

An abstract collage artwork featuring a light beige background. A large, textured orange circle is positioned in the upper center. To the right, a vertical strip of textured orange material runs down the edge. On the left, there are layered elements including a blue area, a black wavy line, and a torn white paper edge. A smaller textured orange circle is partially visible at the bottom center.

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THE ARCHITECTURAL FORUM

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PUBLISHER'S NOTE

If it hasn't happened already, one of these days you will be getting a letter asking your reaction to the contents of a particular issue of the FORUM. Such letters, accompanied by questionnaires, go out to about 350 of our readers monthly on a revolving basis. The purpose, as the second paragraph says, "is to maintain a kind of continuous dialogue between editors and readers."

The percentage of response ranges from 15 to 25, which is remarkably high (a pause to thank the respondents). The nature of the response, which often includes lengthy dissertations, is revealing.

Last month, for example, the presentation of Louis Kahn's Ahmedabad project was ranked most interesting, which surprised no one on the editorial staff. Right behind it, however, was the analysis of the Lower Manhattan Plan—a clear indication of architectural interest in widely varying kinds and scales of environment.

Found most interesting by wide margins in June and May, respectively, were the BART and New Campus articles, again no surprise because of the sheer breadth of both. In April, a more varied package, the honors were divided between the Tale of Two Towers and the portfolio of recent Aalto work; in March, it was IBM, with the critique of Larsen Hall at Harvard a strong second.

No one pretends that this conversation with our readers is a definitive analysis of architect editorial preference, nor are we about to substitute opinion sampling for editorial judgment. Any magazine worth its salt tries to stretch and challenge, not follow, its readers.

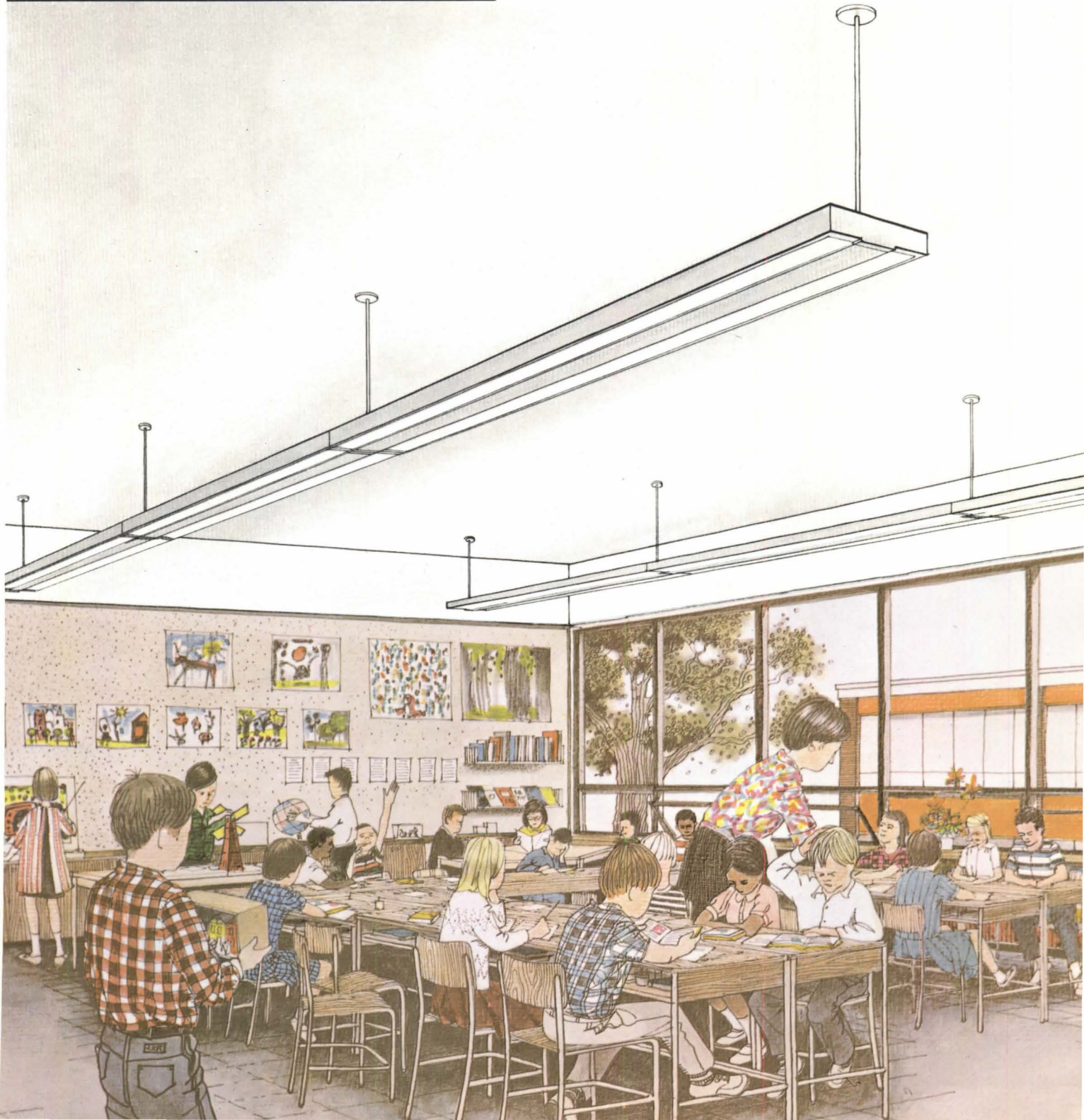
Indeed, the statistics indicate that the FORUM's readers enjoy being challenged. In general, those stories which state the strongest points of view—which are concerned with analysis and evaluation, rather than merely presentation—score highest. The results of the first of these surveys, last December, did surprise us: the least glamorous story in the issue, on the Pruitt-Igoe housing in St. Louis, led all the rest. L.W.M.

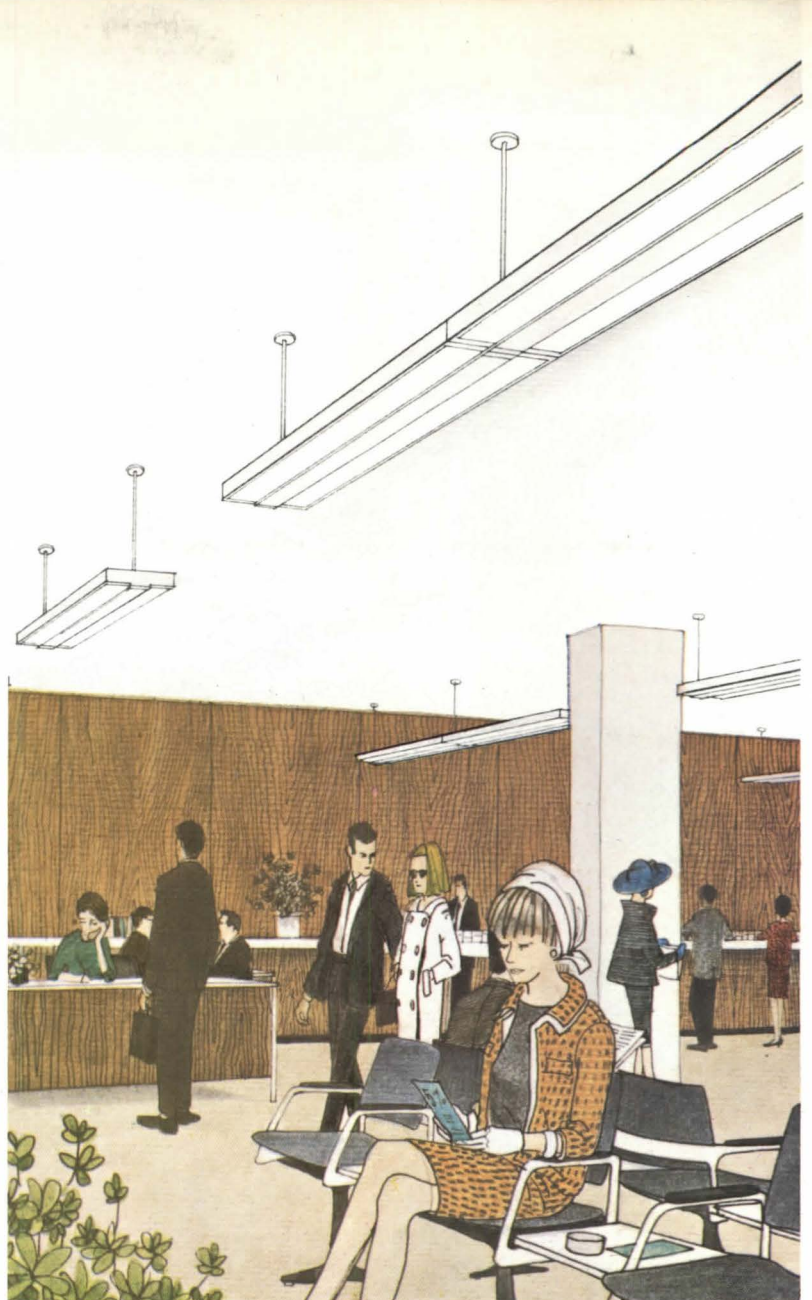
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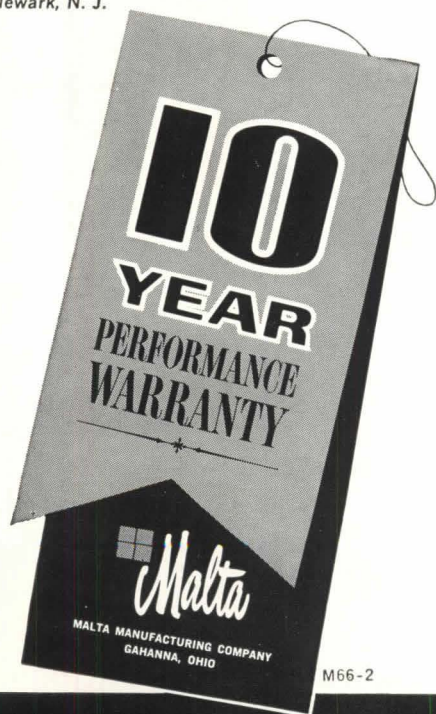
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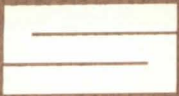
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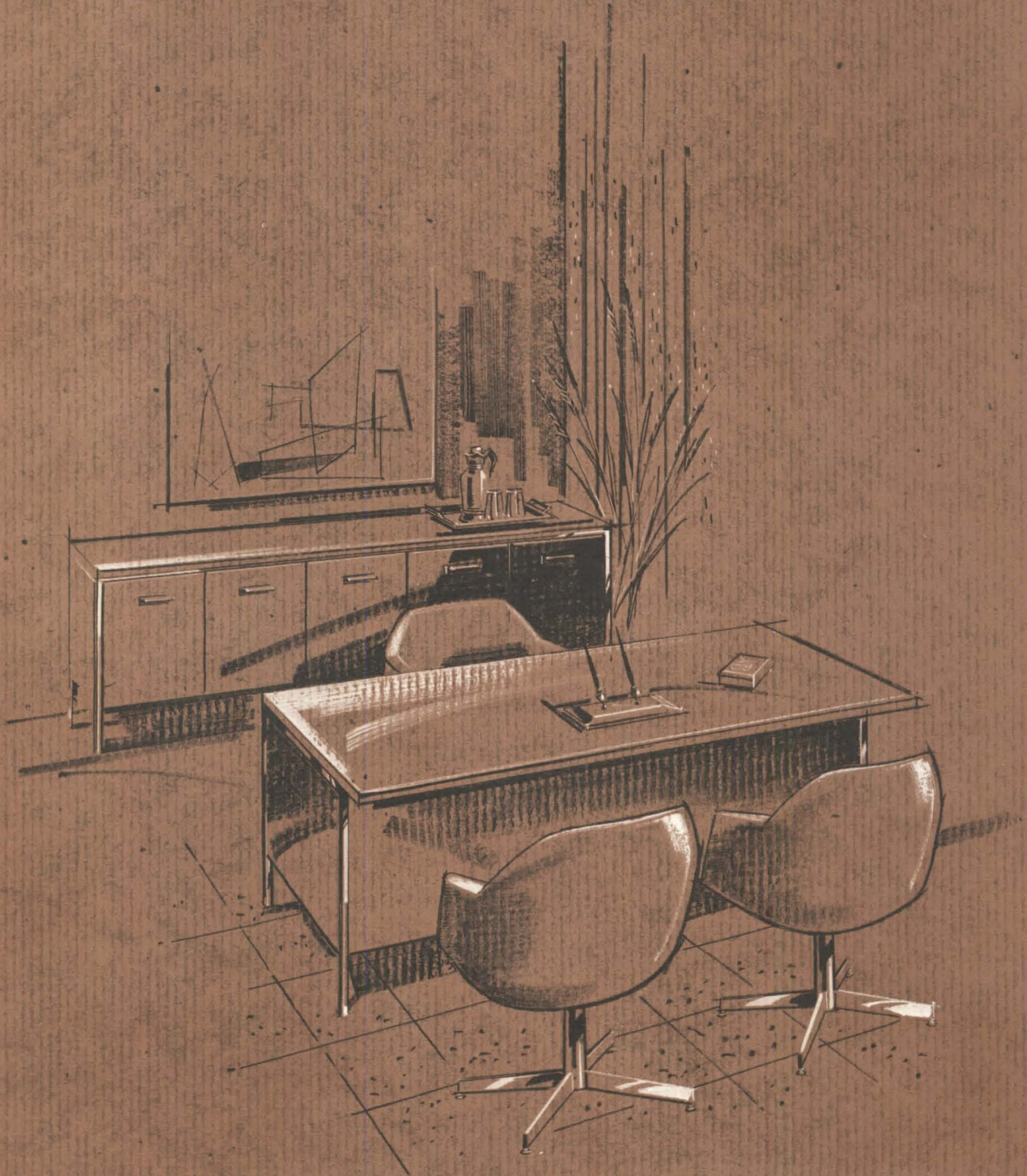
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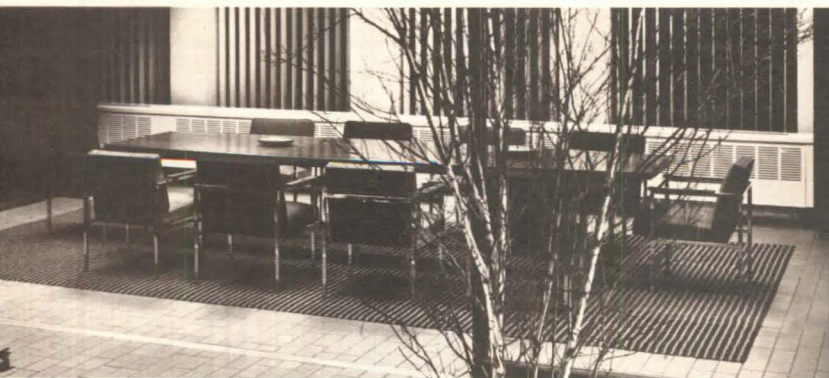
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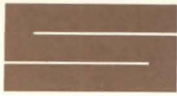
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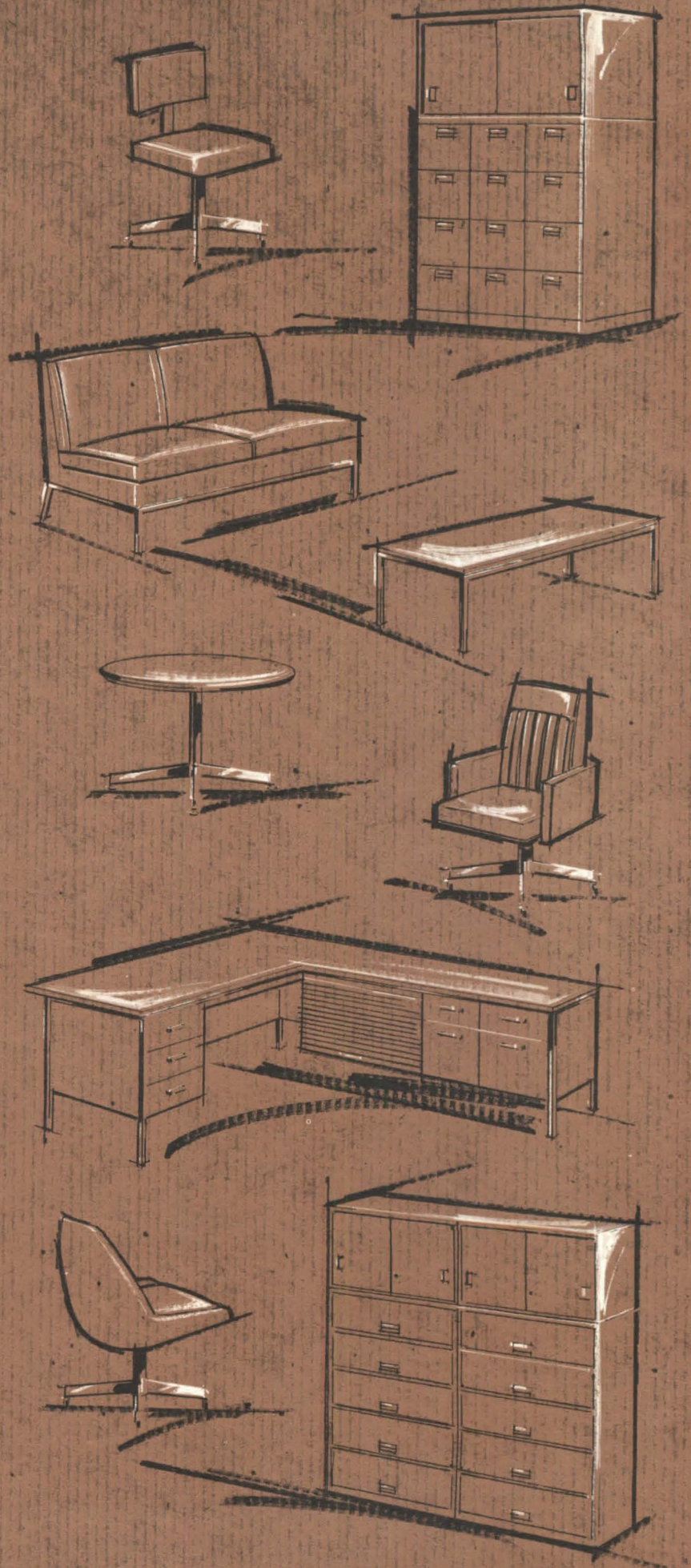
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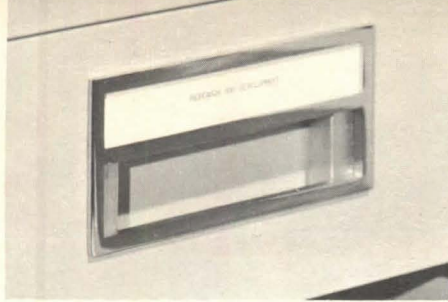
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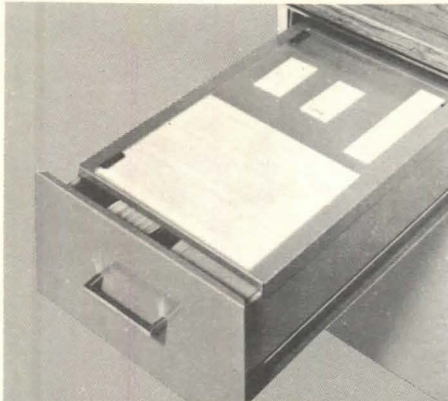
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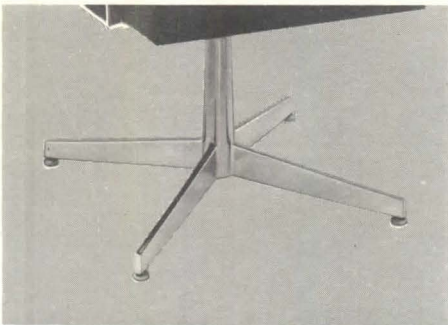
▲ Double action drawer pull



▲ Full-depth reference shelf



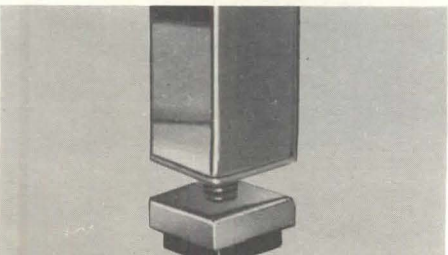
▲ Thinline center drawer



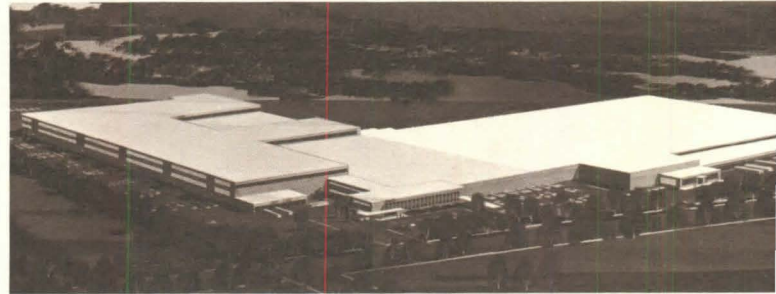
▲ Trim line pedestal base



▲ Thinline hardware ▼ Square leveling guide



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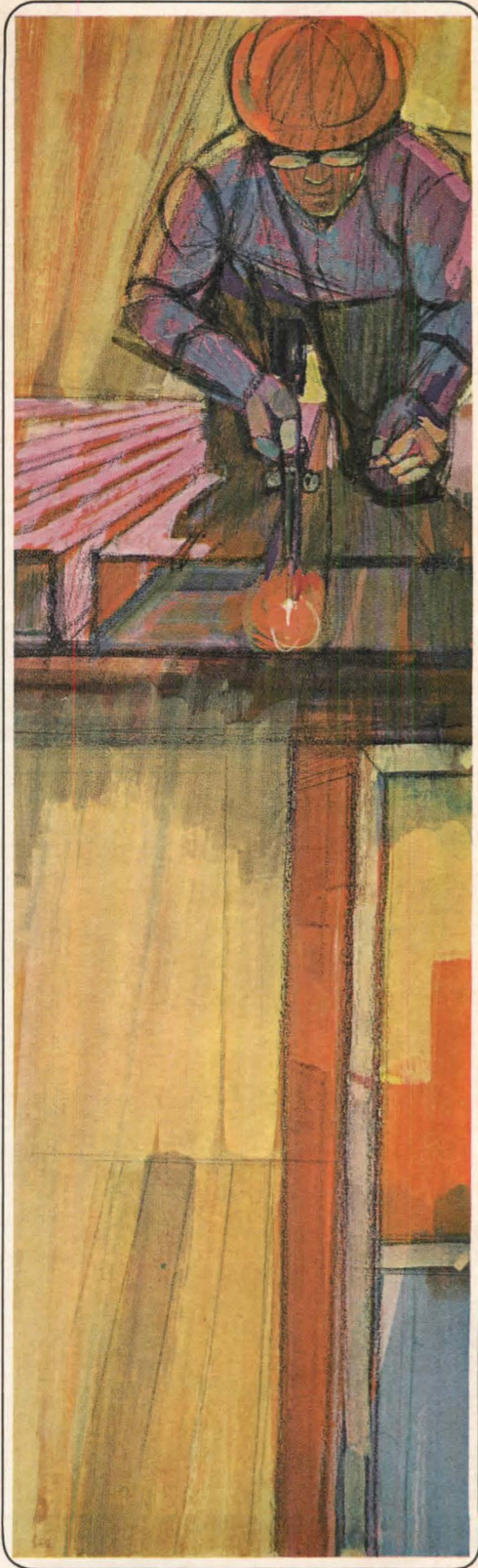
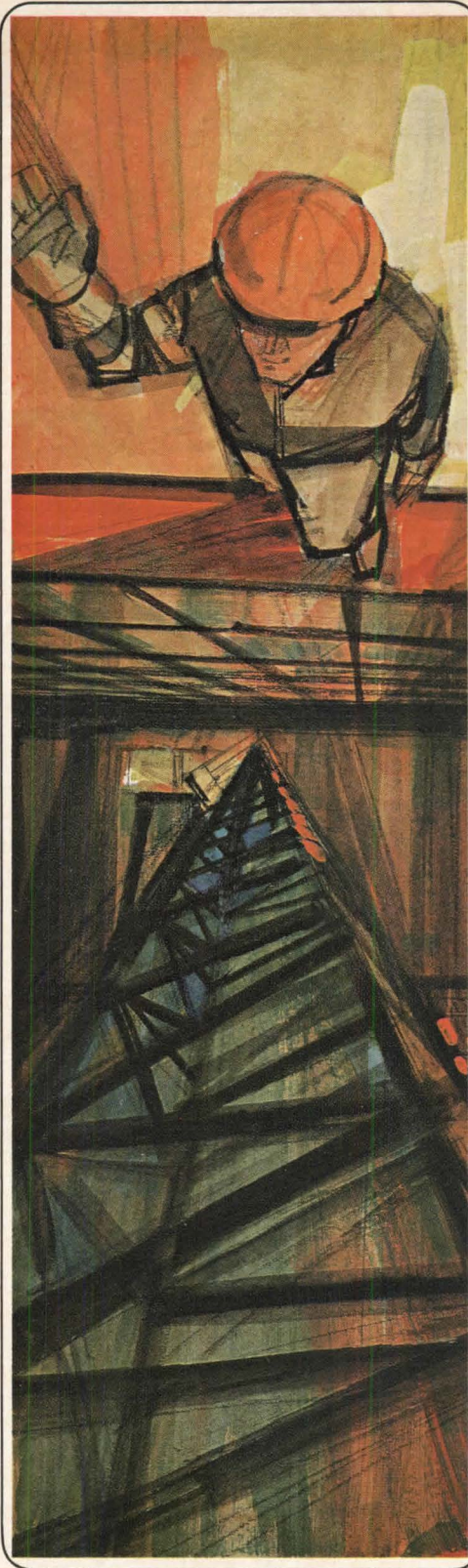
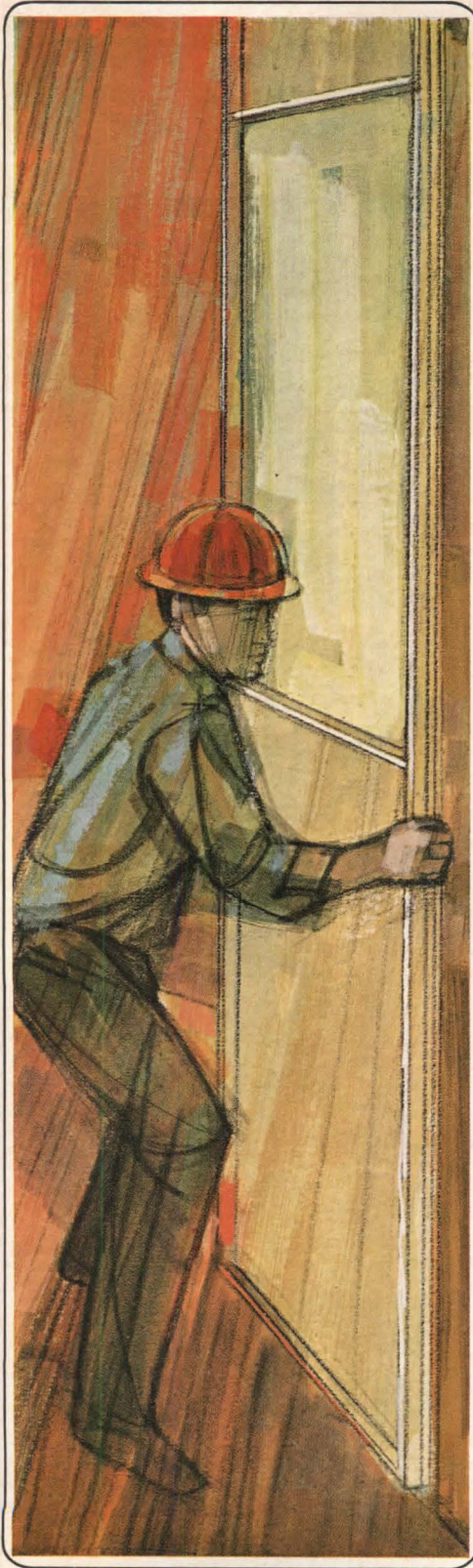
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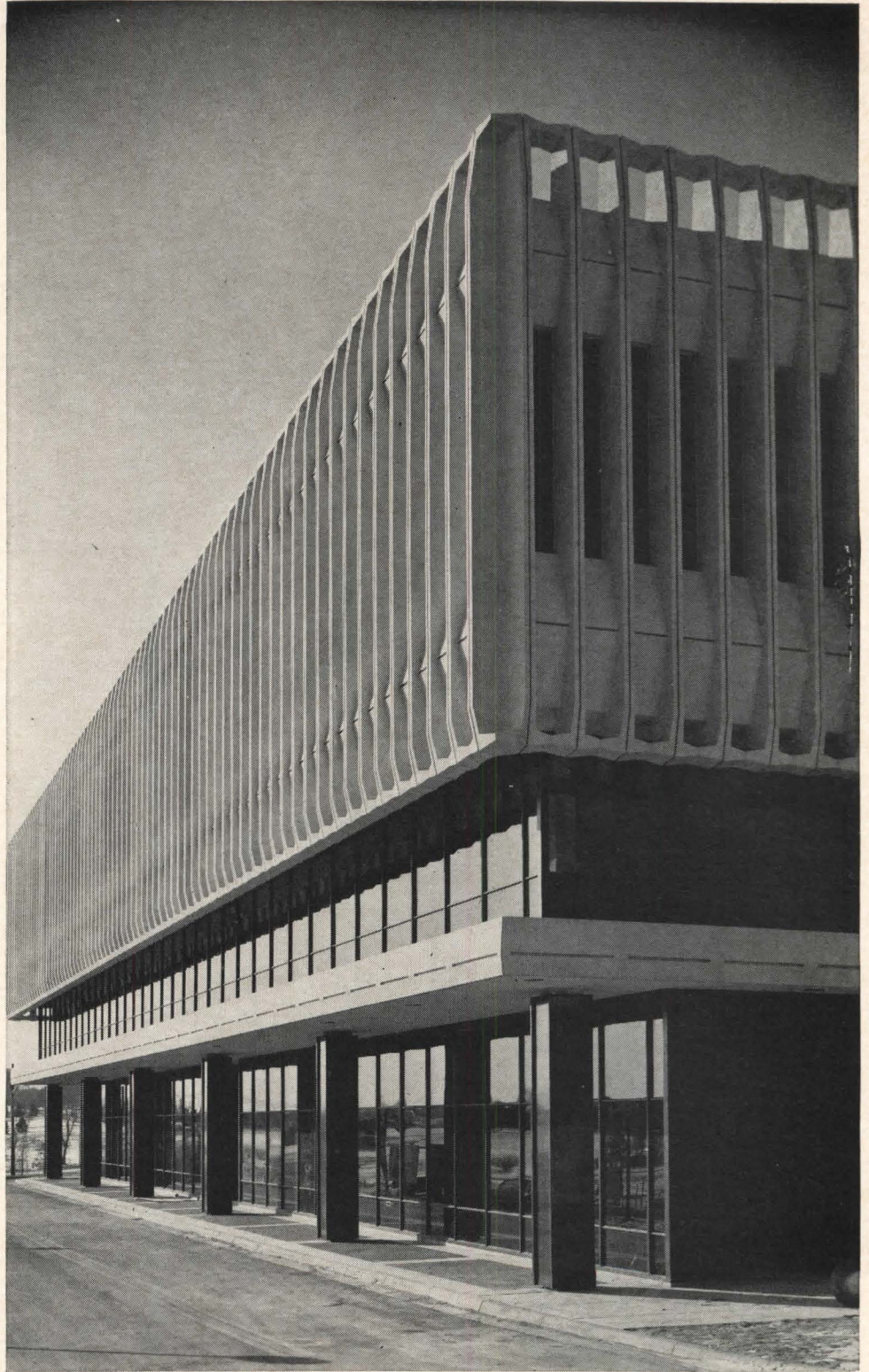




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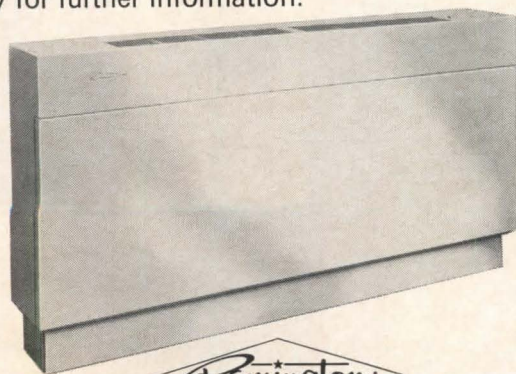
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LETTERS

KAHN'S FORMS

Forum: The corner entrances and triangular spaces shown in Louis Kahn's Indian Institute of Management [July/Aug. issue] inspire me to cry out, at last, that the Emperor has no clothes.

But, before taking so drastic a step merely on the basis of my own training and experience that corner entrances, triangular spaces and diagonal circulation patterns are unpleasant, and in view of the widespread influence these forms have had among students, perhaps the Forum could treat us to a full-dress presentation of the philosophy behind this idiom. I would hope that such an article would include eye-level photographs and sketches, as well as words.

ROBERT S. STURGIS
Architect

Boston

IN-CRITIC

Forum: Criticism by a practicing architect such as Donlyn Lyndon is much needed in a profession which has long feared open comment. That Mr. Lyndon is rarely a savage critic, unlike others I could name, is perhaps all to the good. As someone remarked to an admirer of the poetry of Edgar A. Guest: "Keep on liking it, no matter what folks say."

But should not Mr. Lyndon, in his generosity, stop short of puffing his own close associates? Charles Moore and William Turnbull acted as independent consultants for the Portland plaza which Mr. Lyndon extolled in the July/Aug. Forum, but they are also members of a firm in which Mr. Lyndon, until very recently, happened to be a principal, and with which he still maintains some business association. This should have been made clear in the biographical note which accompanied the article.

A broader objection to the article may be raised. In a magazine sponsored by Urban America, which purports to grapple with large-scale problems, it seems frivolous to confine discussion of an 83-acre redevelopment project to its piazza. Portland Center's role as a rather important component of the metropolitan core, its relation to the central business district, its overall civic design, its failure or success as a social con-

cept, warrant a searching analysis.

Instead, Mr. Lyndon regales us with in-group tidbits concerning Charles Moore's Ph.D. dissertation and Lawrence Halprin's "imposing" collection of photographs of mountain streams. Much more to the point would have been critical reference to Halprin's earlier civic fountains, at the Student Center in Berkeley and at Ghirardelli Square in San Francisco which I, if not Mr. Lyndon, find woefully heavy-handed. Perhaps his Portland fountain is finer; and if so, Bravo.

Yet what is someone outside the in-group to make of Moore and Turnbull's curious shelter "writhing" in the piazza? Mr. Lyndon's tribute to this oddity—"teasing the observer into spurious analogies"—is almost trembling. If this is not "cuteness," it is close to structural perversity. Perhaps the best description is "willful," applied by Mr. Lyndon himself to the shapes of the plaza. Nevertheless the gazebo does not seem especially "enigmatic". One possible analogy, I trust not willfully spurious, is with an overturned fruit basket.

ALLAN TEMKO
*Center for Planning
and Development Research
University of California*

Berkeley

As an apocryphal admirer of William Randolph Hearst once said, "You huff, I'll puff."

It is, of course, a pleasure to be read closely by a responsible and dispassionate critic. One could only hope that someday he may visit the place of which we both speak.

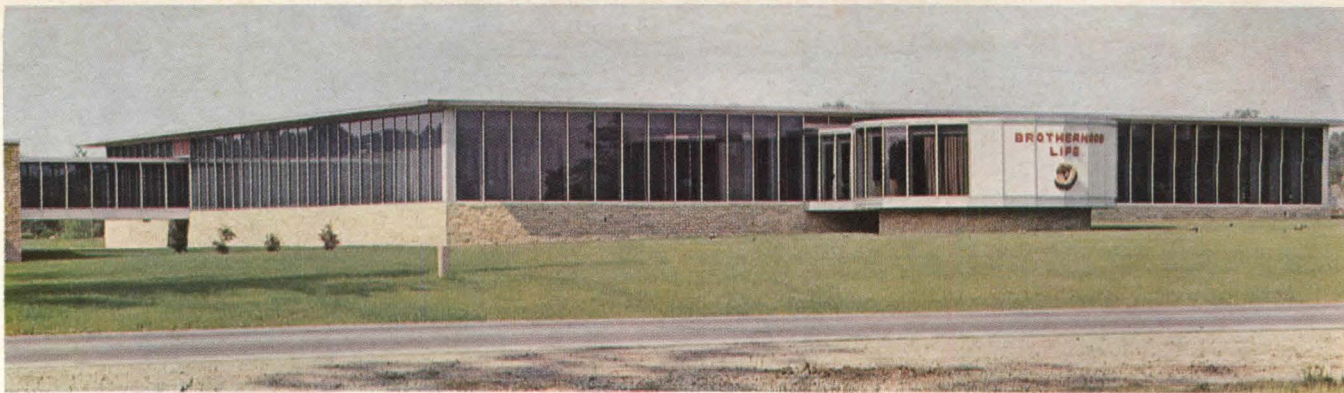
—DONLYN LYNDON

SOUTHWESTERN FACTS

Forum: Percy Johnson-Marshall's article on "The Shapes of the New Southwest" [July/Aug. issue] presents an interesting, lively and, for the most part, quite thoughtful analysis of the design successes and failures of the Southwest Project.

We are, however, somewhat disturbed by his remarks about the relocation by this Agency of the families who formerly resided in Southwest. Professor Johnson-Marshall was provided material which stated explicitly and in detail how relocation was handled, the kinds of housing to which the families moved, services given to them, and the like. However, his article mentions only a "casual" conversation with "a low-income passerby" and one article in a local newspaper. . . .

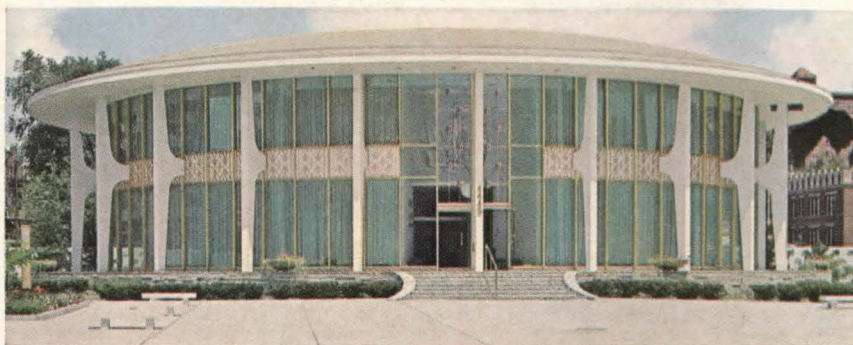
(continued on page 15)



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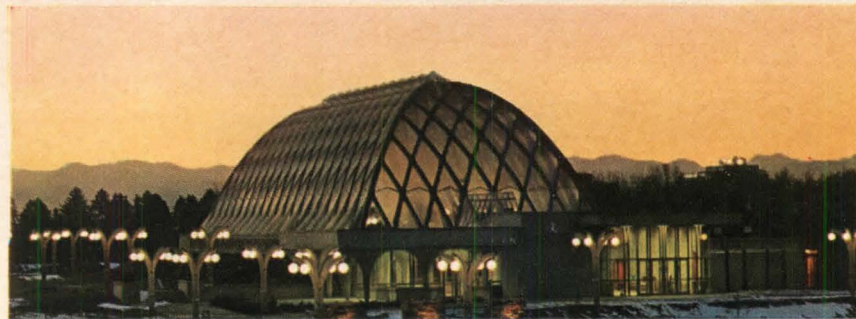
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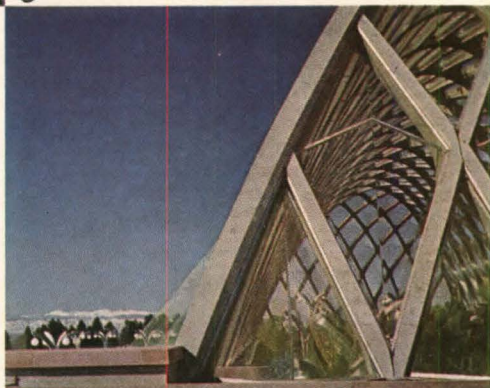


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LETTERS

(continued from page 12)

The facts, briefly, are these: The relocation of over 5,000 families from the most deteriorated and deprived part of Washington was a herculean undertaking covering a period of eight years. In the private market, 2,166 of the Southwest families were relocated to standard—i.e., decent, safe, and sanitary—private rental housing, and 444 families purchased standard housing. Some 1,520 families were relocated to low-rent public housing, including public housing in the Southwest immediately adjacent to the Urban Renewal Area, and therefore in their former neighborhood. An estimated 980 families moved on their own before the RLA acquired the property in which they lived, and 84 families moved on their own to substandard housing, having refused the Agency's assistance....

NEVILLE MILLER
Chairman

Redevelopment Land Agency
Washington, D. C.

DESIGN IN TRANSIT

Forum: Congratulations on your issue covering Bay Area Rapid Transit [June issue]. It is difficult but vital to take a critical look at this system which is generally regarded as a progressive Godsend. Your article has hopefully begun a needed precedent, by encouraging the design professions to demand an *effective* (vs. titular) role in transportation planning programs.

ROBERT W. CORWIN
Planner

Seattle

LOYALTY INTACT

Forum: In reading your account of the Frieda Schiff Warburg Sculpture Garden at The Brooklyn Museum [June issue], I was very disturbed to find myself incorrectly quoted in a way that puts my loyalty to The Brooklyn Museum in question. I presume the supposed quotation was derived from the statement I made at the April 27th meeting of the New York Chapter of the Society of Architectural Historians, which was held in the garden.

However ineptly stated, my objective was to report on the garden and its ambitious and delightful design by Ian White. He conceived of the garden as a romantic and mysterious refuge comparable

to those gardens of ruins in Istanbul or Rome. On the evening of the meeting, all was too new and fresh so that it did not show off to full advantage. I attempted to project Ian White's concept beyond what was visible since I thought architectural historians should have a better idea of what we were trying to do. Obviously, my explanations gave your reporter the incorrect impression that I did not like what was planned....

MARVIN D. SCHWARTZ
Curator

Department of Decorative Arts
The Brooklyn Museum

CORRUPTING YOUTH

Forum: The "Brutality" of your issues is extremely offensive to me. You may need a new hand at selection of material for publication.

Surely all American architecture is not so void of a realization that "man" *lives in and looks at* a building! Do you realize what you are doing to the coming generation of architects?

DONALD B. MACNEIR
Architect

Ft. Lauderdale, Fla.

SUPER-BLOCKBUSTER

Forum: In the Jan./Feb. issue you describe Rockefeller Center as "America's most famous superblock." This is not altogether accurate. There are no superblocks in Rockefeller Center. Superblocks are formed by closing streets, and no street in this area was closed. It is almost the same size as Lincoln Center, which is a superblock, and which apparently, when completed and fully occupied, will produce one of the worst traffic congestions in the city, since it consists of a group of theaters, all of which will be closing at about the same time.

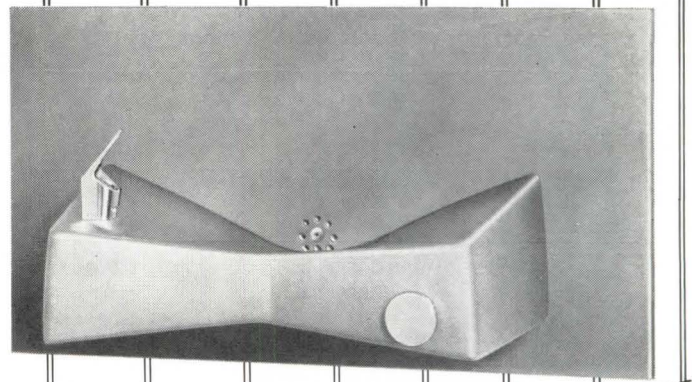
It is at present fashionable to advocate the use of superblocks, and to depreciate the gridiron plan. But if one compares Rockefeller Center and Lincoln Center, one can hardly fail to question this attitude. As Mr. Haskell says "Rockefeller Center is the only large piece of urban renewal done in business terms that the people of the United States really love. They visit it by the millions and they come again." But can you imagine anyone going out of his way to visit Lincoln Center?

JOHN J. KLABER
Architect

Huntington, N. Y.

For further treatment of Lincoln Center, see page 71—ED.

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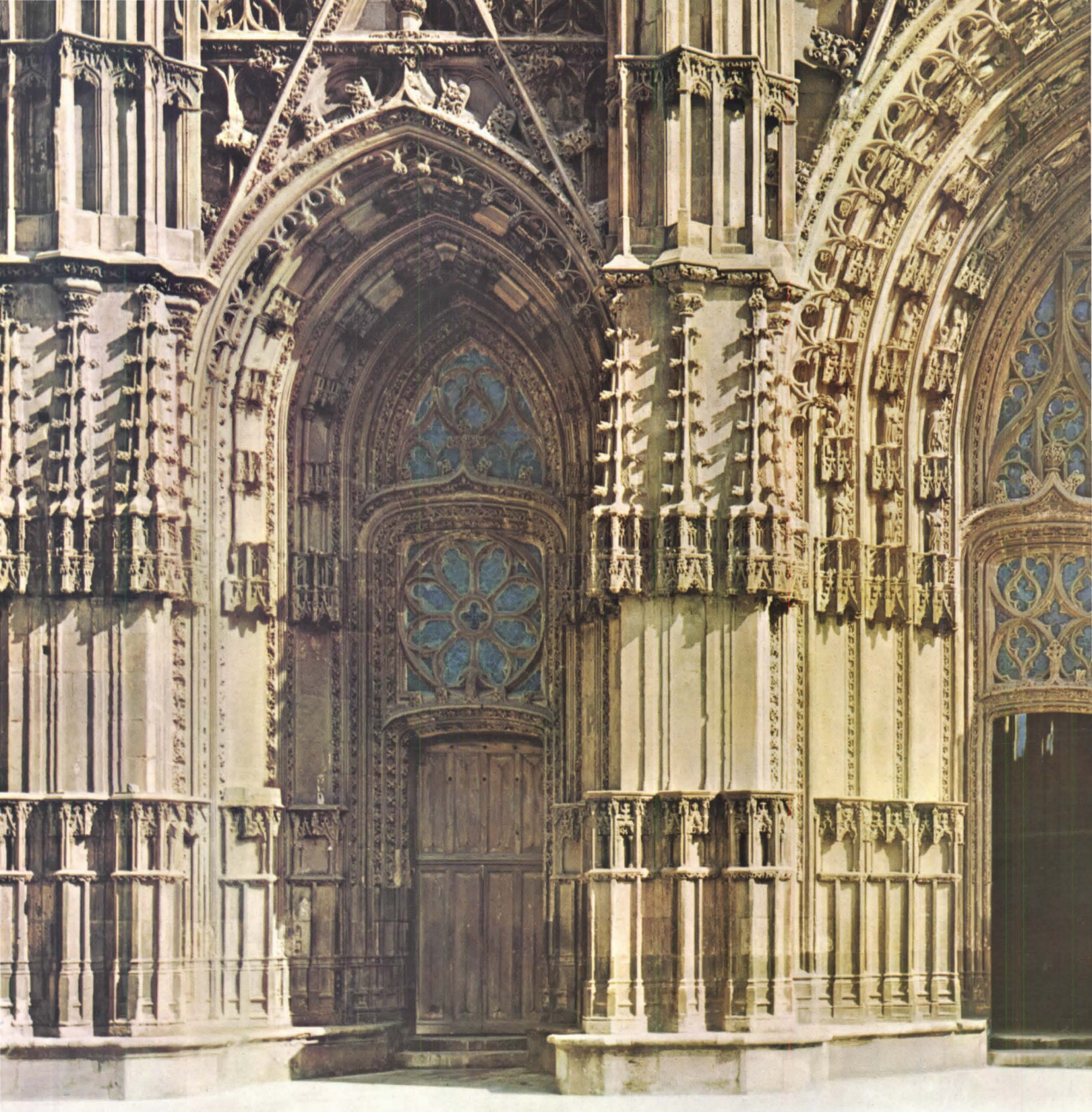
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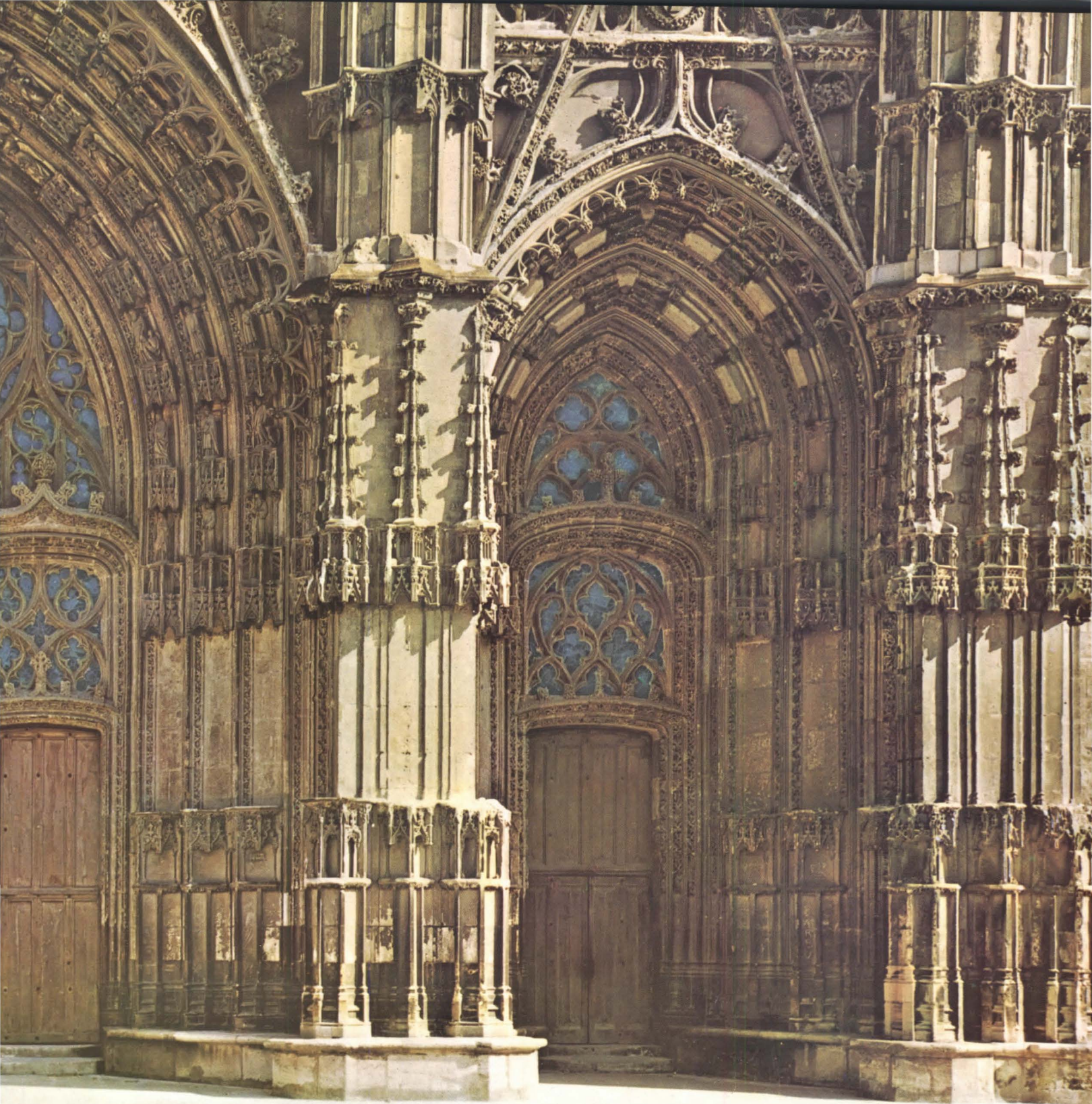




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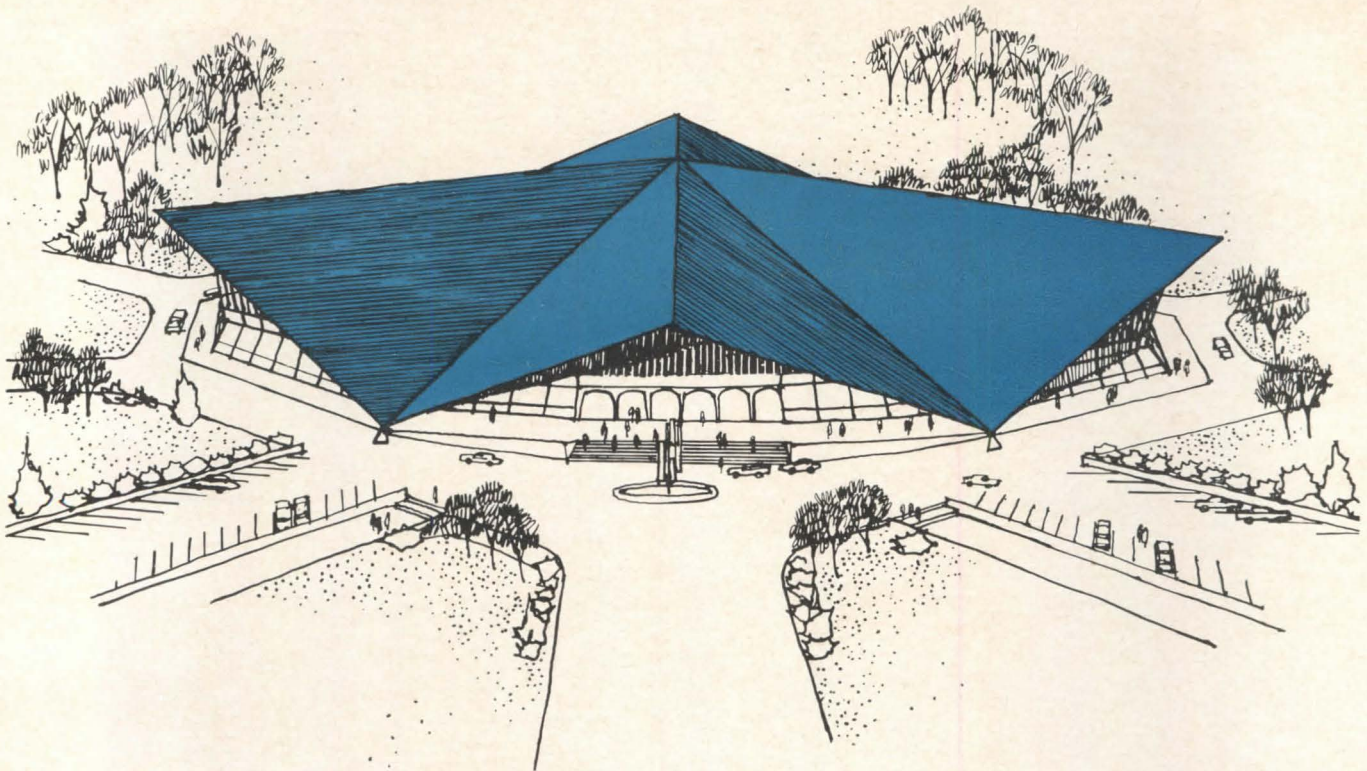
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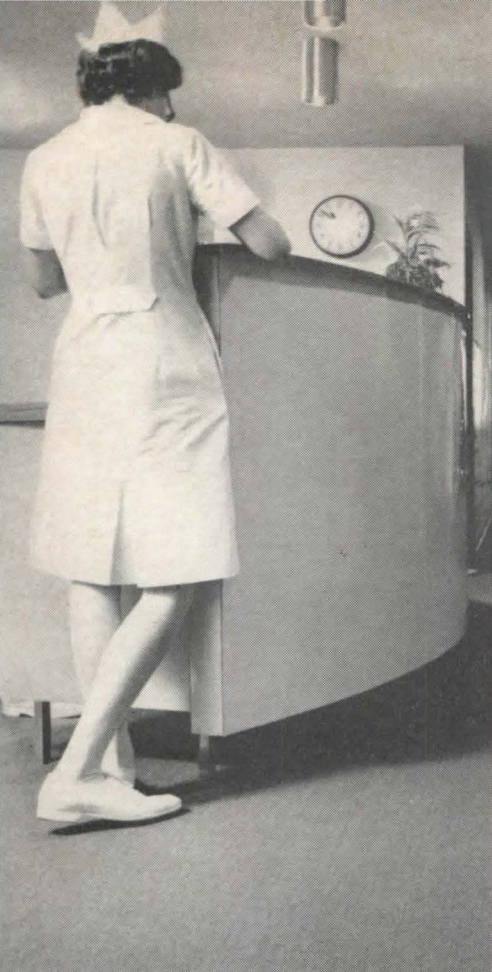
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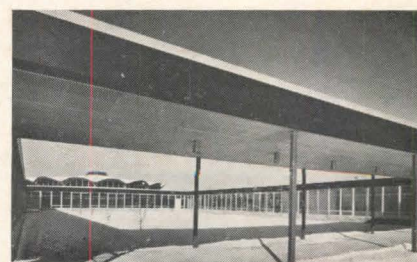
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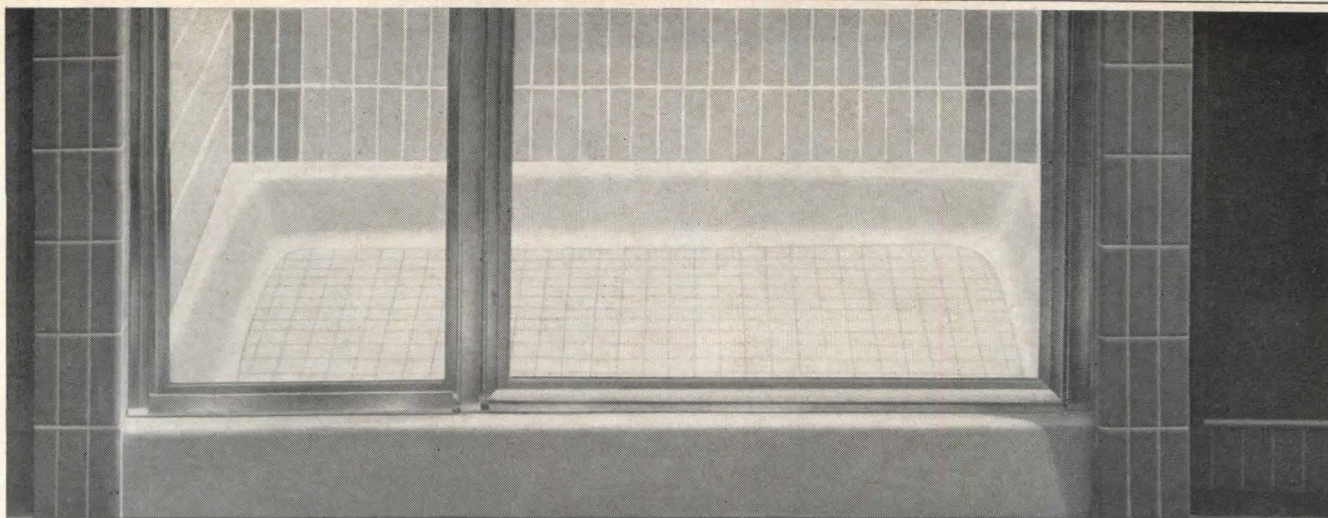


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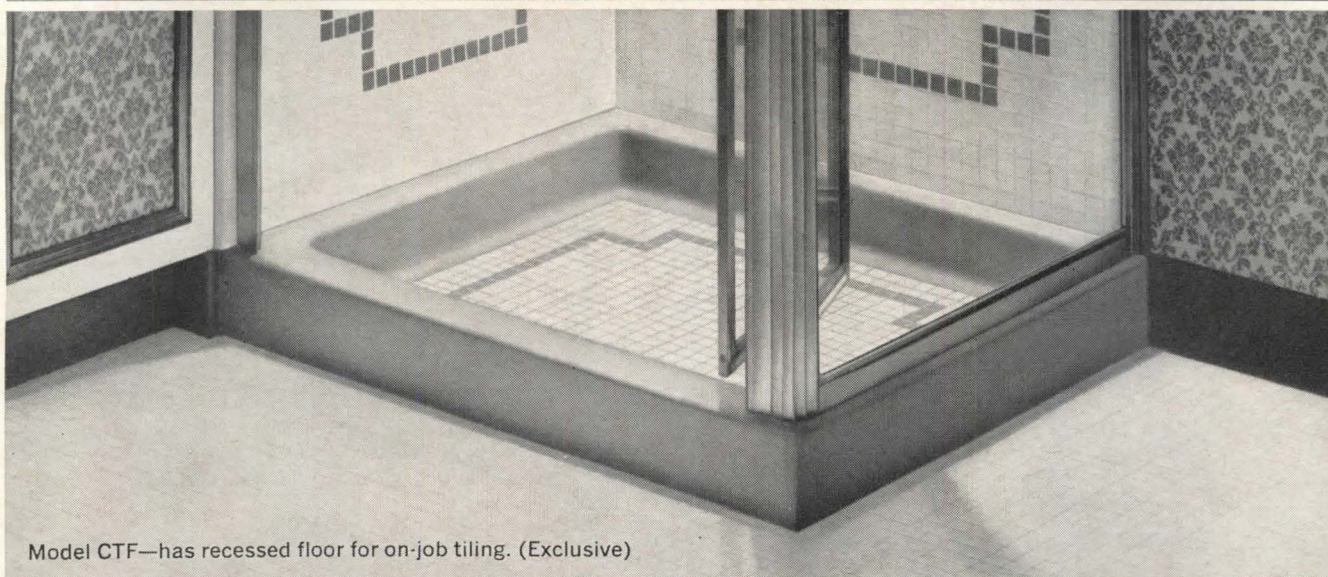
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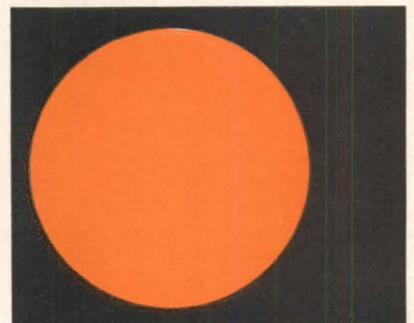
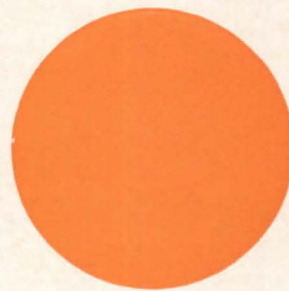
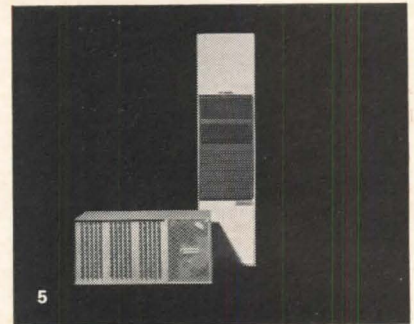
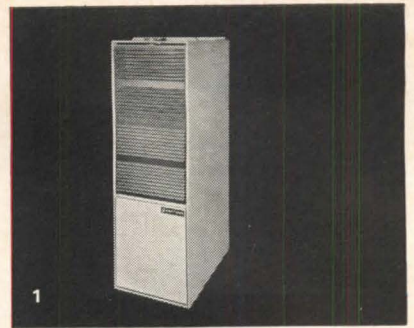
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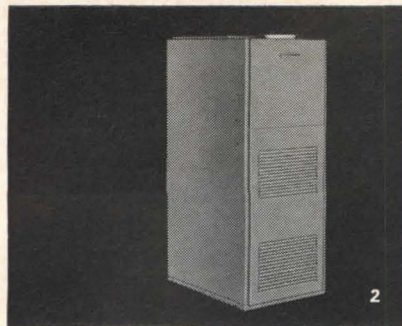


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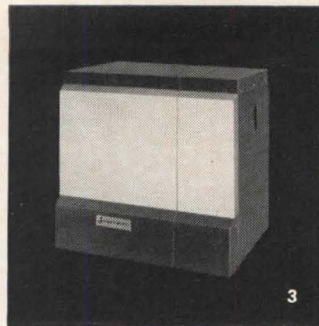
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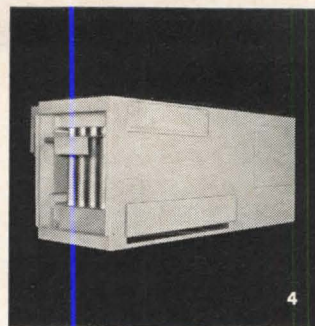




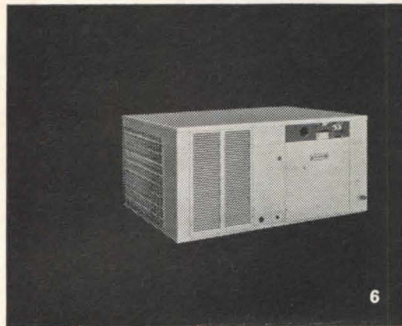
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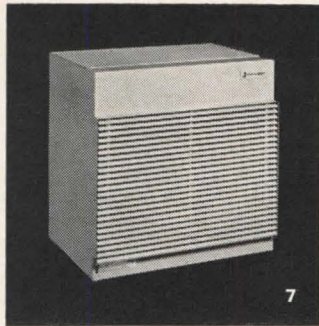
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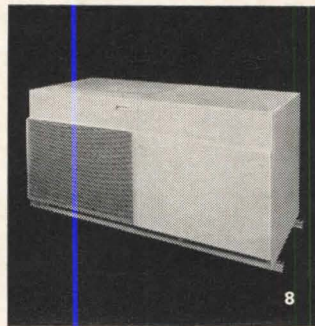
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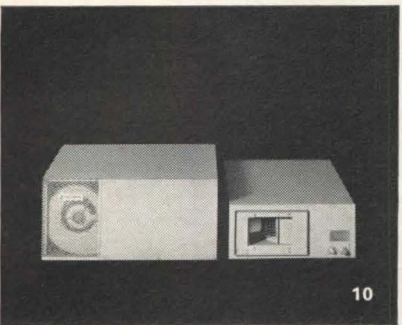
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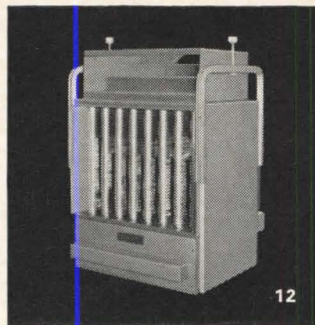
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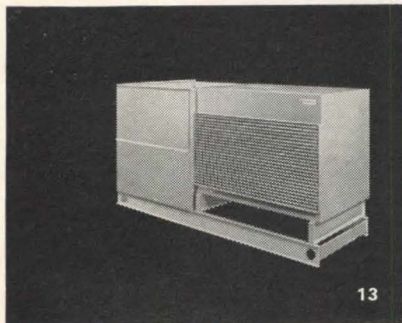
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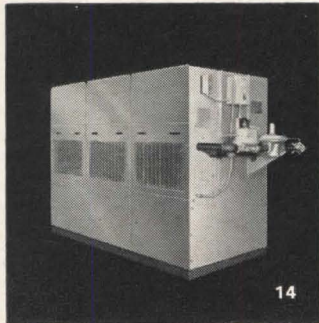
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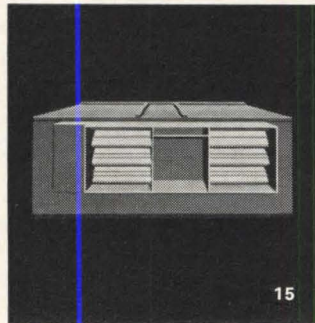
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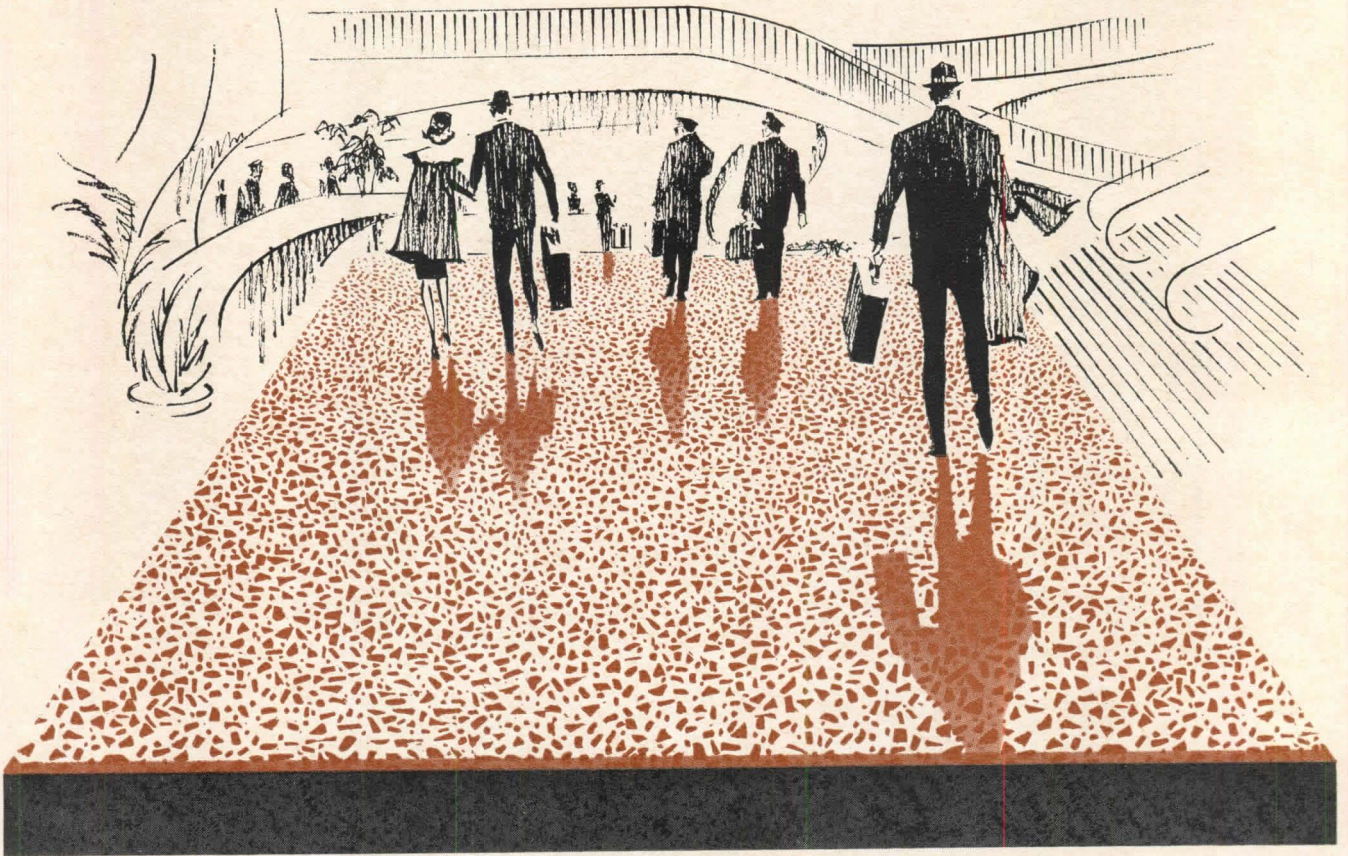
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FORUM

GREEN POWER

Not long ago, Mayor John V. Lindsay of New York made one of those ringing statements that all big-city mayors like to make and some, including Lindsay, seem to mean. The upper- and middle-income suburbs, said Lindsay, "try to build a high wall to protect themselves from the city core. The major problem of the cities is to break down that wall, to make the suburban areas an integral part of the cities upon which they live."

The statement did not go unnoticed by Presiding Supervisor Ralph G. Caso of Hempstead Town, L. I., who promptly wrote officials in 52 suburban counties around the nation asking their help in defending the wall. "After generations of mismanagement, the cities are decaying, and in an attempt to delay the process they are reaching out to pull the suburbs down with them." He suggested that suburban politicians form a "pressure block" to fight "the growing encroachment of cities on suburban rights and comforts."

Becoming more specific, Mr. Caso noted that the majority of his town's residents moved from New York in the past two decades "to escape the city jungles." He defended their right to strive for a better way of life "without facing oppressive and inequitable intrusions."

Parts of some large cities, of course, share the problems and sentiments of Mr. Caso. Just ask the teenagers of Jefferson Park in Chicago—the ones with the rocks in their hands.

UPS & DOWNS

SEARCH FOR STRATEGY

Congressional hearings on urban affairs normally consist of jousts between contending special interest groups over specific legislation. Last month a Senate subcommittee began a study of city problems that promised to dig much deeper, and go on much longer.

Senator Abraham Ribicoff of Connecticut, chairman of the subcommittee on executive reorganization, billed the study "a detailed, full, and in-depth appraisal of the crisis in America's cities and the role of the Federal government in meeting it." The subcom-

mittee does not expect to get the answers it wants "in a month, or even a year," Senator Ribicoff said. "I expect that these hearings will continue as long as needed."

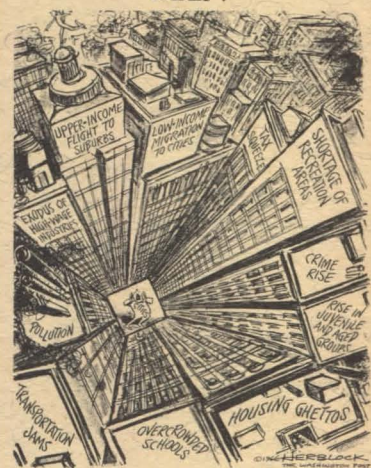
At the opening session, the senator raised such questions as whether Federal urban programs had been diffuse, uncoordinated, obsolete, divided, and even conflicting. "In short, do we have, a clear constructive national strategy geared toward the improvement of our cities? If not, what steps must we take to obtain it?"

GUNS, BUTTER, AND SLUMS

From Senator Robert F. Kennedy of New York, a first-day witness, Ribicoff got some compelling answers to his questions. "It is clear," said Kennedy, "that our present policies have been directed to particular aspects of our problems—and have often ignored or even harmed our larger purposes."

Kennedy called for a Federal survey on urban problems that

"HELP!"



—Herblock in *The Washington Post* would "not be limited by budgetary considerations. Even if we cannot do everything, we must know where we are falling short."

Meanwhile, our national wealth can permit us to do much more right now, Kennedy said in a rebuttal of President Johnson's guns-or-butter philosophy. "The demands of Viet Nam purportedly responsible for the cutbacks in vital education, housing, and poverty programs in fact still represent less than 3 per cent of our gross national product," Kennedy said. Despite expenditures in Viet Nam, he claimed, "the Federal government is spending a smaller proportion of our gross national product than it did three years ago."

The next day, Kennedy and Ribicoff continued their attack, this time using HUD Secretary Robert C. Weaver as the target.

man advisory panel. Portman is a principal in the syndicate of Crow-Box-Portman and David Rockefeller & Associates, which bought the property for \$11.5 million.

The \$125-million development will include office buildings, an 800-room hotel, and a repertory theater. A system of elevated plazas and walkways will be joined to those in Golden Gateway's residential blocks, and "not less than 1 per cent" of construction costs will be devoted to works of art, according to Redevelopment Director M. Justin Herman.

Herman said the developers were "very much concerned with urban esthetics." The review panel will consist of Architects Pietro Belluschi and Gerald M. McCue; Landscape Architect Thomas D. Church; Artist Jesse Reichek; and William L. Slayton, executive vice president of Urban America Inc.

OPEN SPACE

BLOW TO THE BELT

Greenbelt, Md., one of the model garden communities developed during the early years of the New Deal, is belatedly discovering that you can't have your cake and eat it too.

When the Federal government built the town in 1937 for low-income workers, it was planned within a circle of open space (below) that was intended to remain inviolate forever. In 1952, the government sold the town to a citizen's cooperative, which a few years later sold off most of the 806 acres of greenbelt to a private

developer. Now it is battling against a developer who wants to build high-rise apartments in this open space.

The developer, a syndicate headed by Charles S. Bresler and Theodore Lerner, signed an agreement with Greenbelt to build garden apartments on a 50-acre tract at an average density not higher than seven units per acre, and to donate 3.3 acres as parkland.

Bresler, the city claims, has reneged on both deals, and it has brought suit against him. Bresler admits that the tract is being developed at a much higher density, but claims he was forced to sign the agreement. "They had a gun at my head," he said. As for the donation, Bresler has withheld it because, he contends, the city does not maintain its parks.

Greenbelt's citizens, who sold their right to maintain an undeveloped greenbelt when they sold the land, contend that this does not give Bresler license to develop it in any way he sees fit. Says City Manager James Giese, "Mr. Bresler is thinking only of his own interests. He made a commitment that he did not honor."

ONE GOOD TURN . . .

Relations between Robert Moses and the City of New York, usually stormy, were strangely mixed this summer. Though stung when Mayor Lindsay dismissed him from his freewheeling position as New York's "arterial highway coordinator," Moses decided to turn the other cheek. He announced that the well-heeled Triborough Bridge and Tunnel Authority,

which he still heads, will build 26 vest-pocket parks and playgrounds, covering a total of 125 acres, on leftover scraps of land along some of the city's major highways.

So anxious was Moses to express his good will that he let the word slip out—in the form of a 16-page printed brochure—to the surprise of city Parks Commissioner Thomas P. F. Hoving, who had been working with him on the parklet scheme.

All the while, the city administration was trying to cancel or delay some of Moses' favorite highway projects. It succeeded in getting the state to de-map the Bushwick Expressway through Brooklyn, an important link to the Lower Manhattan Expressway, which Mayor Lindsay also shelved. Hoving himself dealt the lowest blow by proposing that land set aside for Section 1 of the Richmond Parkway be preserved instead as a 4.7-mile-long, 300-ft.-wide "trailway" linking several of Staten Island's existing parks.

Sometimes it just doesn't pay to be nice.

SPECULATION BY THE SEA

In 1962, Congress declared 53,000 acres at Point Reyes in Northern California a national seashore. Land speculators immediately descended on the wildly beautiful beaches like sea gulls, with the result that the Interior Department has used up its initial \$14 million in acquisition funds buying only 17,000 acres.

Last month Interior made a dramatic new proposal for ending the price escalation. It asked Congress for the power of condemnation, and \$40 million, to buy all the remaining land now—including 26,620 acres to be set aside for compatible private development. Interior would then sell or lease the land in the private sector later.

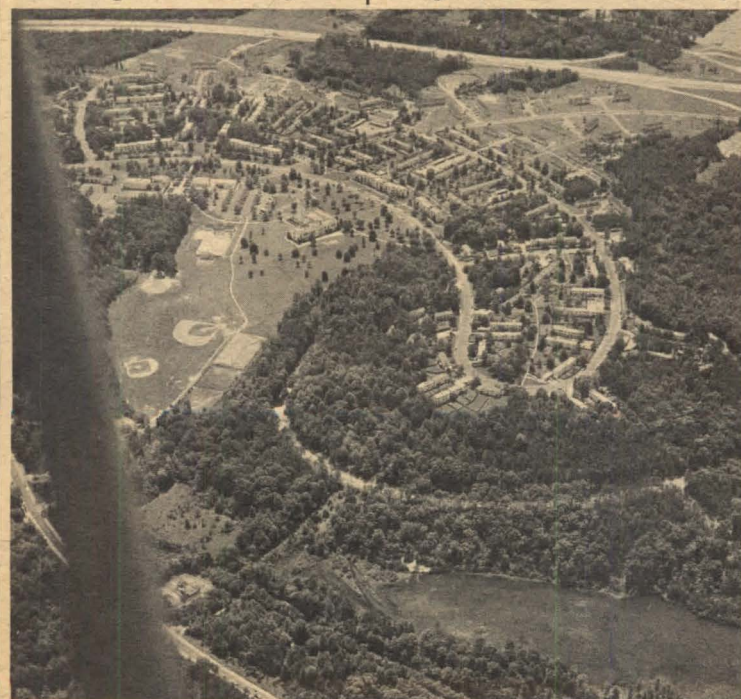
Congressional supporters of the seashore were warily favorable to the idea. But Senator Milward L. Simpson, from landlocked Wyoming, found it "frightening."

HOUSING

DAMNED IF YOU DO . . .

The city of Chicago is in trouble because of its policy of building public housing mainly in Negro ghettos. The city of Stamford, Conn., is in trouble because of its policy of building such housing outside of the ghettos.

The American Civil Liberties
(continued on page 87)



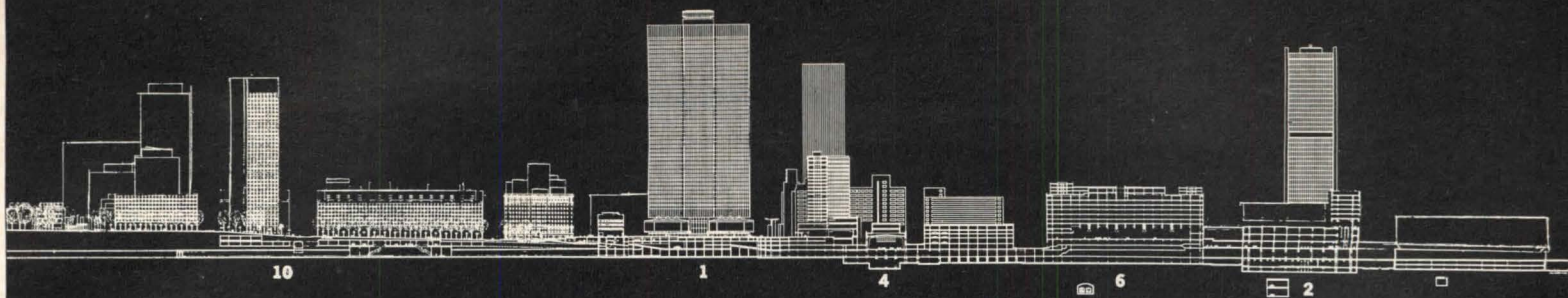
DOWNTOWN IN 3-D

Through a happy combination of expert foresight, private initiative, and luck, Montreal is about to become the first 20th century city in North America. Its Downtown, compressed between Mount Royal and the St. Lawrence, is seen here outlined in white, erupting skyward. But what sets this core apart is not so much the towers as their spreading roots in a multilevel network of shops, transportation systems, and pedestrian promenades.

Among those who assisted greatly in the preparation of this article was the architect Herbert C. Auerbach, who was I.M. Pei & Associates' on-site representative when the Place Ville Marie complex was built. Mr. Auerbach is now a project coordinator to urban redevelopment groups like Concordia Estates. Full credits for design of the major Downtown projects are on page 106. The views expressed on these pages are, of course, those of the author.





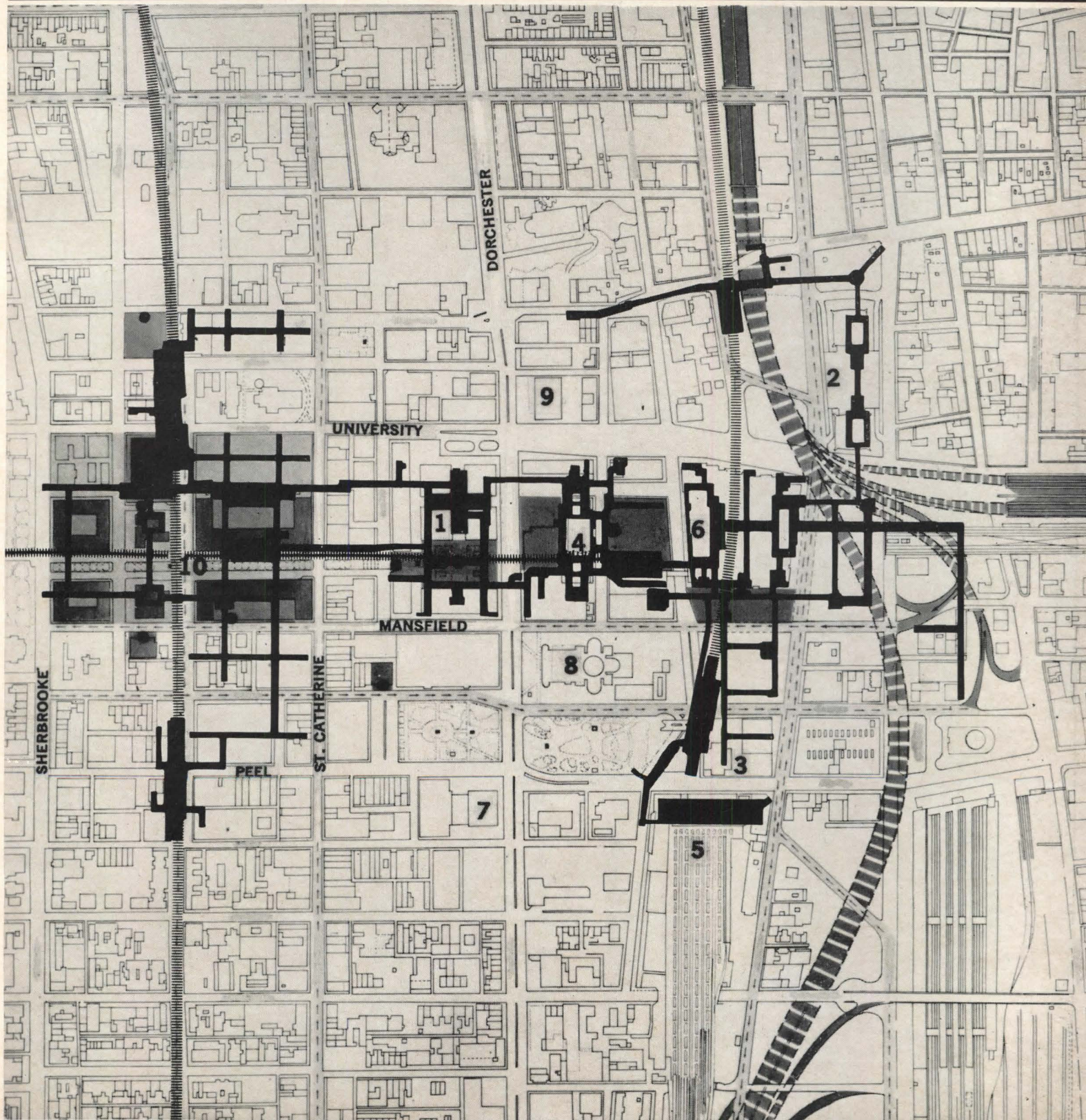


Aerial view on facing page shows Downtown area as it looks today. Plan (below) includes existing grid of pedestrian promenades, plus additional walkways to be built by 1972. It also shows Metro

system, new underground highways, commuter lines and, in grey, present and future parking facilities. Section (above), taken through present and future Downtown, shows continuous multi-

level system. Following numbers are key to both aerial photo and drawings on this page: (1) Place Ville Marie; (2) Place Victoria; (3) Place du Canada; (4) CN's Central Station; (5) CP's Windsor

Station; (6) Place Bonaventure; (7) Imperial Bank of Commerce; (8) Cathedral; (9) CIL House; (10) McGill College Avenue Development; (11) Place des Arts; (12) Vieux Montreal; (13) Habitat.





The new core is the product of topography, tradition—and vision

Metropolitan Montreal (population 2.2 million) covers the island formed by the St. Lawrence and the Rivière des Prairies, spilling onto the opposite shore. But the essential Montreal is compressed between the mountain and the big river. This fact accounts in large measure for the exciting urban character of Montreal: the core has been prevented from leaking out into sprawl.

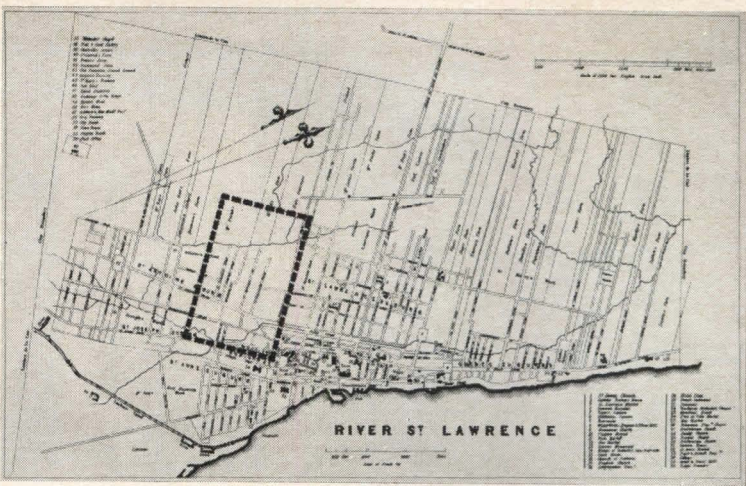
There are other facts that have contributed: the fact that its population is largely French-speaking, and traditionally urban oriented; the fact that Montreal is a great port; the fact that it is an important railroad hub, with both the Canadian National (CN) and the Canadian Pacific (CP) railroads converging in the city's core; the fact that it is a famous university town and thus a major intellectual and cultural center; and the fact that it has always had a considerable architectural tradition.

And there is one supremely important fact of topography that enabled Downtown's planners to develop their multiple decks: the fact that Downtown Montreal, from the McGill campus to the banks of the St. Lawrence, drops off between 150 and 200 feet in elevation. "All you need is a 15-foot change in elevation to put out of sight one entire system of services," Harry Cobb said recently.

Vincent Ponte immediately recognized the overriding importance of the third dimension



in Montreal's topographic potential. "Planners are beginning to go beyond the 2-D of paper plans," Ponte says. "In this city we are concentrating the core functions into a tight, totally interrelated unit, doubling and tripling the use of the same par-



cels of precious Downtown land by inserting several levels above and below ground."

One should probably know one or two additional facts of geography, history, and local tradition: first—a matter of clarification—"north" in Montreal is, in fact, almost west; second, St. Lawrence Boulevard (which runs "north-south") is considered the dividing line between French-speaking Montrealers (east) and English-speaking ones (west). This division determines some planning decisions that might make little sense otherwise.

So these were the preconditions for the new Downtown Montreal: a geographic fact; an urban tradition; a crossroads location; a cultural preoccupation and heritage; and a topographic advantage. Now all that was needed was the opportunity to plan on a big scale, and men with vision, and in the right places, to do the planning. Between 1956 and 1966—the period which Ponte calls the "ten golden years of Montreal's Downtown"—significant things began to happen:

First, the CN's president, Donald Gordon, decided that the time had come to develop the railroad's 22 acres of land (mostly air rights) around Central Station. As early as the 1920's, Sir Henry Thornton, a predecessor of Gordon, had commissioned plans for such a development, and these plans already contained the basic principle of a multilevel Downtown core.

Second, Gordon brought in

Bill Zeckendorf, who immediately recognized the potential of the CN property: its ideal location in terms of existing and possible future transportation facilities; and its location in the path of the shift in Montreal's center of gravity.

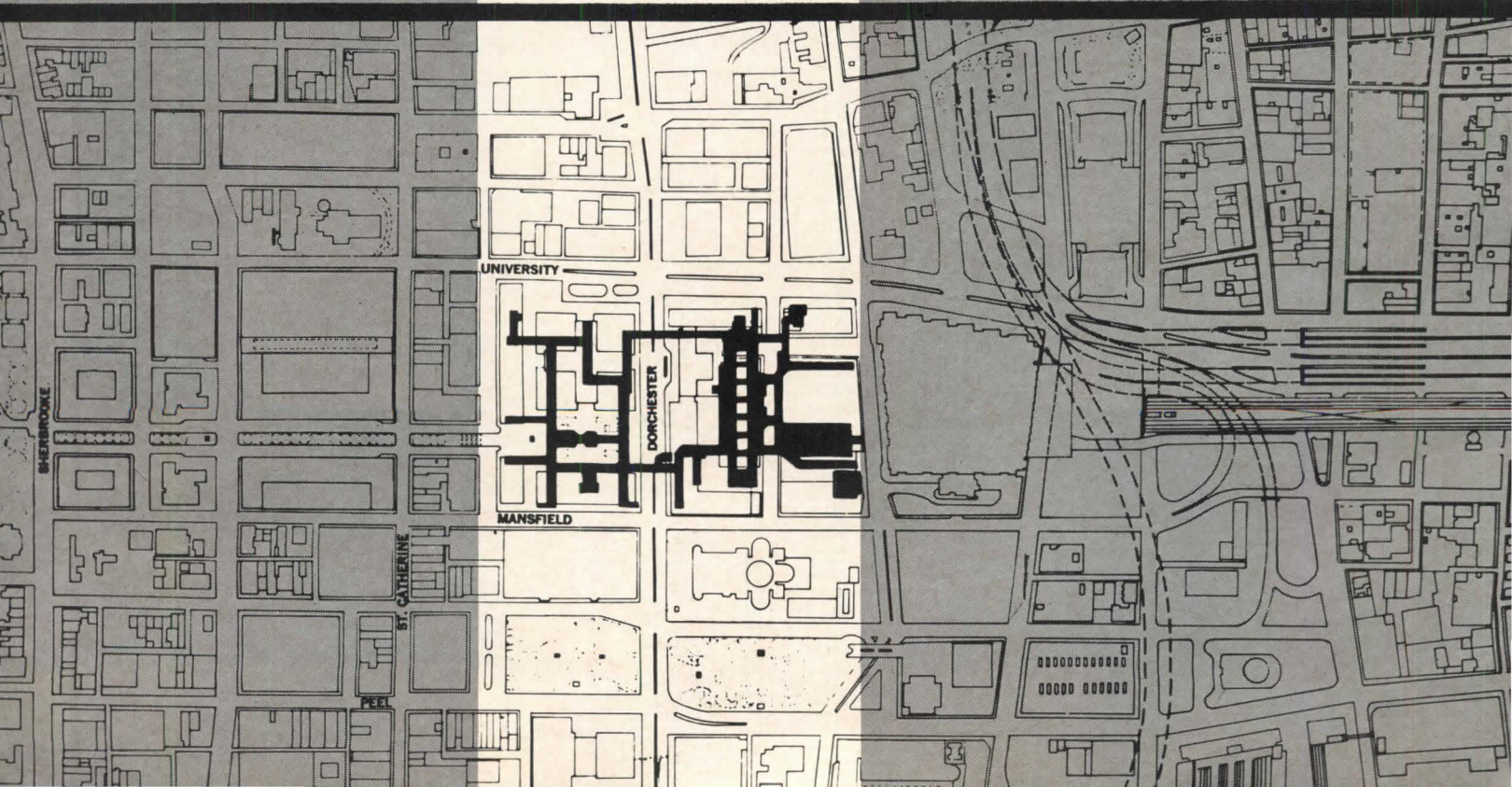
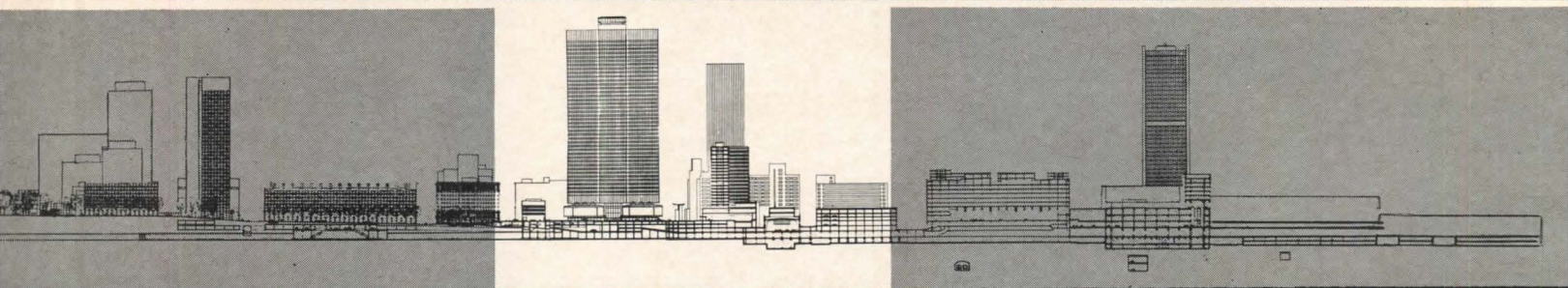
Third, Zeckendorf, in turn, brought in Pei, Cobb, and Ponte to design not only the 7-acre PVM site, but to prepare a master plan as well for the entire 22-acre CN property. (Actually, they went far beyond the confines of that site.)

Fourth, Zeckendorf's enormous gamble—to build 1.5 million square feet of rental office space in one great cruciform tower, at a time when Montreal's annual office space construction came to a mere 300,000 square feet—paid off when the late James Muir, president of the Royal Bank of Canada, moved from his old St. James Street headquarters into PVM.

And, **Fifth**, there was the significant contribution of the city of Montreal itself, and that of its mayor, Jean Drapeau. He had been re-elected in 1960 on a platform that promised construction of a long-discussed mass transit system—the "Metro" subway.

These were the most crucial events of Montreal's "ten golden years." Because Mayor Drapeau and others showed the vision to build the new Downtown core, Montreal succeeded in attracting next year's official World's Fair (EXPO 67). That coup was the final boost that the city needed.

Opposite page: Old Bon-Secours market building (top), like many structures in Vieux Montreal, has been restored, and now houses the city planning department. Looking west down Rue Lagachetiere (bottom), Place Bonaventure is under construction at left, CP's raised-eyebrows hotel at Place du Canada is in the distance, and CN's parking garage is at right. All are joined together by means of the pedestrian network. This page: The steep street leading to old City Hall (above right) indicates the sharpness of Downtown's slope to the river. In an 1839 map (top right), the core is shown stretched along the shore. The rectangle indicates its present position.



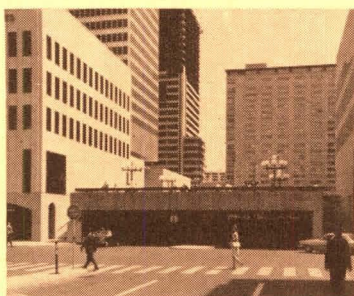
PHASE ONE: PVM PAVES THE WAY

The aerial photograph at left was taken in the spring of 1963, a few months after the 7-acre PVM complex was dedicated.

To those who observed the dedication, the most significant aspect of PVM may have been the part that showed above ground level: the 48-story cruciform tower (right) placed off-center next to a 4-acre plaza. That tower contained 1.5 million square feet of rentable office space (five times the amount then being built annually in all of Montreal put together)—and it was an impressive sight indeed.

But more significant in terms of urban design were the four levels (totaling 1.2 million square feet) underneath the plaza—the part of PVM that did not meet the eye.

On those four levels (see section, opposite), Zeckendorf's team of architects and planners had created an organism consisting of promenades a half-mile in length, lit in part through sunken courts, and serving about 160,000 square feet of retail space. Below these promenades there were two levels of parking (capacity: 1,200 cars), and below it were



the CN's tracks and platforms. Trucks were brought into PVM through underground roadways, without interference at any level with parking or pedestrians.

PVM's network did not stop at the property line. It was tied into adjacent buildings so that, for example, pedestrians could move under cover from PVM to Central Station. All told, the initial construction created 1½ miles of promenades, and there were plans to tie PVM's sub-plaza organism to future buildings as well.

When Zeckendorf first proposed his great Downtown system



of promenades, "experts" predicted inevitable failure. The truth is that the retail space has been fully rented since PVM was opened, and the turnover in tenants has been zero.

What made the location of Place Ville Marie so attractive to Bill Zeckendorf? Some of the reasons are obvious: the CN's property was served by a system of commuter trains (including a railroad tunnel that heads due north from Central Station, and passes under Mount Royal); the CP's Windsor Station was nearby, as was a major bus terminal;

St. Catherine Street, Montreal's principal shopping thoroughfare, with three big department stores, was a short block to the north; and there were good hotels nearby as well.

Moreover, there was a noticeable shift taking place in Montreal's center of commercial gravity: Vieux Montréal, now a historic district, had been the original core; the St. James Street area to the west had become the Wall Street of Montreal at the turn of the century; and by then the residential areas had moved up to the slopes of



Opposite page: The then newly opened PVM in an aerial view; in section, showing multilevel separation of functions below plaza; and in promenade-level plan, showing its network extending to Central Station and other nearby buildings. This page: The PVM tower (top right); the entrance to its 1,200-car, two-level garage (center right); and a segment of its sunlit shopping promenade.



**Phase One (continued):
PVM began with
a hole in the ground**

Mount Royal. Retailing followed its customers, and centered on St. Catherine Street. The final shift began as the office center, in the years between the first and second world wars, slowly moved towards Mount Royal. The PVM site stood squarely in the path of this movement.

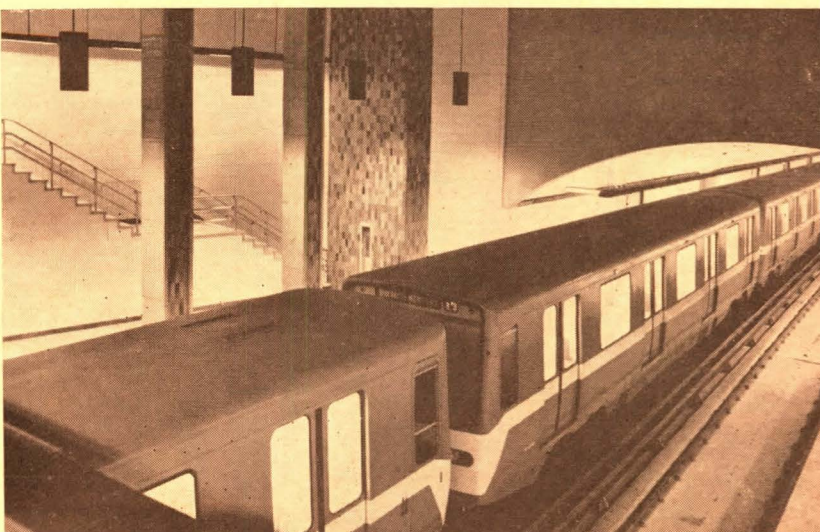
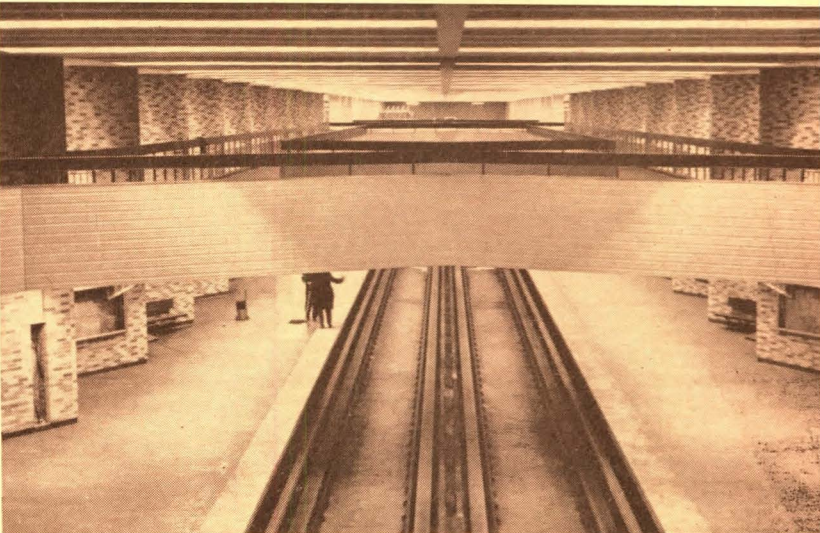
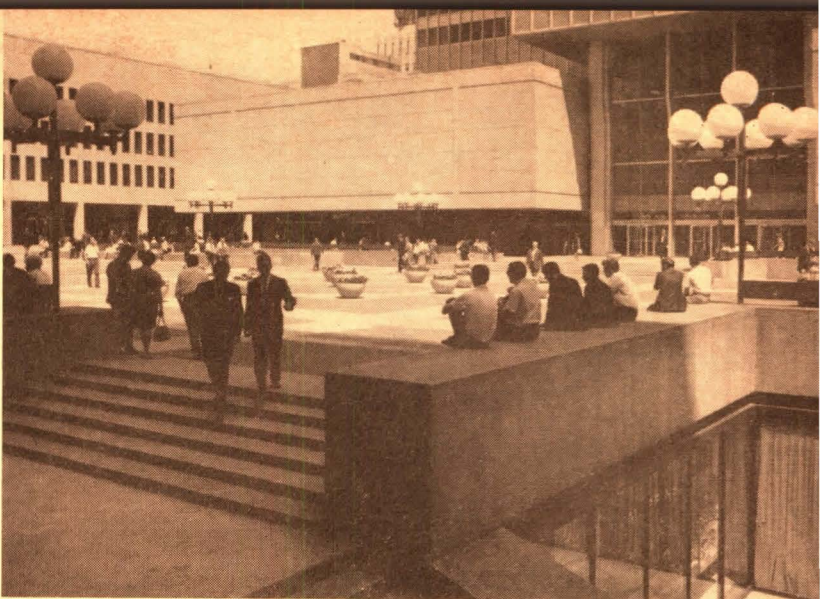
At this point, Montreal's Mayor Drapeau initiated plans for the new Metro system which will open next month. The system—possibly the most modern in the world—will bracket the new Downtown area. And its tracks are located so far underground that each station includes a mezzanine level halfway between the tracks and the street. These mezzanines will become integral parts of the Downtown network of promenades: by the time the Metro opens, this public contribution to the Downtown organism will add another mile of connecting walkways.

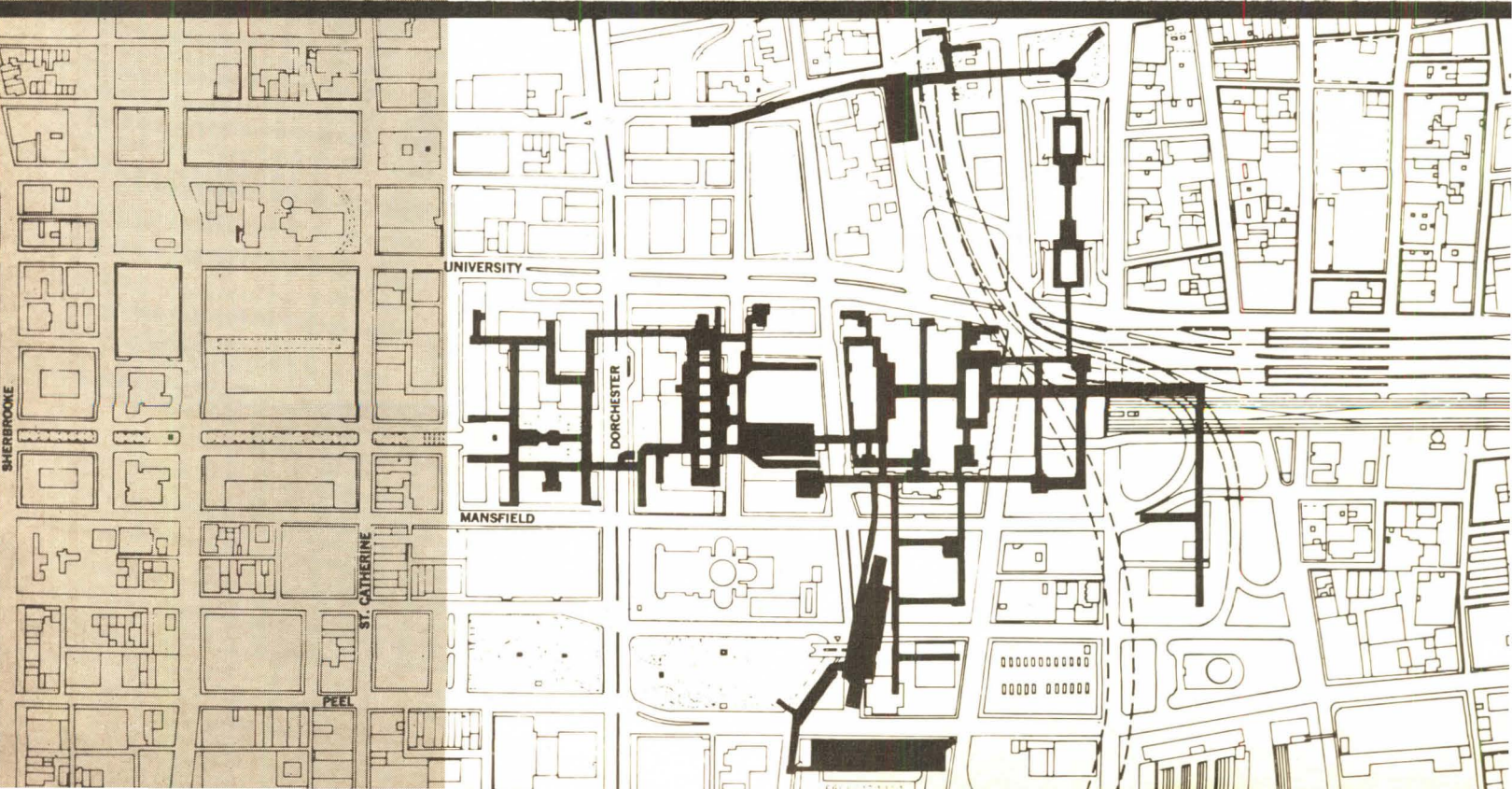
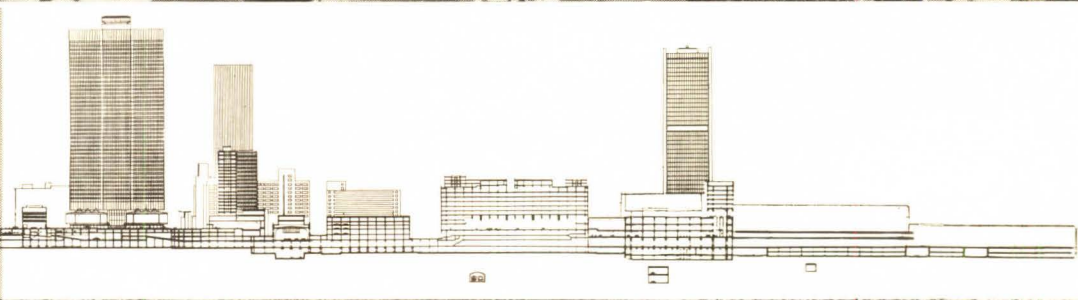
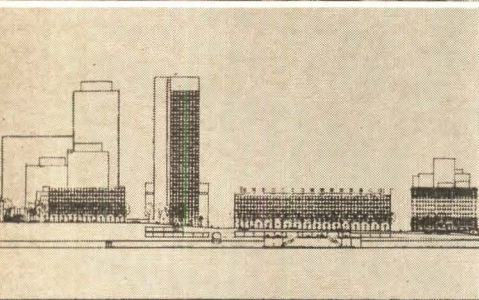
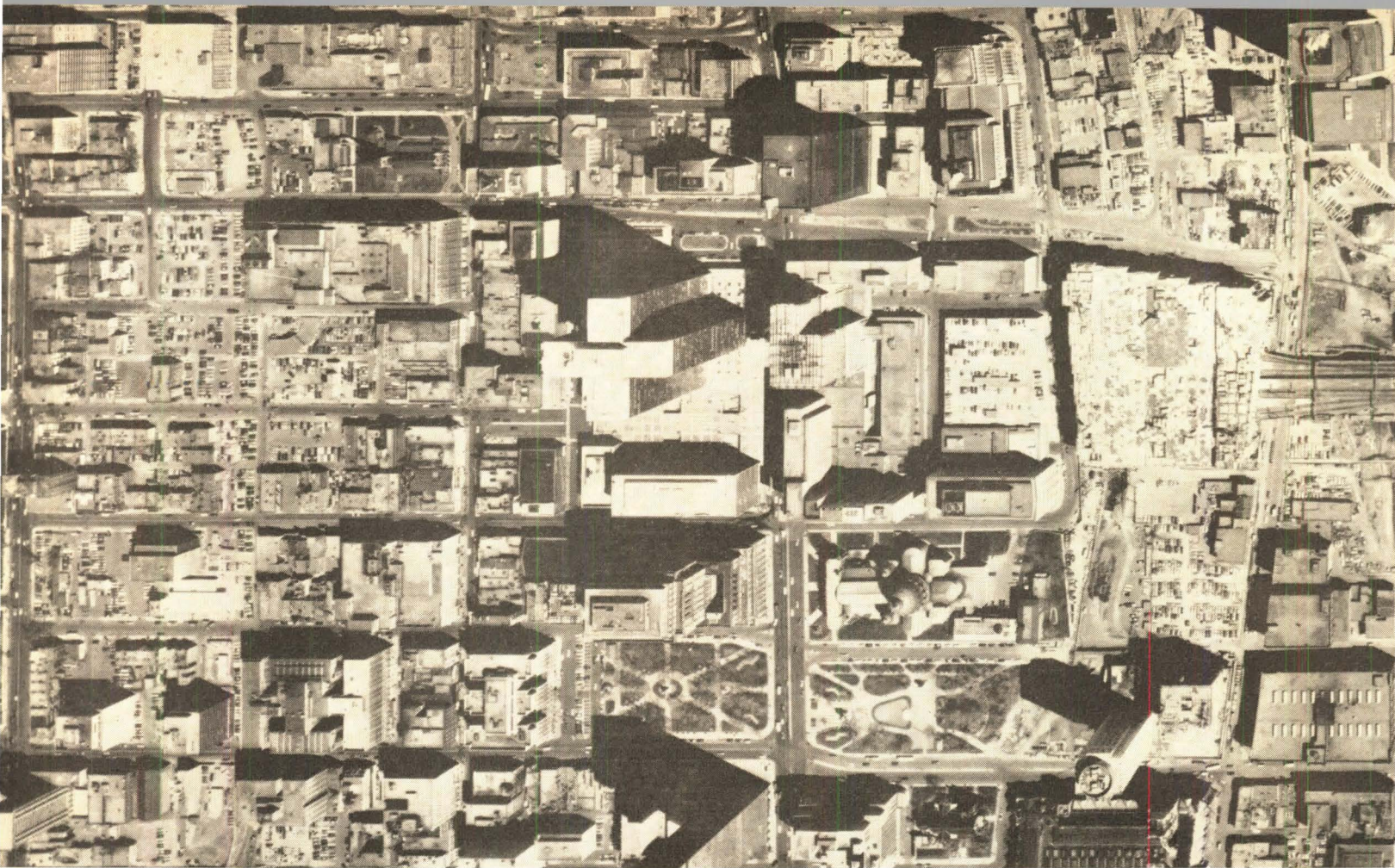
When PVM was little more than a hole in the ground (opposite page), Bill Zeckendorf needed one—just *one*—really big tenant who would make the move from the St. James Street district into the emerging new core. That tenant was the Royal Bank of Canada, whose then president, the late James Muir, shared Zeckendorf's optimism.

Today PVM's tower bears the Royal Bank's name. And soon after Muir decided in 1958 to move into PVM, several others joined the exodus from St. James Street: The Canadian Imperial Bank of Commerce built its 43-story tower on Dominion Square; the 34-story CIL House went up diagonally across the street from PVM; and all around PVM, properties were being assembled and new office space was being planned on a scale that would have seemed inconceivable a few years earlier.

One significant detail emerged as these new structures went up; most of those that were tied into the PVM complex by means of the promenades and other networks tended to rent very rapidly. Some of those that stood alone found it harder to attract tenants. The lesson was not lost upon the planners and developers of the new Downtown.

Opposite page: The bird's eye view at top was taken in 1954, showing the open tracks part of which were to become PVM's site. The bottom photo was taken of the same area a few weeks ago. Just behind PVM, to the left, is CIL House; and rising at the photo's right edge is the CIBC tower. This page: From top to bottom, four levels of Montreal's downtown network. First comes the PVM plaza; then the promenade level, with escalators leading to commuter railways; then the mezzanine of one of the Metro stations a few blocks away; and finally the Metro tracks.





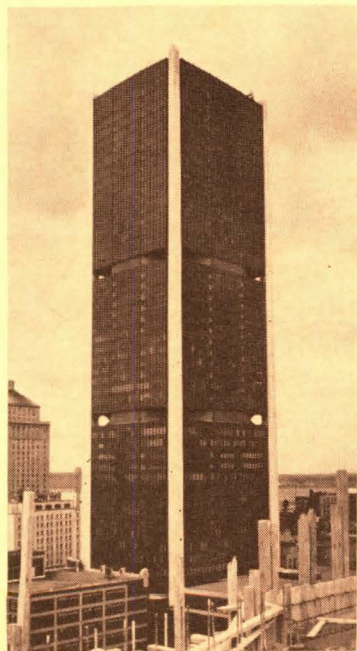
PHASE TWO: THE CORE IN FULL SWING

Next to deciding to develop the CN's 22-acre downtown site, President Donald Gordon's most important decision may have been to insist that Zeckendorf produce a master plan for the entire area.

Even in its first phase (PVM), that master plan proved to be so convincing that Vincent Ponte was retained by Place Bonaventure and, more recently, by other major developers planning in the new Downtown. As a result, there has been a consistency and continuity in the fundamental approach unmatched in any other modern city.

Yet the architectural expression, above grade, could hardly be more diverse. Among the new buildings now going up (or recently completed) in the new Downtown are these:

Place Victoria—the sleek 47-story concrete and glass tower by Moretti and Nervi, housing the Stock Exchange. Its tapering corner columns have given Montreal's skyline a striking new silhouette (below). Hopefully, the



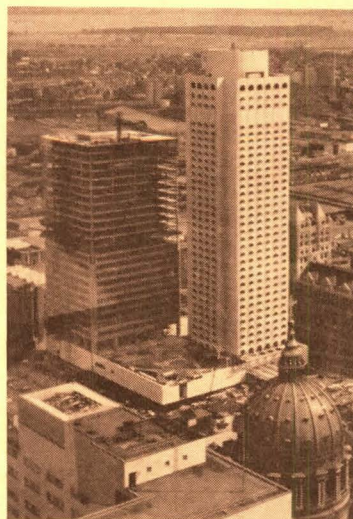
initial tower, with its six-story annex, will be duplicated, in mirror-image fashion; and the entire complex will then be tied into Place Bonaventure and the Metro.

Place Bonaventure—the "New Brutalist" 15-story, rough concrete structure (above right, behind Place Victoria, and page 45)



by ARCOP, which will contain 3.1 million square feet of space, including shopping galleries, exhibition halls, and a 400-room hotel on the roof. PB is being built over 5 acres of the CN's tracks, and will be completed next spring. It, too, is intimately tied to subsurface systems, including underground service roads for trucks. The owners are Concordia Estates, perhaps the brightest developers on the Montreal scene at present.

Place du Canada—a complex of two dissimilar buildings that share a common pedestal (below). The first to be completed, the



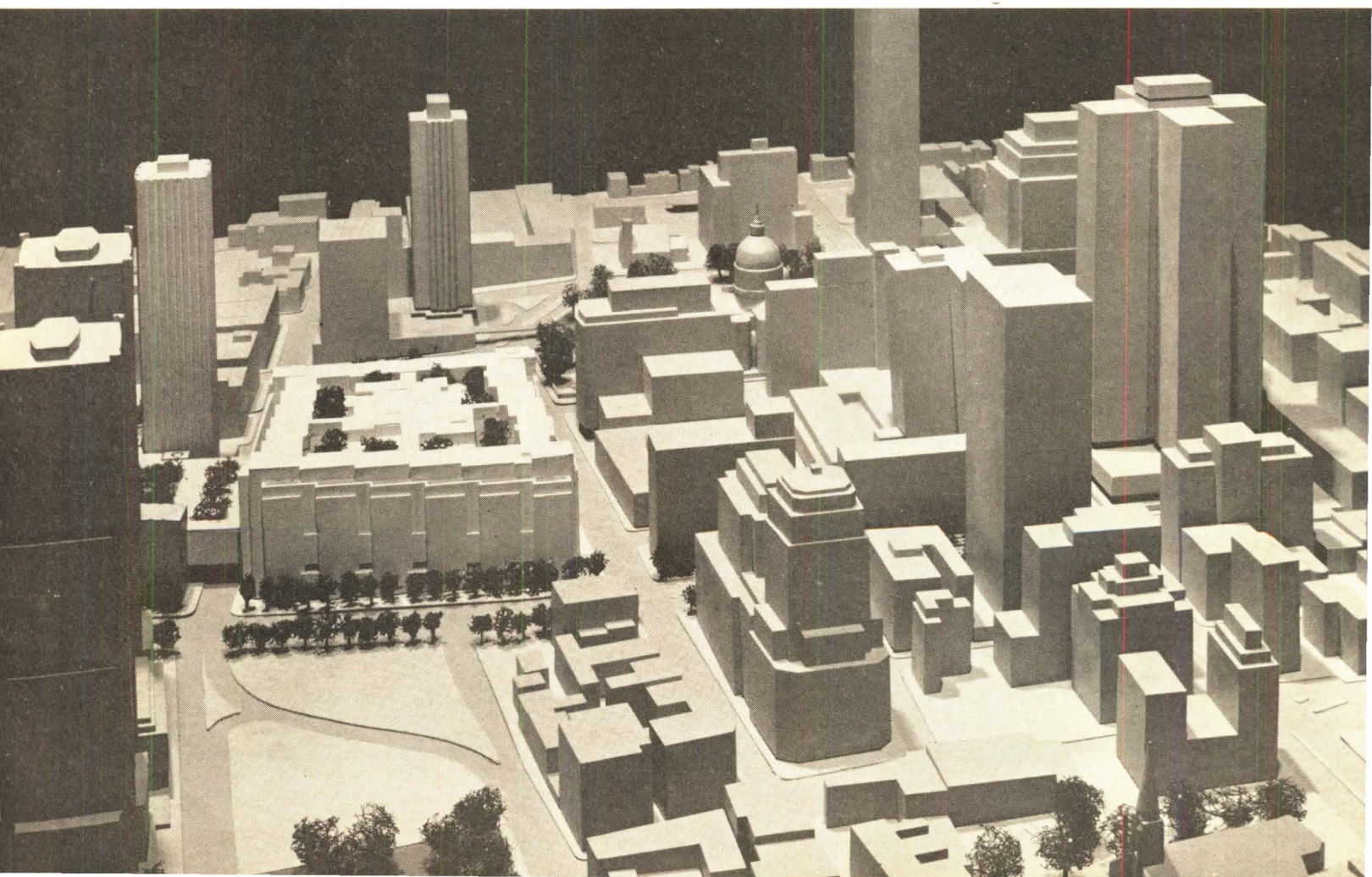
"raised-eyebrows" Hotel Chateau Champlain, is 38 stories high, contains 640 rooms, and was designed by D'Astous & Pothier. The second building, an elegant 28-story precast concrete office tower by John B. & John C. Parkin, is nearing completion. Under the paved plaza, in a five-story podium, are located a bank, shopping promenades, a movie theater, and other facilities. There is also underground parking on five levels; and the entire complex is tied, by means of a pedestrian bridge at plaza level, to Dominion Square to the north. The Canadian Pacific is the owner (or part owner) of the entire Place du Canada complex.

Other construction, on a smaller scale, is also under way in the area. Meanwhile, the new Downtown is receiving massive infusions of assistance from other sources as well. Specifically:

The Metro is rapidly nearing completion, and its mezzanine platforms will form an increasingly important part of the overall system of Downtown pedestrian promenades.

The Trans-Canada Highway System is being extended, rapidly, into the center of Downtown. Originally planned as an elevated expressway to run along Mon-

Opposite page: The aerial photo shows the current condition of the core, with Place Victoria halfway completed; Place Bonaventure almost topped out; and at Place du Canada, the new hotel finished and the smaller office building rising rapidly. The 15-story IBM Building at PVM also is completed. The section and plan show the pedestrian network as it will be at the end of Phase Two, when the promenades will be about four miles long. This page: portraits of Place Bonaventure (background of photo at top right), Place Victoria (above right), and Place du Canada (bottom right).



**Phase Two (continued):
South of PVM, the
pieces fall into place**

Montreal's waterfront (in typical U.S. fashion), the highway has been relocated, pushed inland, and put underground—thanks, largely, to the efforts of Planning Consultant Daniel Van Ginkel, who fought hard for relocating the highway. As of today, the first section of the Downtown tunnel is under construction, and the new expressway leading south, to the EXPO 67 site, is nearing completion. It, too, dips underground as it enters the Downtown area; and its connections to the Trans-Canada Highway are underground also.

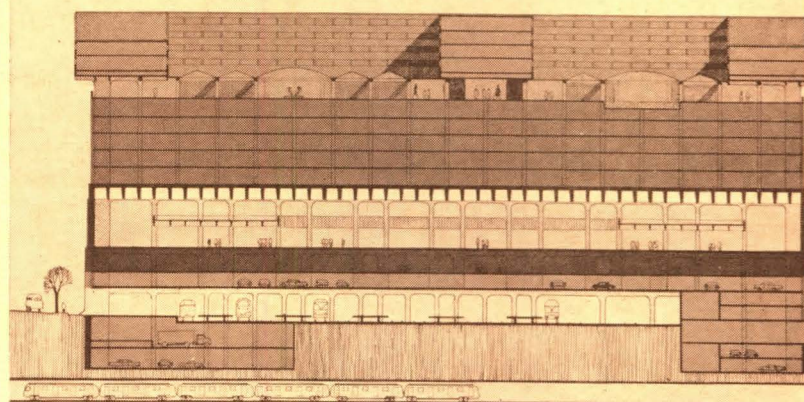
Finally, the CN, whose commuter tracks run north under Mount Royal, is virtually certain to convert its lines to rapid transit, thus increasing capacity and making Downtown even more accessible to suburbanites.

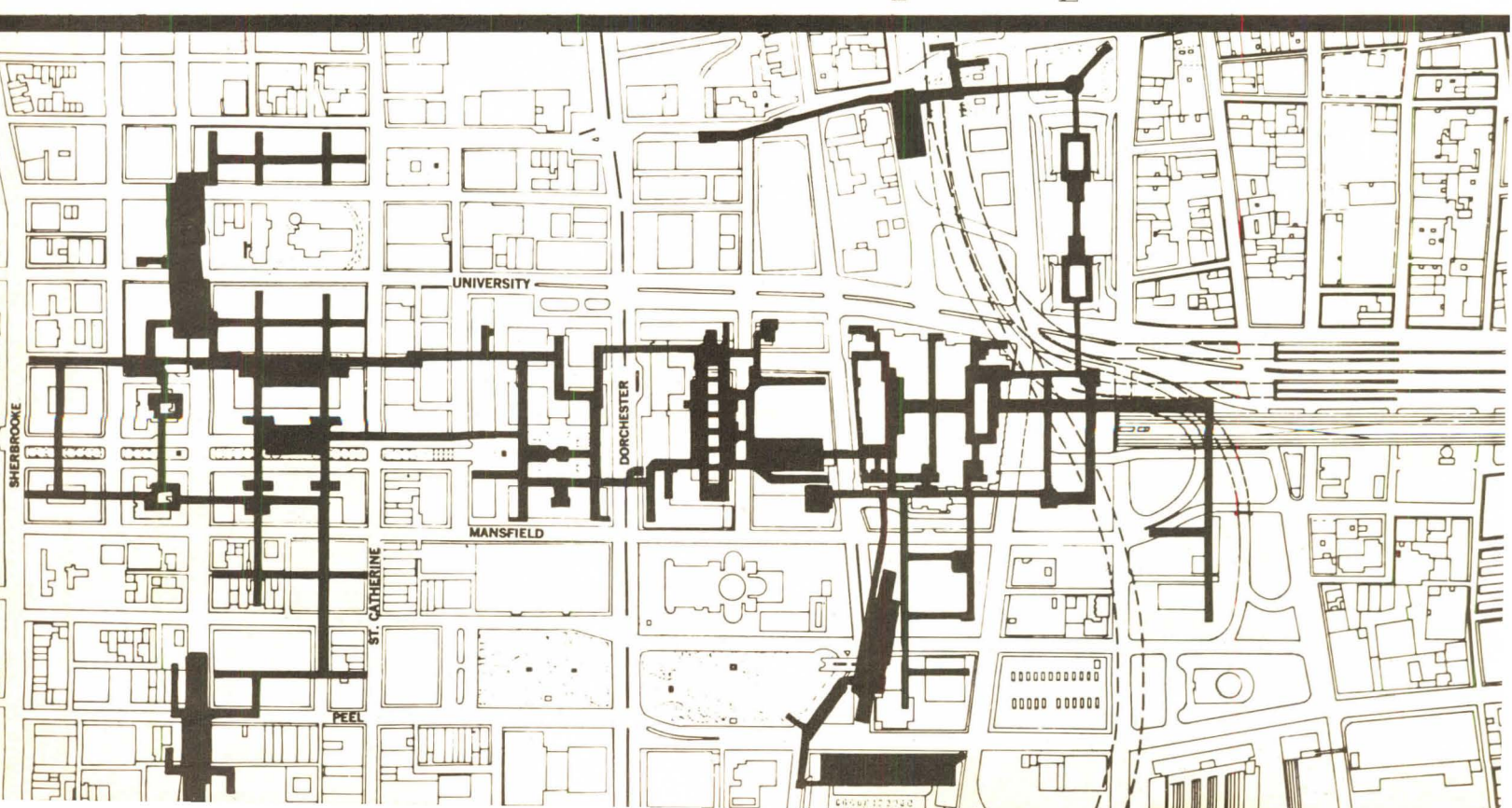
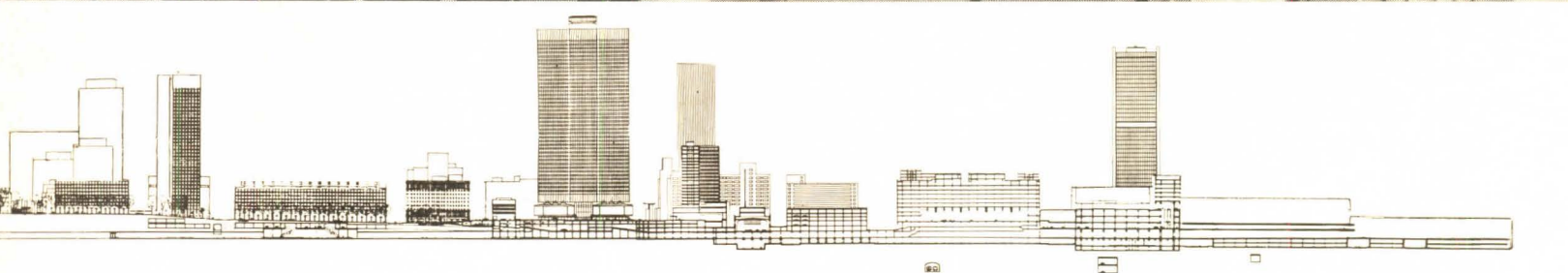
As the "ten golden years of Montreal's Downtown" draw to a close, there is no sign of any letup in the development of the new core. The imminence of EXPO 67 undoubtedly contributes to the optimism of developers; but the successes of the first ten years lend substance to that optimism.

Concordia Estates already has announced plans for extension of Place Bonaventure southward to include an office tower, a department store, a parking garage and, conceivably, a new bus terminal—all to be built over the CN's tracks. To the west of PB, on land owned by the Roman Catholic Archdiocese, there is likely to be a further development made possible by street improvements undertaken by the city. This development—it may be commercial or luxury-residential—will be linked into the various Metro and pedestrian networks, as will the extension of PB to the south.

Finally, there are rumors of major residential projects planned along the perimeter of the new Downtown; and there is much speculation to the effect that the CP may soon follow the CN's suit, and open up many acres of air rights over its tracks to the west of the new core. If and when this happens, Ponté's core may generate a kind of subcore.

Opposite page: The bird's eye photo was taken before the area to the south of PVM was developed; note the huge downtown air-rights acreage over the CN and CP tracks. The model photo anticipates the use of this acreage at completion of the present phase of construction. More than half the projects shown in the model are now built. This page: Place Bonaventure (panel at right) will be a commercial core-within-a-core. It will contain, from top to bottom in section, a hotel, a five-floor merchandise mart, a 275,000 sq. ft. exhibition hall (shown in bottom photo), a shopping concourse, and parking.





PHASE THREE: IN SIGHT OF COMPLETION

"What has really made Montreal's urban miracle possible," Ponte said recently, "is the presence of large reservoirs of Downtown real estate, held in single ownership, often by railroads or other corporate entities. These break the shackles of lot-by-lot piecemeal development. They have enabled the entire core to be redeveloped as a unit. Equally important is the enthusiasm of the developers to tie into what has been proven by PVM to be a profitable network."

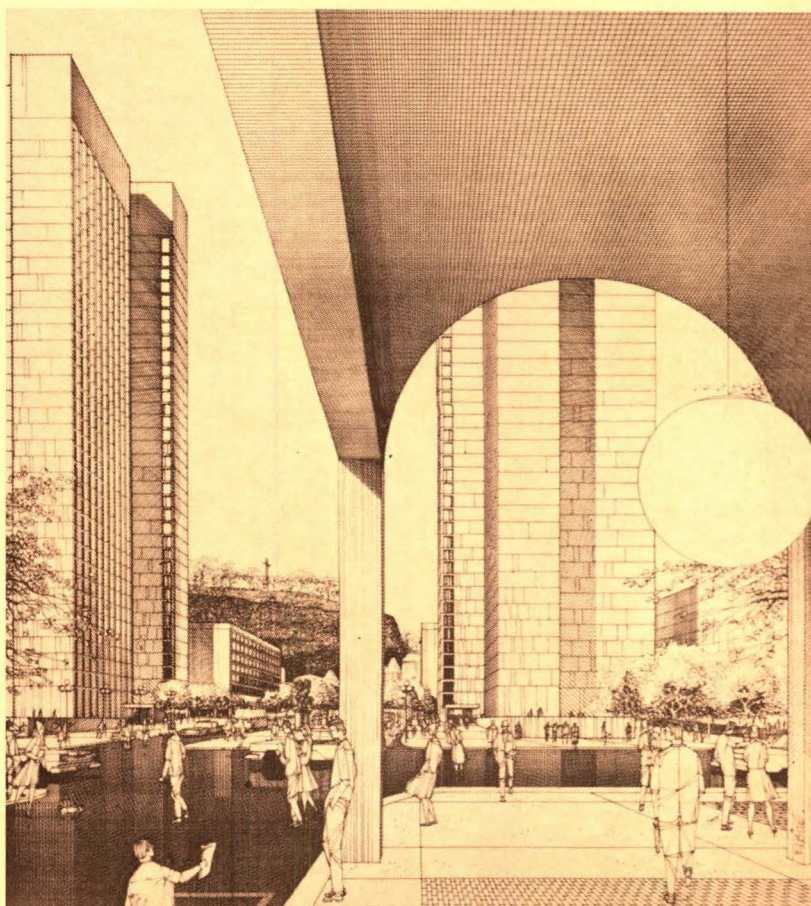
One such "reservoir" of land exists just north of PVM, between St. Catherine Street and the McGill University campus: an 18-acre zone in which Eaton's, Canada's largest department store, is the major land owner. It has been lying fallow during the "golden years" in anticipation of the widening of McGill College Avenue, a project long planned by the city.

The solid success of CM in developing its property according to a comprehensive master plan was not lost on Eaton's. Late in 1964, Mace Development Ltd., an offspring of Eaton's, commissioned the Pei-Cobb-Ponte team to make a plan for the entire 18 acres. Their plan, with the widened McGill College Avenue as its spine, consists of a procession of large commercial buildings, each rooted in a large shopping promenade. When built, it will extend the multilevel network of Downtown Montreal to its ultimate northern limits.

Although Mace's control is predominantly on the east side of the proposed boulevard, expropriation laws in Montreal will enable the city—if it accepts the Pei-Cobb-Ponte plan—to help develop the west side as well: for the city is empowered by law to expropriate land up to 150 feet on either side of the widened street.

When the McGill College Avenue Development is completed, Downtown Montreal will have more than 6 miles of shop-lined, exclusively pedestrian promenades—both below and above ground—separated from all other traffic. These promenades will link some 100 out of the 185 acres in the core.

Opposite page: The completed Downtown core, in model, section, and promenade level plan. The promenades, when finished, will link half a dozen subway stations, three department stores, two railroad stations, plus hotels, movie theaters, and office towers. This page: McGill College Avenue (center right) joins PVM and Mount Royal, shown in the distance. A plan by the PVM team, tied to the widening of the avenue, calls for a series of large new office buildings to give this corridor and the core another focal point. The buildings all would be tied to a further extension of the promenades.



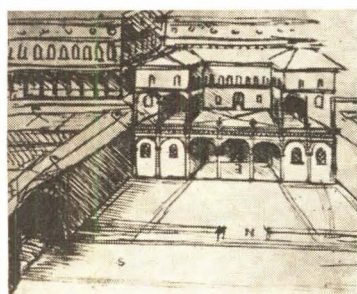
Phase Three (continued): A new kind of city and "a fresh excitement"

There are some unanswered questions about the new core of Montreal, and they may not be answered until the core has had a chance to function for some years. Among them are:

- Will there remain enough reasonably priced housing in or near the core to retain the present vitality of Downtown?
- Will the vastly improved system of mass transit and fast highways encourage flight into the suburbs?
- Can Montreal's beautiful waterfront be rescued from its present, largely industrial blight—and will the construction of EXPO 67 on the St. Lawrence hasten this process?
- Can Montreal absorb as much commercial space as is being projected at present?
- And will some of the other, smaller cores now growing up, without much planning, to the east and the west, detract from the new Downtown?

Those who give optimistic answers to these and similar questions base their optimism upon the special quality of Montreal and Montrealers. "When I was working in Toronto," the City Planning Department's Harry Lash recalled recently, "they argued for years about whether or not to install trash baskets in public places—and how to make them straight-sided so the city could sell advertising space on those baskets! Here, in Montreal, it is just assumed that a city should be a pleasant place; and so, one day, they just installed some very handsome baskets on all our street corners." Montreal is a town that likes itself.

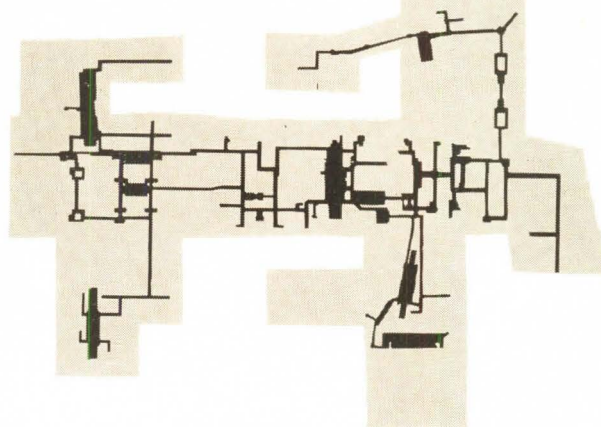
In describing the achievement, now about two thirds complete,



of a multilevel core, Vincent Ponte has this to say:

"The conception itself is not new. Four hundred and eighty years ago, Leonardo da Vinci sketched a plan for putting wagons and walkers on different levels (bottom). The idea has been proposed time and time again, and sometimes tried out on a small scale.

"The best known example, New York's Rockefeller Center Concourse, winds through 17 acres, but its labyrinth of passageways scarcely invites people to linger. Montreal's, when it is finished, will link six subway stops, 9,000 parking spaces, five skyscrapers, three department stores, two railroad stations, four luxury hotels, eight theaters, 30 first-class restaurants, and scores of smart shops and markets in a meander of pleasant, skylighted malls, enlivened by



greenery and fountains. It is more than a pedestrian thoroughfare; it is an environment that people may enjoy all day long.

"The new Downtown Montreal has given the city a fresh excitement and vitality."

It has done even more than that: It has demonstrated what the new cores of our cities could be like—if only those who planned their bits and pieces would learn to plan together, to produce urban organisms, rather than plan separately and produce only glossier versions of the mixture as before.

In North America, in short, Montreal may be the city to watch. If it turns out to be as good as it promises to be, some of our planners will have to go back to their drafting boards.

—PETER BLAKE

Above, plans of New York's Rockefeller Center Concourse (17 acres) and of the ultimate Montreal promenade system (100 acres) drawn at the same scale. Left, Leonardo's multilevel city. Right, Downtown Montreal in transition: at left, the platform of Place du Canada; in the middle, Place Bonaventure; at right, the first tower of Place Victoria.

PHOTOGRAPHS: George Cserna, except pages 31-32, page 40 (bottom), Aerial Photos of New England; pages 33-34, page 38 (top), page 40 (top), page 42 (top), page 44 (top), Lockwood Survey Corporation Limited.





BOOKS

THE PEDESTRIAN IN THE CITY.
 Edited by David Lewis. Published by
 D. Van Nostrand Co., Inc., Princeton,
 N. J. 299 pp. Illustrated. 10 by 7½ in.
 \$18.50.

REVIEWED BY ROGER MONTGOMERY

In the first place, it is a joy to welcome back the Architects Year Book. David Lewis, expatriate English architect now Mellon Professor of Architecture and Urban Design at Carnegie, has turned the binding round, fattened it up and introduced the notion of thematic organization to punctuate his taking over the editorship. Gone is Trevor Dannatt's thin book of surprises and in its place is a splendid thick reader devoted to a single inclusive subject.

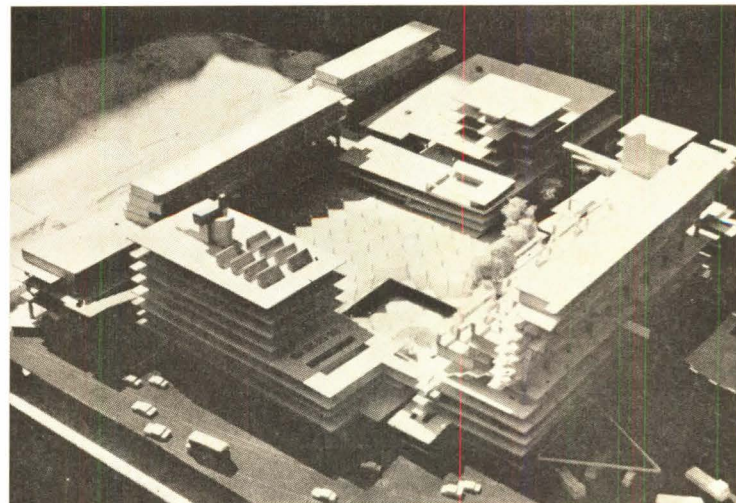
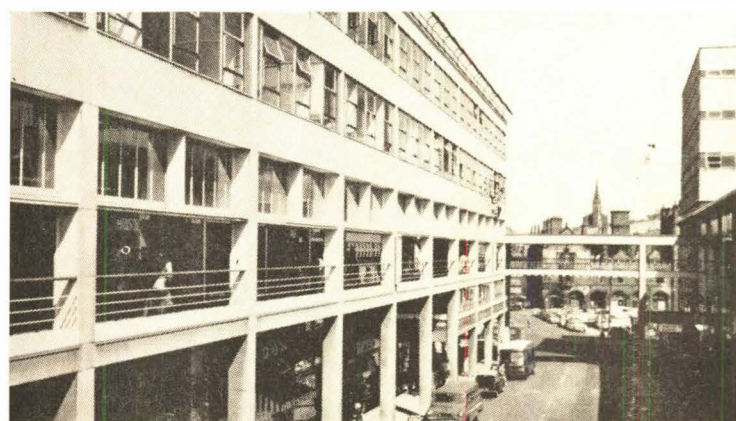
Like any good reader, it surveys the state-of-the-art, displays some well selected case examples, and hews to current fashions. To this unexceptionable content, David Lewis has added a pet theme of his own, mainstream modern painting and sculpture (Lewis' principal previous writings have been monographs on Brancusi and Mondrian), and some in-group counterpoint illustrating primitive settlements. The editor contributes a useful introduction chiefly concerned with megalopolitan growth tendencies and the apparently resultant cellular urban form. He likes the dynamic of the super-highways.

In addition to the editor, 38 others contribute or coauthor 30 illustrated texts ranging from one paragraph to 46 triple-column pages; five artists show only photos of their work; three photographers present a page or two of pictures without words; and montage artist Eduardo Paolozzi offers four bits of paleotechnic machinery superimposed on views of Italian hill towns and such—Paolozzi aptly calls it "The history of nothing." In their context the photography appears routine social documentary, and the artwork all belongs to mainstream constructed abstraction.

Mr. Montgomery is the Forum's correspondent in the Midwest. He is also director of the Urban Renewal Design Study, School of Architecture, Washington University, St. Louis.



The redevelopment of Sheffield began with construction of the huge Park Hill and Hyde Park residential communities (above), penetrated by a variety of pedestrian ways and spaces on several levels. The Retail Market (just below), built in 1959, is a multi-layered in-town shopping center, and will grow into the Sheaf Market Square shown at bottom.



Lewis has chosen case studies of Philadelphia, Liverpool, Sheffield, Erith (a planned development down the Thames from London), Cumbernauld, and Chandigarh; theoretical formulations on urban design by Candilis-Josie-Woods, George Collins, Theo Crosby, Gunter Nitschke and the Living City (*Archigram*) group from London. These form the bulk of the book. Very short monographs on Mies by Peter Carter and on Doxiadis by Roland Wedgewood, even shorter critiques of the Cumbernauld landscape by Lawrence Friker and by Jane Jacobs on Gruen's Fort Worth and East Island, an article on British urban renewal procedures by Colin Hunt, a selection of quotes from Sitté translated by George Collins with assistance from his wife Christine, and six strange pieces on primitive settlements complete the contents.

To American readers the most useful and interesting contribution is Jack Lynn's article on Sheffield's redevelopment. Happily it is the longest piece too. Lynn covers more ground than the handsomely illustrated report on housing and central area redevelopment put out by the city, the best previous coverage of events in Sheffield. He discusses not only his own well-known protomegastructures for the Park Hill and Hyde Park developments, but includes, too, some background on renewal planning in general and an extensive treatment of the central area development for new civic center, market and retail facilities. The piece is very generously illustrated. One hopes it may help put Sheffield on the tour circuit for American renewalists. It is a high-density, pedestrian oriented, apparently handsome model they might well crib from.

The think pieces play well-known popular tunes. All are infrastructures, megastructures, stems, and webs into which varieties of elements may be inserted, plugged, or associated to open-endedly permit growth and change, etc. Nitschke writes about Tange's Tokyo Bay scheme and the Metabolism group in Japan. Candilis-Josie-Woods illustrate

their ideas with their own projects. The Living City Group uses Peter Cook's Comego 2 and the City Interchange Project by Heron and Chalk. Collins, predictably operating in a more scholarly and historical vein, deals with Soria y Mata, Milutin, and other notable linear plan fans.

The tough words Jane Jacobs uses on Victor Gruen for his backsliding between Fort Worth (1956) and East Island (1961) might well apply to these more fashionable jet-set images. One suspects that Crosby stands with Jacobs by his praise of Hellenistic town planning. It would have been intriguing indeed if Crosby had gone on to connect his favored Greek plans with the "plug-in" form language of his Fulham study, which, incidentally, is illustrated by Lewis in his introduction to the book.

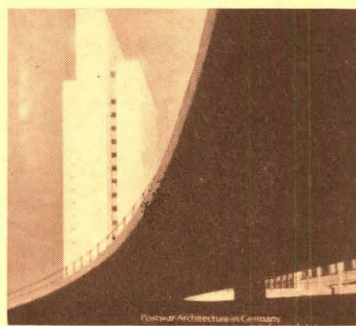
The most difficult question raised in reviewing *The Pedestrian in the City* concerns the inclusion of six essays or brief illustrated appreciations of primitive settlements. What can we learn from Herman Haan's poetry about the Dogon people of the southern Sahara? Faced with 9 million new cars a year, what is the meaning of the back-country Mexican town building described by Eleanor Smith Morris? David Lewis explains "In some societies, the ability to reflect in physical environment the multiplicity of human contact, as well as its habitual patterns, exists traditionally—outside time, as it were—in, for example, the traditional Greek village, which has remained virtually unchanged for 2,000 years, or the urban (sic) clusters of the Dogon. But what we have to understand is that even for the people in these environments, these qualities are not traditional in the dead sense; but very much alive, and dependent on each generation for their recreation." This time-and-place-boundedness Lewis describes seems to occupy exactly the opposite pole from the superhighway mobilized people who inhabit megalopolis.

The fascination with primitive places reveals the terrible inability of the architect or designer to accept the non-place world of the

American super-city. Profoundly disturbed at the apparent public disinterest in urban form, he becomes too paralyzed to act. Since city-scale architecture has so little market appeal, he retreats into a voyeuristic fascination with primitive settlements or into a schizophrenic, make-believe world of plug-in and megaform.

But the primitive settlements question is not the only one. Why publish over and over Louis Kahn's 1956 scheme for center city Philadelphia? Lewis does on pages 33 and 169. Why interweave case studies on center city renewal with photos of genteel, but out-of-date artwork? There is so much to do to make it possible to be a pedestrian in a megalopolis, why not get to work on the problem even if cities are not works of art?

The Pedestrian in the City contributes little of practical value in building pedestrian cities for our time. Instead it is a hard-cover compendium of current ideas among urban designers, however abstracted, and events in city building. Most of the stuff seems at least vaguely familiar. Editor Lewis says that all but one of the pieces he publishes have appeared in print before. (One wishes that he told us where.) But for all this, it catalogs much that is useful, and it may help some of us understand what Sheffield has done.



THE VOICE OF THE PHOENIX. Postwar Architecture in Germany. By John Burchard. Published by the M.I.T. Press, Cambridge, Mass. 179 pp. Illustrated. 9¾ by 8¾ in. \$12.50.

It is now a little more than 21 years since V-E Day 1945. That is about as long as the span between the end of World War I and the Nazi invasion of

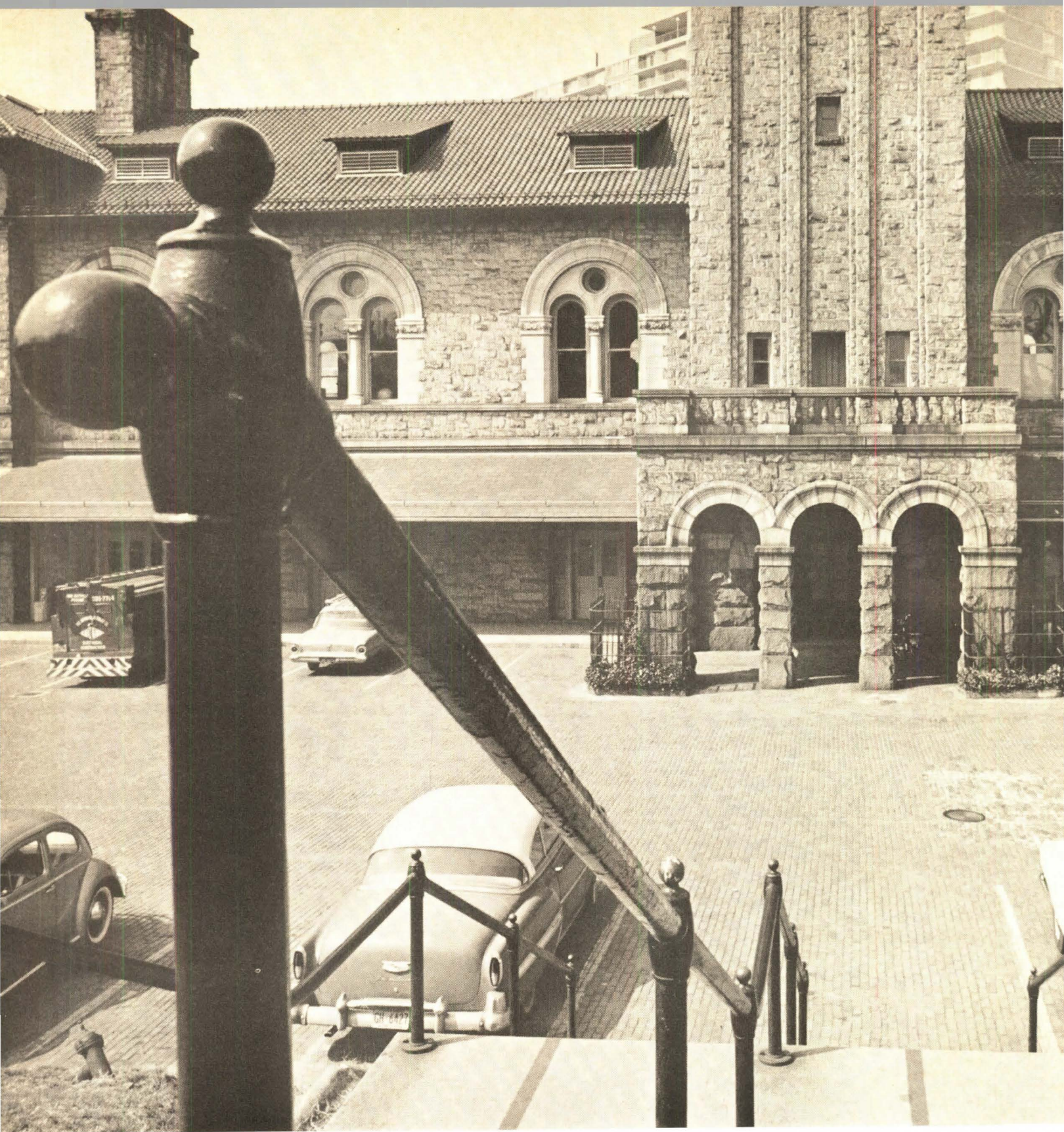
Poland. During that earlier span, German architecture produced such innovators as Mies van der Rohe, Gropius, Mendelsohn, Breuer, and far too many others to list here. These men did not get a chance to build very much, but almost every one of the buildings they *did* succeed in putting up—and most of their German work was done in the first half of that short span of history, before Hitler changed the direction of architecture around a bit—almost every one of those buildings done between 1918 and 1933 has become a landmark in modern architecture.

During the past 21 years, modern West German architects have built infinitely more than their predecessors of the Weimar Republic. Yet, with one or two exceptions, the quality of the work has been little better than okay; though the quantity has been phenomenal (the equivalent of the entire building inventory of New York State and California, approximately, constructed in less than one generation), the quality, with a very few exceptions, has not measured up to the promise of the twenties. Indeed, many of the best buildings put up in Germany since 1945, or currently under construction, were designed by men like Aalto, Le Corbusier, Gropius, Mies and Hans Scharoun, all of whom established their reputations more than 40 years ago.

John Burchard, Dean Emeritus of the School of Humanities and Social Science at MIT, has attempted in the present book to evaluate this gigantic West German effort of the postwar years, and to extract certain lessons from the result that might be of value to those engaged in rebuilding the U.S. Everyone has heard someone—probably a San Franciscan—say, "Supposing Los Angeles were flattened—what would we put up in its place?" Well, it really happened in Germany, and this book tells the story.

In examining the German postwar effort, Dean Burchard makes a number of delightfully

(continued on page 106)



STATION SAVED FOR ART'S SAKE

Remodeling fine old buildings to serve new functions often results in one or the other—the building or the new function—getting badly clawed in the process. But in Baltimore, both have survived handsomely under the care of Architects Coehran, Stephenson & Donkervoet, who have converted the Baltimore & Ohio's Mt. Royal Station into, of all things, an art school.

The result, and the fortuitous set of circumstances that brought it about, are enough to strike joy in the hearts of preservationists and art lovers alike.

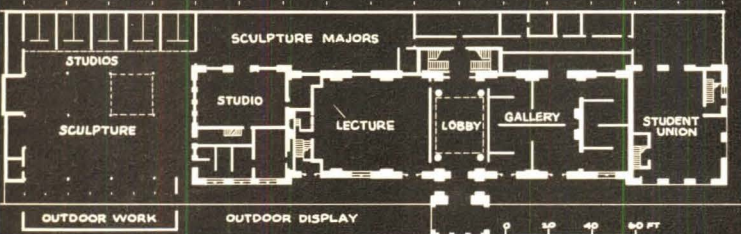
In 1958, the B&O discontinued its dwindling passenger service northward and abandoned the somewhat Richardsonian structure, designed in 1894 by Baldwin & Pennington. But B&O's leaders—and Baltimoreans too—had a special affection for the building, with its massive walls of granite trimmed in limestone, and its Romanesque clocktower rising above a sunken park. They hated to see it go.

Just a block away, the prestigious Maryland Institute, College of Art, was cramped for space in its ornate white marble building. Its president, Eugene W. Leake, saw in the old station an answer to his school's expansion needs. The grand spaces of the building's interior, he thought, could be converted quite easily to serve

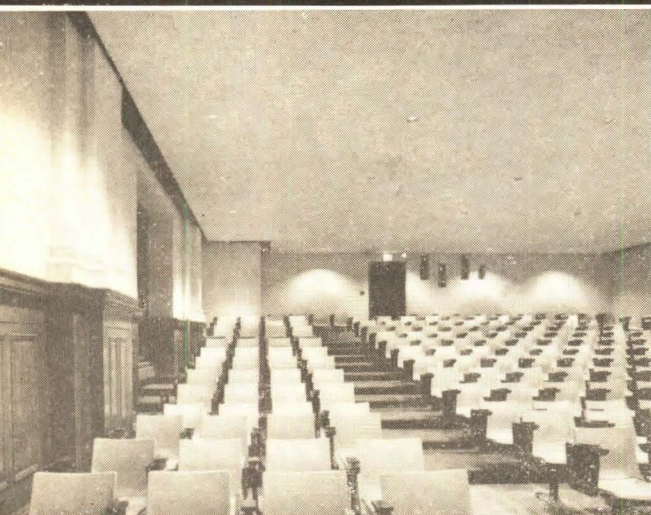
The exterior of Baltimore's Mt. Royal Station (above, soon after its completion in 1896) remains virtually unchanged after its conversion to an art school (left and below). The small hip-

roofed unit atop the baggage shed, part of the original building, was removed by the B&O Railroad several years before the current remodeling. An outdoor sculpture garden is planned.





The center of the original waiting room was enclosed and preserved as a lofty entrance lobby (opposite). At both ends, a second floor was added at balcony level. The ground floor now contains a 250-seat lecture hall (below, left) and an art gallery (below). The Rinehart School of Sculpture (above) occupies the former baggage transfer area, whose old cast-iron and steel structure has been saved.



the needs of an art school, while its exterior could remain virtually intact.

The major drawback to Leake's scheme was money—that destroyer of many another worthy old building. The school could never afford to pay the going market value for the station and its site between two major urban renewal areas.

But Leake was counting on the considerable reputation enjoyed by the 140-year-old school, and the deep fondness for the building held by at least some of B&O's directors, to overcome economics. It worked. The directors agreed to sell the station, its 3¾-acre site, and air rights over the tracks (still used by freight trains) to the art school for a mere \$250,000. B&O gave the institute three years to pay, at no interest.

The institute took possession in late 1964, borrowed \$600,000 against pledges in a fund drive, and told the architects to make as few changes as possible in the old building.

On the exterior, the changes are almost indiscernible. The waiting platform at the rear has been enclosed with concrete block that is surprisingly compatible with the old granite. And on the front, the low shed-roofed section that was once a baggage transfer area has been encased in glass; the dormer windows have been replaced with air-intake ducts; a door has been cut into the wall beneath the porte cochere, and the neon "B&O" sign on the tower has been removed.

Maintaining the building's interior character was not so easy. The school needed much more floor space than the cavernous station contained, so the architects added a second floor at the balcony level of the huge,





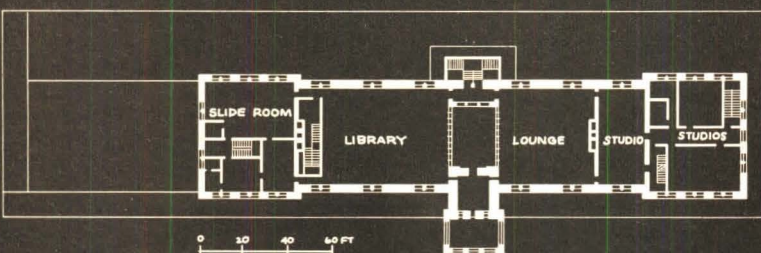
vaulted waiting room, leaving the center section open to serve as a grandly scaled reception lobby. Flanking the new lobby at ground level are a lecture room and an art gallery; above, behind glassed-in arches, are a library and student lounge. Spaces bordering the waiting room—offices, baggage and storage areas—were transformed into a restaurant and studios.

The baggage transfer shed became the Rinehart School of Sculpture, a vast workshop capable of accommodating huge creations. Leake calls it "the finest space for sculpture I know of."

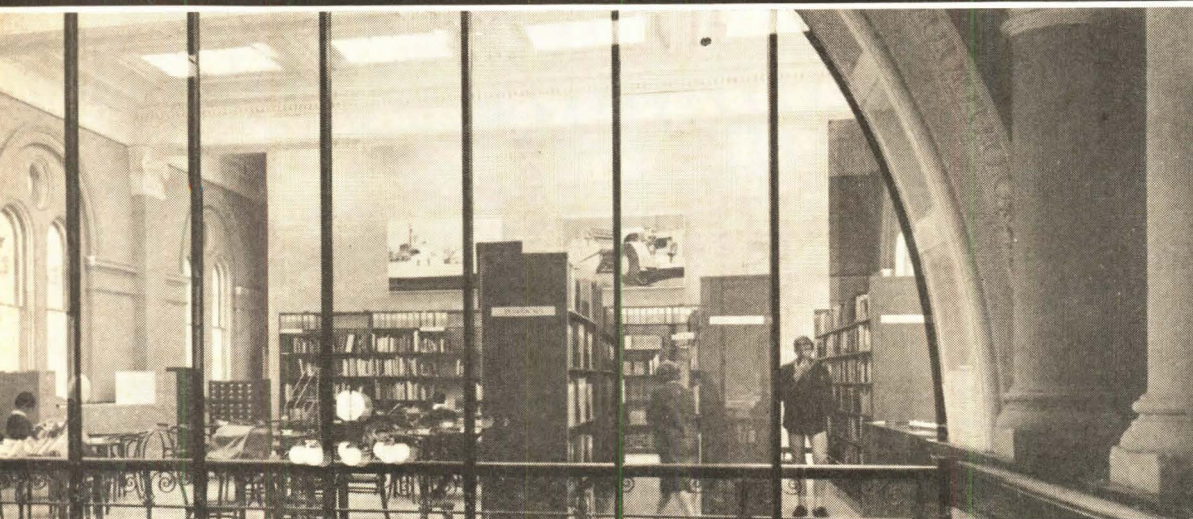
The interior is no longer a resplendent space, but the architects have handled its subdivision with respect, preserving much of the old decorations and materials, including columns, stamped-metal ceilings, mosaic marble floors, and most of the decorative ironwork.

The saving of Mt. Royal Station has too much of a story-book quality to be considered a prototype for others. But it does demonstrate that railroad stations, a building type that has inspired some of the country's best monumental architecture, can have new value that even excels their original purpose.

—JAMES BAILEY



The new second-floor spaces added to the waiting room overlook the central lobby through original arches that have been enclosed in glass (opposite). At one side is a library (below), and at the other a student lounge (above, being used temporarily as a studio). The original stamped-metal ceilings were retained, but partially hidden by new lighting fixtures. Decorative details also were preserved.



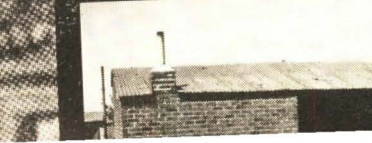
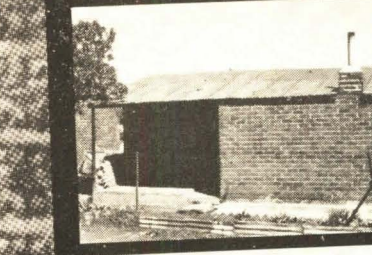
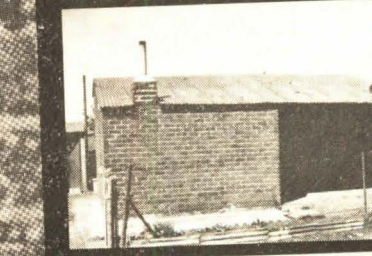
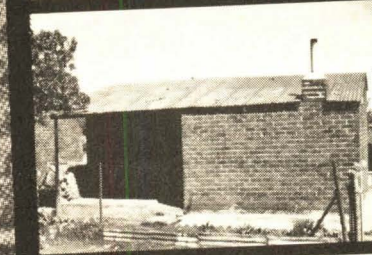
FACTS AND FIGURES

Mt. Royal Station Building, 1200 Cathedral St., Baltimore. Owner: The Maryland Institute, College of Art. Architects: Cochran, Stephenson & Donkervoet; Richard Donkervoet, partner in charge. Engineers: Van Rensselaer P. Saxe (structural); Henry Adams, Inc. (mechanical). Acoustical consultants: Bolt, Beranik & Newman. General contractor: Cogswell Construction Co.

Building area, before remodeling: 22,500 sq. ft.; after: 47,000 sq. ft. Remodeling cost: \$600,000, including fees and furnishings. Unit cost: \$18 per sq. ft.

PHOTOGRAPHS: George Cserna for Fortune; page 53, top, B&O Railroad.





THE PATTERN OF THE STREET

It can be an index of community change

BY JULIAN BEINART

The street performs an infinite number of communal functions. It is a way of movement, but it is also a space for human activity other than movement: for stopping; for resting; for buying; for selling. It contains the information by which the visitor and the inhabitant orient themselves in the city; it contains also the symbols which communicate other less obvious but equally vital information. It is a space system between buildings but it is a building itself, with its own floor, sub-floors, walls, and roof. It is all these things and many more.

However, the case history I want to present is one in which the street performs a function beyond those I have mentioned: namely, that of expressing the way in which a community of people comes to terms with its environment.

My case history is the community of Western Native Township (WNT) in the city of Johannesburg. In South African cities, African people live by law apart from non-African people. They live in collections of houses called townships, which are built by the local authority and rented to them. They have no choice as to where they may live, nor may they own property: they are considered temporary immigrants, controlled visitors who are there to perform jobs at the sufferance of those for whom they work.

Johannesburg has a population of over a million people, and, of these, more than half live in townships. WNT was built over a number of years, starting in 1920. When completed it had about 2,000 houses (opposite page). The houses were either two- or three-roomed; the total floor area of each house was about 400 square feet. Behind the houses were alleys; in front were streets—all laid out in a gridiron pattern like most of our urban world. The population of WNT was about 15,000 people, an average of about seven people per house, or one person per about 50 square feet. The inhabitants worked in the city at a wide variety of low-income jobs, and the average in-

come per person per month was between 3 and 5 pounds sterling, or about \$8 to \$13 per person per month. The people were from a wide variety of ethnic groups: Zulu, Tswana, Sotho, Xhosa—at least a dozen tribes were represented.

When these dwellings were built, they were given to the people with no floors. The cheap brick walls were left unfinished. There were no ceilings, no fences, no gardens, no trees, no waterborne sanitation, no individual water supply. But in spite of this, people liked living there: it was near the city; rents were low; there was a variety of shopping facilities nearby; it was a tribeless community; it was small enough for people to walk about easily.

And because they liked living there, the people themselves set about seeing that the place remained in good order. They organized themselves as a coherent communal force: in the early days there was a ladies' organization to prevent women from throwing dirty water into the streets; there was a vigilance guard to combat juvenile delinquency; WNT had the first African cooperative store, the first Boy Scout unit, the first dance bands. It was a community of people who spontaneously associated with each other in order to preserve themselves. In the words of a resident: "WNT was

a place of understanding, cohesion. That is why we used to call it Thulandisville, which literally means: Okay, I heard you."

The word community derives from the same root as the word communicate. And these people not only communicated with each other in their institutional life but they went further. They changed their houses in such a way that the fronts facing the streets would have on them a symbol which would communicate to others.

Western Native Township was removed in 1961 when government policy forced the inhabitants, in spite of strong resistance, to relocate in new townships 10 miles farther out of the city.

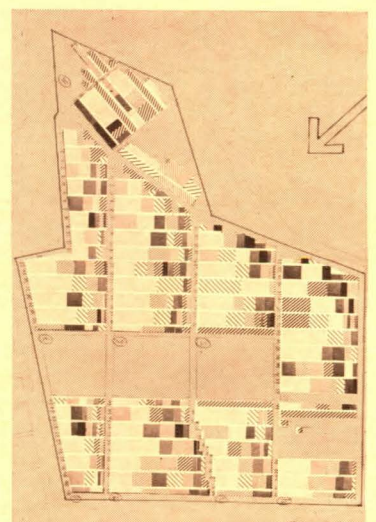
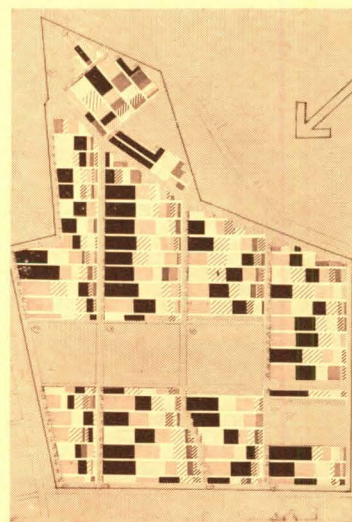
It was at this time that I became interested in the community and decided to study the walls of its houses. My first task was to try and record the streets before they disappeared. This was not possible by photography alone; so in order to make a complete record, we measured all the houses and re-drew them as continuous street elevations (see page 63).

It was not enough, however, merely to record what the people had done: in order for the designs to be meaningful, they had to be seen in relation to the people who had done them. And so we had to try to

(continued on page 62)

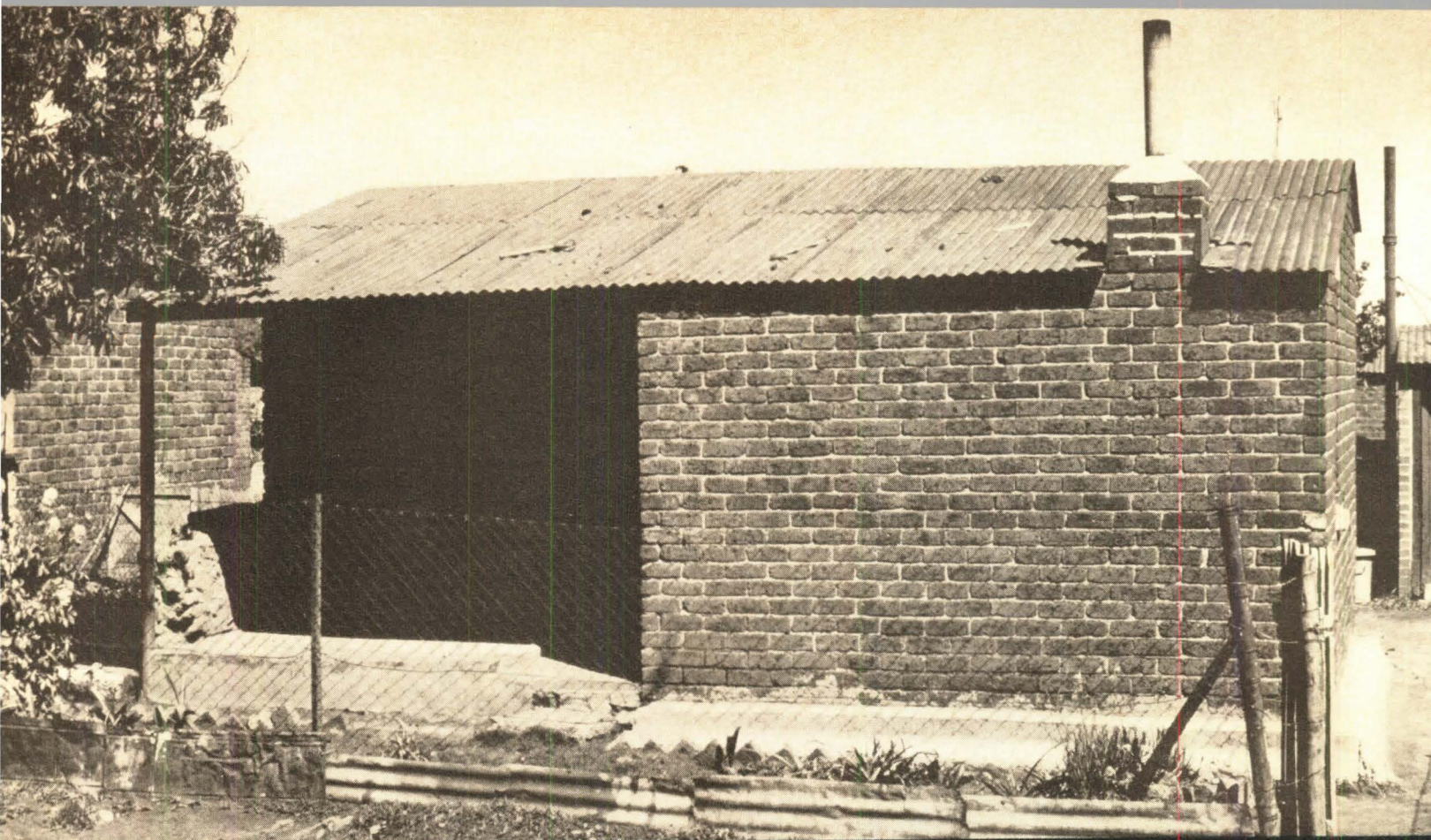
The aerial view, opposite, shows the Western Native Township in Johannesburg, with which this article is concerned. Superimposed on this street pattern is a strip of pictures of some of the 2,000 houses in WNT as they looked when they were first handed over to their African tenants by the authorities.

Mr. Beinart was born in South Africa, studied and practiced architecture in his native country and in the U.S., and now practices and teaches in Johannesburg and Cape Town. In 1965, he became the first professor of urban and regional planning at the University of Cape Town. This article is based on a talk given by Professor Beinart at last year's meeting of the International Council of Societies of Industrial Design (ICSID), in Vienna.



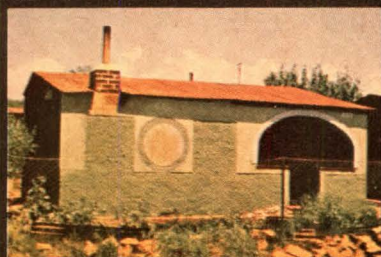
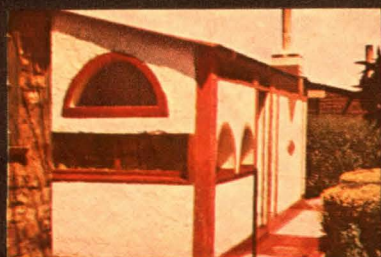
Above: Two of the many diagrammatic maps compiled by Professor Beinart and his assistants. At left, a map indicating what tribes the oc-

cupants of the houses came from. At right, a map showing the different "families" of symbols employed in decorating the houses.

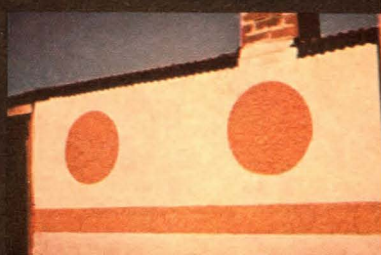
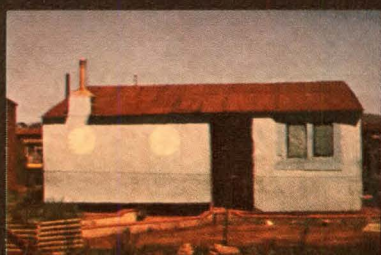


Above: the standard, 400-ft.-sq. house as built by the authorities.
Below: one of many variations on the theme.

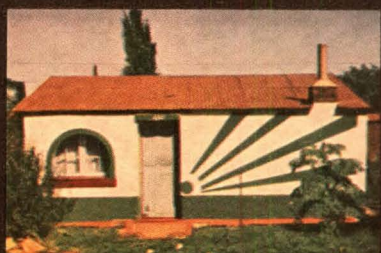
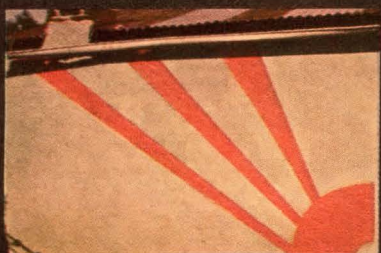




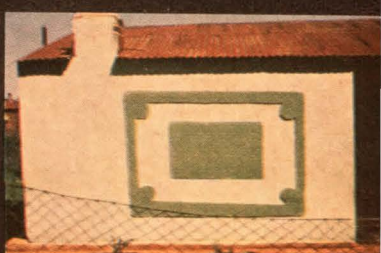
Families of symbols: half-circle...



full circle...



sun...



and rectangle (razor blade).

study the people as well, in order finally to be able to discover the interaction between the people and the things they made. We managed to locate a sample of the inhabitants and interviewed them over a period of a year.

In doing this, I soon realized why so little work of this kind had been done. In the situation I have described in South Africa, it is almost impossible to carry out research like this. You cannot make appointments with people—you just have to go to their houses and hope that they are in and that they will cooperate. If you go during the day, the husband is not there; at night it is too dangerous. Two of my assistants were beaten up, and a year ago one was stabbed to death. We had to disguise the tape recorder as a shopping parcel—even so it was stolen. People are suspicious of being interviewed: you might be a rent collector or a policeman.

From these interviews we could build up a picture of the community of people who had lived in WNT, and how they had changed in the 40 years of WNT's existence. From this we could also build up a correlation model in which the various physical characteristics of the decorations were opposed to social criteria (e.g., income, density, etc.—see maps, page 59).

Perhaps you will look for a few minutes at some of the illustrations on these pages (60-61), and observe some of the characteristics of this decoration system and what it means.

Our first impression of the system was that it was random with a high degree of diversity. Close study, however, showed it, in fact, to be highly controlled and limited to variations of very simple geometric forms. These forms constantly mutate to include other distinct families of shapes, all building up a seemingly complex but yet essentially simple system.

Another important characteristic of the system is the way in which basic forms combine with other basic forms to give the final decoration a meaning that

represents a recognizable object. For example, the circle family is the most common group of forms. It appears on its own: one, two, or three circles, solid or as a ring. The circle then mutates and becomes a watch or a cogwheel to represent an African political party. Or the circle mutates in another direction by dividing in half or sprouting lines, and from this is born a new subfamily of shapes representing the sun. At other times the circle mutates in the direction of the rectangle family, and the result is again a recognizable object: a razor blade. And the rectangle family mutates toward the diamond family and you get butterflies or trees.

I believe there to be a significant relation between this fact of spontaneous limitation of language and a desire by the people less to compete than to cooperate with each other.

There is little reason for these people not to have drawn freely on a wide range of shapes, complex in themselves—individual representations of a wide variety of things. There is certainly no indication that they didn't have the ability; instead they consciously chose to keep within the limits of a communal language. Of course there were eccentrics: the woman, for instance, who said her design represented an elephant because it was her lucky symbol in a card game. But even this was made out of the components of the original form-families.

Limitation of language is necessary in order that any communication system can operate. But why did these people choose this particular system? Most people could not give any specific answer as to why they chose the form they did. Some answered with poetic replies rich in associative possibilities. For instance, a certain Mr. Phiri said: "My design makes me think of tombstones in a graveyard; it is a memorial now that WNT is dead." Another man said: "I think of a razor which, when black, signifies danger."

There is another way of looking at this problem. Most

people think that tribal Africans decorate because they are tribal people, and ipso facto that these WNT houses are part of the same thing. This reasoning is false, however. In the first place, it is not true that all tribal people decorate; in the second place, these decorations have little to do with tribal decoration as such. The Western Native Township decorations are city expressions; they are the result of people living in a city and coming into contact with all the stimuli that the city offers. One woman we interviewed said that her husband worked in a block of flats as a servant and one day he brought home a magazine on architecture. She looked at a picture she liked and decided that she would like such a design on her house wall. She then interpreted the picture with her own particular perception which in fact saw the positive as the negative and the background as foreground. What appeared on her house in the end was not the photograph but an inverted version of the photograph.

This is an extraordinary example of cultural transference in which the symbols and known information of one group are taken over by another and given a new life often based on the wrong premises about the original. It happens all the time to language, both word and visual, and this is an issue of which designers should be aware: the inevitability of change, or creative involvement of the user.

This touches on an issue of fundamental importance. Many of the people said, when interviewed, that they decorated their houses because the condition in which they received them forced them to do something. Each house originally had an open front porch which, as population grew, the people were forced to enclose. This initiative act of building the front of the house had a great deal to do with the final decoration of the facade.

What then should be the degree of completeness of any artifact that is given to the community: should the design

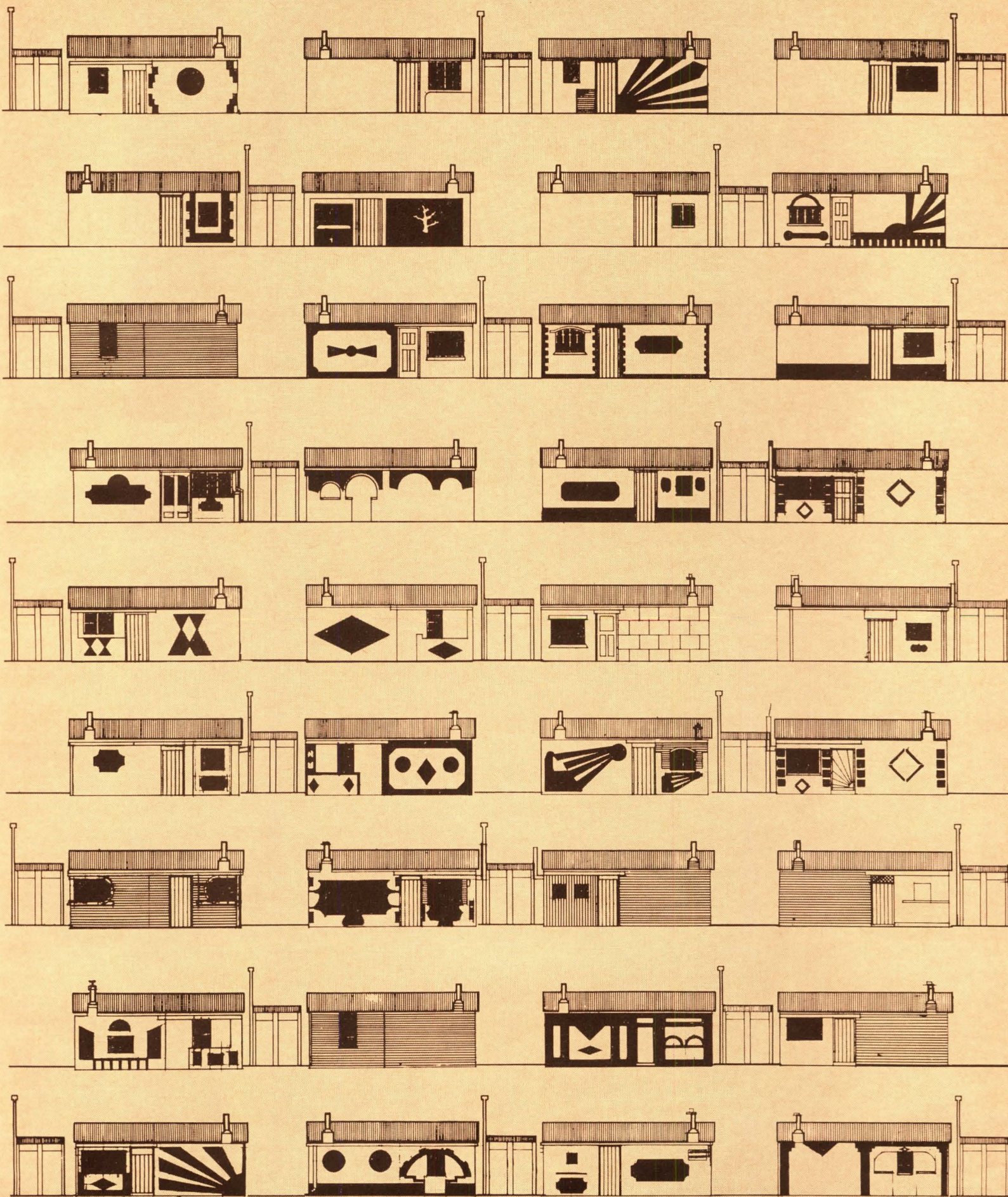
system be complete in itself or should it invite participation and so express in its final form the process of change? One man said that he decorated so as to direct friends to his house. He was marking his place, his territory, a basic animal instinct. And faced with a faceless, monotonous environment, he reacted by identifying himself through his house. In a world in which consumers are provided with more and more identical equipment, in which houses hold hands in straight, never-ending rows, will not the tendency be to react? And what value judgments are designers going to place on the change? To accept WNT as good and Levittown in the USA as bad?

The street always displays the values of its community. In the case of Western Native Township these were resistance, vigor, and a sense of regard of one person for another. I would also contend that the design problem of situations like WNT in low-income countries is vast and deserving of attention; and that in many respects there are issues raised here which may well have significance for the designer in the outside world.

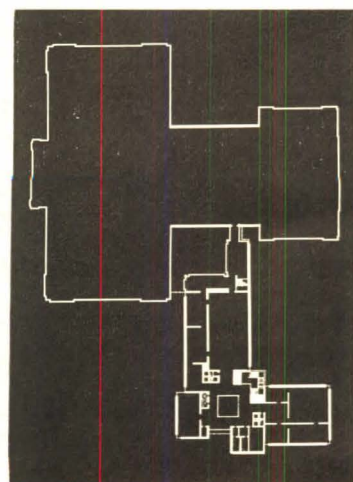
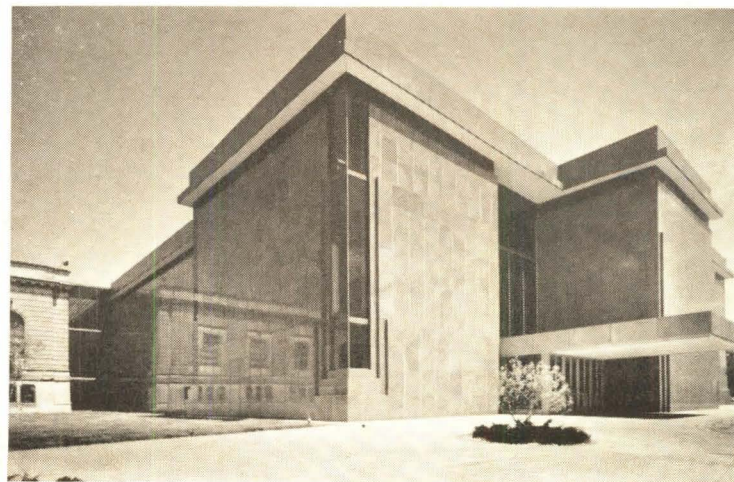
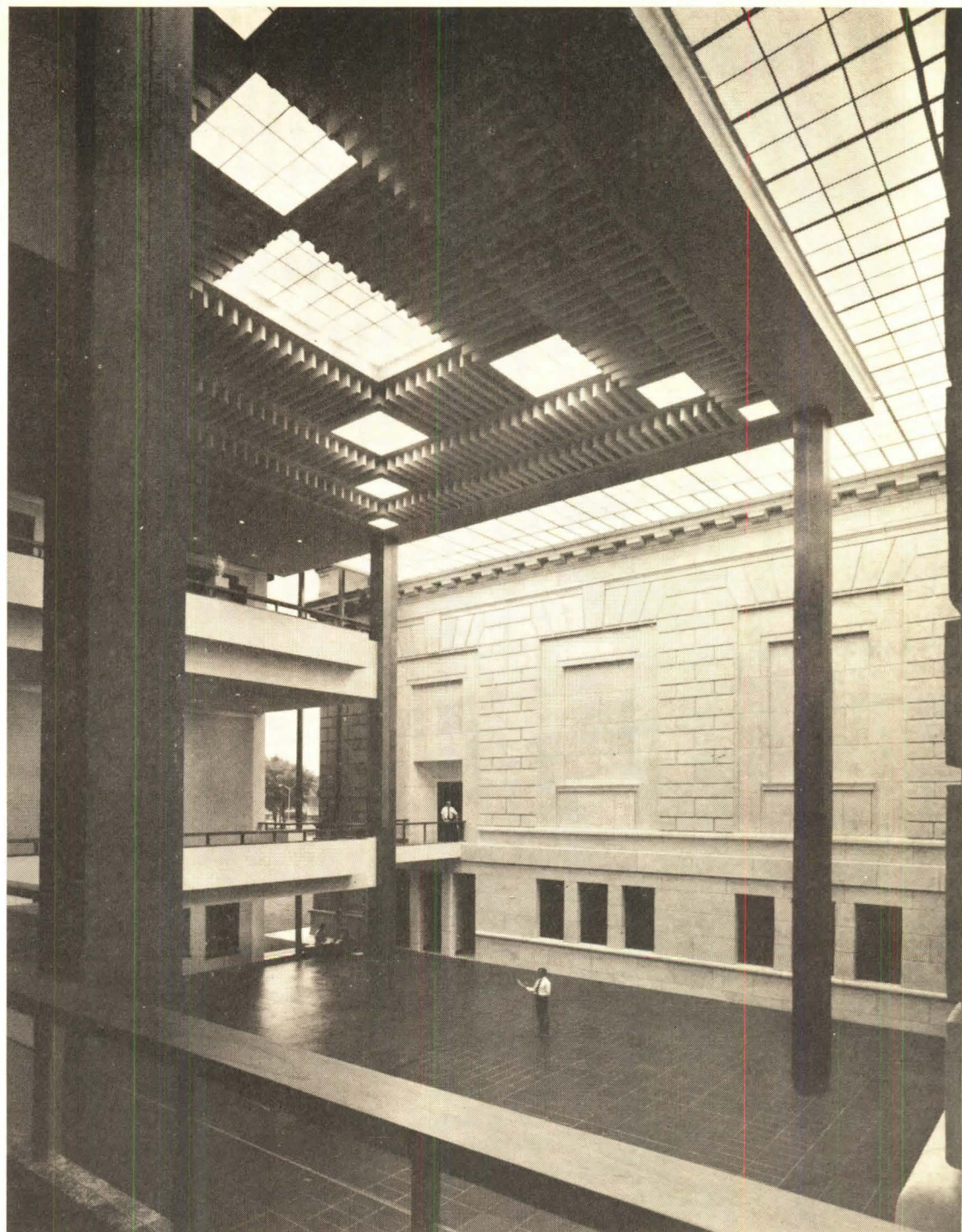
The community is one part of a human organization which we make for ourselves in order that we function better. The street is one part of a physical organization that we make for ourselves in order that we function better. What concerns me is the physical form of the latter that explains how badly or how well we operate as the former.

The Western Native Township streets were one way of expressing this interaction; there are many others—there must be. It is our task as designers, at whatever scale we work, to comprehend and assist this process of interaction; for the many pale and broken faces of our streets are but other images of ourselves and of our values as a community.

Opposite: Some of the street elevations prepared by Beinart's group. The doubled-up privies, shown between houses, are in back of the facades.

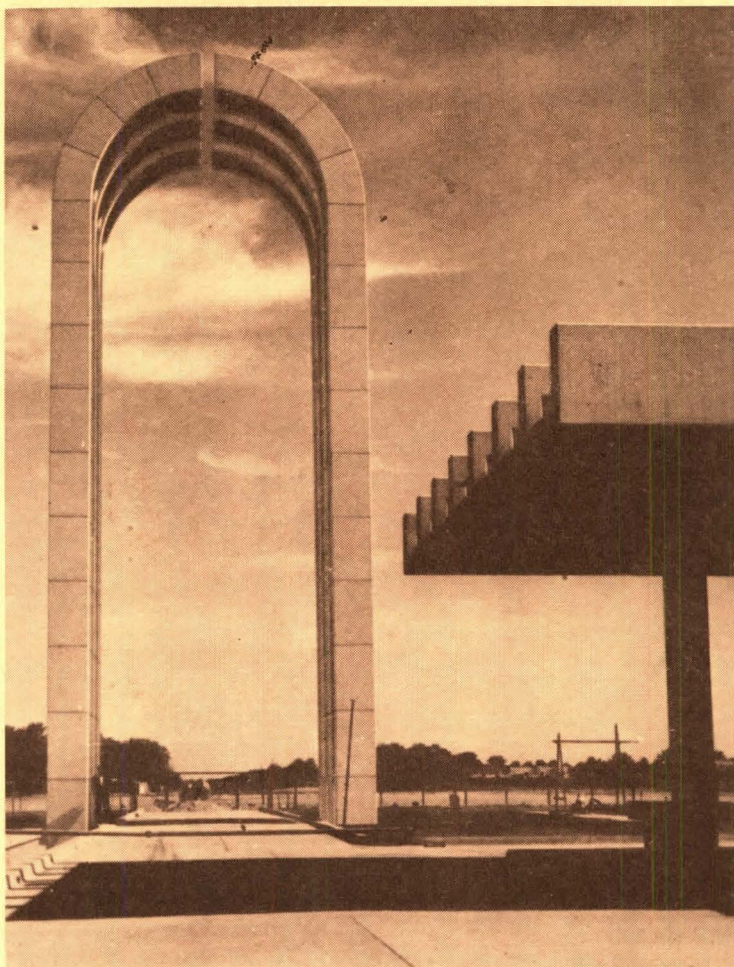


FOCUS



EXPANSION IN DETROIT

Old and new sections of the Detroit Institute of Arts meet to enclose a 60-ft.-high Great Sculpture Court (upper left and plan), bounded on two sides by the original structure's freshly cleaned walls and on the other two by balconies railed by teak and glass. Natural light is both baffled and supplemented by a ceiling of geometrical teeth, resting on bronze-clad pillars, which conceals lighting fixtures. The new south wing (by Harley, Ellington, Cowin & Stirton Inc. with Gunnar Birkerts as design consultant) is connected to Paul Cret's original neo-classic structure by expanses of tinted glass, and reflects the old white marble facade in its highly polished dark granite surface (lower left). "Glass corners" and a ribbon of clerestory windows allow maximum exhibition space in the wing's 38 galleries, doubling the Institute's display area. Excavation is now underway for a similar north wing.



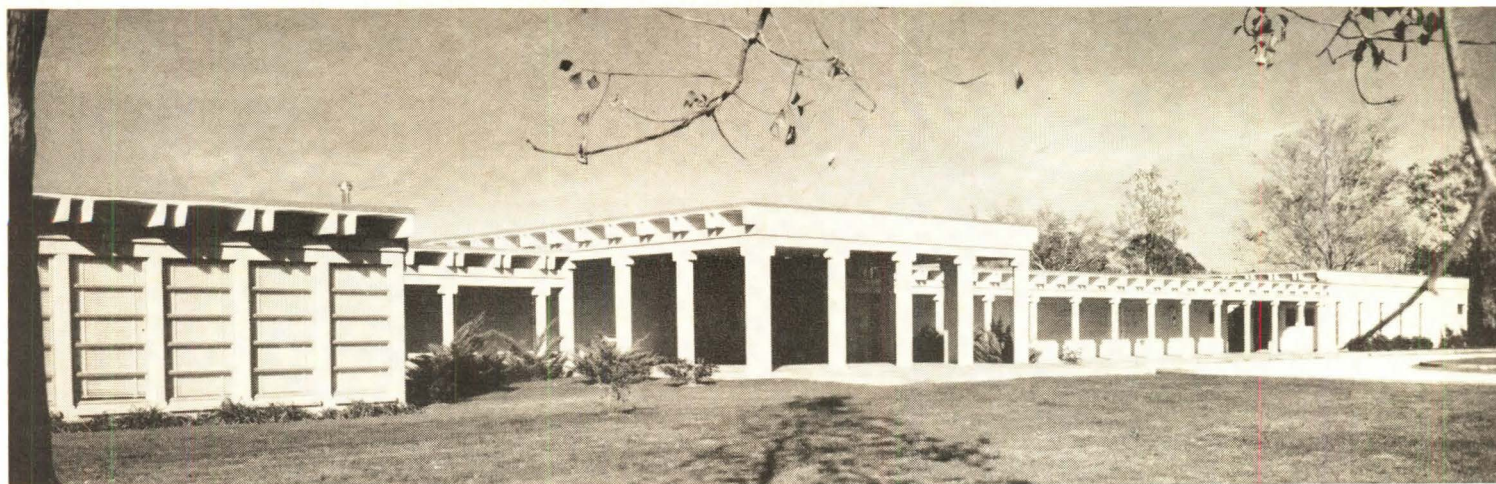
SYMBOL IN BAGHDAD

A severed 80-ft. arch known as "the Open Mind" (left) serves as the symbolic entrance to the University of Baghdad, designed by The Architects Collaborative International (Walter Gropius, Louis A. McMillen, principals in charge). Other completed structures include a gatehouse and a 20-story, concrete Faculty Office Tower (above). When complete, the 273-unit university town will serve 12,000 students.

CAPSULE IN LIVERPOOL

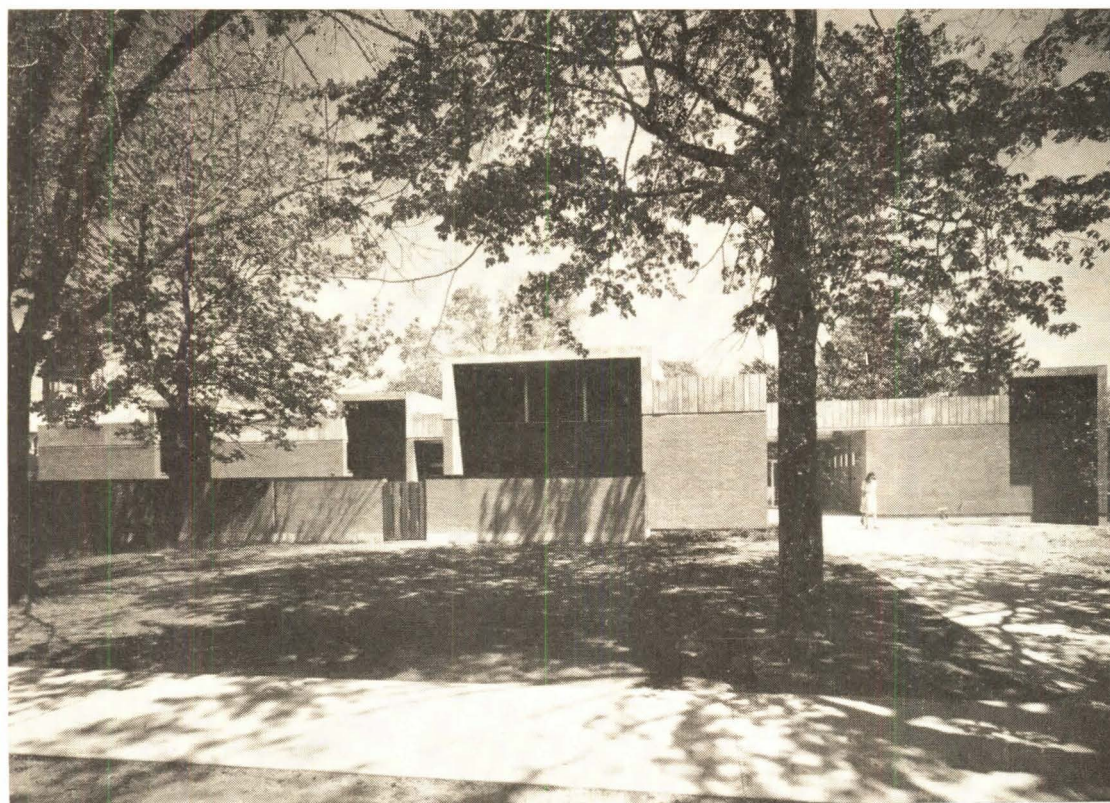
To be dedicated in May, Frederick Gibberd's space-capsule-shaped Roman Catholic Cathedral of Christ the King (right) is taking on an air of completion in Liverpool. The circular structure with its conical roof is topped by a 16-faced "crown of thorns" lantern tower, the main source of light for the altar, infilled with red, yellow and blue stained glass. A baptistry and 10 free-standing, stone-clad perimeter chapels are pigeon-holed between flying buttress extensions of the 45-degree cone. Gibberd's competition-winning structure places 3,000 people within 60 feet of the altar rail, and provides about 100 parking spaces under the nave.





COLONNADES IN LOUISIANA

Colonnades and protruding precast channels parade rhythmically across the J. Wallace James Elementary School in Lafayette, La. At a cost of \$8.58 per sq. ft., Architect Neil Nehrbass has grouped 18 classrooms, a cafeteria and a library, and connected them with the colonnades to enclose landscaped courtyards. Located in a low-income area, on the site of an old cotton gin (whose floor slab will be retained as foundation for a play shelter and the library), the school will house grades one through six.



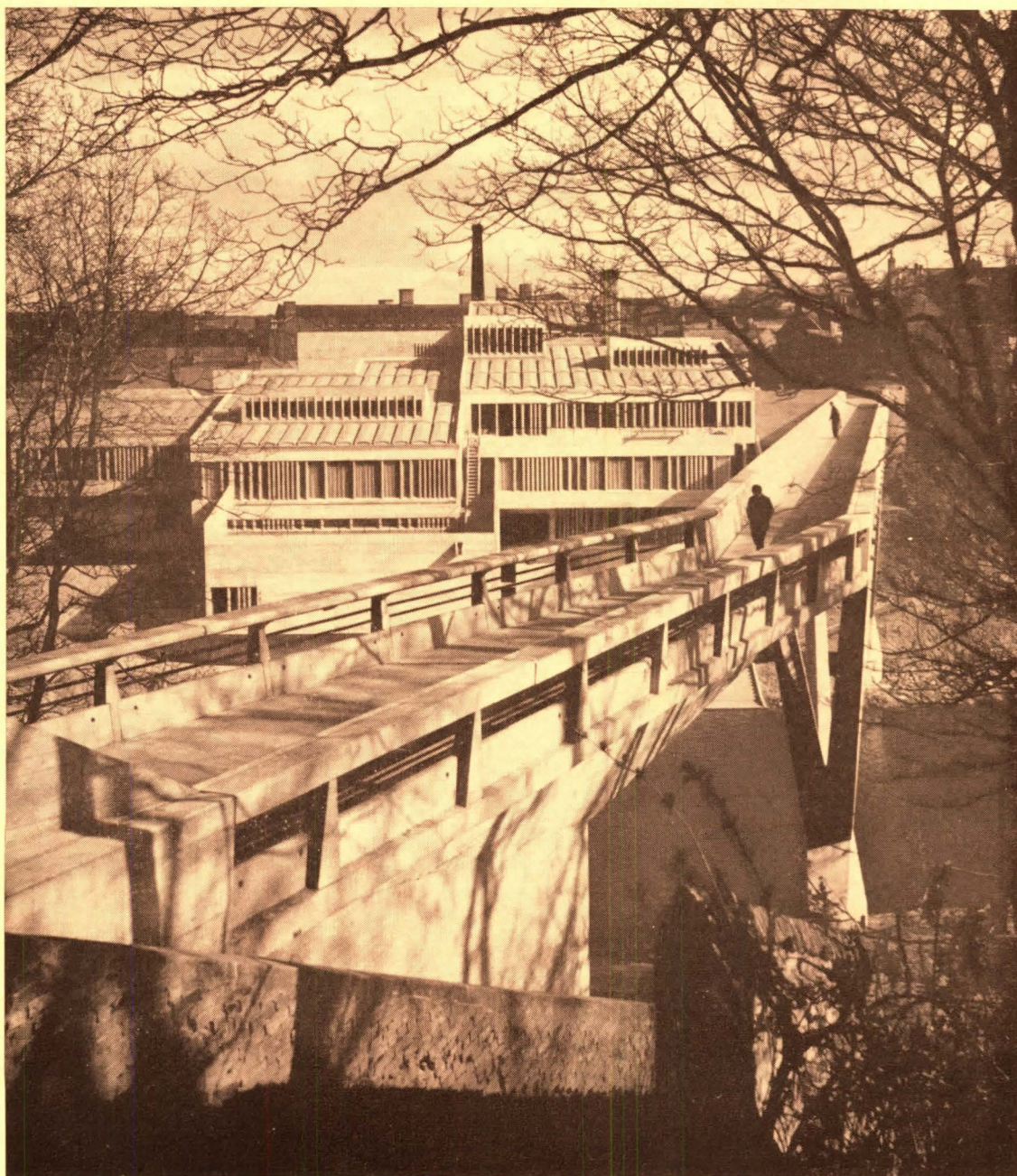
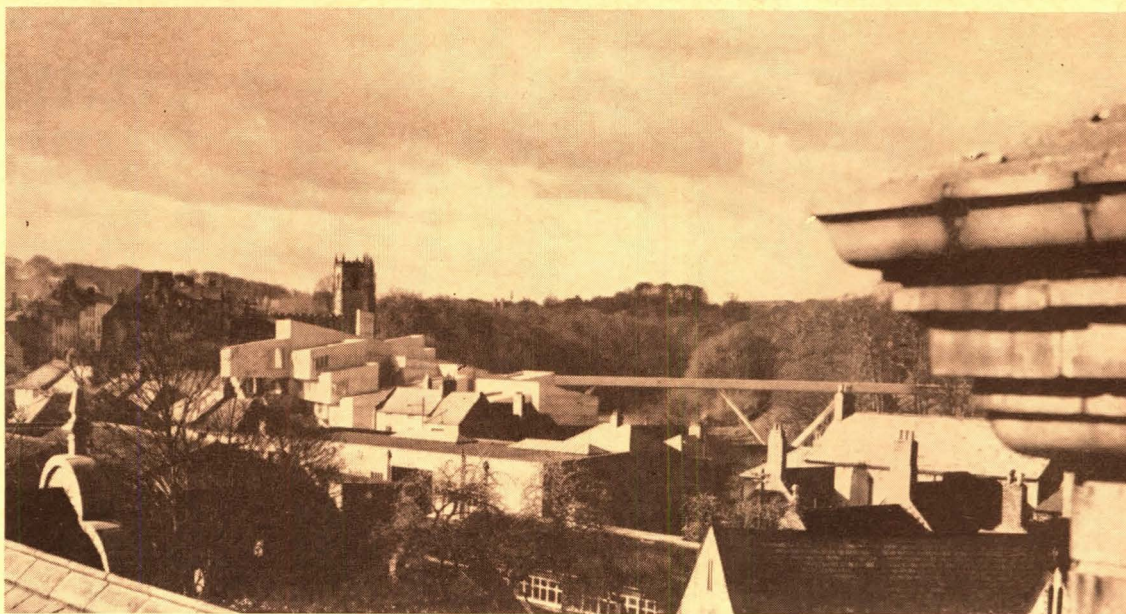
HOODS IN NEW HAVEN

Hooded light wells punctuate the concrete and brick exterior of New Haven's Donald G. Mitchell Memorial Library (above). Popping up from four wings, they provide glare-free illumination for reading areas (right) and allow uninterrupted use of exterior walls for book stacks. The wings, surrounding a lobby, house librarians' offices, separate adult and children's reading rooms, and a meeting room for community activities. Walled-in gardens, to be used for story reading and warm-weather functions, open off the children's wing and meeting room.



BLOCKS IN BRITAIN

As seen across the rooftops of Durham, the stacked blocks of Durham University's staff and student union are woven with remarkable ease into the fabric of the surrounding cityscape (right). The angular, many-sized segments of Dunelm House step down their sloping site in two directions, taking on a domestic scale on the street side and a monumental scale as approached via Ove Arup's Kingsgate bridge over the River Wear (below). Architects' Co-Partnership (Dick Raines, architect in charge) has softened the broad window spans with structural and decorative mullions, and covered the roof, known to locals as "the graveyard," with overlapping pink precast tile (below). Among the facilities within the structure's exposed concrete walls are a main assembly hall; meeting room for student organizations and publications; staff and student lounges and dining areas; shops; game rooms; and a boat house.



PHOTOGRAPHS: Page 64, Lens-Art. Page 65, Pack Studio (top), The Guardian (bottom). Page 66, Frank Lotz Miller (top), Robert Perron (bottom). Page 67, John Donat.

DESIGN

sans peur et sans ressources

BY EDGAR KAUFMANN JR.

Mr. Kaufmann, a member of the Forum's Board of Contributors, is adjunct professor of architecture at Columbia, and a frequent lecturer and author. This article is based on an address he gave last June at the International Design Conference in Aspen. It is also a product of Mr. Kaufmann's research for a book on the history of design, 1750-1950, to be published by Braziller.

A definition of design is usually conceived in terms of words; for instance I was once foolhardy enough to write the dictionary piece for the Britannica on that word, design. There is a better way of defining design, one more related to design itself than such essentially verbal efforts.

There is a visual way of defining design: I think of design as an area, an area bounded by other areas, very much as on a map. The bounding areas of design seem to be, first of all, usage; then salesmanship; then architecture; then engineering; then fashion; and then fine art. If you can imagine an intellectual or cultural map in which all these ring around to define a central area, that might be design.

The boundaries between design and these other areas can only be called "in dispute." What's more, there is a considerable amount of smuggling that goes on across these boundaries. If we are willing for the moment to think of design that way, we can go forward.

In referring to design, thus defined, I deliberately and purposely am not trying to talk about design as a creative activity. I am not very sure it is one. In fact, I believe that creativity is something that can happen in any field, and fortunately does, but that no field per se—and that includes the fine arts—is really by definition a creative field. There are only creative people.

I have tried to work out what the sources and resources are that we usually accept as being those of design; and then have tried to see whether they really make any sense. I think they make precious little.

I won't go so far as to say they make none, but the lack of

correspondence between the accepted mythology of design and the realities of the growth of design in our world seems to me very distressing.

The basic myth of modern design and its origins is located in writings, principally by Pevsner, some by Giedion, and a good many by a number of others. In these writings we have been taught to believe that modern design really began with Ruskin and Morris, who revolted against "ugliness" in their day (the mid-Victorian day); that they fought a good fight and the people were freed from this terrible dragon; and that we are now on our way to something good.

There just isn't a remote possibility of supporting this story.

First of all, I don't think the most important ideas we today attribute to Morris and Ruskin were their own. The concepts of modern design began much further back. Then too, the relationship between beauty and ugliness in the Victorian age was very much the relationship we see now. In short, there is no such thing as beauty without ugliness. The "beauty" boys, who want at all costs to get rid of ugliness, are really kidding themselves.

Eyebrows lift when it is claimed that beauty had once been the prerogative of the upper classes, the aristocracy only. Indeed, this is a way of looking at it. The beauty that the upper classes possessed in traditional Western culture was a highly contrived, intellectualized, and limited kind of beauty; it was theirs and theirs alone. It was "too good for the peasants." We all know that, while it produced many splendid things, there is a quite different beauty that all ages enjoy, completely unlike this highly synthetic effort. Unless we wish to limit ourselves to the artificial

and the contrived, we are free to say there is no such thing as beauty without ugliness.

(The classical story about the upper-class sense of beauty comes to us from a period not very far back, the middle of the last century—the moment of Ruskin and Morris. This is the story of the Baron and Baroness Rothschild, who were invited to stay with Napoleon and Eugénie at Pierrefonds, their personal castle, after they had been the first and, of course, the chief guests at the new house the Rothschilds had built with Paxton, Ferrières. When, on the second morning of the visit, the Baroness Rothschild came downstairs and was greeted by Eugénie, she asked the Empress, "My dear, where did you get that *marvelous* man to scatter leaves over your lawns?")

How, really, did Ruskin and Morris work? They knew, and their world knew, how they worked. They were small, discontented people working against the progressive trends of their day, anxious to recover values that had been thrown into the dustbin, not because people wanted to throw them out, but because they were no longer viable.

In an attempt to reintroduce these no-longer-viable elements, the reformers found themselves in a very uncomfortable position, one which many people have inherited over the ensuing generations. They found themselves trying to create an artificially beautiful world for an industrial society.

Now it had been possible for the aristocrats to do just that for their own very limited class, but it was impossible for poor old Morris or poor old Ruskin (both of whom were comparatively well heeled, by the way) to get this idea of craftsmanship and

beauty, and of a decent environment for human life, over in an industrial world. They were working against this world, instead of with it.

Fortunately there were other people in that day who were working *with* their society, who had developed techniques of trying to make society better in its own terms, instead of in reactionary terms. These people were, of course, the first industrial designers, the first people who designed for a variety of industries, who were not factory captives, and who really made some superb, enchanting, and beautiful products, as beautiful as the best flat designs that William Morris ever made.

It was mainly flat designs that Morris himself was capable of producing, and then primarily on paper. He would take up one craft after another, long enough to get the swing of the thing. Indeed, he was able to do that for certain kinds of handicraft. But he never took the trouble to try to do the same thing for the industrial world that was growing and dominating around him.

The credos of mid-19th-century designers were not markedly different, whether they belonged in the reformers' camp or in the acceptors' camp. These designers believed in a series of ideas that we still say we believe in, and most of these can be traced back in their entirety to a hundred years before Morris.

In the middle of the 18th century a rather oddball Franciscan in Venice, a man named Lodoli, wrote the following words: "Proper function and form are the only two final, scientific aims of civil architecture [*of course here is a case of smuggling across the border, and I am doing it*], and they should be merged so as to become one single thing."

He went on to say: "Form is the indivisible and complete expression that arises when materials are employed to reach an intended result."

In other places he makes it quite clear that he meant materials employed according to their natures, as we would phrase it. Then he went on to say: "Ornament is not essential but accessory."

Now the working out of functions and materials, the relative reduction in importance of ornament, the sense of form as the whole nature and character of the thing, rather than as some pure, logically separate element—all this is pretty much what people say they believe today.

By the middle of the 19th century, one important addition had accrued to this list of design ideas. The growth of natural sciences throughout the late 18th and early 19th centuries encouraged, almost enforced, an understanding that you couldn't design sensibly without incorporating in your work the new knowledge, the new understanding that people had acquired of nature itself.

This produced one more split in mid-19th-century thinking about design. Some people saw nature as a product. They saw what nature had done, and they believed designers could do no better than to do likewise. They liked realism; they wanted to imitate nature as closely as possible because nature was better than anything man had done.

The other people, on the other hand, thought nature could serve them best if seen as a scheme. If you analyzed the *way* nature worked, and then tried to work in design that way, you would be using nature much more properly. So, to the very simple credo of Lodoli from the middle of the 18th century, these people

of the 19th century added a dependence on the inspiration and example of nature, whether superficial or in depth.

Finally, as a source of design thinking, by the middle of the 19th century there was a wholehearted acceptance of the industrial world. That meant the acceptance of mass markets and mass distribution, the acceptance of mechanization as far as it had gone then, the acceptance of materialism—the fact that people really needed and wanted goods in great quantity.

Out of these sources there grew a beginning of modern design. Now where does this leave us? Do we really have the remotest possibility of understanding such a thing as function in the same sense that people did in the 18th and 19th centuries? I don't think so. The very growth in architecture (to pilfer again) of the concept of universal space makes it perfectly clear that we know our functions are too fluid, too changing, too undependable to be able always to design permanent settings for them.

If we think of the nature of materials, it becomes something of a laugh. Materials are wriggling under our fingers all the time: there are new ones; there are new ways to use old ones. We know that while the sense of materials was proper and satisfactory once, it is by no means a sufficient concept in our own day.

We know, too, that the statement, "form follows function," in our own experience, really is not the statement it is often taken to be; that it is to be interpreted in the design world only as a temporal statement, as a statement of sequence: "form follows function." Once you know the function, the idea of the form that might be suitable for it starts crystallizing.

Think of our own sense of nature. It has become more profound and far wider than what was known to the 19th century. So it is no longer practical for designers to expect to have a real understanding of nature as a whole. We have to be much more selective. Certain aspects of nature can be good examples to designers, but no designer can afford any more to follow all the varieties of scientists in their understanding of the natural world.

The sources of modern design that we have learned to accept as traditional have pretty much trickled out between our fingers like so much sand. They are there as the recollection of a good thing, with a good two centuries' going, but they no longer really have a great deal to say to us and to do for us today.

Now we come to what may be considered *resources* of design. The first and most important relates directly to the profit motive, the whole sense of commerce and industry as money-making operations. It certainly is a resource of design, a truly basic one.

We have to recognize that business, like numerous other aspects of our world, is drifting toward a new configuration. The new configuration is one in which we find ourselves getting at once both bigger and smaller; the middle-sized unit is noticeably decreasing. This is an obvious pattern of our age in a great many human activities, and I think particularly so in business.

George Nelson gave me a deft story to illustrate this point: He was talking to the head of Olivetti in the U.S. George asked, "What do you think really makes a corporation great?" And the executive answered him very nicely, "A great corporation is one that *also* makes money."

There is a good deal of this around us. People are beginning to understand that while making money may be absolutely necessary, it isn't always anything like sufficient.

If we turn to another great, commonly accepted resource—technology—what do we find? Technology is increasingly immaterial, it is increasingly electronic, less mechanical, and the net result is that the imagery of technology readily eludes the designer.

This was not true in the mechanical age. It was quite easy and proper, perhaps, to take the imagery of mechanical technology and use it as a great vocabulary for the design world. Today that is increasingly impossible.

Three other things are frequently mentioned as important resources of modern design: One of them is systematics—how men think; the next is mass psychology—how men feel; and the third is the physiology of perception—how men respond. These three things are great sources of inspiration and in that sense resources for designers. Designing begins where these three things end. If they are resources, they are exterior resources; they are not resources of design itself.

There is an interesting relationship between perhaps the most fascinating of those fields and the world we started with—the world of Morris and Ruskin. At the very moment when William Morris was making his last statements, Sigmund Freud was making his first. That helps us to realize how the traditional ideas of design in the old sense, and of psychology and psychiatry in the old sense, really belong back somewhere—not meaning they are useless, or to be discarded, or belittled, but merely that they are awfully far back.

If I am right, the generally accredited sources and resources of design are not what we think they are. Many times we carry inherited baggage, ideas and statements which in themselves really are a drag on what we are trying to do.

What, on the other hand, might we conceivably look forward to as being more useful? First, there is the question of sheer numbers and dimensions. We deal in bigger concepts, more things, and more people than ever before. This has an important bearing on a phrase that has been considerably discussed: "human scale." It is time for us to realize that we must start talking about human scales, and not human scale, and that human scales have to be considerably different than they have ever been before.

The charming world of Auguste Perret, in which you could establish architecture by making a window frame out of prefabricated concrete that was sealed to a standing human figure (the germ, here, or the Modulor)—this ideal is only a very small part of the possibility of human scales today. A mere standing human figure is no longer very human, really.

Then there is the idea of disposability. It seems to me that disposability is the incarnation of the new possibilities of immaterialism. In other words, the value of an object is not in the object; it is in how people think about it, how they got it to you, and what you can do with it. But it isn't a valuable thing any more. This seems to me a tremendous resource.

Disposability, too, gives new meaning to an old, exhausted word: quality. It used to be talked about a great deal in design circles some decades ago. But quality in the world of disposability means the quality of

being common, not the quality of being exclusive. And finally, disposability puts new vigor into the idea of improvement and change in design. If things are being produced in such great quantities and of such little intrinsic commercial value that it is easy to dispose of them, then variety, change, and alteration can be much more flexible.

Finally, and maybe first in order of importance, we have today that possibility which arises with the increase of the very large scale, and the very small scale, and the dwindling of the middle scale; *der Verlust der Mitte*, to borrow, a bit out of context, a neat German phrase. But a great increase in the size of social functions and social organizations leaves much more freedom for the minutely individual person, the minutely individual family.

Within the great impersonality of the world of mass production and total near disposability, there comes clear for the first time the possibility of intense personalism as a proper balance and as a proper enrichment of life. The loss of the middle scale can be one of our greatest victories.

Finally, I believe the future of design lies in *situation design* and not in product design; products merely implement the situations. And if this is true, if we are going toward a world of situation design, then we are getting to a stage where the boundaries of the area of design are really becoming increasingly permeable—less meaningful. What I referred to as smuggling is going to be seen more and more as a kind of perfectly legitimate osmosis, an exchange of vital essences between one field and its neighbors.

If this is true, we are on the threshold of a marvelous expansion in design. I think we are.

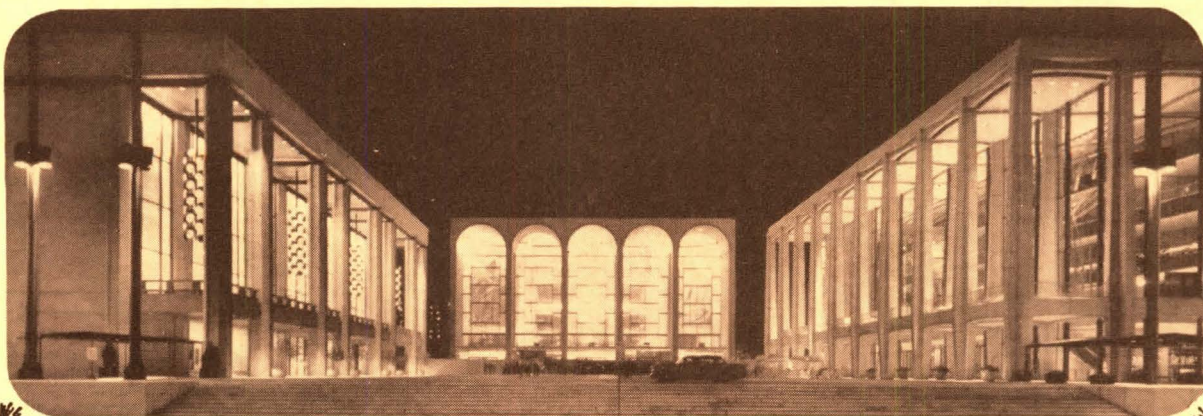


*The Establishment
invites You to join
in Hushed and Sumptuous
Appreciation of the
Several Arts*

LINCOLN CENTER

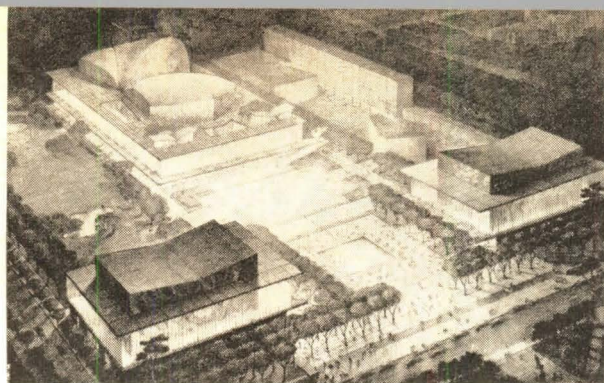
*Most Evenings
Arrival optional but difficult*

PRODUCTION WRITTEN AND DIRECTED BY CHARLES W. MOORE AND DONALD CANTY

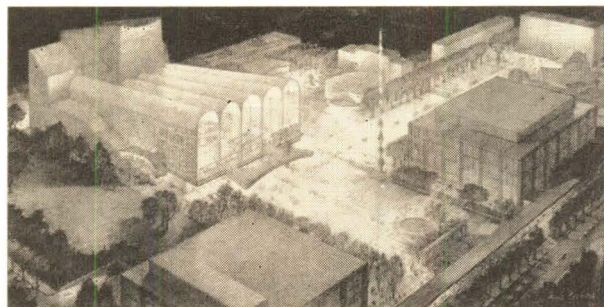


Since the play's the thing, and since only a fool would presume to knock his head against so much travertine, it does not seem entirely inappropriate to cast the proud buildings of Lincoln Center as characters in a drama of their own making, the better to understand them. *Five Characters in Search of an Architecture*, perhaps; or *Rasho Money*, to memorialize the most salient feature of the undertaking. Having assembled the characters, the troubles would start when they didn't even bother to upstage each other, and it turned out the directors and set designers had fixed center stage so that nothing could go there except a fountain and a little man to tell you not to sit on the fountain. The utter absence of dialogue might seem bothersome too, until you took inspiration from the tensely flamencan hum from underground, where 721 cars tangle for 45 minutes at a time in near-perfect recall of Real Life in the streets of Manhattan. In the end, you would realize that there was no plot, and that what you were seeing was not a play but a series of separate performances, brought together on a single stage for reasons that no one has ever really made clear.

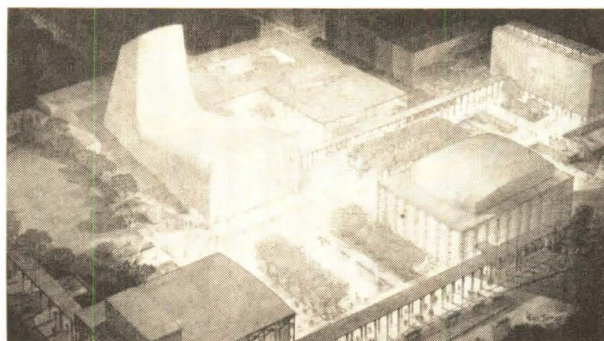
Mr. Moore is chairman of the architecture department at Yale University and a member of the Forum's Board of Contributors. The article, of course, is fiction; only the quotations in the Prologue are real.



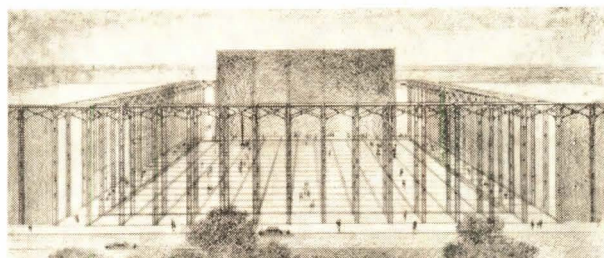
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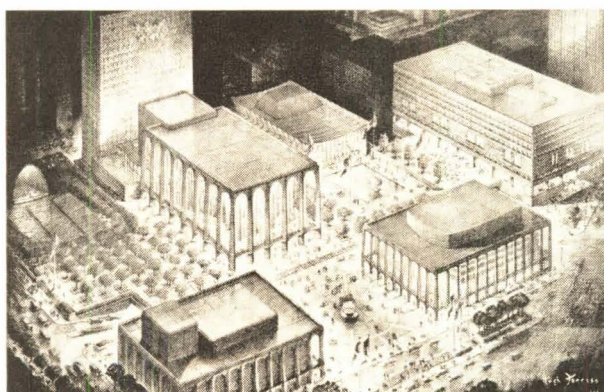
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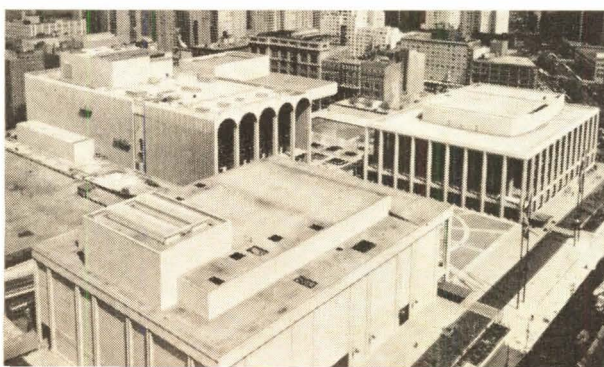
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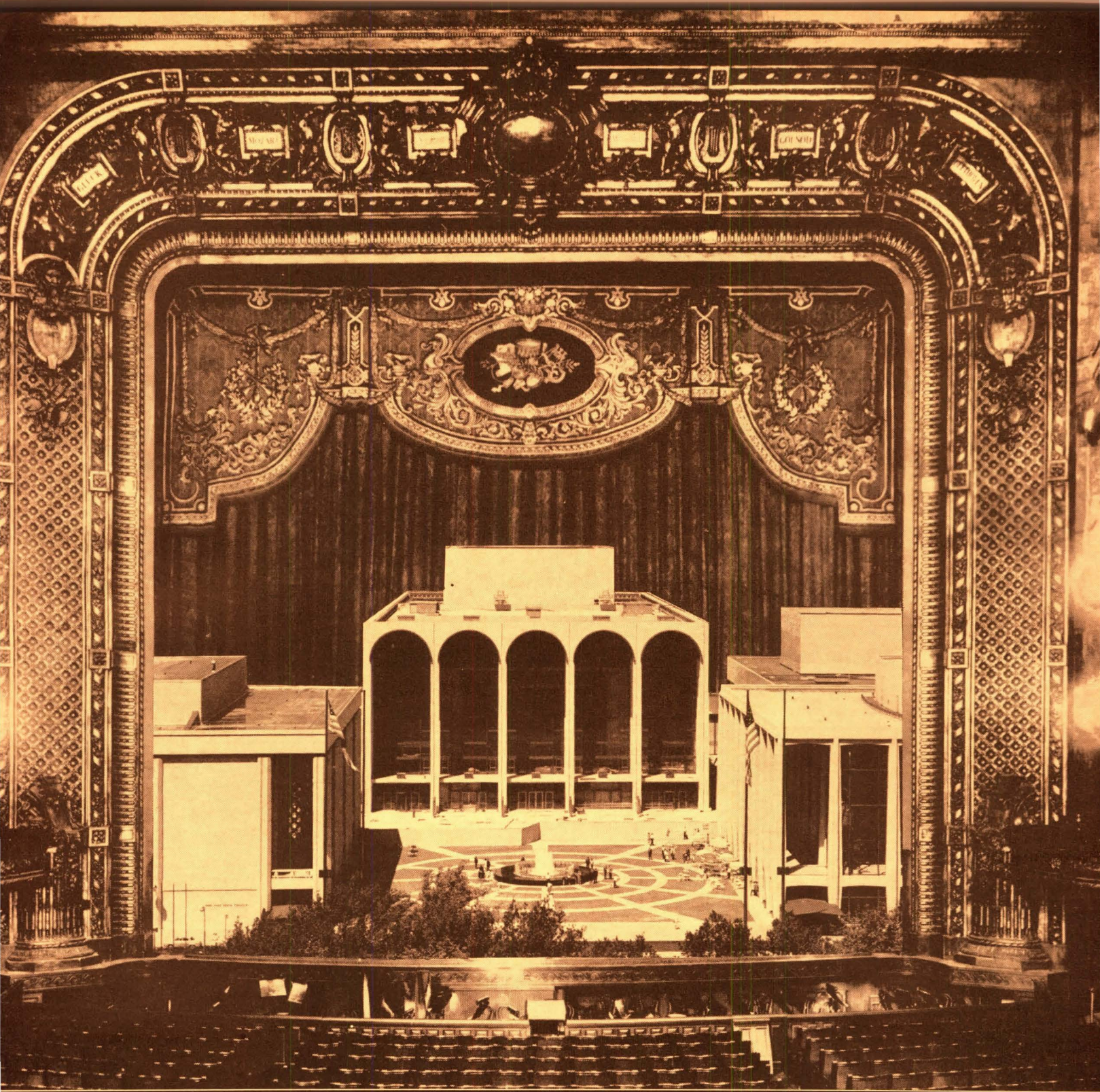


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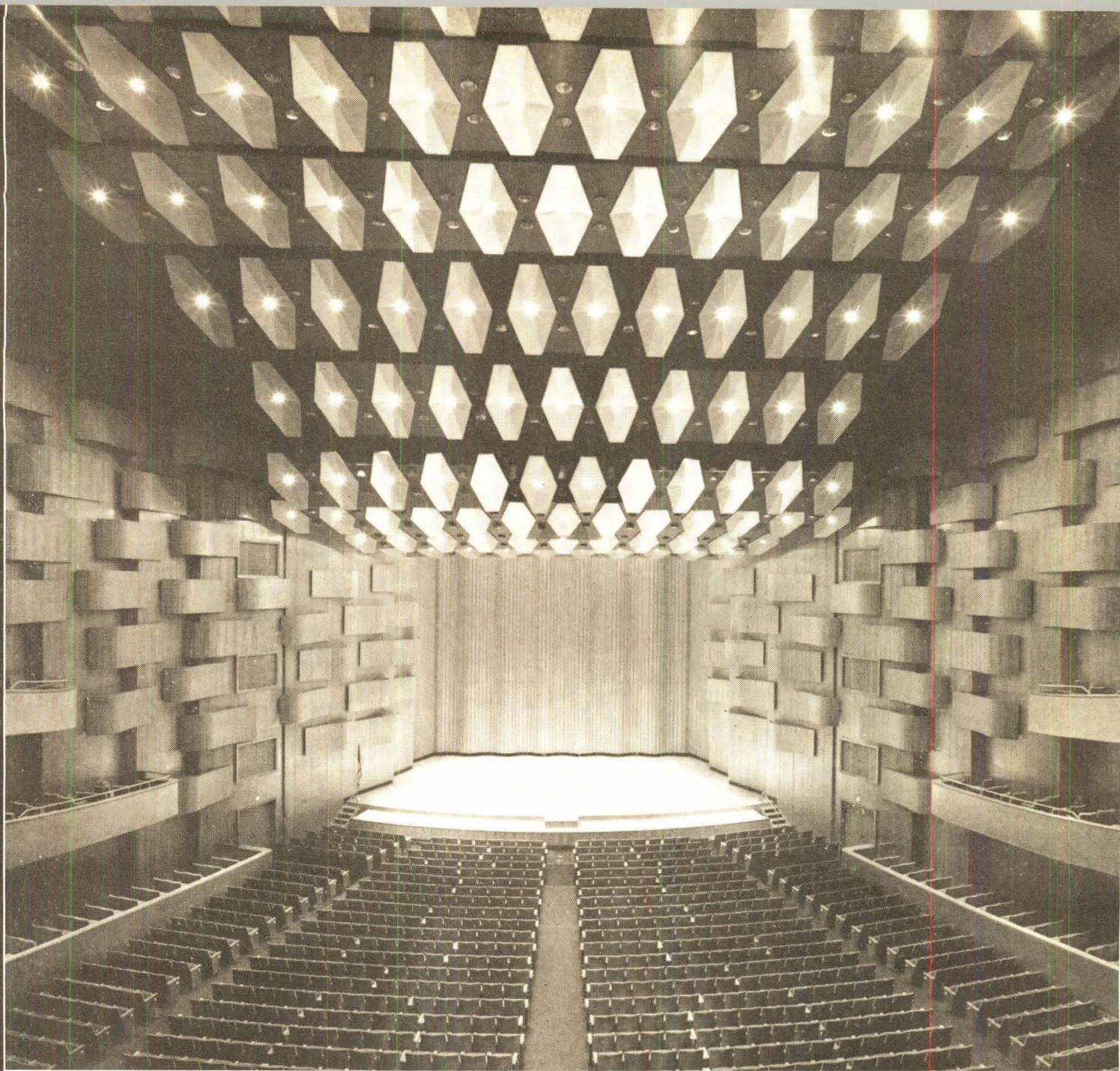
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The stage directions cause considerable confusion at dress rehearsal. Mme. La Met takes a commanding position at the rear (1). To her left is a covey of minor characters, to her right a vacant space which the script vaguely explains is some sort of tribute to Moses. Facing each other, near the apron, are Baroness von Neustate (stage right) and Sir Phil Hall (stage left). The three stars mark these positions, although they continually fiddle with their costumes (2 and 3) and Mme. La Met dashes back and forth to the dressing room for a complete change. At one point a crisis occurs: One of the directors, a Mr. Johnson, takes a look at the players and suggests that they all wear the same garb and join hands in a delicate chain (4). The idea is dismissed, and the players go back to toying with their jewelry. The minor characters, meanwhile, have disappeared with the belated entrance of Miss Vivian, who takes her place next to Mme. La Met, and the ingenue, Mlle. Julliard, who waits in the wings (5). One last costume change by Miss Vivian and Mme. La Met (6), who has decided her tall tiara is not at all becoming, and all are finally in readiness for opening night.



In a brief prologue played on the apron of the stage, the Great Moments leading up to opening night are recounted. Softly but insistently, a chorus repeats: "*Lincoln Center is an idea. It is an idea embracing every aspect of the performing arts: the creative, the educational, the organizational, the physical, the political, and the economic. It is an idea giving bold and concrete expression to confidence in man's survival, to the enduring values of art as a true measure of civilization.*" A spotlight picks up an heroic figure standing on a podium. It is Moses, addressing the multitudes: "Let those who say our town has no soul look at Lincoln Center and forever hold their

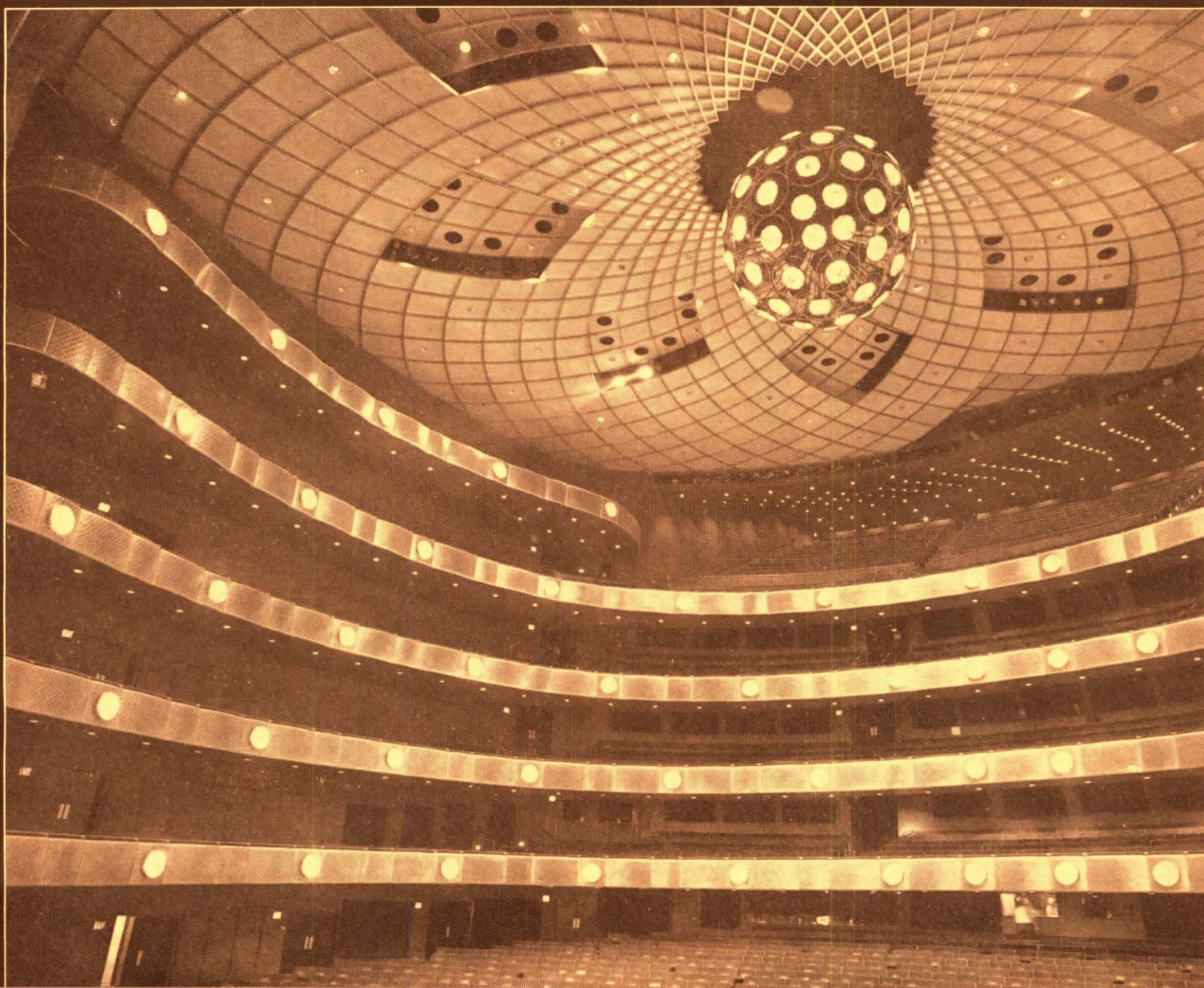
peace." The light moves to a tableau. Six distinguished looking actors sit around a table, shaping and cutting at clay models; their voices rise in tumult, then subside. A tall, kindly figure, evidently the leader, detaches himself and addresses the audience, smiling wryly: "It's like having four tigers and two lions in one cage." He returns to the group, the tumult increases, and another of the men, slender and patrician, breaks away to speak: "The plan of the Center is so boring because the six of us couldn't think of any other way to arrange the buildings on that site." The lights dim. The chorus fades away. "*Lincoln Center is an idea...*" The curtain parts, and the stars appear.

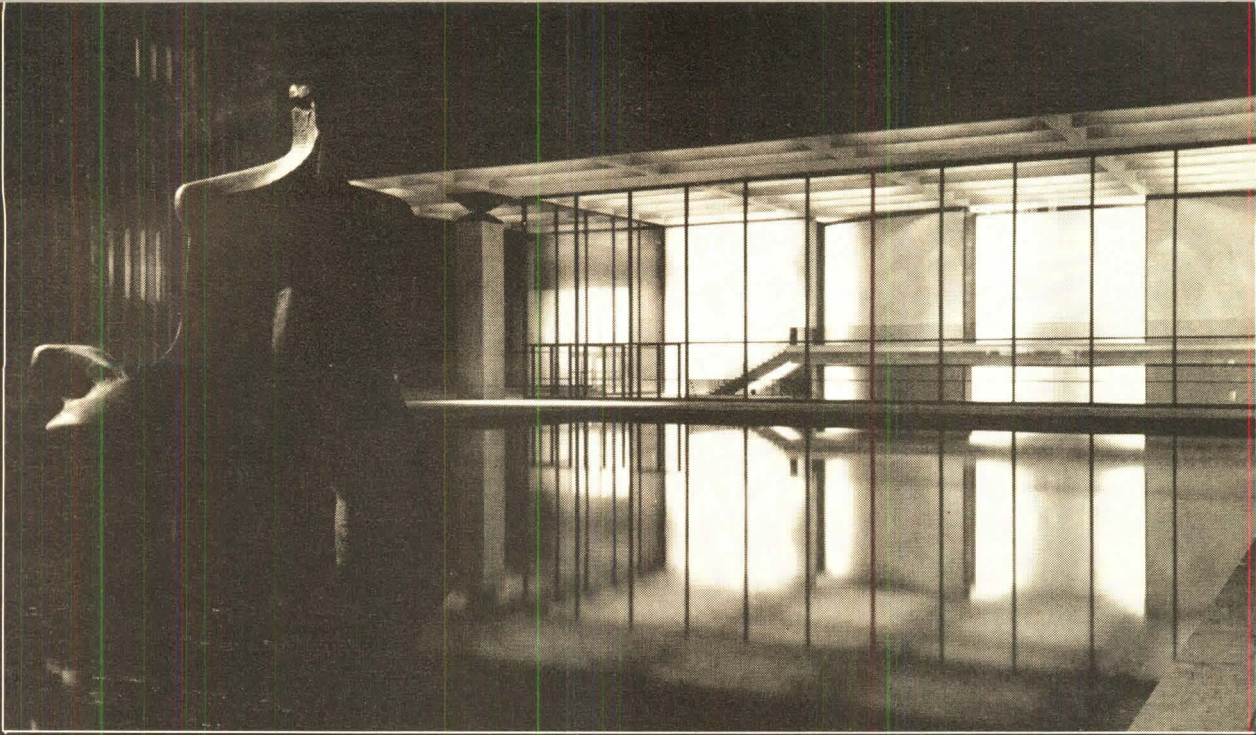


Sir Phil Hall opens the evening, characteristically, with a rendition of traditional airs accompanied by electronic devices. Sir Phil is fast becoming a legend in the theater for his painstaking quest for vocal perfection. Not once but several times he has undergone that painful and desperately expensive operation which actually changes the length of the vocal chords. "Creation," Sir Phil has been heard to say, "is a patient search." The indomitable spirit of the man turns us against those who carp that the voice so painstakingly achieved remains weak and flat. Sir Phil performs with an air of quiet power that endows his special travertine sackcloth (the same fabric, hand woven in Italy, which clothes all of the other stars) with masculine authority and vigor.

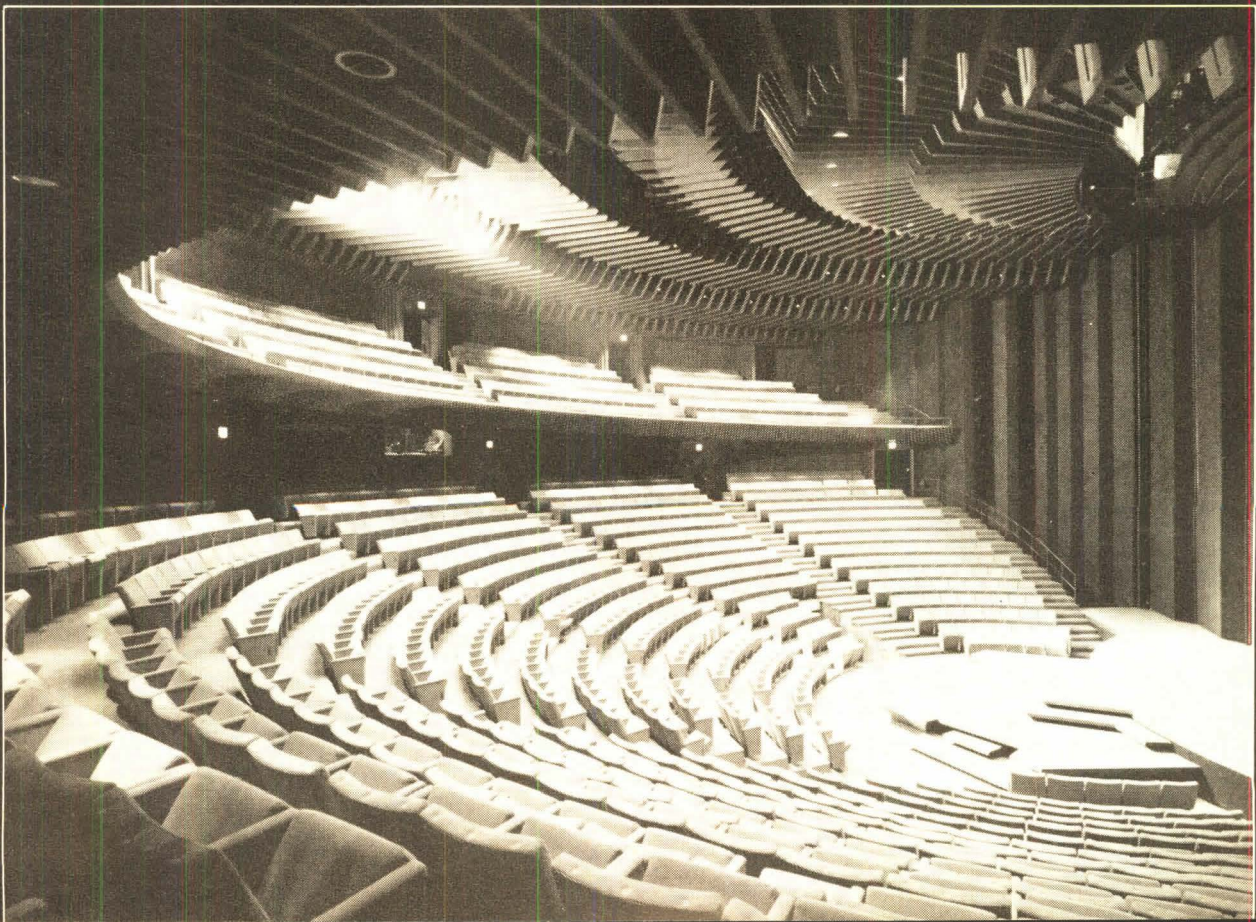


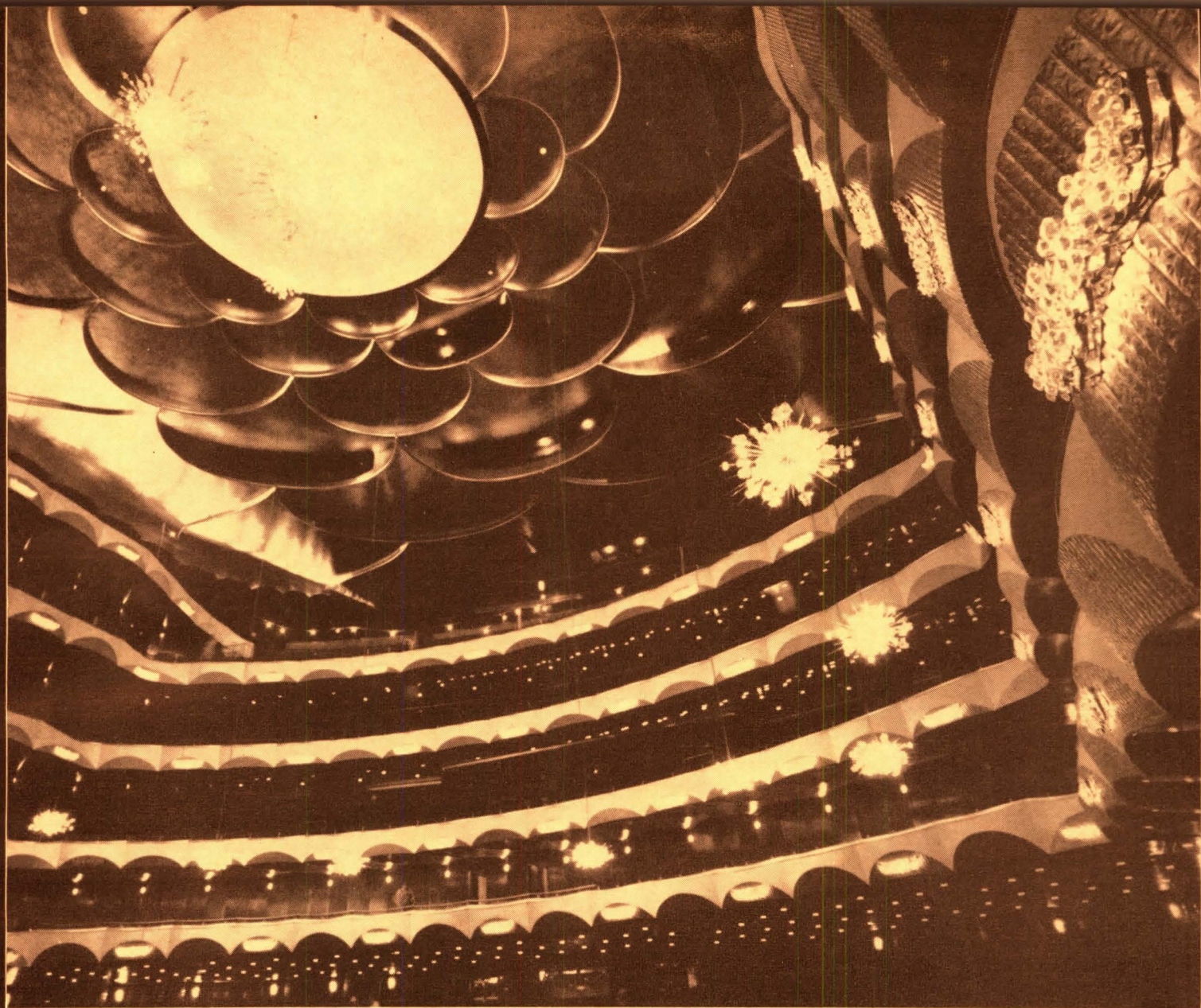
Baroness von Neustate displays her famed virtuosity, alternating between sentimental song and the most modern of dance with not quite equal felicity. She comes fresh to this performance from her triumph in Fort Worth, where the full-bodied roundness of her gestalt won the hearts and opened the purses of the Texans. She carries a souvenir of that visit, a five-story inspiration based on New Orleans grillwork executed in the manner of Houston's River Oaks. Her sackcloth gleams in the beams of diamonds larger than headlights, and another huge stone—"as Big as the Ritz," as she so often points out—lends surprising warmth to her tiara. It is whispered that she wears the diamonds to avoid being taken for a relative of Sir Phil Hall, having been garbed in the same sackcloth and stationed in a position mirroring his.



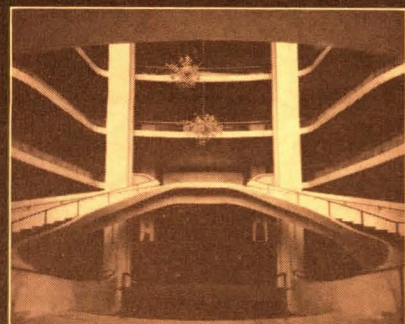


Miss Vivian has come out of the midwest to wow them all. She transcends the sackcloth, and when the downlight glances across her creamy skin to her dazzling red shoes, she is radiant. Her performance is a dramatic reading, delivered with authority and power and without the aid of elaborate props. Her presence is such that the audience scarcely notices that she is performing with books balanced on her head. When she finishes, there is a standing ovation: *Miss Vivian* obviously is here to stay. Her part in the present production, though small, has given the audience hope for the theater's future.





Mme. La Met, regarded almost since her mid-19th century debut as the Grande Dame of the theater, has been persuaded to return from retirement. Her opening selection is *Vissi d'Arte*, delivered with added frills and trills that even Puccini could not have imagined. She is obviously pulling out all stops to assure that her return will be a triumphant one. At first her former polychromatic opulence, her feather-boated grandeur seem lost behind the travertine sackcloth of the post-modern theater. But as the lights grow brighter and brighter, it can be seen that she is, if anything, more lavishly decked out than before. A cad in the first row questions the genuineness of all that jewelry, but he is set upon by the diva's admirers and forcibly ejected.



DEBUT DRAWS CRITICAL FIRE

'Icy Arrogance' Found
No Substitute for Art

The Establishment has done it again.

It has based what it bills as a sumptuous performance on the loose expectation that dressing the theater's great bodies (why must great bodies always be so pudgy, or so angular?) in identical sackcloth, and then depending for drama on the absolute absence of interaction among the characters, can substitute arrogance for wit and thin ice for the chill thrill of art.

This reviewer was forced to leave, as always, after the first act, in order to retrieve his car from the garage in time for a late and lonely supper. Any longer in the grip of this nonsense would have brought the inevitable resignation back out of the drawer.

How much better it would be to sit it out until plays have plots again, and characters speak.

New Theater: not how good, but how much

This reviewer finally can make the announcement he has waited all his life to make. A new theater is born, a theater truly of our time.

The drama of action is replaced by the drama of money. The simple visual discoveries of the Renaissance which seemed so exciting to other generations are now given a whole new dimension—an economic dimension.

Last night's drama-in-sackcloth put a serious dent in the whole world's sackcloth supply, and the lurid brilliance of a Diamond as Big as the Ritz which shone from the ample tiara of Baroness von Neustate left this critic on the edge of ecstasy.

I was moved by the sheer power of the concept (loosely called ghettoizing, by its detractors) which first separates drama from the rest of the city, into a golden world of its own, and then actually has the vision further to separate characters—characters who dare to be almost alike, to dress alike, yet to remain aloof from one another, free of interaction, almost free of action at all, with an opulence so powerful it becomes almost trashy (or trash so opulent it becomes power).

The influence of this power, driven by all this money, cannot fail to be felt across the world.

GOLDEN DAYS ARE REVIVED IN UPPER BROADWAY RECITAL

Miss Vivian Warms Stage
Despite Lack of Dialogue

A new excitement has come to the theater. Last night, in a drama at Lincoln Center, Miss Vivian walked on and touched me.

For this aging critic, who had thought that the golden days of the theater were long spent and that Drama without Dialogue could never manage to reach the human spirit, last night was a revelation.

Miss Vivian, cast, I think, as a peasant wench of great wealth, said little; yet the light in her hair, the warmth of her touch, the sense that something could still happen brought a warmth to the stage which recalled my grandfather's tales of the Parisian debut of Mme. La Met.

Passive drama played to an empty hall

I came away from the theater last night frankly puzzled.

The great names were all there: Mme. La Met was opulent; Sir Phil Hall was meticulous; Baroness von Neustate, whom I've never really understood, was particularly dazzling in jewels which shone like headlights; and Miss Vivian was lovely, bright, and assured.

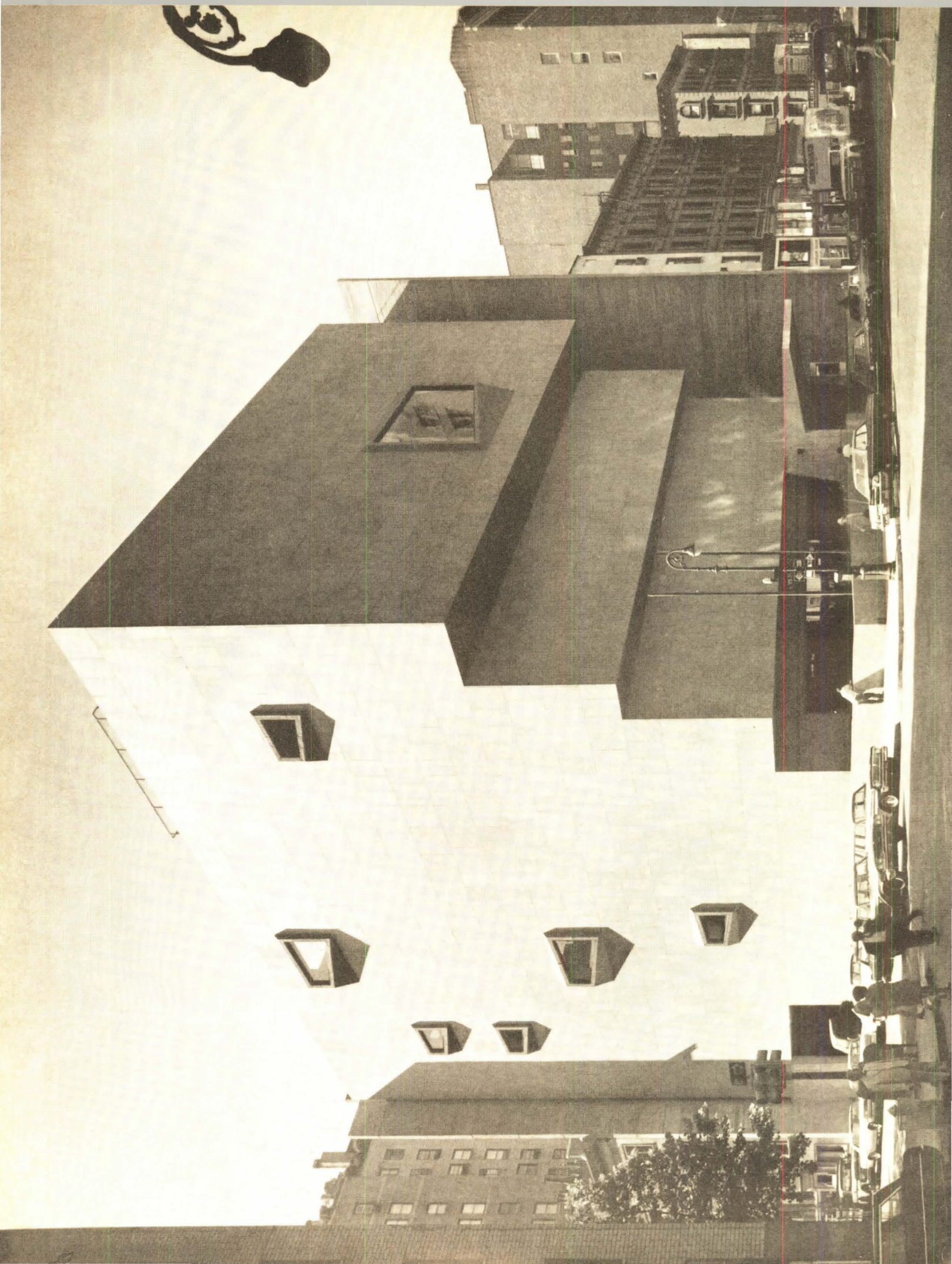
Yet somehow nothing happened. For several acts they just stood there, sumptuous and fine, ungiving and ungetting.

Their influence is almost endless, and the Drama of Silence sweeps like wildfire across the country, but it is a game for which I have not been issued the rules.

Last night, when we came to what I thought was the end, the audience was gone and the theater was empty. I wish I were not so puzzled.

PHOTOGRAPHS: Page 73: Brown Brothers (Old Metropolitan); George Cserna (Lincoln Center). Page 74 and 75: George Cserna. Page 76: Ezra Stoller (top and bottom); George Cserna. Page 77: Bob Serating.







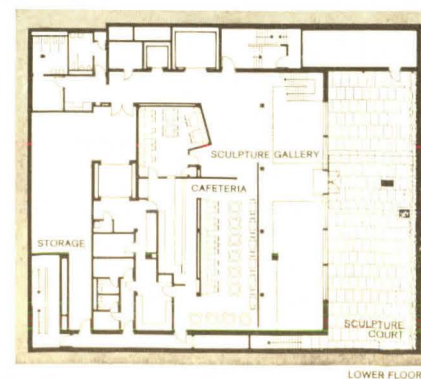
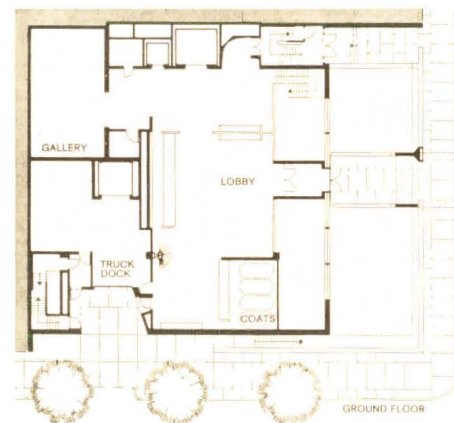
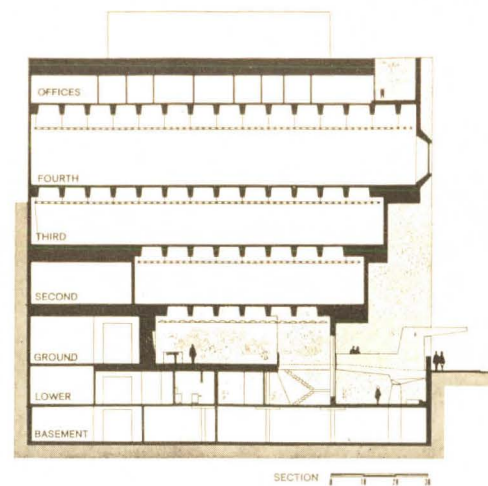
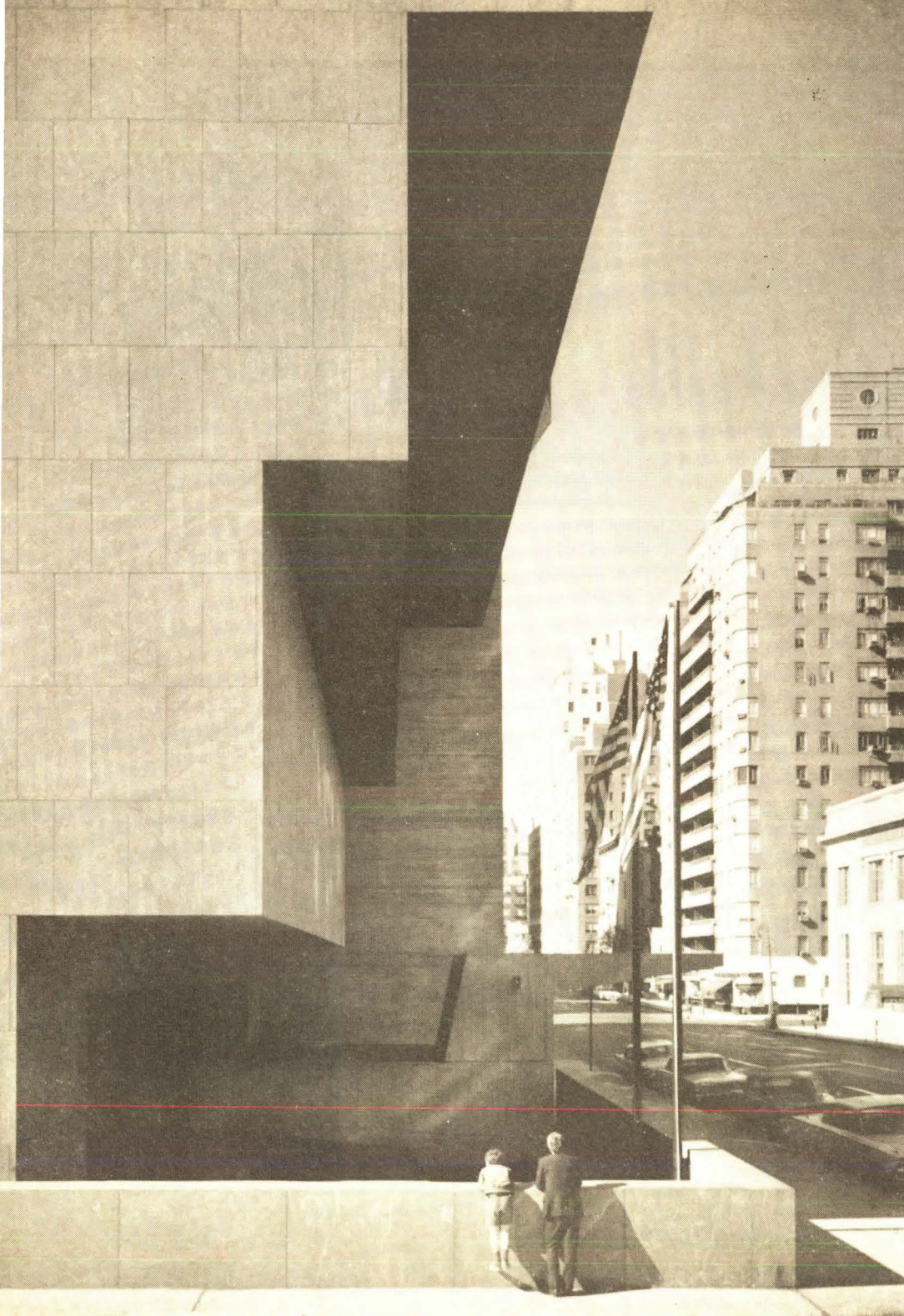
THE WHITNEY: BIG FOR ITS SIZE

It was intended to be a landmark. After 35 years on the side streets of New York, the Whitney Museum wanted its third home to be in the spirit, if not the form, of Wright's defiant Guggenheim. But the site it chose was a 0.3-acre corner in a row of speculative apartments and disfigured townhouses on crowded Madison Avenue.

Marcel Breuer has given the Whitney its landmark, setting it apart from the surrounding clutter in two ways: by building massive projecting walls along both property lines and by making his museum unlike its neighbors in every possible way. Its projecting upper floors, its few prominent windows, and its startling scale make everything around it look trivial.

All of these devices are related to the internal needs of the museum. The cantilevered upper floors afford maximum gallery area without burying the forecourt in shadows. The windows are needed only as symbolic links to the world outside, and they look symbolic—like giant eyes turning away from the direct sunlight. The scale is related to the ceiling heights required inside, but it has been magnified by the spacing of the cantilevers and the vast areas of blank wall.

The body of the museum is clad in flame-treated granite, dark gray with white veining that looks like curling smoke. Accessory elements like the property line wall and the entrance canopy are distinctly separated and made of rough, sand-colored concrete, a surprising companion to the elegant granite.



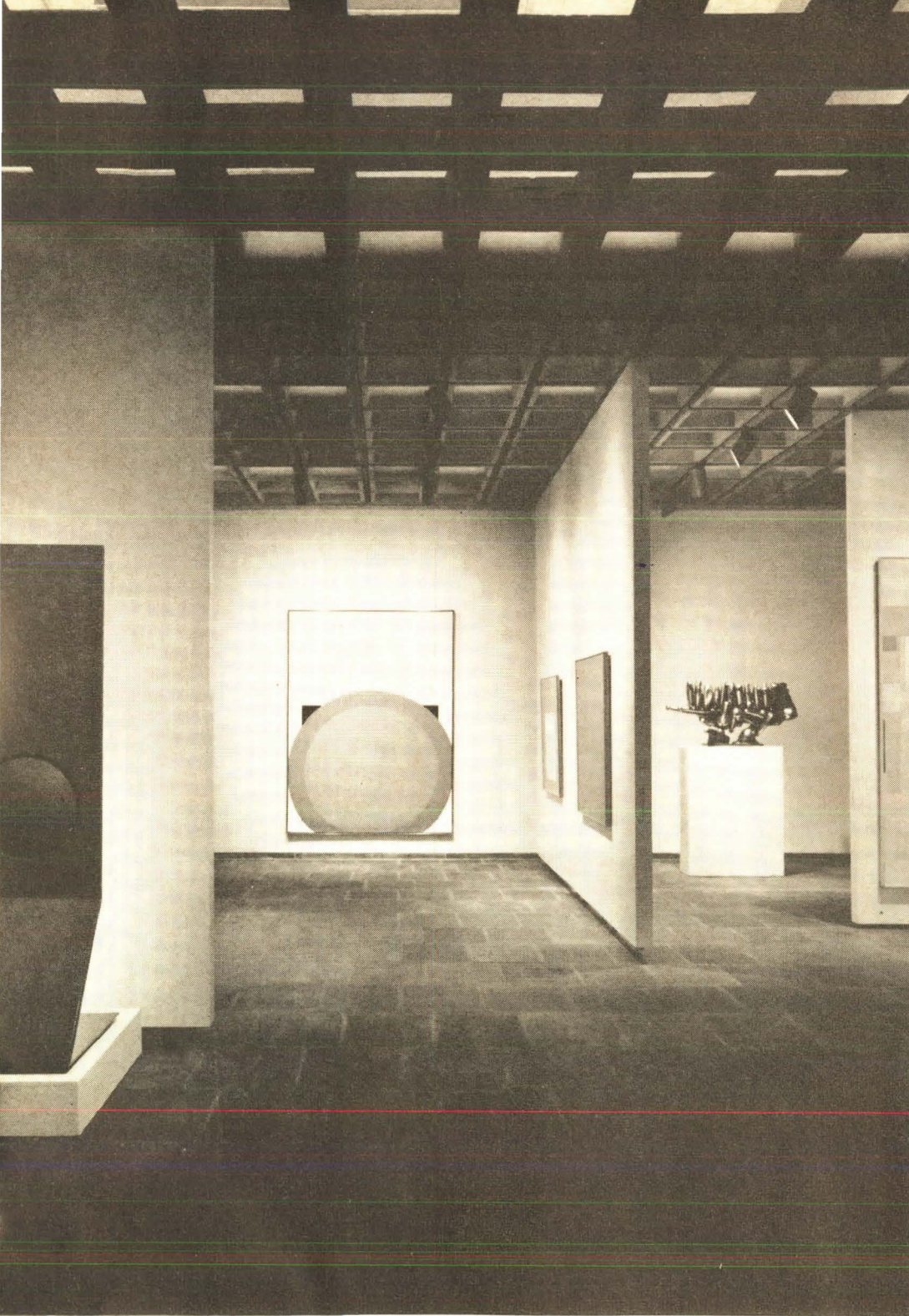
Though it rebuffs the surrounding buildings, the Whitney is sociably related to the street. Breuer has made the front wall of the lobby almost entirely of glass and separated it from the sidewalk by a sunken sculpture court that is at once part of the museum and part of the street scene. Overlooked from both the sidewalk and the lobby, the court itself nevertheless has a feeling of seclusion (below).

The visitor entering the museum is met at the curb by the leading edge of a remarkable canopy-portal-bridge-sculpture that leads him over the sunken court and into the solid-walled box of the vestibule. From there he passes into the two-level lobby, a space divided into several functional areas (plan, left) but unified by a ceiling canopy of circular lighting fixtures, one of the very few discordant details.

Above the lobby there are three gallery floors, each larger than the one below (section, left). But galleries account for little more than a third of the building's floor area. Below the lobby are the cafeteria, shops, receiving areas, and an entire floor of storage. Above the top gallery is a whole floor of offices, partly surrounded by walled terraces where some of the museum's sculpture collection will be on view from inside. Above the office floor is a large mechanical penthouse and below it, on a partial mezzanine over the fourth floor galleries, is the museum library.

Of these nine interior floor levels, only five show on the front of the museum—the five that are open to the public.





Everything in the Whitney's three main galleries has been subdued to the art on exhibit. Wall surfaces of white-painted canvas and bush-hammered concrete and floors of split bluestone provide a setting that is neutral, but not at all clinical.

The suspended ceiling is a 2-foot grid of smooth precast concrete, concealing utility lines, air grilles, and sprayed acoustical material. It holds cylindrical lighting units at any desired location, and is grooved to brace 4-foot sections of display panel, which can be placed along any grid line (left). The ceiling is at a height of 12 ft. 9 in. on the second and third floors and at 17 ft. 6 in. in the vast fourth-floor gallery (below), which stretches more than 120 ft. from the rear wall to the big bay window on Madison Avenue.

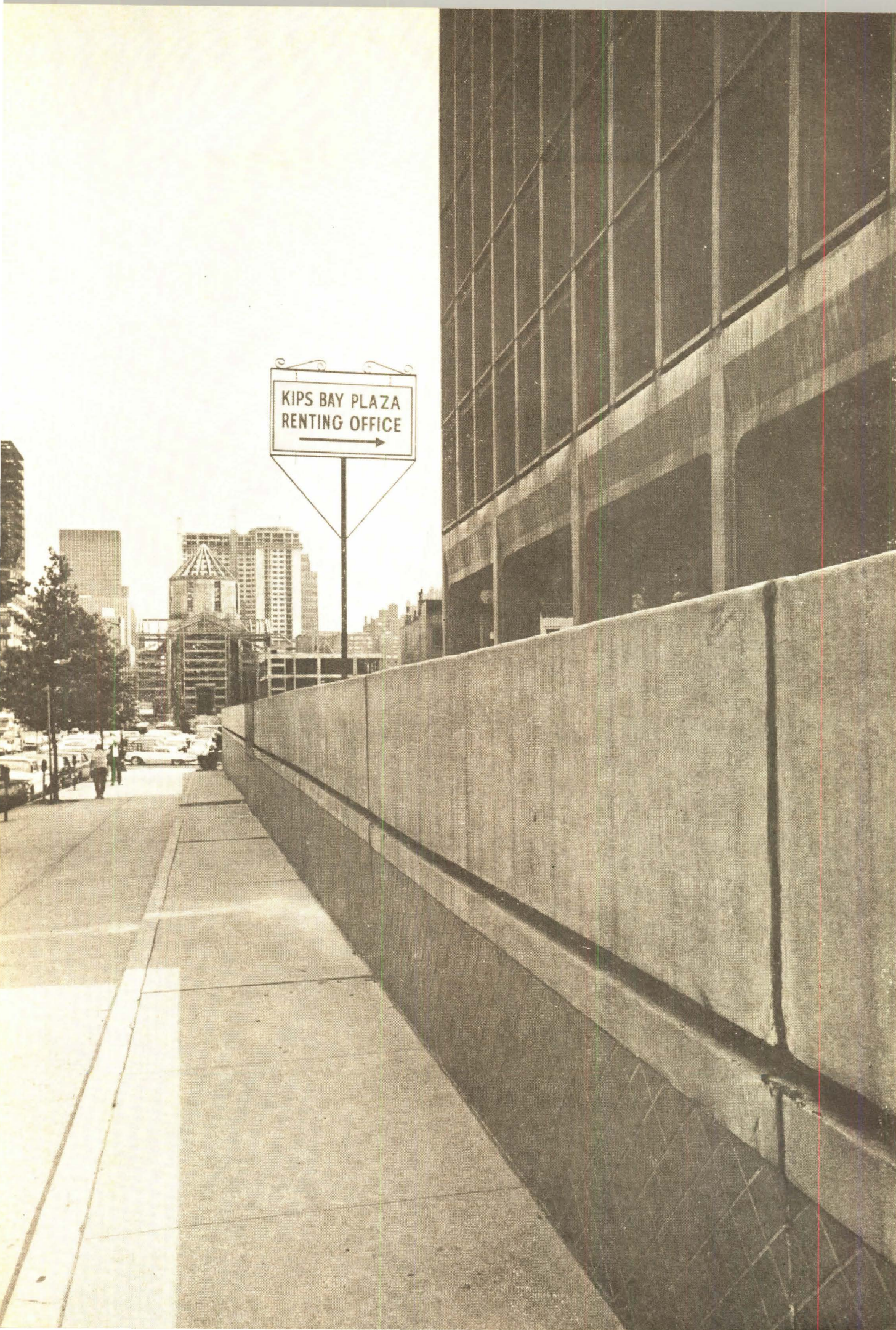
There are other kinds of galleries as well, scattered through the museum—fixed rooms with carpeted floors, flush ceilings, and deep chairs. And there are other materials—bronze, teak, oak parquet, and the dark granite of the exterior—all contributing to a rich character more like that of a private mansion than of an anonymous public treasury. —JOHN MORRIS DIXON

FACTS AND FIGURES

The Whitney Museum of American Art, New York, N. Y. Architects: Marcel Breuer and Hamilton Smith. Consulting Architect: Michael Irving. Engineers: Paul Weidlinger (structural); Werner, Jensen & Korst (mechanical). Lighting consultant: Edison Price. General contractor: HRH Constr. Corp.

Building area: 76,830 sq. ft. (total enclosed space); 5,000 sq. ft. (court and terraces); 29,790 sq. ft. (total gallery area). Site area: 13,000 sq. ft. Construction cost: approx. \$4,000,000. Photographs: Ezra Stoller (ESTO)©.





FORUM CONT'D

Union filed suit in Federal court to prevent the Chicago Housing Authority from putting any more projects in all-Negro areas. ACLU charged that the Authority's policy violates Title 6 of the Civil Rights Act of 1964 prohibiting Federal aid to segregated housing; that it isolates low-income Negroes; and that it "detrimentally affects their motivation and their ability to become useful members of society at large."

In Stamford, a plan for distributing 300 units of public housing on 15 sites in white middle-class neighborhoods has caused a near revolt against the city's Republican mayor. Since the plan was announced in July, whites have held a series of angry protest meetings against the "low housing," climaxed by a noisy motorcade past the residence of Thomas C. Mayers, the mayor.

"What do those people think we should do instead?" Mayers asked rhetorically in *The New York Times*. "Bind the ghettos in until they explode?"

PEACEFUL INVASION

Common sense triumphed over what might have been expected to be the normal reaction of the military mind when a couple of hundred housing demonstrators showed up for an "invasion" of Bolling Air Force Base, a vast inactive flying field within sight of the U.S. Capitol.

Instead of ordering the Air Police to use their clubs or the base fire department to turn on the fire hoses, which they had ready, Air Force officials noted the tender age of most of the demonstrators, wheeled up a convoy of buses, and took the "invaders" on a conducted tour of the base.

As an "invasion," the demonstration was a disaster. But as a publicity gimmick it was almost perfect. Without a single casualty—except for a couple of lost children, which were retrieved with Air Force help—the demonstrators made their point: that Washington urgently needs low- and middle-income housing, and the Bolling Field area, principally populated, as one demonstrator put it, by "mosquitoes and jack rabbits," would be an ideal site for such housing.

But on Capitol Hill, the House had other ideas. It approved

legislation that would freeze the site in its military status for five years—even though military authorities said they didn't need it all. The demonstrators were assured by a Presidential aide that Mr. Johnson wants the site to be used for housing. Whether he wants it badly enough to tangle with Congress is another matter.

CHANGES

NO EARS

The General Services Administration last month released a revised design for the Federal courthouse tower and office building on Independence Square in Philadelphia.

The first design (below) had large lateral projections, which



some called "ears," and was clad in brick and red granite. The new one (below) has no ears, and is clad in brick and bronze aluminum curtain wall. Both are the work of Carroll, Grisdale & Van Alen; Stewart, Noble, Class & Partners; and Bellante & Claus.

A three-man architectural panel reviewed the new design for GSA. Chairman Arthur Gould Odell Jr. said, "We enthusiastically endorse this new approach. . . ." James M. Hunter said, "They have created a design which promises to be-

come a truly great building." A. Grant Fordyce said, "Seldom have I seen a design, which was a compromise of too many opinions, suddenly achieve an integrity all of its own."

The mayor and the Philadelphia papers, who objected to the first design, also expressed pleasure at the new one when it was unveiled. The chairman and executive director of the planning commission, who led the original opposition, both had left the country.

IN AND OUT

Several weeks ago Casper F. Hegner, the General Services Administration's commissioner of public buildings, called his staff together, told them he had enjoyed working with them for the past ten months, and announced his pending resignation.

The effective date was August 1, but no word of the matter was made public until August 13, when the news appeared in *The Washington Post*. The *Post* also revealed that Hegner had returned to his previous employer, the Veterans Administration, as assistant administrator for construction.

Why did he quit? The GSA would say no more than that the reasons cited in the *Post* article were accurate. The *Post* had quoted GSA Administrator Lawson B. Knott Jr. as explaining that Hegner's position "is essentially a management job, something he felt he was not as well equipped to handle and did not prefer to handle as much as more specialized problems in design and architecture." The *Post* reported that Hegner "agreed with this analysis."

As the first architect to hold the GSA post, Hegner was looked upon with hope by those who saw



FOOTNOTE

The Homey Touch—We are indebted to Sibyl Moholy-Nagy, a valued member of our Board of Contributors, for pointing out to us a recent addition to Manhattan street graphics: the ornate sign shown opposite has been erected by Alcoa Properties Inc., the present owners of the famous Kips Bay Apartments designed by I.M. Pei. (A similar sign has been affixed to the brick wall next to their Renting Office; the wall itself has been judiciously breached; the breach has been filled with a storefront type door; and one or two other variations on the Pei design have been introduced by the Management.) We congratulate Mr. Pei on the survival, so far, of his architecture. And we wish to commend Alcoa Properties for being broad-minded enough to use a rival metal to supply the homey touch.

a need for better design standards at GSA. His deputy, Engineer William A. Schmidt, was appointed acting commissioner, and reportedly has the inside track to being named Hegner's successor.

TRANSIT

UNDERGROUND MOVEMENT

Elevated track structures will be the dominant visual feature of the Bay Area Rapid Transit system, but not in Berkeley—not if the city fathers have their way. Last month, the city council voted unanimously to place a \$12-million bond issue before the citizens to finance, with the help of a \$4½-million Federal grant, the burying of virtually all of BART's 3½ miles of track through Berkeley.

The city had long hoped to underground at least 3,700 ft. of tracks (in addition to an 1,100-ft. subway already included in BART's plan), and had given BART \$150,000 to pay the cost of including an alternate in its bids (July/August issue). BART reluctantly went along, but its engineers insistently predicted that the alternate would cost an extra \$6.2 million. The bid opening revealed that the subway stretch would cost only \$3.8 million more.

Despite the low bid figure, BART still insists that the city's all-subway plan will cost an extra \$22 million—a figure arrived at in 1963. "The records show they are way off," says Berkeley Mayor Wallace Johnson. "They made a horseback estimate in 1963, and they have been trying to justify it ever since."

CUTTING FRILLS

BART announced last month that in the interest of simplicity and economy, it will probably eliminate two of its widely publicized space-age features: the detachable "pods" on its trains, and "train screen" barrier walls intended to shield patrons from noise and air blasts.

The sculpted pod, it seems, offered insurmountable problems in changing the length of trains; and the train screens would require too much stopping accuracy.

As for economy, BART's director of development, David G. Hammond, confirmed last month that BART was indeed running out of money. He estimated that the "over-run will be \$107 million to \$163 million."

PEOPLE

A CORK REMOVED

One of the long-range effects expected from the Supreme Court's reapportionment decision of 1962 was to increase Congressional concern with cities. In July, the decision caught up with Representative Howard W. Smith of Virginia, 83, whose role in urban programs has been that of cork to bottle.

"Judge" Smith has been chairman of the obstructionist House Rules Committee, which has the awesome power of determining what legislation gets to the floor of Congress. He was narrowly defeated in his bid for a nineteenth term from the reapportioned Eighth District of Virginia.

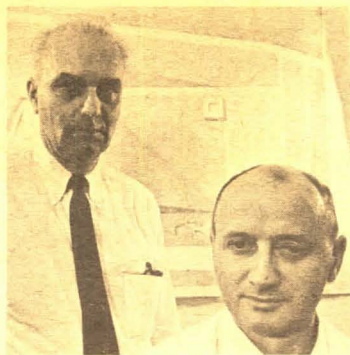


Smith (above, following his defeat) is scheduled to be succeeded by Representative William M. Colmer of Mississippi, 76, who has even less sympathy for the cities. But liberal House Democrats said they might make a fight of it when the 90th Congress convenes in January and try to bypass Colmer. In any event, they were reasonably confident that the vacancy in the committee's membership left by Smith's defeat would be filled by a younger, more liberal, and presumably more urban type.

TRANSITION

The remarkable buildings that were the products of the late Eero Saarinen's design genius are nearly all completed now. This month, reflecting that fact, the firm that he founded in 1950, Eero Saarinen & Associates, took on a new name: Kevin Roche John Dinkeloo & Associates.

Both Roche and Dinkeloo (left and right in the photo at top)



joined the Saarinen office in 1950 soon after it was formed as an outgrowth of the partnership of Eliel and Eero Saarinen, begun in 1937. Both first worked on the General Motors Technical Center—Dinkeloo as project manager and Roche as a designer. And both, with Joseph N. Lacy, continued the firm after Saarinen's sudden death in 1961. Lacy is now retiring, but will continue with the firm as an adviser and consulting architect.

The firm has taken on projects totaling \$158 million since Saarinen's death. "The kind of office we have," says Roche, "is one which takes its direction from our idea of what architecture is, which is the same idea Eero Saarinen had: responsible design, technical maturity, and a basic interest in really understanding and solving problems."

DOUGLAS ORR DIES

Douglas William Orr, whose architectural career spanned more than four decades, died at his home in Stony Creek, Conn., on July 29, three days after the death of his wife, Helen.

Orr produced a prodigious output of buildings and devoted much of his time to professional and public service. He was president of the American Institute of Architects in 1947-48 and the only architect on the six-man commission on renovation of the White House in the forties.

Orr was a partner in the firm of Douglas W. Orr, deCossy, Winder & Associates of New Haven. The partnership will continue under the same name.

BEAUTY

SUIT OF MAIL

The Post Office Department's order requiring curbside mailboxes in all new subdivisions (June issue) is running into all kinds of resistance. At least four bills designed to nullify the order have

been introduced in Congress, and one city has taken the matter to Federal court.

The city is Pleasanton, Calif., a small suburb of San Francisco that has an ordinance prohibiting curbside mailboxes. The upshot is that some 300 Pleasanton families are caught in the middle: they are forced to pick up their mail at the Post Office because they have no curbside mail boxes, which they cannot install without breaking a city law.

Pleasanton City Attorney William A. Struthers Jr. last month filed a complaint in District Court charging that the Postmaster General's order discriminates against owners of homes in new subdivisions. Fremont, a neighboring city, has joined with Pleasanton in the suit as "amicus curiae" (friend of the court).

Meanwhile, the Post Office has announced it will issue a commemorative 5¢ stamp on Oct. 5 in honor of the President's (and First Lady's) Natural Beauty Campaign.



PLANT for a more BEAUTIFUL AMERICA

The stamp (above) depicts the Jefferson Memorial framed by a bough of cherry blossoms, with the message, "Plant for a more Beautiful America." Presumably, the Post Office considers the planting of mailboxes part of the effort.

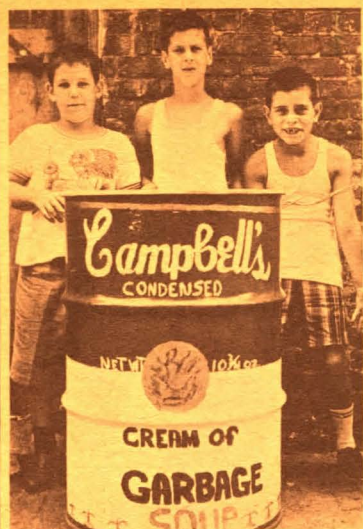
POP

DURABLE FAD

Pop art may not be just a flash in the pan after all. It has recently been cropping up, with delightful results, in all sorts of unlikely places.

In Chicago, for instance, it led to an unusual kind of beauty contest in that city's West Side. It all began this summer, when Leonard Currie, dean of the college of architecture and art at the University of Illinois, and his wife decided to spruce up their back alley by painting gay designs on their trash cans. That night, neighbors crept over to inspect the dean's brushwork by flashlight, and the widespread envy that followed soon led to an alleywide competition.

This new "ashcan school" style



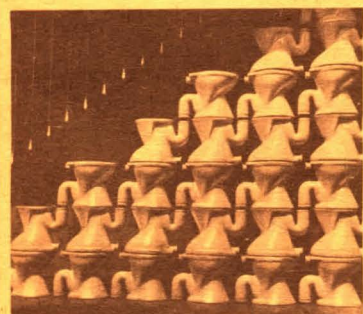
of painting transformed oil drums into some rather ingenious forms—a clown's head, an Unidentified Flying Object, even the now-classic Campbell's soup can (above). Backyards underwent a transformation as well, with lots cleared of debris and planted and paved for recreation, and an interalley beautification competition is scheduled for the fall.

In New York, the boldly patterned cups and saucers Roy Lichtenstein exhibited at the



Castelli Gallery last year (above) will soon become collector's items for kitchen cabinets.

His pop designs have been copied by the Jackson China firm and, on October 1, Durable Dish Company of Villanova, Pa., will offer 800 "limited edition" place settings at \$50 each. Lichtenstein said he was highly amused at



"making a useful thing out of sculpture."

The Swiss also were amused recently by a window display in Berne, where an enterprising shopkeeper set up the lowly toilet bowl in a pop display that evoked such images as circus elephants in a pyramid formation (bottom, left).

LANDMARKS

CAPITOL COMPROMISE

A Senate-House conference voted last month not to give J. George Stewart any money this year to build his \$34-million extension to the West Front, but to allow him to continue with his design.

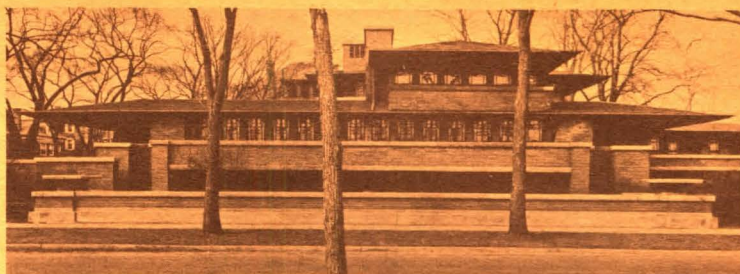
"This is a reasonable compromise," said Senator A. S. "Mike" Monroney, chairman of the conferees, "that will enable both ad-



vocates and opponents of the proposed major addition to the West Front to participate in whatever decision Congress eventually will make in this matter."

One tiresome prospect left open by the "compromise" is another year of Stewart's predictions that the Capitol may come tumbling down momentarily. Last month, Stewart's office let it be known that the Capitol's attic supports are being seriously strained by heavy file cabinets, boxes and papers (above). "I am amazed," said Stewart's assistant, Architect Mario E. Campioli, "that the building continues to be able to support the tremendous load."

In an editorial, *The Washington Post* offered a simple solution. "There is a great deal of costly space in the Rayburn House Office Building," the *Post* noted, "or perhaps a few parking spaces in the elaborate new parking garages that Mr. Stewart is building. . . ."



NEW USE FOR ROBIE

Frank Lloyd Wright's Robie House in Chicago (above) is about to be put to fitting use—for a while, at least. It will be the home of an international affairs institute established as a memorial to Adlai E. Stevenson.

The 57-year-old landmark will serve as a working and meeting place (convenient to the University of Chicago) for graduate students and leaders in diplomacy, business, and education from all over the world. The institute, however, already is talking about the need to build a new headquarters some day.

The owners of Wright's one-time house and studio in Oak Park, meanwhile, have decided to open it to the public. After 20 years of patiently restoring the 71-year-old structure, which had been mutilated by earlier owners, Mr. and Mrs. Clyde Nooker will admit visitors from 10 AM to 5 PM, daily except Monday, for a charge of \$1.25 per pilgrim.

REAL ESTATE NOTICE

For sale: Summer residence at 26 Huettelbergstrasse, Vienna (below), built in 1886 by Otto Wagner for his own use.

The residence, according to Eduard F. Sekler of Harvard's Carpenter Center, is in fairly good condition, and sits on large grounds on the western outskirts of Vienna. It is unoccupied, however, and is in danger of destruction. Sekler suggests that it would be ideally suited for academic use.

"The architect in this phase of his development still worked in what he called a 'free Renaissance' manner," Sekler says. "However, the strongly simplified composition and the deliberate stressing of planarity in roof and wall surfaces clearly herald [his] breaking away from historicism."

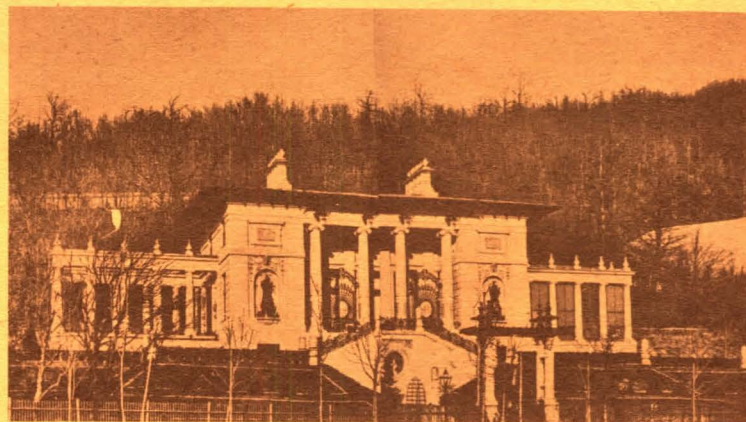
Interested parties should inquire at the Museum des XX. Jahrhunderts, Schweizergarten, Vienna III.

WREN IN MISSOURI

Christopher Wren's first work in Fulton, Mo., is now under construction (see photo below).

It is St. Mary Aldermanbury Church, first built in 1677 in London and partially demolished by a Nazi bomb in World War II. The ruins were dismantled and shipped stone-by-stone to Fulton.

The church is being re-erected as a monument to Sir Winston Churchill on the Westminster College campus, where Churchill made his Iron Curtain speech in 1946.



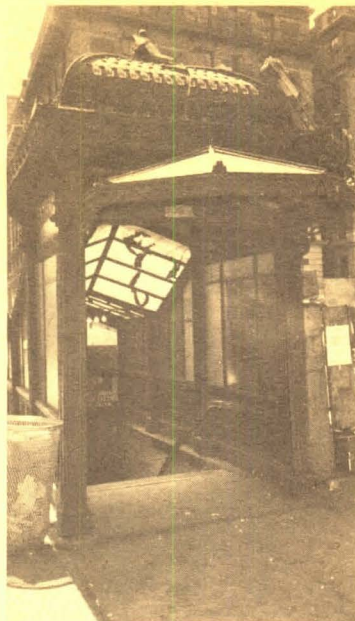
Walter McQuade

SPITTING PUNISHABLE BY FINE OF \$50.00

Several years ago, invited to do a visiting critic stint at an architectural school, I proposed we give the students the problem of designing the public interiors in the existing cavern of one or another of New York City's clammy subway stations. My own preliminary research carried me over to the New York Transit Department Building in Brooklyn (by subway; the fact that I got there without getting lost qualified me as an underground expert, I figured), and there I went through drawings and other documents of the grim existing facilities.

New York has 263 subway stations below ground and 218 above. It has 720 miles of track, and 4,500,000 people use the system each working day. Certainly the subway is one of the intrinsic environments of the city for most of those who live in the New York area; perhaps it is even the most essential public environmental concern—or should be—as well as the most difficult one.

Squalid is about the only moderate word for the New York subway as is. A part of the problem is the very vastness of the corridors, stairways, platforms and mezzanines buried down there, and the fact that they represent a pre-World War I design approach which by now is hardly a design approach at all. There are acres of tile work, but the light-



ing is dismal. The subway cars clatter and shriek, with no damping of the reverberating din except by the human bodies fighting in rush hour for seats, even for standing room. New Yorkers are frequently amazed when they travel abroad and discover the relative decency of some—but not all—other large cities' undergrounds.

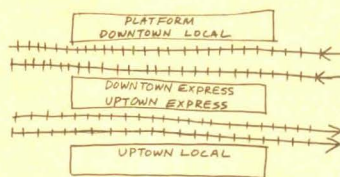
What could be done to improve them? Of course that was what I was out to discover from the students. Perhaps only students could suggest solutions. Confronting mature, balanced designers with the problem might be enough to paralyze them.

But, at that, some improvements should be obvious. Even today the present advertising brightens some stations a little. The soda pop and ice cream machines are a reminder that the machine age has advanced a little since 1900, and a human touch is provided by some bagel counters, newsstands, short-order cookeries, doughnut shops, etc. Near the entrance to the 50th Street stop of the 6th Avenue line at Rockefeller Center is a cut-rate flower shop, a real blessing to brush by.

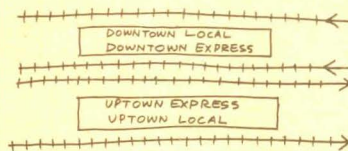
Certainly the detailing of the hardware in subway stations could be improved, although it is not all quite so grotesque as it used to be. I discovered one recent refinement at transit headquarters in Brooklyn in the detailing of the entrance devices used off-hours when the subways are unattended and the turnstiles locked. The device is—and was—a revolving door made of steel bars, on the meat-grinder esthetic, that can be pushed through only after a token is deposited. It is clumsy enough

today, but the older model was actually unusable by little old ladies because it required something like 90 pounds of push to operate, even after deposit of token. Also the transit people are removing all the subway kiosks from the sidewalks upstairs and replacing them with simple stairways, losing a quaint Balkan touch but improving visibility around street corners for automobiles.

What may really be most wrong about the subways is the absence of design, or even of care. In such a situation, design is exactly that, care. A half century ago, except for pretty tile work, subways were considered to be only basic engineering, not architecture at all. Even the handling of traffic certainly was basic—and brutal—in some stations. For example, at the 8th Avenue line stop at Pennsylvania Station the platforms are arranged like this in plan:



rather than the conventional way:

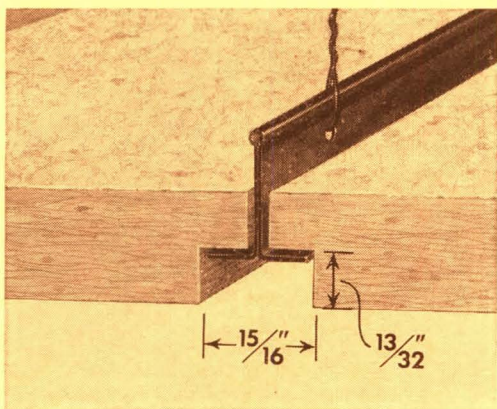


Seemingly a small error, perhaps, but any student who didn't correct the track layout in my design class was not only going to come close to busting the problem, but was going to have to stand beside me some evening on (A) the Downtown Express or (B) the Local platform of this station and watch three or four (A) Locals or (B) Expresses pull in and out, inaccessible across the tracks.

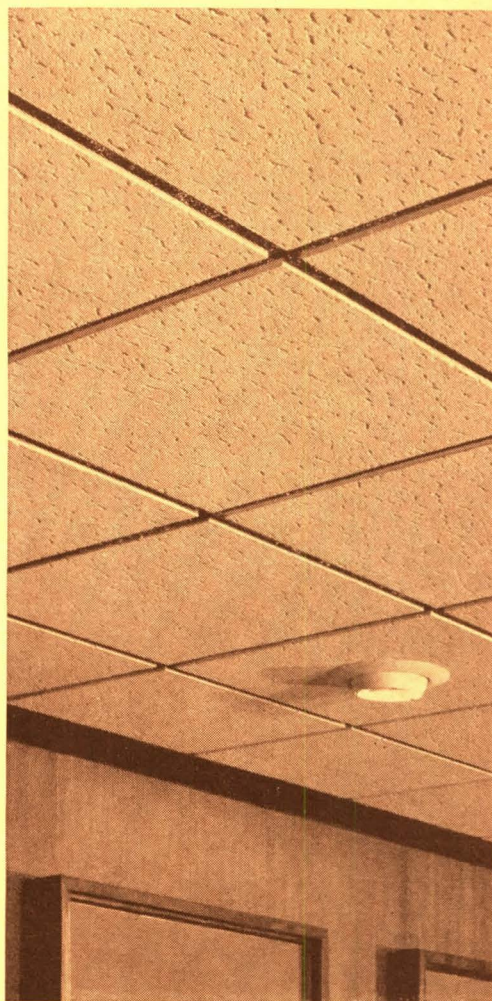
As it turned out we did not give that problem, however. The faculty of the architectural school, for very sound reasons, preferred to pose the design of a suburban swimming club on Long Island Sound. Next month, perhaps, I'll reveal the fiercely serious design problem I'm going to propose next time I'm a visiting critic, if I ever am again. Meanwhile, anyone who wants to try the subway station is welcome to it. I'll even provide directions on how to get to the Transit Building in Brooklyn on the IRT.

PHOTOGRAPHS: Page 28, Allen Photographic Service. Page 88, Phillip D. Rush—The Washington Star, Hans Namuth. Page 89, Wide World Photos, The Washington Post.

This distinctive ceiling adds a new dimension:



dimension.



Armstrong Tegular Travertone™. An exposed grid ceiling with a new twist. Since the ceiling panels are rabbeted on all four sides, the grid is *recessed* into the surface of the ceiling. Hence the handsome, fissured Travertone emerges boldly three-dimensional. And the dimensional effect can be dramatically accentuated when the grid is painted a contrasting color. (As witness the black grid installation above.)

This attractive ceiling can be easily kept that way, too. A washable, vinyl-latex finish makes cleaning quick and easy with a moist cloth or sponge. Or the panels can be repainted without noticeable effect on their acoustical efficiency.

Tegular Travertone is fabricated of noncombustible mineral fiber and carries the UL label with a Class I Flame Spread rating. Tegular Travertone Fire Guard

is available with a 2-hour UL Time-Design rating for a floor-ceiling assembly (3-hour beam protection).

Acoustically efficient, Travertone's N.R.C. specification range is .60—.70. Average attenuation factor is in the range of 40 decibels (ceiling STC 37). Tegular Travertone's light-reflection coefficient is "a", and there is no unpleasant glare.

Available with or without ventilating perforations, Tegular Travertone comes in 24" x 24" x 3/4" panels, for installation in the standard suspended grid. And the panels can be easily removed for access to wiring or plumbing above.

Like to know more about this dramatic, new dimension in fabricated acoustical ceilings? Just ask. Armstrong, 4210 Rooney Street, Lancaster, Pa. 17604.

Ceiling Systems by

Armstrong



Their new office helper is 7 feet tall

It's the new GF Over-file storage cabinet and GF Style 9000 file, of course! Together they end clutter and add beauty to a busy office. Everybody likes them.

The Over-file holds oversized items that would otherwise create storage problems. It is functional and decorative—and, with file cabinets, even serves as a partition to divide office interiors.

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**OVER-FILE CABINETS
& STYLE 9000 FILES**

PREVIEW

ILLUSIONISTIC THEATER

The University of Michigan at Ann Arbor is going to build on its last big piece of campus core space, and have its space too. Kevin Roche John Dinkeloo & Associates (formerly Eero Saarinen & Associates) have pushed their proposed repertory theater far to one end of the site and designed it to serve as a colonnaded backdrop.

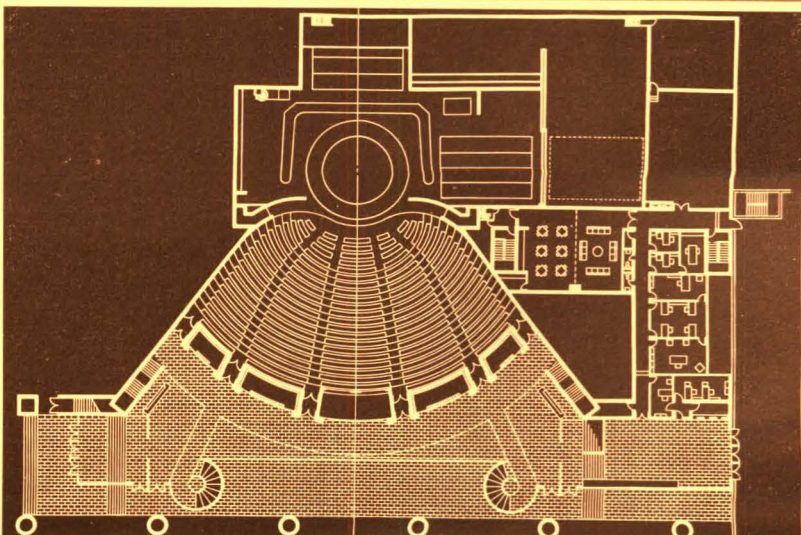
Visually, in fact, the theater will not terminate the space, but ex-

tend it. The all-glass front wall will be of a type that acts as a true mirror during the day (like the glass on the firm's Bell Laboratories), duplicating in its reflections the row of circular columns and the open space as well (below). At night, when the theater comes to life, the interior will become visible from the park outside (bottom left).

The theater's structure will be simple and massive. Concrete gird-

ers 8 ft. 6 in. deep and up to 140 ft. long will be supported on the concrete stagehouse at one end and on the round columns, 7 ft. in diameter, at the other.

The theater interior is planned for both thrust-stage and proscenium production, like Saarinen's Beaumont Theater in Lincoln Center, New York. Jo Mielziner, who was associated on the Beaumont design, is the co-designer of the stage and lighting.



(continued on page 97)

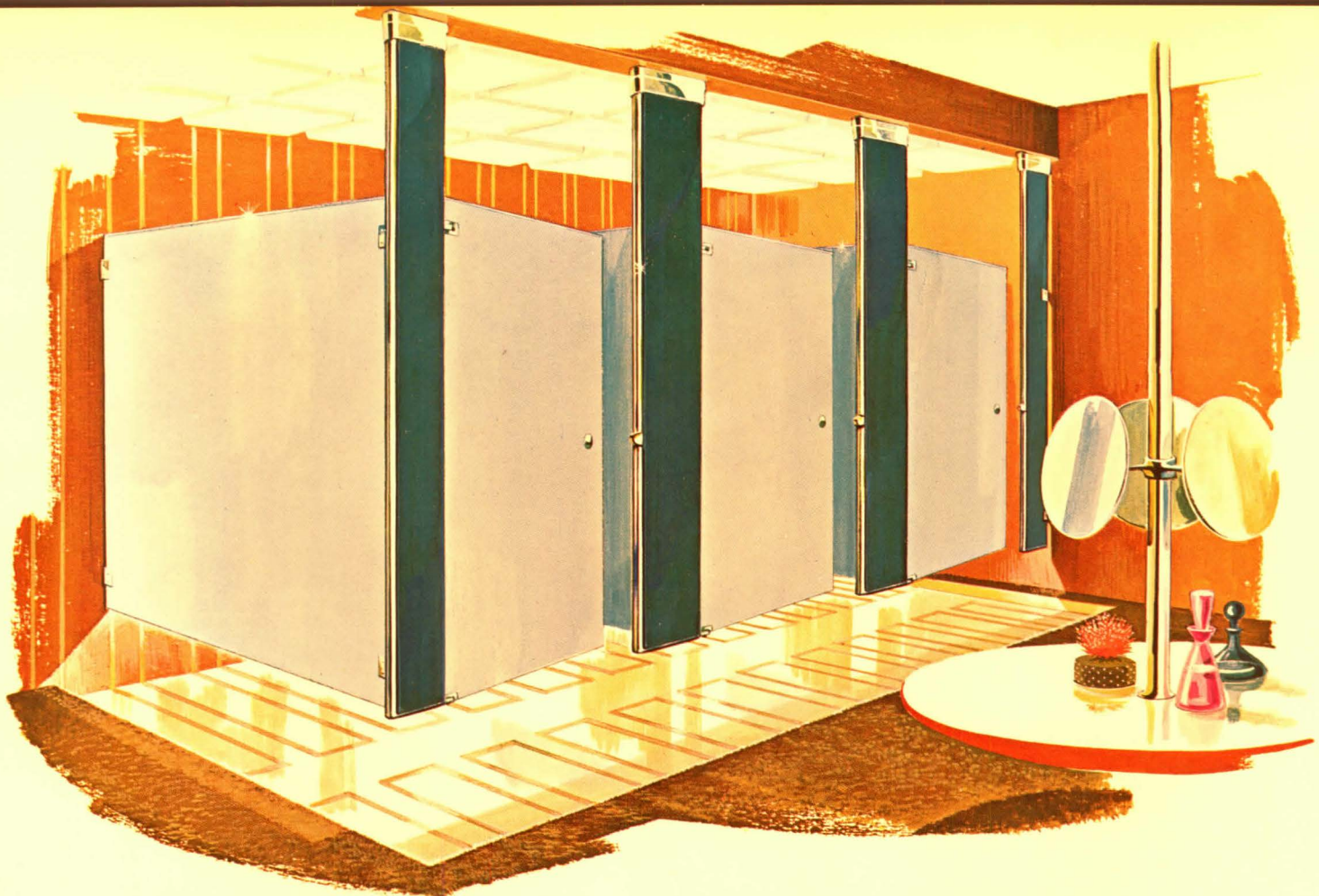
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E. R. Ronald and Associates, Mech. Eng. • Wilson, Andros, Roberts and
Noll, Structural Eng. • Robert E. McKee General Contractors, Inc., Con.
C. W. Knight Plastering, Applicator.

The new Home Office building for the **Lincoln Income Life Insurance Company** in Louisville, Kentucky is a perfect example of what **Thoroseal Plaster Mix** can do. On this particular job, all interior and exterior concrete surfaces were first coated with **Thoroseal Plaster Mix-plus-Acryl 60** by trowel and then floated (pictures #2 and #3). A second coat was applied by plaster type spray (picture #4) to obtain the desired texture. Because **Thoroseal Plaster Mix-plus-Acryl 60** fills and seals all pores, binding so firmly to the rough concrete, it actually becomes part of the wall itself and will last as long—protecting it from any water, wind and weather damage or deterioration. It's the ideal building finish!

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A lounge of Huntington Memorial Hospital, Pasadena, Calif. Architects: Thormin, Haynes, Oakley & Associates; David Oakley in charge of design. System Design and Mechanical Contractors: Kilpatrick & Co.

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PREVIEW

(continued from page 93)

CIVIC CENTER SCOOPS

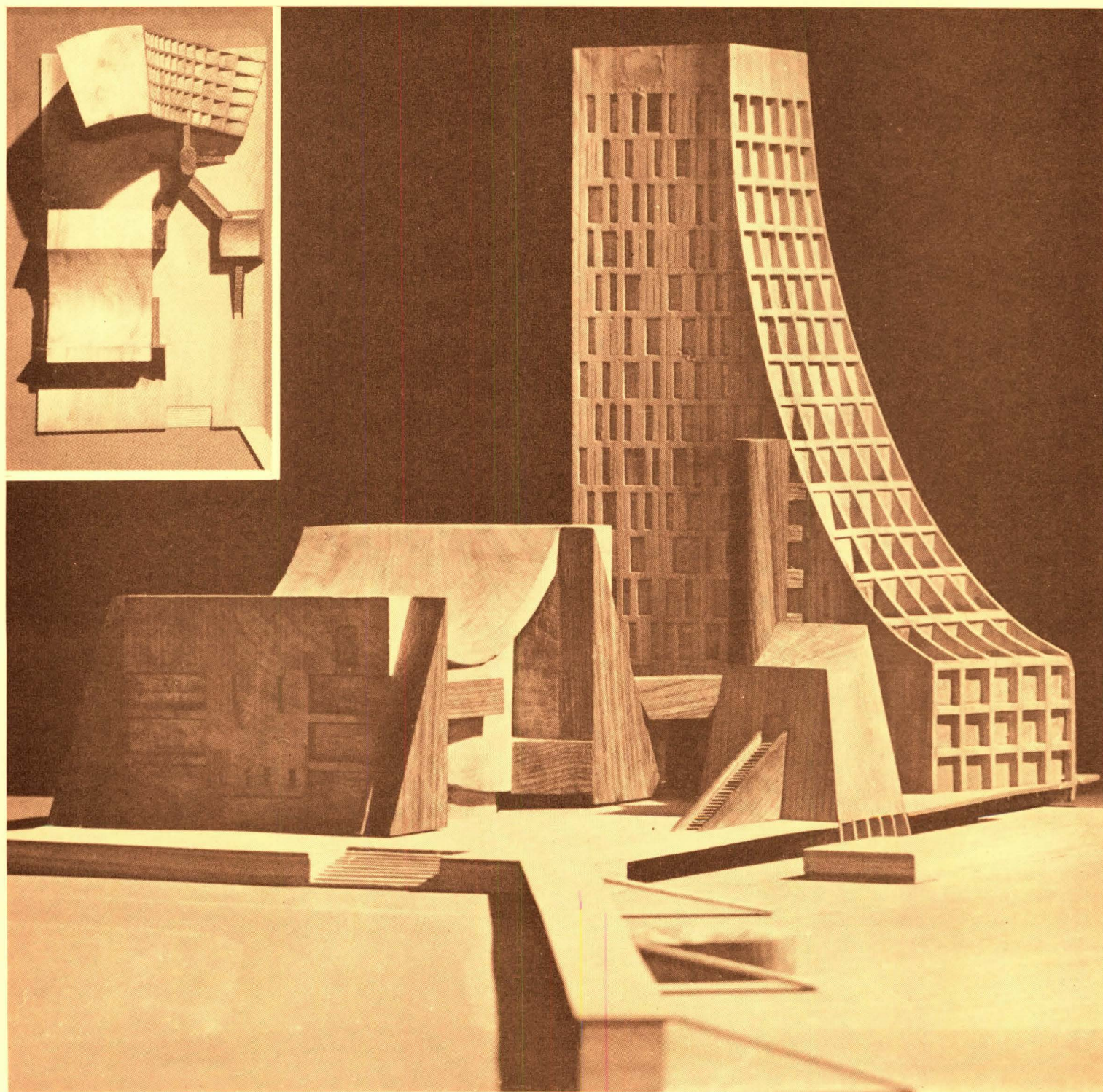
Scoops, both vertical and horizontal, are the most readily apparent component of the scheme for the New Delhi Civic Center, which won a competition for two young Indian architects, Raj Rewal and Kuldip Singh. Scoops appear as the catenary roofs of the auditorium (left) and the art gallery (center, with jutting staircase), and as the curved east side of the office tower. "These curves are a response to either the climat-

ic factors, structural systems employed, or the function performed by a design element," explain the architects. The scoop in the office tower, for example, permits shaded balconies.

The space created by the placement of the three buildings contains an elevated service core linked directly to the staircases of each, topped with a pedestrian plaza and a bridge linking the new civic center with the old

Town Hall (inset photo). Under the plaza is a 130-car garage.

The office tower will be built in two stages—the lower portion with its service core at the axis, and the upper part with its own elevators and separate foundations. Eventually, it will rise about 220 ft., with a blank wall facing west. The roof of the multipurpose auditorium will be hung from four pylons which also will act as staircase cores.





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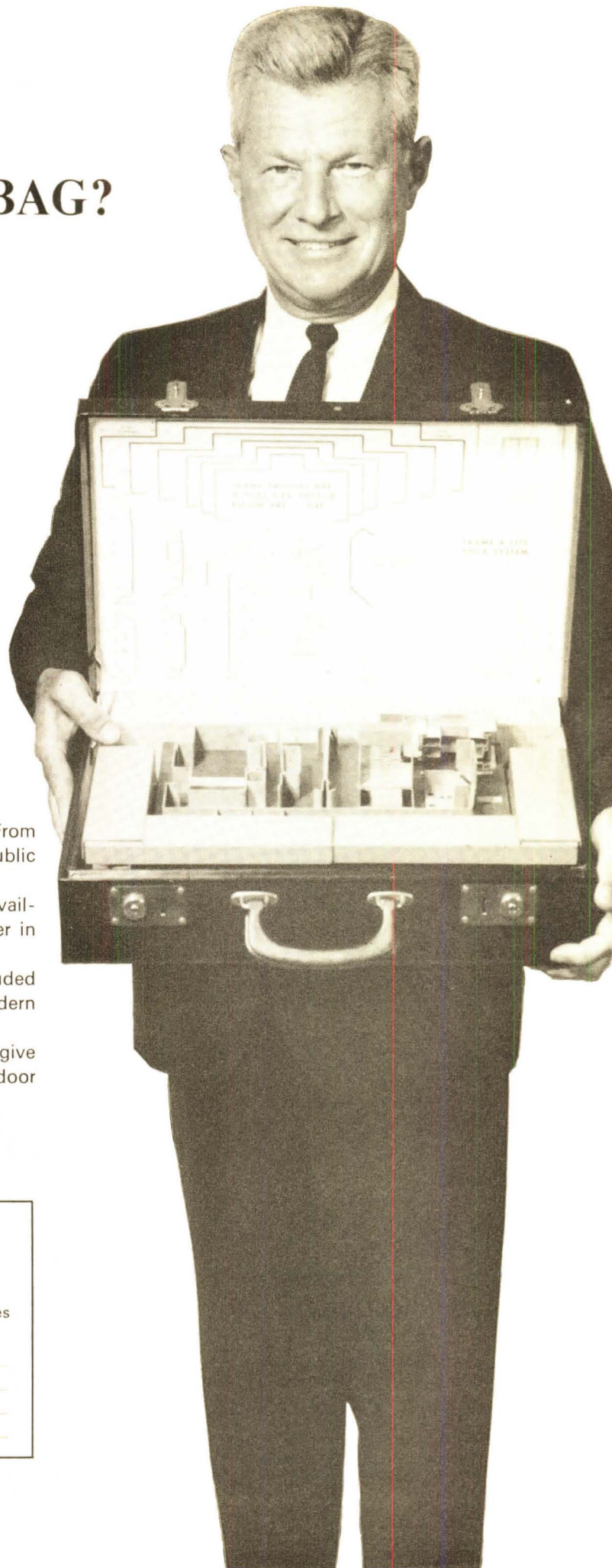
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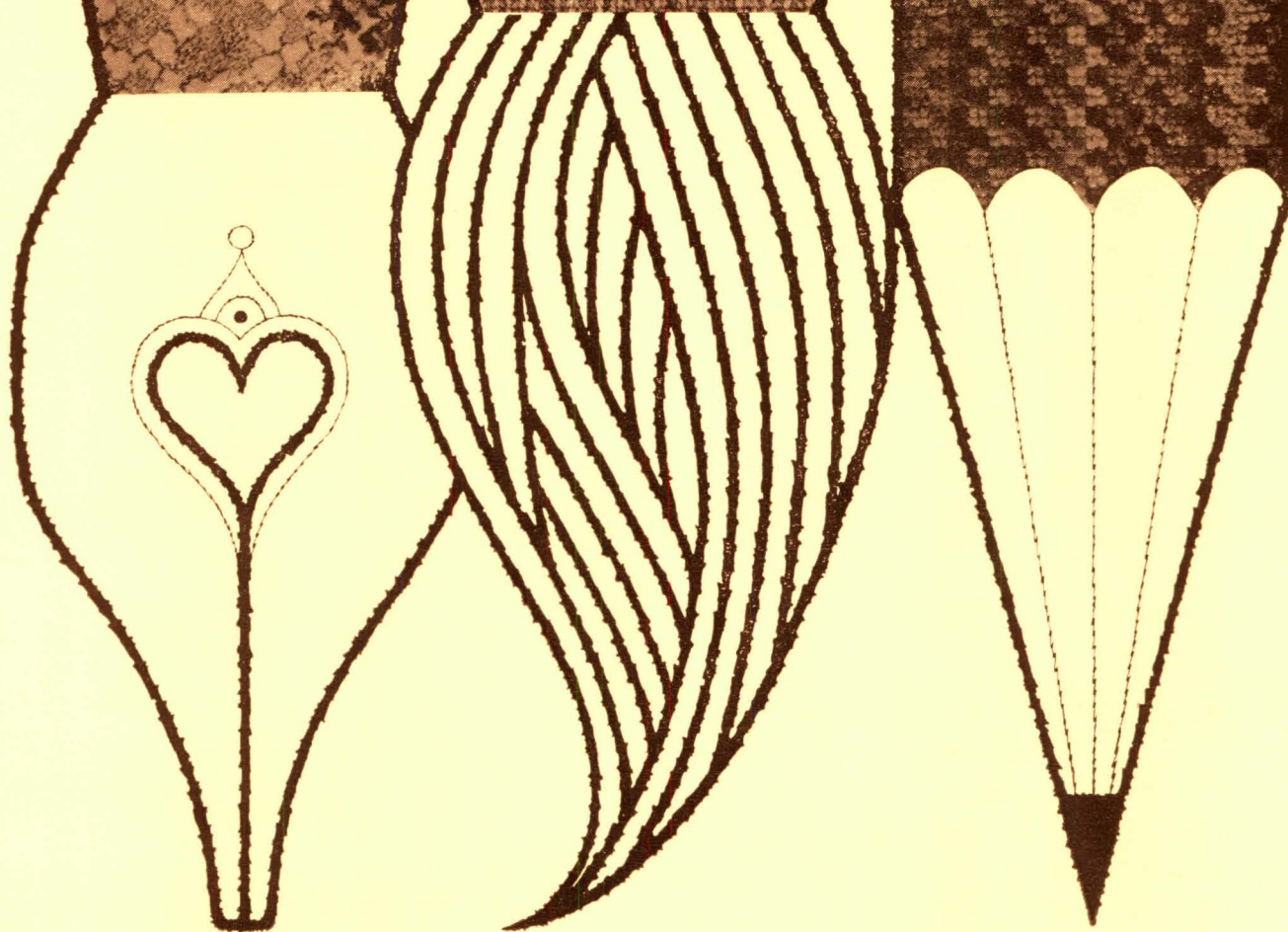
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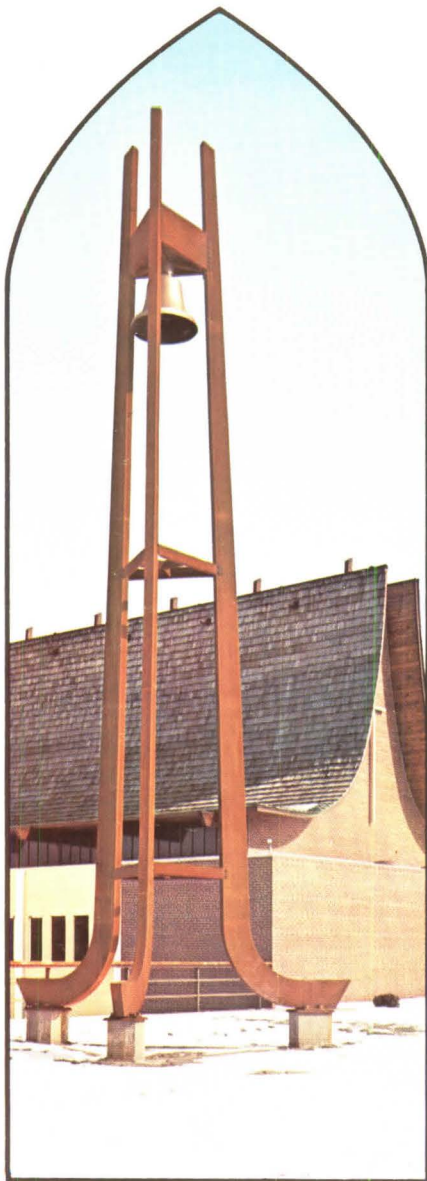
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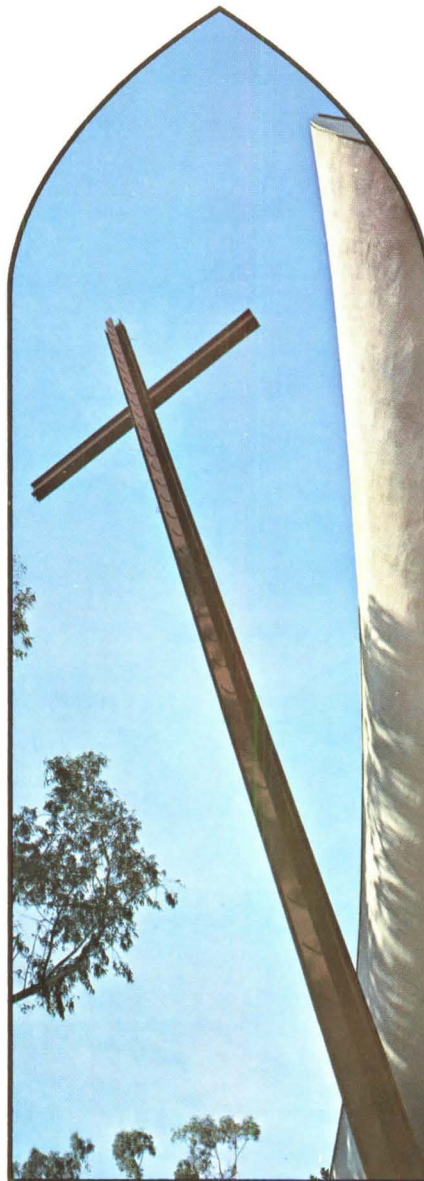
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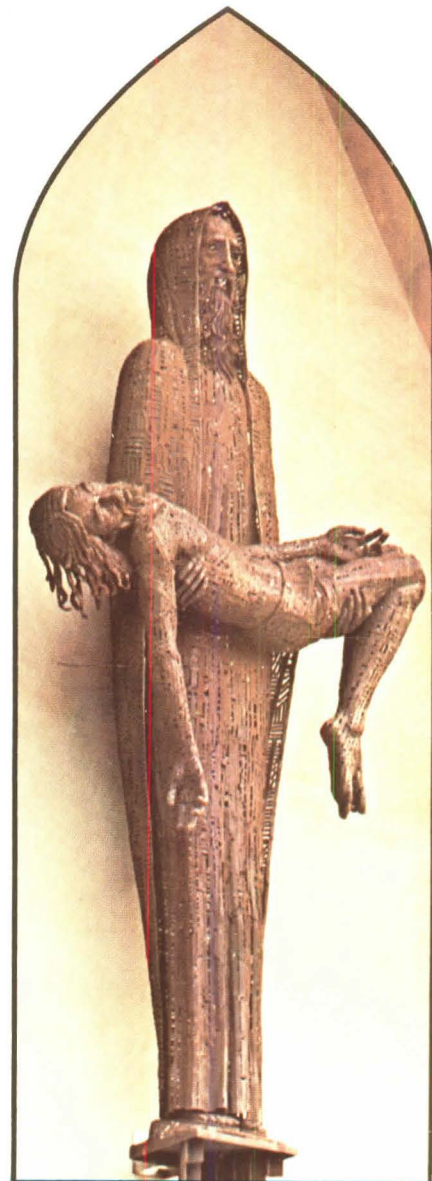
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*Our Savior's Lutheran Church, Eau Claire, Wis.
Designer/Structural Fabricator: Phoenix Steel Corp.
Eau Claire, Wis.*



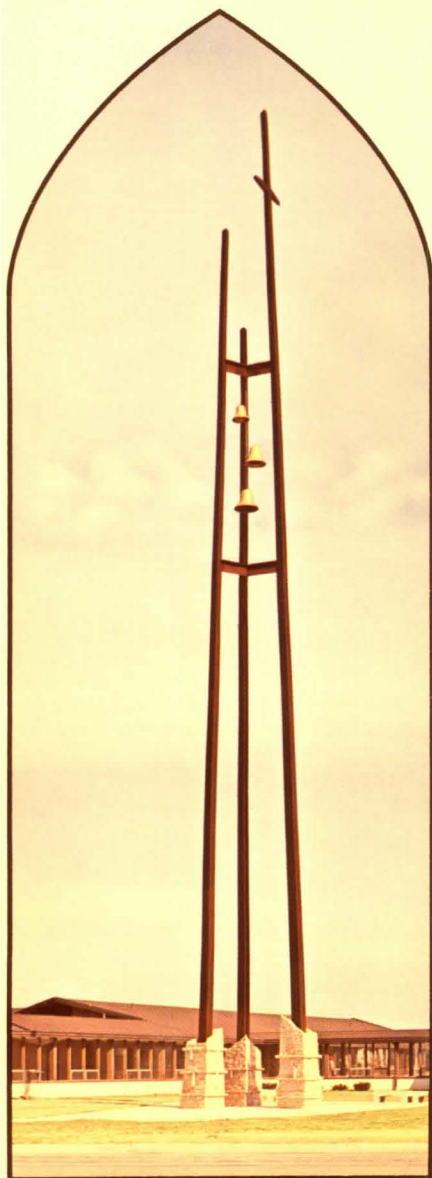
*Loyola Jesuit Retreat House, Portland, Oregon
Architect: Moloney, Herrington, Freesz and Lund,
Seattle, Washington*



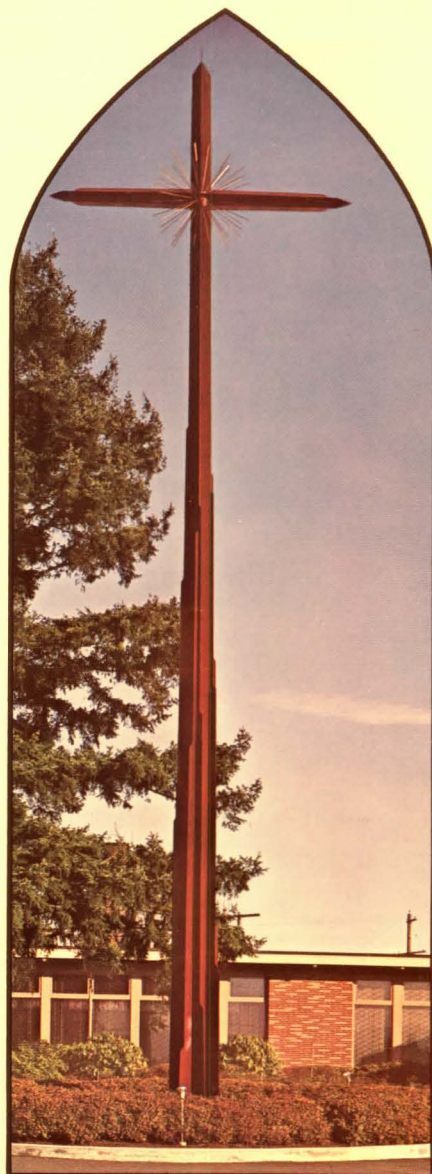
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Architect: Wright & Gilfelen, Celina, Ohio*



*Pacific Lutheran Theological Seminary, Berkeley, Cal.
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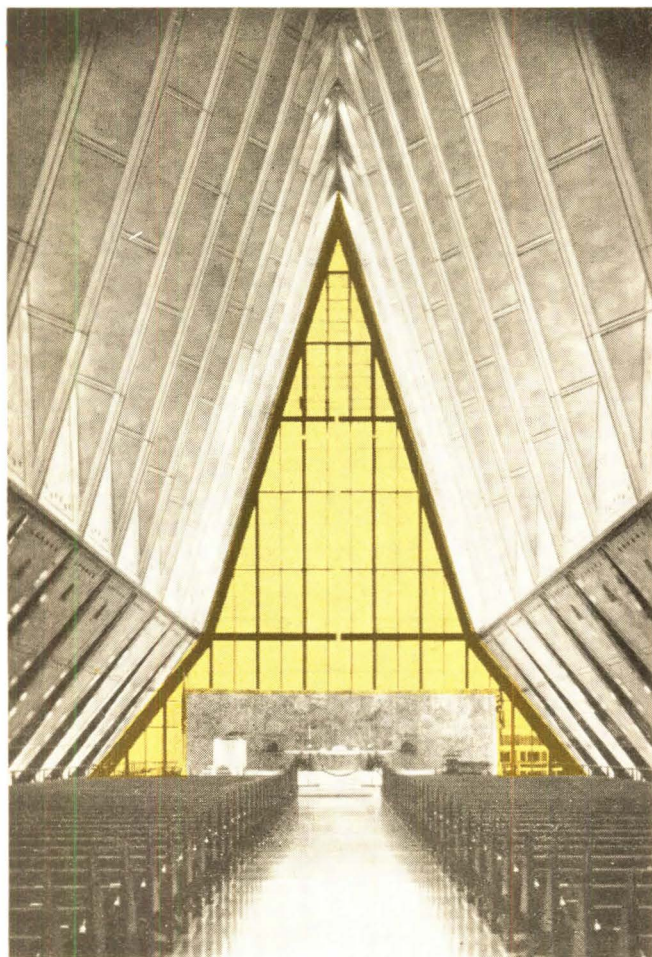
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BOOKS

(continued from page 51)

irreverent value judgments, about half of which will seem, to most readers, to be accurate, and half of which will seem utterly absurd. This is about par for the course in the criticism game. Below par is the author's omission of some of the best new German structures (e.g., the Severins Bridge in Cologne, which is better architecture than almost anything else shown in the book); the omission of the work of some of the best younger German architects (like Hans Müller & Georg Heinrichs, in Berlin); and the omission of a couple of the most significant structures and projects on the recent German scene (like the Bochum University campus by Hentrich & Petschnigg, and the Free University project in Berlin, by Shadrach Woods). Moreover, there are some minor but nonetheless unfortunate failings: for example, there are virtually no plans shown in the book, which makes some of the buildings illustrated in photographs a bit difficult to grasp—especially since the photographs are of uneven quality.

What makes Dean Burchard's book interesting despite these failings is not so much the record which he presents of new German work but, rather, the many incisive, opinionated comments on the state of architecture and urban design which the author manages to inject in the course of his report.

Here are some typical asides-by-Burchard:

On the training of architects: "Education as a form of apprenticeship will, I should think, pay off for German architecture in the long run, as . . . our present system may mar architecture in America. . . [Yet] many of the [U.S.] architects of today whom we most approve are products of academies whose methods we wholeheartedly disapprove."

On American architectural fashions: "There is at least a mild sickness in a system which

regards every new building as a potential seven days' wonder. . . . If allowed to wax, it may yet make architects into millionaires."

On landmarks, real or imagined: "Should you preserve anything you would not think worth rebuilding had it been destroyed? To this I rather think the answer should be 'no'. . . . A city cannot become a museum of architectural history, much as some historians and sentimentalists would like to have it so."

On art related to architecture: "Perhaps the artists and the architects really are incompatible today. Perhaps everybody should stop trying."

And on the UGH-mobile: "The ultimate warning a visit to Germany should give to an American is the memory of what our urban life might have been if we had learned to keep the automobile in its place."

This book was made possible by a grant from the Carnegie Corporation, and the author was given considerable assistance in his research by the German Academic Exchange Service (Deutscher Akademischer Austauschdienst). It couldn't have happened to a nicer author, a nicer corporation, or a nicer Austauschdienst. P.B.

MONTREAL CREDITS: Those responsible for design of the major projects in Montreal included in the article on pages 31 through 49 are as follows:

Place Ville Marie. Architects and Planners: I.M. Pei & Associates (partner in charge: Henry N. Cobb; city planner: Vincent Ponte); Associate Architects: Affleck, Desbarats, Dimakopoulos, Lebensold, Michaud, Sise.

Place Victoria. Architect: Luigi Moretti. Structural Engineer: Pier Luigi Nervi. Associate Architects: Greenspoon, Freedlander and Dunne. Consulting Architect: Jacques Morin.

Place du Canada. Architects for Office Building: John B. Parkin Associates. Architects for Le Chateau Champlain: D'Astous & Pothier.

Place Bonaventure. Architects: Affleck, Desbarats, Dimakopoulos, Lebensold, Sise (partner in charge: R.T. Affleck; project manager: J. E. LaRivière; project designer: Eva Vecsei; project architects: D. Lazosky, H. K. Stenman; project administrator: N. Holloway; planning consultant: Vincent Ponte; hotel consultant: William Tabler).

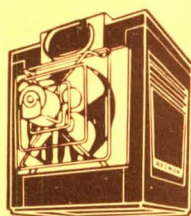


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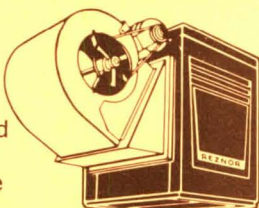
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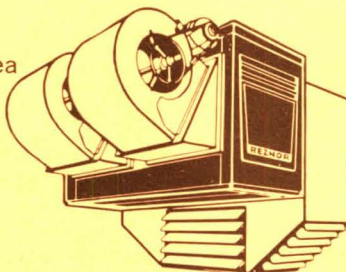
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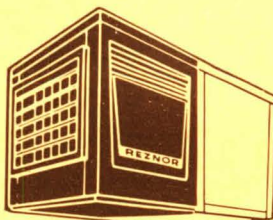
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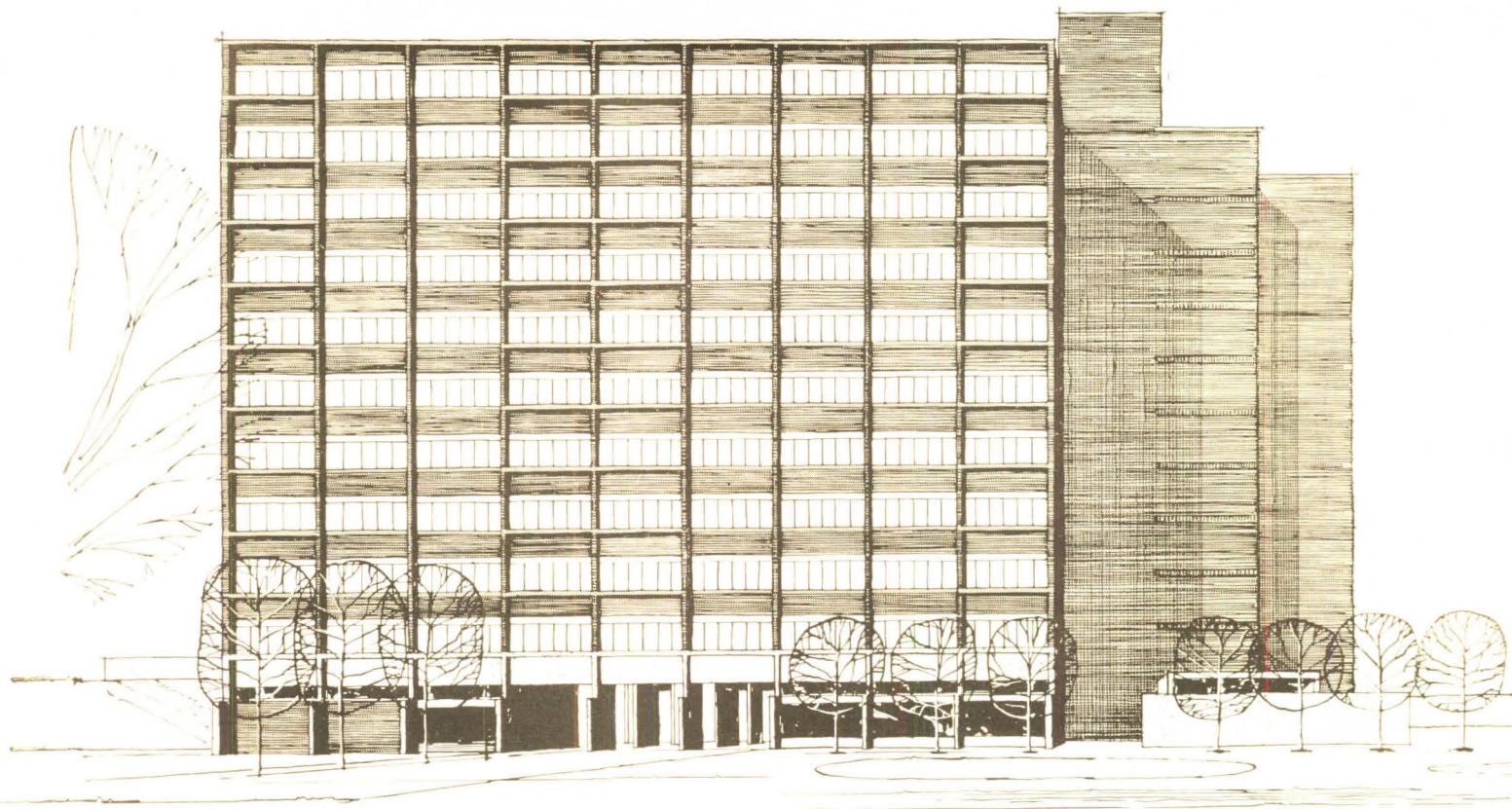
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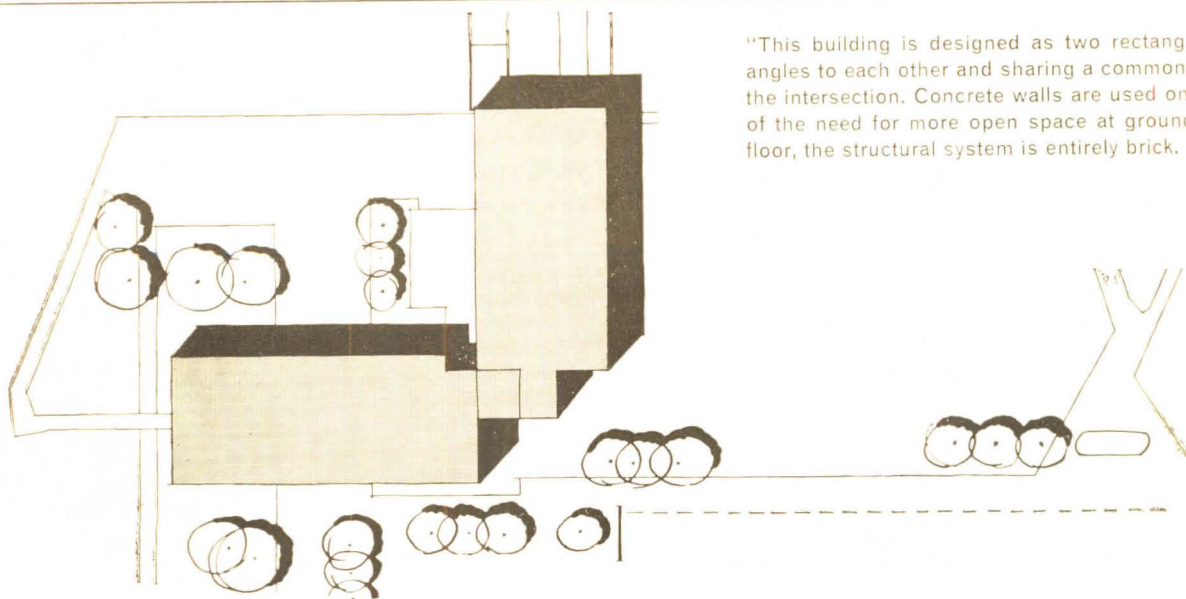
as designed by E. W. Angerer, AIA, and I. J. Milani, AIA

Eight-Inch Bearing Walls Provide Beauty, Economy, Efficiency



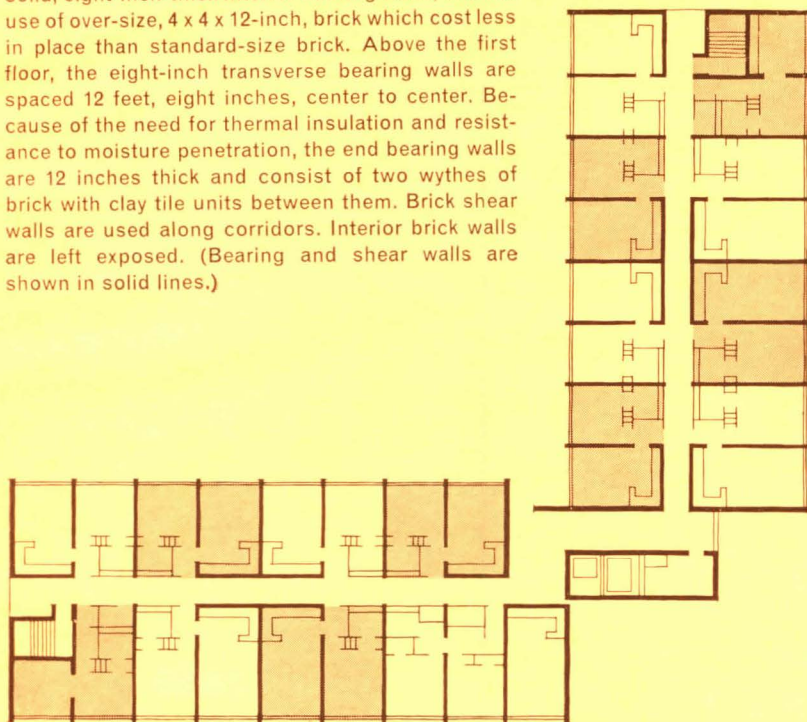
"In designing this Housing for the Elderly apartment project in Rock Island, Illinois, we faced the problem of providing a durable, easily-maintained and attractive building with a high degree of fire resistance and sound control, within the limits of a modest budget. We chose the modern brick bearing wall structural system because it provided all these qualities. This building is 11 stories high and

provides 128,000 square feet of floor space divided into 160 dwelling units. Through the use of brick bearing and shear walls, we were able to separate each apartment by solid, unpenetrated brick walls, and we were able to do this within the \$14.06 per square foot of floor area cost for construction and site development.

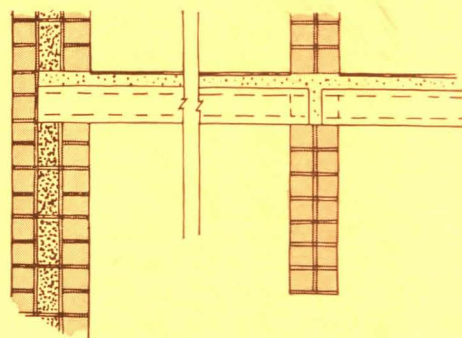


"This building is designed as two rectangular wings set at right angles to each other and sharing a common service core located at the intersection. Concrete walls are used on the first floor because of the need for more open space at ground level. Above the first floor, the structural system is entirely brick.

"The efficiency and economy of our structural system derives from two major factors: The use of solid, eight-inch-thick interior bearing walls, and the use of over-size, 4 x 4 x 12-inch, brick which cost less in place than standard-size brick. Above the first floor, the eight-inch transverse bearing walls are spaced 12 feet, eight inches, center to center. Because of the need for thermal insulation and resistance to moisture penetration, the end bearing walls are 12 inches thick and consist of two wythes of brick with clay tile units between them. Brick shear walls are used along corridors. Interior brick walls are left exposed. (Bearing and shear walls are shown in solid lines.)



"The floor system consists of precast concrete hollow-core planks. These planks bear eight inches onto the end bearing walls and are joined over the center of the interior bearing walls. The planks are topped with two inches of concrete containing wire mesh, insuring diaphragm action. Sills and lintels are of precast concrete laid up with the masonry to be consistent with the layer-upon-layer technique of masonry construction. Corridor floors are supported by small precast beams spanning from one bearing wall to another.



"Total construction and site development cost for the project is estimated at \$1.8 million. Approximately 550,000 dark brown, smooth-face, 4 x 4 x 12-inch brick are required. Mortar used is ASTM Type M. Fire rating for all brick walls is four hours.

"In order to minimize construction co-ordination problems, the building is designed so that all mechanical trades install their work after the spaces are enclosed. No conduit or mechanical elements are embedded in the basic wall-floor systems. Plumbing and utilities rise vertically through spaces provided behind the bathrooms and kitchens of each unit. Electrical devices in apartments are placed in gypsum board partitions, with the exception of a surface raceway incorporated in a chair rail running along the brick partitions. This method of handling plumbing and other utilities greatly simplifies construction. In addition, because the entire structure and shell of the building consists of only brick and precast concrete, the problems involved in joining materials with dissimilar expansion and flexural characteristics have been minimized. We feel that the resulting simplicity of construction widened our field of qualified bidders."

Project: **Housing for the Elderly, Rock Island, Illinois**
Architects: **E. W. Angerer, AIA, and I.J. Milani, AIA, associated architects**

Structural Engineers: **Petersen & Appel**

Owner: **Housing Authority of the City of Rock Island, Illinois**

BRICK:
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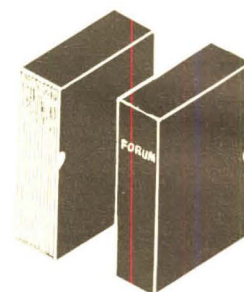
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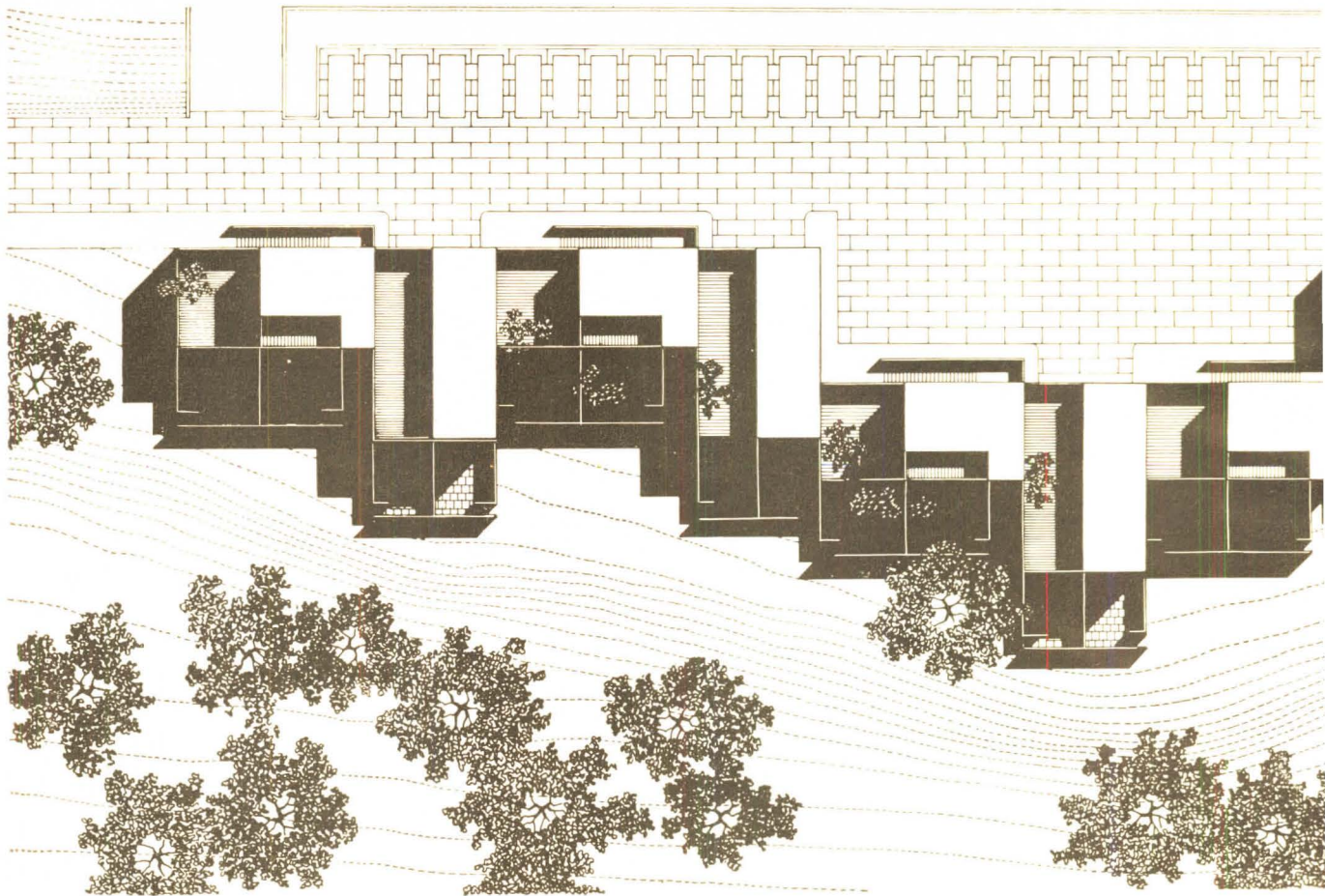
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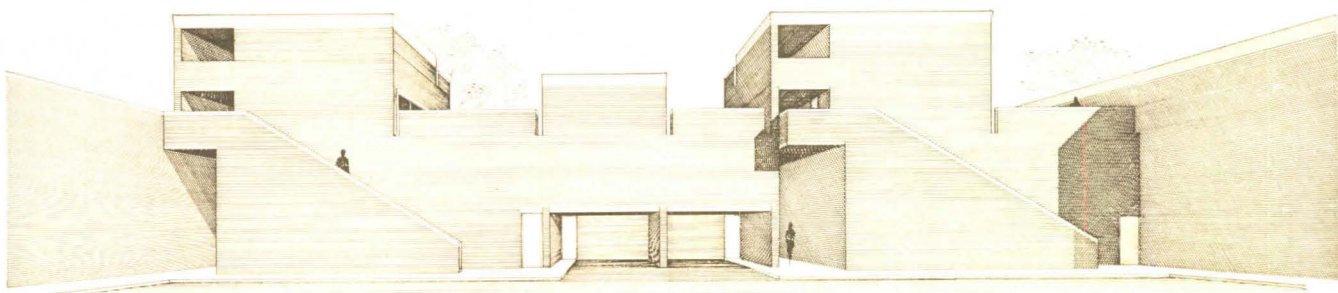
25 million families benefit by child care, family service, youth guidance, health programs, disaster relief and services for the Armed Forces from 30,000 United Way agencies.

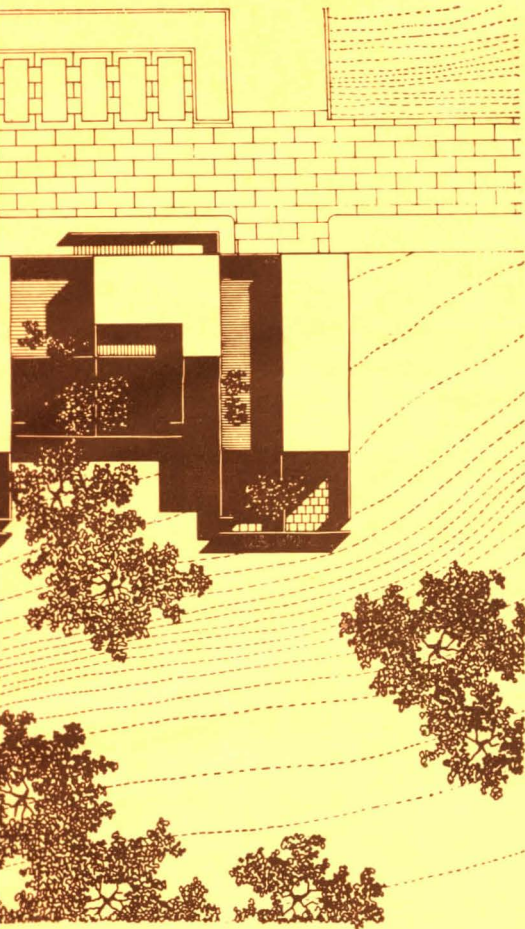




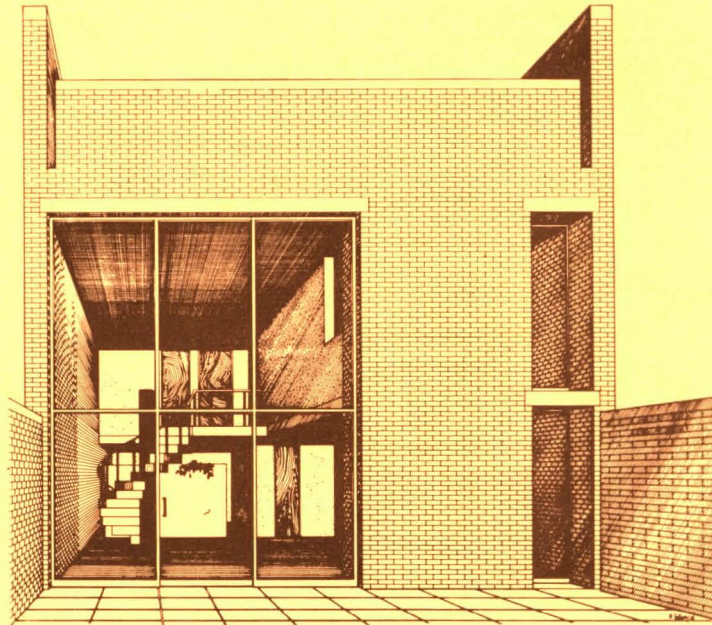
Marvin Hatami designs an apartment house

**Utilizing Zonolite® Masonry Fill Insulation
he cut operating costs \$600 annually and handed
his client a 206% return on his investment**





Zonolite prototype building #11: a walk-up apartment complex.



Architect Marvin Hatami and consulting engineers Cator, Ruma & Associates, both of Denver, Colorado, were commissioned by Zonolite to design this spacious, 35 apartment complex.

One of the problems to be faced was engineering the structure to withstand Denver's severe winters, yet remain consistent with budget requirements.

To do this, Mr. Hatami specified Zonolite Masonry Fill Insulation. The addition of Masonry Fill increased net costs by \$3400. However when

this is figured against a 20 year mortgage life, at 6% interest, the annual cost becomes only \$292.

Compared to the annual \$600 reduction of operating costs, Zonolite provided a \$308 a year saving for the client. That's a whopping 206% return on his investment.

The reason for this high return is the low cost, combined with the effectiveness of Zonolite Masonry Fill Insulation.

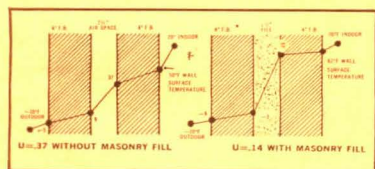
Masonry Fill also reduces initial building costs because smaller, more efficient heating units can be

utilized. And because of the insulation's sound absorption qualities, each apartment is quieter.

Additional facts worth investigating are contained in our Bulletin MF-113. Write Zonolite, 135 South La Salle St., Chicago, Illinois 60603.



ZONOLITE DIVISION W. R. GRACE & CO.
135 SO. LA SALLE ST., CHICAGO, ILL.



At 10° below zero, with the building heated at 70°, the interior surface of an outside wall without Zonolite would register an uncomfortable 50°.

By installing Zonolite Masonry Fill Insulation, the architect was able to increase inside wall temperature to a comfortable 62°.

DESIGN CONDITIONS			Winter Heat Loss in BTU/HR. Assuming 70° F Indoor —10° F Outdoor	
Walls	Without Masonry Fill	With Masonry Fill	Without Masonry Fill	With Masonry Fill
	4" Face Brick 2½" Air Space 4" Face Brick	4" Face Brick 2½" Zonolite Fill 4" Face Brick	826,000	313,000
Roof	Roofing, 4" Concrete 2" Insulation		155,000	155,000
Floor	4" Concrete on Grade		41,000	41,000
Glass	¾" Plate Glass		780,000	780,000
Ventilation	4000 CFM		504,000	504,000
Totals			2,306,000	1,793,000
% Savings with Masonry Fill			$\frac{2,306,000 - 1,793,000}{2,306,000} \times 100 = 22\%$	

1. Operating costs are reduced by over \$600 per year.

2. 34,000 sq. ft. of walls (includes 6,000 sq. ft. of Interior Walls) @ 10¢/ft. = \$3,400 installed.

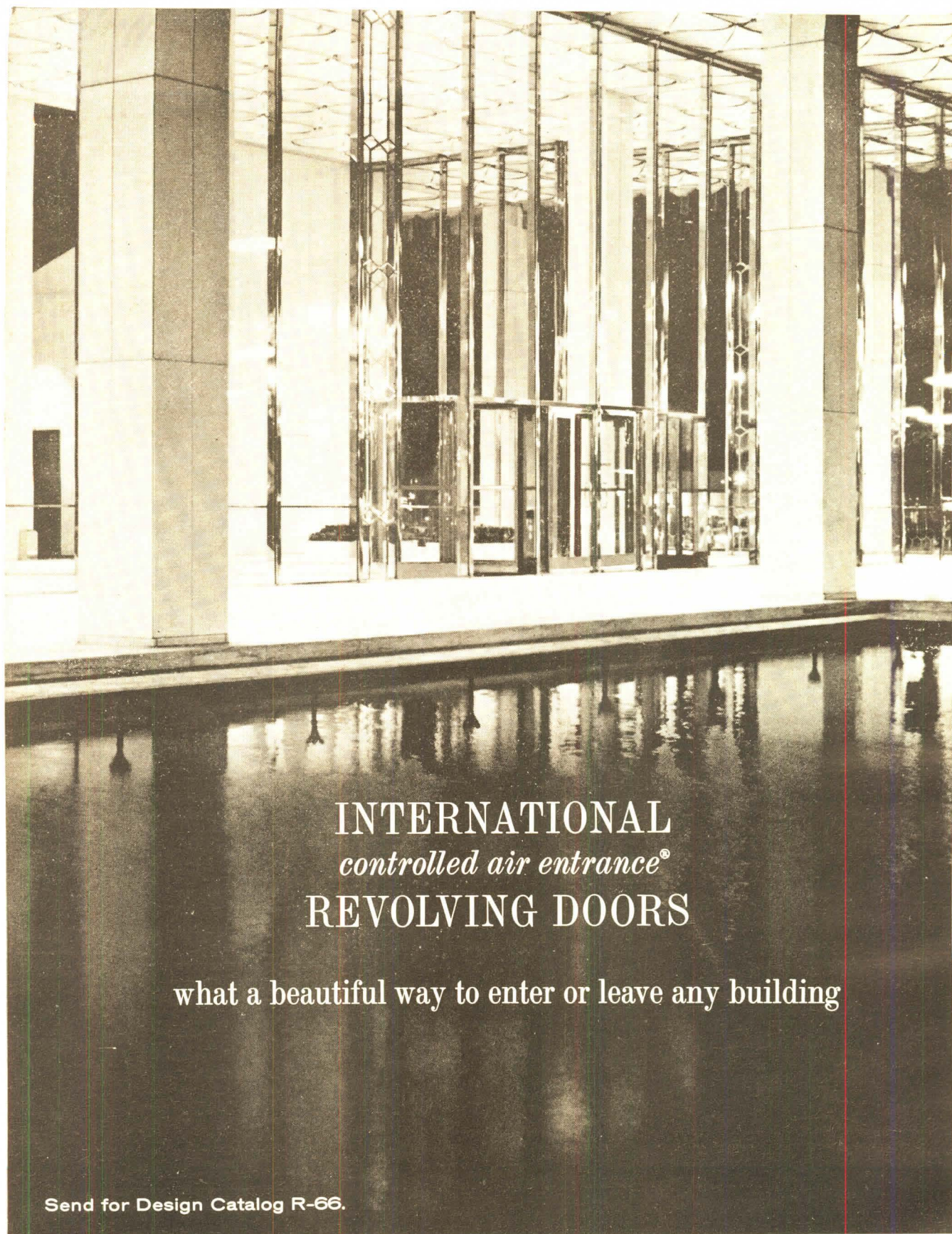
3. Raised indoor wall surface temperature from 50° F to 62° F provides added comfort.

4. Increased wall attenuation characteristics reduces sound transmission between apartments by a considerable amount.

Based on 5673 degree days \$.053 per therm gas boiler.

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Based on 5673 degree days \$.053 per therm gas boiler.



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Photo shows: Michigan Consolidated Gas Co., Detroit, Michigan • Associate Architects: Minoru Yamasaki — Smith, Hinchman and Grylls

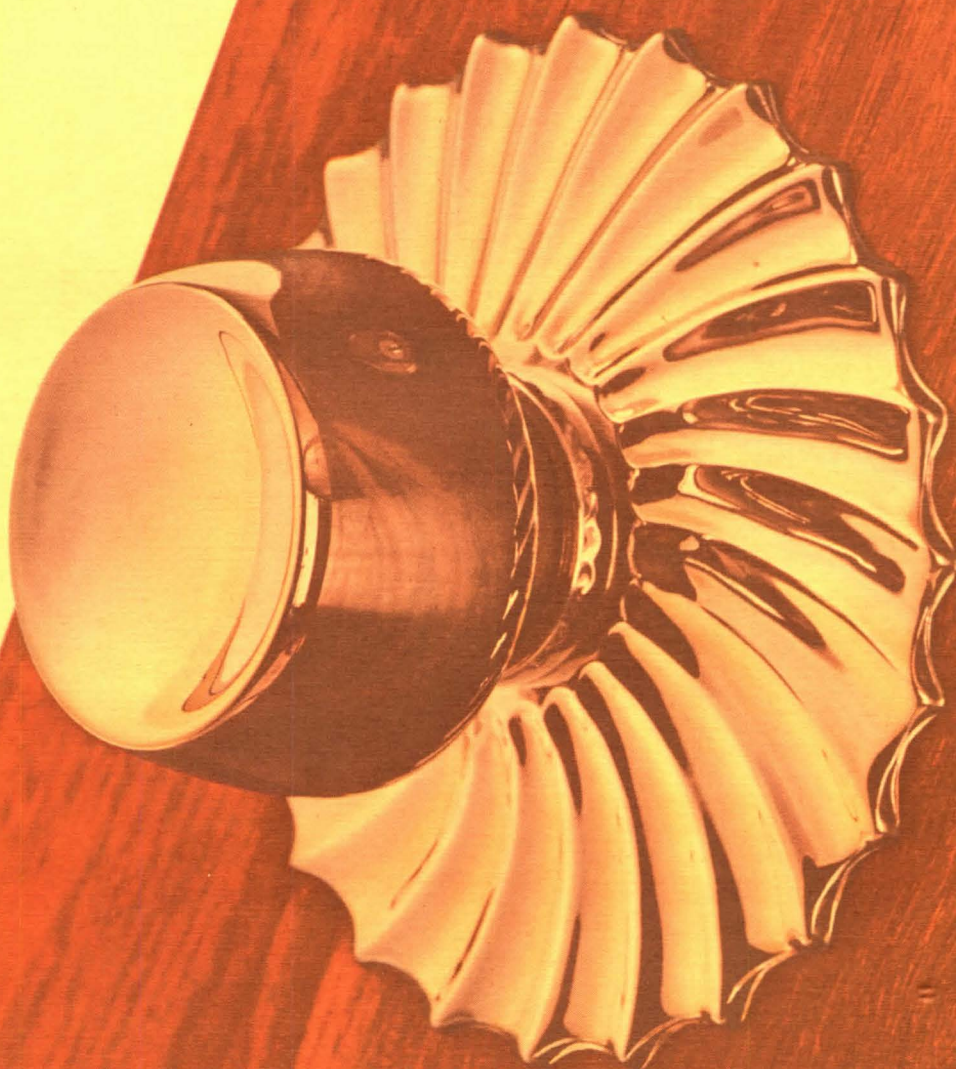
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QUESTION: is there a ceiling lighting-concept designed to answer this modular building's changing needs?

"Providing flexibility for future interior needs is a big problem with any commercial structure, as it was here," advises Harry J. Devine, architect of Sacramento's Wells Fargo Bank building. "The building was under construction before there was any determination of partition layout for the upper floors. This meant that both lighting and air handling be versatile enough to anticipate any kind of interior arrangement. Day-Brite's Clymatron with Barber-Colman air handling components supplied the perfect answer. A Clymatron in each basic 5' x 5' module provides complete flexibility of interior layout and control of environmental comfort (lighting, ventilation, heating, air conditioning). Thanks to Clymatron's pre-tested record of performance, the installation has received the highest praise . . . from building custodians right on up to top management."

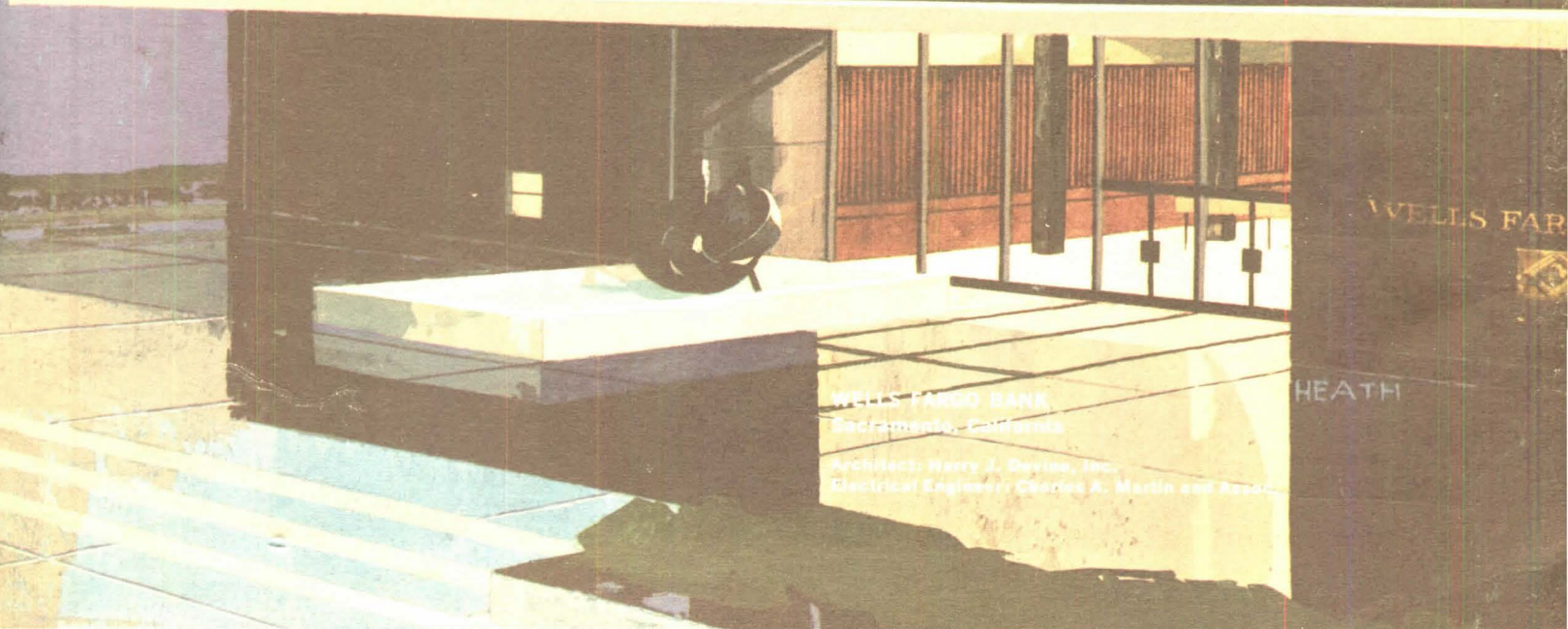
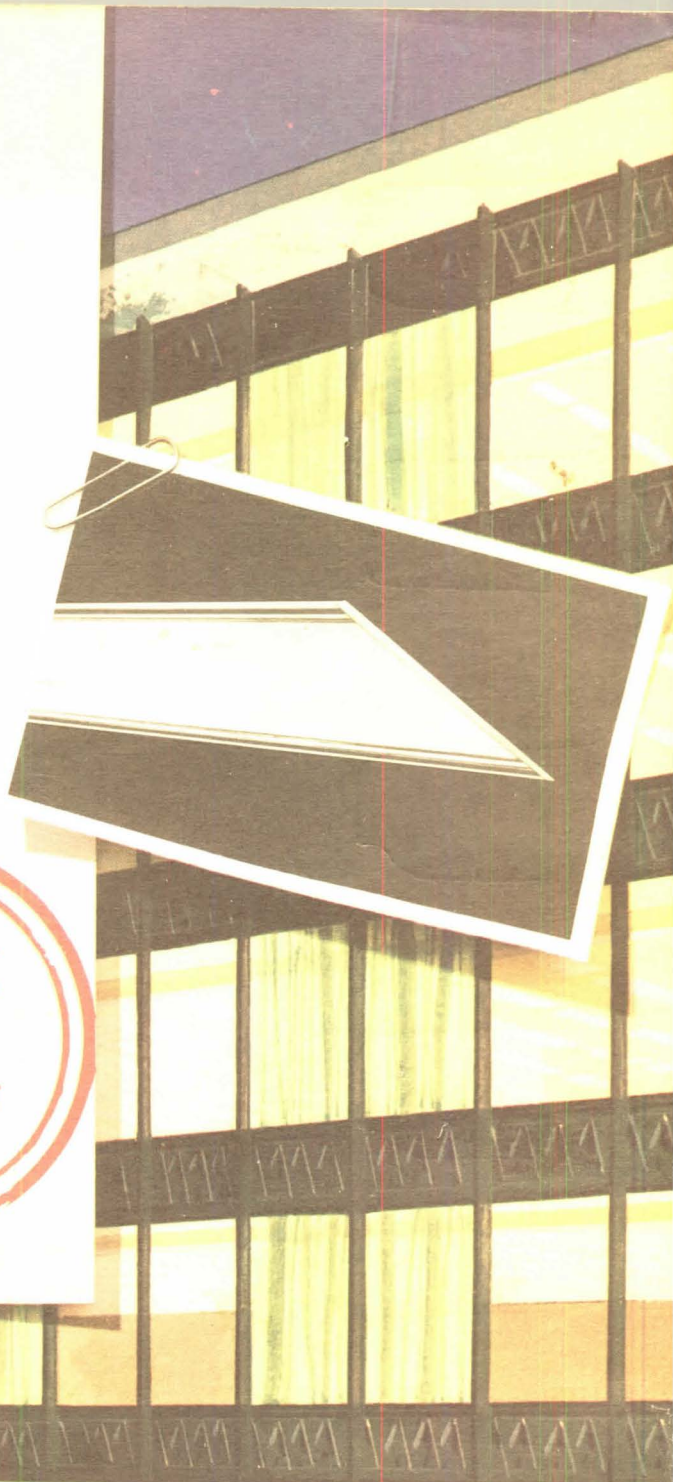
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5411 BULWER ST. LOUIS, MO. 63147

ANSWER:

Pre-tested
okay for interior
flexibility



WELLS FARGO BANK
Sacramento, California

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Electrical Engineer: Charles A. Martin and Assoc.