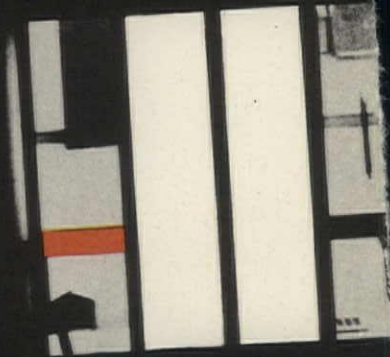
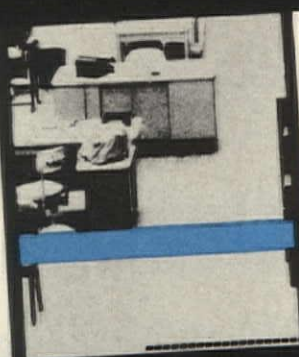
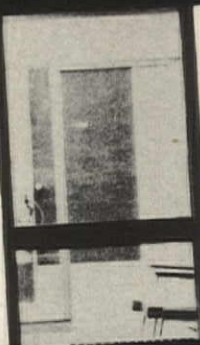
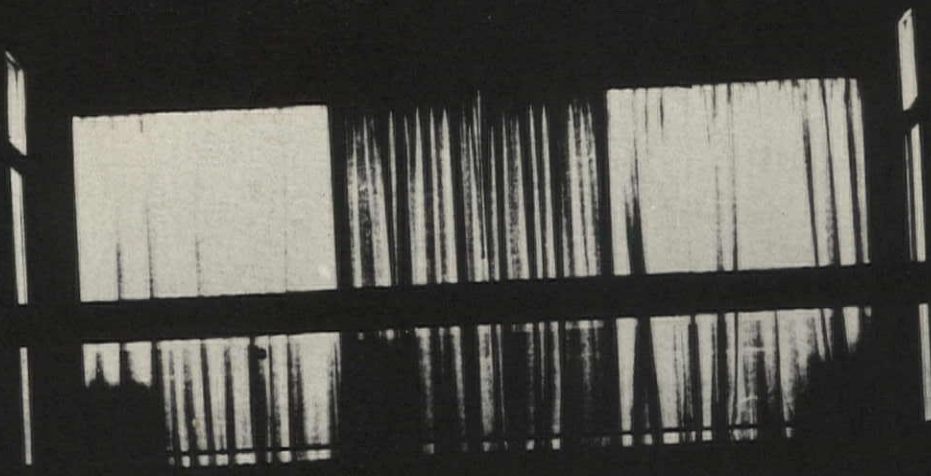


CHITECTURAL FORUM THE MAGAZINE OF BUILDING JANUARY 1962

# FORUM







## THE ACADEMIC TREE OF ARCHITECTURAL LEARNING

By Philip Will, Jr., F.A.I.A. President, The American Institute of Architects

*If, as I believe, the design of our TOTAL MAN-MADE ENVIRONMENT exceeds the capacity of any individual skill, then all who ultimately compose the DESIGN TEAM should early begin their collaboration.*

We of the Design Professions are now shaping for generations to come the way of life of thousands, yes millions, of people.

Needed is the vision of the true architectural statesman: that vision which is the rare combination of the skilled hand, the cultured mind, the understanding heart, and total dedication.

Architectural statesmen of such vision are educated men first and technicians only second. Their discovery, motivation, education, and training require a change from our present concept of architectural education.

Perhaps in a single institution we can focus all the skills, imagination, and creative forces which shape the visible substance and the consequent way of life of a nation.

Perhaps what we need might be labeled "the Academic Tree." Not really new, the idea is as old as man's yearning for knowledge.

Let us begin our education with the broadest cultural trunk, deeply rooted in the long history of the human race. The common learnings which are the fiber of the trunk build the vantage point from which human needs, behavior, hopes, and dreams can be seen, interpreted, and interrelated. Without such a solid trunk to our tree, there can be no understanding of man's accomplishments, potential, or high purpose; there can be no architecture.

But the trunk is not the whole educational tree. There are main limbs, secondary branches, twigs, and leaves.

As the vision of the student broadens and his self-understanding increases, his temperament, energy, and curiosity will lead him to explore those special branches he deems most suited to his natural abili-

ties and most promising of personal accomplishment and satisfaction.

The crown of this tree would be more than a vocational school of architecture. I see it as an *Academy of the Environmental Arts* — a comprehensive institution open to all the related design professions, and dedicated to the study of (and research in) all the facets which make up the environment we must build and rebuild.

Note that we include *all* the related design professions. In our Academy, there is a place for the Planner, the Landscape Architect, the Consulting Engineer, the Sculptor, the Painter, and others. With the Architect, they will learn together in school to share a common language and uncommon ideals.

Perhaps our academic tree expresses an important concept.

Other professions have long recognized that the place of learning and the place of scientific investigation are best one and the same. Research so located benefits not only the student, but the teacher, the practitioner, and all mankind. And so we would have it in our Environmental Academy.

The inter-relationships of people and their reactions to the environment we create are complex and sensitive. The planner's scalpel probes the living tissue of society only at great peril. The unguided and the misguided can, and do, destroy life. The eviscerated communities they leave are hollow places of dullness and despair.

More than good intentions — yes, more than technical skills — is necessary to the creation of living communities capable of fulfilling the highest and noblest aspirations of man.



## PUBLISHER'S NOTE

Along with the usual number of well-intentioned resolutions, the New Year has brought a new look to FORUM. Among the significant changes in format are these:

The cover is now a photographic abstraction printed by the offset process on heavy antique stock, and the logotype is set in a more contemporary type face called "Univers" (jiggered a little to fill the unhappy void between the letters F and O).

Columns in all the regular departments (like this one) are reduced in width to newspaper size for easier reading, and headlines are set in a bolder sans-serif type (also "Univers") for better legibility. For most of the stories in the "middle of the book" the text has been set in a double-column width—with an occasional insert of factual information set in the narrow width. Pictures and drawings also conform to this module.

Technical, economic, and construction information for each building shown in detail is summarized in somewhat telegraphic fashion at the end of the article for ready reference.

As a result of this, reporting is more comprehensive, though text is shorter, pictures are bigger, and "white space" is more abundant.

Most important, a greater degree of design uniformity runs through the magazine, establishing a continuity of editorial format cover to cover.

Although the physical appearance of the magazine is different, the content remains largely unchanged. It still features the same broad coverage of architecture, buildings, city planning, urban renewal, construction economics, technology, and rebuilding which

has appealed in the past to the individual and common interests of the 62,000 architects, engineers, contractors, and clients in FORUM's broad building-industry audience.

The man most responsible for



PHOTOS: WALTER DARIAN

FORUM's new look is an old FORUM hand: its art director, Paul Grotz, senior member of the staff in point of service. An architect by training, Grotz joined the staff in 1934. Being "architect" of the magazine is a full-time job, but he manages to find chinks of time which he fills with other graphic assignments, notably the design of books about architecture and the design of exhibitions, like the one of Frank Lloyd Wright's work for the State Department at the 1960 Milan Triennale.



Other members of the art department are Charlotte Winter, Andrew Kner and Martha Blake. To them and Paul Grotz goes all credit for the many graphic art awards FORUM has won in the past (two from the Art Directors Club of New York, one from the American Society of Industrial Designers, eight from *Industrial Marketing*), and for adding a fuller measure of "commodity, firmness, and delight" to this month's issue.—J.C.H.Jr.

## NEW DEPARTURES IN OFFICE BUILDING

70

*Rhythmic utility building in Cambridge, Mass. (p. 72)*

*Well-detailed school headquarters in Columbus, Ohio (p. 76)*

*Medical plaza with gardens in New Orleans (p. 79)*

*Two offices-over-parking in Houston (p. 88)*

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## THE BOOMING OFFICE PLANNERS

82

*Who serves this rich, diverse market, and how.*

## NO ARCHITECTURE WITHOUT PRODUCT DESIGN

96

*A new FORUM feature examines the vital look of parts.*

## GALLERY: BOSTON'S BEACON HILL

100

*A fresh glimpse of a charming old neighborhood.*

## TECHNOLOGY: PRECAST OFFICE BUILDING

106

*Architect Harry Weese creates a "poor man's" prototype.*

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112

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Cover: Night view of NEGEA building, Cambridge, Mass. by Sert, Jackson & Gourley (see page 70). Photo: Louis Reens.

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Published monthly by TIME INC., Time and Life Building, Rockefeller Center, New York 20, N.Y.

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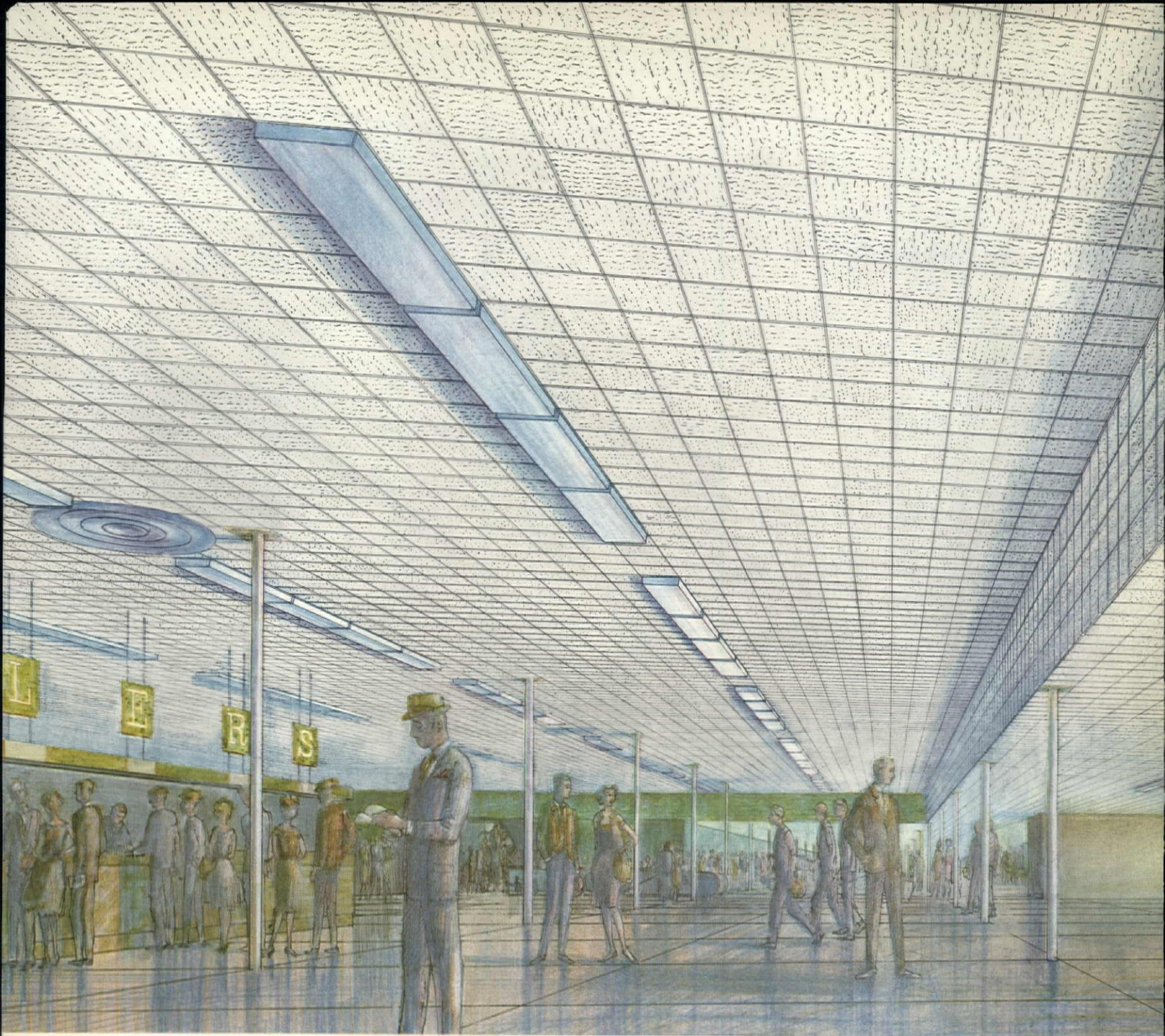
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## 126 ABROAD

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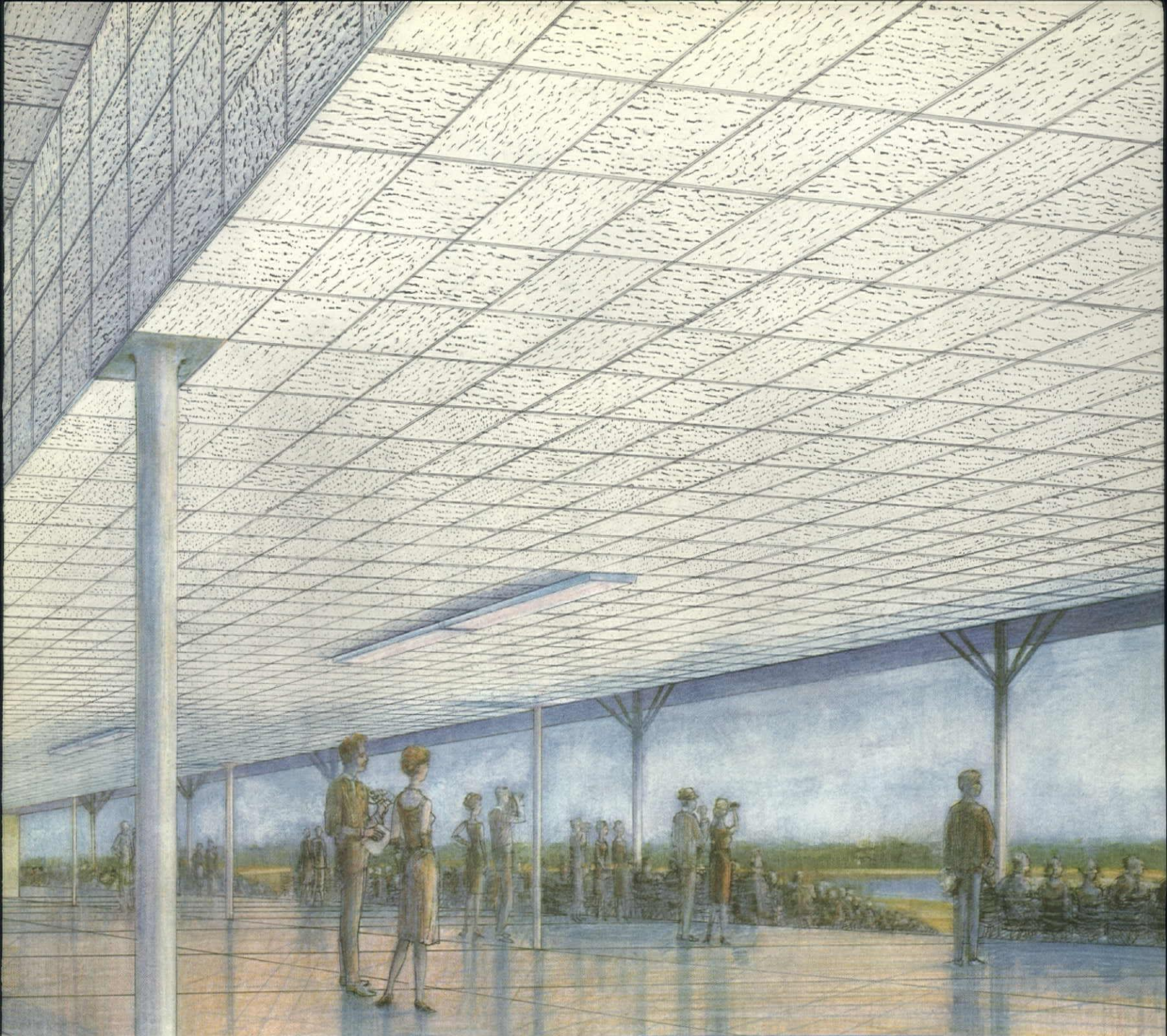


Second floor of new clubhouse, Garden State Park Race Track. Renderings by Ara Derderian

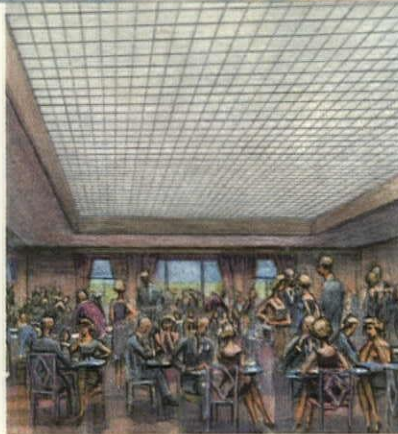
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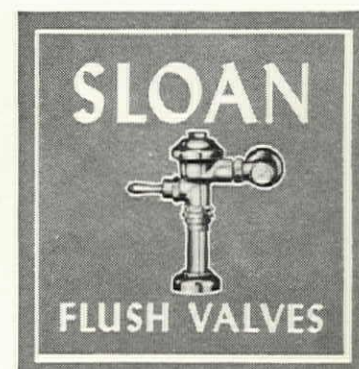
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*Timing an issue in discrimination ban (below)*  
*The Westport school case (below and page 6)*  
*Planners hold restless session (page 10)*  
*Construction forecast for 1962 optimistic (page 10)*

## HOUSING DISCRIMINATION BAN HANGS FIRE

By mid-December, it was clear that the question of an executive order by President Kennedy, banning racial and religious discrimination in federally aided housing, was no longer a *whether*, but a *when*. The President was being advised by some of his aides to hold off until administration programs on other matters—notably tariff cuts, medical care, and tax reforms—had been pushed through Congress. Other advisers were urging immediate signature so that southern legislators would have time to blow off steam at home before Congress convened January 10.

The two Alabamans who head the two Congressional housing subcommittees, Senator John Sparkman and Representative Albert Rains, already steaming, were predicting disaster. Sparkman wired the President that the proposed order—drawn up to apply to public housing, federal housing for the elderly, renewal projects, and to home sales financed by government-insured loans or by uninsured loans made by institutions regulated by the Federal Home Loan Bank Board—would “dry up public housing in the south and a good part of the north.” Rains told newspapermen “the order will certainly affect housing starts and all other phases of industry relating to home building” and would cause southern congressmen to look unkindly upon the administration’s plans for a department of urban affairs with cabinet status. HHFA administrator Robert C. Weaver said that in his opinion any effect on housing sales and rentals would be of short duration, and remarked that public attitudes are changing.

### Suburban survey pinpoints some discrimination attitudes

Meanwhile, in the Virginia and Maryland suburbs surrounding Washington, a survey undertaken by volunteers from almost a hundred churches and synagogues indicated that 25 per cent of the white population was willing to go on public record as welcoming Negro neighbors. The most interesting findings, reported by the *Washington Post*, were an analysis of responses in 441 homes in Bethesda.

▶ “In cases in which the question precipitated family arguments, husbands were usually opposed [to signing antidiscrimination pledges] and wives and children in favor.”

▶ “A combination of some of

these factors—flat-roofed, contemporary architecture, Volkswagen in the driveway, classical record collection, extensive library with liberal number of paperbacks, etc., would almost insure a signature, while on the other hand, those with white brick Colonials, wrought-iron railings, Cadillacs, etc., were poor signers.” (From contemporary houses, 44 per cent signed pledges; from conventional houses, 21 per cent.)

▶ Catholics, as a whole, exactly matched the percentage of signers in the total population, but low-income Catholics were high-percentage signers and high-income Catholics were below average.



*Hillspoint's soaring space*

## THE CASE OF THE WESTPORT SCHOOLHOUSE

On November 22, 1961 many architects who read the *New York Times* blanched at a prominent headline:

**“NEW SCHOOL SHUT IN SAFETY DISPUTE**  
**“Westport Awaits a Survey—**  
**Repairs Being Made”**

No one blanched quite so white as Victor A. Lundy, 38, the architect of the building. Working in his Sarasota office (his northern office is in New York City), he had been telephoned by a *Times* reporter, and he caught the next jet north.

The building is Lundy’s unique cluster of classrooms around a large multi-use space (photo page 6) under a swelling roof framed by laminated timbers. This is his second building in Fairfield County, favored commuting area for upper-bracket members of the advertising, publishing, and TV trades in New York. (His first was a church in Westport, *FORUM*, Dec. ’61).

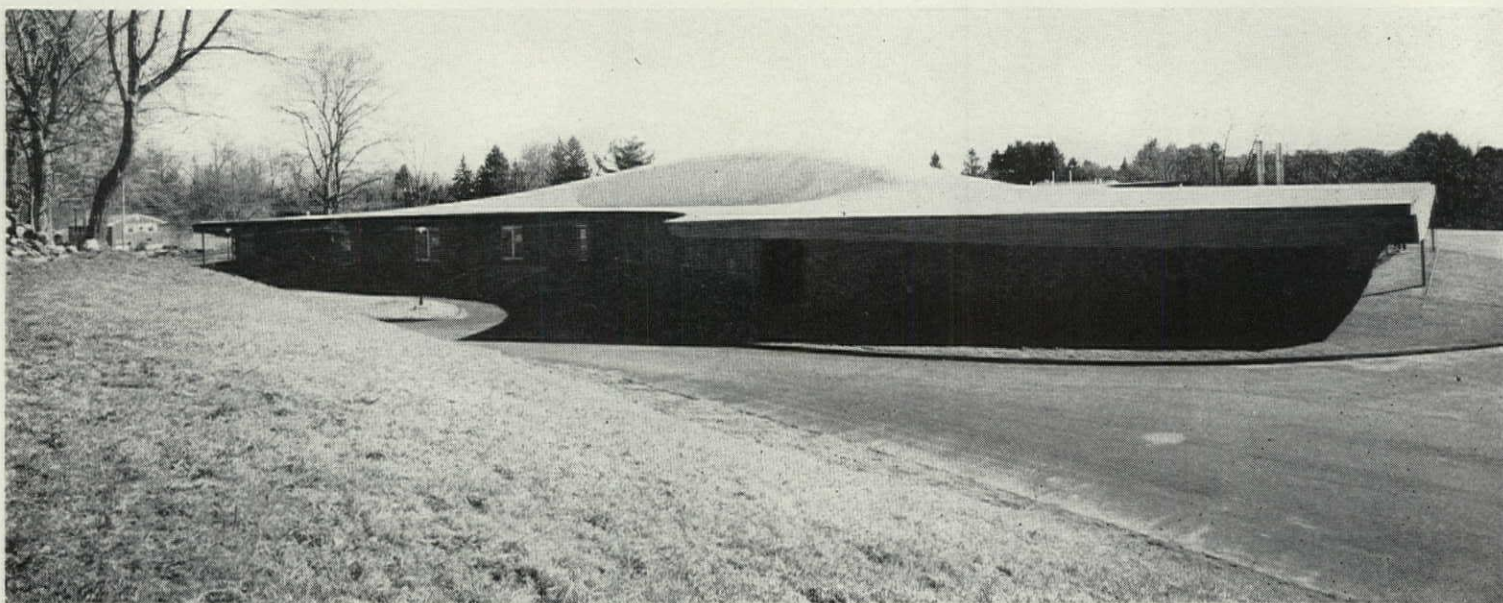
Finished in a rush, and not yet finally accepted by Architect Lundy for turning over to the client, the school had nonetheless been occupied on November 6, although the trouble had begun earlier. Connecticut has no regulations stating when the architect must complete his final inspection with relation to the opening date of a school.

When awarded the commission, Lundy had suggested using an AIA form contract, which is specific on the subject of architects’ final inspection, but Westport had declined, and written its own contract.

On October 30 the chairman of the Westport PTA Ways and Means Committee was inspecting the school prior to arranging a PTA fair in the new building, when one of the workmen completed washing a floor-to-header panel of glass beside a classroom doorway, then walked through it, suffering severe cuts for his absent-mindedness. Alarmed,

*continued on page 6*

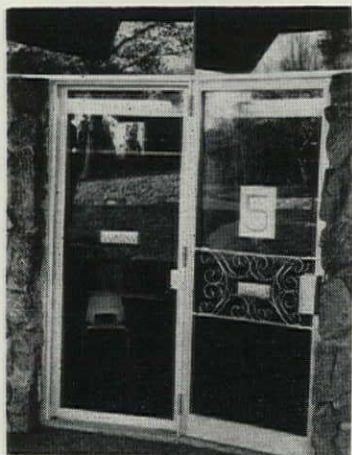




*Hillspoint's exterior: everyone admires it; no one denigrates the design*

GEORGE CSERNA

the chairman, Mrs. John Gilmore, went home and mentioned to her husband what had happened, stirring him to action. Gilmore, a radio-television executive who was to play Lundy's nemesis in the ensuing row, immediately queried the School Building Committee as to the safety of the structure for



GEORGE H. CARDOSO

*How do you spell window?*

the children, and also began his own investigation of details.

In response, the Committee had desks placed in front of the tall glass panes, also signs "This is a window," and opened the school. Gilmore suggested that since this was an elementary school, not all the children were proficient readers, and the Board ordered some standard aluminum guard rails.

Then came the shattering blow:

November 20th a pane of glass fell out of a clerestory on the top of a tall closet in one of the classrooms — which was empty — and broke. Gilmore: "I went right down and withdrew my kids from the school, and told them to let me know when it's safe and I'll put my kids back in." The concerned father of two also wrote letters of protest to the school superintendent, the governor of Connecticut, and the federal Department of Health, Education and Welfare; he also got in touch with the public utility companies, materials firms, and insurance firms involved. Gilmore was on record as an admirer of the architecture of the school — and has since repeated his admiration — but under his attack and widespread parental alarm in the community, the school was closed, and the School Board brought in Architects Urbahn & Brayton to make an investigation and report on the school.

At the same time, an undertow of support was forming in Westport for the beleaguered young architect. The Westport *Town Crier* quoted one of the teachers at Hillspoint, Mrs. Rose Leokum: "Why doesn't somebody ask the Hillspoint teachers and the pupils how they feel about the school. . . . We love it."

The Urbahn & Brayton report made these points:

■ The laminated roof structure was sound, but "is moving and will continue to move." Recommended were loading tests to determine the extent of the deflection in the indeterminate structure. (Severud-Elstad-Krueger, consulting structural engineers; Timber Structures, Inc., roof fabricators.)

■ Glass sheets should be removed to check sizes (if cut too big by the contractor, even minor roof movement might, of course, crack the glass).

■ Exterior transom glass should be more deeply framed on all four sides.

■ Radiators near glass sheets should be baffled to direct heat from the glass.

Also raised by the Urbahn & Brayton consultants was the possi-

bility the wood-glazing compound actually used on the job might have been one intended for metal sash. Used with wood, it could pick up enough oil and resin to harden, the investigators suggested, and thus lose the elasticity intended.

The affair reached its high point December 5 at a Representative Town Meeting in Westport where Architect Lundy was exhibit A, an evening of tumult at which the consultants' report was read.

The architect said, later: "There is nothing in the Urbahn & Brayton report that we had not already known — except that the calking compound used was found to be not the one we specified.

"I stand behind my work and my details, and so do the engineers. We all know that all wood roofs move. The large wood stops added to the glass by the town are unnecessary. The glass sheets have since been checked by the building committee. It is our job, our responsibility. What is the truth? The project had not yet been completed. I have not yet given my final O.K. to it. I have not made up my final punch list, nor gone over it with my engineers and with the general contractor. There are bugs in any new structure, some of which are uncovered the first month, some several months later. That is the reason

*continued on page 9*

*Adding hardware to architecture*



GEORGE H. CARDOSO



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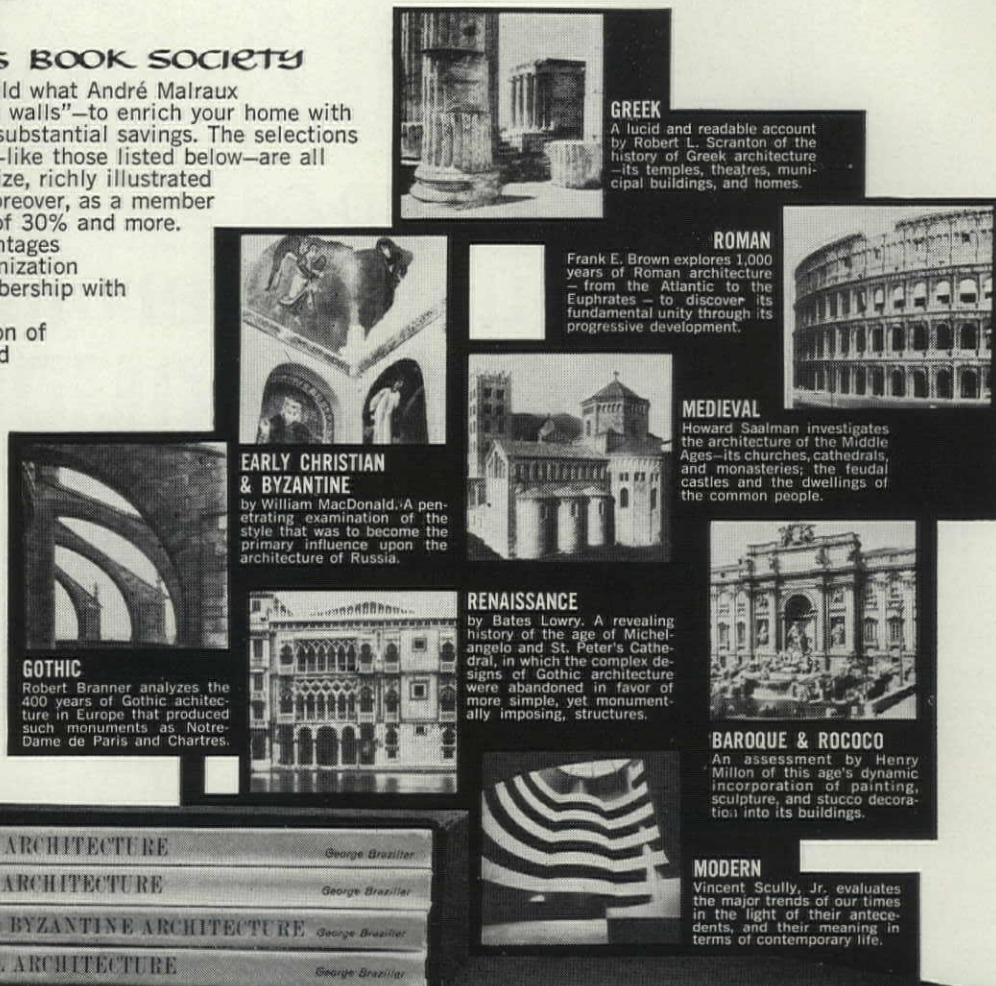
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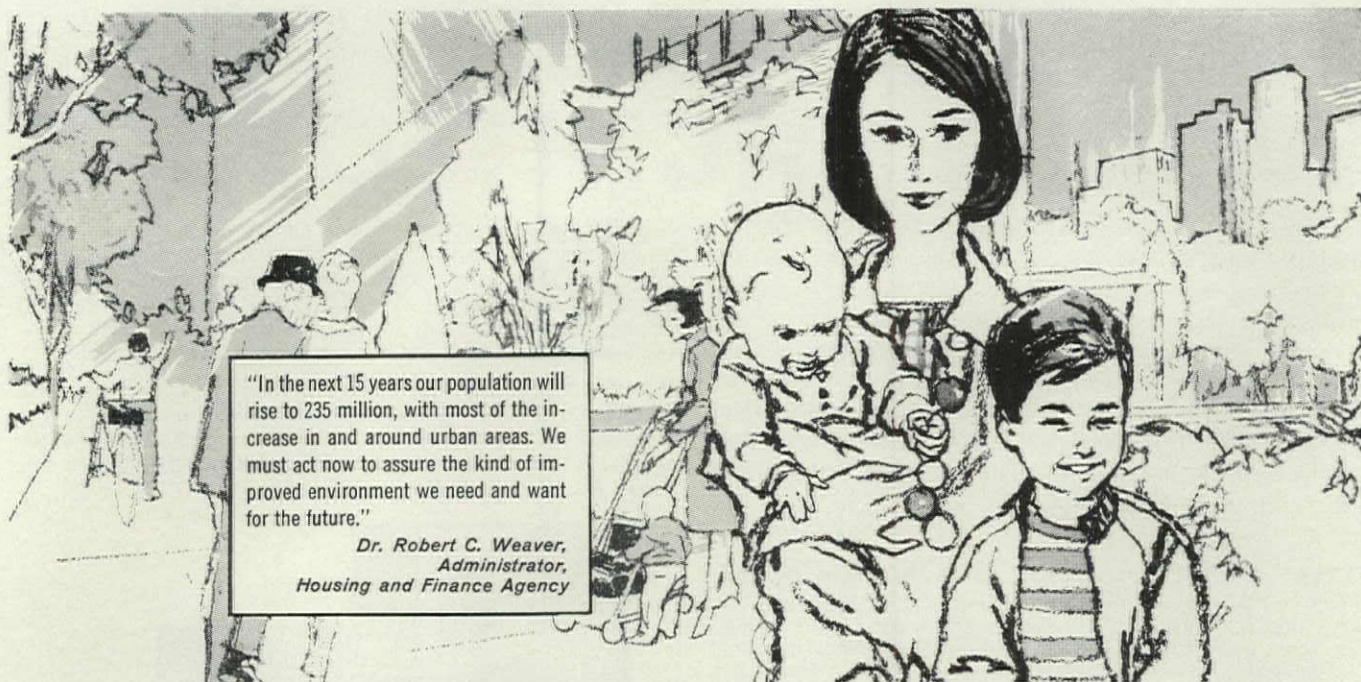
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Precautions continued to be applied to the building, and the school board has announced the

school will be reopened in January. No load testing (which would cost an estimated \$7,000) is planned, however, although Gilmore has filed suit for an injunction forbidding reopening until all the recommendations of the Urbahn & Brayton report and an insurance underwriters' report are followed, including the sandbagging of the roof. But more significant to Lundy than the Westport decision to go back to school was a meeting held by the congregation of his newest client, the First Unitarian Congregational Society of Hartford, during the week of peak excitement over the Hillspoint charges. They voted, 88 to 7, to go ahead with construction of the church Lundy has designed.

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With this introduction, TV Commentator David Brinkley last month presented a remarkable documentary as part of his weekly "Journal." Here are some excerpts from his half-hour, illustrated "biography" of a New York city slum building:

"The record shows that in 1904 two men, named Meryash and London, applied for a building permit for a new apartment at 311 E. 100th St., to be six stories high, cost \$40,000, to be one of the finest buildings of its kind in New York. That year the city was shocked by scandals about profiteering in the downtown slums, and this new building was said to be the kind that would put an end to slums forever. Here's our building, 57 years and 25 landlords later.

"A hundred and thirty-nine tenants live in the building, 55 adults and 84 children, mostly Puerto Ricans. The rent on this typical apartment is \$44.83 a month. But as low as the rents are, the building is as profitable as a small gold mine. The present owner bought it for \$36,000. So many tenants are crowded in,

he collects each year more than \$12,000 in rent—one third of his investment.

"Because it's a decayed building in a slum, the city real estate tax assessment is low and the owner's total tax bill to the city is \$1,973 a year. That leaves him a profit after taxes of more than \$10,000 a year, a return on his investment of 27 per cent. Out of that he buys nothing but a little coal and practically no maintenance or repairs.

"On his federal income tax a slum landlord gets about 5 per cent for a depreciation allowance supposed to go for repair and replacement; but when no repairs are made, it is just another 5 per cent profit, courtesy of the U.S. Government.

"And when he is convicted of a building code violation, or many of them, the fines are so small, \$5 or \$10, it is cheaper to pay them than to make repairs.

"Any discussion of a social problem usually gets around to blaming it on public apathy. That is not true here. We elect people to [correct] these things but they don't do them. New York's famous crusader, Jacob Riis, said in 1902: 'The way to get rid of slums is to take the profit out of them.' That was 59 years ago. Nobody has done anything yet."

### Ceiling may have transmitted fatal hospital fire

Only 13 years old, and supposedly conforming to modern hospital safety standards, the 800-bed Hartford Hospital was swept last month by a flash fire which killed 16 patients, many from inhalation of dense black smoke. Two puzzles—how did the fire, which originated in the trash chute, reach such intensity, and how was it swept through the ninth floor—appeared, one week after the fire, to be near solution.

Investigators think discarded X-ray film was dropped in the chute and that this highly inflammable material caught fire, creating such intense heat (while an employee attempted to fight the blaze single-handed before turning in an alarm) that it turned on the water sprinkler at the top of the chute, in turn creating steam which built up to the point that it blew out through the chute door on the ninth floor, and was followed by a fire gust.



A. P. PHOTO

The ceiling tiles above the corridor are suspected of contributing to the "extraordinary spread" of the fire, and are now being tested. Also under suspicion as a contributing factor is the unobstructed air space above the hanging tile ceiling. The fire may have shot down the corridor through this space, thereby passing over the corridor's smoke doors.



### FOOD IN CIRCULATION

Honolulu's newest and tallest (23 stories) office building, adjoining Ala Moana Shopping Center, is topped with a glass-enclosed, circular restaurant, the floor of which slowly turns, making one complete revolution an hour to provide diners with a 360-degree panoramic vista. The floor, mounted on 48 12-inch plastic wheels, requires only a three-horsepower motor to keep it and 162 diners moving. The building, which includes gold and silver-colored louvers that move electronically with the sun, was designed by John Graham & Co.

continued on page 10





## AIP ponders human needs, planner shortage

In Detroit last month, the American Institute of Planners held its largest annual meeting ever, with over 900 members in attendance. The theme: Goals for Urban America. The real issue: What should the planners' role be in delineating and attaining these goals?

MIT Professor Charles Abrams posed the issue most nagging the planners when he said: "If city-planning officials ever turn to making the city more interesting and add renewal of the human spirit to urban renewal, the city might stand fast against the challenge. But this is not yet apparent." Some AIP panelists, like Economist George W. Grier of Brookings Institution, believe that, in the absence of better social research into human wants, planners cannot satisfy those needs simply by doing what people indicate they want done. Others, like Architect Harry Weese, say flatly: "If the people of the city are happy, then . . . the plan is a success."

The planners themselves showed restlessness about the lack of solid

knowledge of real human needs and desires, and seem to blame social scientists for this lack. AIP President Corwin R. Mocine proposed that the Institute establish a special committee to "identify subject matter" for "sophisticated" research and to encourage and cooperate with universities and foundations to finance and sponsor it. In the midst of the continuing disagreement about the place of expressed human desires in planning, most planners could only go along with Mocine when he said: "Let us agree that no one of us has exclusive access to the truth."

Besides the problem of human goals, planners devoted some attention to their own status. Long disturbed over very real fears that they were often treated as "semi-professionals" in local decision-making, planners are now feeling more secure. Federal Housing & Home Finance Administrator Robert C. Weaver assured them that "planning has come of age" (see editorial, page 69), and Catherine Bauer went him one further when



Catherine Bauer

she said: "Planners are almost as respectable as engineers and we can't turn them out fast enough to meet the avid demands of local government."

Nothing should dispel the planners' feelings of insecurity so quickly as the general rush for their services. There exists a critical shortage of trained planning personnel in government and in universities, which Weaver put at 400 jobs currently, and predicted that it was "going to become increasingly acute." The federal government, Weaver added, hopes to alleviate the shortage somewhat by sponsoring bills which would use, for training of planners, federal funds already authorized for urban improvement programs.

## Building outlook up

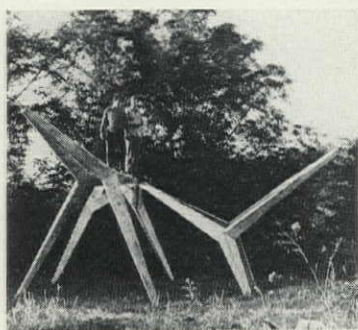
For the next 12 months, the Department of Commerce expects new construction expenditures to reach a record-breaking total of \$60 billion, exceeding by 5 per cent the probable \$57 billion figure for 1961. Two-thirds of the \$3 billion gain is expected to be attributable to private construction; of this, three-fourths, or \$1.5 billion, is projected for nonfarm residential construction which is expected to reach a total of \$24 billion, slightly below the 1959 peak of \$25 billion.

The Department forecast that "virtually every private construction category should either maintain previous high levels or increase moderately," but rates of gain will decline somewhat for industrial and commercial building.

Commercial construction, expected to account for almost 40 per cent of the dollar increase in nonresidential building, or \$200 million, will rise to \$4.8 billion, an all-time high. Nevertheless, this increase will represent a mere 3 per cent gain over last year, in contrast to a 1961 gain of 12 per cent. Competitive conditions for stores, restaurants, and garages—largely in the form of shopping centers—are apparently causing "a cautious approach by investors." Industrial construction will gain an estimated 2 per cent because current manufacturing capacity exceeds output and because emphasis is going on new equipment rather than new plants. On the other hand, hospital and institutional construction should show an impressive 11 per cent gain, pushing spending to almost 50 per cent beyond 1960 levels.

Most of the \$1 billion rise in public construction will be owing to state and locally owned facilities, with highway building increasing to \$6.1 billion from \$5.7 billion. School construction will increase about 5 per cent, only half the rate of increase shown in 1961, "partly because of the somewhat disappointing rate of approvals for new bond proposals."

Over-all increases are on "assumption of a substantial increase in general economic activity."



### LEARNING BY DOING AT CORNELL

A field full of concrete sculpture at Cornell University is one of the fruits of a new five-year project in architectural instruction, under Associate Professor (and sculptor) Jack L. Squier. Each student conceives, calculates, and builds his own reinforced concrete design. Success or failure are real—and public. Squier calls the work "a sort of teething ring for future architects."

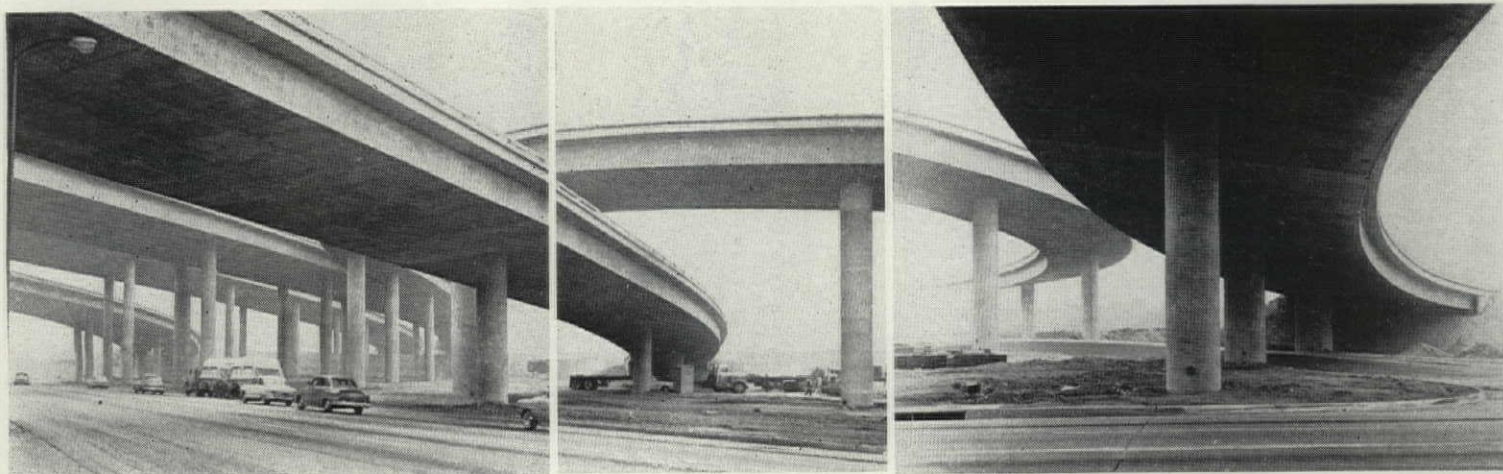
## About-face in Albany

Thirteen years ago, under Governor Thomas E. Dewey, New York State was hailed for its far-seeing, long-range campus plan under which government offices would be located 3 miles from downtown. Periodically since, the scheme has been hailed for its foresight (FORUM, April '57).

Last month, Governor Nelson Rockefeller's administration was being hailed for dropping the plan, in favor of constructing state offices in Albany's now-stagnant downtown. Studies showed little hope for the downtown area if it were deprived of the city's biggest industry, i.e., government. Two state office buildings, accommodating 1,200 workers, have already been constructed on the suburban campus; these, along with the grounds, will be turned over to the expanding State University. The buildings will be converted to classroom and administrative use, or possibly to dormitories.



PHOTOS: L. A. TIMES



### Brave view of 2000 A.D.

The Department of Commerce has also taken a long, long look into the future, venturing into the year 2000. This forecast was arrived at by estimating the total gross national product (assuming no major wars, economic depression, or other extraordinary and unforeseeable conditions), and then applying to the GNP figure the trends shown in the past as to the relationship of GNP to new construction expenditures. These historical relationships between GNP and various categories of construction have been modified, for long-range viewing, by guesses about the use of atomic energy, presumed household formation and characteristics, and shifting preferences in modes of travel.

The GNP for the year 2000 is estimated at nearly \$2.1 trillion, population at 380 million, and civilian employment at 126 million.

If all these informed guesses are reasonably accurate, and if nothing unexpected occurs, the year 2000 should see a lot of building, with increases over 1960 of about the following dimensions:

commercial .....	310 %
industrial .....	340 %
institutional and miscellaneous .....	440 %
education (public) ....	360 %
residential (private) ...	230 %
total private .....	270 %
total public .....	290 %

A warning, however, that too much of the GNP is going into consumer goods and too little into capital formation, was issued by

Dr. Simon Kuznets of the National Bureau of Economic Research.

Back in the 1870s and 1880s, says Dr. Kuznets, 13 per cent of the national income was devoted to adding to the country's capital stock; by the 1930s, 1940s, and 1950s only 5 per cent was devoted to growth.

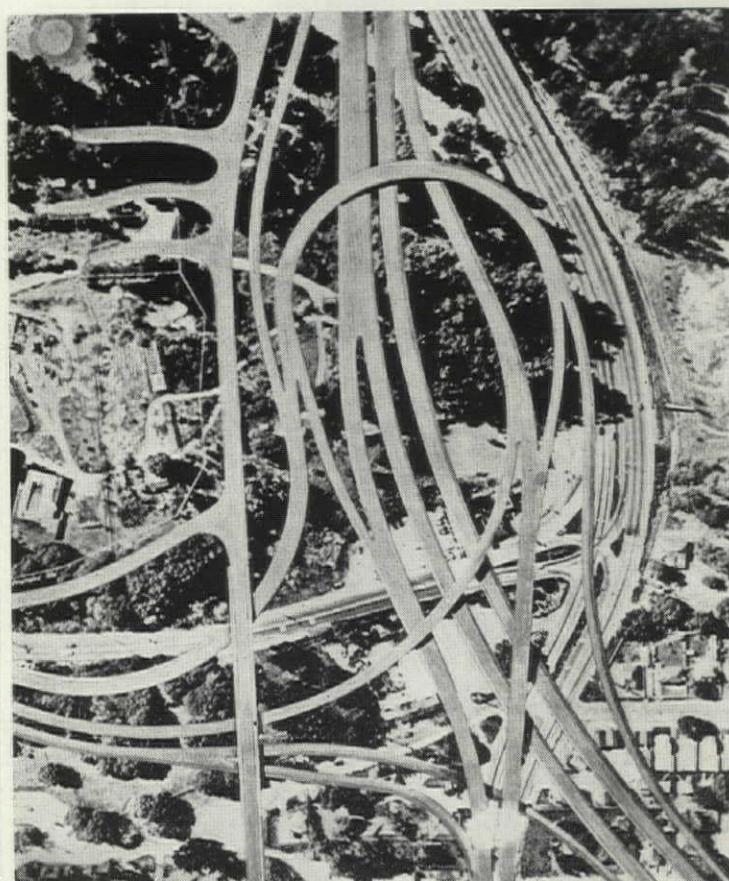
Dr. Kuznets sees no lack of investment opportunities, either now or in the offing; rather, the problem is that investment needs and opportunities, including construction opportunities, have multiplied faster than the rate of savings to finance them. Meantime the economy is using up its existing capital plant faster than ever, so that after mere replacement, less wealth is available for additions to the country's capital plant. If this behavior continues, coupled with rising demands for capital construction and for government consumption, Dr. Kuznets thinks the supply of voluntary savings may not be adequate. Inflationary pressures will then extract part of the savings needed, a process of such dimensions and inexorability that he views it as "a specter of intolerable consequences."

Where does this leave the forecasts for the year 2000? This is one of many uncertainties which give point to a comment by FORUM Consultant Miles Colean on the Commerce long-range forecast: "A five-year forecast has enough uncertainties, but a 40-year one, so far as I can see, has too many imponderables to be of any practical use to industry."

### "WORMS" AND "RIBBONS" STIR MIXED FEELINGS IN CALIFORNIA

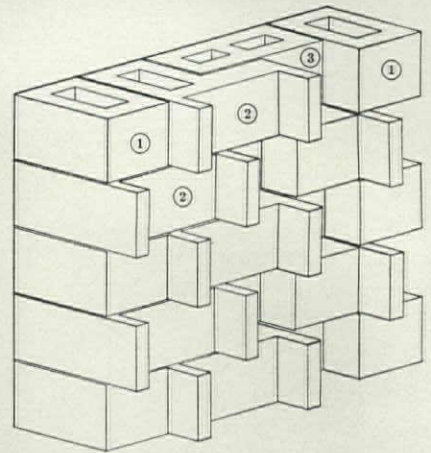
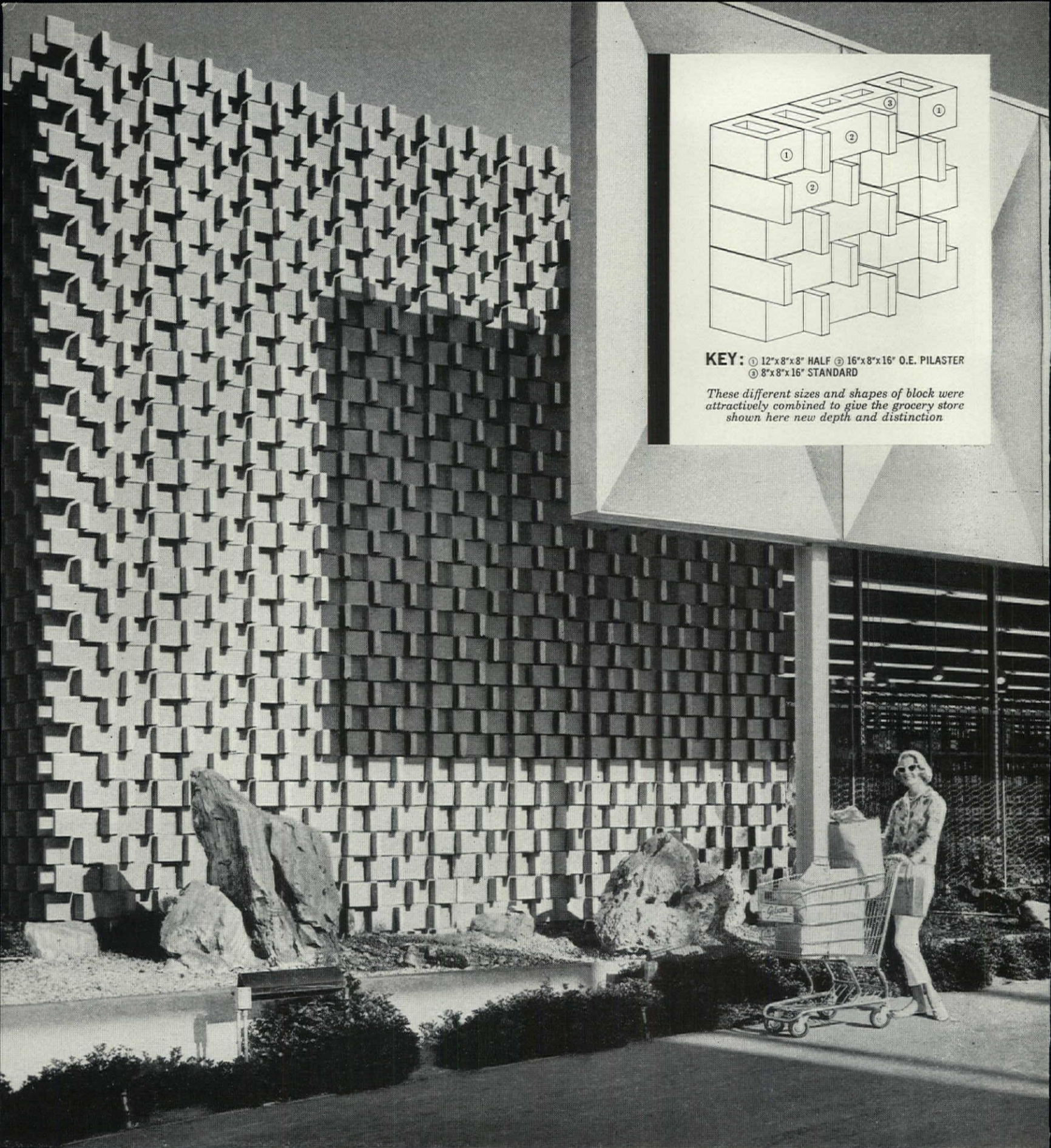
Dubbing the proposed freeway interchange shown below "a can of worms," angry citizens of the Monterey Peninsula in California collected 19,000 signatures protesting the 29-acre interchange with its five overpasses and 26 roadways. The State Division of Highways promised to try to come up with something simpler. The interchange is one of six planned for a 5-mile stretch of freeway. While these protests were making themselves felt last month, in Los Angeles the first link of the Santa Monica Freeway, lovingly dubbed "a pile of ribbon," by the Los Angeles Times,

was opened to traffic. The 1.1-mile link was soon to be augmented by a 1.2-mile addition, equally complex. New links and interchanges of the intersecting Golden Gate Freeway are also to be opened this month and next. The purpose of all this new construction is to "reduce congestion" at the huge, often-photographed, four-level freeway interchange which has become the most famous feature of downtown Los Angeles. Worms and ribbons raise a question: Is the theory of limited-access highways, developed for cross-country travel, absurd when applied to city traffic?



continued on page 14





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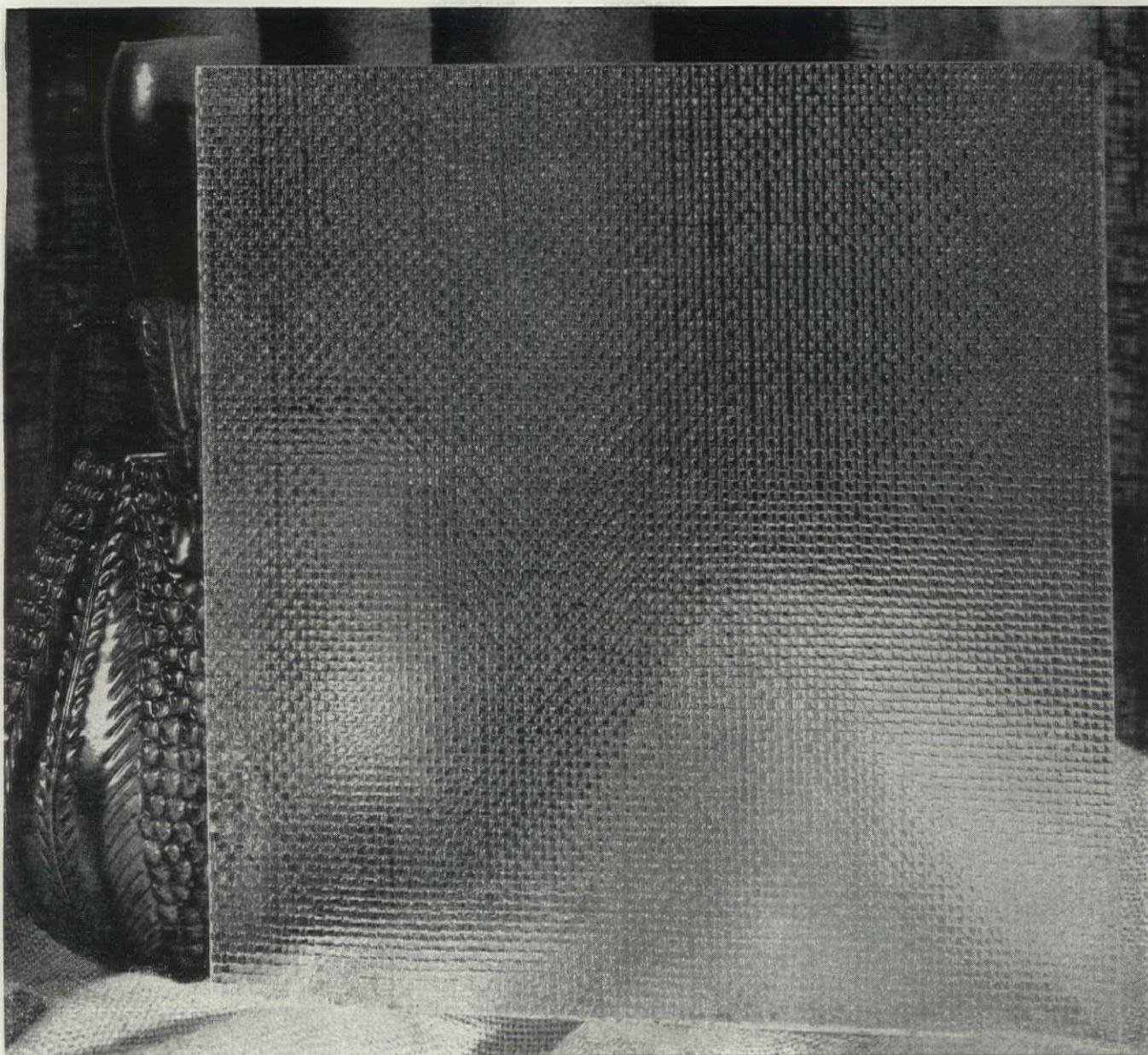
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## PEOPLE

One of her chief aims, says Mrs. Marie C. McGuire, commissioner of the Public Housing Administration, is to get better architecture in public housing and to combat the disenchantment of many architects with public housing jobs. The man delegated to push these aims, Architect Thomas B. Thompson, designed San An-



Architect Thompson

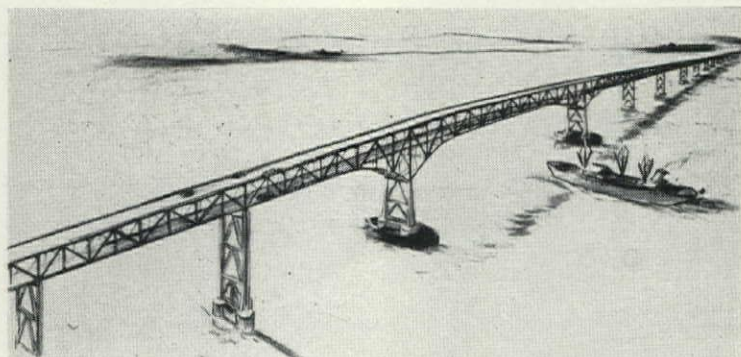
tonio's much-admired public-housing project for the elderly (FORUM, May '61), when Mrs. McGuire was running the San Antonio Housing Authority. To get that job through the PHA red-tape jungles entailed an interminable battle with federal procedures and regulations; now that Thompson is on "the other side of the table," he thinks that the big problems are how to break the "site acquisition bottleneck," how to encourage "more thorough preliminary planning" by local

authorities in the development stage, and how to educate local authorities on the best methods of obtaining competent architects and architectural services.

Meantime, the Federal Housing Agency announced the appointment of four AIA members, Norman J. Schlossman of Chicago, Harold D. Hauf of Los Angeles, Carl Koch of Cambridge, Mass., and Herman York of Long Island, N.Y., to an advisory committee for experimental projects relating to new methods of land development and to test use of materials and construction.

## KIND WORDS FROM UDALL

Secretary of the Interior Stewart L. Udall, who is embarked on a one-man campaign to thin down the statuary population of Washington—he began by donating a statue of Dr. Benjamin Rush to Dickinson College in Pennsylvania and aroused the protests of a Rush clique—seized last month on the example of Octagon House, AIA national headquarters in the Capitol, to illustrate his idea of a suitable monument for "illuminating history." The occasion was the dedication of the Octagon, designed in 1798, as an historic landmark.



## "BRUTAL MEDIOCRITY"

Allan Temko, FORUM's West Coast editor, and columnist on urban design for the San Francisco Chronicle, excoriated the "brutal mediocrity" of the design chosen for the \$65 million San Mateo-Hayward bridge and won a victory although the plans had been presented by the Toll Bridge Authority as a *fait accompli* and construction had already started. Af-

ter three of Temko's front-page articles, Governor Edmund G. Brown rejected the bridge design and promised that the Authority (of which he is chairman) would seek a new design.

Temko commented: "This may be the break-through needed in the struggle to maintain some sort of esthetic control over major public works in this country."



LEON TRICE

## HONORS FOR GROPIUS

The largest prize offered in the design field, the \$20,000, taxfree Kaufmann International Design Award, will be given this month in New York to Walter Gropius, 78, practicing architect (one of his latest works in the U.S. Embassy in Athens; FORUM, Dec., '61), educator, critic, and founder in 1919 of the Bauhaus, for his "outstanding record of achievement in the education of professional designers and for his creative concepts over a period of years which have led to curricula and teaching techniques which have advanced the standards, the practice, and the status of designers in the world today."

## EWALD JOINS DOXIADIS

The Urban Renewal Administration's former Assistant Commissioner for Technical Standards, William Ewald, has accepted the post of senior vice president and treasurer of Doxiadis Associates, Inc., rapidly growing U.S. subsidiary of a Greek firm of planning consultants, with large projects in Philadelphia, Cincinnati, and Louisville (FORUM, May '61).

## GOLDSTONE JOINS PLANNERS

For the first time in its history, New York City's seven-man Planning Commission includes an architect, Harmon Goldstone, 50, president of the Municipal Art Society and partner in the firm of Goldstone & Dearborn, chosen to fill the post vacated by Abraham M. Lindenbaum, lawyer, who resigned after Roger Starr, director of Citizens' Housing & Planning Council, castigated him and Mayor Robert F. Wagner for participating in an election fund-raising luncheon for builders.

## SHIFTS AT LINCOLN CENTER

One of the country's most ambitious urban-renewal projects, New York's Lincoln Center for the Performing Arts, now under construction, has a new top team. On January 1, William Schuman, president of the Juilliard School of Music, took over as president, filling the vacancy left when General Maxwell Taylor resigned to re-enter government service at President Kennedy's request. Acting President Edgar B. Young becomes executive vice president in charge of financing, construction, and operation, leaving Schuman free for artistic direction of the enterprise. Young, whose association with Lincoln Center began in 1955, has been a Rockefeller family executive since 1946, is described by associates as a brilliant administrator with a "gift of anonymity."

## FUTTERMAN, HORNBOSTEL DIE

One of the most astonishing careers in recent business history came to an untimely end in November, when Robert A. Futterman, 33, choked to death on a piece of meat while dining with friends near his home, in suburban Harrison, N.Y. Futterman built a \$100 million real-estate empire in six years from a \$12,000 investment, and wrote a book, *The Future of Our Cities*, published last year (FORUM, Sept., '61), to explain his theories.

Although not well-known to this generation of architects, engineers, and builders, Architect Henry Hornbostel, 94, who died in December, was a giant in his day. The steeple of his Smithfield Street Methodist Church, 1927, was Pittsburgh's first example of architectural aluminum; it still stands, next to Alcoa's 30-story aluminum tower. Among the many other structures which his firm designed were the city halls of Wilmington and Oakland, the Hell Gate Bridge in New York, several buildings for Carnegie Institute of Technology, a \$600,000 mausoleum in memory of President Warren G. Harding.

END



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#### FANTASIES IN FLUSHING

Forum: Upon looking at the proposed exhibition structures for the New York World's Fair in 1964-65 (FORUM, Nov. '61, "News") one is left with a sensation of complete despair as to the state of architecture in our country.

Is this the architecture we want the peoples of the world to interpret as American? We talk about the American image overseas and then ask corny little piles of building materials to speak for us. A truly sad testimonial. I'm sure that any American architect worthy of the name will cringe at the very thought conveyed by these so-called representative examples.

Cuyahoga Falls, Ohio

JAMES J. MONTALTO  
Architect

#### FALLOUT SHELTERS

Forum: We wish to reprint the fallout shelter article from the October issue of FORUM, which should prove most useful to our office-building superintendents and the members of their civil defense staffs.

New York City

C. W. TUTTLE  
Vice president  
Cushman & Wakefield, Inc.

Forum: I am trying to create interest in a community fallout shelter for our neighborhood, which is mostly an educational problem: educating those neighbors who are unaware that there is a problem. Your article will make my job much easier.

DANIEL M. SAUNDERS  
Columbus, Ohio

#### REBUTTAL: CHAOS ON THE PIAZZA

Forum: In writing about the design for the Student Union at Berkeley (FORUM, Oct. '61) Allan Temko showed a discerning eye, but it is surprising that he missed the important point: this is a completely modern approach to composition which is anticlassical, even anticlassical modern. And this new approach, which has been stirring for some time in the other arts, is here for the first time clearly expressed on a large scale.

The Temko words "planned chaos," "architectural stream of consciousness," "willful capriciousness," "dogmatic antidogmatism," are epithets which correctly describe the modern approach to composition. I read them as appreciations of the new attitude and a deep understanding of long overdue architectural stirrings.

In architecture, as in the other modern arts, formalistic solutions are outmoded, limited, and unsatisfactory for our times. We need designs which grow out of and respond to the living needs and patterns of people. Choice is a fine freedom which should be built into compositions—not merely the superficial freedom of design choice which allows a designer to make a paltry selection between symmetry and asymmetry, but the important

choices which allow participation to the audience of architecture. It is the sterility of imposed form which is antithetical to life!

For my own design part in this: when Mr. Temko speaks of the "vague space . . . with remnants of old sidewalks, traces of different street levels, and stubs of ancient walls" I am delighted. When he notes that the "upper plaza has no definite outline but wanders loosely" I am ecstatic, for I feel he is beginning to perceive my direction. When he observes that there is an "absence of *savoir-faire*" I know that at last he has really gotten with it.

San Francisco

LAWRENCE HALPRIN  
Landscape architect

#### WHICH WAY? OR ALL WAYS?

Forum: Perhaps it is just cussedness but I particularly enjoy architectural controversy engendered by a strong critic such as Allan Temko. However, I come from Mr. Temko's article feeling just a bit let down. We now have his word—he doesn't dig the architecture—but nowhere does he, it seems to me, successfully refute the possibility of a successful "planned chaos" architecture any more than a "less is more" or a "wanting to be" pristine or brutal architecture. Some pretty important ideas are flitting about in the wings. We've heard a lot from the advocates of Mies and Wright. Couldn't we hear from some spokesmen for the Wurster or Saarinen philosophies?

Which way? Or all ways? Even Douglas Haskell doesn't make it too clear. After a fine tribute to Eero Saarinen's courage on page 96 Mr. Haskell notes on page 208 that a searching out of the reasons that Kalamazoo is uniquely civilized is a significantly worthy aim "and a start for Eero's spirit." Main Street without the cars isn't going to be good enough. Mr. Einstein, a pretty fine humanist, put it succinctly: "We shall require a substantially new manner of thinking if mankind is to survive."

New York City

WILLIAM MAXWELL RICE  
Architect

■ Kalamazoo has more, and eventually, FORUM will tell it.—ED.

#### THE ERRORS OF RENEWAL

Forum: I would like to draw a comparison illustrating Mrs. Jacobs' statement, "diversity spells success." ("Why Parks Live or Die," FORUM, Oct. '61.) Let me contrast Rittenhouse Square and New York's Lincoln Center. It seems to be a most serious error to crowd a multimillion dollar complex of music and arts buildings into so small an area, having a rehabilitating effect but at the same time, a choking one, on a limited radius.

How much better it would have been to scatter these many important buildings throughout the city, thereby relieving the overburdened transportation system and enhancing the city by creating nuclei from which many would benefit. These scattered auditoriums could stand in settings that would



provide additional daytime parks for people living and working in the area, and theater grounds for nighttime audiences, incidentally uplifting the economy of many areas instead of just one.

NORMAN ROSENFELD

New York City

Architect

Forum: I would like to add my name to the list of your subscribers who have been obliged to discard their deadening theories of urban renewal after reading various published excerpts of *The Death and Life of Great American Cities* by Jane Jacobs.

After the initial shock of the realization that one has participated in the sacking of cities, one cannot deny the simple truths of the book, particularly if one examines the multitudinous illustrations.

LETICIA KENT

New York City

Forum: Jane Jacobs is right. Most city planners have adding machines for hearts and brains. Evidence—their creations.

C. G. NEUBECK, M.D.

Depew, N.Y.

Forum: Jane Jacobs' article, "Toward Richer City Streets," deals with the visual aspect of the street upon an observer. However, the street is more than just that—it is an integral part of the city; it is lived in. Different streets fill quite different needs: a major artery could run for miles in a straight line, connecting neighborhoods; a shopping street could end in a park, or a large square with open-air cafes; a residential street could curve round areas of housing, ending in a cul-de-sac, turning into a footpath.

Rather than follow a grid, all streets could follow the contours of the land, making it easier to walk, to ride, to drive; giving the visual pleasure of a gradual curve, and of different levels of building on either side.

The street can, and should, impart its beauty and interest to the city as long as its function is respected. Criss-cross a residential area with through streets and its character is lost. Set alcoves and seats in a shopping street and more shoppers are attracted.

All this can now be implemented in existing cities only through urban renewal which rebuilds entire sections. Superblocks can be created which contain streets within themselves. Some streets now strangled by congestion—for example, New York City's cross-town streets—needs an artery for through traffic so that side streets could keep a quiet residential character.

Not through visual tricks or arbitrary prettification, but through respect for its function as a place for people, will the street give richness and pleasure to the city.

DAVID SAVIR

New York City

#### DALY CITY AND ITS SCHOOLS

Forum: All of us in the office were most enthusiastic about your complete and knowing presentation of our Daly City schools (FORUM, Nov. '61).

The very comprehensive manner in which you brought all the schools into focus as a total community idea clearly reveals a broad sense of vision and is very well stated.

The article was beautifully illustrated with handsome pictures which reflect the unique character of each school.

We all join in expressing our most sincere thanks for your sensitive understanding of our total educational development and its impact on society's growth toward a richer and more meaningful way of life.

MARIO J. CIAMPI

San Francisco

Architect

#### CRAFTSMAN'S CREDIT

Forum: Just as architects are sensitive about lack of credit in major publications such as LIFE (see FORUM "Editor's Note," Nov. '61), so are artist-craftsmen when mention of their contribution fails to appear in FORUM.

Specifically, page 33 of your same issue fails to note who did the stained-glass windows within Marcel Breuer's honeycombed north wall of St. John's sanctuary, Collegeville, Minn.

JOSEPH L. YOUNG

Los Angeles

Creative Crafts magazine

■ The stained glass fitted into the hexagons of Marcel Breuer's precast concrete wall was designed by Branislav Bak and executed in the Abbey's own shops.—ED.

#### DOWN WITH BANDITRY

Forum: Your editorial, "Down with the Twentieth Century" (FORUM, Nov. '61), should better be labeled, "Down with Legalized Banditry."

The most important point that you, the planners, etc., blithely skip over is the matter of ownership. Who owns these fine, new structures? Former home owners, who are said (and rightly) to be the "backbone of America"? Not that you could notice. They are paid about half enough to obtain other homes and are scattered to the four winds, while wealthy developers get the "gravy." New, well-maintained homes are included in alleged "slums," so that greedy and unscrupulous friends of politicians can get highly valuable property at bargain prices—with all the rest of us taxpayers helping pay for the scheme with federal handouts and taxfree bonds.

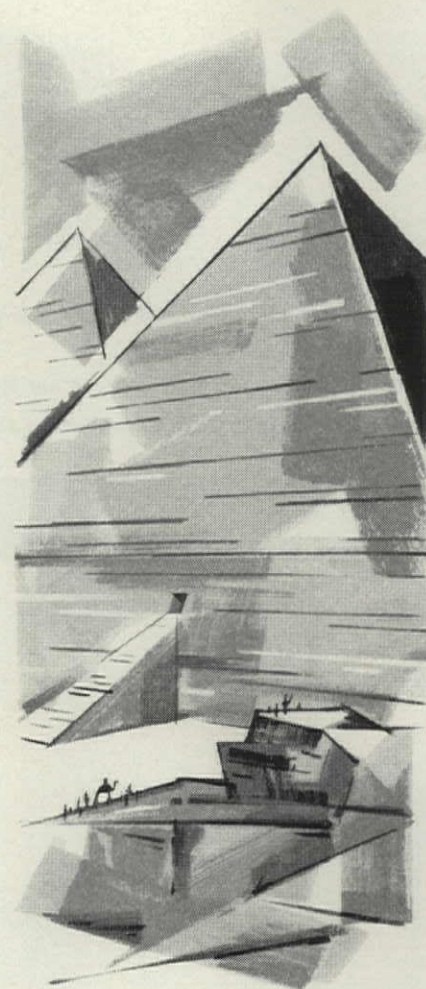
We have no objection to "progress." But the insanity that the only way to "improve" a man's property is to take it away from him, under duress, to sell it to someone else (which is the essence of urban renewal), we brand as thievery.

Do you wish to continue being "accessory

continued on page 20

One of a Series

## ELEMENTS OF STRENGTH



**MIRAGE.** When the Great Pyramid was new, it had a deceptively smooth face... its flawless limestone skin hid a pile of stone blocks. There were 2,300,000 of these rude elements of strength, and each one weighed two and one-half tons!

Hidden behind the smooth beauty of today's walls are many modern elements of strength. Powell, with new machinery and a nothing-taken-for-granted approach, has made better steel lath and plastering accessories that are remarkably versatile. There are special Powell Steel Lath products for every lathing and plastering job. Write for complete information. Something's always new at Powell.

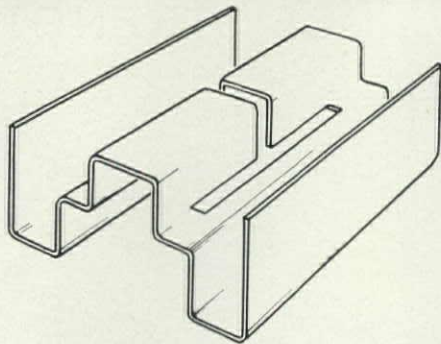
**POWELL**  
STEEL LATH CORPORATION

3737 N. Powell Ave. Franklin Park, Illinois



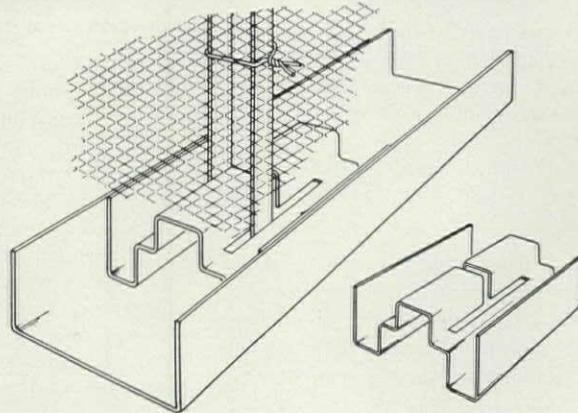


# IMAGINATION IN PLASTER

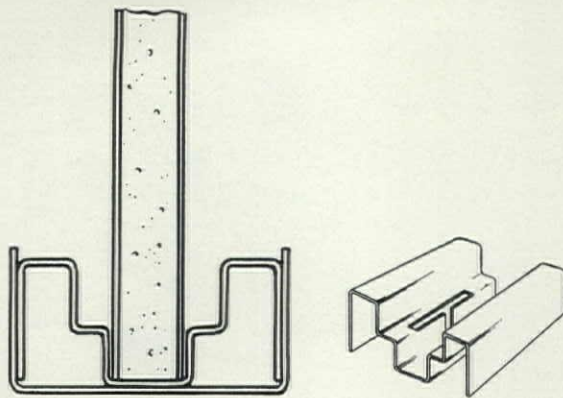


## NEW LATH & PLASTER SYSTEMS

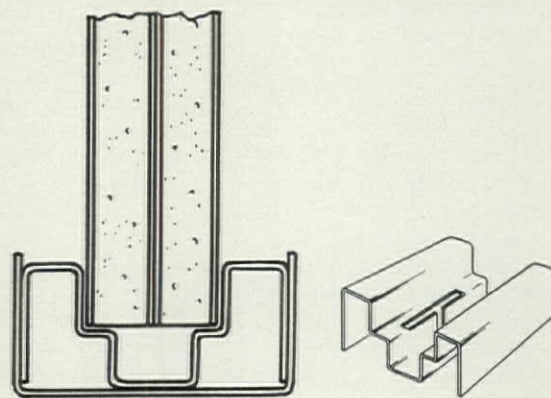
This unique, reversible, Gold Bond Floor Runner Insert can be used four different ways to produce a solid 2" partition.



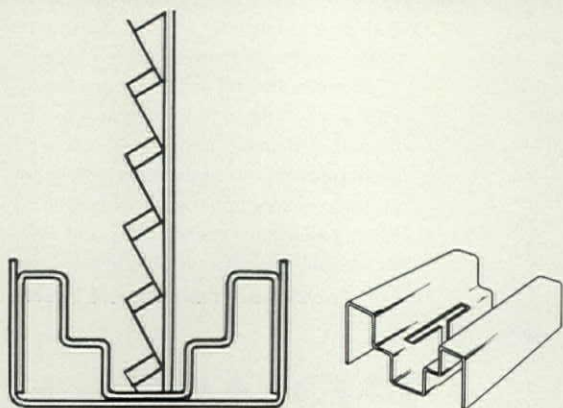
With  $\frac{3}{4}$ " channel and Diamond Mesh Metal Lath wire-tied to one side of the channel.



With  $\frac{1}{2}$ " Long-Length Gypsum Lath.



With 1" Gold Bond Laminated Long-Length Gypsum Lath (patented interlocking edges).



With  $\frac{3}{8}$ " Rib Lath Base grouted with gypsum.

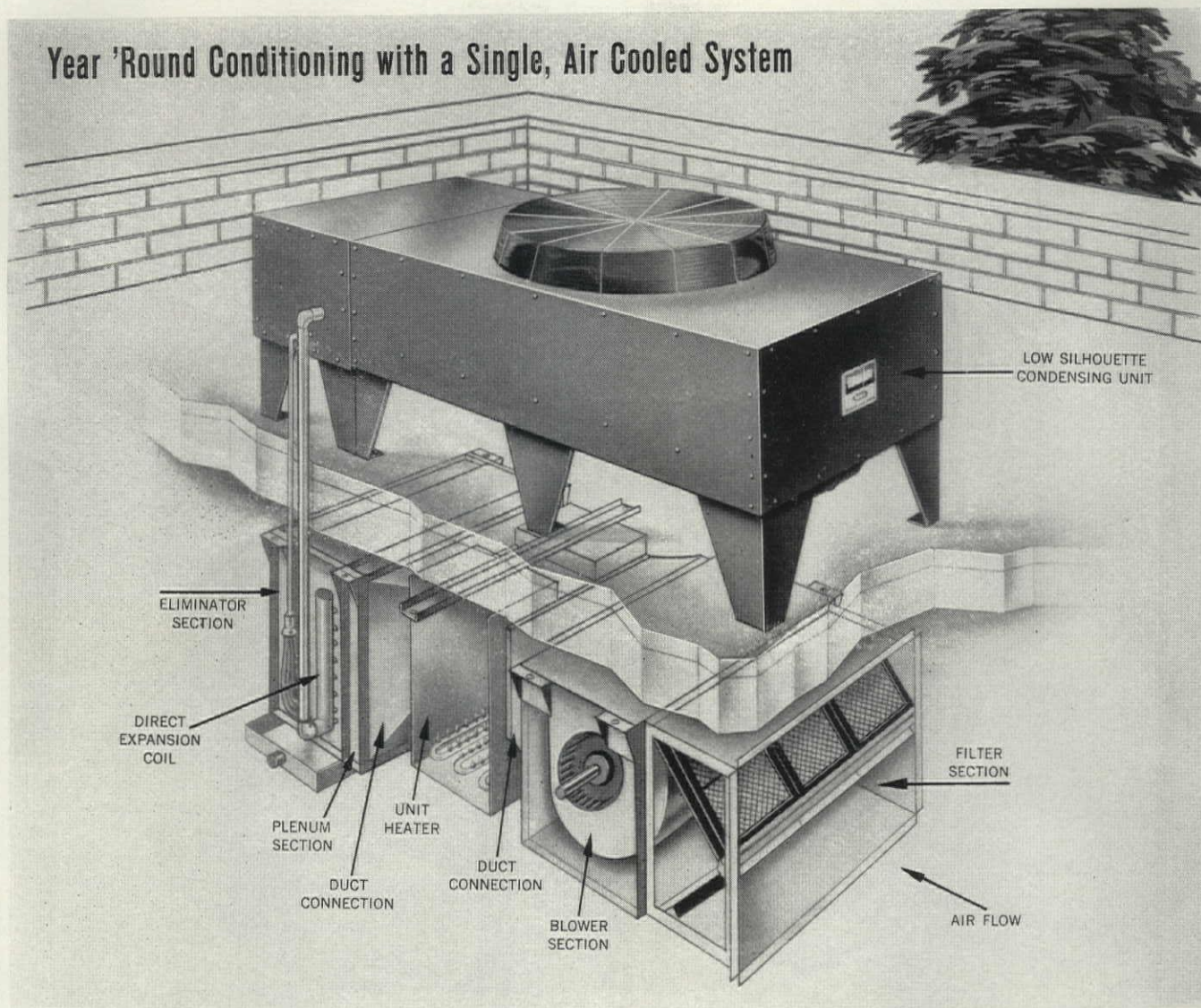
Another example of spacesaving, moneysaving, timesaving modern lath and plaster systems through imagination . . . from Gold Bond®.

**NATIONAL GYPSUM COMPANY**  
**BUFFALO 13, NEW YORK**





## Year 'Round Conditioning with a Single, Air Cooled System



## ...THE "ALL-SEASONS" SYSTEM BY DUNHAM-BUSH

Both heating and cooling are provided by the sensibly-engineered, economical Dunham-Bush "ALL-SEASONS" System. And the system's flexibility permits its use in a wide range of buildings—shopping centers, medical clinics, bowling alleys and many other single story structures.

Important space savings are made possible in two ways: low side equipment is suspended from the ceiling (conserving floor space); high side components may be installed on the roof or in a room remote from the conditioned area. Through the use of duct work it is possible to condition partitioned areas or separate rooms.

Major components of the system—"HAH" air handler and "LSCU" condensing unit—are tested, proved Dunham-Bush products...in combinations carefully engineered and matched for maximum performance and economical operation.

Features of the system include:

- Packaged components eliminate expensive field installation costs.
- Central control station provides for remote operation.
- Pilot lights for visual check on performance.
- A.G.A. approved gas fired, warm air heating system. No gas lines in the conditioned area.
- Final piping connections can be made outside the conditioned area.

"ALL-SEASONS" systems are available in 16 different matched combinations. Range: 15 to 30 Tons cooling; 175,000 to 450,000 BTU/hr. heating.

Request Form No. 6025.

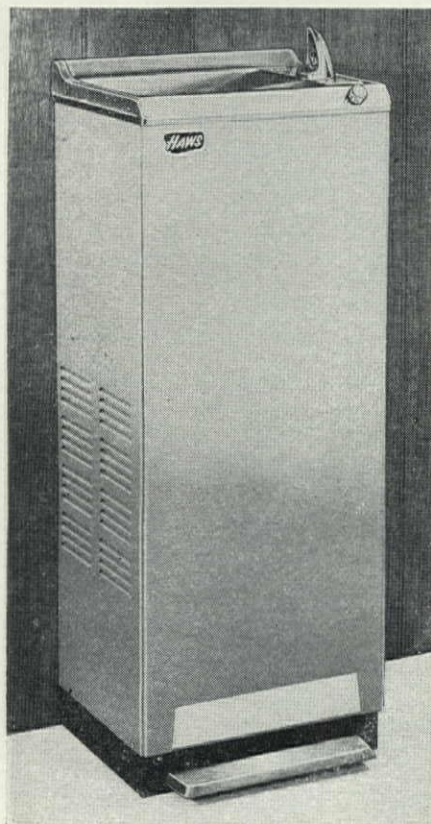
**DUNHAM-BUSH**

**DUNHAM-BUSH, INC.**

WEST HARTFORD 10, CONNECTICUT, U. S. A.  
SALES OFFICES LOCATED IN PRINCIPAL CITIES

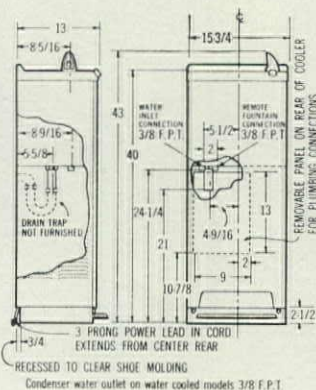


# THE NEATEST WATER COOLER OF THEM ALL!...IT'S HAWS NEW "WALL-FLUSH" MODEL!



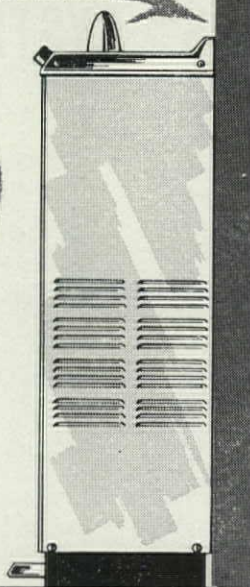
HAWS HWF Series: available in varying capacities to meet your traffic needs.

Smart styling? Surely! But more than that, you can now streamline interiors with this trim floor model cooler that fits snug to the wall. That's right: no waste space. Just like a "built-in"—neat, trim, clean; this HAWS design has you (the Architect) in mind. Cool, refreshing water dispensed through a perfectly styled cooler. And it's by HAWS!



*Neater, cleaner!  
No waste space!  
FLUSH-TO-WALL!*

Send for detailed spec sheets on these HAWS "HWF Series" models. They can be another plus-feature for your next project. And see the complete water cooler line in HAWS comprehensive catalog.



## ELECTRIC WATER COOLERS

Products of **HAWS DRINKING FAUCET COMPANY**

1441 Fourth Street, Berkeley 10, California

Export Dept: 19 Columbus Ave., San Francisco 11, California

to the fact"? Or do you wish to join in the demand, at local, state, and national levels, that every urban renewal project must be conducted in the name of, and for the benefit of, the owners of record on beginning any project study?

ROBERT M. ANGIER, CHAIRMAN  
Los Angeles California home defenders

### WATCH YOUR LANGUAGE

Forum: "Well-stacked foundry," "Cool solution at Nippon Tech," "part of the act in old Nippon," "Bug-eyed snugger," "Mushrooms Milanese," "Precast Hollandaise," and "Good English Beef," (FORUM "Abroad," Oct. and Nov. '61) are not the expressions suitable for the serious, thoughtful work being done abroad.

DANIEL J. H. REISS  
Saint Louis Architect

Forum: We look to FORUM as the arbiter of what's right and wrong in architecture.

Suddenly there appears the ugly chauvinistic head of a gag-line writer in your "News" and "Abroad" sections, i.e., "Antipasto on the Potomac," "Mushrooms Milanese," etc.

I wish you would get rid of this Bob Newhart of the architectural profession before I become completely nauseated.

SIDNEY L. KATZ  
New York City Architect

■ FORUM's hungry headline writer has abandoned his low-calorie diet, now enjoys the real thing in place of wishfully written ersatz (see headlines this month).—ED.

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HOW MANY UNIQUE AND EXCITING KITCHEN PLANS COULD YOU CREATE AROUND A DISHWASHER that mounts *on the wall* ... *in the wall* ... *sits on the counter* ... *fits below a range burner top* ... *below the counter* or in 5 other locations in the kitchen?

This is the kind of planning freedom you get with the beautiful new Ling-Temco Dishwasher. It's the first dishwasher that needn't waste an inch of floor or cabinet space!

**Scrubs Dishes Clean With An Exclusive "Wave-Of-Water" And A 12½ Minute Steam Bath!**

After slight scraping, Ling-Temco's unique "Wave-of-Water" dishwashing principle scrubs dishes clean—without pre-rinsing. Then, Ling-Temco's exclusive Steam Cycle fogs steam vapors over dishes for 12½ minutes. Dishes dry without water spots or streaks because condensed steam produces distilled water containing no water-spotting minerals. Water temperature stays hotter because Ling-Temco fills and drains simultaneously — without stopping.

**Cuts Installation Costs 4 Ways**

*Save \$15 or more in Drain Pump Costs.* Because of the many versatile location possibilities the Ling-Temco Dishwasher can be easily positioned above the usual drain connections.

*Save \$40 or more in Floor Space.* Eliminates 4 square feet every other dishwasher needs.

*Save \$7 or more on the Front Panel.* Ling-Temco's neutral color front panel — finished in gold and silver — matches every kitchen decor. It's included with the dishwasher.

*Save \$10 or more in Installation Time.* Ling-Temco's exclusive Couplermatic permits pre-installation, pre-wiring, pre-plumbing of all connections. Simply slide dishwasher into position anytime later.

**Save Big Money On The Dishwasher Itself ...**

it's the most competitively priced dishwasher on the market!

3 beautifully designed models for 6, 10 or 15 NEMA place settings. In decorator colors and brushed stainless steel.

Find out how this versatile new Ling-Temco Dishwasher can add new freshness to your kitchen plans. For complete information and specifications, simply fill out and mail the coupon.



On the wall



Under counter or range burner

versatile new

# LING-TEMCO DISHWASHER

**gives you more freedom in planning kitchens**

**... installs in over 10 different locations**

**... saves up to \$72 on every installation!**



In the wall

Actual size of 10 place setting dishwasher shown above 18" x 30" x 13".

**MAIL COUPON FOR COMPLETE INFORMATION TO:**

**LING-TEMCO VOUGHT, Inc.**

**LTV Industrial, Dept. AF-1, P.O. Box 6327, Dallas 22, Texas**

- ☐ Send me more information about your versatile new Ling-Temco Dishwasher and how it brings new kitchen planning freedom.
- ☐ Have your salesman call to tell me more about the L-T Dishwasher.

Name \_\_\_\_\_ Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

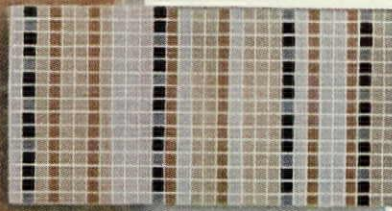


P.O. Box 6327, Dallas 22, Texas

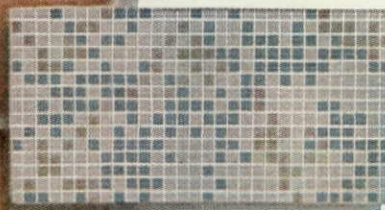


*Have you discovered  
the wonderful decorative possibilities of*

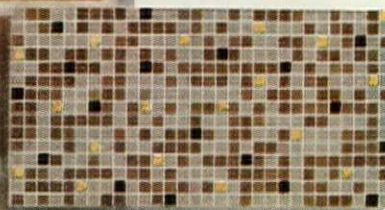
# HORIZON



Design No. M-13

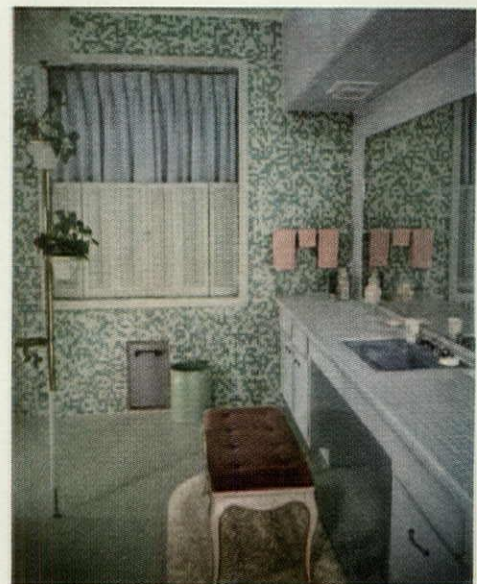


Design No. M-15



Design No. M-11

Design No. M-5  
Actual size tiles



**FREE COLOR PALETTE** of actual tiles showing complete range of 58 different available colors will be sent without cost to architects and designers who write on their professional letterhead to Dept. AF-621.



# TILE

...the new  
glazed ceramic mosaic  
produced in the U.S.A.  
by **Suntile**

Here's a sure-fire way of giving your interior wall designs an interesting fresh appearance . . .

*Design them with HORIZON TILE.* This new, colorful wall tile has an informal, handcrafted appearance that's beautiful beyond description.

HORIZON TILE achieves its distinctive appearance through the intentional variation and irregularity of its shape, its surface texture and its 58 beautiful color shades that range from soft pastels to solid or textured tones.

Whether you use HORIZON TILE to create a beautiful mosaic mural, like the one shown here, or use one of the many interesting "Buckshot" or "Striped Pattern" designs created by Suntile's Design Department, you'll find that HORIZON TILE adds greatly to the beauty of your finished wall.

HORIZON TILE, made in America by Cambridge, is available through your local Suntile dealer. His name is listed in the Yellow Pages of your telephone directory.

## OUR DESIGN DEPT.

under the direction of George Limke is ready to assist you with your tile design or layout problems. Send us your plans or elevations for suggested tile applications, or let us put your own tile designs in layout form.



## THE CAMBRIDGE TILE MFG. CO.

P.O. Box 71, Cincinnati 15, Ohio

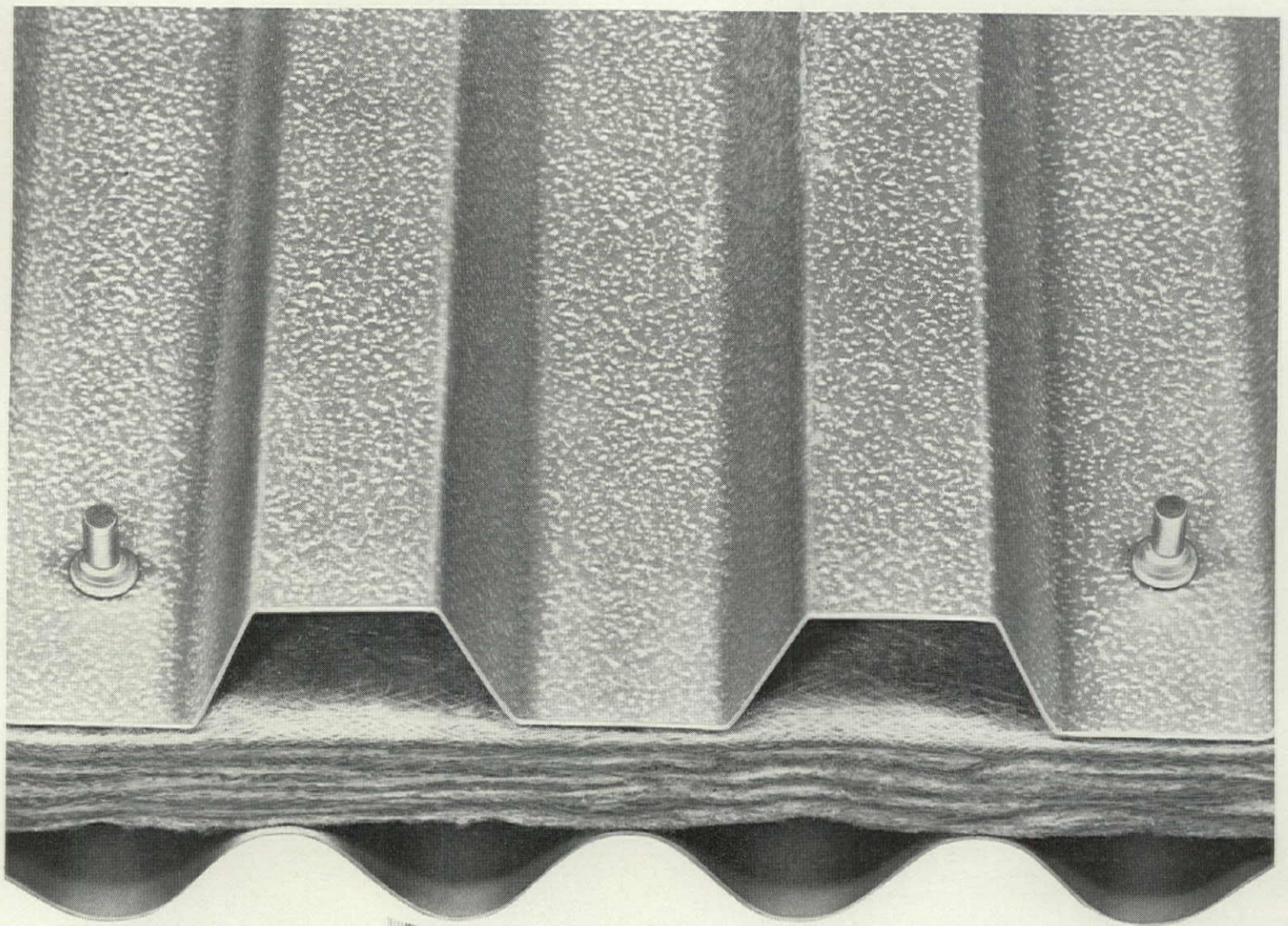
Architects Emerick, Albert & McGee



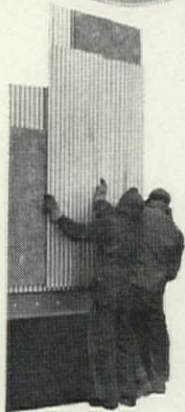
The Crucifixion —  
an 11' x 15' mosaic mural  
St. Andrew's Church  
Columbus, Ohio  
Muralist: Charles L. Madden  
Resurgere Associates,  
Phila., Pa.

Design No. M-2  
Actual size tiles





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PERMANENT  
INSULATED  
METAL WALLS**



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Alcoa building sheet comes in corrugated, ribbed and V-beam configurations—in perforated corrugated sheet for acoustical applications—in natural and Alcoa Alumalure® baked enamel colors—in plain mill finish or embossed. Available through your nearest Alcoa jobber, or write to Aluminum Company of America, 1822-A Alcoa Building, Pittsburgh 19, Pa.

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with Fred Astaire as Host . . . Tuesday Evenings, ABC-TV



**ALCOA ALUMINUM**

ALUMINUM COMPANY OF AMERICA



# DESIGN OFFICE LIGHTING TO SAVE YOUR CUSTOMERS TROUBLE... INCREASE LAMP LIFE... KEEP HIGH LIGHTING LEVELS... SPECIFY BALLASTS MARKED

Using and controlling heat from lighting is one of the newest techniques to get extra value from lighting. This can cut cooling cost, step up heating economy, increase comfort ... and improve lighting efficiency.

In such a lighting system, too, Certified CBM ballasts for fixtures are important. Made to specifications for top lighting performance, and checked by ETL test, CBM ballasts help assure longer lamp life, high lighting levels and dependable operation.

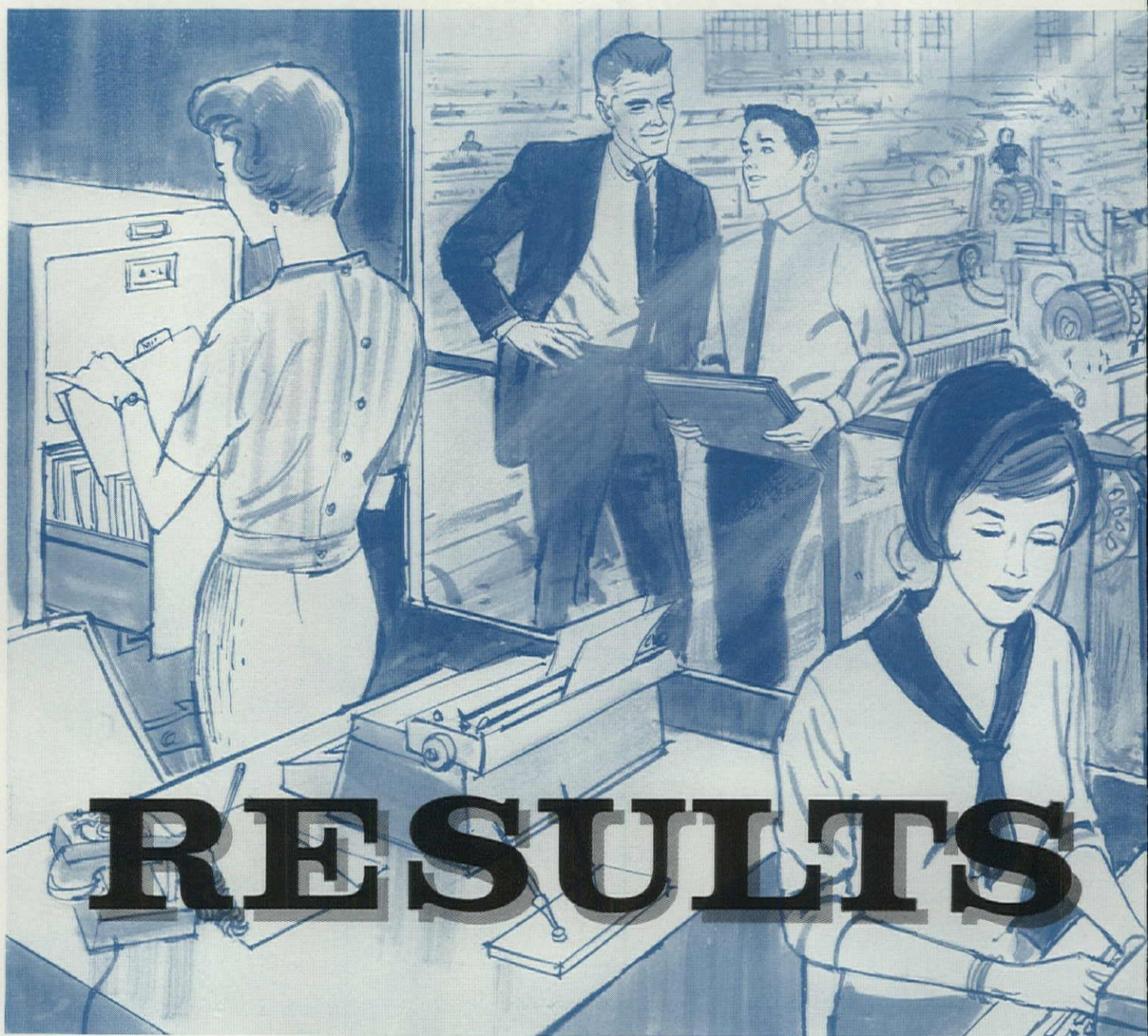
For a reprint, which discusses controlling lighting heat, write **CERTIFIED BALLAST MANUFACTURERS**, 2116 Keith Bldg., Cleveland 15, Ohio.

Participation in CBM is open to any manufacturer who wishes to qualify.

1-61



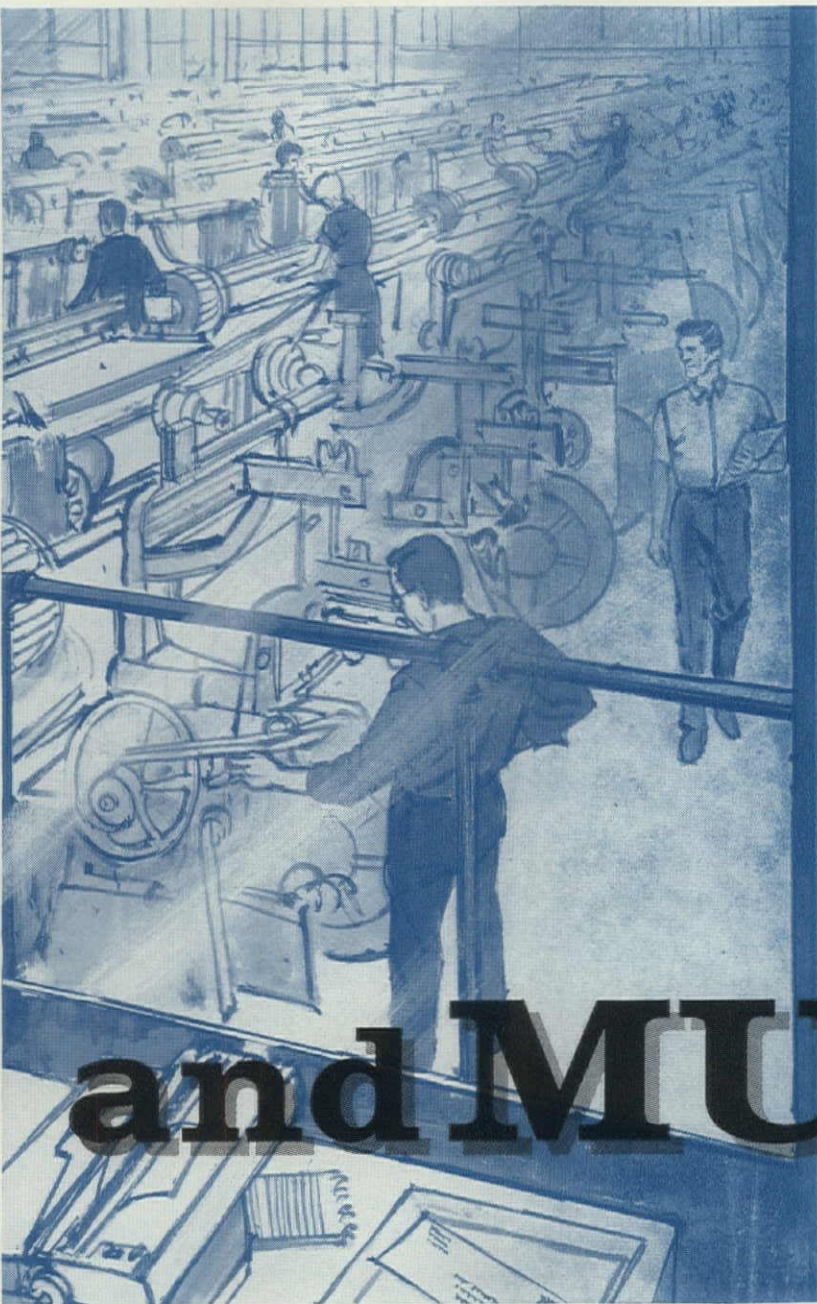




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- 1. The Basic Music Source**—The music shall be instrumental only. It shall be specially recorded for the purpose for which it is to be utilized. Care shall be taken to avoid peaks and valleys of loudness and softness as well as attention-getting musical devices.
- 2. Size of Basic Music Source**—The basic music "library" shall consist of a sufficient number of specially recorded arrangements to permit a programming pattern which does not repeat any selection (except at the height of its popularity) in any eight-hour program sequence in an interval of less than nine days.
- 3. Augmenting Basic Music Source**—The basic music source shall be continually augmented with specially recorded arrangements of the latest popular tunes as well as modern treatments of standard favorites. Care shall be taken to avoid playing obsolescent arrangements and titles.
- 4. Programming, General**—Each musical selection shall be psychologically mood-rated in direct relation to following and preceding tunes, taking into account such stimuli as tempo, rhythm, instrumentation, orchestra size, changing popularity of arrangements and titles.
- 5. Programming, Timing**—The music shall be psychologically programmed by qualified work musicologists for every hour of every working day.
- 6. Programming, Integrity**—The music programmer shall be protected from intrusion of individual preferences of music style, title and artist. Request programs shall be avoided to prevent distractions and time-outs from work duty.
- 7. Silent Periods**—For optimum average worker efficiency the music shall be programmed in alternate quarter-hour periods of music and silence—each quarter-hour music group to contain a playing time not to exceed fourteen minutes.
- 8. Music Distribution**—The sound system over which the music is reproduced shall be designed specifically for balanced work music distribution. Speakers, amplifiers and other components shall be capable of continuous faithful reproduction of from 40 to 10,000 c.p.s. and shall be so installed as to provide zone control of volume levels (particularly desirable where individual





# and MUZAK

work sections have different ambient noise levels) and be so balanced as to avoid areas of loudness and softness. Where desired, provision shall be made for paging, or signalling, etc.

**9. Equipment Maintenance**—It shall be the responsibility of the music supplier to set standards for the maintenance of all equipment and periodic inspection and servicing thereof. The supplier shall be promptly notified of any malfunction. He shall also be notified of all contemplated movements of personnel or equipment which may require augmenting or altering the sound system.

**10. Location of Music Source Equipment**—The music source equipment (tape, record player, etc.) shall **not** be located on the subscriber's premises, nor shall he be responsible for maintenance, servicing or programming.

**11. Express Warranties**—The music supplier shall warrant that the service furnished be prepared, transmitted and faithfully reproduced under the conditions set forth above. He shall provide adequate proof that both the service and equipment he furnishes have been thoroughly job-tested under conditions and situations similar to the application to which it is to be put.

**12. Music Clearance**—All music clearance shall be taken care of by the music supplier. There shall be no further performance or mechanical license obligations.

How noise levels affect a worker's morale and efficiency is an important consideration in office and factory design. The architect's problem, however, is not to eliminate all noise, but to control it and make it work *for* him. Specifying Music by Muzak is one proven way.

Don't confuse Muzak® with its imitators. Scientifically arranged and recorded, Muzak features "controlled dynamics" enabling it to penetrate tension-building noise in shops, clerical floors and factory areas. It creates a pleasant, more productive work atmosphere, helps people do a better job—important sales points to your prospective clients.

For your convenience, Specifications for Work Music by Muzak are listed here. A.I.A. File No. 31-I-7. Sweet's Catalog file 33a/Mu. For further information contact your local franchised Muzak distributor, or Muzak headquarters.



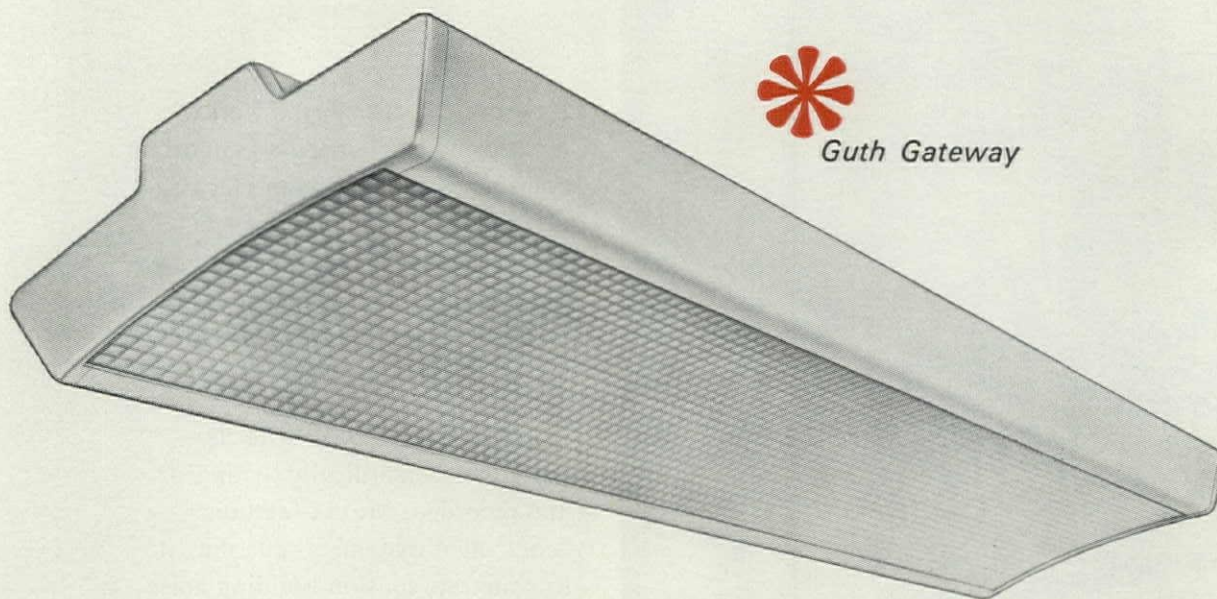
Muzak Corporation  
229 Park Avenue South, New York 3, N. Y.



An International Subsidiary of Wrather Corporation

United States • Canada • Mexico • Argentina • Brazil • Colombia  
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## \* Sure it looks good, but why specify it for *your* office?

Gateway's intrinsic beauty is obvious. But that's only half the story. Here is the other half — engineering and construction features that make Gateway worthy of your specification. Gateway is *not* a wrap-a-round. The concave bottom actually hinges separately from the rugged 20-gauge steel ends. Simplifies relamping considerably — one strong panel, not an unwieldy basket, to hinge down.

The steel ends won't warp; also they add extra rigidity to the fixture in continuous-row mountings, or as individual units. (No glue or piano wire holding it together.) The 4' or 8', one-piece *tubular* plastic side wings with capped ends (minimize dust and dirt from holding conventions therein) offer greater strength and lower side-brightnesses.

The *concave* Gratelite\* bottoms (choice of Prismoid\*\* or Standard Gratelite) are solidly molded with built-in ultra-violet resistant additives. Both Gratelites feature  $\frac{3}{8}$ " open cubicles — dust and dirt filter thru — doesn't mar beauty.

All the steel parts, including the channel, are formed from electrolytic, *zinc-coated* and phosphatized steel.

There's hardly any chance of their rusting regardless of humidity or climate. Each steel part is finished in the new super hard, super efficient *Acrylic* enamel. This is the finish automakers use, and say "never needs polishing". Paint people tell us "it most closely approaches the physical properties of porcelain enamel"

Of course, each unit includes a CBM/ETL Ballast, plus — we heat test Gateways to insure that ballast-case operating temperatures will not exceed 90°C in a 75°F room ambient temperature. (Add these last 13 words to every specification and watch competitors back away!)

Gateway is available in 2, 3 or 4 lamps — in the same "full-width" fixture — not a corridor looking unit in a carload.

For the final test, write us on your letterhead. We'll have our salesman show you a "live" demonstration of Gateway. If you just don't like salesmen, write us and we'll send our Gateway Brochure. In either case, you'll like Gateway, a fixture that proves itself.

**THE EDWIN F. GUTH CO., 2615 WASHINGTON BLVD., BOX 7079, ST. LOUIS 77, MO.**

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COLUMBIA-HALLOWELL DIVISION



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*where reliability replaces probability*



# TWO FACTORS

Contribute to the Superiority of  
**WILSON** *Illuminated Ceilings*

★ **CIRCLGRID** ~~~~~  
Non-burning, rigid vinyl louvers

★ **LUMATRAX** ~~~~~  
Ultra-narrow (1/2") quick-mount suspension system

U. L.  
APPROVED  
For use under  
sprinkler systems  
•  
Tunnel Test  
Rating - 20



Ageless in beauty . . . versatile in performance, Wilson Illuminated Ceilings are rapidly becoming the architect's favorite lighting system for new construction or relighting.

★CIRCLGRID non-burning vinyl louvers feature thousands of tiny circles in transmitting soft diffused light, permitting intensities ranging to 200 foot candles. CIRCLGRID 2' x 2' and 2' x 4' panels consist of two non-combustible sheets of rigid vinyl electrically welded for great structural strength . . . with weight of only 3 1/2 ozs./sq. ft.

These popular CIRCLGRID louvers meet rigid fire code standards for metropolitan buildings . . . they possess acoustical properties, permit air conditioning and sprinkler

systems to function efficiently and the louvers are easily cleaned by rinsing in mild detergent.

★LUMATRAX exposed grid system offers the advantages of narrow support members and simplicity of installation. The tracks level quickly and perfectly by Wilson's exclusive spring clip. LUMATRAX is available in 1/2" E track (straight or contoured) . . . and 1 5/16" T track.

In other words, Wilson Illuminated Ceilings are recognized by leading architects and contractors as the outstanding system in the lighting field.

Write for Circlgrid and Lumatrax technical literature concerning the installation you are now working on.

*J.A.* **WILSON** *Lighting*  
ERIE, PENNSYLVANIA

.. The International Name in Lighting ..



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The world's most beautiful perimeter radiation



Perimeter heating with eye appeal . . .  
None of its many imitators has been able  
As with the well dressed woman,  
(all precisely die-formed)  
Add one of six fashion-right colors  
to grace the finest interiors.  
are proved reliable; and considering  
14 types of heating element  
and manual or controlled operation,

that's Nesbitt Sill-line Radiation!  
to duplicate the style and beauty of Sill-line.  
Sill-line's conforming **accessories**  
complete the distinctive ensemble.  
and you clothe your comfort in form, fit and finish  
It goes without saying that Sill-line's ratings  
the seven standard lengths, five enclosure heights,  
(steam, hot water, and electric),  
you have 385 choices in application.



Optional utility: Sill-line Radiation  
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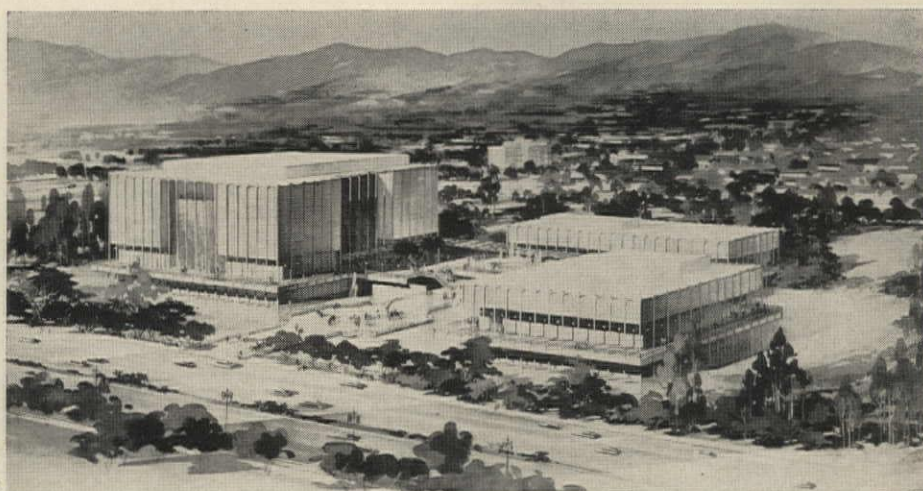
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1



3



2



4

#### 1. **BRITISH IN BOSTON**

The British are back in Boston, making peaceable plans to build the city's tallest offices, practically on the site of the Boston Tea Party. Not only is this capital invasion welcome, but Boston British Properties, a newly formed company, has hired three Americans, Architects Frederick A. Stahl and Hugh Stubbins, and Structural Engineer William J. LeMessurier, to design its building, shown in preliminary form

above. Estimated cost is \$20 million for 30 stories.

#### 2. **DETROIT APARTMENTS**

Encircled by balconies, flanked by gardens, swimming pools, and putting greens, and trailing a large garage in its wake, The Jeffersonian, at 30 stories, will be "the tallest, most luxurious apartment building in Detroit," says Developer Arthur Fleischman. Designed by Giffels & Rossetti, it will cost \$15 million.

#### 3. **LOS ANGELES MUSEUMS**

The Los Angeles County Museum of Art will display its treasures in three new pavilions, the largest for the museum's permanent collections, another for temporary and loan exhibits, and the third for an education center containing art classrooms for children and a basement auditorium. All three will be built of steel frame with light steel trusses, finished in glass, marble, and cast stone, and linked by trellised walkways of alumi-

num and glass. Architects: William L. Pereira & Associates.

#### 4. **INDIANAPOLIS RENEWAL**

Successful bidders for 20 acres of urban renewal land in Indianapolis are a group headed by Developers Klein & Kuhn and Architects Perkins & Will, who propose high-rise apartments, town houses, garages, shops, a theater, a concert arena, and neighborhood recreation of several kinds. Goal: 1,842 apartments.

*continued on page 51*





## In the new \$19,800,000 D.C. Stadium 45 WASHROOMS—ALL KOHLER EQUIPPED

Double decked, covering ten acres, with  $3\frac{1}{2}$  acres of playing field and rotating seating sections to adapt it to any sort of event, the new District of Columbia Stadium is an outstanding example of architectural design.

Seating capacity varies with the use of the field—50,000 seats for football, 43,500 for baseball. Twenty-six concession stands, 48 turnstiles and three passenger elevators are a clue to the spectator conveniences that have been built into the new stadium. It will be the home stadium of the Washington Senators, the Washington Redskins and the George Washington University Colonials.

The 45 public washrooms are located in convenient areas on each of the stadium's levels. Kohler fixtures and All-Brass fittings are used throughout.

To simplify handling the equipment at the site, Kohler provided "special service" handling.

All batteries of urinals were pre-assembled and fitted at the factory, each crate marked and keyed for the particular washroom for which it was intended. Shipment was made for one level at a time so that all Kohler equipment would arrive as it was needed.

Architects and engineers were Dahl-Ewin-Osborn, a consolidation of The George L. Dahl, Architects and Engineers, Ewin Engineering Associates and Osborn Engineering Corp. The combine was formed specifically for this job. McCloskey and Co. of Philadelphia was the general contractor. Lloyd E. Mitchell, Inc. of Washington, D.C. was the plumbing contractor. The distributor was Harrison Brothers, Inc. of Washington, D.C.

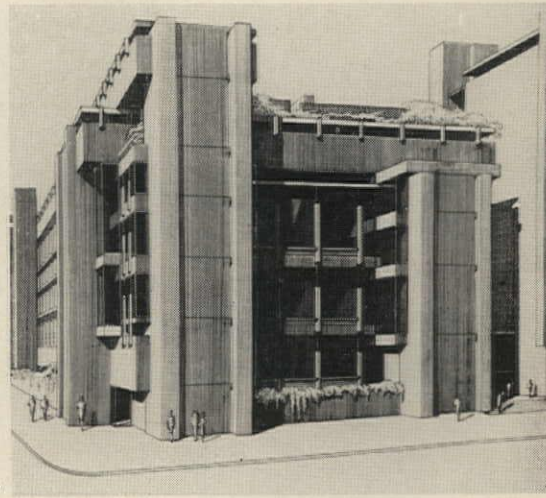
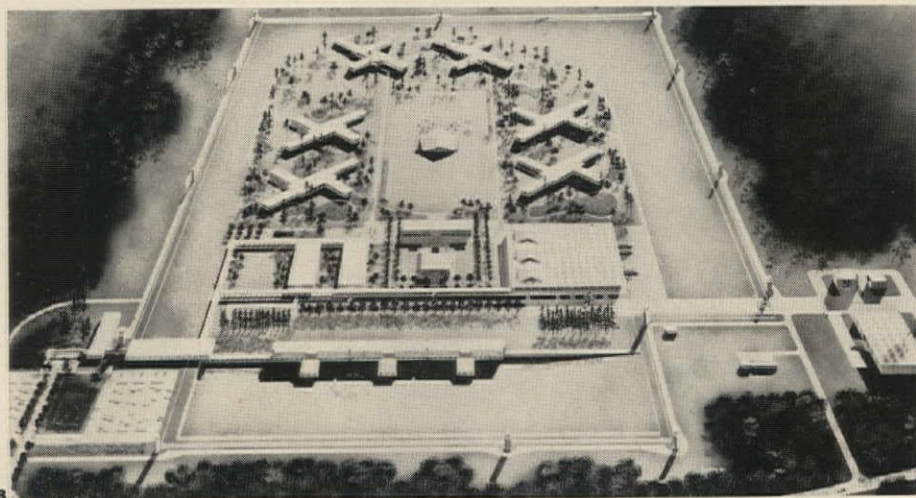
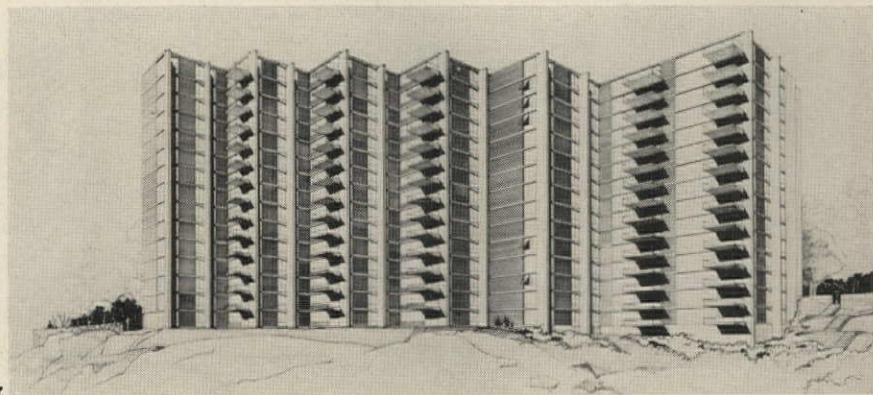
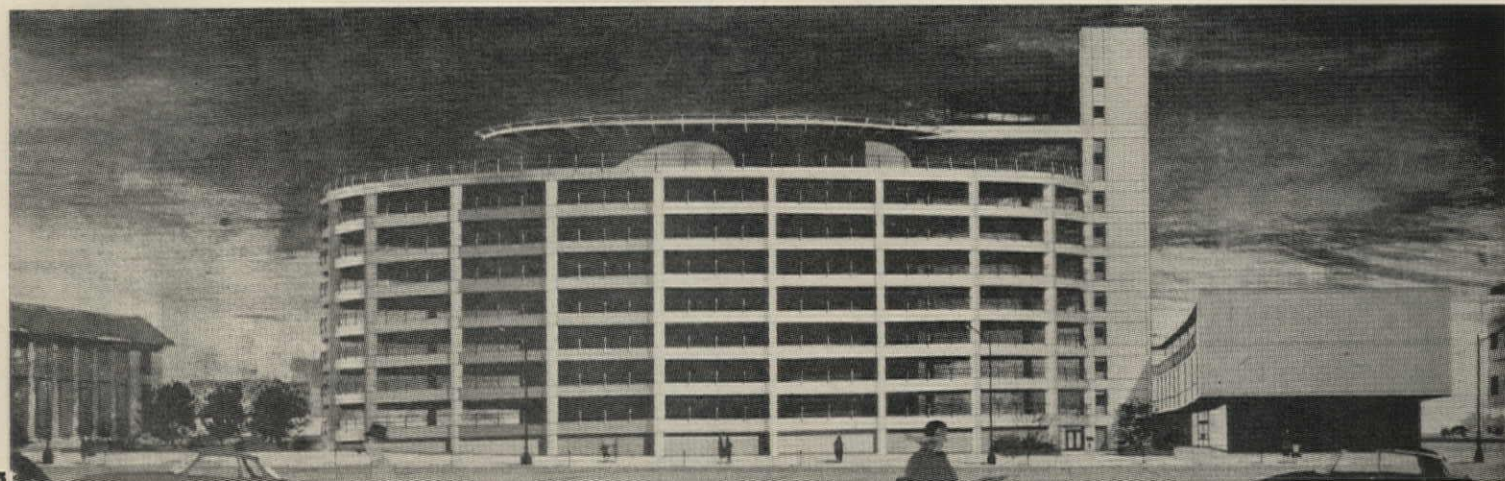
Again, in a major building construction, the selection of Kohler fixtures and fittings is testimony of Kohler lasting quality.

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**5. OAKLAND GARAGE-HELIPORT**  
A continuous ramp will loop nine times around this heliport-garage in Oakland, Calif., spiraling gently upward to make self-parking easy. Architects: Van Bourg, Nakamura, Ratcliff & Ratcliff.

**6. TECHNOLOGY IN CAMBRIDGE**  
Technology Square, the \$15 million research center M.I.T. and Cabot, Cabot & Forbes Co. are developing in Cambridge, Mass., is now under construction. The

first unit, 545 Technology Square (above), is scheduled to open in mid-1963. In this design, by the firm's architectural subsidiary, Cabot, Cabot & Forbes Associates, Inc., tapering columns support the building, and precast concrete and gray glass enclose the upper floors.

**7. PITTSBURGH CO-OP**  
New owners of the top plot on Mount Washington in Pittsburgh scrapped an earlier idea of building rental apartments and con-

verted Architect Tasso Katselas' original scheme into a 70-unit co-operative. Unchanged, on the exterior at least, the zigzag shape will be sheathed in brick and glass, 16 stories high.

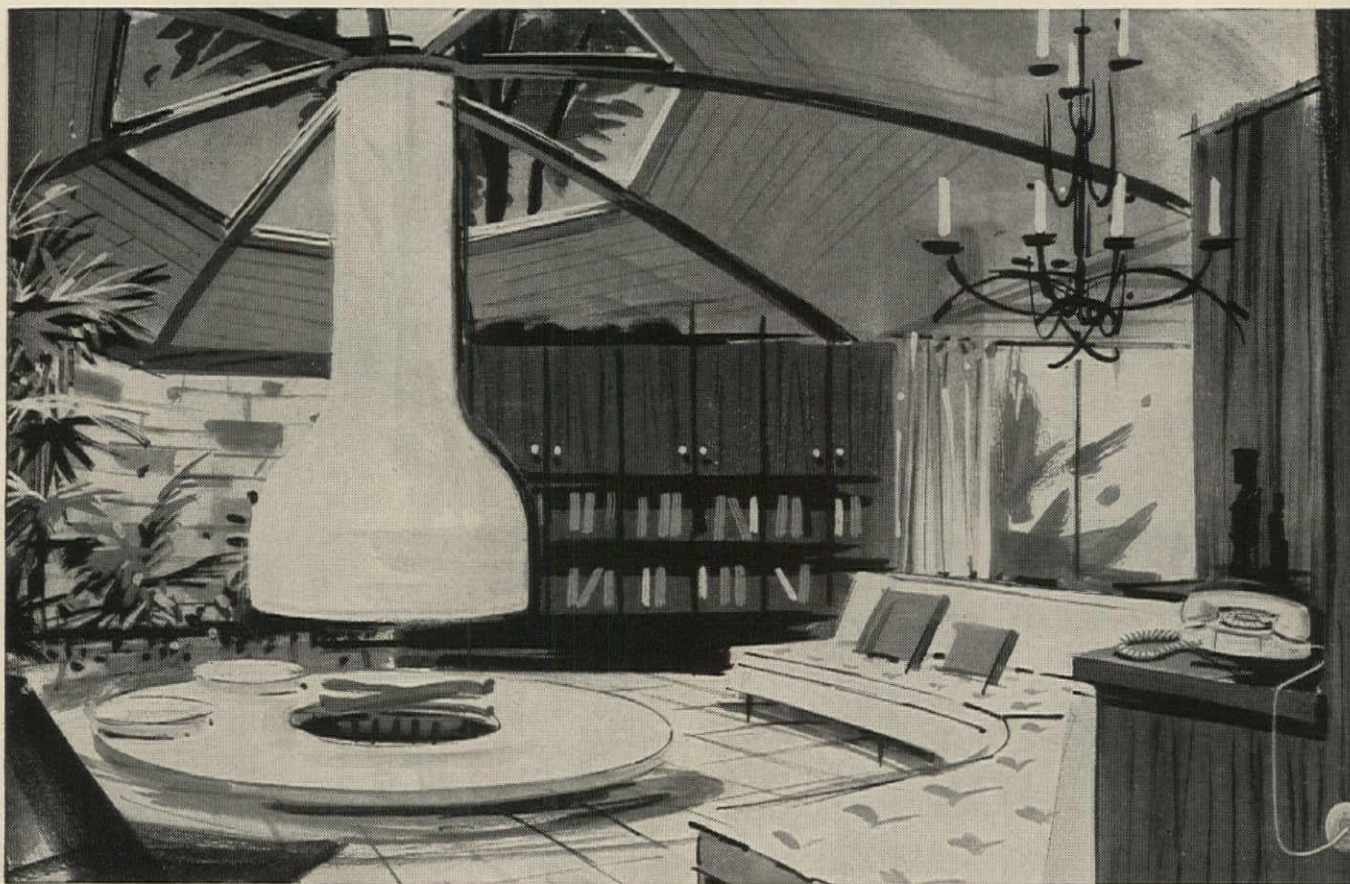
**8. CORRECTION IN WASHINGTON**  
To design its new "Corrections Center" in Shelton, the State of Washington pooled three firms—Bassetti & Morse, Walker & McGough, and Curtis & Davis—whose plan consolidates major

functions in a central block and scatters housing at the rear.

**9. ARCHITECTURE AT YALE**  
Paul Rudolph's revised Art and Architecture building at Yale, for which ground was broken last month, will be built of reinforced concrete with a special aggregate exposed inside and out. Irregular heights of the several towers echo the sky line of Yale's older buildings. (For an earlier version, see FORUM, Aug. '60.)

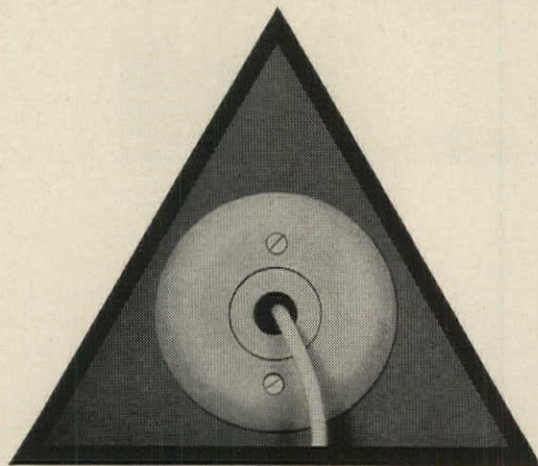
*continued on page 53*





For details of home installations, see Sweet's Light Construction File, 11c/Be. ▲

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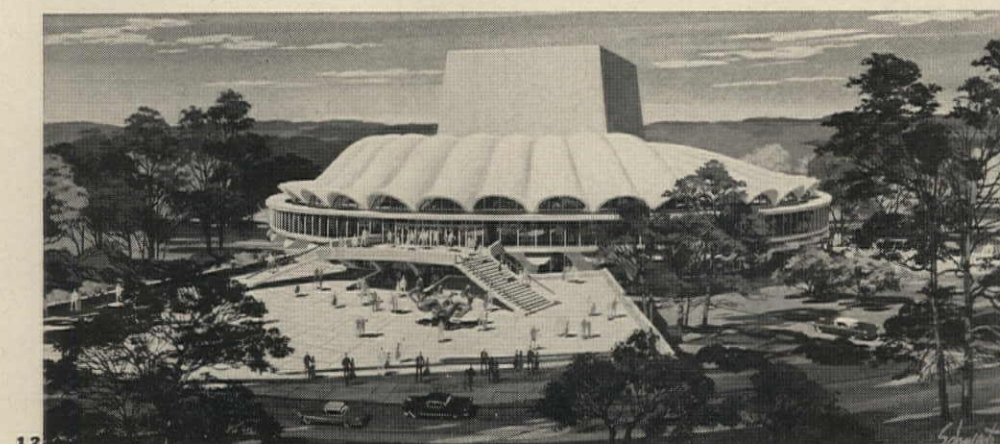
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**10. PARISH CHURCH IN HARLEM**  
Victor Lundy's design for New York City's Church of the Resurrection gives bold form to hopes of the East Harlem Protestant Parish for a permanent church, one to replace storefront ministries.

**11. BIG SHOP IN CHICAGO**  
Arthur Rubloff's huge Evergreen Plaza shopping center in Chicago, which covers 37½ acres, will triple in size by 1964, adding new stores, office buildings, and a big

garage (left). So enormous are its floors that just one, the size of 11 football fields, will accommodate 1,800 cars. Architects: Skidmore, Owings & Merrill.

**12. BRANDEIS THEATER**  
Hard by the ramp into Brandeis University's new theater in Waltham, Mass.—the Nate B. and Frances Spingold Theatre Arts Center—is an art museum, directly beneath the scalloped overhang; the theater itself is farther back,

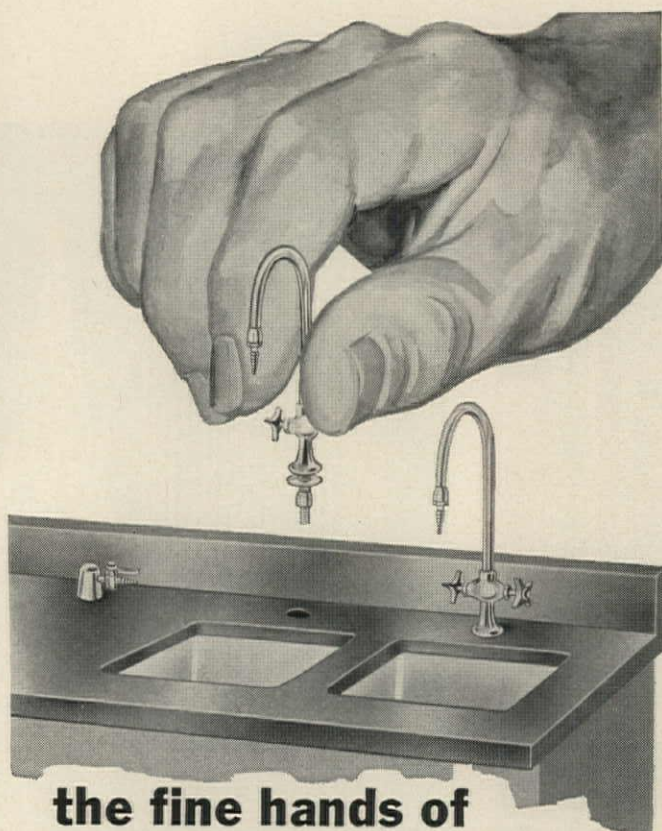
at the heart of the circular plan. The stage converts into three different stages, or any combination of the three, and backs up to an experimental "little theater". Architect: Max Abramovitz.

**13. TOWER IN THE LOOP**  
The Brunswick Corp. is to be the major tenant in this 35-story tower of offices in Chicago's Loop. From ten square columns at the base, the tower will taper slightly as it rises, slimming its bulk to less

overpowering proportions. For the outer skin, Skidmore, Owings & Merrill designed a structural grid of concrete elements.

**14. BIG AND TALL IN ST. LOUIS**  
Claimed to be the tallest and largest office building planned for St. Louis since 1928, the Siteman Organization's tower will cover most of a downtown St. Louis block, reach 25 stories, and cost \$10 million. Architects: Hellmuth, Obata & Kassabaum. **END**





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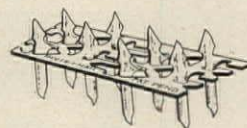
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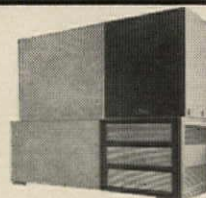
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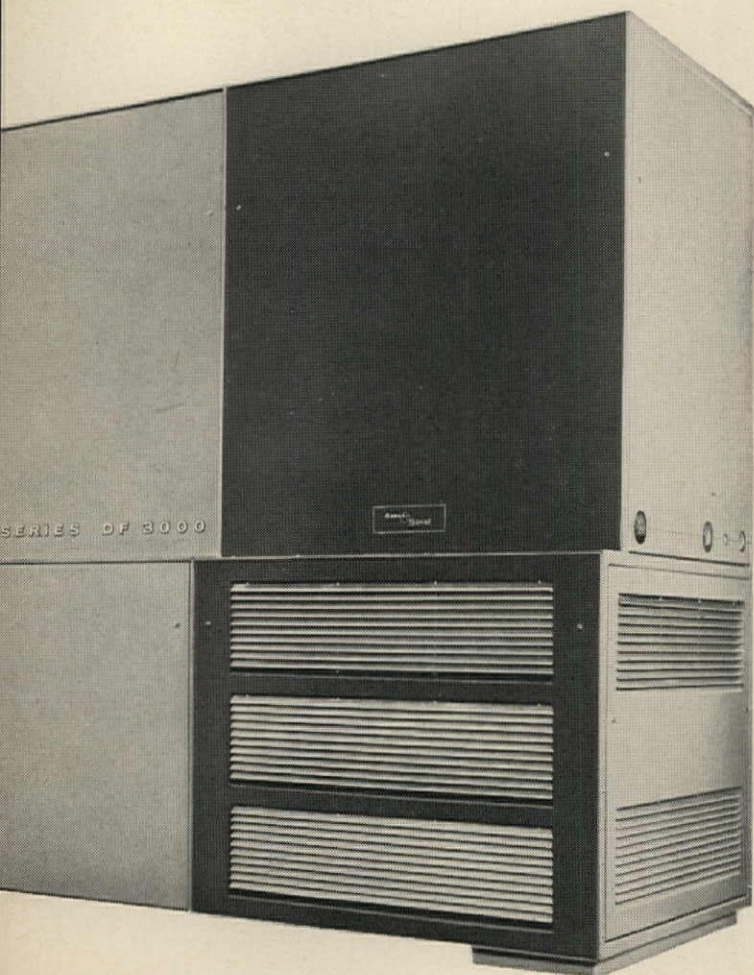
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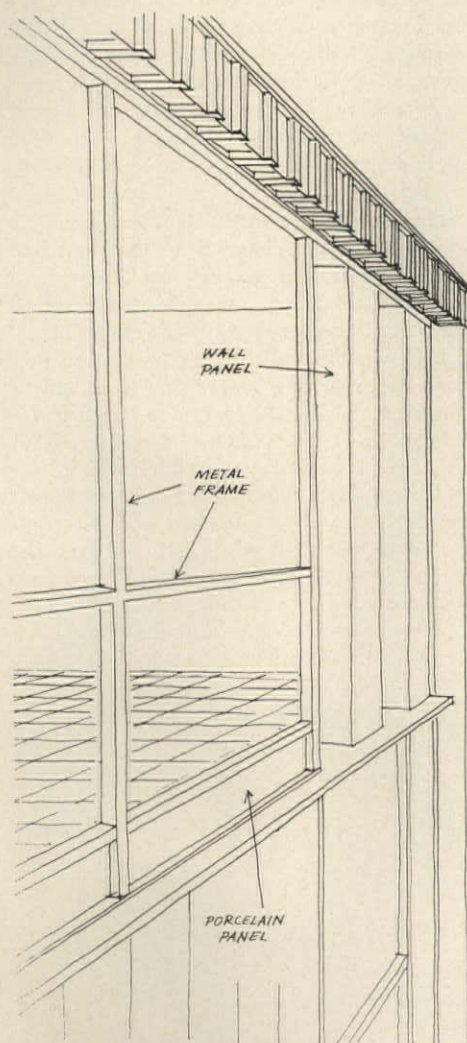
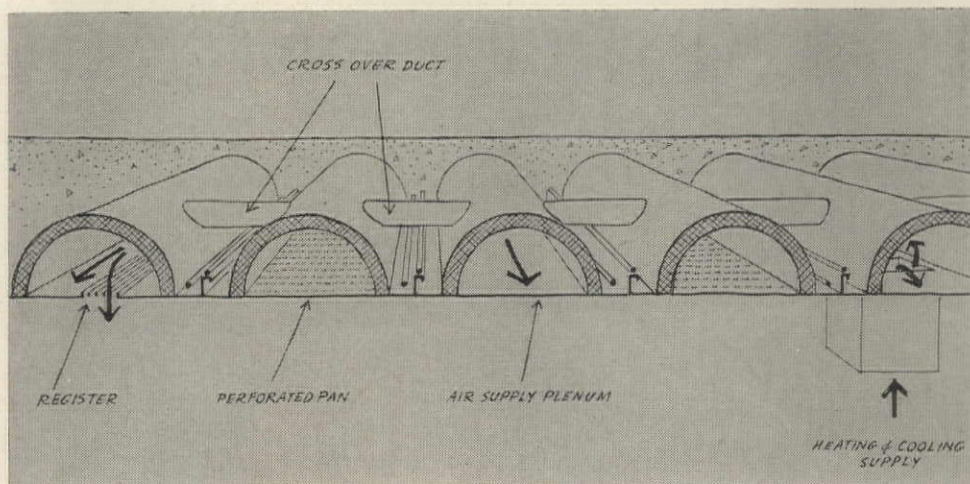
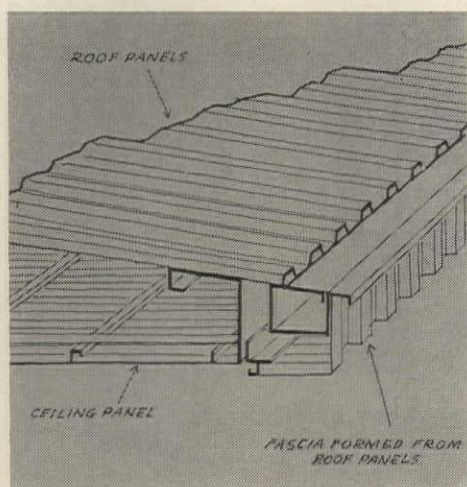


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Steel components for low-rise buildings  
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#### STEEL COMPONENTS

Five new building components, developed by Architects Carl Koch & Associates and Armco Steel, are being given their first try-out in a 28-unit garden apartment project in Middletown, Ohio. While these components are of steel, they are not meant to promote all-steel apartments: rather, they are intended to give the architect several flexible systems which he can combine with conventional systems and materials. First results of this research are components for apartments, motels, schools, and other low-rise structures, roll-formed into structural shapes from light-gauge sheet. Similar concepts will be applied to single-family homes, prefabricated of steel components.

In the Middletown project, all five Armco-Koch components will be on display: roof-ceiling and floor systems, wall panels, window walls, and movable sunshades. Drawings here show how the components work.

The roof-ceiling system (above, left), a series of box-type, ribbed-steel panels 24 inches wide, extends from eave to ridge without joints. These panels are of aluminum-coated steel, which does not require painting. C-shaped steel purlins support the panels and suspend a finished ceiling of flat-web steel, faced with a 2-inch layer of glass-fiber insulation. This system, says Armco, costs less than \$2 per square foot.

The floor system has four functions: structural slab, sound barrier, finished ceiling, and air distributor, all for under \$2 per square foot. As can be seen from the drawing (above), the basic design is an 8-

inch reinforced concrete slab with T-beam cross-section. Half-round metal-pan arches, laid over Steelix panels and submerged in concrete, snap between panel ribs. Elliptical air ducts cut through the half rounds at right angles, carrying air from each apartment's heating and cooling unit to the rooms below. Ducts over alternate pans are open so that air enters the half-round plenums, which radiate heat through solid panels. Primary heating or cooling, however, comes from registers in the arch pans closest to windows. Perforated pans, alternating with the solid ones, are backed with glass-fiber insulation to absorb sound.

Based on a single roll-formed steel section which can be used with several kinds of wall and window materials, the window wall unit (left) functions as window frame and wall system. Modified with adapters and fasteners, it can accommodate fixed and sliding glass and different kinds of wall panels. Sun screens of porcelain enamel metal (not shown) will move on tracks.

For outside wall units (seen at right in sketch), Koch developed three new vertical patterns, one of them shown here.

With these components, Armco estimates that it can shave as much as 10 per cent from light construction costs. Furthermore, by capitalizing on an already heavy investment in machinery that roll-forms light-gauge sheet into structural shapes, Armco hopes to capture a major new market, one that could bring in a hefty 100,000 tons of steel business a year.

Manufacturer: Metal Products Division, Armco Steel Corp., Middletown, Ohio.

continued on page 58



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#### WALLS HIGH AND LOW

Taking shape in the photos above and below are two movable office partitions, one touching the ceiling, the other waist-high. They are Johns-Manville's *High and Low Walls*, made of asbestos-cement sheets bonded to a mineral core to form an incombustible sandwich panel 1¾ inches thick. To these asbestos-cement surfaces several finishes can be applied—wood veneers, vinyl fabrics, or enamels.

The first step in installing the High Wall is to fasten steel channels to the floor and ceiling. After the panels are inserted, a channel spline goes between them, and a snap-on cornice molding completes the job. Panels, whether all solid or part solid, part glass, come in sizes up to 4 feet wide and 12 feet high and cost \$2.75 per square foot.

Low Walls, set 4 inches above the floor, are of solid panels 3½ feet high which may be built up to 6 feet by adding glass. Panels and glass are held by tubular steel posts anchored to the floor. Cost: \$11 to \$14 per running foot, \$14 to \$17 when glazed sections are added.

Manufacturer: Johns-Manville Corp., 22 E. 40th St., New York 16.



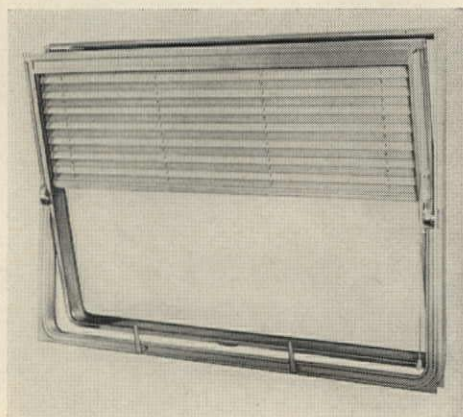


## SWEDISH WINDOW

An American version of the Elumin window, invented 18 years ago in Sweden and manufactured in eight other European countries since then, is now in U.S. production at a new plant outside Cleveland. To be known here as the *Amelco window* (for American Elumin Co.), it is a double-glazed metal window unit with an operable Venetian blind built in. The window flips over so that both glass surfaces may be washed from inside the building; for thorough cleaning or glass replacement, the window separates and the blind comes out.

Heat and sound control are made possible by tight insulation, a 2-inch air space between panes, and thermal breaks which prevent metal-to-metal contact. The built-in blind controls light and view. As proof of its effectiveness, Amelco's manufacturer cites these figures: a 50 per cent cut in heat loss compared with single glazing, and a drop of 14 per cent compared to standard double glazing with a 1/4-inch air space between panes. As a barrier to summer solar heat, it is claimed, Amelco is three times as effective as single glazing and almost equally effective when compared to double glazing, whether or not there is a Venetian blind inside the window. Amelco also reduces noise coming into an average building by about 50 per cent more than single glazing.

In American Elumin's factory, automatic machinery fabricates each frame and window vent from only two pieces of extruded aluminum, reducing the number of joints where leaks might occur. The blind is inserted in a special header that hides it

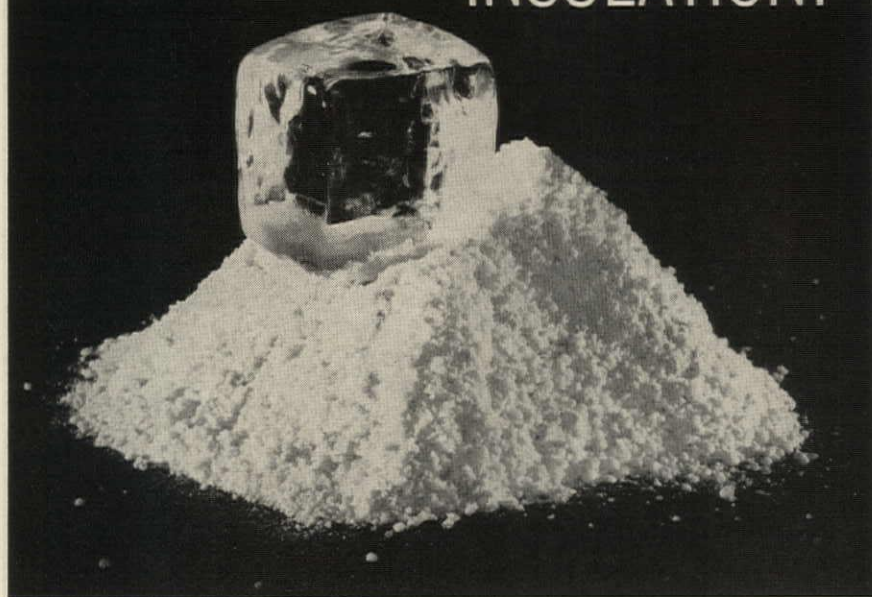


completely when pulled up, and is operated from the inside. Pivots allow the window to be rotated or opened to a 15-degree slant for ventilation. A fixed handle is supplied for operable windows, a removable handle for air-conditioned buildings where the windows are kept shut. Windows can be manufactured in increments of 1/4 inch, up to a maximum size of 7 by 10 feet. As a sample cost, the manufacturer quotes \$142.55 for a window 5 1/2 feet by 3 3/4 feet.

Manufacturer: American Elumin Co., 1676 Commerce Dr., Stow, Ohio.

*continued on page 60*

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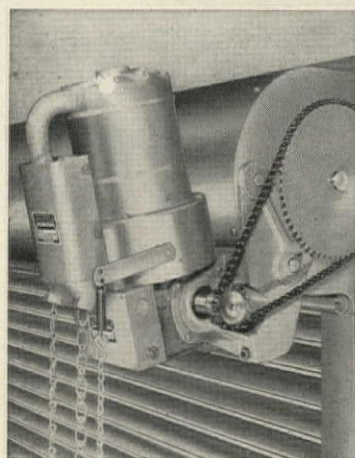
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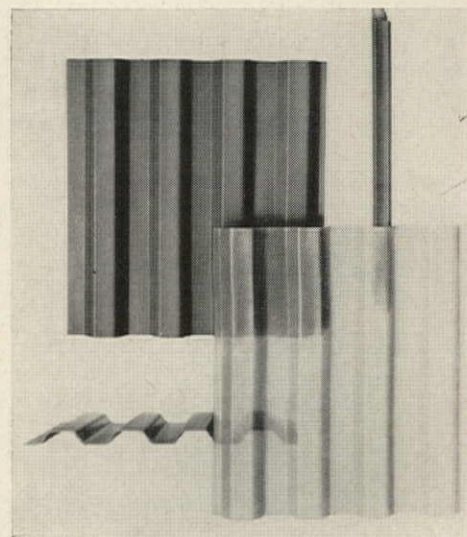
## PLASTIC PANELS

Another new product from Europe—this one an incombustible, structural plastic panel—will be manufactured in New Jersey by the Barrett Division of Allied Chemical Corp. *Barrett Vinyl Building Panels*, available either corrugated or flat, are made of unplasticized polyvinyl chloride, classified "rigid" to distinguish it from the softer plasticized polyvinyl chlorides fashioned into pliable films and garden hose.

Despite its rigid rating, the panel flexes enough to conform to moderate curves and irregularities (see curved roof of the tennis court in Paris, below). Opaque or translucent panels can be used for roofing, siding, skylights, partitions, suspended ceilings, and canopies. They are strong and lightweight, highly weather-resistant, and immune to industrial gases and most chemical reagents.

Opaque panels come in green, white, and gray. Translucent panels, in green, neutral, and yellow, transmit up to 75 per cent of the daylight striking them. Corrugated panels are available in 12-, 16-, and 20-foot lengths and a standard 43-inch width. Flat panels may be rolled in much larger sections. Both weigh 8 ounces per square foot. The developmental price of 35 cents per square foot is likely to be lower in production.

Manufacturer: Barrett Division, Allied Chemical Corp., 40 Rector St., New York 6.







#### POP-UP DUCTS

Owens-Corning's new Fiberglas heating-ventilating ducts pop out of their wrappings ready for work: packed flat, they assume their rectangular shape the moment the carton is opened (see photo). Preformed and preinsulated, the ducts need only to be joined and sealed. Around the high-density Fiberglas there is a vapor-barrier jacket which is flame-retardant and puncture-resistant. For residential use, the jacket is laminated kraft paper, aluminum foil, and Fiberglas yarns; for commercial installations, the jacket is similar but has a vinyl surface for easy maintenance in exposed locations.

The new ducts are 4 feet long and 1 inch thick, with inside dimensions ranging from 8 by 8 inches to 24 by 8 inches. Round ducts, which do not pop up, are packed in 6-foot lengths and have inside diameters of 4 to 18 inches. Costs are competitive with other insulated duct systems.

*Manufacturer:* Owens-Corning Fiberglas Corp., 717 Fifth Ave., New York 22.

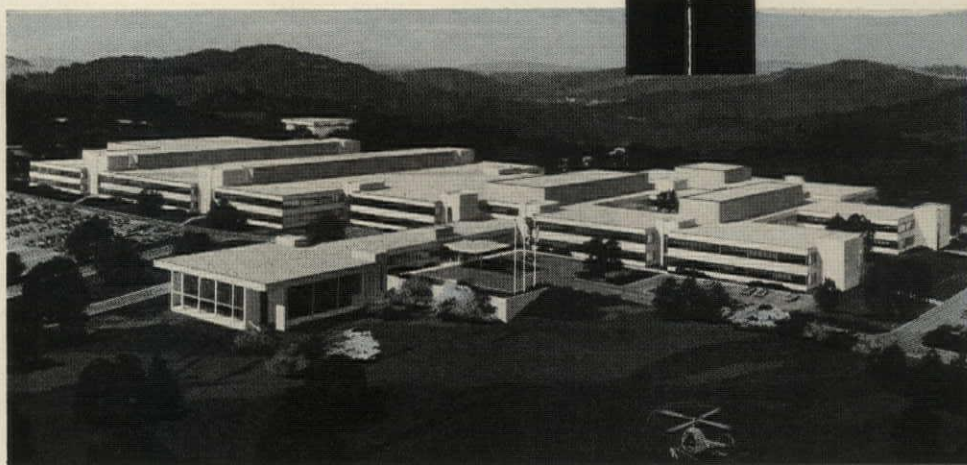
#### LOW-COST DECK

*Tim-Panel*, a low-cost roof deck, uses short pieces of 2-inch-thick Douglas fir jointed and glued into big panels which are held in place by a wood spline at each end. The odd sizes and grains are not especially noticeable, once installed, but the panel can be painted if a uniform appearance is important. Besides its low cost, the panel offers fast erection because of its size: 2 feet wide and up to 24 feet, 4 inches long. Installed cost runs about 45 to 50 cents per square foot, a saving of 5 to 7 cents per square foot of covered area on installation alone.

*Manufacturer:* Timber Structures, Inc., N.W. 29th and Yeon Ave., P.O. Box 3782, Portland 8, Ore.

END

## The doors will swing on McKinney Moderne Hinges at the new Space Technology Center Valley Forge, Pennsylvania



McKinney Moderne hinges were selected for the new General Electric Space Technology Center now nearing completion at Valley Forge, Pennsylvania, because they're as modern and as handsome as the building itself. Their slim lines and the quality of stainless steel pins, stainless steel oil-impregnated bearings, plus McKinney craftsmanship provide hinges which can "take it" on high frequency doors.

On your next job go Moderne. Specify McKinney Moderne . . . choice of quality-conscious consultants.

## McKINNEY

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McKINNEY-SKILLCRAFT LTD., TORONTO 3, ONT

Project: General Electric Space  
Technology Center  
Valley Forge, Pennsylvania

Engineers & Designers: United Engineers &  
Constructors, Inc.,  
Philadelphia, Pennsylvania

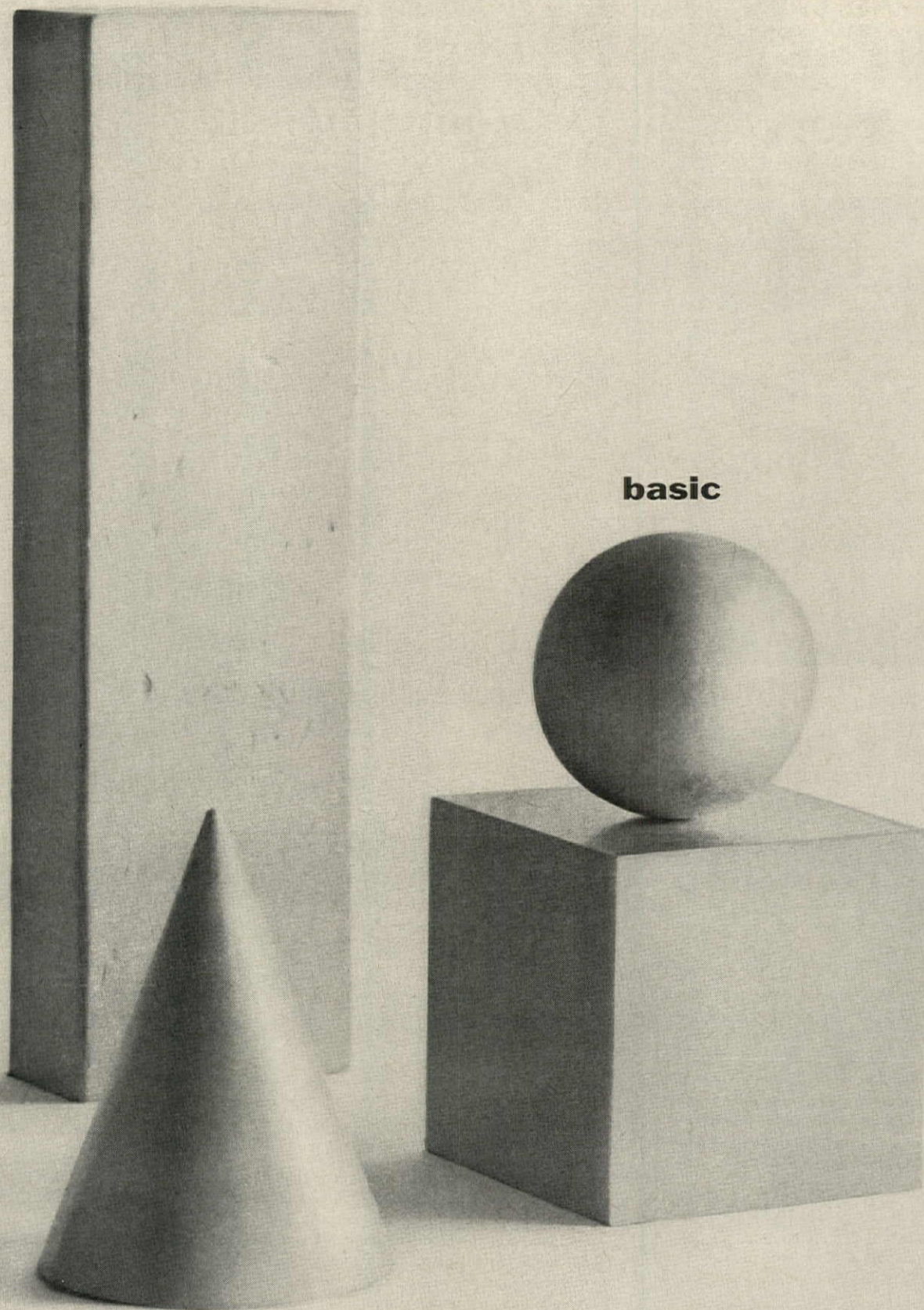
Architects: Vincent G. Kling, F.A.I.A.,  
Philadelphia, Pennsylvania

General Contractors: Huber, Hunt, &  
Nichols, Inc.,  
Indianapolis, Indiana

Hardware Supplier: Barrison & Clarke, Inc.,  
Indianapolis, Indiana  
Joseph Clarke, President

Hinges: 1825 pair TA3331 bronze hinges  
TA3731 steel hinges  
TA3350 bronze hinges





**basic**

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*Desks Inc.*, of new york, a complete source for fine office furniture,  
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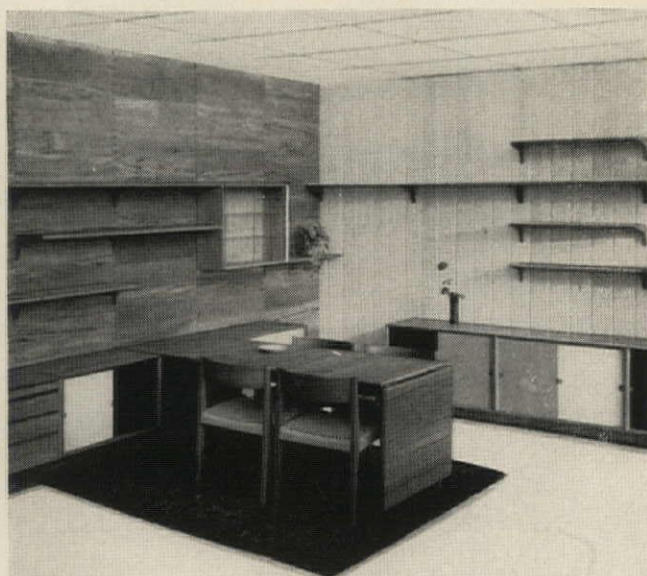


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# Blue Print for Freedom:



## WORKING TOGETHER!

The Founding Fathers, architects of our destiny, knew the value of *working together* in the Nation's early struggles for Independence, Liberty and Justice. Their contribution was the foundation that provided a dynamic form of cooperation upon which the future could be built.

Today, thousands of members of the International Association of Bridge, Structural and Ornamental Iron Workers are *working together* with the architects of our national defense to help preserve that priceless American legacy.

On behalf of the membership of our Union, I proudly announce the publication and distribution of our 1962 "Calendar of Progress" . . . an inspiring day-to-day, graphic token of magnificent "Curtain Wall" construction, made possible by free men *working together* . . . the American way.

With every good wish to you for a happy and prosperous New Year . . . on the road, we pray, to permanent peace.

*John H. Lyons Jr.*

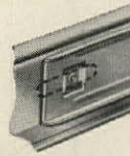
John H. Lyons, Jr.  
General President  
International Association of  
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**New fire-retardant  
ceiling grid offers:**  
simplest installation,  
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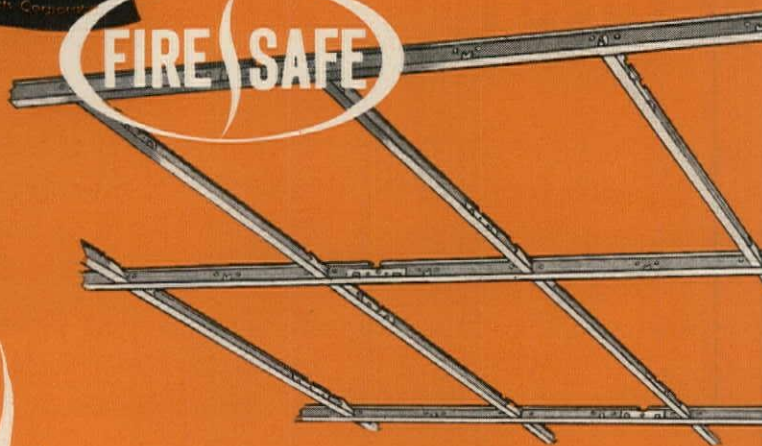
*Slide action relief  
rity, provide mech*



*Bottom flange buck  
plates. Expansion*

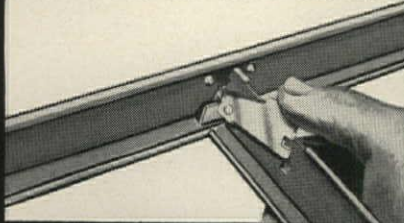


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Firesafe brings to fire rated grid design a new high in protection, app  
Exposed flanges are continuous — unmarred by fusible links or expansion  
is not necessary, yet Firesafe acts to keep panels in place, check draft, he  
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*Tees attach by hand with exclusive  
Lev-O-Matic cam action end clips.*



*Special hold-down clips keep panels  
from being lifted by updrafts.*





## QUOTE . . . UNQUOTE

"There appears to be little demand for Utopia."—*Planner Martin Meyerson.*

"We must teach our technicians to be more imaginative and our artist-designers to be more concerned with details."—*Educator Gerald L. Marvin Jr.*

"I'd hate to have our civilization judged on what archaeologists would find if they dug us up the way they dug up Pompeii." — *Painter-Muralist Millard Sheets.*

"The speed, the noise, the confusion, the ugliness, and the general sordidness of many of our American communities should stimulate us to take action."—*New York City Planning Commissioner James Felt.*

"The new Southwest Washington Development is all 90 feet tall and built according to the rules rather than the needs of a living community."—*Architect Chloethiel Woodard Smith.*

"As usual, the estimates for the new Minneapolis theater are a little higher than we had budgeted for. But that will only mean that some things we would have done in mink will now be done in squirrel."—*Sir Tyrone Guthrie.*

"Some of us who had a hand [in shaping the new architecture] look with dismay upon our present-day America, and begin to question just where all this is taking us."—*Architect Nat Owings.*

"An exquisite tapestry of significant cash savings may be the vehicle to help the intelligent tax planner."—*Communication from French & Company, Inc.*

"It is the fashion today to speak badly of Pier Luigi Nervi and Gio Ponti who are now serving as targets until new ones are found; for the one unpardonable crime of an Italian in the eyes of his compatriots is that of being a success."—*Italian Architect Ernesto N. Rogers.*

"Prohibition demonstrated that a few militant dames could put over anything."—*Architect Edward Durell Stone.*

**"This is an attack on current city planning . . ."**

That is how Jane Jacobs, a senior editor of FORUM, forthrightly introduces her controversial book, *The Death and Life of Great American Cities*. And the book is indeed an attack, of major proportions, aimed precisely at those planning techniques which, according to Mrs. Jacobs, have failed to make cities more viable. "City planning," she says, "has stagnated. It bustles but it does not advance. Today's plans show little if any perceptible progress in comparison with plans devised a generation ago. . . ."

FORUM does not agree with everything in Jane Jacobs' book, nor can the editors take credit for any part of her book in any way. But is it not wonderful whenever long-accepted notions in *any* field are challenged, especially when that challenge is made with high intelligence and on humanistic grounds?

Moreover, Mrs. Jacobs' challenge to city-planning concepts could not have come at a more opportune time: planners, architects, and, indeed, everybody else, it seems, is suddenly becoming aware of the crisis in our cities; and, just as suddenly, some very potent legal tools are becoming available for dealing with that crisis. Her challenge, too, has come at a time when planning has finally found itself as a profession. As HHFA Administrator Robert C. Weaver put it the other day: "Planning has come of age . . . it touches the lives and properties of most of our people."

So this is, quite possibly, America's last chance to re-examine some of those grand visions of the city which all have accepted as immutable truths since Tony Garnier, half a century ago, designed his "Cité Industrielle." When Weaver spoke of the broad, new opportunities for planning, he was addressing the annual conference of the American Institute of Planners at Detroit (see page 10) where some 900 planners met to—well, as it turned out, to talk about Jane Jacobs' book. (Although it was not on the agenda and most hadn't read it.) Generally, their feeling was that they had been attacked unjustly; but there was also a holier-than-thou attitude ("We know best") which is unhealthy in any profession, if only because it tends to stifle creative experimentation. The old concepts of the Garden City, the Radiant City, the City Beautiful may, just conceivably, be overdue for some very thorough re-examination. And while this fact has long been recognized by some planners, the re-examination has not been particularly widespread within the profession. Planners should realize that critics like Jane Jacobs represent a tribute in disguise: until now, nobody took city planners seriously enough to bother attacking them. Moreover, as Planning Expert Catherine Bauer (who basically disagrees with Mrs. Jacobs' position) pointed out in Detroit, such criticism "will gradually help to refine the goals, criteria, and methods of the planner, often based on all-too-crude assumptions." And she added: "All the old accepted planning criteria are subject to debate."

Debated they will be. FORUM will shortly publish such a debate between an outstanding U.S. city planner and critic of Jane Jacobs' thesis, and a similarly outstanding supporter of her point of view. Out of this clash of ideas can come renewed vitality for planning and urban design.





*Irregular exterior of the new NEGEA office building in Cambridge, Mass. (see page 72) is an attempt to give individual touches to a modular plan*

# OFFICES





PHOTOS: LOUIS REENS

***Some 29 million Americans spend nearly 60 billion hours of their time each year working in offices. Most of this issue is devoted to new ways of designing, building, planning, and furnishing these offices to make them better places in which to work.***





PHOTOS: LOUIS REEDS

*Low brick wall screens executive parking lot under elevated west end of building*

***Its syncopated facades of concrete and glass make this New England office building an important departure from repetitive modular design.***

## SKIP-STOPS ON MODULE

At a time when the uniform for most office buildings is still the taut-skin, mostly glass curtain wall, pioneering spirits have begun to ask whether this uniform has not, in fact, become a straightjacket (see "Jazz in Architecture," FORUM, Sept. '60). The question has been: how to break the monotony of the repetitive curtain wall without abandoning the benefits of machine-age mass production.

One of the most imaginative and successful solutions to date appears in the striking façades of the New England Gas & Electric Association's (NEGEA) Service Corp. headquarters, designed by Sert, Jackson & Gourley, for Cambridge, Mass. Precast concrete mullions, whose 2-foot, 1-inch spacing establishes the building's basic module, stand out in low relief

against the face of the building, setting up a strong, regular rhythm. Between the mullions, translucent glass sandwich panels (with a glass-fiber mat developed in England in the middle) reinforce the rhythm which is vigorously punctuated by clear glass "view windows" varying in width from one module to three.

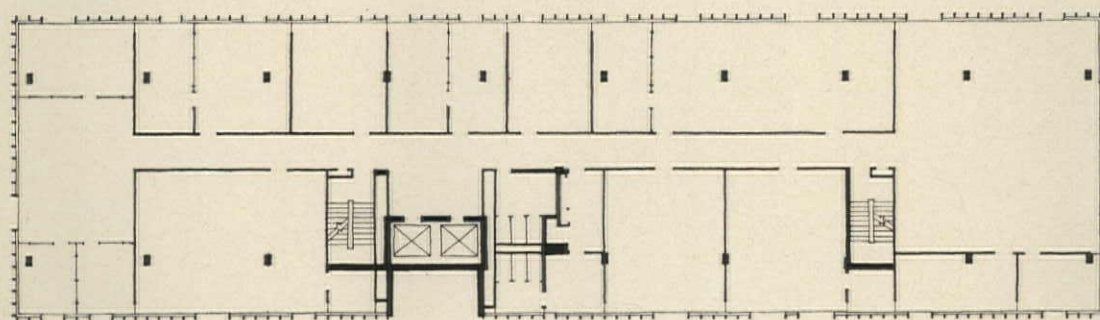
The free and dramatic composition of the façade is more than an attempt to combat monotony. The architects believe that the conventional ribbon window admits too much light, too much heat, and too much glare. And the number of sun-control devices installed behind and in front of the glass façades of most of our current office buildings bears them out.

The curtain-wall system which they devised is thus an attempt to admit daylight in reduced amounts and to restrict the flow of heat into and out of the building; so they turned

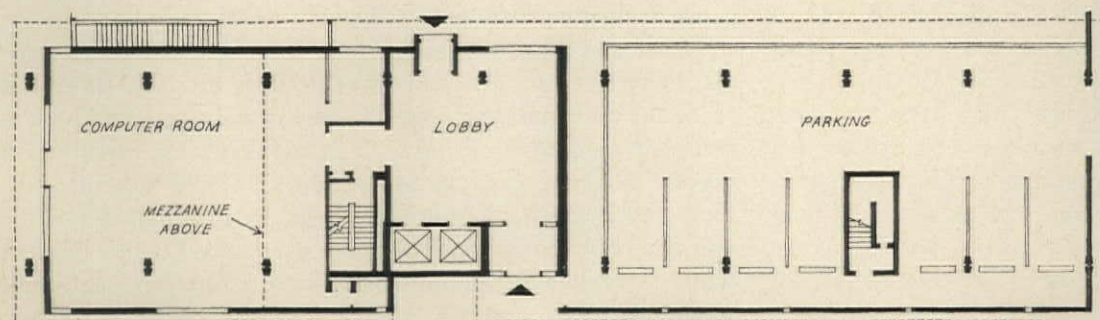




*Inviting entrance lobby contrasts rough textures of brick and raw concrete with diaphanous window drapes, plate glass, and steel*

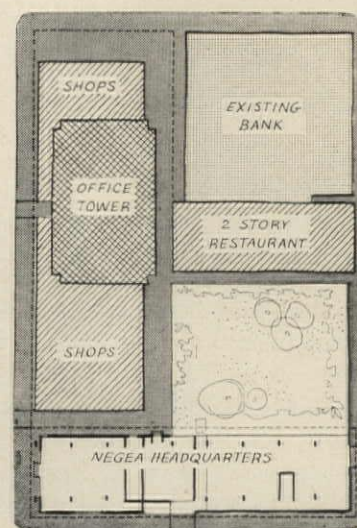


THIRD FLOOR



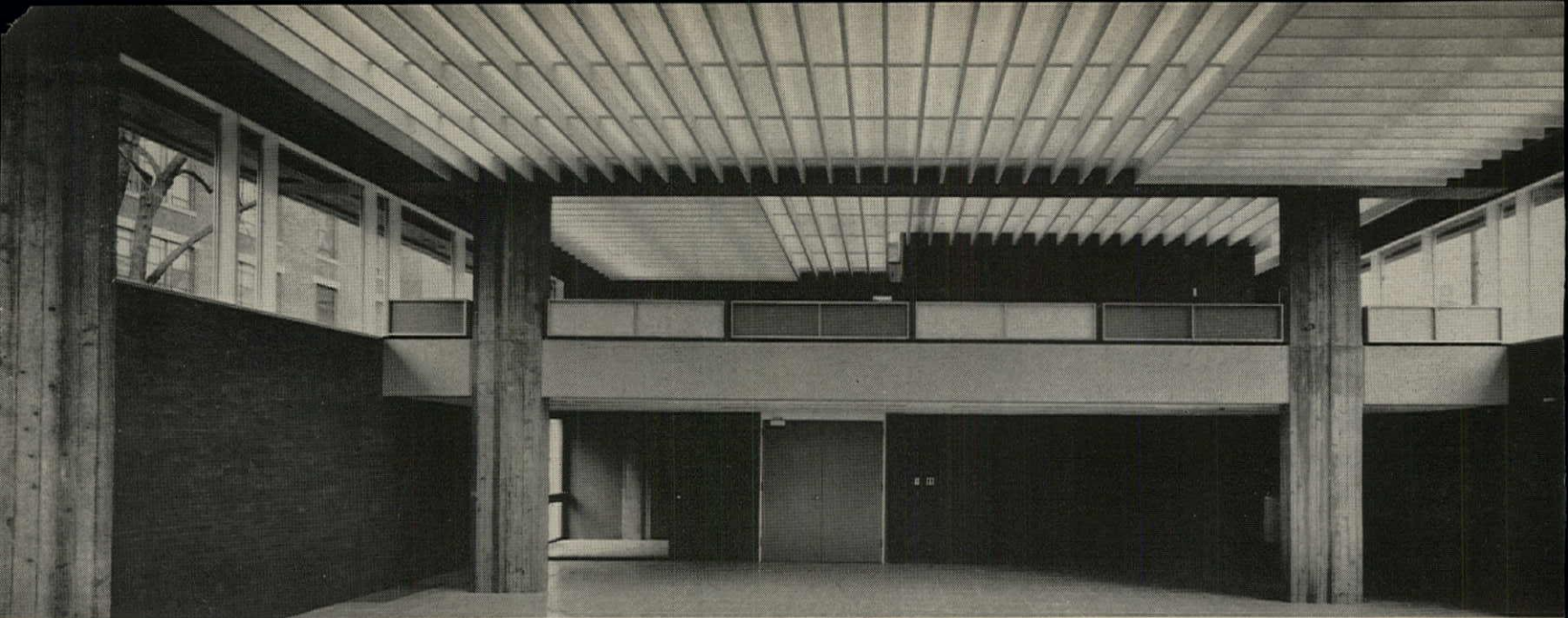
GROUND FLOOR

0 10 20 40'

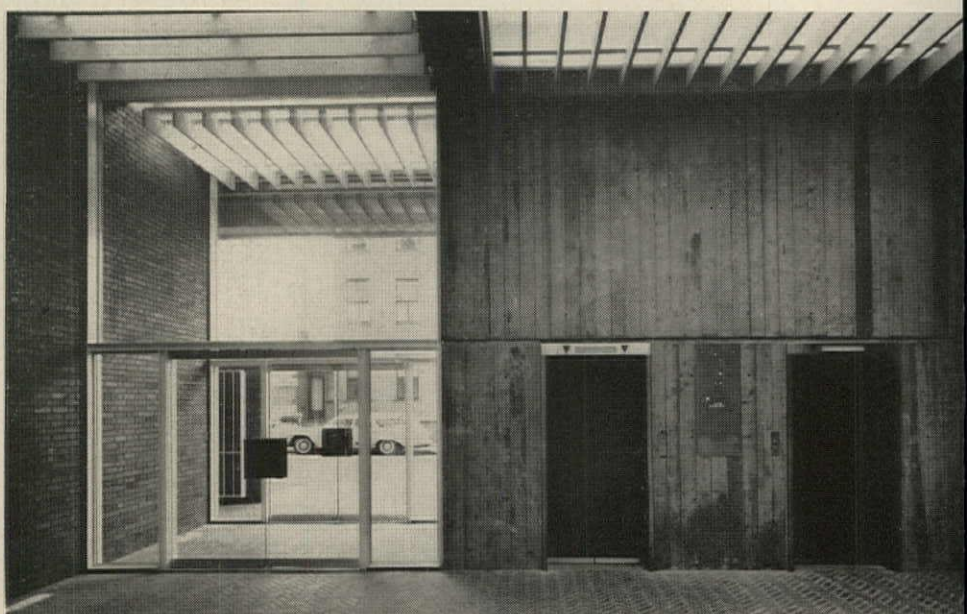


*A proposed future development of the entire block (plot plan, above), much of which NEGEA already owns, guided design and siting of its headquarters. Tentative plans call for low shop buildings, a rental office tower, a two-story restaurant, and a pedestrian arcade running down the middle of the block.*





*Clerestory windows and a luminous ceiling with painted wood baffles light the first-floor computer room and its mezzanine. Equipment is on order*



*Lobby entrance from rear garden (left) is a low, boxlike volume. Main entrance from street (right) has glass walls to full 16-foot ceiling height*

to the translucent glass sandwich panel with at least one clear glass panel for views in each office. The freedom of composition on the façade reflects the variety of plan arrangements within and also permits individual offices of similar size to have different window arrangements. It also, of course, restricts views from the outside in, hiding much of the inevitable office clutter behind neat, ordered walls.

A central service core houses elevators and stairs. On each floor, a corridor extends along the long east-west axis serving work areas on both sides. The ground floor contains a spacious entrance lobby, a computer room with a "floating" floor that eliminates traffic vibrations, and executive parking at the west end (plan, page 73). On the next three floors are the company's various departments (accounting, billing, engineering, etc.). Top executive offices, conference rooms, and the

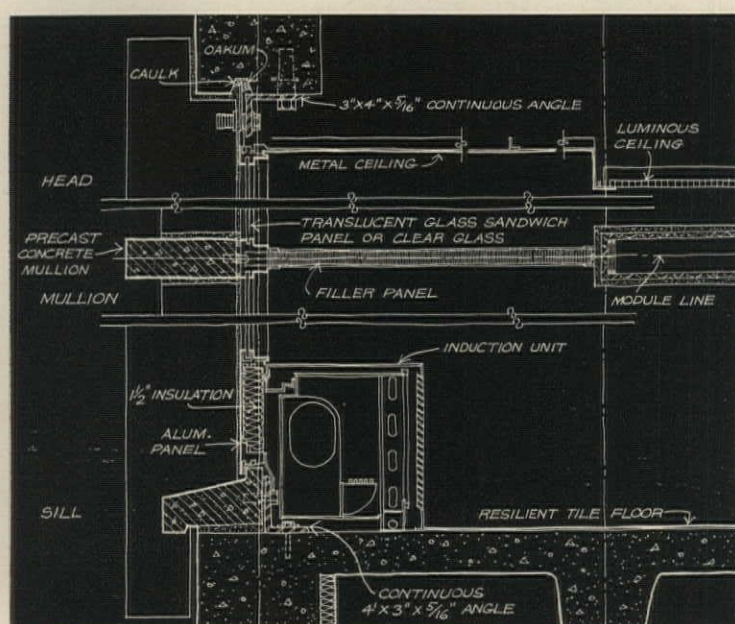
employee cafeteria are on the fifth floor, which has two balconies facing south away from the street and toward the interior of the block (see photo, pages 70-71). Heating and air-conditioning equipment are housed in a three-story penthouse with gaily painted "bulkhead" doors.

Metal stud partitions with gypsum lath and plaster are typical. Where greater flexibility was needed, movable partitions of metal and glass were used. Work areas are lighted by a complete luminous ceiling in a metal grid. In corridors, a deeply louvered strip bathes brightly colored accent walls with light. Special luminous ceilings were designed for the entrance lobby and computer room using wood baffles painted white. Throughout the building, contrasts between rough materials like raw concrete and brick and highly machined materials like stainless steel are played for maximum effect.

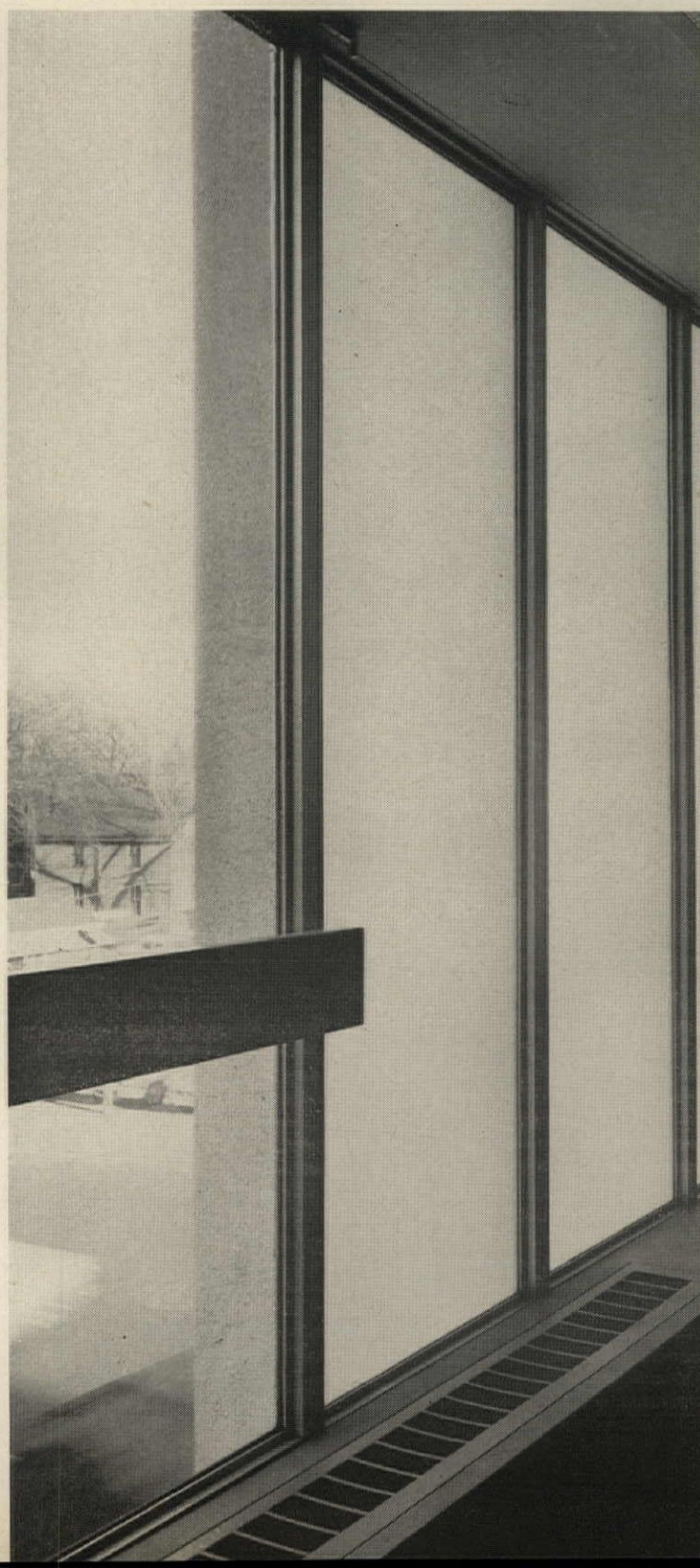




Luminous ceiling (above) draws exhaust air from the building through the fixtures, thus cooling the ballasts to prolong fixture life



Section (above) shows details of typical curtain wall (photo, right)



#### FACTS AND FIGURES

Headquarters building, New England Gas & Electric Association Service Corp., 130 Austin St., Cambridge, Mass.

Architects: Sert, Jackson & Gourel. Landscape architects: Sasaki, Walker & Associates. Structural engineers: Goldberg LeMessurier Associates. Mechanical engineers: Reardon & Turner. Electrical engineers: Thompson Engineering Co. Acoustical consultant: Bolt, Beranek & Newman, Inc.

Construction details: exterior walls of clear and diffusing glass panels, precast concrete panels and mullions, cast-in-place concrete span-  
drels; columns, beams, slabs and

walls of reinforced concrete; floor construction of concrete ribs; luminous ceilings cool ballasts by drawing exhaust air through the fixtures, prolonging their life; heating and air-conditioning equipment in penthouse and top story of building; furniture by owner.

Total cost: \$1,440,500. Cost per square foot (includes fees): \$27.78. Cost of curtain wall: \$9.42 per square foot.

Financing: building is owned by State Mutual Assurance Co. Term of leaseback arrangement with NEGEA Service Corp. is 30 years with option to renew for two additional ten-year periods.





PHOTOS: GEORGE CSERNA





**The well-turned corners and the careful detailing of materials and surfaces make this downright simple office building into fine architecture.**

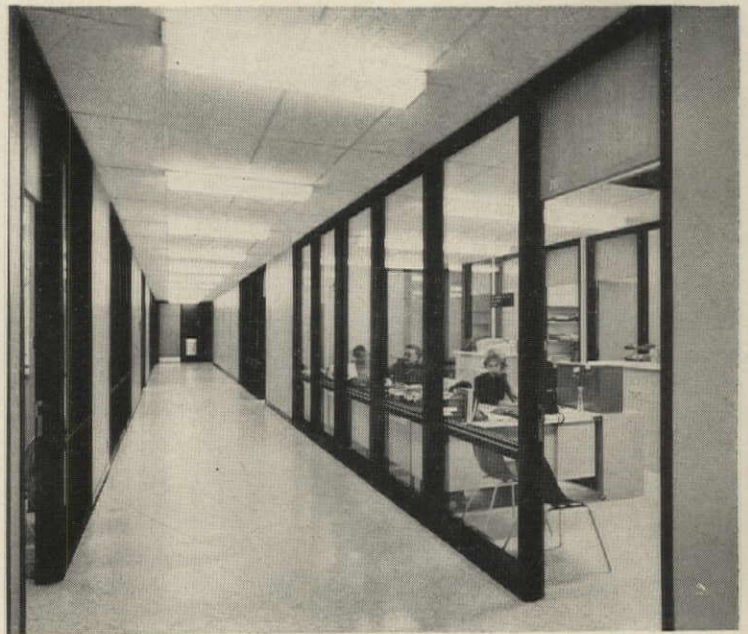
## BRICK THOROUGHbred

To the passer-by who hurries past, the new three-story administration building for the Board of Education in downtown Columbus, Ohio looks quite matter-of-fact, as indeed it is. But if, perchance, he looks close up, he will see that it was put together with an exceptionally fine hand.

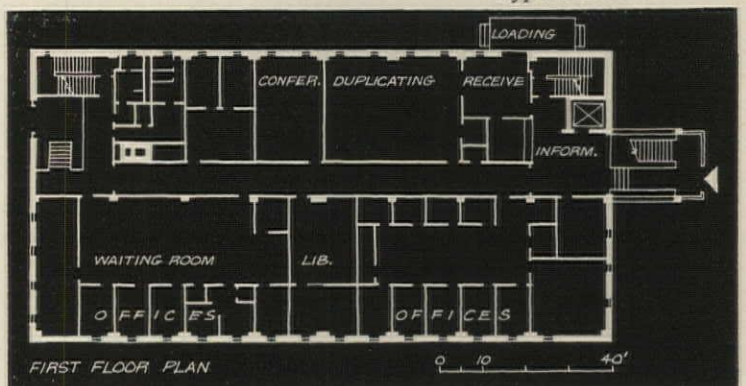
The canopy and doorway at what is, in fact, the back entrance to the building (top, left), show this hand nicely. Overhead, hefty steel brackets hold the 4-inch concrete canopy slab a few inches out from the wall. The slab, finely curved at its edges and capped with copper flashing, is sand-blasted and left exposed. Alongside, the gray iron-flecked glazed brick wall quietly matches the warmer, lighter gray of the concrete.

The top and bottom of the brick wall reveals the major theme of the building. Projected 4 inches out from the concrete foundation walls on a substantial steel angle, the wall is clearly a curtain of brick hung on a concrete frame which is exposed again at the top of the wall, where the roof slab projects above the brick. To allow the wall to dominate, the slim aluminum windows are placed flush outside and the windows are set in gray anodized frames (see photograph and details overleaf).

This careful consideration of the corners and edges of the building, this concern with joints and junctions of materials, this organization of the building and its elements into planes and groups, is evident everywhere: in the interior hall (top right), where ceiling-mounted fluorescent fixtures fit precisely over the acoustical-tile joints; at the main entrance and stairway (bottom right), where the masonry exterior wall is clearly cut by a wide opening running top to bottom of the building; even at the meeting of the sidewalk and the basement wall where two courses of pink paving brick mark the corner.



*Typical interior corridor*



*Main floor plan*

*Main entrance and stairway*



### FACTS AND FIGURES

Columbus Public Schools Administration Offices, 270 E. State St., Columbus, Ohio.

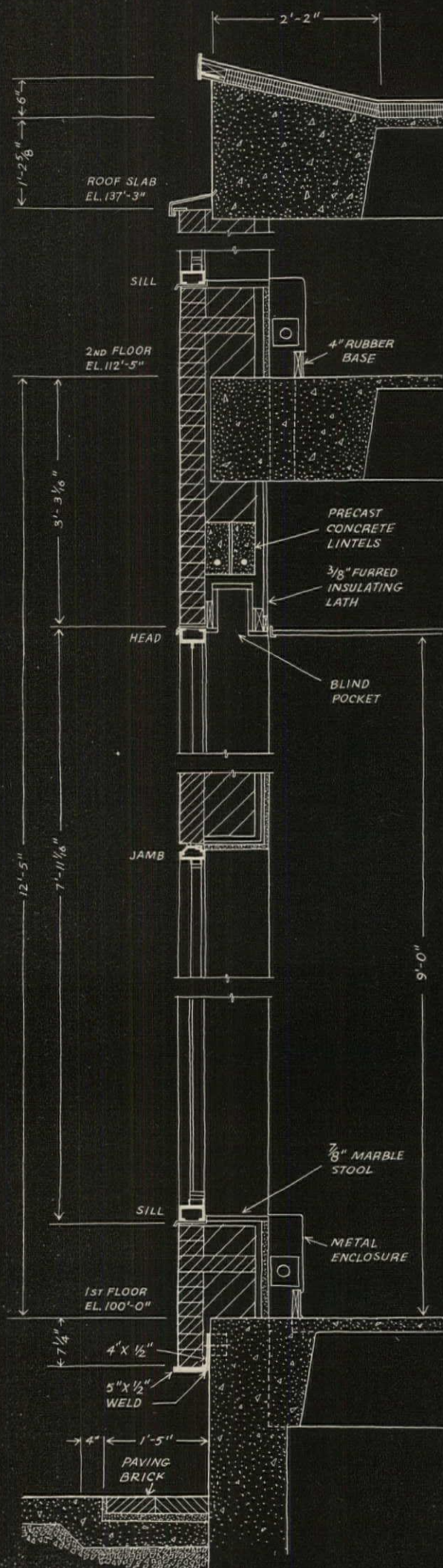
Architect: David Schackne Jr. Engineers: Russell S. Fling & Associates (structural); Samuel R. Lewis & Associates (mechanical); Gould H. Ayres & Associates (electrical). Landscape architect: Marion V. Packard. General contractor: Sheaf Construction Co.

Total Cost: \$653,903.97. Building

area: 38,050 square feet. Cost per square foot: \$17.23. Financing: part of a \$29.8 million bond issue.

Special features: Spread footings, reinforced concrete frame, pan-slab concrete floor system. Heating by hot water to fin-type units. Air conditioning by chilled air to ceiling diffusers. The building serves as the nerve center of a school system with 88,000 pupils, 3,500 teachers, and 130 buildings.





EXTERIOR WALL AND WINDOW SECTION

ADMINISTRATION BUILDING - COLUMBUS BOARD OF EDUCATION





PHOTOS: FRANK LOTZ MILLER

**New Orleans' Medical Plaza groups doctors' offices around courts, on top of parking for 200 cars**

## GARDENS ON A GARAGE

Going to the doctor is hardly fun, but in this new medical office building in New Orleans, at least, it has been made as pleasant as possible. The big, low "superblock" of the Medical Plaza, in fact, takes its design cues more from the festive world of a modern shopping center than from a conventional office building, leading customers through a series of landscaped courts and covered walkways on which its many tenants face.

The tenants in this case are some 40 doctors, over half of whom have already moved in: general practitioners, internists, obstetricians, pediatricians, radiologists, psychiatrists, a dentist or two. Along the main street front there is also space set aside for a handful of small commercial services, including a drugstore, coffee shop, and bank.

Most conveniently, the patient visiting his doctor can drive down a ramp into a 200-car garage extending under the building, take an elevator up, and walk through a patio under deep roof overhangs to the doctor's door—all under cover. The plaza level is a series of office suites facing New Orleans-style courtyards, each named for a famous doctor and each landscaped a different way (see overleaf). To maintain scale with neighboring residences, the parking level is buried half a story in the ground; the plaza level is thus raised 4 feet, setting it off nicely from the busy street. The inner gardens are reached from the sidewalk by broad ramps, easily negotiated by wheel chairs, and by shallow flights of steps.

In designing the building, Architects Curtis & Davis and their clients, a group of local businessmen, found they had both a valuable site directly across from a major hospital, and





Main pedestrian entrance is beneath a raised concrete "waffle" slab; auto ramps (below) descend to lower-level garage.



the problem of making it pay without destroying the essentially residential character of the "Garden District." This eliminated a multistoried office building making maximum use of the land. But the area was sufficiently short on parking that a commercial garage could be used to make the project economically sound.

To justify a low building on high-priced land, costs were kept to a minimum. Both levels were designed for precast concrete frame; an alternative bid for poured-in-place construction saved an additional \$42,000. The grid ceiling is exposed in the garage, insulated only after the suite above is completed and air conditioned for occupancy. Exterior walls are of used and repainted brick from buildings demolished on the site. Suites vary in size, and are custom-designed to remain in keeping with the project's over-all style.

#### FACTS AND FIGURES

The Medical Plaza, Inc., Foucher and Prytania Sts., New Orleans, La. Architects & engineers: Curtis & Davis & Associates. Mechanical and electrical engineers: DeLaurel & Moses. Landscape architects: Curtis & Davis and Preston Trainor. General contractor: Quality Construction Co.

Cost: \$676,598 (contract cost for building shell, including architects' fee, excluding landscaping and cost of individual suites, built by owner to tenants' requirements). Size of lot: 250 by 302 feet. Floor area: 128,500 gross square feet. Rental area: 54,000 square feet. Cost per

square foot: \$5.25 for the shell; \$12.50 to \$15 in addition for completed individual suites. Average rental: \$5 to \$5.50 per square foot per year.

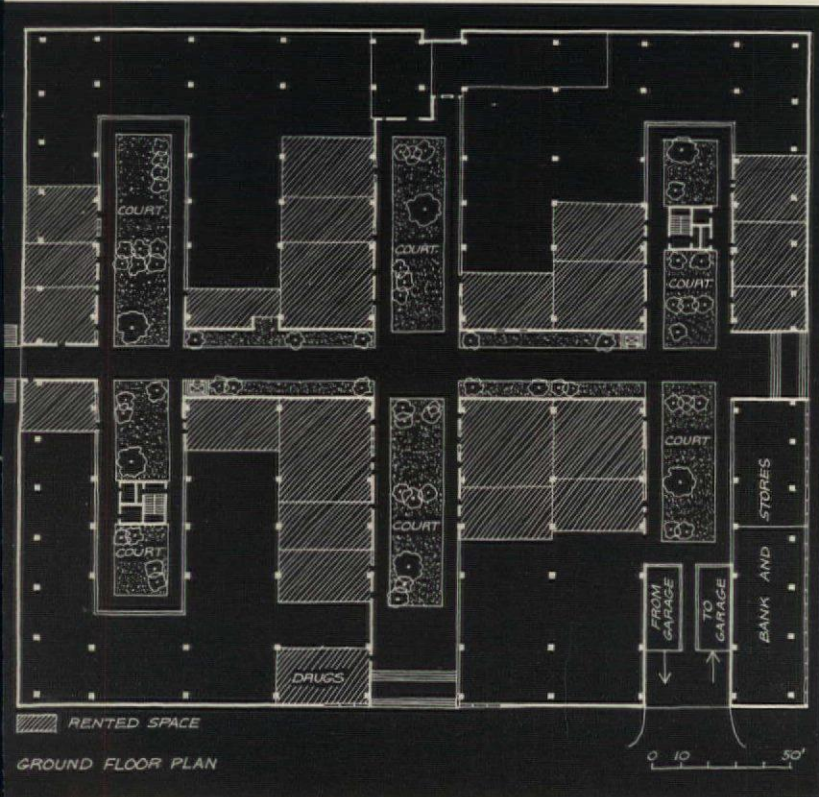
Financing: basic contract underwritten by Equitable Life Assurance Society of the U.S.; individual suites, by The Bank of New Orleans & Trust Co.

Construction features: reinforced concrete pan and joist system, poured in place; exterior walls of brick veneer on wood studs, plasterboard interior finish, cypress shutters. Aluminum sliding sash; built-up roof.





*Covered mall leads from the entrance to three pairs of courts (above and below), each landscaped in a different way*





**In a rich architectural submarket, there are many different brands and blends of service—by architects, manufacturers, designers, decorators, dealers . . . and wheelers.**

## THE BOOMING OFFICE PLANNERS

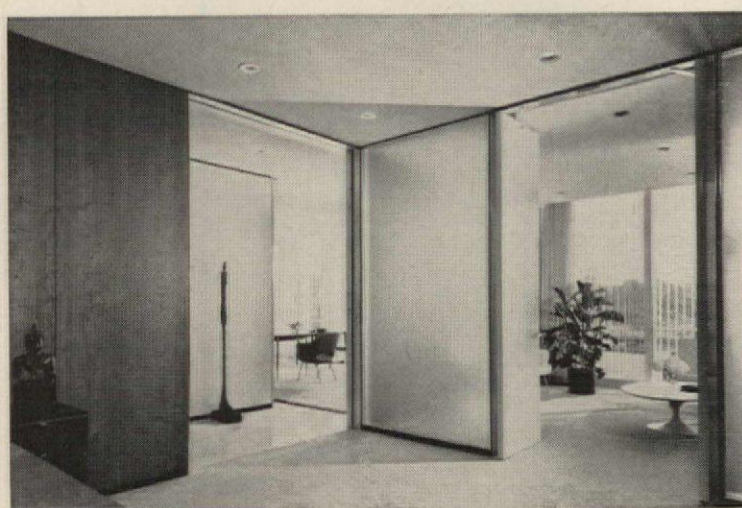
BY WALTER McQUADE

Office planning can seem an odd field to the man who is renting an office and wants it professionally planned. Some office designers do not have offices themselves, operating out of telephone booths or sample rooms. Others have awesomely luxurious suites in exactly the kind of midtown office towers which they want to operate on for corporate clients. Many are really furniture manufacturers whose main "designers" are salesmen working on commission. (Other manufacturers maintain highly professional staffs of first-rate designers.) Retail furniture houses are in the office-planning business, and so are wholesale dealers, department stores, and industrial designers. A good many office suites are designed, and the furniture specified, on the drawing board of an architect—but the architect may be doing it not to make money, but to protect the character of his building from being smothered in the chintz approach of an interior decorator he suspects is lurking behind the drapes of his client's living room.

Whatever the process, and whoever the practitioner, the office planner is as formidable a factor today as he is a new one. The time is past when office design was the part-time specialty of office managers. Since World War II, expertise has really arrived, and there is no better way to prove it than to examine the product of the arriving experts—the modern office, the nut inside the hard shell of contemporary metropolitan architecture. This space is an orderly, compact, skillfully assembled set of surfaces and devices intended to assist the white collar worker in his job and to surround him with a pleasant, if usually non-committal, environment. As with the main stream of modern architecture since the days of the Bauhaus, the emphasis has been on simplification, on subtraction of the extraneous. Although the modern office may be a simple soufflé, it still is not easy to cook. If it is really to do anything for a tenant it does require a certain touch, commonly called "architectural."

### A IS FOR ARCHITECT

This is not to say that the interior design of offices is primarily an architectural specialty; architects probably come first on the list only alphabetically.\* It is difficult to establish just who does do the greatest volume in office design, for despite the general similarity of the esthetic toward which most mod-



© EZRA STOLLER

**THE KNOLL PLANNING UNIT** is probably the ranking interior design firm in the field—in reputation, if not in gross. A wing of Knoll Associates, makers of modern furniture (which has recently been purchased by Art Metal, Inc., a massive manufacturer of metal office pieces), the Planning Unit (population, 25; base, New York) specializes in such jobs as the four floors for Westinghouse in Park Avenue's Pan American building, now under construction, and the executive offices for H. J. Heinz, Co. in their Skidmore, Owings & Merrill-designed research center in Pittsburgh.



The Knoll esthetic is so well established, and is so well moored to the Knoll furniture line, that relatively little persuasion of clients has to be done on either esthetic or budget matters, although the range of Knoll interiors' cost can be wide. The esthetic is always in motion, however, and today is moving away from primary colors and toward more intricate finishes. "When they come to us, we can generally figure they know what they have in mind," says a

representative, "namely, a Knoll interior." But not all pieces used will be by Knoll. Some may be imported (most frequently, Wegner chairs from Denmark) and much may be specially designed. Some of the special designs may later find their way into the standard Knoll line—usually desks and storage cabinets. The Knoll fee basis is almost always a set cost for design time, which includes a profit margin. Above: Florence Knoll, who heads the design unit, and an executive office suite for Heinz with the Knoll touch.

\*A FORTUNE survey of several thousand subscribers in 1958 indicated that in four out of ten cases of office modernization or moves, company clients call in a furniture dealer or an architect to help; three out of ten call in interior decorators or designers.



ern office designers strive, the very diversity of their approaches to clients makes exact statistics elusive. There are several trade organizations that touch on the field, but none of them can even say how large the office interiors market is. Perhaps the single biggest manufacturer of office furniture, General Fireproofing, reported \$42 million total sales in 1960, but, at the other end of the transaction, very few office designers will disclose how much of their clients' money they customarily spend for furniture, flooring, partitions, lighting, etc. The usual answer to questions along this line is: "Every job is individual."

However, a statement made last month by a vice president of one of New York City's venerable vendors of all kinds of furniture (and one of the biggest operators in the contract furnishings field) may furnish a clue. A. D. Aulicino of W. & J. Sloane was asked what the usual range of expenses came to, per square foot of offices. He said: "The average here in Manhattan is about \$8 per square foot for general office space, and may run, on the average, up to about \$20 per square foot in the office of the head man—excluding art, however." For stenographers and their bosses, some 45 million square feet of new office space has been added in Manhattan alone since 1945, and about 35 million square feet has been extensively remodeled, so it is not difficult to understand why there is so much activity among the office designers in the U.S., and why some formerly reluctant participants, the architects, have begun re-studying their role.

#### WHO GETS WHAT

To stay with money for a moment, but move from gross to net, it used to be that the difference between various kinds of designers of interiors could be defined by diagramming how they earned their keep. The tradition among architects was to stick with a percentage fee, passing trade discounts along to the client. On the other hand, many interior decorators made the biggest part of their fees by buying furnishings at trade prices (usually 30 to 40 per cent off list), but charging the client the full retail markup, or a sizable portion of it.

Perhaps because so many office interiors today demand much more than simple furniture arrangement, the bidding pattern now is leaning heavily toward the architectural method. The designer—be he an interior decorator, a specialist in office design, or an architect—writes complete furnishing specifications for the job, and puts it out for competitive bids. The bidders may be wholesale furniture houses, retail stores, or the contract divisions of department stores, but standard discounts are only a rough guide to the bidding. The system of manufacturer's franchises may get in the way of competition in some cases, but not usually. For example, when Architect William L. Pulgram,



**ITKIN BROTHERS** has been selling office furniture hard since 1934, when Ben Itkin (right) and his two brothers began the store. Itkin Brothers have ten busy office designers in their planning and design department, a cherished selling tool begun in 1946—located on a balcony over an acre of selling space two steps off New York's Madison Avenue.



**W. & J. SLOANE**, the delight of the swank suburban matron for that correct beige living room, also knows how to provide for her husband's office environment. Headed by Vice President A. D. Aulicino, in New York, this department has a staff of 50, sets no limit on the size job it will tackle. Not only offices are designed here, but also hotels, hospitals, and ships. Sloane's is aware of the "architects' concept" in interior design, but still finds more of its clients feel more comfortable in traditional (genuine antiques or good reproductions) or transitional (less specific antique reproductions, with more play on materials than details). Sloane's design services are sold on a time basis; the furniture, cost plus. Shown is the Sloane specified reception center for Long Island's Franklin National Bank.





who heads the interiors section in Finch Alexander Barnes Rothschild & Paschal in Atlanta, Ga., specifies Knoll chairs, he knows he can get competition from four dealers. The winner of the competitive bidding is paid by the client. The basis of payment to the designer then is fee—a straight percentage, or time-plus or, in some cases, even a flat sum per square foot of floor area in the job being done. (For some designers this starts as low as 50 cents per square foot for very quick or very repetitive jobs, such as motels or hotels, but it can run right up into outer financial space.)

All those design firms who use this system of passing on the markdowns to clients, or going out on competitive bid, point out its prime advantage: *we are paid for our design services, not for ordering furniture; the focus is where it belongs.* But the system is not without its variations. Sometimes the client does not want his purchasing department to handle the payments direct; in this case the designer, decorator, or architect will usually add a service charge for carrying the financial transaction. "Money costs 6 per cent," explains one. "We don't carry a big capitalization, so—in theory, at least—we have to borrow. So we charge about 10 per cent for buying, plus the design fee." There are still a few furtive clients who somehow cannot face paying fees for designing offices, one office planner complains; these companies prefer to be presented with retail prices for what the designer buys at trade. Many of these clients, of course, go directly to furniture retailers or department stores, whose design charges will not appear on the bill, although their design services may be quite capable.

#### GETTING THE JOB

The process of getting interiors to design is probably a trickier one than getting buildings to design, partly because the participants in the office-design game share no common ethical code. The temptation to design on speculation is tremendous because many, perhaps most, office-design jobs are routed through the real estate firms who do the renting of office space. If a real estate agent can show a prospective tenant a rough layout of how a space can be used, dashed off hastily by a designer with quick wits and a battery of colored pencils, he has an edge over another real estate man trying to sell bare space—and new office space is, of course, notably bare, usually lacking even partitions these days. From this service to the real estate man, some commissions to carry through the rough designs invariably result.

The resourcefulness of realty men does not stop with the preparation or securing of sample designs for prospective lessors. There is muttering among architects that some of the



IRVING MOGULESCU



BEN SCHNALL

**DESIGNS FOR BUSINESS, INC.** of New York is the creation of Maurice, Joseph, and Irving Mogulescu, who take very good care of the business, but give star billing to Designer Gerry Luss.

What DFB does for offices, in brief, is to apply the cleanliness and dash of modern design techniques. Most of DFB's work is with tenants who have leased, or are about to lease, space in New York City speculative office buildings. DFB tries hard to make contact with the clients even before the lease is made legal; President Maurice prides himself on his firm's ability to earn its total fee handily by shrewd advice in pre-design programming of space and work flow, etc. This may even include finding the right building for the client, as determined by bay spacing, window sizes, and window spacing. DFB is not, how-

ever, a real estate broker, but "always a consultant for a tenant." The firm is also engaged sometimes by speculative builders to present preliminary designs in order to interest prospective tenants, and thus sell space.

All DFB specifications for interior designs are put out on speculative bid, but it is not unusual to find Luss-designed furniture on the premises of their clients. These pieces—also a complete portable partition system—are designed for various manufacturers. The chairs in this New York office for Holt, Rinehart & Winston (shown in photo, above) are DFB designs, for example.

The complete cast of partners which, with about 90 employees, makes up DFB are (above, from left to right): Irving Mogulescu, Maurice Mogulescu, Joseph Mogulescu, and in the middle, Luss.





HAL PRYFE

**MRS. FLORENCE CLARKE** of New York and **MRS. CHARLOTTE GOODWIN** of Lake Forest, Ill., are interior decorators who collaborated on a Wall Street securities office (below) for C. F. Childs & Co. Reassurance was the recipe, and the design was well cooked: "Conservative elegance marked by antique furniture . . . patina rather than polish . . . masculine surroundings in which men will enjoy meeting and working." And—on rainy days—sending out for lunch.

Mrs. Clarke and Mrs. Goodwin follow the well-established professional pattern of interior decorators in earning their fee via the furniture pieces supplied.



MARC NEUHOF

ARTHUR AVEDON



**FREIDIN - STUDLEY ASSOCIATES** of New York is led by Architect Jack Freidin (right) who, in 1956, joined with rental-agent man Julien Studley to form an unorthodox but highly successful team (present staff, eight). To date most of the design work has been fed into the firm by Studley's real estate office, but the pattern is now beginning to change. As word of the prices, speed, and dash of some of the FS jobs has circulated, independent commissions are finding their way in. The firm has several billing patterns applied according to the size and character of the job. Freidin-Studley will bill on an hourly basis, or square footage or as a percent-



age of total cost. Inevitably it prepares some office layouts for prospective tenants, but does charge for the work after the leases are signed. The firm sometimes designs office accessories too. Above is an office for General Instrument Corp. in New York.

BALTAZAR KORAB ©



**W. B. FORD DESIGN ASSOCIATES**, of Detroit, is another industrial design firm whose "corporate identity" programs for their clients have pulled them into office design. About 50 per cent of the firm's design energy (the staff numbers 23) now goes into the office-planning specialty. Ford implies this could grow, but he would prefer not to let it outweigh the product designing. Typical of the clean, suave Ford ap-

BALTAZAR KORAB ©



proach is the central circulation area—complete with pools, foreground—in the suite of offices (left) designed for Bundy Tubing Co. in Detroit, Mich.



coarser office designers pay real estate men commissions for steering jobs their way. Whether or not this is widely true, the field is still fast and frantic for one dressed in the formidable armor of the AIA code of ethics. As a result, few architectural firms, as such, can wheel and deal in it to match the office-design specialist. At least one big architectural firm, Perkins & Will (see right), has recently made a pioneering step into interiors by establishing a separate company to do interiors work—Interior Space Design, Inc. ISD goes after interiors work on its own.

#### AN EASY WAY?

Perhaps the simplest way to get an office designed is to go to one of the furniture manufacturers who offer this service free. Some of them do not even have to be gone to; a postcard with office dimensions will suffice. A plan, plus furniture, is shipped back, with no charge for the plan.

This is a long way from the kind of operation the Knoll Planning Unit provides, however. The unit (see page 82) is a wing of Knoll Associates, the renowned furniture-makers, and buys most of its furniture from the parent group; but someone who wants a Knoll-designed office has to pay for the design too, usually on a fee basis figured on time.

Only once in recent memory has a client come to the Knoll designers and asked for a design which would not use Knoll furniture. This was the Deering Milliken Co., for the interiors of its building in New York. A top executive of Deering Milliken—the crucial man, the client—said he did not like Knoll furniture, only Knoll's design talent. In the end there was a meeting of the minds, or an eclipse of at least part of this prejudice. Many items of Knoll furniture wound up in this handsome job—and the Knoll designers also managed to line a telephone booth with Deering Milliken flannel.

Herman Miller, Inc., another famous manufacturer of modern furniture, is a little less austere than Knoll in that it does maintain a design division which will complete offices without fee, but can be approached for assistance only through the holders of Herman Miller franchises or through independent designers or architects. The company estimates this division will generate close to \$1 million in furniture orders in 1961. To complicate matters, Herman Miller's chief of design, George Nelson, also maintains his own architectural and industrial design office, and will occasionally take on an interesting office design for a fee. He also designs much Herman Miller furniture on a royalty basis, the Herman Miller advertising, some showrooms, offices, and parts of the proprietors' houses. Not austere at all are firms like Itkin Brothers



HEDRICH-BLESSING

**INTERIOR SPACE DESIGN, INC.** is a subsidiary of Perkins & Will, architects. The New York firm sells its parent about half its services, and goes out after interior assignments on its own as well. "Interiors are a different problem from architecture, and take different talent and training," says Brock Arms of ISD (right). "We have no intent to apply a rigid architectural esthetic." To delve into the real likes of an office-planning client, he sometimes asks



ARTHUR SHAY

where the man likes to spend his vacations. Present staff of ISD: 20; typical office interior (top) is for International Minerals and Chemical Corp., Skokie, Ill.



**ARCHITECTS FINCH ALEXANDER BARNES ROTHSCHILD & PASCHAL**, of Atlanta, got into the office-interiors field, deeply, with their complete commission for the Georgia Power Co. building (FORUM, June '61 and photo, above). William L. Pulgram (right) heads a four-man section in the office, which carries through the firm's indoor assignments and is now



GABRIEL-BENZUR

attracting some of its own. Bidding on specifications is the purchasing pattern, plus fee.



in Manhattan, which basically is a retail furniture operation, but has a very busy design division, too. Anyone can ask for their services, and the charges are not high. (But some of the furniture is, including pieces by Knoll and Herman Miller.)

### HIDDEN MONEY

It is only fair to include at this point some plain words from a designer who is not an architect (although architecturally trained) and who does not particularly want to design office interiors. This is William Snaith, president of Raymond Loewy/William Snaith, Inc., who resists getting into the creation of office interiors unless it is for a client whose over-all "corporate image" he is helping to mold. Says Snaith: "In interior design I have to compete with people who make money in hidden ways. They charge a fee, yes, but their real profit often comes from the components they use—whether they license them out to manufacturers, or own a piece of the manufacture. It doesn't appear on your statement, but they make the profit. To compete with them I'd have to set up a lower-paid office, that's all."

"The only thing my firm has to sell is time and skill. It is better business for us to put this skill into merchandising design than into office design. If I can design interiors on a fee basis, I'll do it, sure. But rarely offices just as offices. Offices and showrooms, yes; sales offices, sure. But most people simply won't pay what they have to for design. They want it buried in the total cost, just as in advertising, where the agency fee is buried in the cost of the magazine space or TV time."

The nub of the matter may be that those companies who are willing and able to pay straight, sometimes stiff, design fees for office interiors expect designs in the architectural sense, produced by designers who burrow deep into the company's operating troubles and, using space as a tool, attempt to cure them. This suggestion brings a chorus of ayes (from fee-charging designers) who point out that their practices are really new in that they do not merely place furniture in rooms, but place people and programs and partitions. In theory this is what the architect is hired to do, but in designing a speculative office building he seldom can do it. The Henry Dreyfuss firm of New York is one industrial-design outfit that has made it through the thin sheet of glass which separates office interiors from exteriors, with a commission to design the 30-story headquarters of the Bankers Trust Co. in New York.

If this is any indication of things ahead, more architectural firms may soon be figuring feasible ways to move into the office-planning business, if only to retain their present franchise on the frame into which the offices are fitted. **END**

**RAYMOND LOEWY / WILLIAM SNAITH, INC.**, New York, is a famous industrial-design firm, but its greatest activity is store design. When this 180-man office does accept an office-design assignment, however, it is with independent ideas. Says President Bill Snaith (right): "After we've solved the mechanics—space division, work flow, etc.—then we worry about how human beings react. At this point most designers are worrying about style, but we have no particular style to sell. . . . Today design has been ground down to a poverty of line, a subtraction of detail, an emptiness in human characterization. A lot of designers try to make up for this emptiness by inserting money, by using lavish materials. They re-



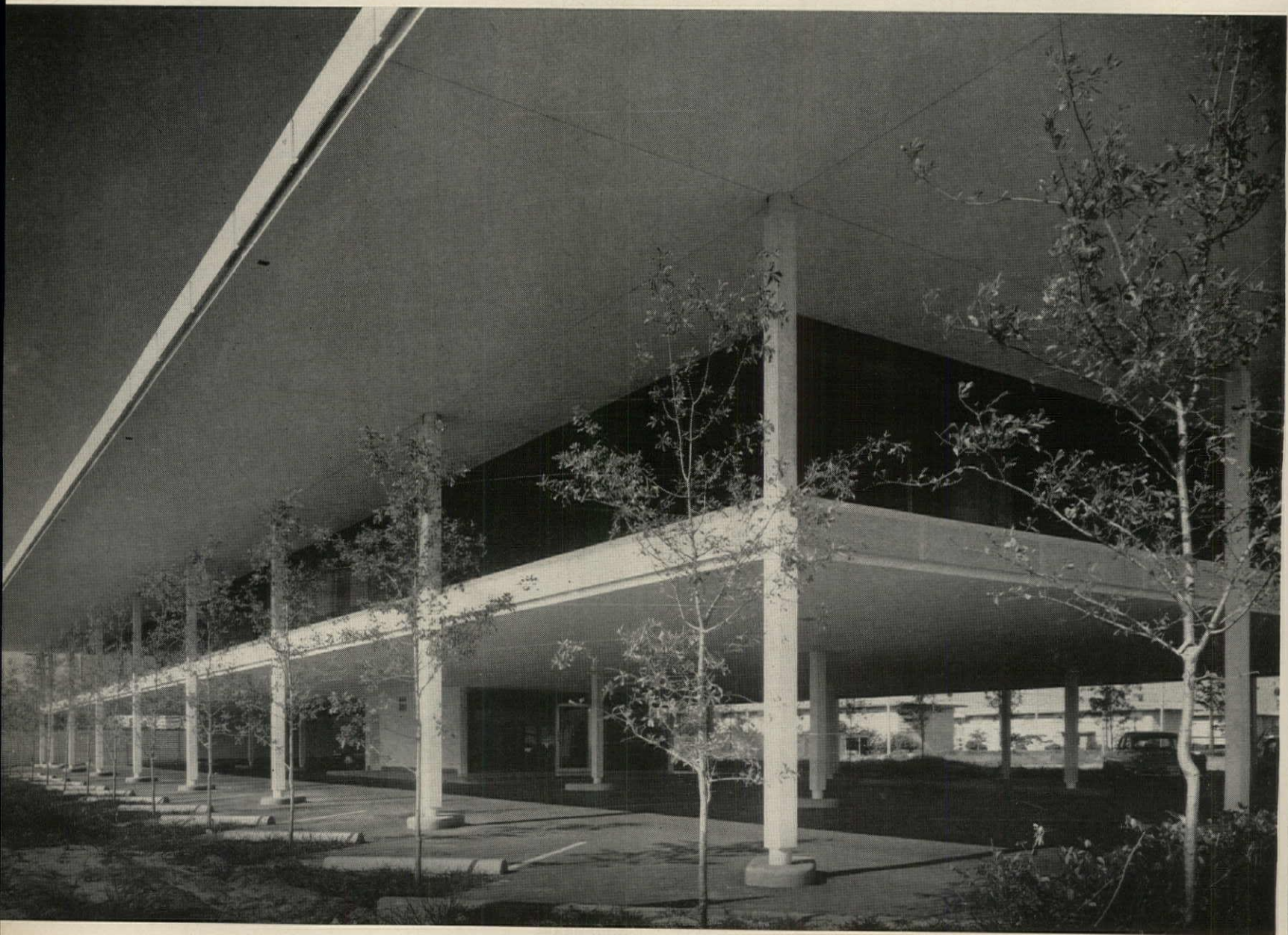
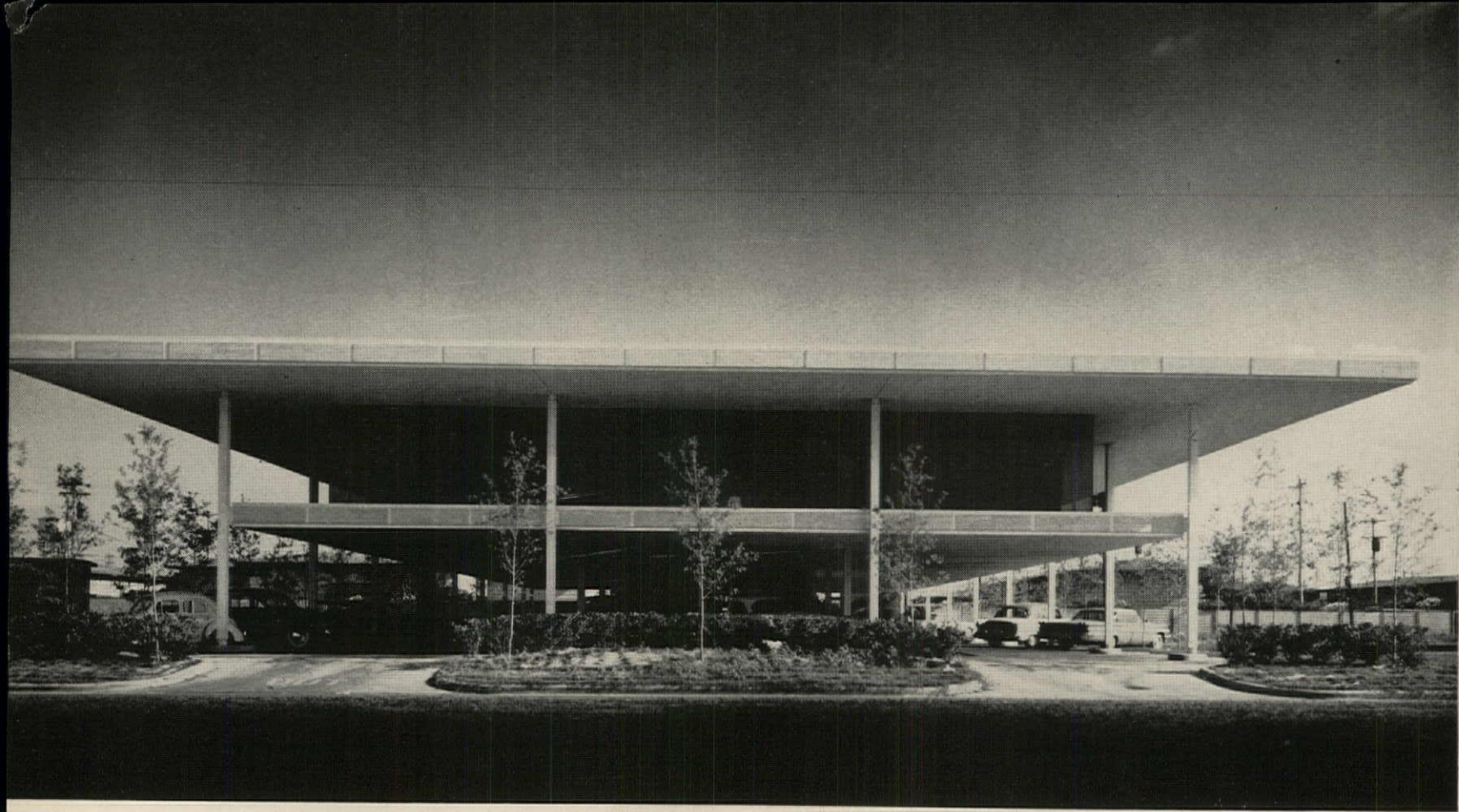
JOHN JOYCE, INC.

place design with money—great sheets of glass, marble, stainless steel, but we try to do something intimately appropriate to the client." An example (below): the standard doors used with soft arches above in the New York showroom and offices for Hanes hosiery. "Feminine. We didn't want masculine design here. We replaced money with design."

GOTTSCHO-SCHLEISNER, INC.







PHOTOS: F. WILBUR SKIDERS



## OFFICES OVER PARKING

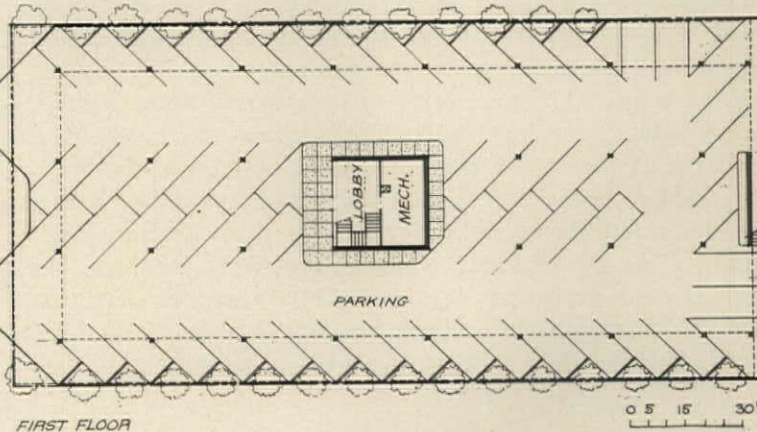
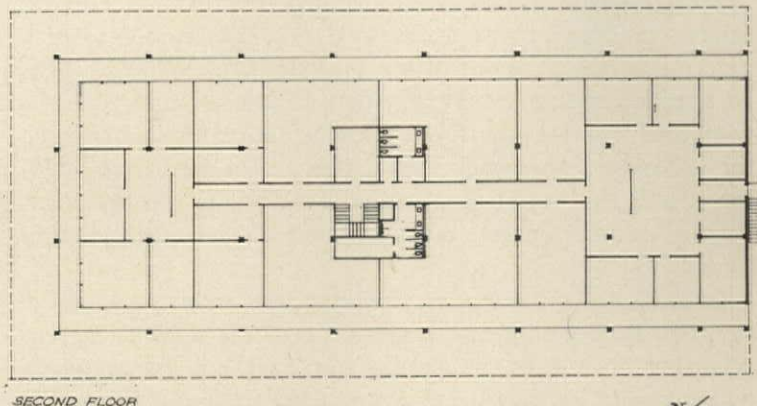
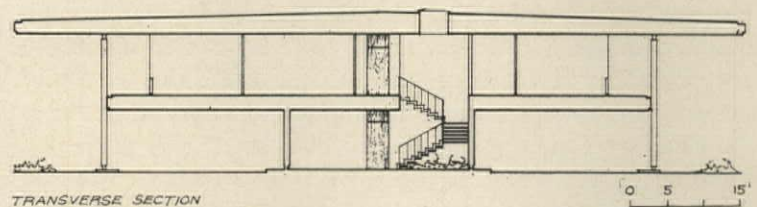
Although they present four different faces to the world, the Bacardi Headquarters in Mexico City by Mies van der Rohe (pages 92 to 95), the health center in New Orleans by Curtis & Davis (pages 79 to 81), and the two small office buildings in Houston, Tex. by Neuhaus & Taylor shown on these four pages are essentially the same building: all are two-story, columnar structures with the ground or subground level left completely open except for stairs, elevators, lobbies, or mechanical equipment rooms and with the second-floor space partitioned into offices.

In all but the Bacardi building, which has a generous lobby filling a quarter of its underside, the open space of the lower floor is used as a covered parking lot. Of the four, the two buildings by Neuhaus & Taylor are so similar that they can be considered the same building designed in two different ways.

For these two buildings, the first-floor-for-cars, second-floor-for-people arrangement is a practical, economic concept: people in suburban Houston—as in all suburbs—travel in cars; employees and customers come wrapped in 6 by 16 foot steel packages, so a large amount of parking space must be provided, and it is cheaper to lift a building off the ground and park under it than to purchase additional land for a parking lot.

Bay sizes in the Neuhaus & Taylor buildings are keyed to parking layout. Those of the Pontiac building (opposite) accommodate four cars parked diagonally, diagonal parking being dictated by the narrow lot. For the life insurance building (see page 90), the basic module is three perpendicular parking spaces. Both use a fireproofed steel frame to carry the second floor and roof, but the outer rows of columns of the life insurance building were paired to reduce bending moment in the floor slab and thus keep its thickness within reasonable limits.

Parking layout dictated a three-bay structural width for the Pontiac building, which adds up to 72 feet. This was 8 feet wider than the optimum width for speculative office space. Consequently, the gray glass walls of the office space were in a continuous "balcony" on three sides of the building. The roof was cantilevered another 12½ feet beyond this line to give added sun protection. On the fourth side of the building, which faces south, there is an opaque wall to cut off the view of another structure soon to appear on the next-door lot in that direction.



PONTIAC MOTORS BUILDING

Roof of Pontiac building with travertine fascia (opposite) completely covers parking lot. Only a small part of ground floor is taken up by lobby, stairs, and mechanical room; the rest is devoted to parking. Lobby must be entered through parking lot, but almost all users of the building arrive by car rather than by foot. Foliage will in time surround building on three sides.



Lot size, structural framing module, and office module, combined, produce a different layout for the earlier life insurance building. Here, a 4-foot overhang and a sun screen of suspended travertine panels (for reasons of appearance) keep the clear sheet glass in the shade. The panels also prevent a standing person from seeing what the architects call the "rather undistinguished surroundings." Again, the rear wall is solid and for the same reason.

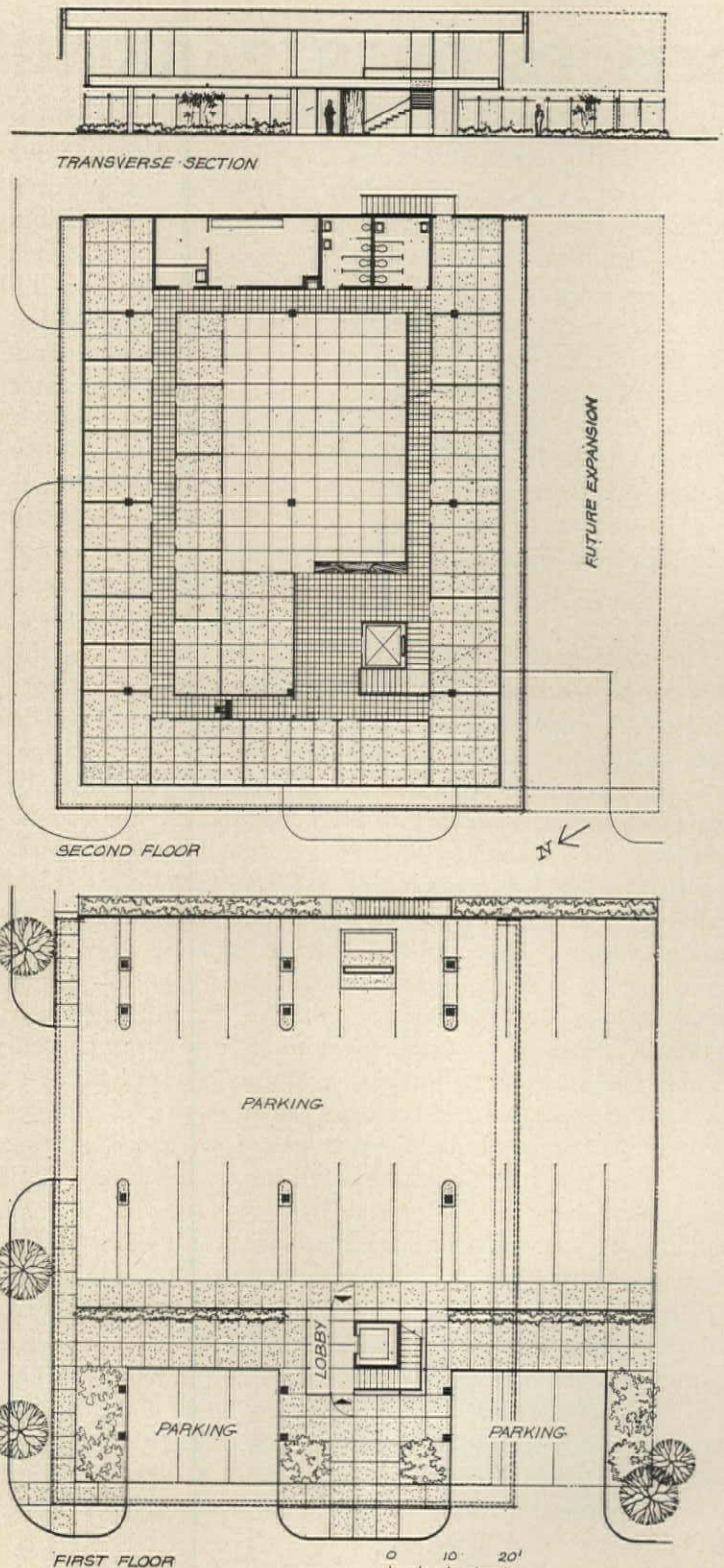
If the parking layouts determined the structural modules for the two buildings, it was the actual size of the buildings which determined the locations of the mechanical equipment cores. In the larger Pontiac building, the mechanical core could be combined with the stair lobby without noticeably jeopardizing the openness of the ground level. But the life insurance building is half the size of the Pontiac building, so the architects decided on two separate cores as a more satisfactory solution for that building.

In the case of the Pontiac building, the architects chose to stress the horizontal elements and suppress the verticals by emphasizing floor slabs, roof slabs, the horizontal rectangles of the bays, and by thinning down window mullions. In the life insurance building, the reverse was done. Here, the façade was divided into vertical rectangles, mullions were emphasized, and the sun screens and glazing were pulled up and down, respectively, to hide the floor and roof slabs. Both are elegant buildings, but the Pontiac building may be the more successful: the end result seems less contrived, and the hovering second floor and roof slabs seem to reinforce the openness of the ground level, rather than oppose it as do the vertical skins of the life insurance building. But, both buildings come off as clear statements of a real problem and as clear solutions to that problem; and any building that retains its clarity while standing over a herd of cars has achieved a great deal.

#### FACTS AND FIGURES

Office building for Pontiac Motor Division of General Motors, 3121 Richmond Ave., Houston, Tex. Type: multitenant office building. Owner: G. D. Hines Investment Builder. Architect: Neuhaus & Taylor. Structural engineer: Edgar Muller. Mechanical engineer: I. A. Naman & Associates. General contractor: Harvey Construction Co. Building area: First-floor lobby: 676 square feet. Second floor: 11,815 square feet. Enclosed areas fully air conditioned. Financing: conventional loan.

Pacific Mutual Life Insurance Co., 2701 Fannin Ave., Houston, Tex. Type: Single-tenant office building. Owner: Dr. Robert A. Johnson. Architect: Neuhaus & Taylor. Structural engineer: Vogt & Clouse. Mechanical engineer: James G. Brown & Associates. General contractor: American Construction Co. Building area: First-floor lobby: 287 square feet. Second floor: 6,912 square feet. Total cost \$142,000. Cost per square foot: For enclosed area: about \$15.00. For parking area (at one third): about \$5.00.





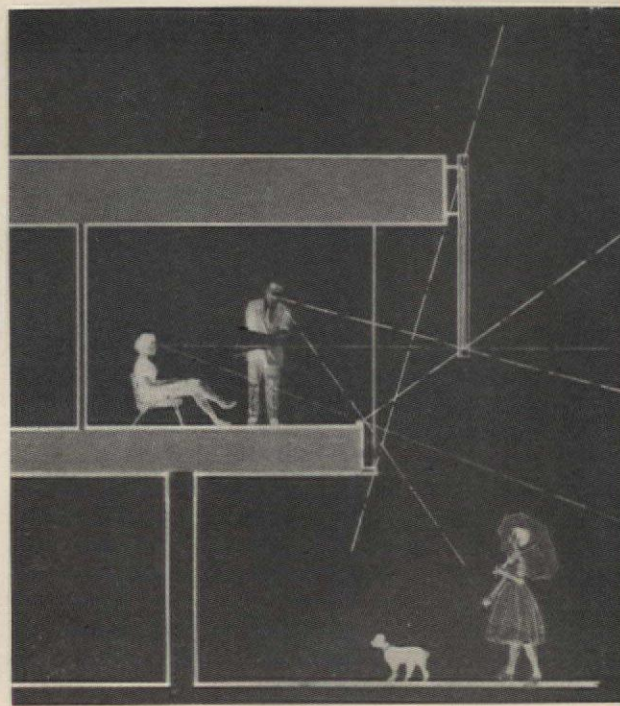


*Parking under Pacific Mutual Life Insurance building is divided into two lots by marble fence; customers park in front, employees in rear.*

**PACIFIC MUTUAL LIFE INSURANCE BUILDING**



*Building elevation will be symmetrical after expansion (see plan, page 90). Section (right) shows how glazing was pulled down to hide the floor slab. Gap measures 4½ inches, serves as pocket for curtains. Sun screen also screens out views of undistinguished surroundings.*







***Mies van der Rohe's new administration building for the Ron Bacardi Co. is a further refinement of the architect's serene ideal.***

## MIES BUILDS IN MEXICO

Hovering over a creamy travertine pad and surrounded by vibrant tropical foliage, the stark black rectangle of Mies van der Rohe's administration building for the Ron Bacardi Co. forms the gateway to the rum purveyor's Mexico City plant—a complex of buildings including Felix Candela's vaulted warehouse of thin-shell concrete (FORUM, Sept. '61). When Mies was designing his first building for Bacardi, a reinforced concrete structure for Cuba as yet unbuilt (FORUM, Feb. '59), President José Bosch asked him to design another, the Mexican administration building, which is of the architect's favorite black steel and gray glass.

As a good gateway should, this building bids an equally gracious—if formal—hello and good-by. (It could be rotated

180 degrees with hardly a perceptible change.) Exterior columns spring out of the lawn beside the floor slab, whose surface is at grass-top height. Without a wall or a step-up at any point along its perimeter, this is the most approachable of buildings, handsomely mirrored in the great reflecting pool which parallels its long north-south axis. Barely a quarter of the 171 by 88 foot ground floor is enclosed—by a 66 by 53 foot lobby with floor-to-ceiling glass, and by freestanding mechanical cores that flank both of its ends. Twin stairways lead up from the lobby through an open well to the main floor which, by Bosch's request, is a single room “where everybody can see one another.”

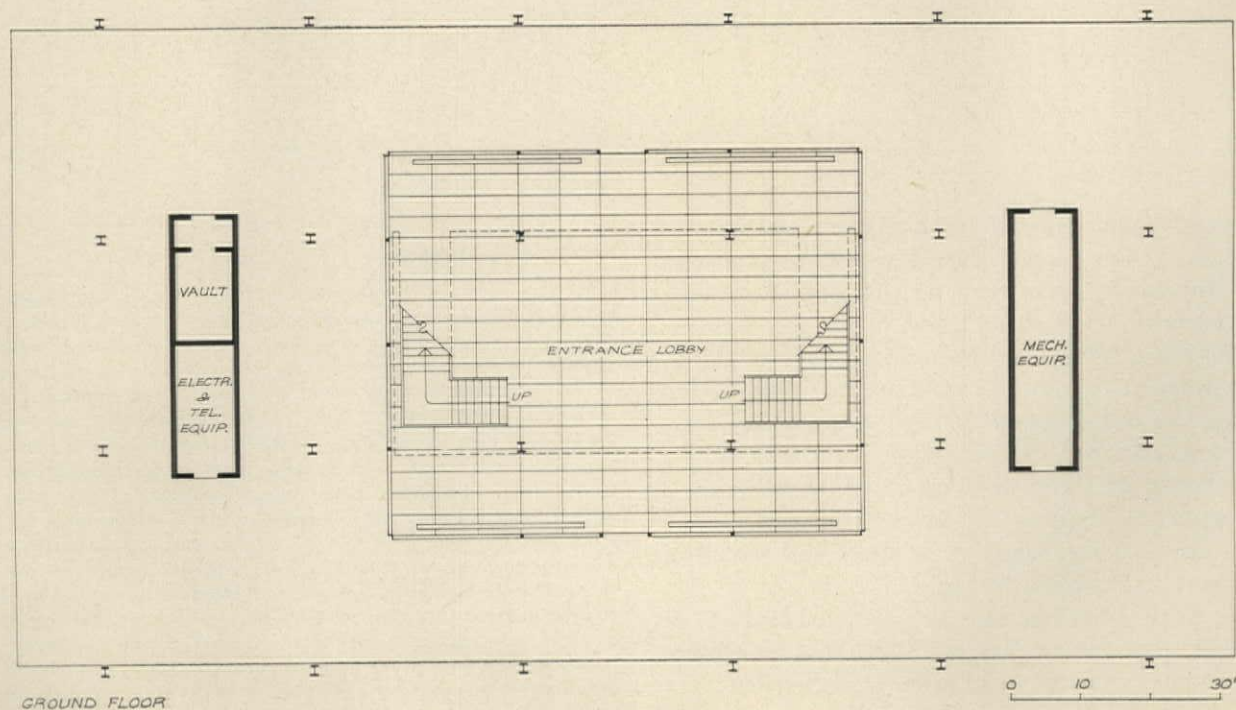
Mahogany-paneled walls screen the utility cores and the conference rooms behind them. Glass partitions enclose the manager's office and the necessarily noisy accounting room,





FOTO BREHME

*Clear glass, used to make ground floor seem more open, contrasts subtly with gray glass in upper floor. Ground-floor plan is below*







*Noble proportions distinguish the central hall which has a ceiling height of 26 feet. The well measures 66 feet by 30 feet*

but other executive and general work spaces flow together. Off-white floors, ceilings, and drapes, together with wood paneling and furnishings, provide a warmly opulent contrast to the black austerity of the structural steel.

A 13-foot-high ceiling on the upper floor preserves the big room's noble proportions, and allows space for exhaust fans and plenums above the dropped ceilings of the utility cores. (All vents, ducts, and flues are integrated in a pair of low-lying rooftop hoods of sheet steel, as carefully designed as though they would be exposed to view.) The great central well (above) has a ceiling height of 26 feet, and makes an imposing entrance hall for the building.

As in all his work, Mies has here worked relentlessly to reduce complexities of structure, plan, and detail to a minimum. The result is another monument to serenity and order.

#### FACTS AND FIGURES

Ron Bacardi Co. administration building, Mexico City, Mexico.

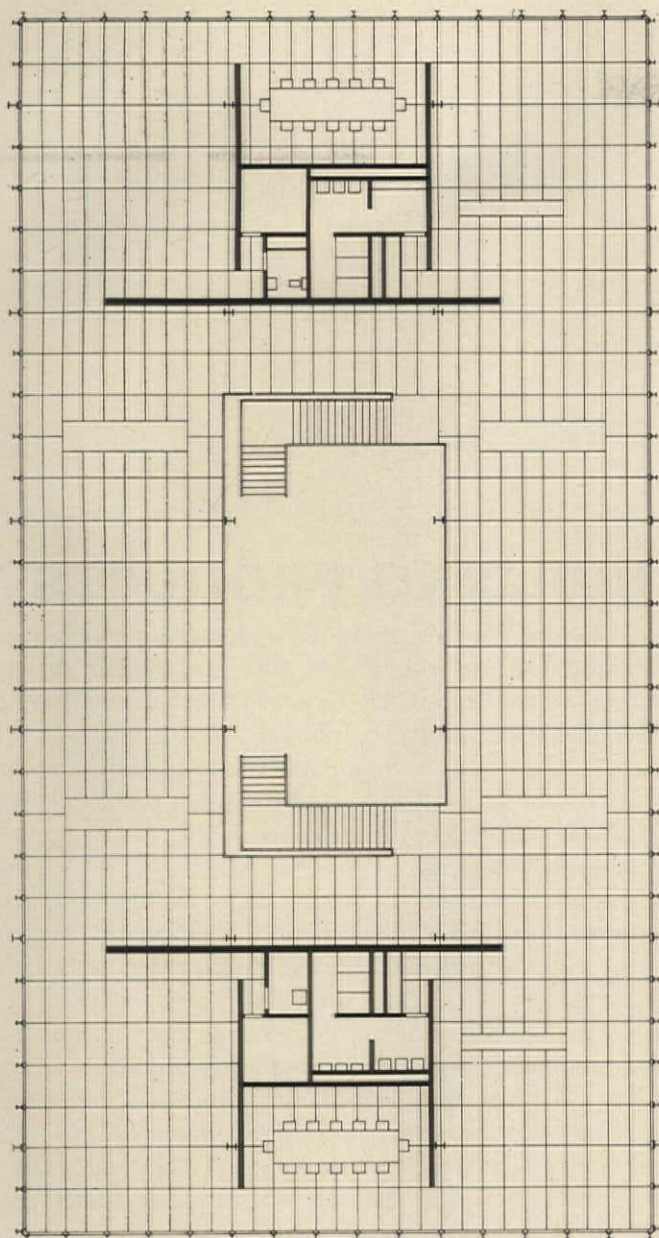
Architect: Mies van der Rohe. Engineers: Saenz-Cancio-Martin-Gutierrez. General contractors: Constructora Maya, S.A.

Total cost (excluding land, landscaping, furnishings, and architect's fee): \$427,000. Cost per square foot: \$13.80. No special financing.

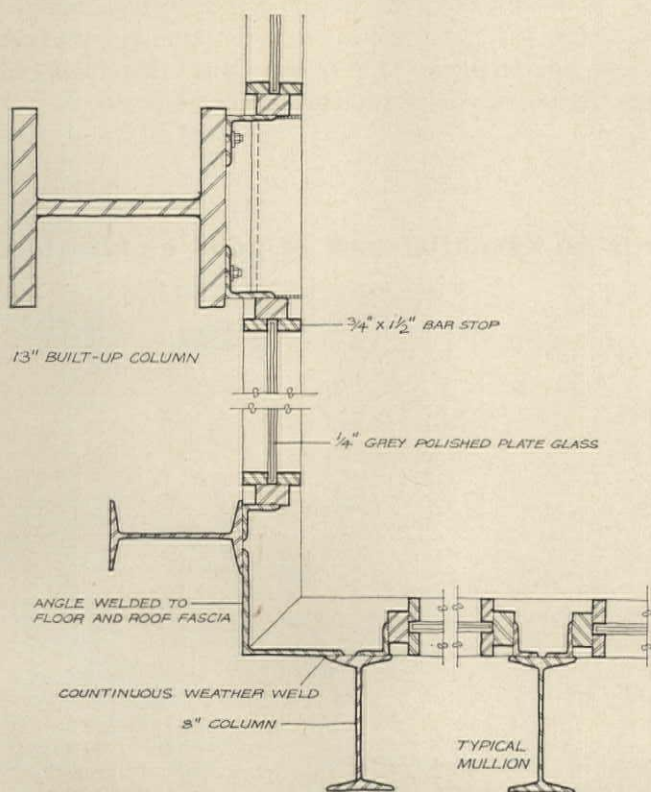
Construction details: columns are 12 by 13 inch welded I sections on 30-foot centers, weather-protected by a black mastic joint sealer; mullions are 8-inch I-beam rails on 6-foot centers; main floor windows

are of 1/4-inch gray plate glass, lobby of 3/8-inch clear plate; floors are of travertine; walls are of travertine on cement block (mechanical cores, toilets) or mahogany paneling; roof consists of a 4-inch concrete slab, 2-inch rigid insulation, and composition roofing; radiant heating is in slab with finned-tube convectors in air-supply grilles; ventilation is by continuous intake under perimeter of slab, feeding grilles along window lines, discharging through plenums and roof-mounted exhaust fans; all materials are local except gray-tinted plate glass in main floor windows.

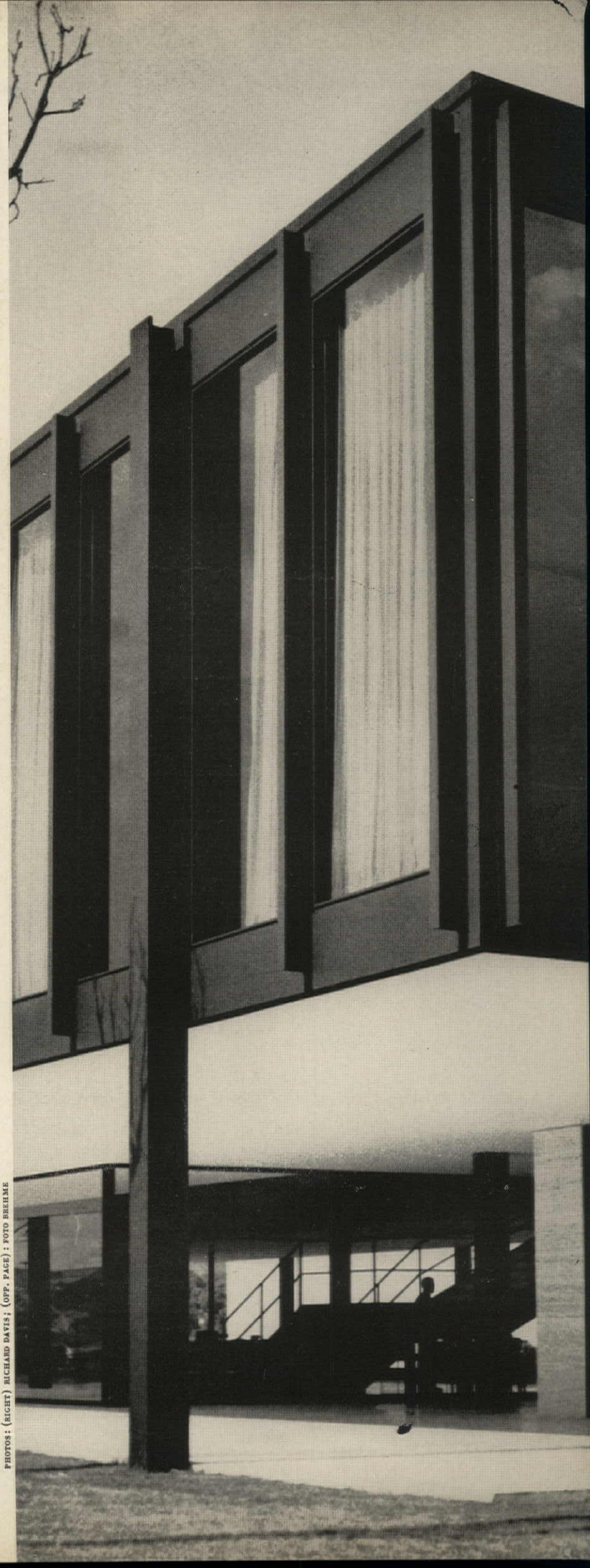




Plan of the upper level



Detail (above) and photo (right) show typical corner



PHOTOS: (RIGHT) RICHARD DAVIS; (OPP. PAGE) : FOTO BREHME



## WHO REALLY DESIGNS OUR BUILDING PRODUCTS?

One of the best-known architects in the U.S. made a startling admission the other day. "We care so much about the *appearance* of the products we use," he said, "that we sometimes specify something that isn't quite as well made, just because it looks a lot better than a competing product."

He was by no means alone in this: all over the country, architects refuse to specify well-engineered, standard components, from doorknobs to elevator cabs, because to use these components would spoil the appearance of their buildings. The late Eero Saarinen used to say that a building must be "all of one piece." However successful a building may be in its general concept, it is the appearance of the smallest detail which may, in the end, make or break it as a complete work of architecture.

Now and then, a wealthy client can afford to have his architect design everything in the building, from soup to nuts, and can afford to have a good manufacturer make up special items for him. Quite frequently, such special items will later turn up as standard products in the same manufacturer's catalogue—often without credit or profit to the architect who first designed them.

Now and then, too, an architect who really cares about the details of his buildings—like Columbus, Ohio Architect David Schackne (pages 76 to 78)—may specify foreign-made appli-

ances and fixtures, because many foreign manufacturers have long retained first-rate architects to advise on product design.

And, now and then, a good U.S. manufacturer will hire a good architect as his design consultant.

But, most of the time, U.S. architects have to make do with what happens to be available. And too often what happens to be available was designed by someone in the manufacturer's back room—and looks it.

This is a pretty sad state of affairs. It seems high time that our manufacturers (who make some of the best functioning equipment available anywhere) realized that appearance is as essential a function of product design as is performance.

This is the first article in a new series to be published by FORUM at intervals, showing the importance of product design in building. We trust that U.S. manufacturers will follow this series carefully, and accept its suggestions in the spirit in which they are offered—preferably by starting to retain outstanding architects and designers to develop new products (not pretty them up afterward), and to redesign old ones.

The first article (below) was contributed by Craig Ellwood, who designed the Carson-Roberts office building (FORUM, Sept. '61) and many other outstanding structures in the Los Angeles area. One of the things that makes his buildings outstanding is painstaking attention to detail.

### **Craig Ellwood tells why good building product design is an essential part of good architecture**

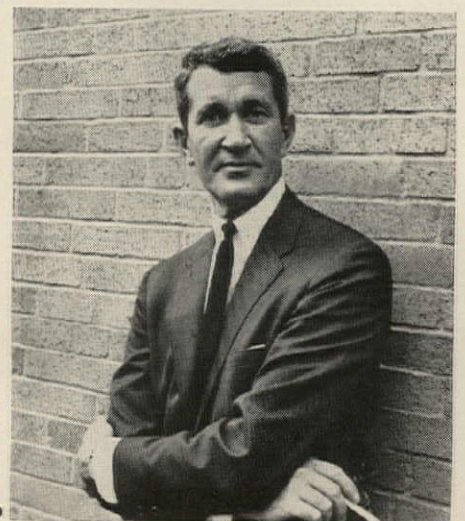
When we start detailing a building, we spend a great deal of time looking through hundreds of catalogues and samples to find just the right lighting fixture, office partition, or drawer pull. By the "right" one I mean one that won't spoil the appearance of the building as a whole.

Many designers in other fields may think this is a waste of time. But one reason why many of our automobiles look so terrible is just exactly because their designers either don't care about hardware, lettering, dashboard fixtures, and so on—or else because they confuse good design with styling for the sake of novelty.

Much of the time, an architect's search for really well-designed building products is pretty discouraging.

Why do so many good manufacturers believe that there has to be applied decoration, or bizarre lettering, or streamlining? (Doorknobs and water faucets do not often encounter

*continued on page 98*



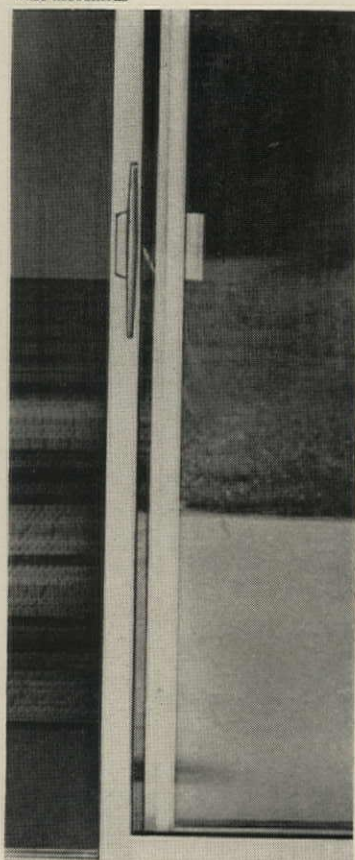
CRAIG ELLWOOD



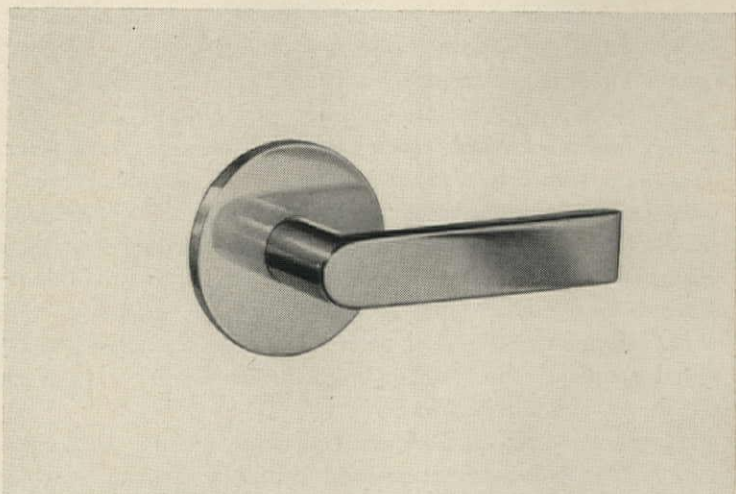
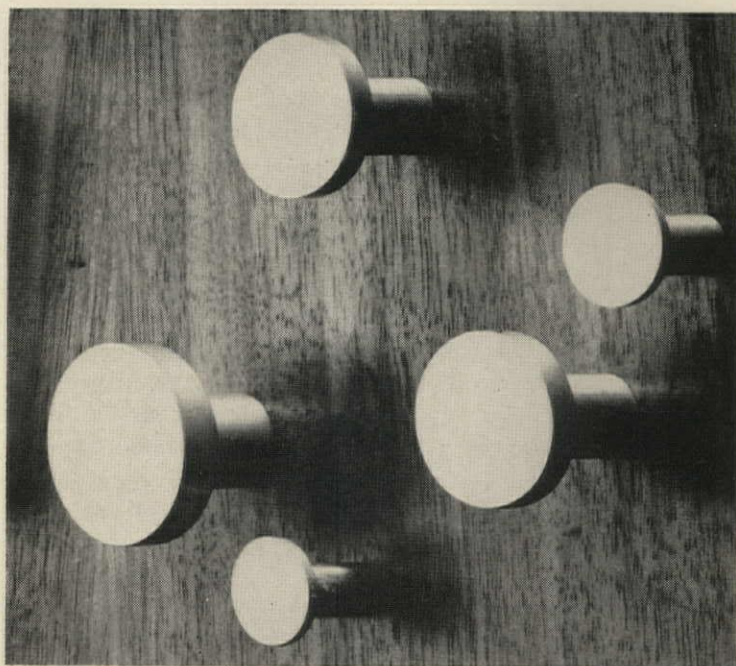


GEORGE CSERNA

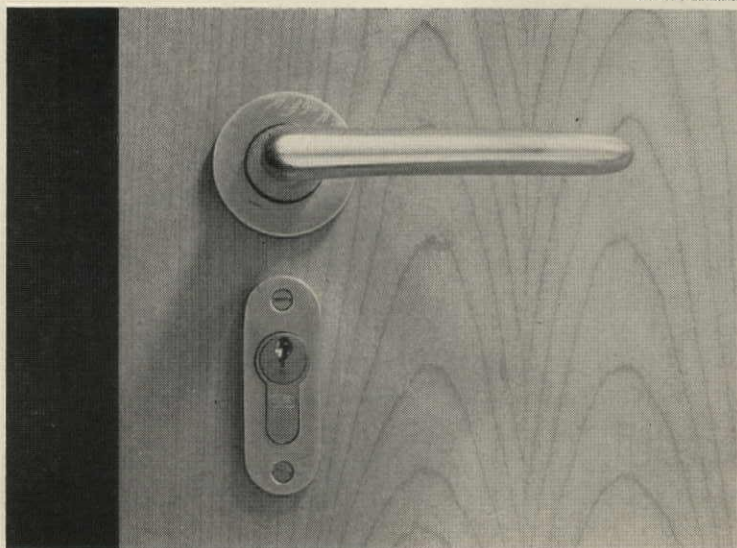
WEST ASSOCIATES



Lavatory fixtures (above) were designed by Philip Johnson for the Seagram building, and made by Speakman. The manufacturer has now adopted them as a standard product. The aluminum-framed sliding-glass door (left) is made by Arcadia. Many other manufacturers make good sliding doors, but I like Arcadia's hardware and detail better than most others. Drawer pulls (right) are imported from Japan by Morrison Imports of San Francisco. They come in brushed brass or brushed nickel. The cylindrical planter (below) is one of a whole group of similar ceramic pots designed by La Gardo Tackett for Architectural Pottery. Of the two lever-type door handles (below, right) the top one is a very handsome job made by Peabody (now part of Schlage); we have used it frequently. The bottom handle is a German product made by Zeiss-Ikon, and imported by General Lock. It has all the fine precision of a good, German camera. Architect David Schackne used it in his Columbus, Ohio building (pages 76 to 78).



GEORGE CSERNA





severe wind-resistance.) For years now, every good architect, when he has had the chance, has designed special fixtures and details that point the way. All that the manufacturers need to do is go and look at such first-rate total designs as Philip Johnson's "Four Seasons" restaurant in the Seagram building. Yet many manufacturers continue to ignore these pointers.

In going through all the material we collected in connection with the design of the Carson-Roberts building in Los Angeles, and of other structures, I have been struck by the fact that our favorite products fall into one of three categories:

■ The best kind of product, from our point of view, would be one that you cannot see at all. For example, we picked recessed lights that are completely without trim—all you see is a hole in the ceiling. The fixture itself is its own plaster stop.

■ If a building product has to be visible, then it should carry no extraneous decoration or detail. It should just be a very simple, well-shaped object, with a plain and elegant finish. There is no reason why it has to call attention to itself.

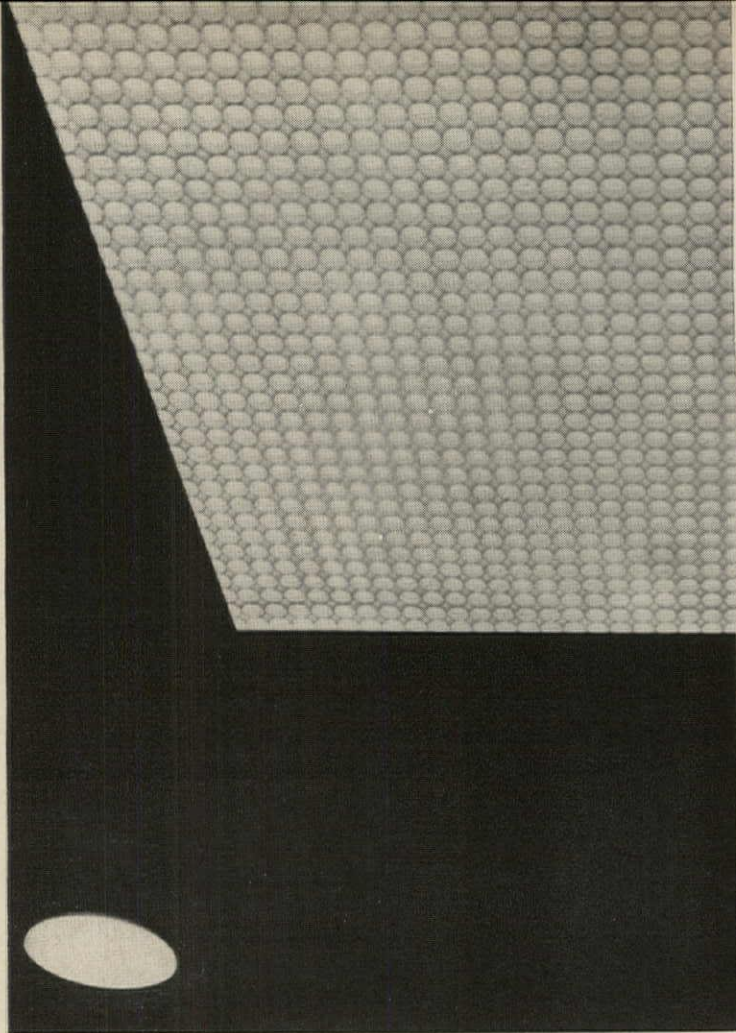
■ Finally, there are such major products as office partitions, luminous ceilings, office desks and files, and so on. Here, again, we seem to prefer those products that look as if nobody had really "designed" them. Most of the time, a "designed" product turns out to be a "styled" product—some more fallout from Detroit. Beautiful office desks, like those by General Fireproofing—which look as if nobody had "designed" them—are often in reality designed by some of the most sophisticated people in the country, in this case Florence Knoll and Skidmore, Owings & Merrill.

Florence Knoll, incidentally, tells an amusing and significant story: some years ago she came back from a trip to Switzerland with a suitcase full of modern, standard Swiss water faucets, hardware, and the like. The customs inspectors at Idlewild thought she was out of her mind when she explained that she had bought them for her apartment—that she couldn't find anything quite so good looking in the U.S. Needless to say, the customs people refused to consider these fixtures "works of art," although they were by our standards, and Mrs. Knoll had to pay the usual duty on them.

Some day, I hope, U.S. manufacturers of building products will make works of art as well as works of engineering skill.

On these pages are some of the products we have used in the past. In some cases the manufacturers are world-renowned; in others they are very small.

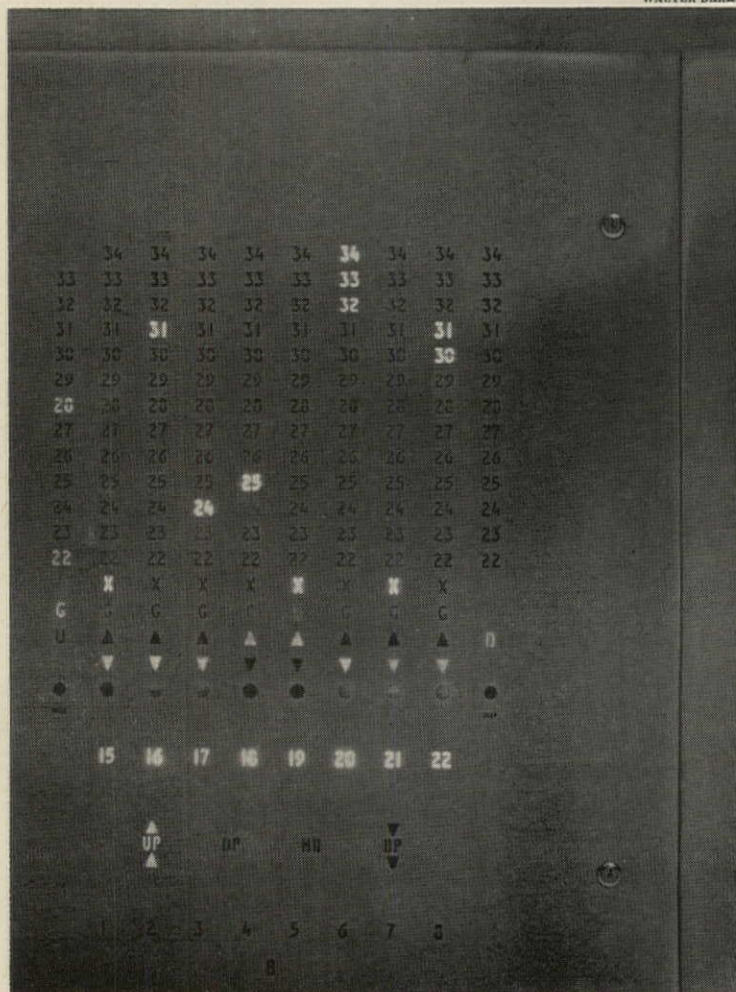
My comments on each of these products have nothing to do with performance. I don't run a testing lab—I can only learn from experience. We picked these products because they looked better than alternative choices available to us. I think that the pictures show why we thought so.



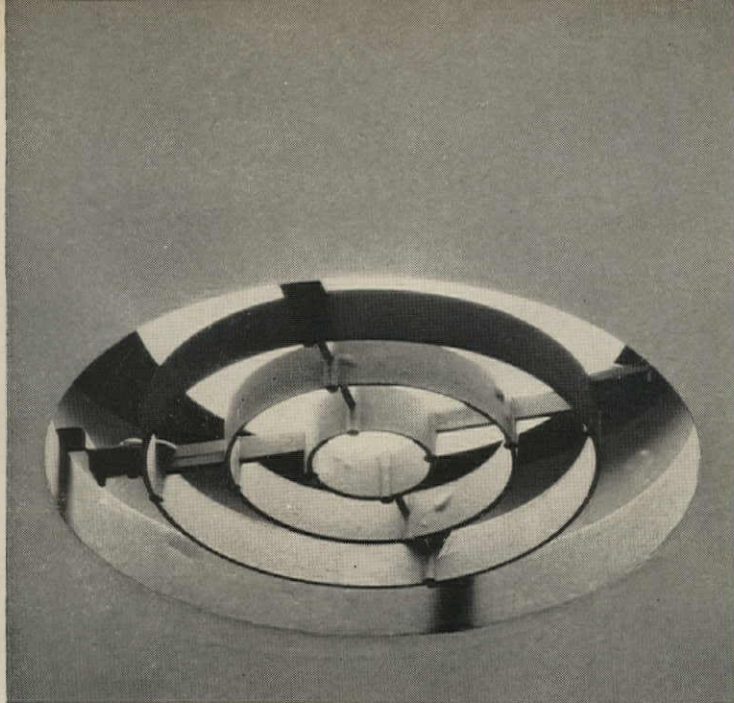
One reason I like the luminous ceiling by Integrated Ceilings Inc. (above) is that it is nonmodular and can fit into any room: its

plastic sheets interlock without a supporting grid. The elevator panel by Westinghouse (below) is unusually simple and well-detailed.

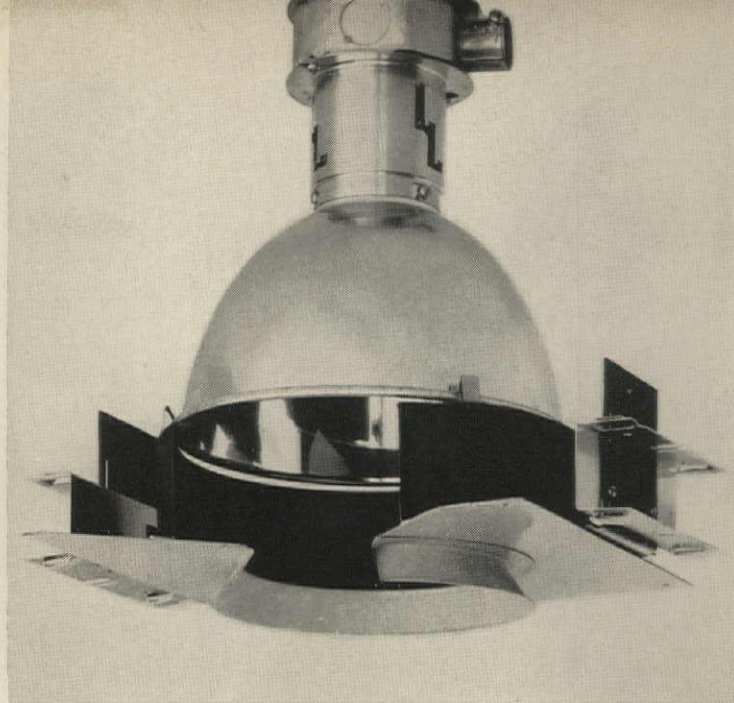
WALTER DARAN





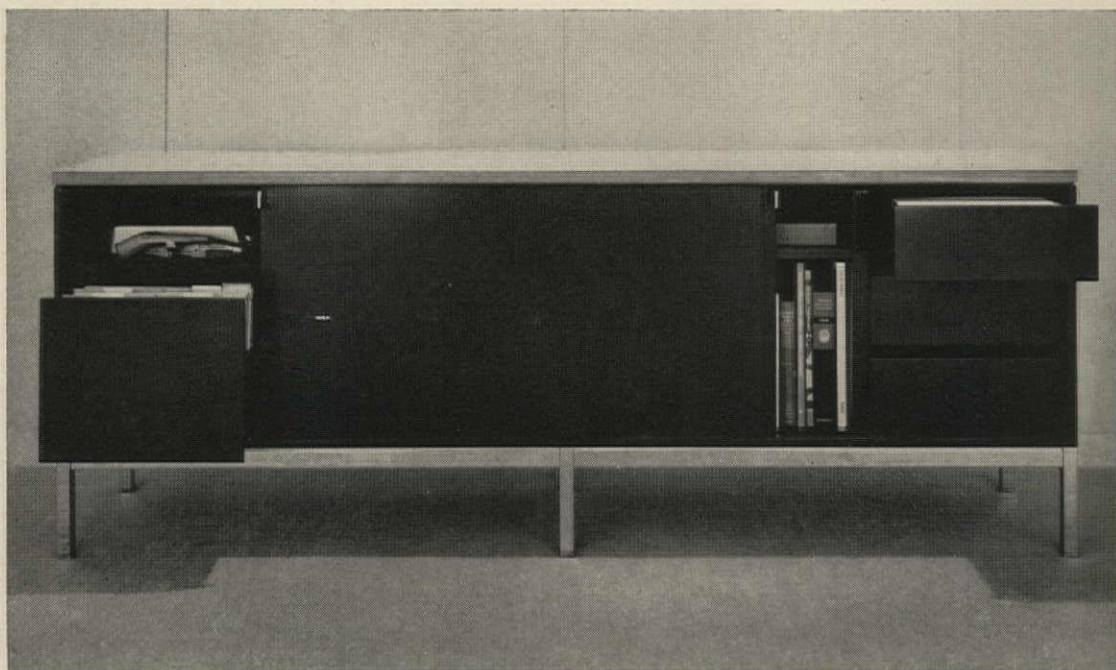
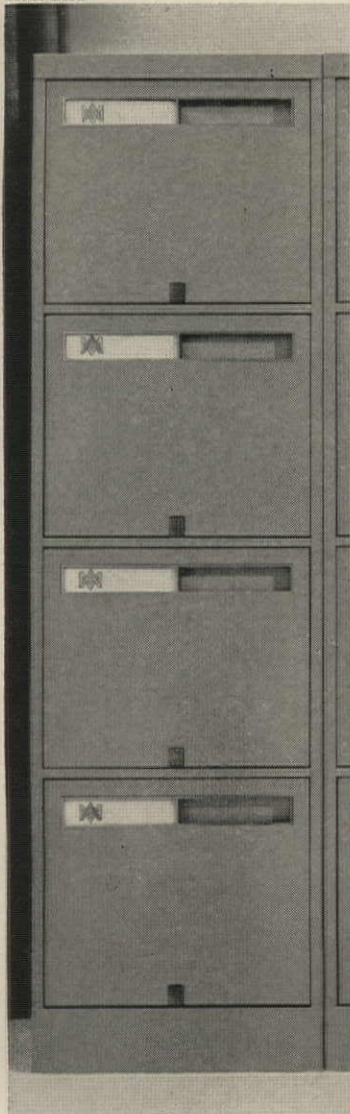


JULIUS SCHULMAN



*Recessed ceiling fixtures by Marvin Electric (above) need no rim because they have their own built-in plaster stop. The filing cabinets and storage units (below and right) designed by Florence Knoll for Art Metal are the handsomest I know. At bottom right is a simple desk developed by Skidmore, Owings & Merrill and now made by General Fireproofing. This furniture is so good it looks almost undesigned.*

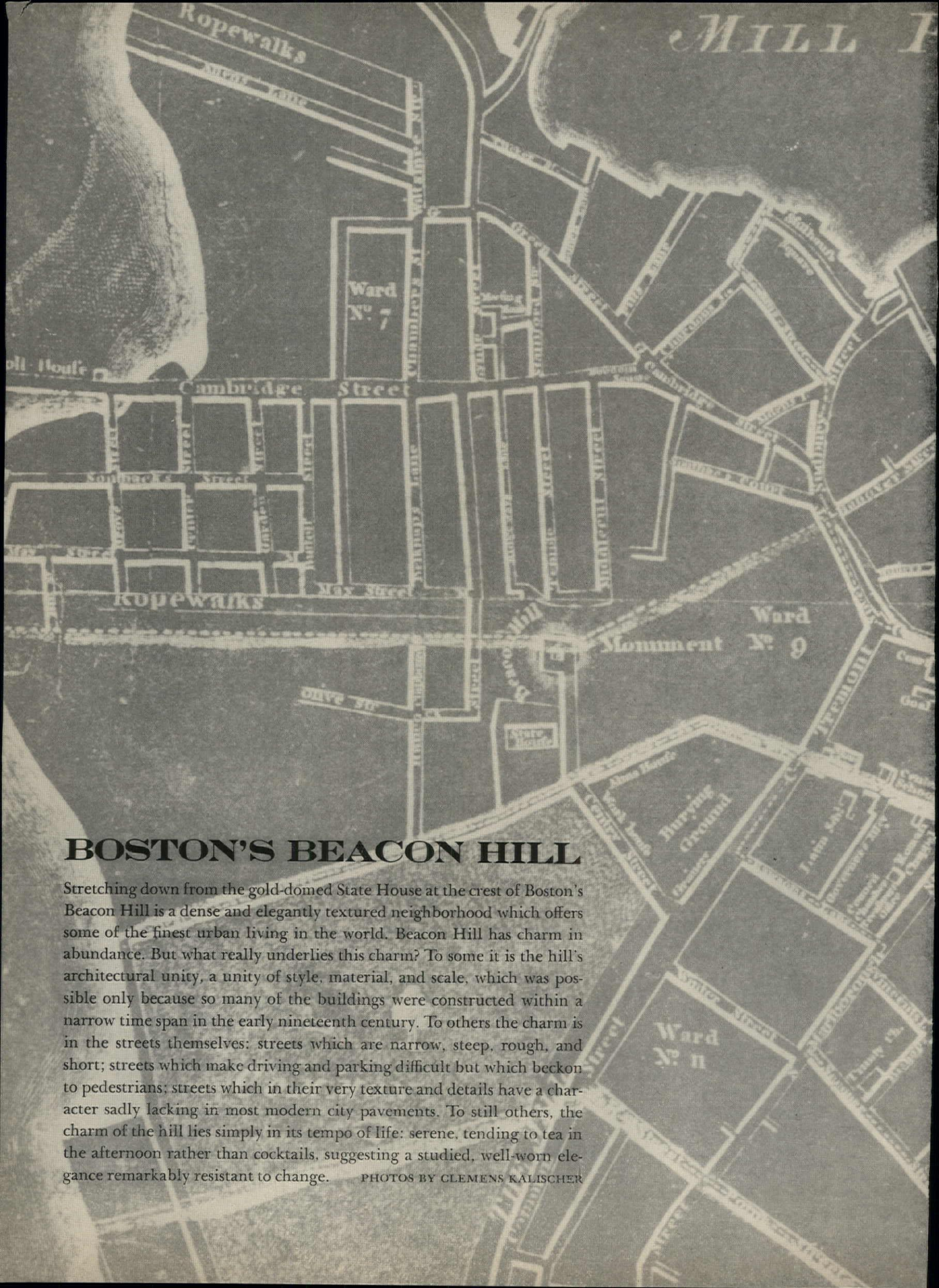
SCOTT HYDE



GEORGE CSERNA







## BOSTON'S BEACON HILL

Stretching down from the gold-domed State House at the crest of Boston's Beacon Hill is a dense and elegantly textured neighborhood which offers some of the finest urban living in the world. Beacon Hill has charm in abundance. But what really underlies this charm? To some it is the hill's architectural unity, a unity of style, material, and scale, which was possible only because so many of the buildings were constructed within a narrow time span in the early nineteenth century. To others the charm is in the streets themselves: streets which are narrow, steep, rough, and short; streets which make driving and parking difficult but which beckon to pedestrians; streets which in their very texture and details have a character sadly lacking in most modern city pavements. To still others, the charm of the hill lies simply in its tempo of life: serene, tending to tea in the afternoon rather than cocktails, suggesting a studied, well-worn elegance remarkably resistant to change.

PHOTOS BY CLEMENS KALISCHER





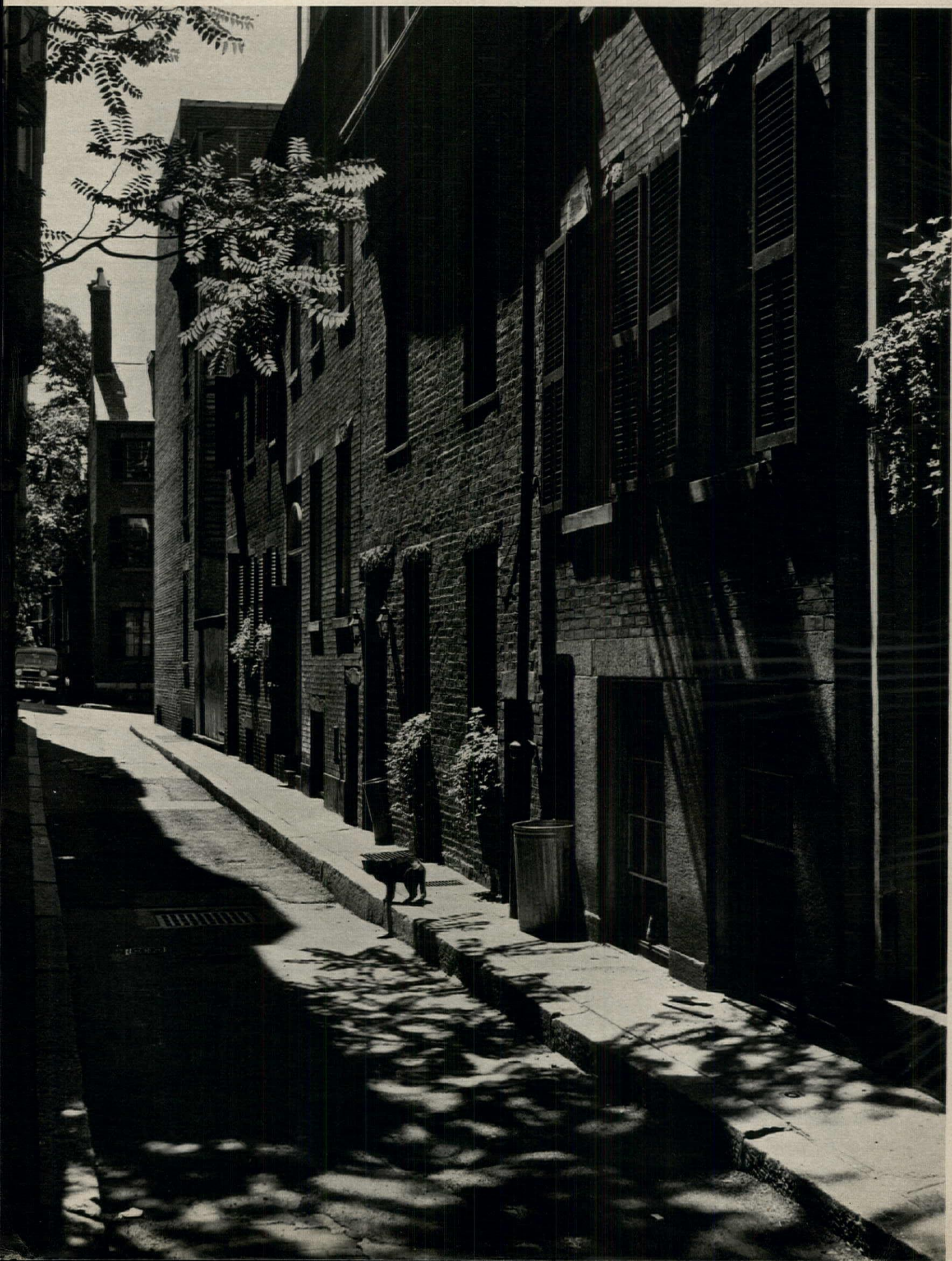
















The first photograph in the Gallery preceding is a view up the cobbled drive of the Second Harrison Gray Otis House at 85 Mount Vernon Street. Built in 1800 to the designs of Charles Bulfinch, it is one of the few detached mansions on the hill, and is still maintained as a private residence. The center spread shows two views of bow-fronted town houses facing Louisburg Square, a block-long private park which runs between Pinckney and Mount Vernon Streets and is controlled by the owners whose properties form its boundaries. The final photograph is of Cedarlane Way, just off Mount Vernon Street near the base of the hill. Barely the width of a car, it is lined by one-time servants' quarters now converted into small apartments. The map enclosing the Gallery is a reproduction of Carleton's Plan of Boston, 1797.



## "POOR MAN'S" PRECAST OFFICE BUILDING

Except in details of appearance, most multistory office buildings completed in the U. S. since the war have been basically the same. The project by Chicago Architect Harry Weese shown on these pages, however, is radically different.

In most office buildings, elevators stop at every floor, and stairs are for emergency use. In this scheme, the elevators stop at half-levels between every second floor, and stairs bridge the remaining half-levels. Each service floor therefore serves twice the area it would in a more conventional layout.

Most high-rise office buildings have fireproofed steel frames. This one has quickly erected, precast concrete elements around a slip-formed concrete core.

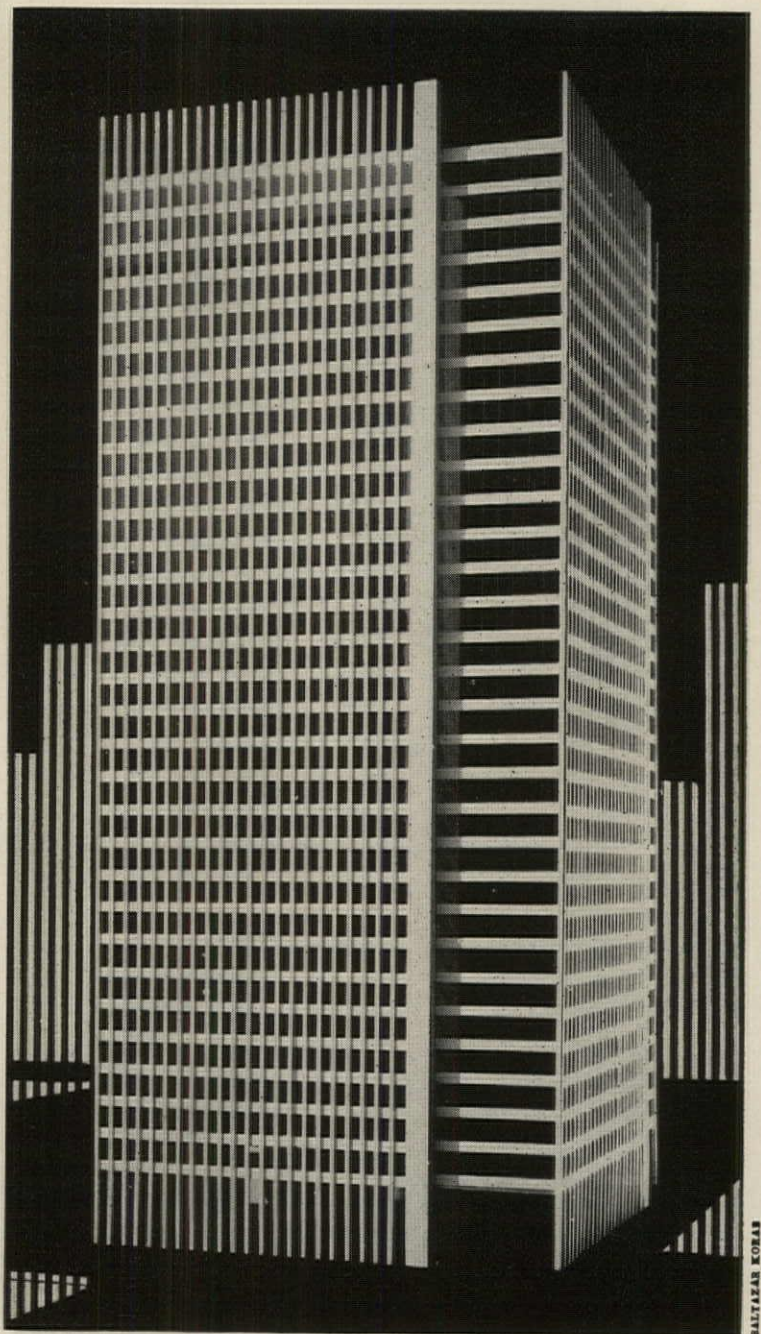
In most office buildings, ductwork, wiring, and plumbing are hung separately below the structural floor slab. In this one, they are part of the structure, reducing floor thickness and allowing changes at will. Because of its economy, flexibility, and bold good looks, this proposal may have considerable effect on the shape of offices to come.—ED.

BY HARRY WEESE, F.A.I.A.

We like to call our scheme the "Poor Man's Rational Office Building." It is a rental building for "humble corporations," who are becoming increasingly important as the cream is skimmed off the prestige office-building market. Many prestige buildings are built by owners who have never built before, and probably will never build again. That is one reason their costs range as high as \$40 and \$50 per square foot.

In this design we are concerned with the average consumer of office space. The buildings for him are usually designed by a trained client, the developer, for whom an office building is a money-making, not a prestige, proposition. Robert McCormick of McCormick-Willoughby, the developers, has said that if he could get a building built for \$17.50 to \$18 a square foot, he would have a market. That is one of the main reasons we designed this prototype.

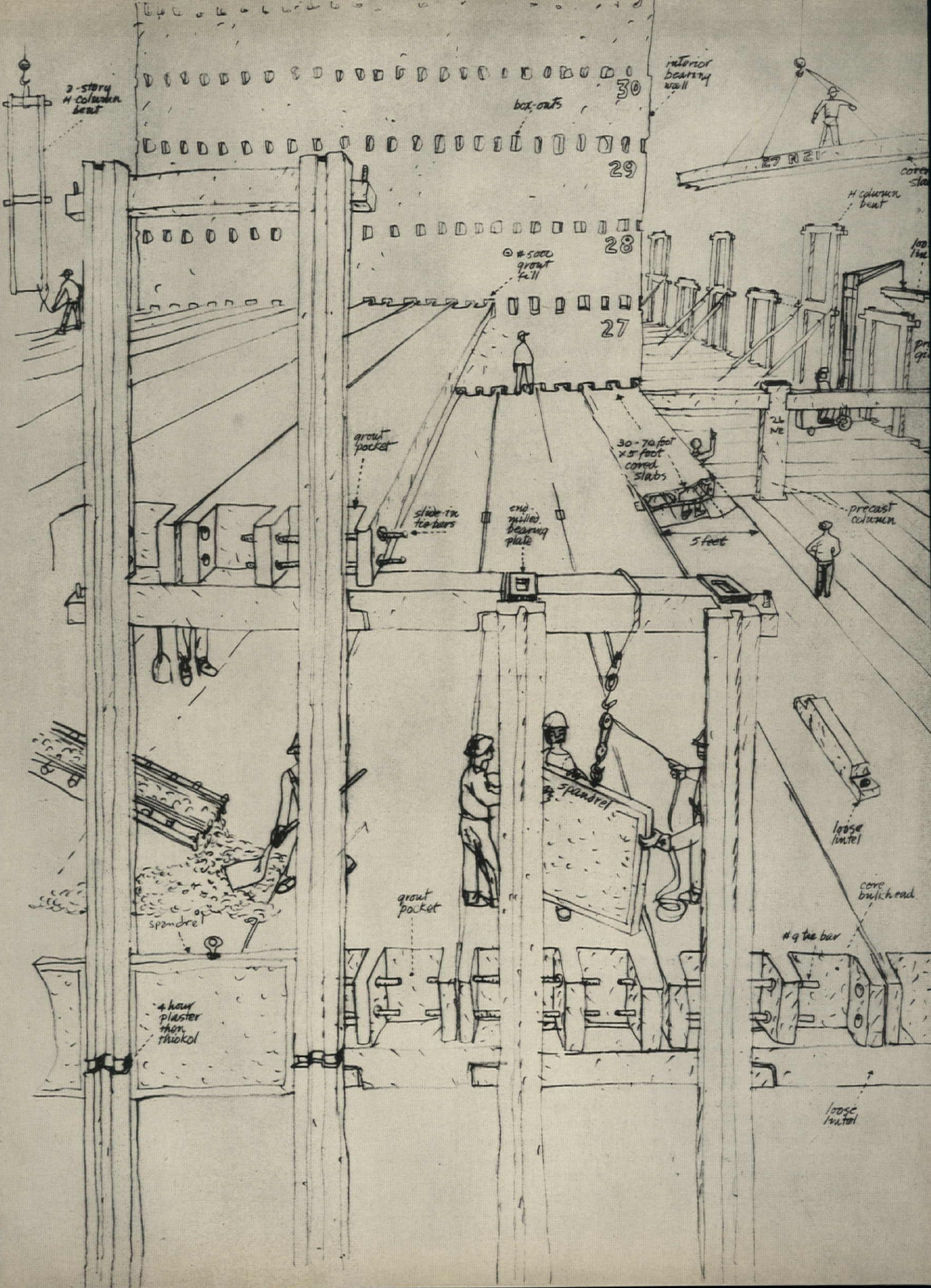
Tenant changes are particularly important in low-cost rental building, and they are too often overlooked. Duct changes, lighting changes, space changes are a lot of trouble—and very expensive. There is always a truck in the alley with a load of broken plaster and partition blocks; it seems a great economic waste. Therefore, our design considers everything from the inside out, on the basis of the tenant in his own space, whether it be a cubicle or an entire floor.



Photograph of model (above) shows how exterior bearing-wall system and pin-wheel framing plan are reflected in building elevations. Façades change from bearing walls to beams and a pier at each corner. Sketch (right) shows how precast

walls, beams, columns, and slip-formed core go together. The four framing units are structurally independent; steel connections in precast members are to be welded, then members grouted solid to make the structure monolithic.







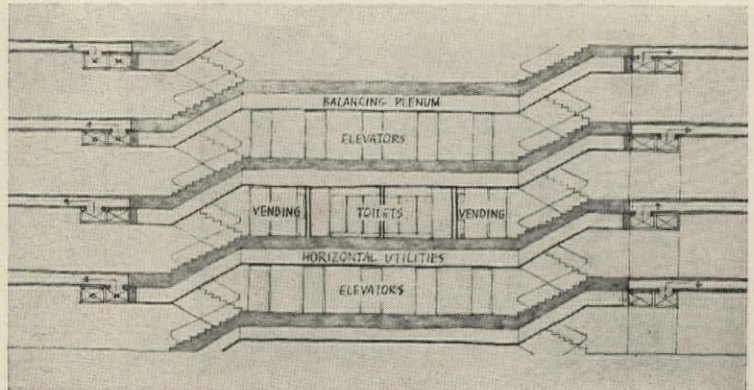
## PLANNING: SKIP-STOP AND A COMPACT CORE

The service areas in an office building are often very uneconomical, taking up more area than is actually necessary. Horizontally, there is usually a floor slab, and hung beneath that, ventilating and lighting systems. In our proposal, we have combined the two: the ventilation as well as the wiring runs through the floor slab. Vertically, there are normally elevators and stairs, and, beside them on every floor, toilets, rest rooms, stock areas. Here again we have combined, using a "skip-stop" elevator system. Our elevators stop at every second floor; on the other floors the elevator shafts just go by, and what would normally be lobby space is devoted to washrooms, vending areas, and fan rooms, so that we are, in effect, serving with our elevators and toilets twice the square footage that the building apparently has per floor (see section, right). As the core levels are staggered so as to be halfway between office floors, it is only necessary to walk half a flight up or down to get from an office level to either elevators or washrooms. In the process, we have also eliminated the chance of being locked out backstairs when one wants to walk from floor to floor instead of waiting for the elevator.

The coffee break has become a great handicap to American productivity. Some companies carry coffee around to the desks. Others allow their employees to go off to special lounges. Our answer is to have vending areas at the rest-room floors, half a flight up or down. In one recent office building in London the owners actually tried to pipe tea around the whole building, but this proved impractical. I think our solution is a little more realistic.

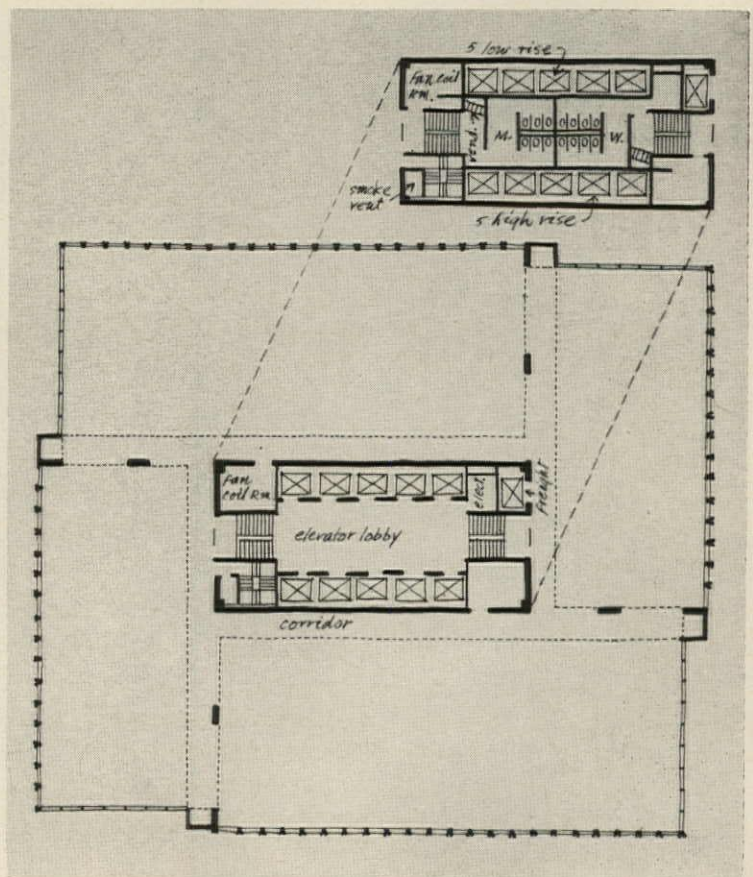
Our plan provides short walking distances, a pleasant scale for the user, and a very compact core, which amounts to only about 12 per cent of total floor area. Vertical dimensions are also more efficient: whereas 75 per cent is normally a good percentage for floor-to-ceiling height compared to floor-to-floor height, we get 8 feet, 10 inches out of a floor-to-floor height of 10 feet, 8 inches, which is 82.5 per cent. (The ratio in the Seagram building in New York, for example, is 74 per cent; Mile High Center in Denver is 76 per cent. Mile High is our closest competitor.) The saving in elevator space due to the skip-stop system—as opposed to a conventional system in a 30-story building—is 23 per cent.

Our scheme is a little bit disrespectful of Chicago codes, although in no sense unrealistic; codes will develop and adjust. For example, one smokeproof tower in 30 stories is sufficient. There are three stairways, but two are behind wired glass with a 45-minute fire rating. We do not think that there is any need for more than 45 minutes of protection for these secondary stairs.



Alternating floors of elevator lobbies and toilet facilities are linked to office floors by half-flights of stairs. Vending areas are on the landings at the toilet levels. Thus, each service floor serves two office floors; for short, interfloor trips, stairs may be used instead of elevators. Corner fan-coil rooms are two

stories high. Air is fed from fan rooms into primary runs and then up into the secondary runs in the slab structure itself. Primary runs below the structural slab (section, above) will require hung ceilings to hide them, but are located where corridor areas are likely (see mechanical plan, page 110).





## STRUCTURE: H-FRAMES AND SLIP-FORMS

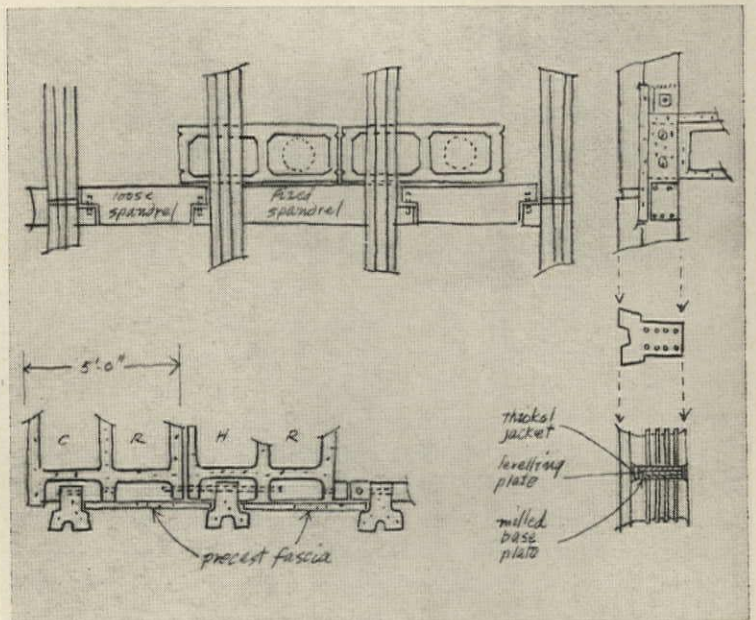
The exterior wall is a kind of hybrid: the members are too thick to be mullions and too thin to be columns. It is in reality a perforated wall or colonnade, but, as it is cast in H-frame sections rather than in single columns, we call it a bearing wall. This wall and the cast-in-place core wall need only four columns to help them carry the floor slabs. At one time, we wanted to run an arcade of these closely spaced mullions right through the four corners of the buildings to continue the use of bearing walls throughout. However, the real estate people whom we sounded out felt that this would make renting the space more difficult, so we substituted the four elongated columns and four main girders.

There are certain economies inherent in this structural design. By precasting the H-frames we get greater strength in the concrete. Each frame is a two-story unit, so that by staggering the frames up the face of the building, the pairs of welded joints always have a pair of continuous columns between them. This will make for easy erection and a stiffer building.

The floor-slab system consists of precast, hollow tubular beams. The lower surface of these beams can serve as an exposed ceiling, and the upper surface needs only a finish coat to top it off. Each concrete beam has three "fingers" at each end which hook into the core or onto a beam at one end, and onto the middle bar of the H-frame or its neighboring precast lintel at the other. The beams are arranged in four rafts which pinwheel around the core, so that only four carrying beams are required. In this case, these beams span 41 feet, 3 inches with a depth of 20 inches; the maximum theoretical span under typical office loadings is 65 feet. These will be cast very efficiently using a new system of collapsible forms which are removed once the concrete is hard.

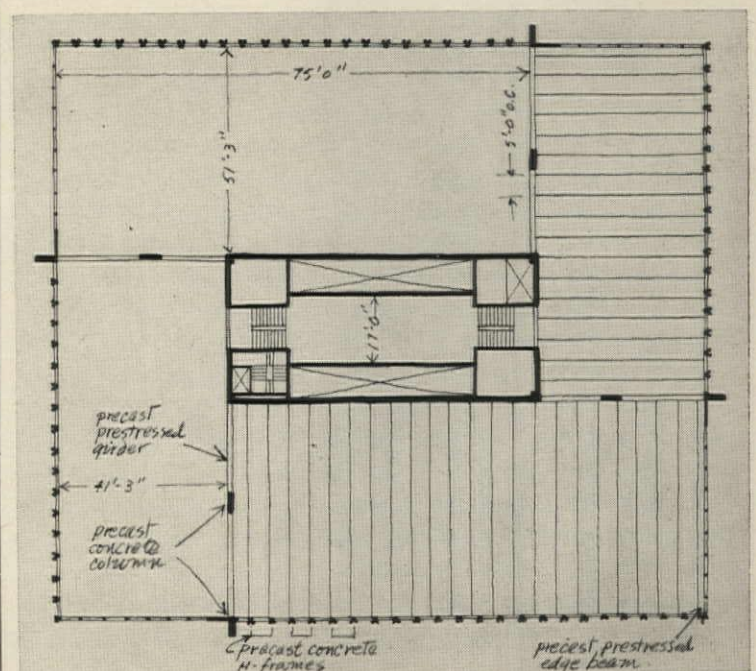
Precasting is not new. As long as concrete has been used, there has been precasting, but there have been a number of disadvantages which it has taken time to solve. Today we can precast with great freedom because of welding: we can cast welding plates into the members and assemble concrete just as we would structural steel, ending up with a monolithic job. Our system does, however, have a number of features which will require the assembly of the components for final testing.

By slip-forming the center core and then using it for the basic bracing of the building, hooking up the precast elements all around—the bearing mullion system and the precast floor decks—and then grouting all the joints solid, we avoid any tedious formwork. Everything goes up neatly, cleanly, and fast. One trade can follow the other right up the building. In downtown areas where speed and economy are vital, we can



Structural floor system (plan, below) consists of four independent sections. Each is carried by the bearing wall on the outside, the core and a beam on the inside. In an alternate proposal, the outside columns are replaced by service

shafts and the "pinwheel" accentuated by stepping back the façade where the bays change (see plan, page 108). Structural details (above) show how glass is set and how "fingers" on ends of tubular beams slip past columns.





slip-form day and night and get the core up 30 stories in as little as ten days. The builder can use climbing cranes or mount them on top of the core and start hoisting the precast elements, which have been scheduled and fabricated, and delivered at night. Thus he can set in the elements of the lower floors before the core is finished. He can be erecting all four sides of the building at the same time, since they are really four independent structural units tied back to the core.

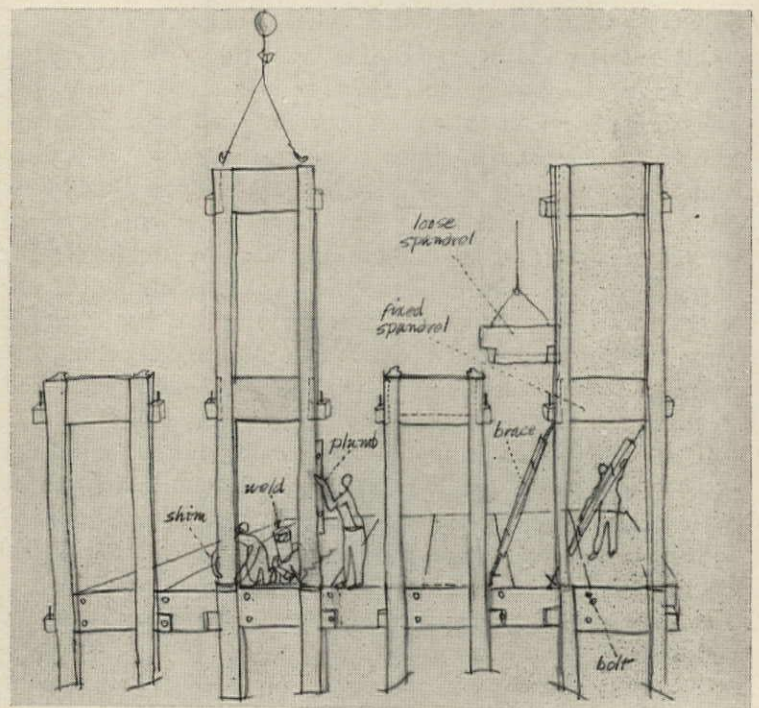
Two jobs recently slip-formed in Chicago proved that this is a very good method. There were bugs on the first one. Most were eliminated on the second job, but there were still a few left. They are just about licked, and slip-forming should now be an accepted method of doing buildings of this kind.

Once our system has been absorbed by the various trades and officials, and carefully scheduled by the architect, fabricators, and contractor, one should be able to build a 30-story office building in about 60 days. This would benefit everyone. Interim financing, traffic congestion, and costs of administration would be cut drastically. This is not a prime necessity, but it could be an extremely valuable by-product.

The elevations are a reflection of the bearing-wall system. The portions that are not bearing are left wide open and glazed with great long pieces of glass, or at least with pieces of glass butted in such a way that the joints are hardly visible. We do not want to have separate window mullions to compete with the wall. We will also use rubber-fronted partitions which butt directly against the glass instead of fastening to mullions. These will give more flexibility and will not be so visible from the outside of the building.

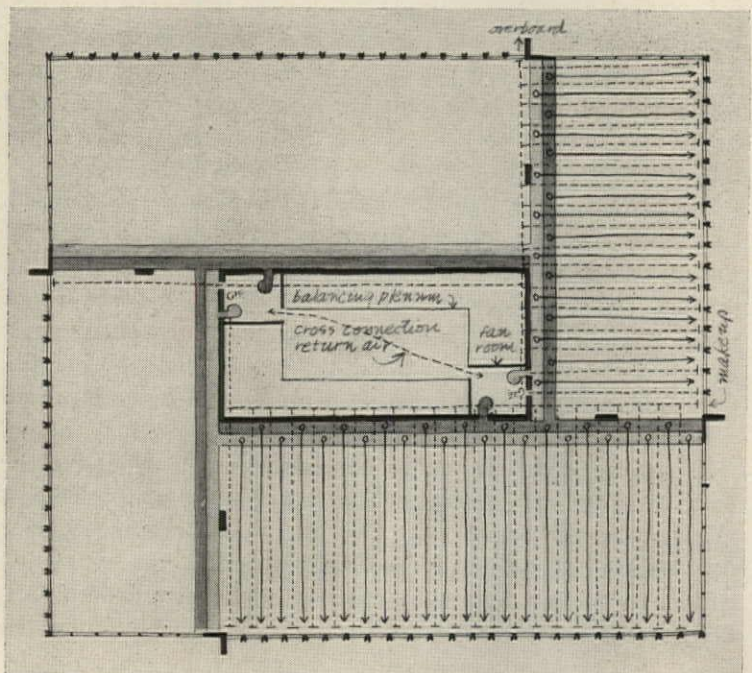
The bearing wall itself—which is the bulk of each elevation—is actually a heavy pack of small columns, and this gives the “feel” of a bearing wall which is so apparent in buildings in Chicago. One thinks immediately of the Monadnock building. It has what someone has called the “grain of the city.” To an outsider looking at our wall, it will give a feeling of boldness, of modeling. It is a great relief from the papery curtain wall, and I think that its deep modeling is the way that we should be going in architecture.

Since Chicago is the birthplace of the iron and steel frame, one might wonder why we should be going back to Monadnock. It is simply the practical fact that point supports are expensive. They were used in the beginning because they could open up façades in a way that they had never been opened up before. But today's multiple changing use of office space really requires a great many closely spaced mullions on the exterior. These mullions need only be made a little stronger and larger to become bearing members themselves, which in turn form a strongly sculptural sort of wall.



Sketch above shows how steel shim plates will be used to true up bearing wall. Two-zone, low-velocity heating and ventilating system using dual ducts (below) is identi-

cal with the framing plan (preceding page); primary duct runs follow main supporting girders, and secondary runs are contained within the hollow tubular beams.





## MECHANICAL: ALL WITHIN HOLLOW SLABS

The mechanical system was another major starting point in the design. It reflects the structural system: since we use the hollow tubular beams as ducts, the "swastika" framing plan is also the ventilation plan (sketch, right).

Most office buildings have a hard concrete ceiling under which a soft mechanical "underbelly" snakes around in and out of girders and joists and has to be constantly reworked as needs and tenants change. Since we have a hollow slab we can use the space *within* the structure to move the air, run wiring and even drainage lines, all permanently hidden from view. When a tenant wants to take over more space, he simply moves his partition over and the job is done.

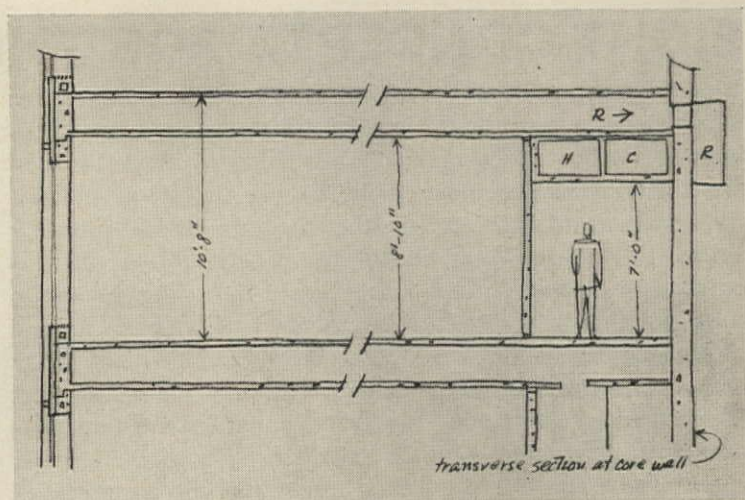
The cored slab allows all services to be delivered within the beam itself. Some codes might frown on what is in effect putting wiring in the ducts. We could, of course, put the wiring in the 2-inch fill on top, but it is simpler to snake it through the hollow cores.

Alternate cores are used for hot, cold, and return air piped in at velocities well below the difficult, noisy ones. Every light fixture becomes a mixing box, with a power thermostat so that each one has its own control. This offers almost infinite control: even the smallest closet containing one light fixture has its own thermostat. The fan rooms run through two floors and are interconnected to balance the system because the air does not always return to the same fan room it goes out from.

There are two modules. A 5-foot structural module containing a 4-foot light fixture gives a band of exposed ceiling on either side of the fixture so partitions can go directly up against the concrete of the ceiling. This is very important, since it keeps the sound levels from room to room under control. Many expensive buildings, in which partitions cannot go all the way up to the structure itself, are abominable as far as noise is concerned. Our "hard" ceiling, avoiding the soft mechanical underbelly, gives us a great advantage. As a bonus, we can also have a bare concrete ceiling if desired; we are not stuck with acoustical ceilings if we do not want them. We are stuck with a certain kind of lighting pattern, however, although not so rigorously as some new office buildings, where absolutely uniform lighting makes every day a "cloudy" day inside the building.

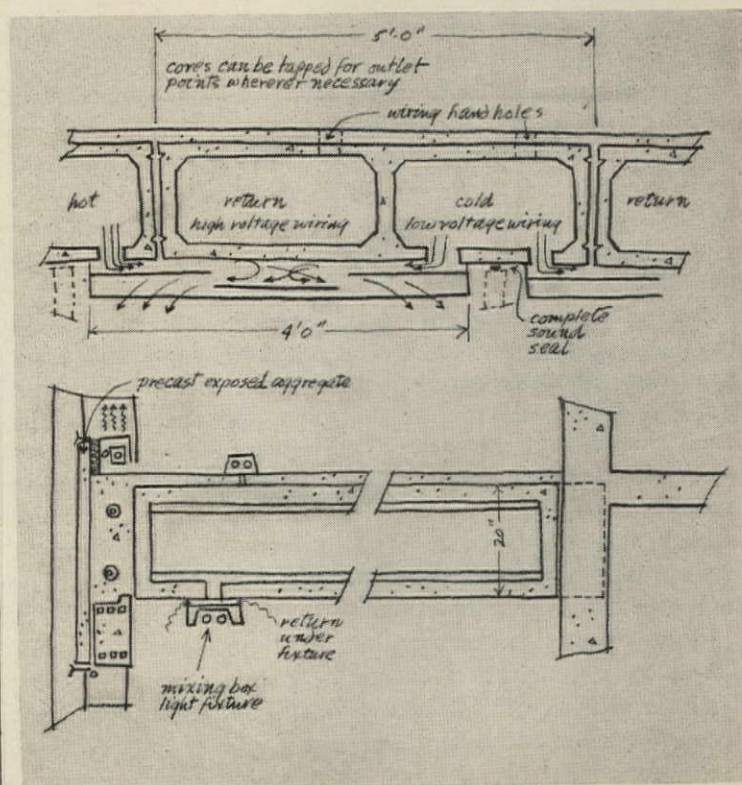
So, those are the elements that make up our scheme. While the result may not look as if it belonged to the Chicago School, we hope that because it is so innately structural, and in its viscera so innately mechanical, that it will take its place in architecture as a kind of basic product. An honest product, and, as Alvar Aalto would say, not covered with a thick coat of paint.

END



Section (above) shows dropped ceiling in corridor next to core. Lighting fixtures (below) double as mixing boxes for air conditioning. Each has its own thermostatic control and is simply plugged into the hollow flooring system to draw

off air and electricity. The slab system is on a 5-foot module and the fixture box is 4 feet long, leaving a gap where partitions can be butted to the slab. No ceiling need be removed, no ducts or wiring re-routed to change layout.





## **EIGHT CONCEPTS FOR THE IDEAL THEATER** BY RICHARD A. MILLER

In the last decade few cultural arenas have been more alive to architecture than the theater. In the U. S. particularly, this interest has been engendered by advances in the performing arts themselves. Everywhere—in the big Broadway musical theater, in avant-garde college theaters, in tents and lofts off-Broadway and on Main Street—the progress of the art has outgrown advances in its housing. From the point of view of their challenge to architecture the theater arts are lively indeed.

The major challenge has come from producers and stage designers in the field of the drama, and from choreographers in the field of the dance. For them, buildings can be a hindrance to attainment of their own artistic goals. Often this challenge has been expressed by carping at the architects of new theaters, which are built too big, with cramped backstage areas, where the action is in a framed picture for the audience.

But a smaller group of distinguished producers, designers, and choreographers have gone to work on the problems of the theater building itself. In 1959, the Ford Foundation assembled a blue-ribbon group of these artists, matched them to architects known for their knowledge and interest in the theater, and set them to work at projects of their own devising. The results are shown on the following pages.

All of the projects are for special-purpose theaters—a sign that the group firmly adheres to the rallying cry, “An all-purpose theater is a no-purpose theater.” This is not to say that the theaters are not *multiform*, for indeed, four of the eight are convertible to several kinds of audience-actor relationships, using several alternative stage forms. This is achieved by the most elaborate means and by the simplest: by computers, hydraulics, and synchronous winches, and by plain human muscle power.

If these projects mark a trend, the trend is to facilities in which the playwright, the director, or the choreographer can manipulate and shape the physical space: with light, with props, or in actual fact. In the main, this means that the visual character of the theater can be variable without interference from permanent architectural embellishment. In some of the projects the architecture takes its cue from this desire to blend into the operation of the performance by extending scenery and lighting surfaces into the auditorium from the stage (as in the Alswang-Rudolph project, page 115).

In others the conventional proscenium separation is replaced by a mingling of the audience and the performers, based on architectural devices such as acoustical canopies (as in the Mielziner-Barnes project, page 113).

The significant effort in several of the projects is a radical

attempt to allow the modulation and adjustment of acting or performance areas in three dimensions. In these efforts hydraulic systems figure prominently. In the Izenour-Schweikher drama center project, for example, all three theaters are organized on a uniform module. This modular space can be shaped, using hydraulic lifts keyed to a computer, in quite unlimited ways (page 116).

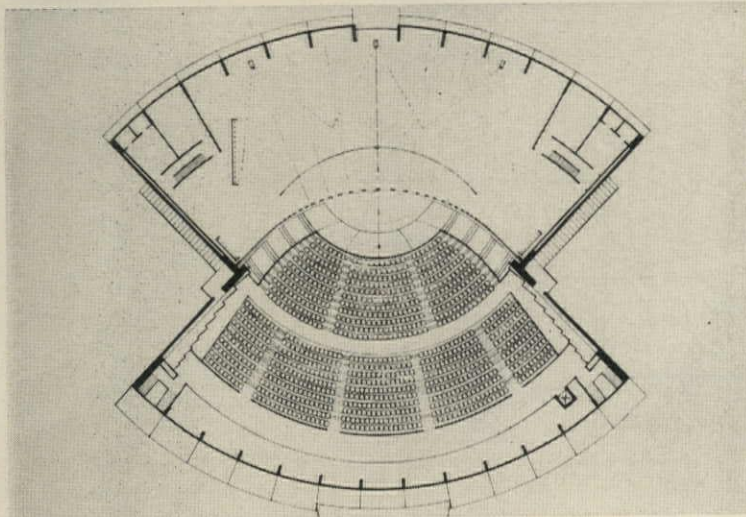
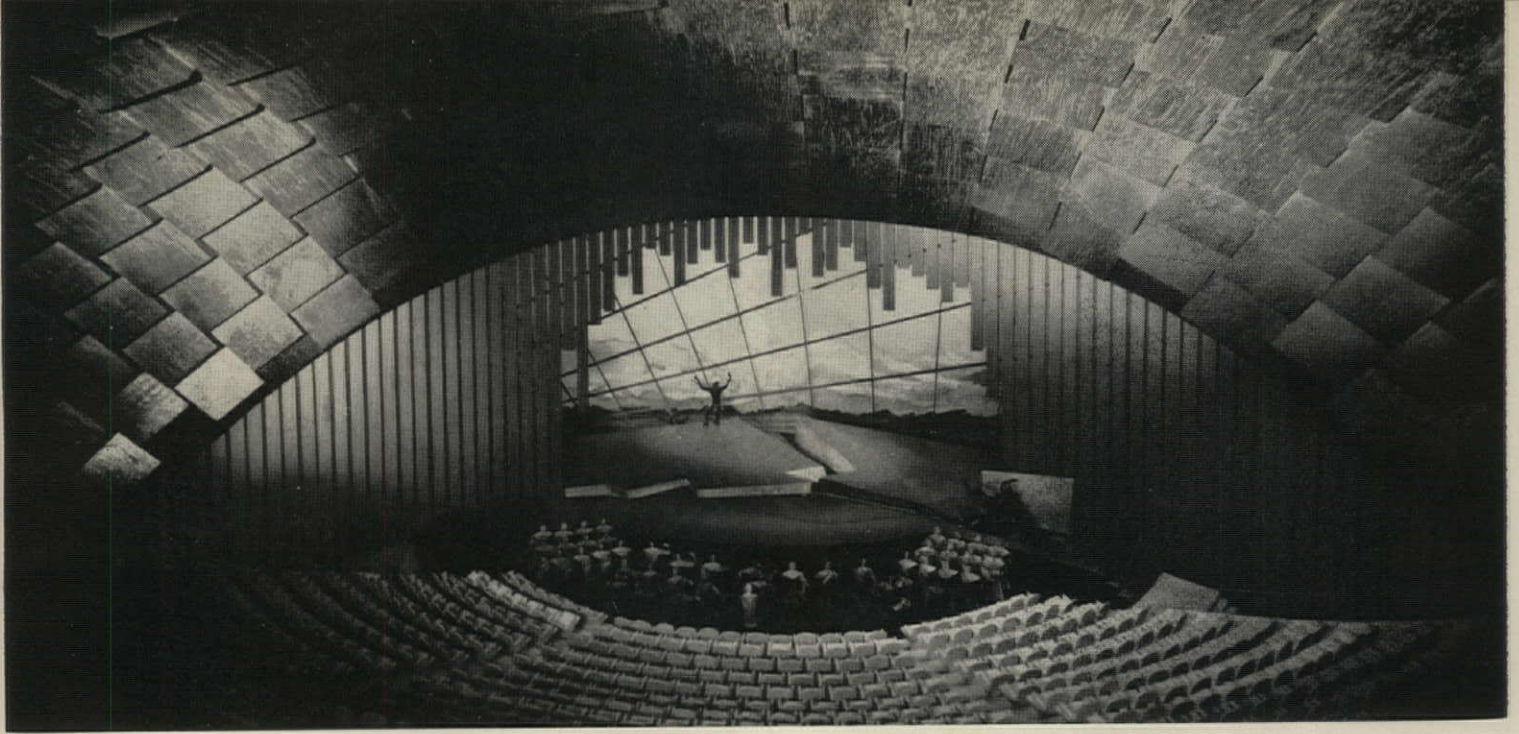
The Izenour inventions, if these projects are indicative, raise the issues over which architects and theater designers may well split in the future. This split may be revealed in the character of the future performance itself. Some of the projects, notably the Hays-Blake off-Broadway theater and the Schlanger-Oenslager nonproscenium theater (shown on page 114) adhere to the notion that economy of means is essential to creative theater. Excessive richness in equipment and mechanical means, these contributors suggest, is likely to condemn the theater to verbosity and grandiosity. (Izenour and his many supporters, of course, vigorously dissent.)

This reach to simplicity, represented in a retrospective way by the simple Shakespearean outdoor theater of Elder and Stone (page 118), is strongly countered by such projects as the Greenbie-Harris Theater for the Dance, which boldly adopts the most advanced mechanics (page 118). Architect Paul Schweikher, in the Izenour-Schweikher project, indeed indicates strongly, by simple and powerful rectilinear architecture, that technical riches can be inconspicuous tools in an environment of spacious clarity.

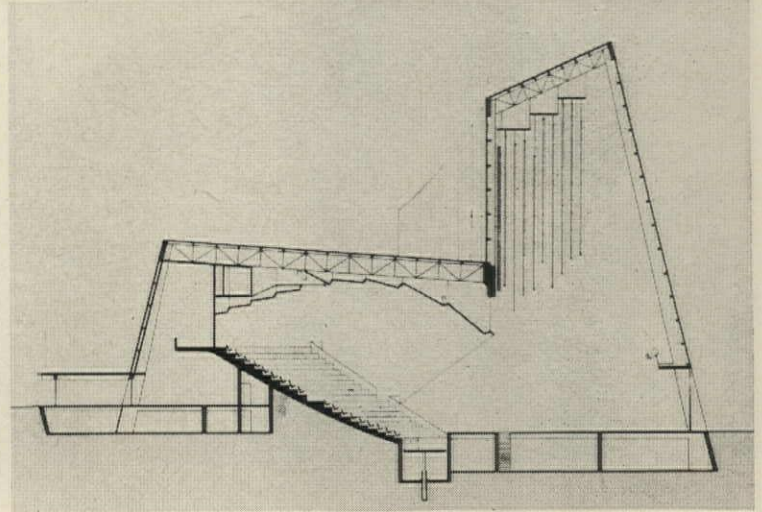
Only one of the projects was executed by an architect alone: the “universal theater center” of Frederick Kiesler. Kiesler’s ideas for total theater are old enough to be influential to the others, and it seems almost as if two epochs contemplate each other in his project. But, in fact, a close look at the strange, yet familiar, architecture of the Kiesler project offers much to new designers. The simple device of pivoting seats to the sides of the auditorium, for example, shapes an extended proscenium acting space with obvious directness. In this aspect and others, what may seem at first complex is simple indeed.

*“The Ideal Theater: Eight Concepts,” an exhibition of designs and models resulting from the Ford Foundation Program for Theater Design, from which this article was developed, is being prepared and circulated by the American Federation of Arts and designed by Peter Larkin and the firm of Alex-Mauro-Witteborg. The material will be on exhibit at the Museum of Contemporary Arts and Crafts in New York City from January 26 to March 4, 1962, and will then circulate.*

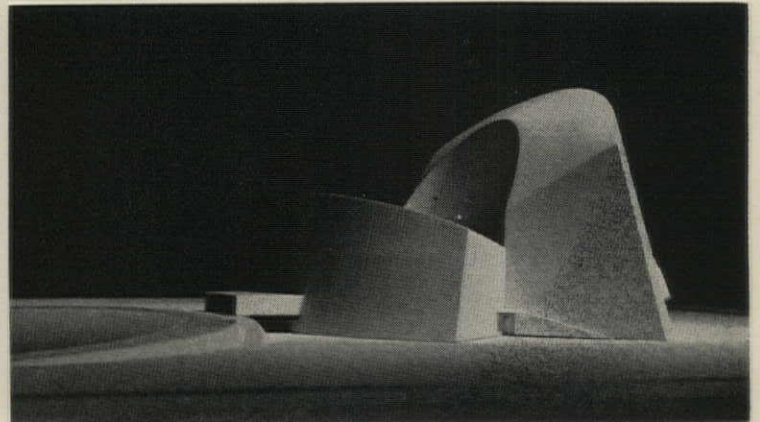
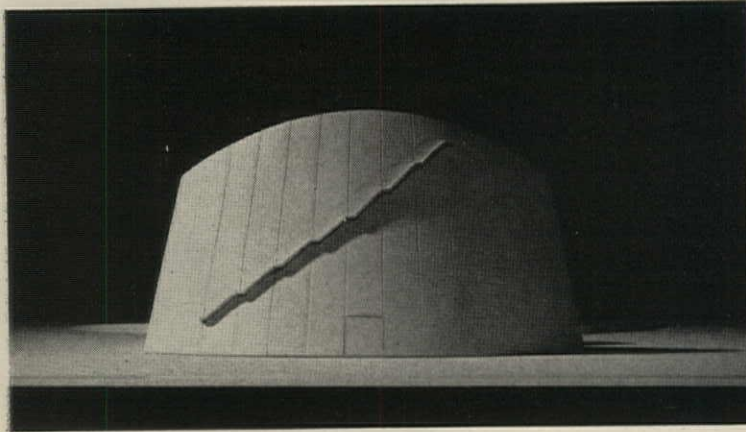




Main floor plan



Section through stage and auditorium



PHOTOS: (ABOVE LEFT & RIGHT) CHARLES FORBERG; (TOP) J. ALEX LANGLEY

### INTIMATE MUSIC-DRAMA THEATER

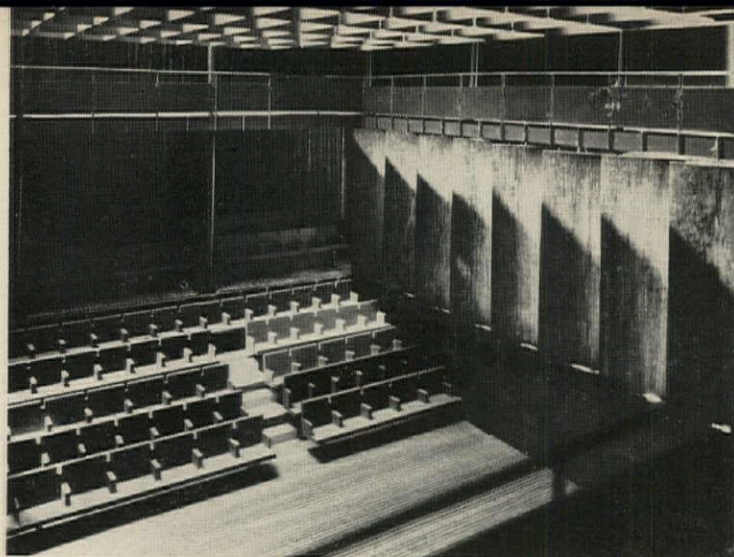
A vaulted ceiling of faceted walnut panels, extended downward over the projecting stage and enclosing the audience in a brightly resonant acoustic shell (top photo), is the basic idea motivating the form of the 1,000-seat music-drama theater by Theater Designer Jo Mielziner and Architect Edward L. Barnes.

Though traditional sets of traditional size can be used, the design contemplates sets which will spill beyond the stage center action, enclosing the audience

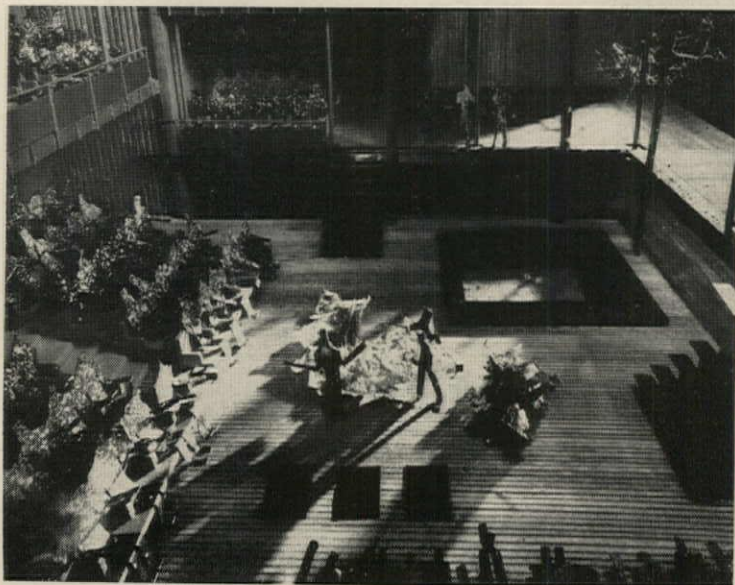
within its mood. The wide curved opening of the stage proper, modulated by a vertical screen of slats individually controlled to allow a varied opening somewhat like the shutter of a camera, contemplates these new scenic techniques. The slats allow side stages to be opened if the action calls for them. The forestage, under and within the space formed by the acoustic shell, could, however, be the focus for major acting and singing. The curved opening of the wide stage generates the exte-

rior form of the building. The high stagehouse, partially wrapped around the arched form of the auditorium itself (photo right, above), does not tower separately, thus seems less bulky than such houses normally appear. Battered walls of precast concrete, supported on a concrete column system which also supports the trussed roofs, are punctured with openings as seldom as possible, to express the inwardness of the theater activity—making it “another” world in fact.

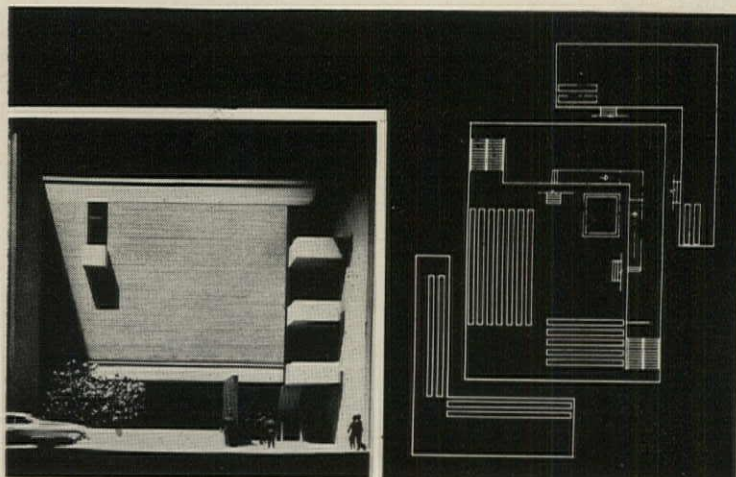




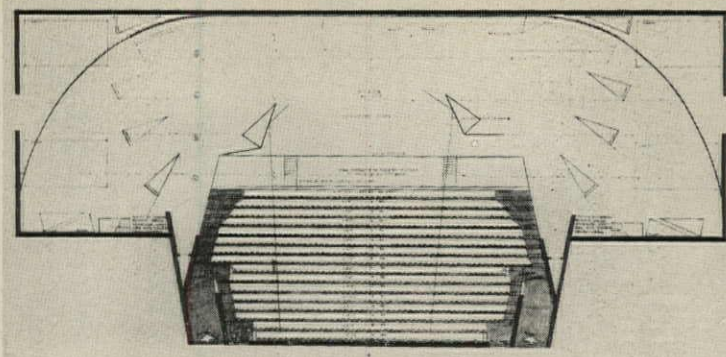
*Lateral stage seating with panels closing one of the balcony areas*



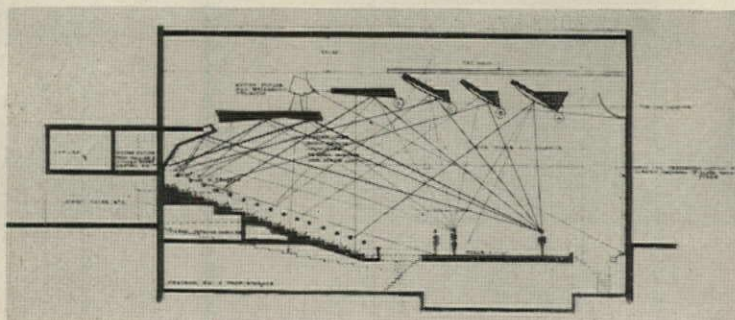
*Stage setting for "Troilus and Cressida"*



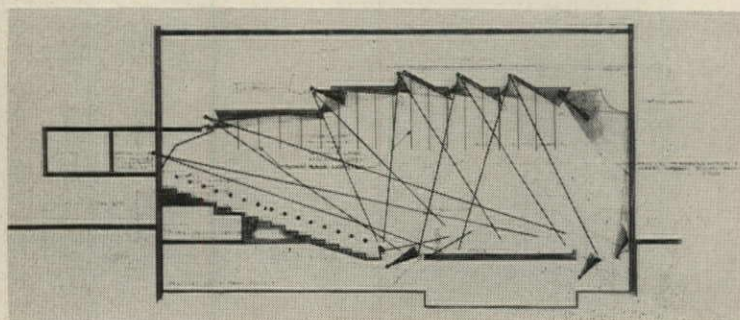
PHOTOS: LIONEL FREEDMAN



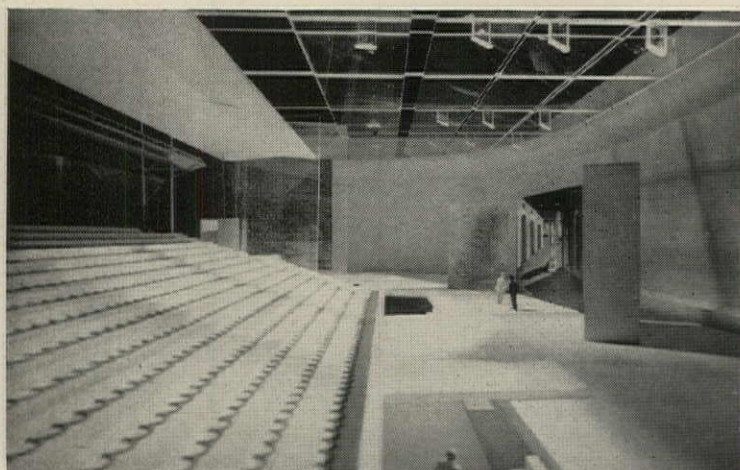
*Staging plan*



*Acoustical section*



*Lighting section*



J. ALEX LANGLEY

## FLEXIBLE THEATER OFF-BROADWAY

A system of related half-levels, nested on a typical 60 by 100 foot off-Broadway site, provides a room in which actors and audience can interrelate in various ways. The range is from a more-or-less typical stage and seating arrangement (top photo) to an unconventional arrangement on two sides of a central acting area (center photo). The scheme, by Scenic Designer David Hays and Architect Peter Blake, starts with a restaurant which opens to a street-side court one level below

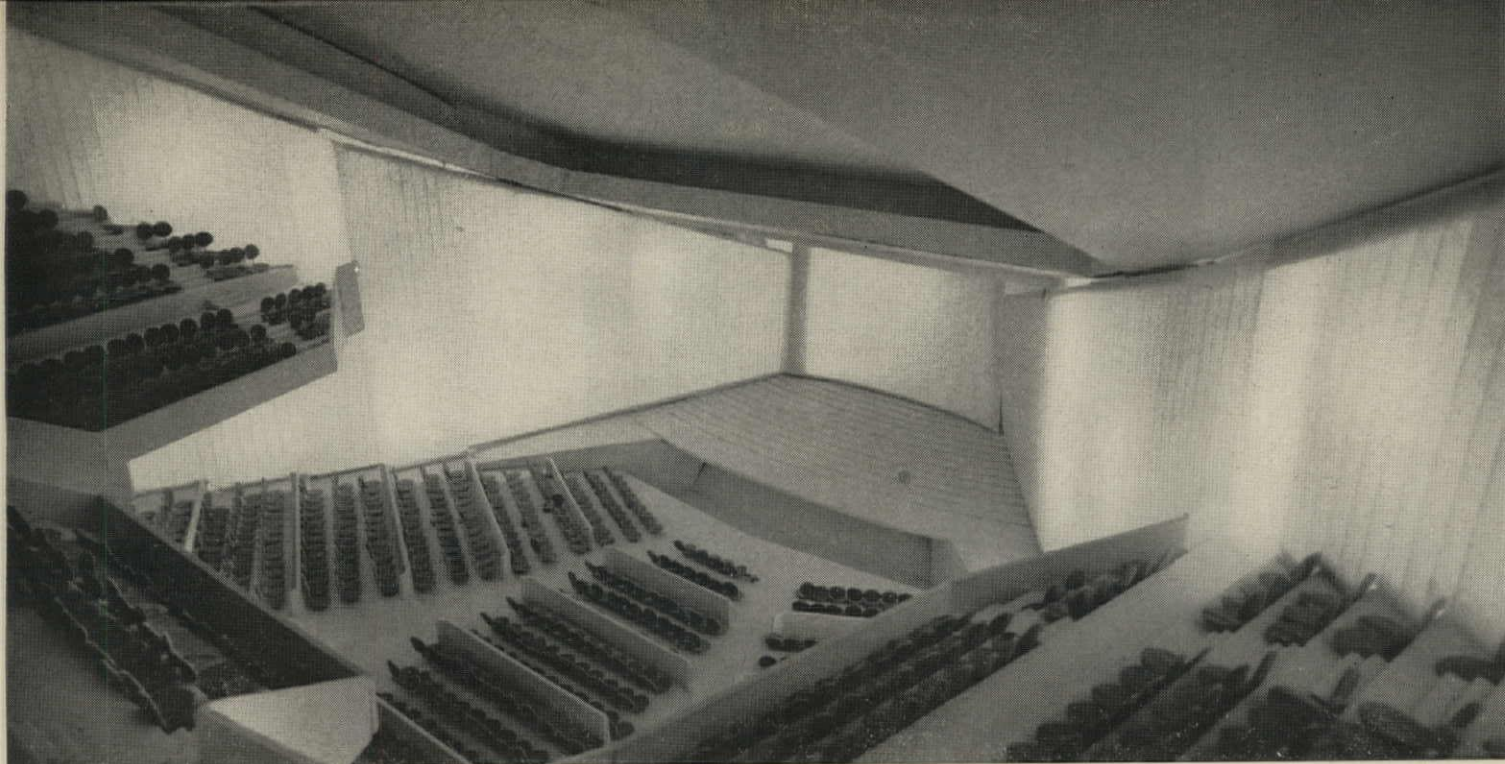
grade, continues through a lobby at sidewalk level and a gallery level 6 feet up (seen in the center photo), to an acting floor one flight above the sidewalk. Next to the main acting area, and 6 feet above it, is an L-shaped balcony and another L-shaped balcony, 6 feet farther up, is on the opposite side (see above right). This interplay of levels, equipped with a lighting and scenery grid overhead, provides opportunities for simple theater expression.

## NEW FORM FOR THE NONPROSCENIUM STAGE

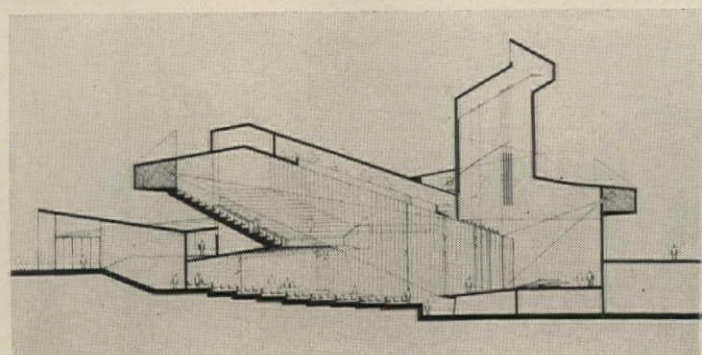
Sixteen extremely long rows of "continental" seating, placed 36 inches center to center, and set to allow a limited swivel side-to-side, provides 830 seats with a maximum viewing distance of 65 feet in this nonproscenium theater. The spacing and optimum distance were among the standards set by Theater Architect Ben Schlanger and Scenic Designer Donald Oenslager. Although the stage, 3 feet, 2 inches above the floor at the first row of seats, could be equipped with mechan-

ically operated stage elevators, no fly loft is contemplated. Instead, wide side-stages are used to store triangular, self-supporting scenic elements, which can be arranged in many ways to form several acting areas or, in fact, to close the stage opening down to a more normal 36-foot width. The straight rows of seating are stepped up 1 foot for each row. The seating and the ingenious base lighting give the director a neutral space for his action, unencumbered by architecture.

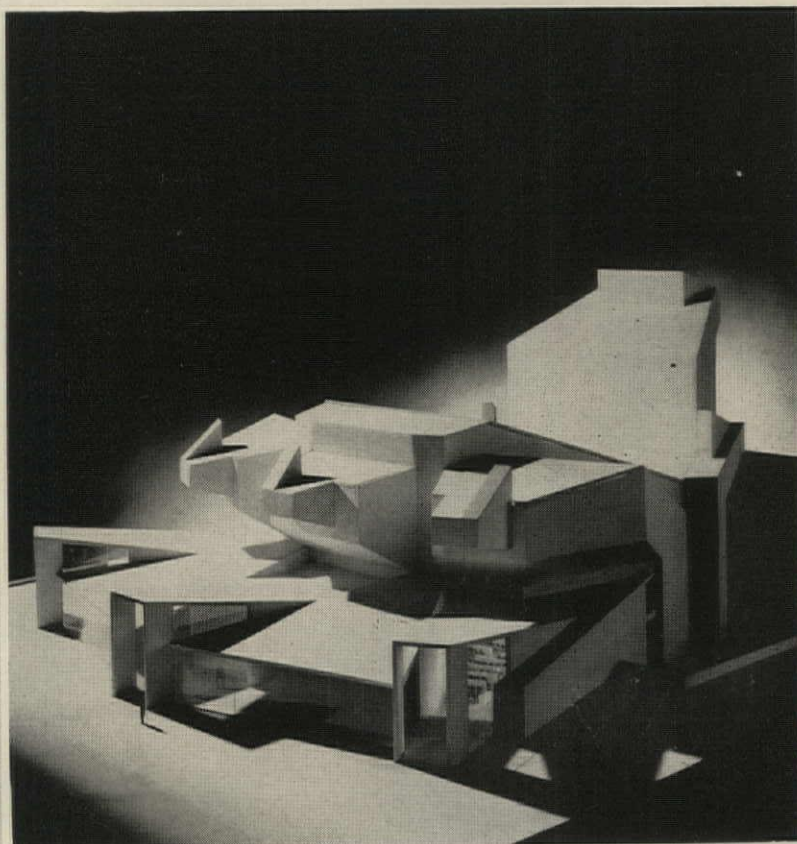
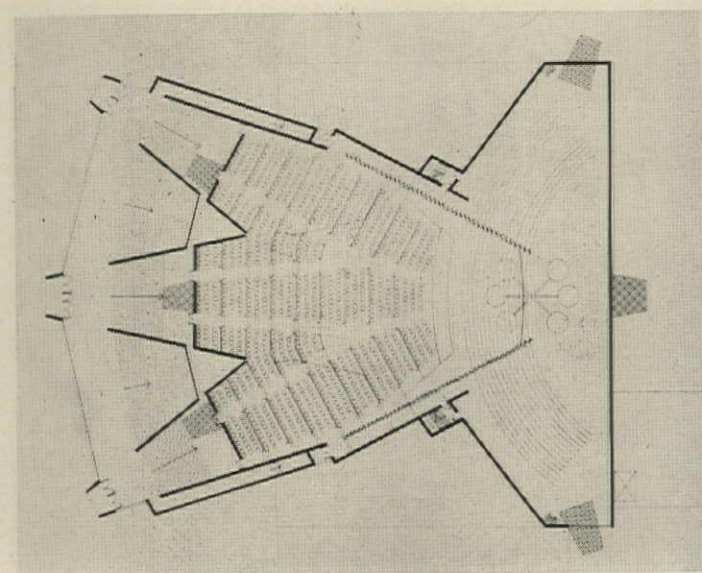




*Interior model shows sloping stage and side panel screens*



*Exterior is shaped from projection booths and stagehouse volumes*



PHOTOS: J. ALEX LANGLEY

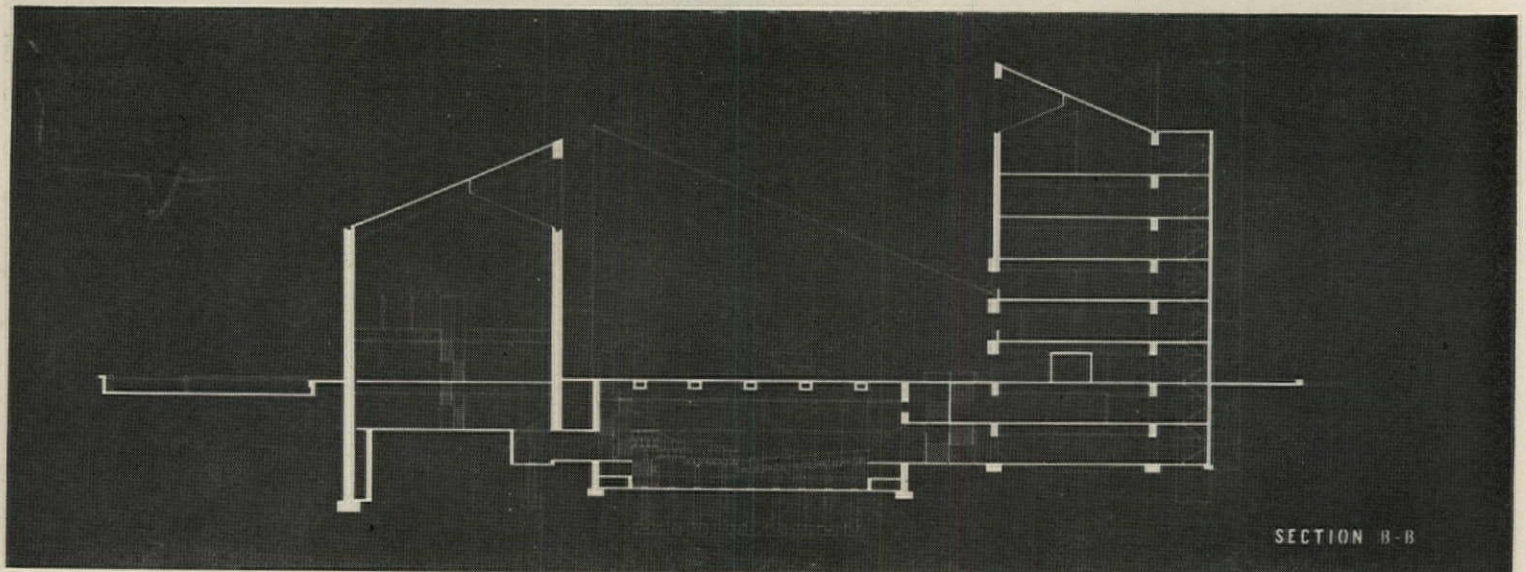
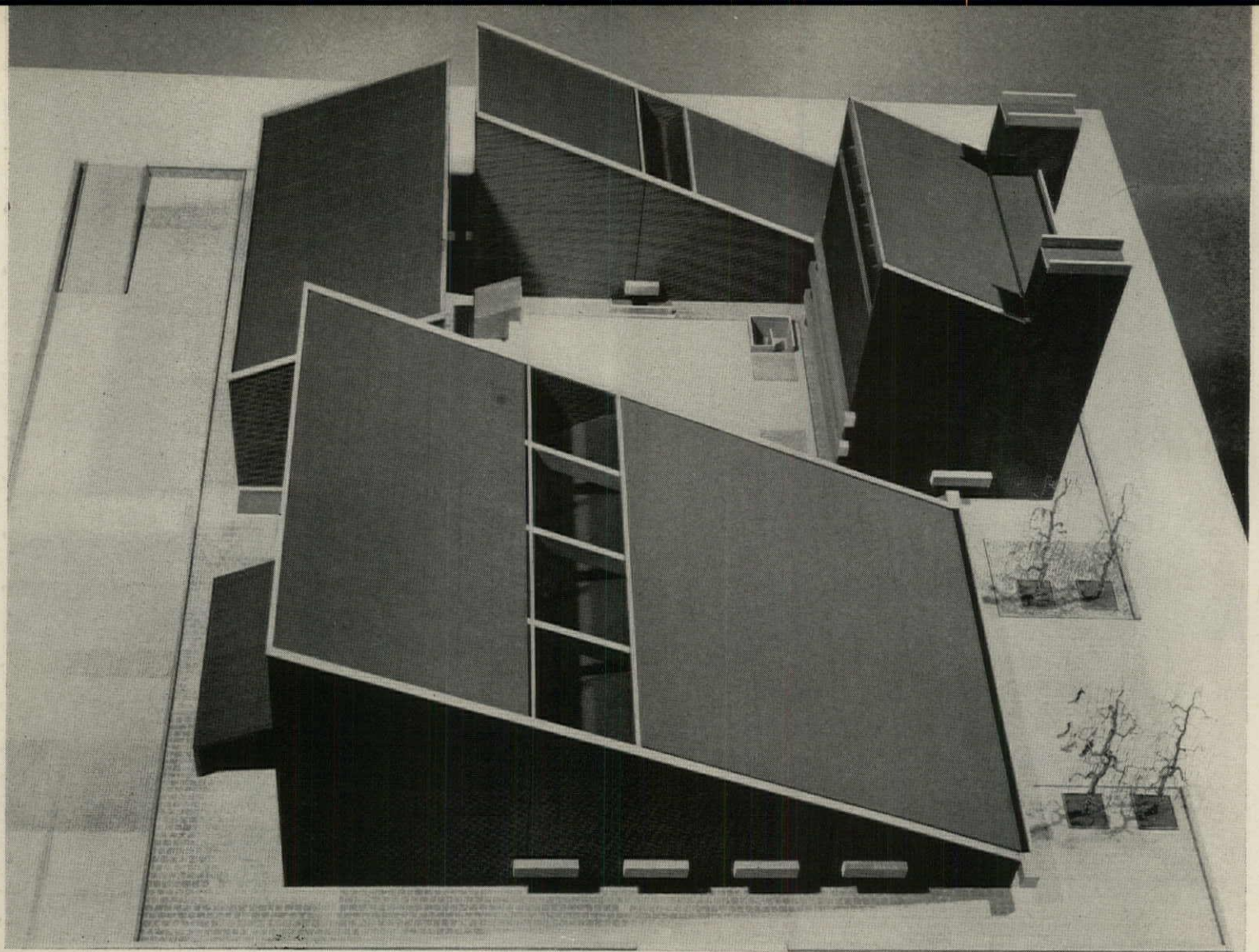
### **THEATER FOR INTEGRATED FILM PROJECTION AND LIVE ACTION**

A theater designed to allow blending of film and live stage action is enclosed in an expressive, if prickly, shape in this project by Scenic Designer Ralph Alswang and Architect Paul Rudolph. Using new high-intensity motion-picture projection, wide-screen processes, controlled lighting of acting areas (without spilling on projection surfaces), and a screen which can be opaque or translucent, the theater would allow the playwright to develop action ranging from the most realistic of bat-

tle scenes to the most lyrical of fantasies. Background settings and lighting patterns would be projected beyond the stage into the auditorium itself on side panel screens or onto the sloping floor of the stage itself (top photo). Special film would be used, shot without a frame and in relationship to stage perspective and stage scale, to change mood, background, and light continuously and integrally with stage action. The structure derives its unusual shape (photo, right) from

six projection booths, three over the auditorium and three behind the stage, which literally project outside the wall of the theater itself. The seating is divided into three banks in the low-pitched orchestra (section above), to allow stairs to the balcony from the lobby to be inserted in between (plan above). The plan also cuts structural spans to one-third. Access to the orchestra from the lobby placed midway between is by way of stairs leading to each of the three sections.





*Section through court showing experimental theater below*

### THREE CONVERTIBLE THEATERS FOR A DRAMA CENTER

A complex of buildings housing three theaters built around the most advanced lighting, staging, and flexible seating systems, is joined by ancillary facilities for a drama school in the project of Theater Designer George Izenour and Architect Paul Schweikher for Carnegie Institute of Technology. The main theater, housed in the largest of four wedge-shaped building blocks surrounding a central court, contains 502 seats in 17 rows. The first seven rows can be moved up and out of

their normal proscenium theater position (drawings, right) into side positions to help create an extended proscenium or three-quarter arena theater. In the normal proscenium position, the seat rows are stepped 6 inches; in the side positions, they are stepped up to 12 inches. The rear rows are fixed at 12-inch steps. With the seat banks removed, the acting area can be modulated into 24 varileveled areas, each 7 feet, 3½ inches square, by the use of hydraulic lifts, controlled, as are the

seat banks, by a computer. Twelve additional adjustable squares are available on the stage proper.

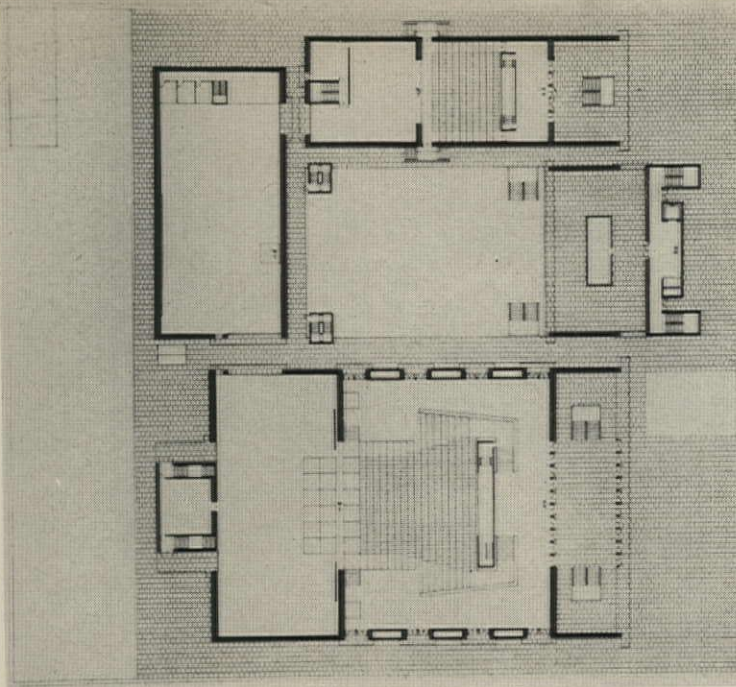
The dimensions of the squares were set by the requirements of seat spacing, using a 40-inch "continental" row. In Schweikher's big, simple room, plenty of space remains around the seating for ample intermission areas.

The square units are repeated in the experimental theater, two levels under the court (which can itself be used for outdoor performances—see section, above). In

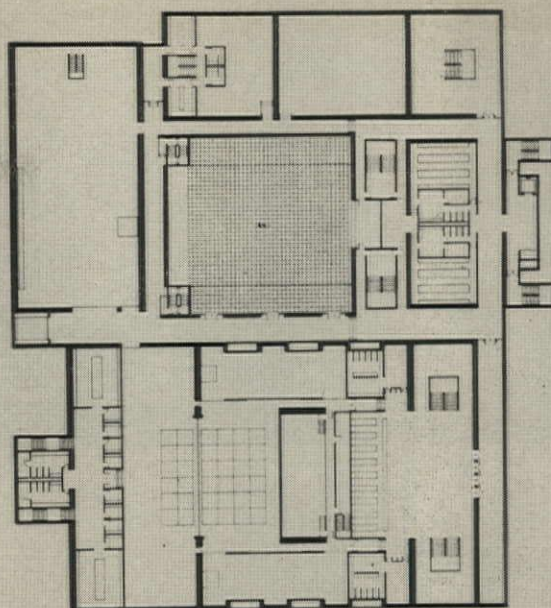
the case of the experimental theater, the 299 seats can be individually relocated, allowing more freedom of arrangement. Above this theater is a grid for positioning lighting and set elements on a 2-foot-square module.

The 210-seat studio theater is contained in its own wedge-shaped house across the court from the main theater. Completing the enclosure are a workshop building and a six-story tower housing classrooms, offices, rehearsal rooms, and dance studio.

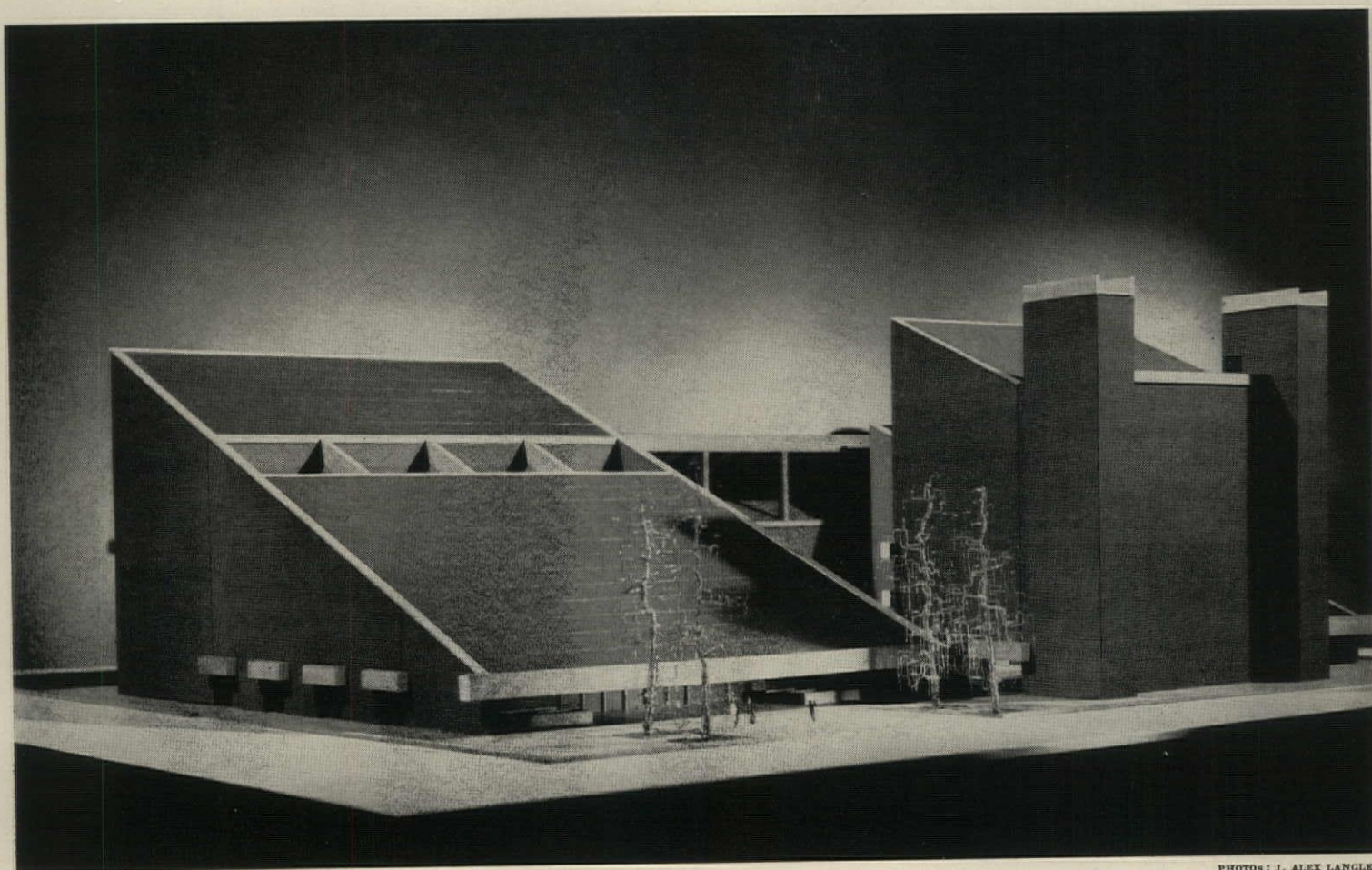




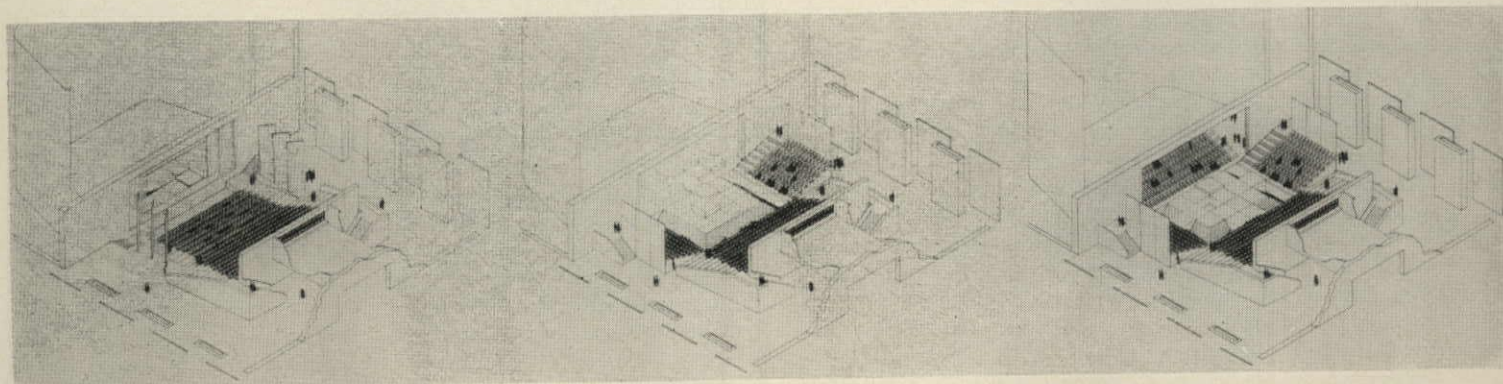
*Grade-level plan*



*First level below grade*



PHOTOS: J. ALEX LANGLEY

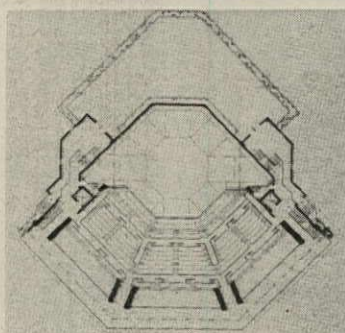
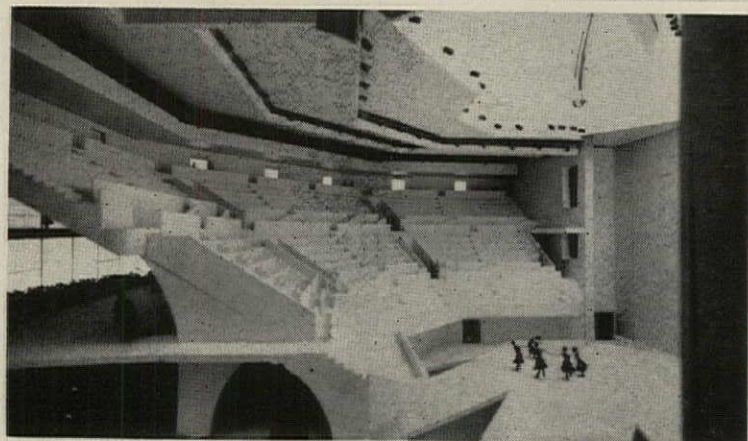
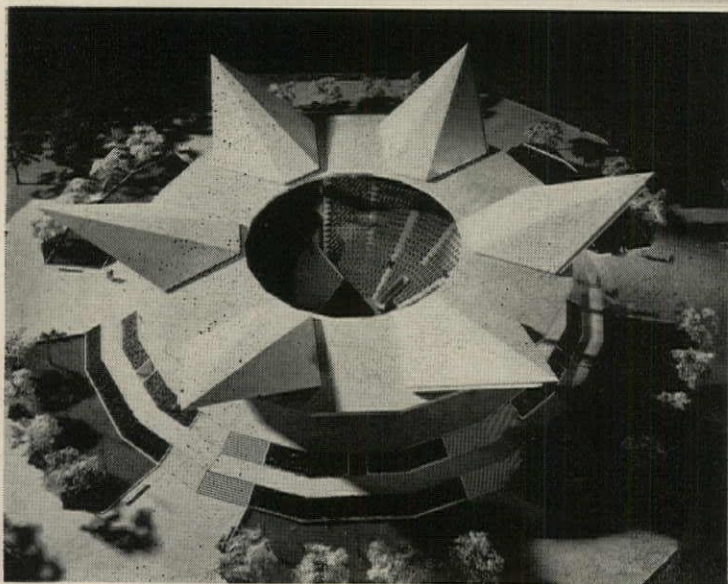
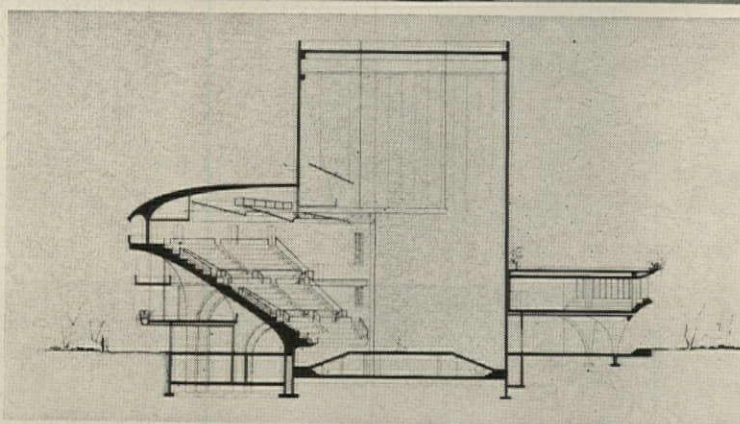
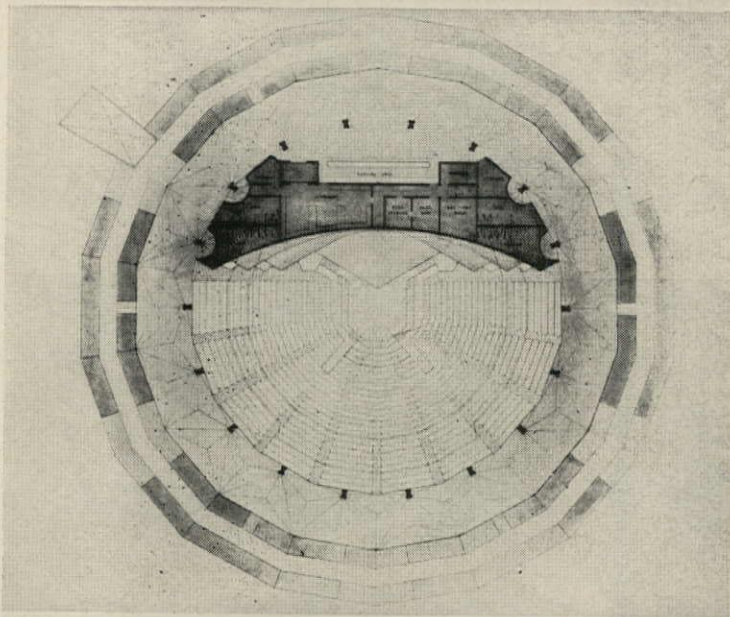
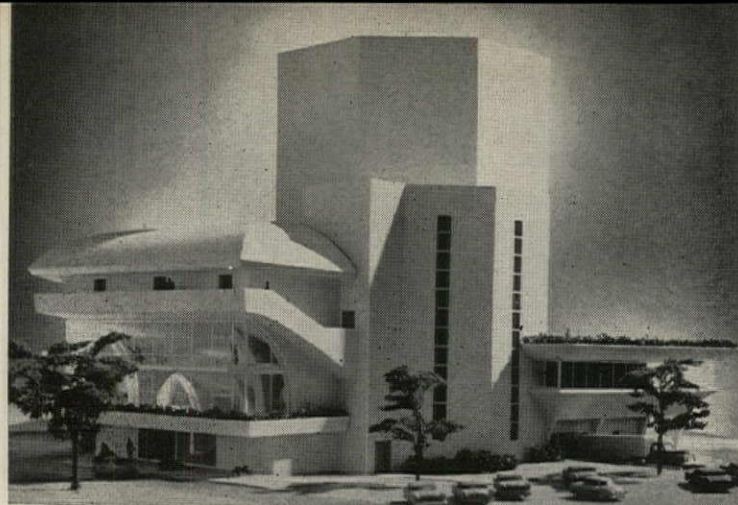


*Main theater as proscenium theater*

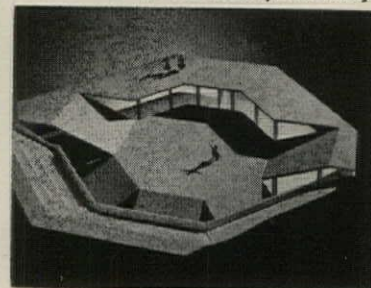
*...as three-quarter arena*

*...and as full arena*





*Stage elevators form ramps*



### A PAVILION FOR SHAKESPEAREAN THEATER

This circular pavilion in a park, designed specifically for Shakespeare productions by Stage Designer Eldon Elder and Architect Edward Durell Stone, is covered with six movable sections which rotate individually to open or close the central portion of the roof. The sections are supported on a 50-foot-wide flat roof over the promenade, which is reached by gentle flights of stairs up the terraced bank from the park floor. From this promenade, 2,000 spectators approach their seats in the

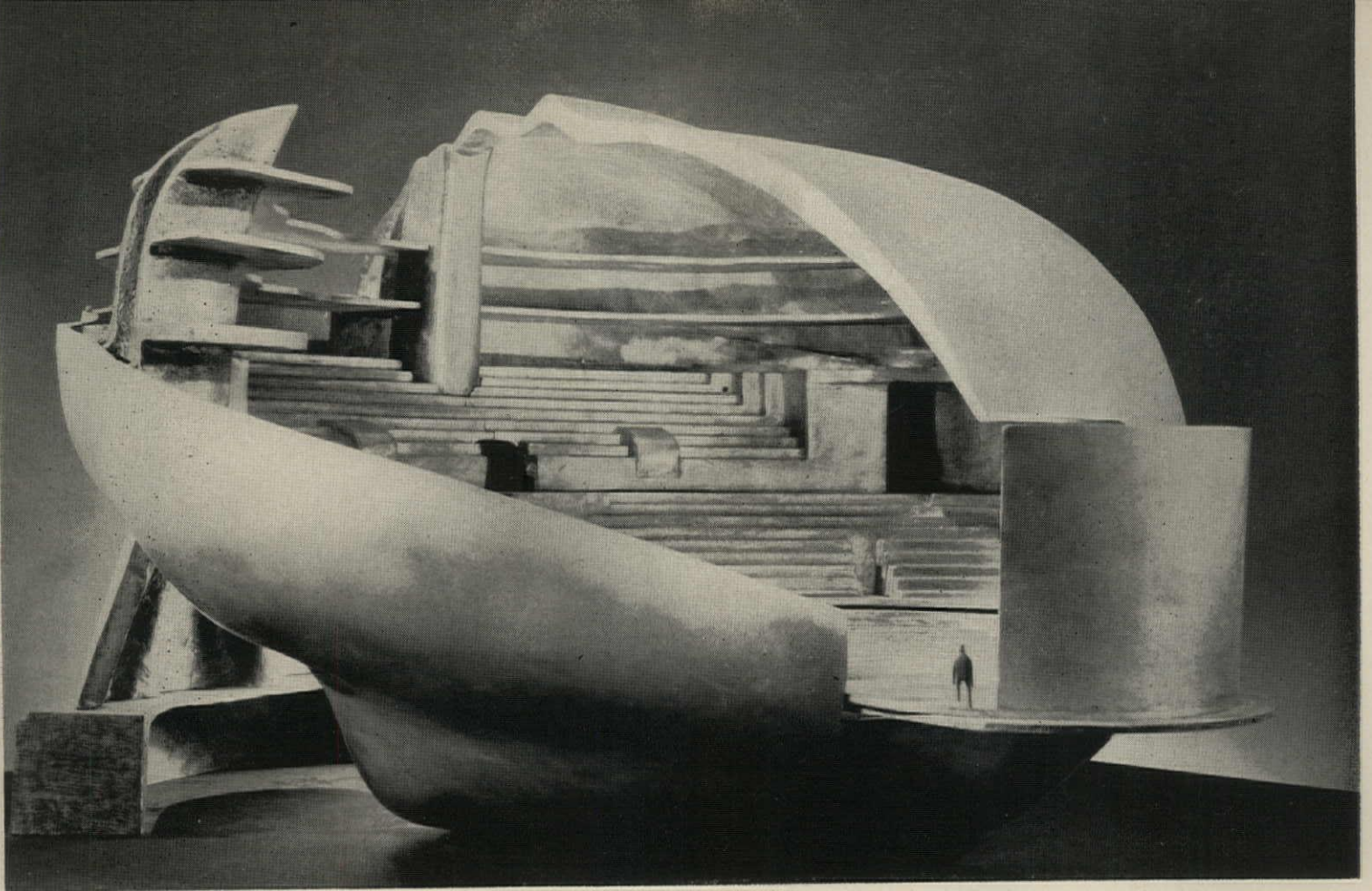
bowl-shaped arena without turning their backs on center stage. The acting area, arranged in traditional Shakespearean fashion with forestage, backstage, and permanent balcony, contains two aisles between forestage and backstage for actor entrances. At the aisles, screens can be used to separate the two areas. The aisles are equipped with tracks for stage wagons, and the stage itself is equipped with two trucks which can be raised to balcony level or lowered to the lower level.

### A MOVABLE PLATFORM FOR THE DANCE

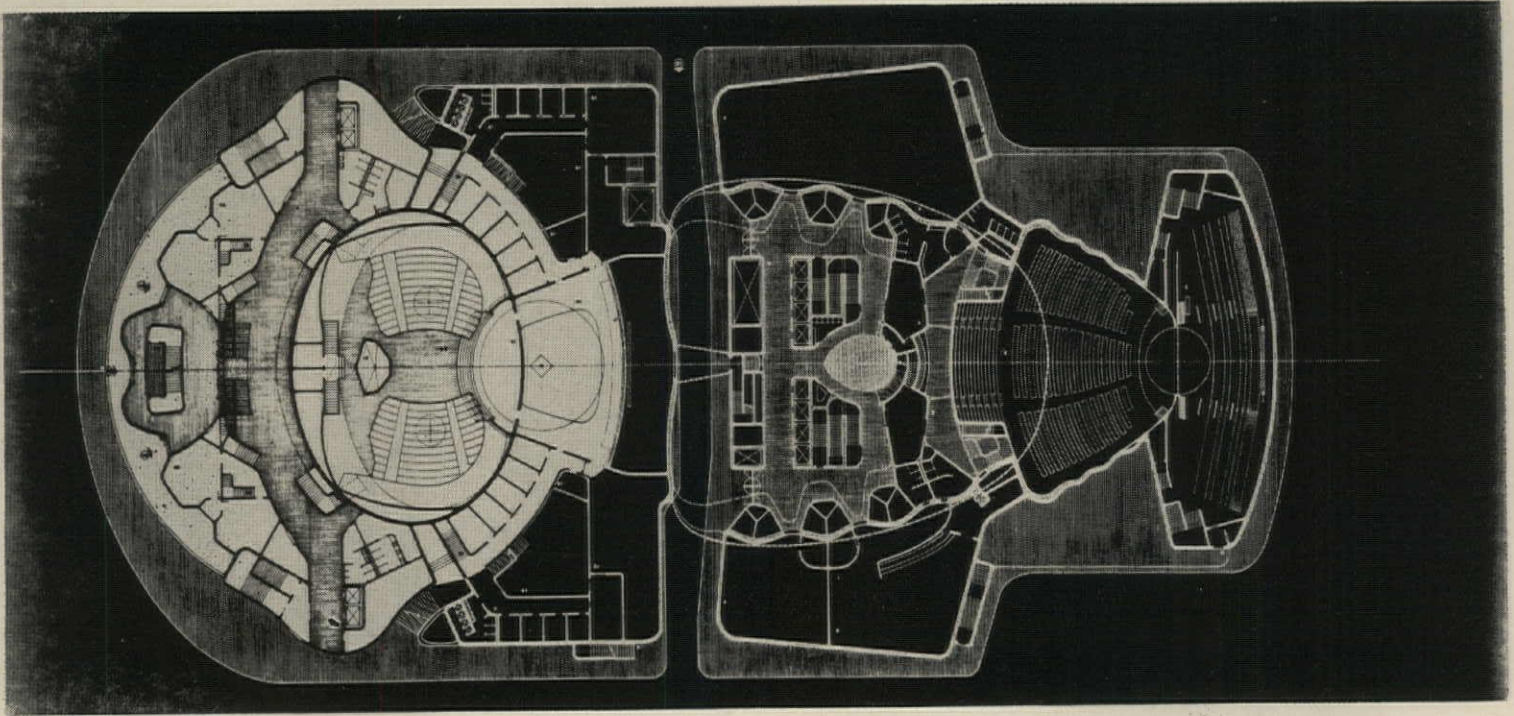
A series of square and triangular elevator platforms arranged around an octagonal center stage provide complete choreographic freedom in this project by Theater Designer Barrie Greenbie and Choreographer Elizabeth Harris. The steeply raked auditorium, containing 1,100 seats, wraps around three sides of the octagon. The center stage, normally lower than the front row of seats, can be raised up to 30 inches above them. In this case, the downstage ramps can be lowered to form an

orchestra pit. But, from this more-or-less conventional arrangement, a wide range of deviations is possible. One of them (shown in the stage model, above right) allows for entrances to the stage from below at the front, and from above at the sides. Also, a higher level is possible at the rear. The hydraulic platforms, which can be rearranged in midperformance if desired, and an extensive synchronous winch system housed in the stagehouse, are key features in this well-equipped facility.





General plan at auditorium level. Area in white is the area of the model (above)



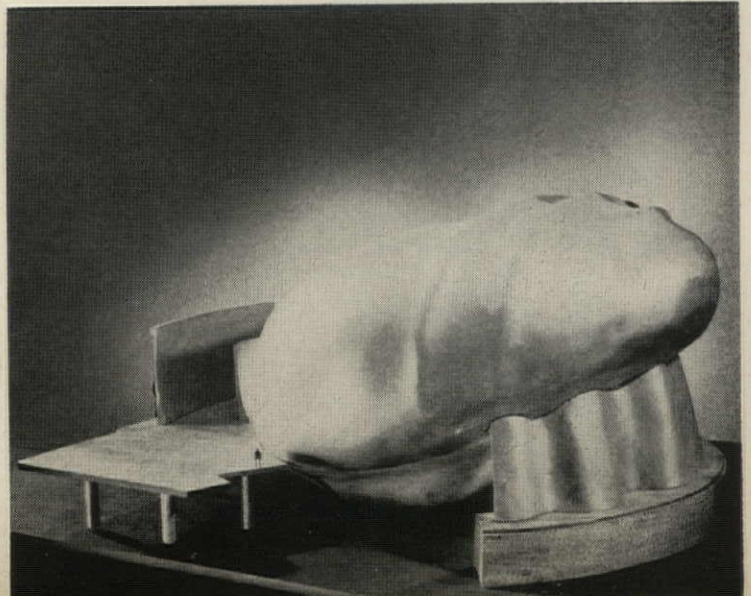
### A UNIVERSAL THEATER CENTER

A cast-aluminum model demonstrates (right and above) the features of the 1,600-seat main theater in a complex designed by Architect Frederick Kiesler. The entire project, a vast envelopment within concrete shell structures, includes a smaller, 600-seat theater attached to the stagehouse of the larger theater. (In the plan above, the area in white is approximately the extent of the model.) Sharing the lobby of the smaller theater is a 30-story tower housing additional theaters seat-

ing from 120 to 300 persons, as well as television studios, exhibition space, and offices for publishers, record producers, and motion-picture organizations.

The main theater contains two seat banks which pivot from the position shown in the plan (above), which shapes up an arena theater, to the position shown in the cut-away model, which provides the banked seats of a Greek-arena type. In addition to a revolving stage, a proscenium is provided.

PHOTOS: J. ALEX LANGLEY





MAX FRIEDMANN

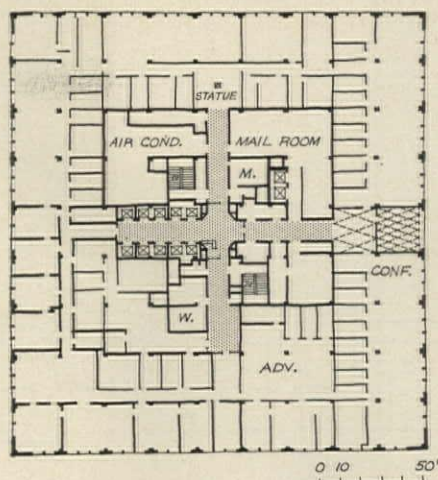


*Old offices (above) were cluttered, poorly lighted. New conference room (below) has folded ceiling, graffiti by Nivola.*

MARIS © KEN STOLLER ASSOC'S.







## CHANGING OLD OFFICES INTO NEW

Like many a company whose offices become inadequate with the passing of years, the recently merged Underwood-Olivetti Corp. was reluctant to give up an old, established stand, in this case the address of One Park Avenue, New York, which Underwood had occupied since 1936. The decision to remodel rather than move to a new building made economic sense as well. Comparable new space was renting at about \$7 per square foot. But even after the landlord increased the rent in exchange for installing air conditioning, Underwood-Olivetti is still paying so much less that the saving will offset its remodeling investment in a matter of a few years.

Particular attention was paid to the executive floor, shown on these pages, although one other floor was also remodeled. In plan, the executive floor was almost square, with elevators, stair wells, and toilets grouped tightly near the center. To organize the space forcefully, Architect Giorgio Cavaglieri established a reception area at the center, with four corridors radiating out.

Good use of art, in keeping with the Olivetti tradition, distinguishes these offices generally, but it is first apparent in the deliberate effort to give each of the four radiating corridors a different character. One corridor, leading to executive offices, is lined with reproductions of frescoes by Piero della Francesca and terminates in a vestibule containing a Roman statue 2,000 years old; another, leading to the presidential suite, ends at a stunning sand sculpture by Costantino Nivola (photos, right). On other walls are original works by Schavinsky, Le Corbusier, Steinberg, Kiesler, and Agostini.

A new acoustical ceiling was installed 2 feet below the structural slab to house recessed lights and wiring, sprinkler mains, and air-conditioning ducts. In the executive conference room (photo, opposite) and in the vestibule adjoining it, ductwork was stopped at the perimeter of the rooms so that a higher ceiling of sculptural plaster folds could be used for dramatic effect. Partitions throughout have aluminum rails and posts, walnut panels, and transoms of plate glass.



*Roman statue, 2,000 years old, stands in vestibule (above). Nivola sand sculpture (left) ends corridor to presidential suite. General office space (below) is lighted by continuous fixtures, has partitions of aluminum, walnut, and glass.*

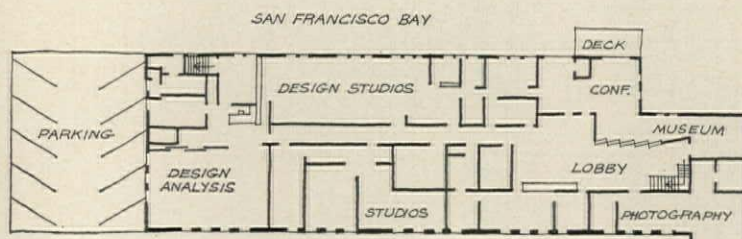


### FACTS AND FIGURES

Underwood-Olivetti headquarters, One Park Avenue, New York City. Architect: Giorgio Cavaglieri. Mechanical consultant: Nicola Ginzburg. General contractor: Christen-

sen Construction Corp. Total cost for two floors excludes air conditioning paid for by building owner. Cost per square foot: \$11 (\$8 for nonexecutive floor).





## CONVERTED LOFT SPACE

A far cry from most workaday office interiors is this imaginative conversion of an old pier on San Francisco's water front into studios for Industrial Designer Walter Landor & Associates. The space proved quite a find: located opposite the proposed Golden Gateway development (see FORUM, April '60, *et seq.*), it has access to the new Embarcadero Freeway, and justly famed harbor views. The big, unobstructed interior (photo right) is also proving ideal for a growing organization that needs plenty of flexible working space.

The high ceilings were left open and their wooden trusses painted white. Beneath, areas are separated by stretched canvas panels, pivoting display racks, and conventional walls. Besides reception and office space, the new headquarters contains design studios, model workshops, a packaging museum, and a small "laboratory" supermarket to test displays.

The remodeling was laid out by Landor staff members working with Knorr-Elliott as consulting architects. Initial cost was kept to \$25,000, the maximum allowed as depreciation credit by the landlord, the State Harbor Commission. An additional \$10,000 has since been spent. At 10,700 square feet, this amounted to just over \$3 per square foot.

### FACTS AND FIGURES

Offices of Walter Landor & Associates, Pier 5 North, San Francisco, Calif.

Designed by Landor staff members with Knorr-Elliott & Associates,

consulting architects. Consulting engineer: John Brown. General contractor: Dan Grey, Inc.

Cost of remodeling: \$35,000 for 10,700 square feet; \$3.27 per foot.

STONE & STECCATI

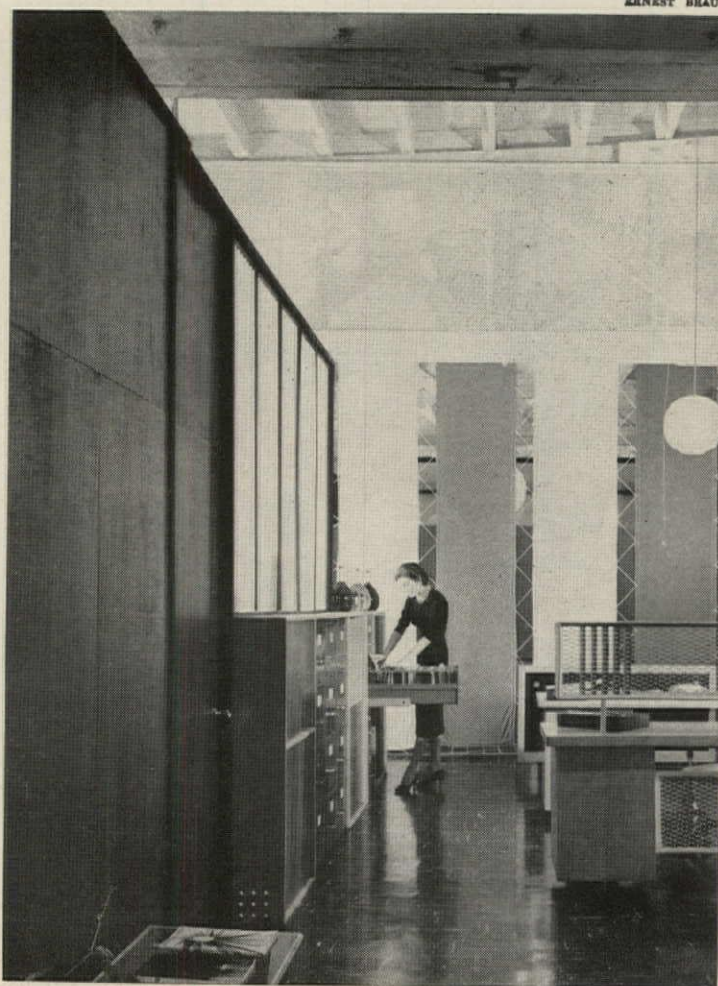


Barnlike interior of the bulkhead building along San Francisco's Pier 5 (top photo) was simply painted white, subdivided by freestanding partitions of wood, glass, and colored canvas strips (photo right). The reception area is separated from Landor's own office, which doubles as the main conference room, by panel racks which pivot together to display product designs on one side, package designs on the other (photo left).

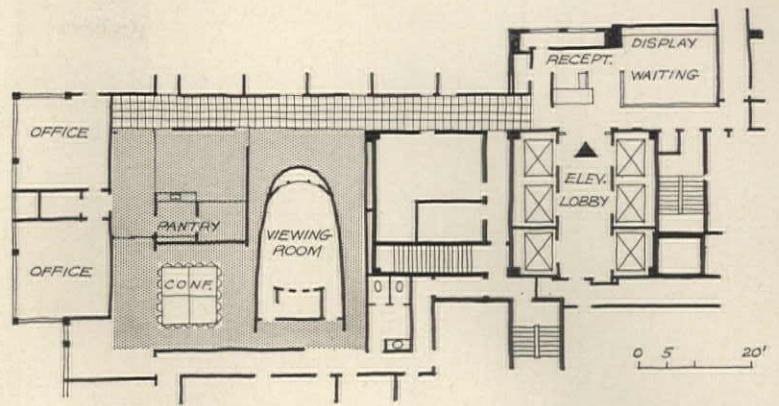


JEANNE RIEMEN

ERNEST BRAUN







## REMODELED AD AGENCY

Maximum impact at minimum cost was the objective of Architects Ulrich Franzen & Associates in this multistage remodeling for Doyle, Dane, Bernbach, Inc., an imaginative Manhattan advertising agency best known for its sophisticated work on the Volkswagen account. When all stages are completed, the entire executive floor (shown here) and the lobbies of three other floors will have been refurbished at an estimated cost of \$100,000.

Through careful placement of new partitions on the executive floor, the architects opened up vistas in what had been a cluttered area, then emphasized the views and axial arrangement with lines of lighting fixtures hung from the ceiling in a grid. From the elevator lobby, for example, the visitor's eye is drawn through glass doors to the reception desk by a ceiling whose deep coffers are strongly directional (photos right). From there, similar corridors lead to the two chief executive offices (below), and to viewing and conference rooms yet to be completed.

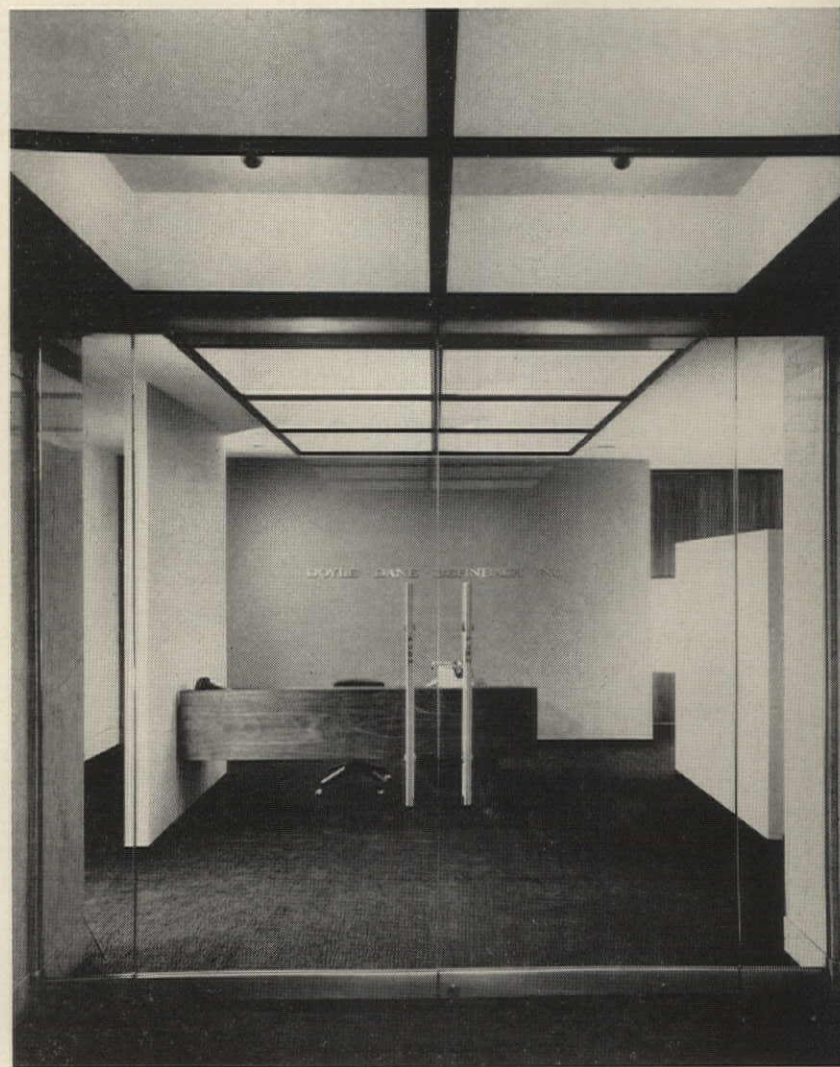
### FACTS AND FIGURES

Doyle, Dane, Bernbach, Inc. offices,  
11 W. 42nd St., New York City.

Architects: Ulrich Franzen & Associates. Mechanical and electrical

engineers: Zimmermann Engineering Co. General contractor: Waller Construction Co.

Total cost: \$100,000 (estimate when all work is completed).



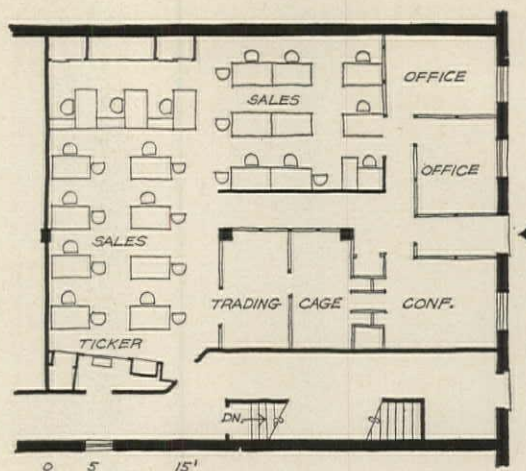
PHOTOS: BEN SCHNALL



Elevator lobby and reception area for the executive floor (above) sets the tone for the whole remodeling. Three other lobbies will be rebuilt in similar fashion. A waiting room with display cases opens off the reception area (right). One of the two top executive offices appears at left.







## OPENING UP AN OFFICE

In refurbishing this New Haven, Conn. branch office for Stockbrokers White, Weld & Co., Architects Kahn & Jacobs used a handful of devices to make 1,800 square feet go a long way. A new hung acoustical ceiling emphasizes horizontality, houses air conditioning and flush lighting that brightens up the room with 55 foot-candles. Clear glass partitions for two private offices and a conference room at the front also increase apparent space, and share daylight with the interior (photo below, right).

Most important, the new layout gives White, Weld room for 20 per cent more staff: up to 28 people, compared with 22 before. Desks are tightly organized, with file cabinets underneath; other files and storage are built into the walls. The old trading "cage" (right) is now a compact, open area separated only by low partitions finished in white plastic and walnut trim (below).

### FACTS AND FIGURES

White, Weld & Co. branch office, 74 Elm St., New Haven, Conn. Architects: office planning division of Kahn & Jacobs. Mechanical engineers: Hubbard, Lawless &

Blakeley. General contractor: Paterson Construction Co. Cost of remodeling: \$32,000 (including \$6,000 for air conditioning), plus \$15,000 for new furnishings.



*Before: uneven lighting, exposed ducts, an old-fashioned "cage."*

*After: glass partitions open up front offices to the interior.*



*New trading cage has low partitions, files built into desks and walls.*

PHOTOS (LEFT & RIGHT): MARIS © EZRA STOLLER



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**TRIO IN LONDON.** The buildings shown in the rendering above and the plan and model photo below were designed for Britain's noted *Economist* magazine in St. James's Street. They represent the first major commission for Architects Peter and Alison Smithson since their much-discussed Hunstanton School (FORUM, May '55). Largest building of the group is a 16-

story tower which places offices around a central service core to keep them within 18 feet of a window. Immediately to the left is a seven-story residential building with four floors of bedrooms for the adjoining eighteenth-century Boodle's Club (see plan), and two floors of apartments above. In front of the tower, completing the ensemble, is a four-story shop building. The group is placed on a raised plaza with underground parking beneath. All three buildings have chamfered corners, giving them an inviting three-dimensionality and providing a softer flow of space around and between them. Construction is of reinforced concrete, with floors clear spanning the distance between exterior columns and central service cores. Exteriors will be faced with Portland stone and anodized aluminum window frames holding fixed double glass.

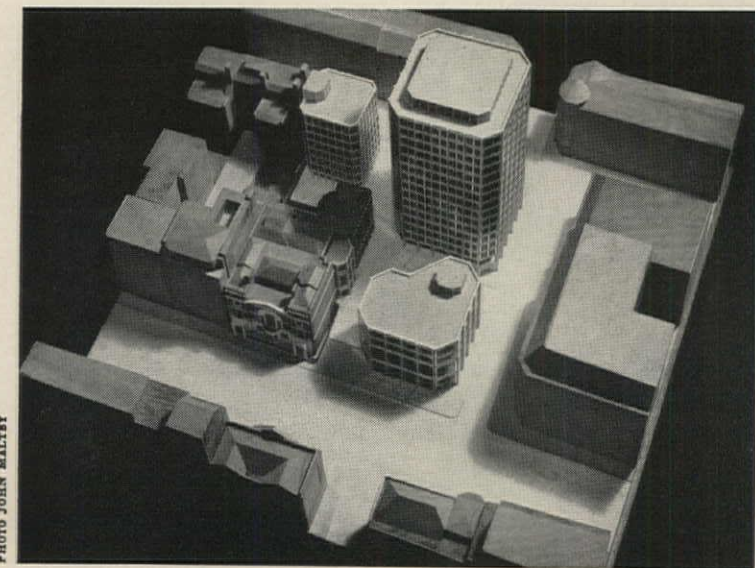
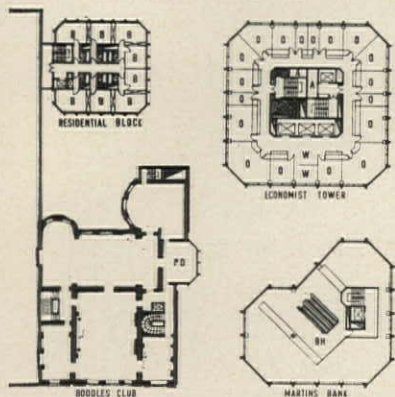
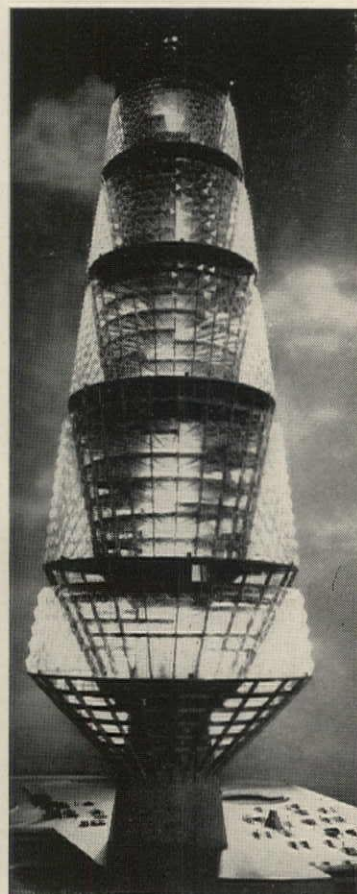
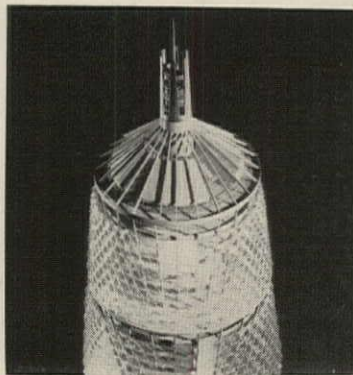
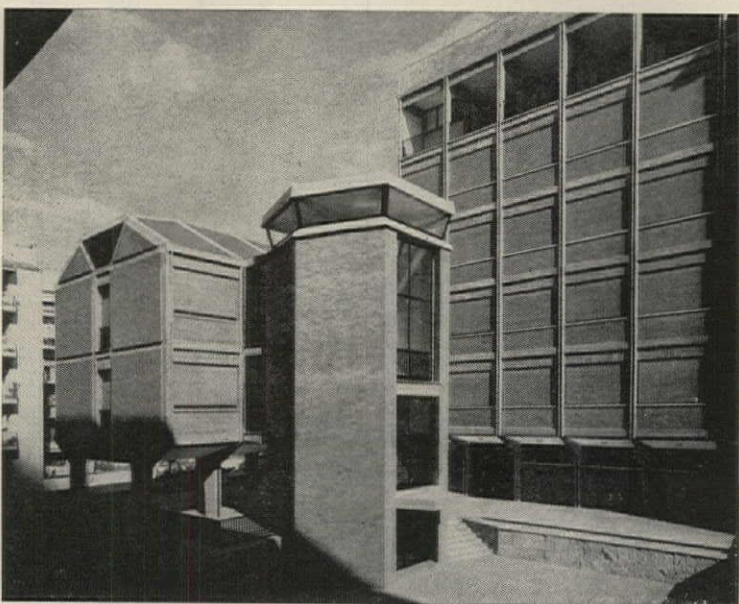


PHOTO JOHN MALTBY

**TOWER OF LIGHT.** "Crystal 61" is the name given this exhibit structure proposed for London by Pilkington Brothers, Ltd., British glassmakers, who point out that "by soaring 1,000 feet out of its surroundings it would provide its own advertisement." Ove Arup and G. A. Jellicoe designed the 569,000 square foot tower, which is as much a promotion for glass as a serious project but which, if built, would cost some \$28 million. Concrete beams branch out from a trunklike concrete core, supporting the floors. The faceted glass curtain wall is carried by a tubular steel space frame.



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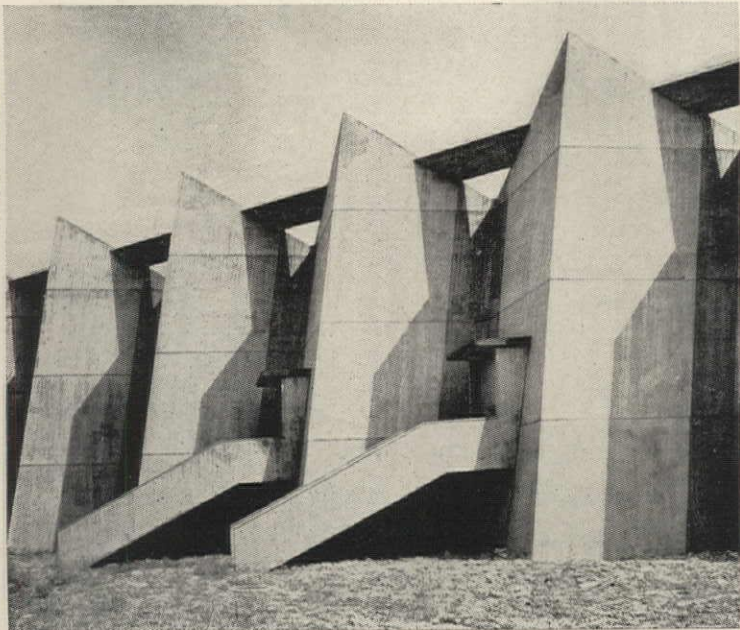
COURTESY "L'ARCHITECTURA"

**ROMAN POLICE STATION.** Three distinct elements form a dynamic composition in this police station by Architect Romualdo Landriscina in Rome. To the left in the photo above, a two-story police headquarters is supported on pilotis at the corner of the site. To the right is a six-story barracks building completing an L-shaped arrangement. Between these masses an enclosed exterior stair, attached to the headquarters by short

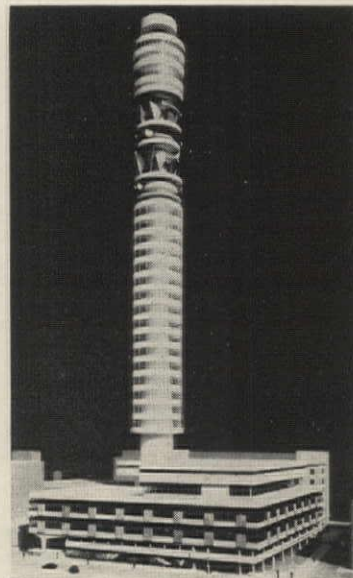
bridges, appears as a small tower, deliberately overplayed for dramatic compositional effect. A tapered concrete column stands completely free in the hexagonal stair enclosure, branching horizontally at the top to support a light roof cap. The stairs are cantilevered in from the outer bearing walls of brick without touching the central column. A top-floor balcony on the barracks overlooks the two-level plaza.



COURTESY "KOKUSAI KENTIKU"

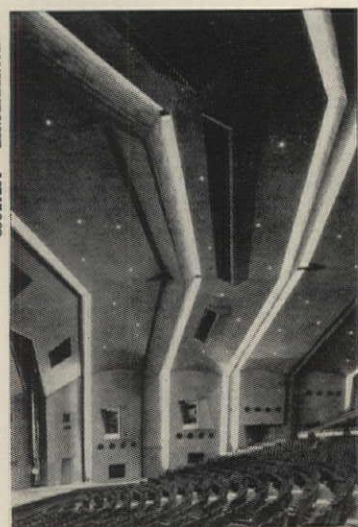


**TOWER OF SOUND.** When completed in 1963, this micro-wave tower for TV and telephone transmission will be London's tallest building—500 feet high. Designed by Ministry of Works architects, it will be crowned with a revolving public restaurant which will turn at the rate of one complete cycle every half hour. A hollow concrete spine containing elevators and ductwork tapers from a diameter of 35 feet at the base to 22 feet at the top, supporting cantilevered circular floors of reinforced concrete. The tower, 54 feet in diameter, is completely enclosed in glass except for the sculptural looking transmitter section two-thirds of the way up. A low office block completes the complex.



COURTESY BRITISH INFORMATION SERVICES

COURTESY "KINDAIKENTIKU"



**MUSIC HALL IN JAPAN.** In the city of Takasaki, an hour outside Tokyo, American Architects Antonin Raymond & Associates have designed a monumental music center for the Gunma Philharmonic Orchestra. The main hall, with a capacity of 2,000 people and a floor area of 34,000 square feet, has a symmetrical plan shaped like an open oriental fan which places the orchestra at the narrow end opposite the main entrance. The folded structure of rough concrete expresses the hall's acoustical baffling in a series of arresting shapes. Daylight is admitted through continuous slots in the roof and walls (photo, left).

**OFFICES DOWN UNDER.** Australia's newest skyscraper, "Lend-Lease House," rises 19 stories from a peninsula on Sydney Harbor. The long façades of Architect Harry Seidler's design face east and west, providing fine water views but also making sun control an important consideration. Movable horizontal louvers of aluminum are held between continuous mullions on the exterior. Since positioning of the louvers is individually controlled by hand in each office, the façades present an irregular, constantly changing pattern as different people react differently to the sun. The structure is of reinforced concrete. Two rows of interior columns support flat slab floors cantilevered equally on both sides. Concrete floor edges are exposed and emphasized with white facebrick. Roof clutter is shielded by a screen.

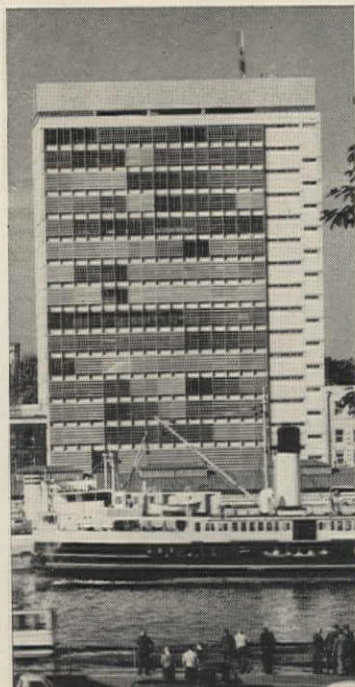
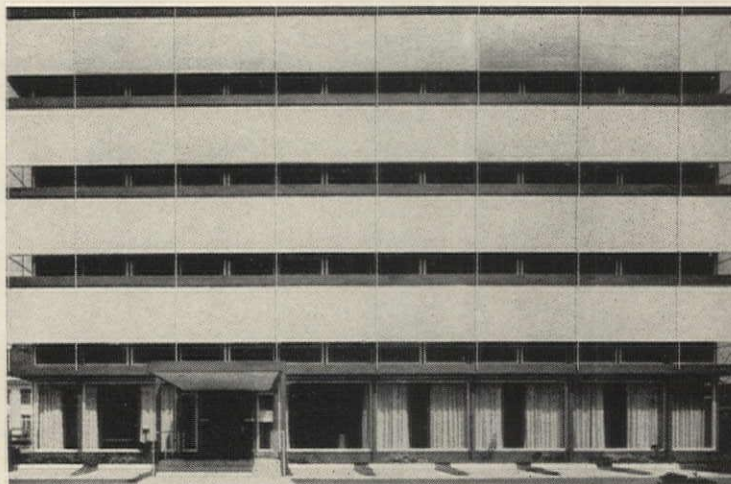
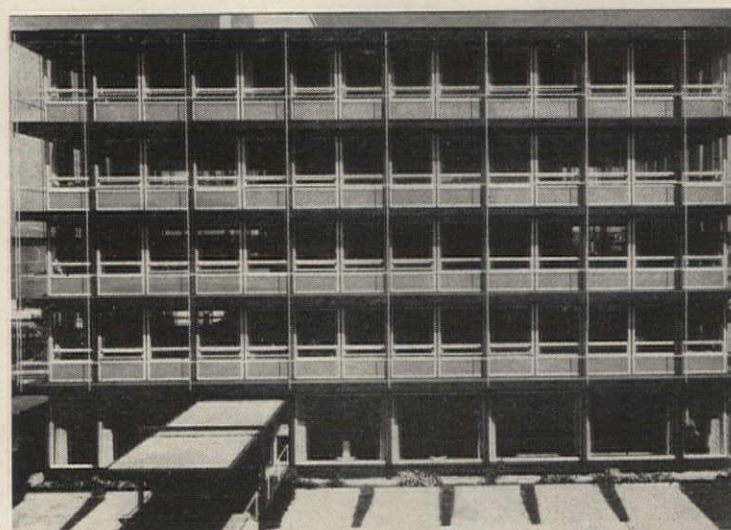


PHOTO MAX DUPAIN



COURTESY "BAUWELT"



**GERMAN SUN CONTROL.** Shallow balconies provide the framework for electrically controlled horizontal blinds in this five-story administration and engineering building for a structural steel company in Offenburg. The design, by Architect Egon Eiermann, is a

further development of the sun control and fine detailing he employed in the West German Pavilion at the Brussels World's Fair (FORUM, June '58). Floors of reinforced concrete span the distance between the central core and the outside columns. END





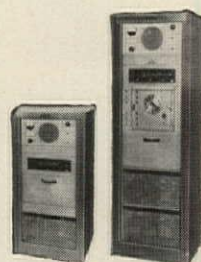
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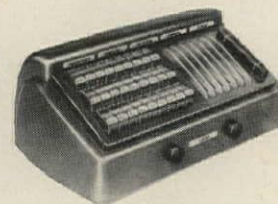
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At the new Armstrong Product Center, Rockefeller Center, New York City, you will see displays of all Armstrong floors, plus Armstrong ceilings, wall coverings, packaging and industrial products. In the pictures at left are a section of the spacious showroom (above) and a conference room. Many products of particular interest to architects have been used.

**New Castilian Vinyl Tile**, in two colors, is used on the showroom floor. A rich, translucent floor, Castilian has remarkable properties of indentation resistance. Because of its resiliency, Castilian Tile "gives" with the impact of stiletto heels and concentrated static loads. But because of its unique polyvinyl composition, Castilian has a "memory." Almost always it recovers its original surface smoothness from static or dynamic forces that would permanently impair conventional materials, such as wood, carpet, or concrete. Approximate cost: \$2.00 per sq. ft. installed.

**Parquet**, a richly colored pattern in Custom Vinyl Cork Tile, is used for the floor in the conference room. This luxurious floor takes full advantage of the natural beauty of cork and the functional benefits of vinyl. Slices from thick cork blocks are arranged in a parquet pattern and fused with layers of clear vinyl. Thus, the aesthetic values of cork and the easy-maintenance characteristics of vinyl are combined. Approximate cost: \$1.50 per sq. ft. installed.

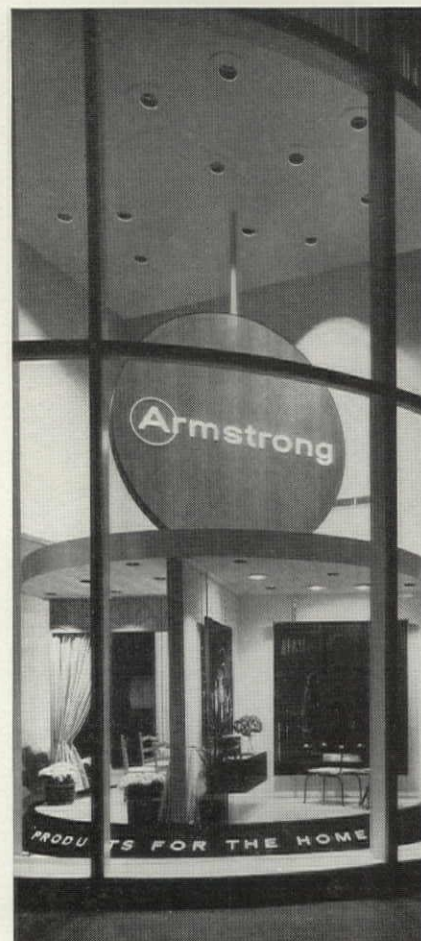
**Wall Corlon**, a new kind of vinyl wall covering, was specified for the plaster walls of the conference room. This material was designed and formulated with the help of a nationwide panel of two hundred architects. Developed exclusively for commercial and institutional use, Wall Corlon has moisture and mold-resistant Hydrocord Back. It is dimensionally stable, resistant to impact damage, fire retardant, and economical to install. Three embossed surface treatments each in twenty colorings are available. Cost before installation: .030" gauge 35-45¢ per sq. ft.; .040" gauge 60-65¢ per sq. ft. Installation costs vary widely according to local labor rates and job conditions.

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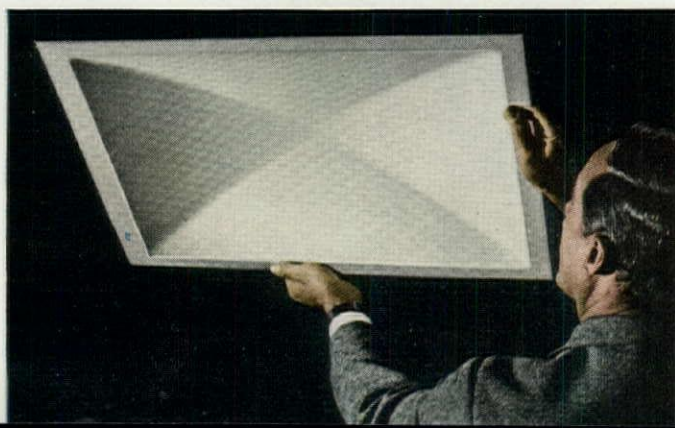
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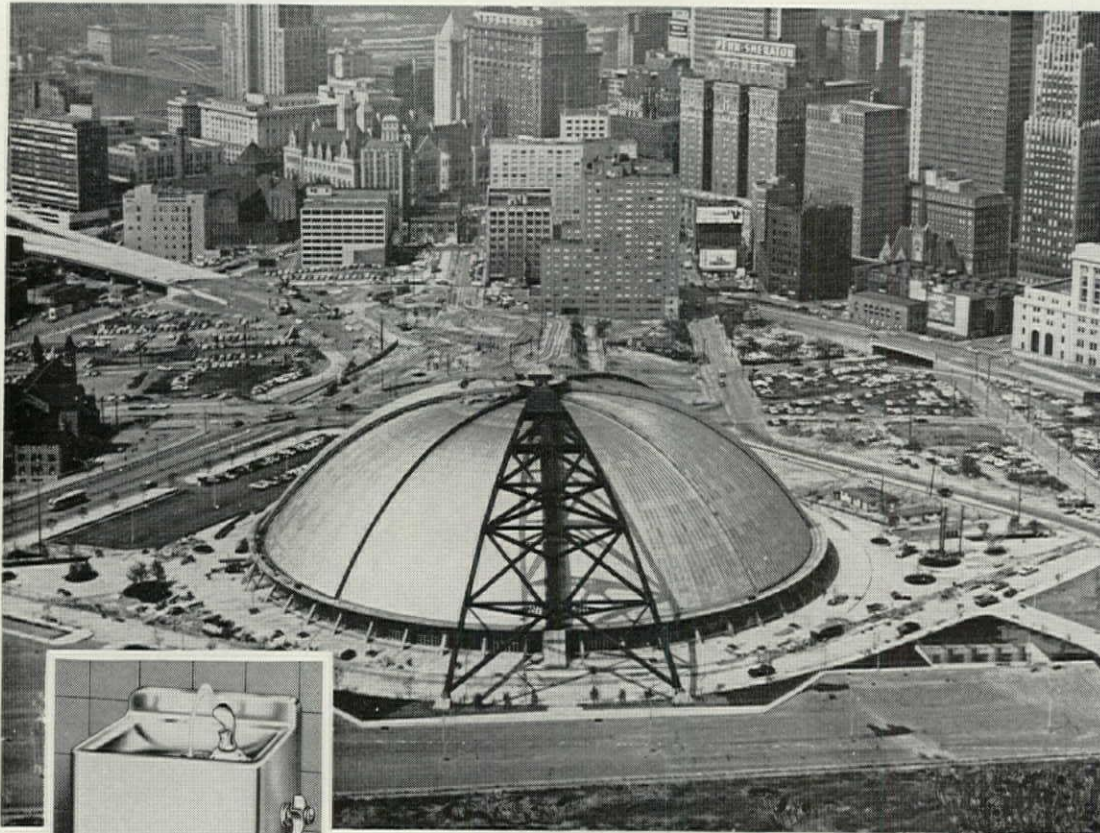






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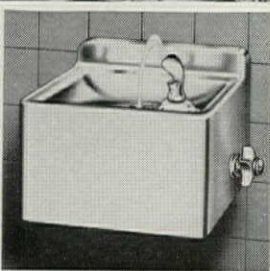
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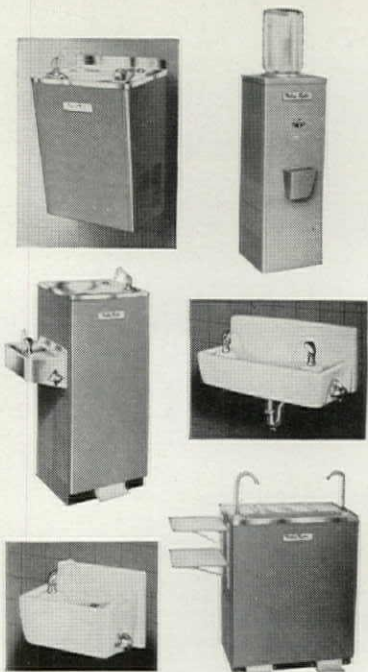
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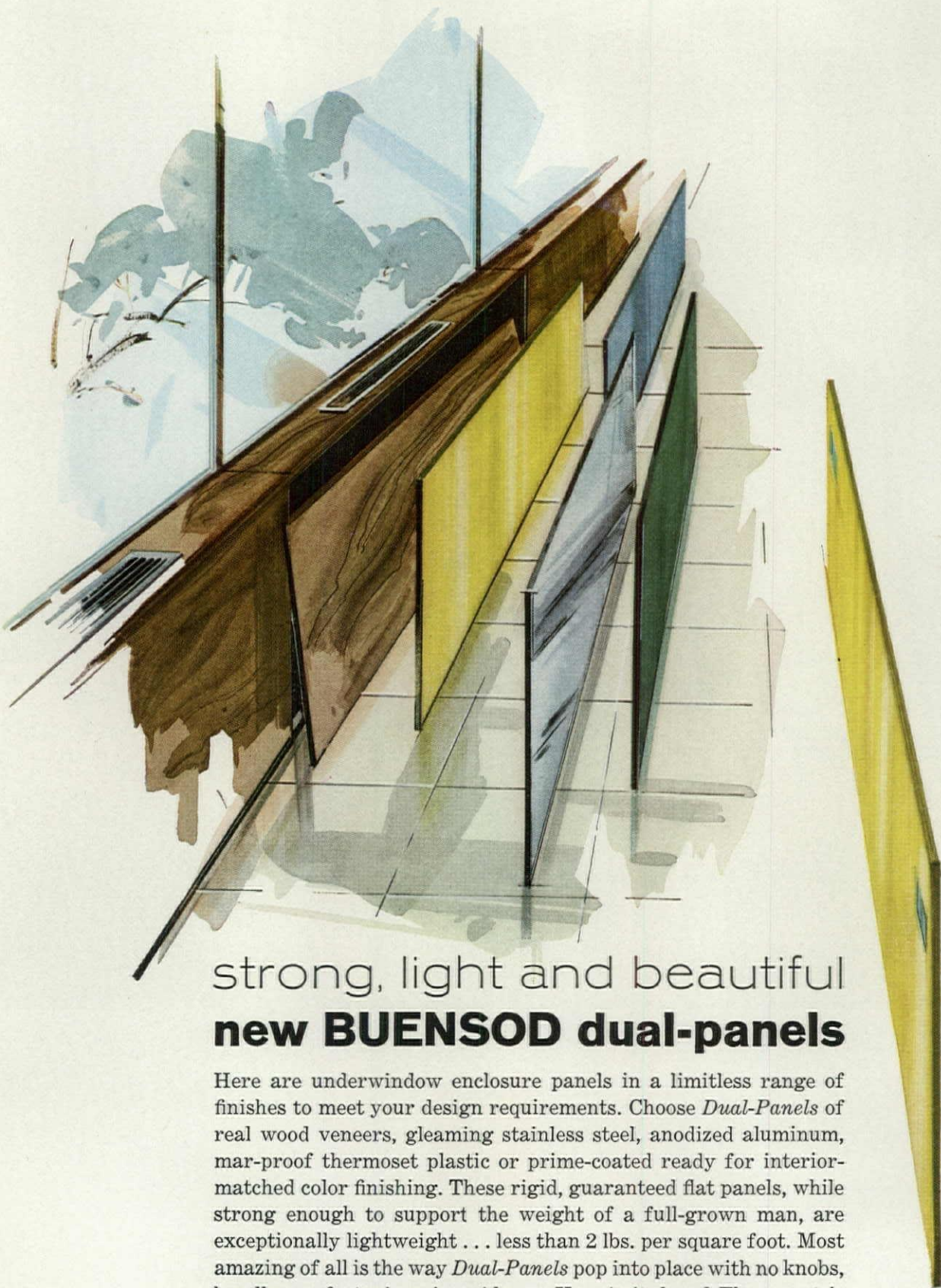
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Executive office, LOOK Magazine

Robert Damora, photograph





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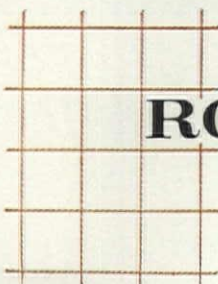
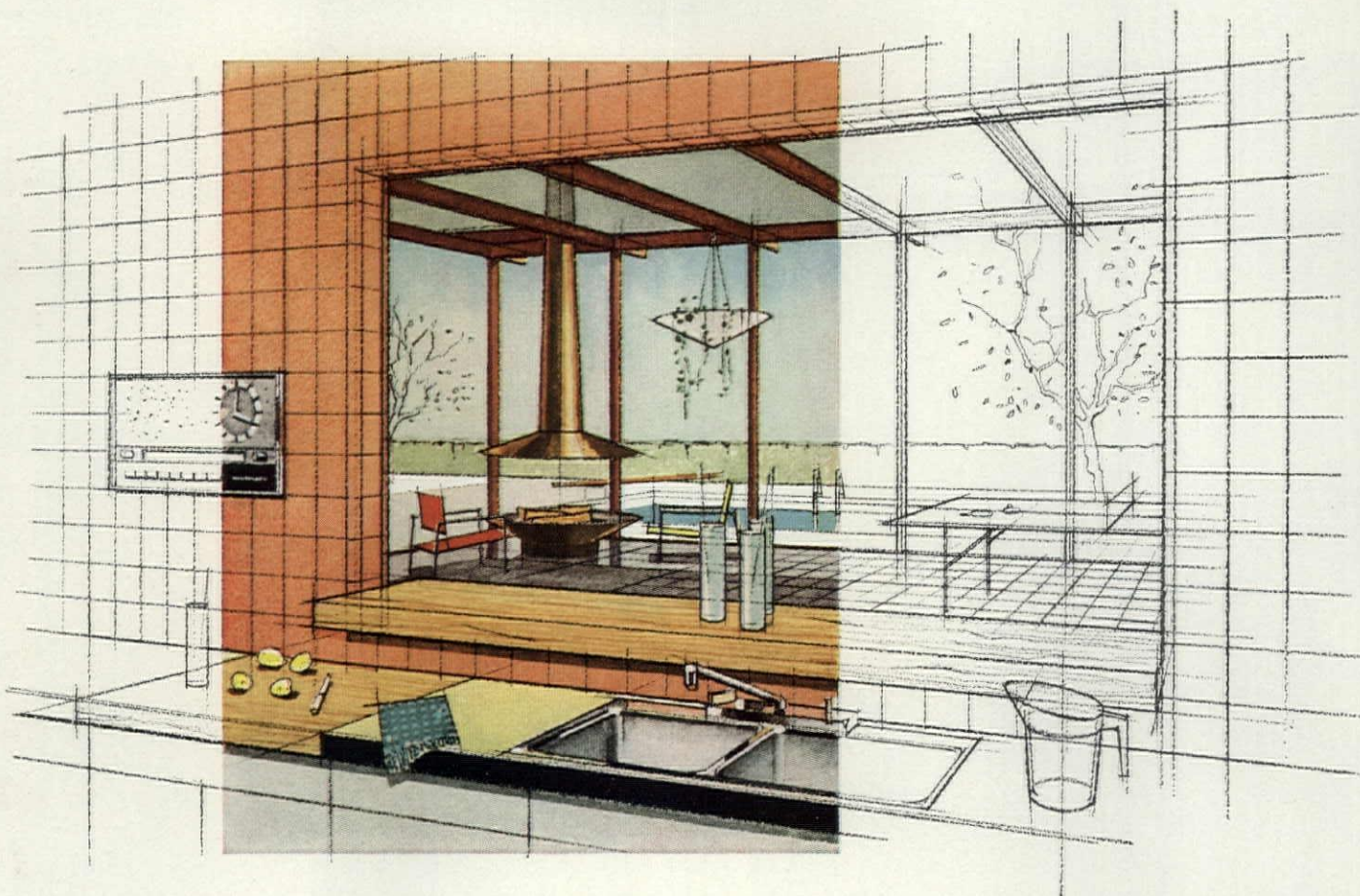


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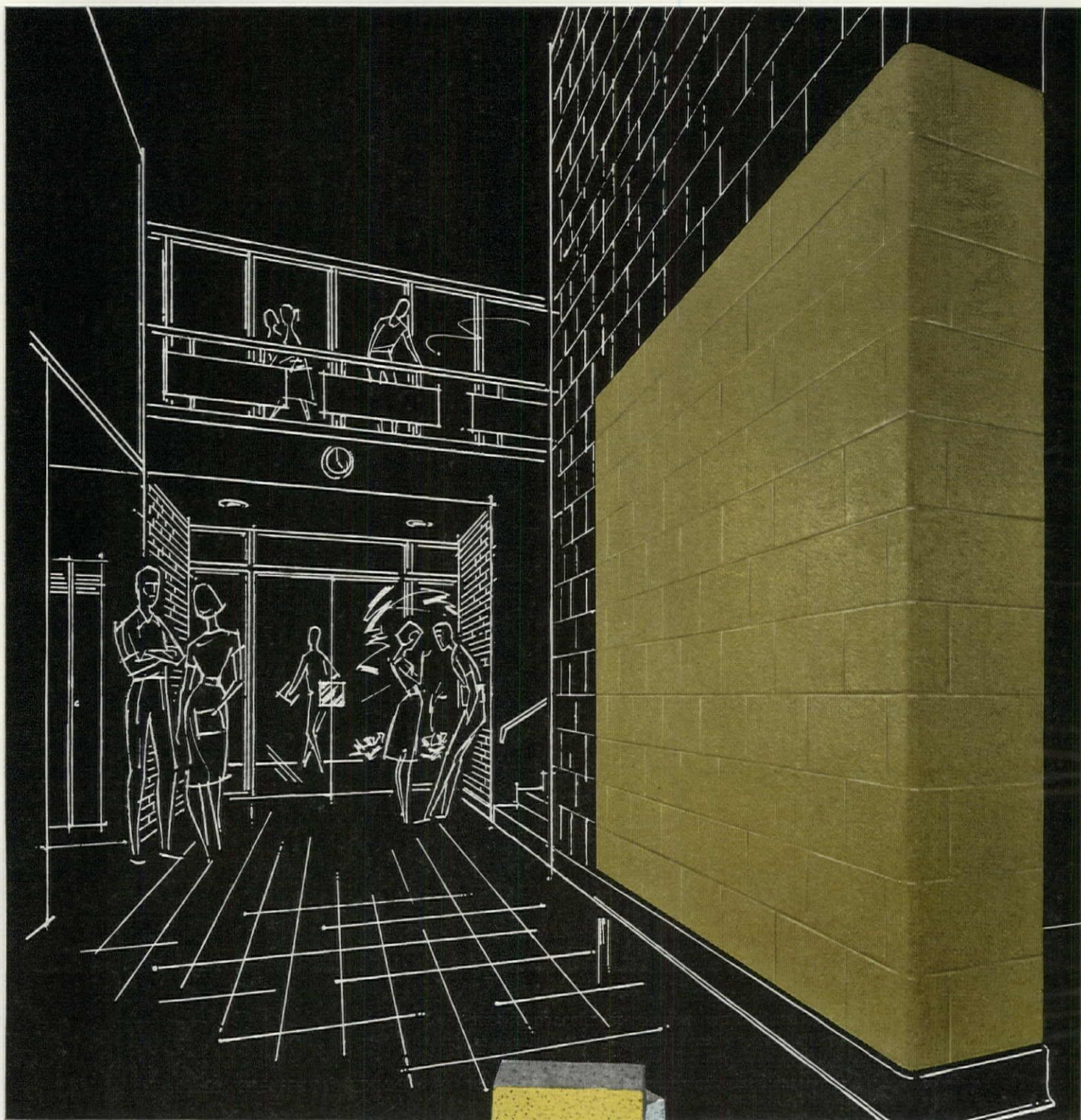


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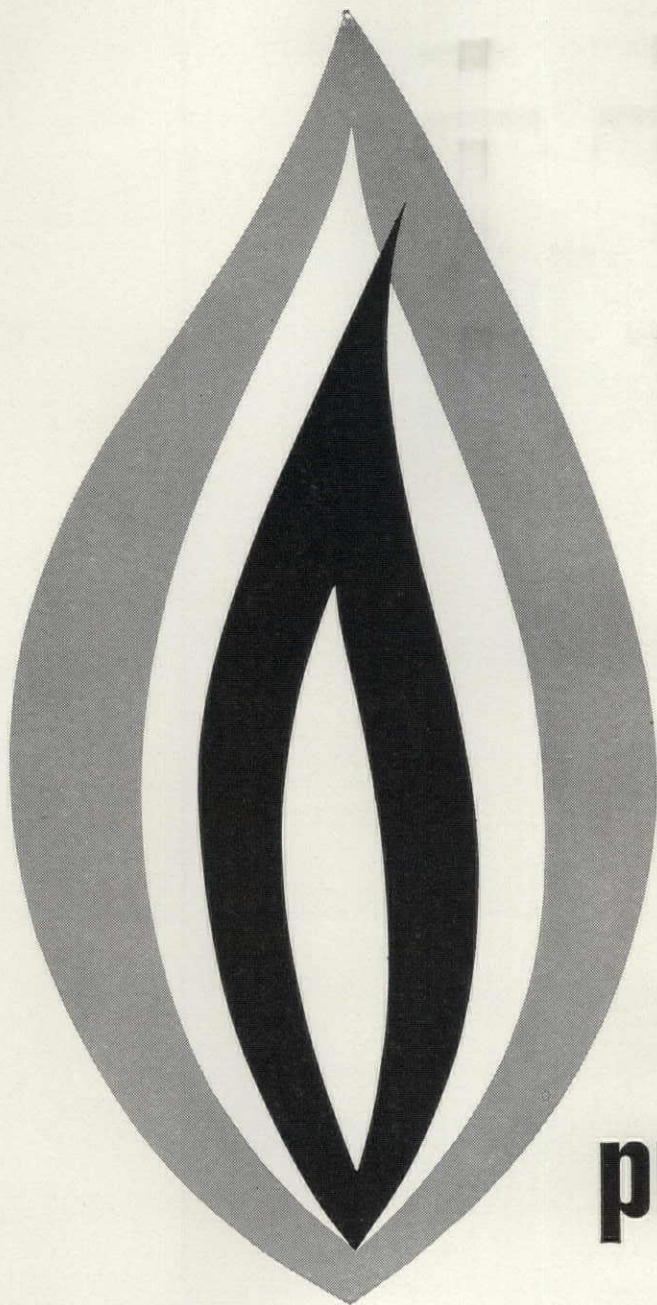


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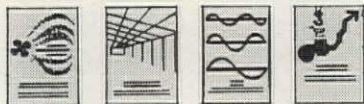
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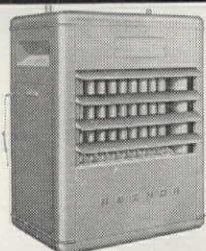
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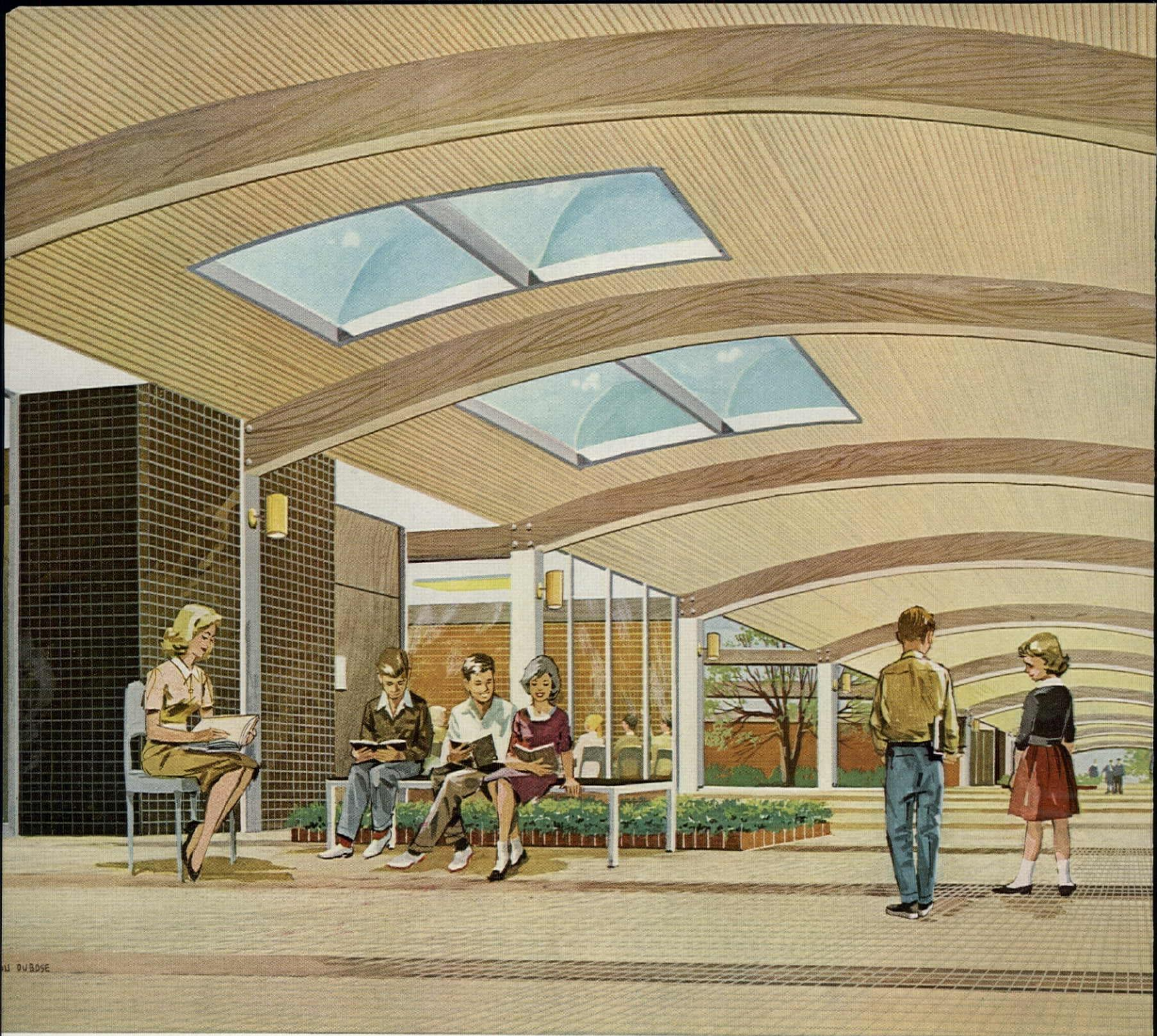


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tile

**THE BEST REMAINING SEATS.** By Ben M. Hall. Published by Clarkson N. Potter, Inc., 56 E. 66th St., New York 21, N.Y. 266 pp. 8 1/2" x 11". Illus. \$15.

The old Paradise Theater in Faribault, Minn., had fewer seats than its gilt-edged counterparts in New York and Chicago. But it had just as much style. A sign by the switchboard extolled what surely must have been that theater's status symbol during the gaudy twenties:

Please Do Not Turn On The Clouds  
Until The Show Starts  
Be Sure The Stars Are Turned Off  
When Leaving

Fortunately with *The Best Remaining Seats*, a most entertaining illustrated history about the golden era of the old movie palaces, the clouds will continue to roll, and the stars will glow once more.

Turning to the neglected and, perhaps, mercifully forgotten architectural era of the ornate movie cathedrals—built during prohibition when the sensation-hungry masses sought total escape—Historian Ben Hall has lovingly compiled, with some 300 photographs, a highly amusing memorial. In fact, the author has tapped a vein of theater history so fresh one almost wonders how he beat theater compiler Daniel Blum to the punch.

The fact that these outlandishly plumed movie citadels (remember Loew's 72nd Street and Grauman's Metropolitan?) would never have won an A.I.A. competition is of little consequence. They served a nobler purpose. Movie Critic Bosley Crowther says in his foreword: "The intent of the temple builders and the wizards who elaborately conceived the stage shows and other bold attractions that adorned these theaters was not to please Lewis Mumford and serious critics of American art. It was to attract the susceptible mass audience and to delight it with extreme, eye-filling shows."

Like their own outlandish ceilings, the movie cathedrals of the twenties had their bright and lesser stars. But they all rotated around one central axis, Samuel Lionel Rothapel, better known as "Roxy." He was the visionary, the trend-setter who moved from theater to theater (Regent, Rialto, Rivoli, etc.) with bigger and greater dreams. (Robert Sherwood once described Roxy as "a combination of Little Eva and Santa Claus.") Roxy's greatest achievement, and indeed that of the era itself, was the Roxy Theater in New York. In essence, this book serves as a glorious epitaph to the Roxy, a sort of a "Fall of the House of the Usher." Roxy envisioned (with the practical assistance of Architect Walter W. Ahlschlager and Decorator Harold W. Rambusch) this monument to himself as the "Inside of a Great Bronze Bowl," with 6,000 seats and a stage 70 feet wide. Cracked Joe Frisco: "Don't ever get caught on the Roxy stage without bread and water." The Roxy was



St. Louis' Ambassador (Rapp & Rapp, 1928)

torn down last year to make way for a perfunctory office building.

There were, of course, other great palaces with their patrons (Kahn & Livingston, Mitchell and Moe Mark, Adolph Zukor, Messmore Kendall) and their architects (Thomas Lamb, John Eberson, Rapp & Rapp, C. Howard Crane). Incredible as it seems, there were also within the trade two major schools of movie-house design: "Standard" (Philadelphia's Stanley, New York's Capitol, Kansas City's Midland) and "Atmospheric" (New York's Loew's 72nd, Houston's Majestic, Chicago's Avalon).

And then came the decorators, without whom "The pleasure domes would have been as barren as dirigible hangars." The decorators' more bizarre schemes achieved such splendors as Italo-Flamboyant, Siamese Byzantine, as well as Hindu, Chinese, Egyptian, and Persian motifs. The elaborate trappings, fountains, winding staircases, and blinking stars wove a unique spell upon stubholders. So irresistible was the tinkle of the Bridal Fountain in the Chicago Avalon that customers were constantly getting up from the best remaining seats to repair to the "Harem Parlor" or the "Caliph's Den."

Ironically, the talking movie, not television, was directly responsible for the demise of the movie palace. No longer was there need for elaborate stage revues to accompany silent pictures. Some of the old palaces still stand, but in this era of small "art" houses, they are becoming more and more sparsely populated. To make ends meet, theater impresarios have become popcorn salesmen.

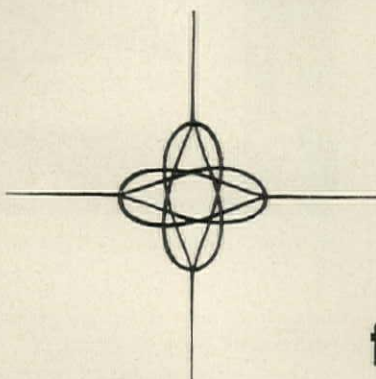
It is a sad ending to wrench the heart of any true movie-goer. But thank you, Mr. Hall, for letting us relive it all again—N.B.

continued on page 154



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AIA FILE No. 12-H  
1961

## ARCHITECT'S GUIDE TO Nickel Stainless Steel Flashings

...design principles & details

...specification data



AIA FILE No. 12-H  
1961

**Design  
principles  
and details**

**Specification  
data**

# INCO ANNOUNCES

## a comprehensive reference manual on Nickel Stainless Steel Flashings

Now, for the first time, architects, engineers and specifications writers can get complete, up-to-date information on the design, specification, fabrication and installation of nickel stainless steel flashings. It's all here in this new 24-page booklet.

In addition to discussing flashings for both masonry and curtain wall construction, this new booklet answers questions about the properties of nickel stainless steels and why certain steels perform better than others for specific flashing jobs. It shows how to cut costs by using lighter gauges

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**Yours for the asking.** "Architect's Guide To Nickel Stainless Steel Flashings" will be off the presses soon. To get this valuable booklet on your reference shelf, simply drop us a postcard today.

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**ZODIAC 8—AMERICA.** Published by the Ing. C. Olivetti & Co., Ivrea, Italy. Distributed by George Wittenborn, Inc., 1018 Madison Ave., New York 21. 189 pp. 8 1/4" x 10 1/2". Illus. \$9.

As usual, this issue of *Zodiac* is as much book as magazine, but what is unusual for *Zodiac* is that it focuses on a single subject: modern architecture in the U.S.

Admitting in the introduction that oversights are inevitable due to lack of space, the editors have nevertheless produced a thoroughly impressive and impressively thorough monograph. Talented critics such as Henry Russell Hitchcock, Vincent Scully, Enzo Frateili, William Jordy, Gillo Dorfles, and Esther McCoy examine the work of such talented architects as Wright, Kahn, Gropius, Breuer, Neutra, Johnson, Saarinen, Yamasaki, Stone, Rudolph, Nelson, and Eames. In addition, there are articles by Gropius ("The Architect: Citizen and Professional"), Gruen ("Architecture and Urban Development"), and Rudolph ("Architectural Education in the U.S."). A special section by Esther McCoy is devoted to the work of younger architects in the U.S. (Blake, Lundy, Franzen, Haertling, Baringer, Neski, Lyman, Dorman, Soleri).

The issue is beautifully produced, with superb illustrations. Perhaps anticipating the wide interest this number should generate in America, the editors have pulled a switch: the issue is in English—with Italian translations at the back.—M.B.

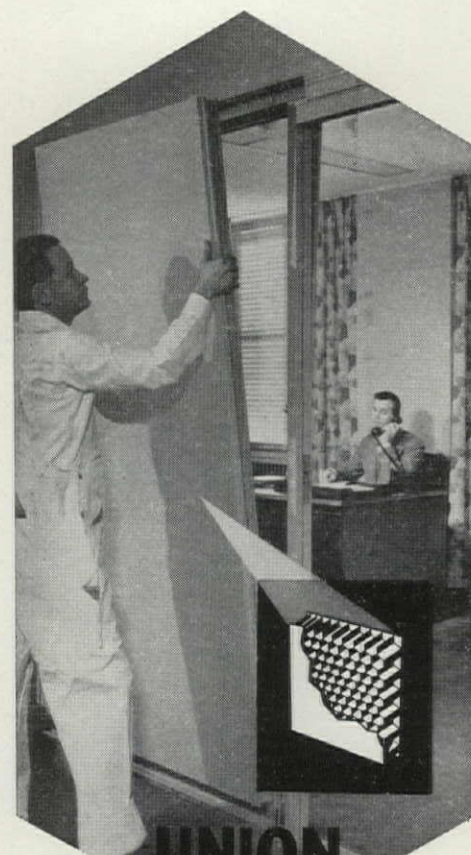
**FOUR WALKING TOURS OF MODERN ARCHITECTURE IN NEW YORK CITY.** Prepared by Ada Louise Huxtable for The Museum of Modern Art and The Municipal Art Society of New York. Distributed by Doubleday & Co., Inc., Garden City, N.Y. 76 pp. 5" x 7". Illus. 95¢.

In this handy paperback (which actually is pocket size), Critic Huxtable guides the reader on four well-organized walking tours through midtown Manhattan's glittering gallery of modern architecture. The tours cover Park Avenue (43rd to 59th); Fifth Avenue (43rd to 53rd); Third Avenue (East 50s, 40s, and United Nations); and the Upper East Side (66th and Second Avenue to 56th and Fifth Avenue). Each tour has a map, photographs of significant buildings, and a descriptive text for each emphasizing its historical importance. Among the famous buildings included: Rockefeller Center, Lever House, Manufacturer's Trust, Seagram's, and the U.N.

**NEW FRONTIERS IN ARCHITECTURE.** By Oscar Newman. Published by Universe Books, Inc., 381 Park Ave. S., New York 16, N.Y. 224 pp. 9" x 11". Illus. \$15.

Although much of the material in this book is about architecture and city planning after Corbu, one need not be interested in these subjects to find the book fascinating—as a social document, at the very least.

*continued on page 162*



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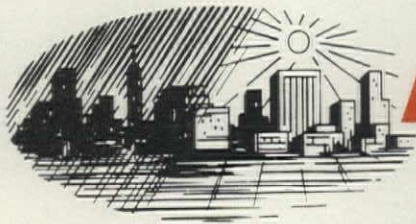
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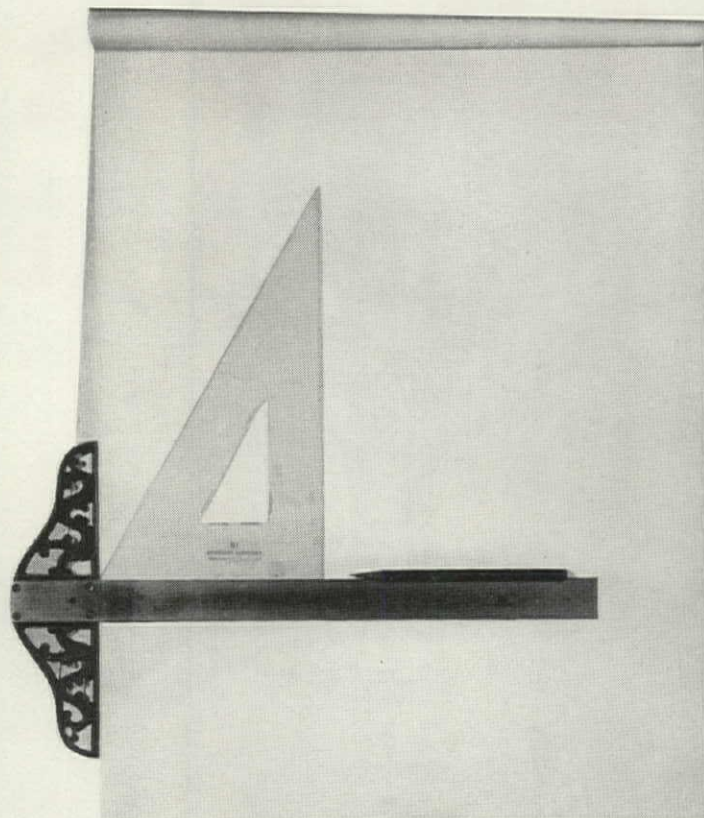
The 3 largest bells, upon arrival in the Port of New York, are pictured below. They weigh, respectively, 14,000 lbs., 10,000 lbs. and 7,000 lbs. each.



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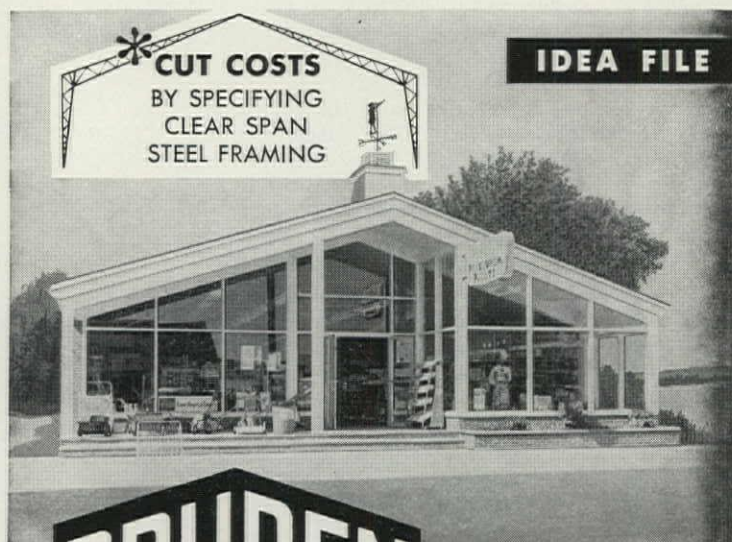
## WHAT WOULD YOU DO?

Some of the advertisements that you find in this issue are interesting, enlightening and useful. Others perhaps less so.

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**IDEA FILE**

# PRUDEN

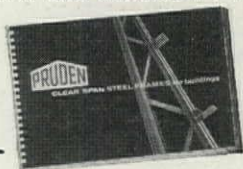
Architectural design by Richard  
Sears Gallagher of Barnstable, Mass.

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**feature precast white concrete** facing panels in the facade of this handsome Washington, D. C., office building. Made of ATLAS WHITE portland cement and quartz aggregate, the 4 x 8-foot panels (5 inches thick) use 2-inch surface projections in 2-foot squares to create an interesting pattern. The surface is an exposed aggregate finish. Columns are faced with similar panels, without the projections. All panels are anchored to concrete masonry. □ Today, more architects are discovering the design versatility and construction economy of easily maintained precast concrete. Any desired size, shape, color, texture or pattern can be achieved. Anchoring of panels to any structural frame is fast, simple and trouble-free. □ For specific information on precast white concrete panels, facings and cast stone units, consult your local precast concrete manufacturer. For a comprehensive new 32-page, fully illustrated brochure titled "White Concrete in Architecture," describing properties and installation details, write Universal Atlas, 100 Park Ave., New York 17, N.Y.

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WF-54



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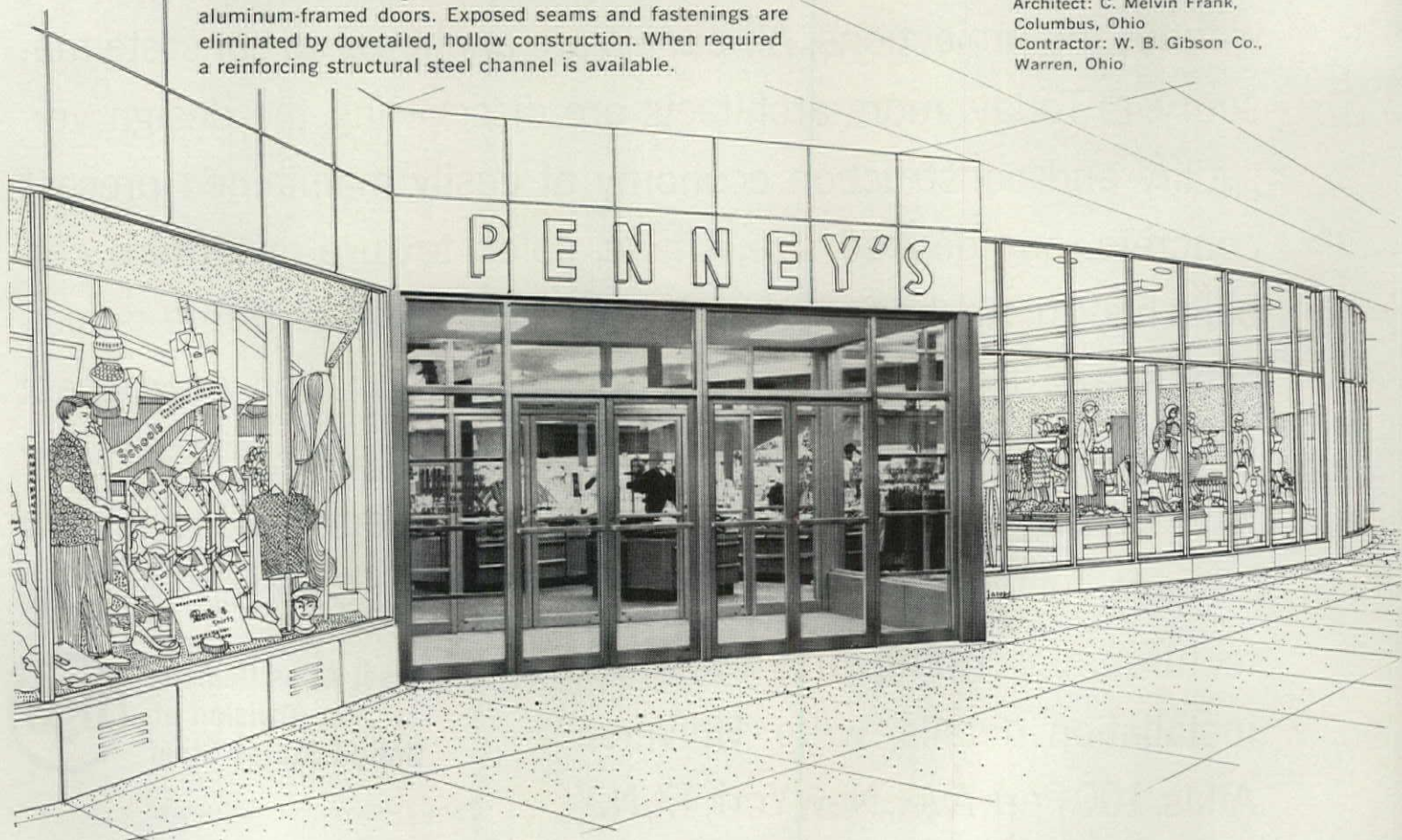
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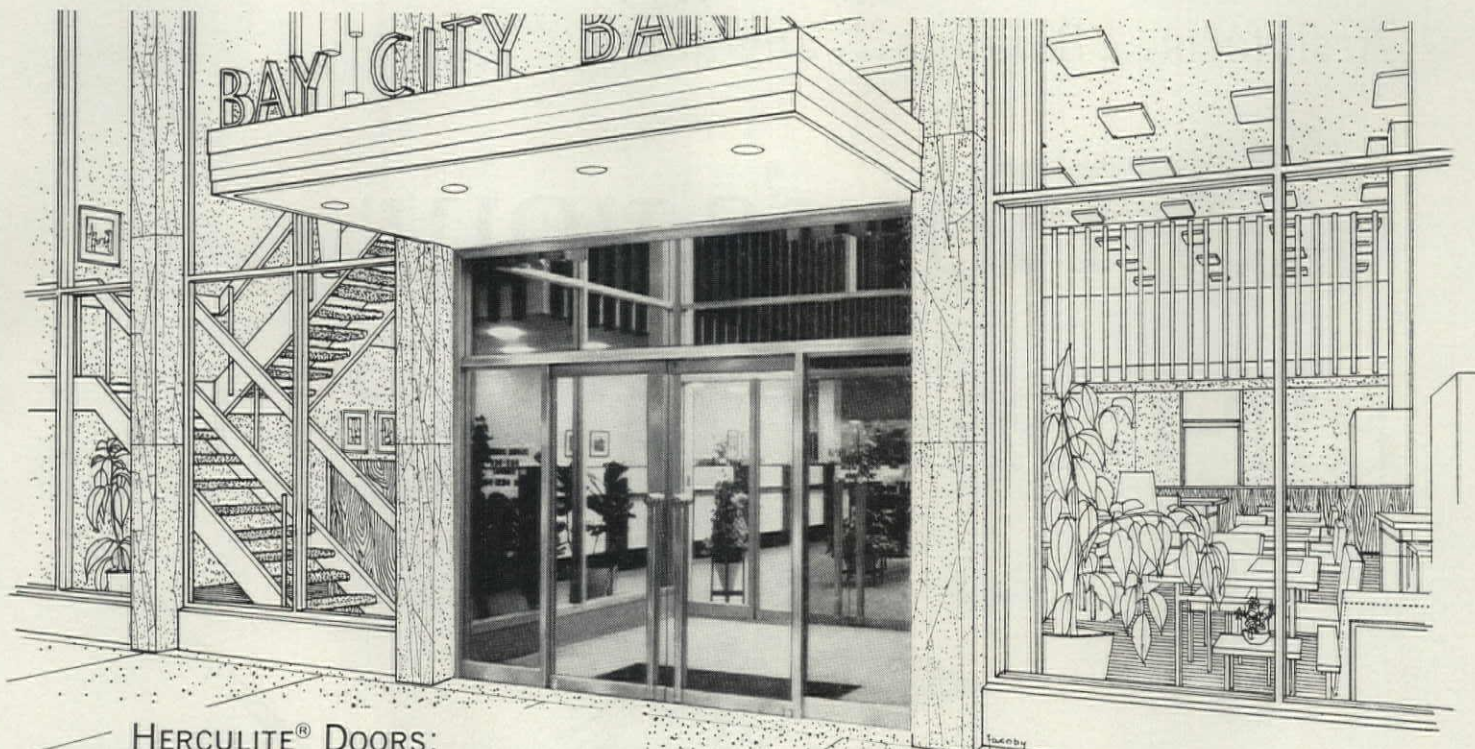
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Contractor: W. B. Gibson Co.,  
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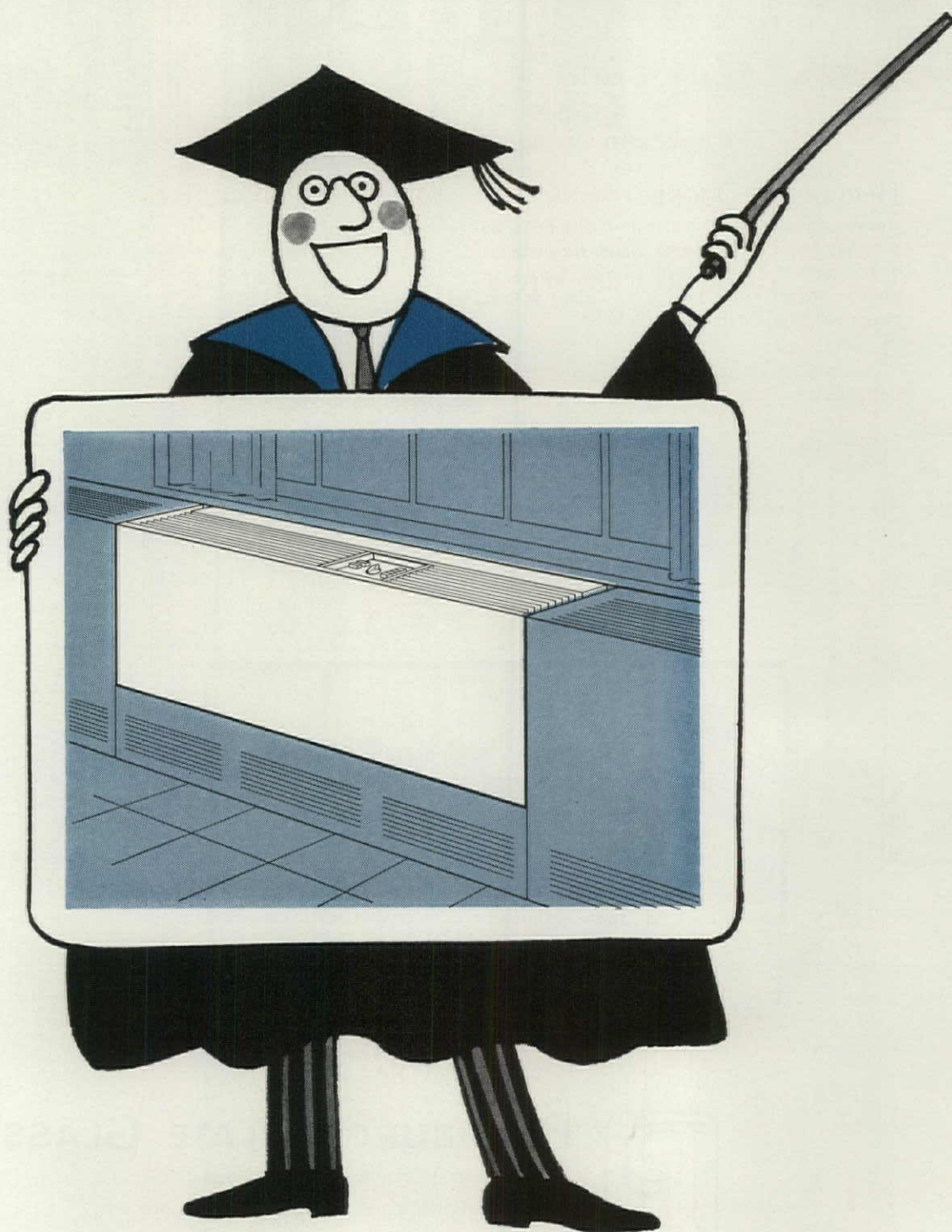
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It is a report of the 1959 meeting at Otterlo in Holland by a rump group organized after CIAM 10 in 1956, and it reveals the extent to which the community of modern architects has disintegrated from the brave days of CIAM's founding. For six days they discussed each other's work, and on the seventh they listened to Louis Kahn, who described, perhaps for the first time, his notion of a chapel surrounded by an ambulatory, surrounded by a wall, surrounded

by a garden, and so forth.

Kahn, as other groups have learned, is himself an impressive lecturer. This cannot be said, however, of the debates around the various works exhibited at the meeting. Said Alison Smithson to the designer of a West Coast American house, for example: "Well, you said that you described the typical American requirements, but I cannot quite understand why you built a typical American house. We want to learn some-

thing here, and this is a house that is quite typical of what any keen American boy would do." When the nonplussed American muttered something about how the client's needs were met, Mrs. Smithson countered: "It does not matter at all about the clients. What I am speaking of rests entirely in the architect; either he has an idea about a new way of life or he hasn't."

Eventually, cooler minds prevailed, and Ralph Erskine brought the discussion off its vituperative plane. But Jacob B. Bakema, the eminent Dutch architect who organized the meeting, hasn't ventured another, and no one who reads this book is likely to so venture. And in that fact lies the story, worth telling.—R.A.M.

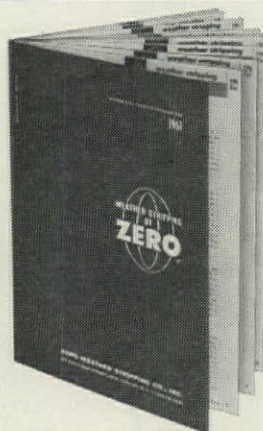
**GREAT HOUSES OF EUROPE.** Edited by Sacheverell Sitwell. Published by G. P. Putnam's Sons, 200 Madison Ave., New York 16, N.Y. 320 pp. 9¾" x 12½". \$22.50.

This residential Grand Tour starts out with Sacheverell Sitwell as chief guide, but after telling us a good deal about the houses he likes which *aren't* included, he turns us over to a hand-picked lot of sub-guides, each assigned to one or two of the houses he knows particularly well. The choice of 40 Great Houses begins with the Ducal Palace in Urbino and ends with the Casita del Labrador in Aranjuez, Portugal, stopping in between at Chambord, Blenheim, the Villa Barbaro, Nymphenburg, and the Petit Trianon, among the most famous. In eight or ten pages each are a brief description of the house, its history and its owners, and a generous array of photographs, (about 40 of them in color). Contemporary paintings and engravings accompany many of the descriptive texts, and there are a few site plans. Edwin Smith is the photographer throughout, and his black-and-white photographs are magnificent, showing the house in some detail inside and out, its surroundings, gardens, and important artworks. Unfortunately, the color photographs are not nearly so successful: a few are downright garish. This is a minor criticism, however, of what is otherwise a very handsome book—M.E.Y.

**BUILDING RESEARCH AND DOCUMENTATION.** Contributions and discussions at the first C.I.B. Congress, Rotterdam, 1959. Distributed by D. Van Nostrand Co., Inc., 24 W. 40th St., New York 18, N.Y. 500 pp. 8½" x 12". Illus. \$30.

Ten reports and subsequent discussions on topics of general interest to architects and builders. Included are such basics as sociological and functional aspects of housing design, tolerances and dimension control on the building site, and flat-roof construction. A unique contribution is the glimpse given of Russian building practices, especially in the area of prefabrication of large components. The U.S. apparently did not take part in the international congress at which these reports were presented. END.

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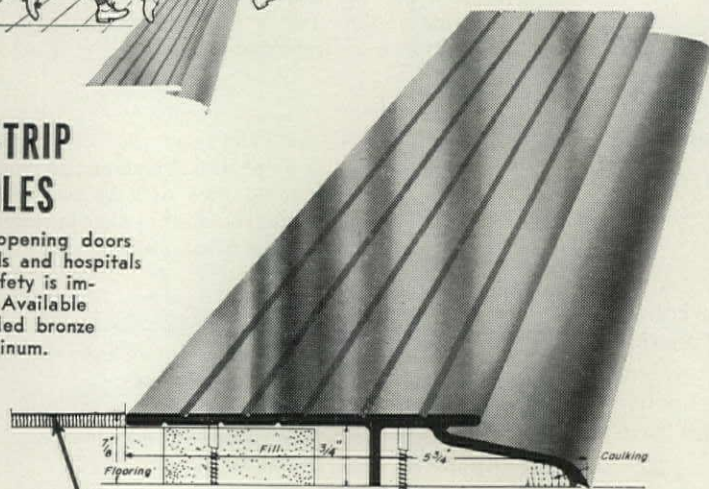
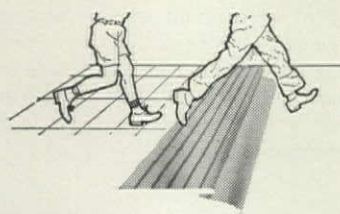
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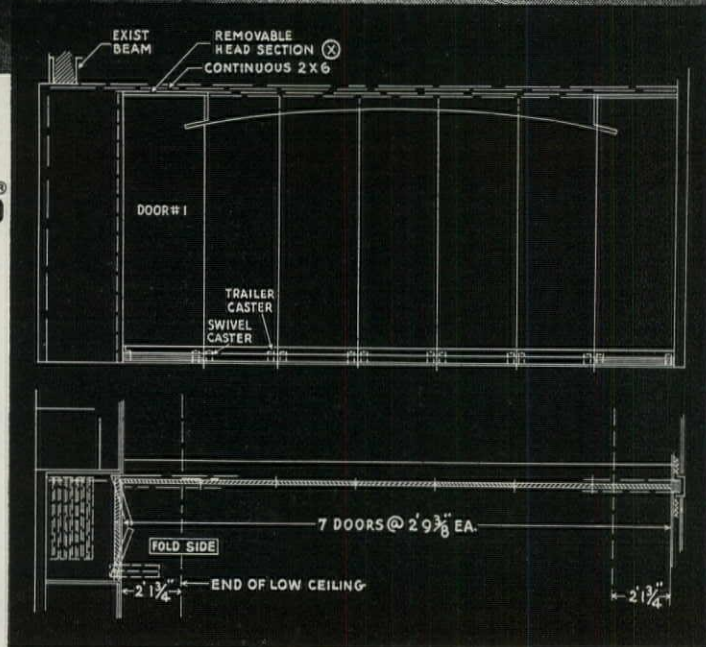




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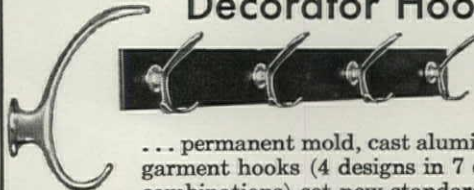
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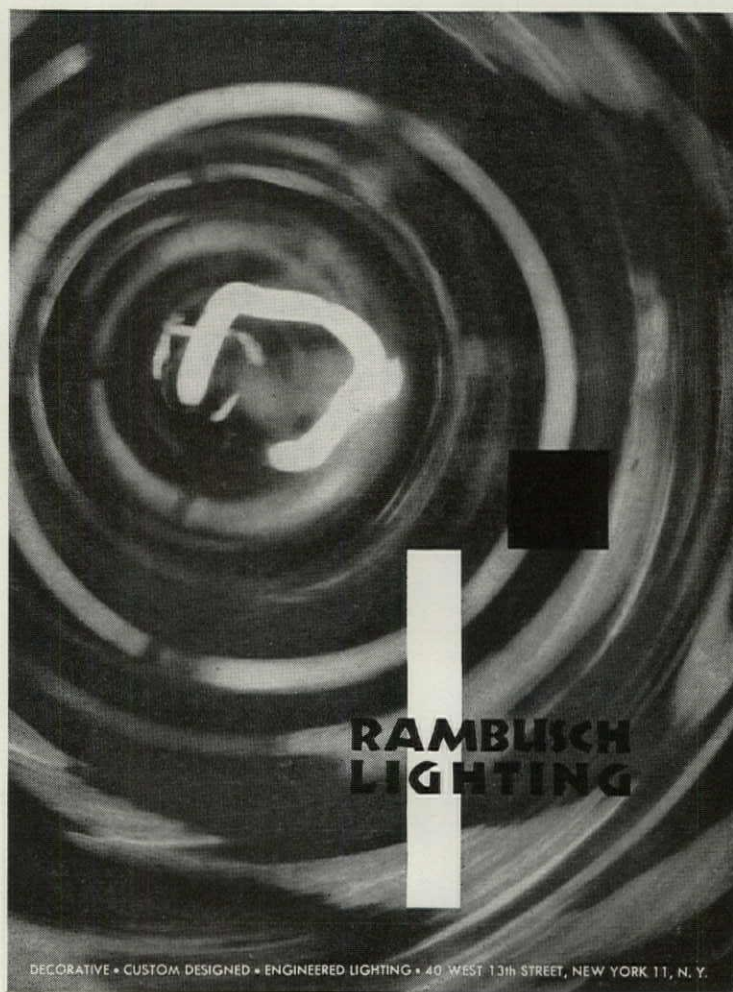
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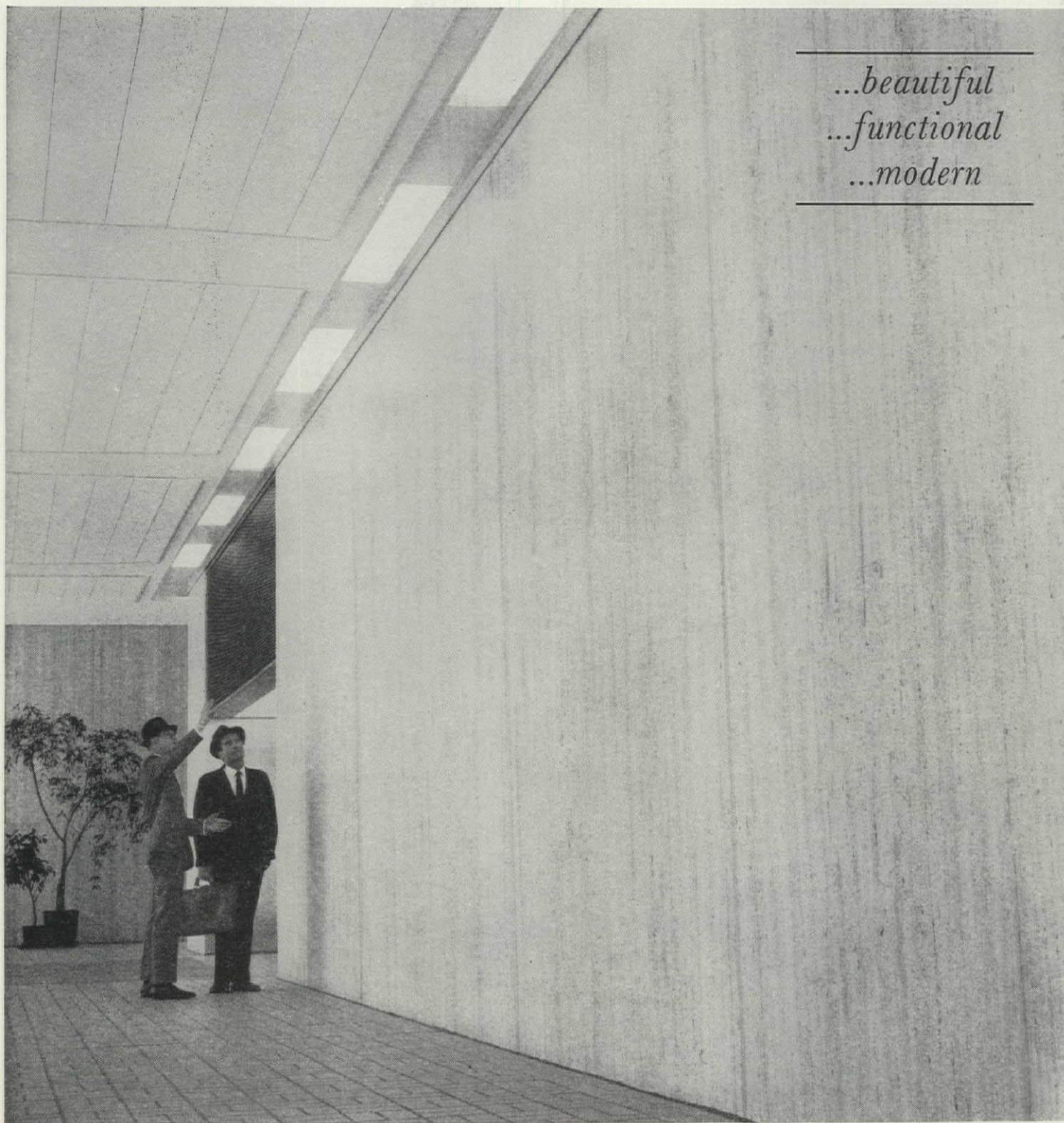


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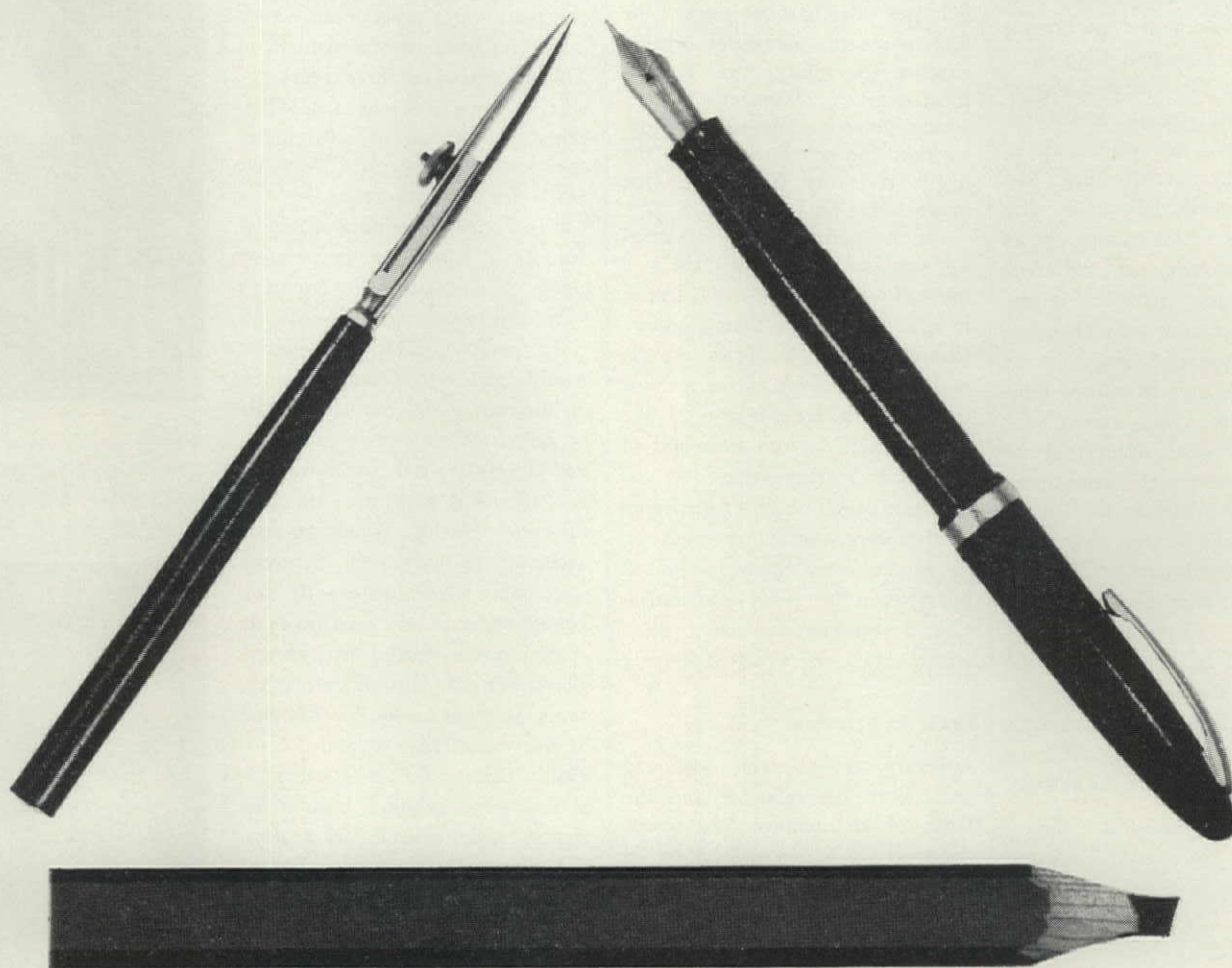
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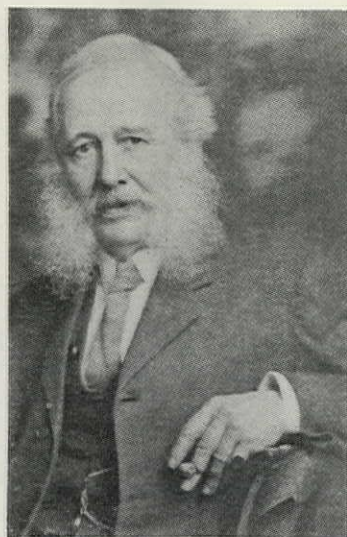
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YOU'LL LIKE HIM

The gentle sharp-eyed face behind the sideburns in the picture is Montgomery Schuyler, 1843-1914. He wrote for the educated section of the general public about the buildings going up around them, and about their architecture. Mr. Lewis Mumford, who does that now, as one of his many chores of seeking to keep mankind civilized, says that Schuyler is the finest architectural critic in America that he has read. Since a great many people give Mumford himself the same compliment, the two men between them may be considered as chief formulators of the nation's architectural opinions over very nearly 100 years. Schuyler started writing in 1868, three years after the Civil War, and did not quit until shortly before he died in 1914, just at the outbreak of the First World War; Mumford began three years after that war ended and is still hard at it. A nice symmetrical pattern.



MONTGOMERY SCHUYLER

Comparisons can be made between then and now because of a fine act by Art Professor William H. Jordy and Paintings and Sculpture Curator Ralph Coe, who have pulled together the rapidly disappearing writings of Schuyler, and have edited them with the thoroughness which is one of the best evidences of love. The other, still better, evidence of love is the clear-eyed perspicacity with which they see their man. Mumford, in his own earlier and

brief remarks, had made too much of a hero out of critic Schuyler, who had been one of the first to see the virtues of organic modern architecture; and overenthusiastically Mumford, then young himself, declared of Schuyler that "he never took down the flag." Well, as Jordy and Coe make clear, he let it dip.

For he had his times of courage and of cowardice. He was more of a way-seeker and a dealer in specifics anyhow than a cosmic trumpeter like Mumford. As the present authors see it, the interest in Schuyler's career relates to "the light it sheds on the dilemmas of its time, rather than to its absolute perspicacity." (*American Architecture and Other Writings*, by Montgomery Schuyler, edited by William H. Jordy and Ralph Coe, 2 volumes, 644 pages, illustrated, Harvard, \$12.50 the set.)

EYES AND IDEAS

Anybody at all who seeks to bring both the splendor and the truth of architecture into words needs a sharp demanding eye, a character of his own, a gift with language, and a fund of belief. Schuyler was no architect, not even a professional writer on architecture, but a newspaperman, who earned his living in the literary departments of the pre-Pulitzer *World* and then the *Times*. In architecture he was an enthusiast, a "boulevardier," a buff. He contributed prolifically to the early *Architectural Record* when that was a general magazine, but he was never an editor. His avocation became his fame.

Over the long run the sharp eye has immense value, for even in the service of a limited "provincial cosmopolite, benign, lively, enlightened," it makes vivid how architecture has ever been put together, in specific, visible buildings, whether in the piebald Victorian Gothic which reigned during Schuyler's first years, or during the brief career of the mighty massive Richardson, or in the great functional early bridges, or in the growth of the skyscraper, or in the invasion of Beaux-Arts formality, or in the pioneering of expressive modern: all of which

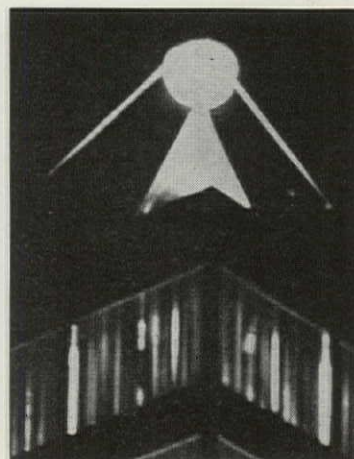
Schuyler dealt with. His good eye makes Schuyler good reading and sharpens our perceptions, even now. As businessmen readers of *FORUM* remarked three years ago when a piece by Richard A. Miller reinstated the art of criticism in the professional press: "Now we really see what you mean."

The wonderful remark of Schuyler about American architecture being "the art of covering one thing with another thing to simulate a third which, even if genuine, would not be desirable," comes, on the other hand, out of a bundle of belief. This bundle Schuyler got largely from Leopold Eidlitz. Eidlitz was a fine, able, thoughtful and earthy Bohemian-born architect with whom Schuyler started his friendship exactly as a young editor of my own intimate acquaintance started with Frank Lloyd Wright: through a conversation brought on by the irritation of the victim of a youthful criticism. Eidlitz was a constructor architect, a genuine builder-designer, and through his realism Schuyler got values ever hidden from such as the painter-moralist Ruskin. As a theorist, Eidlitz is placed high by Jordy and Coe, though he never attained the depth and breadth of thought of the French Viollet-le-Duc, the master of them all in the nineteenth century.

Certain omissions in Schuyler belong simply to his times: no concern at all with the growing slums, none with city architecture, and indeed almost none with interior space; his concern was mostly with one building exterior after another.

HITS AND MISSES

There was some sadness in the Pilgrim's Progress of Montgomery Schuyler, for as he grew older he met rapid changes with brilliant flashes of insight, yet he would sometimes miss the point of the new, or fail to stick with his own best discoveries. His editors blame this on his "legarthy" in living on "the critical capital accumulated in his youth" and failing to grow. Yet events speeded up during the late nineteenth century at a rate probably unmatched



With boots on the sidewalk and cap atop the roof (upper photo), Pepsi-Cola's building-high, invisible Santa Claus enchanted all New York.



J. ALEX LANGLEY

since early Gothic times. How was a critic to know how obsolete this made criticism's accustomed leisurely pace, and how emphatically it meant that the critic must keep relearning all the time?

There is reassurance in witnessing how a devoted writer can persist in loving recollection despite being imperfect as are all who write. For, regardless of the reverent loyal service of critics in bringing public attention and admiration to the art the critics follow, they must almost always drag a little behind the creators. Their typewriters are far less often the source of new intuition and development than certain hidden drawing boards over which pencils may fly many years ahead of the eventual mortar. But until critics bring the public to see it, new truth rarely prevails.

Douglas Haskell