Buildings for business and government : Exhibition: February 25-April 28, 1957

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ACKNOWLEDGMENTS

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We are grateful to the architects whose works are included in this exhibition for their active cooperation, and to the following individuals who have been particularly helpful: Mr. Gordon Bunshaft, Mr. R. J. Bush, Mr. Theodore Conrad, Mr. Anthony De Santis, Mrs. Charlotte Dyer, Mr. John Dinkeloo, Mr. Richard Foster, Mr. Christopher Gerould, Mrs. Phyllis Lambert, Mr. Walter Netsch, Mr. R. E. Sayre, Mr. Carvel Tefft, Mr. Harry Van Dyke, Mr. Ralph Youngren.

ARTHUR DREXLER

Modern architecture in the United States has begun to enjoy a new kind of patronage. Business and government alike are rediscovering the rewards of fine building, and the results can be seen not only in individual works of great beauty but in a generally higher standard of excellence.

Among the major factors which contributed to this development were the enthusiastic reception given to some of Europe's outstanding architects and teachers, when they converged on this country in the years just before World War II; the related emergence of a younger generation of architects whose training has been free of eclectic prejudices; and the example of the recent work in America of Ludwig Mies van der Rohe.

But perhaps most important is the continuance of a building boom rivaled in size only by that in Latin America. The sheer quantity of building activity in the United States today has given architects a new freedom, and has disclosed to their clients unsuspected pleasures and possibilities. Indeed, it is a national enthusiasm for the act of building itself that is carrying architecture into livelier realms.

In the past, architectural adventures have been underwritten chiefly by private persons, responsible only to themselves. Important modern buildings have also been executed for universities and other institutions, and from time to time corporations, directed by men of unusual perception, have commissioned outstanding buildings for business and industry. Famous examples are the office building designed by Frank Lloyd Wright in 1938 for S. C. Johnson & Sons, and the laboratory tower added to it by Wright in 1949. Many other examples of intelligent support from business and institutions can be found in Wright's work alone, but today large architectural offices, as well as the rare genius, are receiving the support of informed, cooperative, and increasingly perceptive clients.

Government – both state and federal – has begun to discard its timid embarrassment before the heritage of Euro-

pean culture. Emboldened perhaps by its present role in world affairs, the United States no longer demands that major government commissions be executed in antique styles. The embassies being built abroad by the State Department, as part of a program which began in 1946, and the new Academy for the United States Air Force, look like what they are: modern American buildings.

Business organizations are now undertaking building programs that deliberately exceed strict utilitarian limits. Lever House in New York City, though it set a standard in its generous use of an urban site, was not an isolated example of socially constructive participation by the client. Such participation may take many forms. The conspicuous expenditures by which Renaissance patrons outdid each other were naturally dependent on what was most difficult to obtain: fine materials, the best craftsmanship, and good sculpture, paintings, and decoration. Today's most valuable substance is space. In the present condition of our cities the use to which land is put is a decisive factor in architectural quality. Releasing part of a site so that it may be used as open space allows light and air to penetrate narrow streets, and makes it possible to see the buildings—a consideration of some importance if we are to have architecture at all.

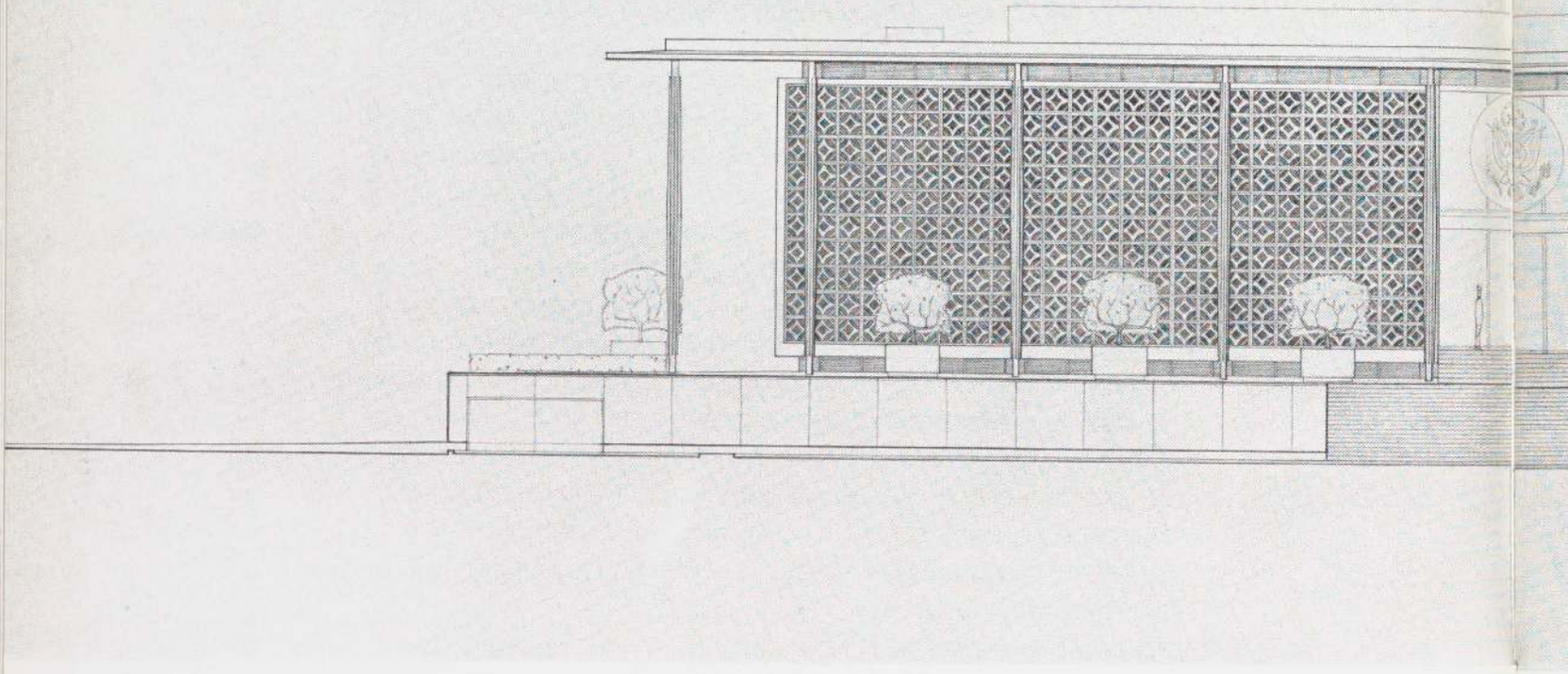
Sculpture and painting have not become as much a part of modern architecture as many people would like them to be. Merely to install a sculpture, however large, is not enough. Its successful relation to the building, unless it is structurally self-evident, must depend on the exact coincidence of the architect's and the sculptor's intentions. As an alternative the architect may execute the sculpture himself, as Mies van der Rohe proposes to do for the Seagram building.

Beautiful materials do not in themselves guarantee beautiful architecture. But a more generous investment in good materials (which sometimes have the advantage of economy through easier maintenance) is a method of enhancing architecture no less valid today than it was centuries ago.

Happily our buildings are beginning to benefit from the attention to materials lavished on the automobile and other industrial products.

Of the six projects in this exhibition, the buildings for Joseph E. Seagram & Sons and the Chase Manhattan Bank are located in crowded urban areas; the St. Louis airport terminal serves as an entrance to the city. Each of them makes an important contribution to its immediate environment. But their individual merits, isolated in the disordered urban scene, emphasize the potential advantages of coordinated city planning. Some of these advantages may be inferred from the rational organization of the United States Air Force Academy and the General Motors Technical Center, which are almost small cities in themselves.

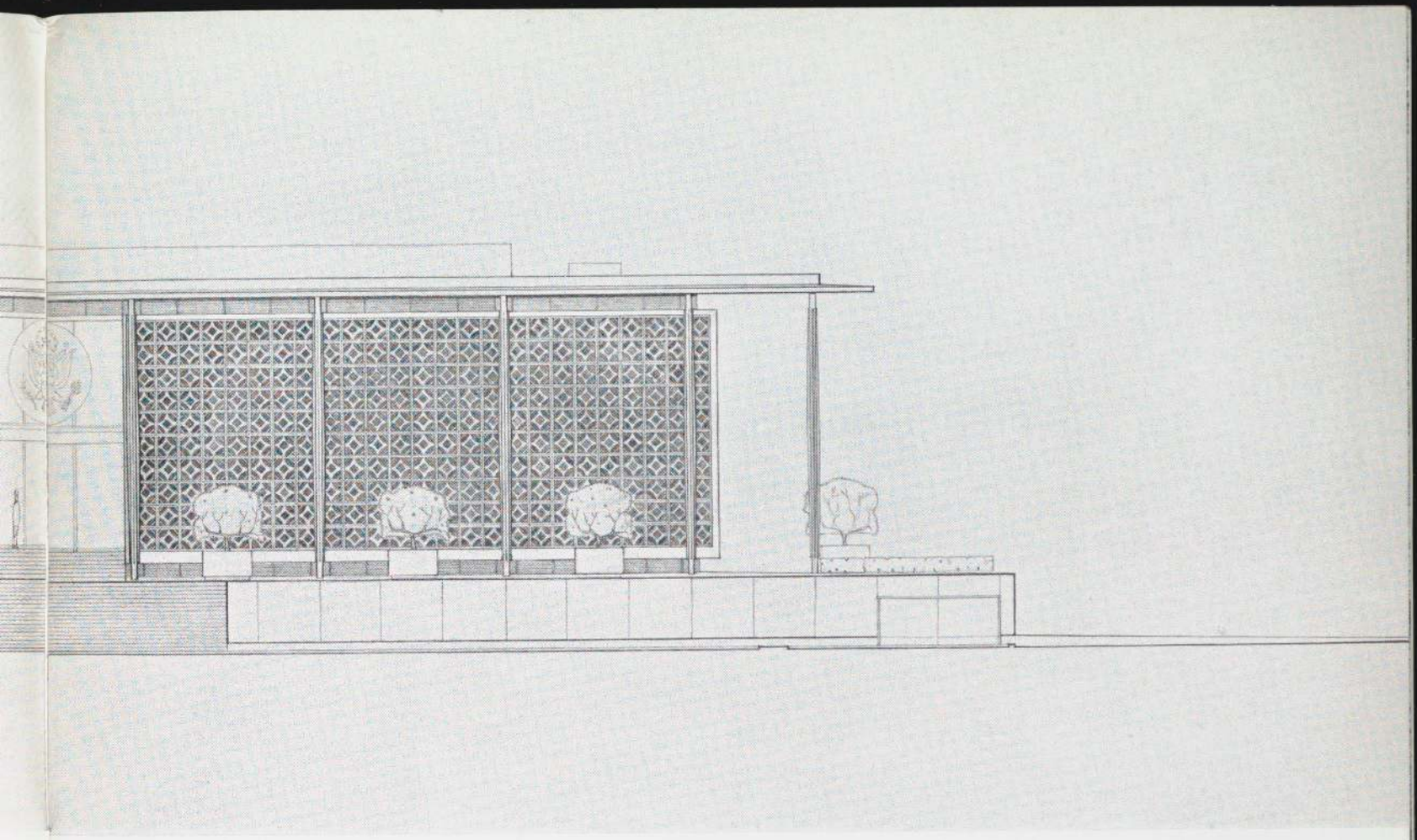
The concern with esthetic and social values exhibited by business and government through these buildings is not in itself new. It denotes rather a shift in emphasis: clients are becoming patrons.



Entrance elevation

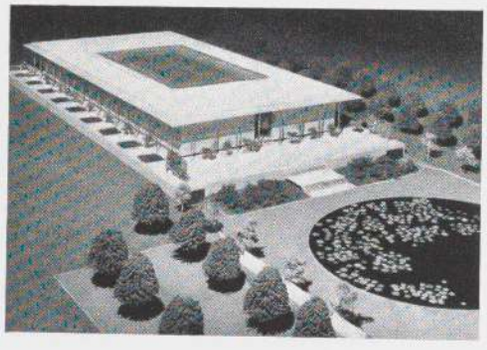
United States Embassy for New Delhi

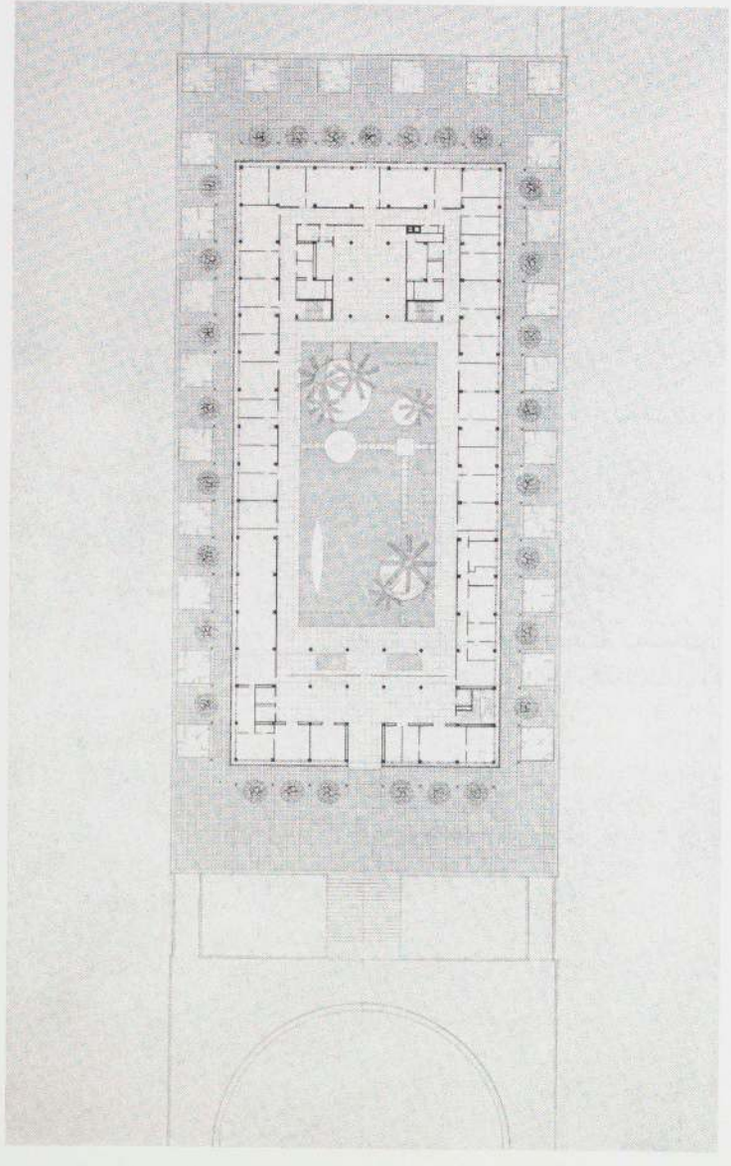
Edward D. Stone, architect
Stanley M. Torkelsen; Lloyd Flood; Richard W. Snibbe, associates
Peter W. Bruder, engineer

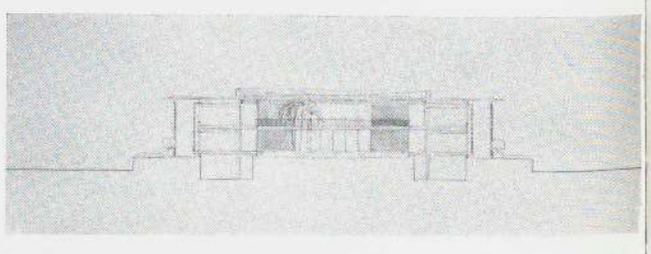


This building is one of a series commissioned during the last ten years by the Foreign Buildings Operations of the Department of State. Standing on a platform 80'x380', the two main floors, largely glass walled, are protected from India's sun by a continuous grille of pierced terra cotta tile. This grille will reduce the heat load on air-conditioning, as will the overhanging extra roof serving as a parasol three feet above the building proper. Projecting well beyond the grille, the parasol roof is supported at its perimeter by slender gold-colored steel columns, and perforated along its edge to cast lines of light on the richly shadowed tile. Offices and reception rooms are grouped around a shallow pool, in which stepping stones lead to tree-shaded islands. The entire patio is open to the sky but shaded from the sun by a suspended mesh ceiling of aluminum discs anodized gold. In wet weather visitors may enter the building through a garage inside the platform, where service and storage facilities are also housed.

Clear organization of its various elements gives this building much of its distinction. The choice of materials and colors, and the architect's intelligent adaptation of such locally traditional amenities as pools and pierced tile walls, give it an atmosphere appropriate to its purpose.

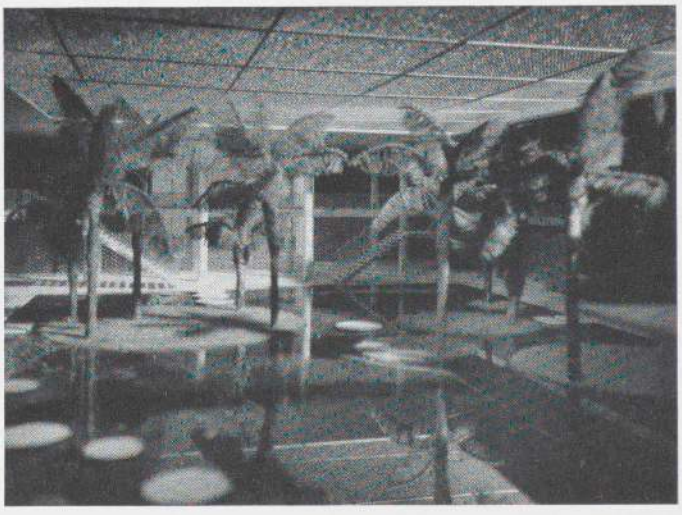






Above: section through interior water garden.
Left: plan at main floor.

Model. Entrance elevation and pool.



Model. Interior water garden with trees grouped on islands.
Roof of aluminum mesh anodized gold.

United States Air Force Academy, Colorado Springs, Colorado.

Skidmore, Owings and Merrill, architects
Dan Kiley, landscape architect

Welton Beckett, Pietro Belluschi, Roy Larson, Eero Saarinen; consultants to the Air Force.

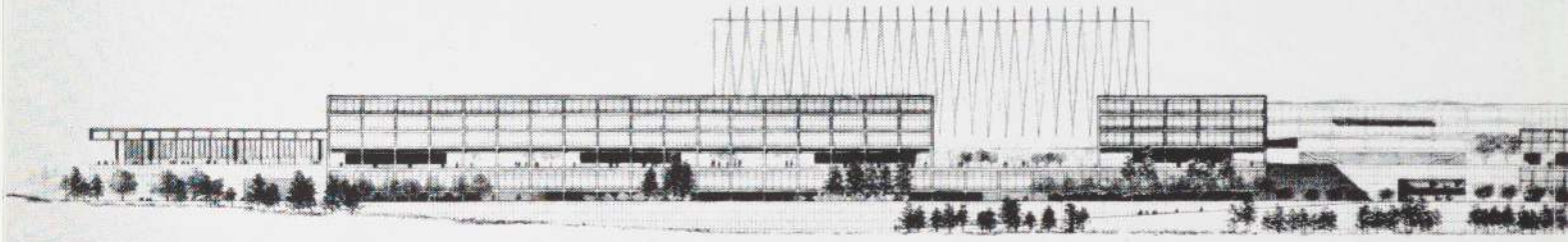
Now in construction north of Colorado Springs, the new Air Force Academy will include housing, supporting facilities, and an airfield (although flying is not part of the cadets' curriculum). The Academy proper occupies roughly 400 acres of a 17,500 acre site. As a backdrop it has the Rampart Range of the Rocky Mountains on the west; the land slopes downward toward the east and south.

Six of the seven major buildings have been grouped on paved platforms modeled out of the site. Since the cadets march from building to building it was desirable that their quarters be centrally located. The Quarters building is in a sense the pivot of the composition. It consists of two floors above and two floors below an open arcade, where the cadets are assembled and where supervisory offices are located. This building is 1,341 feet long, with the upper part divided into two sections by an open garden court. There are three interior courts with landscaped gardens and streams.

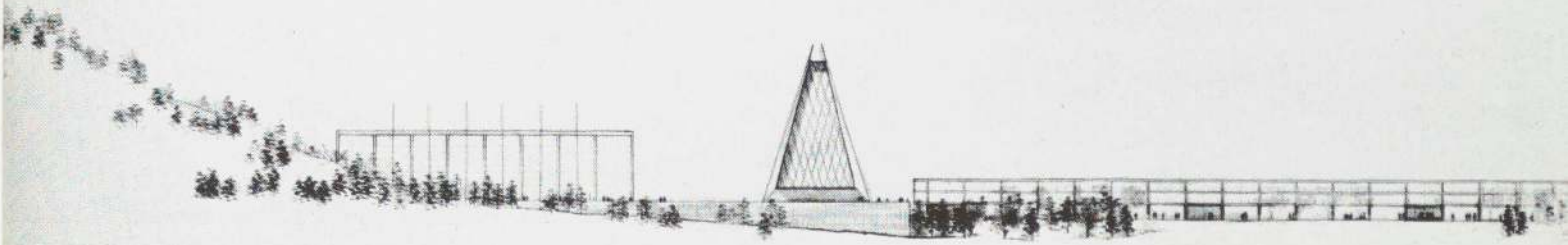
From the terrace fronting the Cadet Quarters, ramps and stairs lead up to the paved Court of Honor, bordered by the Administration building and the Social Hall, which includes an auditorium for 3,000. At the opposite end of the site, below, are the Dining Hall and the Academic building. The latter is divided vertically by a completely open floor, the lower part of the building, below the terrace level, containing approximately 200,000 square feet of laboratory space. The upper part, divided into two units, is devoted to classrooms and to the Library. The Dining Hall is a square building with two acres of roof supported on 16 columns. 3,000 people can be seated at one serving.

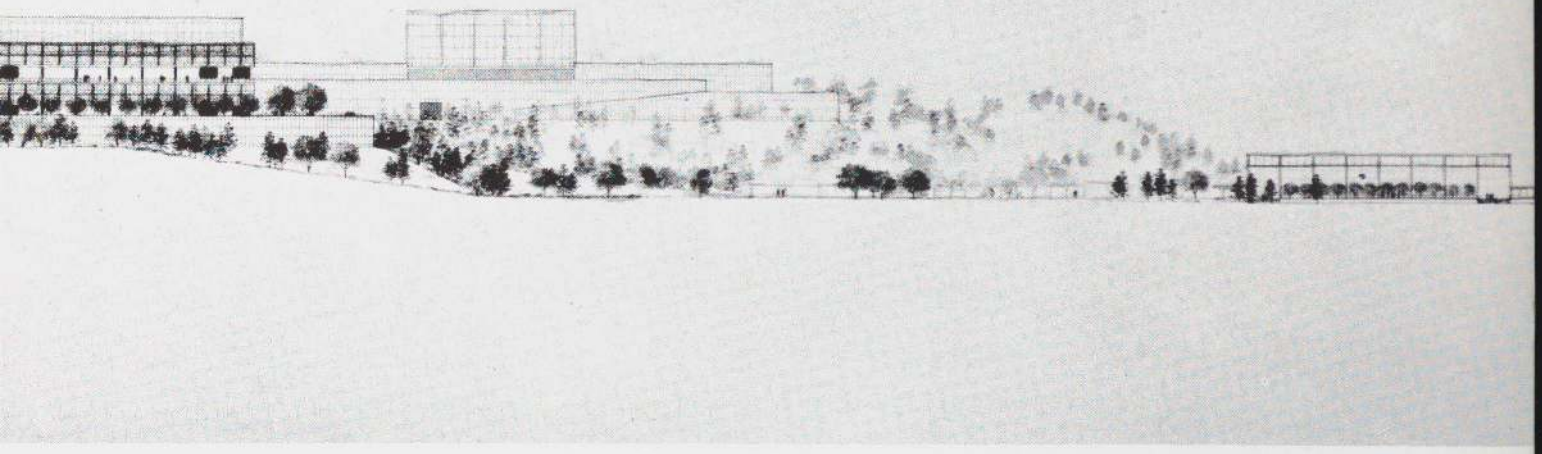
Adjacent to the Court of Honor will be the Chapel. This building is intended to provide a focal point for the entire group. Now in process of design, it is planned to contain one chapel each for Protestants, Catholics, and other faiths. Acoustic controls will allow the three chapels to be used simultaneously. The approximate dimensions of a building in which this may be done are roughly 280 feet in length, 84 feet in width and 106 feet in height. The Chapel is being designed to heighten the linear and generally flat character of the structural idiom, rather than to oppose it with a contrasting sculptural form.

Without sacrificing variety in the design of individual buildings and their groupings, architects Walter Netsch and Gordon Bunshaft have given the entire composition a unity difficult to achieve on so large a scale.

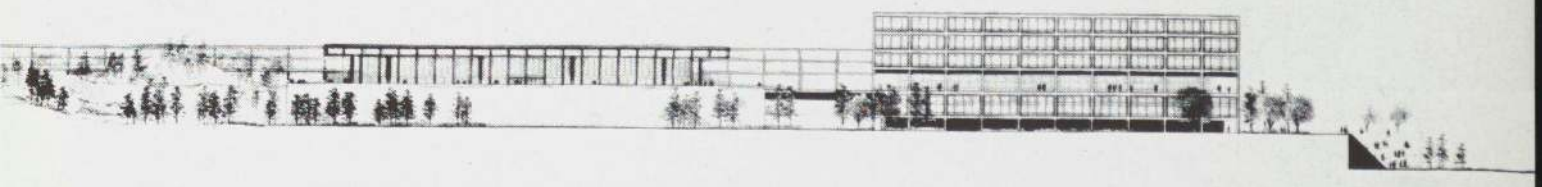


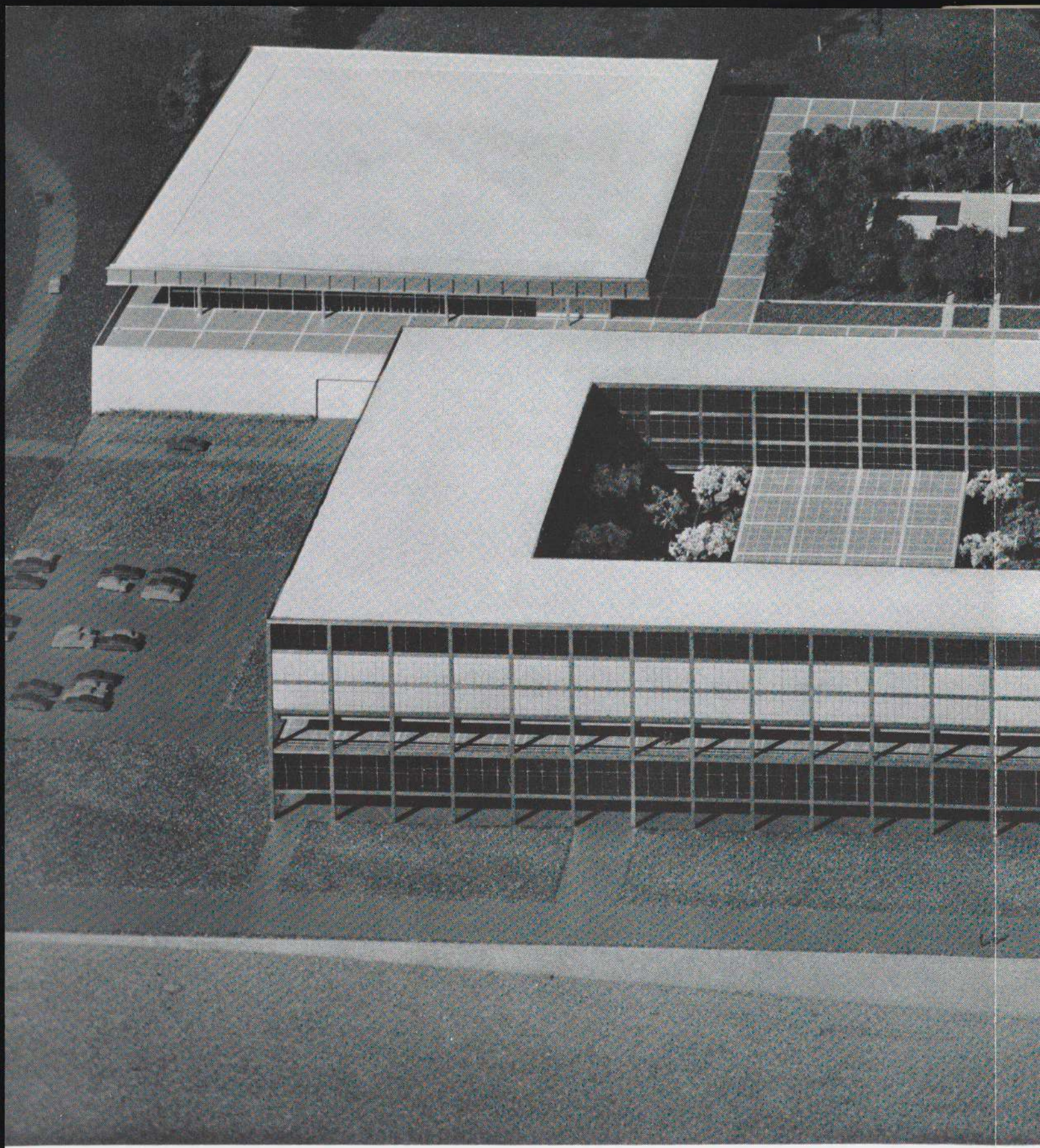
Above: west elevation. From left to right: Dining Hall, Classrooms, Chapel (background), Library, Administration (background), Ca



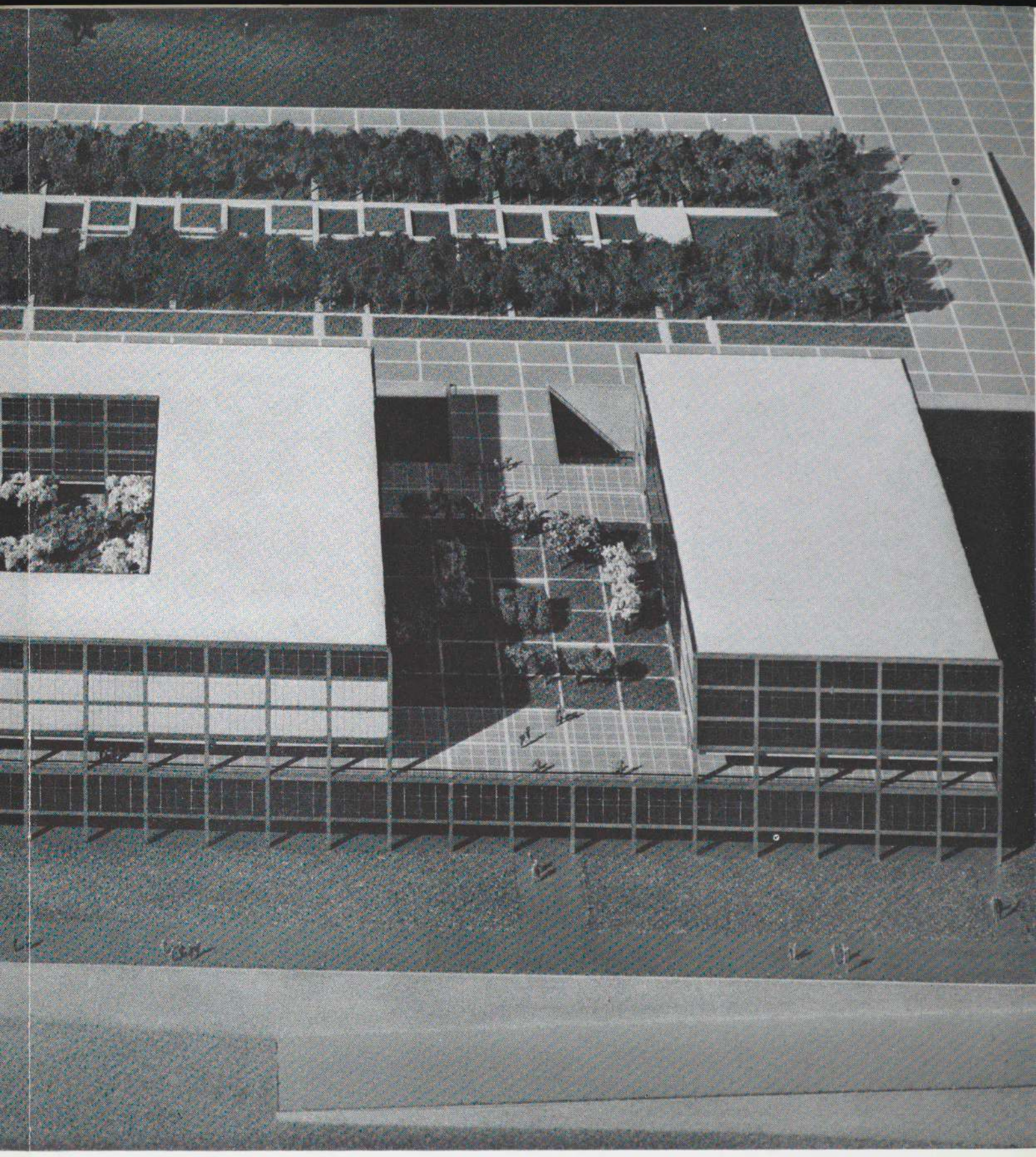


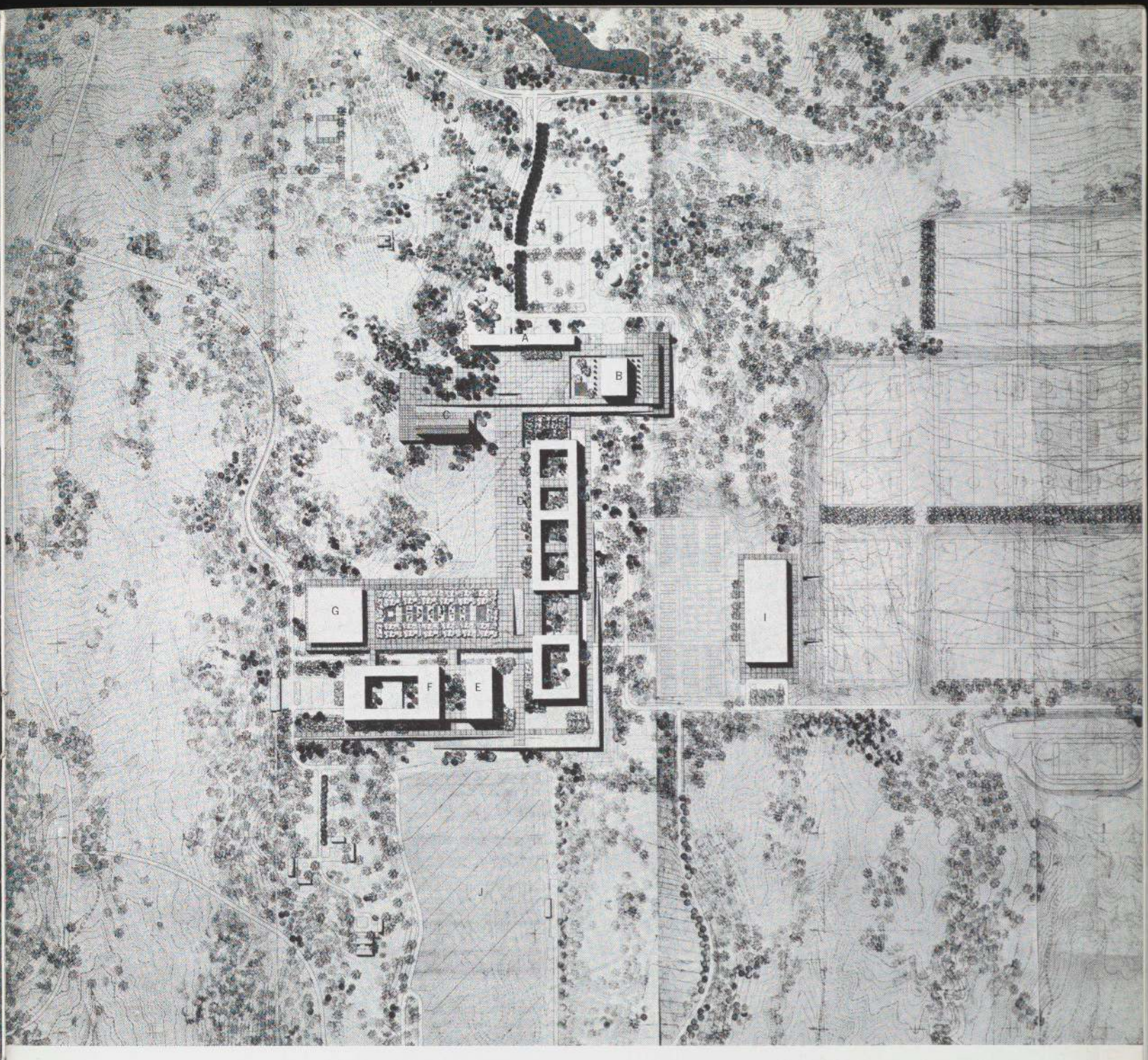
adet Quarters, Social Hall (background), Physical Education. Below: elevation looking north.





Model. Academic building in foreground has laboratory floor below, classrooms and Library in separate units above. Dining Hall is in background at left. Formal garden by Dan Kiley combines rectangles of blue tiled pools with planted areas and paved walks.





Plan. Area is entered by public at west (top of drawing). Site slopes downward to east.

A Administration, Superintendent and Staff

B Social Hall and Auditorium

C Chapel

D Cadet Quarters

E Library

F Classrooms and Laboratories

G Dining Hall

H Formal Garden

I Physical Education

J Parade Ground

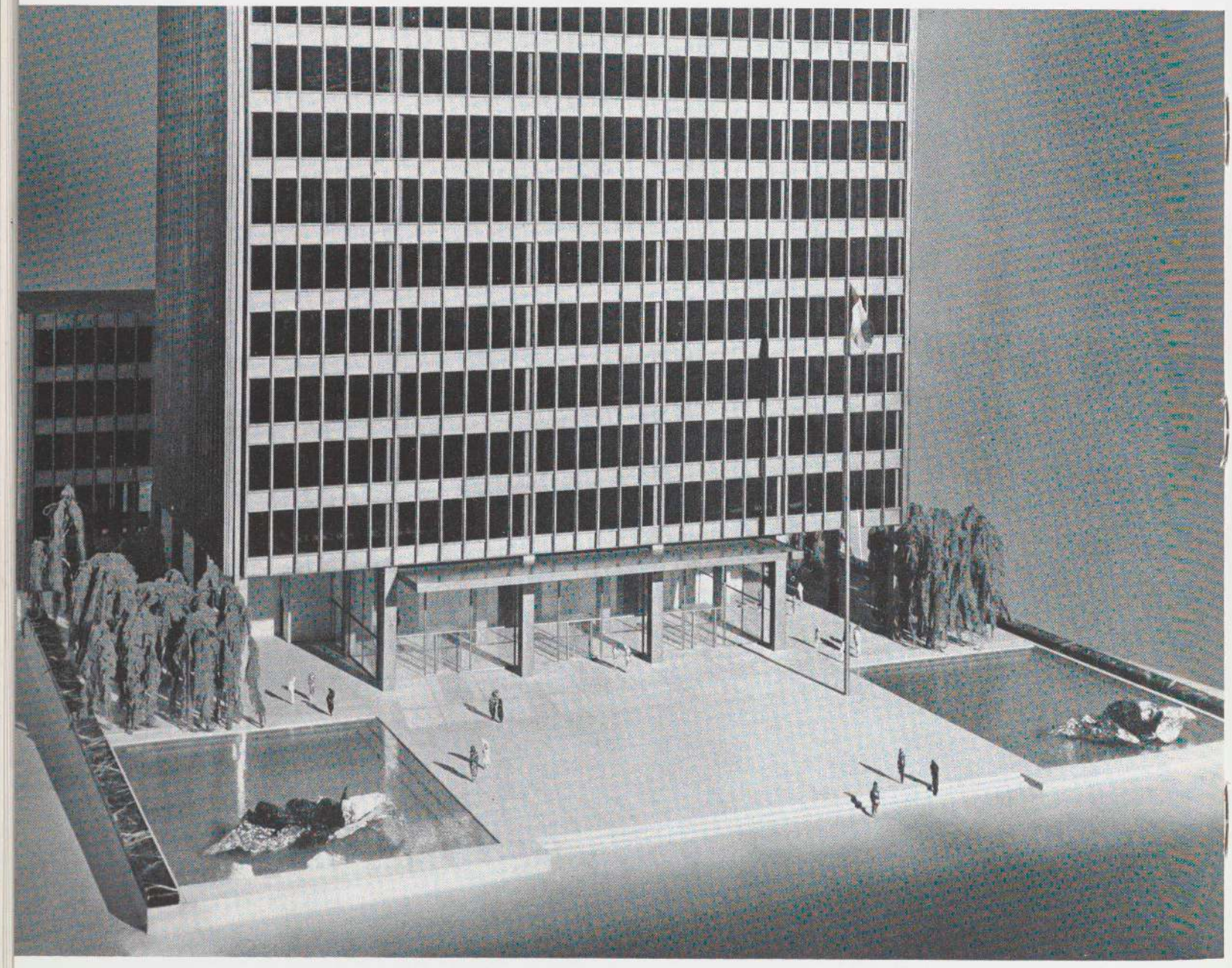
Office building for
Joseph E. Seagram & Sons
375 Park Avenue, New York City

Mies van der Rohe and Philip Johnson, architects
Kahn and Jacobs, associate architects

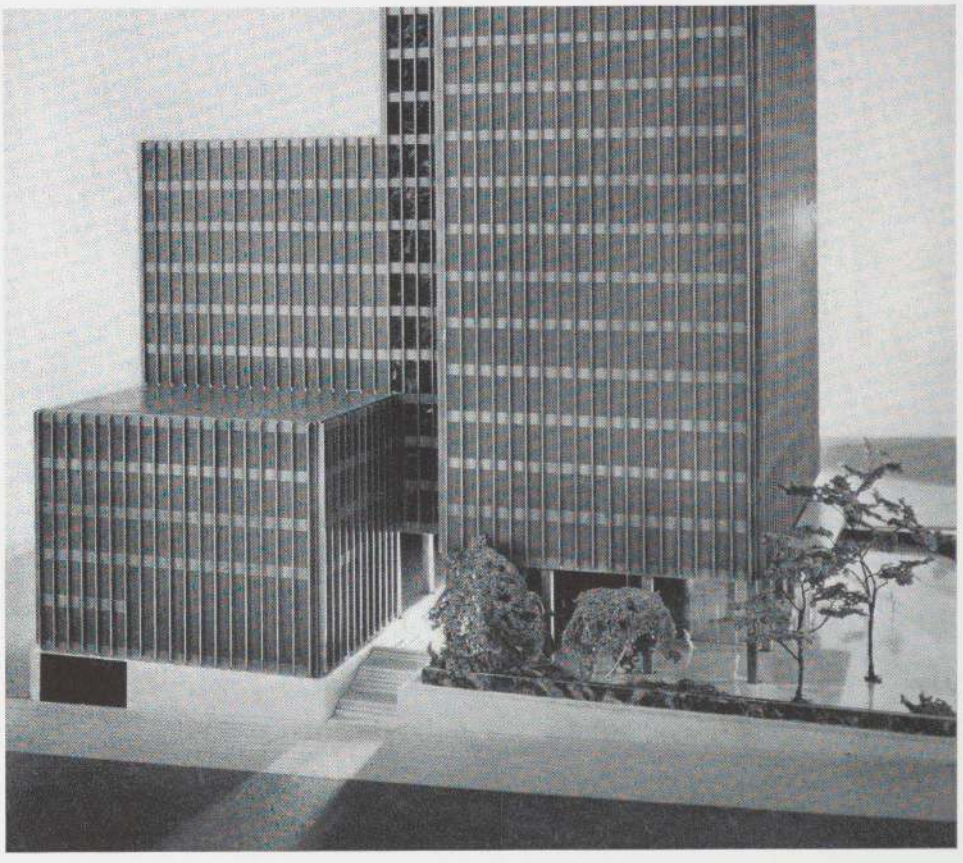
Now under construction, this is the first building in New York by Ludwig Mies van der Rohe. It is also the first opportunity Mies has had in the United States to execute a large building with the fine materials characteristic of his European work. Commissioned by Joseph E. Seagram & Sons, the building is a 38 story tower five bays wide and three deep, sheathed with gray-pink glass and hand-rubbed bronze mullions and spandrels. The long dimension of the tower parallels Park Avenue, facing a plaza approximately 100 by 200 feet, paved with pink granite. Formal pools on each side of the plaza, and a grove of beech trees on the north and south sides of the building, echo its symmetrical plan and elevations.

Students of his earlier work have been surprised by Mies' willingness to discard, where they prove unsuitable, such ideal forms as the pure rectangular tower, while at the same time insisting on absolute integrity of structural expression. Thus the tower is an undifferentiated space on a bay module of 27 feet in both directions, but where the program required unusually large rooms Mies did not attempt to fit them into this module. Instead they are treated as low auxiliary masses flanking the tower at the rear, and the rectangle of the tower itself is broken by the projection on the rear of an extra bay. This arrangement compensates for the loss of office space within the rectangle to elevators and services, while at the same time preserving the classic ratio of 3:5 on which the tower is based.

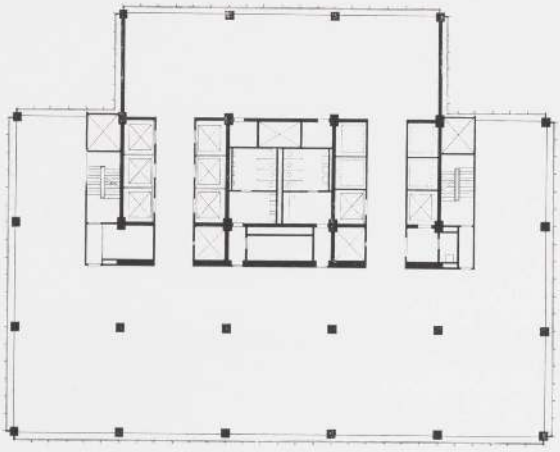
The Seagram building is Mies' most powerful expression of a theme first stated in his twin glass and steel apartment towers in Chicago, in 1951. In this conception of the tall building vertical continuity is stressed by placing the mullions, which brace the glass walls, on the exterior of the building so that they sweep from top to bottom in unbroken lines. Only the floor slabs behind them provide horizontal contrast. In the spacing and proportioning of these elements, Mies articulates structure with an unsurpassed precision. The mullion detail in particular may be compared with the delicate adjustments of line and shadow characteristic of the Ionic column.



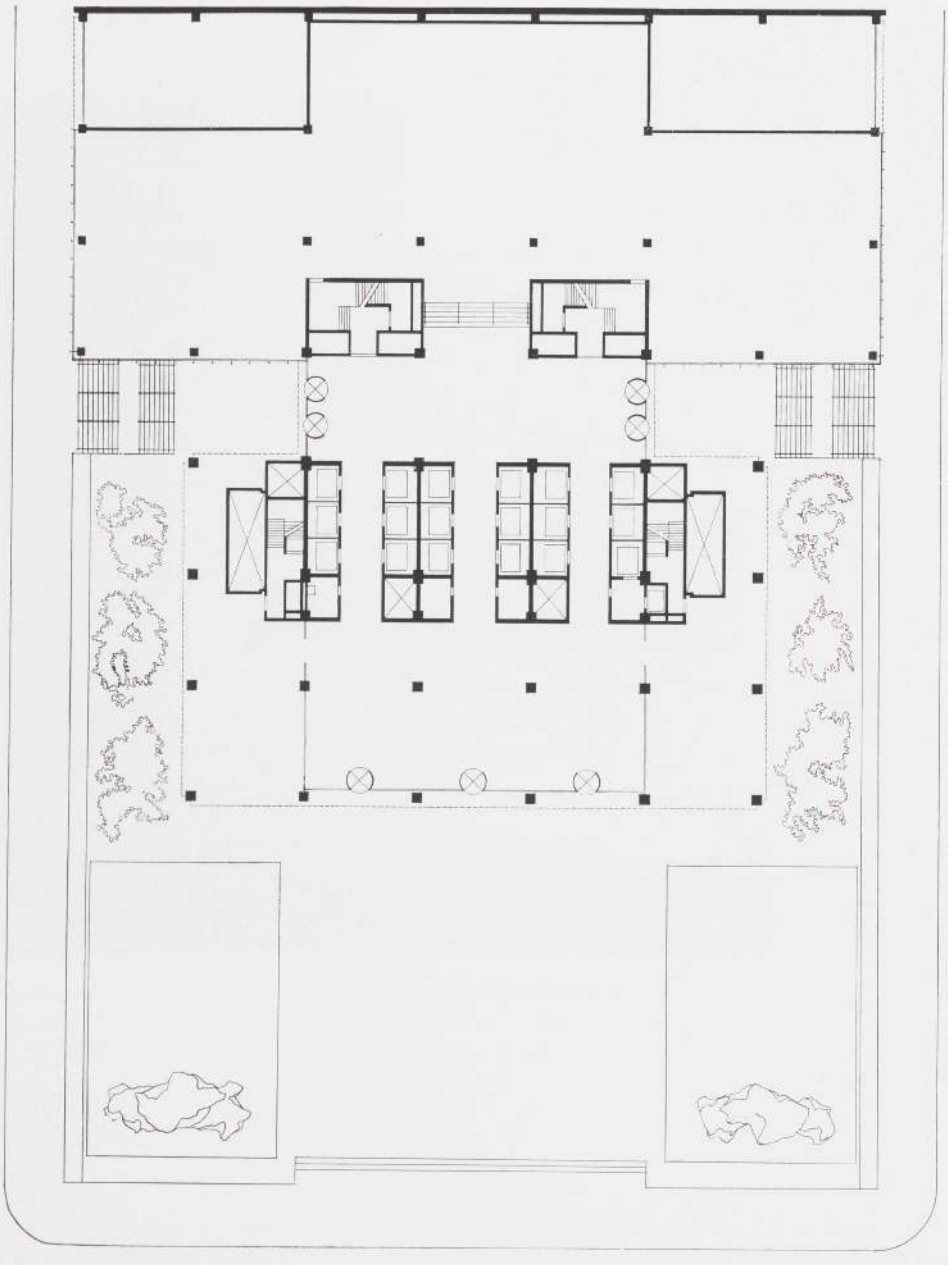
Model. Plaza and pools are paved with pink granite. Studies for pool sculpture by Mies van der Rohe represent bronze sheets in three contrasting finishes.



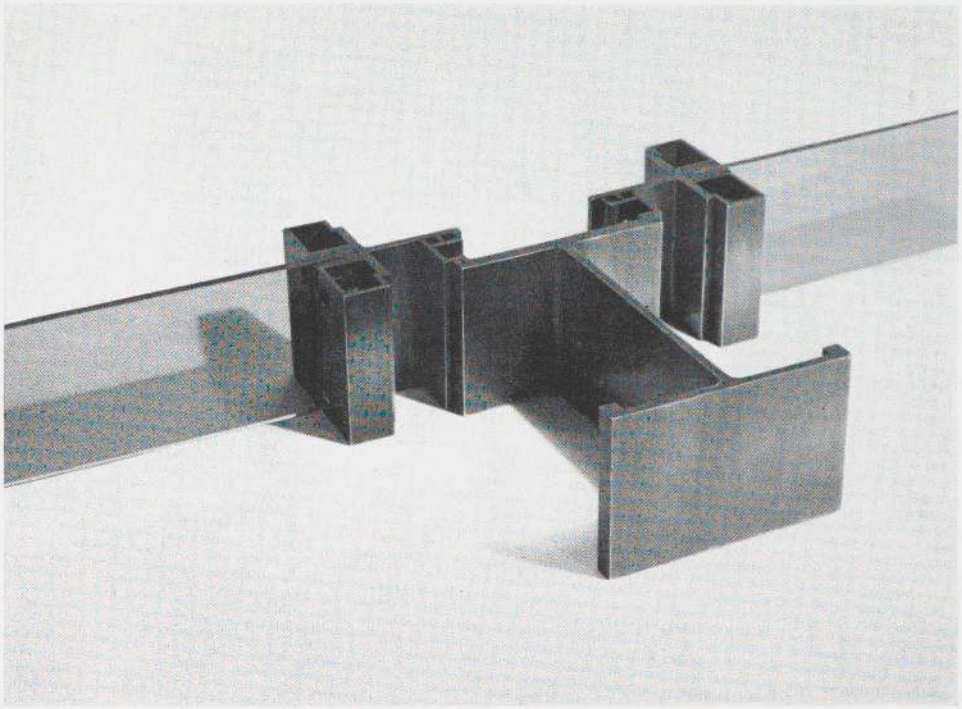
Model. 53rd street elevation (north).



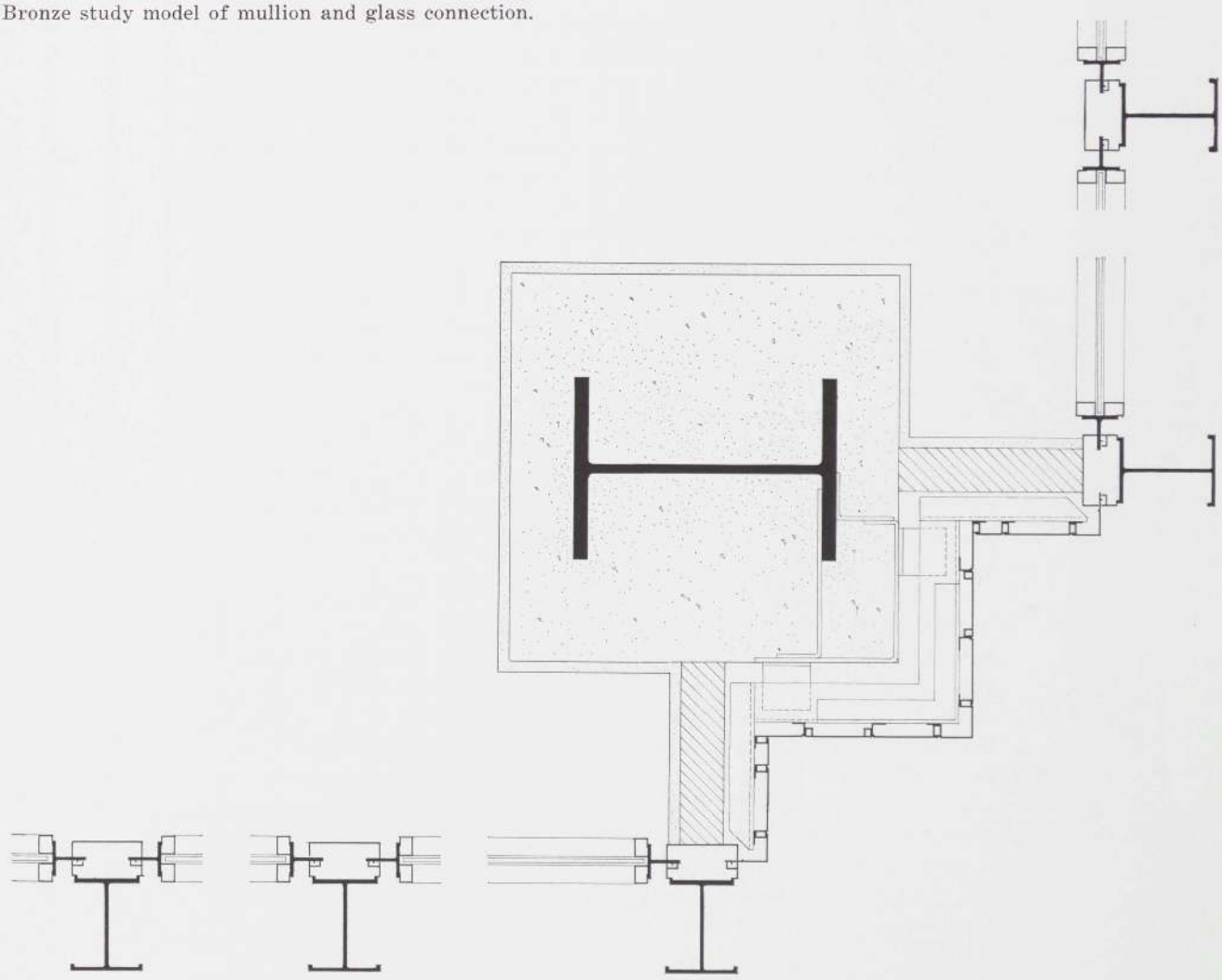
Typical floor plan



Plan at street level



Bronze study model of mullion and glass connection.



Horizontal section through mullions and corner column.

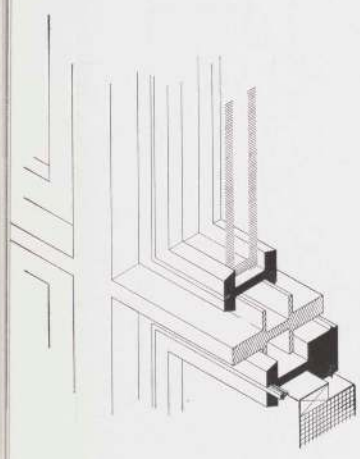
Technical Center for
General Motors
Warren, Michigan

Eero Saarinen & Associates, architects
Smith, Hinchman & Grylls, architects-engineers
Thomas D. Church, Edward A. Eichstedt; landscape consultants

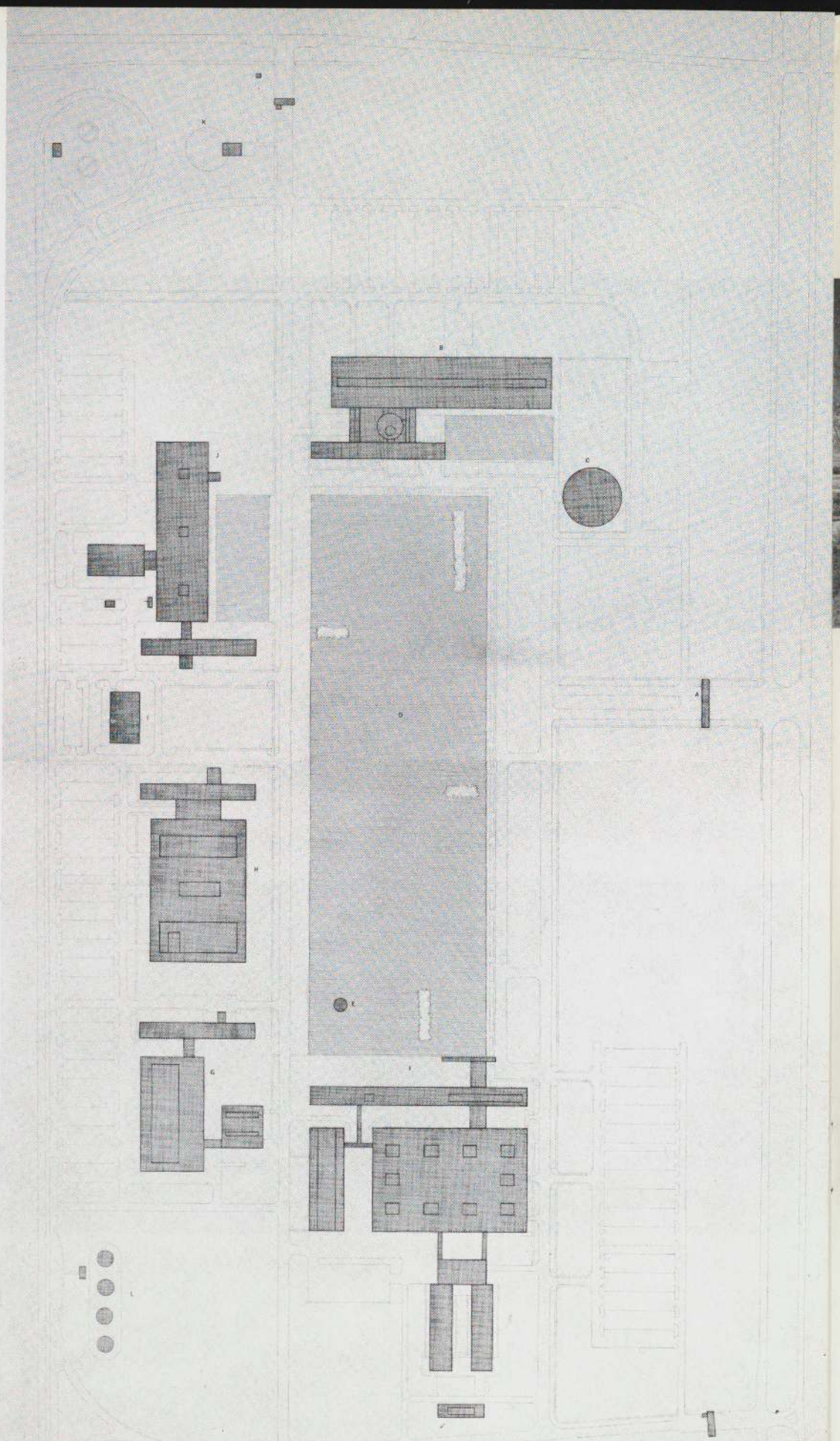
The General Motors Technical Center occupies 320 acres north of Detroit at Warren, Michigan. Since the company believes that research is of great importance to its development, the project was generously conceived and executed at a cost of over $100,000,000.

The staff of the Technical Center is divided into four distinct organizations, with a fifth devoted to Service. They are: Research; Process Development; Engineering; and the section in which automobiles are designed, called Styling. It was desired that each organization be given a building, or cluster of buildings, to itself. Widely dispersed around three sides of a 22 acre artificial lake, they have been related to each other by their modular construction. In general the buildings are long rectangles with north and south elevations composed of pre-assembled aluminum frames, ten feet wide and one story high. Into these frames are placed sheets of green-tinted glass and two inch thick panels made of gray porcelain-enamelled steel bonded to honeycombed paper. All of these parts are composed on a basic five foot module, applied alike to structure, partitions, lighting, heating, and ventilation. The repetitiveness of the modular rhythm, and the fact that a building might have been longer or shorter by a dozen bays without its essential effect being altered, have been made to contribute an element of surprise: the rhythm is stopped abruptly by end walls of brick glazed bright red, yellow, orange, or blue. Seen from a moving automobile, the modular ranges of glass and enamel and the shining brick walls are like sets of matched volumes braced by colored bookends.

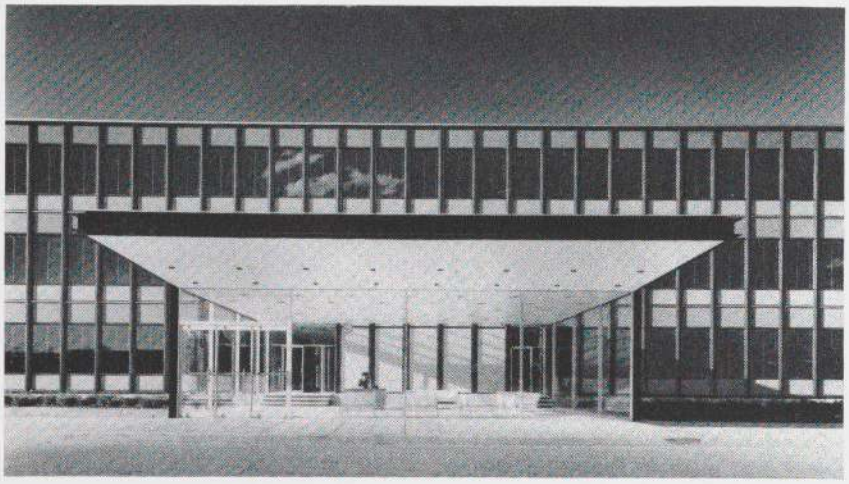
Aluminum frame and neoprene gasket.

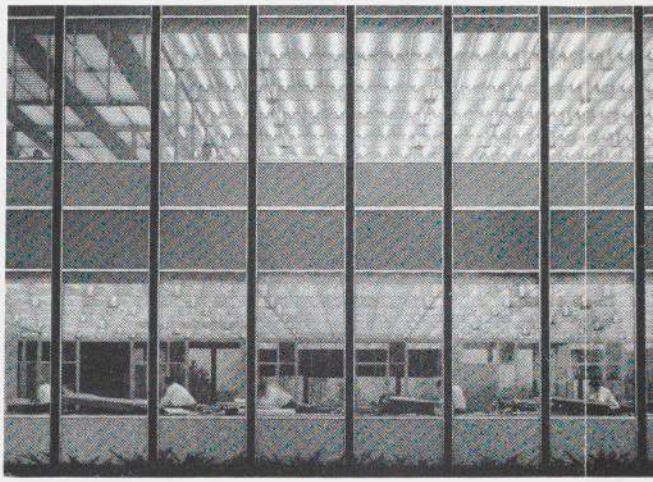


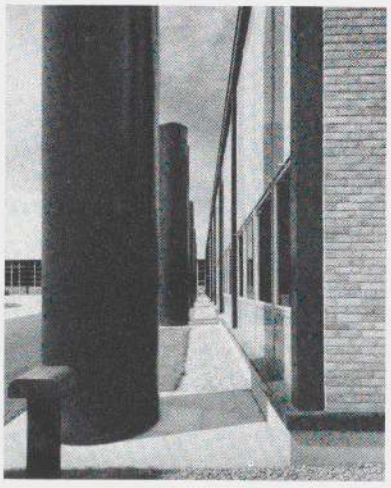
Of the many details remarkable for their technical ingenuity, perhaps the most interesting is a flexible gasket of neoprene, such as is used in automobile and airplane windows. Fitted over the aluminum frames, it clamps the panels securely and makes a weathertight joint. Elegant and often beautiful, such details, together with exquisitely finished materials, suggest product design and manufacture as much as building. The architect has created an attractive environment that plainly belongs to that part of American society whose values are increasingly determined by manufacturing and marketing techniques. Although the architect's designs produce effects unrelated to the company's products, the buildings are a celebration of mass production. As such they have more than architectural significance.

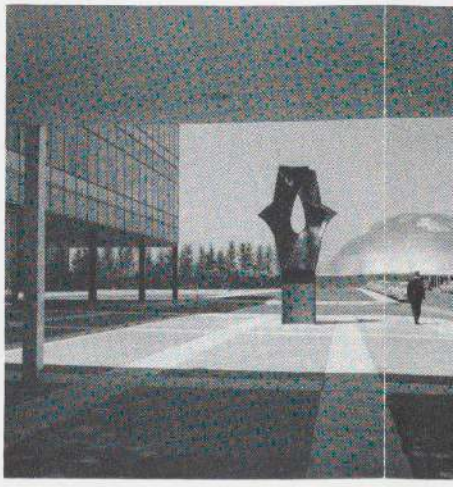


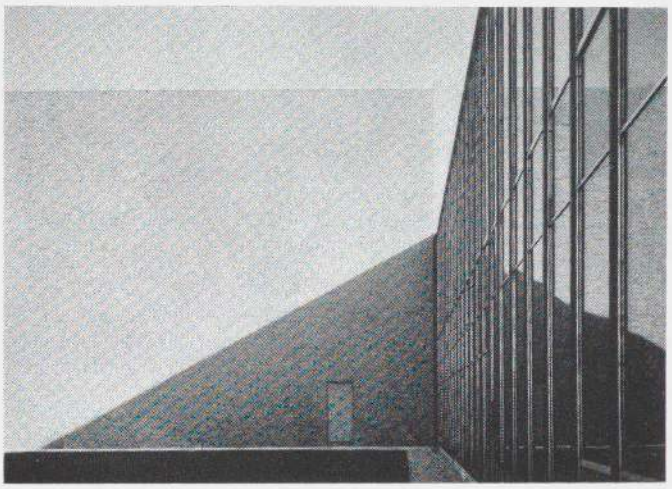
A Main gatehouse
B Styling
C Auditorium
D Lake
E Water tower
F Research
G Service
H Process Development
I Restaurant
J Engineering
K Reservoir
L Fuel storage

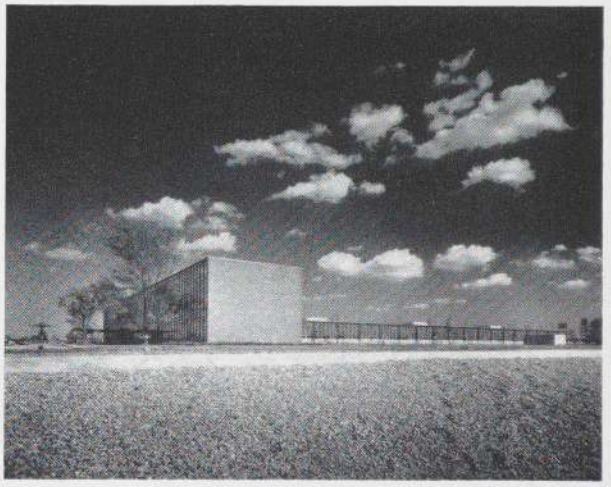


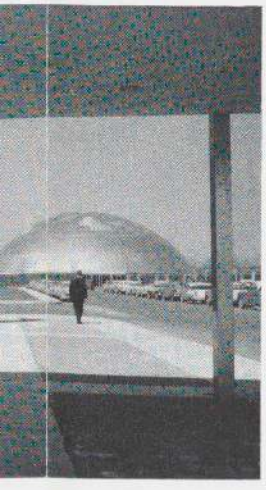


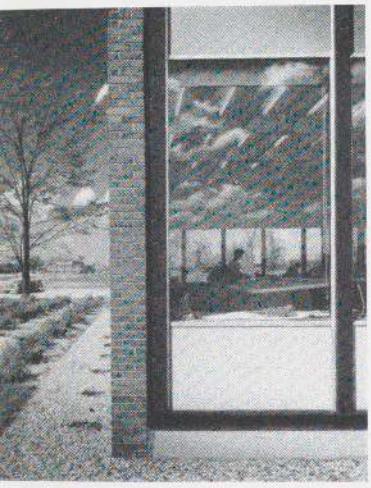


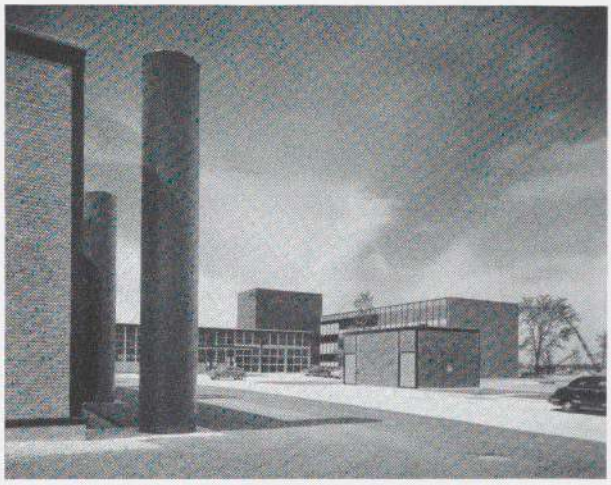


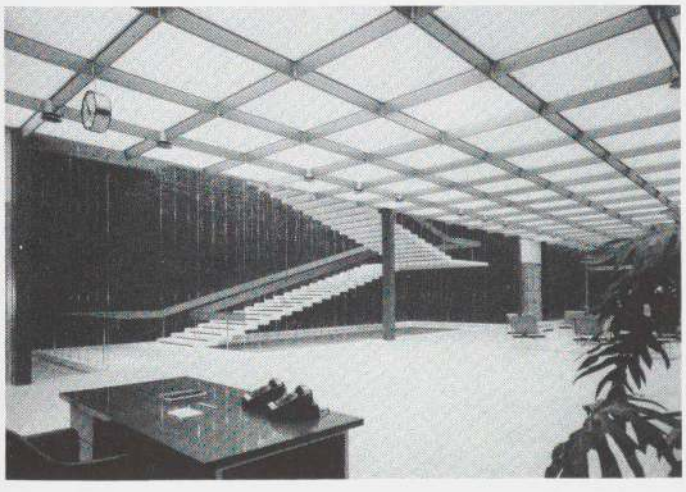


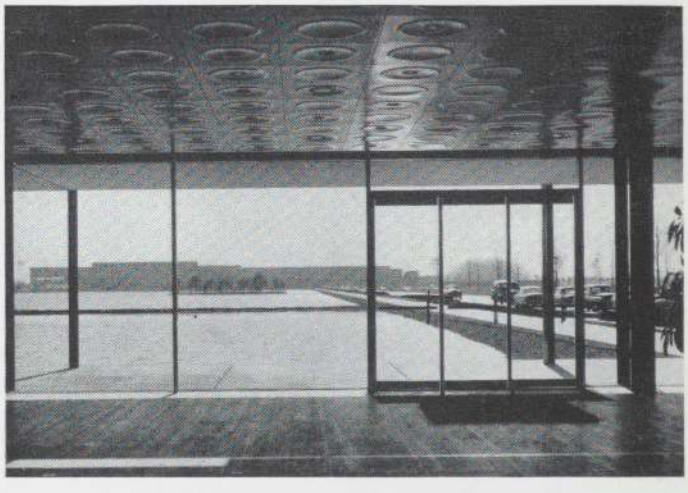










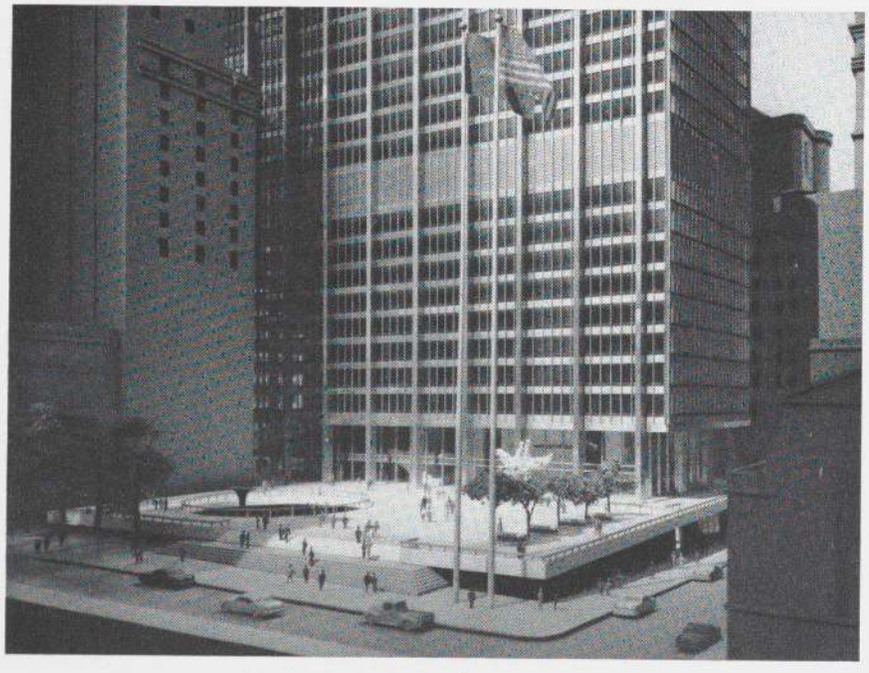


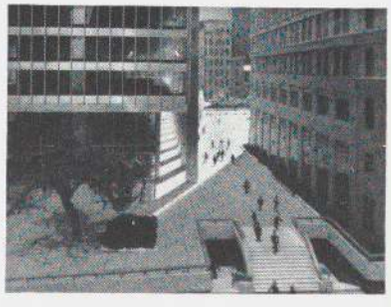
Office building for
Chase Manhattan Bank, New York City

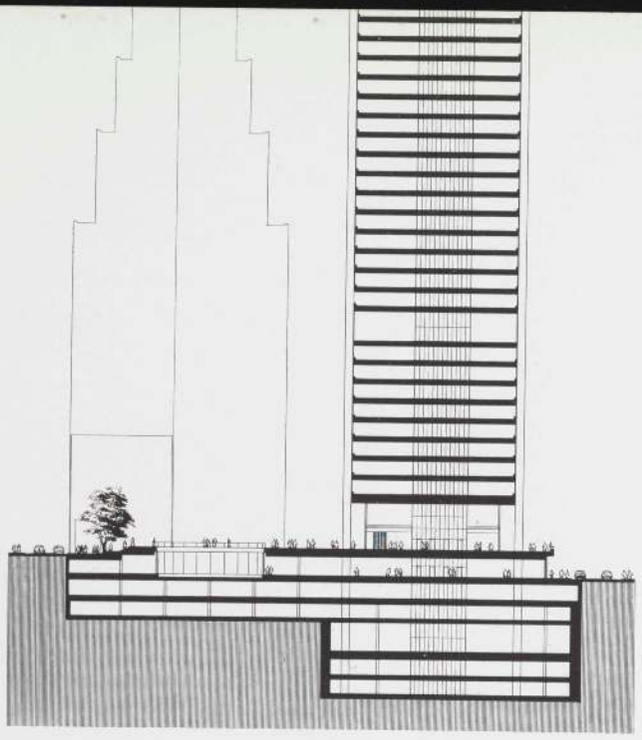
Skidmore, Owings and Merrill, architects

Commissioned by the Chase Manhattan Bank, the building is a narrow 60 story tower adroitly slipped into the crowded Wall Street area. The site comprises two long narrow blocks, one of which is partially occupied by another building. The architects have faced the tower north and south, using the half-block for a plaza. This was made possible by an agreement with the city, whereby the owners relinquished seven to 15 feet on all sides of the site to widen the sidewalks, in return for the right to incorporate Cedar Street in the area given over to the plaza. The result is a free-standing tower and a bright paved space decorated with trees and sculpture.

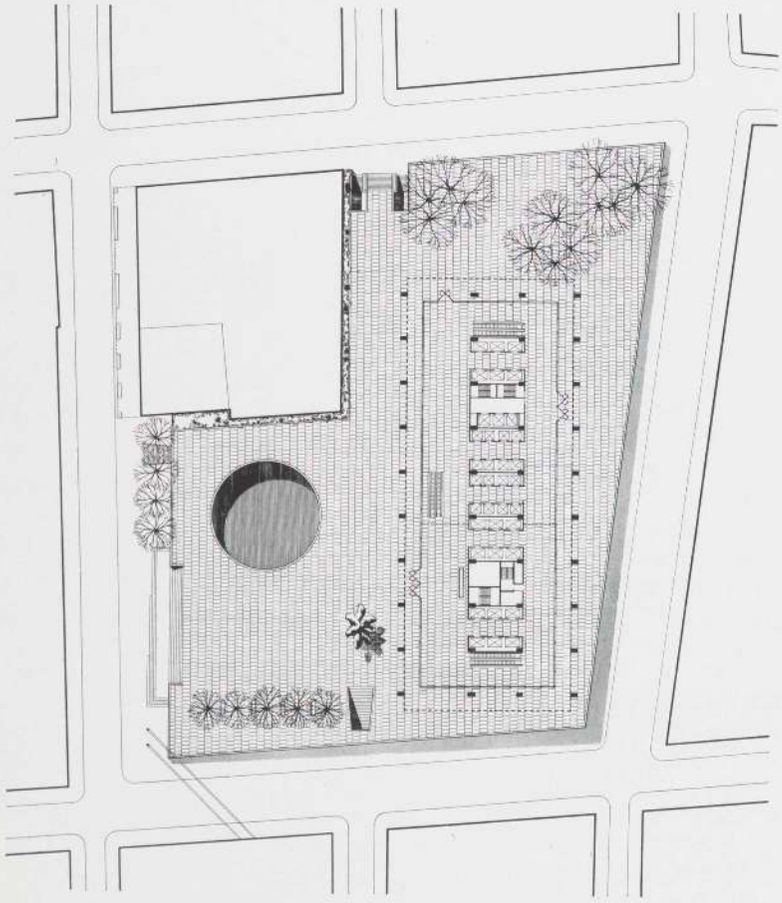
On the building's perimeter columns measuring 3′x5′ are placed outside the wall, an arrangement which releases floor space within. It also provides emphatically vertical elevations, punctuated by three horizontal bands indicating floors of mechanical equipment. The walls are of glass; columns and spandrels will be sheathed in stainless steel or aluminum.



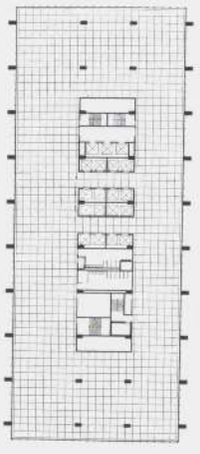




Section looking west. Building is 60 floors high, plus bank and 5 basement levels below plaza.

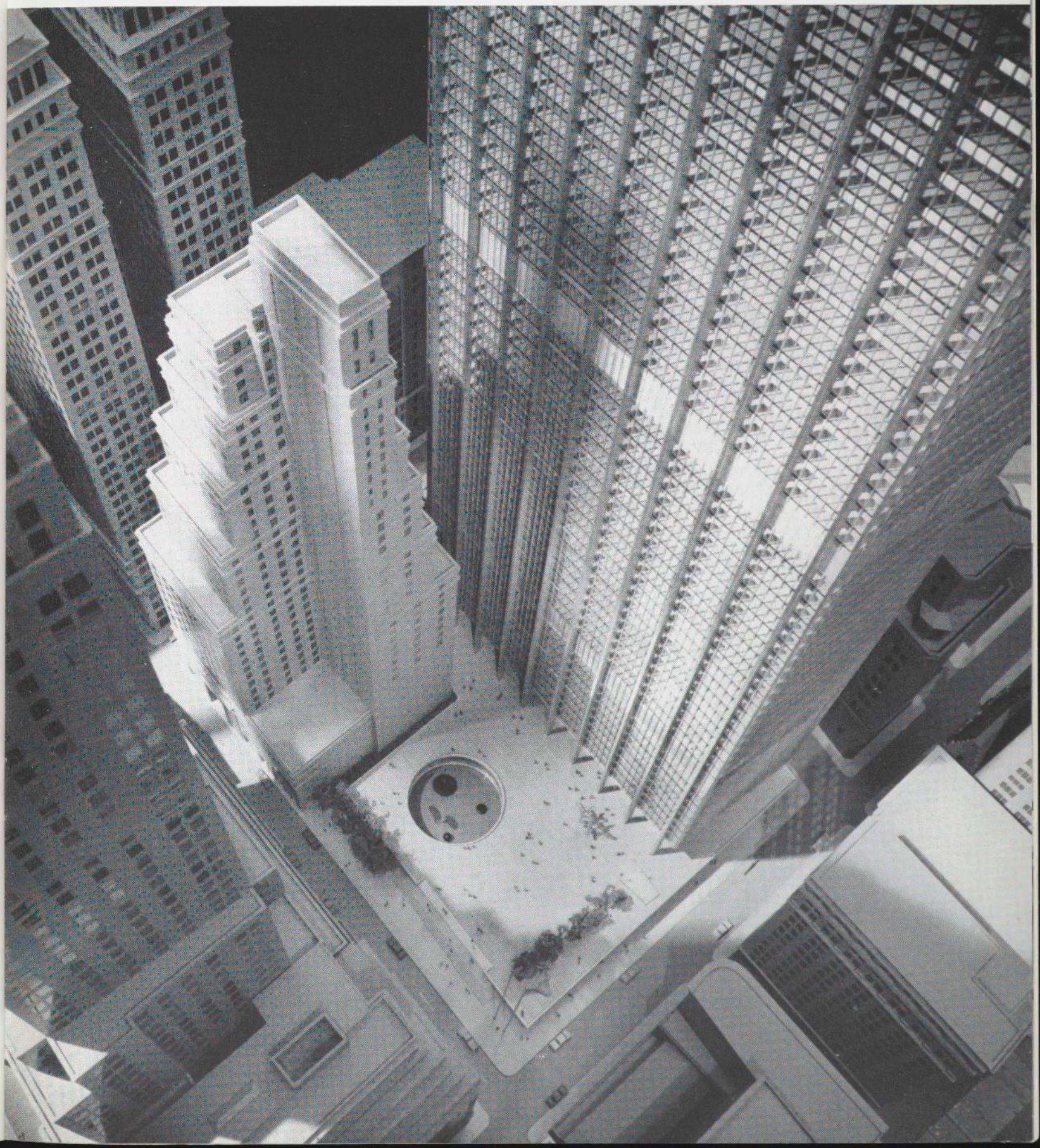


Plan at plaza level.



Typical floor plan

Model. Bank offices open on circular pool below plaza level.



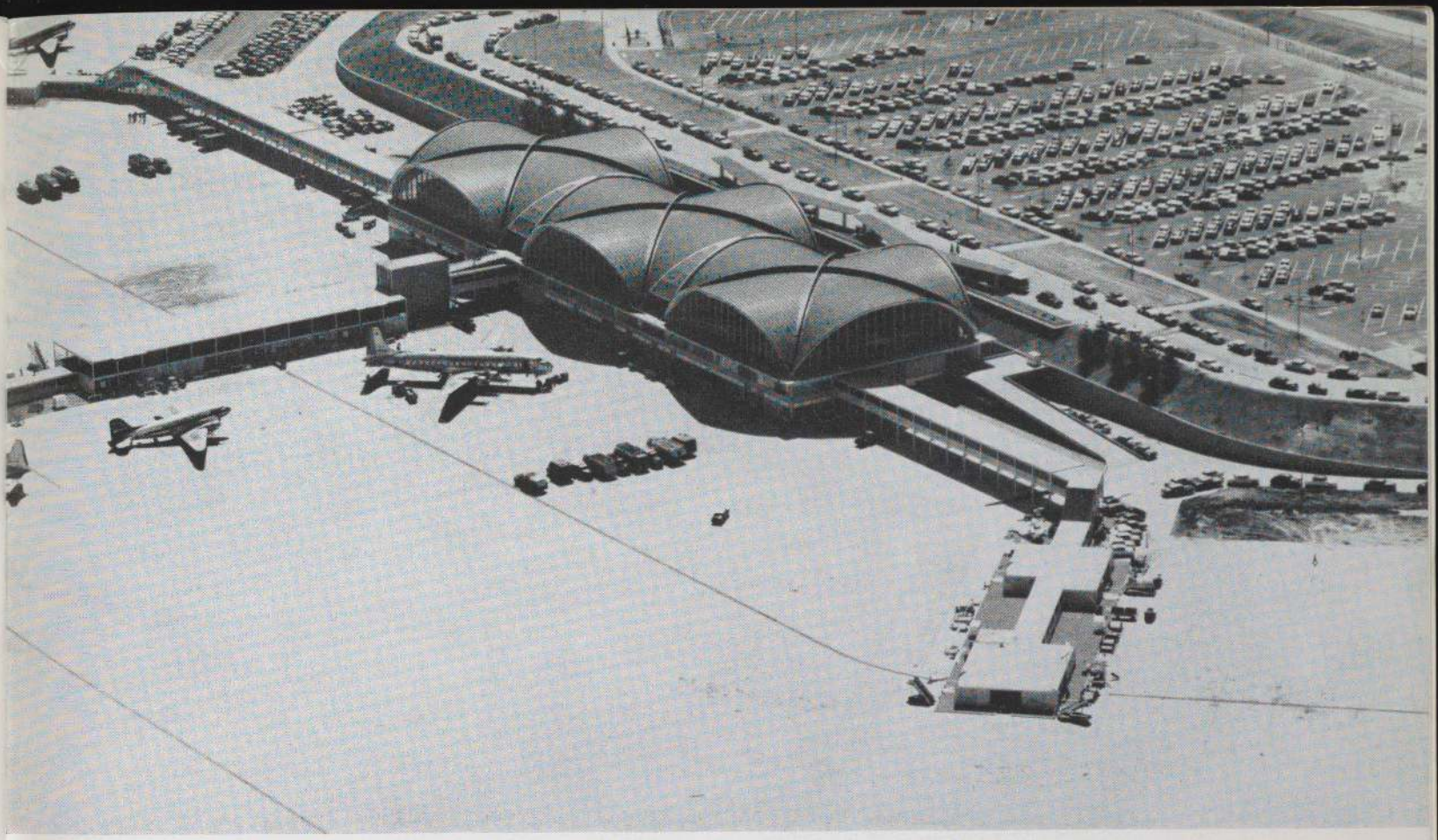
Terminal building for Lambert Field, St. Louis

Hellmuth, Yamasaki and Leinweber, architects
William C. E. Becker, structural engineer
Edgardo Contini and Roberts & Schaefer, consulting engineers
Landrum and Brown, airport consultants

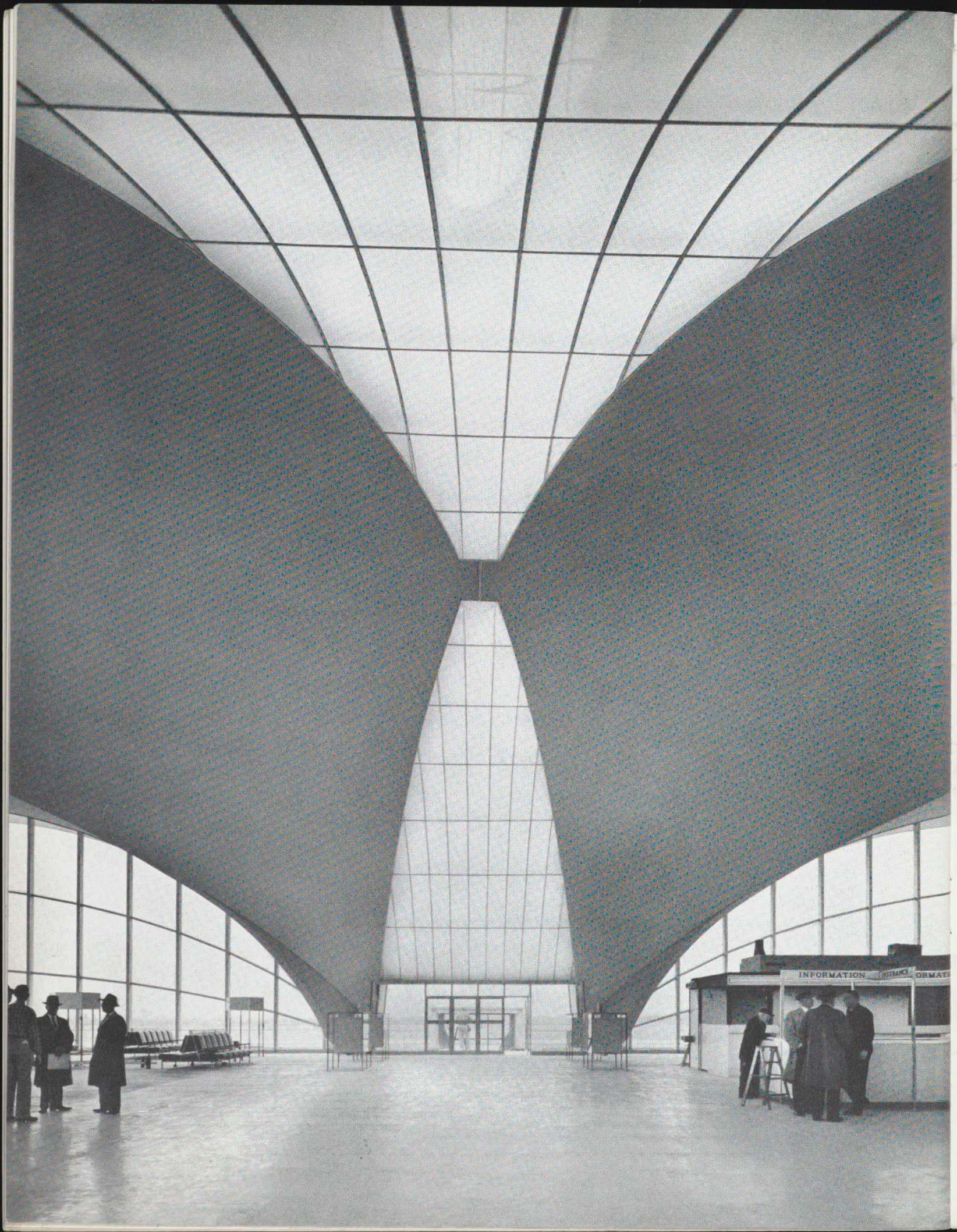
The architects' problem was to design a visually significant place of arrival and departure, easily seen from approaching automobiles and airplanes. Its shape might logically be related to the forms of certain kinds of airplane hangers. Its interior space had to provide a vantage point from which the activities of a busy airfield could be observed without the room itself being rendered insignificant. Perhaps the most difficult requirement, however, was that the building be conceived as an unfinished composition: its design had to allow for additions that would clarify and enhance the architects' conception rather than destroy it. To solve these problems Minoru Yamasaki chose plastic forms which are conspicuous from the air and which in profile dominate the horizon. In its present state the building consists of three pairs of intersecting barrel vaults made of concrete, four inches thick and sheathed with copper. These vaults spring directly from the floor of the main room, attaining a maximum height of 32 feet. Together the three pairs of vaults enclose a room 412 feet long. During this year an additional unit will be added on the east; at a later date two more will be added on the west, doubling the building's present size and making the rhythm of the vaults even more effective through repetition.

The open ends of the vaults are great windows focusing attention on the view and flooding the room with light. Tinted green to reduce glare, the windows are braced by mullions with cross-pieces set in arcs echoing the curves of the roof. Ticket counters, a bar and other service units are kept to a height of seven feet and are treated as individual buildings standing free of the glass walls. Because the site slopes, it was possible to place all service and traffic facilities on two lower floors while allowing arriving passengers to enter the main room at road level. Passengers take an escalator to the lower floors, where closed corridors lead them to within a few feet of waiting planes. The roofs of these corridor units are used as observation decks.

Although the subsidiary parts of the building are less imaginatively designed than the main room, and the relation of the rectangular ticket counter to the sweeping curves of the vaults is in some respects problematic, Lambert Field's terminal building is a work of architecture clearly organized and impressively beautiful, and it is a credit to the city of St. Louis.



Roof is composed of three pairs of intersecting barrel vaults sheathed in copper.
One unit will be added on the west (left), two on the east, doubling size.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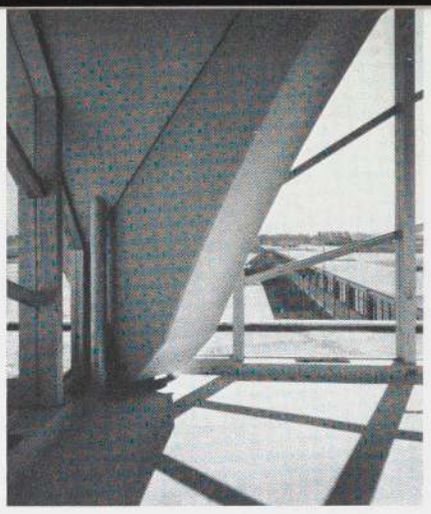
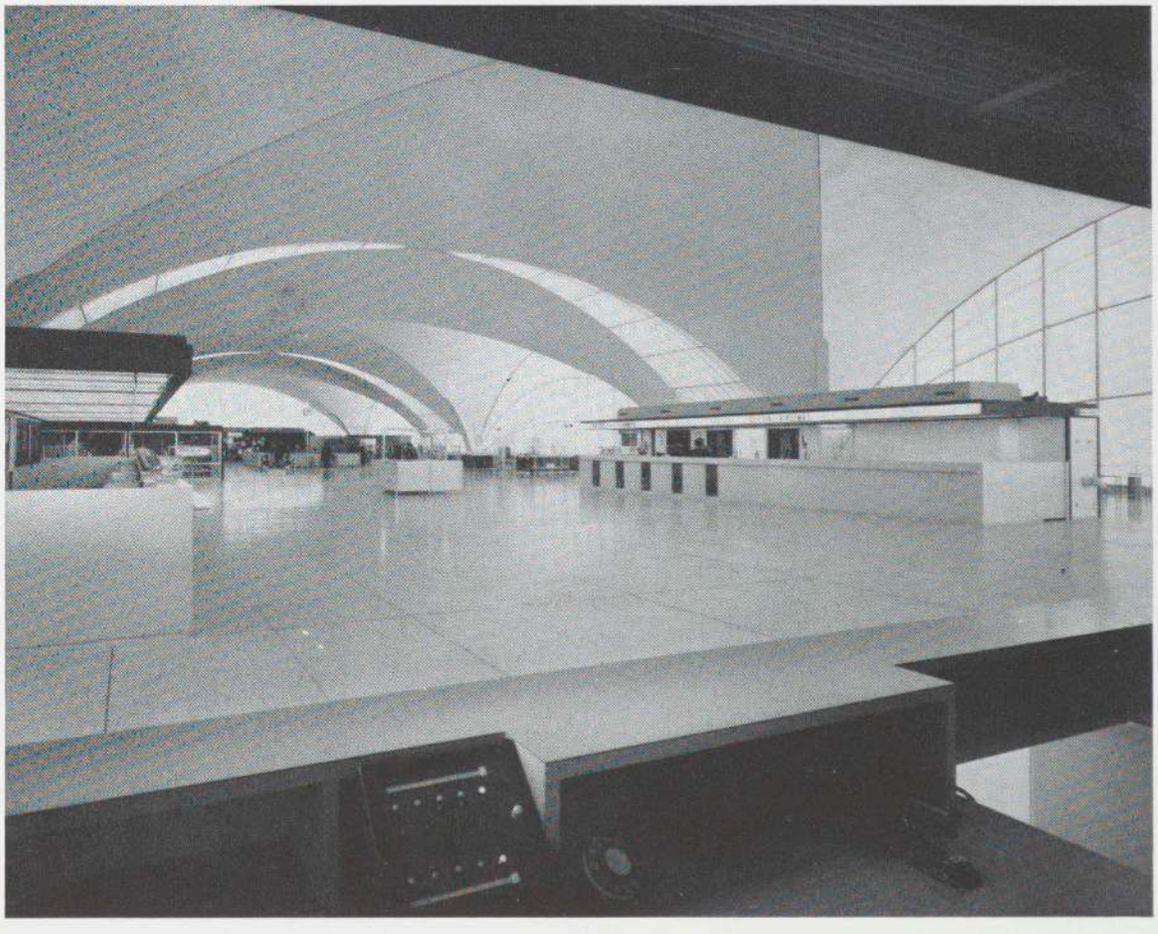
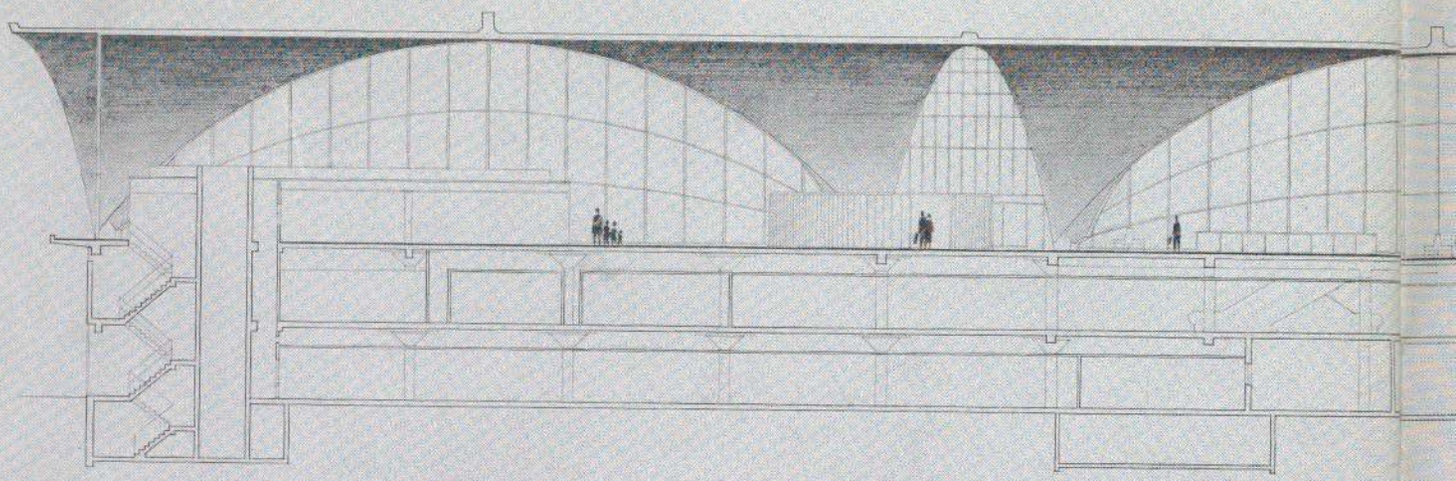


Vaults spring from hinges resting on 36" steel columns.

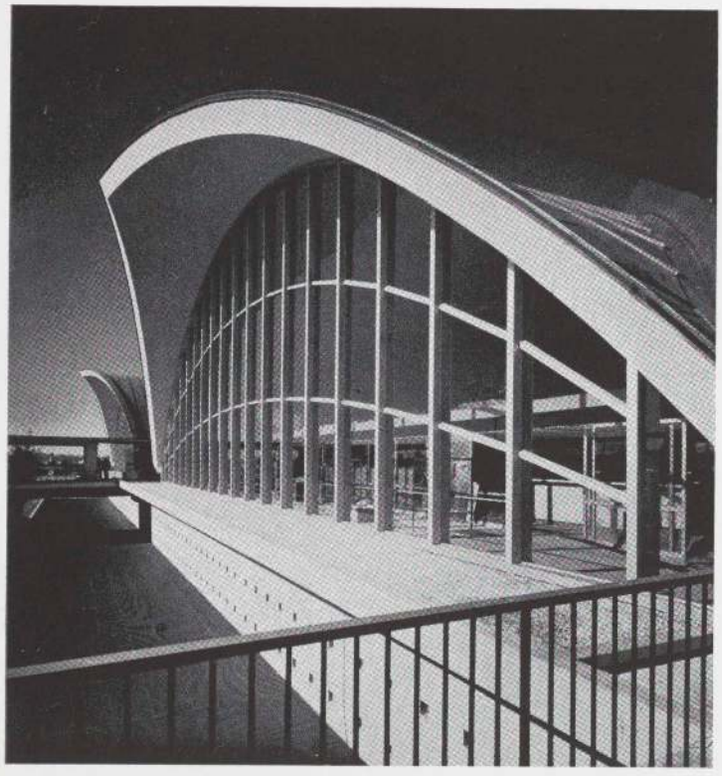
Left: skylights between vault units are underglazed with translucent plastic.

Sharp lines at vault intersections are incised in cream colored plaster. Ticket counters and shops are in separate 7' high "buildings", roofs of which hold lights and air conditioning outlets.

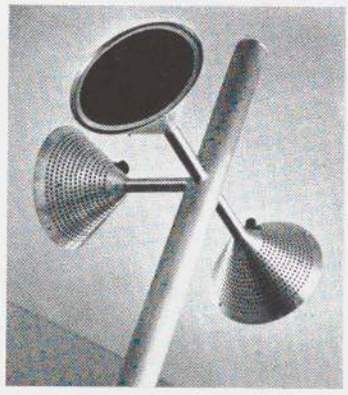




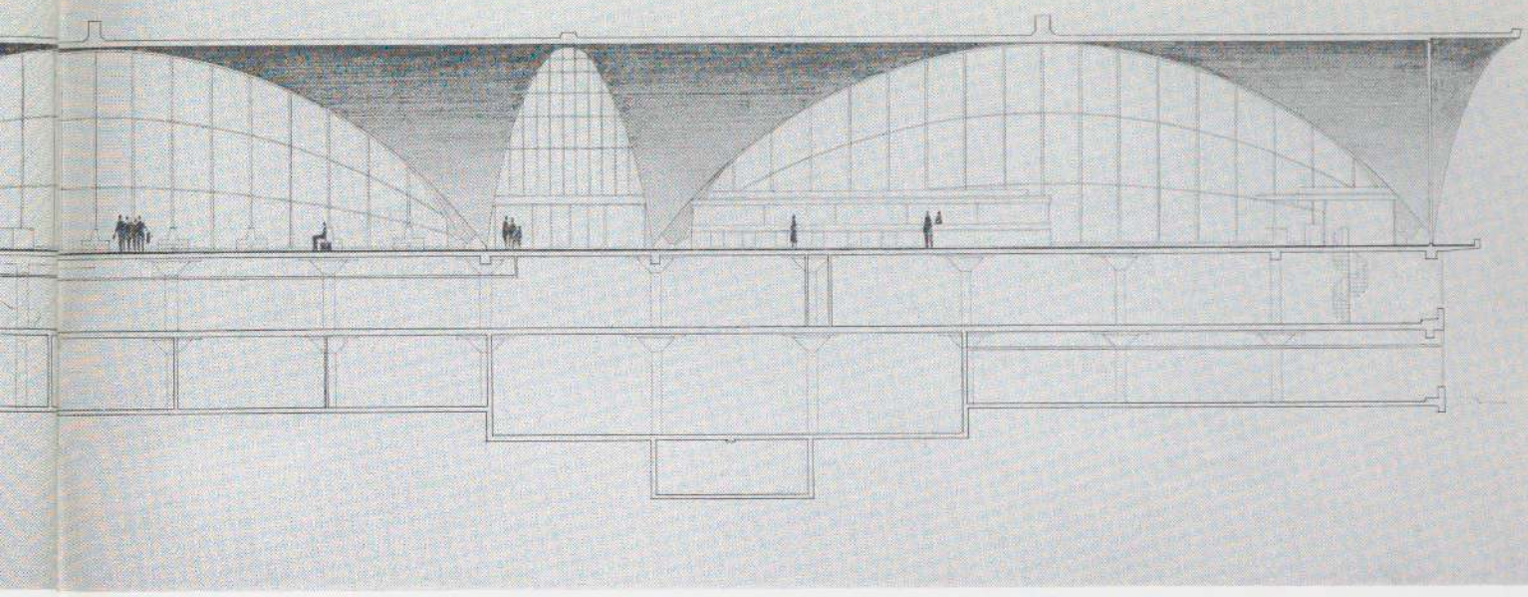
Section through main room and lower traffic and service floors. Total length is 412′; vaults are 32′ high.

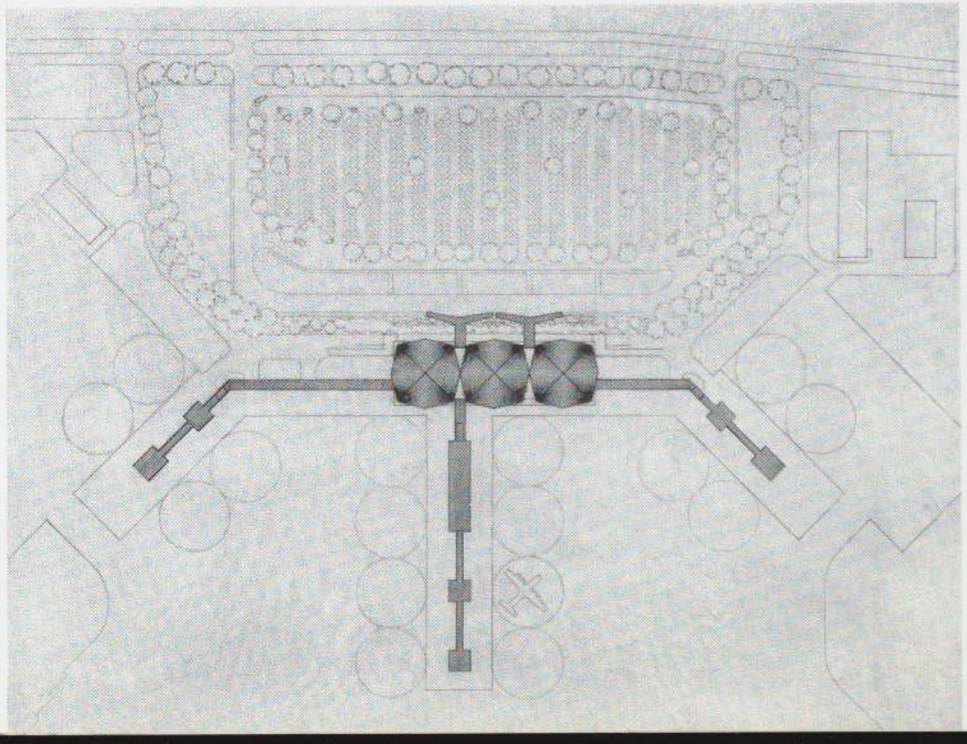


Entrance and exit bridges overpass metal-roofed service road.



Loudspeaker.





PHOTOGRAPHERS' CREDITS

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Ezra Stoller: 11 bottom; 23; 26; 27; 29; 31 bottom; 33;
24 top row, four on right, bottom row, all except third.
Lloyd Spainhower: 31 top.
Soichi Sunami: 21.
Lionel Freedman: 24 top row left.
Andreas Feininger: 24 top row, second, third.