

# Four new buildings : architecture and imagery

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## ARCHITECTURE AND IMAGERY FOUR NEW BUILDINGS

Most of the modern buildings we see around us use standardized windows, wall panels and structural frames. This repetition of identical units simplifies design and construction, and provides basic rectangular shapes with which the architect can organize even the most complicated design. But standardization has often meant that a building's form is determined more by the way it is built than by its function. Consequently buildings put up for quite different purposes tend to look more and more alike.

Some architects believe that this uniformity truthfully reflects decisive characteristics of technology in our time. Others, however, believe that just because technology (in its present state) has imposed such overriding uniformity, it is increasingly desirable that a building's shape express some particular aspect of its purpose. An apartment house, they believe, should not look like an office building and a church should not look like a gymnasium.

Architects convinced that such distinctions are meaningful have sometimes dispensed altogether with standardized rectangular units. They have instead attempted to give their buildings a more individual character by choosing sculptural shapes such as domes, vaults, and massive columns or piers. Sometimes these shapes recall historic styles; sometimes they are derived from structural techniques recently developed by engineers.

The four buildings described here are the product of these influences. But they also go

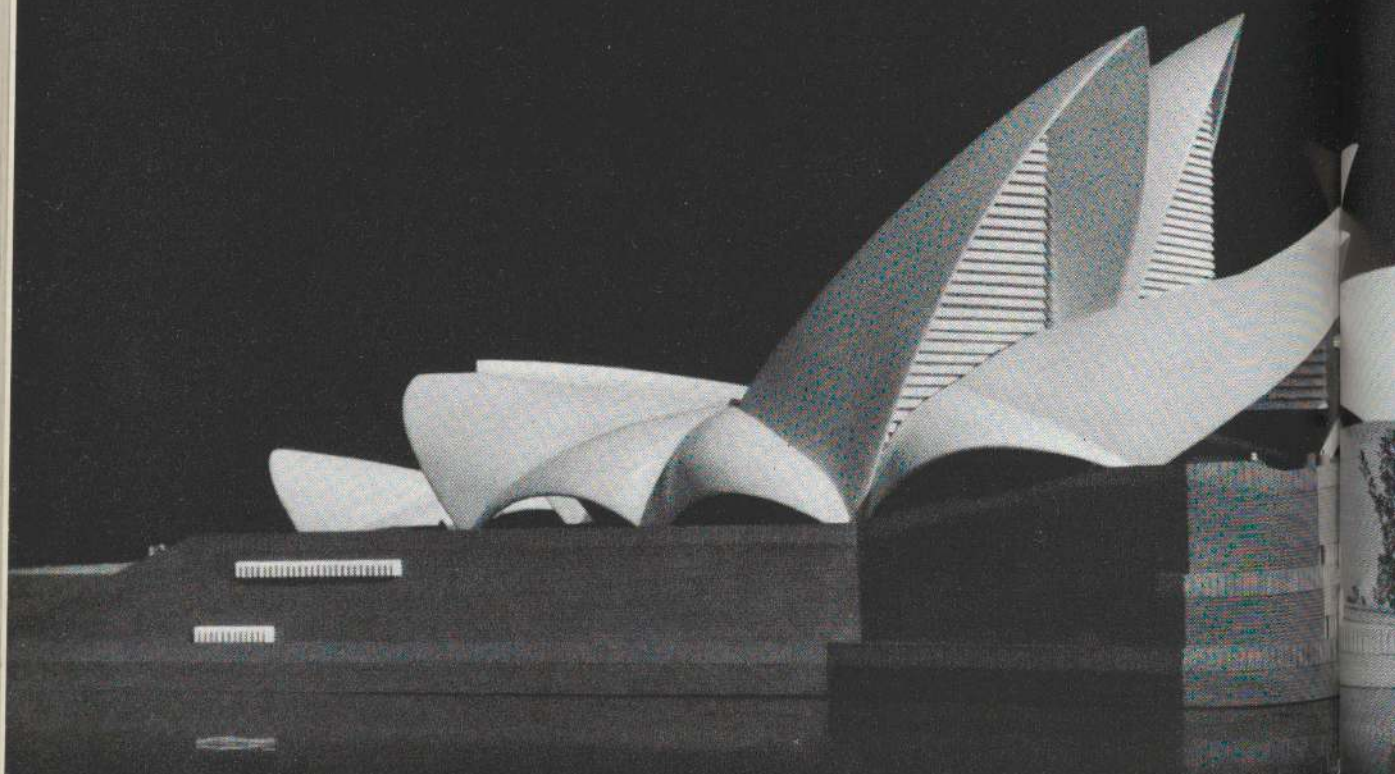
beyond them in one particularly interesting respect: they evoke images of natural or man-made objects.

To evoke such images was not necessarily the architects' intention, and indeed most architects would disclaim any deliberate intention to do this at all. The forms of their buildings derive first of all from considerations of the particular structure to be used and the functional problems to be solved. But the fact remains that some forms are inherently richer in overtones—are more provocative of associations—than the purely geometric forms of abstract architectural composition. The images such forms evoke become part of a building's ultimate value whether or not the architect sought or even anticipated them.

Abandoning the repetitive rectilinear grid systems of more conventional buildings, (and in particular the human scale imposed by the dimensions of standardized windows and wall panels) the architects of these four buildings have sought monumental scale and a variety of memorable shapes. Allusions to non-architectural images—ranging from the merest hint to an explicit statement—are used to express emphatically some distinguishing aspect of the building's function or location. Although they may not constitute the beginning of a new movement in architecture, the fact that all four of them were designed within the last five years suggests that this is a direction of increasing interest to many architects.

A.D., W.G.







model: view from harbor

## NATIONAL OPERA HOUSE SYDNEY, AUSTRALIA

*Jorn Utzon, Architect*

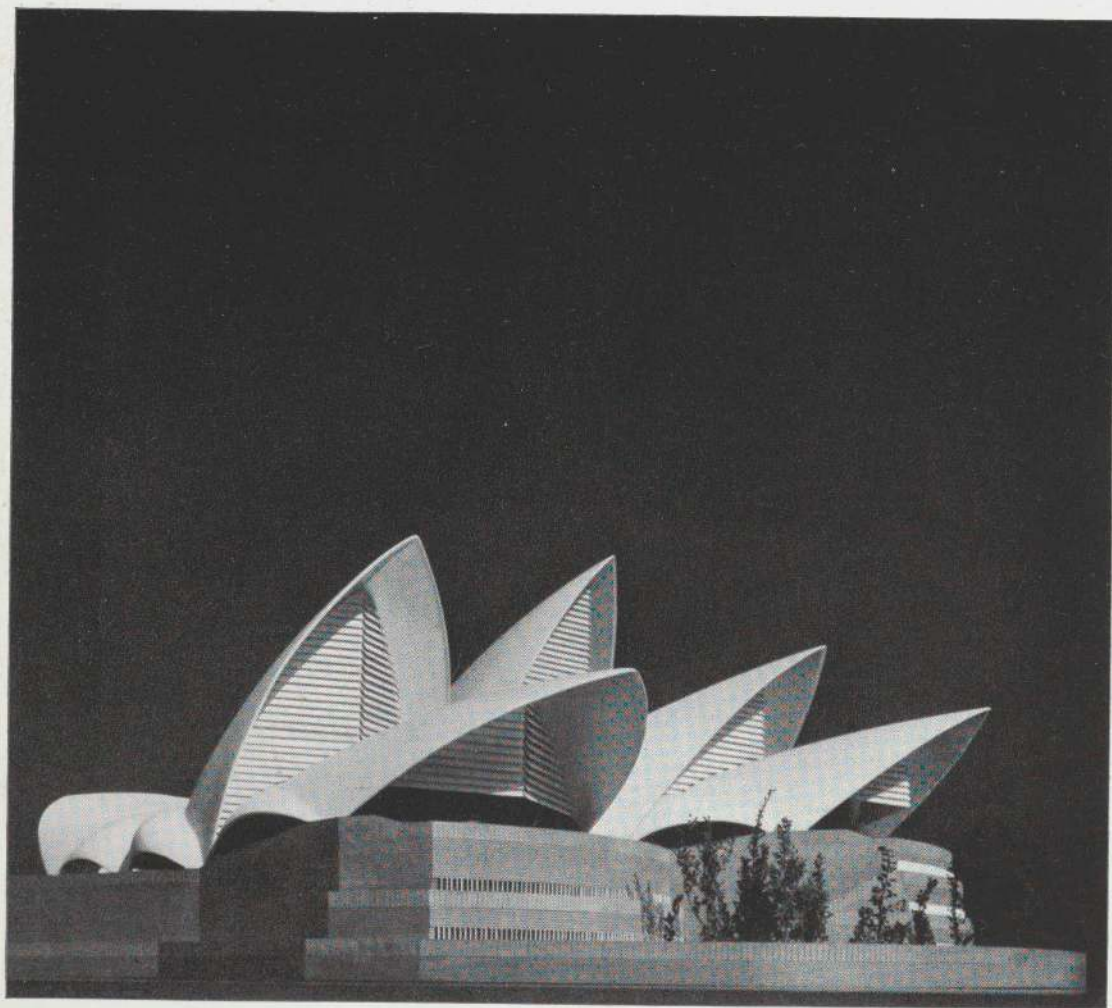
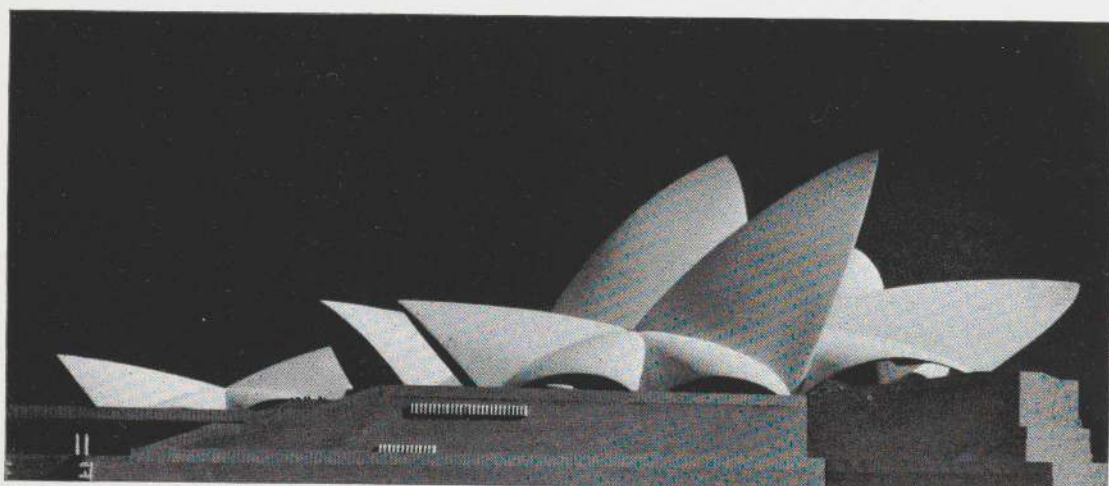
*Ove Arup, Engineer*

This project by Jorn Utzon for a National Opera House in Sydney, Australia was awarded first prize in an international competition, and construction drawings are now being prepared. The building is to occupy Bennelong Point, a promontory in Sydney's harbor clearly visible from both land and water.

The architect has converted this promontory into a gigantic masonry plateau ascending in broad terraces and flights of steps. On these terraces and straddling the steps, he has placed clusters of interlocking concrete shell vaults to house two separate auditoriums and a restaurant. Auditorium seats are concentric semicircles of steps scooped out of the podium. Ceiling and wall panels under the concrete vaults can be opened during intermissions, so that the uninterrupted vault forms can frame views of the harbor. Workshops, rehearsal rooms, and other services are contained within the masonry podium, along with an entrance for automobiles.

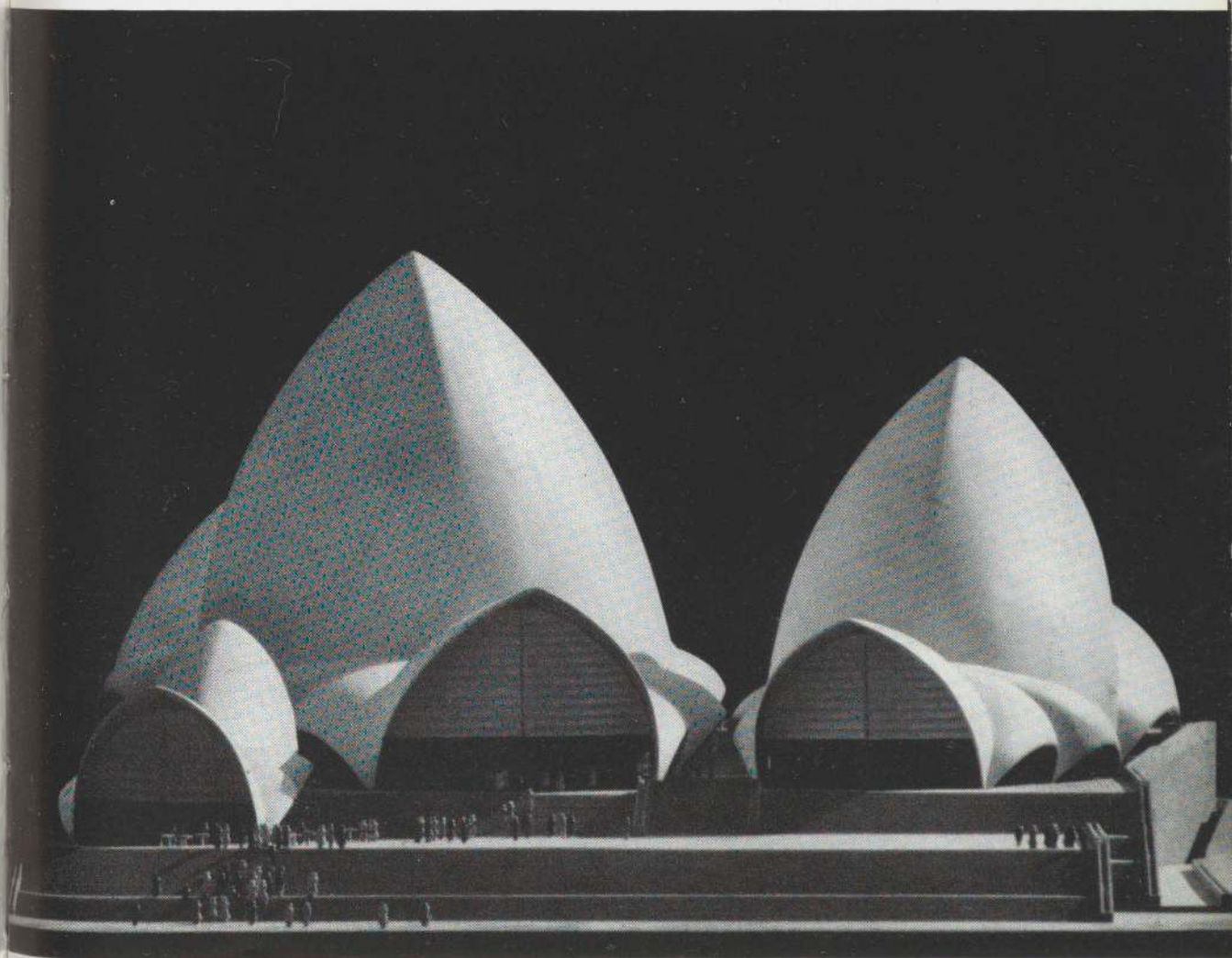
By treating the entire surface of the podium as a stepped circulation area, the architect has eliminated altogether the need for separate emergency exits and has produced a kind of abstract landscape. The shell vaults, apart from their justification as masks for such awkward service elements as stage houses, provide an extraordinarily festive, even lyric, image. In the words of the awarding jury "The white sail-like forms of the shell vaults relate as naturally to the harbor as the sails of its yachts. . . . The dynamic form of this vaulted shape contrasts with the buildings which form its background, and give a special significance to the project in the total landscape of the harbor."





NATIONAL OPERA HOUSE  
SYDNEY, AUSTRALIA  
*Jorn Utzon, Architect*

three views of model

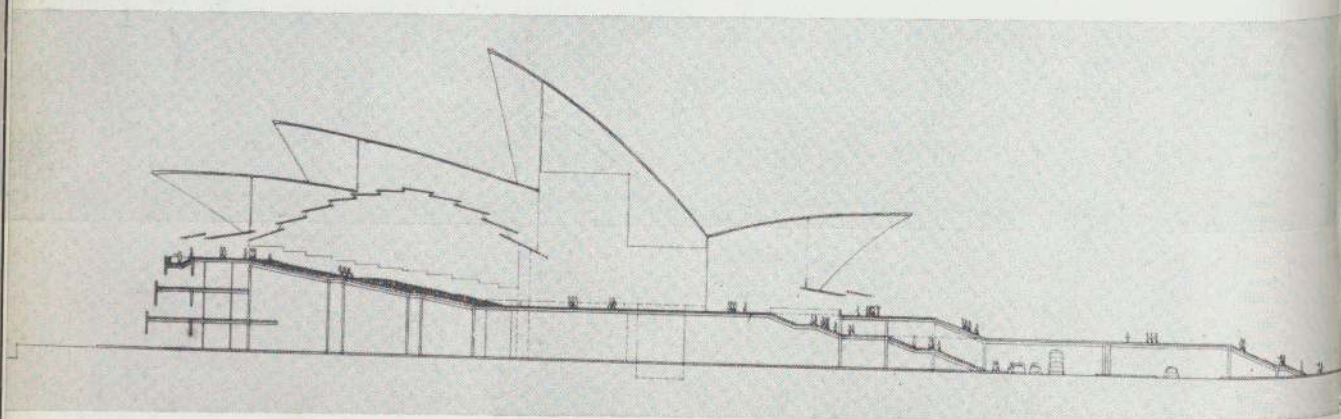
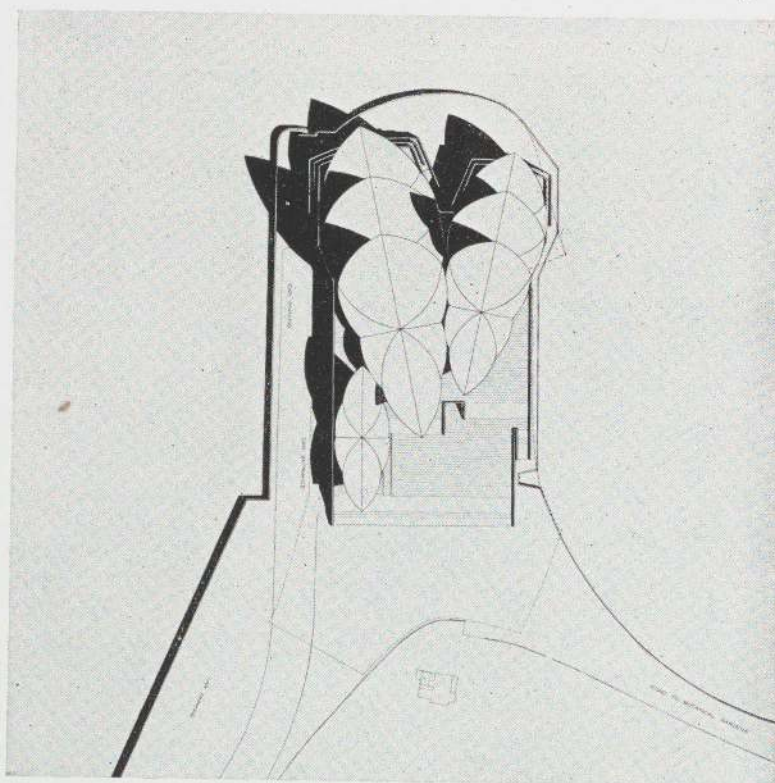




NATIONAL OPERA HOUSE  
SYDNEY, AUSTRALIA  
*Jorn Utzon, Architect*

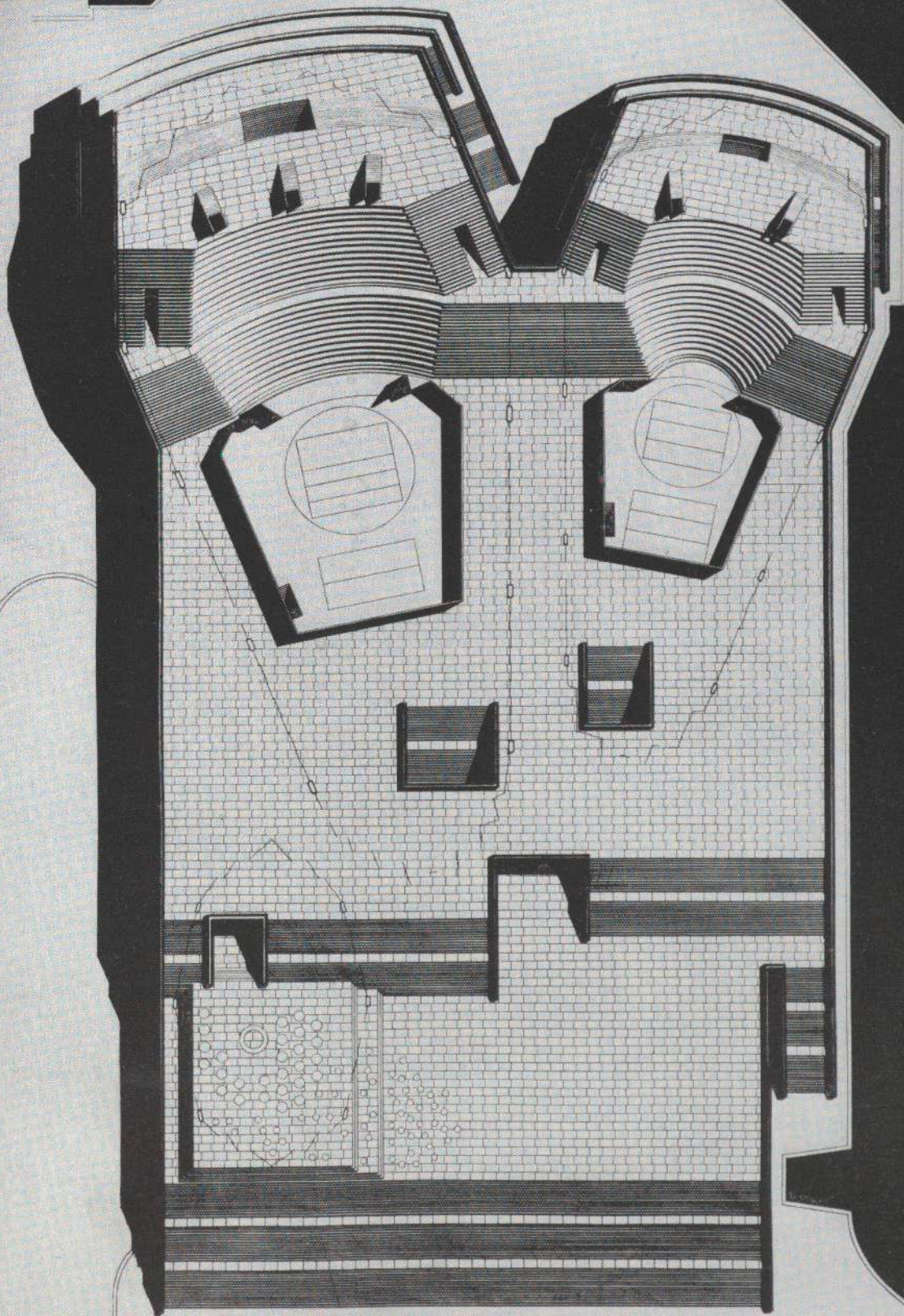
plan (right)

site plan



cross-section through main auditorium and entrance plaza and steps







# NOTRE DAME DE ROYAN ROYAN, FRANCE

*Guillaume Gillet, Architect*

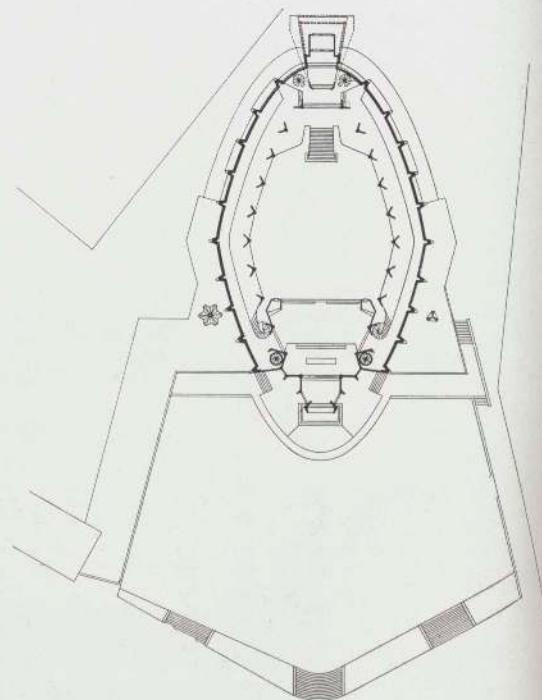
*Bernard Laffaille, René Sarger, Engineers*

Guillaume Gillet's Church of Notre Dame de Royan, now almost completed, includes a parish center, a presbytery, and a gymnasium and playing field. A spacious court accommodates open-air masses and is adjoined by classrooms and the sacristy.

The nearly oval plan of the church is derived from two interesting parabolas topped by a doubly curved concrete "saddle" roof. Walls are made of individual V-shaped piers, the narrow spaces between them filled with glass. Each pier is tapered at its base, resting on a single point, and is buttressed by the roof of the ambulatory. Galleries circling the building above provide additional stabilization for the piers.

The buttressed piers of Gothic architecture, which much of this building suggests, were joined at their summits in great ribbed vaults evoking the image of trees in a forest. But unlike its Gothic predecessors, the piers in Gillet's church carry an unrelated roof form. Its saddle shape does not grow out of the vertical structure, but instead cuts the piers at graduated lengths, like the pipes of an organ, and unifies the entire nave. This effect is perhaps at its strongest when the interior is seen from the top of the flight of steps linking the main entrance to the nave floor some twelve feet below.

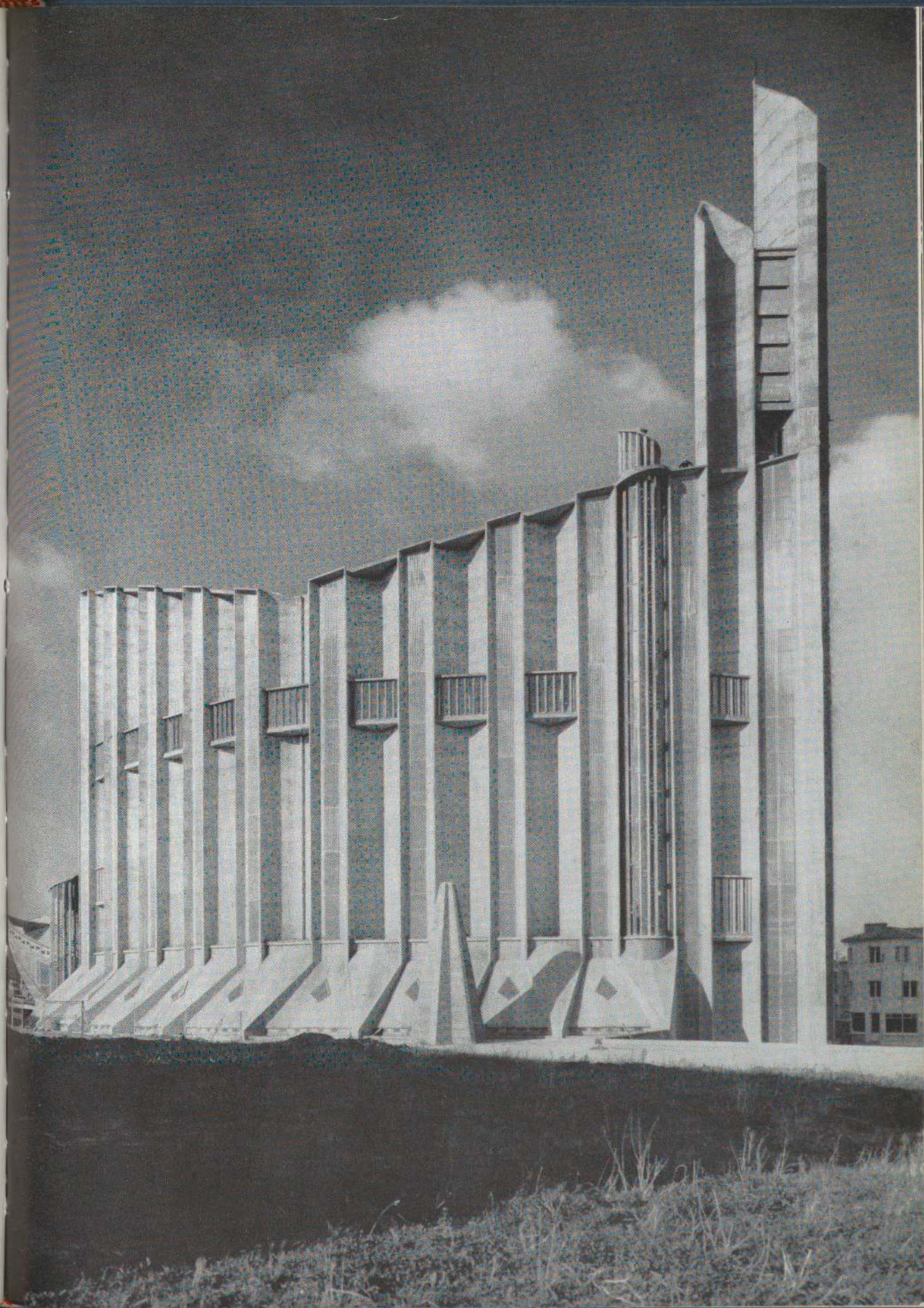
plan



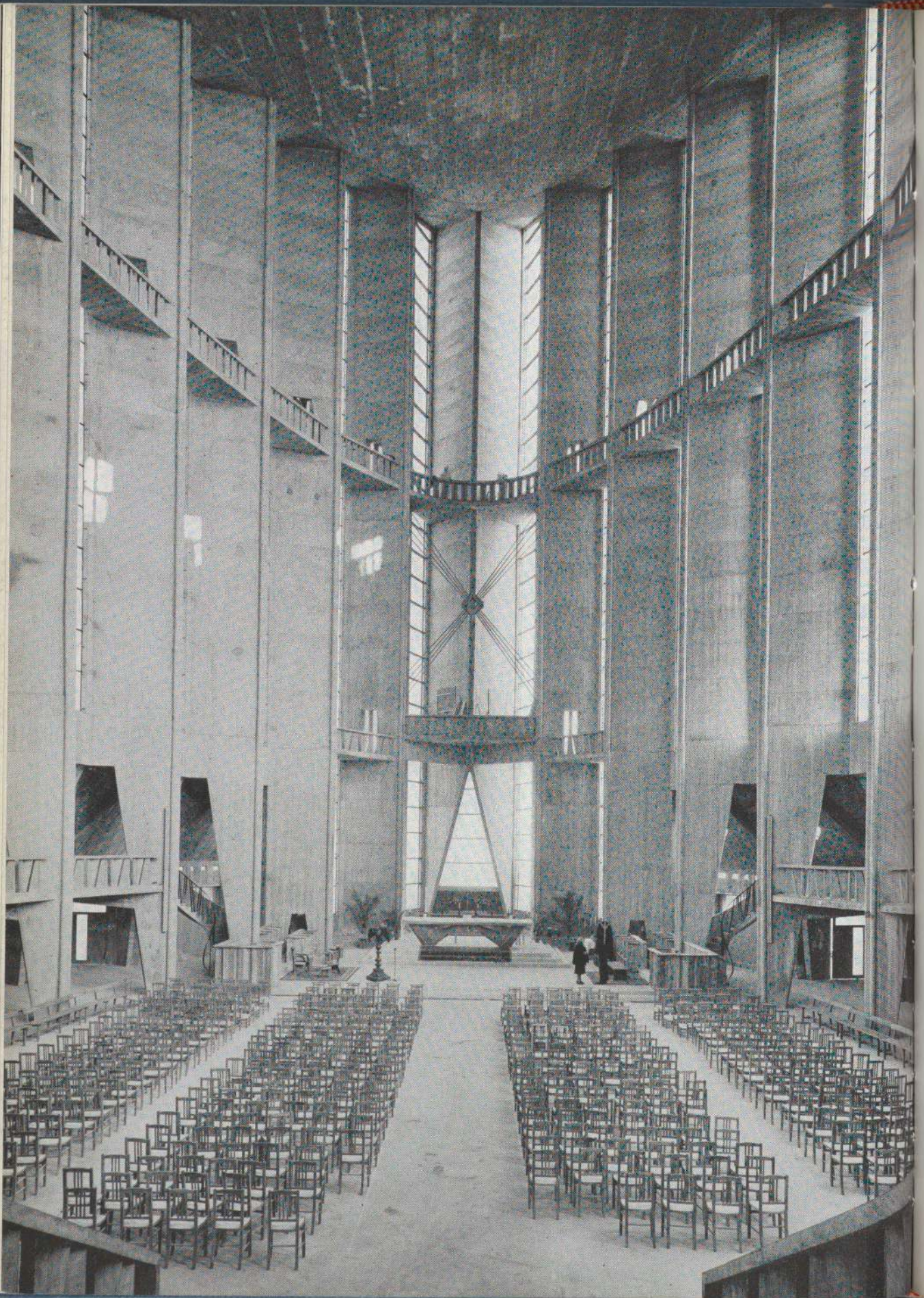


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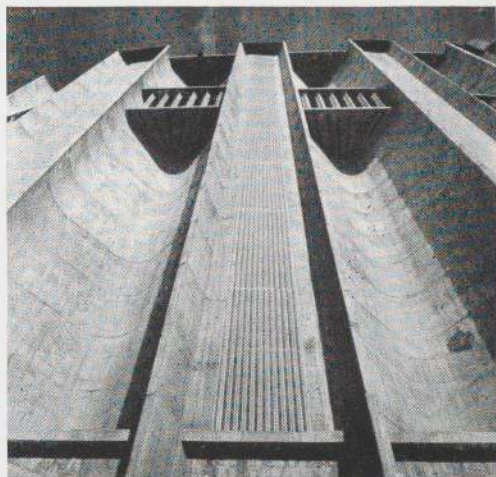




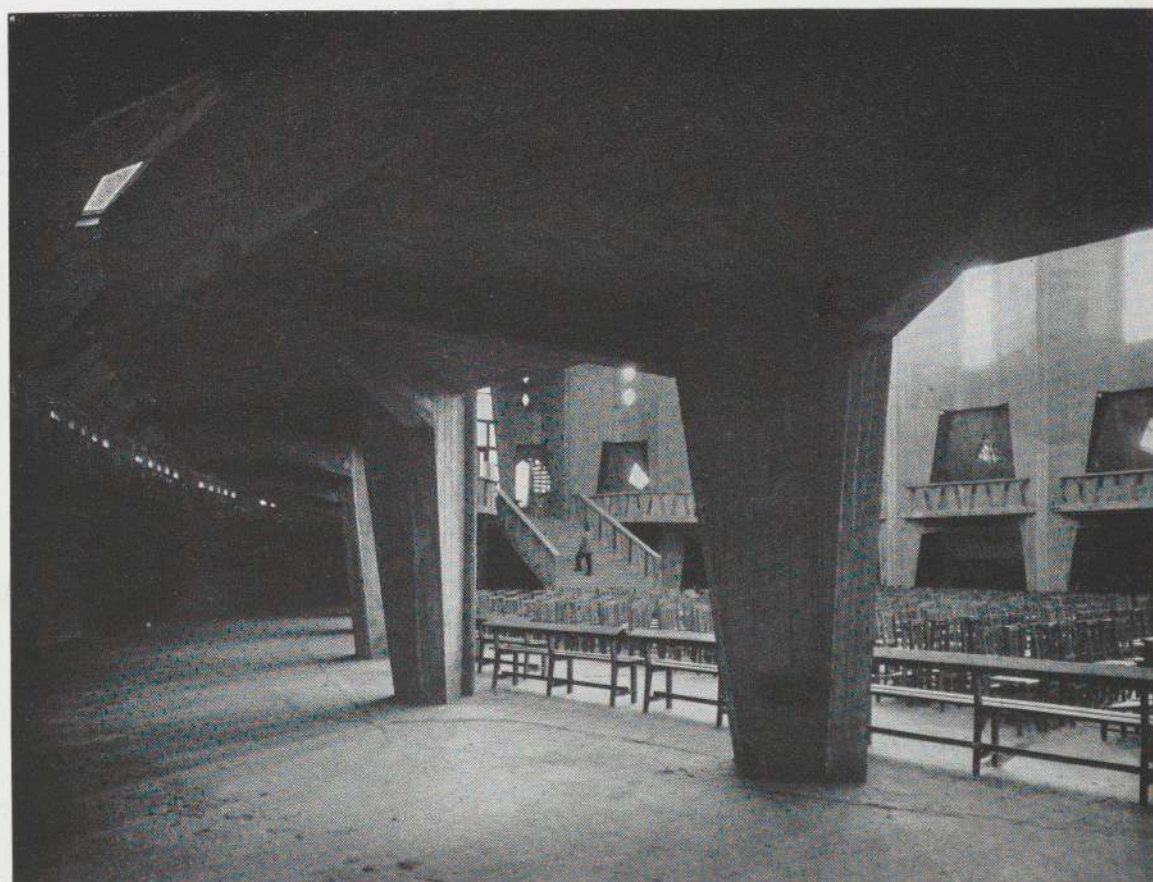


interior view from entrance steps (left)

NOTRE DAME DE ROYAN  
ROYAN, FRANCE  
*Guillaume Gillet, Architect*



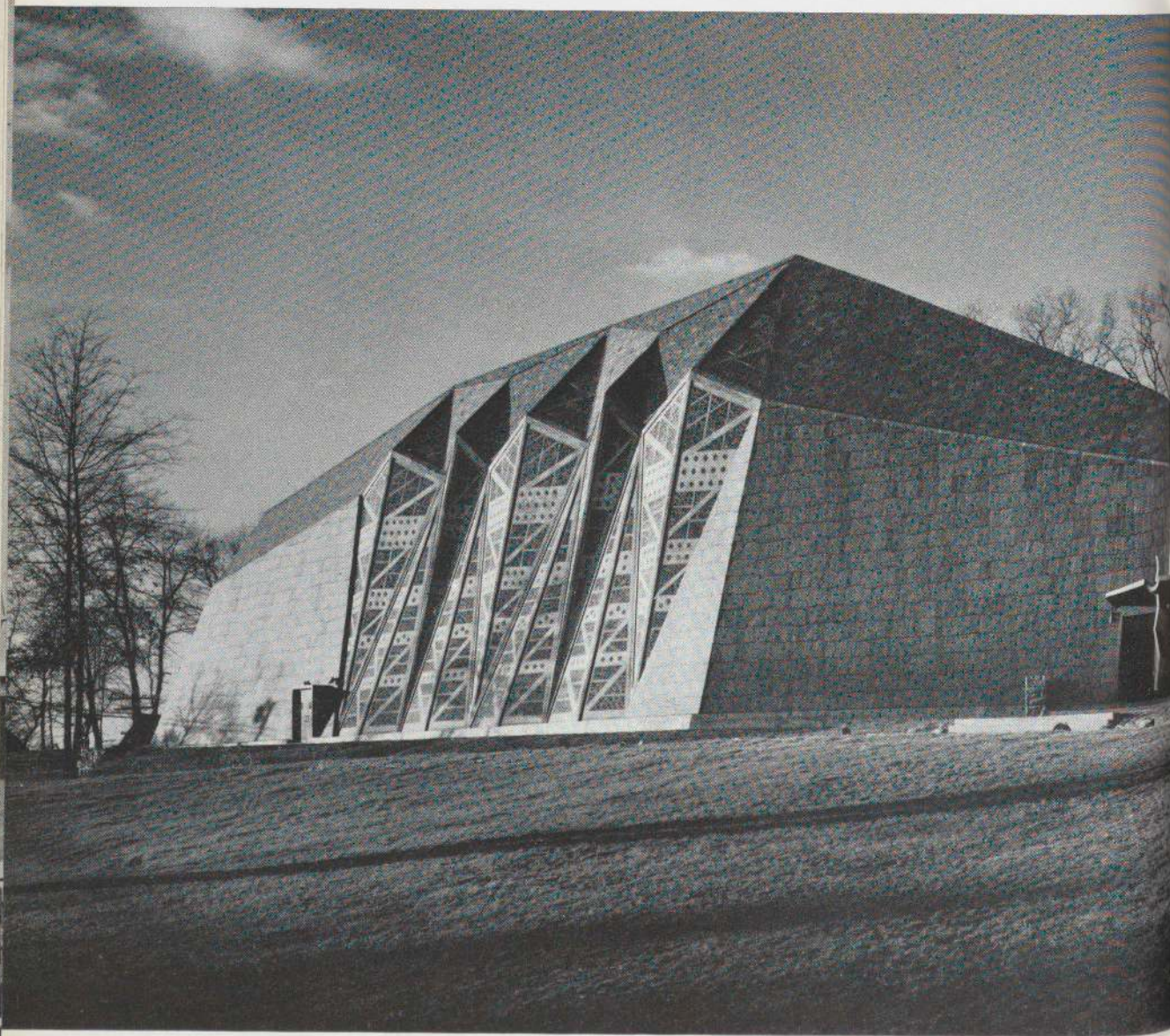
exterior detail of piers



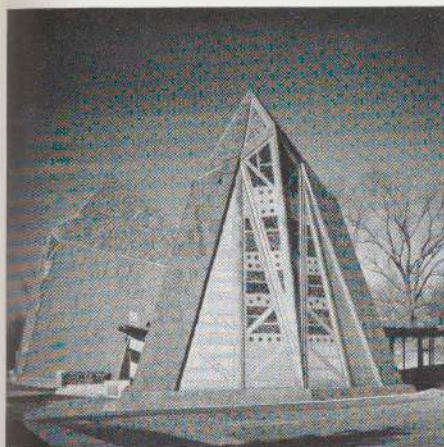
interior view from ambulatory with entrance steps in background



exterior view of entrance (south) elevation





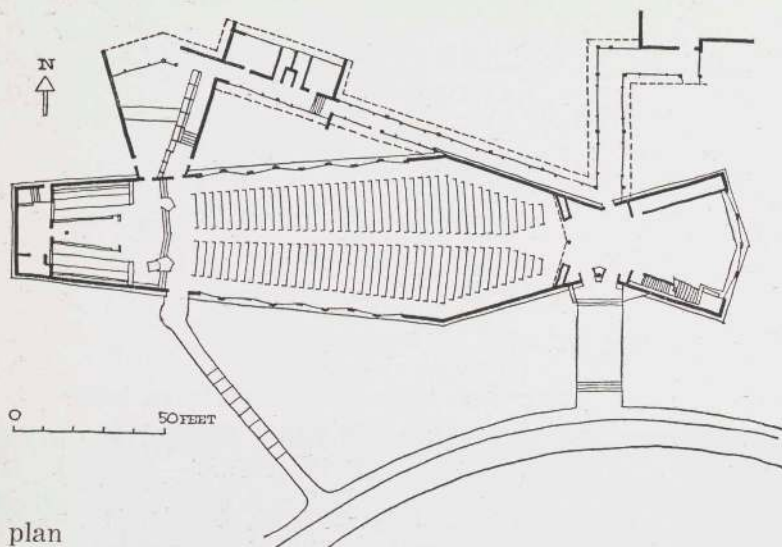


FIRST PRESBYTERIAN CHURCH  
STAMFORD, CONNECTICUT

*Harrison and Abramovitz, Architects  
Sherwood, Mills and Smith, Associates  
Felix J. Samuely, Engineer  
Edwards and Hjorth, Consultants  
Stained glass executed by Gabriel Loire  
from designs by the architect*

Architect Wallace Harrison set out "to build a sanctuary for a Presbyterian church today which might be the same light structure of stone and glass achieved so marvelously in the middle ages." At the same time he wished to develop still further the medieval use of stained glass by carrying it up into the roof of the building. To accomplish this he used a structural system of pre-cast concrete frames filled with chunks of multi-colored glass. The major length of the nave is thus made into windows carrying abstract patterns representing scenes of the Crucifixion along the north and of the Resurrection along the sunnier south wall. The designs were executed by Gabriel Loire after sketches by the architect. The entrance to the building is at one side through a low and dimly lighted narthex. The nave and narthex itself rise from both sides of this entrance, and together with the canted planes and splayed shape of the nave give the church the appearance of a huge fish—an early Christian symbol equally apparent in the floor plan. Windowless exterior walls, and most of the roof, are covered with slate shingles in a pattern suggesting the scales of a fish.

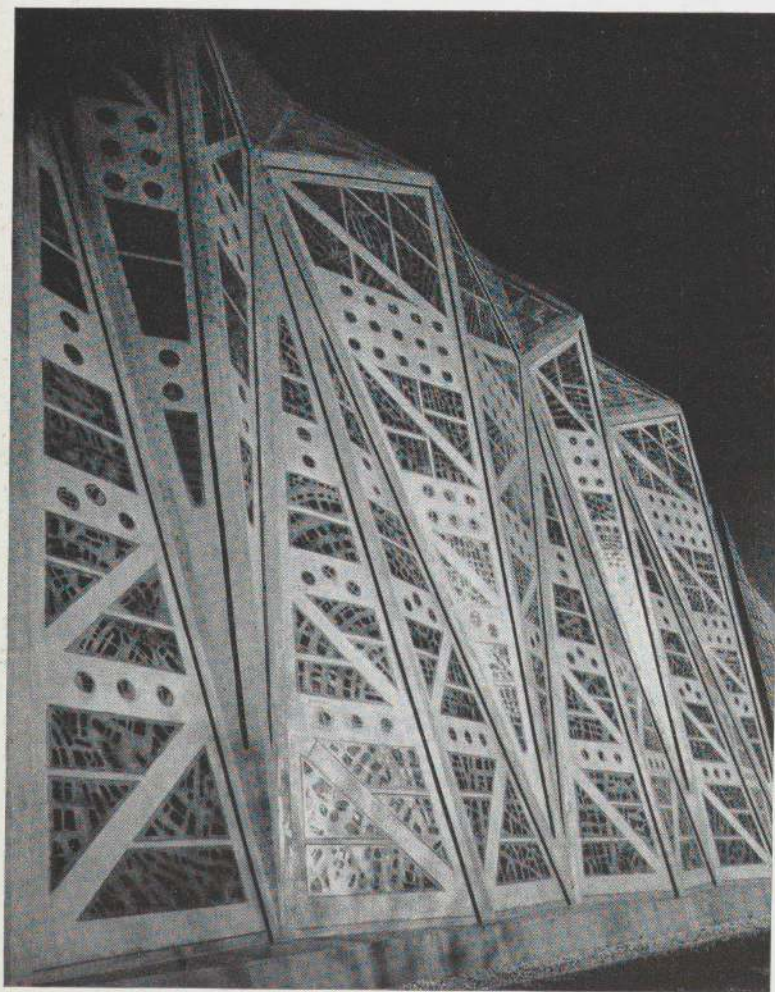




plan

FIRST PRESBYTERIAN CHURCH  
STAMFORD, CONNECTICUT  
*Harrison and Abramovitz, Architects*

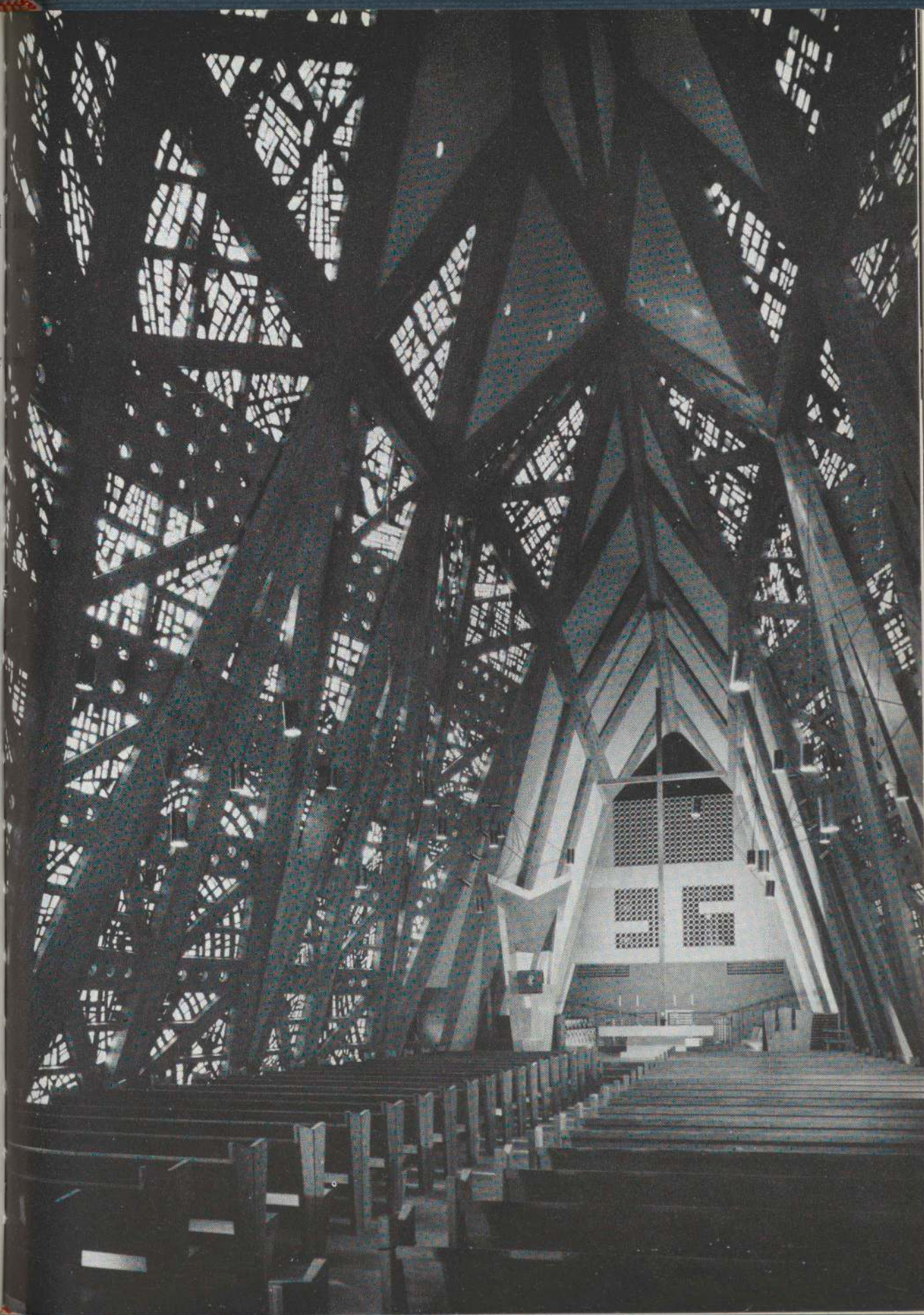
interior



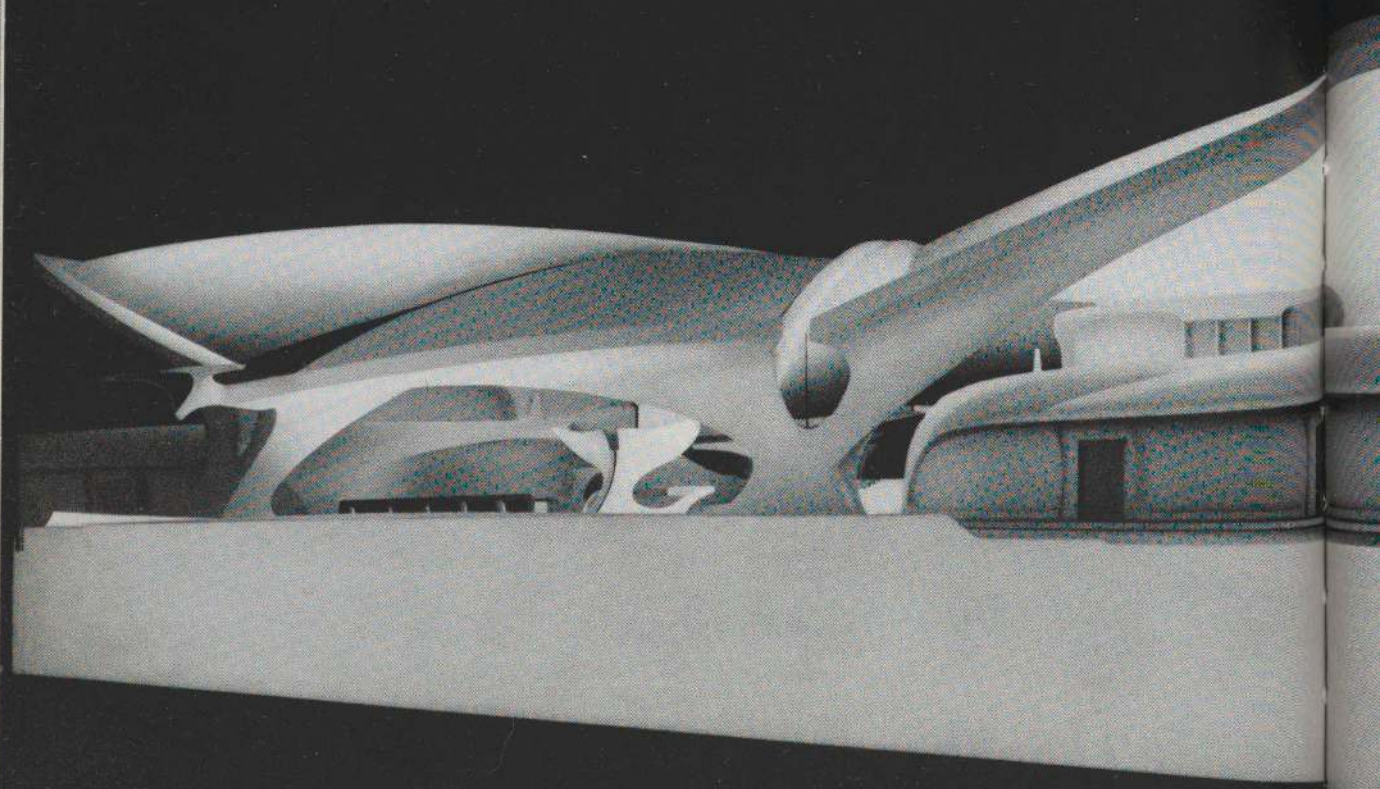
detail of pre-cast concrete frames and glass



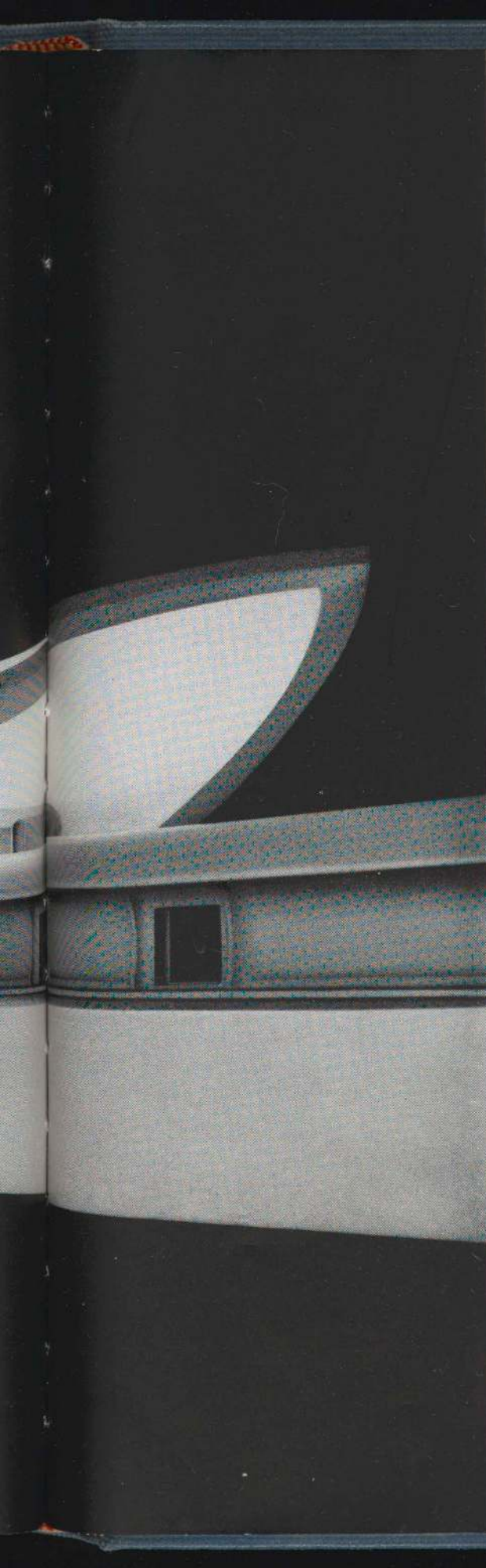
URCH  
itects  
terior











model: view of exterior

TRANS-WORLD AIRLINES TERMINAL  
IDLEWILD AIRPORT, NEW YORK

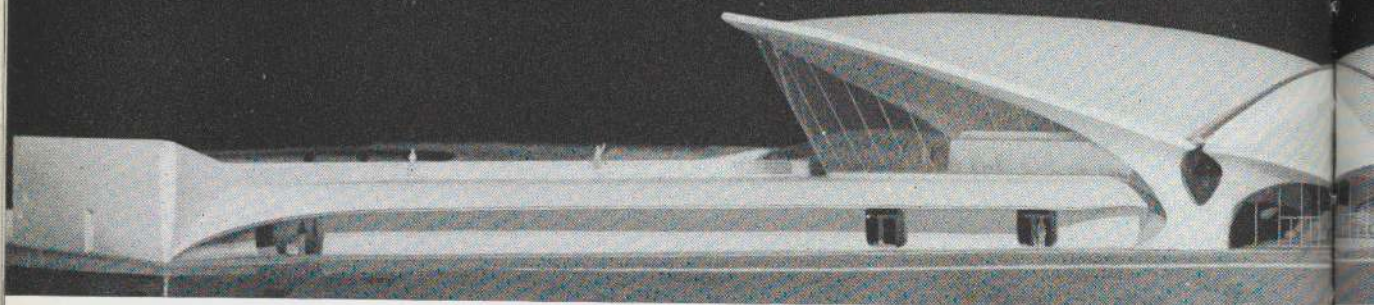
*Eero Saarinen & Associates, Architects*  
*Ammann & Whitney, Engineers*

The soaring cantilevered roofs of Eero Saarinen's project for Trans-World Airlines' Terminal result from the architect's effort to create a building "which would be distinctive and memorable" and "in which the architecture itself would express the excitement of travel."

He has used four interacting vaults of slightly different shapes, supported on four Y-shaped columns, to enclose a space 50 feet high and 315 feet long. Embarking passengers enter this space under a marquee extended like a visor from one of the vaults, and proceed from the ticketing area into the main waiting room where tiered seats are ranged in an amphitheatre. Elevated areas housing services, restaurants and stores are at each side, connected by a bridge overlooking the main room. The bridge, steps, services, seats and all other details are "part of the same form-world" as the cantilevered vaults and their monumental supporting piers.

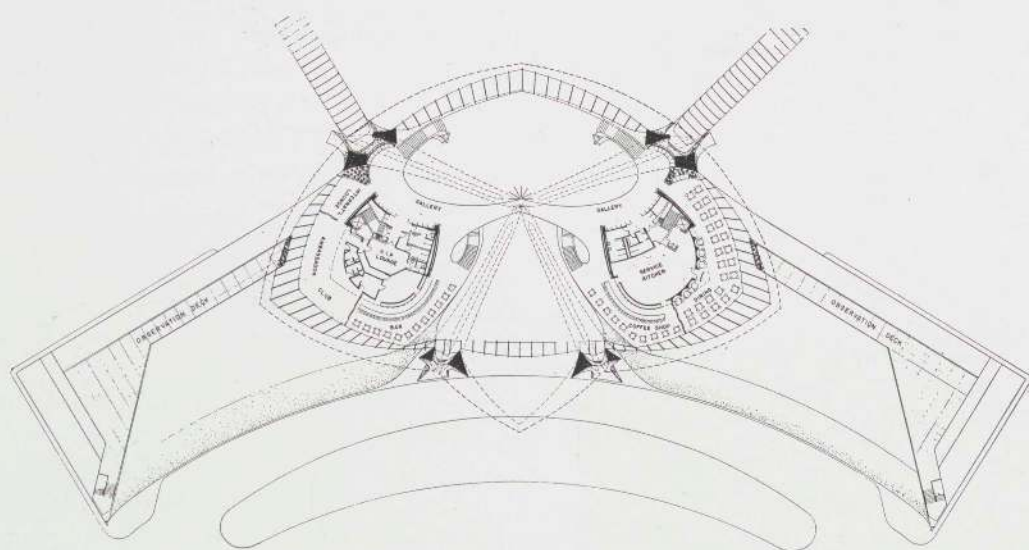
This unity of forms gives to the building an evocative character independent of abstract architectural composition. The flowing contours and merging shapes suggest not only motion but a moving object, although the architect apprehensively maintains that "any resemblance to anything other than a piece of architecture is purely in the eye of the beholder, or in the editorializing of the 'trend-maker'." The east and west vaults in particular evoke the image of poised wings—an effect appropriate enough to the building's location and purpose.





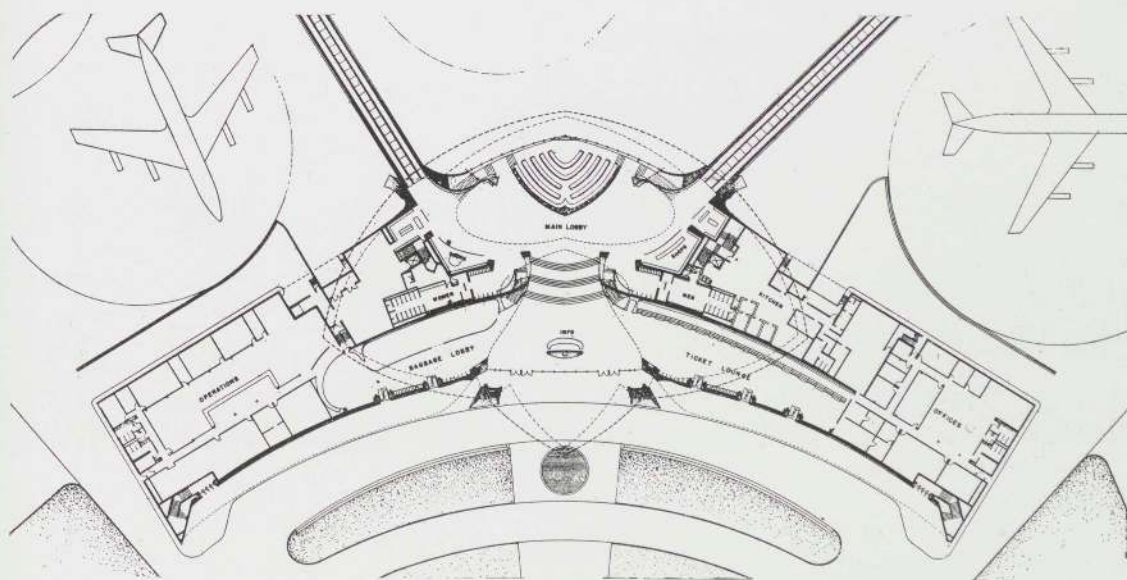
entrance elevation

TRANS-WORLD AIRLINES TERMINAL  
IDLEWILD AIRPORT, NEW YORK  
*Eero Saarinen & Associates, Architects*



gallery floor plan



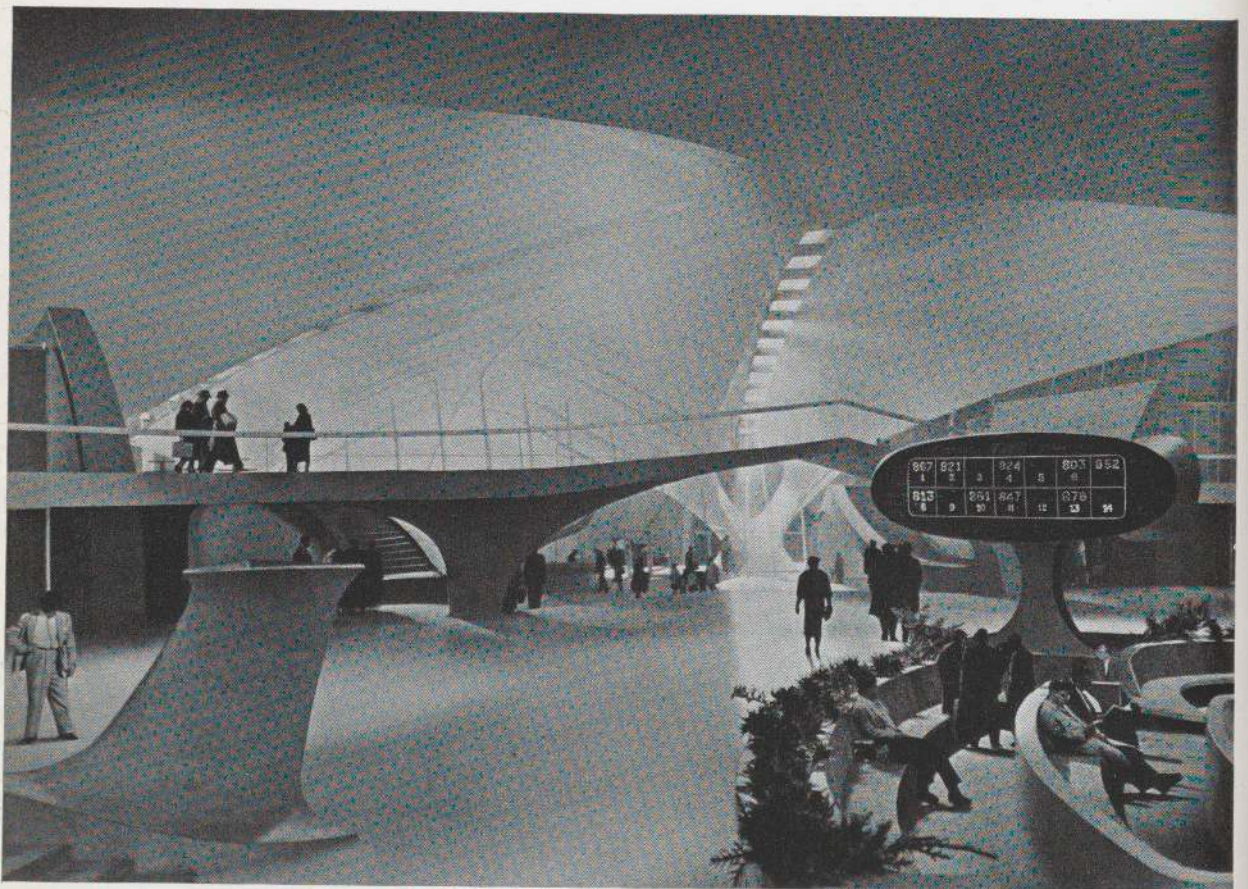


main floor plan



TRANS-WORLD AIRLINES TERMINAL  
IDLEWILD AIRPORT, NEW YORK  
*Eero Saarinen & Associates, Architects*

working drawing of column

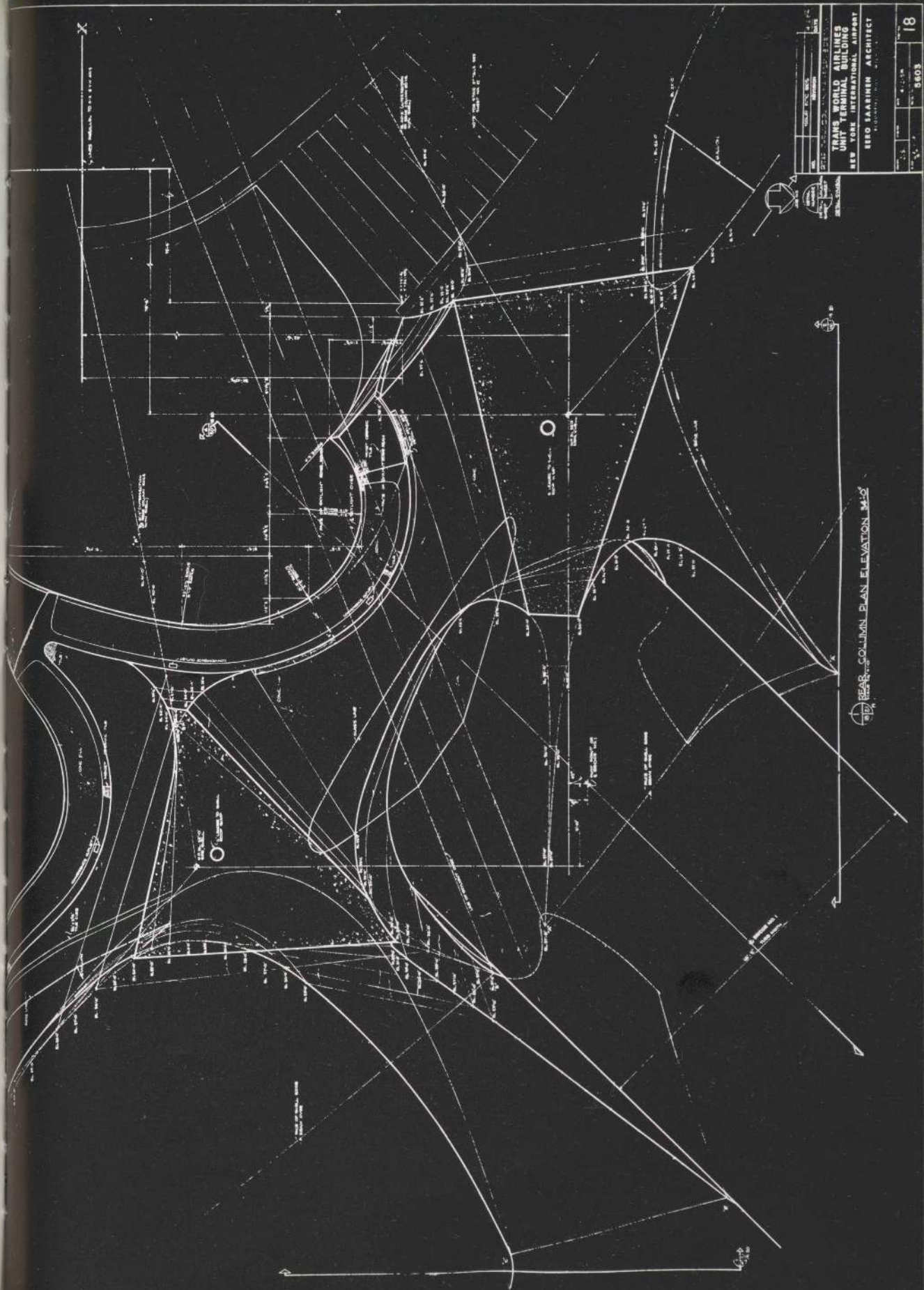


model: view of interior



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REAR COLUMN PLAN ELEVATION M-3

TRANS WORLD AIRLINES UNIT TERMINAL BUILDING NEW YORK INTERNATIONAL AIRPORT ERGO SAARINEN ARCHITECT DESIGNED BY ERGO SAARINEN DRAWN BY ERGO SAARINEN	5603	18
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COVER: National Opera House  
Sydney, Australia  
*Jorn Utzon, Architect*  
*architect's conceptual sketch*



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