on the American Craftsman Movement; historic information of California architecture; and memorabilia of the Gamble family, Louis Comfort Tiffany, Gustav Stickley, the Rookwood Pottery, and William Morris. The conversion of billiard room into library was done by Randall



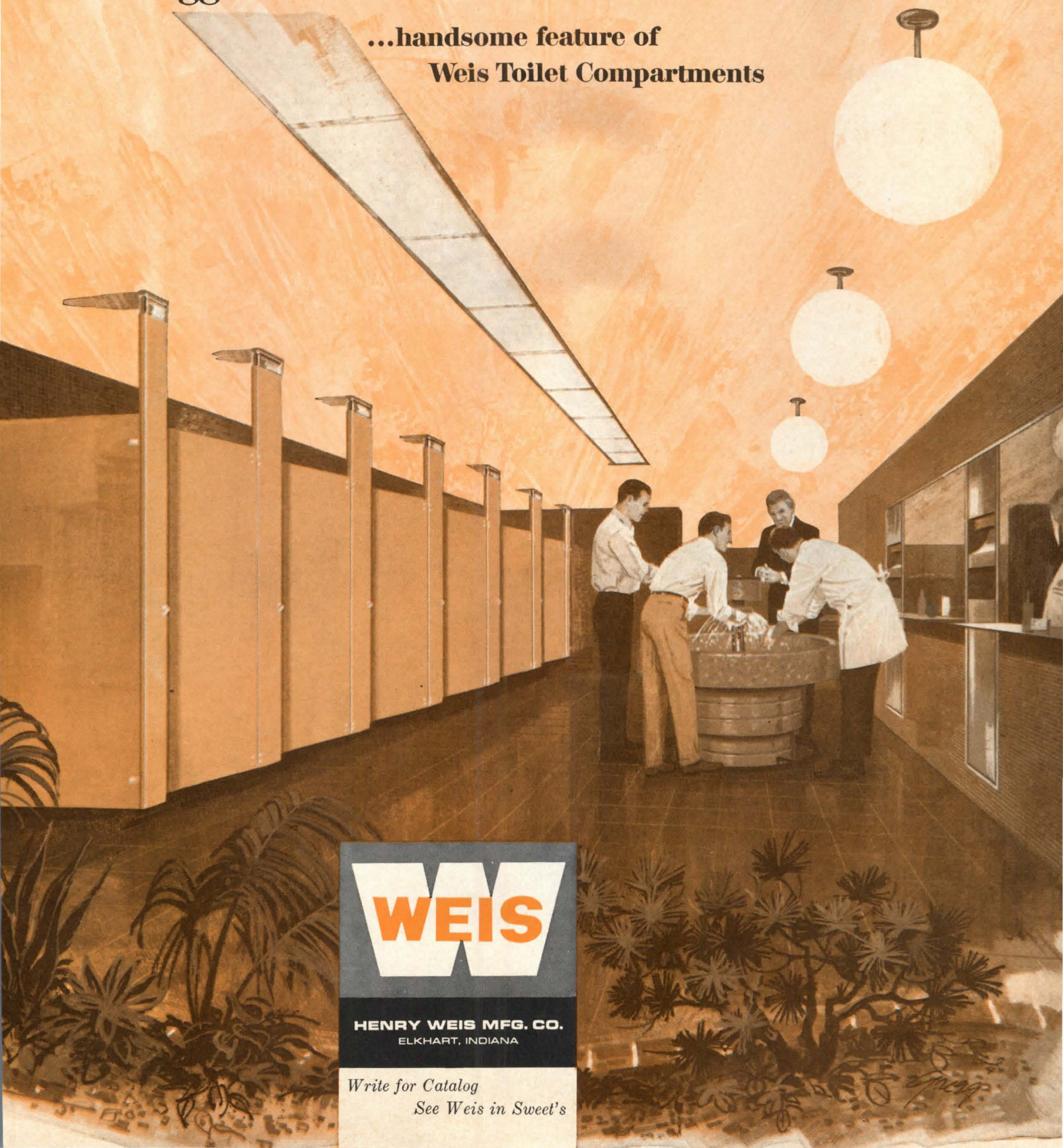
The Gamble House.



Solid brass plus the added protection of brilliant chromium plate. The latch, which offers the lift-free emergency access feature, is recessed within the door. The stainless steel bolt automatically retracts if the door is slammed.

The ruggedness of **SOLID BRASS HARDWARE**

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WEIS

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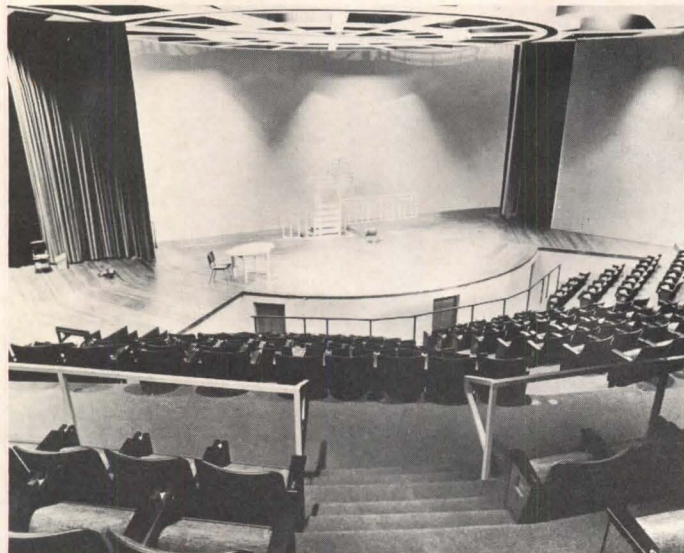
*Write for Catalog
See Weis in Sweet's*

L. Makinson, Curator of the library and member of the USC School of Architecture staff. He is currently writing a book on Greene & Greene, on the completion of which his files will become part of the library. Other additions to the collection are coming in regularly, according to spokesmen, from family members and local residents who unearth blueprints, photos, slide, letters, and other material.



Greene & Greene Library.

STAGE MECHANICS ARE THE THING

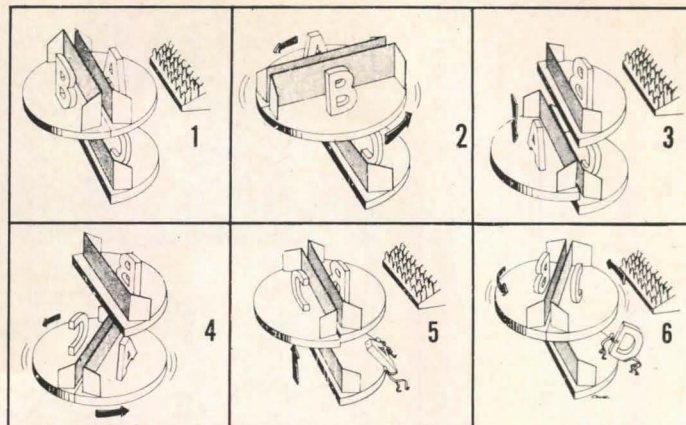


BIRMINGHAM, ALA. Architect John E. Davis of Warren, Knight & Davis thinks his recently opened theater on the campus of Birmingham-Southern College may be able to operate for several years without using the same seating configuration twice. Although that kind of scope may not be required, the \$1,300,000 theater Davis designed does seem to have a remarkable degree of flexibility. Theater expert Harold Burris-Meyer calls it "the most flexible of any I know."

Lending it flexibility are a host of mechanical gadgets: traps, discs, a sinking and rising stage, and hydraulically movable rows of seats. At the push of a button, the stage manager can vary the seating to accommodate as many as 400 or as few as 200. And he can operate what is called a split-revolve-lift stage that permits three different stage settings to be constantly ready for presentation. It operates like this (see diagram): When scene A is over, scene B, located on the disc behind it, rotates toward the

audience. Scene A is lowered to the basement to become part of another turntable on a lower level. This lower turntable is rotated so that Scene C is in position to be raised behind Scene B, while the setting on Scene A is changed. Scene C is raised behind Scene B and rotates in place, facing the audience to complete the cycle.

The gadgetry is perhaps out of proportion to the hall's 400-seat capacity. But because the stage mechanism operates from below rather than from above (half of the theater's

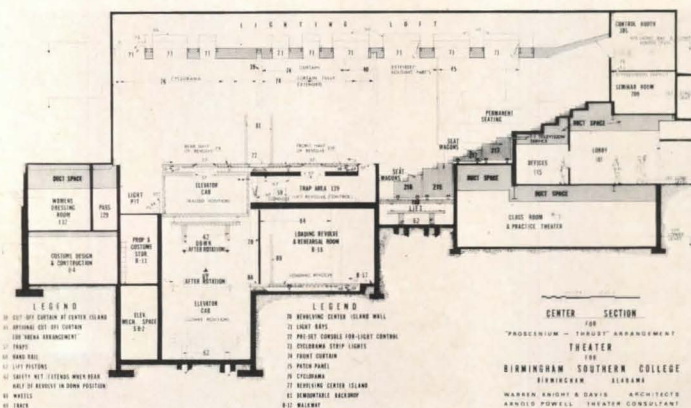


seven stories are below ground), the designers have eliminated both the fly loft and the proscenium arch from the circular glass and aggregate building. Dr. Arnold F. Powell, Birmingham-Southern's drama director, who contributed significantly to the theater's design, feels that their presence "tends to shut the audience out, to discourage a feeling of immediate participation in the play." What the theater has is an intimate capacity that can be varied to allow many seating and stage arrangements, including some not yet tried.

Its very flexibility and mechanical versatility may work against it. In another highly intricate theater, Lincoln Center's Vivian Beaumont, the mechanization has proved

more than directors and actors could cope with easily; it lay dormant for the most part, at least during the first two seasons, while the directors relied on traditional stagings.

Perhaps Dr. Powell and his group at Birmingham-Southern will produce experienced theater folk conversant with the mechanics of an intricate stage. Certainly, a college environment is more conducive to experimentation and diversity than is a big city and its environs. As its first production, the theater at Birmingham-Southern College performed Brecht's *Caucasian Chalk Circle*, a play that proved remarkably adaptable to the intricate mechanics of the Vivian Beaumont in New York.

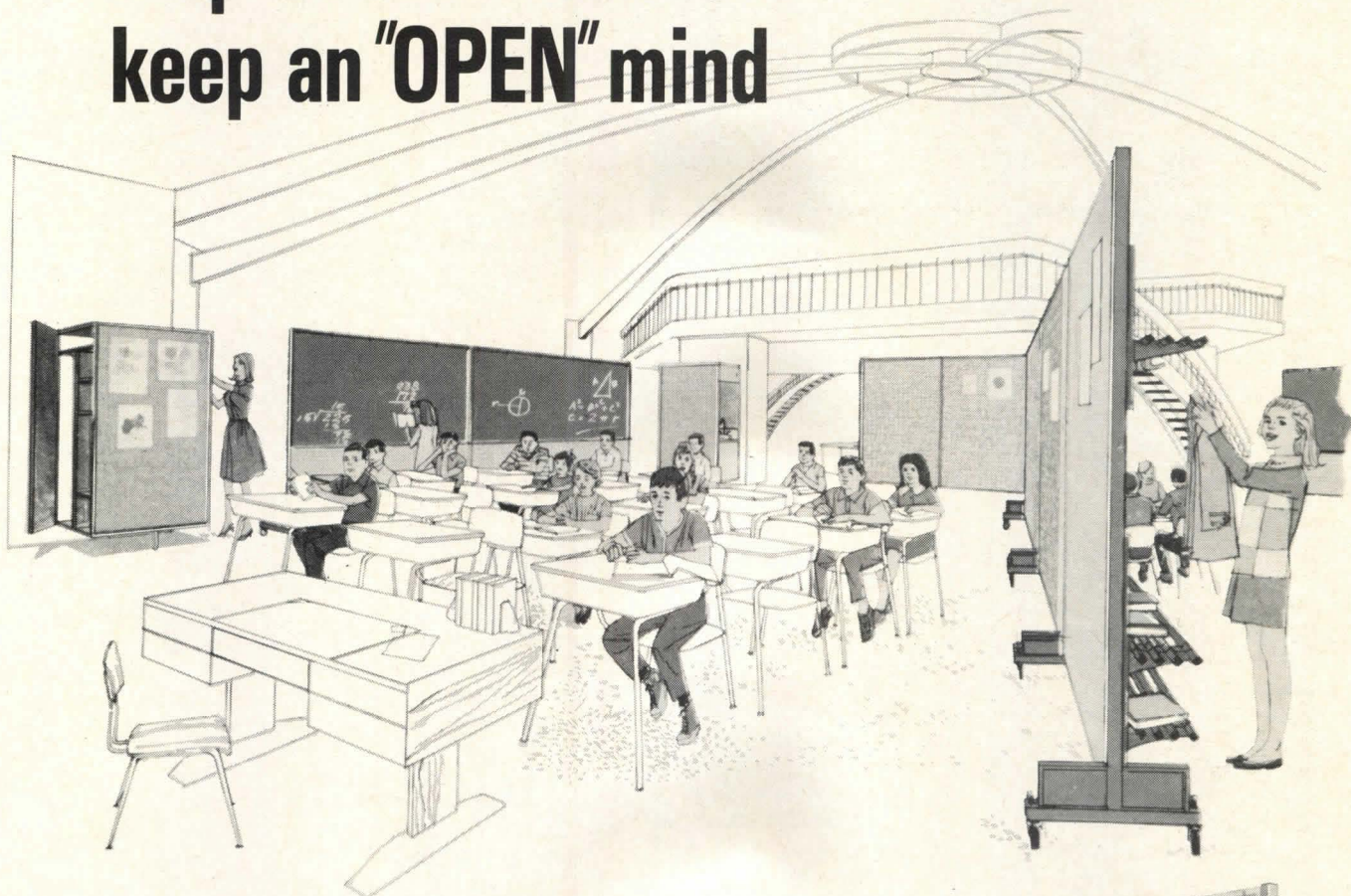


SCHOOLS

The University of Washington (Seattle) has approved a program of study that will lead to the degree of Doctor of Philosophy in Urban Planning. The program, which was developed to help fill the need for college-level teachers in the field, is expected to take two to four years to complete, depending on the individual student's background. The

university has also announced appointment of Donald C. Royce, associate professor of architecture, as director of the Urban Research and Design Center of the School of Architecture . . . François Claude Vigier, whose work in city planning includes designs for Boston's Government Center, has become Professor of City Planning at Harvard.

Vogel-Peterson RDF's help School Planners keep an "OPEN" mind

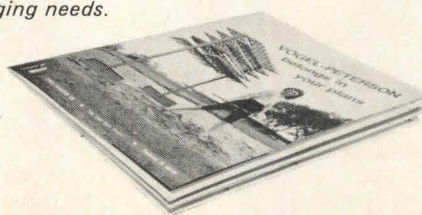
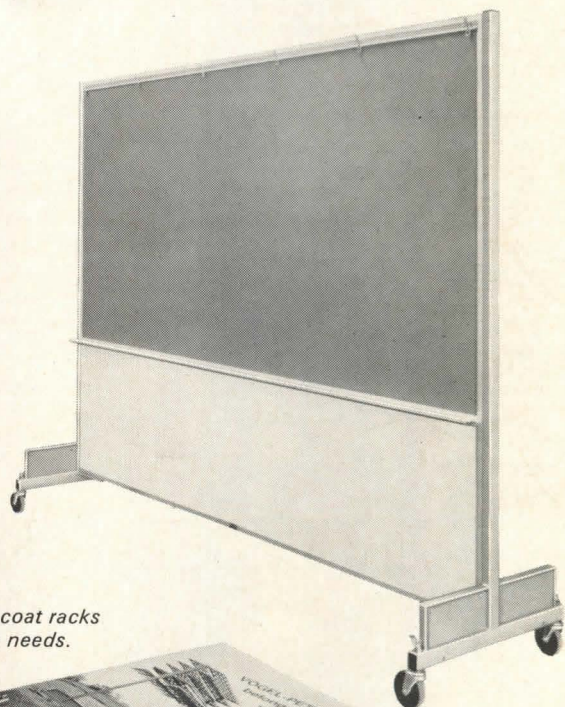


One moment they're handsome wardrobe racks, chalkboards or tackboards . . . a few seconds later they've converted an open plan school room into efficiently arranged classrooms to accommodate any size class or teaching requirement! Trust Vogel-Peterson to bring you the room-making magic of dual purpose RDF (Schooline Room Divider Wardrobes) . . . 6 or 8 feet long sections that move silently and effortlessly on large rubber-tired casters . . . sturdily made, beautifully detailed and finished in colors that complement the most modern decor. Have them in any combination you wish—tackboard both sides, chalkboard both sides, or tackboard/chalkboard combination or tackboard side can be accessorized with wardrobe racks and book or boot shelves. School planners welcome their versatility . . . teachers like their efficiency and kids can't hurt them. Look into these versatile units—they're designed with you in mind.

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GRAND OPERA IN THE SAGEBRUSH

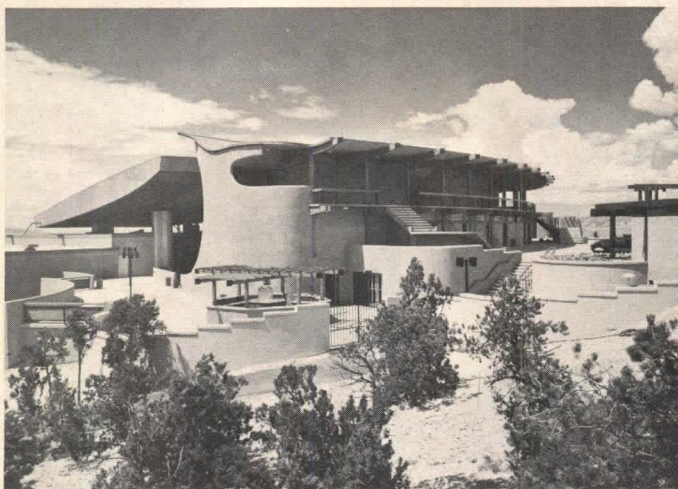


Photo: Alan Stoker

SANTA FE, N.M. Like England with its Glyndebourne and Germany with its Bayreuth, America has an important summer opera festival, but the landscape surrounding the summertime Mecca of American opera-lovers is like nothing on the European continent. This past season, audiences awaiting performances of such old chestnuts as *Madame Butterfly* or *La Traviata* or one of the progressive Santa Fe Opera Company's premier productions of works by Paul Hindemith or Hans Werner Henze could gaze through the opening at the back of a brand new stage across the semi-arid valley of the Rio Grande and the sage-covered Sangre de Cristo hills to the lights of Los Alamos 30 miles away.

The new 56'-wide stage is only one feature of the new open-air theater designed by architects McHugh & Kidder, who were also responsible for the opera's former quarters, an 11-year-old building that burned to the ground just 16

months ago (see p. 53, APRIL 1968 P/A). Immediately after the fire, John Crosby, the company's director, announced that he would have a new and better theater operating on the same site in time for the next season, and, within a few days, bulldozers were crawling over the site. When the 1968 season opened, the company was performing in a 3,666-seat theater whose curvilinear masonry surfaces have an appropriately Spanish quality.

Backstage, 41,450 sq ft of space are divided into a three-story complex at stage right for dressing rooms, costume shops, storage rooms, and scenery storage areas, and a two-story complex at stage left for carpenter shop, paint, electrical, and welding shops, and a drafting room for designers. Rehearsal rooms, music library, and instrument storage rooms are included in space backstage.

Last July, the company set a budget for new construction at \$1,750,000.



COMPETITIONS

The Ministry of Tourism and Information of the Turkish Government announces an **international competition for physical planning of a tourist village** in and around the town of Side on Turkey's Mediterranean coast. The competition is open to architects and city planners and will be judged by an international panel. For information and entry blanks, write to: Ministry of Tourism and Information, Turizm ve Tanıtma Bakanligi, Fiziksel Planlama Dairesi, Gazi Mustafa Kemal Y Bulvari No. 33, Kat 8, Ankara, Turkey . . . The Construction Specifications Institute announces openings of its **1969 Specifications Competition**. Members and nonmembers of the institute are eligible to enter; entries must be submitted by the person directly responsible for preparation of the entry. Write for further information to: CSI, 1717 Massachusetts Ave., N.W., Washington, D.C. 20036 . . . The annual competition of the New York Chapter, AIA, for the \$6000 **Brunner Scholarship Grant** is open to any U.S. citizen engaged in the architectural profession or a related field. Application forms are available from: NYC, AIA, 20 W. 40 St., New York, N.Y. 10018 . . . The S.M. Hexter Company

announces its **11th Annual "Interiors of the Year" Program**. The competition is open to all professional interior designers. Inquiries should be addressed to: The Hexter Awards Jury for the "Interiors of the Year," S.M. Hexter Company, 979 Third Ave., New York, N.Y. 10022 . . . New grants in the field of environmental design are offered to architects, planners, landscape architects, and other professional designers by the National Endowment for the Arts. For information, write to: National Endowment for the Arts, 1800 9 St., N.W., Washington, D.C. 20506.

AWARDS

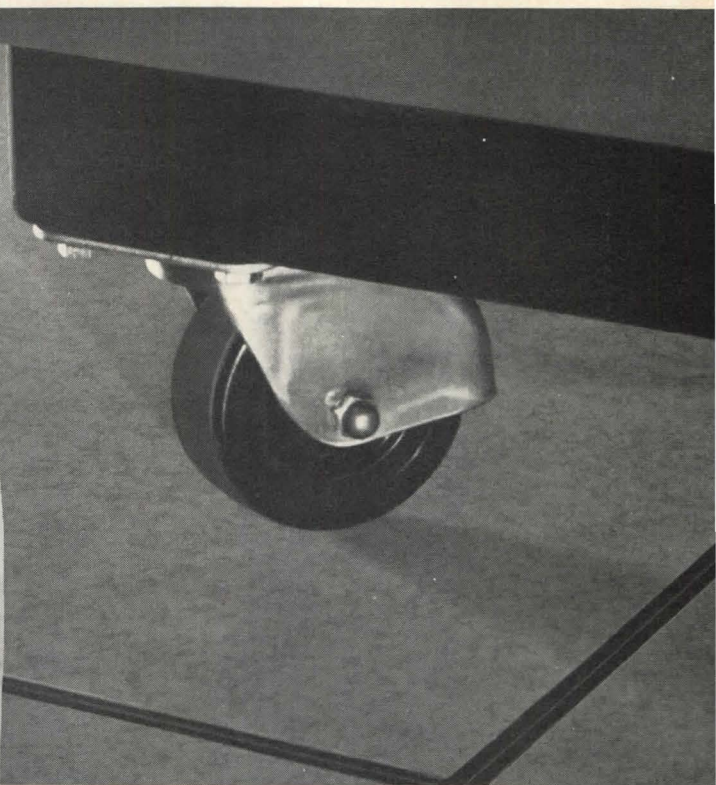
The firm of Mega L limited has won an international competition for design of a \$20-million city hall for Amsterdam, The Netherlands. The winning firm has offices in Chicago, headed by Donald D. Hanson; in San Francisco, headed by Gerald McHugh; and in Vienna, headed by Wilhelm Holzbauer. Construction of the city hall began in December . . . Utah Architect, edited by David R. Hayes, has been chosen best component AIA Publication of 1968 by a jury of architectural editors and AIA officials.

A SOARING TOUCH

BUFFALO, N.Y. Seen from this angle, the sculpture in front of the Yamasaki-designed One M&T Plaza in downtown Buffalo looks like the wings Icarus used to escape from Minos. He probably would have had as much trouble with this set as he had with

his own, for these were fashioned by Harry Bertioia from three tons of copper tubing and bronze welding rod. The sculpture is 12' wide, 18' long and 7' high, has a greenish patina, and is illuminated at night by lights shining up from the reflecting pool.





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PERSONALITIES

The Federal Republic of Germany has awarded the Distinguished Order of Merit, First Class, to German Consul and architect **Gershon Canaan** of Dallas, Tex. Canaan, a native of Berlin, came to the United States in 1947 as an apprentice of Frank Lloyd Wright. The German honor was bestowed in recognition of his achievements in strengthening cultural ties between Germany and the United States . . . **Archibald C. Rogers**, senior partner in the Baltimore architecture and planning firm of Rogers, Taliaferro, Kostitsky, Lamb, has accepted an appointment to the National Chamber of Commerce Construction Affairs Committee . . . The Boston Architectural Center has conferred an honorary membership on architect **Joseph DiStefano, Jr.**, of Boston, Mass. . . . **Melvin L. Bergheim**, formerly director of research services for the National Advisory Commission on Civil Disorders, has been named project director for Urban America, Inc., and the Potomac Institute of a study to develop strategies for racial dispersal and integration. Financed by the Field Foundation, the study will seek guidelines for achieving a racially integrated and aesthetically desirable environment . . . **James M. Fenelon**, Executive Director of the Minnesota Society of Architects, has been appointed assistant to the executive director of the AIA . . . The Hudson River Valley Commission of New York has named **Anthony E. Corkill** its planning director . . . **Adolph R. Scrimenti**, senior partner in the firm of Scrimenti, Swackhamer & Perantoni, has been elected president of the New Jersey State Board of Architects . . . The New York Association of Consulting Engineers has elected **Arthur A. Edwards** its president for a one-year term commencing September 1, 1968. Edwards heads his own consulting firm, which specializes in mechanical and electrical engineering . . . **J. Hays Smith** is the new Regional Manager of Technical Services for the Southern Pine Association in Virginia, Maryland, and Delaware . . . During the coming year, **Robert Bolling** will serve as presi-

dent of the Southern California Chapter, AIA. **Howard Van Heuklyn** is vice-president.

WASHINGTON/ FINANCIAL NEWS

by E. E. HALMOS, JR.

Anticipating Nixon — Official Washington looked to 1969 with more than the usual uncertainty and anticipation. The new year brings, of course, a new Administration and added to the normal speculation about the year ahead was speculation as to what special changes the Nixon forces might shape.

General conclusion for the construction industry: 1969 will be better than 1968, but not a great deal.

Economists spread their predictions of dollar-volume gain for the industry over a range of from 3 to 10%, with most opinion tending toward the smaller end of that scale. On top of an estimated \$85 billion volume for 1968, of course, even that would be a record-topping year.

There was also considerable optimism that the sharp rate of inflation (about 7% a year) might be cut somewhat this year, which would mean less pressure for wages and on prices, and thus a greater physical volume of work.

The reasoning behind this conclusion was clear enough:

■ A period of relative stability is obviously in the offing, as the new Administration moves with great caution on Government spending and tries to put heavier emphasis on the private sector.

■ President Nixon can have effective control of Congress, even though his party is numerically in the minority, simply because a Republican-Conservative coalition has effectively run Congress anyway over the past two years or so. Although the Democrats in control of the committees could move to embarrass the new President, there doesn't seem much point in it, from a political viewpoint, this year. However, the Nixon moves will have to stay on the conservative side, to keep good relations with an obviously conservative-leaning legislative body.

■ Government spending for construction will show a small drop this year as the effects of budget-cutting and other battles in 1968 take effect. The private sector will show some gain, but it won't be of spectacular proportions. Helping the private sector will be a lessening of Government borrowing, which, economists think, will tend to ease otherwise very tight money markets for housing, office, and other private work.

■ Attempts to bring some order out of the proliferation of Government agency functions (as one means of holding down spending); plus hoped-for changes in direction in the Labor Department, the National Labor Relations Board, equal-opportunity employment agencies and the like, may ease some of the overbalance that many in the construction industry feel has been established in favor of restrictive labor practices, thus easing the steady upward pressure of wage demands.

The exact outlines of the Nixon fiscal policies won't be apparent until after he has taken office and has submitted his own budget, or revisions of the budget that President Johnson was required to submit before he left the White House. But the industry is mindful of the sad fact that construction is one of the few places where any President can do much real cutting; nearly every other item in the \$200 billion Government spending program is fixed by law. President Nixon has put himself on record as opposed to any tampering with such matters as the huge Highway Trust Fund, or attempts at quick shut-downs or start-ups of construction projects. Hence, the belief that what's under way or committed will be left alone, but not much new added.

Timebombs and Other Questions — President Nixon will have to step carefully, too, among a lot of small timebombs left about by outgoing bureaucrats: The potentially disastrous proposals for a series of hearings on new highway planning (which were at least forced to public hearings by a mass of protest); some of the rulings of employment-opportunity groups; to say nothing of proposals like HEW's suggestion that

relief recipients be able to state their needs and have them accepted without formal investigation.

To be specific, however, on the forecasts: The respected statisticians of the Commerce Department's Business and Defense Services Administration expect a "sizable rise" in the private construction center, with the principal strength reflecting strong recovery in the residential area; Federal construction spending to drop slightly; outlays for business and commercial building to rise slightly; spending for state and municipal governments to continue at a steady — and slightly rising — pace.

Significantly, BDSA thinks that construction costs will continue to rise, but at a slower rate. (It went up by about 13% in Fiscal Year 1966-67, according to the Census Bureau.)

While awaiting the change of command at the top, Washington was the scene of a half-dozen conferences attempting to probe the ills of the construction industry, ranging from a general discussion sponsored by the U.S. Chamber of Commerce, to a specific conference on "seasonality" sponsored by the Associated General Contractors.

All of the sessions quickly developed the fact that there are more questions than answers, that labor and labor relations remain the key problem, in any area of the industry.

Discussing "winter construction," many participants wondered whether there was any real advantage in "doing in 12 months what we now do in eight." In all cases, there was one big item of agreement: nobody, including the Federal Government, has enough reliable facts on the industry.

Among other meetings — though the effect was diluted by the probable change in many policies — was one sponsored by the Highway Research Board, concerning multiple use of highway rights-of-way. Again, the participants had to agree that the idea is good, but nobody knows even a major part of the ramifications of such plans. The effect on neighborhoods, whole urban environments — to say nothing of costs — can be conjectured. But there are few solid facts.



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PRODUCTS

ACOUSTICS

Sound insulation. Safetone Boucle Acoustiform lay-in ceiling panels are available in two variations: nonperforated, and pin-perforated. Both are medium-density panels, but the nonperforated panel has a noise-reduction coefficient of .25, whereas the perforated type has a coefficient of .70. Both have an embossed vinyl film facing, with nominal sizes of $\frac{3}{4}$ " x 24" x 24", and $\frac{3}{4}$ " x 24" x 48". Celotex Corp., 1500N. Dale Mabry, Tampa, Fla. 33607.

Circle 101, Readers' Service Card

Loose fill temperature/noise control. Fabricated of a cellulose fiber that is chemically treated to refine it for residential and commercial use, "Hush" acoustical insulation is said to be particularly effective in multiple-dwellings, offices, medical centers, and motels. Lightweight and fine grained, "Hush" may be blown into areas where flow type insulations are impractical. Moreover, it can be blown into sidewall cavities in excess of its own specific density; when properly installed, it is guaranteed never to settle. Hagan Mfg. Co., Delphos, Ohio.

Circle 102, Readers' Service Card

CONSTRUCTION



Parceling space. Flexibility for temporary or permanent office partitioning is reported to be the distinct advantage of C/S Spacettors. Spacetter construction combines bronzed aluminum structural members with natural wood paneling. Post-to-ceiling connectors are designed to adapt to various ceiling

types without fasteners, and permit easy installation and rearrangement. C/S Gripads prevent damage to floor surfaces. Glass or other enclosures may be added above standard wood panels. Construction Specialties, Inc., 55 Winans Ave., Cranford, N.J. 07016.

Circle 103, Readers' Service Card

Component ceiling suspension. An aluminum, roll-formed ceiling system, the 830 Series is created for use in exterior or high humidity areas. It is said to be well suited for use with asbestos or ceramic ceiling panels. Available in a white enamel or natural aluminum finish, the 830 Series uses three basic components: main runner, cross tee, and wall angle. Components have slots and interlocking ends to facilitate assembly and to prevent lateral pullout. Chicago Metallic Corp., 4849 So. Austin Ave., Chicago, Ill. 60638.

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DOORS/WINDOWS

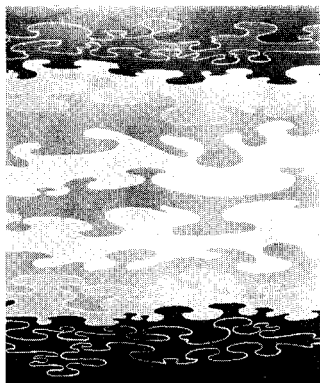
Hinging saddles. Hinged door saddles for commercial and industrial weatherstripping are said to offer a new flexibility. Interchangeable extension members in various widths may meet all installation conditions. Saddles feature self-leveling pivoted extension members to accommodate variations in floor and sill. Offered in 10 different models, the sectional saddles are fabricated of bronze or aluminum to fit exterior doors opening in or out, French doors, and for various exposure conditions. Accurate Metal Weatherstrip Co., Inc., Mount Vernon, N.Y.

Circle 105, Readers' Service Card

A new angle. "E-Z Tilt," a new double-hung window with heavy, insulating extruded vinyl jamb liners, swings open with a light pull to either sash, putting the outside face of the glass at a convenient height for cleaning; sash may also be removed for reglazing or painting. Available in a broad range of sizes with either single glaze or insulated glass.

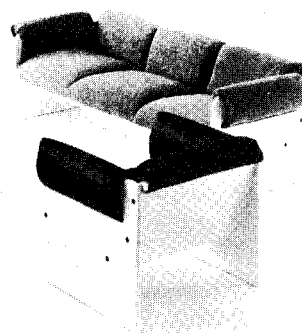
May be used with decorator grille inserts. Marvin Windows, Warroad, Minn. 56763. Circle 106, Readers' Service Card

FURNISHINGS



2001-inspired "Moonscape," one of a collection of wall coverings and companion fabrics by Joseph Braswell, is available in nine colors and may be used with several of the group's other designs. All may be printed on vinyl, and can be specially printed to color; also, white ground and color pattern may be reversed. A number of patterns have been printed on foil to permit viewers to look beyond design. This collection's fabrics have also been used in the creation of a new line of dresses by designer FonTayne. I.D. Fabrics, Inc., 979 3rd Ave., New York, N.Y.

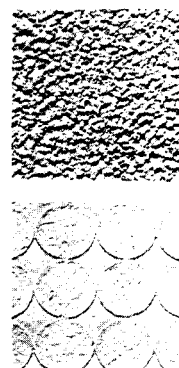
Circle 107, Readers' Service Card



Lounge group. From the Muller and Stewart design firm in Canada comes the "Image" lounge furniture, which won the 1968 Best of Show Canadian Eedee Award. Constructed of 1" thick 19 ply birch, the frames have a lacquered finish, with a choice of clear, red, blue, yellow, olive, or black. Wrap-around cushions for the group are in two pieces, for easy removal, and are secured to seat, back, and

arms with Velcro tape; they are made of Fortrel and foam rubber. Coverings available include leather, vinyl, corduroy, or any of Georg Jensen's wools. Suitable for commercial and residential interiors, the furniture is said to be easily assembled and inexpensive; the removable upholstery encourages multiple sets. In addition to the chair and sofa pictured, a two-seat sofa is also available, as well as end and coffee tables with glass tops. Georg Jensen Inc., 979 Third Ave., New York, N.Y. 10021.

Circle 108, Readers' Service Card



Grecian background. Two of the architectural pattern additions to the Vicretex line of vinyl wall coverings are the Alpha and Omega textural designs. With a choice of 36 colors, the textures are intended to provide a subtle background for modern interiors. They are said to resist water, soil, stain and flame. L. E. Carpenter & Co., Empire State Building, New York, N.Y. 10001.

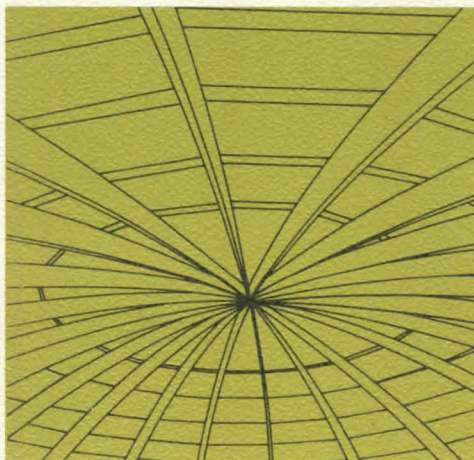
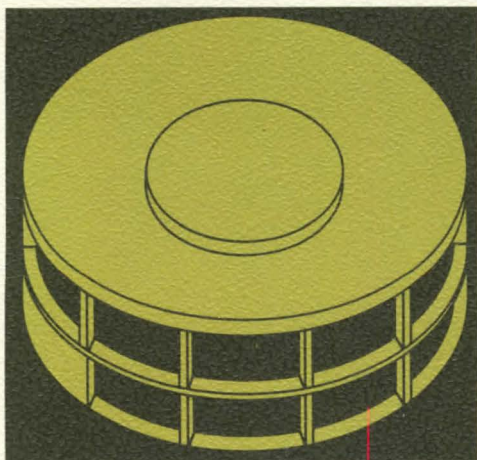
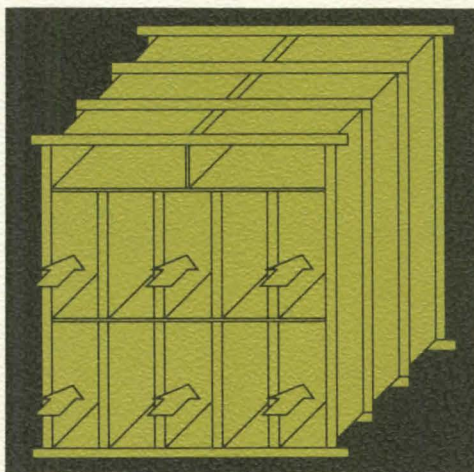
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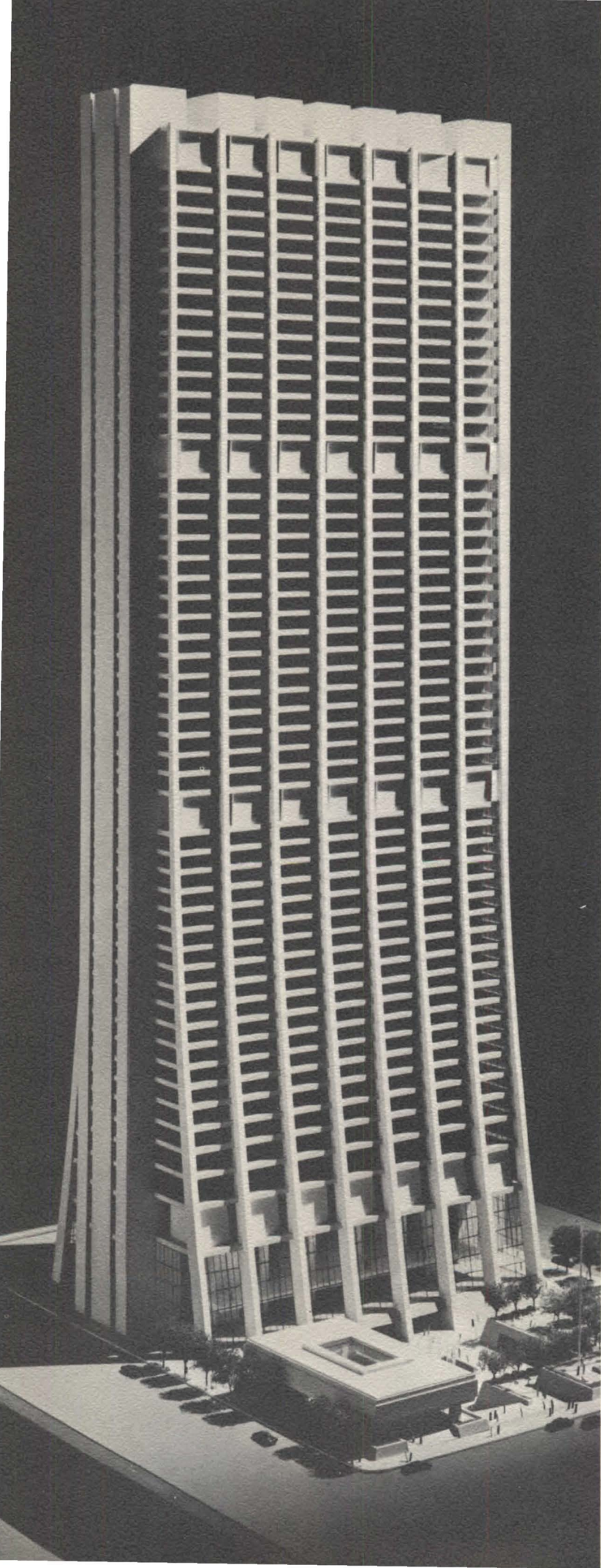
Nylon fiber carpet. Texama 100% nylon carpet is said to be durable enough for use in commercial, school, hospital, and other public buildings in addition to its residential applications. Its nylon fiber is specially engineered for contract use, and is tightly spun into a reputedly dense, low-profile pile. A high density whipped latex foam applied to the pile, then heat cured and bonded for long wear. Texama is available in 60' widths, and in as many colors as there are applications. It is said to be stain- and moisture-resistant. Glenoit-Dobbie, Inc., 111 W. 40th St., New York, N.Y. 10018.

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Design Ideas 1969

On the following pages you'll see 3 specific examples of how Koppers building products have helped architects and engineers obtain greater latitude of design and save money for clients. These Koppers products are either permanent in themselves, or give permanence to other materials.





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As high rise office buildings have become taller, sleeker with more and more square feet of space, they also have become noisier. And the greater number of fans required to move air to heat, ventilate and cool large buildings can be a serious noise problem.

Not so in the 2.2 million square feet First National Bank Building in the Chicago Loop, being occupied in January. A big step toward elimination of fan noise is through sound attenuators built into the duct system, and sound-absorbing panel enclosures around the fans themselves. Koppers supplied *both*.

Two-hundred and eight sound attenuators are located on the four mechanical floors that service the 60-story building. Placing mechanical systems on the 3rd, 23rd, 40th, and 58th floors, rather than in the basement or in a penthouse, achieves more efficient air handling.

All 50 fan systems are enclosed in Soundmetal® panels, which offer sound control as well as thermal characteristics. Each fan system handles about 50,000 cubic feet of air per minute, moving at a velocity of 500 feet per minute. Mean temperature in the building is kept at 75° year-round through a system that automatically mixes hot and cool air.

Koppers Aircoustat® sound traps and Soundmetal panel plenums were designed into the air handling system to obtain a noise criteria of NC-35. This means the noise level in the areas being served by the air handling system will be approximately 35 decibels in the predominate speech interference frequency.

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A Koppers sound attenuator in the supply system is examined. Its unique design guarantees noise reduction with minimum air pressure drop.

The curved-design, granite-faced First National Bank of Chicago, built on the site of the former bank, provides large ground floor space for Savings Department and other facilities.

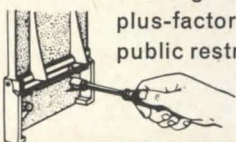
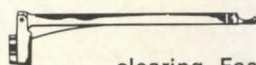
Architects: C. F. Murphy Associates and The Perkins & Will Partnership, Chicago, Ill.



NEW... a handy PULLDOWN SHELF

for restroom booths

A safe place for purses, gloves, packages, hats, coats and briefcases. Sturdily built of Zamac. Attractive chrome and satin stipple finish. Self-clearing. Easily installed with just 2 bolts. A plus-factor in any building you design with public restroom facilities. Send for free specifications, price lists and installation instructions.

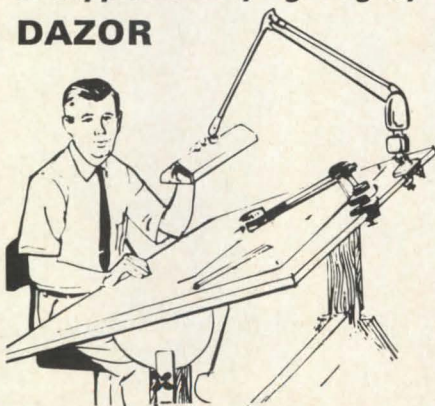


The NIK-O-LOK Company 422 E. New York Street
Indianapolis, Ind. 46202

On Readers' Service Card, Circle No. 386

D
A
Z
O
R

The advantages of supplementary lighting by DAZOR



Being a Draftsman, I know!

Is there perfect general overhead lighting? Usually there is too little light at the working area... often it's over brightness, causing glare. With a Dazor Floating Lamp the reflector can be moved closer for more light, away for less, tilted to prevent glare. Ask your local supplier or write Dazor Manufacturing Corp., 4455-99 Duncan Avenue, St. Louis, Missouri 63110.

On Readers' Service Card, Circle No. 335

Pentel

PENCILS—always found in the "Best Circles"!

0.5mm 12 LEAD

AUTOMATIC CONTINUOUS FEED

"CPA Sharp 5"

*CONSTANT POINT ALWAYS
**MECHANICAL
PENCIL**

\$2.98

Individually
Boxed

TOP
LOAD
PUSH
BUTTON



ERASER
UNDER
CAP

12 LEAD CONTINUOUS FEED MECHANICAL PENCIL

GRAPH

Perfect for fine line
reproduction

0.5mm (.020")

Refill leads for
CPA Sharp 5 &
Graph Pencil
H-HB-2H-4H

50¢ package of 12

\$4

Individually
Boxed

Pentel OF AMERICA, LTD.

333 N. MICHIGAN AVE. CHICAGO, ILL. 60601

PLEASE SEND THE FOLLOWING:

____ CPA Sharp 5 @ \$2.98

____ Graph Pencil @ \$4

Pentel Refill Leads 50c Pkg. of 12

☐ HB ☐ H ☐ 2H ☐ 4H

TOTAL \$_____

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

PA-169

On Readers' Service Card, Circle No. 382



"Ambiente." Introduced by Timo Sarpaneva (of Finland) in association with Jack Lenor Larsen, Ambiente is the title not only of this new cotton satin collection, but also of the new textile printing process that produced it. Although the process remains secret, the manufacturer claims that it eliminates printing by roll or screen, and that both design and color are printed through the fabric so that there is neither front nor back side. This is expected to open many possibilities for the designer in upholstery and drapery uses, or as window shades and

vertical blinds, where the cloths are said to "candle" Laminates, as well as heavy vinyl versions of the cloth, will soon be available. Intended to create atmospheric environs, the original patterns are varied in scale, with colors flowing in "rainbow" fashion in brilliant fields. Jack Lenor Larsen, Inc., 41 E. 11th St., New York, N.Y. 10003.

Circle 111, Readers' Service Card

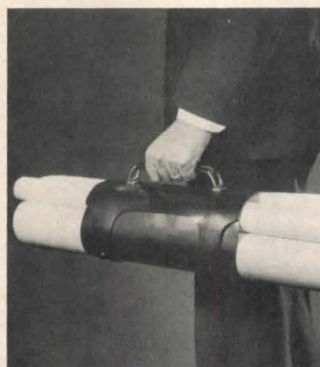
INSULATION

Flex and muscle insulation. Closed-cell Armaflex insulation is said to allow maximum thermal efficiency with a comparatively thin insulation layer. A foamed plastic, Armaflex is reputed to maintain a K value of 0.27 at 75 F mean temperature. Non-deteriorating, it is said that surface cuts and adverse weather conditions will not affect its built-in vapor barrier. For use on plumbing, hot water heating, dual-temperature, air-conditioning and refrigeration systems, Armaflex may be slipped

directly onto piping; pre-cut sheets, mitered pieces, and filling covers are available. Armstrong, Industry Products Div., Lancaster, Pa. 17604.

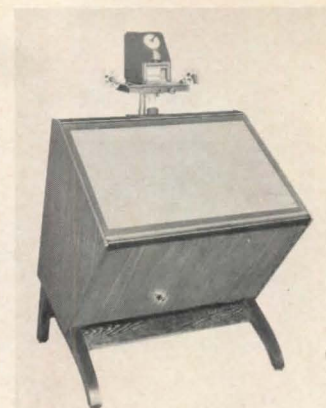
Circle 112, Readers' Service Card

OFFICE EQUIPMENT



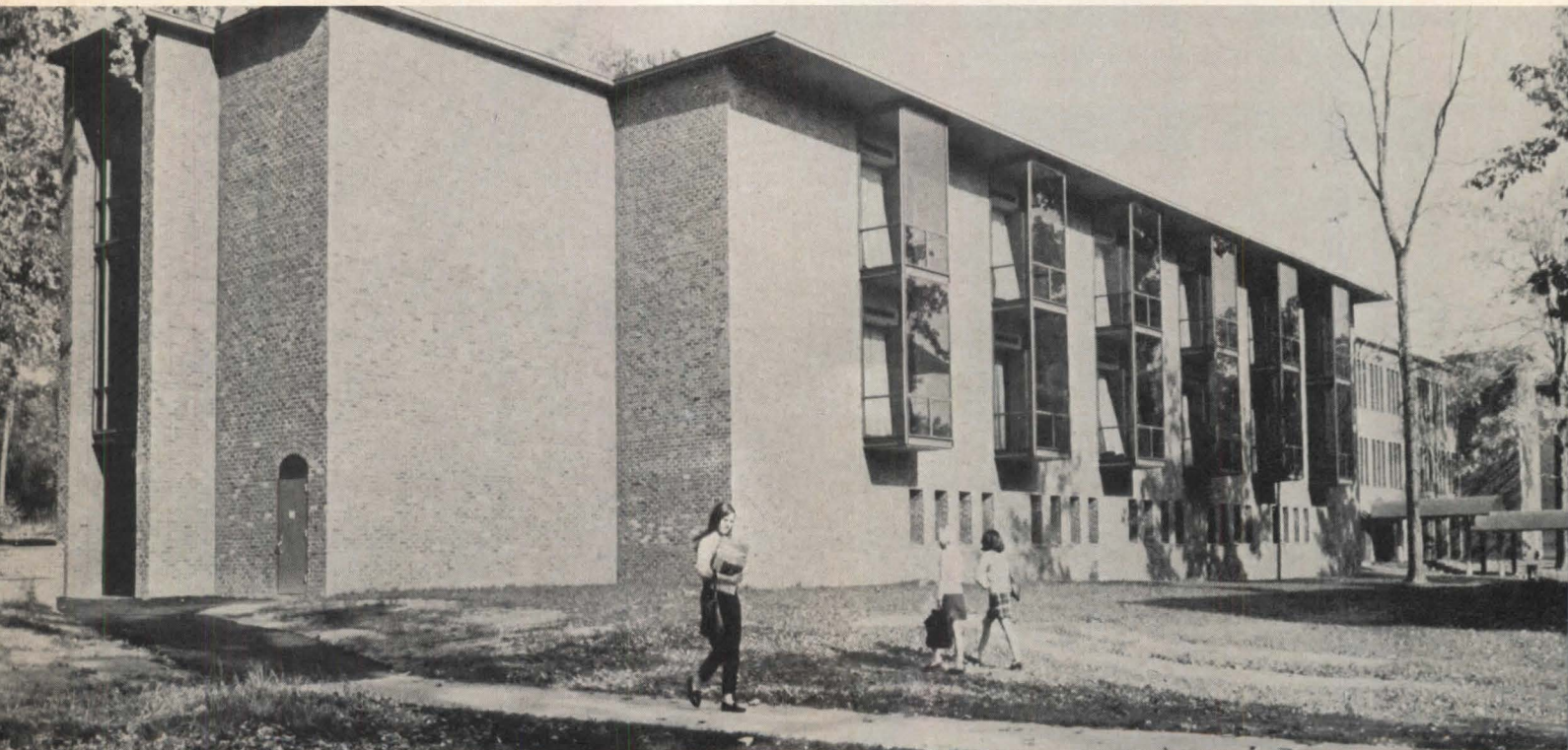
Travel plans. Transporting rolled drawings is said to be made more efficient in a Plan Case, a leather carrying case that is secured with Velcro fasteners. The Plan Case can hold drawing rolls from 1½" to 6" in diam. Black only. Ross Productions, 172 E. 75th St., New York, N.Y. 10021.

Circle 113, Readers' Service Card



Wide-screen viewing. The Pamtek Model 900 microfilm reader is said to produce print from positive or negative microfilm, microfiche, roll film, or aperture cards. Its rear projection, 24" x 36" screen is large enough to show drawings to full scale. Unit features a single control knob for X-Y positioning; cabinet may be adjusted to either desk height or drafting board height. Pamtek Mfg., Inc., 4221 Hollis, Oakland, Calif. 94608.

Circle 114, Readers' Service Card



Vogue Victorian with Therm-O-Proof insulating glass.

The old world meets the new.

Saratoga Springs, N. Y. is known for Victorian architecture.

A Victorian feature—bay windows—is expressed in modern terms in this new Charles A. Dana Science Center, Skidmore College, Saratoga Springs, designed by architects Ford, O'Neil Associates.

The bay windows are used by students in adjacent classrooms to "step-out" and

experience the outdoor surroundings. A "floating feeling" is created by the total glass area on three sides. Thermoproof fabricated the narrow, vertical insulating glass units using ¼" plate and ¼" gray plate for heat and light control, and a ½" air space.

Therm-O-Proof insulating glass—made more ways to fit more ideas.

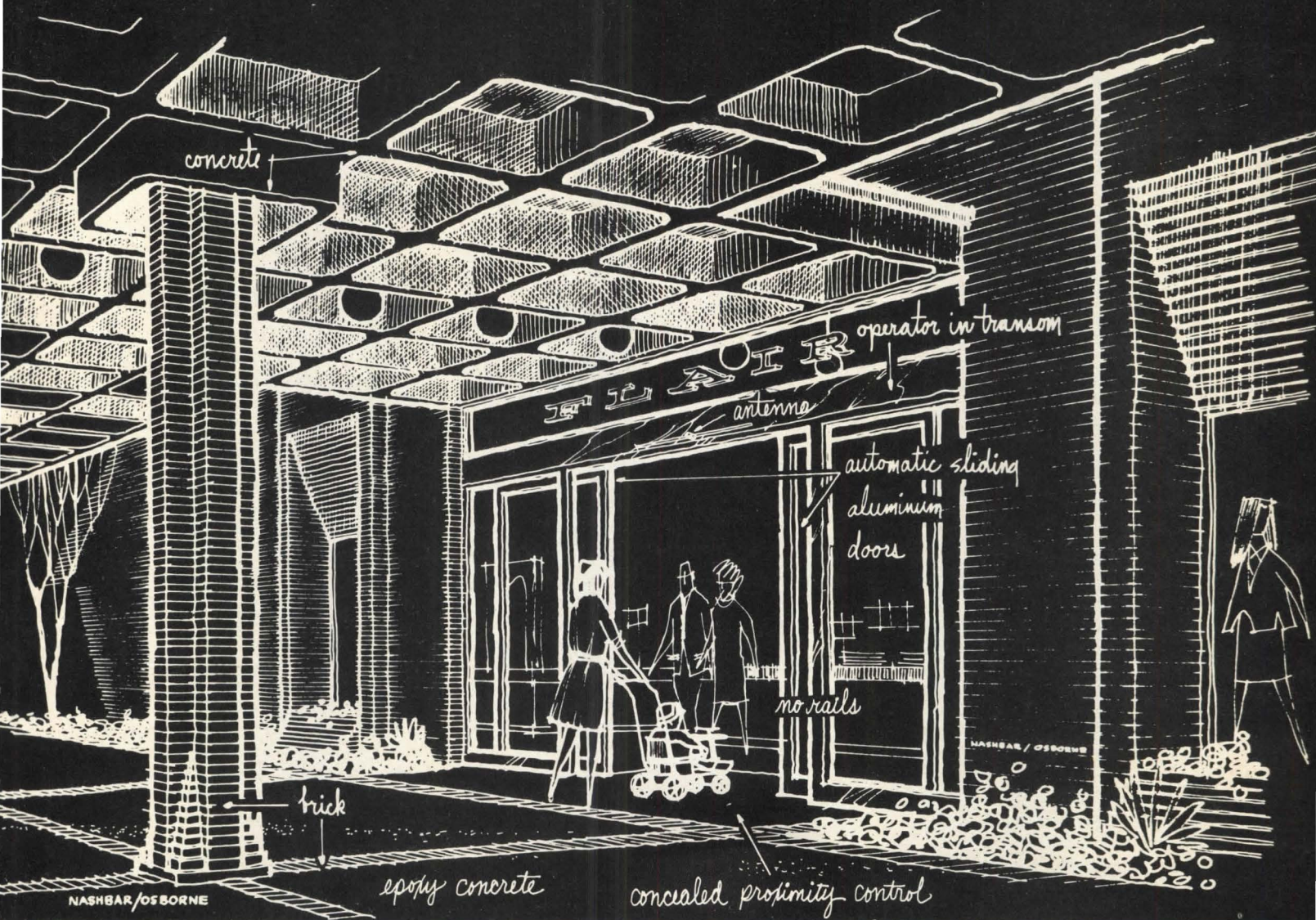
On Readers' Service Card, Circle No. 370

Full color insert
in Sweets $\frac{4a}{Th}$

Insulating glass by
Thermoproof Glass Company
subsidiary of Shatterproof
Glass Corporation
4815 Cabot Avenue
Detroit, Michigan 48210



Automatic entrances for department stores shouldn't be seen or heard.



For openers, ask Stanley.

If your idea of an automatic entrance is what you see at your local supermarket, you should see our newest ideas.

We've reinvented the automatic entrance. Our latest models don't look or sound like door operating equipment. In fact they don't look or sound like anything except nice, contemporary doors. The only thing that's visible is a tiny antenna over the door and it's just barely.

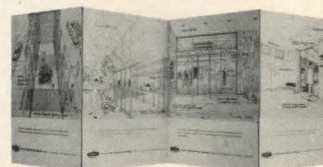
There's no exposed carpet. You can use a wide variety of flooring materials in the entrance to suit your design. The bi-parting doors slide open silently for easy two-way traffic. An electronic signal does it. There aren't even any guard rails. Nothing to spoil the design. So now there's nothing to stop you from opening up your designs with automatic entrances.

All you have to remember is Stanley. We're the only people who make all these nothings. Including the biggest nothing of all — the invisible air curtain. And we're all over the place. See Sweet's or the Yellow Pages for nearest distributor. Or write for our design idea folder.

On Readers' Service Card, Circle No. 367

STANLEY

The automatic industrial door, garage door and store door people



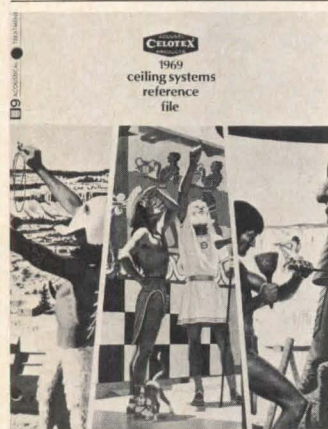
Door Operating Equipment Division
Farmington, Connecticut 06032

MFRS' DATA

ACOUSTICS

No-break sound barrier. Acoustilead plenum barriers are said to block sound traveling from one room to another via a plenum above the ceiling. Malleable, and thus easily fitted around pipes and ducts, Acoustilead is also said to be easily cut, taped, and formed; it may also be cemented. Data includes an attenuation chart, general specs, installation procedures, joint and sealing details. Brochure. 4 pages. Federated Metals Div., American Smelting & Refining Co., 150 St. Charles St., Newark, N.J.

Circle 200, Readers' Service Card



Overhead acoustics. The Acoustical Ceiling Systems reference file for 1969 catalogues nine distinct ceiling systems, plus complementary lighting systems. System types include ceramic panel, fissured and perforated tiles, medium- and high-density lay-in panels, cellulose fiber tiles, and cement asbestos panels. Performance data is profuse; it includes specs, conditions, materials and installation instructions. Catalog. 37 pages. Celotex Corp., 1500 No. Dale Mabry, Tampa, Fla., 33607.

Circle 201, Readers' Service Card

AIR/TEMPERATURE

Machine-oriented environments. Designed to provide filtered and tempered air for computer environments, EDP control systems units are said to regulate precisely air temperature and flow. Illustrated are details of the mechanical system and its many available exterior finishes. Data also in-



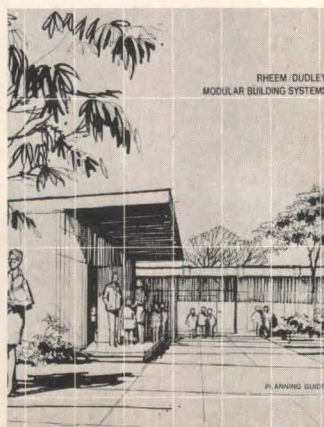
cludes specs for water-cooled units. Other products briefly described are: Spacemaker Partitions, movable, modular partitions for computer and other office areas; Elaflor, an elevated flooring system; ventilating grilles, dampers, and computer room accessories. Brochure. 4 pages. Liskey Aluminum, Inc., Box 580, Glen Burnie, Md. 21061.

Circle 202, Readers' Service Card

Selecting effective louvers. Engineering manual purports to have consolidated all louver performance data to facilitate selection by architects and engineers. Index to 21 louvers illustrates each type. Detailed information for each contains: blade design, dimension, and angle; sample conditions with appropriate solutions; size factor correlating charts; features and limitations. Catalog. 34 pages. Airstream Products Co., 3701-55 Sepviva St., Philadelphia, Pa. 19137.

Circle 203, Readers' Service Card

CONSTRUCTION



Mobile, modular building systems. Essentially a system of

modular shells, the MBS system features a steel structural frame that is independent of the walls, and is therefore said to allow maximum design flexibility. Individual modules are 10' x 32', and accommodate a 9' ceiling; over-all height is 11' from the finish floor. Planning guide is particularly useful for school buildings: It contains design criteria, structural and architectural variations, insulation data, air distribution and ceiling system. 14 pages. Rheem/Dudley Buildings, 14001 S. Garfield Ave., Paramount, Calif. 90723.

Circle 204, Readers' Service Card



Selecting wood products. Entire range of manufacturer's forest products are catalogued by use. A product "use" selector pinpoints product that is best suited for a particular building or industrial need. Uses of products available range from roof decking to concrete forms, and include siding, paneling, underlayments, and woodworking. Data includes properties, performance charts, installation details, and specs. Catalog. 100 pages. Georgia-Pacific, Commonwealth Bldg., Portland, Ore.

Circle 205, Readers' Service Card

FINISHES PROTECTORS

School glaze. A guide for architects and painters, this booklet describes a host of interior and exterior paints and finishes for school buildings. Paints are recommended for specific use in buildings, such as in pool areas, acoustical rooms, and gymnasiums. Special attention is given to the

fire-retardant qualities of paints described, as well as to durability, ease of cleaning, and resistance to scuffs and stains. The Color Dynamics painting system and manufacturer's service is also described. 19 pages. PPG Industries, Inc., One Gateway Center, Pittsburgh, Pa. 15222.

Circle 206, Readers' Service Card

Surface treatment. Aimed at professionals and amateur craftsmen, manual describes finishes, special coatings, paints, and stains for all types of plywood. A general introduction describes various natural and plywood qualities; divided into interior and exterior finish sections, rest of guide deals with specific wood characteristics, preparation of panels, edge sealing, and joint treatment. Finishes recommended include both latex and resin bases. Manual. 23 pages. American Plywood Assoc., 1119 A St., Tacoma, Wash. 98401.

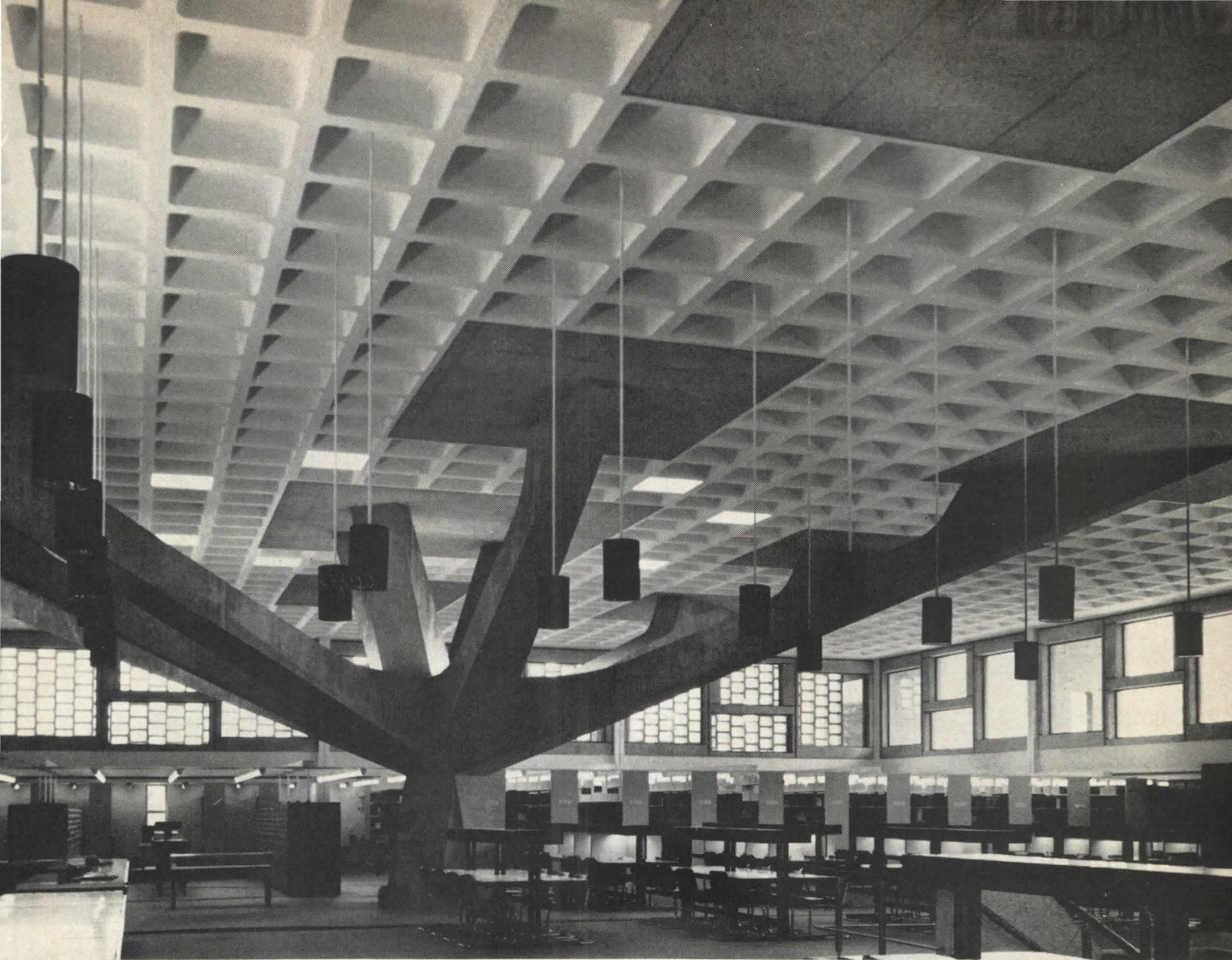
Circle 207, Readers' Service Card

Masonry: the inside story. Vinyl toluene-butadiene resin is claimed by the manufacturer to make the best waterproof sealers for interior masonry work; the material forms a coating that is resistant to alkali and mildew, and may be applied to new, damp, or uncured concrete. Physical properties of various resin-based sealers are described in relation to practical applications. Also shown: a formulations and procedures chart; and a graph of sealer effect on viscosity. Booklet. 4 pages. Goodyear, Dept. 798, Akron, Ohio 44316.

Circle 208, Readers' Service Card

DOORS/WINDOWS

Lighting the industrial day. Filon glass-fiber-plastic glazing is claimed to have more structural strength than glass, and, further, to be lighter and less costly. Its use is said to reduce interior lighting costs substantially; moreover, savings have also been claimed in heating and cooling costs because Filon panels have a shading coefficient equal to 1/4" solar sheet glass. Charts compare Filon and glass properties and costs; nine



St. John's University Library, Collegeville, Minnesota
Marcel Breuer & Associates, architects
Johnston-Sahlman Company, structural engineers
Gunnar I. Johnson & Son, Inc., contractors
Ceco Steeldome Service for waffle-pattern
monolithic concrete joist construction

Find aesthetic repetition in Ceco's Standard Steeldome Floor-Forming experience

Think how you can use these repetitive units to bring beauty out of standardization. Standardization spawns creativity. It has always done this, from the Parthenon to the skyscraper. Great things come out of standardization.

This is no less true with standard steeldome modules for monolithic concrete joist construction. You can use them aesthetically in sculptured waffle ceilings. You can create with a sure hand, relying on Ceco's 56 years of experience in forming floor systems with removable steel-forms. This means you work and shape fluidly, molding versatile monolithic structures of

strength and rigidity. Ceco's experienced crews and project supervisors are adept at carrying out your design and coordinating with other trades. Your project starts fast, speeds ahead. Forms, rebars, concrete materials are close at hand.

Another thing: monolithic concrete floor forming is economical, often \$1.00/sq. ft. less than other types. Ceco is big in experience as a nationwide specialist in floor forming, known for dependability and quality. So as you plan your next project, call on Ceco experience. The Ceco Corporation, general offices: 5601 West 26th Street, Chicago, Ill. 60650.



products in the Filon line are described. File report. 6 pages. Filon Div., Vistron Corp., 12333 So. Van Ness Ave., Hawthorne, Calif., 90250.

Circle 209, Readers' Service Card

Weatherstripping. Catalog covers a long line of metal weather strips for doors and windows in all exposures. Installation drawings and complete specs are given for 59 types (and 194 sizes) of hinged door weather strip saddles, bottoms for stable and sliding doors, and window weather strips. Construction may be of extruded bronze or aluminum, stainless steel, zinc or brass. 24 pages. Accurate Metal Weatherstrip Co., Inc., 725 So. Fulton Ave., Mt. Vernon, N.Y. 10550.

Circle 210, Readers' Service Card

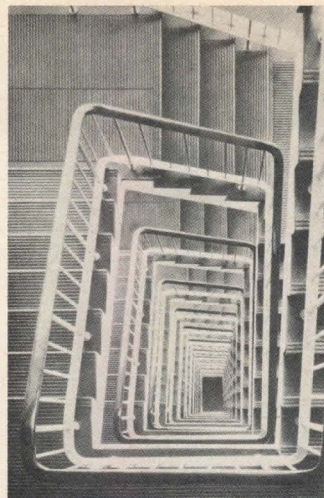
Wall-suited doors and frames. In addition to heavy duty steel doors for commercial and light commercial use, manu-

facturer's line features a variety of specially assembled framing systems said to be designed to interlock for easy installation. Specialties include fire doors, smoke screens, and transom panels. Frame selector charts record dimensions and recommended uses. Brochure. 8 pages. Amweld Building Products, 168 Plant St., Niles, Ohio 44446.

Circle 211, Readers' Service Card

FLOORING

Resilient rubber floors. Pirelli rubber flooring is said to be hard-wearing, non-slip, and sound-deadening. Available in a ribbed, studded, or smooth surface pattern, a dovetail key on the reverse side is designed to fix easily to a concrete screed. Designed for interior or exterior use in high traffic areas, the flooring is claimed to be strong enough to withstand automobile traffic, although constant exposure to oil and grease will harm the rubber. Ancillary products include stair nosings and stair-



treads. Technical data describes laying methods, dimensions, details, and general specs. Brochure. 8 pages. Rubber Floorings Corp., 900 Lincoln Highway, East McKeesport, Pa. 15035.

Circle 212, Readers' Service Card

FURNISHINGS

Architectural space solving. Creating voids through a creative use of solids, Herman Miller has designed the Com-

prehensive Panel System (CPS) and the Comprehensive Storage System (CSS) as a means of providing semi-private office and display/storage areas. Both free-standing systems combine panel-partitions and wall- and pole-hung component furniture such as desks, shelves, drawers, files, storage and display units. An estimated 1300 different configurations are said to be possible; built-in electrical wiring allows maximum flexibility of the system. Data contains illustrations with sample floor plans, com-



SCR-525-HL
Provides emergency light
for approximately 4 hours.



enhances
every
architectural
feeling...

... adds to the excitement of any decor!

The gray hammertone baked enamel case measures a convenient 15" x 12½" x 3½", with matching plug-in cord. It may be mounted in any position.

Permanent power connection may be made through the back to approved box. Prime painted cases available on special order.

Light goes on automatically when power fails. Battery recharged automatically when power is restored. Powered by sealed viscous electrolyte lead dioxide battery. Patented solid state charging circuitry limits charge rate to one the battery will accept, assuring full power and battery life usually several times the 5 year guarantee period.

Send for complete details on Unit SCR525-HL and other Sentry-Lite models. Sentry-Lite & Battery Division, Hobby & Brown Electronic Corporation, 15 St. Marks Avenue, Rockville Centre, N. Y. 11570.



On Readers' Service Card, Circle No. 344

Moentrol[®] prevents sudden temperature extremes in showers and baths.

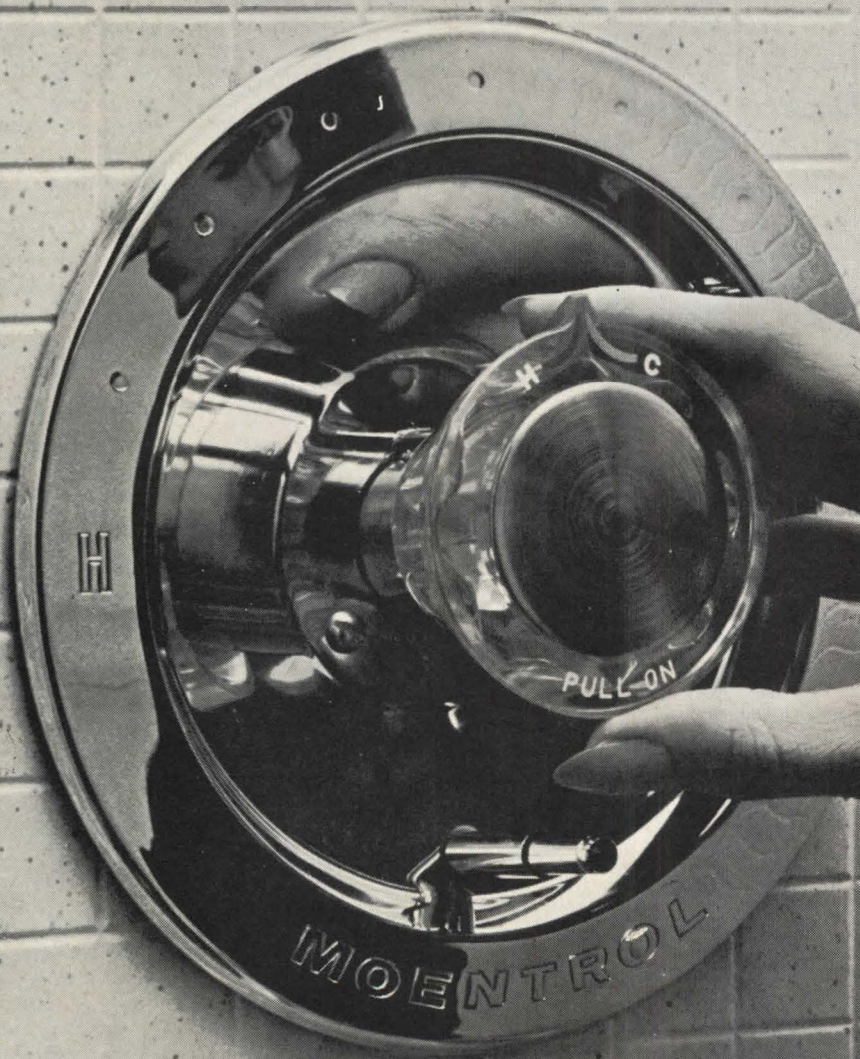
For pure comfort and convenience, there is nothing like Moentrol. This shower valve has a unique pressure balancing system. It precisely balances hot and cold water pressures. As a result, other water uses on the same supply lines will not affect the bather's desired water temperature. That remains constant throughout the shower or bath.

With Moentrol, people don't have to bother adjusting two handles. Moentrol is a single control for both water flow and temperature.

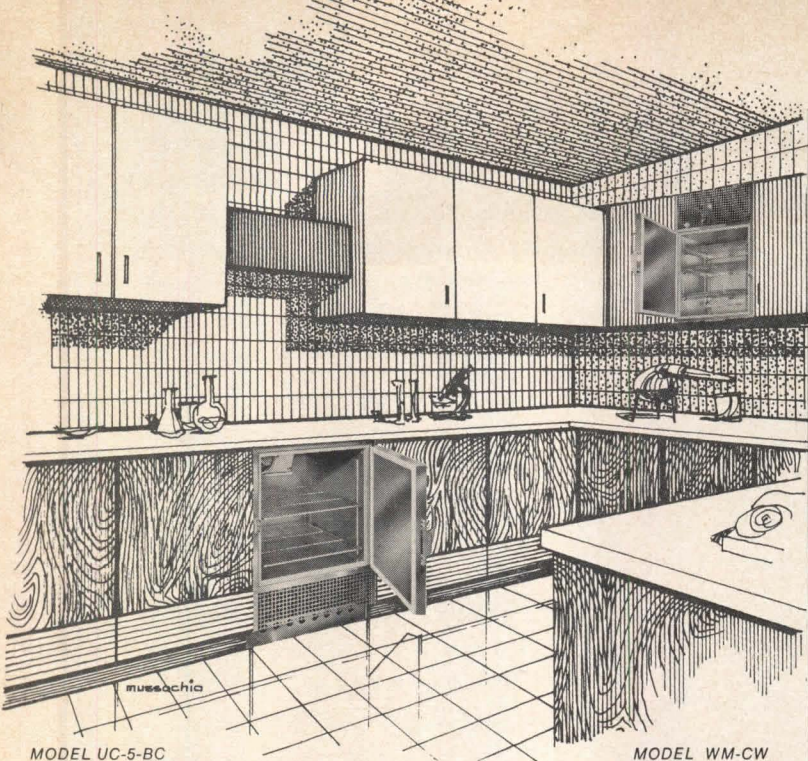
Moen, inventors of the single-handle faucet, designed Moentrol especially for motels, hotels, apartments, schools, clubs—everywhere a bath or shower is on the same water line as a lavatory, a water closet, or washing appliances.

For specifications and information on how Moentrol pressure balancing works, just write: Moen, Elyria, Ohio 44035, a division of Standard Screw Co., 216/323-5481.

The faucet that turns
people on. **MOEN**



WSBP-6814



MODEL UC-5-BC

MODEL WM-CW

INTEGRATED DESIGN IN EYE-LEVEL AND UNDER-COUNTER REFRIGERATORS

Designed to fit flush with adjacent cabinet work in stainless steel or custom finished to your specifications, these space saving refrigerators provide a clean, uninterrupted line of design. The thin-wall construction incorporates polyurethane insulation and an air-tight neoprene thermo-break door seal. The undercounter models have outside dimensions of 24" x 24" x 34½" and a capacity of 5.4 cubic feet. The single door wall mounted models come in four sizes 18" W. x 13" D. x 30" H. with 1.5 cubic foot capacity up to the 4.3 model with dimensions of 24" W. x 18" D. x 36" H. Also available are double door models with capacity of up to 9.6 cubic feet.



MODEL UC-5

- Gleaming stainless steel interiors.
- Explosion-safe and total explosion-proof construction, optional.
- Removable front grille through which all fittings and controls can be easily serviced without moving refrigerator.
- Dished interior bottom to protect floors from spilled products.
- Automatic and semi-automatic defrost system with built-in condensate evaporator and accumulator. Eliminates need for floor drain.

MODEL UC-5-CW

Cold wall type cooling system with automatic push button defrost. No freezing compartment. Explosion-safe and total explosion-proof construction available on this model only.

MODEL UC-5-BC

(illustrated above)

Blower type cooling system with automatic off cycle defrosting. No freezing compartment.

MODEL UC-5

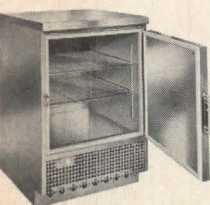
Two-tray ice cuber cooling system and semi-automatic defrost.

MODEL WM-CW

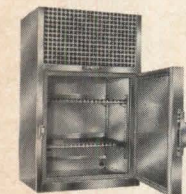
(illustrated above)

Cold wall type cooling system with push button defrost.

NOTE: Jewett also makes a line of freezers with the same dimensions and features listed above.



MODEL UC-5-CW



MODEL WM-CW

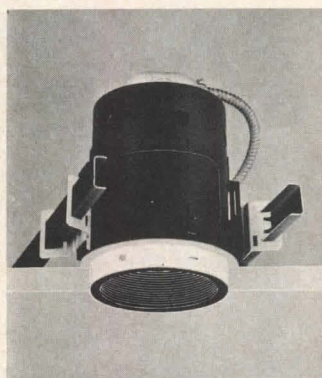
THE JEWETT REFRIGERATOR CO., INC.
2 LETCHWORTH STREET
BUFFALO, NEW YORK, 14213

MANUFACTURERS
OF REFRIGERATORS
OF EVERY TYPE
FOR INSTITUTIONS
Since 1849



ponent dimensions, and fabrication materials. Booklet. 16 pages. Herman Miller Inc., Zeeland, Mich. 49464.
Circle 213, Readers' Service Card

LIGHTING



Groovy fixtures. The 5490 Lighting Series coordinates a host of lighting needs in a matched group of recessed and surface incandescent "Microgroove" lighting fixtures. A wide range of lighting effects is possible with various beam adjustments, intensities, and controlled edge illumination. Luminaire characteristics are charted, and graphs show illumination levels and candlepower distribution curves. Fixtures are illustrated and detailed; construction and application information is also included. File. 8 pages. Gotham Lighting Corp., 37-01 31st St., Long Island City, N.Y. 11101.
Circle 214, Readers' Service Card

SPECIAL EQUIPMENT



The miniature marvel. The Pron-Tow Mini-Cart is a driverless vehicle that can handle loads up to 1000 pounds. Especially designed for office and hospital delivery systems, the Mini-Cart is actuated by control signals that can direct it along corridors, or up and down in elevators. Vehicles may be dispatched from a central point, and computer controlled for unlimited

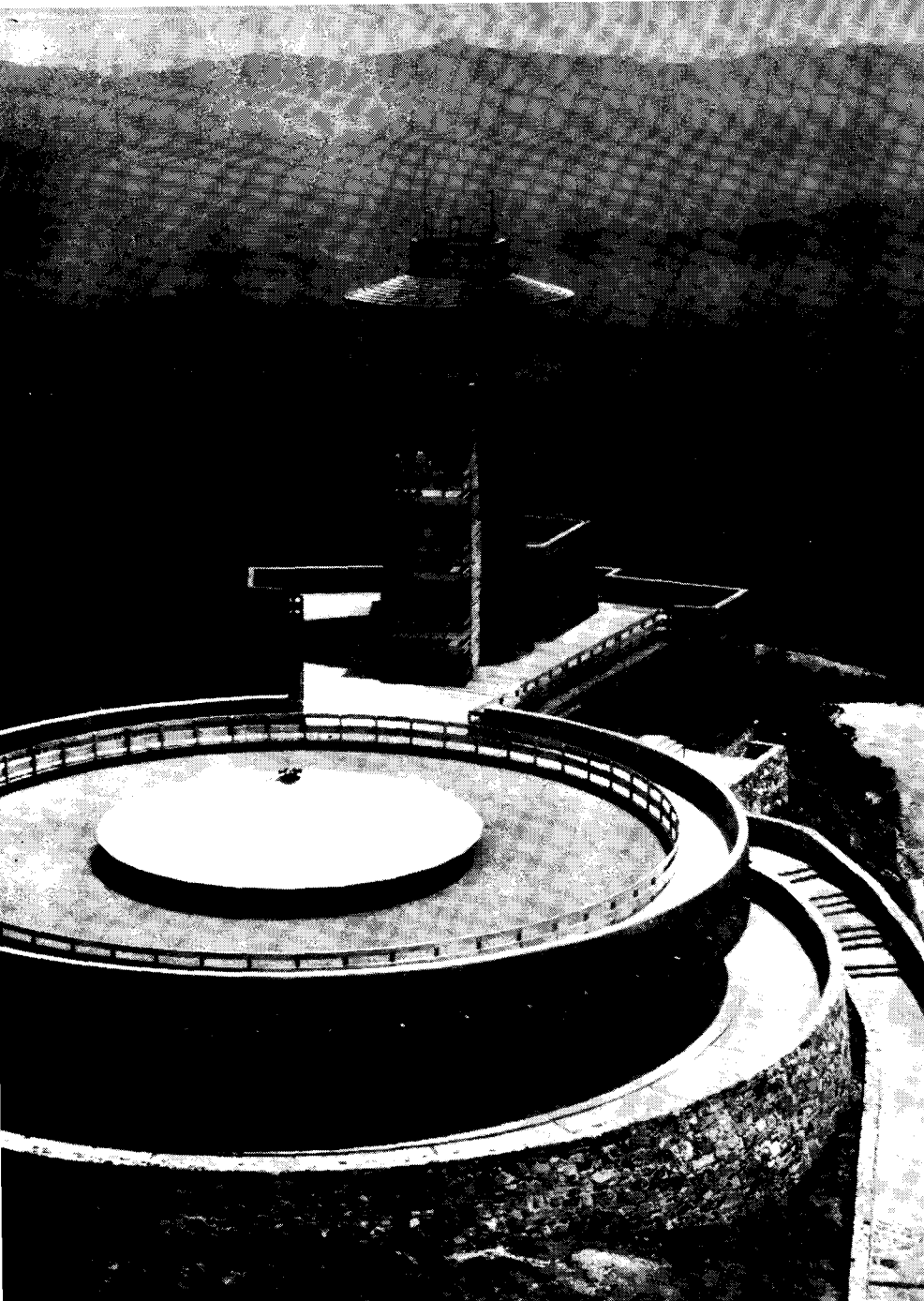
route programming, or may simply be controlled by a panel on the cart. Weighing in at 500 pounds, the Mini-Cart reacts to photoelectric signals that not only direct it on prearranged guide paths, but also prevent it from colliding with other vehicles. Literature describes three available levels of computer control, physical and operating characteristics of the unit, and its control systems features. Booklet. 12 pages. Jarvis B. Webb Co., 9000 Alpine Ave., Detroit, Mich. 48204.
Circle 215, Readers' Service Card

Sound performance. Comprehensive catalog for performing arts equipment contains data for acoustical shells, band and choral risers, staging for indoors and outdoors, chair stands, and mobile shells and stages. Systems utilize modular components and unit increments. In addition to the standard product division, manufacturer also has a custom division and consulting service. Descriptions contain dimensional data, features, weight, price, construction and storage information; also sample arrangements and variations. 31 pages. Wenger Corp., 90 Park Dr., Owatonna, Minn. 55060.
Circle 216, Readers' Service Card

SURFACING



Buoyant floors. Manufacturer's line of resilient flooring includes both vinyl asbestos tile and asphalt tile. Brochure illustrates available patterns and colors for both types. Technical information gives size, gage, and use data, installation instructions, light reflectance values, brief specs. Catalog. 16 pages. Azrock Floor Products Div., Uvalde Rock Asphalt Co., P.O. Box 531, San Antonio, Tex. 78206.
Circle 217, Readers' Service Card



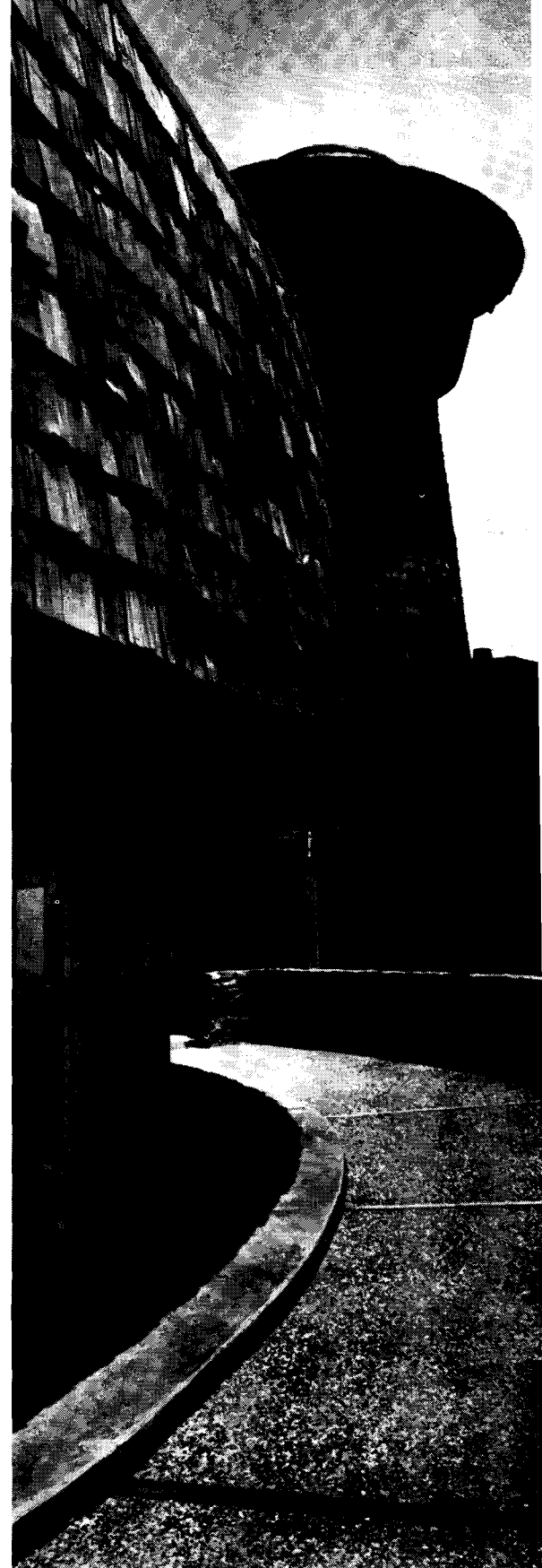
Fire lookout atop Georgia's Brasstown Bald
Architects: Heery & Heery
Their material: red cedar handsplit shakes

Build something up on top of a mountain in Georgia and it has to be rugged. Tough enough to withstand a lot of wind and weather. Yet graceful and honest enough to blend naturally with the misty, tree-crested ridges that surround it.

One material you can depend on to fill both requirements is red cedar handsplit

shakes. Bold. Evocative. Rich in natural color and beauty. Yet surprisingly practical.

Red cedar shakes offer you nearly total design flexibility. Plus such advantages as natural insulation, light weight, low upkeep and complete weather resistance. And that's true whether you're building on a mountain in



Certi-Split Handsplit/Resawn Shakes, 24" x 3/4" to 1 1/4" with 10" to the weather.

Georgia or a beach in Hawaii.

Next time, for the effect you want, why not consider the real thing: Certi-Split handsplit shakes. For more information, see Sweet's catalog listing 21d/Re. Or write: 5510 White Bldg., Seattle, Wash. 98101 (In Canada: 1477 West Pender Street, Vancouver 5, B.C.)

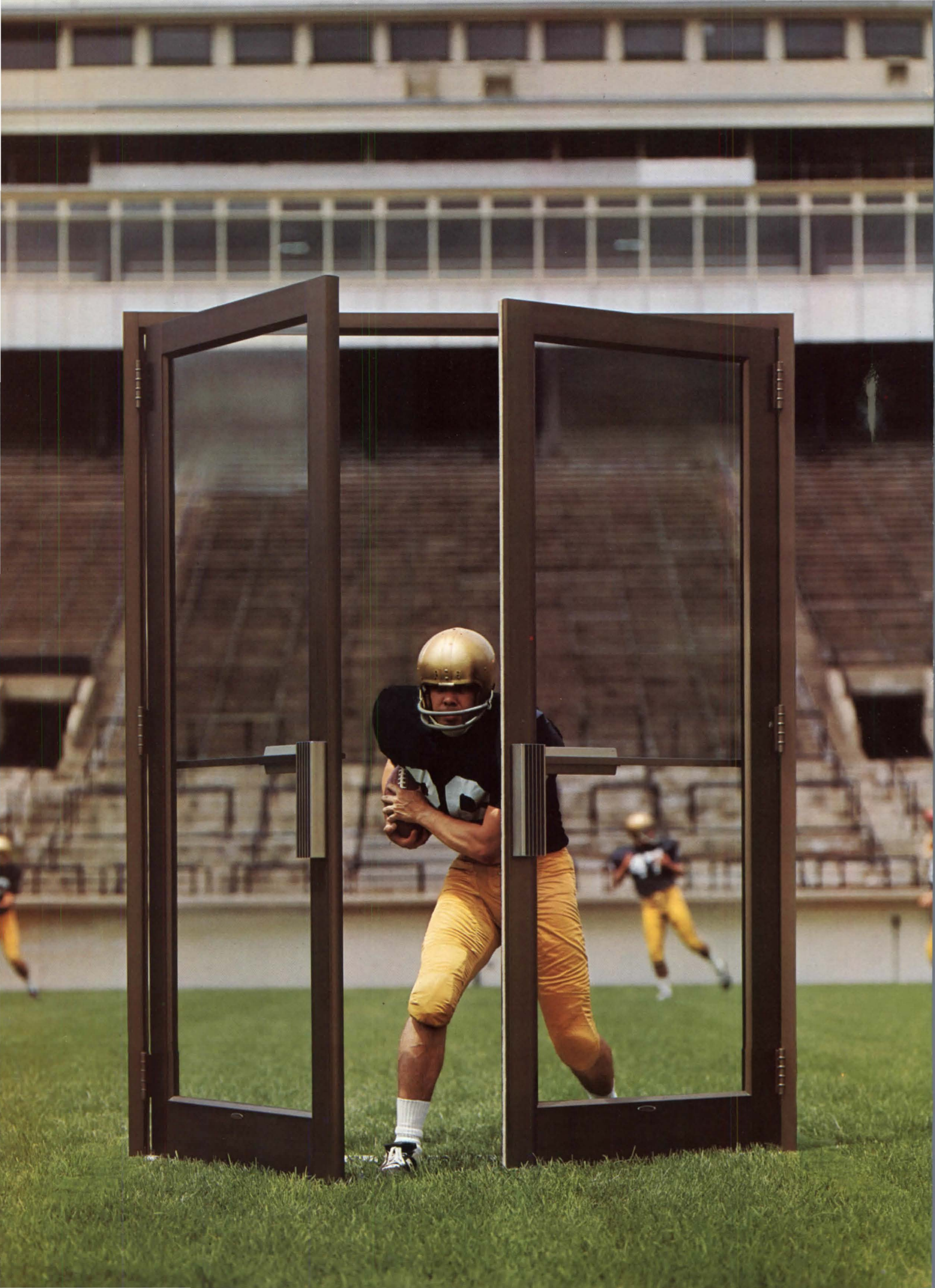


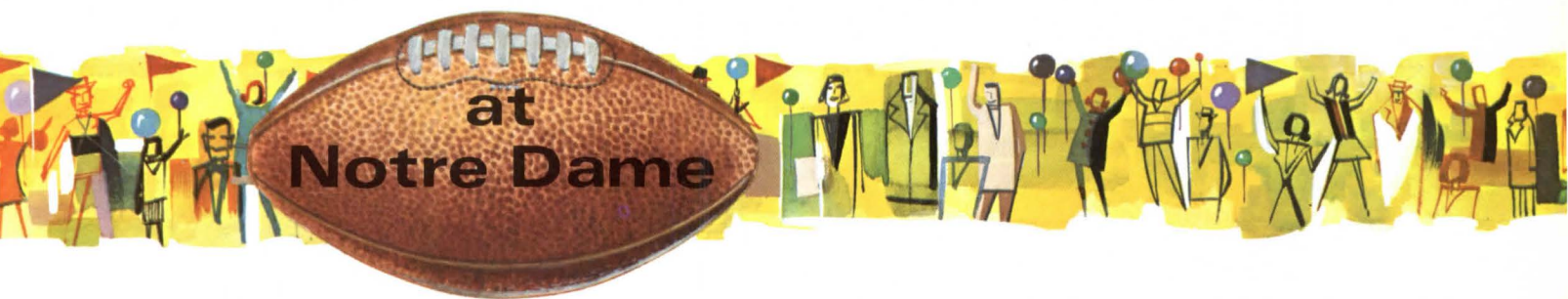
On Readers' Service Card, Circle No. 396

Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the Forest Products Promotion Council.

On Readers' Service Card, Circle No. 348 ►





Kawneer Entrances Rugged-*but beautiful*

Why is a Kawneer entrance on the 50 yard line in Notre Dame Stadium? What better way to indicate rugged strength? Remember, the doors you specify must perform or you have an unhappy client.

Kawneer doors are engineered and constructed for superior performance, so essential where traffic is heavy . . . for example, the new Notre Dame Athletic and Convocation Center, where thousands of athletes, students, faculty and fans pass through 176 Kawneer aluminum doors.

The door features Dual Moment corner construction, with four sigma-deep penetration welds plus mechanical fastening at each corner.

Beauty? Your own eyes tell you best what we would like to say. The styling, hardware options and abrasion-resistant non-fading Permanodic® hard color finishes are all good reasons why more Kawneer entrances grace more buildings than those of any other manufacturer.

For details, write Kawneer Product Information, 1105 N. Front Street, Niles, Michigan 49120.

Notre Dame Athletic and Convocation Center, South Bend, Indiana. 176 Kawneer doors in Permanodic Bronze No. 28 hard color finish. Architects: Ellerbe Architects, St. Paul, Minn. Contractor: Schumacker, South Bend, Ind.



KAWNEER

ARCHITECTURAL PRODUCTS

AMAX
ALUMINUM

New Dynamics in Architectural Aluminum

Kawneer Company, Inc., a Subsidiary of American Metal Climax, Inc.
Niles, Michigan • Richmond, California • Atlanta, Georgia
Bloomsburg, Penn. • Kawneer Company Canada, Ltd., Toronto



Terrific for traffic! The rugged entrances are designed to deliver precision performance even when the treatment is bruising—as symbolized by model at left or in actual use as shown above.

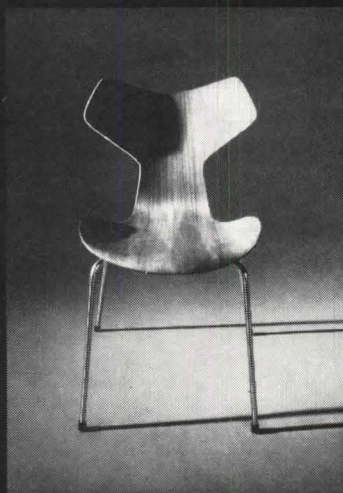
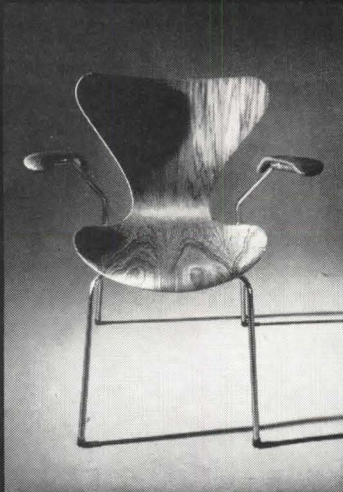
No matter which of 10 Kawneer entrance styles you specify—be they swinging doors, sliding mall fronts, or sliding high rise apartment doors—you are assured of the highest quality construction and handsome styling.

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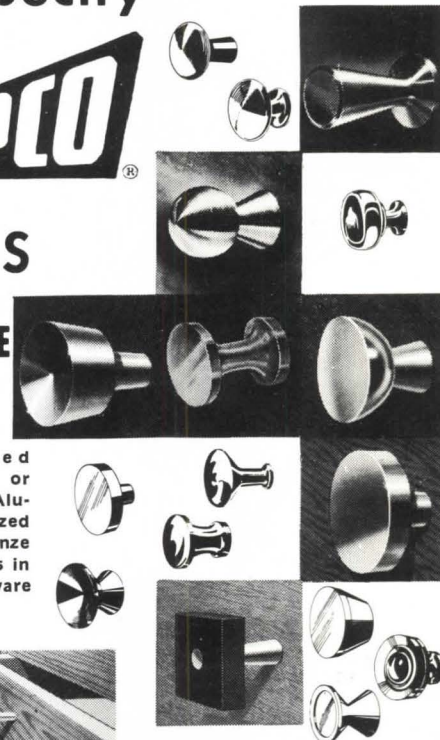


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JANUARY 1969 P/A

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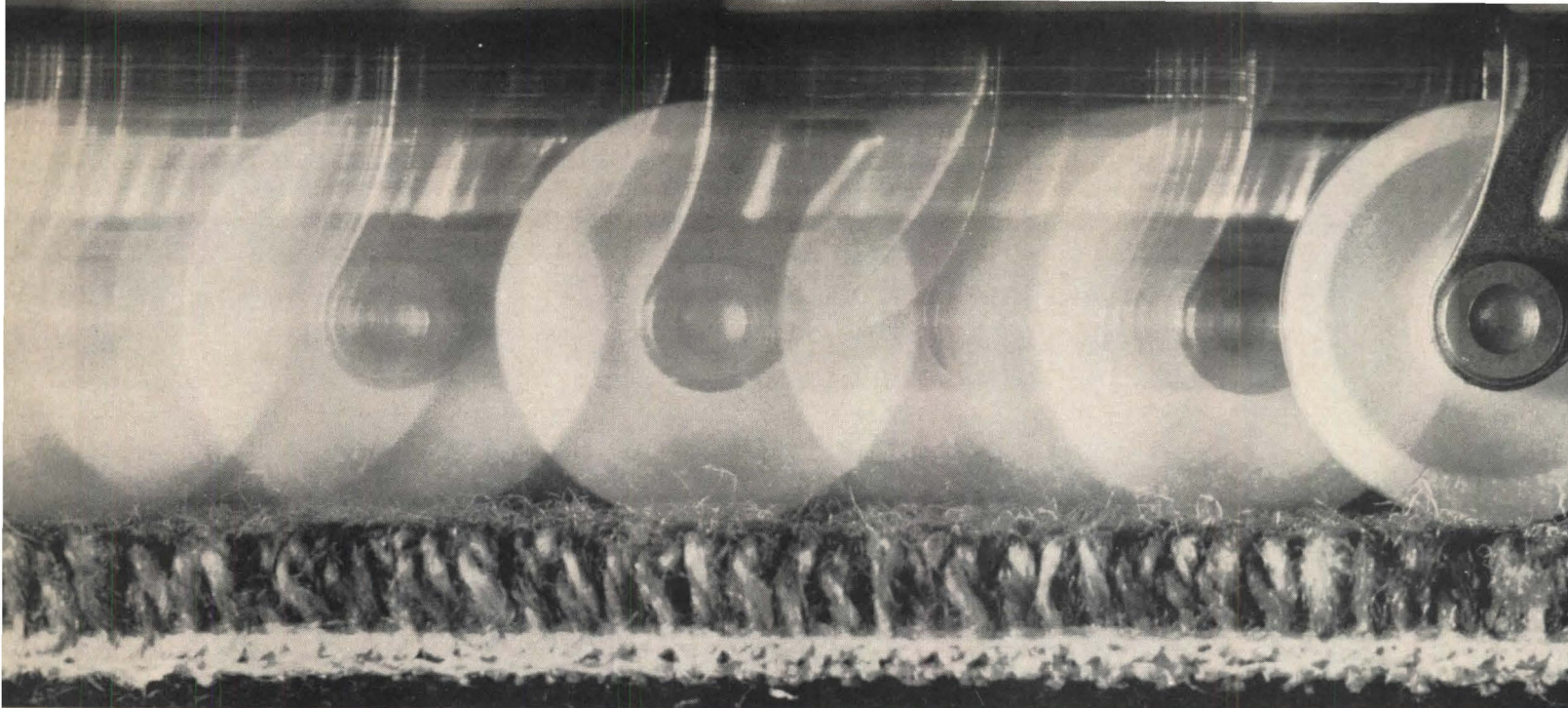


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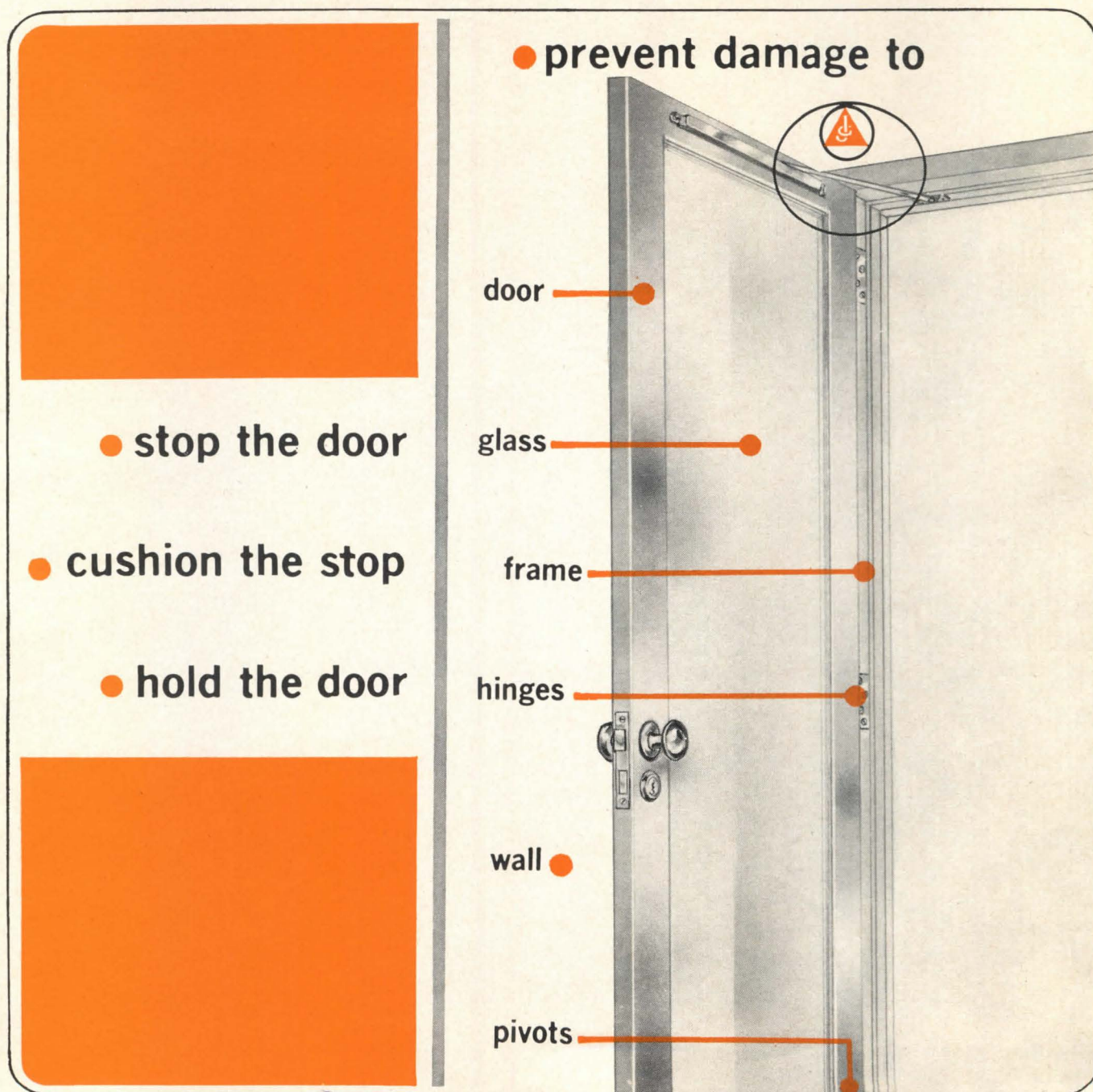
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Ohio University Convocation Center, Athens, Ohio
Architect: Brubaker & Brandt, **Engineer:** Fling & Eeman, Inc.
Steelwork: Bristol Steel & Iron Works, Inc.
General Contractor: Knowlton Construction Co.



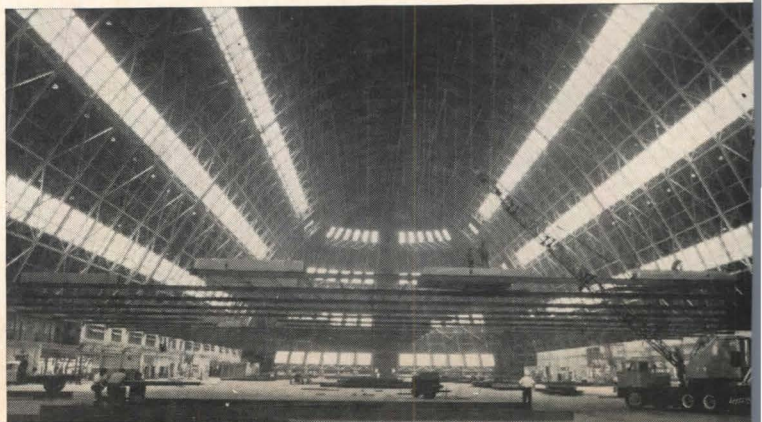
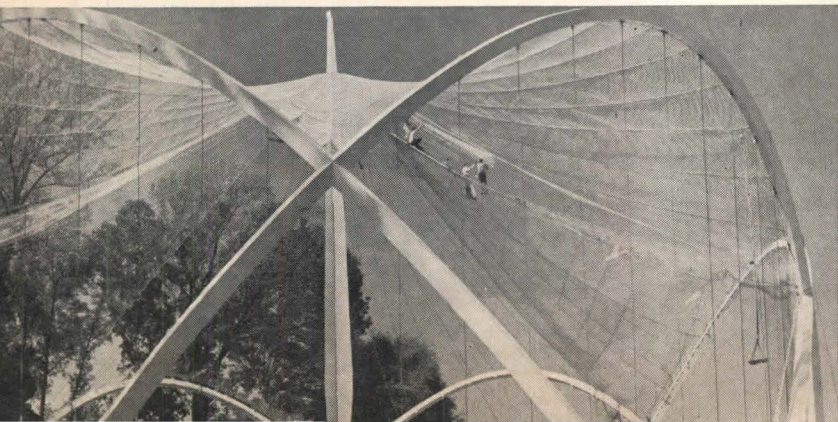
Targets Golf Game, Hanover, Massachusetts
Designer-Owner: Family Leisure, Inc., **Engineering Consultant:** Simpson, Gumpertz & Heger, Inc., **Project Engineer:** John F. Notemeyer, **Steelwork:** Chestnut Welding & Iron, Inc., **General Contractor:** Taverna Brothers

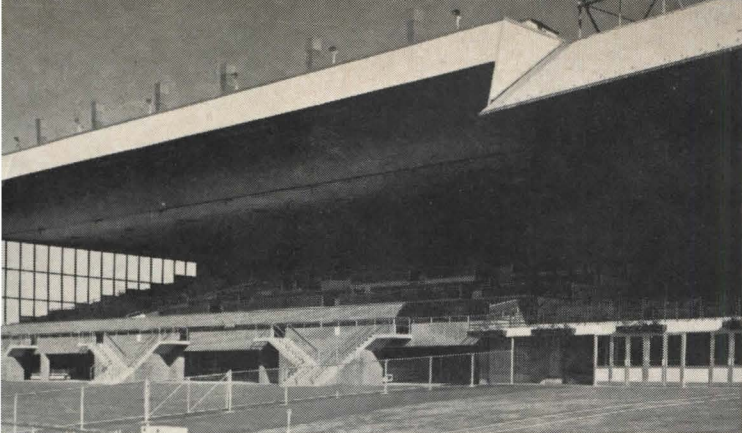


Hampton Roads Coliseum, Hampton, Virginia, **Architect:** A. G. Odell, Jr. & Associates
Structural Engineer: Severud, Perrone, Sturm, Conlin, Bandel, **Steelwork:** Bristol Steel & Iron Works, Inc., **General Contractor:** McDevitt & Street

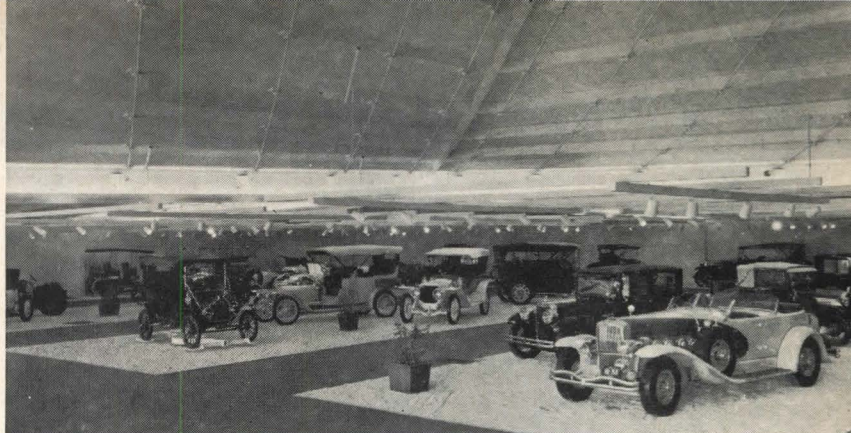
Great Flight Cage, Washington, D. C.
Architect: Daniel Johnson and Mendenhall, **Structural Engineer:** Donald J. Neubauer
Consulting Detailer: Rick Engineering, **Fabricator:** Fabricator's Steel Corporation
General Contractor: Edrow Engineering Co., Inc.

I-XL Furniture Co. Plant, Elizabeth City, North Carolina
Architect-Engineer: Wiley & Wilson
General Contractor: Basic Construction Co.





Brandywine Raceway Clubhouse, Wilmington, Delaware
Architect: Lionel K. Levy, **Engineer:** Robert Rosenwasser
Fabricator: Belmont Iron Works, **Erector:** McCormick Construction Co., Inc.
General Contractor: Ernest DiSabatino & Sons



Museum of Automobiles Petit, Jean Mountain, Arkansas
Architect: Ginocchio, Cromwell, Carter & Neyland
Structural Engineer: Severud, Perrone, Sturm, Conlin, Bandel
General Contractor: Dickens-Bond Construction Co.

We work closely with architects and engineers on cable applications like these

Bethlehem has furnished the steel strand, wire rope, and end-fittings for many of the nation's cable roofs. It all began with Raleigh Arena, the country's first major cable-roof structure, built in 1953. Since then, we've been involved in a wide variety of cable roofs and related cable applications.

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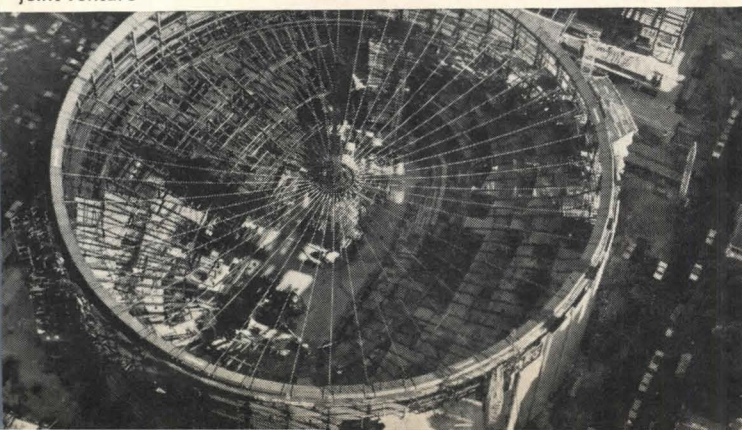
Our library of technical and design data on this subject is one of the most complete in the industry. If you'd like to receive any of these materials, just write to: *Room 1049A, Bethlehem Steel Corporation, Bethlehem, PA 18016.*

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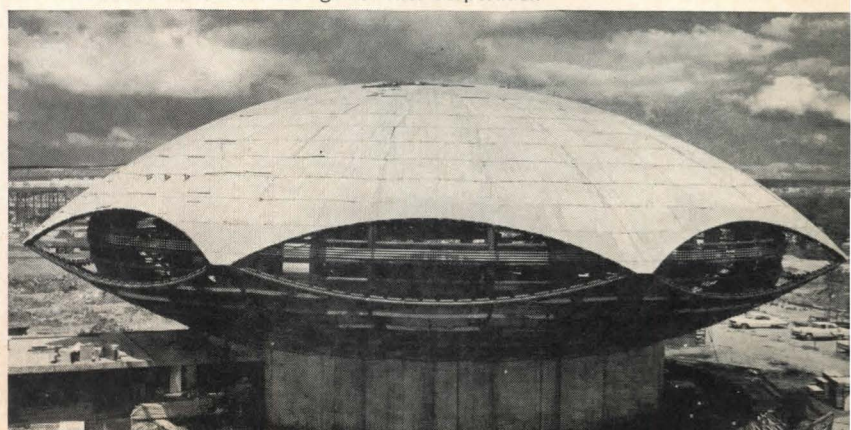


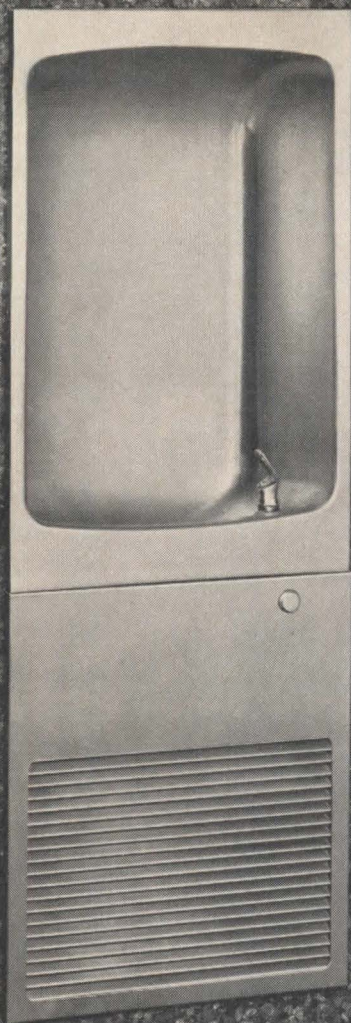
Steel for Strength

Madison Square Garden Center, New York City
Architect: Charles Luckman Associates
Engineer: Severud, Perrone, Sturm, Conlin, Bandel, **Steelwork:** Bethlehem Steel
General Contractor: Turner Construction Co.—Del Webb Corporation, a joint venture



Travelers Insurance Pavilion (World's Fair—dismantled), Flushing, New York
Architect: Kahn & Jacobs, **Designer:** Donald Desky Associates, Inc.
Structural Engineer: Lev Zetlin & Associates, **Steelwork:** Bethlehem Steel
General Contractor: George A. Fuller Corporation





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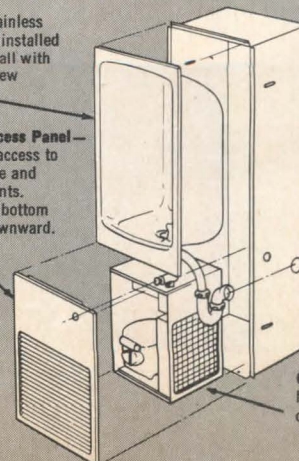
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Receptor—Stainless steel—can be installed flush against wall with no exposed screw heads.

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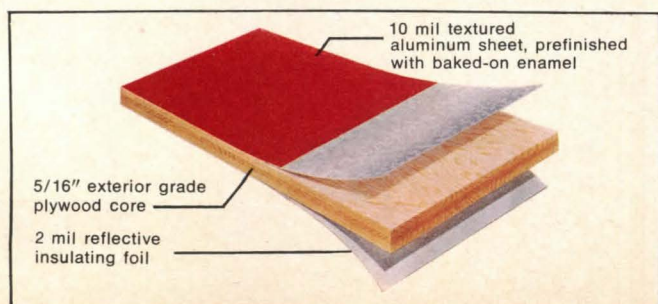
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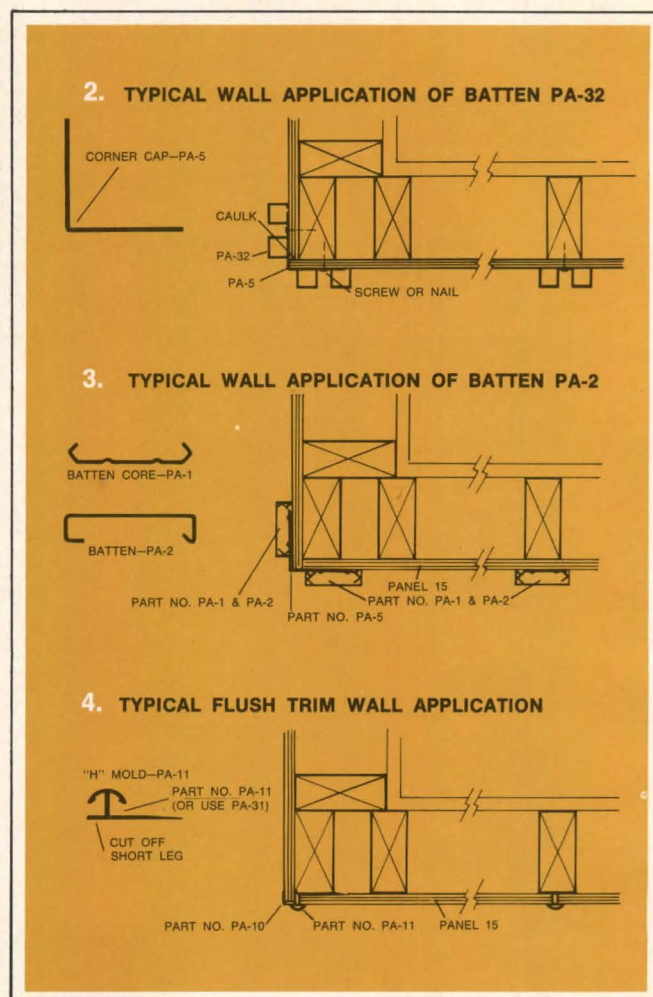
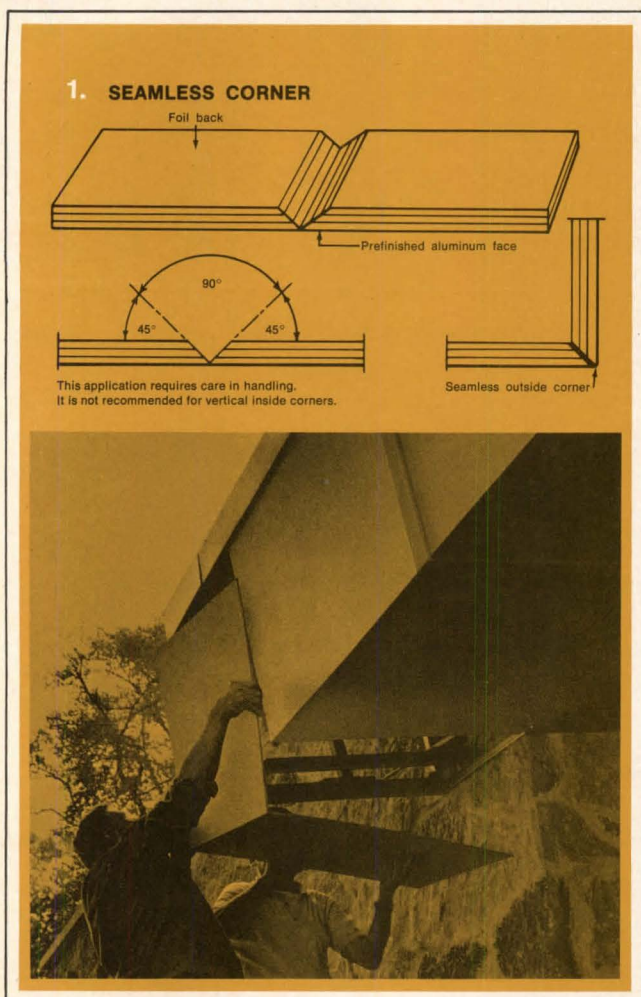


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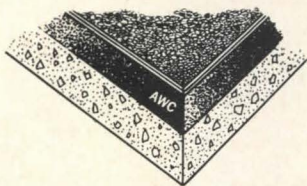
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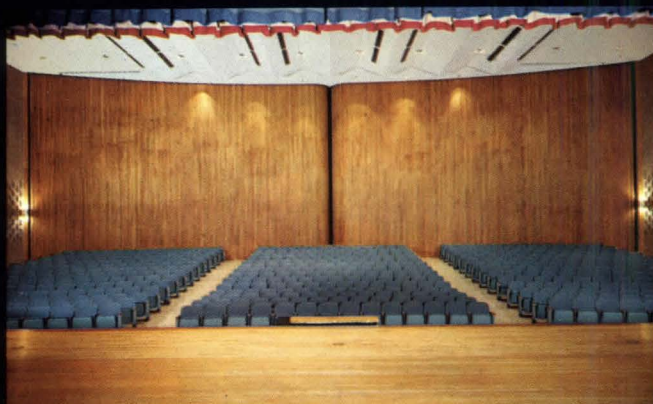


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Architect: Philip Johnson



Architects: Orput—Orput & Associates, Inc.



Architects: Russell-Gibson & von Dohlen



Architects: Lyons & Mather

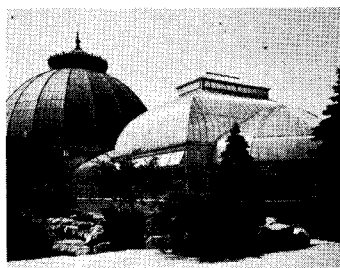
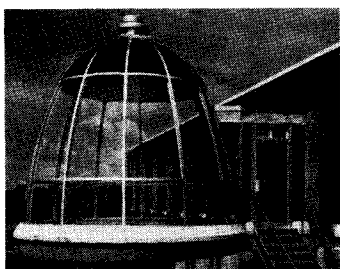


Architect: Joseph Stein

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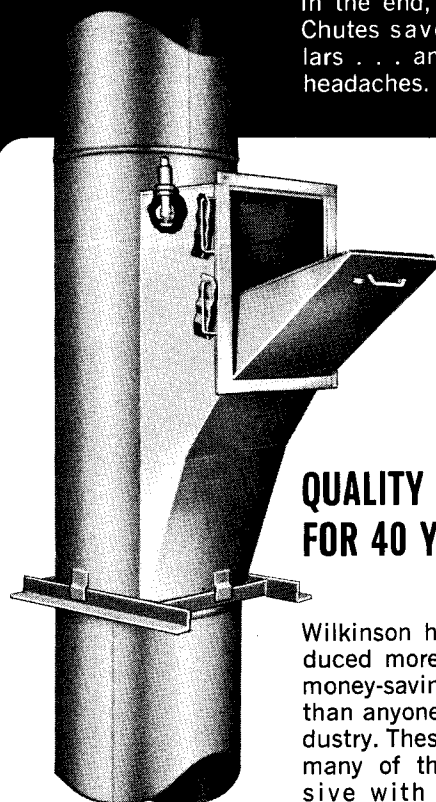
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design series



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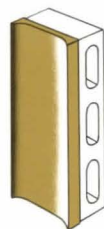
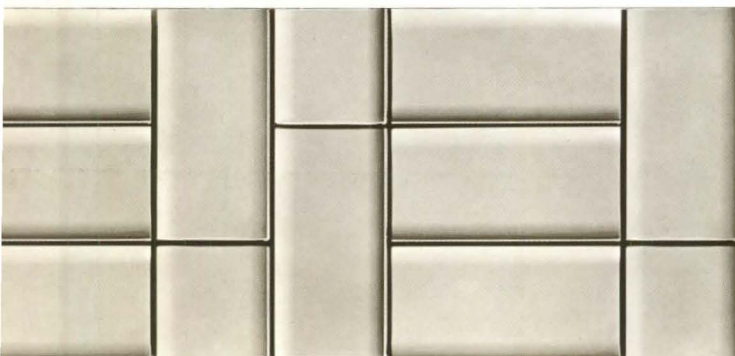
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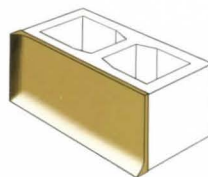
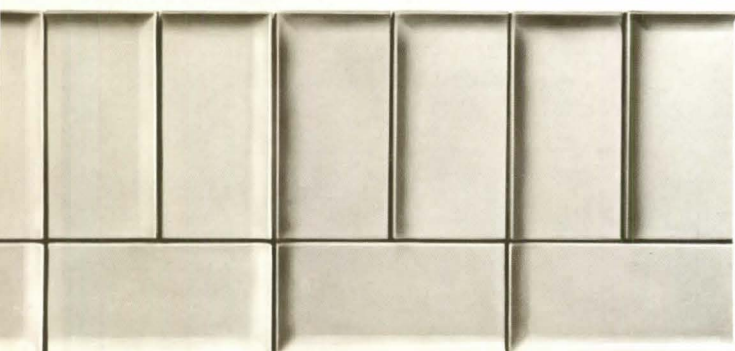
Fun with shadows, highlights



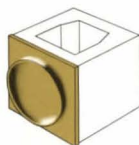
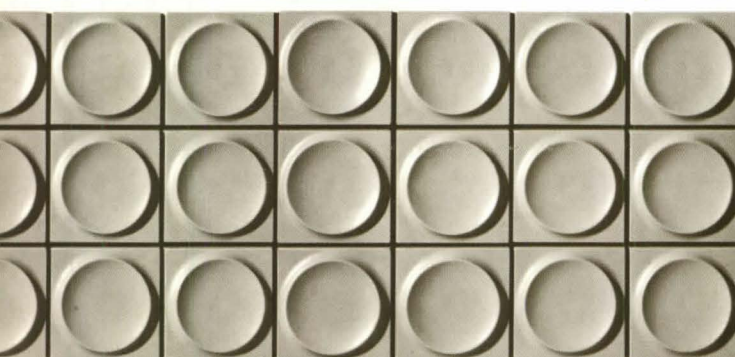
Concave



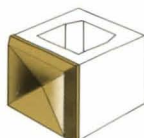
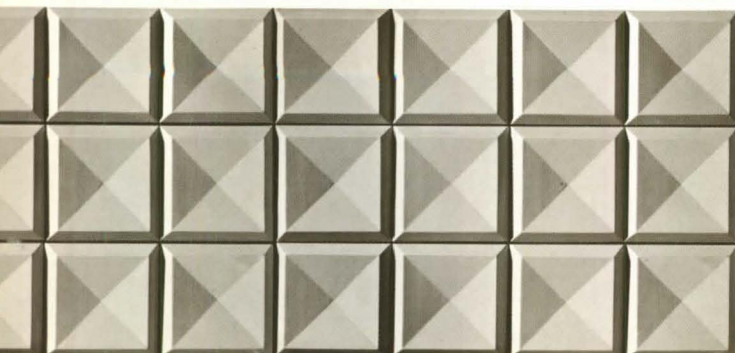
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Plasticrete Corporation, 1883 Dixwell Ave., Hamden 06514
203 288-1641

ILLINOIS

SGM Corp., 9326 South Anthony Avenue
Chicago 60617. 312 731-6010

KANSAS

Acme Brick Company, 1337 N. Mosley, Box 397
Wichita 67201. 316 264-8301

MARYLAND

United Glazed Products, Inc., Box 6077, Baltimore 21231
301 752-5118

MICHIGAN

United Glazed Products (Michigan), Inc., 4500 Aurelius Rd.
Box 9546, Lansing 48910. 517 882-2463

MINNESOTA

Zenith Glazed Products Company, Box 367, Osseo 55369
612 425-4111

MISSOURI

Mid-West Glazed Products, Inc., 1950 Walton Road
St. Louis 63114. 314 428-4800

NEBRASKA

Zenith Glazed Products Company, 1118 South 11th St.
Omaha 68108. 402 345-3424

NEW JERSEY

United Glazed Products, Inc., 194 Fifth St., Saddle Brook
201 843-6333

PENNSYLVANIA

A. Duchini, Inc., 24th & Brandes St., Erie 16503
814 456-7027

SOUTH CAROLINA

Tidewater Concrete Block & Pipe Co., Inc., P.O. Box 162
Charleston 29402. 803 744-5376

TEXAS

Acme Brick Company, P.O. Box 575, Dallas 75221
214 331-6588

Featherlite Tile Company, Box 489, Lubbock 79408
806 PO 3-8202

Southwest Glazed Masonry Corporation, P.O. Box 895
Texarkana 75501. 214 838-7551

Hydro Conduit Corp., P.O. Box 20369, Houston 77025
713 RI 7-7100

UTAH

Utah Concrete Pipe Co., 379 17th St., Box 229, Ogden 84402
801 EX 9-1171

CANADA

Cermatex (Western) Ltd., 1 Cole Ave., Winnipeg 5, Manitoba
204 533-4741

Edmonton Concrete Block Co. Ltd., Box 5060, Station "E",
Edmonton, Alberta 403 484-4421 TELEX 037 2686

General Concrete Ltd., Box 46, Station C, Hamilton, Ontario
416 549-4121;

130 Richer St., Ville St. Pierre,
Montreal, Quebec 514 482-7690;

Ottawa — 235-1388; St. Catharines — 684-1211;
Toronto — 925-8821

Ocean Cement Ltd., 1295 West 77th Ave., Vancouver 14
British Columbia 604 261-2211

DENMARK

A/S Hasle Klinker-OG Chamottestensfabrik, Oslo Plads 16
Copenhagen. Tel. TRIA-6201 TELEX 2523

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The Lilleshall Company, Ltd., St. George's, Nr. Oakengates
Shropshire. Oakengates 3120

ITALY

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"The public we're building for doesn't give a damn anymore; they have to have an immediate solution to their needs. And I think for the next decade, the next two decades, we're going to be building for ourselves until we find the universal system that can support everyone's desires." (Davis)

"It's unimportant to do details. . . . Our aesthetic and emotional concerns are at a different scale, at a much larger scale — maybe because we move much faster and we see much more in one week of our lives and a thousand times more during our lifetimes and each building is just a small part of a total set of aesthetic memories. So each building is a detail." (Pelli)

"Right now we are in a great moment of change. In five years . . . there's going to be a radically different architecture. We are not concerned with objects anymore, but with process; we are not concerned with details, but with emotional responses; we are not concerned with order and clarity, but with excitement." (Pelli)

"The pluralism of aesthetic intention is something we have to recognize, and not get tightly trapped into predicting a proper or single path." (Montgomery)



EDITORIAL

Events move swiftly. It is not long ago that the professional dialogue revolved around the merits of contemporary architecture as opposed to traditional design. Some of us who are not so young, but not so old either, remember the revolutionary fervor of the 40's when various manifestos, student revolts, and other upheavals in the profession were the order of the day. Finally, the battle was won and the brave new world of contemporary design began to dominate the architectural scene. The pilotis, the curtain wall, the flat roof, the corner window, the plain wall were all in, and the cornice, the pitched roof, the molding, and other symbols of reactionary design were on their way out. We had won a revolution.

By the early 50's, a sprinkling of Wrightian, some Corbusian, much Miesian, and mostly Breueresque designs were coming off the nation's drafting boards in ever larger quantities.

Around the middle 50's, the first signs of a counterrevolution began to appear. Shallow sensualization of design by Yama and Stone, all the flowing, flapping, curving roofs, grills for thrills, and other mushy elements of the architecture of joy, were symptoms of a growing reaction to the rather stiff and doctrinaire approach of the early design heroes.

Although the public lapped up the candy modernism of the 50's, the big breakthrough did not come until the early 60's, when Louis Kahn conquered the imagination of the profession with his bold schemes. The restraining Bauhaus wall was breached and, after a sojourn in Philadelphia, hundreds of young designers spread throughout the country to preach the new gospel.

And now, at the close of the 60's, a new reaction is setting in. Students at the University of Pennsylvania, the home of the guru, are turning against the master. Only a few short years ago, they flowed to Philadelphia because that was where Kahn was. Now, suddenly, they are starting an anti-Kahnian revolt. "Down with medieval castles; to hell with Beaux-Arts masterpieces; Kahn is dead," they say.

Events do move swiftly. In some 25 years, or about half a span of one's professional life, we went through more changes in design development than historians can classify during hundreds of years of other periods of history. This makes it tough for a practitioner who is a follower rather than leader. Whom to follow, the old gods or the new ones (be they people or ideas) is a question with no easy answers. Most architects will probably say by now: "A plague on all your houses!" But the fact remains that geniuses are few and the vast majority of practitioners are incapable of developing a design vocabulary worth a damn. Should anybody disagree with this statement, let him take a drive through any city of his choice.

No wonder, then, that there is confusion in the profession. Some ideas never die, some die slowly, but new ones are popping up all the time and the design scene is ever-changing. Both refinements of the old and the coming of the new are reflected annually in P/A's Design Awards.

And so it is this year. There are echoes of the past and glimpses into the future; the longing for the familiar and the disdain of the present; the striving for form and the desire for content; the glib and the thoughtful; the beautiful and . . . Look at it, and think about it. For good or bad, it's all there. ■

Jan C Rowan


"Be bold. Make a gesture. Brave New World is around the corner." With this note of exhortation, Roger Montgomery urged on his fellow jurors in the tense final moments of judging the Sixteenth Annual P/A Design Awards Program. The beneficiaries of that careful and provocative decision-making—the Citation and Award winners, including a First Design Award—are announced in this issue. □ The judging, which has been called the most important annual architectural event in the country, was not so consistently dramatic throughout. It was the sixteenth year P/A had gone through the procedure: 735 design entries were stacked 18 in. deep on the 25-ft-long conference table. Each entry was open to a telling page; all entries were separated into strata of building categories by great slices of brown wrapping paper; the chore of preparing for the two-day event had taken weeks of cataloguing

and arranging. □ Early that Monday morning, last September 16, the five distinguished jurors arrived and were introduced (left to right in photo below): ■ Roger Montgomery, Professor, Department of City and Regional Planning, University of California, Berkeley. ■ R.M. Gensert, R.M. Gensert Associates, Consulting Engineers, Cleveland. ■ Henry N. Cobb, Partner, I.M. Pei & Partners, Architects, New York. ■ Lewis Davis, Partner, Davis, Brody & Associates, Architects, New York; Professor of Architecture, Cooper Union. ■ Cesar Pelli, Partner, Victor Gruen Associates, Architects, Los Angeles. □ Braced by coffee, and following a few words of orientation by Editor Jan Rowan, the jury quickly elected Lewis Davis as chairman (a job of procedure-leader and tie-splitting voter), took off their jackets, and dove into the stack of entries. □ First came the casual, early morning quips: "Did you ever hear of



an architectural firm called Growth and Obsolescence?" And, "You can tell the class of the congregation by looking at the church designs." And, "You come out of some of these mental health centers and start walking diagonally." □ Later the next day came the suspense and excitement of a discussion that grew determinedly more serious as the entries were narrowed down to the 16 winners ultimately chosen. To allow readers to share in this suspense, as well as to open to them the collective dialogue out of which the jury forged its working ideology, the winners this year are presented in ascending order of award categories: first the nine Citations, then the six Awards, and last, at the critics' moment of truth, the First Design Award — P/A's highest honor. □ To maintain a rigid objectivity of presentation, the program requirements, design solutions, and other verbal descriptions of each winning entry, as well as the

visual material, are presented largely as submitted by the architects. The jury comments were, of course, transcribed verbatim from a tape. □ Interspersed between these three award categories are discussions in which the editors take readers backstage to the event of judging, recreating the decision-making process. The discussions concern: the state of architecture as represented by the submissions (next page); the disparity between the extremes of architectural design — urban planning at the super-scale end and single house design at the other — a subject that each year's jury seems compelled to discuss (p. 120); next, some insight into how the inner workings, the inner life, of the P/A Design Awards Program influence the jurors — and the presentation techniques that affect them even more so (p. 140); and, finally, the ideas that led up to the selection of the First Design Award (p. 140).



P/A SIXTEENTH ANNUAL DESIGN AWARDS PROGRAM

STATE OF THE ART

The P/A Design Awards Program, in the 16 years of its existence, has served not only as a forecaster of future directions in architecture, but also as a general indicator of the present state of the art. To that point, this year's jury discussed the over-all impression of today's architecture as evidenced by this year's 735 submissions. (Their comments on extremes of the architectural scale — urban design on the one end, and single houses on the other — are summarized on p. 120).

PELLI: I find the over-all quality quite high. There is considerable competence in how to put buildings together, to make them work, and in the handling of a number of aesthetic idioms that have become current. What is lacking is deep searching.

Very few seem to be really searching (and maybe that is why we react so strongly in favor of the First Award). Most seem to be acting as if the architect were a technician. Still, as technicians in our time, architects are bloody good technicians.



DAVIS: I see a counterplay between the large buildings with complicated programs and the more simple buildings, such as houses and recreation buildings, with rather limited programs and fewer spaces. The architect has fewer spaces to deal with; he seems to become involved purely in silhouette and form; then largely he makes the space-function work toward that form. In the large-scale projects, where the programs become a little too overwhelming for buildings, he is forced to produce an anonymous cloak around his structure, giving no indication whatsoever of what's happening within it.



MONTGOMERY: The constructionalist basis present in the training of modern architects not long ago seems to have evaporated for many people.

For instance, stucco as a favorite finish material appears again and again. The real issues seem to be low-level inhabitable sculpture rather than a concern with building as one of the generating forces. **COBB:** In the university category, the absence of an effective, sophisticated approach to problems is apparent. There's so much floundering around with borrowed ideas of growth and with forms that are supposed to lend themselves to growth, all of which are very superficial. The whole idea of fragmentation as a way of responding to the problem of growth is dubious. When you deal with the problem of large numbers of people assembling together to live, to work, to study — to do anything in one place — the idea of humanizing it and making the environment tolerable through formalized fragmentation is, to me, completely misdirected.

There are few submitted schemes in which the art of architecture is effectively in the service of creating a sense of community.

PELLI: We should very clearly say that, even so, the mass of submissions is most skillfully resolved and they achieve their whole purpose. A number of submissions have been totally solved; they had an objective; they went after it; and they got there fully. This is a lot to say. A number are extremely competent answers.

MONTGOMERY: Has the situation changed in this generation?

PELLI: Yes. Actually, it has changed in the last five years, in the last ten years. When the Kresge auditorium and the MIT chapel were done, it didn't make any difference whether they were good or bad; just to have done it was the most

marvelous thing. Today, there is a totally different panorama. Today, the competence of the architectural profession is extremely high.

DAVIS: That can be tied to education very specifically, particularly to Gropius.

MONTGOMERY: There is a clear relationship between the aesthetic stance of the designer and the dollar value of the commission: The bigger the commission, the farther back the aesthetic stance is on the time line that extends backward from a contemporary point of view.

Is this somehow inherent in the system? It hits really strongly when you start looking for the successful monumental building. Is there any hope for it, or are we always going to have city halls that are two or three stylistic quantum jumps backward from where we are right now?

COBB: The commissions that allow an attempt at monumentality go to people who have made it. We have certainly been of one mind on this jury to guard against the empty, banal, monumental statement, or the monumental statement that is misdirected. We have rejected all of them. As long as we don't feel disappointed and frustrated at not having that kind of submission, we have to search for a different kind of excellence and excitement. And that search implies a rejection of the second-class monumental submissions.

DAVIS: Well, one part of the purpose here is to discover the younger guys and give their projects a thrust toward getting built. We want to encourage young people. This is the competition through which those who are on the threshold of tackling important problems can be encouraged.

COBB: It's a continuous battle for every little step. But that is why we need a competition like this, because it's the right kind of place for this kind of thing to surface. It won't surface in practice.

PELLI: Right now, we are in a great moment of change. In five years, there's going to be a radical difference between what the older generation is doing — or people who think like the older generation — and what the new generation is going to be doing. There's going to be a radically different architecture.

The Citations the jury selected are presented on the following pages.



Citation

A roadside drive-in and eating place designed to grace a New Jersey highway strip.

Architect: Irv Weiner

PROJECT Drive-in and eating place.

LOCATION Fairlawn, N.J.

CLIENT Harry Gerstein.

SITE On New Jersey Highway Route No. 4.

PROGRAM To design a roadside eating place that establishes its own identity without blighting the highway site. The facility must serve pedestrians, as well as an automobile call-in point and a pick-up station for customers who will either drive away with their orders or eat in their cars in the parking area.

DESIGN SOLUTION Pedestrians pick up food at the counter in the glass-enclosed area; they have a choice of using the stand-up counter or the indoor or outdoor eating areas. Autoists call their orders in at the sign tower and drive around to pick-up station. Food is ready by the time their vehicles have reached the pick-up point. An enclosed building element contains serving counter and restrooms. Mechanical equipment and storage space is located on a level above. The wall facing the glass "cage" will be treated as a giant menu billboard done in lights and "supergraphics." The use of a glass wall between the two enclosed elements — those of food preparation and service, and indoor dining — was to attract and invite motorists. The tower with its strong graphic symbol obviates the typical roadside sign.

CONSTRUCTION AND MATERIALS Solid building elements are of concrete block covered by cement plaster. Glass walls and roof are framed with open web joists supported by steel columns. The heat-absorbing glass is supported by steel mullions. The interior is air conditioned, with ducts concealed in the sidewall construction.

JURY COMMENTS

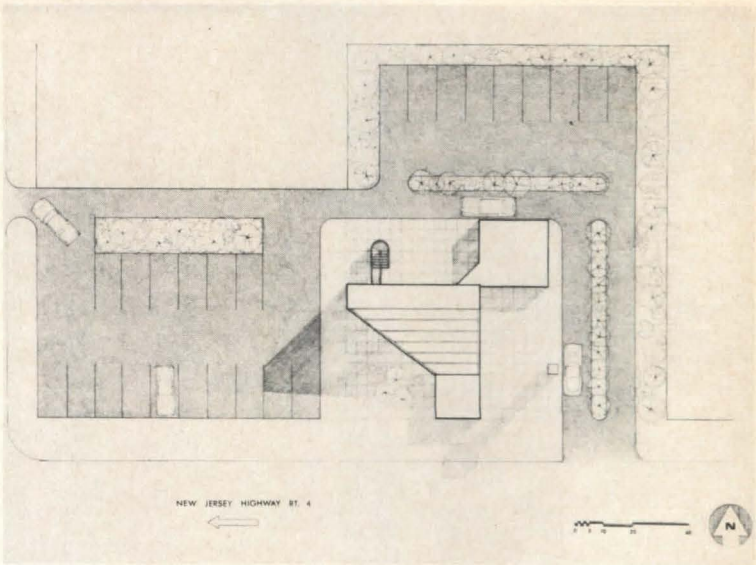
DAVIS: Whenever an architect looks at a roadside "hamburger joint" without revulsion, and actually considers it a piece of architecture, you give it an award.

PELLI: Up until now, a couple of years ago, hamburger joints were all bloody awful.

MONTGOMERY: It was pointed out that it wasn't resolved in con-



Weiner



Site Plan

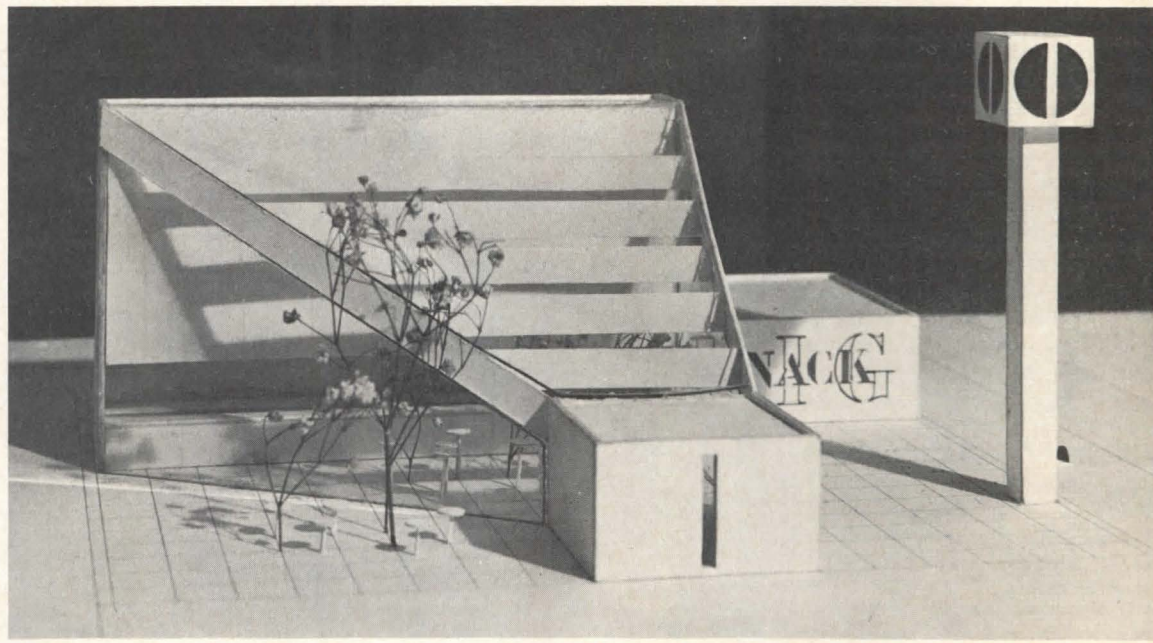
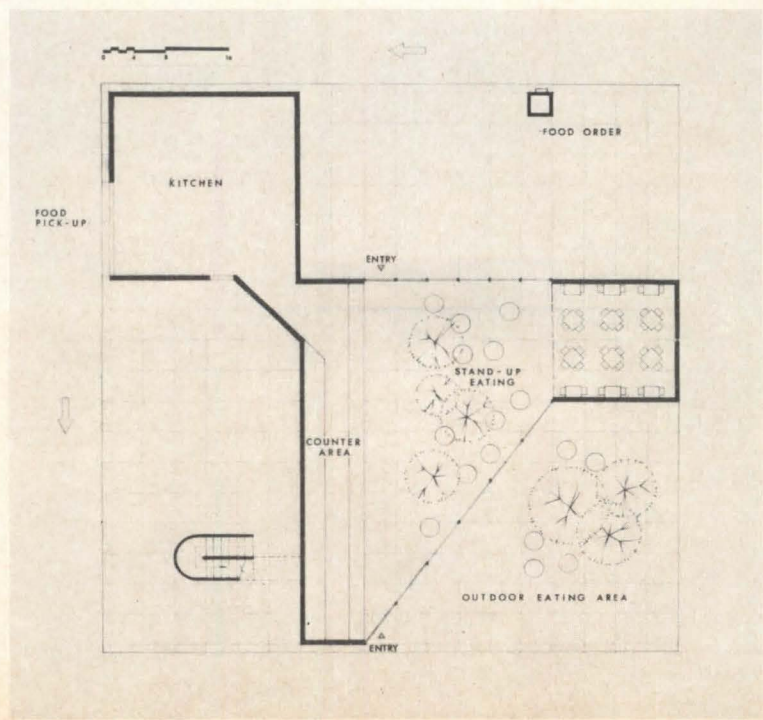


Photo: James F. Horner Modelmaker: Allan Wallis



Plan

struction terms . . . I wonder if this is not a rather significant drawback in that sort of schematic, sketch level.

PELLI: It is a bit of "scenography," but very successful "scenography." It would be welcome in any highway strip where this kind of building occurs.

COBB: It succeeds in making the kind of gesture you have to make on the highway without becoming inappropriately and indiscriminately monumental. It preserves its wit.

Citation

Earth forms and abstract geometric building forms are scaled to be read by motorists doing 60 mph on the Connecticut Turnpike.

Architect: Herbert S. Newman
Project Associate: Glen H. Gregg
Structural Engineers: Henry A. Pfisterer & Associates
Mechanical Engineers: Hill & Harrigan
Plant Consultants: Abner B. Green Associates

PROJECT Gant Shirt Factory.

LOCATION New Haven, Conn.

CLIENT Gant Shirt Company.

SITE Long Wharf Industrial Area facing the Connecticut Turnpike to the south and, beyond that, New Haven Harbor. Siting of buildings predetermined by soil compaction operation necessary to stabilize site.

PROGRAM Factory space of 250,000 sq ft on two levels with parking for 500 cars. Main executive and administration facilities to be included in building. High-level artificial light and air-cleaning system required for manufacturing operation. Client requested that the building present a dynamic, progressive image to the public.

DESIGN SOLUTION Architecture for the open road with large-scale details. Earth forms, reflecting pool, and abstract geometric building forms are used to make strong, easily perceived images for motorists moving at 60 mph. On second floor, the use of wide clerestory-lighted interior street links administrative departments. Pitched roof also hides many small roof protuberances. Reflecting pool, plaza, and circular garden outside cafeteria created for employees' visual relief.

CONSTRUCTION AND MATERIALS Steel frame with precast concrete panels.

JURY COMMENTS

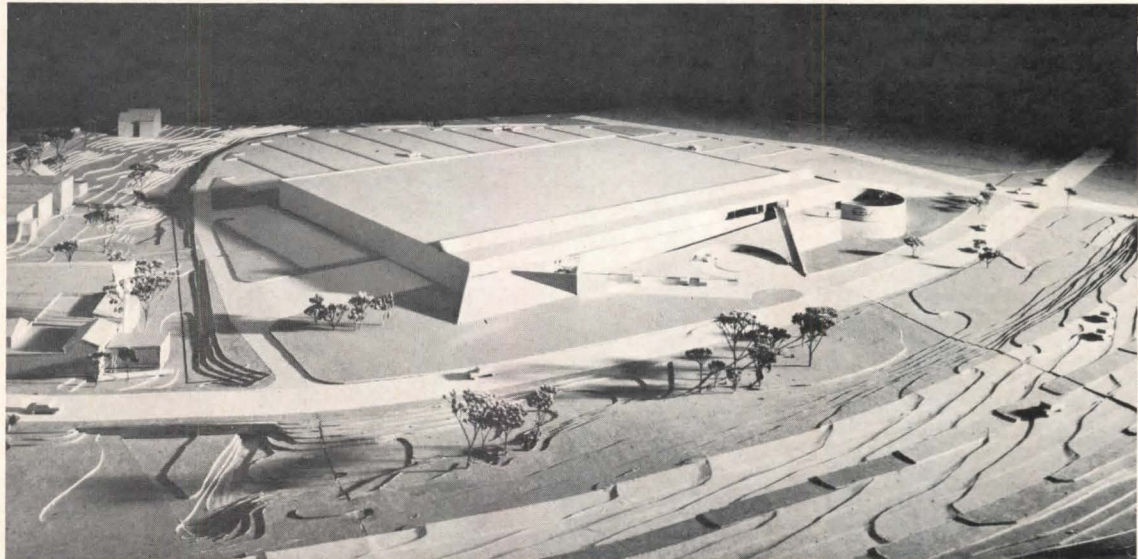
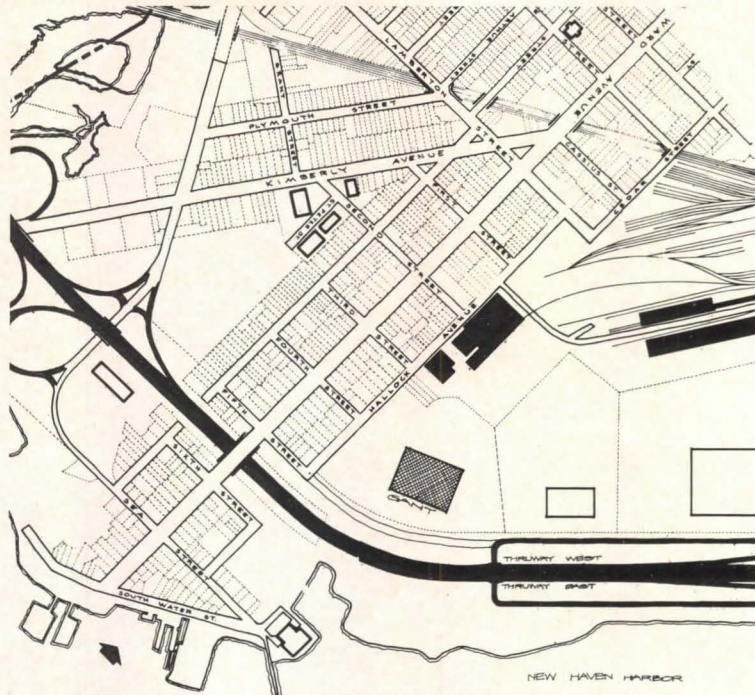
MONTGOMERY: A very solid position on the front edge of design—thinking about making the whole building, in the context of a high-speed automobile freeway, into a symbol for the industrial plant rather than divorcing the

symbol-making and the factory-making activities, as has been historically the case.

GENSERT: A very typical solution to the problem.

DAVIS: As you said, it's a very ordinary solution, but it's been made very compatible to the highway as part of the landscaping, expressly by the antiarchitectural approach taken by the architect—a negative approach rather than a positive approach.

COBB: The factory is fully resolved; it represents really the kind of flowering of full resolution, although not the flowering of exploration and invention. The man designed the factory not as an object, but as something to make an impression on somebody driving by at 60 mph.



Newman



CITATION



Caudill

Paseur

Griffin

Architects' design for their own offices has to anticipate space needs for the next 10 years.

Architects: Caudill Rowlett Scott
Partner-in-Charge: C. Herbert
Paseur
Design Group Leader: William
W. Caudill
Project Manager: Joseph W.
Griffin

PROJECT Architects' own offices.
LOCATION Houston, Tex.
CLIENT Caudill Rowlett Scott.
SITE Eight acres of deeply contoured woodland.
PROGRAM Design for the space needs of an architectural firm for the next 10 years. Create a building that conveys a generic quality, a sensitivity for the worker, amenities as well as efficiencies, and forms — mass to details — that make sense.

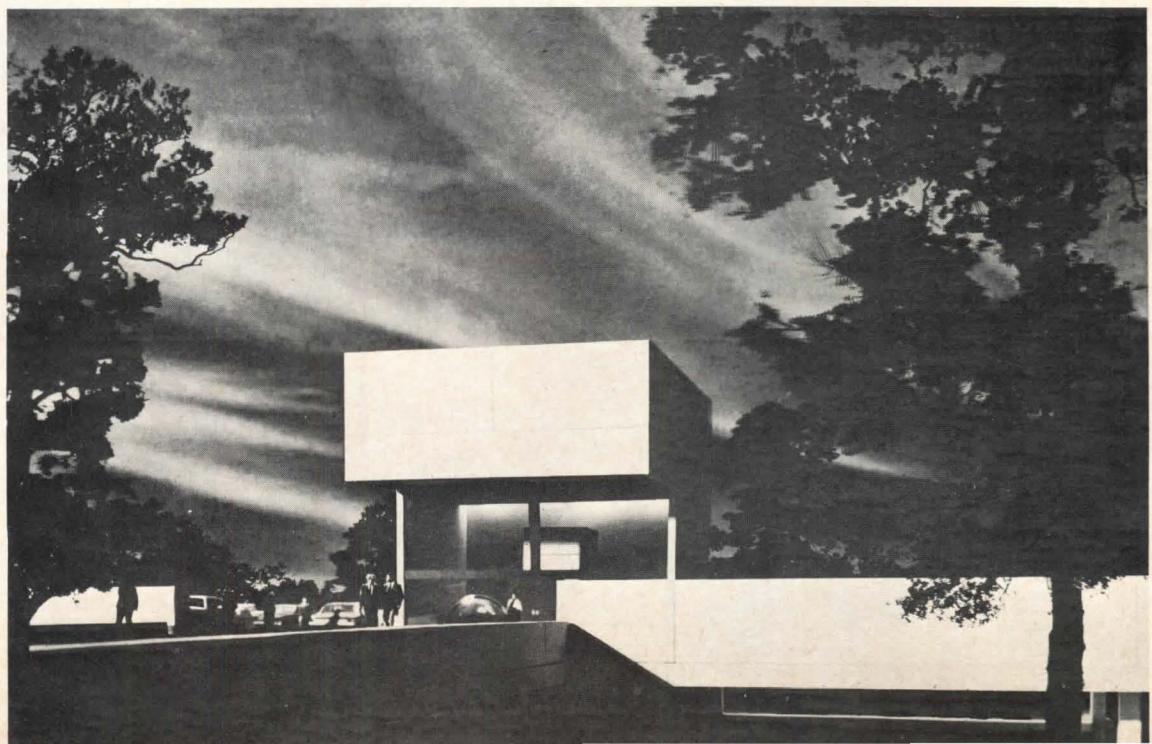
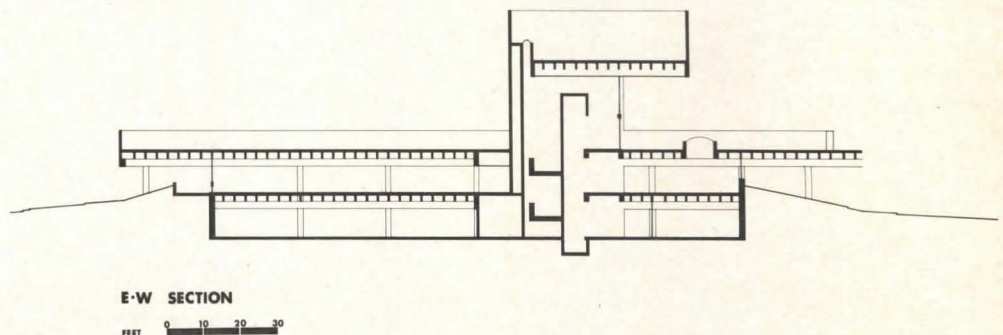
DESIGN SOLUTION Glass box to allow view of 8-acre site. A 40-ft differential in topography allows the entrance bridge to be level with the roof parking deck. Building occupies half of site, allowing for future expansion.

CONSTRUCTION AND MATERIALS Concrete frame supporting glass on four sides. Spans are 40 ft and 10 ft; the latter spans contain main mechanical supply lines. 40 ft double-T beams serve as reflectors for integrated lighting system. Calculations showed that air-conditioning loads could be reduced due to shading provided by automobiles parked on roof. Special consideration given to integration of structure and mechanical equipment.

JURY COMMENTS

PELLI: It's a very good bit of styling. That's probably what I react slightly against. Very nicely done. The idea of putting the cars on the roof so that you don't have to look at them is going to make the office a very pleasant space to work in.

COBB: It's a little better than just styling. The conception is simple, direct, and appropriate to both the site and the program. I don't think it has been overdone in any respect, with the possible exception of the introduction of a hood to stop you at the entrance, but this scheme really demands it.



Citation

Campus store is put underground to preserve trees and sloping contours of the site.

Architects: Earl R. Flansburgh & Associates
 Design Team: Earl R. Flansburgh, Architect; Charles R. Rolando, Associate; Allen J. Boemer
 Landscape Architect: Mason & Fry
 Structural Engineer: LeMessurier Associates
 Mechanical and Electrical Engineers: Francis Associates, Inc.
 Store Layout Consultant: Albert Zavelle

PROJECT Cornell University Campus Store.

LOCATION Cornell University, Ithaca, N.Y.

CLIENT Cornell University.

SITE The center of the campus, a quadrangle surrounded by the library and main academic buildings. Desirable store location but a poor place for a building due to the juxtaposition of existing campus buildings.

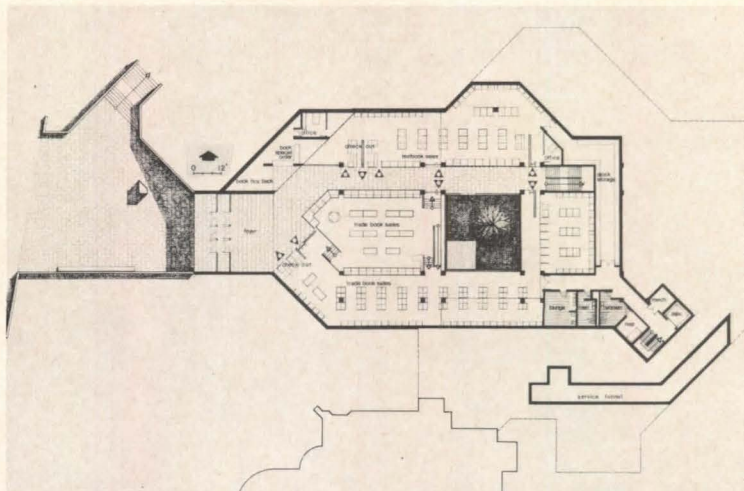
DESIGN SOLUTION An underground structure that will preserve contour of the site and most of the existing trees. Built around an open courtyard that brings light to the center of the store, structure derives much of its shape by attempts to avoid existing trees. A depressed section of first floor allows view of court over book sales area at front entrance. Store and service entrances are blended into hillside, leaving present student circulation pattern undisturbed. View from front entrance is toward the west and a natural lake.

JURY COMMENTS

PELLI: Unquestionably, the most important thing in the design is the decision to put the building underground. To me, that's important enough. The decision to do non-architecture or to do architecture is a decision that comes often to all of us, but very seldom is the decision taken to do non-architecture. In this case, it was the appropriate decision.

DAVIS: This gives evidence of careful thought. Exterior spaces that had meaning in previous years are so often spoiled by the existence of immediate programs in universities.

MONTGOMERY: Good campus planning, but not much architecture . . . undistinguished interior. Good planning decisions, but I don't see that at any level there were sound architectural decisions.



First Floor

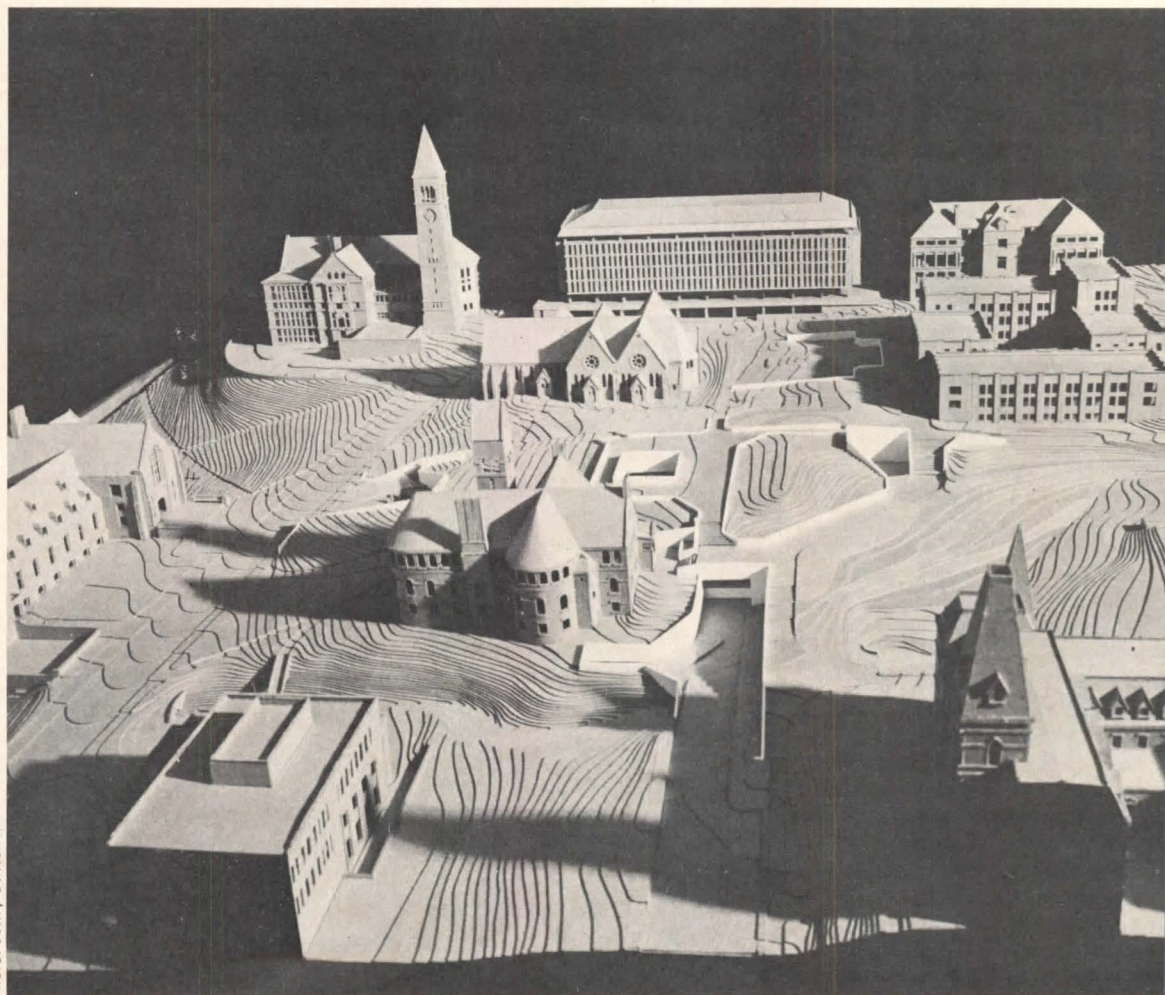


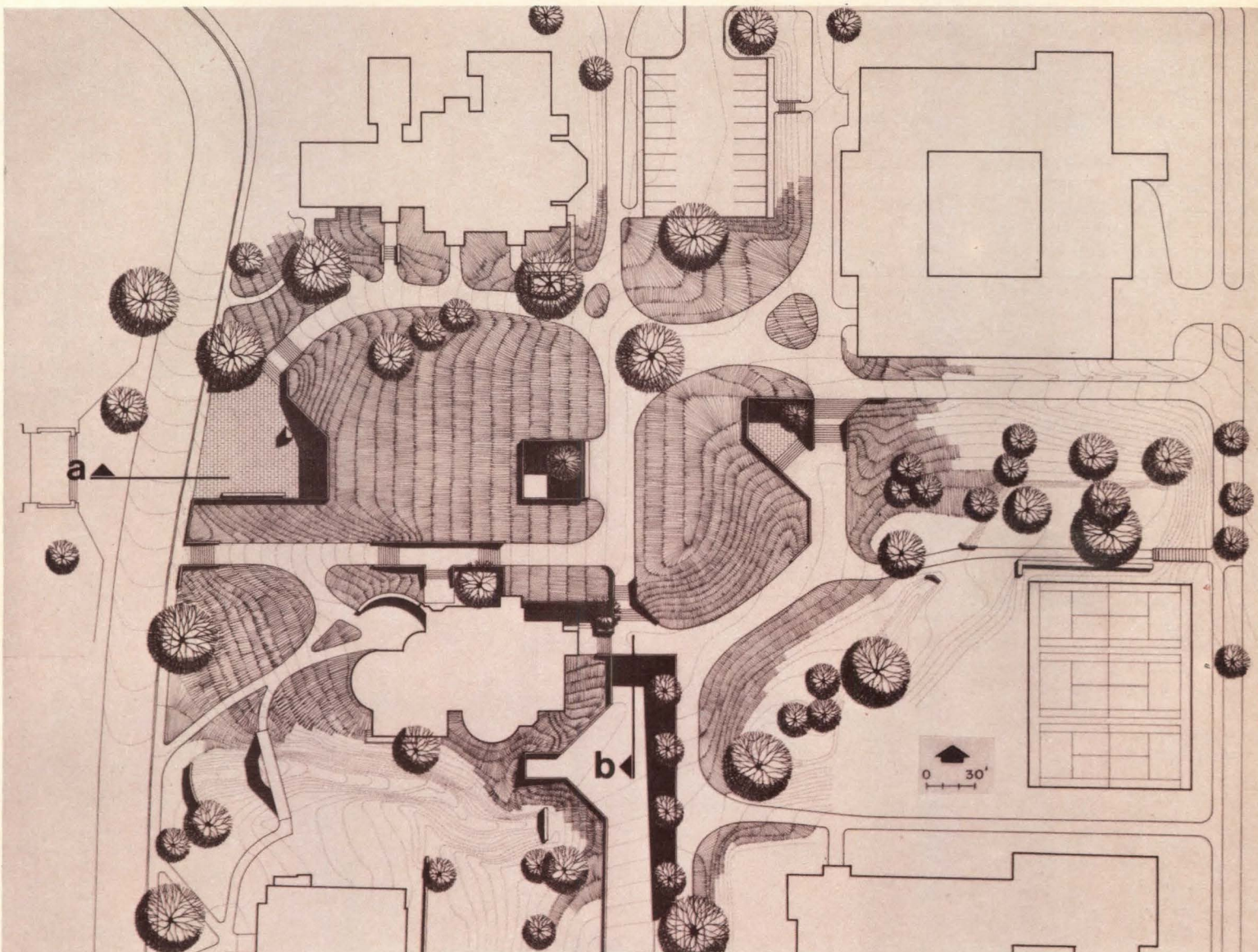
Photo: Jeffrey D. Heller



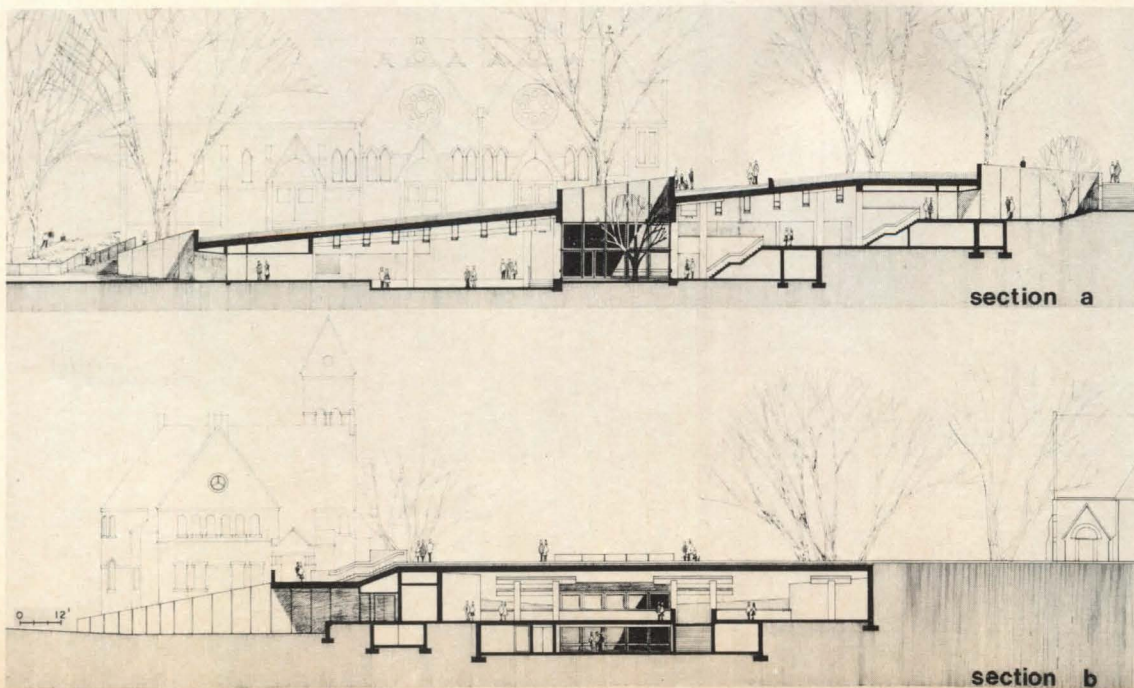
Flansburgh

Rolando

Boemer



Site Plan



Citation

Glass-enclosed inner court is used to create a sense of unity and cross-stimulation in a ghetto school.

Architects: Don M. Hisaka & Associates
Principal: Don M. Hisaka
Associate: William A. Blunden
Associate: Robert A. Barclay
Structural Engineers: R.M. Gensert & Associates
Mechanical Engineers: Evans & Associates
Electrical Engineer: William B. Ferguson

PROJECT Giddings Elementary School.

LOCATION Cleveland, Ohio.

CLIENT Cleveland Board of Education, Dr. Paul Briggs, Superintendent.

SITE 2.5 acres in a deprived neighborhood of inner city Cleveland. Single detached homes predominate in the community, with a few multifamily homes and several industrial sites in the vicinity.

PROGRAM An elementary school of 30 classrooms, including kindergarten through sixth grades, with supporting administration, multipurpose, and library facilities.

DESIGN SOLUTION Provides a compact three-story building with major elements surrounding a skylight, all-weather inner court. Scheme reinforces the educational function by enabling the classrooms to open onto the courtyard and imparts a sense of unity and cross-stimulation. Terraced balconies provide visual extension of classrooms and serve as secondary means of egress. Library and administrative area is centrally located. A study was also made of reducing the scale of the building's exterior, so as to be more compatible with surrounding housing, by placing higher masses toward the school center, with one-story portions closer to street.

CONSTRUCTION AND MATERIALS Masonry bearing walls, steel joists with exposed structural steel roof system over court. Entire school air conditioned by five roof-mounted multizone units serving classrooms through air-shafts in stair and utility cores.

JURY COMMENTS

DAVIS: Very clean, direct architectural solution of the program with an inner court that all spaces open into . . . with a not-so-well defined structural system. As has been demonstrated in previous school buildings in neighborhoods similar to this, however, sociological problems exist when a school turns its back to the community, even if it's not the intention. The solution is fine for a previous time, but at the moment, it is a big mistake if serious thinking does not go into opening of the school to the community rather than closing it off.

GENSERT: On the other hand, the program given specified that it should look within the court . . . with no windows or glass toward the outside, because this is the neighborhood where the children burned down the school prior to this one.

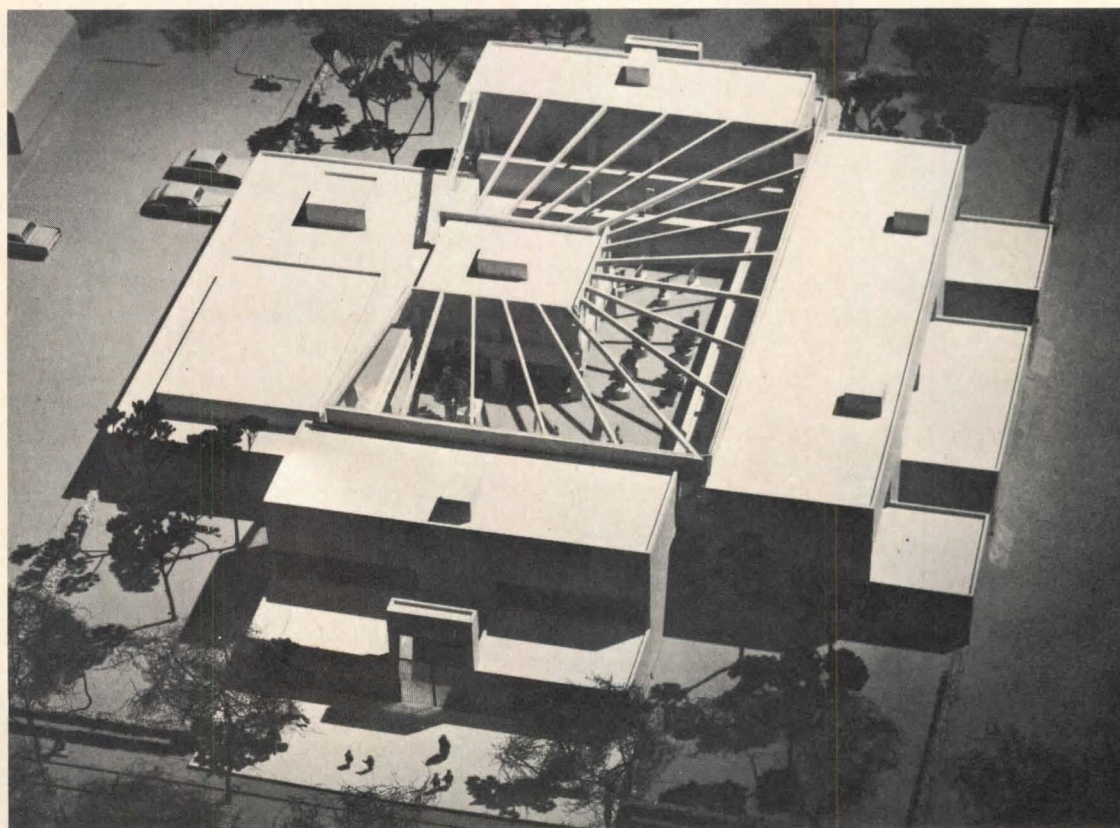
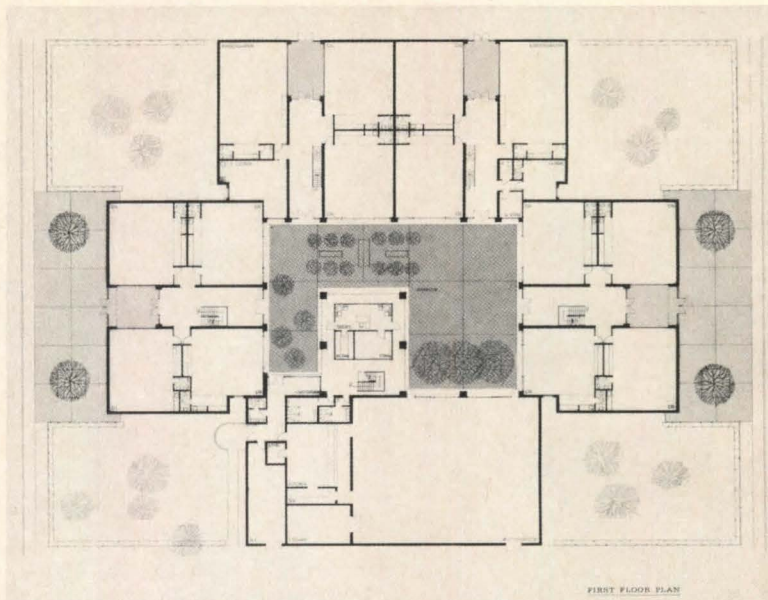


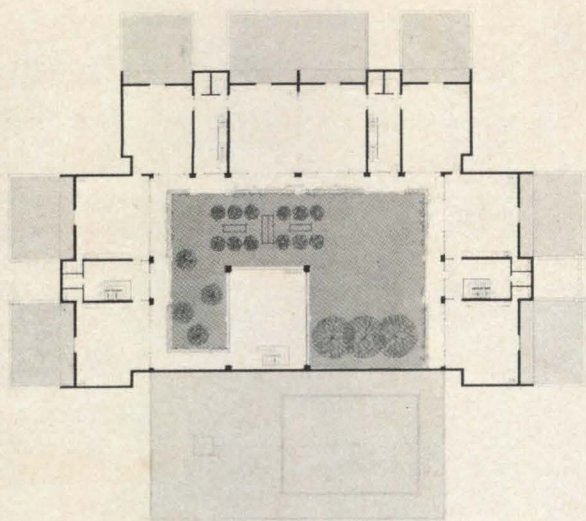
Photo: Thom Abel

Hisaka

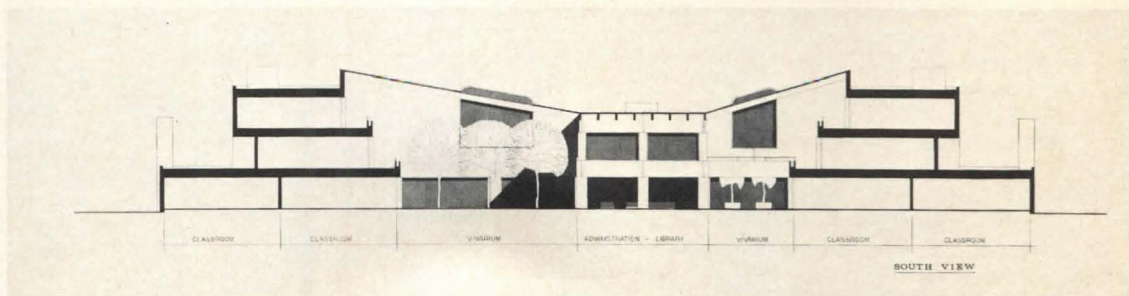
Blunden

Barclay



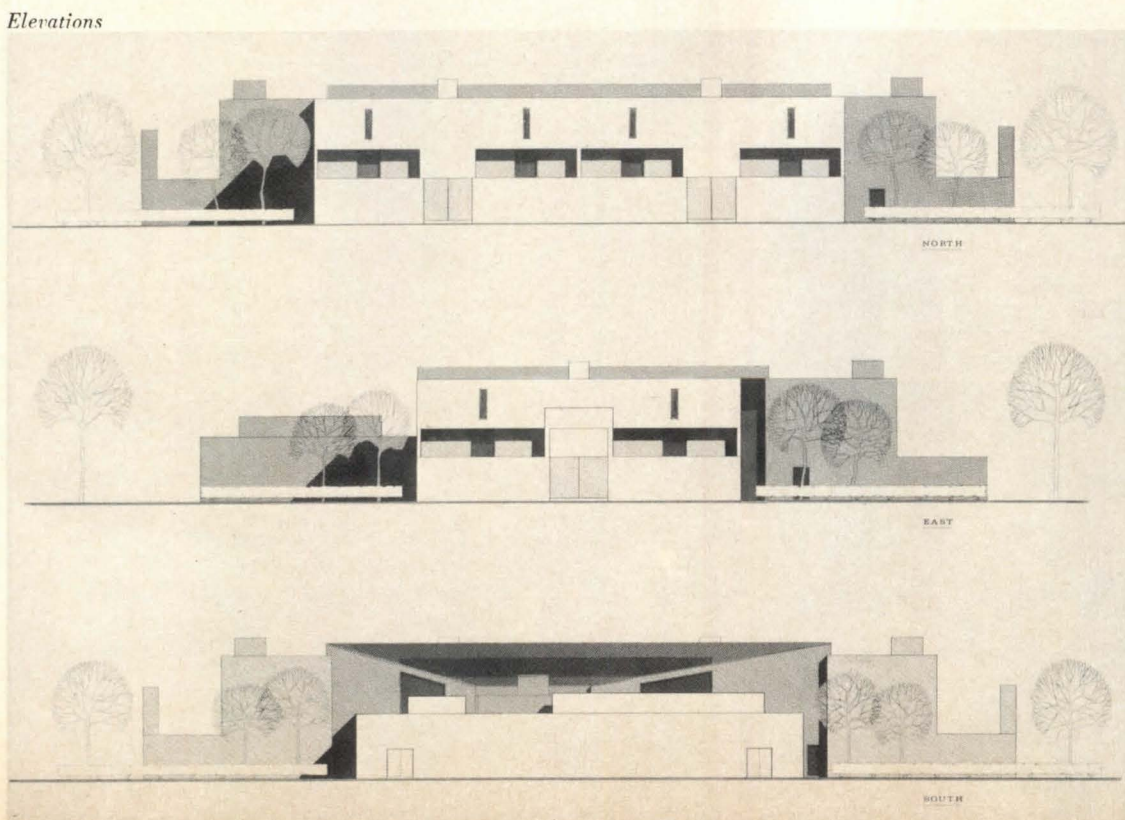


SECOND FLOOR PLAN



SOUTH VIEW

Section



NORTH

EAST

SOUTH

Elevations

Citation

Sensitively designed and sited Public Safety Building on a restricted urban site will house police, sheriff, jail and court facilities.

Architects: Walker & McGough
 Partner: Bruce M. Walker
 Partner: John W. McGough
 Partner-in-charge: Walter F. Foltz
 Designer: Gary H. Larson
 Project Manager: Jack L. Shetter
 Landscape Architect: Keith Hellstrom
 Structural Engineers: Lyerla & Peden
 Mechanical & Electrical Engineers: Marque, Clerc & Riley
 Communications Consultants: Richard A. Kuehn & Associates
 Data Processing Consultants: Ernst & Ernst
 Law Enforcement and Detention Consultant: William N. Kemp

PROJECT Spokane County-City Public Safety Building.

LOCATION Spokane, Wash.

CLIENT Board of Spokane County Commissioners, State of Washington.

SITE Adjacent to existing historic County Courthouse. Siting is crucial to future development of Spokane Riverfront.

PROGRAM Construction of a new Spokane County-City Public Safety Building to house police, sheriff, jail, and court facilities. New facilities will replace outmoded county and city structures and will be one of the most advanced facilities of its type in the U.S. New building to house all males and females committed from the city and county of Spokane; the sheriff's and police departments, justice and municipal courts; city traffic bureau and the prosecuting attorney's department.

DESIGN SOLUTION A building that simultaneously satisfies a complex program and reinforces an excellent existing urban pattern. Jail operates as a single county-city facility, allowing effective diversity in segregation of inmates according to age and type of offense, sentenced and unsentenced, problem prisoners, and so on. It eliminates duplication of functions wherever possible. A central record-keeping section with a programmed data-processing system is used, with common services grouped around it. Public lobby allows access and circulation. The new building is compatible in color and texture to the existing building. They are further unified by landscaping.

CONSTRUCTION AND MATERIALS Cast-in-place, combined with precast and prestressed concrete construction. In the law-enforcement and detention section, a repetitive column arrangement was developed to create an economic structural bay size. Pan-formed concrete joists span these bays in main and second-floor areas. System is flexible, allowing easy accommodation of mechanical and electrical services. Third floor and roof framed with concrete slabs, which transfer loads to columns below through a system of concrete wall beams. Mechanical system provides heating, ventilating, and air conditioning for the entire building.

JURY COMMENTS

PELLI: The merits of this solution are to have been able to answer thoroughly and comprehensively a very difficult problem in a very tight site. We have some apprehension about the whole problem of jails, and what jails should be — if they should exist at all.

COBB: A competent job of planning. Well planned internally, sensitively conceived spaces, it impresses one as a competent building. What kind of a face should such a building present to the street in this area? I think they've allowed themselves to fall into some clichés, however, which belie the planning merits of the building. But, this is by far the most fully worked out building of any submitted.

DAVIS: Special credit has to be given to the sensitivity of the architect, particularly the entry plazas, which are the most significant spaces. The open spaces leading to the public building seem to be very well handled, unoppressive, almost inviting.



McGough

Walker



Foltz

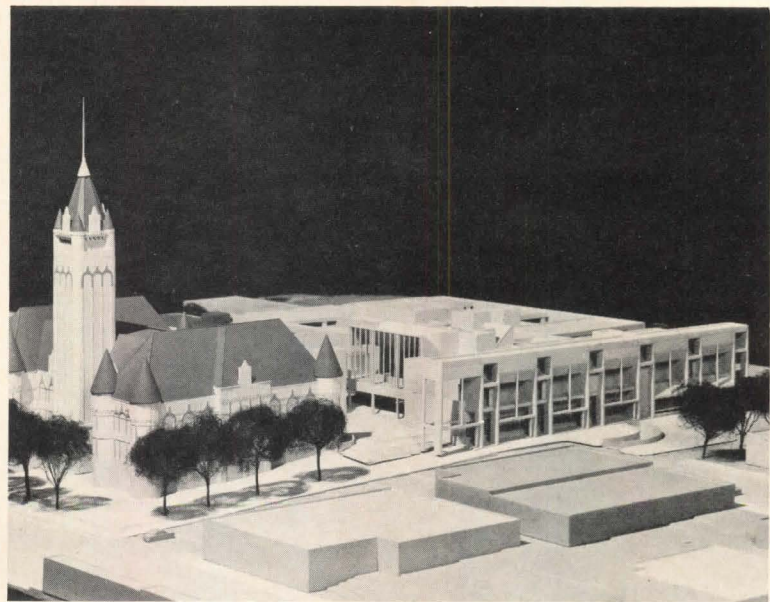
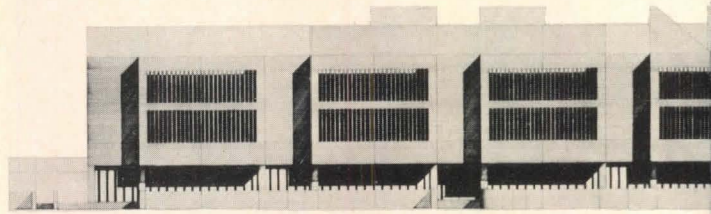
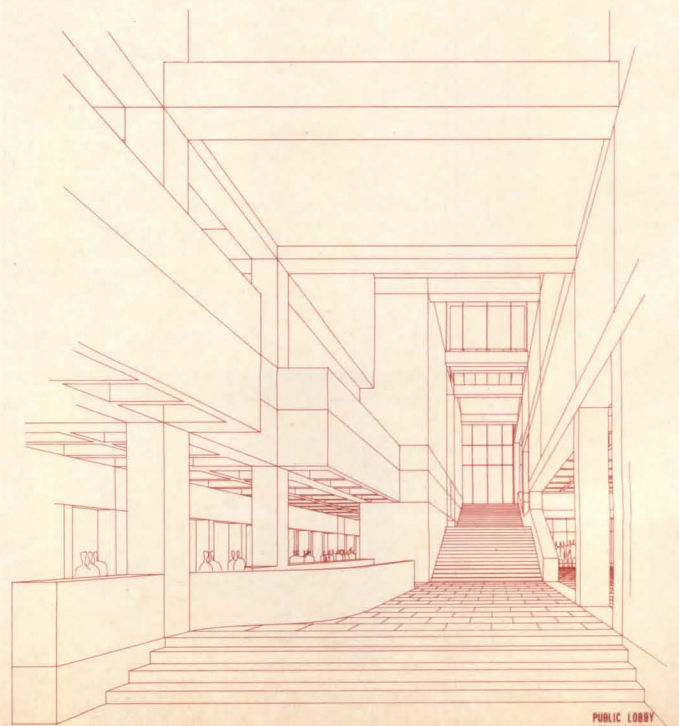


Photo: Brown's



PUBLIC LOBBY
LOOKING SOUTH



MECHANICAL
LEVEL ONE

SCALE 

0 10 20 30 40

Citation

Rent-supplement housing in eastern Kentucky uses trailer technology to keep costs low, but looks like conventional construction.

Architects: MLTW/Moore Turnbull
Partner: Charles W. Moore
Associate: Thomas H. Rapp,
Ronald Filson
Structural Engineer: Associated
Engineering
Mechanical Engineer: John Altieri

PROJECT Rent Supplement Housing for Whitesburg, Ky.
LOCATION Whitesburg, Ky.

CLIENT Southeastern Kentucky Housing Development Corporation of Whitesburg.

SITE Steeply sloping forested hillside in the Cumberland Mountain region of southeastern Kentucky. Hillside land comes cheap in the eastern part of the state, where flat bottomland is gold.

PROGRAM To provide 50 two- and three-bedroom dwelling units for families who will benefit from a local rent-supplement program. Financing of the \$455,415 construction budget was obtained under section 221(d)(3) of the Federal housing law, administered as part of the FHA's Accelerated Multifamily Processing program (AMP). AMP, designed to speed processing of low-cost housing projects financed by FHA, allows 30 days for the production of schematic drawings and design development, 60 days for working drawings.

DESIGN SOLUTION For the architects, the Whitesburg project was an attempt to amend existing techniques for low-cost housing construction and to improve results without disturbing the basic techniques enough to raise costs. Four prefabricated modules, transported to the site like trailer units, are designed for living and sleeping, for sleeping only, and for utility (including kitchen, bathroom, storage, and staircase). Modules are strung along the contours of the site in two- and four-unit segments. The simplicity of the design is broken only by foldout pitched roofs that create loft spaces in upper bedroom

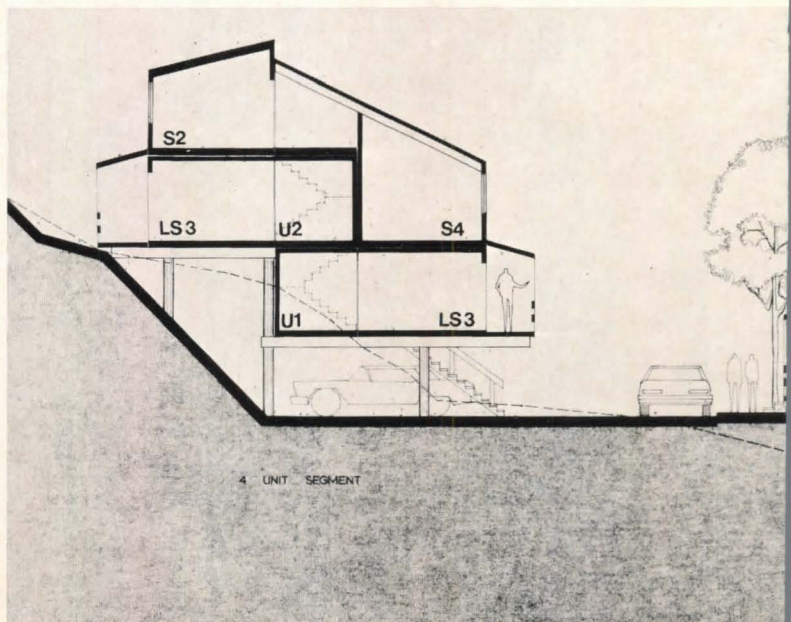
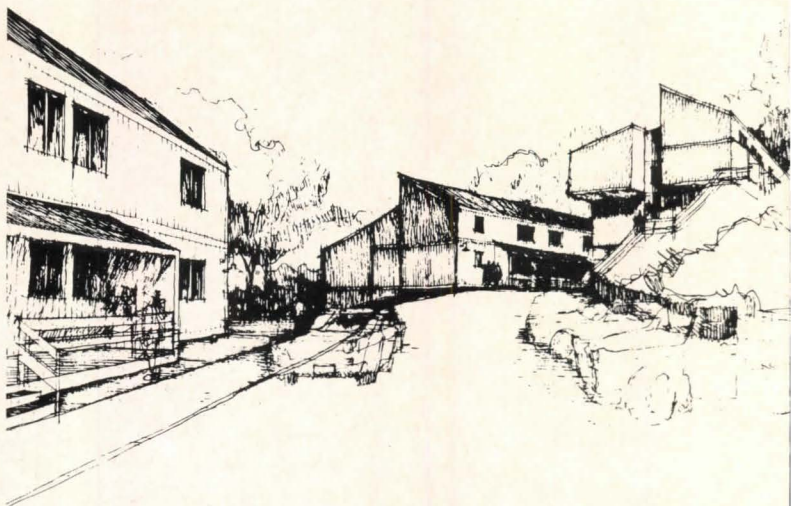
units. Fold-out roofs also mitigate the appearance of trailers without detracting from their economy. Land is benched as in strip mining, but the bench is all cut, instead of cut-and-fill, and the loose earth is moved longitudinally into a dammed gully.

STRUCTURE AND MATERIALS Pole foundations support 8- and 12-ft prefab wood-framed modules.

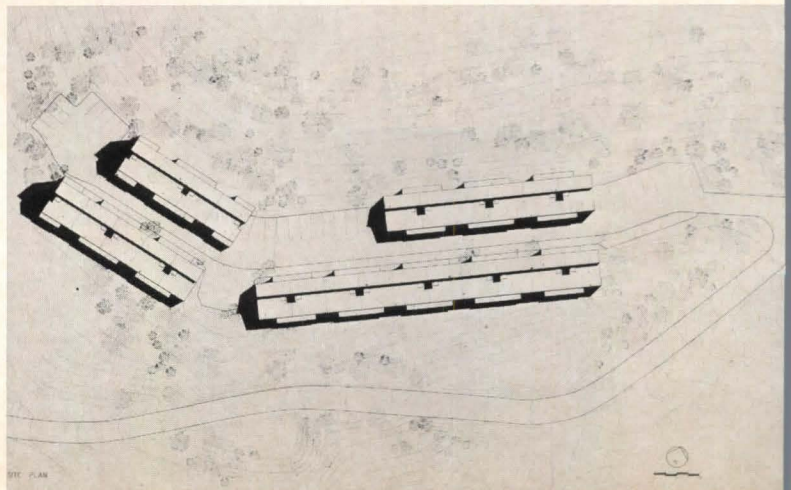
JURY COMMENTS

MONTGOMERY: This struck me immediately as an appropriate program in which to use trailer technology for permanent housing, and one in which the designer has tried very hard to get away from the usual machine-like visual quality of the trailer. This is a positive virtue as far as housing is concerned. Of course, some would argue that the technological system ought to be more directly expressed; that the housing shouldn't look like ordinary wood frame construction, but indeed like an assembly of trailers. So far, among designs by people working with prefab units, this one is the most real.

DAVIS: Here we have a beginning for a new system of building. We are all very concerned with being able to prefabricate housing, and this is an ingenious use of trailer technology. The plans are very well worked out; they are successful.



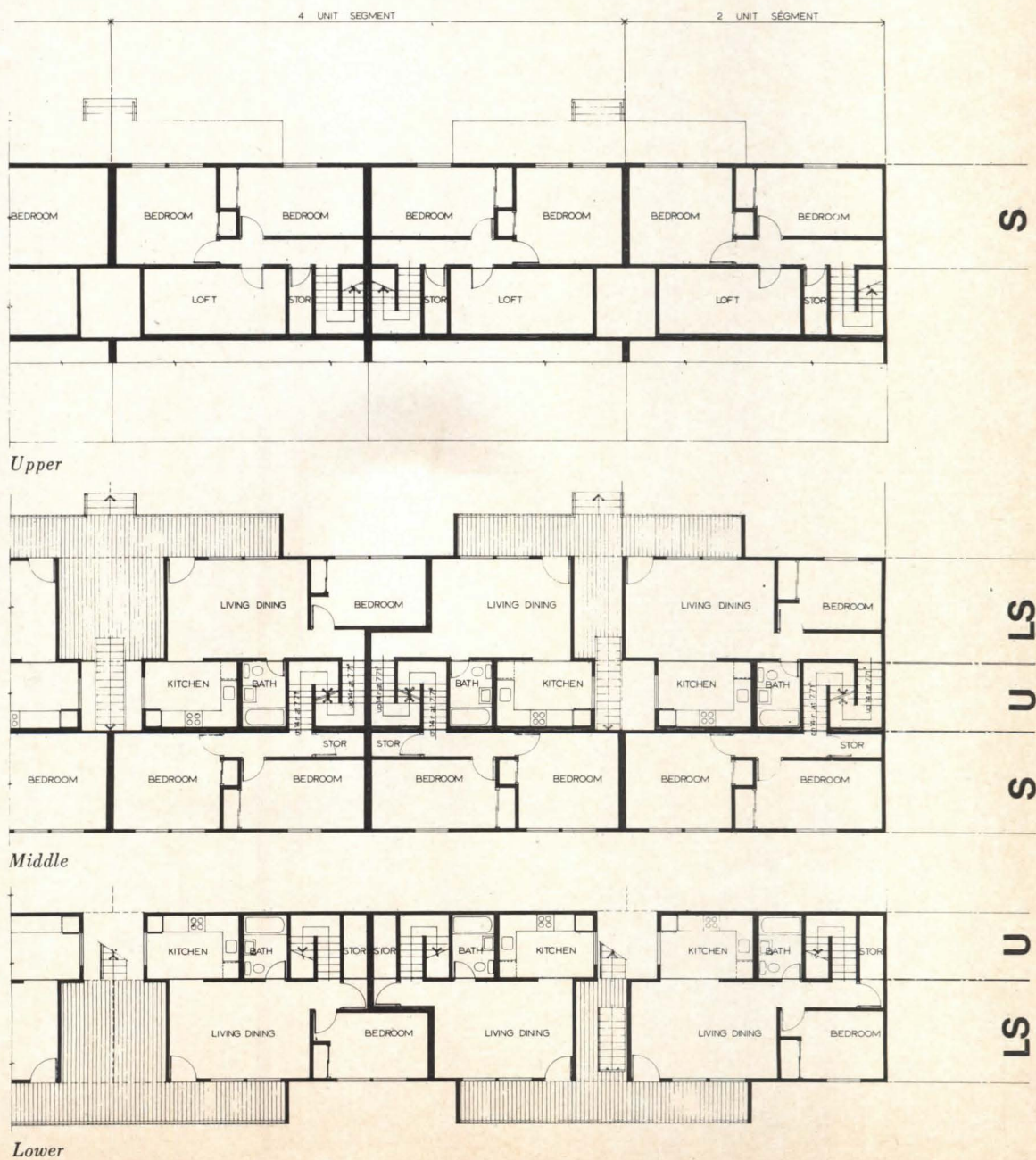
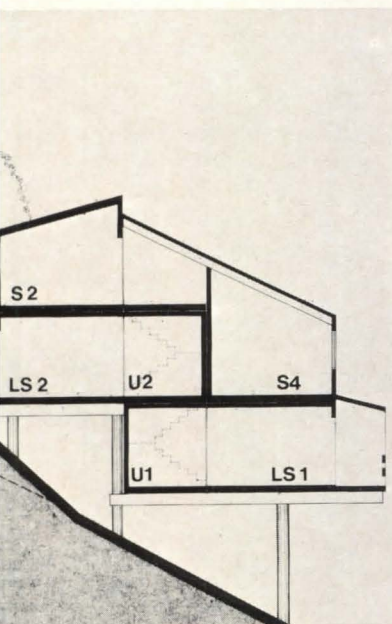
Section



Site Plan



Filson

[illegible]

Citation

Expert planning of circulation draws pedestrians through the exuberant inner court spaces of a town house/commercial cluster to the more restrained architecture of a restaurant overlooking the Delaware River.

Architects: Sauer & DeVito
Project Architect: Terence L. Brown

Structural Engineer: Joseph Hoffmann
Mechanical Engineers: Ceglia/Schlein Associates, Inc.

PROJECT Head House East.
LOCATION Philadelphia, Pa.
CLIENT Head House Square Corporation.

SITE One-and-one-half acres in the Society Hill Renewal Area facing the Delaware River.

PROGRAM To design a complex of 65 apartments, 20,000 sq ft of specialty shops, and parking for 70 cars. Height restriction of 35 ft was placed on area to keep new construction in scale with older buildings in historic neighborhood.

DESIGN SOLUTION Tight-packed urban mix includes shops on both mall and below-grade parking levels and a two-level restaurant on Front Street facing the Delaware. The generally U-shaped series of informal row houses is interspersed with small courts and walkways that will lead pedestrians into a large main court behind the restaurant, which presents a "harder, more formal edge" to the street. Living spaces and terraces overlook the activity of the courts, while entrances are on private walkways.

CONSTRUCTION AND MATERIALS Exterior walls of brick and stucco. Lead-coated copper roofs. Brick, concrete and asphalt walks with planting, sculpture, fountains and street furniture.

JURY COMMENTS

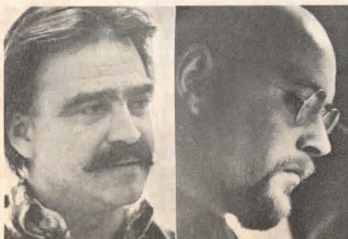
PELLI: A fantastically skillful handling of pedestrian spaces.

MONTGOMERY: I'm impressed by the planning concept of leading people into this thing; developing very active interior spaces, and

bringing them out to the river view.

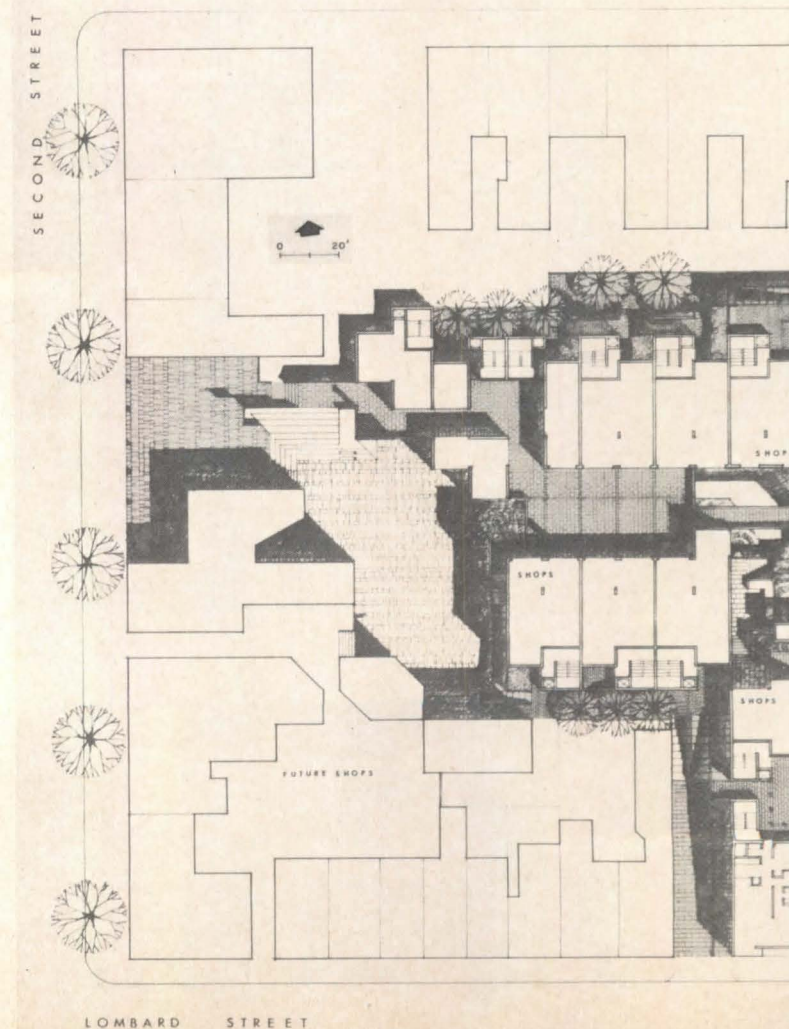
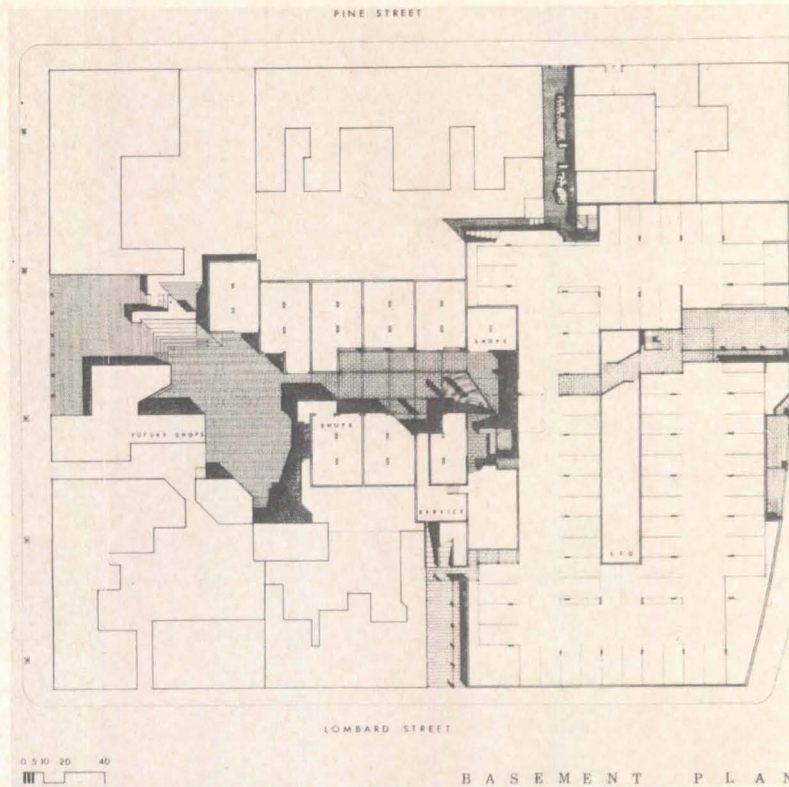
COBB: This scheme has two strengths. The first one is the basic concept of pulling people through the public spaces. The second is the handling of the Front Street face, which seems the most successful part of the design. But I object to the excessive picturesqueness of the internal development.

MONTGOMERY: My biases are in favor of this scenographic quality, which I personally take to be a positive virtue in this kind of environment.



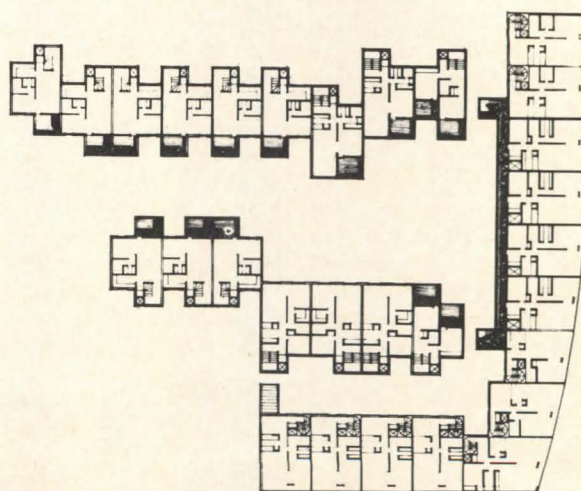
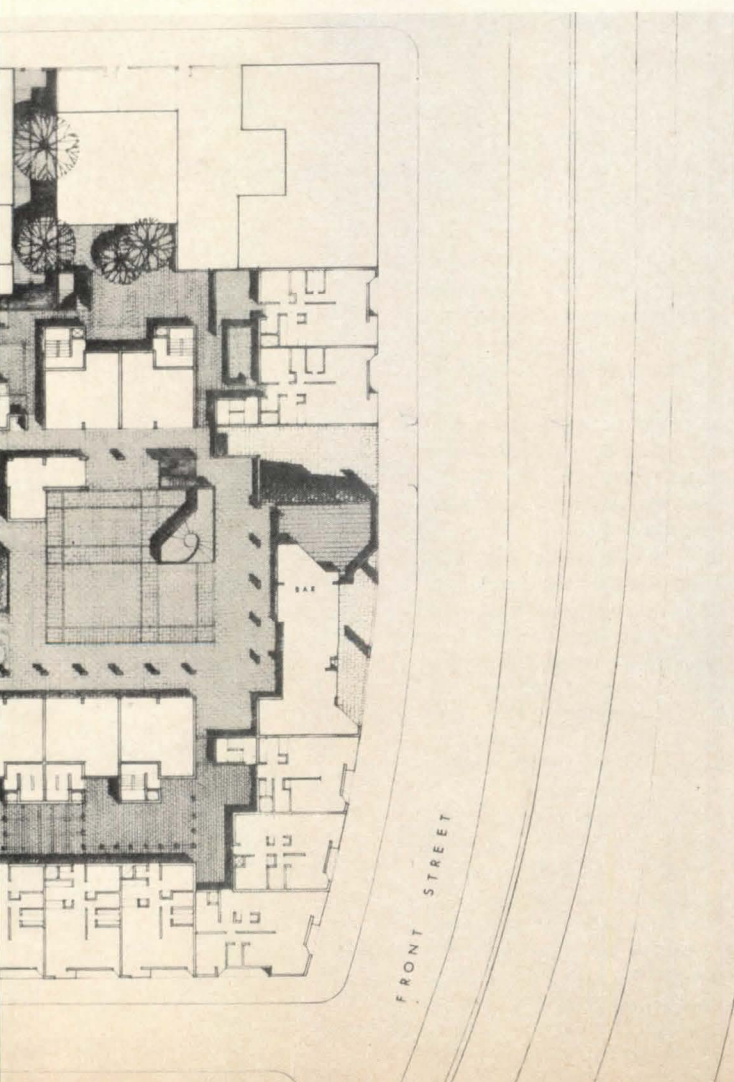
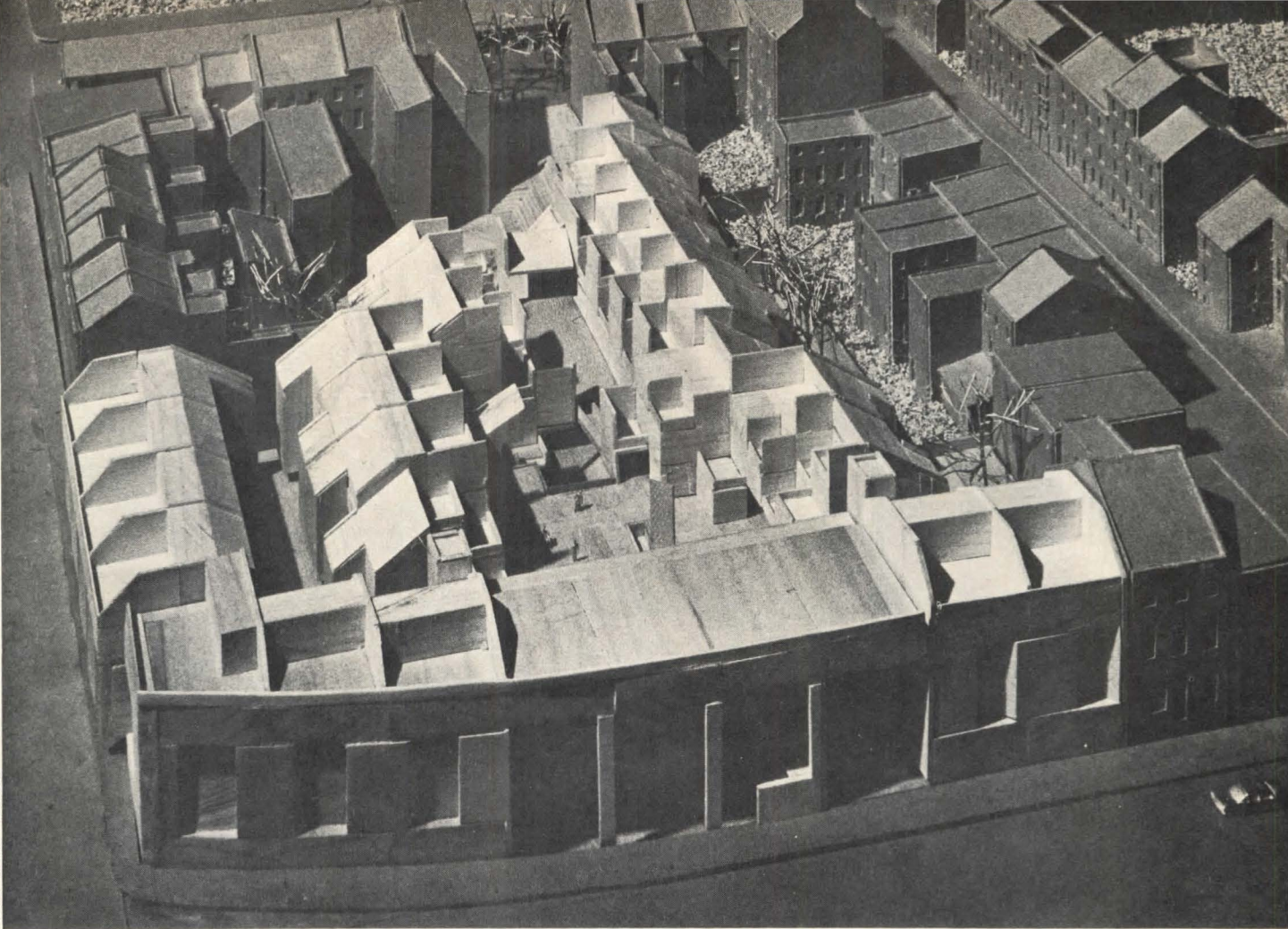
Sauer

Brown



First Floor Plan

Photo: Walter Kaufman



THIRD FLOOR PLAN

Citation

Transportation, housing, office space, and a university are coordinated in an urban design and development scheme for a flood plain area within the city limits of Memphis, Tenn.

Urban Design Consultants: Henry C.K. Liu & Associates
 Urban Designer: Henry C.K. Liu
 Associate Designer: Englebert Zobl
 Assistant Designer: Janis Ripa
 Consulting Architect: George A. Dudley

PROJECT Presidents Island urban design and development plan.
LOCATION Memphis, Tenn.

CLIENT Winthrop Rockefeller.

SITE A 7590-acre island, within the city limits of Memphis, the site is formed by the Mississippi River and a natural water inlet that has been developed into a harbor. It is subject to periodic flooding, with high water reaching levels 19 ft above grade.

PROGRAM To propose an urban design and development scheme for Presidents Island, Memphis, Tenn.

DESIGN SOLUTION The solution will take advantage of Presidents Island's central location, which is a focal point equidistant from the Memphis Central Business District to the northeast, the residential suburbs of West Memphis to the northwest, and the rapidly developing industrial parks to the south. The architects plan to construct the entire development (excepting the university campus for 20,000 students) on elevated platforms above the flood plain. The university will be built on fill, which will serve as a levee-protecting part of the site. In addition to the university, the site will contain 6500 units of marina housing, 6 million sq ft of office space, 1.2 million sq ft of commercial space, 1000 acres of new industrial land, and 1.5 million sq ft of research facilities. Viewing the entire site as an interchange among roadways connecting these sections of town, the designers conceive of parking as the final module of a vehicular network.

TRANSPORTATION A mass-transit system will link the marina housing to the north with the university, passing, on the way, a linear commercial facilities development. A waterway system will follow roughly the same path.

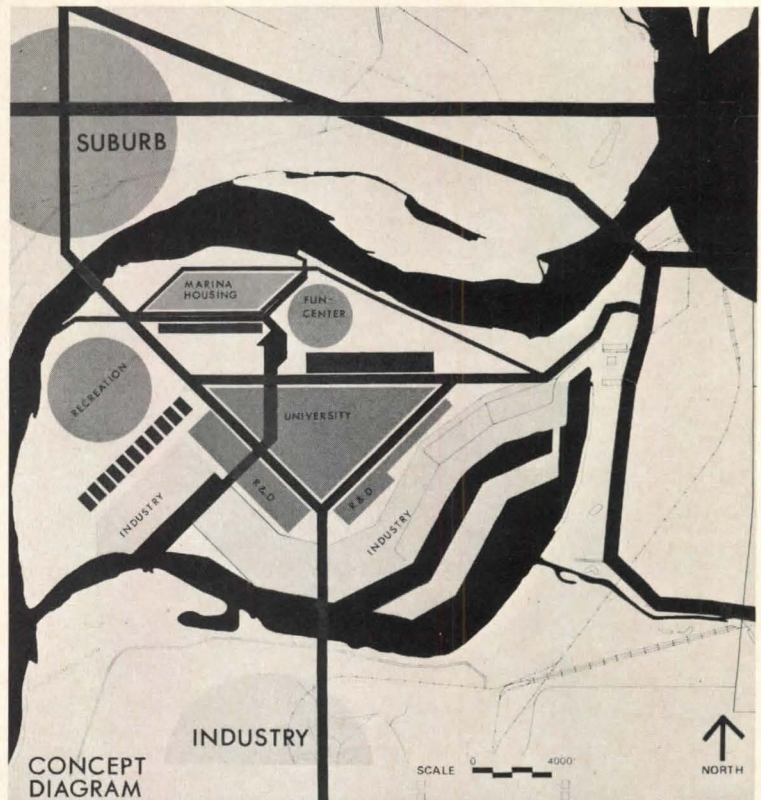
JURY COMMENTS

PELLI: It is the only complete and good entry that answers the prob-

lems of large-scale architecture, the integration of a number of functions, and the problem of the growth and interrelation of those functions. (We are assuming that the basis for the program exists as stated and that some other important technical planning considerations have been taken into account and solved.)

DAVIS: What comes across strongly is the almost absolute achievement of transportation and pedestrian movement. Transportation for vehicles comes from three points and forms a triangle at the core, and this triangle generates the pedestrian movement from within and without. The abstractions of space — space use, land use, space definition — seem to be generated by an original area of industrial use on the periphery of the island.

COBB: The plan tries to say something about the appropriate relationship — admittedly in an abstract or unreal fashion — between access, development, and urbanization of the site. The relationship between the idea concept and the real site is one I can accept, without having to insist that we validate the programmatic basis for it. If we accept the programmatic basis as a starting point, and accept the urban framework as it has been described, we see that the project has been developed in a consistent way, and the end result is stimulating. Its greatest strength is that the formal development of



it, to the extent that it is developed in three dimensions, is a very direct outgrowth of the planning scheme, which makes it easy to think about what the consequences of the propositions might be. Despite the somewhat fashionable nature of some of the forms, there is a remarkable economy of formal expression here.

GENSERT: If this project had taken the next step and examined even in a cursory way the land values and costs of construction, it might have been taken out of the classification of a dream. It doesn't go far enough.

MONTGOMERY: It is essentially an attempt to interest a real estate investor in a piece of land.

COBB: This is not arbitrary pattern-making in that sense. The three major elements — office space, university, housing — are indicated schematically as incremental types of development within a framework. It is a projection of an idea of urban growth, adopting a scheme of circulation and a scheme of growth and making them work together.



Liu



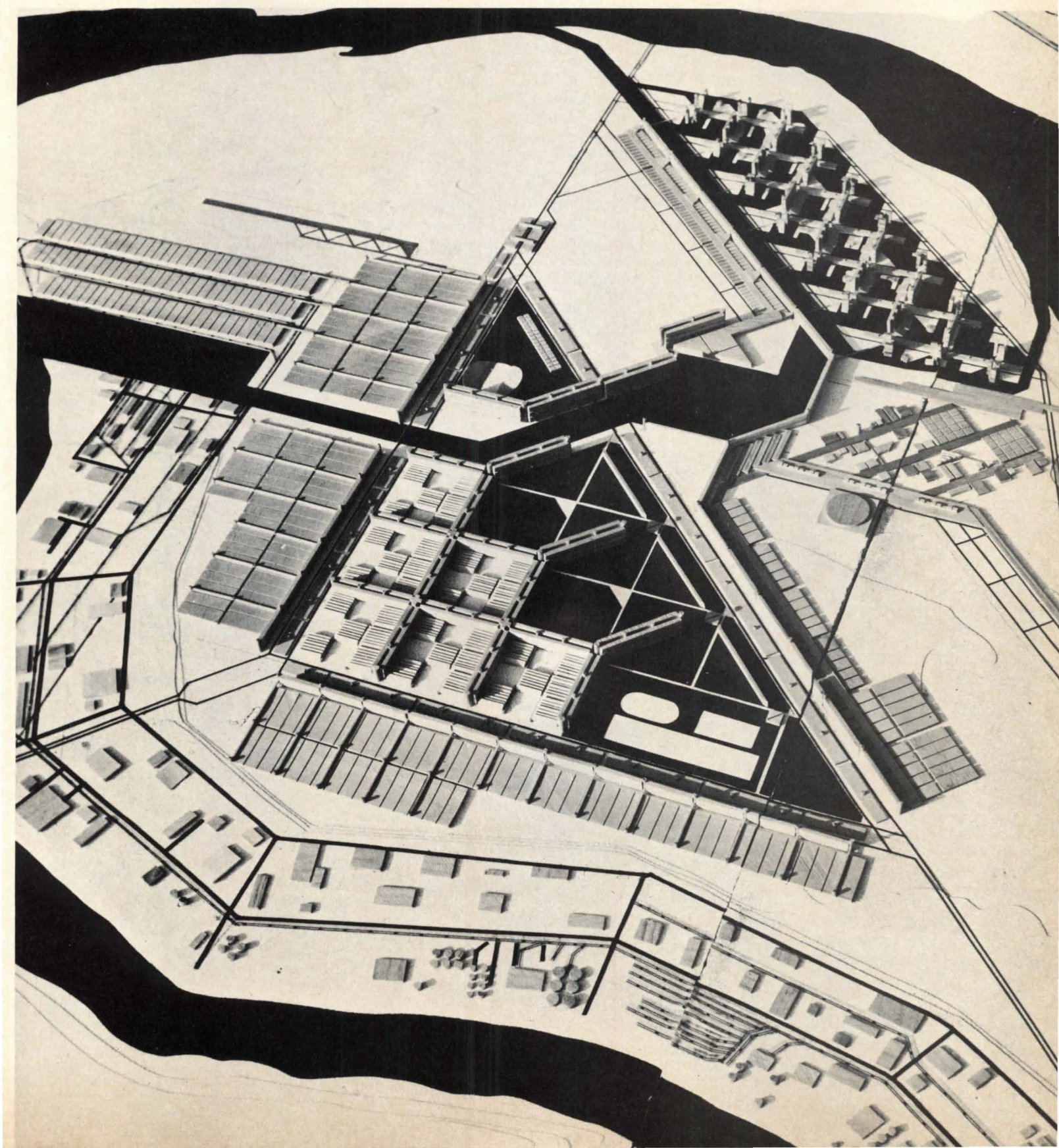
Zobl



Ripa



Dudley



URBAN DESIGN: PROGRAM AND PROCESS

Planning must go beyond two-dimensionality to the continuing process of problem solving

The jury, in studying and eventually promulgating the Memphis plan (pp. 118-119), discussed the general problems facing planners working at large urban scales. There was general rejection of the graphics-oriented master plan approach of a few years ago, and an insistence that the solutions to urban design problems lay in working upward from small to large scale through the program and the process of each project, with necessary emphasis on all aspects and systems concerned, including transportation and transit, economics, housing, education, zoning, and the rest.

MONTGOMERY: The old Bauhaus notion that you could work in a sort of seamless world of design from the spoon to the city is absolute garbage. It does not work and is a mistaken idea that is behind many of the mistaken efforts of large-scale designers. As a matter of fact, it is one of the reasons why today physical designers in American housing and urban development policy have such a shockingly small part to play — because they haven't realized the essential discontinuities in design at various levels of scale and time and space and of money. However, where an architect can make a very significant contribution is in working from the essential physical material on up to larger and larger levels of concern, of generality of time, space, money, scale, and so on.

COBB: It seems to me the architect's particular contribution [in the Memphis plan] is working inductively from the concrete specific events up to larger patterns, rather than the other way around. . . . The architect's obligation to see the formal implications of systems at any scale should not be impeded always by the recognized realities of the development process. When it comes to development itself and to real projects, the architect must recognize them, and this is where most of the projects in the categories of housing and education are still disappointing. While it is true, as has been pointed out, that we have, because of the fashionability of certain formal devices, residential environments shown

in these schemes that are perhaps more tolerable on a certain level of picturesque, we have less conceptual strength and less systematic significance and less real significance in terms of saying something to people who inhabit these places than we have had in some of public housing, for example. [See below for further comments on housing — Ed.] Everything we see here is an attempt to escape from those weaknesses. You can't escape from them through the adoption of arbitrary formal devices or picturesque scale and that kind of invention; it just does not have enough substance to it, even if it is done well, as it very seldom was in these submissions. It does not have enough substance to become worthy of being the formal expression of the way people live in cities.

PELLI: We are interested in it [the Memphis plan] because it is the only complete and good entry that answers the problems of large-scale architecture and the integration of a number of functions and the problem of growth of these functions and their interrelationships.

COBB: A basic question raised by Memphis is to what extent blue-sky thinking, the invention of projects that have no immediate realizable development possibilities, is justified. If it is justified, how can one relate that kind of thing to real problems? This project has proved controversial because it does raise a very important issue — the relationship between ideal concepts and real sites — which architects and planners have been debating and will continue to debate.

Just as much of the interest in the First Design Award winner is as an "image of technology" (pp. 140-141), the jury considered a similar view of urban planning.

COBB: The Memphis plan is significant as an image-making aspect of planning. . . . In accepting this, you do not say that this is *the* solution to the problem of cities, but that it has some value insofar as clues toward solution.

PUBLIC HOUSING AND PRIVATE HOUSES

Relevance of scale and space are paramount in the one, and wit and "games" are possible in the other.



Public housing and its virtually built-in "safeguards" against amenable design and the creation of volatile living environments engaged the jury's attention as a result of studying the award-winning housing project for Hartford (pp. 132-135). As Cesar Pelli said, "221 (3) (d)s are a hard program to do any architecture with." The success of an architect in looking outside binding regulations for environmental connections rather than isolated, institutional results led to further jury comment.

COBB: The architect has succeeded here in achieving a relevance between the over-all building form and the internal planning of the building, a relevance which is lacking in almost all of the other multiple housing schemes we have looked at. This kind of relevance is of prime importance when we deal with small units repeated over and over again, put together in high densities. Unless we are able to create forms that have meaning all the way from the process of entering the over-all complex until the moment you enter an individual room, so that you feel there is a conscious relevance of scale and of space, then I think that we will fail.

Private Houses

The Great Annual P/A Design Awards Jury Debate concerning the Validity of the House as a Design Problem did not take place this year. Instead, the jury took individual houses for the design exercises they were, rejecting 110 out of 113 and, interestingly enough, honoring the surviving three with Awards, not Citations.

MONTGOMERY: Taken all together, the three houses are all witty (I guess that is the right expression) or, as Cesar says, they are all playing plastic games — we hope not at the expense of the people living in them. Certainly, they are all in the mainstream of residential design; no new ground is being charted with this triumvirate of house designs.

PELLI: They are in an aesthetic idiom that is completely and expertly worked out. There is no startling new contribution here aesthetically.

The winners of the Awards are presented on the following pages.

AWARD

Vacation house on the coast of Maine is poised lightly on its rocky setting.

Architect: John Fowler
Structural Engineer: Herman
Spiegel of Associated Engineering

PROJECT Summer residence.

LOCATION Seal Harbor, Maine.

CLIENT Dr. and Mrs. Ernest
Klema.

SITE A sloping area of rock, over-
looking the ocean. Rocks go down
to the water's edge in a stepped
formation. A thick growth of ever-
greens at upper end of the site.
The property is narrow.

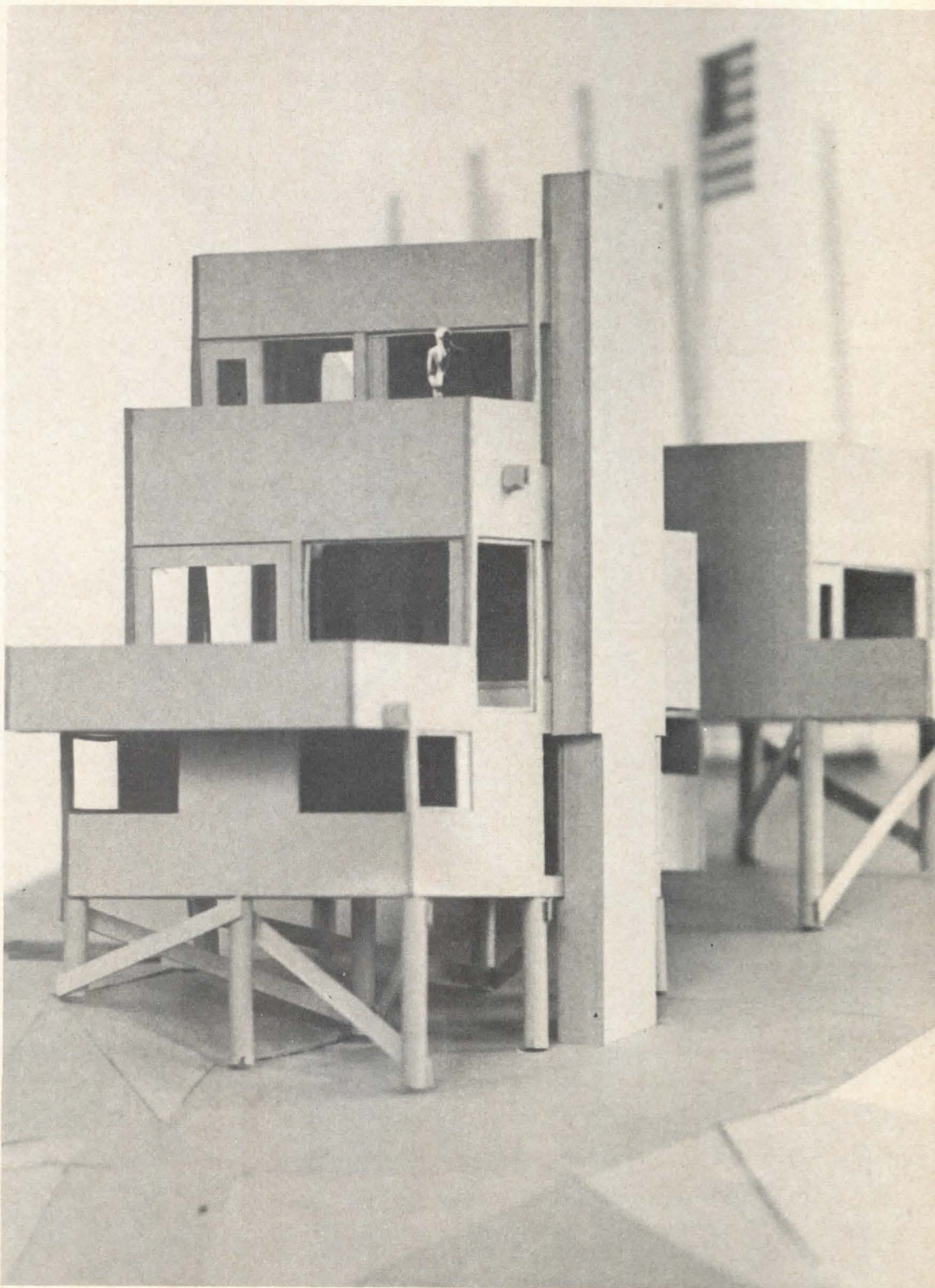
PROGRAM To accommodate the
client, his wife, and their two ado-
lescent children. Separate quar-
ters and entrances for parents and
children. Parents to have a study,
which can be used as a guest
room. Terraces for all main rooms.

DESIGN SOLUTION To adapt the
house to its site, the lengthwise
direction was set perpendicular
to the water's edge, on posts, with
the children's apartment on the
bottom floor. The children can
walk directly from their apartment
onto the rocks. The living room
and the study were placed so as
to face the sea directly, in a
stepped pattern inward that is
counterpointed by the chimney,
which, accumulating flues as it
rises, is stepped outward in one
place.

**CONSTRUCTION AND MATERI-
ALS** Timber framing faced with
vertical cedar boarding, inside
and out, on a foundation frame of
braced cedar posts. Stone chim-
ney serves to steady the super-
structure.

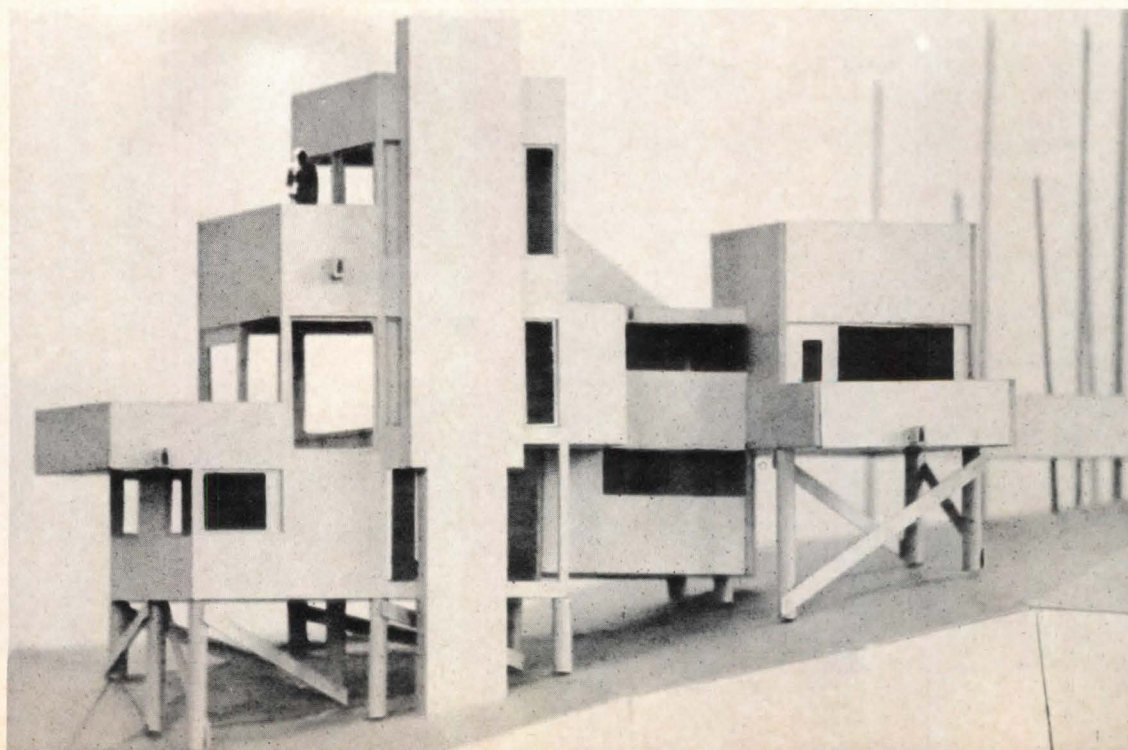
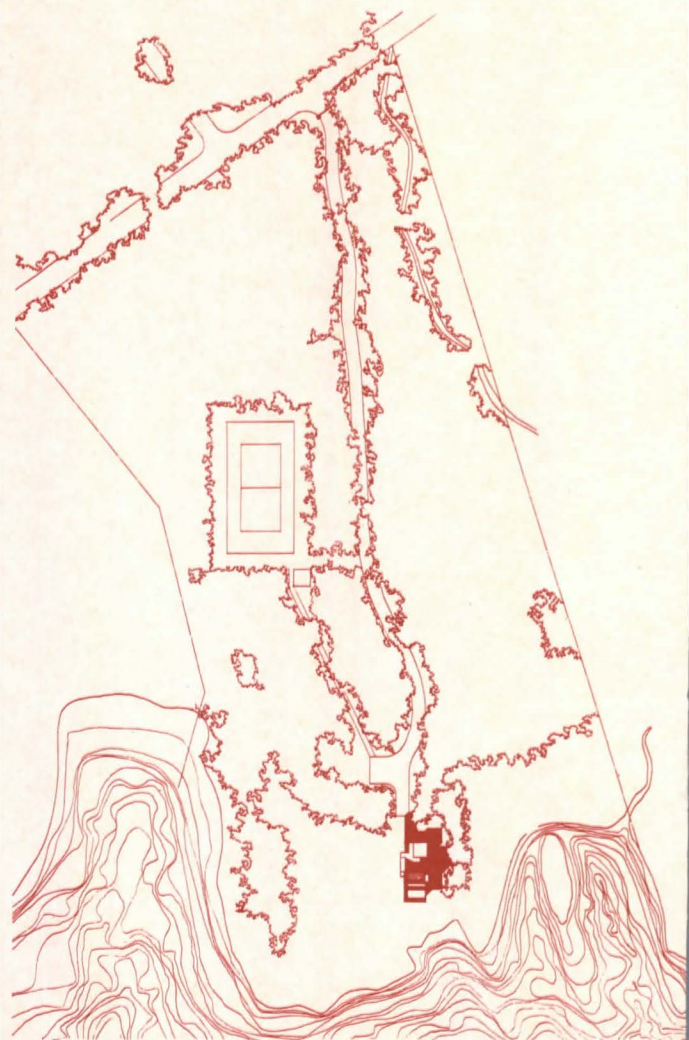
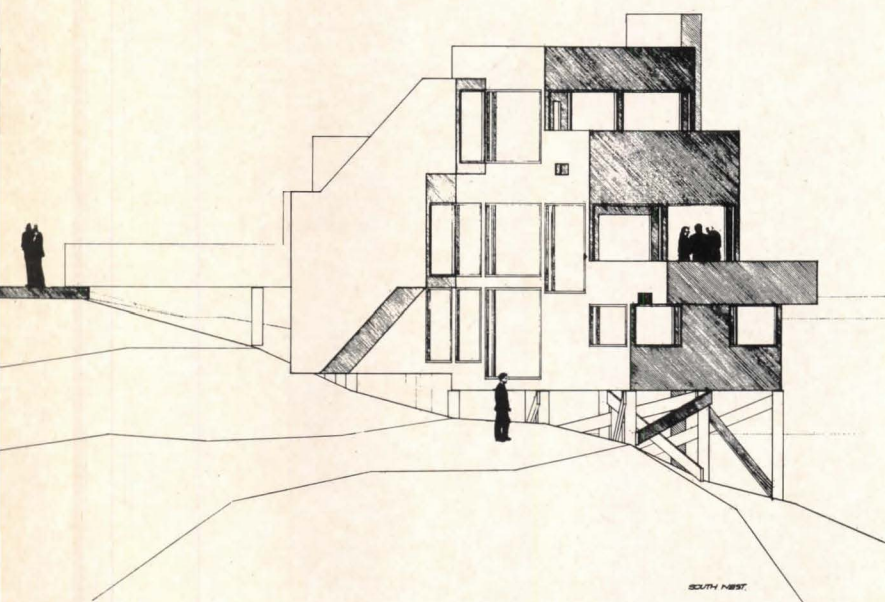
JURY COMMENTS

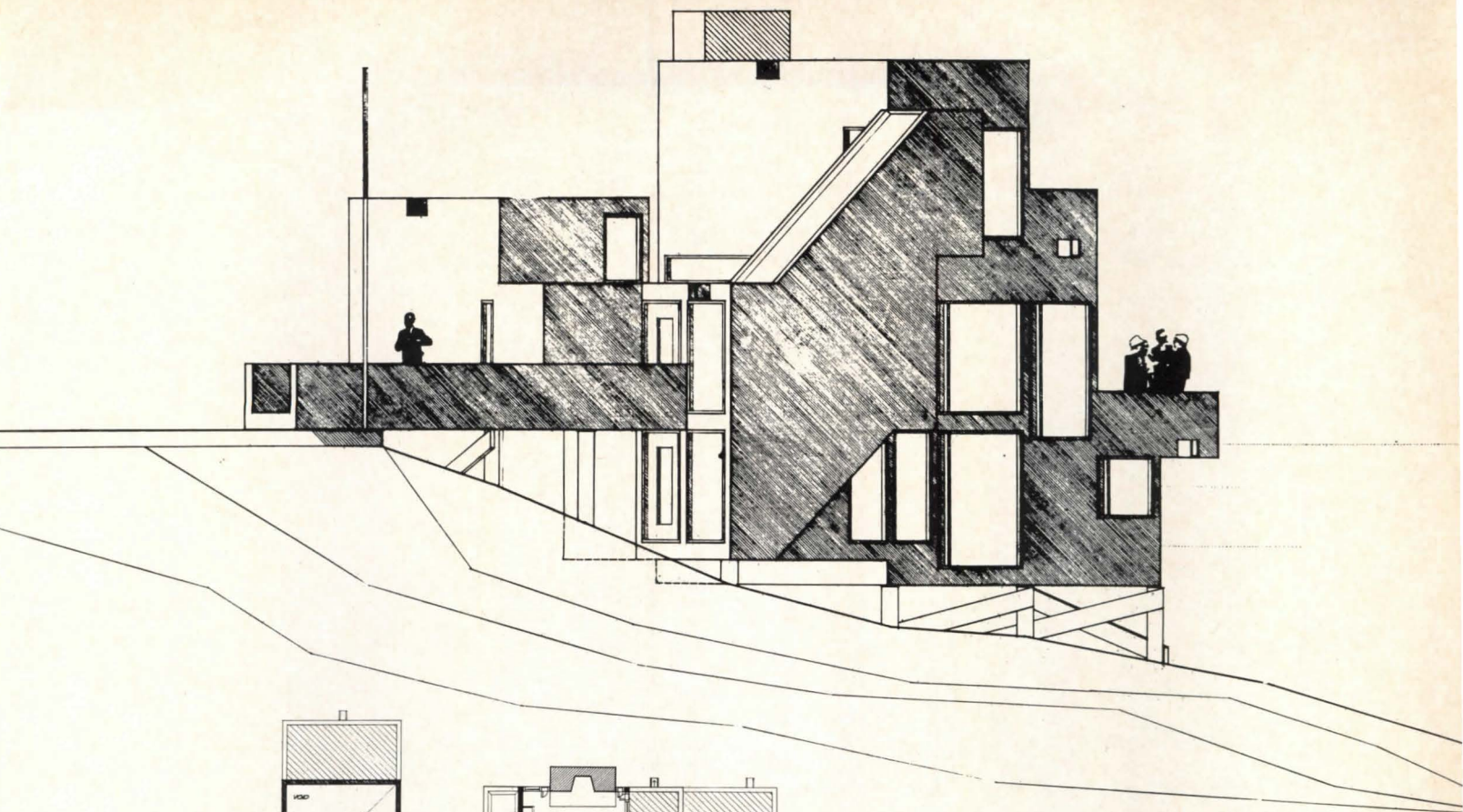
PELLI: In this case, the pro-
gram has unquestionably been
stretched for artistic purposes, for
expression, but the artistic expres-
sions come out very well. The ele-
vations are particularly handsome.
COBB: An amusing and lively ex-
ample of what can be done with
lots of leisure and lots of money.
GENSERT: Although I like the
house, I have personal feelings
about a three-story structure up
on stilts, particularly one that is
higher than it is wide. A rather
strained, uneasy feeling.



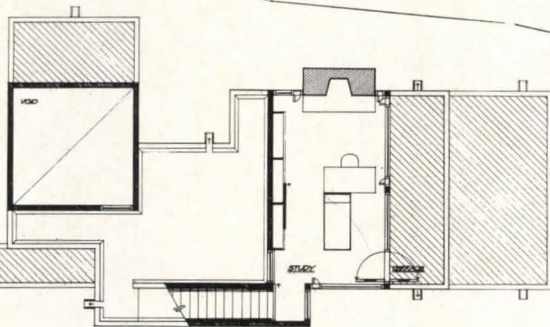
Fowler



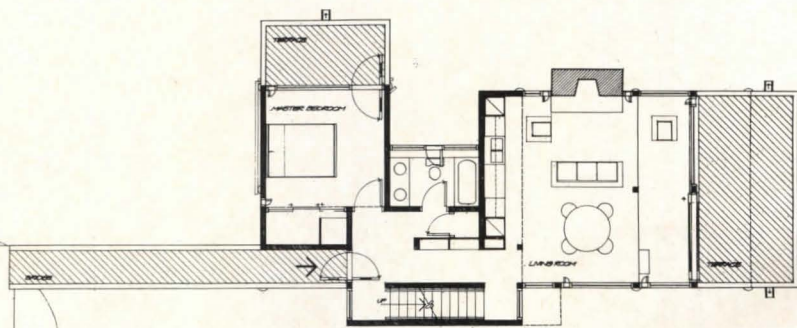




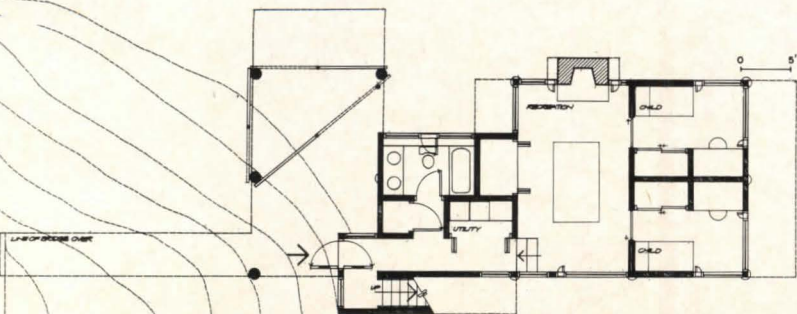
NORTH WEST



Third Floor



Second Floor



First Floor



award

To insure privacy from neighbors and to take in a view of Lake Tahoe, this house uses present-day planning devices in a novel and unexpectedly monumental way.

Architects: Brown, McCurdy & Nerrie; Gary R. Brown, Frank G. McCurdy, Robert A. Nerrie, Partners
Structural Engineers: Hirsch & Gray

PROJECT A year-round vacation house.

LOCATION Kingswood, North Shore, Lake Tahoe, Calif.

CLIENTS Mr. and Mrs. Richard Keller.

SITE A sloping, wooded area, with other houses close by on three sides.

PROGRAM To accommodate a family of four, plus occasional guests, who come especially in the skiing season.

DESIGN SOLUTION A double-loaded corridor was aimed directly at the lake to the south, with a tall living room, the master bedroom, and the cooking-dining room at the south end, taking advantage of the slope of ground. Behind these, on one side of the corridor, come two lavatories, a bath, and another bedroom; and on the other are three bunk bays and a storage room. The skylighted corridor dominates the composition, forming a monumental blank wall to which the other spaces adhere.

CONSTRUCTION AND MATERIALS Wood frame, with vertical redwood siding and cedar shingle roofs. Redwood boarding in central corridor and on all ceilings, with painted gypsumboard interior partitions in rooms.

JURY COMMENTS

COBB: A house with an original, interesting and almost monumental parti—witty and lively. The forms are not particularly original, but the scheme gives me the feeling that this will be an amusing place to spend a weekend.

PELLI: This house has been used as an excuse to do something sculptural, but in this case it has been done quite skillfully. A very good exercise, almost a virtuoso performance.

DAVIS: A delightful bit of exhibitionism. It will give a great deal of pleasure to the people who use it, which is really as much as you can expect from any kind of house.

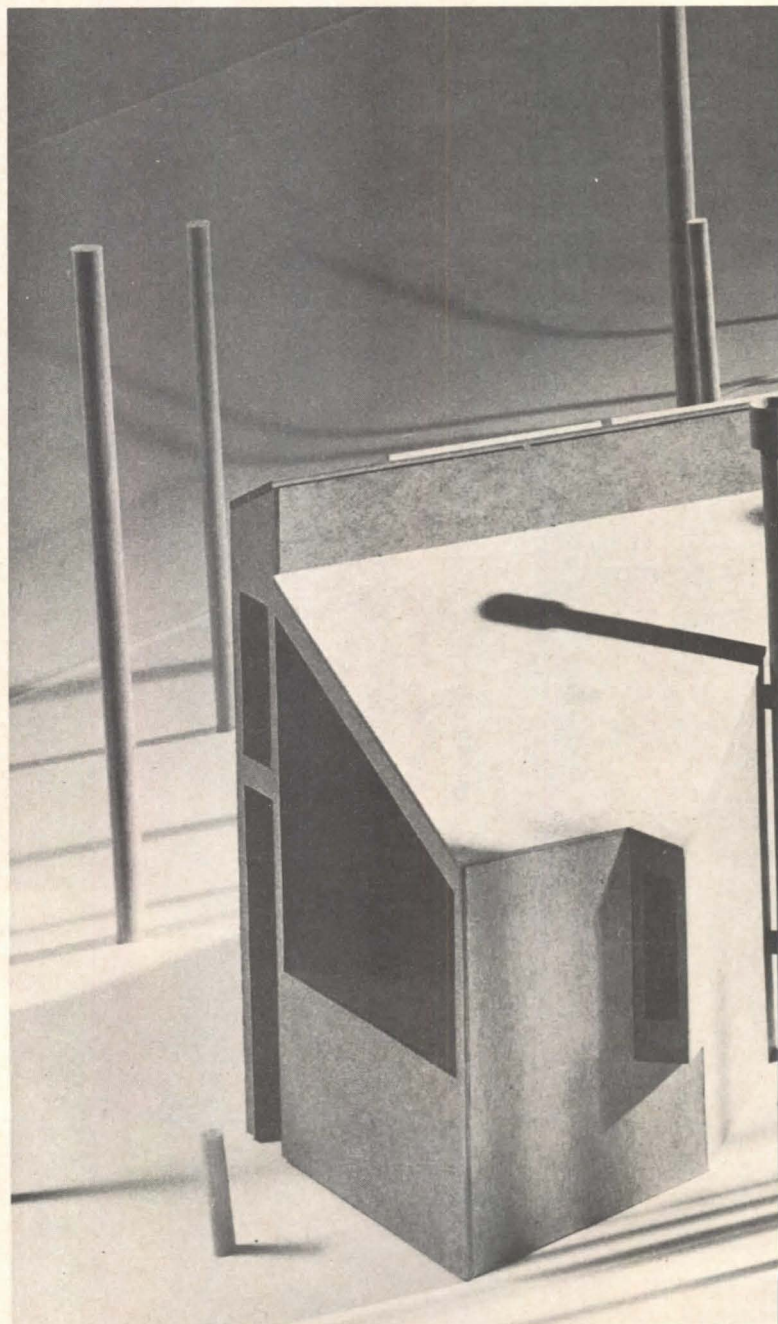


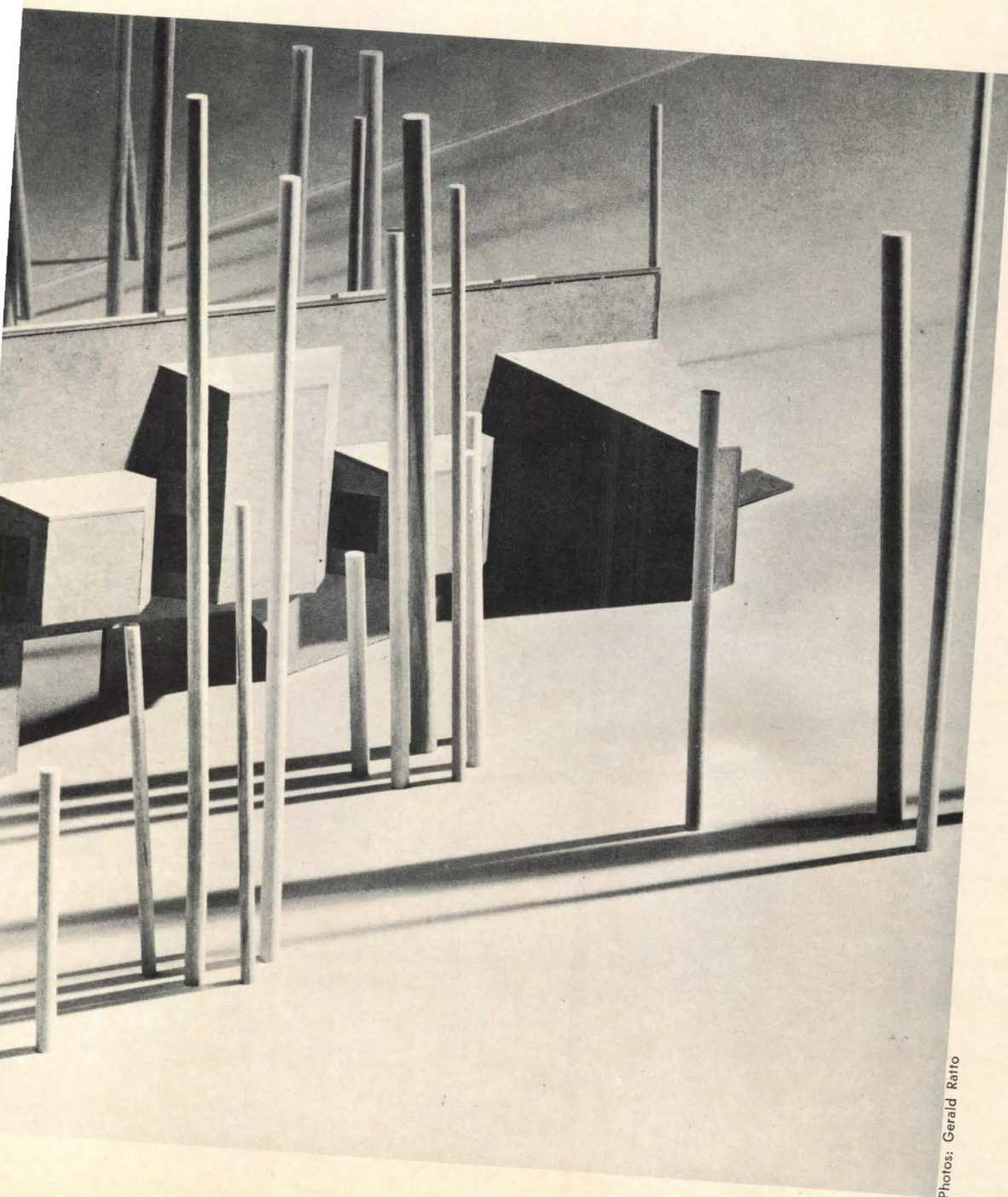
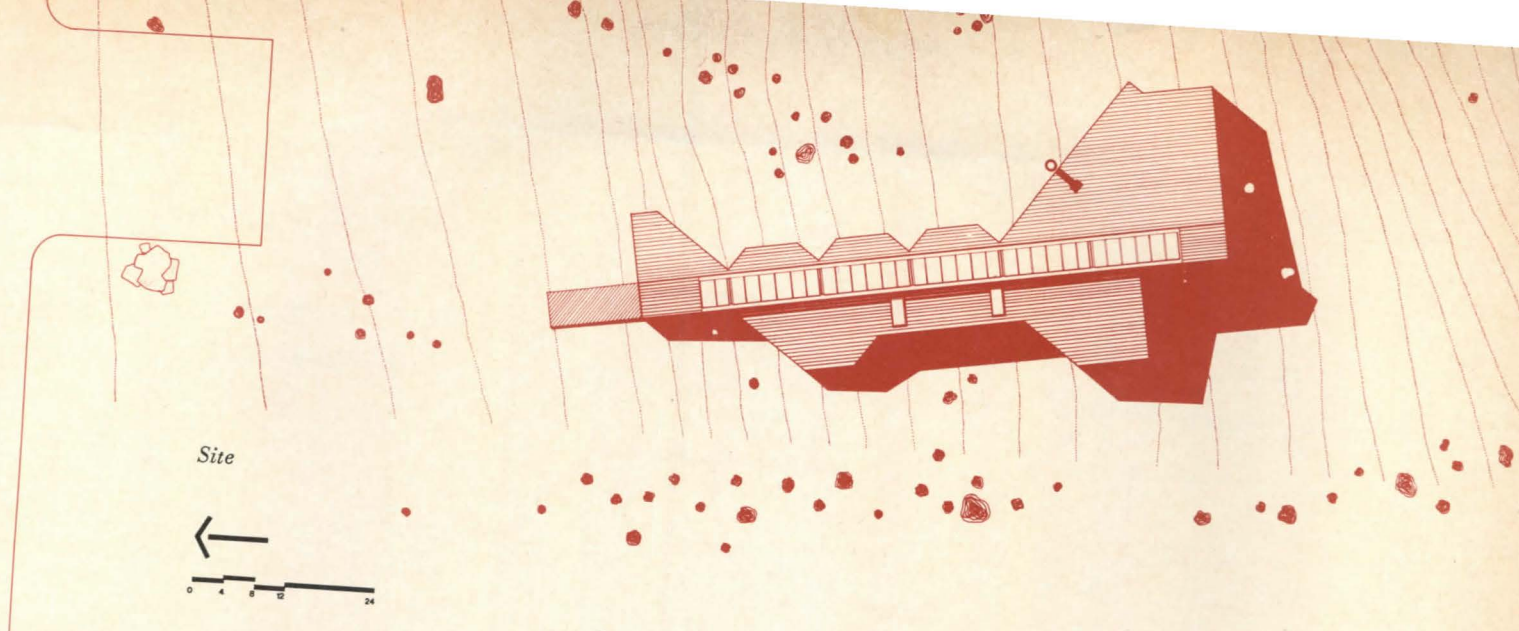
Brown

McCurdy

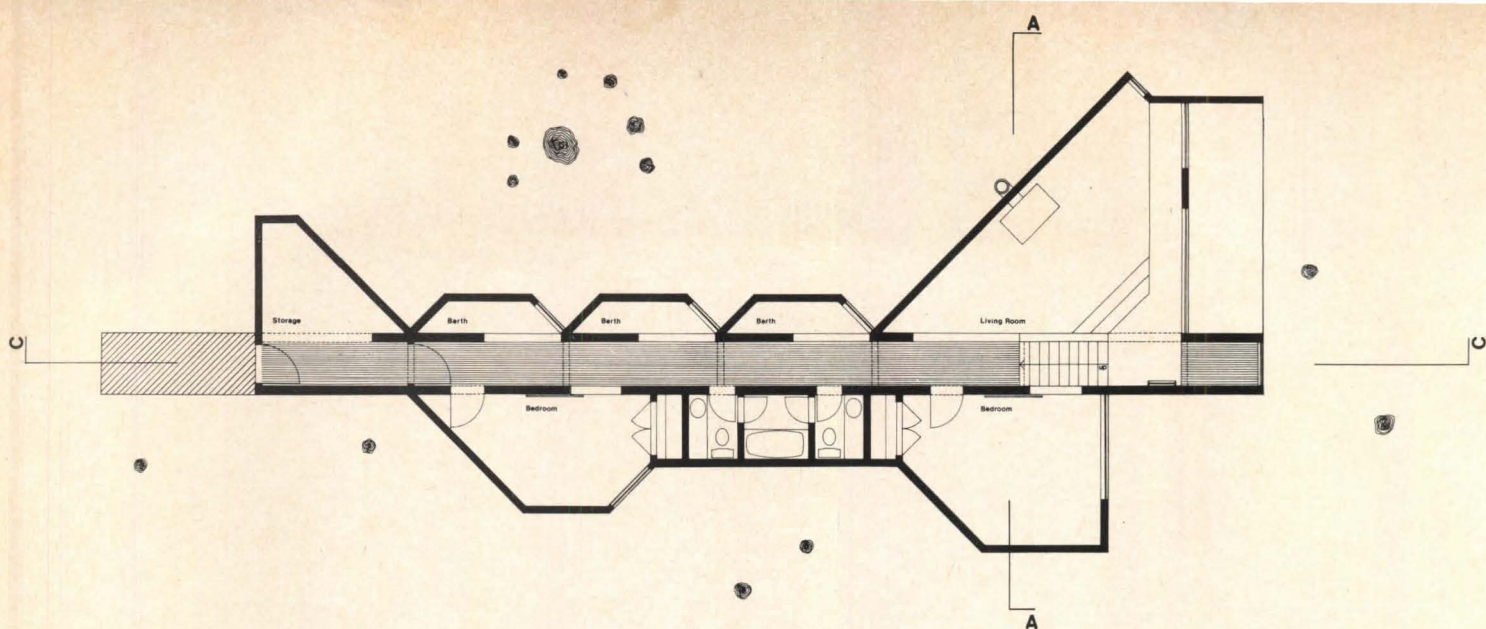


Nerrie

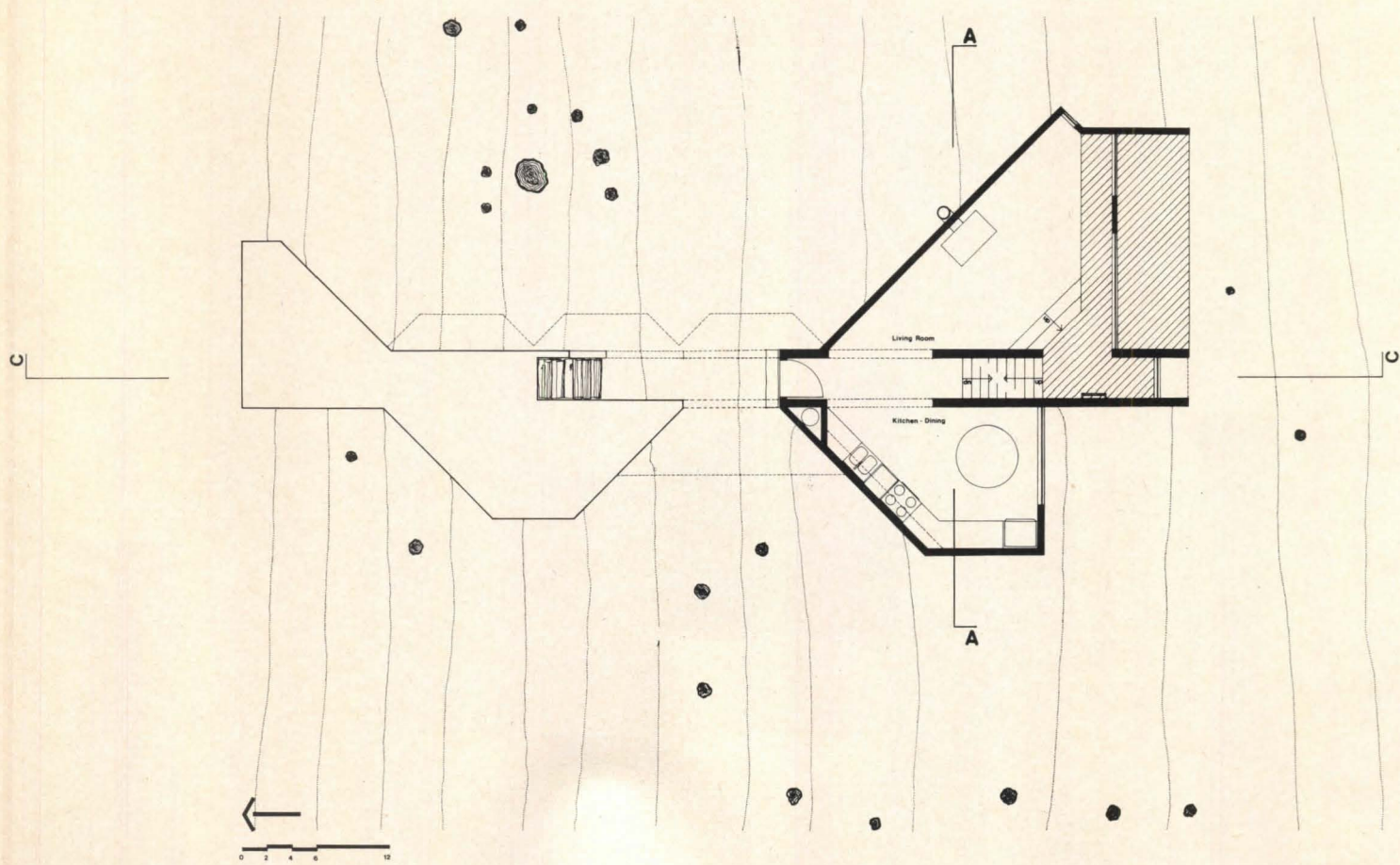




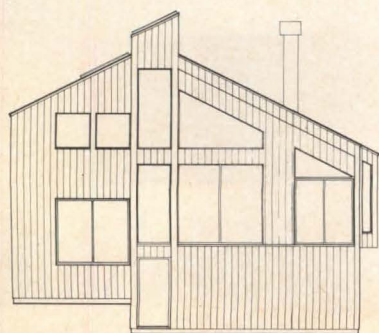
Photos: Gerald Ratto



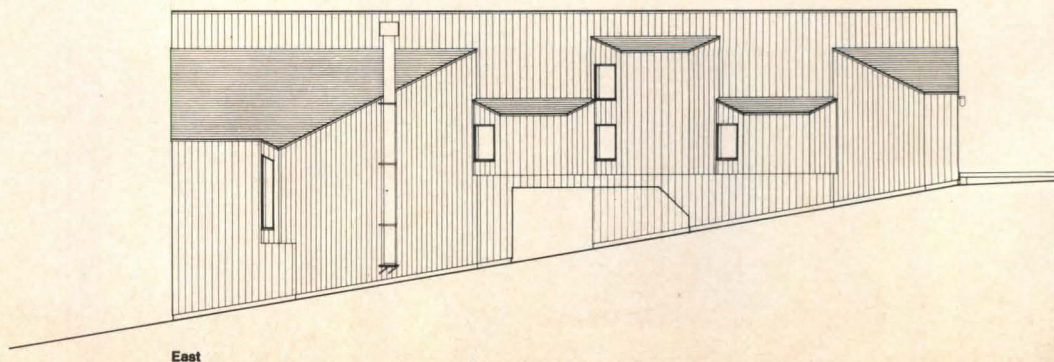
Upper Level



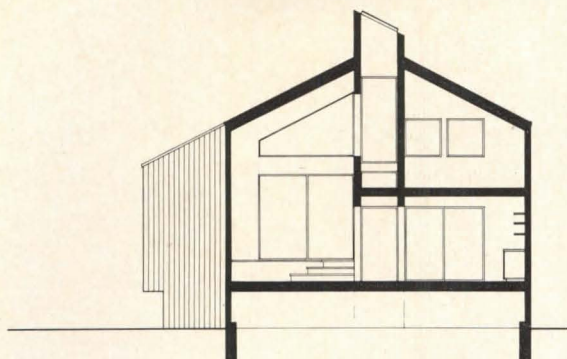
Lower Level



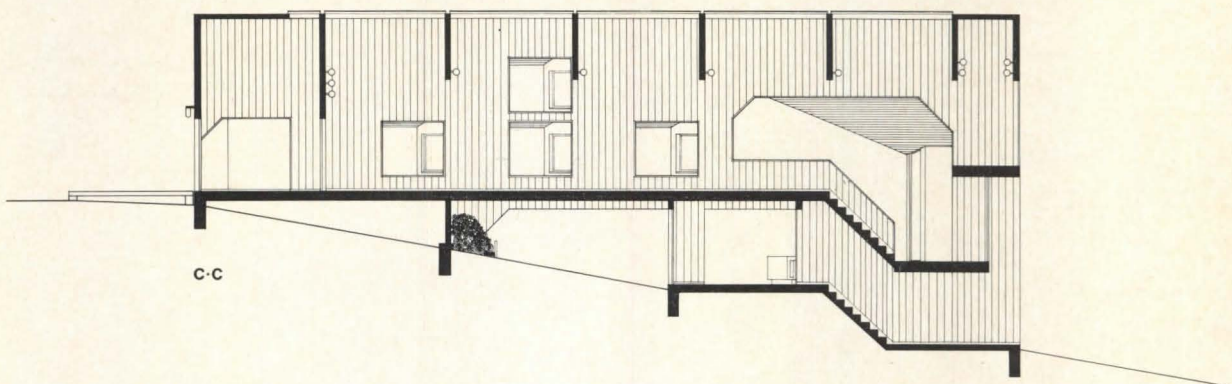
South



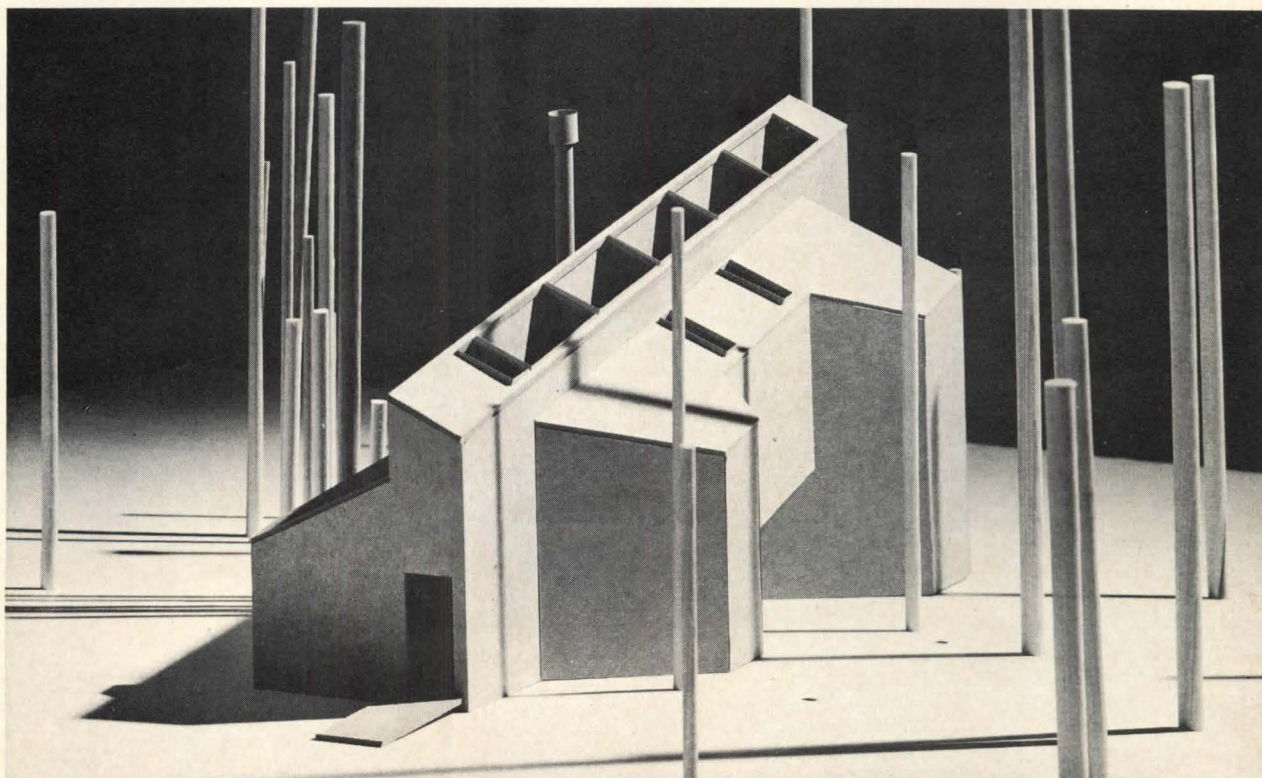
East



A-A



C-C



AWARD

Simple in expression, this Long Island beach house meets its client's requirements in a straightforward but elegant manner.

Architect: Hobart D. Betts
Project Manager: Robert M. Lang
Structural Engineer: Stanley Gleit

PROJECT Vacation House.

LOCATION Springs, N.Y.

CLIENTS Mr. and Mrs. Richard Wolf.

SITE Open farmland on eastern Long Island, with views eastward and through trees southward.

PROGRAM A summer home for a family of four, with separation of sleeping and living areas and the provision of a storage/play space as important requirements.

DESIGN SOLUTION The house itself and the storehouse-cum-play-room were separated by a few feet and set at right angles to define, together with two hedgerows at the corner of the site, an entrance court. The principal ground-floor spaces are extended by decks. The broad barn doors, used to secure the larger openings of the house when not in use, are treated as compositional elements in the relation of the house to the surroundings. Each bedroom has windows on two sides, one of which is a clerestory window, allowing air currents to flow naturally through the room on hot nights.

CONSTRUCTION AND MATERIALS Wood platform framing, with cedar vertical siding and shingle roofs. White plasterboard interior partitions with cedarboard ceilings.

JURY COMMENTS

COBB: A very good house. There is nothing superfluous in the plan and yet it offers the kinds of amenities one associates with vacations and recreation. There certainly are superfluous elements in the section, but one can accept these because of the spirit they impart to the house.

PELLI: It's a very well worked out plan; the general shape, the section, the site plan, all come out with great clarity and just terrific skill.

DAVIS: An economy of line, a superb handling of proportion. I can actually feel this building; I can understand it; I can see how it fits together.

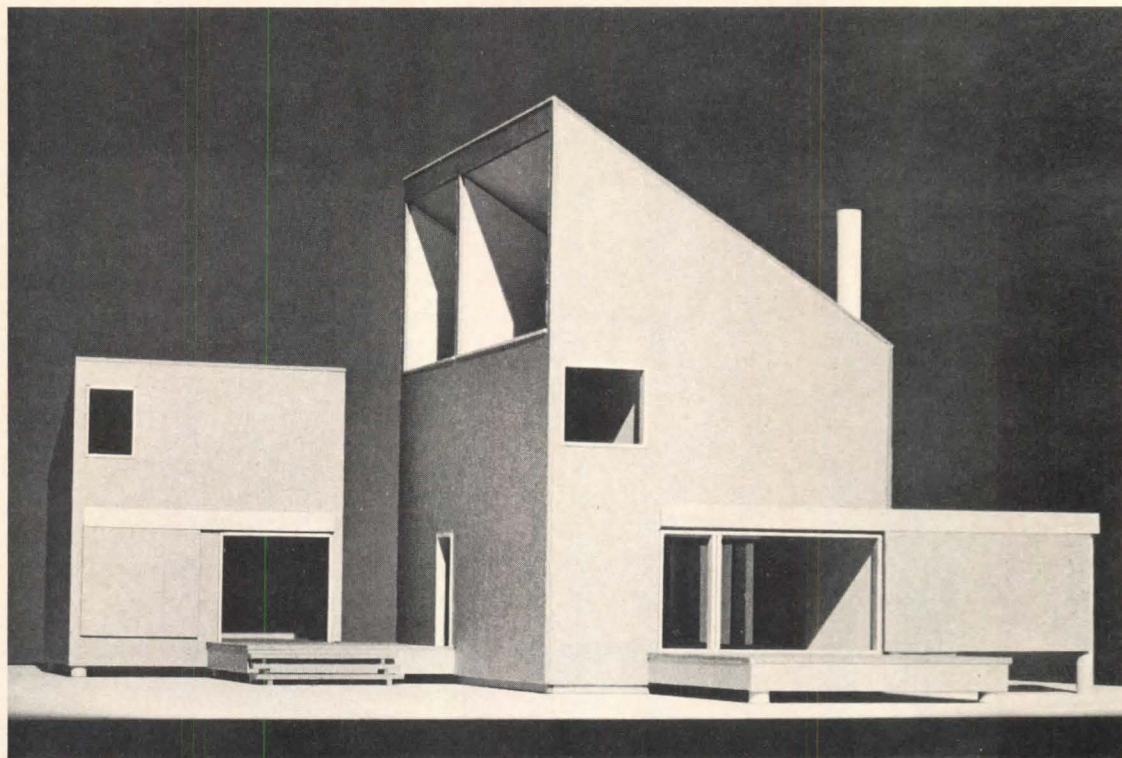
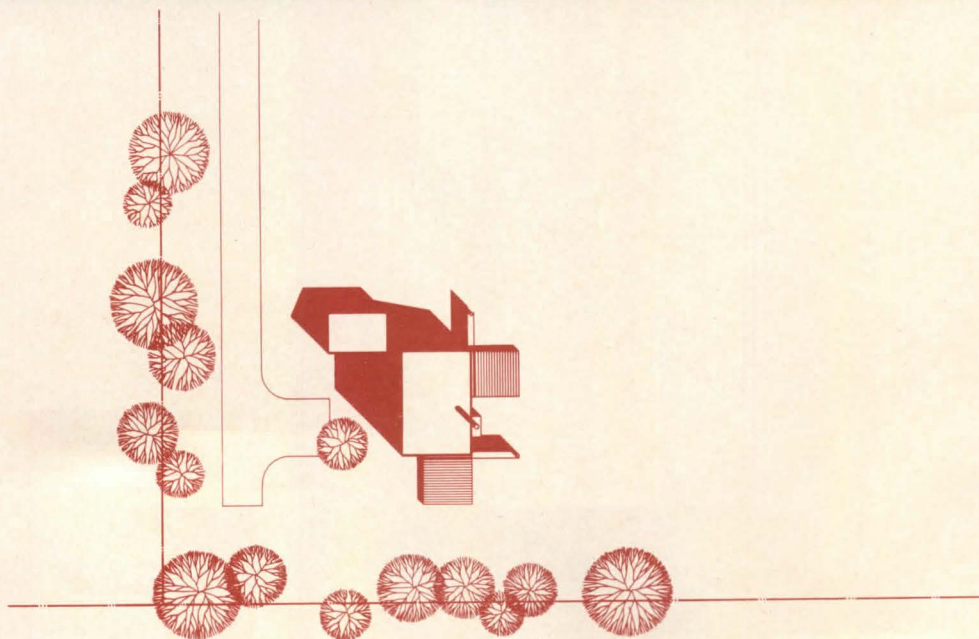


Photo: Igor Bakht

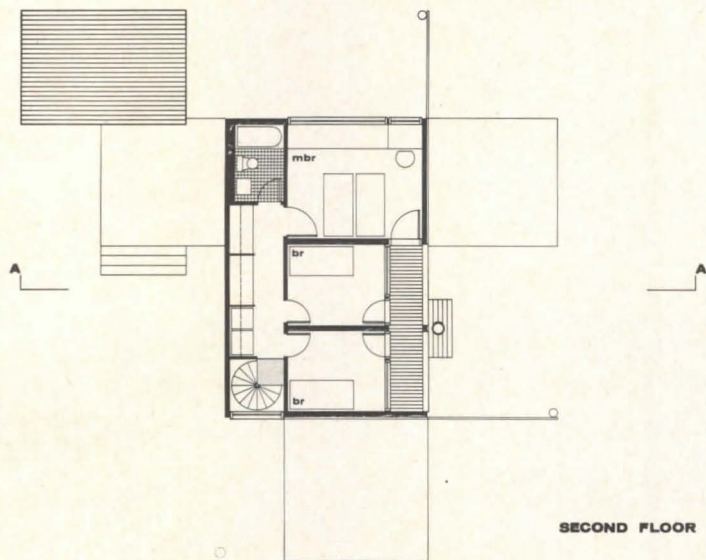
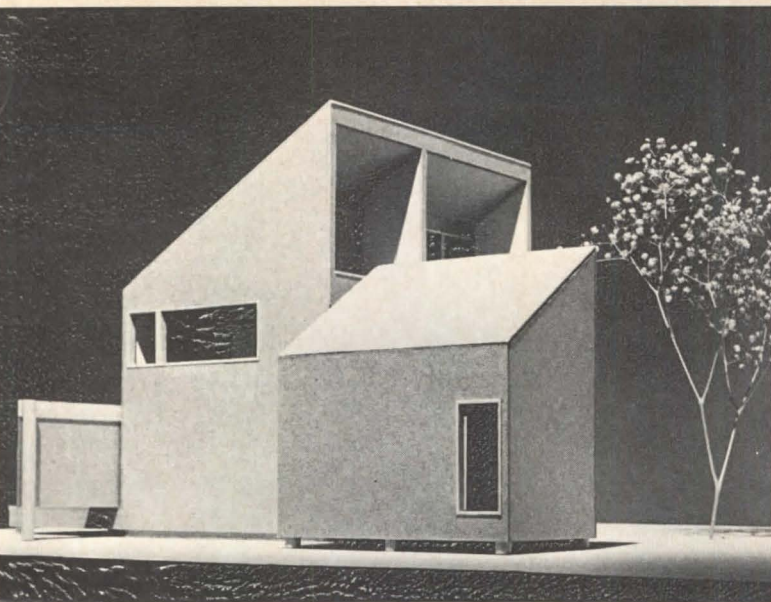


Betts

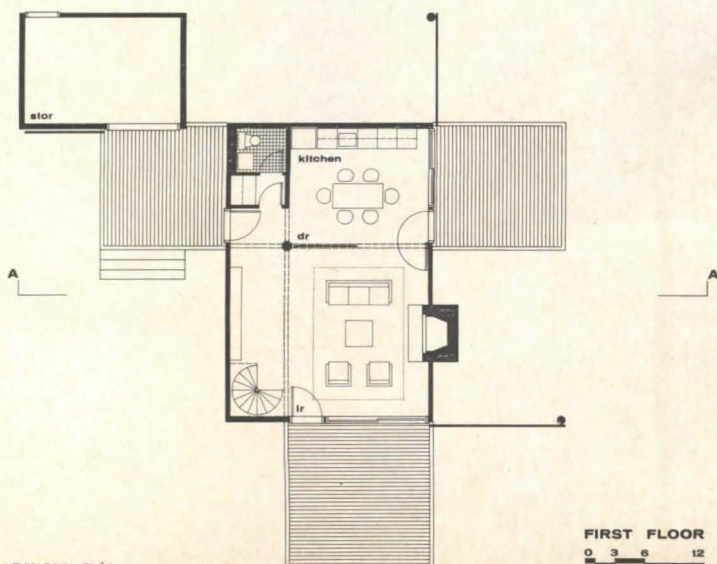


SITE PLAN

0 24 48

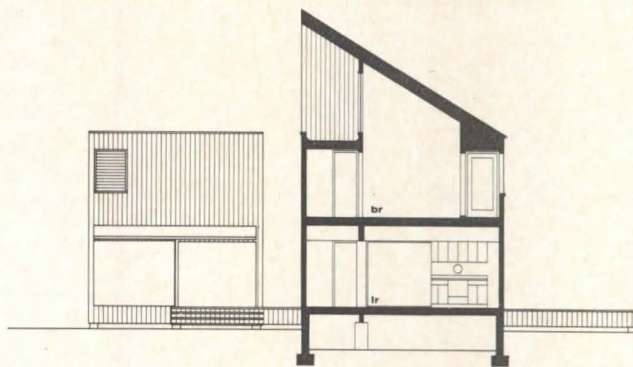


SECOND FLOOR

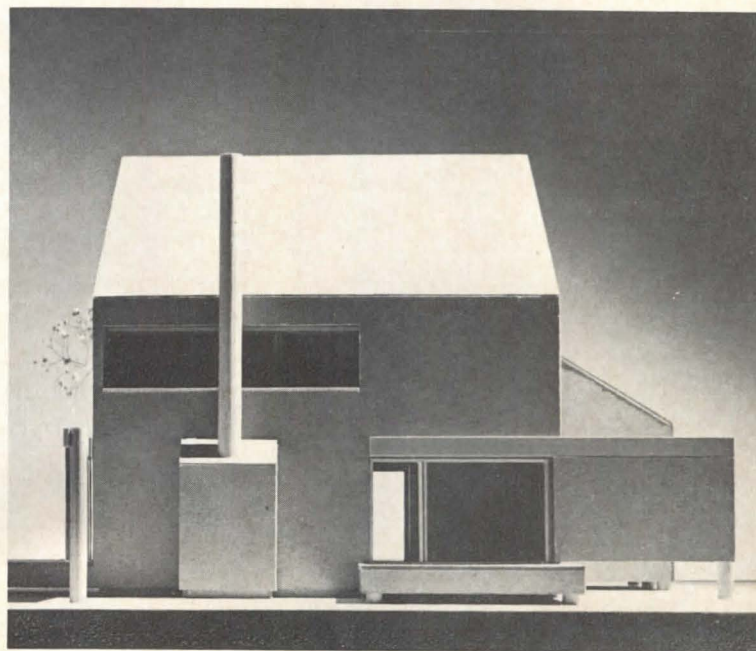


FIRST FLOOR

0 3 6 12



SECTION A-A



award

This facility for naturalists and nature-lovers in a Philadelphia park is conceived as a public stair introducing visitors to the wooded valley where the park lies.

Architect: Frank Schlesinger
Structural Engineer: Joseph Hoffmann
Mechanical Engineer: Vinokur-Pace

PROJECT Nature Center.
LOCATION Wissahickon Park, Philadelphia, Pa.

CLIENT Fairmount Park Commission, City of Philadelphia.

SITE A steep, wooded slope above a sharp bend in Wissahickon Creek.

PROGRAM To provide a gathering-point and lecture facilities for nature-lovers, and office space for park naturalists.

DESIGN SOLUTION The building was placed away from the upper, access level of the site in such a way as to serve as a stair to the banks of the creek. Entering from a pedestrian bridge, the visitor finds himself on the roof of the building, which serves as an observation deck with views along the creek in both directions. An outside stair leads him first to the office level, reached by a bridge from the landing, then down again to a terrace-like deck outside the lower enclosed space, which contains a lecture hall and other public facilities. From this deck, a few steps lead down to the ground.

CONSTRUCTION AND MATERIALS The building is of heavily framed wood construction, covered outside with shingles. The lecture hall is spanned by triangular trusses, whose apexes serve as supports for the joists supporting the roof deck over the naturalist's office. The public level, with its deck, is raised above the maximum flood level of the creek. All parapets are solid, without balusters or major openings.

JURY COMMENTS

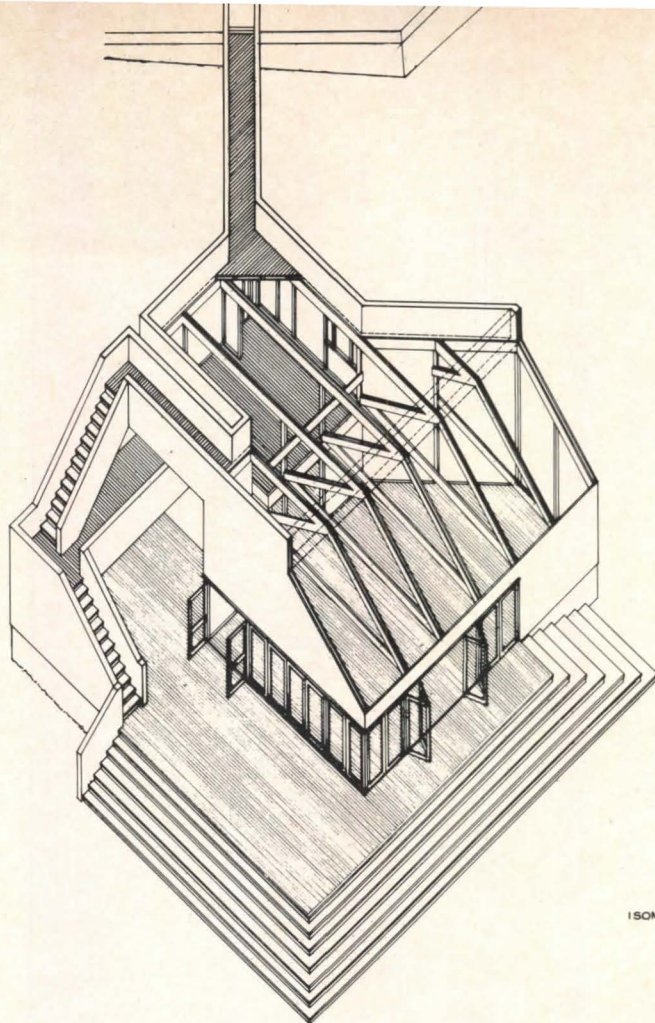
COBB: A skillfully handled example of the current fashion of utilizing diagonals in every possible plane to articulate space and circulation.

PELLI: A carefully worked-out building, very successful in what it was trying to achieve.

DAVIS: A thoroughly professional job, integrating the structure and the forms, the spaces, the land use.

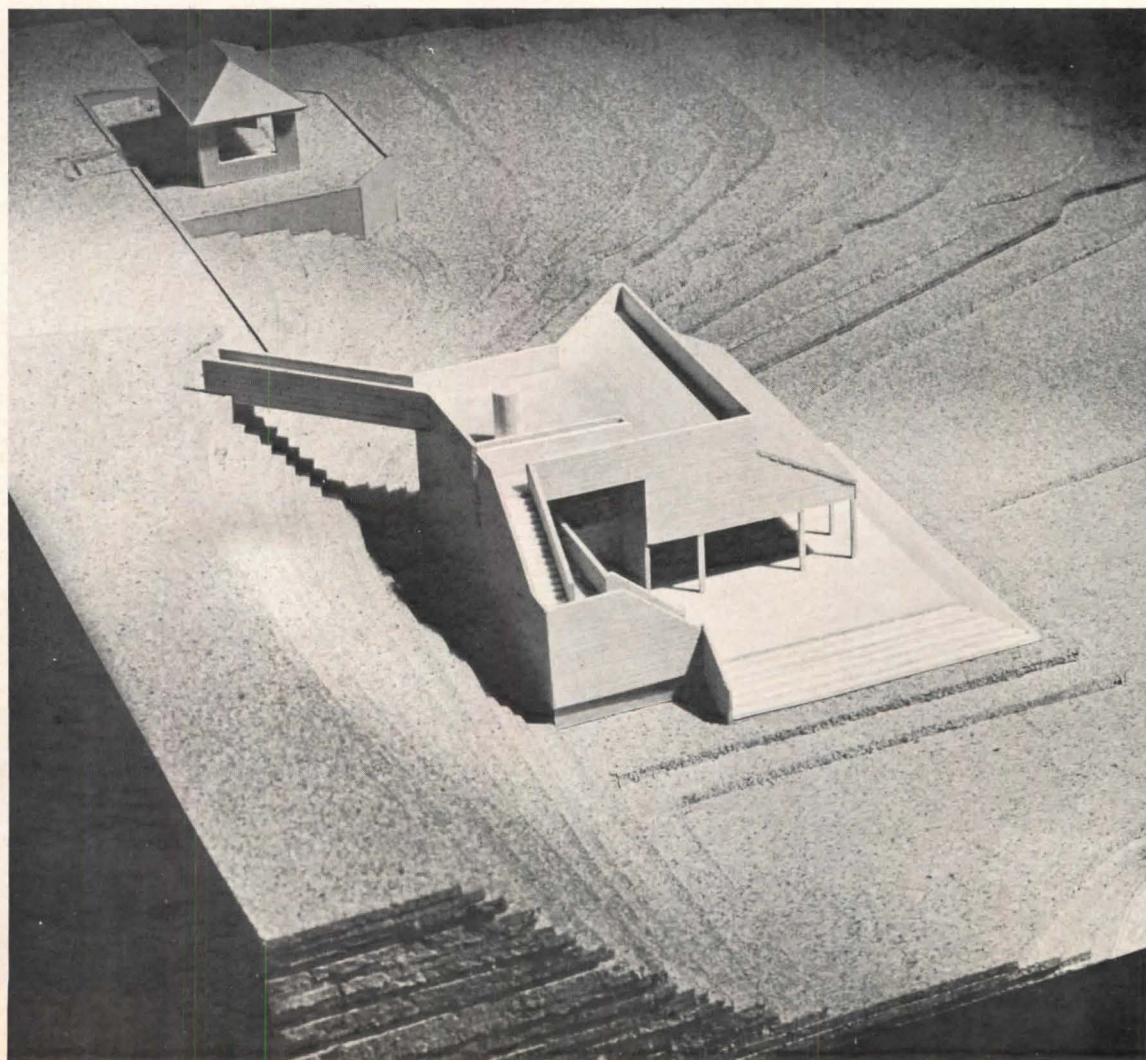
MONTGOMERY: Isn't it nice that we've gotten over having to make every little jewel symmetrical? I think it's a lot prettier than what would have happened in that park 10 years ago: four little columns, most likely, all just sitting on the hillside uncomfortably, symmetrically, against the direction of movement, and so forth.

GENSERT: The fun of designing a building like this is yet to come. You can have a heck of a lot of fun with gutsy connections and bolts and pins.

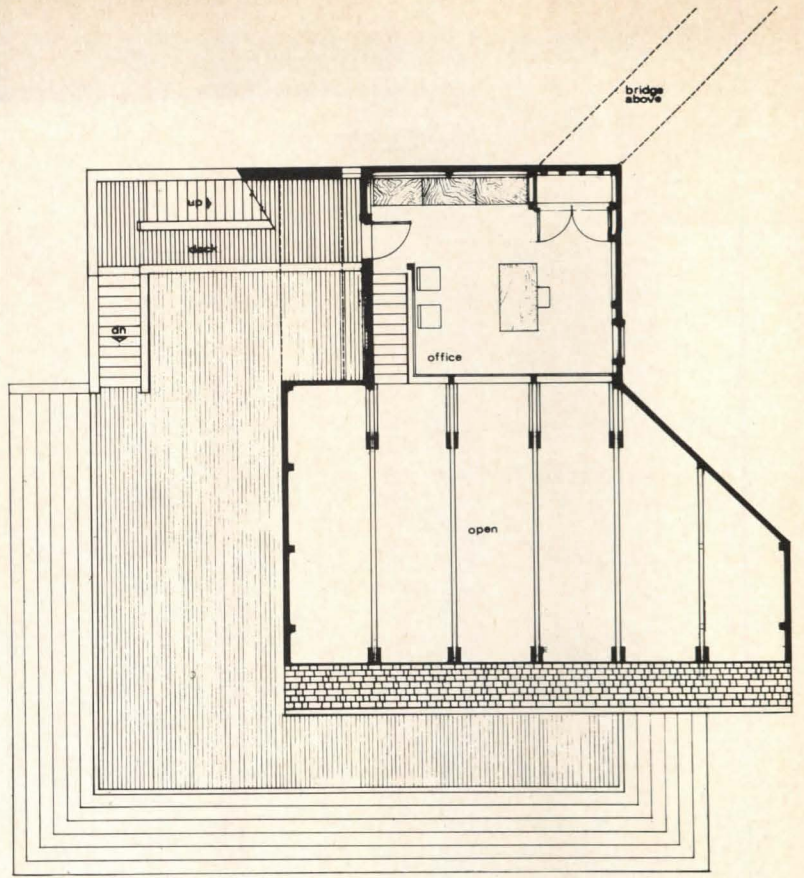


ISOMETRIC

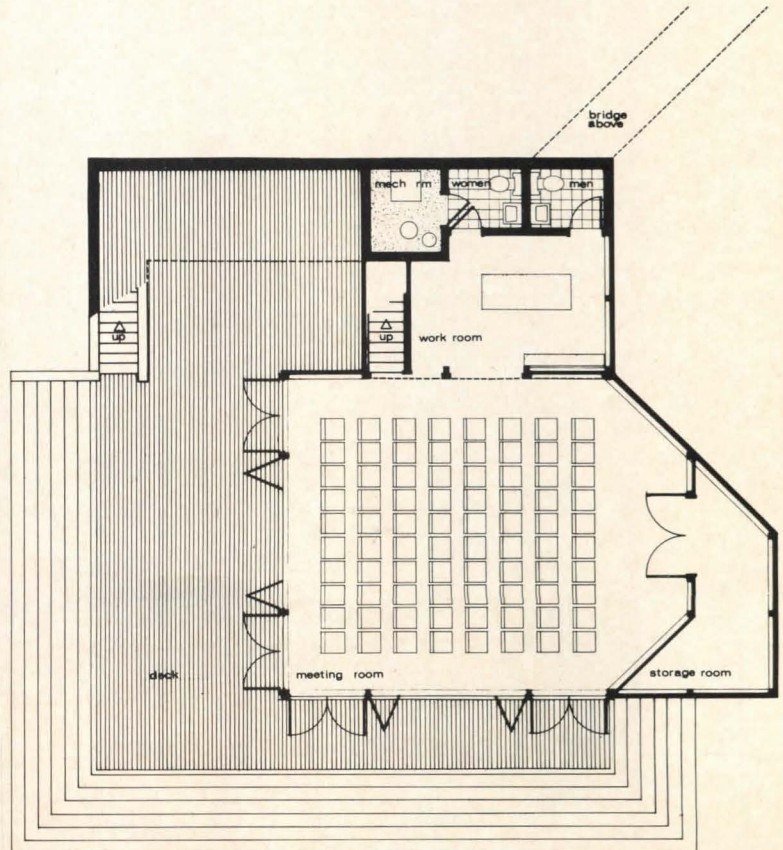
Drawing: Robert Hastings



Schlesinger



SECOND LEVEL



GROUND PLAN
0 1 2 3 5 10

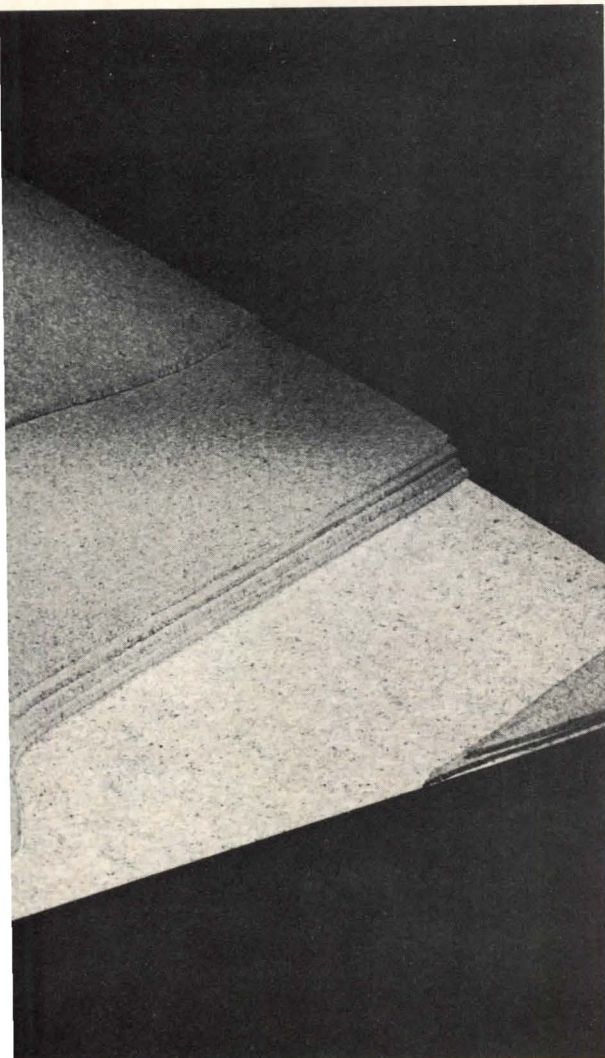


Photo: Lawrence Williams

award

Outstanding solution to 221 (d) (3) restrictions seeks a balance between communal and personal life with a progression of public, semipublic, and private spaces.

Architects: Huntington, Darbee & Dollard

Project Architect: Tai Soo Kim

Structural Engineer: Robert W. Bounds

Mechanical Engineer: Jacob Koton

PROJECT Van Block Housing.

LOCATION Hartford, Conn.

CLIENT Episcopal Metropolitan Mission.

SITE Corner lot in a mixed residential and industrial neighborhood, one mile from downtown Hartford, adjacent to site of Church of the Good Shepherd, sponsor and eventual owner of project. Close-by city park has extensive sports facilities.

PROGRAM To relate form and circulation of low-rise, moderate-income housing to surrounding neighborhood; also, to establish a well-defined community. There are 24 two-bedroom, 56 three-bedroom, and 24 three-and-one-half-bedroom units.

DESIGN SOLUTION The generating concept of a strong community plus adequate private space is developed in a logical progression from site planning to orientation of individual units. Connection to the larger neighborhood is by a diagonal network of pedestrian streets piercing the project from its four sides, and by a larger mall at the center. Vehicular entry is allowed only to service vehicles. Over-all privacy is achieved by turning inward and using parking areas to buffer two sides. Approaches along the inner pedestrian streets are through and past a series of offset covered "gates"

that extend out from the buildings. These staggered archways form a kind of noncontinuous arcade that ties the clusters together and creates a more inviting scale. The two-story row houses are oriented around five paved court spaces with planting and sand boxes for children. Kitchens look onto the activity of the court and entries are also from the public space. Living rooms, however, are at the rear of each unit and look onto a small private garden and open space beyond. Skewed plans provide notched spaces that add privacy to entrances and a triangular lightwell at the center of each building.

CONSTRUCTION AND MATERIALS Concrete block bearing walls and wood joist floor. Exposed 8" x 8" brown-tinted block exterior with scored joints; silicone finish. Central hot water heating; baseboard radiators with controls in each unit.

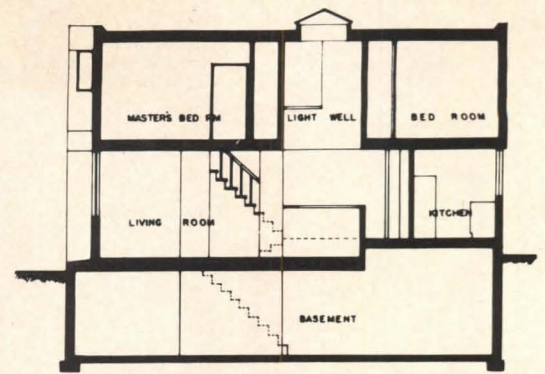
JURY COMMENTS

DAVIS: The architect broke out of a strait jacket. In low-cost housing, he has successfully integrated the various spaces in a multilevel scheme. . . . I think it's almost unique in our day of pedestrian housing.

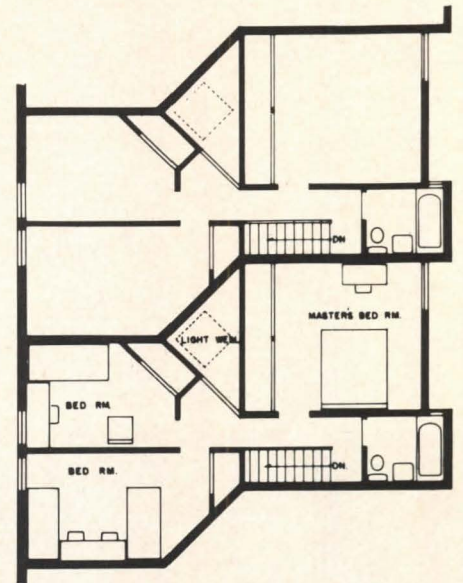
PELLI: He is dealing with the environment. 221 (d) (3)'s are a hard program to do any architecture with, and this is one of the best answers I have seen.

COBB: These are unusually attractive units of their type. The architect has succeeded in achieving a relevance between over-all building form and internal planning of buildings, a relevance which is lacking in almost all of the other multiple housing schemes we've looked at. The weakest part is the site plan . . . the scheme becomes simply additive. The treatment of the central court gives it no unity in the over-all sense.

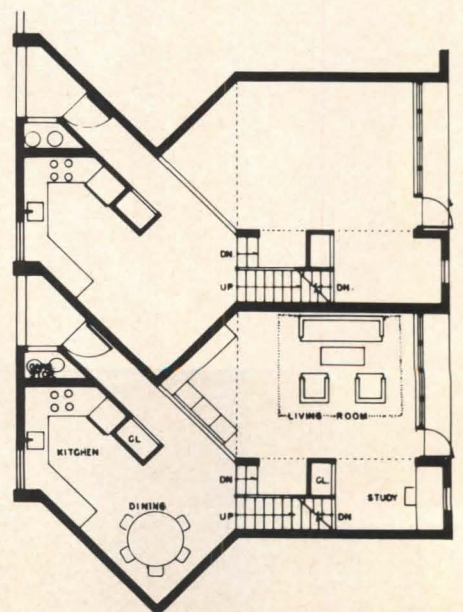
GENSERT: Since we're beginning to enter the stage where man loses his individual identity, perhaps the constancy of this scheme is in accord with the times.



SECTION



SECOND FLOOR



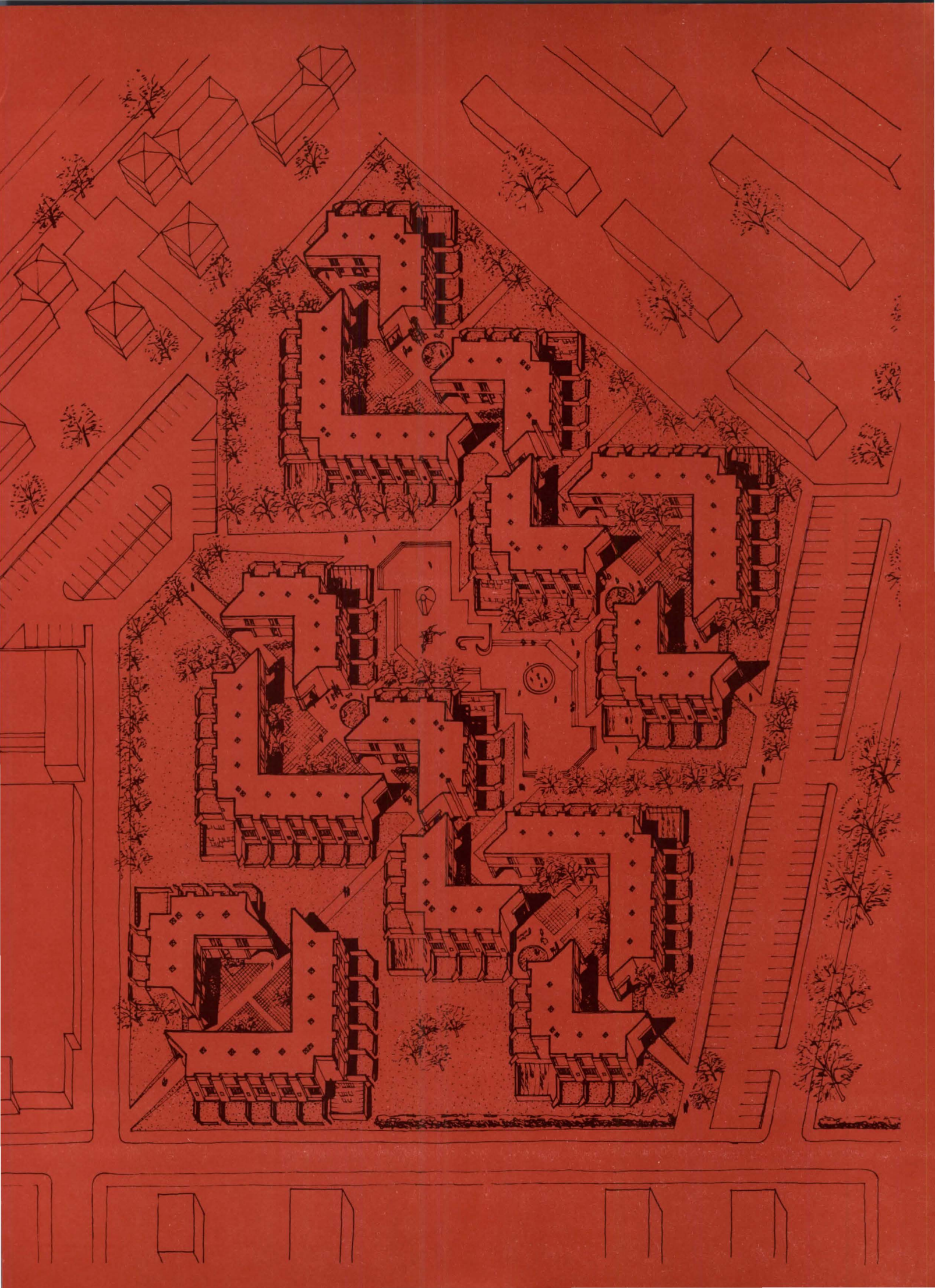
FIRST FLOOR

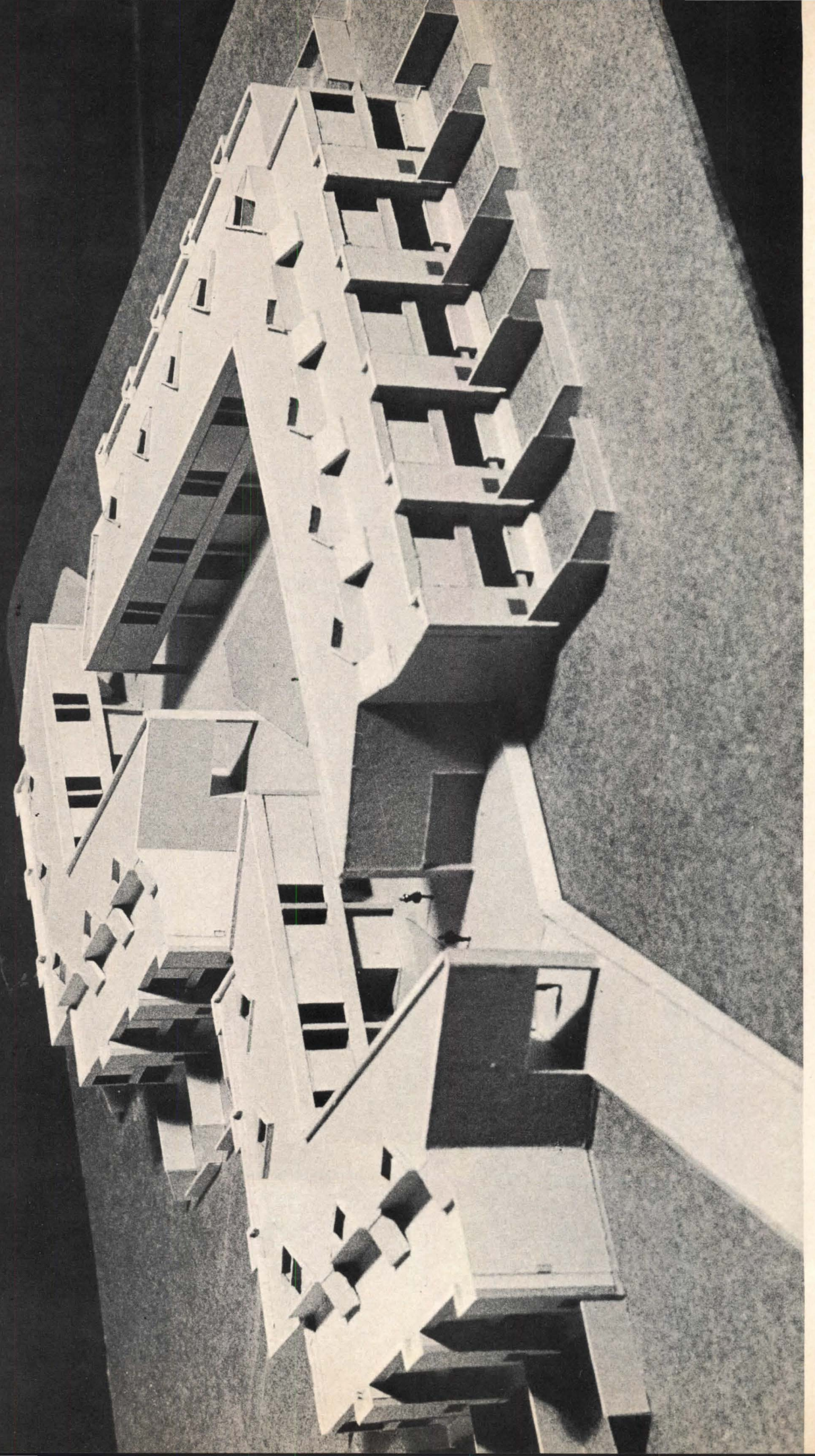


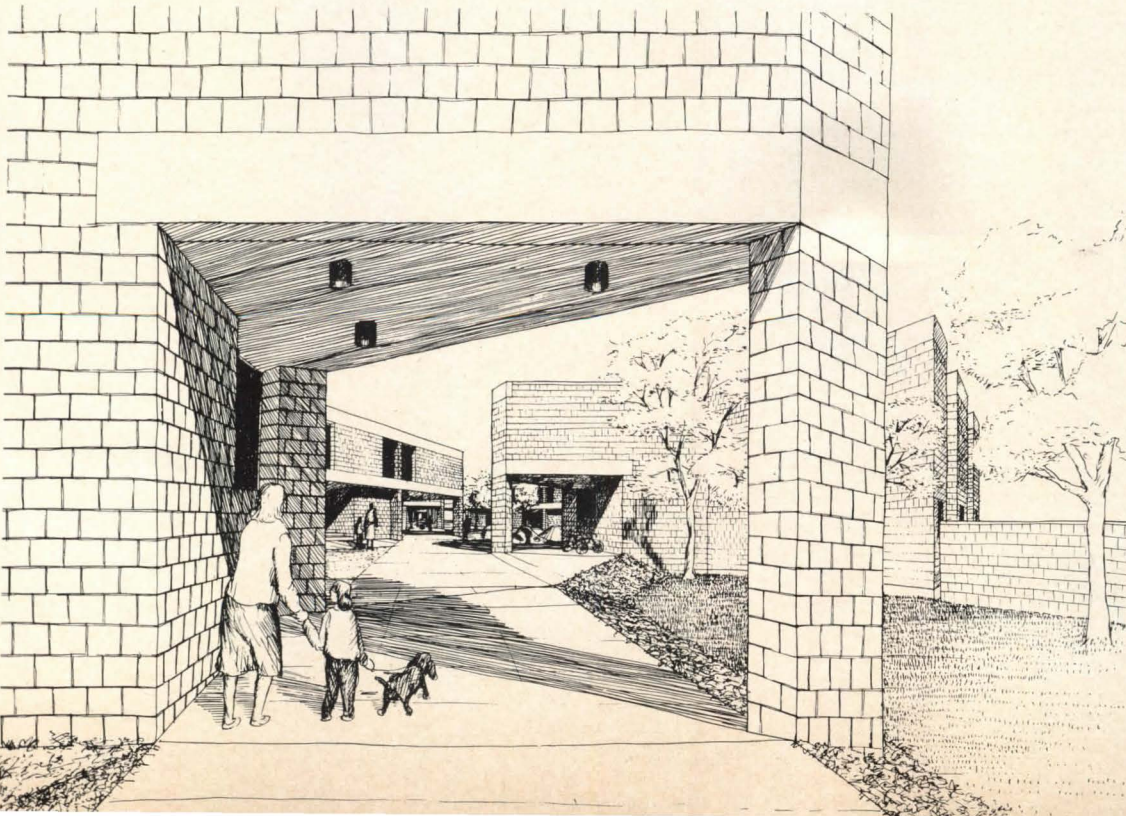
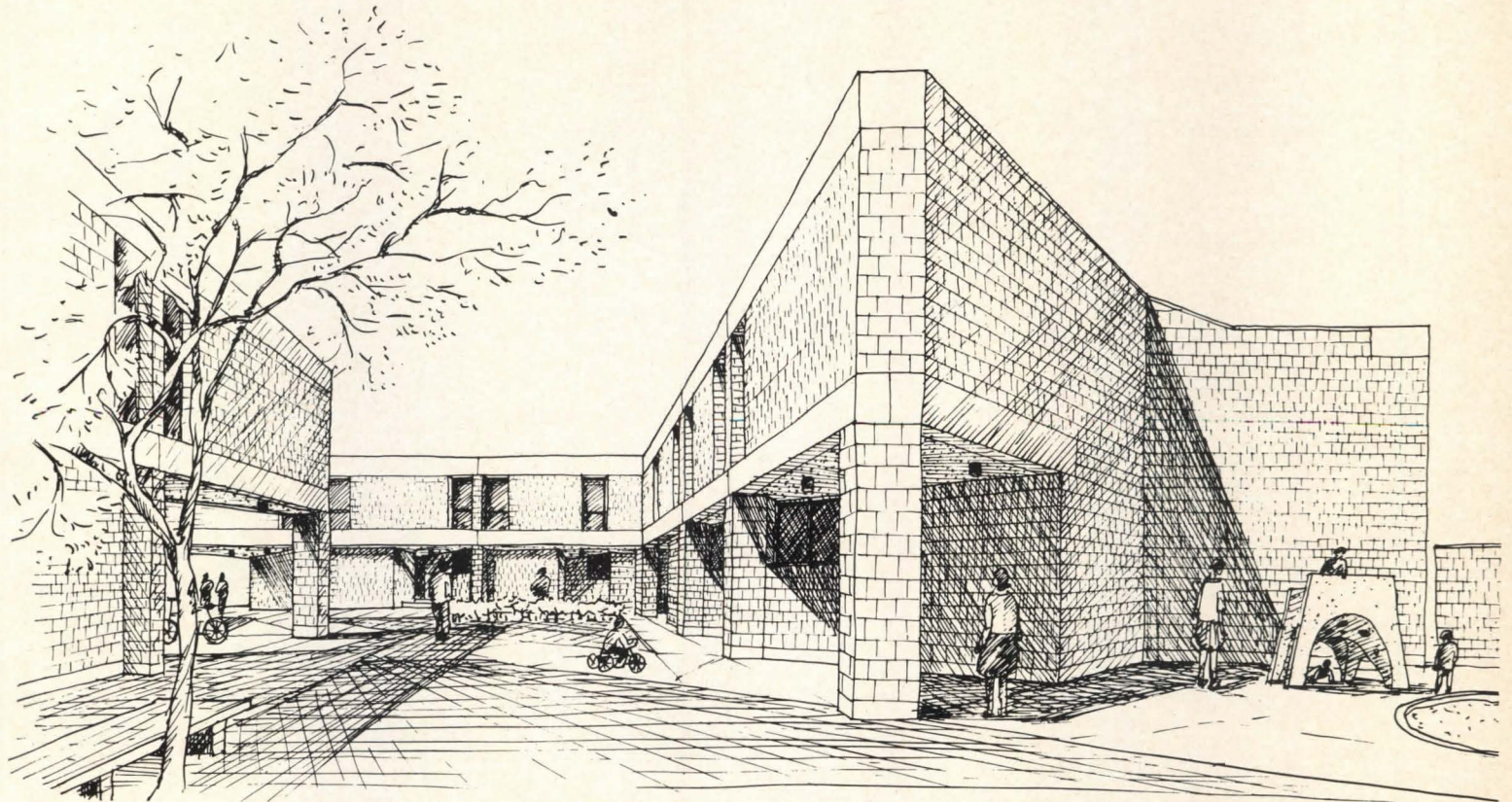
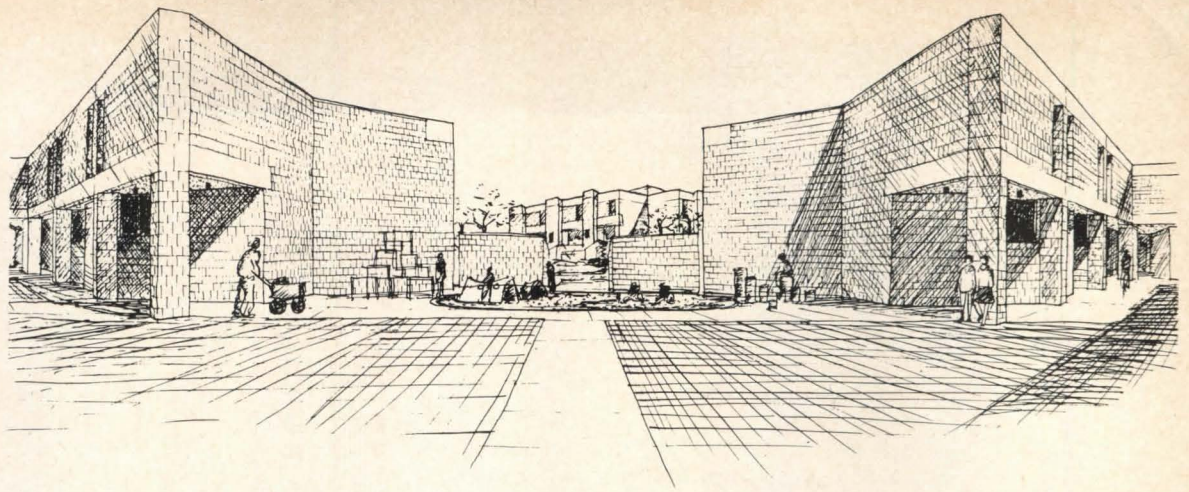
Kim

Dollard









award

A new headquarters for the New York State Bar Association, adjacent to the State Capitol, preserves three old townhouses and adds a new structure in back of them.

Architect: James Stewart Polshek
Project Coordinator: Howard M. Kaplan
Interior Designer: James Stewart Polshek
Structural Engineers: Garfinkel & Marenberg
Mechanical Engineers: Ian Grad Associates

PROJECT A headquarters for the New York State Bar Association.
LOCATION Albany, N.Y.

CLIENT New York State Bar Association.

SITE Lots at 2, 3, and 4 Elk Street, facing the square, adjacent to the State Capitol and the Court House. Existing houses on the site are part of a complete block of 19th-Century row houses on Elk Street, which have been declared landmarks by the Albany Historic Sites Commission.

DESIGN SOLUTION Rather than demolish these 19th-Century houses, the architect intends to save the façades and the front 30 ft of these structures. Behind them, and linked to them by a corridor from 4 Elk Street, will be a new structure, comprising three skylighted stepped elements, scaled to harmonize with the surrounding residences. Front parlors and upstairs rooms of the old buildings will be used as executive office space from which occupants can look through a rear glass façade to the new structure. In the first element of the new building will be reception room and library, in the second, a 35-ft-high great hall for group meetings, and in the third an office block with stepped-out tiers overlooking the great hall. Between the old and the new buildings will be a multilevel terrace.

CONSTRUCTION AND MATERIALS New building will be of reinforced concrete with concrete beam and slab floor and roof framing. Exterior faced with limestone and brick to relate in texture and in material to the surrounding residential and governmental buildings. The large open areas on the north and south façades are glazed with solar bronze glass that passes continuously in front of the spandrels. Deep black anodized aluminum mullions will accentuate the verti-

cals, while the horizon members will be kept to a minimum dimension. The multilevel terrace will be paved with brick. All exteriors of the old buildings will be cleaned and restored. Their rear façade, facing the new building, will be constructed of the same limestone brick and glass used in the new structure. Where possible, existing interiors will be retained.

JURY COMMENTS

PELLI: Resolving the sense of history can be demonstrated by the preservation of those buildings as the important decision. The relationship of how things were, how things are, and how things will be is always important. And these buildings are always a reminder.
MONTGOMERY: This project strikes me as possibly the most portentous of all the projects that we finally selected, in that it somehow draws together two of the currents reflected both in the judgments of the jury and in a great number of the submissions. One current is a coming of age of modern architects in terms of their leadership of responsible preservation efforts. This is quite a significant change from 20 years ago, when a remodeling job was something you took only when you were forced to and ended up redecorating the skin of the building. Here, there is quite a different attitude, which is perhaps going too far in the maintenance of old façades in a kind of scenographic way. Another current is the semibrutalist aesthetic of the new buildings. In one direction, we're moving away from prettying up old buildings according to new aesthetic terms and in another direction we're moving away from prettying up our new buildings.

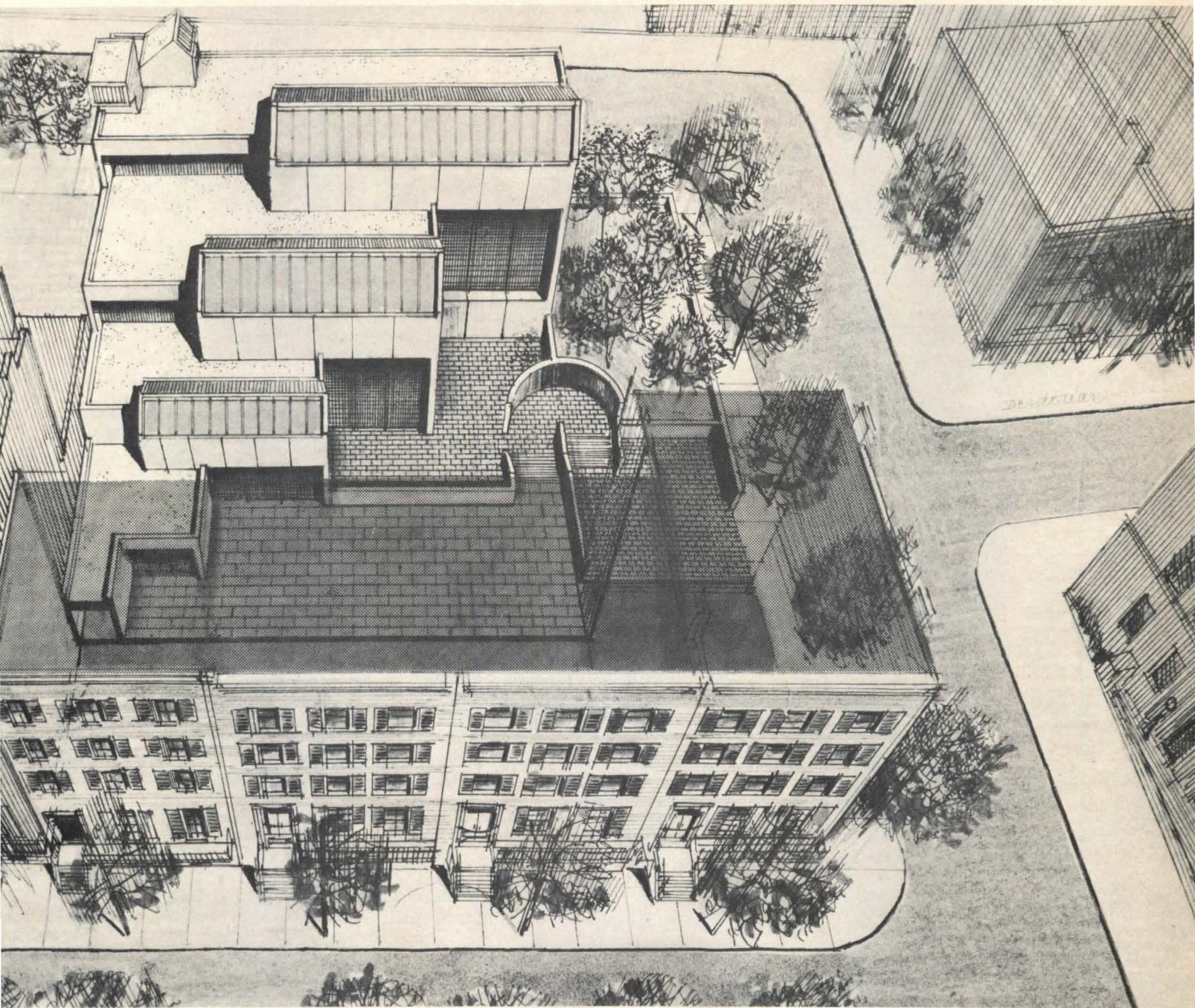
COBB: This scheme deserves an award because of the successful realization of a new building program that is specifically respect-



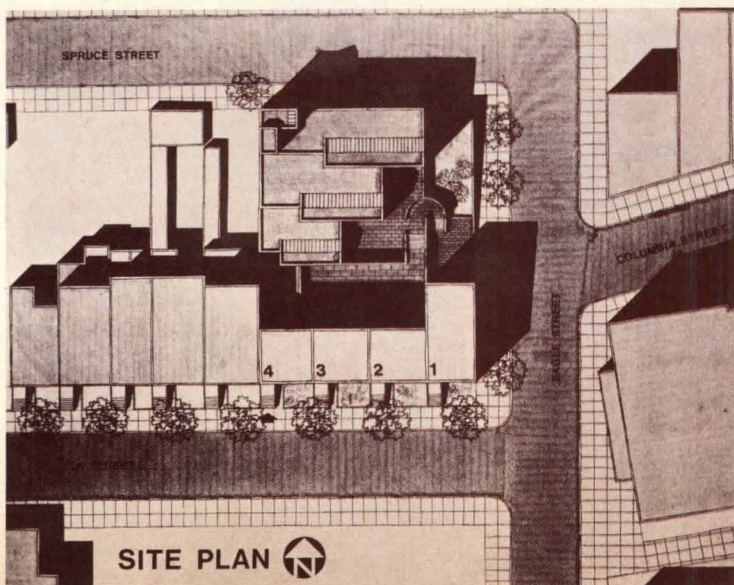
Polshek

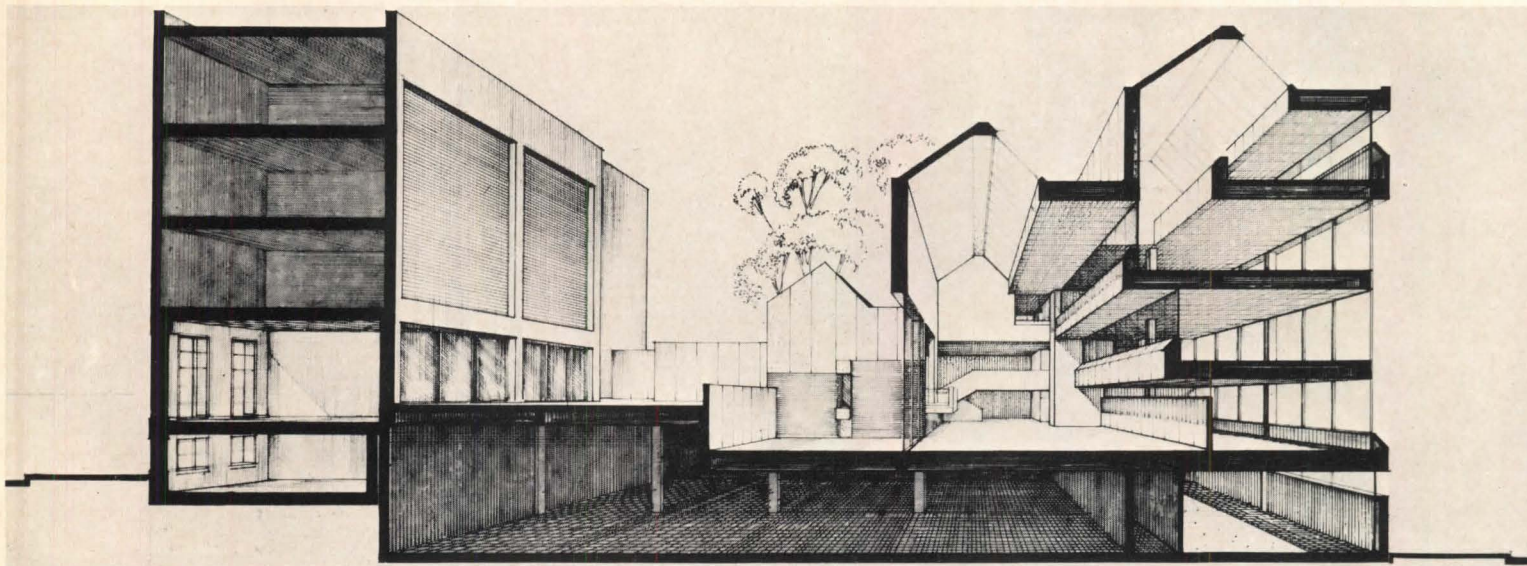


ful of the urban context in which it has been placed. Perhaps the weakest part of the scheme is the handling of the backside of the older buildings themselves, which doesn't seem to be a successful interface (if that's the current word) between the new and old.
PELLI: Although weakest in its aesthetic composition, it is a responsible, successful site-planning solution.

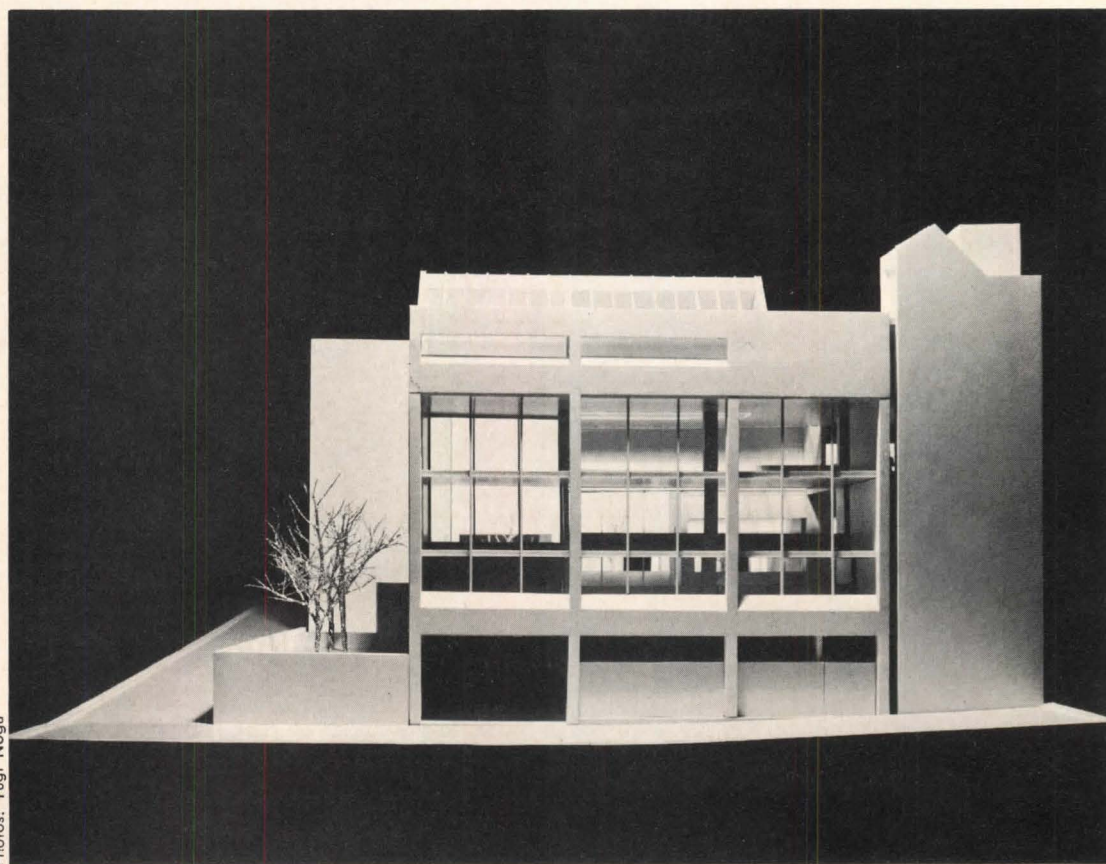


Rendering: Ara Derderian

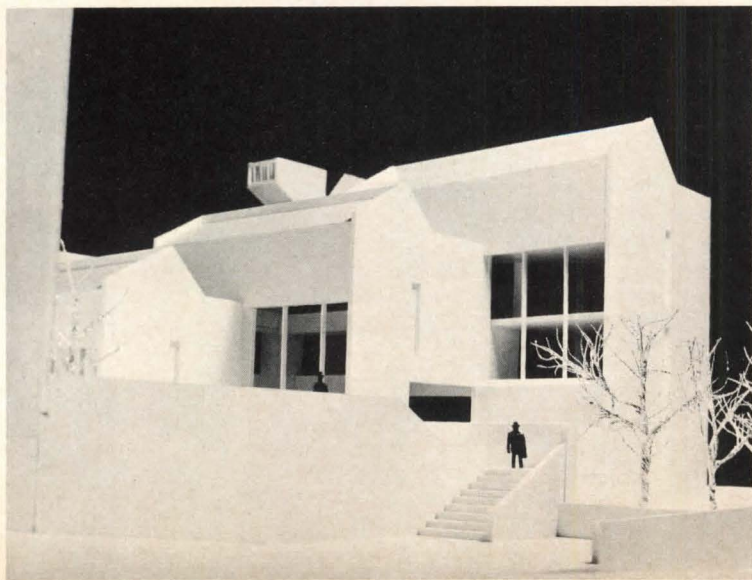
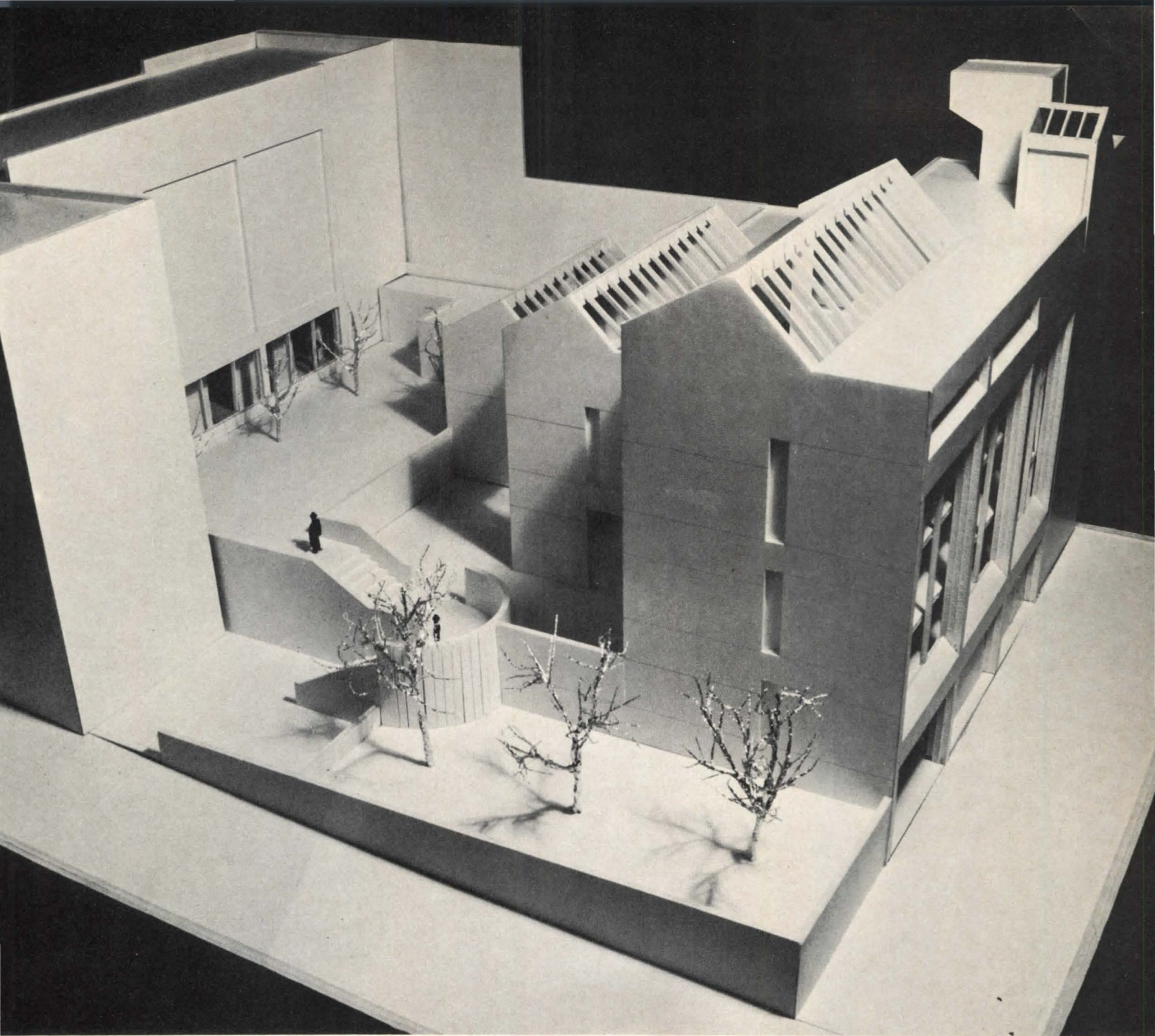




Perspective Section



Photos: Yugi Noga



INNER WORKINGS OF THE AWARDS PROGRAM

Just as every situation opens up a new set of problems, questions, and possible resolutions, so, too, the P/A Design Awards Program has an inner life of its own.

Several conditions of the program — its procedure as developed over the years by the editors, its method of layout for the jurors' consideration, its compressed time for deliberation, and even some aspects of how material is submitted — influence the decision-making process in subtle ways.

One influence on that judgment is the presentation technique of each submission. However obvious that influence may seem, presentation techniques are seldom discussed, either by the jury or, one guesses, by those entering the competition. Although P/A has attempted to standardize the size and contents of the materials submitted in order to give each entry equal chance, it is always surprising to the editors how unequally able architects are to see the strong points of their projects, the contributions and innovations they make to the world of architecture, and how unequal they are in conveying these points to a group of judges unfamiliar with the project.

Not only do the clarity and style of graphics make an appeal separate from the content they portray (however reluctant the jurors may be to admit it), but the sequence of the presentation, the types of materials it contains, and the ease with which it is made accessible by a ring or other binder are all contributors to success.

Jurors sometimes bend over backwards, as they did this year, not to be influenced by a presentation that they recognize is "provocative graphically." Also, this year's jury "found a lack of well-drawn sections, indicating not only a lack of desire to demonstrate for the jurors how the buildings would be put together, but also an attempt to gloss over how they would be put together." One scheme stuck in the memory of a jury member because, although "it was completely presented, the description contained a state-

ment that the exterior material was yet to be studied." Such a statement is clearly a consideration of presentation technique as well as of content.

The personalities of the jurors and what one juror called "the social dynamic of a jury" are other strange and subtle influences on the subjective decision-making process. "The social dynamic of the jury," Roger Montgomery noted, "doesn't permit people to develop adequate early defenses or immediately persuasive cases for complex presentations. The social dynamic of a jury makes difficult the give-and-take between personalities that leads to the final selection of some schemes. Therefore, we can almost expect the jury system to select the simpler, bolder, more direct things. And this does not necessarily have anything to do with user satisfaction of the people who will inhabit the building." (Another juror disagreed, saying that the larger, more complex entries were merely not exciting.) These comments on the persuasive abilities of individual jurors cannot be too highly emphasized.

P/A's division of the submissions into such building categories as health, residential, education, and so on, has also been considered an influence on the jury. Detrimental, some have said in the past, was the enforced procedure of comparing, in the health category for example, a small doctor's office with a multistory medical complex. This year, however, the jury found the division into categories "just right." "It would have taken five times as long otherwise," one juror added.

The effect of the time available to consider each submission has also been annually discussed by juries as a factor influencing the awards. In the past, juries have taken the first day-and-a-half to study all the entries submitted. When this year's jurors exhaustedly put on their coats at 9 P.M. the first day, they had looked at the entire 735 entries.

"That's what is bothering me," Richard Gensert commented. "You realize that we had over 700 entries and we spent 600 minutes going through them. If the social problems, the problems of the site and transportation, all these interrelated disciplines are going to affect design, we can't possibly read a program and come up with a decision in one minute."

Lewis Davis answered, "The only reassuring thing about it all is that if you spent 600 hours you'd still be in doubt." This prompted the following exchange: GENSERT: I noticed yesterday that most people were looking only at the elevations. Can you tell whether a project is good or not by looking at the elevation?

PELLI: Not if it's good, but you can tell if it's bad, very quickly. And I think all of the bad ones went down under the table right away.

DAVIS: There are certain signposts you look for.

PELLI: As soon as you see that something is wrong, you put it under. It doesn't need to have more than one thing wrong.

MONTGOMERY: The requirement that

all aspects of a building be somehow of a piece makes it possible to make a practically instantaneous evaluation of the buildings that are out generally.

ROWAN: Anyway, it isn't only one person looking, it's five people. So it's 600 minutes times 5 (or six 8-hour days, if you work it out).



TECHNOLOGY AND IMAGE

"Why, of all the 735 entries, did the winner say something to the jury that the others did not?"

That was a question asked after the selection of the First Design Award was made. The answer, and the philosophy that led up to the final choice, which is revealed on the following pages, serves

as the introduction to the top winner for 1969:

COBB: Everything else we looked at is clearly within the accepted technology and the accepted aesthetic of the moment, and the accepted objectives of the moment.

MONTGOMERY: Most of our things have been contained boxes.

DAVIS: The First Award demonstrates that we're living in a different world today —

a very complicated world with a tremendous amount of building and tremendously complicated building programs. If you look at the time one has to spend to understand a building program, you recognize the tremendous demand on the architect to come up with viable, quick solutions, to execute voluminous drawings, and to make the thousands of decisions required for every building. By this pressure of time he cannot build in the way that Sullivan, Wright, and Richardson did — meticulously studying every detail.

If he wants to do that, he has to build far fewer buildings.

So the symbolism of the First Award is that we cannot think through solutions as we have done. We now have to think of a system to enclose a space to support a program, not in the very egocentric directions we have tended to take, with perfect photographs of a particular lintel and stone, portal and penetration. The public we're building for (and we're building not only for the aristocracy but for everybody) doesn't give a damn anymore about details. They have to have immediate solutions to their needs. And for the next decade, the next two decades, we're going to be building for ourselves until we find that universal system that can support everybody's desires.

PELLI: Today we have different emotional and aesthetic means than we had in classical Greece or even 50 years ago or 20 years ago.

DAVIS: We have a greater expectation, too.

PELLI: It's more than functional, it's aesthetic. In sculpture and painting, we're going through the same thing. The sculptor and the painter are not being forced by any functional or economic requirements to do what they're doing. They have just as much time as Phidias had, or Michelangelo. It's unimportant to do details. It's really totally unimportant what detail you use to put the window together, what mechanical system you use. Our aesthetic and emotional concerns are at a different scale, at a much larger scale. Maybe because we move much faster and we see much more in one week of our lives and a thousand times more during our lifetimes, and because each building is therefore just a small part of a total set of aesthetic memories. So now each complete building is a detail. Before, God was in the details. Now we say God is dead. And probably both things go together.

Details at the scale we used to know are totally unimportant

today. We are not concerned with objects anymore, but with process. We are not concerned with details, but with emotional responses. We are not concerned with order and clarity, but with excitement.

DAVIS: In an age when we are striving to understand, to get a direction, we cannot be concerned with detail. Yet the human psyche demands detail, which is refinement. And as the architect gets more control, he's going to demand things that preceding buildings didn't have. He's going to demand a better quality.

PELLI: You still need response, and you may still talk of tremendous refinement. For you can do things at a large scale that are highly refined. But detail is different. And it's not necessarily a virtue. What happens in every generation is that you focus on a certain amount of things, and other things remain on the periphery.

MONTGOMERY: One of the significant aspects of painting has been the degree to which, just as a move has been made (and has been recognized as a move, as an actual change from here to there), a counter-move develops. So just at the moment you're arguing that detail is unimportant, you'll suddenly find a very consequential move in the opposite direction — maybe outside our part of the building industry. Maybe we will be making large-scale constructions that have little other than standardized concern with detail, whereas the refinement is something that the consumer adds on his own. At the same time that the Paul Revere type of craftsmanship has practically disappeared from the marketplace, we have a fantastic amount, at least in California, of housewives who are consummate craftsmen: They make their own jewelry or pottery or plastic furniture. The pluralism of aesthetic intention today is something we have to recognize.

PELLI: Still, this change of focus is happening now among professional architects and is going to be more dominant. Actually, today, with this collective memory we have, movements don't quite die.

MONTGOMERY: Everything is alive simultaneously.

DAVIS: One would think from this discussion that architects are really making some decisions. But they're not really making any decisions. We're not in control of where we build or how we build. The politicians are making the decisions;

the bureaucrats are doing all the planning; and whatever drifts down to us we do the best we can.

PELLI: That's right. That's why I was more concerned with the aesthetic answers, which is what's in your control.

DAVIS: And the technological, industrial breakthrough is not going to be made by the architects. It's going to be made by Boeing, or Allison, or GE, or Westinghouse. They have hundreds and hundreds of architects working on this right now.

COBB: Technologically. That's not what I think we're awarding. I think we're responding to an architectural value.

PELLI: The First Award is dealing with technological images —not technology, but a technological image. Images are what architects deal with.

DAVIS: The next stage of this technological work is even more frightening to me. In the wrong hands, it could be a total disaster and snuff out life; in the right hands, it could make life more pleasurable. What's it going to be like when Boeing and General Motors get hold of this thing and start extruding it out of their factories in the hundreds of thousands of units? I think this is the Model T car that's made in Henry Ford's back garage. What I'm really concerned with is where this Model T is going to lead.

PELLI: The important thing is not whether these fellows are going to cause the production of Model T's. If buildings can be extruded efficiently and economically, the large corporations are going to do it. And they are not going to ask us.

COBB: We have a right as a jury to use the First Design Award — or any award — for a polemic purpose.

MONTGOMERY: A didactic purpose.

COBB: As a jury, we first agreed that we would not have a first award unless we could fulfill two essential conditions: one is that it's an important problem, and the other is that it is a brilliant solution. We have some good solutions, even some brilliant solutions, but they are solutions of problems, such as a little commercial building, that we just don't consider important enough to give a First Design Award. But here we have a person obviously on the threshold of his professional career who has access only to a very small problem and who uses it to pose very interesting questions and responds to them in a schematic way, in a stimulating fashion.

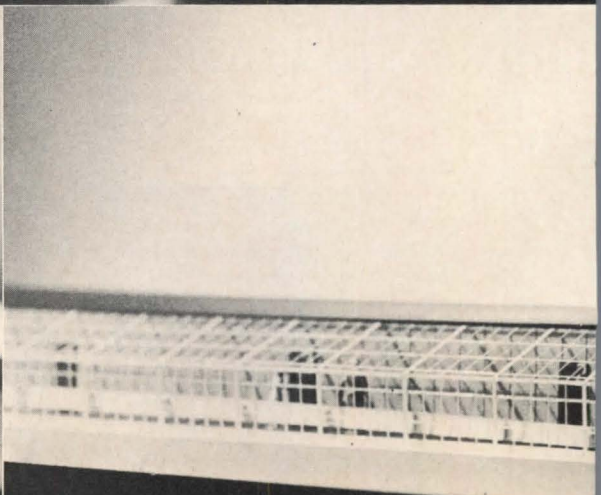
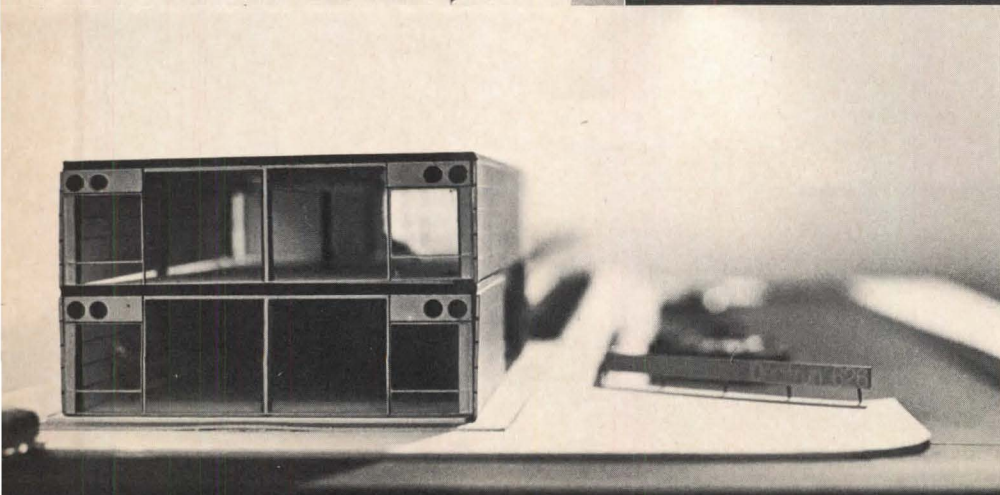
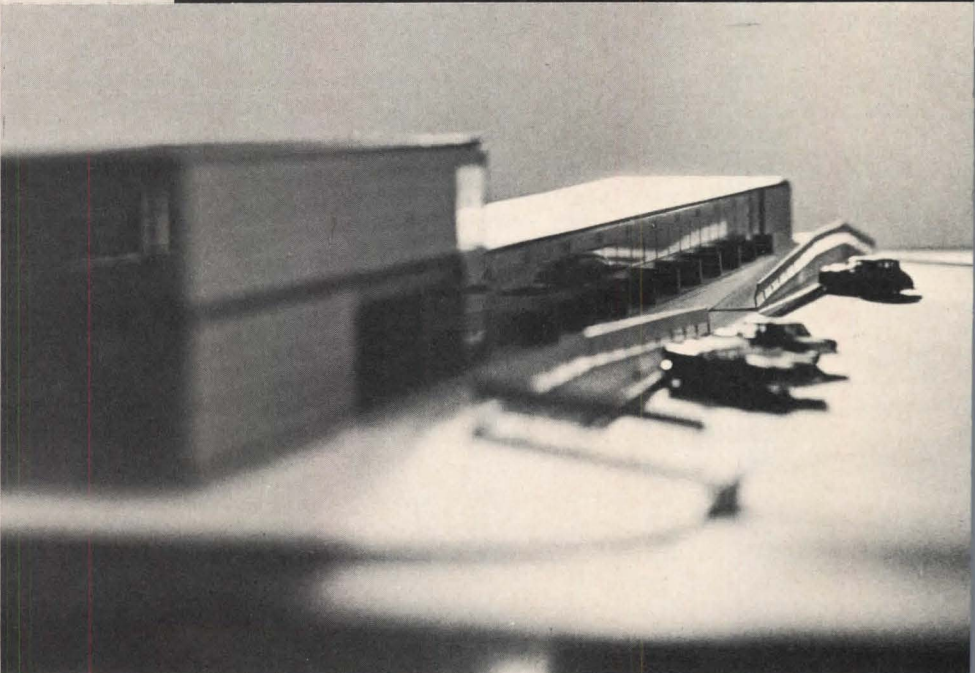
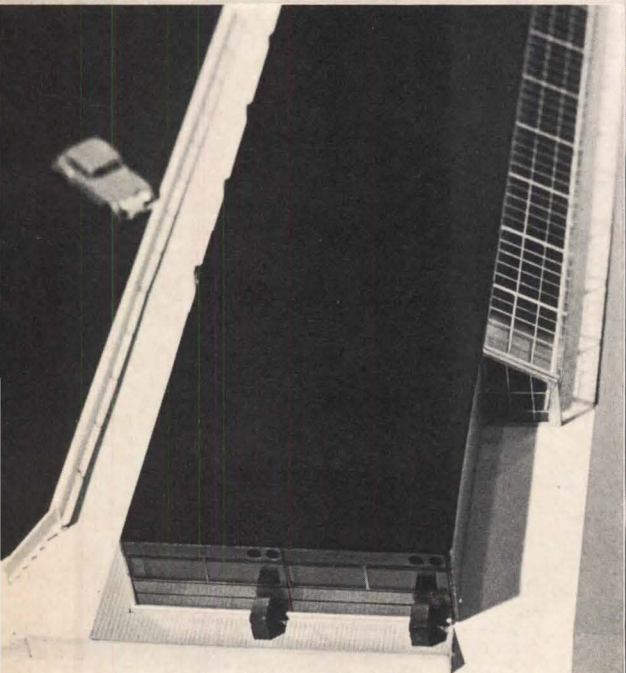
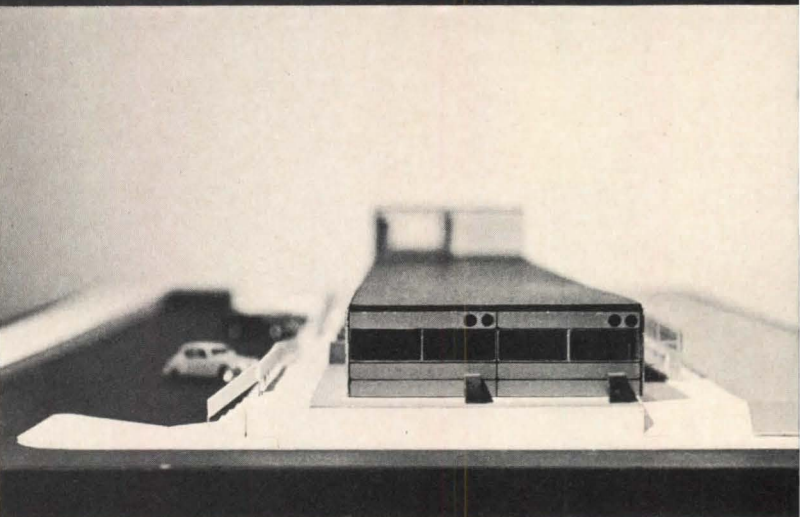
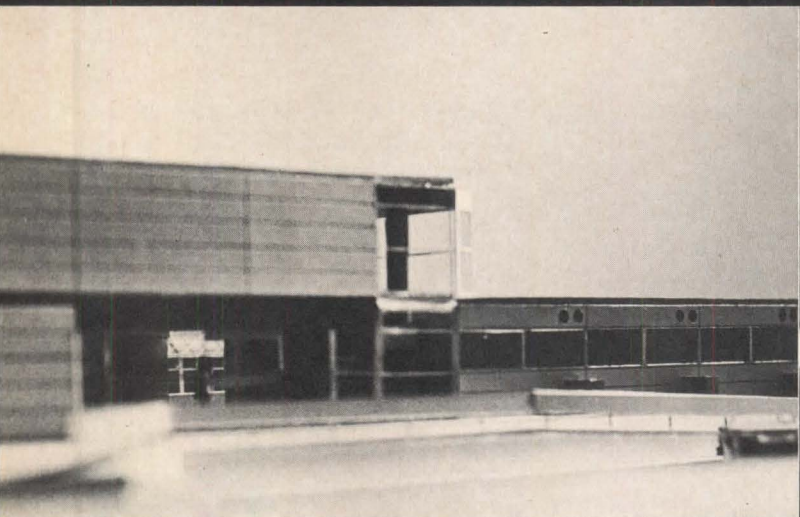
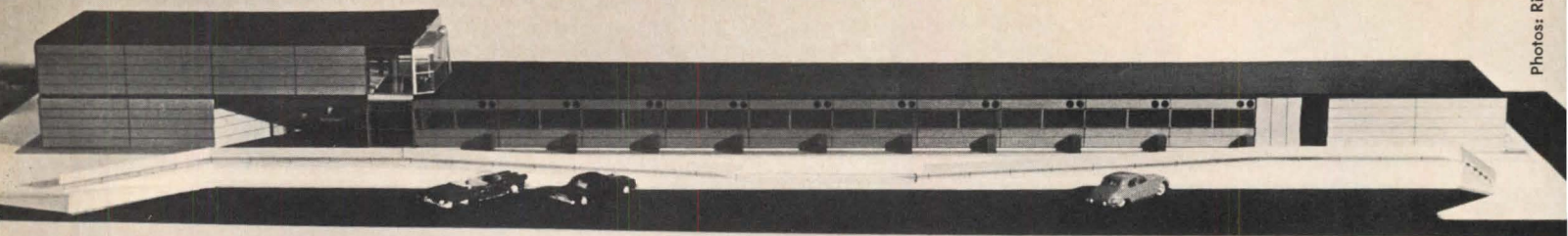
DAVIS: It's really a provocative statement.

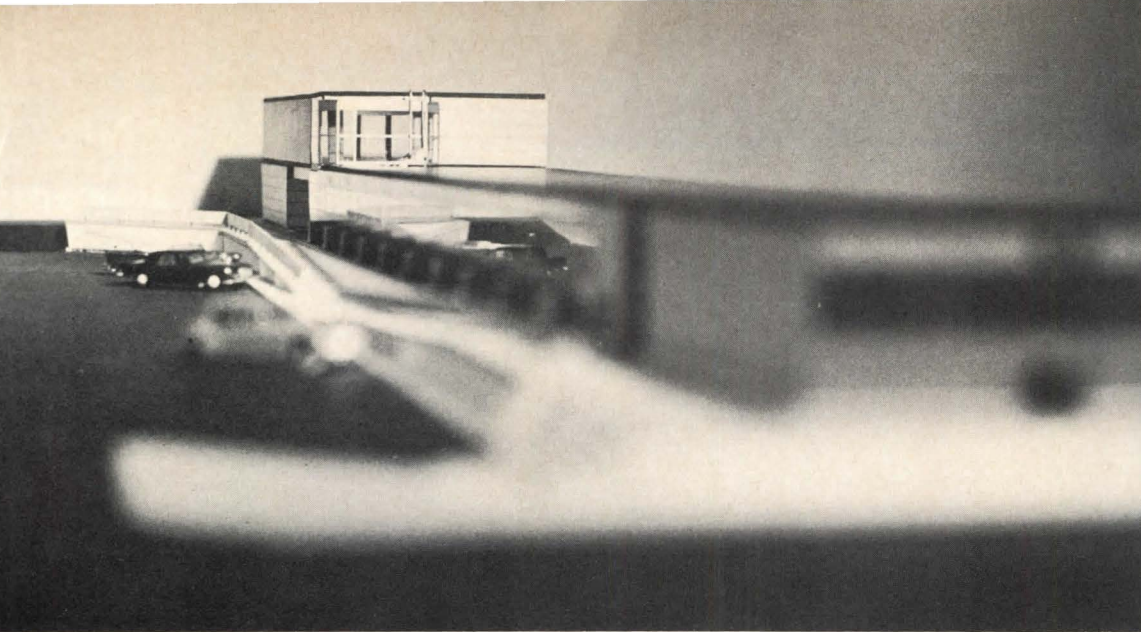
COBB: Isn't that a legitimate role for a First Award winner in this program — that this is something the profession ought to think about?

MONTGOMERY: Come on. Be bold. Do something. Make a gesture. Brave New World is around the corner.

Then came the dramatic vote. And on the next page is the top winner of our brave new year.

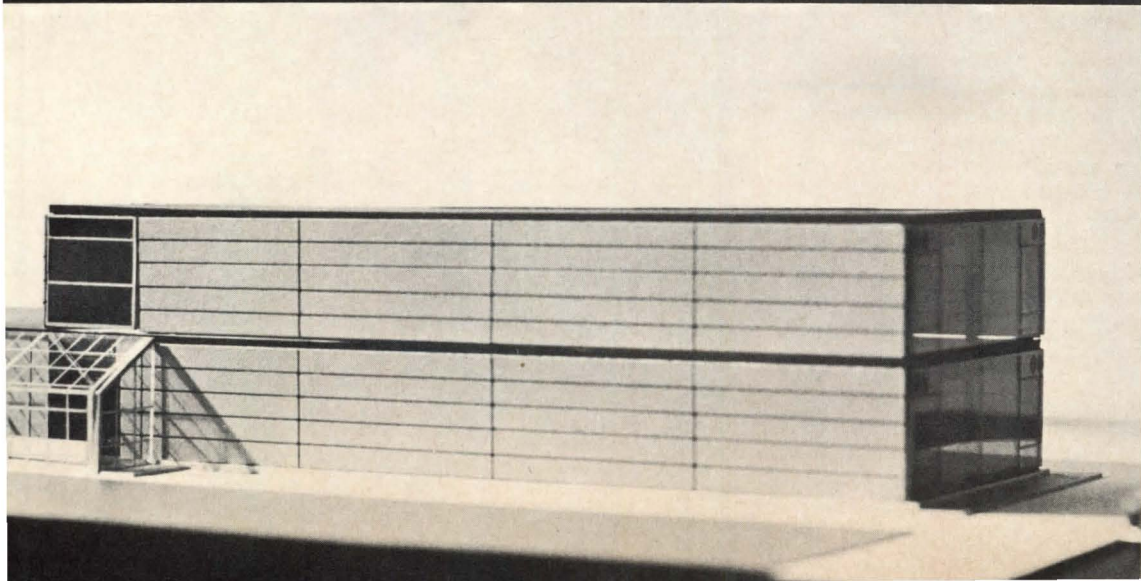
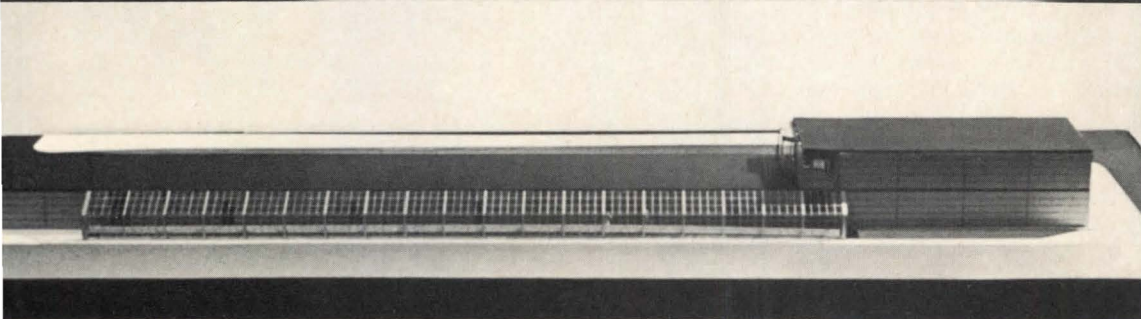
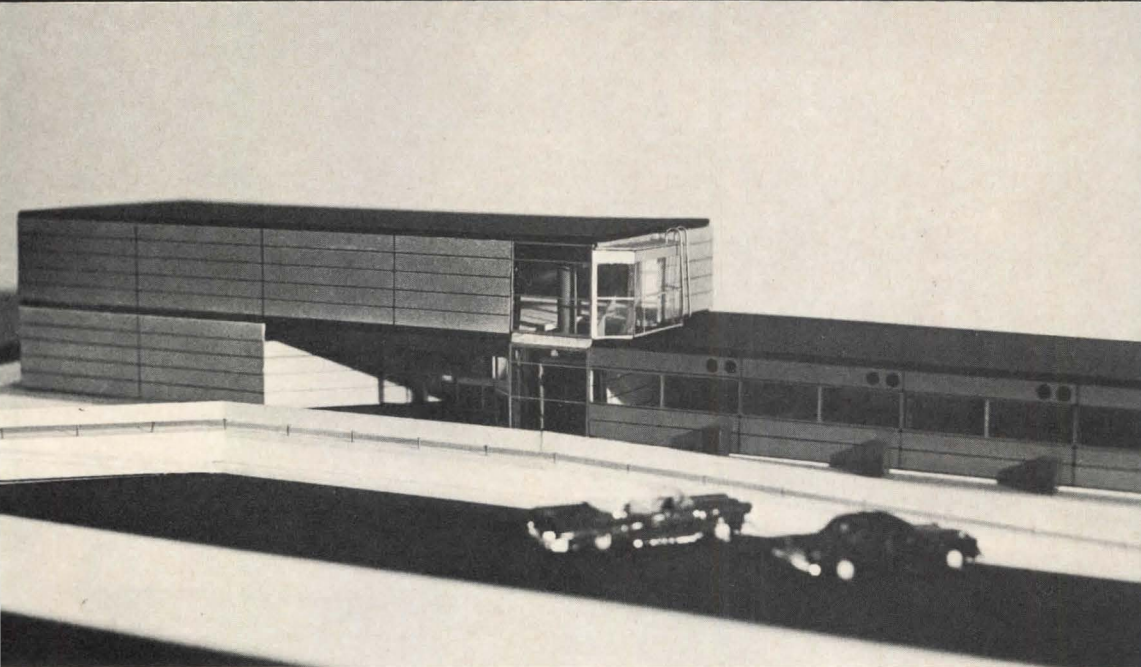






FIRST DESIGN AWARD

P/A's highest honor goes to a speculative rental building that combines planning for growth with the imagery of technology.

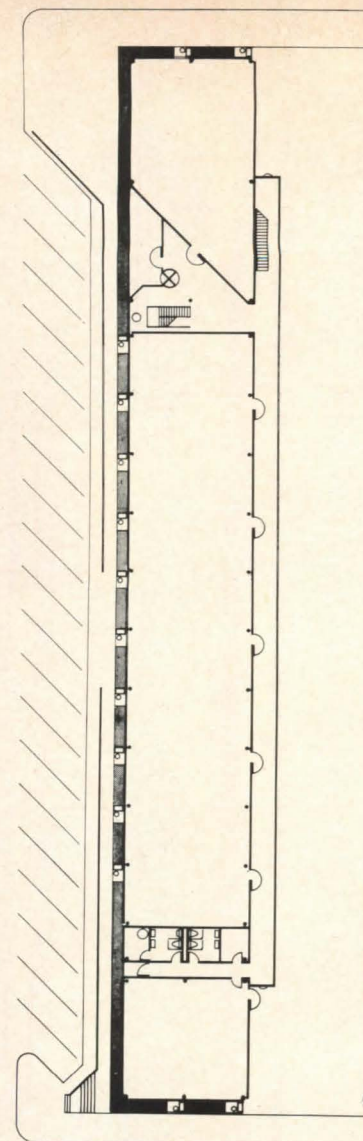
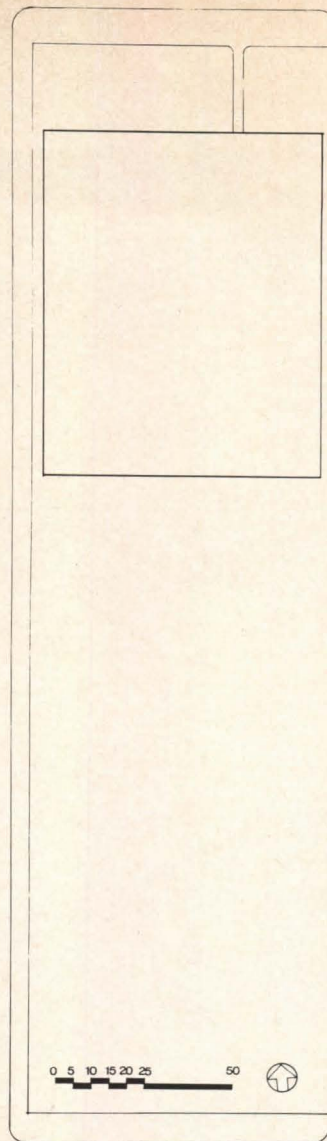
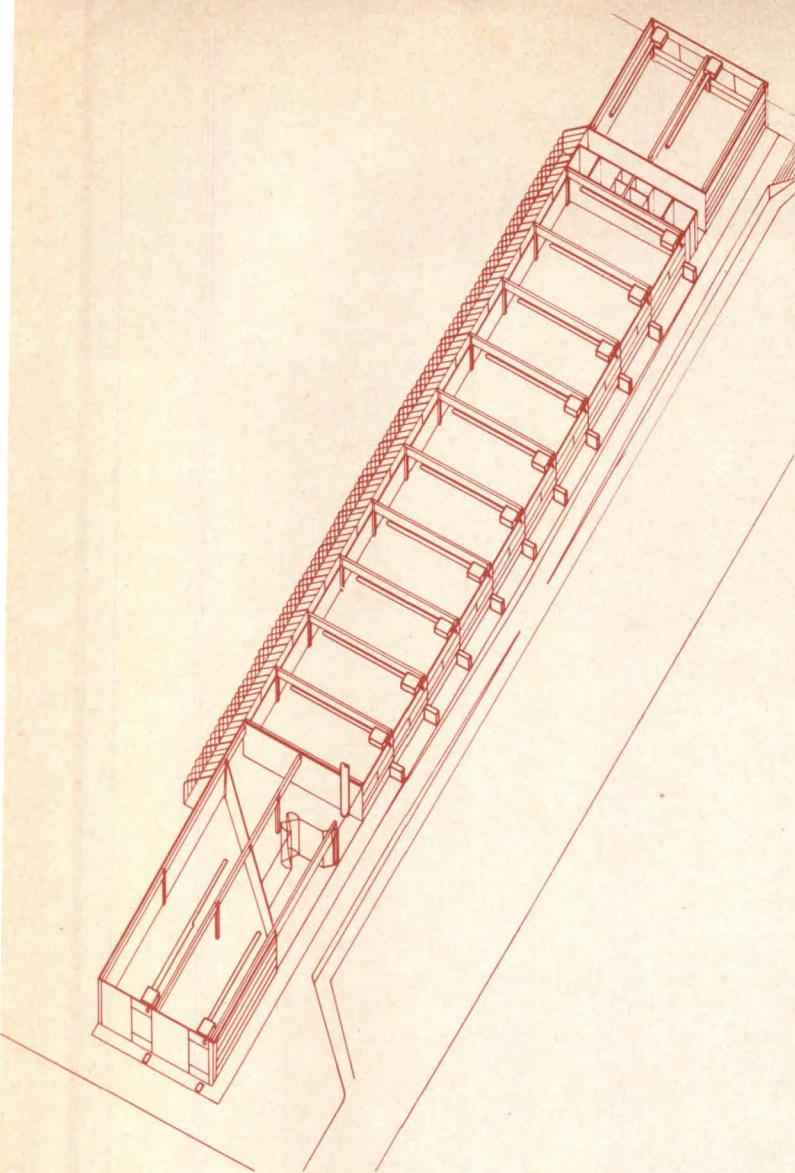


Architect: Walker/Hodgetts
Project Architect: Lester R. Walker
Project Designer: Craig Hodgetts
Structural Engineer: Robert Silman
Mechanical Engineer: Peter Flack
Technical Coordinator: Nathan Leblang
Guru: James Stirling



Walker

Hodgetts



Site Plan/First Floor

PROJECT Rental building "DECI-TRUN 636."

LOCATION 636 High Street, Pottstown, Pa.

CLIENT Drs. Donald and Howard Sokol.

SITE Situated on Pottstown's principal artery, High Street, the 100' x 300' property lies perpendicular to, and marks the end of, a shopping strip and the beginning of a declining residential area. To exploit this location, all facilities are treated as components of a public way connecting two parallel streets.

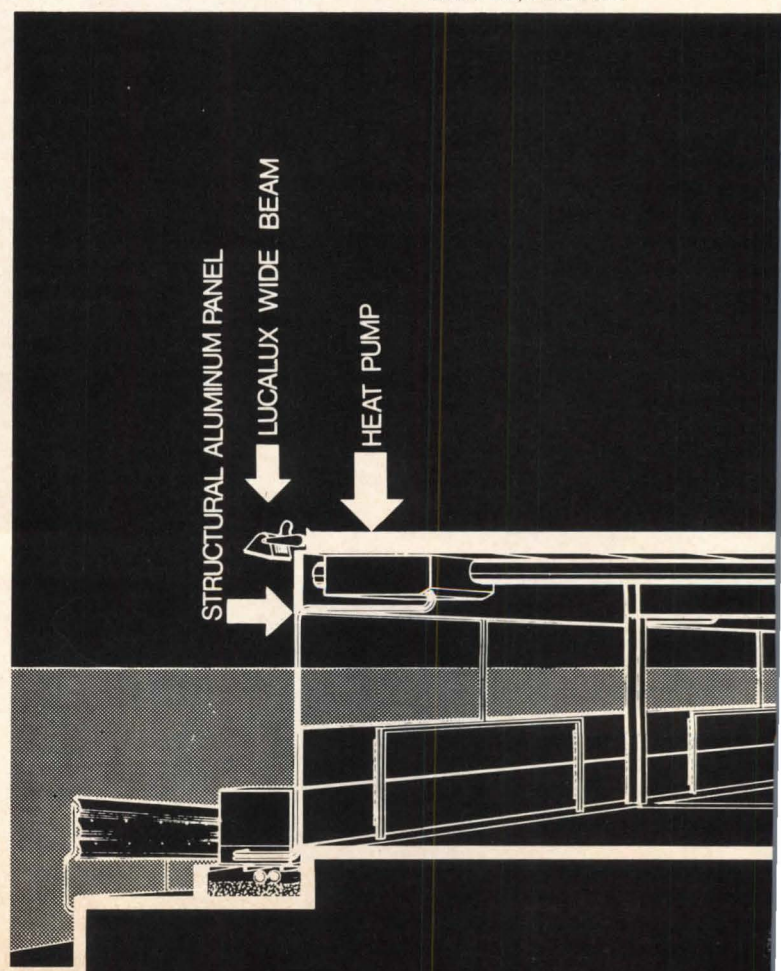
PROGRAM To provide expandable, flexible rental space in 500 sq ft increments. Each increment was to have individual HVAC service, parking space for one car, and access from High Street. The owner's anticipation of expansion to the adjacent site, coupled with a limited budget, dictated a solution that could grow both horizontally and vertically.

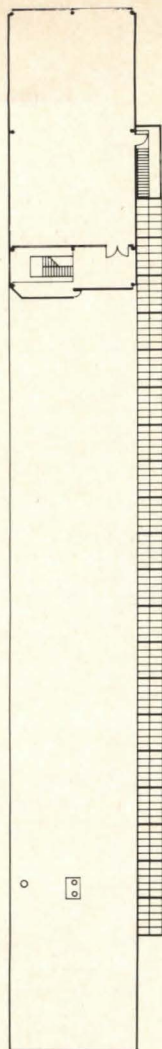
DESIGN SOLUTION Rentable increments are laid parallel to compose one long narrow rectangle, each unit stretching across this plan. A corridor, designed like a greenhouse, runs along the east exterior wall, connecting each unit to a wedge-shaped lobby and to toilet facilities. Rentable spaces

terminate each end of the rectangular plan. On the second level, four increments will be built first, located at the High Street end.

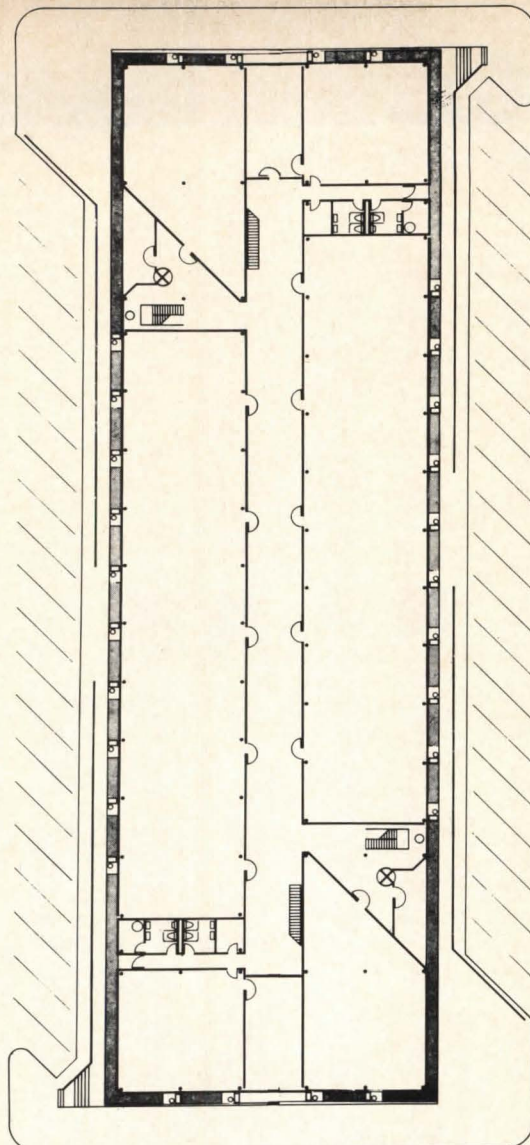
CONSTRUCTION AND MATERIALS Because of anticipated expansion, as well as the budget and limited time available for erection, the architects selected a kit of standard parts, which would be demountable, re-usable, replaceable, and phaseable. A square grid of steel bents supports extruded prestressed concrete floor plank. A subsidiary frame of rectangular steel tubing provides clips for stressed skin structural aluminum panels and glazing, which are joined by an industrial system of neoprene gaskets and aluminum extrusions. The lean-to aluminum greenhouse is mounted over Pirelli rubber corridor surface.

Split system heat pumps are coupled to ceiling units serving each rentable increment; heat pumps are pad-mounted over a linear utility channel on the west exterior of the building to provide ease of service, reduction of vibration-borne noise within the building, and to permit expansion with a minimum of inconvenience to tenants. The greenhouse corridor and quasi-outdoor lobby have





Second Floor



Horizontal Growth

— the idea of a progressive, economical, unitized, expandable, demountable, disposable building. PELLI: It has a clip-on corridor. COBB: It can also shrink. DAVIS: Maybe it can reproduce itself.

COBB: In a simple way, without any kind of turgid prose, he is showing that he considers this a problem in multiplication — external as well as internal.

MONTGOMERY: He has taken this tiny little program and instead of simply reacting that and providing idiosyncratic solutions to that unique program, he is trying to make a statement about the endless multiplication of buildings.

COBB: In a very economical way, he has communicated to us much larger implications than the building itself represents.

DAVIS: He's also recognizing the unnecessary permanence that buildings connote today.

MONTGOMERY: Every place he should have responded to things, he did.

COBB: He has dealt with his proposal in an unusually complete way. It follows all the way from the planning diagram, which is very clear — there's the diagonal — straight through to the development of the construction system (though I agree that that's the weakest thing).

PELLI: Aesthetically, I find it the most exciting of the whole bunch. It uses technology as a life-giving element; it has the kind of materials we are going to have to use soon. So we had better learn to use them in a way that contributes to life, as this building suggests. This is the real importance of this entry, and it is the only building that has these characteristics among the whole set of submissions.

COBB: Yes, it has great freshness. And although it is an almost toylike building, it is conceptually perhaps the most serious proposal that we have — because it does hypothecate a different kind of development program, a different kind of objective, a different kind of construction sequence, a different kind of construction technique, a different kind of result finally in a building than that which we are accustomed to.

DAVIS: It's not the parts we find fascinating, it's the sum of the parts. It is a message, a strong message saying that there isn't only one way to build.

[Agreement on the first award was not unanimous, however; the engineer cast a dissenting vote.]

GENSERT: I'm very much opposed. It certainly is not the last word in technology, and it's not the last word in integrating technology with itself or with architecture. The idea of designing a unit

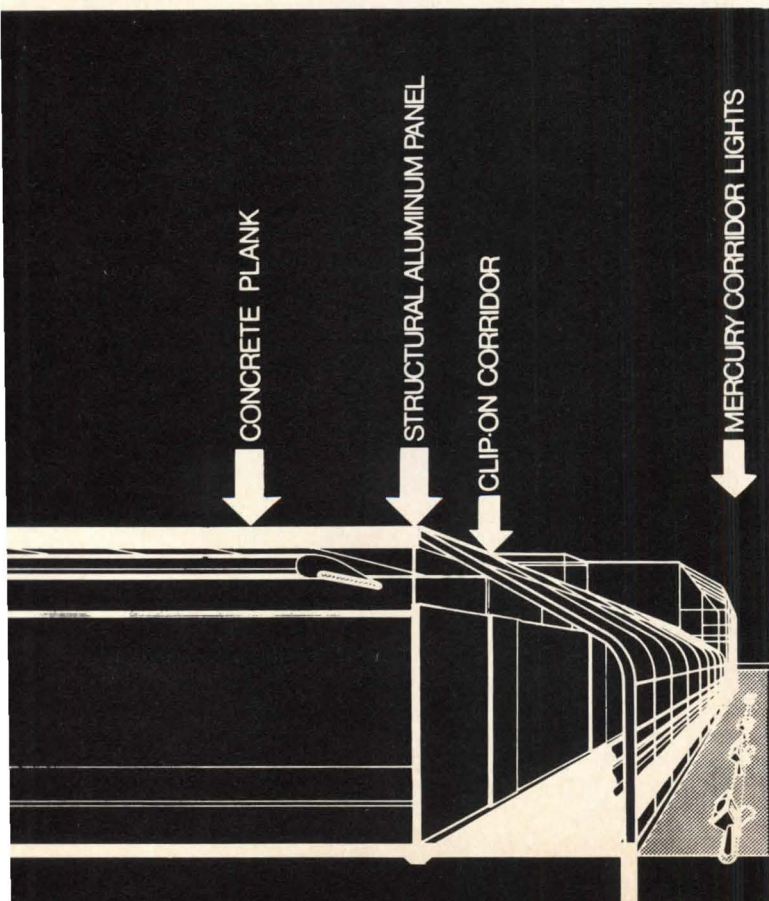
only minimal fin-tube radiation.

As the second level is extended, supplementary heat pumps will be added next to existing units. When the adjacent site is developed, the aluminum greenhouse will be moved to become the skylight for a central arcade, which will be formed by flopping the plan.

In terms of circulation, the public ways form new hierarchies of pedestrian and vehicular flow. By superimposing the diagram on a typical block, parking becomes an integral part of the vehicular/pedestrian system. As a repetitive organizing principle, the diagram preserves the continuity of pedestrian/vehicular flow.

JURY COMMENTS

COBB: This scheme is consistent — consistent with its own proposition. It deals in a simple, direct way with the external planning problem, with the internal planning problem, the problem of construction phasing, and with the major problems of technology insofar as creating systems that are consistent with the statement. The architect has chosen a system structurally, a system mechanically, a system of enclosure, a system of ingress and egress, a system of circulation, a system of access, all of which are coherent with an idea



space that can be used for all kinds of activities is wrong. This is a building in which you could make cigars or have a maternity ward. Architecture should express occupancy of the building and not the Machine Age. This so-called new image is a loss of identity. It says that what goes on inside a building, where it sits on the site, and how it relates to other buildings is meaningless. You could put this on a mountain, or you could put it in a valley and you'd get the same thing.

PELLI: Like a car.

GENSERT: I don't live in my car.

PELLI: You sure do. More people have cars than have houses, and the same car is used in Texas as in Alaska, New York City, or Dubuque, Iowa. Exactly the same car. DAVIS: But this isn't a system; I don't feel we're giving it a "design" award, but a "message" award.

COBB: I would disagree with that. The architectural sensitivity of this person is very clearly indicated. He can extend it any distance he likes, but he has given it a beginning, and when he comes to the end he gives it an end. Architecturally, it's not unsophisticated, it's very sophisticated.

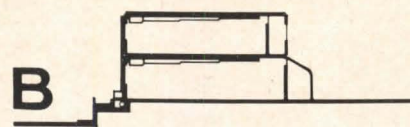
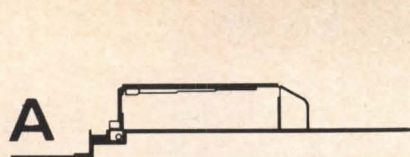
MONTGOMERY: Absolutely.

COBB: Formally, this is witty and provocative; it's not heavy-handed. It has all the wit expressed so successfully in the little houses, yet it's turned to what I think is a more important purpose.

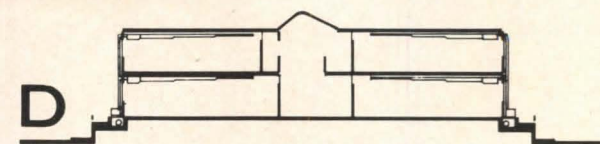
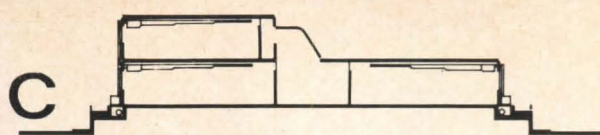
DAVIS: It is a cartoon and a satire, which is a lot more telling than a serious statement.

MONTGOMERY: What is interesting is not the building system but the vision of the architect's task as a building-system-oriented task.

PELLI: To me, there is something even more important than the building system and the message — that is, that the whole thing is taken very lightly. He paints blue and yellow and red over it and makes something quite delightful out of it. There is no solemn, forbidding, terrorized attitude toward the machine. No, he's saying, "Look: We can take these horrible things and make them part of our lives and it would be much more fun than if we were using brick and wood." That he does have tongue in cheek contributes a lot to the message. If it were done solemnly, I would not feel as strongly for it as I do because of its being half fun. I would like to make it very clear that this is not being given the First Award because it's using systems, or because it's improving on the use of systems. The most important thing is the image of the whole project and the way you can use systems to do other things for other purposes, for more delightful purposes.



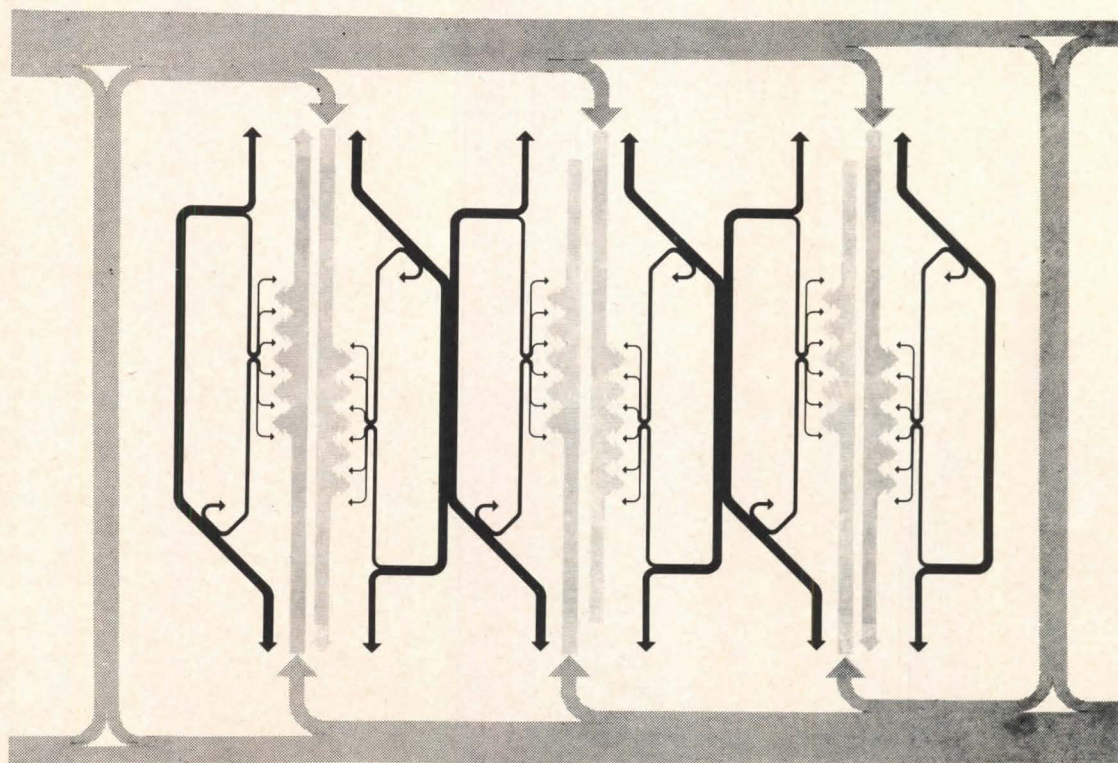
Vertical Growth



Horizontal Growth



Circulation



COBB: We will be accused of giving the award for graphics.

PELLI: That's okay. It's a beautiful thing and the graphics are really part of it.

DAVIS: I view this as an important signpost that will tend to make people think and possibly acknowledge other directions.

COBB: The First Award symbolizes not a search for a universal system, but an attitude of trying to make the activity of an architect more efficient in serving a need, and, at the same time, it implies no less concern for the art of architecture.

PELLI: This is really with it. It's what's coming.

local vehicular
through vehicular
pedestrian

how L-O-F hi-performance glass can solve building design problems



The following pages present a portfolio of three outstanding designs prepared by leading architects. Each design incorporates extensive use of hi-performance glass products of the Libbey-Owens-Ford Company.

That this portfolio appears in the January Design Awards issue of PROGRESSIVE ARCHITECTURE is most appropriate. This is the time and place where the architectural profession examines the direction in which it is moving. As these designs illustrate, one of these directions is toward the "Open World of Glass". Your L-O-F Architectural Construction Specialist is trained to assist you in selecting the best L-O-F hi-performance glass for your purpose.

Libbey-Owens-Ford Company

Toledo, Ohio

the changing face

of contemporary architecture has made ours an "Open World" where glass has enabled sunlight and space to become part of our daily lives.

We present here and on the inside back cover of this jacket, descriptions of Libbey-Owens-Ford hi-performance glass products which make the "Open World" concept practical.

VARI-TRAN™ COATED GLASS

L-O-F's StratoVac process for vacuum-coating glass holds major promise to architects. The process for continuous vacuum-coating works like this:

Lines of 10' x 12' sheets of glass are air-locked through a series of chambers to reach the vacuum that astronauts find 125 miles up. Here in "outer space" we vaporize the coating materials by electronic bombardment, direct their atoms and molecules onto the glass to give desired characteristics of transparency and reflectivity. Our range is almost without limit. Only L-O-F can make vacuum-coated glass on a continuous basis in large sizes.

THERMOPANE® INSULATING GLASS WITH BONDERMETIC SEAL®

Thermopane has been manufactured for 30 years and is the first successful mass-produced insulating glass unit. It incorporates L-O-F's exclusive metal-to-glass seal.

The enclosed air space reduces heat gain and loss providing improved occupant comfort and reduction in heating and cooling costs.

Thermopane with a Bondermetic Seal is available using a wide range of L-O-F plate, float, sheet and patterned glass products.

When improved glare reduction and solar heat gain benefits are desired, Parallel-O-Grey or Parallel-O-Bronze plate glass or Heat Absorbing float glass may be incorporated as the outer light.

THERMOPANE INSULATING GLASS WITH VARI-TRAN™ CR COATING

Thermopane with Vari-Tran Cr coating on the air space surface of the outer light of glass is available with the Bondermetic Seal. The daylight transmittance depends on the coating used. Standard transmittances are 8%, 14% and 20%.

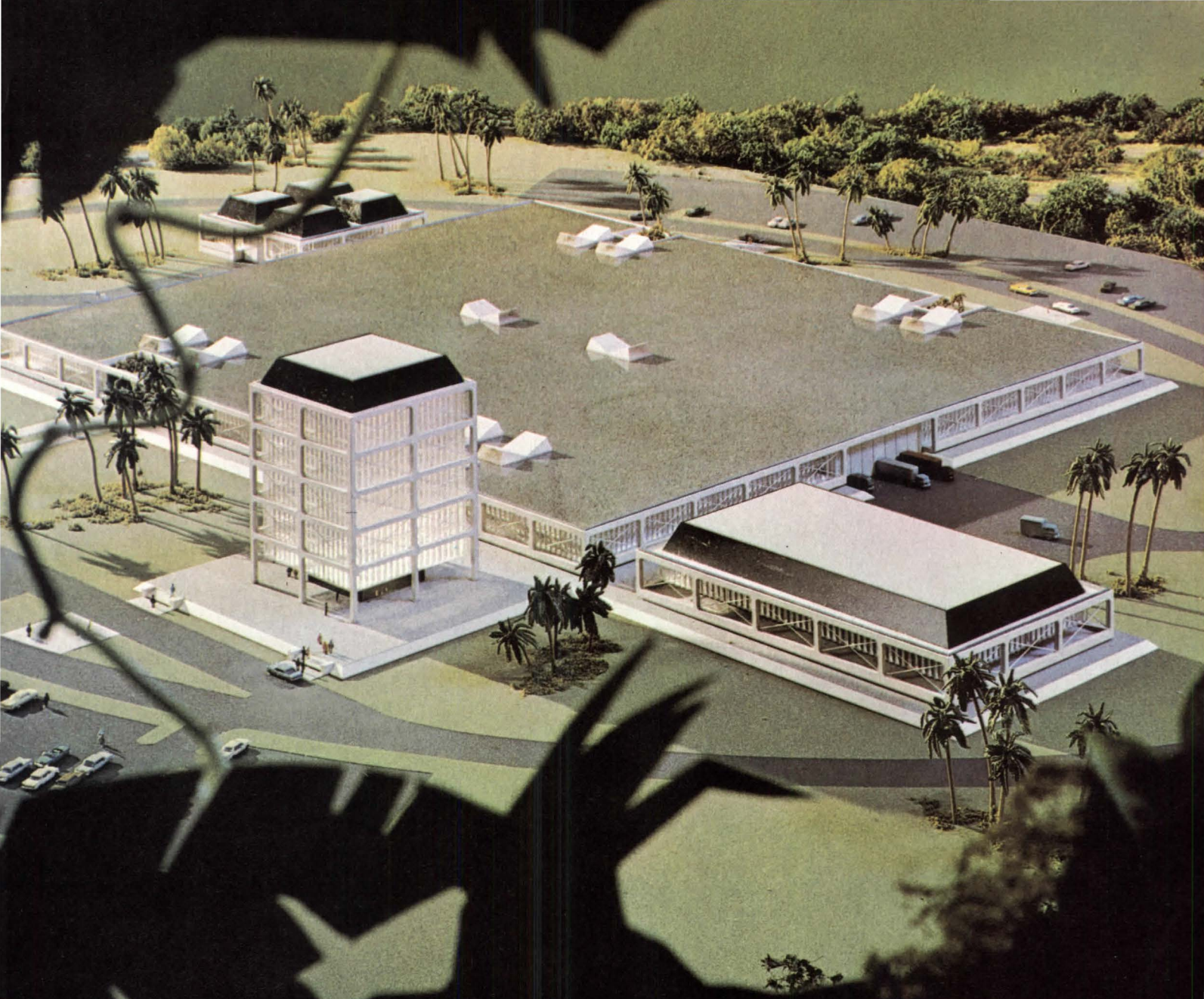
Thermopane with Vari-Tran Cr coating substantially reduces solar heat gain by reflecting sun's energy.

This results in significant savings in initial and annual operating costs of air conditioning. As is true for all types of Thermopane, heating costs are also reduced.

For most buildings, the added cost of Thermopane with Vari-Tran can be more than offset by savings in the cost of cooling equipment—the lowest cost may come from using one of our more expensive products.

Thermopane with Vari-Tran is unique in that it can be obtained in a range of daylight transmittances which also affect its solar heat reduction.

Exciting, aesthetic qualities of Thermopane with Vari-Tran come from the subdued mirror-like reflections when viewed from the outside. This reflective quality can be varied by the choice of coating.



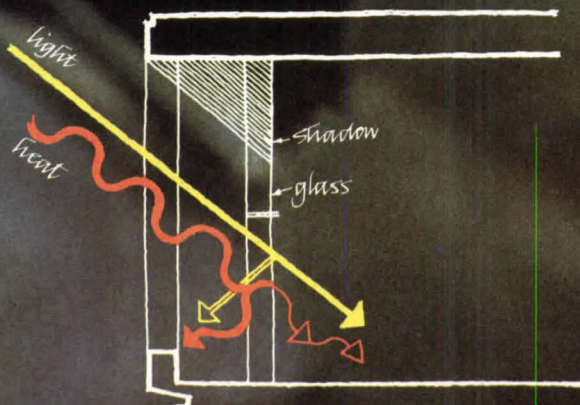
William Hamby, A.I.A., specifies "outer space" glass for plant in Florida

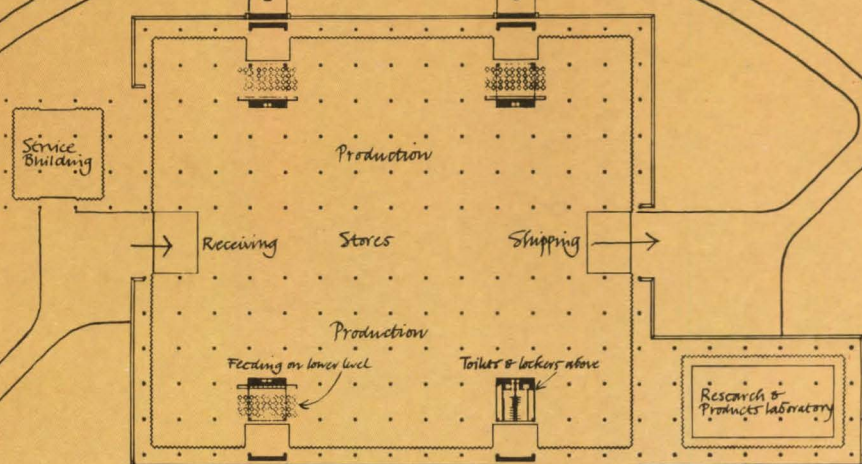
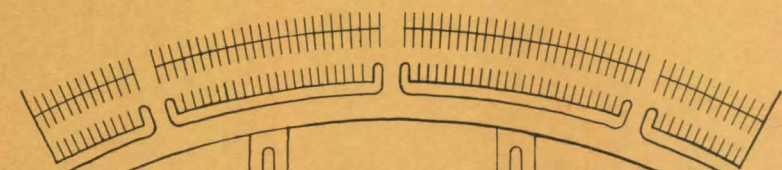
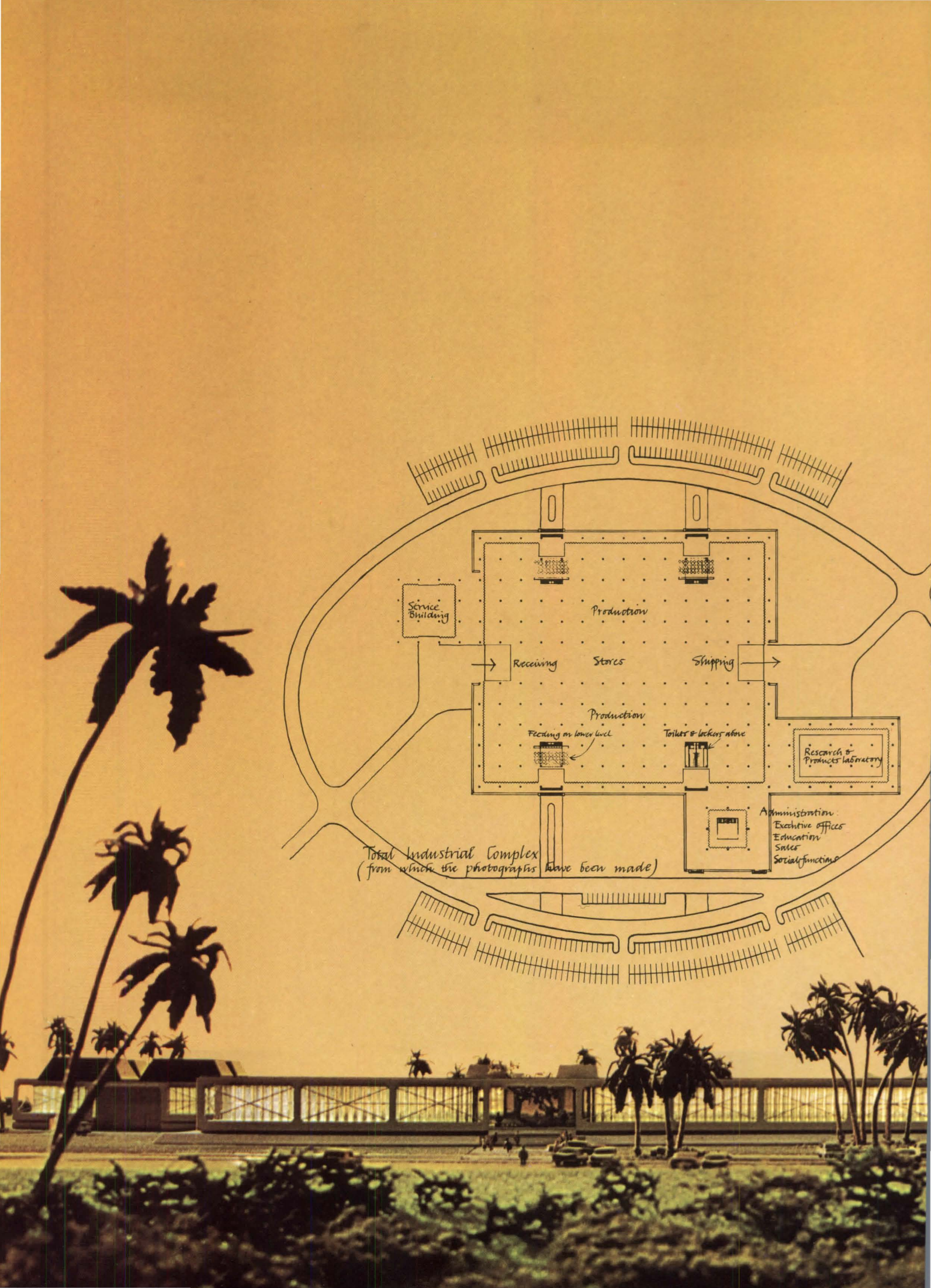
How do you design an industrial complex with lots of windows for a semi-tropical location yet help employees keep cool? You use a new special-performance glass fabricated by Libbey-Owens-

Ford. It's Thermopane® insulating glass with Vari-Tran™ chromium alloy coating on the inside surface of the outboard light. The unit controls the transmission of light and heat almost any way you want it to. It's available in sizes up to 50 sq. ft.

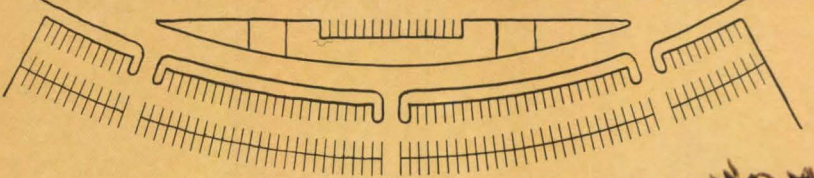
Vari-Tran is made by a continuous vacuum-coating process called *StratoVac*. Lines of glass are air-locked through a series of chambers to reach a vacuum like astronauts find 125 miles straight up.

Here in "outer space", we vaporize metallic coating materials by electronic bombardment and direct their atoms and molecules onto the surface of the glass to form precise, micro-thin coatings. So we can control the transparency or reflectivity



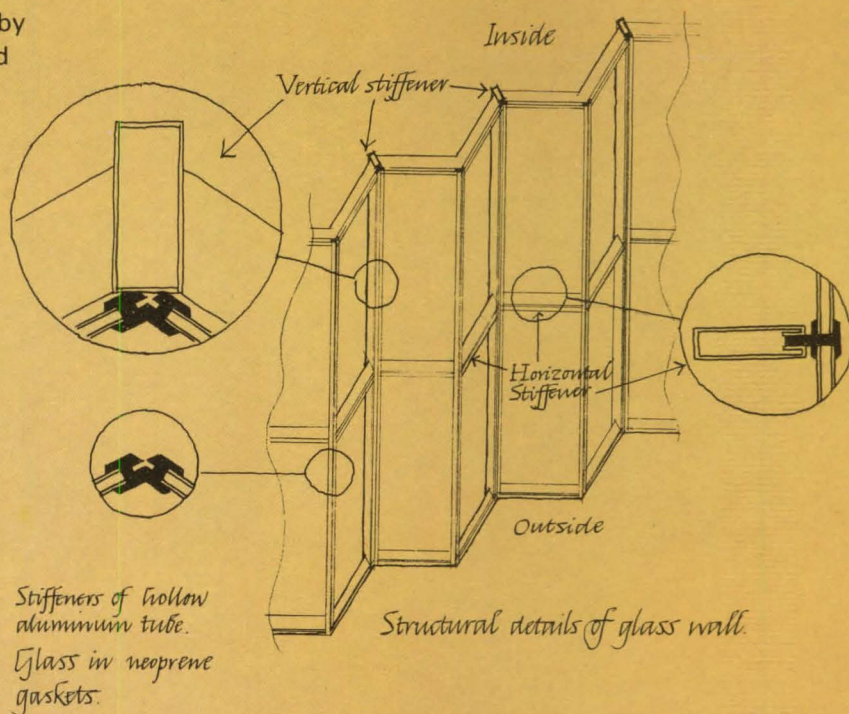


Total Industrial Complex
(from which the photographs have been made)



of our glass at will. To block ultraviolet rays. Block infrared rays. Make air conditioning even more efficient by reducing inflow of sun heat. Architect William Hamby of Fordyce, Hamby & Kennerly, New York City, would use Thermopane made with Vari-Tran coated glass in this hypothetical structure in Florida. Floor-to-ceiling windows set back from the perimeter of the building with fixed fenestration are indicated.

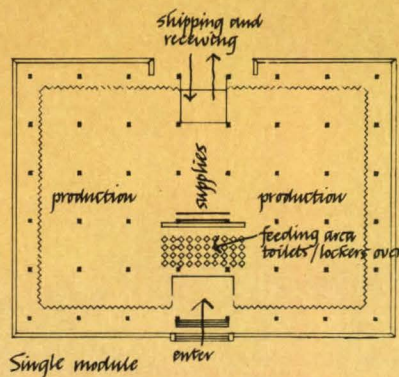
The building, itself, would be a frame of precast concrete, stressed for high-wind loadings. A white gravel roof with one inch of standing water helps heat control.



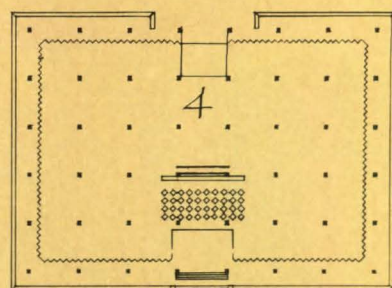
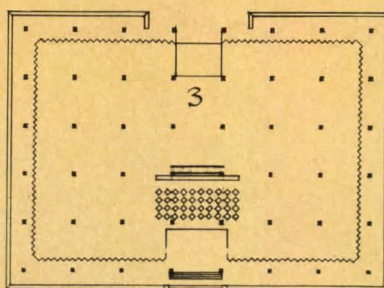
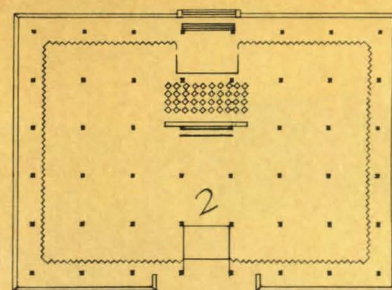
The basic design is a modular concept which could be the first element of a small plant, the units of an industrial park, or parts of a large industrial operation.

Each unit would have its own entry and eating area. Above eating areas would be mechanical equipment and rest rooms. This concept effectively divides a large manufacturing or warehouse operation into smaller units and provides a smaller group to supervise.

Whether you are designing a structure for tropical or other climates, determine the kind of glazing you'll need early in your planning. L-O-F makes a particular kind of glass for every purpose in Open World design. Refer to Sweet's Architectural File or call your L-O-F Glass Distributor or Dealer listed under "Glass" in the Yellow Pages. Or write to Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43624.



Single module



Four module industrial park. Spaces between buildings on modular grid.

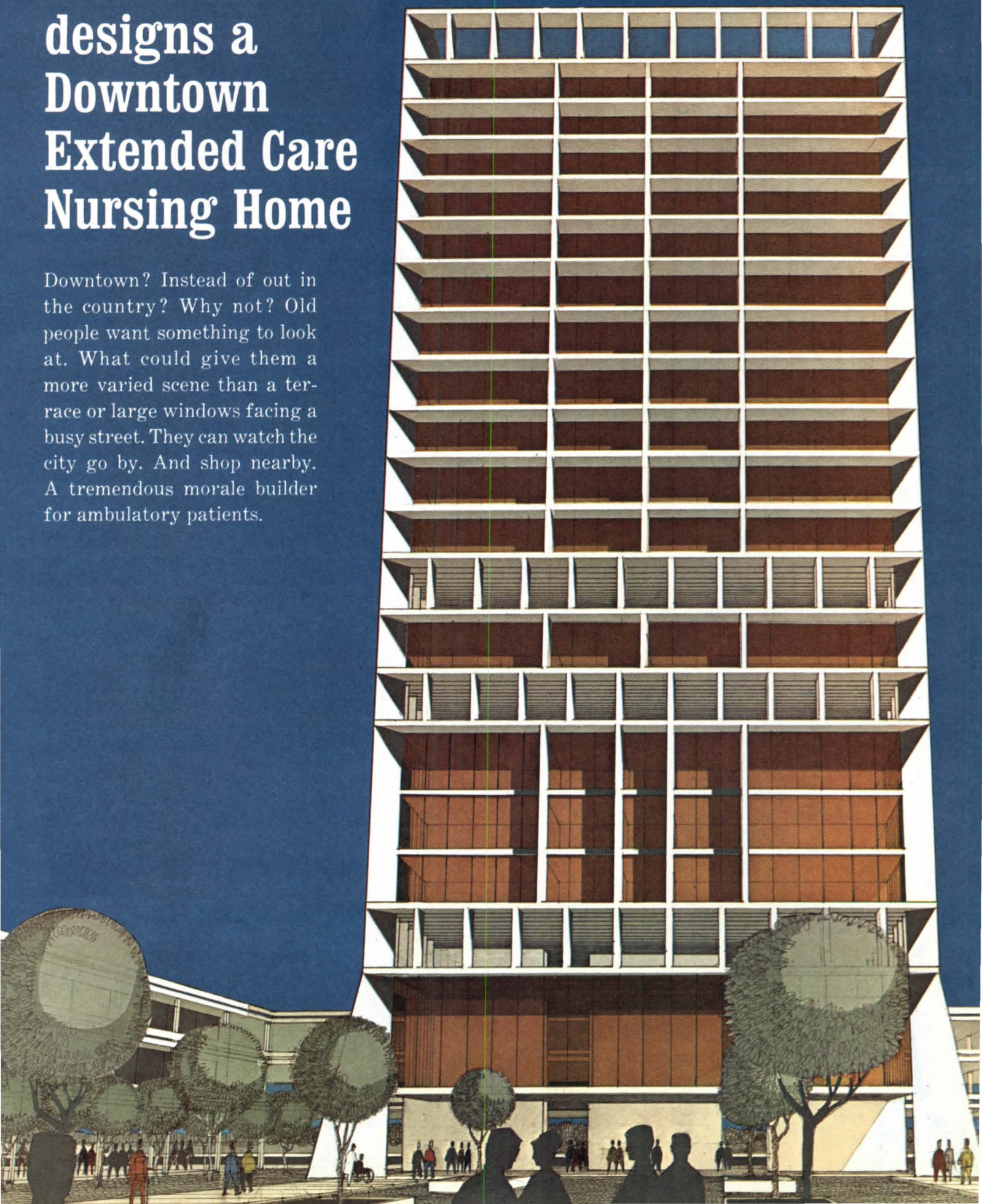


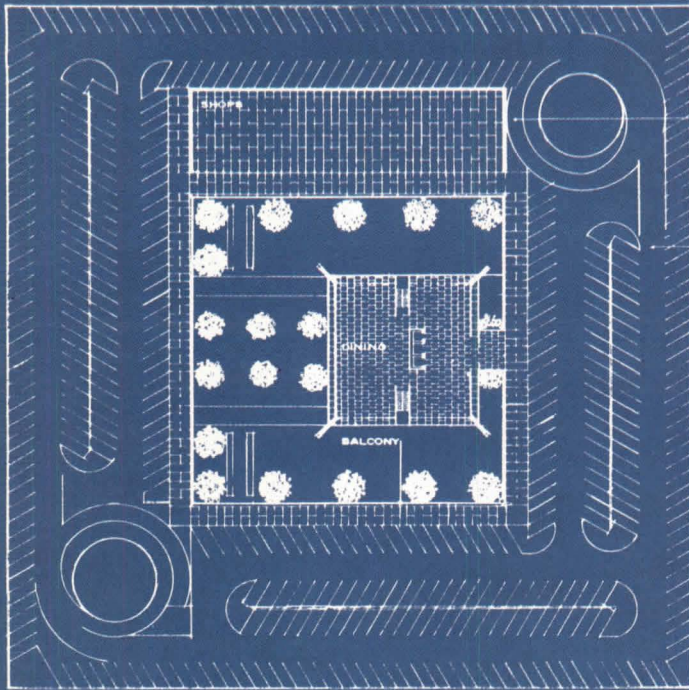
Libbey-Owens-Ford Co.
Toledo, Ohio



Herbert H. Johnson Associates designs a Downtown Extended Care Nursing Home

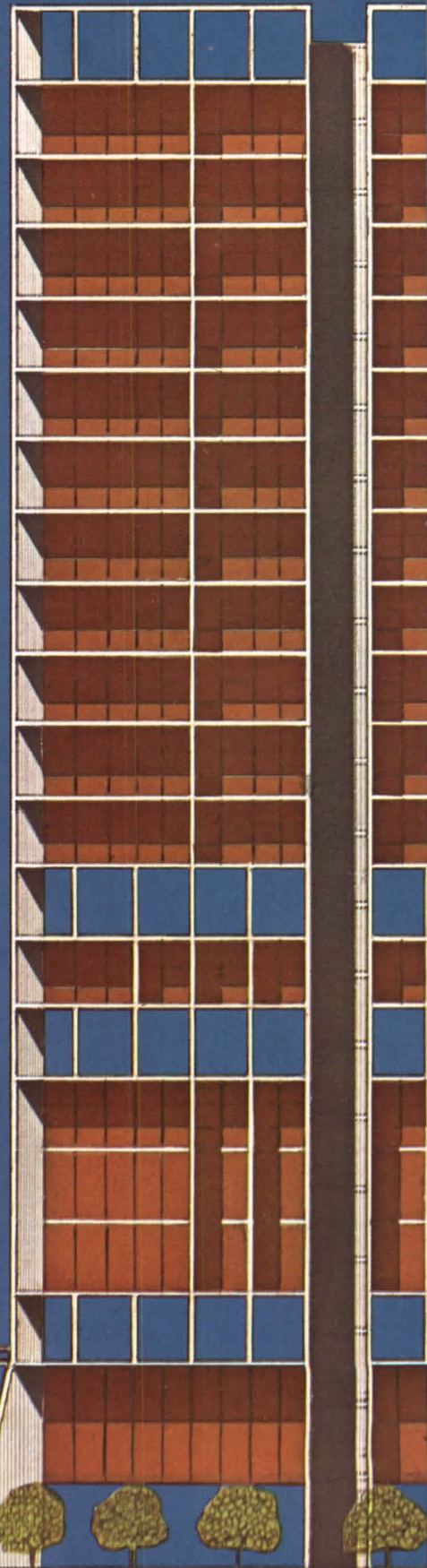
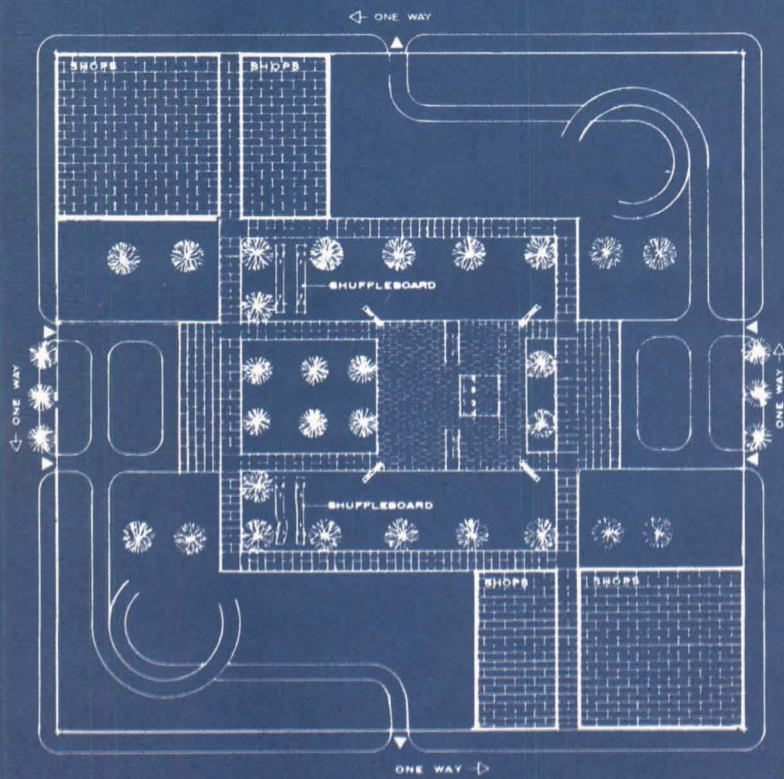
Downtown? Instead of out in the country? Why not? Old people want something to look at. What could give them a more varied scene than a terrace or large windows facing a busy street. They can watch the city go by. And shop nearby. A tremendous morale builder for ambulatory patients.

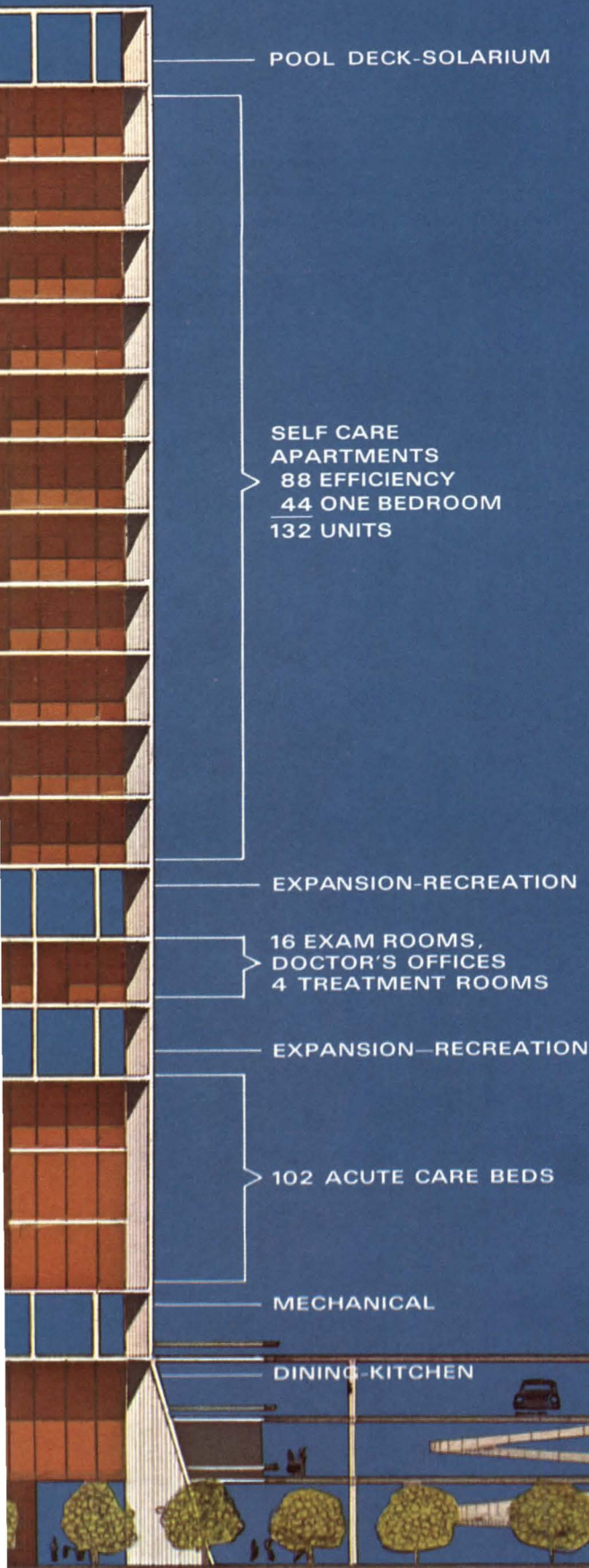




CONTINUE
UP IF MORE
DECKS

480 CARS PER
DECK LEVEL

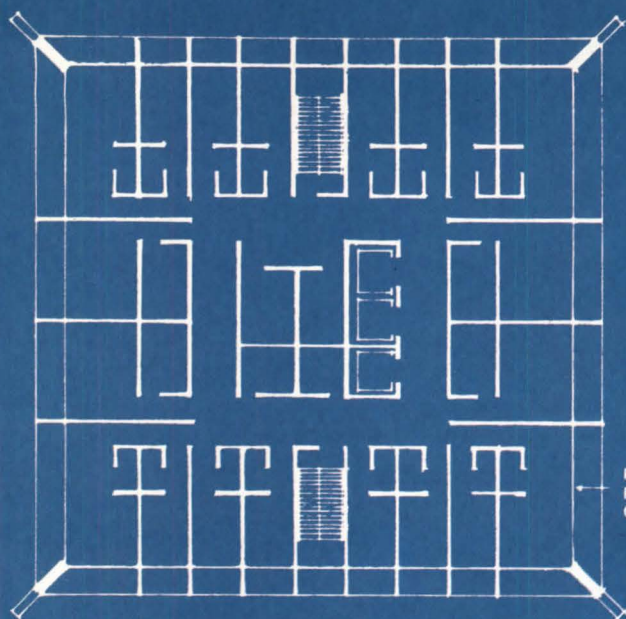




A downtown location, perhaps in an urban redevelopment area, would have many practical advantages. It would be more convenient for doctors, nurses and visitors. Public transportation would aid recruitment of employees. And it would be closer to major hospitals, increasingly important with Medicare.

Donald H. Forfar, Partner in charge of Design, Herbert H. Johnson Associates, Miami, envisions a high-rise structure with large windows set back from the perimeter of the building. Patients' bedrooms would be glazed with Thermo-pane[®] insulating glass with Parallel-O-Bronze[®] plate glass as the outer pane for solar heat and glare reduction.

In examination rooms, where privacy is desired, windows would be glazed with



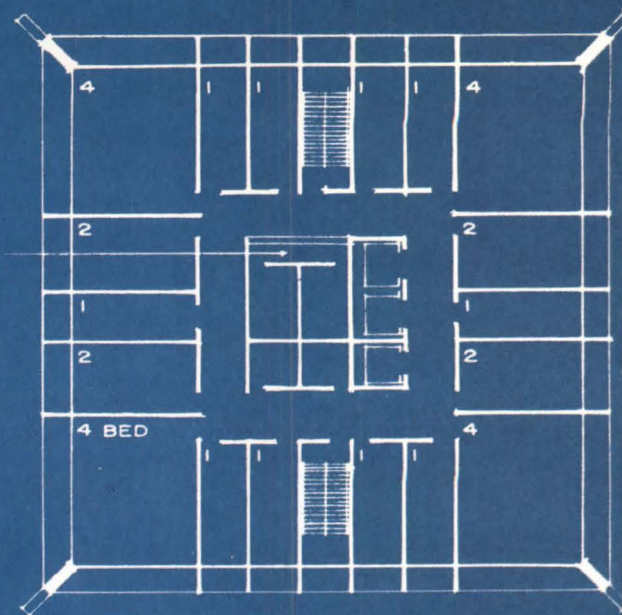
TYPICAL EXAM ROOMS, DOCTOR'S OFFICES & TREATMENT ROOMS

Parallel-O-Bronze Rough Plate. Both products aid materially in reducing air-conditioning costs.

L-O-F makes a particular kind of glass for every purpose in open world design. Refer to Sweet's Architectural File or call your L-O-F glass distributor or dealer listed under "Glass" in the Yellow Pages. Or write to Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43624.

NURSES STATION

PARALLEL-O-BRONZE ROUGH PLATE GLASS

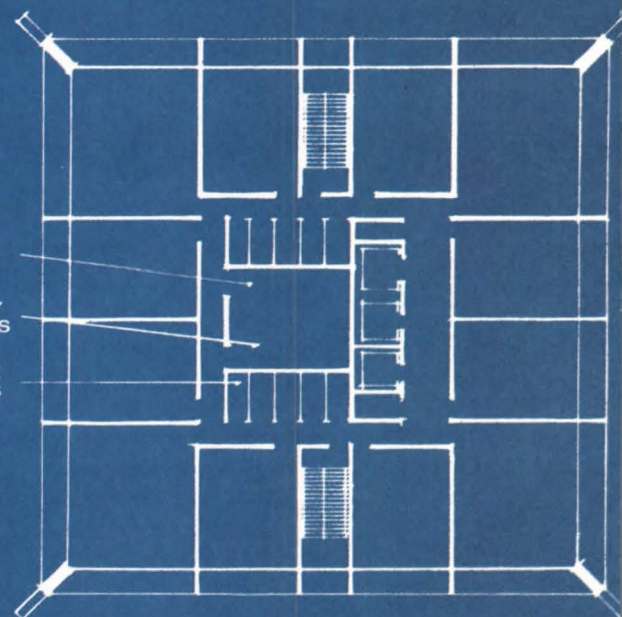


**TOTAL 34 BEDS
TYPICAL ACUTE CARE FLOOR**

UTILITIES

LAUNDRY FACILITIES

STORAGE CUBICLES



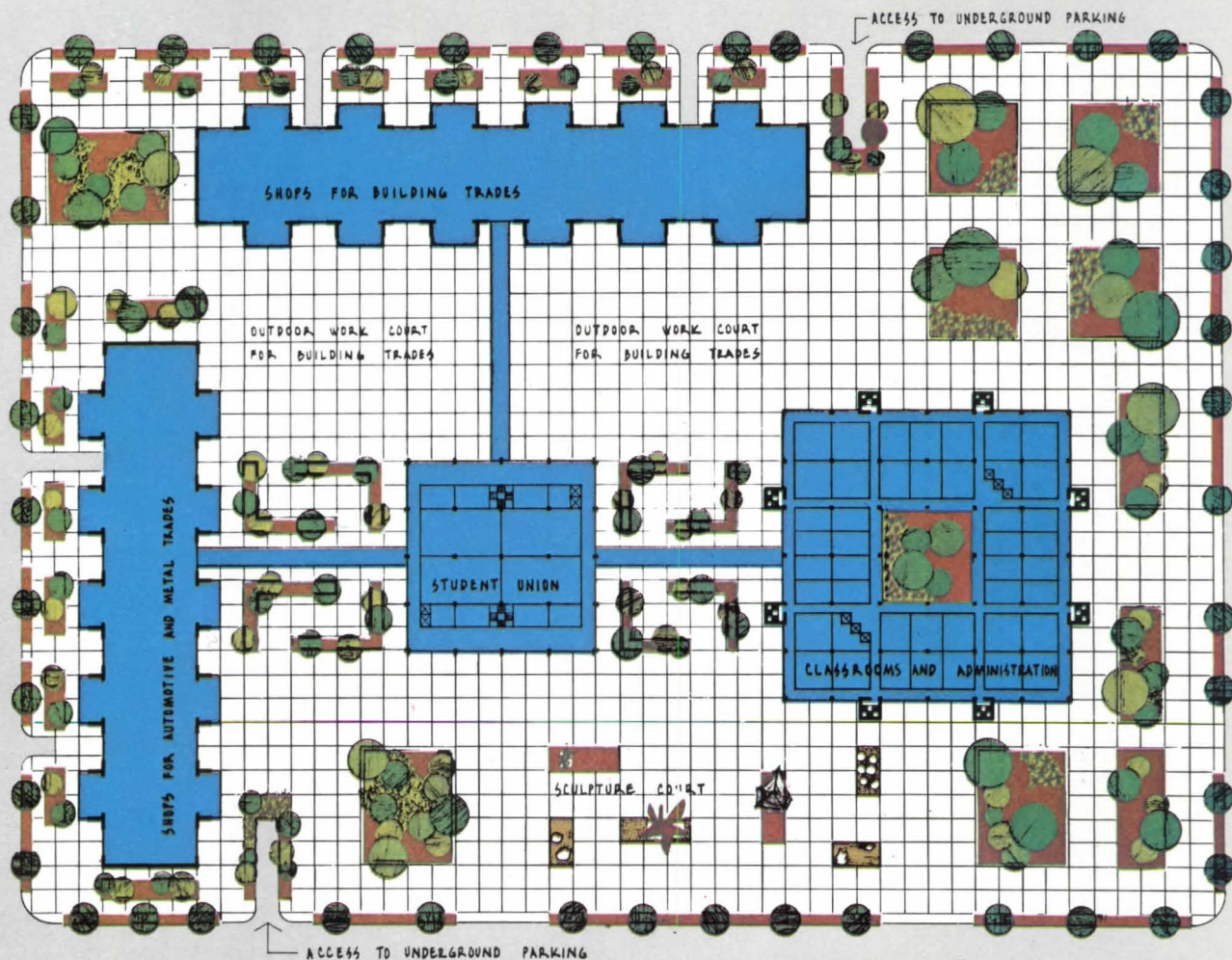
TYPICAL SELF CARE FLOOR



Libbey-Owens-Ford Co.

Toledo, Ohio

Harper-Drake Associates design a Junior College to help un-blight an urban area.

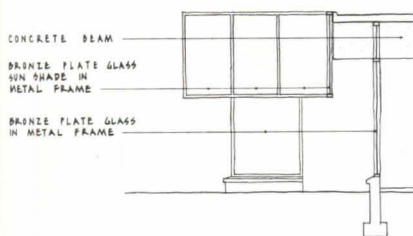


It's a higher educational facility for those who have graduated from high school, a vocational training center for those who haven't. An enlightened concept for getting an urban renewal project rolling. This six-block campus is designed to be more than a 10,000-student college. It would become the center of a community in both physical and intellectual senses.

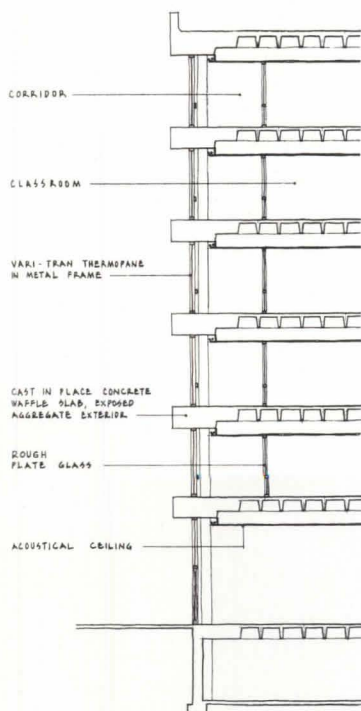
The buildings will be inviting, open, alive with activity that can be seen and experienced. This can be achieved by eliminating the traditional ivy-covered walls and substituting large areas of glass. People can walk to all of the buildings through corridors of bronze Thermopane® insulating glass. This design permits leaving coats in lockers in the Student Union. Parking is planned for underground.

If the community feels at home and accepts the physical environment, perhaps the next acceptance will be the intellectual environment.

The Student Union occupies the center of the campus. Here, programs,



SECTION AT AUTOMOTIVE AND METAL TRADES BUILDING



SECTION AT CLASSROOM AND ADMINISTRATION BUILDING



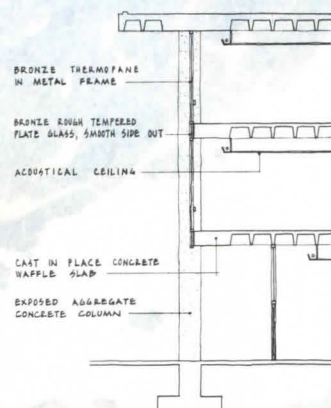
recitals and seminars are available to the public. And to make the buildings more attractive (and more comfortable inside), entrance doors are bronze-tinted Tuf-flex® glass, window walls are glazed with Parallel-O-Bronze® plate glass separated by bronze Vitrolux® spandrel glass.

The Classroom and Administration Building is glazed with Thermopane with Vari-Tran™ coated glass as the outer pane. This special-performance glass controls transmission of light and heat. It also mirrors the environment around the building. The windows' 3-foot overhang for sun shading provides window washers a working ledge.

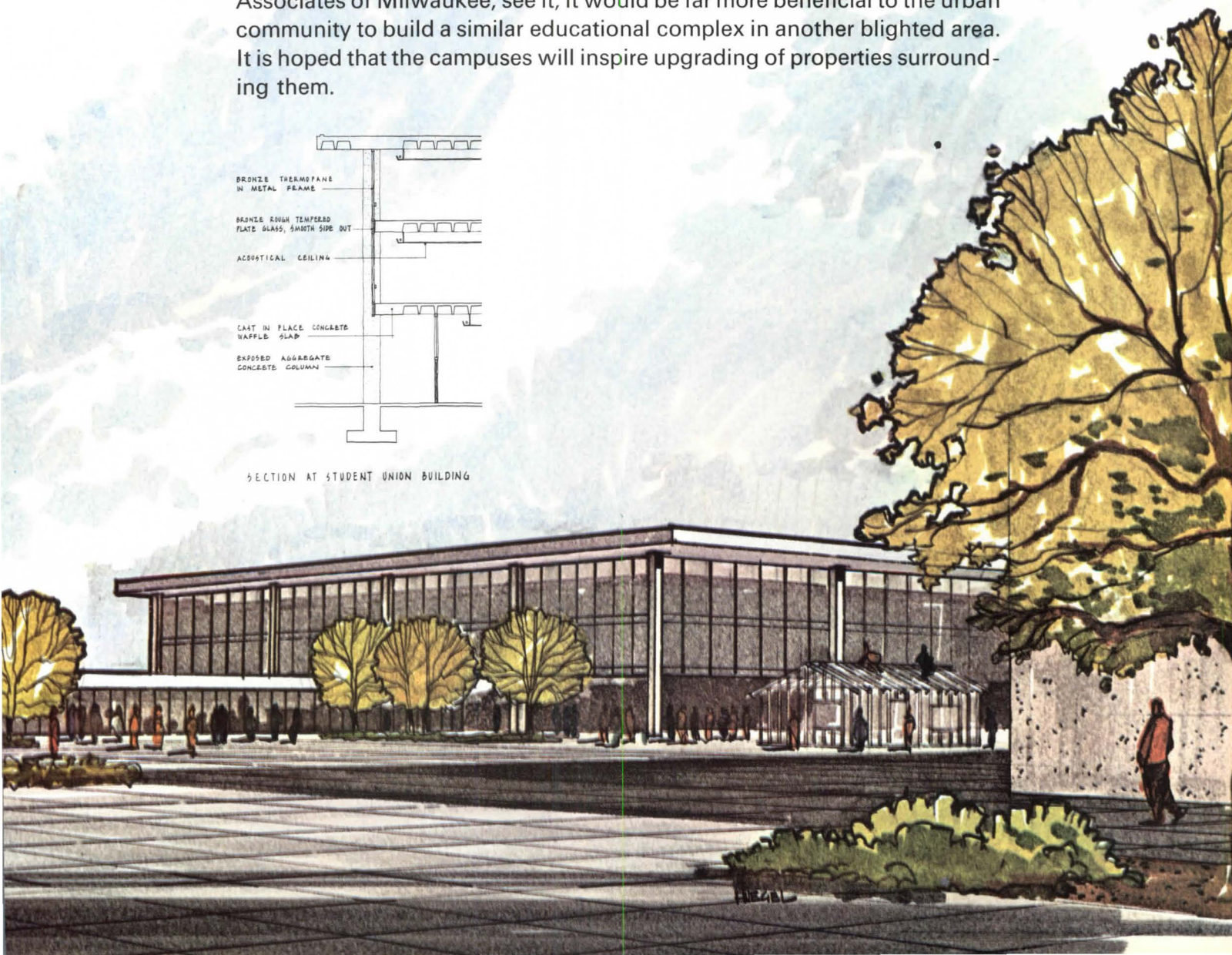
Corridors are next to exterior glass walls of the building. Classroom partitions facing the corridors are Rough Plate Glass to transmit outside light to interior rooms. An open court, 100' x 100', provides daylight and eye-resting views through clear plate glass windows.

Shop buildings have extra-high ceilings to expedite moving of machinery. Machinery is placed a few feet from the windows so people outside can see what's going on inside—to see that people with ambition *can* be trained. Window walls are bronze plate glass. As further protection from low sun rays, a bronze sunshade extends down from the roof overhang.

Expansion? Not on this campus. As the architects, Harper-Drake Associates of Milwaukee, see it, it would be far more beneficial to the urban community to build a similar educational complex in another blighted area. It is hoped that the campuses will inspire upgrading of properties surrounding them.



SECTION AT STUDENT UNION BUILDING





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Libbey-Owens-Ford Co.

Toledo, Ohio

LAMINATED PLATE GLASS WITH VARI-TRAN CR COATING

Laminated Plate Glass with Vari-Tran Cr Coatings have the same aesthetic qualities as Thermopane with Vari-Tran coatings.

The plastic interlayer provides benefits in safety and in sound reduction.

PARALLEL-O-BRONZE®

Parallel-O-Bronze polished plate glass is a glare-reducing, heat-absorbing product. Its bronze tone offers a design choice in the architectural trend toward warmer shades. When reduction of sky brightness is a primary requirement, Parallel-O-Bronze is an attractive and functional product.

PARALLEL-O-GREY®

Parallel-O-Grey polished plate glass has a neutral grey color resulting in no color change of objects viewed through the glass. As with Parallel-O-Bronze plate glass, Parallel-O-Grey is a glare-reducing and heat-absorbing product.

HEAT ABSORBING FLOAT

Heat Absorbing float glass is pale bluish-green in color, and has a high percentage of solar heat absorption while allowing a relatively high transmittance of daylight.

HEAVY-DUTY POLISHED PLATE

Heavy-Duty Parallel-O-Plate® is available in a range of thicknesses— $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ ". Heavy-Duty Parallel-O-Grey and Parallel-O-Bronze, both in $\frac{5}{8}$ " and $\frac{1}{2}$ " thicknesses, have glare-reducing and heat-absorbing properties.

All types of Heavy-Duty polished plate glass are available in large sizes to provide greater design freedom with larger expanses of glass. The greater strength, proportionate to thickness, provides increased safety. Increased thickness produces sound reduction benefits.

Heavy-Duty polished plate glass, through its design advantages and functional characteristics, is being increasingly specified for lobby and window areas, screens, partitions, balustrades, and other interior applications.

VIGILPANE™ SAFETY PLATE GLASS

This glass is manufactured to thwart the thief who smashes the ordinary plate glass show window, takes items displayed and escapes before police, responding to activated burglar alarm, can reach the scene. It is a laminated unit with two panels of glass bonded to a plastic interlayer. The unit will crack, but resists penetration by bricks, rocks—even hammers. The glass adheres to the high-resistant plastic.

TUF-FLEX® TEMPERED GLASS AND DOORS

Tuf-flex is a tempered glass made by a process of reheating and sudden cooling. As a result, the outer surfaces are in high compression while the central portion remains in tension, producing a condition highly resistant to most types of breakage. Tuf-flex is 3 to 5 times stronger than regular glass of the same area and thickness in sustaining loads and resisting fractures due to thermal stresses.

Tuf-flex tempered glass is fabricated from several types of glass: clear Parallel-O-Plate, Parallel-O-Grey, Parallel-O-Bronze, Heat Absorbing, Rough Plate and Patterned Glass

L-O-F makes a particular kind of glass for every purpose in building design. Your L-O-F Architectural Construction Specialist can help you select the best hi-performance glass for your purposes. Consult Sweet's Architectural File. Or call your L-O-F Glass Distributor, Glazing Contractor or Dealer listed under "Glass" in the Yellow Pages. Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43624.

POLISHED PLATE GLASS

Parallel-O-Plate®, ¼"
Parallel-O-Grey®, 13/64", ¼"
Parallel-O-Bronze®, ¼"

HEAVY-DUTY PLATE GLASS

Parallel-O-Plate®, 5/16" to 7/8"
Parallel-O-Grey®, 5/8", 1½"
Parallel-O-Bronze®, 5/8", 1½"

LAMINATED SAFETY PLATE GLASS with Vari-Tran™ Cr Coating

HEAT ABSORBING FLOAT, ¼"

VIGILPANE—Safety Plate Glass

ROUGH PLATE, Regular or Tinted (Rough 2 Surfaces)

(Polished 1 Surface, Rough 1 Surface)

INSULATING GLASS—Thermopane®

Regular tinted or with
Vari-Tran Cr Coating

SPANDREL GLASS—Vitrolux®

Vitreous colors fused to back
of heat-strengthened glass

HEAT-TEMPERED GLASS—Tuf-flex®

Windows, Doors and Sidelights

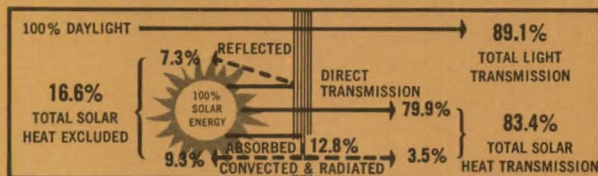
WINDOW GLASS

PATTERNED & WIRED GLASS

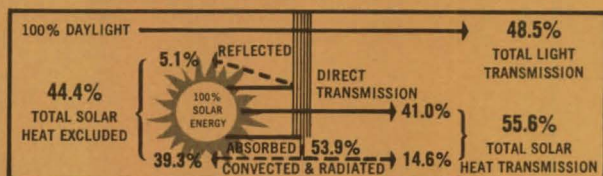
MIRROPANE

One-way vision glass

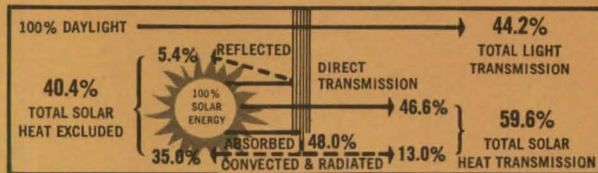
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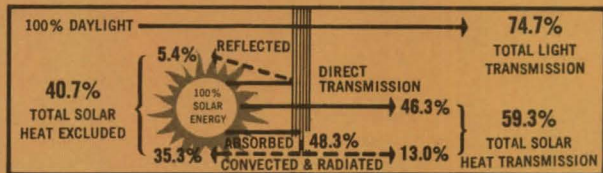
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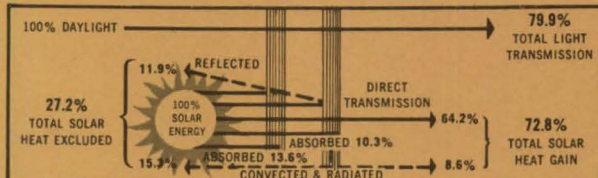
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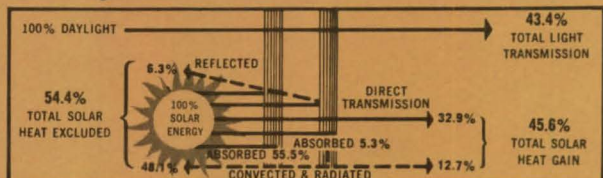
¼" HEAT ABSORBING FLOAT



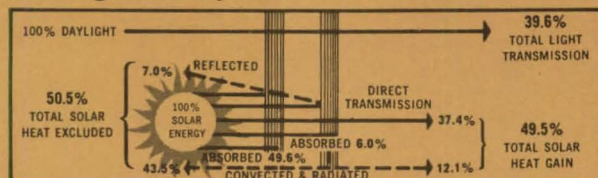
PARALLEL-O-PLATE THERMOPANE



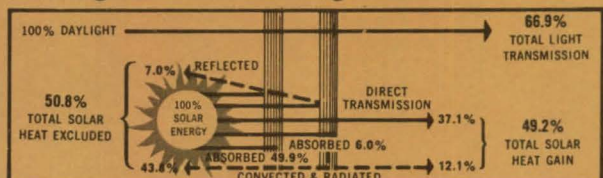
PARALLEL-O-BRONZE THERMOPANE Outer Light ¼" Bronze Plate



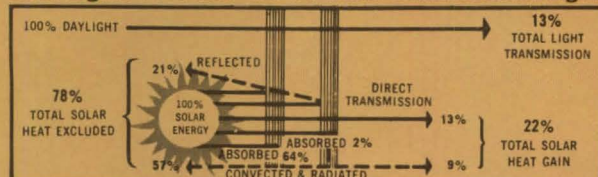
PARALLEL-O-GREY THERMOPANE Outer Light ¼" Grey Plate



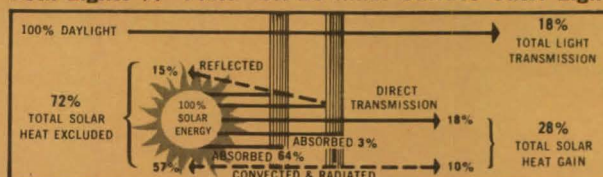
HEAT ABSORBING FLOAT THERMOPANE Outer Light ¼" Heat Absorbing Float



THERMOPANE WITH VARI-TRAN CR 14 Both Lights ¼" Plate - CR 14 Inner Surface Outer Light.



THERMOPANE WITH VARI-TRAN CR 20 Both Lights ¼" Plate - CR 20 Inner Surface Outer Light.



Data based on Thermopane with inboard light of regular Parallel-O-Plate and outboard light of Parallel-O-Plate, Parallel-O-Grey or Parallel-O-Bronze Plate or Heat Absorbing glass. Thermopane cannot be furnished with two lights of any type of heat-absorbing glass. The interior light must be regular plate or float.



Libbey-Owens-Ford Company

Toledo, Ohio

On Readers' Service Card, Circle No. 418

Last year, the nation's largest single building client, the General Services Administration (GSA), spent about \$7 million in design fees, for which it received indifferent buildings and a reputation for playing political football with design commissions. The much criticized state of Federal architecture results chiefly from the manner in which architectural firms are picked, although there are numerous other faults in the GSA program. If a recent crop of improved designs would seem to indicate a newly found ability to distinguish between professional capability and political friendship, they are largely the result of one specially appointed architect's efforts. Recent indications are that even this man has been tranquilized by the bureaucracy that runs the show.

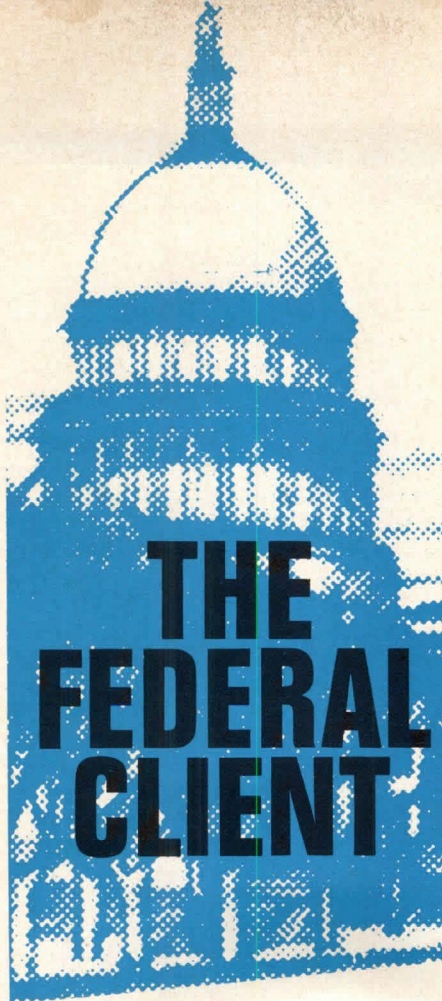
Any architect or engineer competing for GSA commissions realizes, unless he is straight out of school, that selections too often are made not by his peers but by a Government officer ignorant of architecture and bent only on showing his boss how well he improves the standing of the party, and on providing himself with business contacts for his retirement.

Party improvement results from new or renewed loyalty at local, state, or Federal levels of citizens who also happen to be architects, engineers, or contractors. Loyalty, of course, is measured in a campaign chest, for without campaign funds and patronage opportunities a political machine cannot regenerate itself every four years, and if the machine fails, so will the prospects for work of architects with an inside track to Government officials.

The Big Barrel

The Government of the United States is the biggest architectural client in the world; it spends more than \$3 billion annually for new buildings and additions or improvements to old buildings. For this, the Federal client spends about \$71 million a year for design fees. How Washington exercises its dispensation of contracts to architects and construction firms is a matter of great importance to the architectural profession. If the Government should suddenly opt for originality and innovation in its choice of architects, it could do more to improve and advance the art of building than all the schools and professional journals put together. But those now feasting at the trough with political and social connections in Washington would be in trouble.

Entire firms now rely solely on Government work to keep them solvent; for others, Government contracts form only a small but necessary part of their work; the vast majority of architects, however, are frozen out of the game. It is mainly to the last two categories that P/A directs this article, detailing how one major building agency, the GSA, has for the past 10 years run its \$2 billion construction program.



A critical look at the procedures involved in selecting architects for Government buildings.

With this money, GSA provides space for Government business, mostly through the construction of courthouses, customs houses and Federal office buildings. It also builds for several smaller agencies, the Smithsonian Institution and Howard University in Washington, D.C.

Not all Government structures are built by the GSA. The Department of Defense is probably the biggest contractor of all, with \$1.2 billion for "support facilities" in Vietnam alone (all, incidentally, built by a single contractor), and a \$1 billion annual domestic building program.

One of the prime sites in Washington, D.C., the 35-acres surrounding the Capitol, is outside GSA's jurisdiction. This area is reserved as the sanctuary for the Architect of the Capitol to exercise his contracting prerogatives, subject to the approval of a special Congressional committee. This makes the Capitol Architect's office the most blatantly political building agency of them all — a condition the Architect apparently enjoys.

Other agencies and departments, including the Veterans Administration and

the Post Office, build their own facilities with little or no contact with the GSA except that many of the architects and contractors working for the latter agency also worked for the others.

A Bubbling Bounty

The fount of political loyalty and patronage, Washington, D.C., bubbles unceasingly, keeping an undistinguished group of architects afloat with Government work, as well as several contractors who apparently are specially qualified to receive repeated Government contracts. The AIA and other professional organizations provide their officers with good social and political connections that can lead to government work.

Multimillion-dollar Federal office buildings affront the public, which not only pays, but also has to look at them, and the system that leads to the selection of "political" designers is never discussed above a whisper. Nevertheless, it is quietly discussed among architects who either sit tight waiting for their turn at the trough, or shrug resignedly because they cannot afford the going prices or just do not need the work enough to dirty their hands to get it.

Although the GSA is the ultimate client for architects working on most Federal buildings, the agency handles construction projects through a division called the Public Buildings Service (PBS). PBS thus takes the credit and the blame for GSA's \$2 billion construction program.

Annual Appropriation

During the past 10 years, PBS commissioned a total of 275 major projects, worth \$1,970,801,000. (The actual 10-year total of taxpayers' money spent by the PBS is much larger, but P/A is discussing only the projects worth more than \$1 million.) To run its several services, PBS employs 22,000 persons on a \$146-million payroll, and spends another \$262 million for operating expenses. The services include building management, space management, and the design and construction program.

To finance the office buildings that GSA constructs, it has to request money from Congress. These requests are made in two steps, spaced one year apart. One is for funds to enable PBS to buy a site and pay for the design of a building, and the second request covers the construction cost.

At the beginning of the authorization process for building funds, GSA writes a prospectus for each proposed building. It gathers several of these prospectuses together and submits them to the Committees of Public Works in the Senate and the House of Representatives. These committees average six weeks to process the prospectuses; if they approve them, GSA is authorized to make its two-step financial appropriation.

GSA submits its annual requests for

one year's design and another year's construction before October 1 to the Bureau of the Budget for inclusion in the President's January budget.

This annual budget is sent to Congress for acceptance in the fiscal year that starts the following July 1. All GSA appropriations are reviewed for Congress by the House Independent Offices Appropriations Committee, which also controls budgets for the VA, HUD, NASA and about 20 independent agencies.

The 10-man committee generally approves all the proposed buildings, but it does occasionally reduce a building's budget. It also is empowered (but seldom uses this privilege) to appropriate money for constructing a building even though the Bureau of the Budget had not recommended it. Following the committee's approval and Congressional ratification, the GSA receives the funds for its buildings.

The Hierarchy

Since PBS is only one arm of the GSA, its ultimate ruler is the Administrator of General Services. At the time of writing, the Administrator is Lawrence B. Knott, Jr., a career government officer appointed to his current job by President Lyndon Johnson in 1965; as the new President, Richard Nixon will appoint a new Administrator in place of the retiring Knott.

When the President appoints an Administrator, he gets fealty from seven more top-ranking men, who, in turn, are appointed by the Administrator. One of these appointees, with the title of Commissioner, runs PBS. He is William A. Schmidt, a 56-year-old civil engineer who made a career of PBS and rose through

its ranks before obtaining his current appointment in September 1966. That an engineer is in charge of a mammoth architectural program should come as no surprise, since none of the Government's other building programs are headed by architects, and even the Capitol Architect is a civil engineer. The previous PBS Commissioner, who enjoyed only a short reign of nine months and was recommended by the AIA, was the first architect in that office.

Next in the hierarchy is Leonard Hunter, the Assistant Commissioner for Design and Construction, appointed by the Administrator in July 1967. Before that date, Hunter worked in John Carl Warnecke's office for four years, and before that he held the same post in PBS he holds today. He is the man who has the most immediate effect on the building program, running it from day to day and, with the help of Schmidt and Administrator Knott, wielding most influence over selection of architects and contractors.

During two of the four years Hunter was in Warnecke's office, the Assistant Commissioner for Design and Construction was Karel Yasko, formerly State Architect of Wisconsin. In his short term of office in Washington, he was the man most responsible for commissioning several nationally recognized firms to design major structures for the GSA. Yasko was brought into government service by President Kennedy in January 1963 to insure that at least some Federally sponsored building would be architecture the country could be proud of.

To help him, Yasko not only had the support of the President but also that of

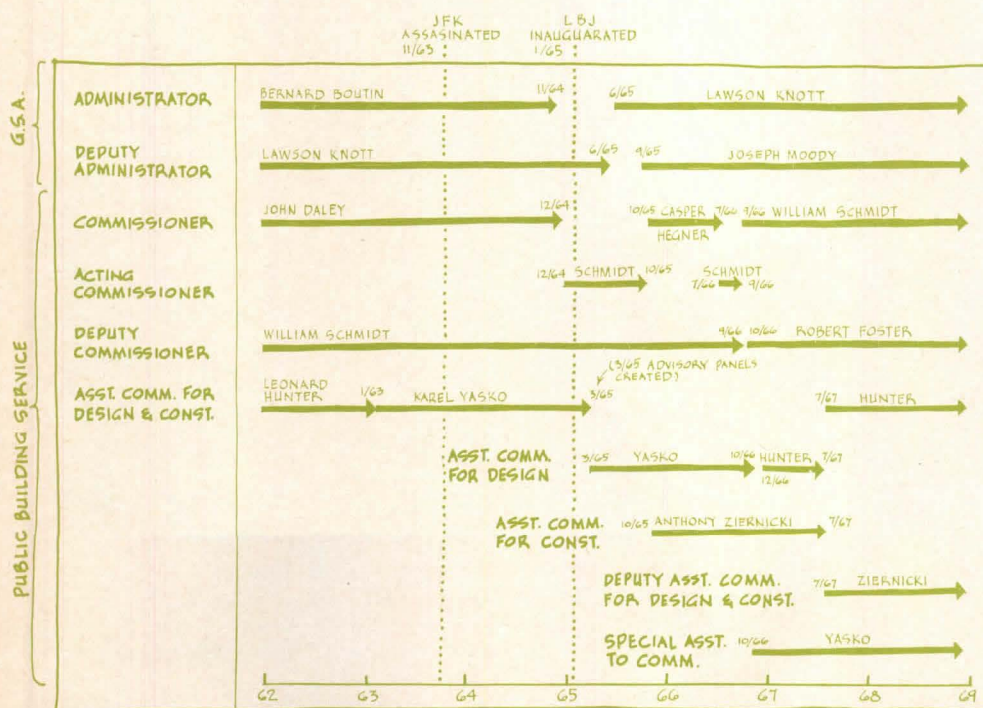
his brother, Robert Kennedy, and his brother-in-law, Stephen Smith. That even these politically potent forces could not inhibit for longer than a space of two or three years the system that doles out many of the largest commissions indicates how entrenched and well organized that system is. Within a week of Kennedy's assassination, nine projects were commissioned over the objections of Yasko and other professionals on the GSA staff. Within one-and-a-half years, Yasko's job was split, and less than another 15 months later, he was given his present title of "Special Assistant to the Commissioner," a position that does not even appear on the latest PBS organization chart.

Federal Guidelines

Kennedy's efforts to improve the dismal state of Government architecture were begun at a cabinet meeting in August 1961, when he directed one of his Special Assistants, Frederick G. Dutton, to organize an "Ad Hoc Committee on Federal Office Space" composed of the heads of several Government agencies, including the GSA. The brief, excellent report the committee produced, titled "Guiding Principles for Federal Architecture," recommended a three-point architectural policy for the Government. Kennedy endorsed the policy and ordered the agencies to put it into action. Karel Yasko was the President's secret weapon for enforcement of the "guidelines" in GSA.

One of the three points called for the avoidance of an "official style" and stated "Design must flow from the architectural profession to the Government, and not vice versa." A second point was that "the choice and development of the building site should be considered the first step of the design process." But it is the third point that is most significant: "The policy shall be to provide requisite and adequate facilities in an architectural style and form which is distinguished and which will reflect the dignity, enterprise, vigor, and stability of the American National Government. Major emphasis should be placed on the choice of designs that embody the finest contemporary American architectural thought." Signed by Bernard Boutin, the Administrator responsible for rushing the nine commissions through after John Kennedy died, the "guidelines" cite Pericles' evocation to the Athenians as the proper role of the Federal Government in architecture: "We do not imitate, for we are a model to others." Yasko is still fond of this sentiment, and uses it often in his pleas to Congress for architectural excellence in Federal buildings. He is the only man in Washington who seems to remember it, as the new buildings around the Capitol testify, notably the Rayburn House Office Building.

When Yasko first appeared in Washington, six months after the "guidelines" were issued, he had to dig them out of



Time chart shows job changes in senior ranks of PBS during the past eight years. Karel Yasko was first demoted in March 1965, when his job was split, and again in October 1966, when a new title was created for him. Meanwhile, Hunter regained his former post.

THE FEDERAL CLIENT AND CIVIL RIGHTS

Due to the Federal building program's enormous volume, and the notorious discrimination in hiring practices in the construction industry, the Federal Government stands marked as one of the country's worst offenders of civil rights legislation now on the books. The construction industry employs more men than any other industry in the U.S., and Federal agencies generate about 25 per cent of this country's annual construction; in urban areas, the Federal percentage rises to about 50. Thus, if any client is in an economic position to force compliance with equal opportunity provisions of the law, it is the U.S. Government.

When the black urban poor, with unemployment rates double or triple those of whites, vent their frustration through rioting, they are also expressing their anger against the Government. Although the President's Commission on Equal Employment Opportunity (which no longer exists) blacklisted five contractors performing GSA work in Cleveland in 1965, the Government has never used contract cancellation — the penalty specified for violation of the equal opportunity provisions of a succession of Presidential Executive Orders issued since 1961. The five blacklisted firms did not noticeably increase minority representation on that GSA job any more than other GSA contractors have in the past quarter century of Government inaction on equal employment in Federal contracting.

Besides the enormous amounts of money spent by the construction industry and its allied unions on filling the coffers of the Democratic Party treasury, the Labor Department's chief obstacle in forcing unions and contractors to hire blacks is the lack of teeth in civil rights legislation. Moreover, the civil rights laws did not specifically cover Federal construction agencies. This was remedied by President Kennedy in 1961 and later reinforced by President Johnson in 1965 when they issued Executive Orders that are much stronger than the civil rights laws banning discrimination in employment and apprenticeship on Federal and Federally assisted construction projects.

The best Federal directive for equal employment opportunities in construction work financed by the Government was signed by President Johnson in September 1965. The directive, Executive Order 11246, differed from previous orders by adding the important provision that contractors must take affirmative action to hire minority groups. It still retained the previous warnings about what would happen if contractors did not hire these groups.

These warnings to contractors or subcontractors who do not comply range from a threat to publish their names to a threat to cancel, terminate, or suspend their contracts.

Holding such a big stick is easier than wielding it, and even when armed with the Executive Orders, the Department of Labor has been loathe to use them. Moreover, the Orders leave it to each Federal contracting agency to obtain compliance with the rules and regulations, a job that GSA, like other agencies, has not seen fit to perform on its own.

Finally, in 1967, the Office of Federal Contract Compliance (OFCC) in the Labor Department received a mandate from Secretary Wirtz to put pressure on contractors and unions to comply with equal employment practices. In Cleveland, the OFCC enlisted all the agencies (including the GSA) involved in the area's \$123-million Government construction program to require that all low bidders give written programs outlining how minority groups would be represented on work forces. The programs had to be submitted before contracts were signed.

For the black community, which comprises 35 per cent of Cleveland's population, the result of the combined Government action was mildly encouraging. Before the OFCC action in Cleveland, there were 12 unskilled blacks in the mechanical trades. Then the contractors agreed to hire 300 men in these trades, and so far 123 have started work.

Cleveland is only one city out of 22 where OFCC is working. The results vary, and because the office is still young it has not had time to start its programs in every city.

The effect of insisting that contractors hire more blacks for Federally financed projects is short term. For a long-term improvement, more minority groups have to be trained in the construction crafts. To do this, someone, probably the Government, has to change the discriminatory attitude of construction unions.

One move in this direction faded at a time when it should have been promoted hard. The Labor Department proposed Federal regulations on apprenticeship schemes, but when Labor Secretary Wirtz was confronted with the opposition of the AFL-CIO at its biennial convention in December 1967, he said the regulations might not be issued. Off the podium, he said that the Administration would concentrate on a "voluntary" approach with the craft unions, which really means that the OFCC would have to lay off unions, contractors, GSA, and other agencies.

the GSA files where they had been buried and forgotten. "Business as usual" was the order of the day, and not even the AIA had taken up the battle by publicizing the report. That was undertaken by Yasko, who, in his brief spell of power, gave commissions to Mies van der Rohe for an \$80-million project in Chicago, Marcel Breuer for the HUD building in Washington, Hellmuth, Obata & Kassabaum for the Air and Space Museum, Roche Dinkeloo Associates for the National Aquarium (after it had first been given by Boutin to Welton Becket), Curtis & Davis for Federal Office Building #5, and Vincent G. Kling for a post office in Philadelphia.

Review Panels Instituted

Another reformation wrought by Yasko were panels of architects — one panel at the national level and others in GSA's 10 regional offices — to review designs of Federal buildings, a device set up with the idea that professionals could judge better than GSA bureaucrats whether de-

signs submitted for approval by the agency were competently executed. Predictably, the GSA resisted this modest innovation, but in 1965 the panels were formed, with membership chosen by Yasko, Schmidt, and Hunter, subject to the approval of the Administrator who actually appoints each member.

Originally, the national panel had 17 members, but the number has dwindled to 13, all but two of whom are Fellows of the AIA. The regional panels have three members, originally appointed for two years, but that is now being changed to three-year terms with a carry-over for continuity and expanded to four members. Most of the regional panel members are also Fellows of the AIA, and several of them have been awarded sizable jobs by the GSA — some before and some after their appointment to the panels. Besides being Fellows, many panel members are former or present officeholders in the AIA. Since few are known for their ability as creative architects, their position in the AIA seems the criterion used for their

selection as panel members — a criterion whose relationship to Pericles' exhortation is difficult to pinpoint.

Selecting Architects

Selection procedures for architects and contractors for GSA design commissions are also difficult to pinpoint. According to a recent PBS information booklet, "Professional competence and capability are the prime factors by which architects and engineers are selected. . . . Making the selections is a task assigned to Public Buildings Service as part of the construction program. The central office in Washington, D.C., and GSA's 10 regional offices share the task, with the size of project determining whether Washington or the field is responsible."

In attempting to find out exactly who makes the selections for major projects, P/A reporters were told several conflicting stories. The first was that Yasko, Schmidt, and Hunter make a list of recommended firms and the Administrator chooses one firm from it. Later it was

claimed this is the procedure for choosing panel members, not designers.

Next, it was learned that Commissioner Schmidt chooses the firms; legally, the responsibility is the Administrator's but he delegates it to Schmidt. For projects in Washington, D.C., the regional office covering the District recommends up to five firms and, again, Schmidt makes the final choice. When the D.C. regional office was contacted for further information, the director refused to discuss the subject and referred us back to the public relations director in the central office.

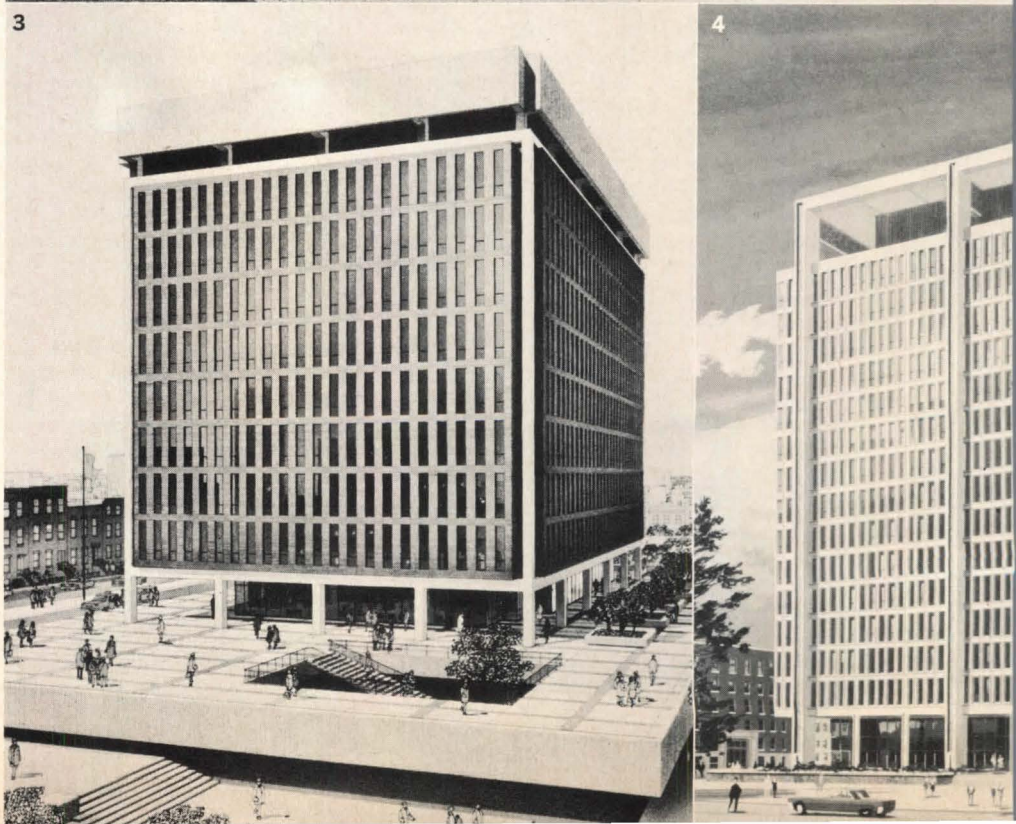
Apparently, Schmidt selects firms from lists supplied by Yasko and Hunter, but Administrator Knott can step in and exercise his legal responsibility and add names of his own to the lists. His criteria for selecting names have never been spelled out, and Administrators have often indulged this prerogative of office over the objections of the GSA professionals.

The most widely known example of this procedure occurred during Bernard Boutin's administration when several commissions were allegedly awarded through political connections with leading officials of the Democratic party. One of these, Richard Maguire, is believed by some Washington observers to be the nexus of political dispensation of professional contracts for many Government agencies. During Boutin's term of office, Maguire was the Treasurer of the Democratic Party; more recently, he was Hubert Humphrey's campaign treasurer. For the GSA contracts, Maguire apparently received help from Clifford Carter, President Johnson's man on the National Committee, and John Bailey, the chairman of the National Committee.

As Charles Bartlett, a prominent political correspondent for the *Chicago Sun-Times* wrote in 1965 (soon after Yasko was demoted): "The age-old struggle is waged between the professional architects within the Government, who want design contracts to go into the most competent hands available, and the politicians, who want them to fall to the architects who do the most for the party. The bureaucracy has tended, even in the Kennedy days, to bend with the politicians because they exert the most relentless pressures."

Divide and Conquer

One key feature of selection procedures is the awarding of commissions jointly to two firms instead of one; usually, one firm is noted for its design work and the other for its political and social connections. One architect familiar with Yasko's problems during his stint as Commissioner told P/A about his GSA joint-venture: "As you may suspect, we did not seek out the other firm as partners, nor did they seek us, and this kind of throwing together of two totally dissimilar firms makes for no end of difficulty in performing the work. From what I hear of the Federal Government's efforts to take se-





"The development of an official style must be avoided. Design must flow from the architectural profession to the Government, and not vice versa." — Federal Guidelines

(1) Post Office and Court House, Juneau, Alaska; Olsen & Sands, Linn A. Forrest, and John Graham & Co. (2) Federal Building, Indianapolis, Ind.; Evans Woollen & Assoc. (3) Federal Building, Albany, N.Y.; Raymond & Rado and Theodore J. Kauffeld. (4) Federal Building, Newark, N.J.; W.E. Lehman & Co. and Biernacki-Poray. (5) Federal Building, Detroit, Mich.; Smith, Hinchman & Grylls Assoc. (6) Forrestal Building, Washington D.C.; Curtis & Davis, Fordyce & Hamby Assoc. and Frank Grad & Sons. (7) Federal Building, Boston, Mass.; The Architects Collaborative and Samuel Glaser Assoc. (8) Federal Building and Court House, Rochester, N.Y.; Samuel Paul & Seymour Jarmul and Michael J. DeAngelis. (9) U.S. Mint, Philadelphia, Pa.; Parson-Jurden Corp. (10) Dept. of Labor Building, Washington, D.C.; Brooks, Barr, Graeber & White and Pitts, Mebane Phelps & White.

PROFESSIONAL CONTRACTS WITH GSA

Nearly two years ago, the General Accounting Office (GAO) made a proposal that threatened to destroy the traditional concept of design professionals being gentlemen who do not compete among themselves for fees. GAO proposed that Government agencies should buy professional architectural and engineering services from the lowest bidder in the same way they buy materials, products, or contracting services. The suggestion is based on GAO's interpretation of existing laws, and the opposition based its rebuttal on another interpretation of these same laws.

One reason for GAO's promotion of competitively negotiated professional contracts is that the agency also proposes to eliminate the present 6 per cent limit on fees based on the estimated construction contract of a project. But on this the professional societies agree with the Federal Government.

Not Open Bidding

The terminology leading to discontent over contracts is sometimes misunderstood. GAO takes pains to explain that it does not propose that **any** architect or engineer be permitted to bid on a Government agency's proposed building project. This would be akin to an open bid for a construction contract. Instead, GAO wants to call for design bids from a short list of invited architectural or engineering firms, and since they are all presumed to be equally qualified, the contract would be awarded to the lowest bidder.

This system is called competitive negotiation by GAO, but people opposed to it claim that the term is a euphemism for competitive bidding. Competitive negotiations take the current negotiated contract system practiced by GSA one step further. At present, GSA selects an architect and asks him to prepare a detailed esti-

mate of the fee for a project. If GSA believes the fee is too high, it invites the architect to revise the estimate downward to an agreeable figure. If this is not possible, GSA concludes the negotiation and invites another firm to take the job and submit a fee estimate.

Congressional Watchdog

The General Accounting Office serves as the Federal Government's financial and management auditor, and in this role it was asked to review how Federal agencies determine and negotiate architect-engineer fees. The request for review emanated from two Congressional committees on space and aeronautics that were concerned about NASA paying more than the statutory 6 per cent fee limit for complex architectural and engineering design.

In its review published in April 1967, GAO found that most Government agencies paid more than the 6 per cent limit, and recommended that Congress repeal the limitation and pay fees based on a reasonable value for professional services.

While reviewing the five statutes governing fee limitations, the GAO also ran a survey on actual fees paid by several Government agencies for architect-engineer services. The survey showed that the GSA exceeded the 6 per cent fee in more than half of the 393 contracts sampled.

However, GSA and other agencies feel justified, since they maintain that the 6 per cent fee limit applies only to design services, specifications, and the production of drawings. The justification for this is that three of the five statutes for Government procurement of professional services specify the work (and hence limit the fees) to be for the production of designs, drawings, and

lection of architects out of Yasko's hands and put it under nonarchitectural control, this difficulty will be compounded in the future. It seems obvious to me that, even in my case, Yasko did not have full say in architectural selection."

Other examples of the lack of professional criteria in selection of architects are easy to come by. For instance, in New Hampshire, all GSA work for the past 10 years has gone to the same firm—more than \$13 million in contracts. (Bernard Boutin was a prominent New Hampshire Democrat.)

In New Jersey, the eighth largest state in the nation and one of the fastest growing, only one major GSA building has been constructed in the past 10 years. The commission for that one, a \$13-million Federal office building in Newark, went to the New Jersey AIA chapter president, who was also a member of the Newark Planning Commission.

In Alaska, one firm has been awarded all GSA work. The firm's president is a former member of the Alaska State Planning Commission, and a former vice-president of Engineering and Architectural Examiners in that state.

In New York, all but one or two jobs went to Fellows or chapter presidents of the AIA.

In October 1968, a prominent GSA official retired and was appointed as Assistant to the Vice-President of the Washington, D.C., office of Sverdrup & Parcel, an architectural-engineering firm

that has obtained two GSA commissions worth \$20 million. One of them, a Federal office building budgeted at \$14,954,000, was terminated in the preliminary design stage and later given to another firm, a procedure usually followed in GSA when the design is unacceptable. And when it went to the second firm, for some reason the building was only budgeted at \$8,578,000. (In the past 10 years, out of 275 contracts, only 4 have been cancelled.)

The Fish House Job

Even some of the excellent designs that GSA has commissioned recently owe their origins to sustained efforts by Congressmen. Representative Mike Kirwan (Democrat, Ohio) exerted great pressure to get the commission for the National Aquarium for Roche, Dinkeloo & Associates after it had first been given to Welton Becket, apparently as a result of that firm's inside track to GSA. Becket has obtained two other GSA jobs, valued at \$28,464,000, but the Aquarium is Roche's first. Wolf von Eckhardt, architectural critic for *The Washington Post*, commented on the Aquarium commission before it had been given to Roche:

"GSA's stuffy, secretive business seems to go on as usual. Washington's new Aquarium, for instance, an item low on the list of the city's needs but high on that of certain Congressmen, will be built by a California firm mainly distinguished for the size of its staff and corporate

projects. It's too bad. For if we must have a fish house it might as well be an architectural asset."

Senator Clinton Anderson (Democrat, New M.) is believed to be responsible for getting Obata for the Air Museum, and Representative Henry Reuss (Democrat, Wisc.) created a panel to guide the new post office design for Milwaukee.

Further insight into GSA selection procedures can be glimpsed from examining the role of the AIA in supplying the agency, as well as other Government contractors, with architects. Presidents of the AIA have done especially well: seven of the most recent holders of that office have received seven major commissions, valued at nearly \$100 million.

The Capitol Architect's office, although it was recently scored in the press for the Rayburn building, has nonetheless escaped critical coverage in the architectural press for its habit of giving nearly all the commissions for major buildings in J. George Stewart's time in office to the same group of architects. *The New York Times*, as well as Philip Hutchinson, director of Government Affairs for the AIA, described the practice as a monopoly on Capitol Hill work by seven firms, traceable directly to Stewart's assistant, Mario Campioli, a former employee of two of the firms involved. The firms, as listed by the *Times*, are: Roscoe DeWitt and Fred Hardison of Dallas, Alfred Easton Poor and Albert Swanke of New York, and Jesse M. Shelton, the

specifications. The other two statutes specify that the fee limitation applies to all professional services. This could include soil investigation, master planning, field inspection, and many other costly services.

So, GSA adds fees for these other services to the 6 per cent for design and specifications; then, when GAO figures this total fee as a percentage of the estimated construction cost, it naturally arrives at a different figure from the 6 per cent design fee.

It remains to be seen how competition will lower fees, or even if competitive negotiations will ever be introduced. Meanwhile, under the present GSA system of inviting one firm to bid on a project, the fee tends to follow the old 6 per cent formula. This is the result of GSA establishing the budget for a project in advance, and an architectural firm simply has to assign 6 per cent to cover the design and specifications of the project, and adjust the man-hours and expenses to fit that figure. All the other costs, such as field supervision, can be added.

Stopped in Committee

A copy of the 1967 GAO report was sent to the Government Subcommittee of the Committee of Government Operations. The subcommittee, under the chairmanship of Congressman Jack Brooks (Democrat, Tex.), took strong exception to the proposed competitive negotiations, and wrote these views in a long letter to the Comptroller General of the United States, who heads GAO.

Brooks said that the GAO and the subcommittee read different interpretations of the statutes affecting procurement of professional services, and that he would not support competitive negotiations. Furthermore, the subcommittee does not agree that the 6 per cent limit should be dropped because it sees no suit-

able substitute for "protecting the public against ill-advised action on the part of executive officials."

Nearly one year after Brooks sent his letter to the GAO, his office had still not received a reply. During this time, however, two House Committees made known their interpretation of the difference between buying M-16 rifles and architect-engineer services. Of "Section 406-Negotiated Procurement," they wrote, "The conferees wish to make it entirely clear that their agreement on this language [to prevent buying rifles without considering all qualified bidders] in the bill is not intended to modify in any way the traditional method of procuring architect engineer services."

Congress approved this Conference Report and the President signed it in October 1968. The purpose of a Conference Report is to explain the intent of Congress with regard to a new law or a change to an existing law: It records for history why Congress did what it did. But in this case, GAO believes the report is not the final historical word, and that the amendment leaves the way open to another amendment.

To make this second amendment, GAO would have to take its changes through the two House committees, and, to quote one committeeman, "both these paths are clearly blocked." So, temporarily, the competitive negotiation is in abeyance because the GAO cannot enforce it unless Congress directs it to.

Although the issue seems cut and dried, GAO and professional society representatives seem cautious about saying so. They seem to be defensive about the other side's capability of changing the situation, and since these men are in the strongest position to know, we may conclude that the political word games are not over.

late Alan G. Stanford and A.P. Almond of Atlanta. DeWitt, Poor, Swanke, Shelton, and Almond now have the design commission for another new building on Capitol Hill, the \$75-million Madison Memorial Hall.

With this in mind, P/A reporters asked GSA officials if there was any connection between the Architect's office and the PBS building program. Schmidt's and Hunter's answer was that there was no connection at all between the two. But J. George Stewart himself flatly contradicted them in his testimony to a Senate Appropriations Subcommittee in April 1968 where he appeared to urge Congress to appropriate money for the Madison job for DeWitt and company. Stewart glibly stated: "When we were moving along with the work, we went to Lawson Knott, GSA Administrator. . . . His architects also went over these plans and program, and they said they thought we had a very fine building laid out. . . . We have a thorough approval from Lawson Knott's office on this, and the architects, because they have done a lot of work for him also."

In a 10-year list of GSA projects, two commissions for \$51.5 million are attributed to members of the DeWitt consortium, but there may be more since one of these jobs is listed under a different firm name.

Cooperative Contractors

A final aspect of GSA's handling of selec-

tion procedures concerns the agency's choice of contractors. The construction industry's interest in politics is well known, so it should not be surprising that 60 per cent of the contractors selected by GSA, supposedly by submitting low bids to PBS in an open bidding procedure, are repeaters, and many of them have had more than three of the large contracts. And of the jobs valued at over \$6 million, 75 per cent have been awarded to the same small circle of contractors with a special aptitude for submitting low bids.

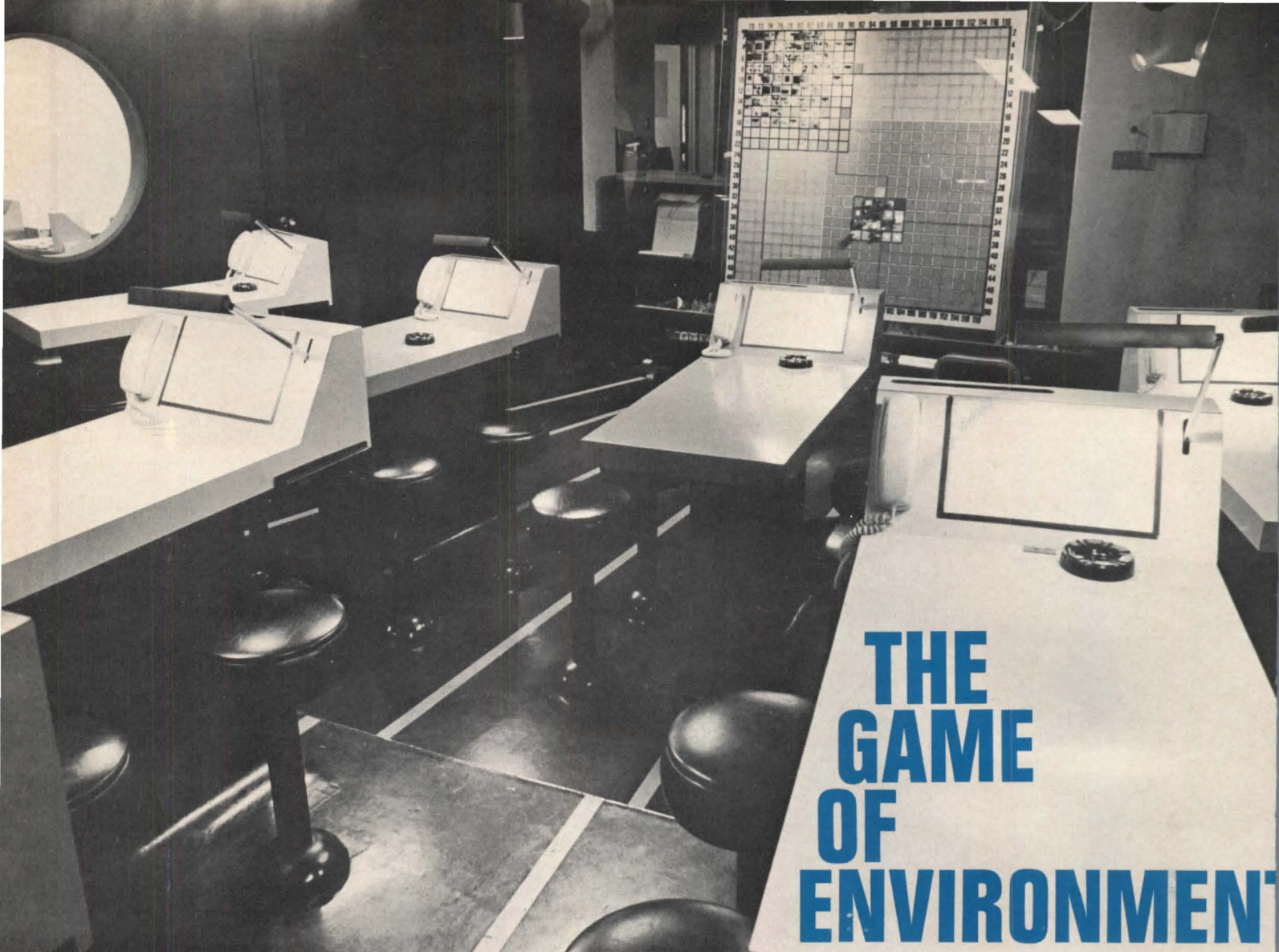
Perhaps some light can be shed on this process through one of the few reported instances where it received some publicity. Mathew McCloskey, owner of the contracting firm noted for building the Rayburn Building at record cost, also built the U.S. Embassy in Ireland and then prodded President Kennedy into allowing him to move into it as ambassador. Since then, McCloskey has obtained one commission from GSA, but that one—the Mint building in Philadelphia—was obtained through what appears to have been a private arrangement with GSA officials. Even though another of the "insiders" had submitted a low bid, McCloskey turned up five days later with a lower bid and got the job. This was reported by Senator John J. Williams (Republican, Del.) who also reported: "One prominent builder has stated that his company did not even waste its time and money in preparing a bid for this project since it was well known in construction circles that McCloskey & Co.

was to get the contract regardless."

In spite of McCloskey's reputation for politics and a seemingly insatiable appetite for getting into trouble with clients, GSA officials Schmidt and Hunter reassuringly informed P/A that McCloskey's was a "responsible" firm well-qualified for government work.

Apathetic AIA

Most architects have already heard that the entire Government program of commissioning private firms for its work, whether that work is architectural or supplying the Army with rifles or constructing "vertical assembly buildings" for NASA, is open to political deals of all types and descriptions. Also, architects are as aware as other private businessmen that it pays to know somebody in Washington, but the vast majority are either unwilling or unable to capitalize on that fact. It is a shame that so many do, but more of a shame that the AIA does not use its position to exert some pressure on Federal agencies to change—for the good of the public as well as the art of building. Instead, many present and past officers are among the indifferent designers of major public buildings. In short, the architectural profession, as represented by the AIA, is evidently content that publicly financed architecture lives up to the policy stated in the "Federal Guidelines" and that it reflects the "dignity, enterprise, vigor, and stability of the American National Government." —RHC, PG



THE GAME OF ENVIRONMENT

The 45 participants cluster feverishly in small groups in the seamless black environment, each reflecting the light that bounces off its individually colored control table. They are buying, selling, creating, destroying, trying to govern a city—a region. The effects of their manipulations show up on a brightly colored glass panel, and their triumphs or mistakes are inexorably disgorged by an IBM 1130 computer. After a few hours in the supercharged atmosphere, they sit back perspiring and drained, but with more sense of actual involvement with environmental problems than they probably ever got in the classroom or on the planning board.

The cities that these people—architects, planners, sociologists, students, behavioral scientists, real-estate investors—are dealing with are not, so far, actual ones, but the tool of new urban and regional gaming situations known as CLUG 1-20, CITY 1, and REGION. Casting back to the old childhood game of Monopoly and to Allen Felt's Community Land Use Game (CLUG) of 1963 (see p. 58, NOVEMBER 1967 P/A), the Urban Systems Simulation Laboratory of the Washington

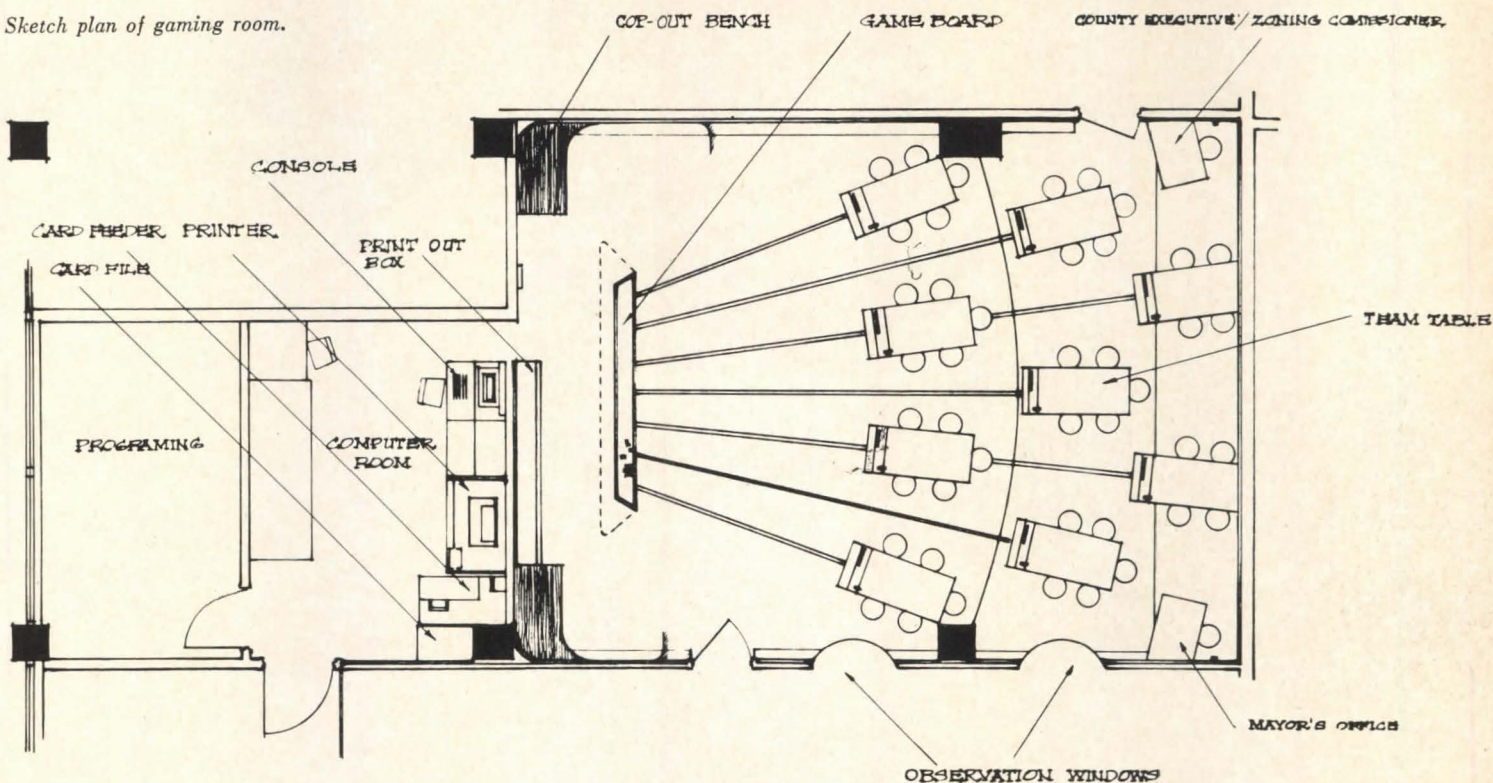
Center for Metropolitan Studies, Peter House, Director, has developed 20 more levels of complexity to CLUG and also newer games more realistically adaptable to actual experience and actual problems. To take the playing of CITY 1 and REGION out of the realm of parlor games, Washington architect Arthur Cotton Moore has designed a gaming room and appropriate gaming devices for House's organization.

In order to emphasize the stress of the gaming situation, wherein nine groups of five players each race the clock (one hour equals one year) for solutions to community problems, Moore coated the interior of the game room totally black so that all concentration is on the glass gaming board ("similar to a SAC plotting board") that shows city configurations in elements designed by the architect, and is worked both from the player's side and the computer side (visible through the glass). Orders or messages transmitted from team desks (each coded a different color and coordinated with the playing pieces) appear on the board to indicate land use, zoning, transportation, and three-dimen-



Gaming room and playing board through viewing port.

Sketch plan of gaming room.

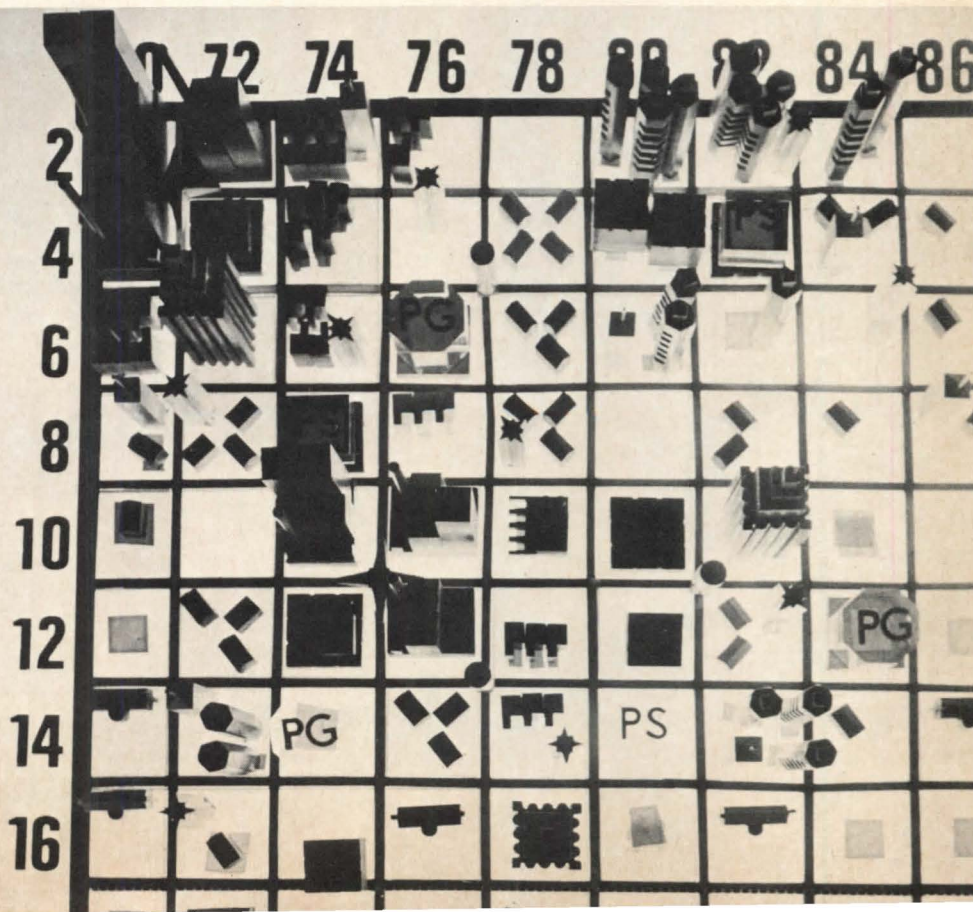


sional simulation of constructed properties, all on a matrix understandable to the computer, which provides print-out data of the continual changes in the city. Since some of the games stress role-playing, there are desks for mayors, planning commissioners, and so on. The desks are tiered for maximum visibility of the playing board, the clock, and the computer. There are two areas where overtense players can "cop out" for a rest, and plastic bubble windows where spectators can view the action. If warranted in the future, the playing tables are adapted to be rigged for closed-circuit television.

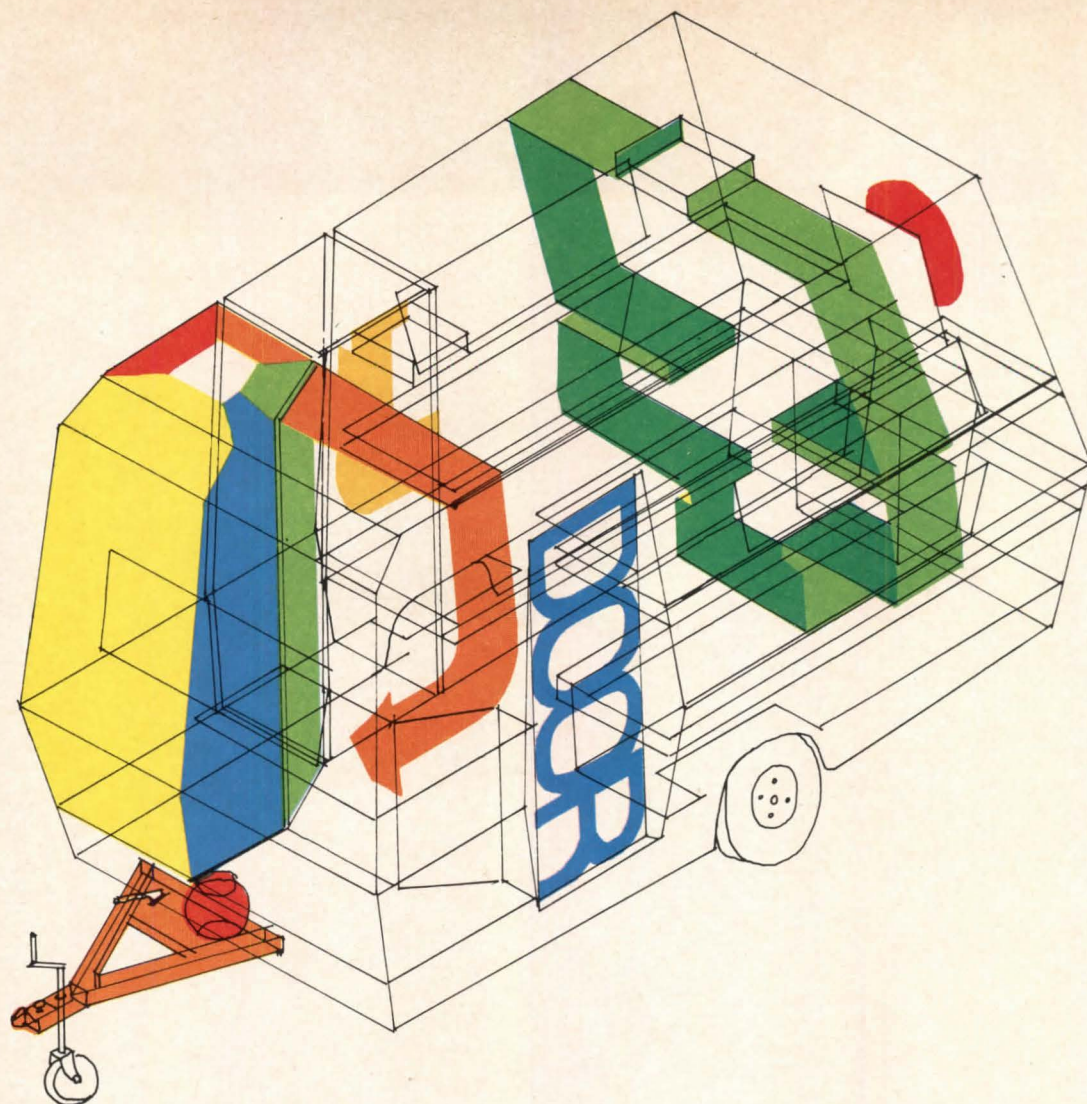
What the players at the Urban Systems Simulations Lab are doing now is learning increased awareness of interrelated urban systems, and how to understand the inputs and feedbacks that will help to shape urban environments and prevent — through knowledgeable forecasting — many of the ills that now afflict them. Ultimately, House and his associates intend to construct actual models of Washington and other cities to function as actual cities do, and to be used as predictive tools for those cities.

Detail of gaming board with Moore's stylized pieces.

Photos: Fred R. Klein



Mobilegraphics



P/A has shown you superinteriorgraphics, superexteriorgraphics, and even a stab at superhighwaygraphics. Now, out of the Mysterious East, come mobilegraphics, lines that move, colors that are peripatetic.

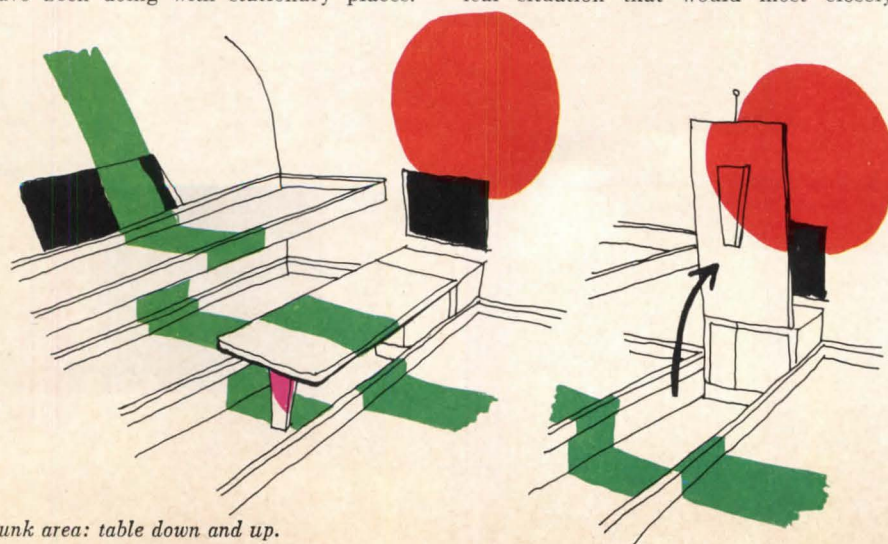
This is courtesy of a young American designer who joined a Japanese outfit called Group 5, making it Group 5 + 1, to produce a design for a four-bunk camper-trailer that does for the mobile environment what Barbara Stauffacher, Doug Michels, Chip Lord, and the rest have been doing with stationary places.

With the whimsy that seems endemic to supergraphicists (Mrs. Stauffacher being an exception), James R. McCall calls his effort "watermelon architecture," claiming that the sight of the squat, tubby little trailer put him in mind of that particular fruit (inspiration lurks everywhere). Pursuing his juicy visual metaphor, he wondered what it would be like to be *inside* a watermelon, and proceeded to lay on the graphics in his interpretation of that rather unique situation. We can think off-hand of a human physiological situation that would most closely

parallel what Mr. McCall seems to be getting at, but fortunately we are not intent on verbalizing it.

At any rate, in the bunk-table end of the camper, a great thick green stripe was painted across ceiling, down walls, over bunks, and across the floor to unify the space visually. A red disc at the window becomes complete when the hinged table is raised, for it is continued on the underside of the table. In the tiny toilet cubicle, broad bands of orange, red, yellow, blue, and green rise toward the ceiling and partway across it, heavily marked by dark separating lines between each color. A white area in the center of the ceiling makes it appear "to be about 10 ft higher than it is actually," according to the designer. "This gives the room a certain 'ridiculous grandness,' much like an Italian ceiling fresco," he adds. Which will certainly be news to Giotto and Filippo Lippi and that crowd.

The project was done as a prototype for display at the International Trade Fair in Osaka, and is a possibility for future mass production. If it makes it, "Porto"—yes, it has a name, too—will certainly be more fun to have on the roads than those shiny metal and plastic monoliths we have in the U.S.



Bunk area: table down and up.



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USING REFERENCE STANDARDS

BY HAROLD J. ROSEN

Specifiers should constantly refer to reference standards to insure that specifications cover all facets of materials and workmanship. Rosen is Chief Specifications Writer for Skidmore, Owings & Merrill in New York City.

The use of reference standards in specifications is an acceptable practice because it is a useful device in specifying materials, workmanship, and test methods. However, the specifier should be familiar with the reference standard he cites, since materials standards may have several grades or types from which he must select; workmanship standards may not necessarily cover in particular some more exacting requirement; and test methods may not reflect the specifier's requirements for a particular project.

The specifier should have a copy of every reference stan-

dard on hand so that when a material, quality of workmanship, or test method is to be used on a project, he can check against the specified requirements.

To illustrate the need for a library of reference standards, the following examples show the differences between recommended standards for similar materials. ASTM C33, Concrete Aggregates, is generally used to specify aggregates for concrete mixes. A specification requiring fine aggregate to conform to ASTM C33 is perfectly good. A specification requiring coarse aggregate to conform to ASTM C33 is inadequate. In the case of fine aggregate, ASTM C33 establishes a sieve analysis. In the case of coarse aggregate, ASTM C33 has a total of 10 grading sizes and one of the 10 must be selected and specified. Unless this distinction is known to the specifier, a reference to ASTM C33 for coarse aggregate without indicating a size number will result in an incomplete specification.

Another case in point is a tendency for some manufacturers to use ASTM references for some of their products, which may unintentionally mislead specifiers. Several plastic insulations are described by some manufacturers as meeting ASTM D1692, Flammability of Plastic Foams and Sheeting, for "non-burning by this test" or "self-extinguishing by this test."

This is a valid ASTM test method describing a method for determining flammability of plastic foams and sheeting materials. However, there is one thing wrong with this description. Most existing building codes refer to the ASTM "Tunnel Test" E84 for the flame spread characteristics of materials used in building construction. A material designated by a manufacturer as meeting ASTM D1692 for "non-burning by this test"

may not necessarily pass the ASTM E84 test for a flame spread classification of not more than 25. There is absolutely no correlation of the degree of burning between ASTM D1692 and ASTM E84.

As a matter of fact, materials designated as "non-burning by this test" when referenced to ASTM D1692 will ignite and burn when a match is applied to the material. It is only the peculiar test method and method of reporting the results that may lead to a classification of "non-burning by this test" when referring to ASTM D1692.

Another area of concern is a reference standard for testing that does not establish minimum criteria to test against. This test method presupposes that the average architect, engineer, or specifier is as conversant with a reference standard as the committees that formulated the criteria for the standard.

This is exemplified in the NAAMM Standard for Performance Testing of Metal Curtain Walls. Test C-1 is a method of testing for determining water infiltration by static pressure. The test method provides that the test specimen be subjected to a water spray at the rate of 5 gal per sq ft per hour for 15 minutes, and that, simultaneously, a differential air pressure equal to 0.75 ins. of water or 3.9 psf be induced.

A tentative ASTM Test Method for Water Resistance of Windows by Uniform Static Air Pressure Differential, ASTM E331, which is intended eventually to replace the NAAMM standard, does not establish a minimum static pressure to be used during the test. In addition, no guide is given for suggested test pressures. In using this standard, the specifier is required to state the test pressure to be used. Too many specifiers overlook the requirement that something must be added to

the reference standard. Such a standard creates more problems than it solves.

Another reference standard that indicates a lack of consumer participation in its development is ASTM E330, Structural Strength of Closed Windows under the Influence of Wind Loads. There is a current NAAMM Standard for Structural Performance of Window Walls, Test A, which requires that the test specimen be subjected to a static pressure equal to the design load for a period of five minutes.

The ASTM Test Method requires that the test specimen be subjected to the design load pressure for only 10 seconds. Although a wind load does not last for a full five minutes, it can endure for more than 10 seconds. Certainly, a factor of safety should be added, so that the test time should be multiplied by a number that would produce this added safeguard. A 10-second load might not really reflect what would occur under actual conditions.

The lesson to be learned from the foregoing discussion is simply that the architect, engineer, and specifier should be familiar with the reference standard he uses. He should have a copy on file in his office and should check it carefully to determine whether he must select certain options and whether he should modify it to upgrade the stated criteria.



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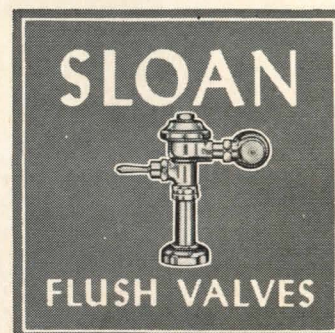
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ENFORCING ARBITRATION PROVISIONS

BY BERNARD TOMSON
AND NORMAN COPLAN

P/A's legal team discusses the effectiveness of arbitration provisions, where either party may waive the right to arbitrate by its participation in legal action.

Arbitration as a method of resolving disputes is playing an increasingly significant role in the construction industry. Because there are many contractual relationships and a high incidence of disputes and potential litigation in the building field, it is particularly important that there be effective procedures and methods to resolve disputes that will minimize costs and delays. The importance of an effective arbitration procedure for all elements of the industry is reflected in the adoption of a uniform arbitration system by the AIA, the Associated General Contractors, the Consulting Engineers' Council, the Council of Mechanical Specialty Contracting Industries, and the National Society of Professional Engineers. The system is adminis-

tered by the American Arbitration Association under its construction industry arbitration rules. However, no matter how carefully contracts are written to incorporate a valid and comprehensive arbitration provision, and no matter how effective and equitable are the methods and rules under which the arbitration is to be conducted, the remedy of arbitration may be lost or waived by the actions of the party to a contract who seeks to enforce such a remedy.

A classical example of a waiver of the right to arbitrate under a contract between owner and architect is reflected in the recent case of *Second Congregation Society v. Hugh Stubbins and Associates, Inc.* (237 A. 2d 673), decided by the Supreme Court of the State of New Hampshire. In 1965, the plaintiff in this action had instituted suit against an architectural firm, alleging faulty design and negligent supervision in connection with the design and construction of a church building owned by the plaintiff. The defendant architect, through its attorneys, entered a general appearance in the legal action and moved to dismiss the complaint on the ground that suit had not been timely instituted and was barred by the statute of limitations of the State of New Hampshire. This motion was eventually denied, in July 1965.

During the pendency of the motion referred to above, the plaintiff brought another action against the defendant in Massachusetts on one of the grounds relied on in the New Hampshire action. The defendant moved to dismiss the New Hampshire action, contending that the plaintiff was required to elect whether its claim be adjudicated in New Hampshire or Massachusetts. On this motion, the defendant stated to the Court that it felt "that the plaintiff was certainly entitled

to his day in court" but that the Court should require the plaintiffs "to pick their forum and try their case. The defendant stated on this application that "all we want to do is try the case in one place or another." Defendant's motion to dismiss was denied in December 1965.

In January 1966, the plaintiff requested a consolidation of its action against the architectural firm with a related action it had instituted against a roofing concern that had performed on the project. This motion was granted in January 1966 without objection by the defendant.

For the first time, in 1966, the defendant moved for a stay of the trial of the action until arbitration could be arranged, as provided by the contract between architect and owner. The contract contained the form arbitration clause then in effect, which provided that "all questions in dispute under this agreement shall be submitted to arbitration at the choice of either party, in accordance with the provisions, then obtaining of the standard form of arbitration procedure of the American Institute of Architects." Such an arbitration provision is specifically enforceable under the statutory law of the State of New Hampshire (RSA542:2), which provides that, if any suit is instituted in respect to any issue referable to arbitration under an agreement in writing between the parties, "the court in which such suit is pending, upon being satisfied that the issue involved in such suit or proceeding is referable to arbitration under such agreement, shall, on the application of one of the parties, stay the trial or action until such arbitration has been had in accordance with the terms of the agreement, provided the applicant for the stay is not in default in proceeding with arbitration." The trial court, however, refused to stay the trial of the

pending action and an appeal was taken by the defendant.

The Supreme Court of New Hampshire, in affirming the termination of the trial court, concluded that the defendant had waived its right to arbitrate by participating for a period of time in the legal action instituted against it and thus was in default in proceeding with such arbitration within the meaning of that term as contained in the statute.

The Court stated:

"It is well established that the right to arbitrate a contract may be waived . . . Any conduct of the parties inconsistent with the notion that they treated the arbitration provision as in effect, or any conduct that might be reasonably construed as showing that they did not intend to avail themselves of such a provision, may amount to a waiver thereof . . .

"The general nature of plaintiff's action was apparent from the declaration contained in its writ filed in court . . .

"Delay in moving for an arbitration will not alone amount to a default under RSA542:2 . . . However any attempt to go to the merits and to retain still the right to arbitrate is clearly impermissible."

It is clear, then, that the waiver of contractual rights or remedies may occur from actions on the part of one or more parties to the contract that are inconsistent with the arbitration clause. When a dispute arises, search the contract for an arbitration clause. Then determine what your rights and obligations are under it before you take the first step in litigation or arbitration.



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TEACHING STRUCTURE

BY CARL W. CONDIT

STRUCTURAL DESIGN IN ARCHITECTURE. By Mario Salvadori and Matthys Levy. Prentice-Hall Inc., Englewood Cliffs, N.J., 1967. 457 pp., \$17.30. The reviewer is the author of the recently published *American Building and Professor of Art and the History of Science at Northwestern University in Evanston, Illinois*.

Since the appearance in 1950 of Leonard Michael's *Contemporary Structure in Architecture*, publishers have been coming out with an increased flow of books aimed at providing a more or less simplified, usually nonmathematical treatment of modern structural forms and their behavior. Some of these, like the works of Torroja and Zuk, cover the whole domain of structural technology as it relates to architecture; others, such as Angerer's *Surface Structures*, are restricted to particular forms, and one, Henry J. Cowan's *Historical Outline of Architectural Science*, deals with the subject from an evolutionary standpoint. These books are uneven in quality and unsatisfactory in various aspects.

The conspicuous exception to this generalization are the books by Professor Salvadori and his collaborators at Columbia University, which now

constitute the first two titles of the Prentice-Hall International Series in Architecture, of which Professor Salvadori is the editor. The earlier of the two is *Structure in Architecture* (1963), written with Robert Heller as co-author, and the second is the volume under review. Both represent so valuable a contribution to the teaching of architectural design and history that it is now difficult to understand how we ever managed without them. *Structure in Architecture* is by long odds the best qualitative exposition of structural technology I have read, and as a consequence it stands not only as a useful text but as an independent work worth the attention of anyone who wants to gain more than a superficial knowledge of the building arts. *Structural Design*, on the other hand, is a strictly pedagogical treatise, the presentation throughout being wholly mathematical and problem-oriented.

The authors have predicated their work on several assumptions that constitute the basis of teaching in the School of Architecture at Columbia University. First is the belief that the architect should be able to conceive his buildings in a structurally viable way. Second, is that both qualitative and rigorous mathematical approaches are necessary for an adequate knowledge of structural techniques. The qualitative viewpoint is developed first because it can be based on those structural intuitions everyone acquires from commonplace experience with loads, forces, and materials. The earlier volume was addressed to this level of understanding, whereas the present one, as the authors say in their Preface, "translates into quantitative terms the qualitative statements of the previous book." Mastery of the work, they claim, requires only the mathematical knowledge summarized on a single page follow-

ing the Table of Contents.

This is one of only two statements in the book I would challenge: I do not believe that a student can or ought to be asked to acquire "in a matter of a few weeks" a knowledge of specific mathematical operations involving algebra, trigonometry, differential calculus, integration of trigonometric and exponential functions, and partial derivatives, unless he is content with a blind application of memorized formulas existing in a confused and inchoate state in his mind. The other is a seriously misleading typographical error: in Table 2.7.1, the column labeled "Modulus of Elasticity" gives the modulus in multiples of 10^6 , which is obviously wrong for the material in question and should be 10^8 .

The subjects of the specific chapters generally follow the organization of the earlier book, the arrangement corresponding to increasing complexity of structural action and the increasing difficulty of the associated mathematical operation. The present book begins with a brief descriptive treatment of loads and materials, moves on to the analytical investigation of the nature and kinds of stress as they appear in rectilinear systems of beams, columns, trusses, and frames, and concludes with the investigation of curved forms of cables, arches, and shells, and two-dimensional systems of grids and plates. The method in the individual chapter is to begin with an exposition of the fundamental structural action appropriate to the form in question, continuing with a general mathematical analysis of the forces, stresses, and deflections involved, and concluding with specific examples of precisely dimensioned and loaded structures. The final section of the book is devoted to 400 problems arranged by chapter, with answers provided for about half

of them. There is no bibliography, although one might have been useful as a guide either to more advanced study of design or to study of the historical development of structural science. The index, however, is a model of the comprehensive analytical variety.

Any reflection on the teaching of building techniques, whether it is part of architectural education or a domain of historical inquiry (as it is in my case), especially when it is stimulated by Professor Salvadori's lucid, thorough, yet compact books, inevitably leads to questions pointing to the very heart of understanding and practice in the building arts. At one end of the range of our knowledge is the intuition of structural action that everyone possesses to a greater or lesser degree, and on which all comprehension, designing ability, and creative imagination rest. This intuition begins with the child's perception of space and the arrangement of objects within it, and is steadily enlarged and enriched by our expanding kinaesthetic experience and the resulting kinaesthetic imagery that accumulates in the mind (mostly lost or buried in the case of most people, it is true). The only person I know who has inquired into the nature and origin of this intuition is Rowland Mainstone of the Building Experiment Station in England, and he has used his conclusions chiefly to throw light on the genesis of the great structural innovations.

At the other end of the spectrum, there is the vastly complicated question of how mankind acquired the ability to analyze structure in rigorous mathematical and predictive terms, using the full resources of theoretical and experimental science in the process. This extremely important technique could reach its modern level

Continued on page 186

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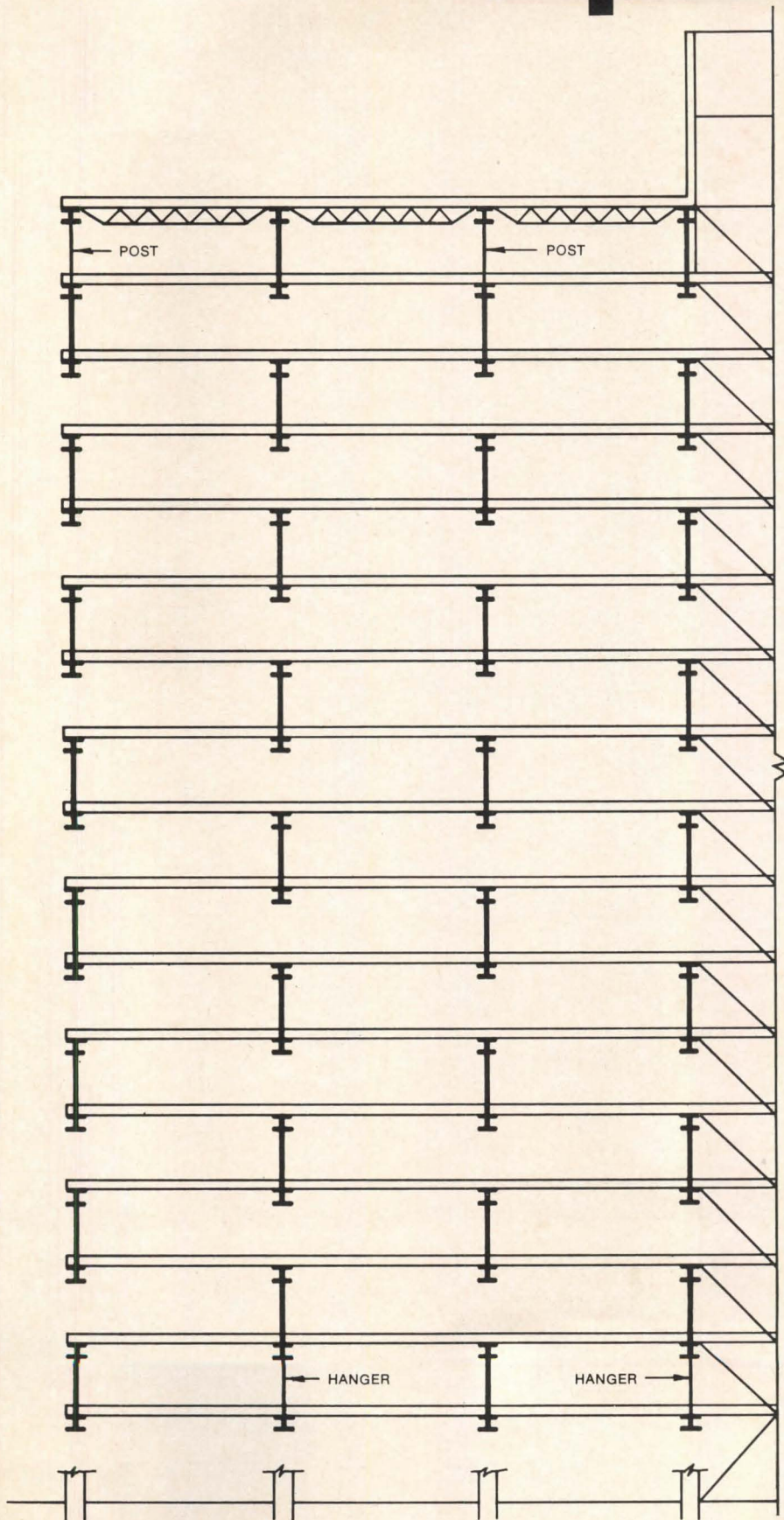
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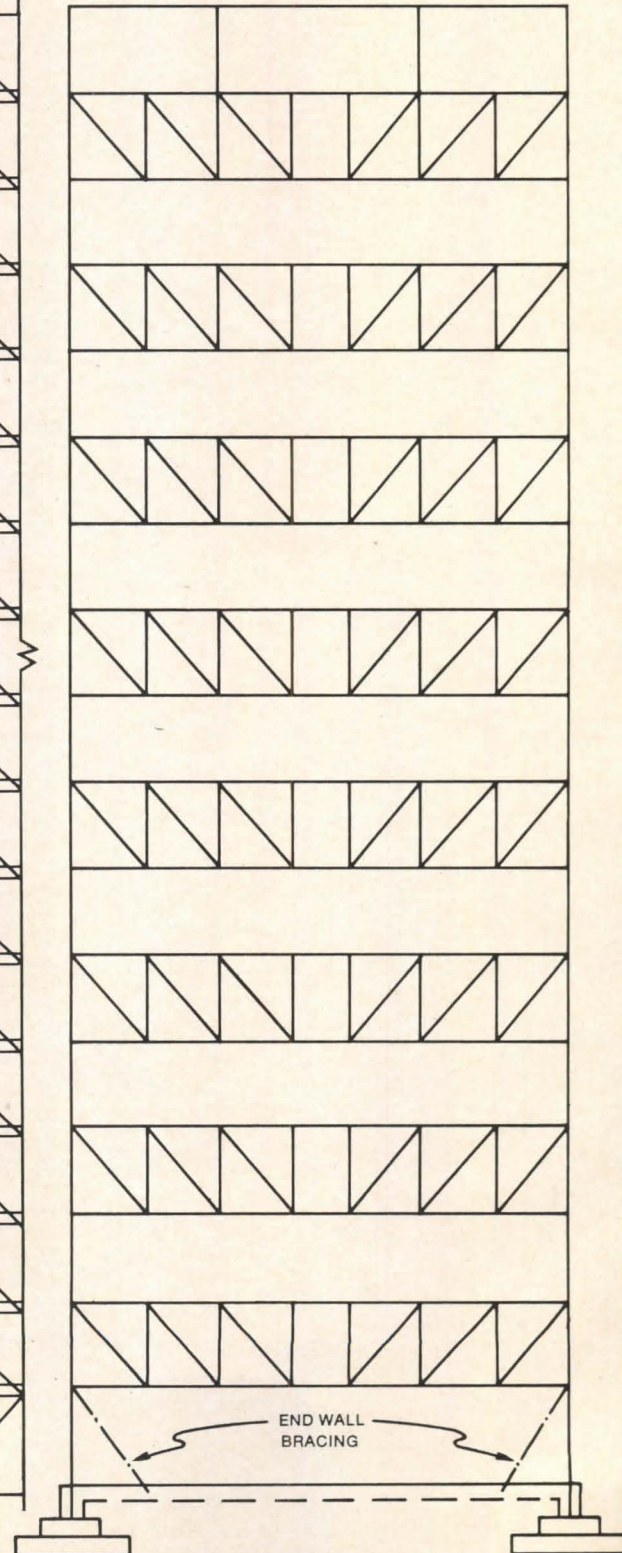
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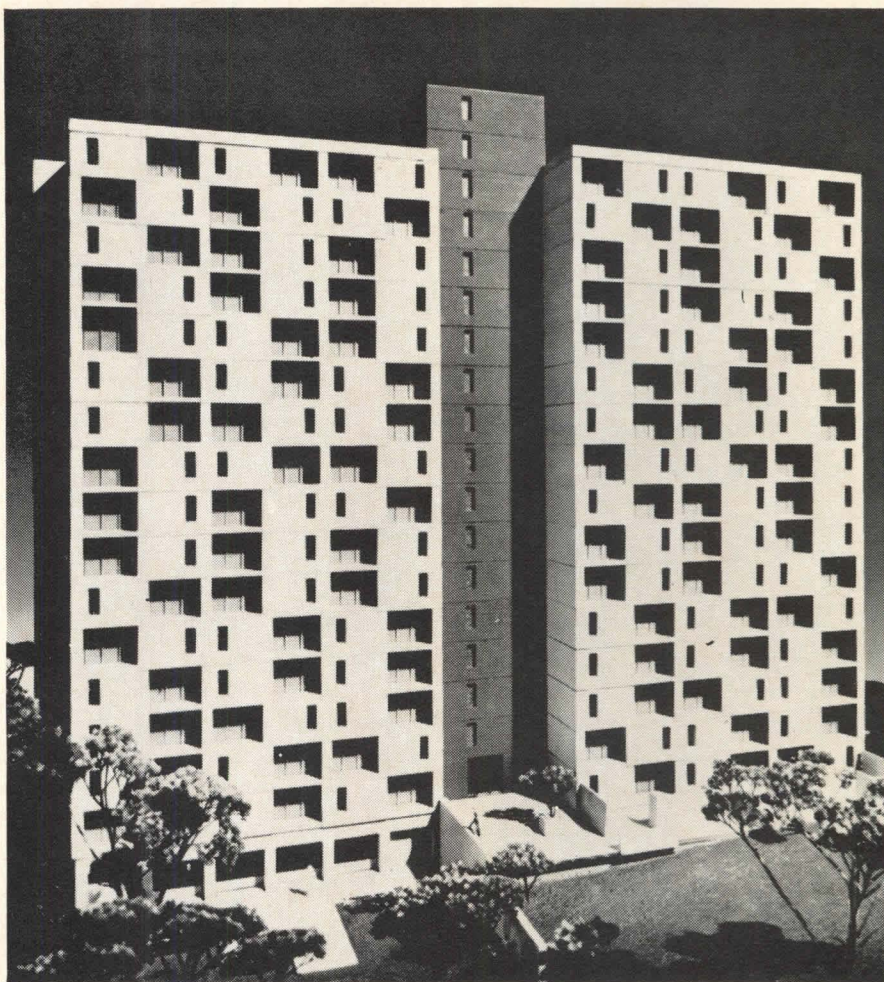
After evaluating several structural systems, the architects found their answer in a *staggered steel truss system*. This is the first use of the staggered truss system, which was developed at MIT in a research program sponsored by U. S. Steel.

Story-high trusses, spanning the building's 52'0" width, are set in a staggered pattern (see diagram). They are located within the separating walls of alternate apartment units. Precast concrete floors rest on the top chord of one truss and on the bottom chord of another truss. The floor slabs act as diaphragms together with the trusses to effectively resist wind loads.

Total steel requirement for the building was about 480 tons for an average weight of 6.8 lbs. per sq. ft. The A572 steels used in the welded trusses are USS EX-TEN 50 and 60 High-Strength Low-Alloy Steels (50,000 and 60,000 psi min. yield points respectively). Construction cost, including mechanical and electrical bids, was \$2,282,870. Sq. ft. cost: \$16.31.

Structural Report

This is one of many ways to keep costs down with steel. Used imaginatively, steel usually wins out in



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United States Steel

Continued from page 178

only after science had advanced to the very high stage in which it was possible to make fruitful analysis of complex multi-variable processes. But before this stage could be achieved other conditions had to be satisfied: Mathematics had to keep pace with the increasingly difficult problems posed by the scientist, and the techniques of progressive abstraction, theorizing, and experimental verification had to be sufficiently developed to be applicable to the internal behavior of materials under varying conditions of temperature and load.

The Salvadori-Levy volume is thus not only an admirable text but a stimulus to philosophic reflection as well. The teachers of architectural design are unfortunately always too busy to entertain these questions, given their crowded curricula and the pressing demands of the urban world and the building industry, but it is the historian's prime responsibility to try to answer them.

A Portable Museum

BY JEFFREY ELLIS ARONIN

AN ILLUSTRATED SURVEY OF WESTERN ART. By Nahum Tschachbasov. *American Archives of World Art, Inc.*, 305 E. 45th St., New York, N.Y. The reviewer is an architect practicing in New York City.

"Here in 279 individual analyses of major monuments of architecture, sculpture, painting, mosaic, manuscript illumination, pottery and stained glass is a survey of Western art from its prehistoric beginnings to the end of the 18th Century," acclaims the flyleaf. And it is true.

This is a handsome book, and a bargain at nine cents a page. The works of art are analyzed for their formal, technical, and stylistic characteristics, and are framed against the times in which they were produced. It is a difficult thing to do, but Tschachbasov, himself a successful artist and head of a library of color slides that serves schools and universities throughout the world, has not only grasped the significant works of art for each period, but has related them to one another in an interesting text.

Reading this book is, in a way, better than walking through a museum, because most museums give little or no historical background on what they display. Thomas Hoving, director of New York's Metropolitan, should take a page (at nine cents) out of Tschachbasov's book to enrich the impact of his treasures for thousands of

Continued on page 194

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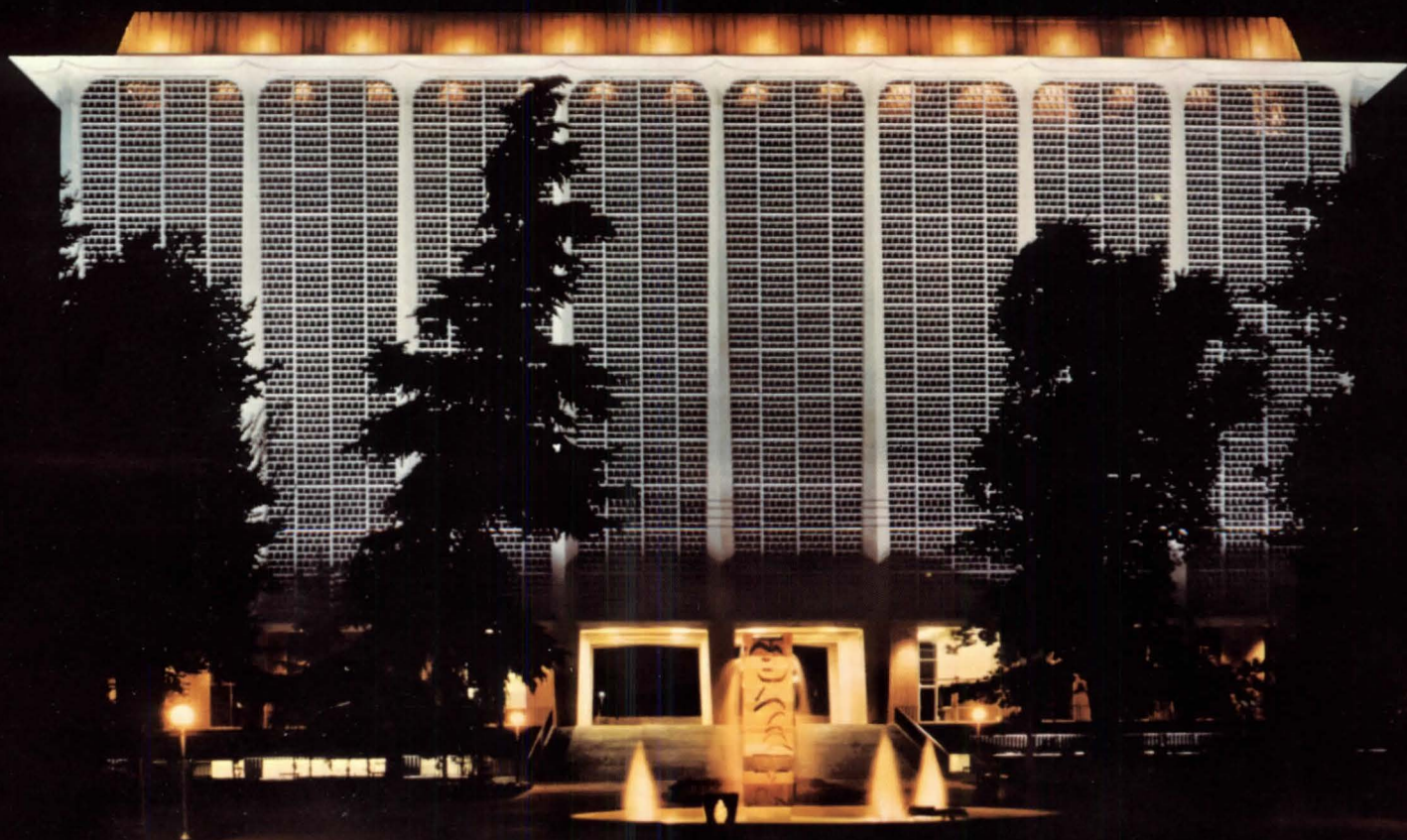
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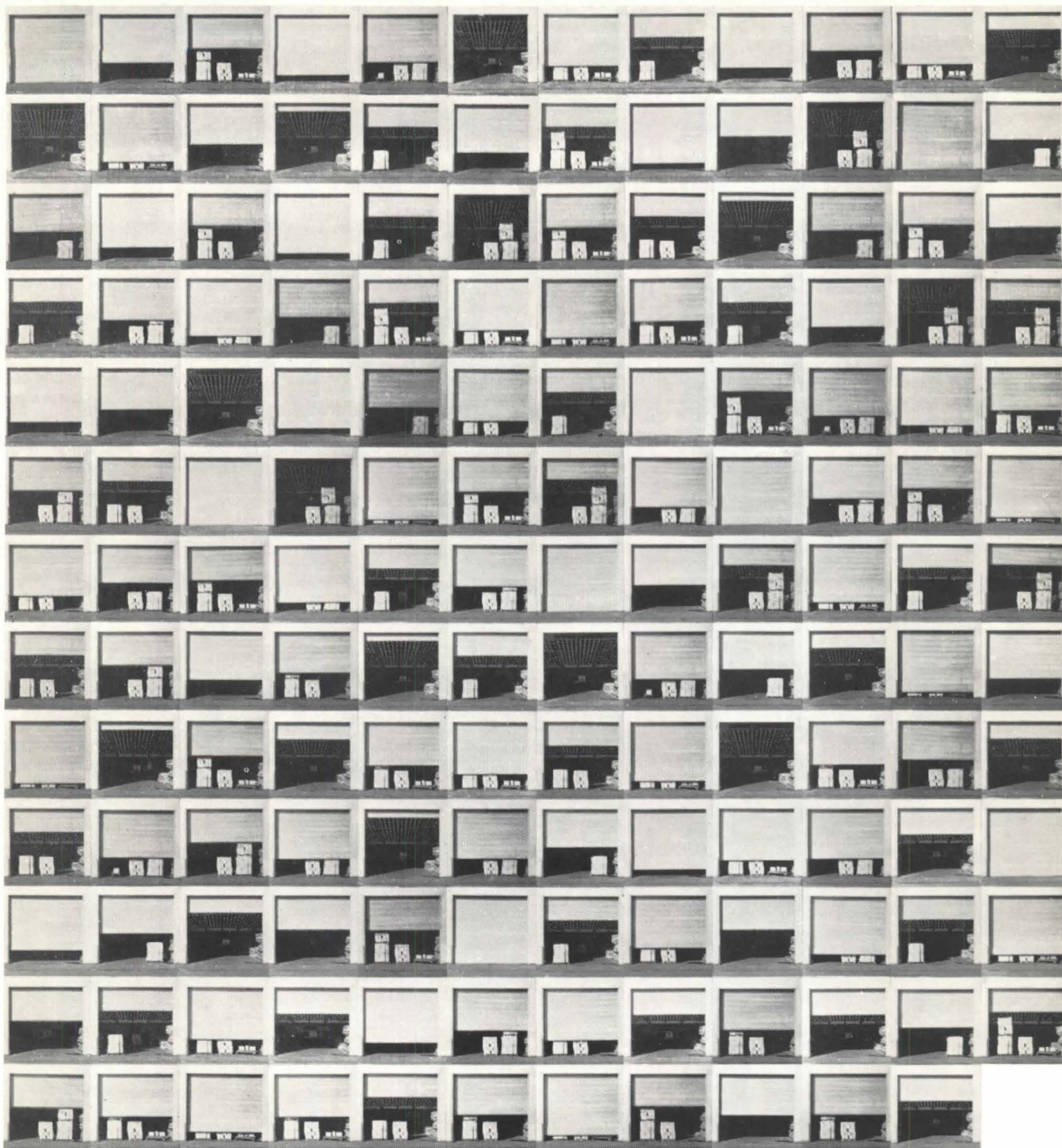


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Budgeting Buildings

BY HUBERT D. SCHMIDT

CREATIVE CONTROL OF BUILDING COSTS. Edited by William D. Hunt, Jr. *The American Institute of Architects*, 1735 New York Avenue, Washington, D.C., 1968. 239 pp., \$11.50. The reviewer is Chief Estimator at the Skidmore, Owings & Merrill office in New York City.

This volume, as edited by William Dudley Hunt, Jr., explains the various methods of cost control that are badly needed at the present. The articles describing the various systems and techniques of cost control, which emphasize that more and more architects are made liable by courts for bad budgets, are written by architects and cost engineers and are grouped in a very logical system. Architects should therefore develop cost information at the beginning of a project and have this information work for them during the design stage.

Getting cost under control at the beginning or during the design phase is the key to a good start on a project. (Simply written sections show forms describing how magnitude estimates can be prepared to achieve this goal.) The dollar-per-square-foot cost area estimates are obsolete and will not provide the proper approach to estimating a project.

Another section of the book deals with maintaining control of the estimate until a building is completed, and explains ways of controlling cost during the design development and construction phase. The importance of keeping the owner informed of budget and scope changes is emphasized, since the architect is responsible for the estimate and can be brought to court should the owner be misled.

These few points demonstrate the quality of this book, which also happens to be very well written. It gives the architect a sense not so much of what things cost, but of how to cope with the task of preparing sound budgets at the time of schematic design up to completion of the project.

One item, however, should have been discussed: the training of good cost engineers who can work with or for the architect during the entire project. Cost estimating is a difficult field requiring extensive experience, but the difficulty would be greatly reduced if more archi-

Continued on page 204

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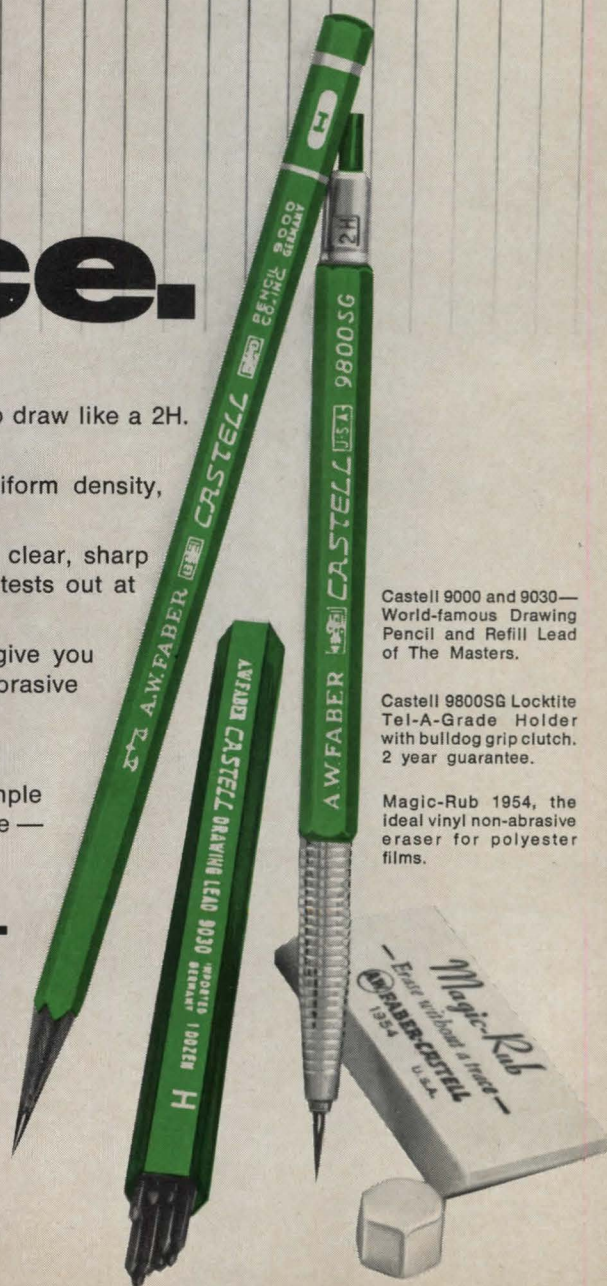
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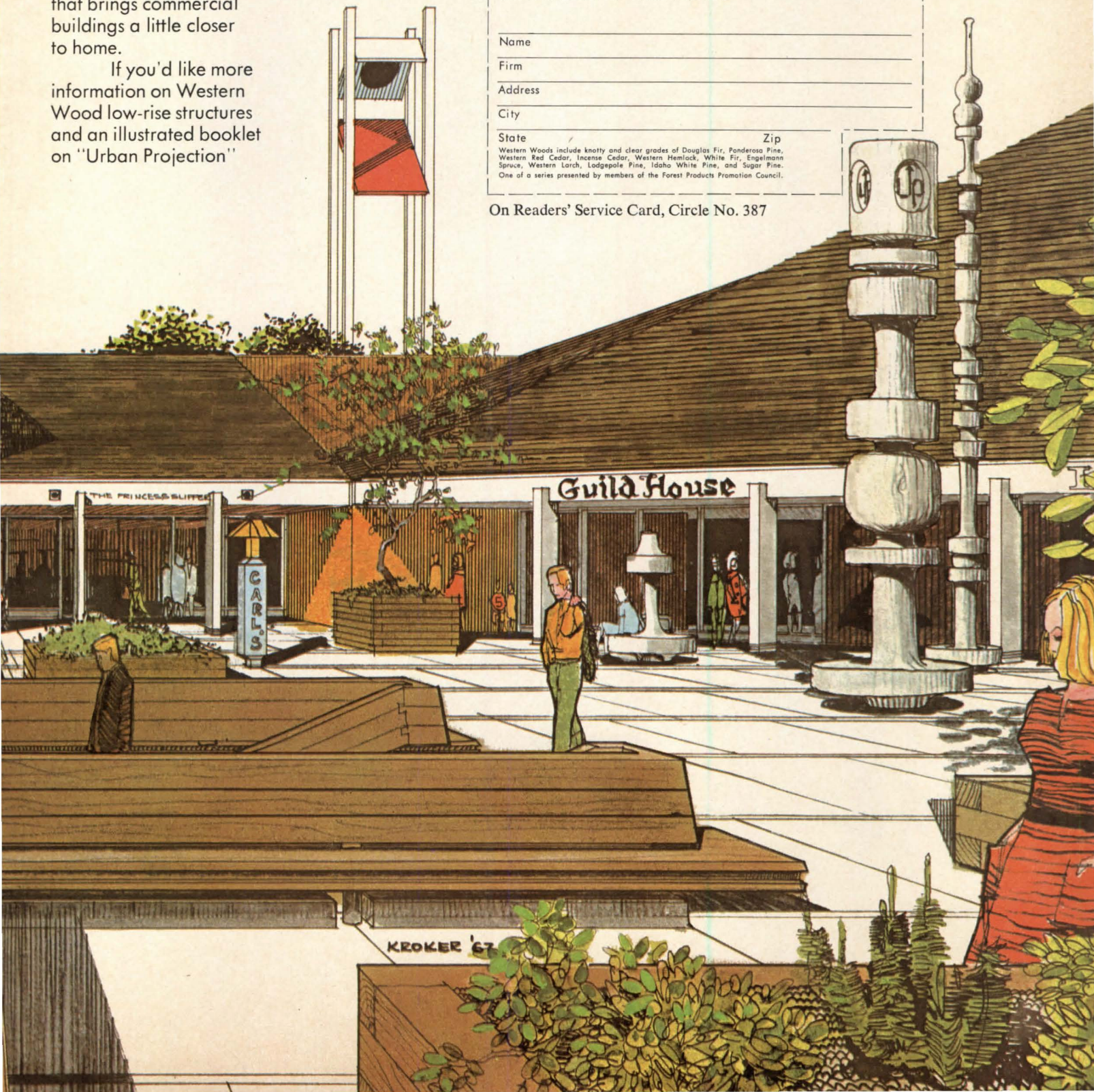
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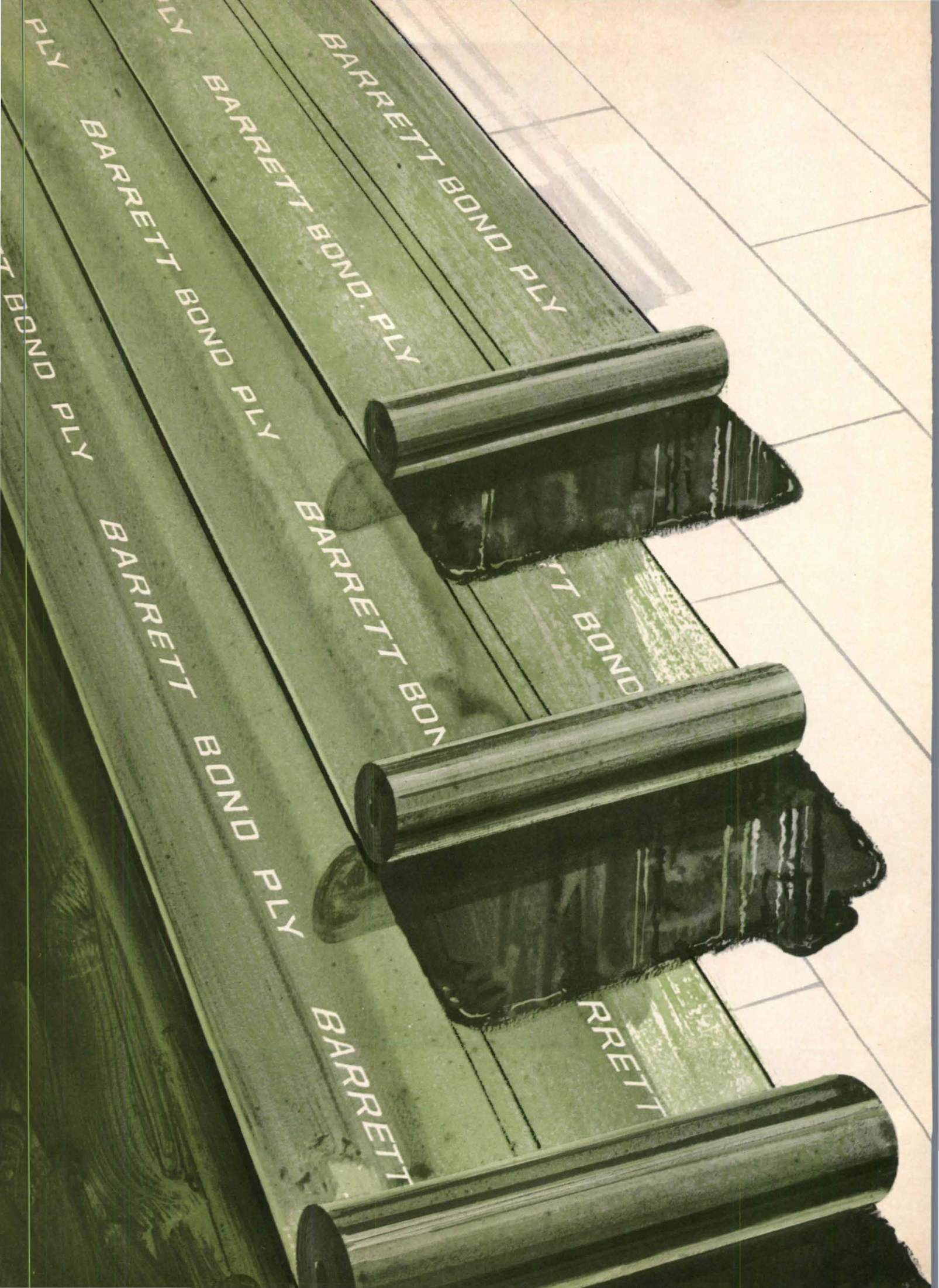
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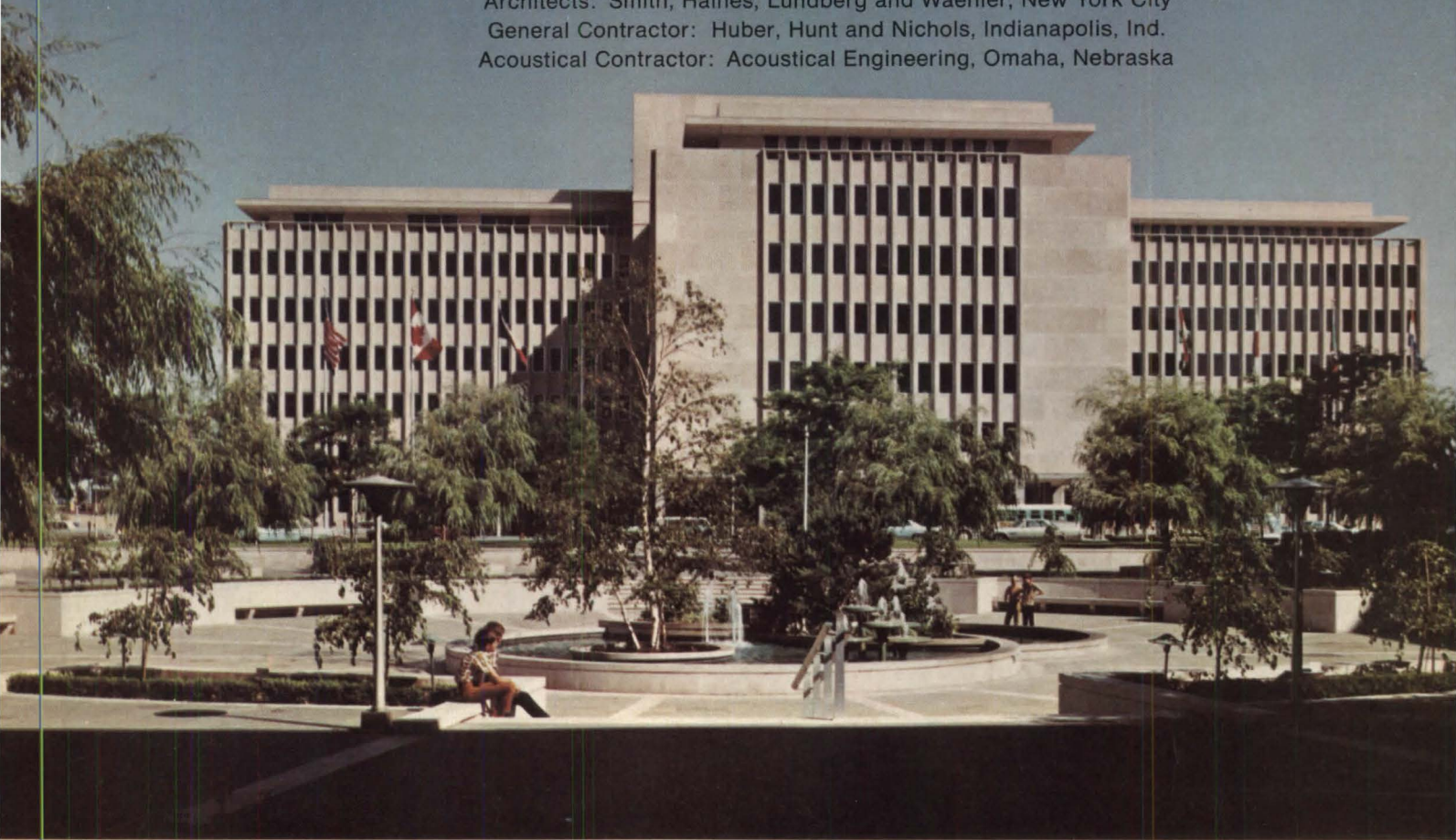
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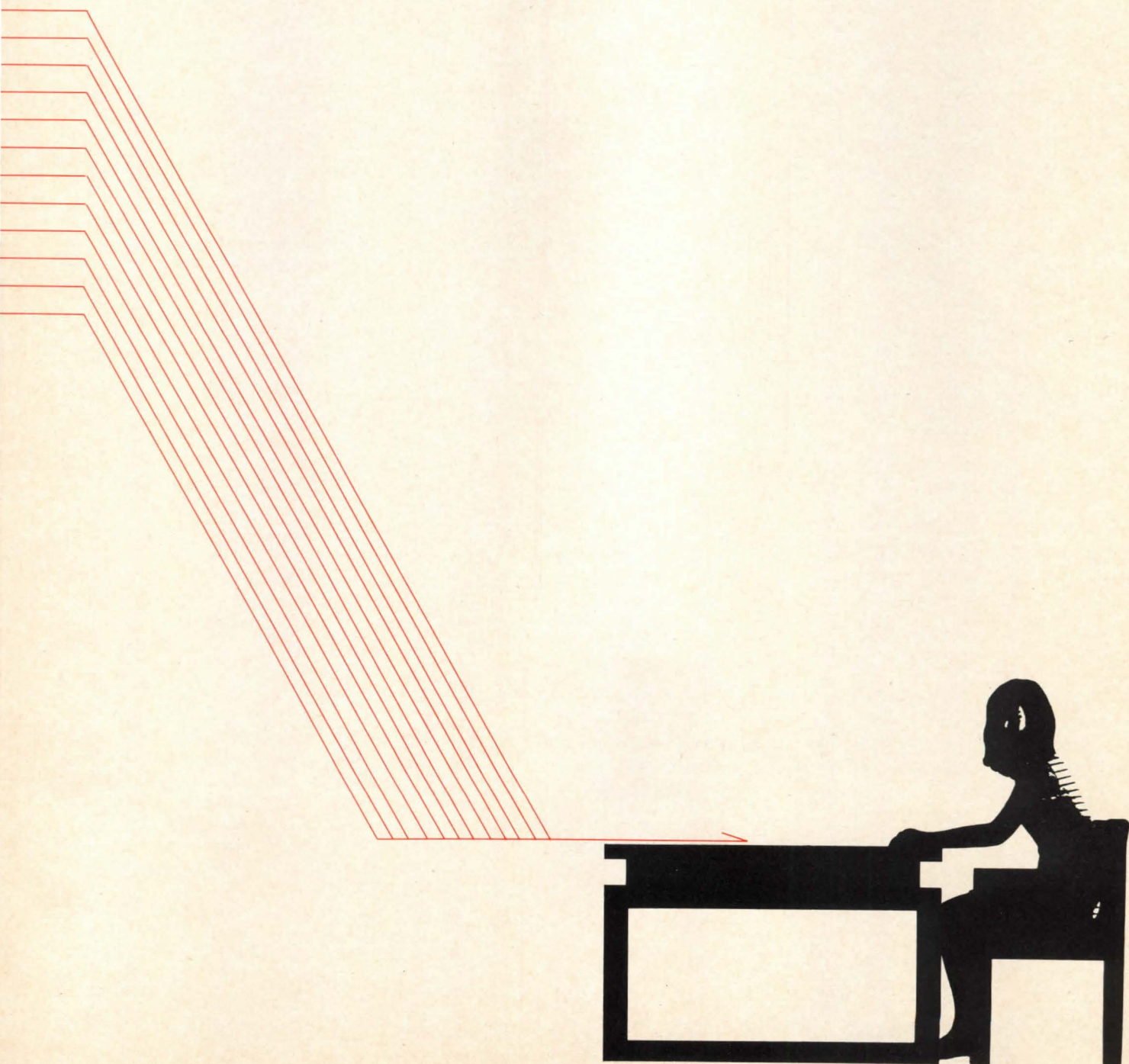
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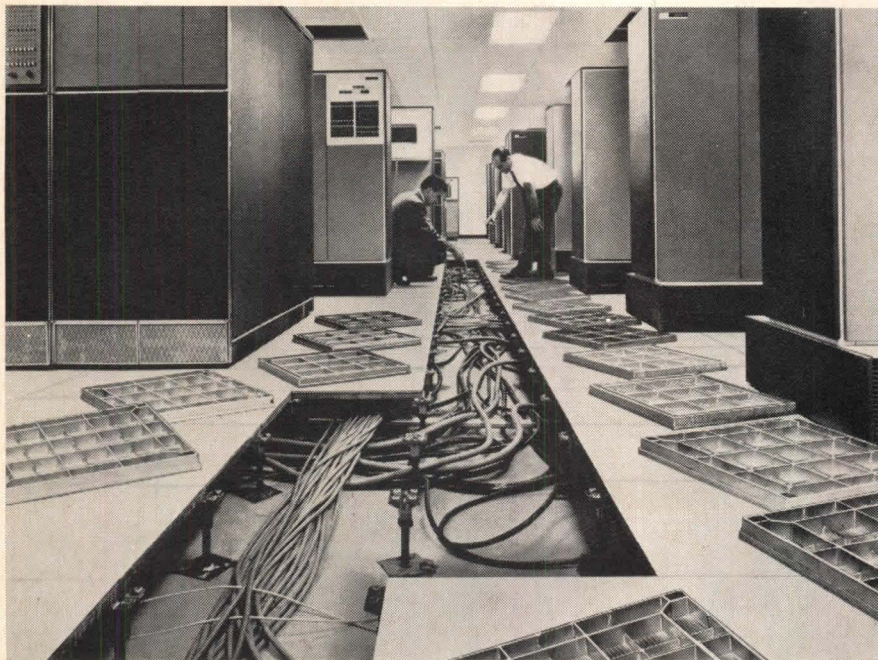
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Continued from page 194

texts understood the fundamentals of an estimate.

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Urban Growth and Politics

BY WALTER KIDNEY

THE PRIVATE CITY: Philadelphia in Three Periods of Its Growth. Sam Bass Warner, Jr. The University of Pennsylvania Press, Philadelphia, Pa., 1968. 236 pages, 3 maps. \$5.95. The reviewer is a former Associate Editor of *P/A*.

This is a study of Philadelphia, taken as an example of the American city, and intended to show how city government has failed to grow up with the complex of problems that the city has acquired. The socioeconomic tradition in the U.S. has been one of dependence on and permissiveness toward business, the assumption being that private enterprise should be encouraged and that its interests are, in the main, those of the community. The survey—which uses three periods, that around 1770, that around 1840, and that around 1930, bridging lightly the gaps in between—shows how this persisting attitude has affected Philadelphia.

In 1770, the town was small, most businesses were minuscule, and the various races, religions, nations, and classes lived together more or less amicably. Tradesmen knew enough and gentlemen cared enough to take public office in the sort of loose, amateurish government that was adequate for the time. This period of innocence had ended by 1840. All the antagonisms of the modern city had by then come into being, and fearful riots broke out at times. The workman, now a factory hand, knew he would always be no more than a factory hand. The businessman was no longer interested in public office, and the professional politician had taken over. By 1930, the businessman no longer even lived in the built-up areas of the city, and the professional politician was still in power. Regional and city planning organizations attempted, unofficially, to organize the chaos of the city, but mostly for civic beauty and commercial prosperity, these being assumed to be for the eventual good of everybody.

Obviously, a rather small book cannot go into a subject like this in an exhaustive way; readers wishing to pursue the subject further may want to read an older book, E. Digby Baltzell's *Philadelphia Gentlemen*. The moral that both books

Continued on page 206



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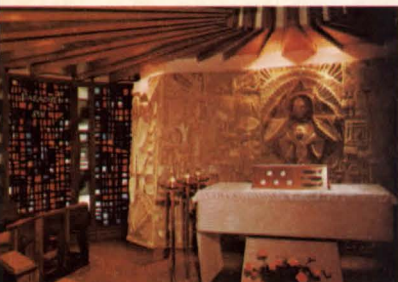
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Ehrling Bergquist U.S.A.F. Hospital
Offutt Air Force Base - Omaha, Nebraska
Architect - Leo A. Daly & U.S. Corps of Engineers
Contractor - Peter Kiewit & Sons



University of Nebraska - Omaha, Nebraska
College of Medicine Hospital
Architect - Henningson, Durham & Richardson
Contractor - A. Borchman & Sons



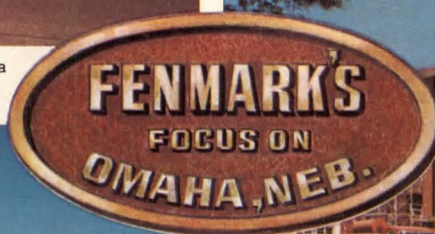
Sisters of Mercy - Omaha, Nebraska
Architect - Leo A. Daly
Contractor - Butler Const. Co.



First West Side Bank - Omaha, Nebraska
Architect - Stanley J. How
Contractor - Foster-Smetana Const. Co.



Valmont Industries Inc. - Valley, Nebraska
Architect - Henningson, Durham & Richardson
Contractor - Lueder Const. Co.



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Continued from page 204

seem to put forth is that a community will always be led by some particular class of persons, who may or may not man the municipal desks personally, but who can at least affect the way in which things are done. Both books seem to imply that an aristocracy, cultured and moneyed but with a sense of responsibility to the community as a whole, is the best class to take on the job.

For all its brevity, *The Private City* is a good book, an instructive piece of background material for anyone wanting to understand the confused state in which some American cities still find themselves.

NOTICES

New Addresses

AYRES & HAYAKAWA, Architects, 1180 S. Beverly Dr., Los Angeles, Calif. 90035.

M.H.L. (BOB) BOOMS, Architect and Engineer, Dewey and Witte Sts., Poteau, Okla. 74953.

SAMUEL J. DE SANTO, Architect and Planner, 61 E. 86 St., New York, N.Y. 10028.

DON GOCHNOUR, Architect, 722 Larson Bldg., Yakima, Wash. 98901.

VICTOR GRUEN ASSOCIATES, Architects, Engineers, Planners, 257 Park Ave. S., New York, N.Y. 10010.

PHELPS-MCCLESKEY, Architects, 2 Office Park, Suite 102, Mobile, Ala.

WOLFF-ZIMMER-GUNSUL-FRASCA-RITTER, Architects and Planners, 1600 S.W. 4 Ave., Portland, Ore. 97201.

New Firms

ADLEMAN, SIEGEL & ASSOCIATES, Environmental Designers, 605 Liberty Trust Bldg., Broad and Arch Sts., Philadelphia, Pa.

MARK I. FINFER & ASSOCIATES, Architects, 173 N. Anita Ave., Brentwood, Los Angeles, Calif. 90049.

GRAHAM, O'SHEA & WISNOSKY, Architects and Planners, 222 S. 5 St., Suite 2, Springfield, Ill. 62701.

RICHARD W. HOBBS ASSOCIATES, Architects and Planners, 907 Pine St., Seattle, Wash. 98101.

LEHRECKE & TONETTI, Architects, 502 Carnegie Hall, New York, N.Y. 10019.

A. D. MATHYS, JR., Architect, 307 N. Trenton, Ruston, La. 71270.

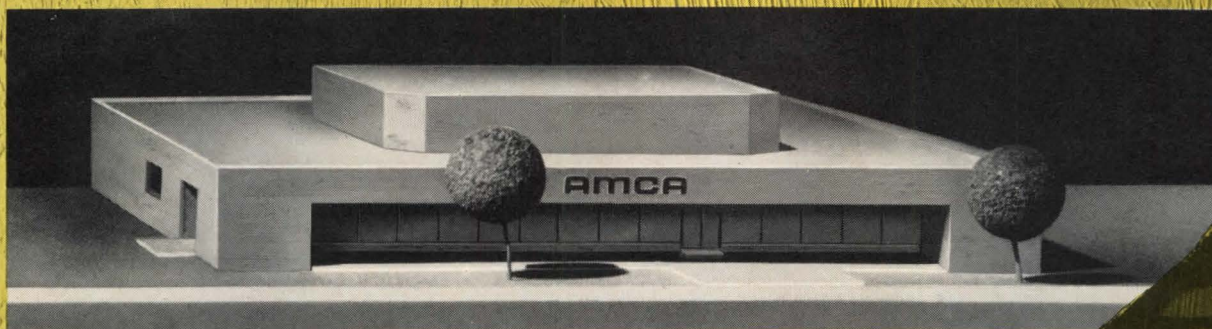
EUGENE J. MACKEY, III, Architect, 611 Olive St., Saint Louis, Mo. 63101.

JIM D. MORELAN, Architect, 41 E. Main St., Los Gatos, Calif. 95030.

TEAM FOUR, INC., Urban Designers and Planners, 203 N. Meramec Ave., Saint Louis, Mo. 62105.

Continued on page 208

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Continued from page 206

New Partners, Associates

MAYER & KANNER, Architects and Planners, Los Angeles, Calif., have named LEONARD PULLAN an associate and director of production for the firm.

EWING MILLER ASSOCIATES, Architects, Engineers, Planners, Terre Haute, Ind., announce that JOEL WALDBIESER, GERALD EXINE, and LAWRENCE WHEELER have become associates and that RICHARD TUTTLE has been named comptroller.

SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC., Architects, Engineers, Planners, Detroit, Mich., have appointed six new associates: NOLASCO P. ANGELES, WALTER R. LAVALLI, HAROLD T. MITCH, CARL W. PIRSCHER, KAMI TARGAL, and MELVIN O. WEEKS.

A.G. ODELL, JR., & ASSOCIATES, Architects, Charlotte, N.C., have named as associates J. STEVE BROWNING, GEORGE RALPH BUCK, RICHARD H. CROCKFORD, JR., and CHARLES L. POTTER, JR.

JOHN CARL WARNECKE & ASSOCIATES, Architects, Planning Consultants, Landscape Architects, New York, N.Y., announce the appointment of the first four associates for their New York office: HERSHEL POST, Project Manager, LEE HAMPTIAN, Project Manager, JOHN SMYTH, Senior Designer, and MICHAEL KOENEN, Urban Planner. DAVID MARGOLF has been named Associate Director of the New York office.

ROBERT C. WILLIAMS & ASSOCIATES, Specifications Consultants, Berkeley, Calif., announce that GORDON D. FORBES has become an associate in training for the firm.

Elections, Appointments

DANIEL, MANN, JOHNSON & MENDENHALL, Architects, Engineers, Planners, Los Angeles, Calif., announce that JACK REBMAN, specialist in systems analysis and design, has joined the firm as vice-president and manager of the Systems Division.

ECODESIGN, Urban Designers, Planners, Landscape Architects, Cambridge, Mass., has elected THEODORE MONACELLI a principal in the firm and vice-president of the corporation.

A. EPSTEIN & SONS, INC., Architects and Engineers, Chicago, Ill., have named three men to new positions: WAYNE C. BRYAN has been appointed vice-president of the Commercial, Housing, and Institutional Division; EDWARD PAUL, vice-president of Architecture; and CHARLES J. SCHOLER vice-president of Electrical Engineering.

HANDREN, SHARP & ASSOCIATES, Architects, New York, N.Y., announce that MAXINE WEILL has joined the firm as director of the Interior Design Division.

H. K. FERGUSON COMPANY, Engineers, Cleveland, Ohio, has named JAMES E. CLARK manager of the materials control section of its sequence planning

and time scheduling department.

HARBESON, HOUGH, LIVINGSTON & LARSON, Architects, Philadelphia, Pa., have named ANNE L. SCEIA its information director.

ISD INCORPORATED, Interior Designers, Chicago, Ill., and New York, N.Y., announces the appointment of SANFORD BAUM as manager of business development.

N. G. JACOBSON & ASSOCIATES, INC., Consulting Engineers, Seattle, Wash., have appointed HENRY STEINHARDT to the position of director of urban design and planning.

JUNG/BRANNEN ASSOCIATES, INC., Architects, Boston, Mass., have elected RAY C. BUMP, JR., vice-president of the corporation.

LOCKWOOD GREENE ENGINEERS, INC., New York, N.Y., announce that LOUIS R. DURANT has become manager of the firm's graphic arts division.

LOCKWOOD GREENE ENGINEERS, INC., New York, N.Y., have appointed FRANK R. ANTONELL manager of the firm's Boston office. The firm has also made known the election of officers. H. MORGAN ROGERS is president; EDWARD B. MOEBUS is executive vice-president; DONALD G. RADWAY is vice-president for New York; and LOUIS S. BOOTH serves as vice-president for Spartanburg, S.C. HERBERT A. SCHLESINGER has joined the firm as manager of pollution control.

DON SAXON PALMER & ASSOCIATES, Architects, Los Angeles, Calif., have appointed ROY C. SHACTER associate architect and director of design. The firm has named ELVIN RILEY associate architect and director of production. WALTER DORWIN TEAGUE ASSOCIATES, INC., Industrial Designers, New York, N.Y., announce the appointment of ROBERT J. DE SANTIS as public relations director for the firm.

Name Changes

GFDS ENGINEERS, Civil and Structural Engineers, San Francisco, Calif.; formerly, GILBERT-FORSBERG-DIEKMANN-SCHMIDT.

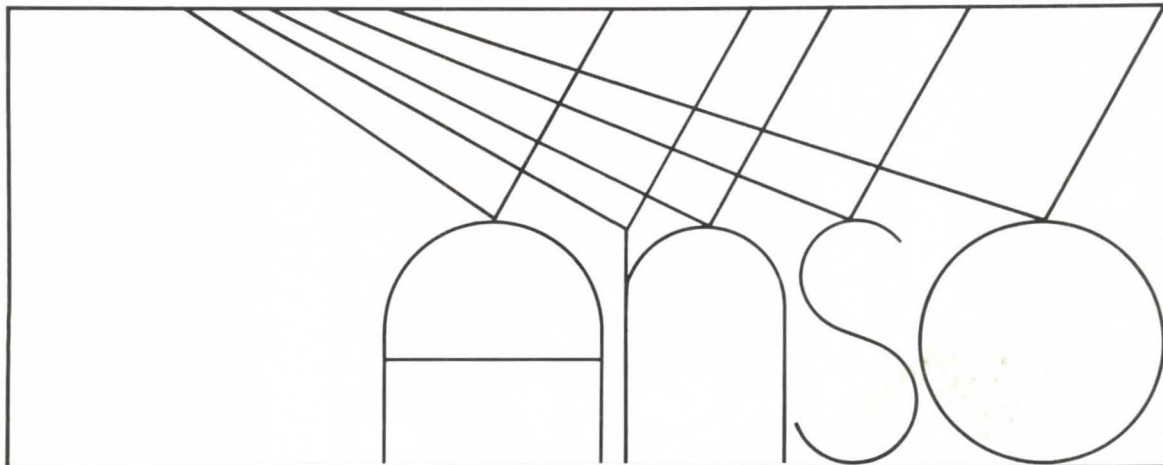
REGISTER, ROSS & BRUNET, P.A., Architects and Engineers, Santa Fe, N.M., upon the election of TERENCE W. ROSS and JAMES A. BRUNET to the partnership; formerly, PHILIPPE REGISTER, ARCHITECT. The firm has opened a new branch office at 519 Douglas Ave., Las Vegas, Nev. 87701.

CORRECTION

On p. 194 of the NOVEMBER 1968 P/A, R. EVAN KENNEDY was incorrectly listed as the new president of DANIEL, MANN, JOHNSON & MENDENHALL, Los Angeles architects, engineers, planners. Kennedy is the firm's vice-president for the Northwest.

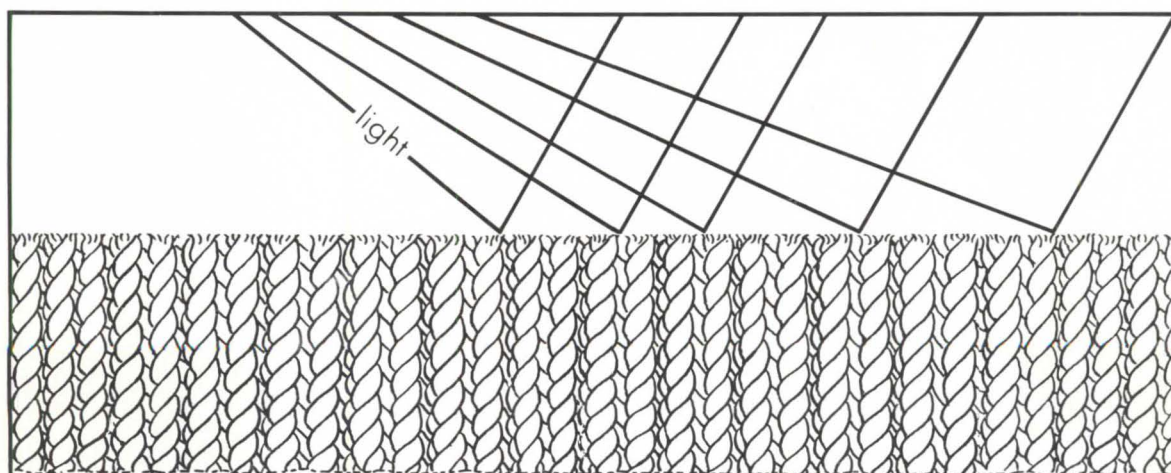
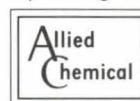
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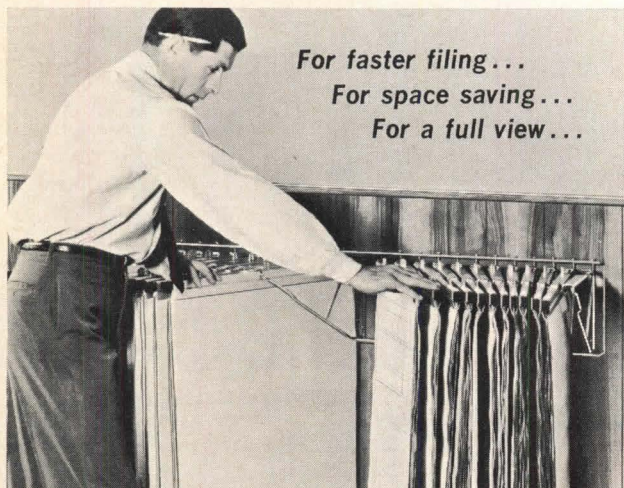
ARCHITECTS—Progressive firm has permanent position for experienced and qualified architect to design hospitals. Similar opportunities available for architects with wide background of experience designing college facilities. Send resume and/or contact Richard E. Martin, R.A., Buchart Associates, 611 West Market Street, York, Pennsylvania 17405.

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Continued on page 214



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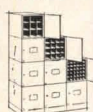
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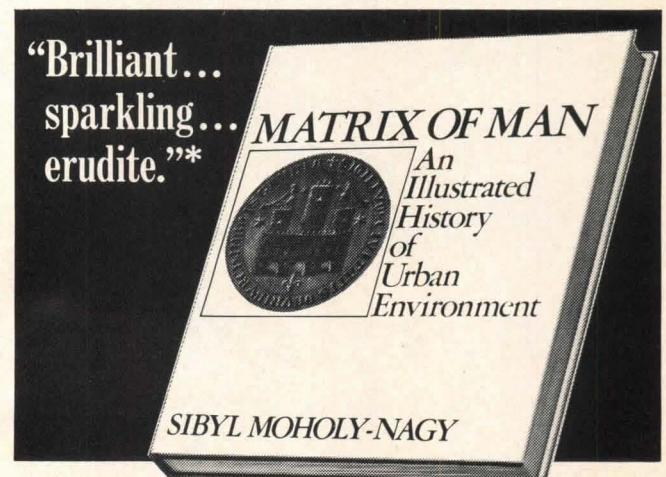
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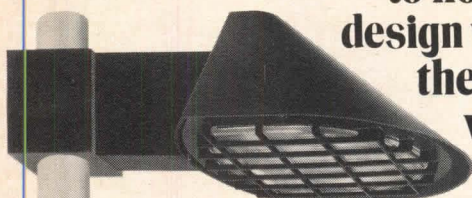
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April 1968 reprint — Circle 422

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JOBS AND MEN

Continued from page 212

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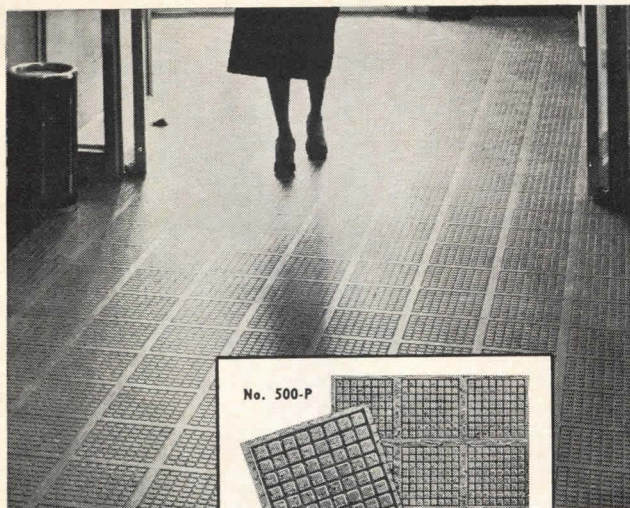
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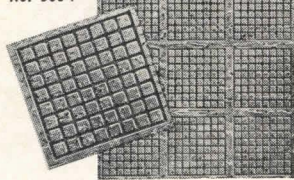
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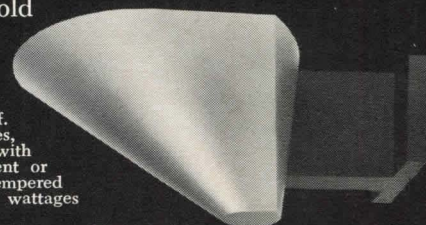
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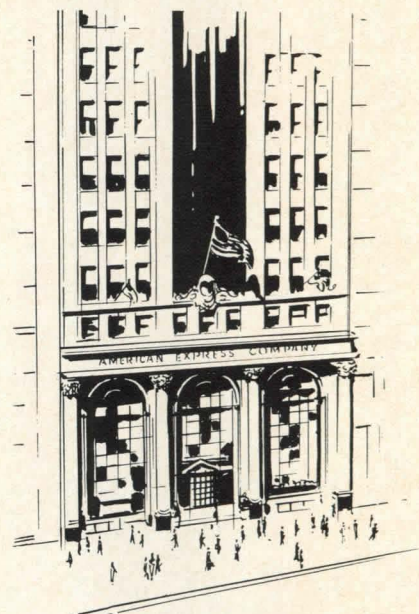
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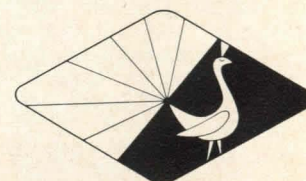
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