

ALVAR AALTO

Courtesy of Arkkitehti-Arkitekten, Helsinki
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The following design sequence was compiled to follow the process of design from its initial stages to its full development. The material may be regarded in three groups: 1. the design sketches by Alvar Aalto made during the development of the Vouksenniska church project, 2. the measured drawings made in his office, 3. the photographs of the church as it stands today.

The Vouksenniska church design was developed in 1956 while Alvar Aalto was also designing and completing several other buildings. The construction of the church occurred between 1957-1959 and has been in use since then by the Vouksenniska community. All the sketches in the following sequence are from Alvar Aalto's hand and were done on white tracing paper with pencil. Many more sketches were made to develop the project, out of which the editors chose the most significant in terms of contributing to the design sequence. The material was then arranged in chronological order.

The Vouksenniska church project was chosen for documentation with the generous permission of Prof. Aalto and Mrs. Aalto during co-editor Reyhan Tansal's visit to Helsinki, July 1963. The editors express their deep appreciation to Prof. Aalto and Mrs. Aalto for giving the opportunity to use this material for publication and their interest in the project.

The editors acknowledge Kaarla Leppanen for his invaluable help in locating and arranging the sketch sequence, Teo Senn and Erik T. Vartiaianen for supplying the additional information. We would also like to thank Harwell Hamilton Harris and William Odum for their guidance in the initial contact with the office. The editors are greatly indebted to Richard Saul Wurman, the faculty advisor of the publication who has been an enthusiastic supporter throughout the project devoting his time, energy and technical advice. We thank Dorothy Wurman for drawing the map locating the site of the church, Conrad Schaub who has been of invaluable help by redrafting two of the measured drawings and Ragnar Overby of Chapel Hill and Sofus Simonsen of the Modern Languages Department at N. C. State for translating Alvar Aalto's article into English.

K.S. & R.T.

the development by
Alvar Aalto
of the Design for
the church of
Vouksenniska
Imatra, Finland



VOUKSENNISKA CHURCH

Vouksenniska church is one of the churches in the Imatra community. Imatra is composed of several small residential and some larger industrial areas. It is a strongly industrialized area with cellulose, wood, paper and iron industries all of which are represented by the large and important firm of Enzo-Gutzeit Oy:s. This explains why they have shown a special interest in the church, even in the planning of it, because it must satisfy the special needs of an industrialized community.

The activity of the church in an industrial area is naturally given its form so that the main stress is laid upon the social activity of the church. There are many different combinations of such church activity in the world—it is only a matter for regret that social demands have usually deprived church buildings of their character of public buildings. Very frequently they present the appearance of a conglomerate of settlement hotel, clubs for youth and the congregation, parish halls, and connected with these there are premises for a modest amount of real church activity.

The architect has endeavored to achieve a form which is fully that of a church, but nevertheless so that the social activity is uncompromisingly provided for. Thus the fundamental concept of the church was that of a series of three halls following one another. These halls could be termed A, B and C: A is the actual hall of worship; the other two halls can be connected with it at need by means of movable walls. During the week, halls B and C are used for congregational purposes. Each hall accommodates barely 300 seats, A and B in conjunction 600, and if the three halls are joined together there are 800 seats.

The church halls are separated by movable partitions approximately 42cm in thickness which slide on ball bearings in oil suspension, and according to their weight act as a complete sound insulator for the room. Some of these partitions are straight and some are curved.

There are three architectonic requirements in a Lutheran church: the altar, pulpit and organ loft for the music and choir. All three are group-

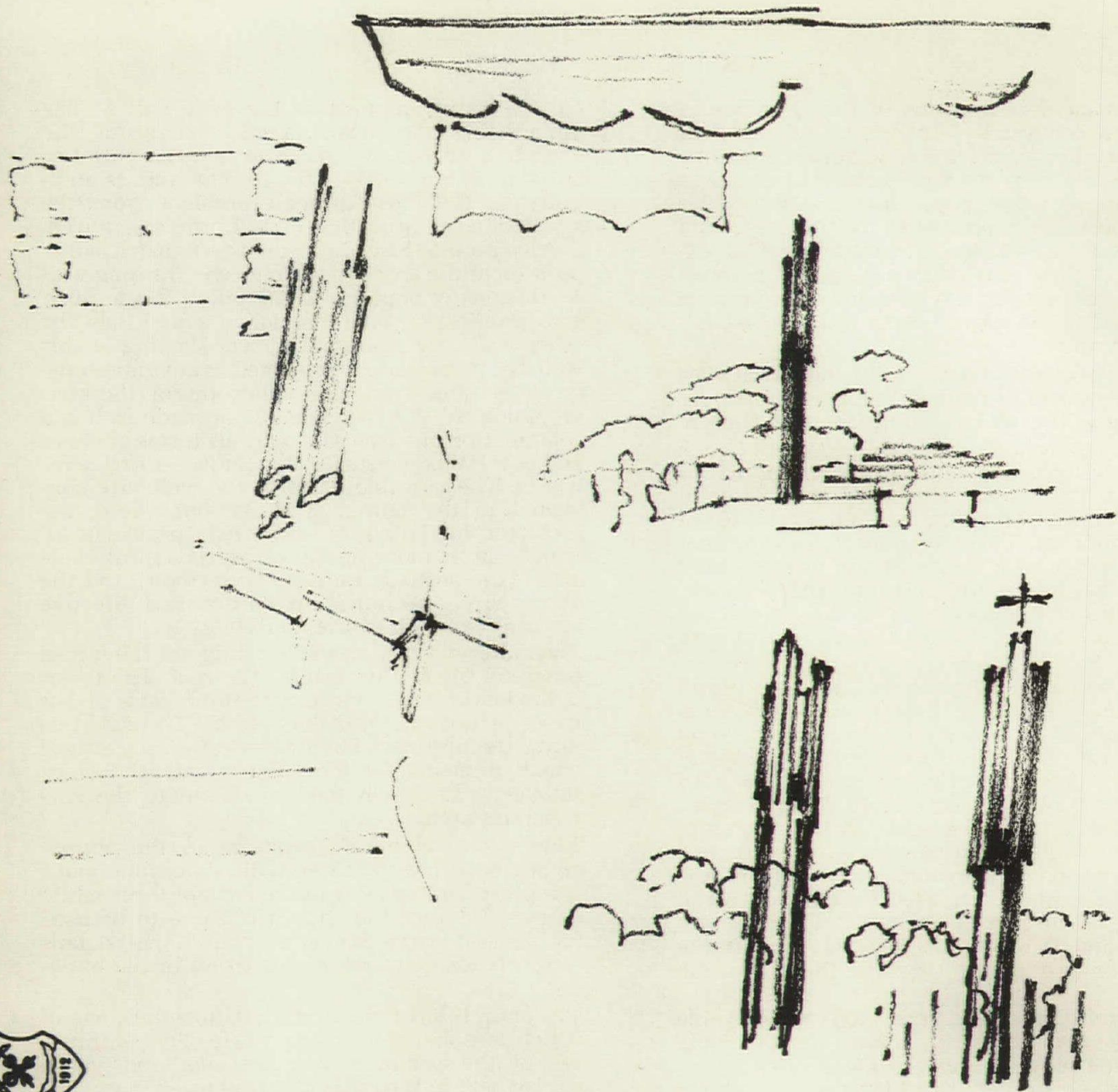
ed in a triangular form in the main hall A. The altar being the most sacred element of the church, is placed in the center and the pulpit to one side. If we consider the sermon and its audibility as the most difficult problem from the standpoint of acoustics in a Lutheran church, this leads quite logically to an unsymmetrical disposition of the space in the church. The long wall set diagonally opposite to the pulpit has a much greater effect on the reflection of sound than the other walls. By means of correct shaping of this wall, the sound can be projected as advantageously as possible from the viewpoint of the congregation. In this instance, the acoustic wall is a combination of surfaces in various forms of curve and bow. Window surfaces included, it slopes inwards. The movable parts of the walls are connected to the bowed wall sections. Here, the architect has tried to solve two problems, of which one is more nearly of psychological character (the acoustic tone of the sermon) and the other purely technical in nature (an effective internal isolation of the church halls).

The materials used in the building are reinforced concrete, tile and copper for the roof. The tower is predominantly divided into three parts and is wider at the top than the bottom. Through this form, the architect has created an architectural image immediately identifiable among factory smoke-stacks which tend to dominate the surrounding area.

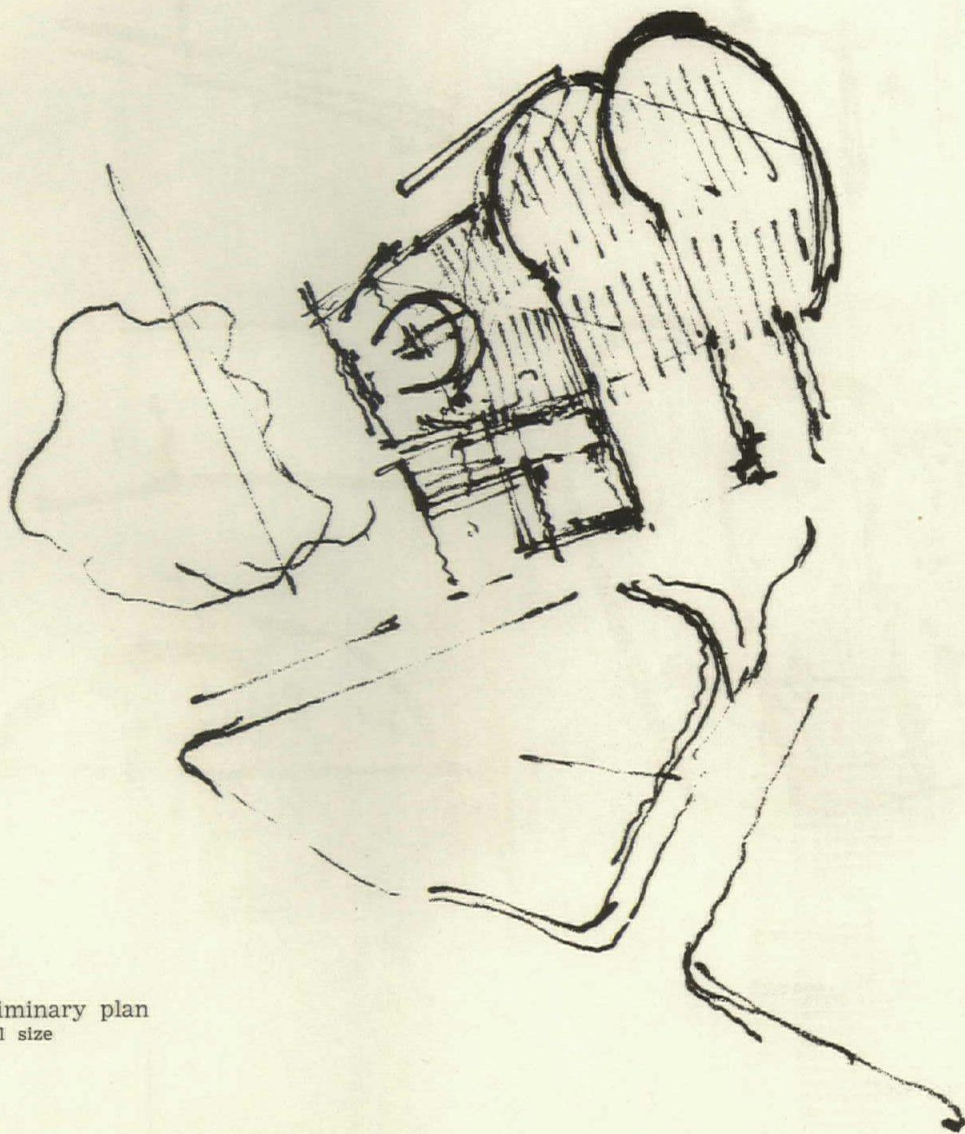
The tri-partite motif reappears in the church ceiling covering the three halls. The same motif is repeated in the altar in the form of three white crosses. Because the church is going to be used for funeral services, certain additional details were necessary in the construction of the building.

The church has five entrances altogether, one of which is isolated on the east side. This entrance serves the community gatherings and youth circles held in the church during week days. The architect has found it necessary to plan this entrance so that the other entrances serving the secular part of the church under no circumstances be disturbed.

Alvar Aalto

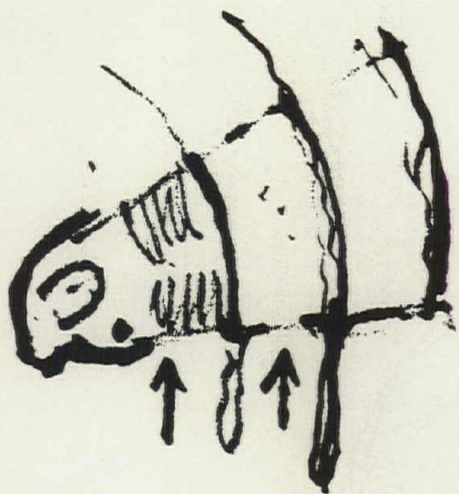


Tower studies
105% of original size

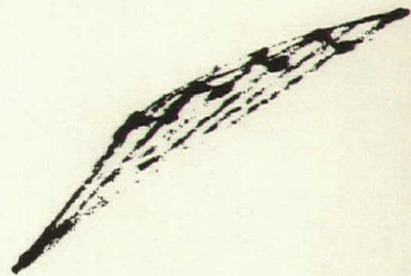
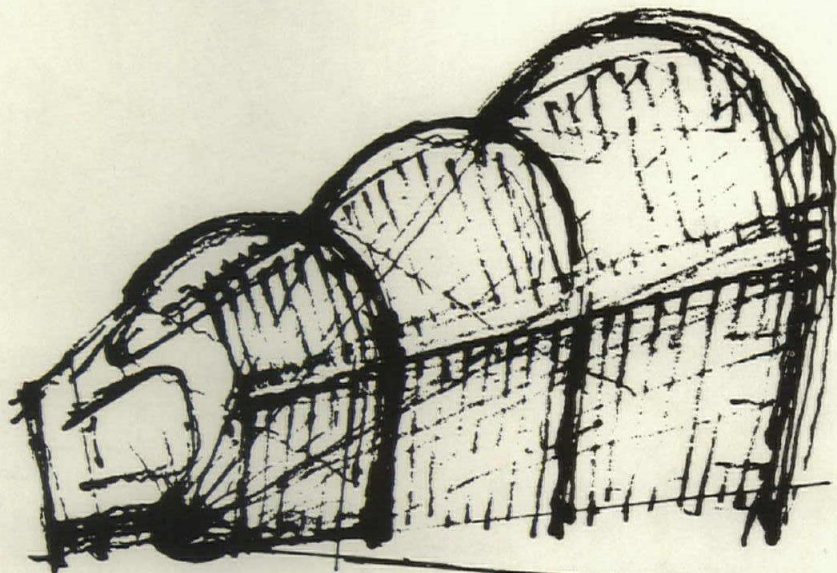


Preliminary plan
actual size

Imtosa

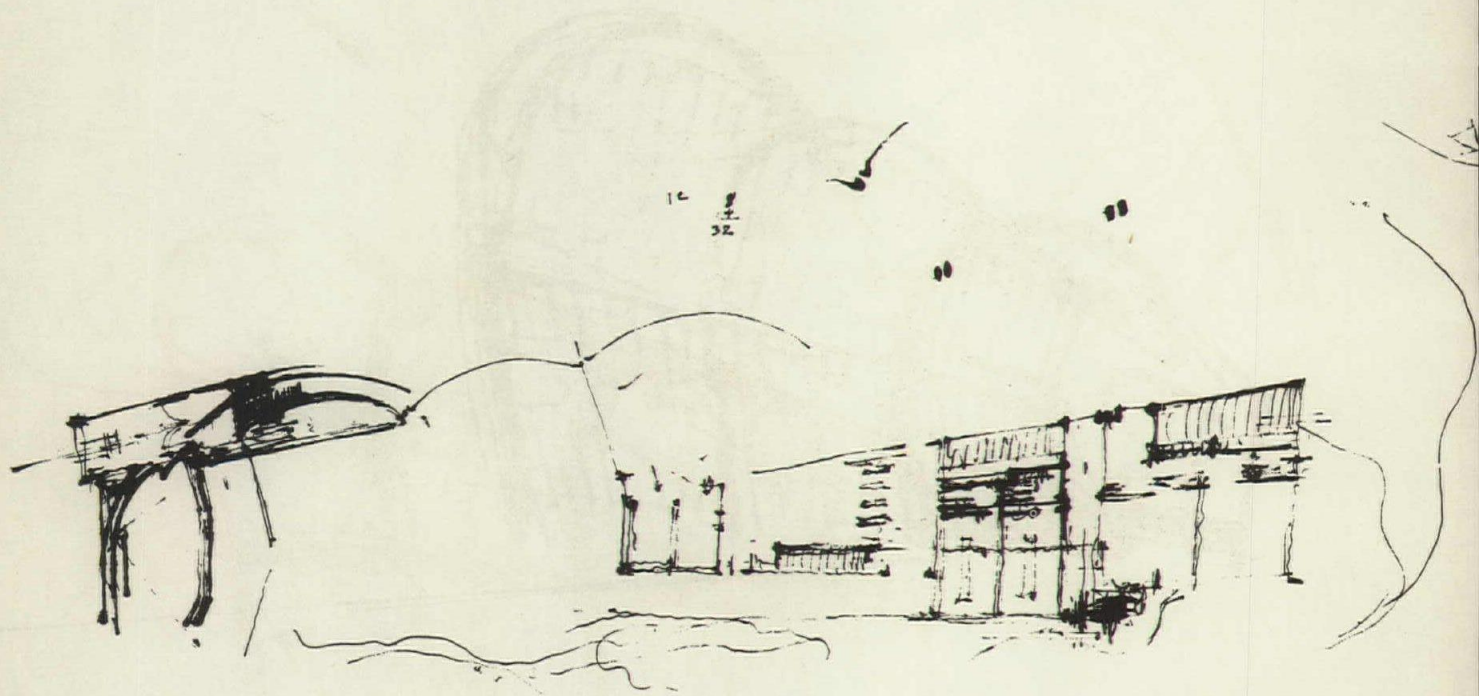


Preliminary plan, later stage
98% of original size



12
2
4
8
16
32

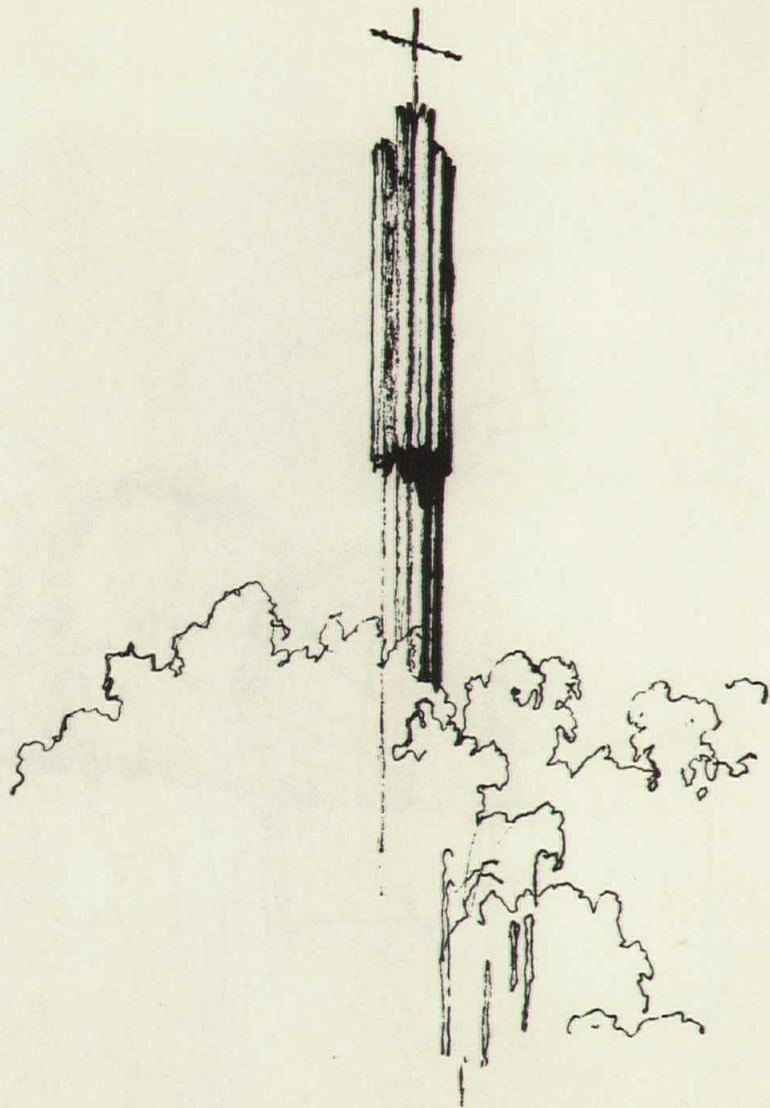
Finalized plan of sanctuary
76% of original size



Entrance studies, plan
25% of original size



Form and acoustic study, section and plan
actual size

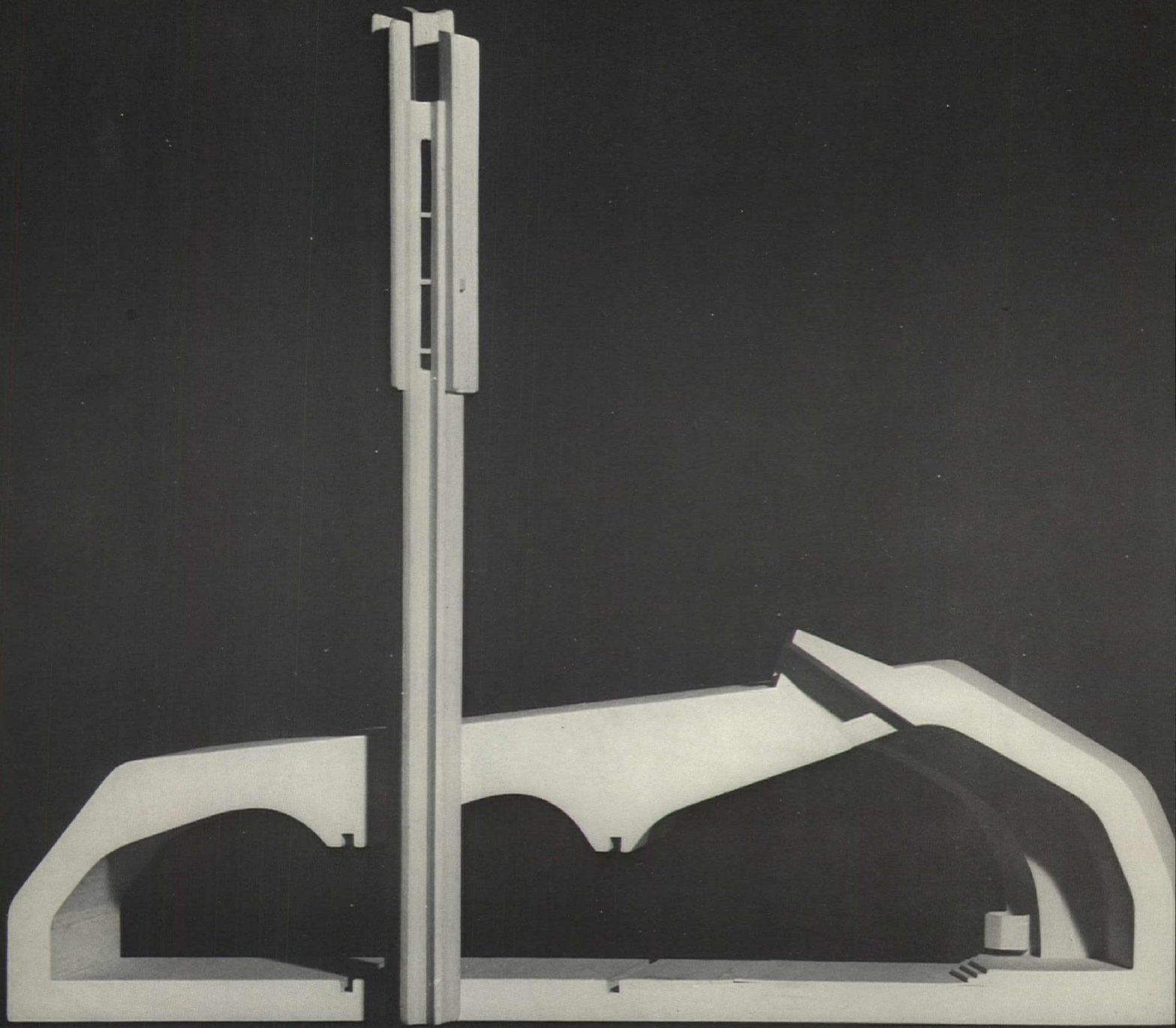


Vuoksenranta -56

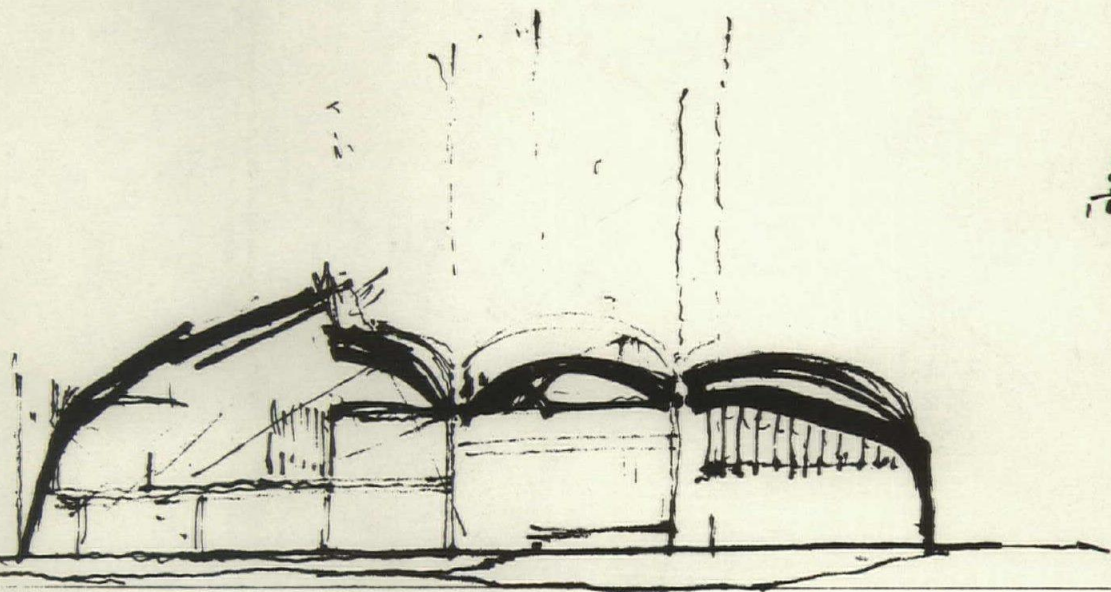
Finalized idea for tower
40% of original size



Interior perspective
80% of original size



Study model in wood

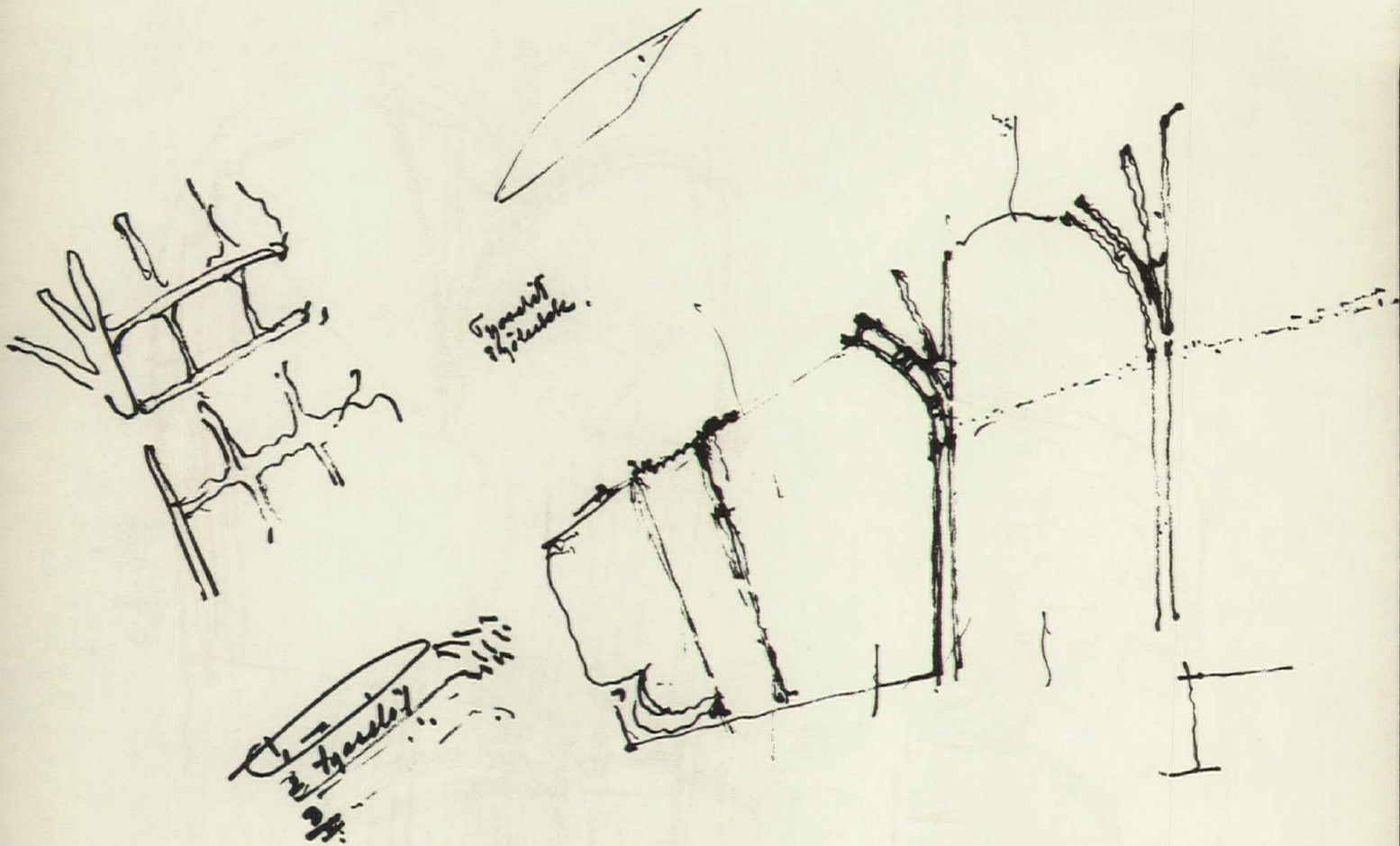


20
35
150
90
101-1

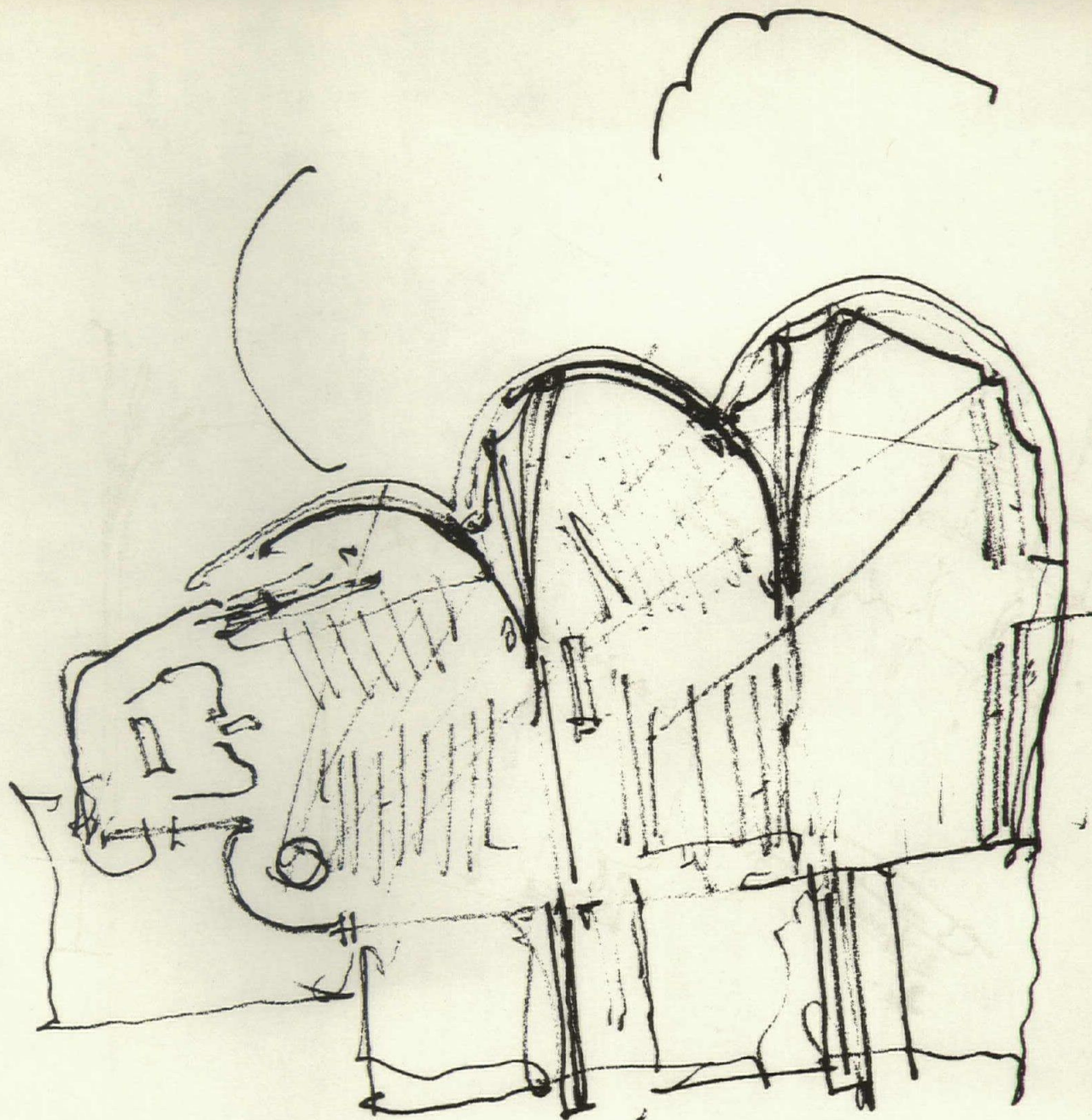
800

Longitudinal section, study of ceiling form with sky-light

52% of original size



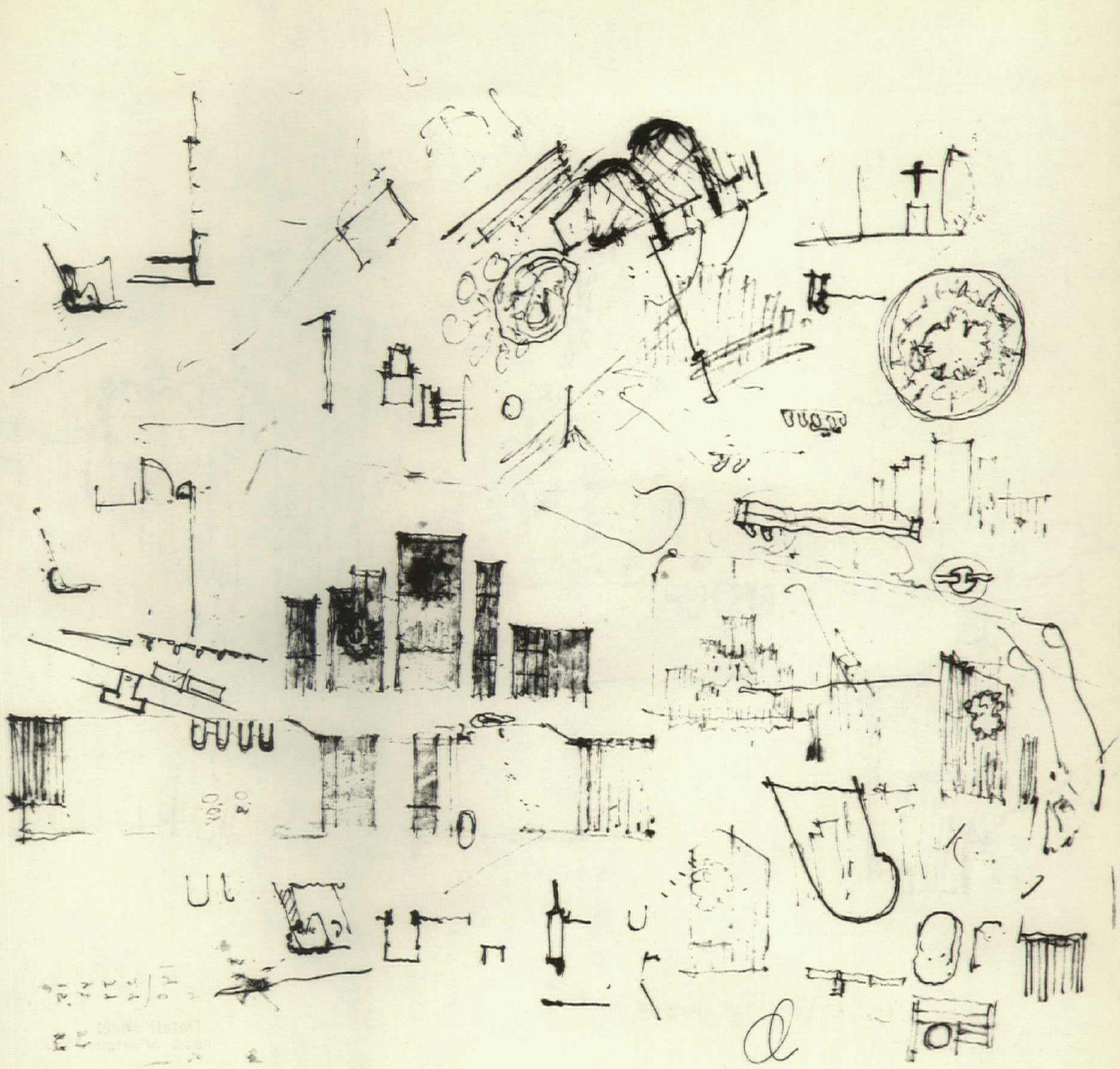
Ceiling construction integrating structure, ventilation
and movable walls
32% of original size

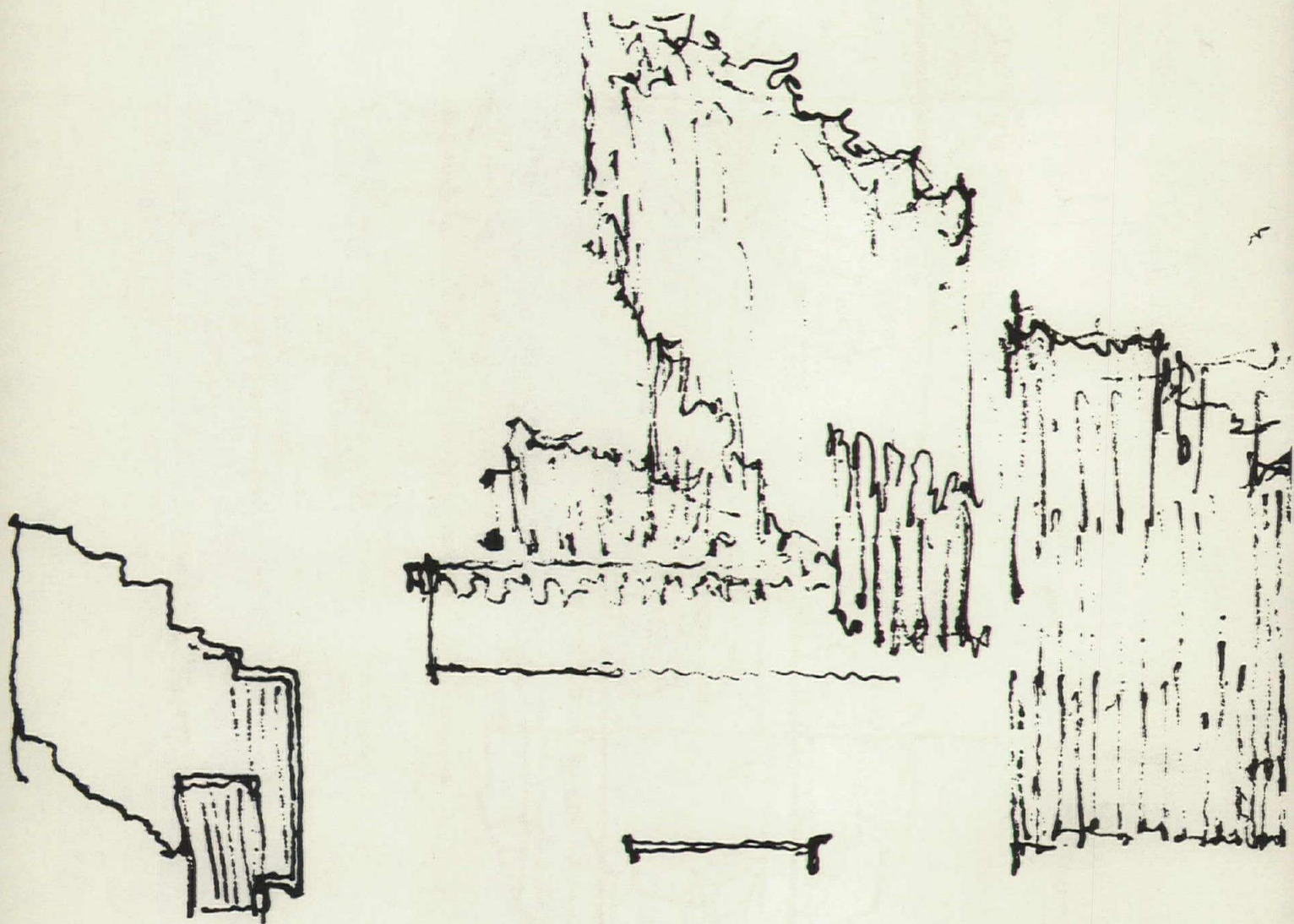


Ceiling construction reflected on plan of sanctuary
105% of original size

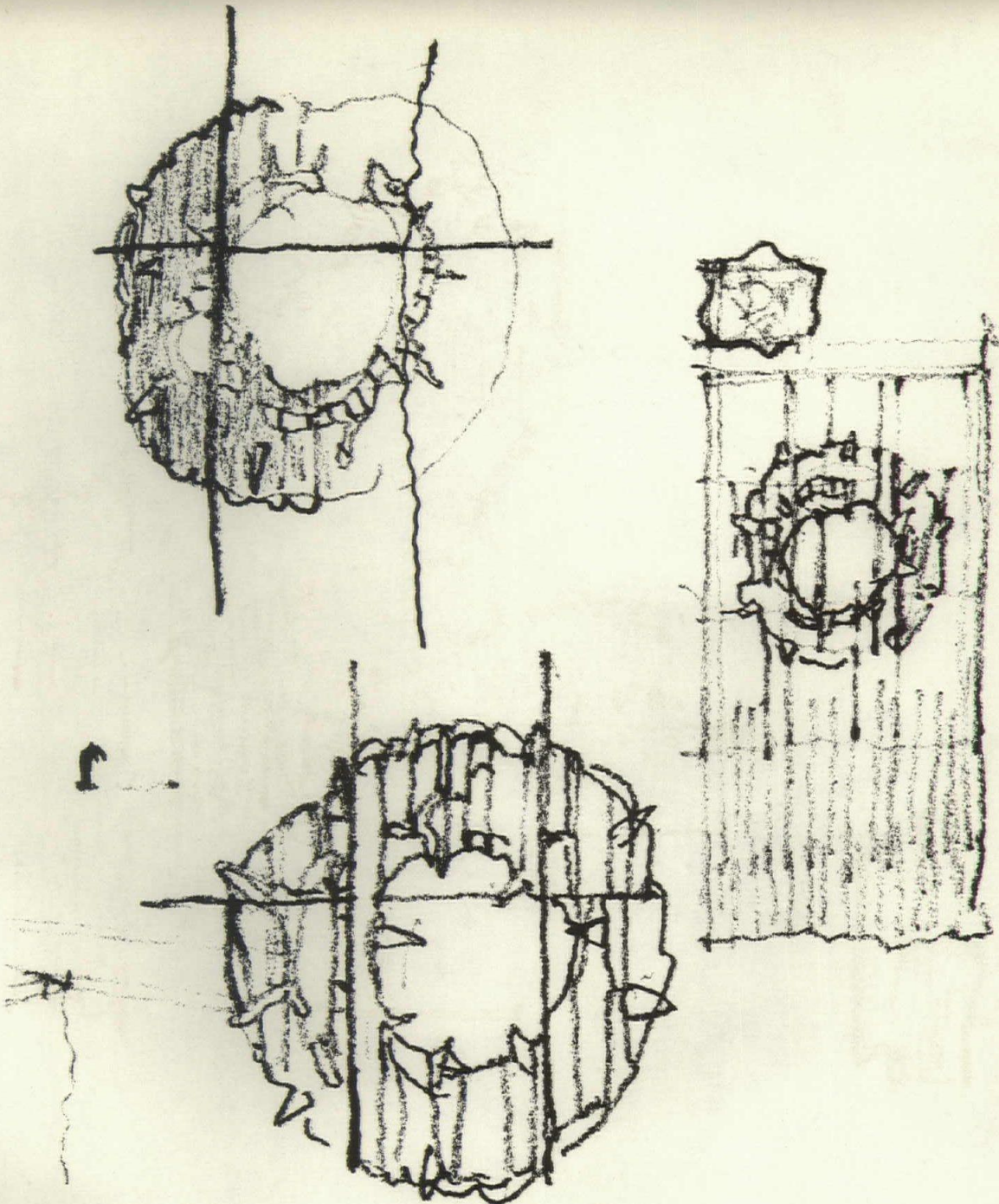


Detail sheet
34% of original size

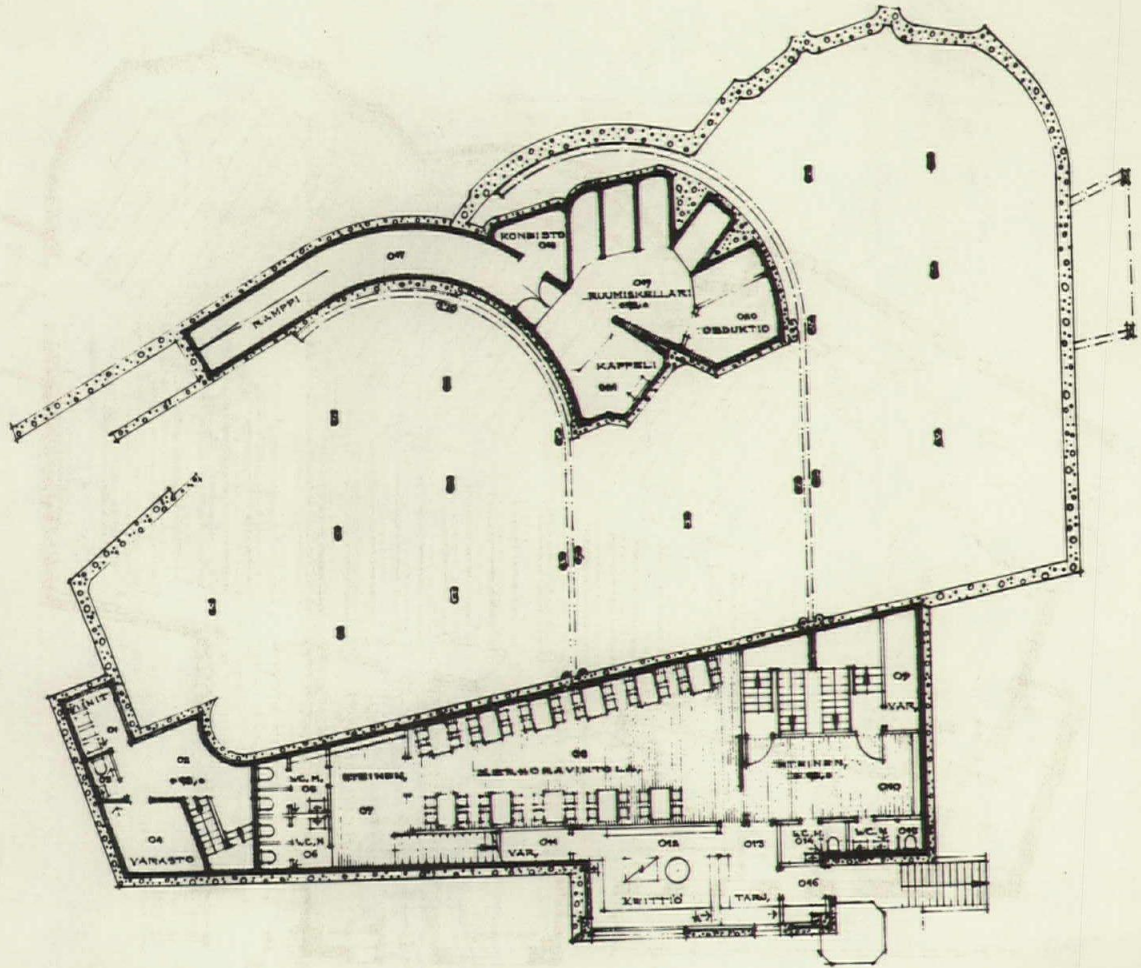




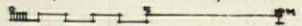
Organ study
46% of original size

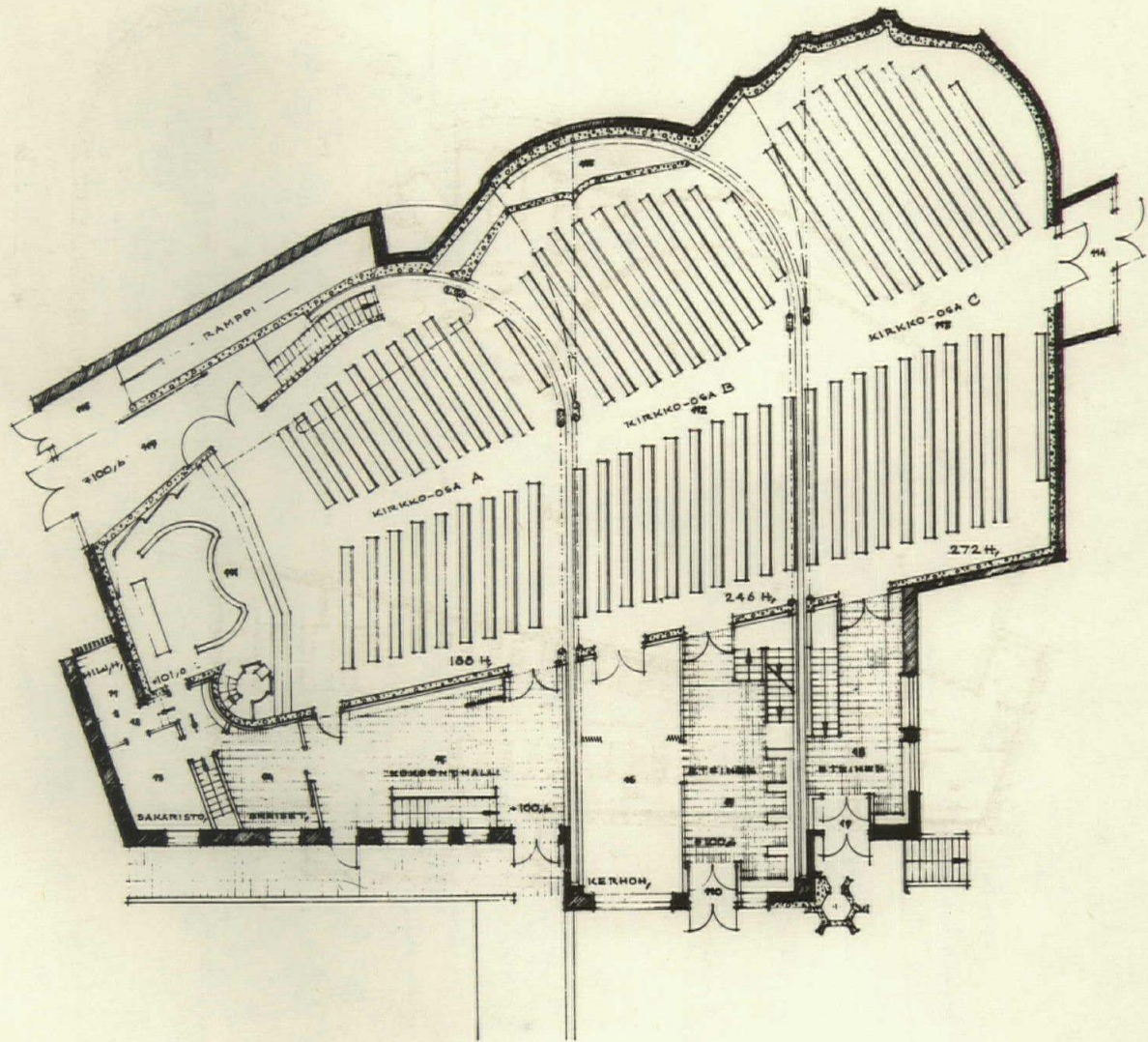


Stained glass figure study
80% of original size



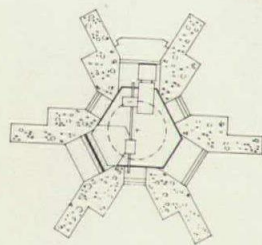
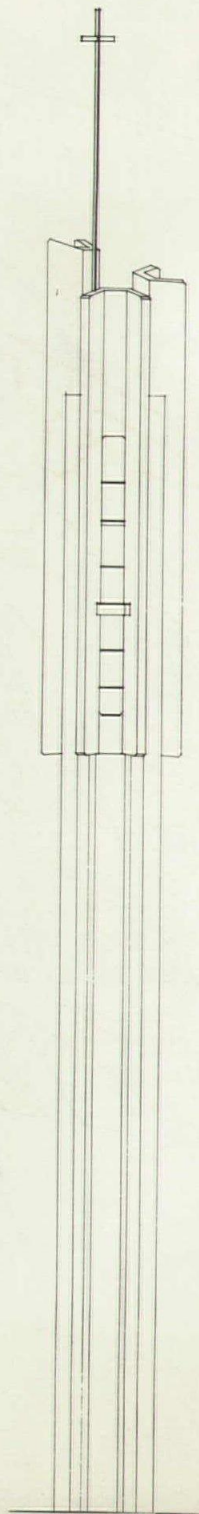
Final plan, basement

KELLARIKERROS, P.I.R. N.2.
 1/100 

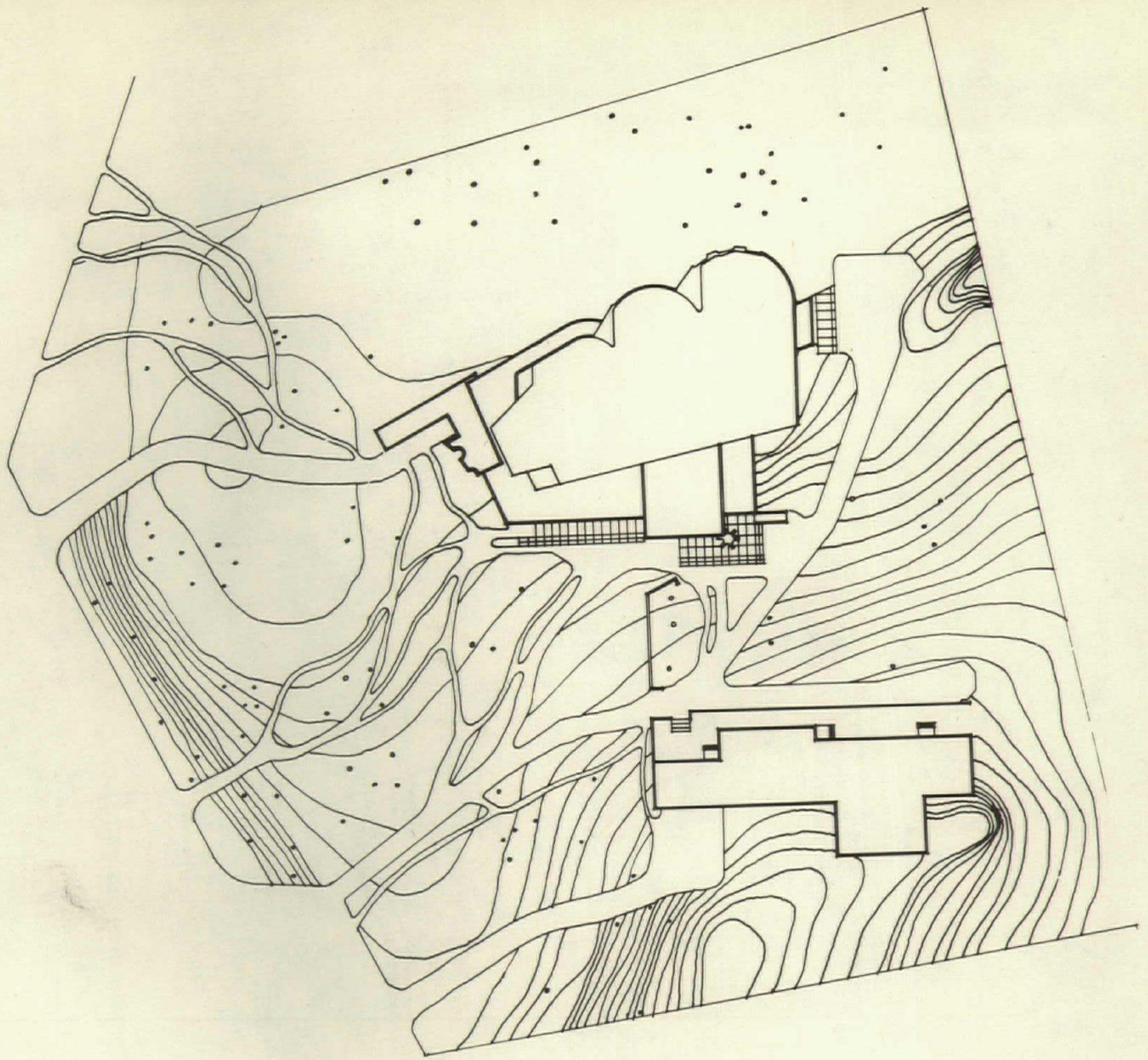


Final plan, main floor

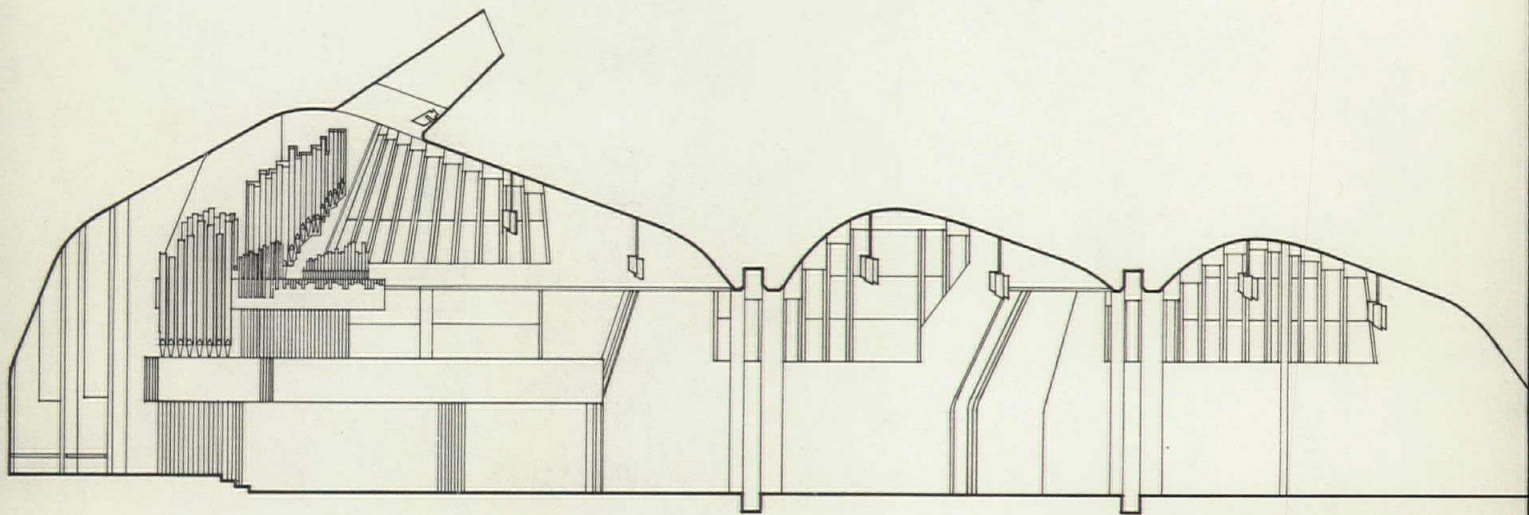
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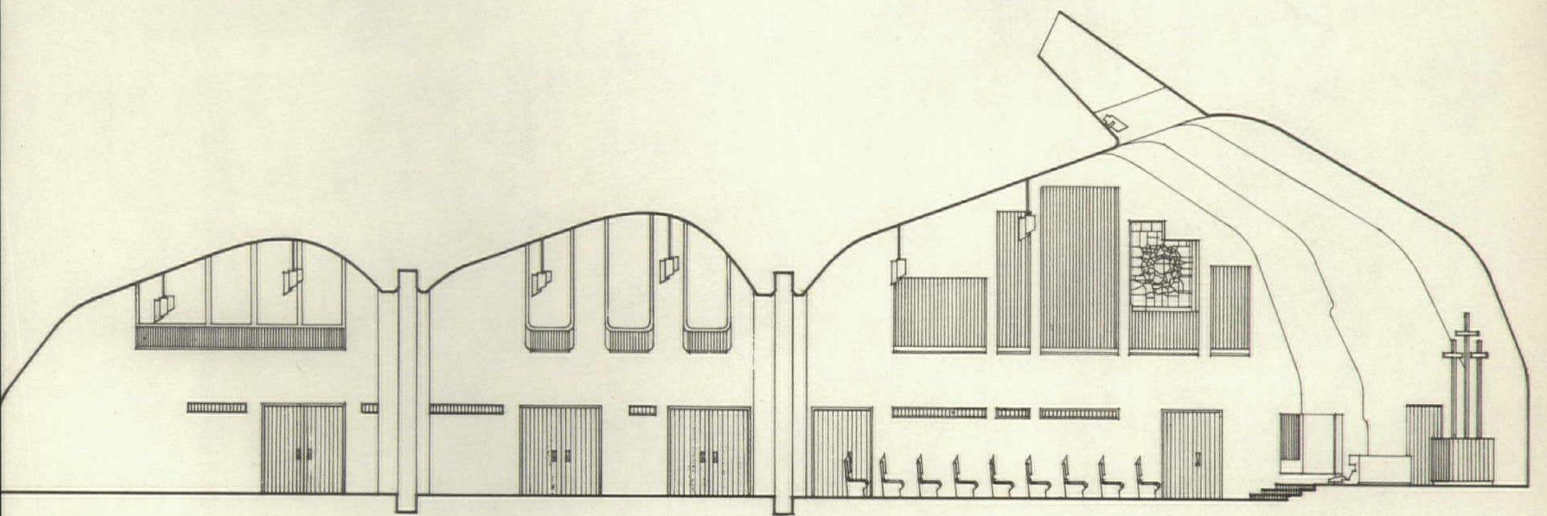
Tower, plan and elevation



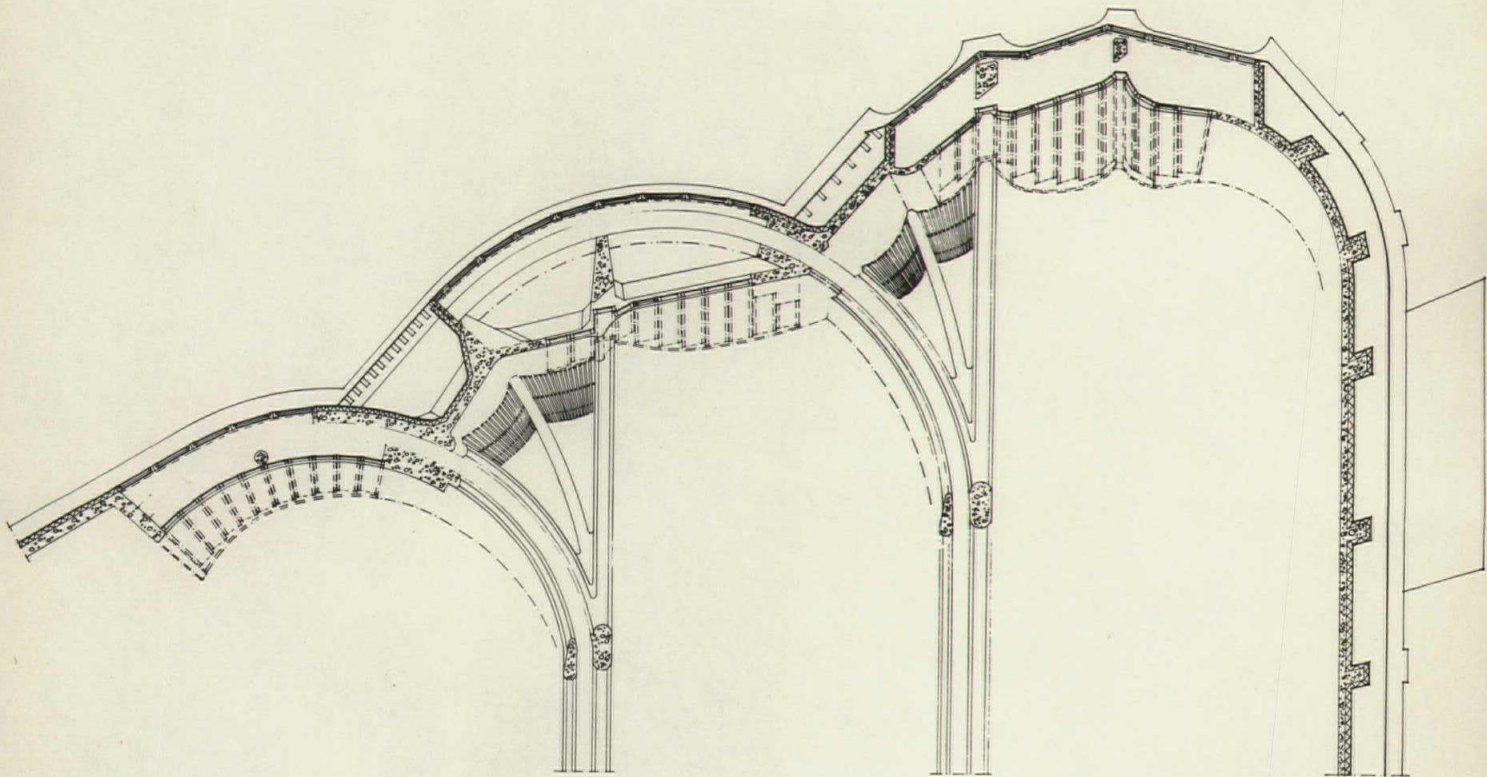
Site plan of church and parsonage



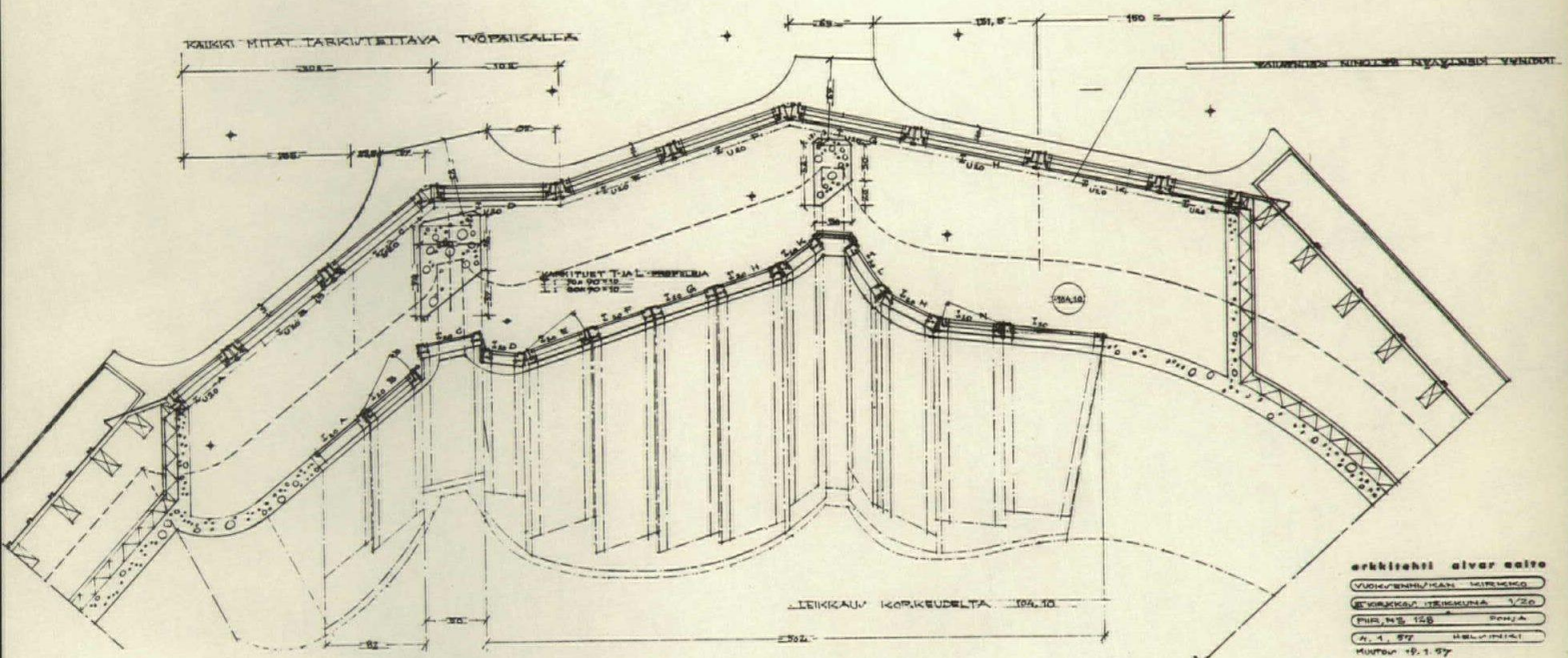
Longitudinal section looking east



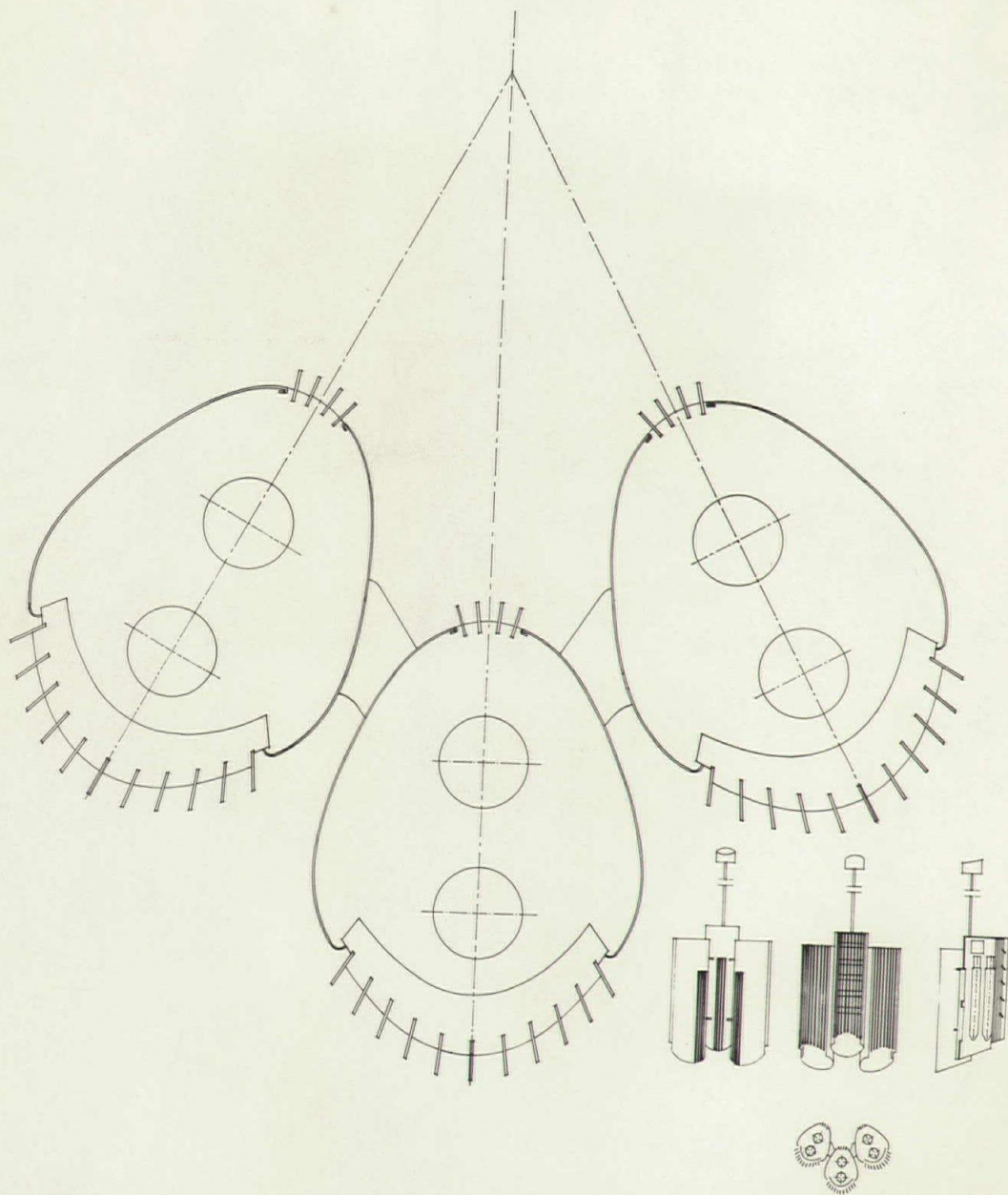
Longitudinal section looking west



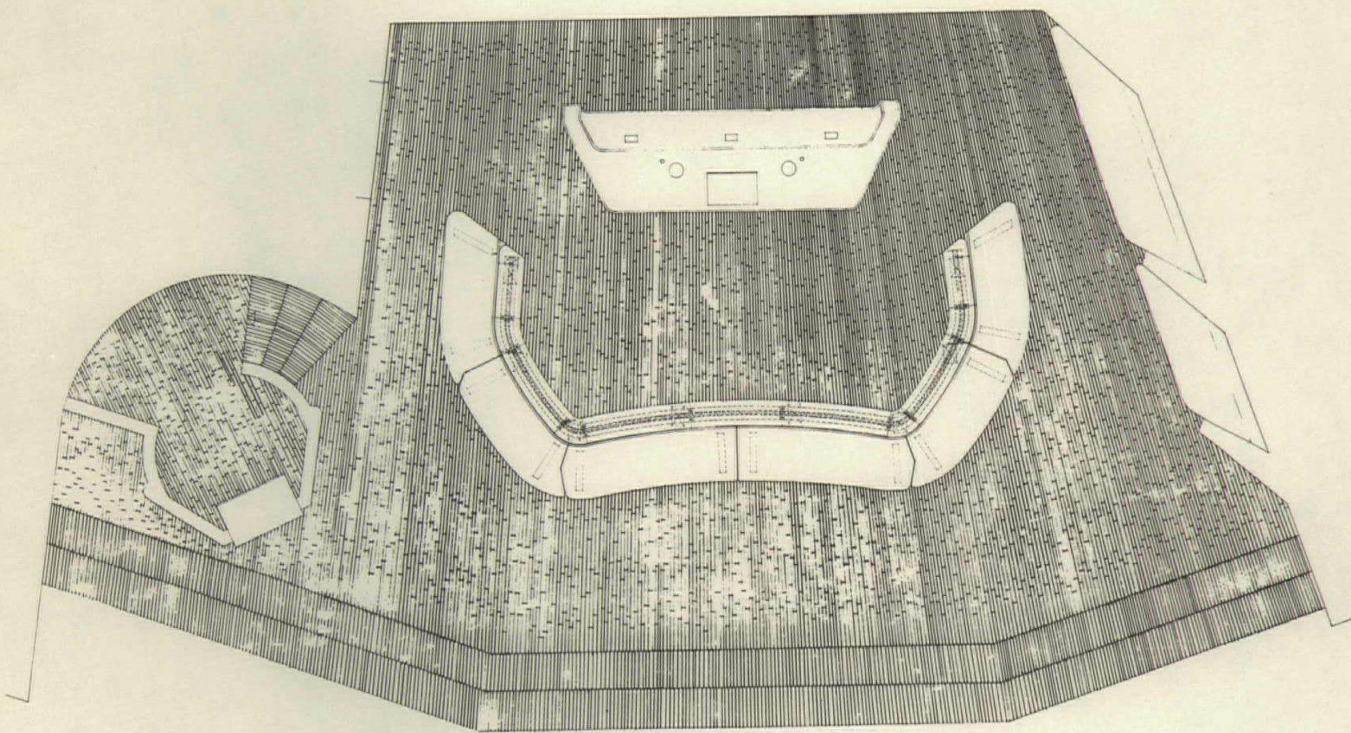
East wall, horizontal section at window height, a synthesis of the ceiling-vault, window, and movable wall construction into an acoustically operating shape incorporating structure and ventilation grill, shown in reflected ceiling plan



Working drawing of east wall window plan



Suspended light fixtures for sanctuary, of white mat
metal, louvered grille of brass



Plan of altar, rail and pulpit showing pattern of white marble floor

Double glazed windows slanted for acoustics of east
wall and ceiling vault detail



The church hall



245 26
289 24
308 -
240 -
241 -
243 -
242 -
623 -4





Eastern facade

Exterior view from the northern approach



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