TECHNIK
HOCHSCHULE MAINZ
UNIVERSITY OF
APPLIED SCIENCES

Module of the Oppler's synagogue in Wroclaw

Module of the building

Brick module

Bricks found during **excavation on the area of the former synagogue** were used to determine a module of the building. Afterwards according to the module the plans of the synagogue were divided.

Various bricks were measured in order to determine average dimensions of a brick.

Dimension of bricks

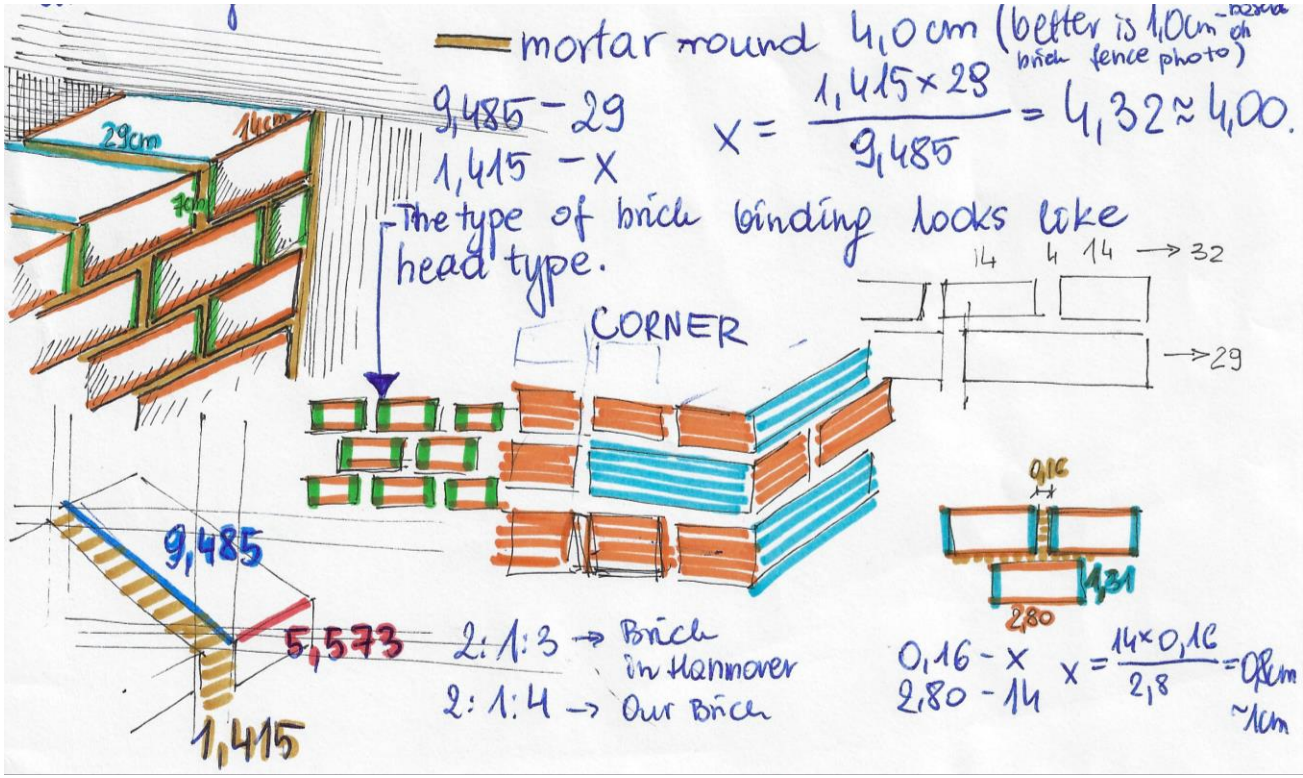
Result of the excavation

Height	Width	Length	Amount	Localization
6,5	14	28,5	1	south elevation
6,5	14	-	1	south elevation
7	14	-	3	south elevation
7	14	29	1	west elevation
7,5	14,5	29	2	west elevation
6,5	14-15	29	a few	foundation
6,75	14,75	-	1	front wall
6	13,5-14	29	1	backside wall

Dimension of bricks

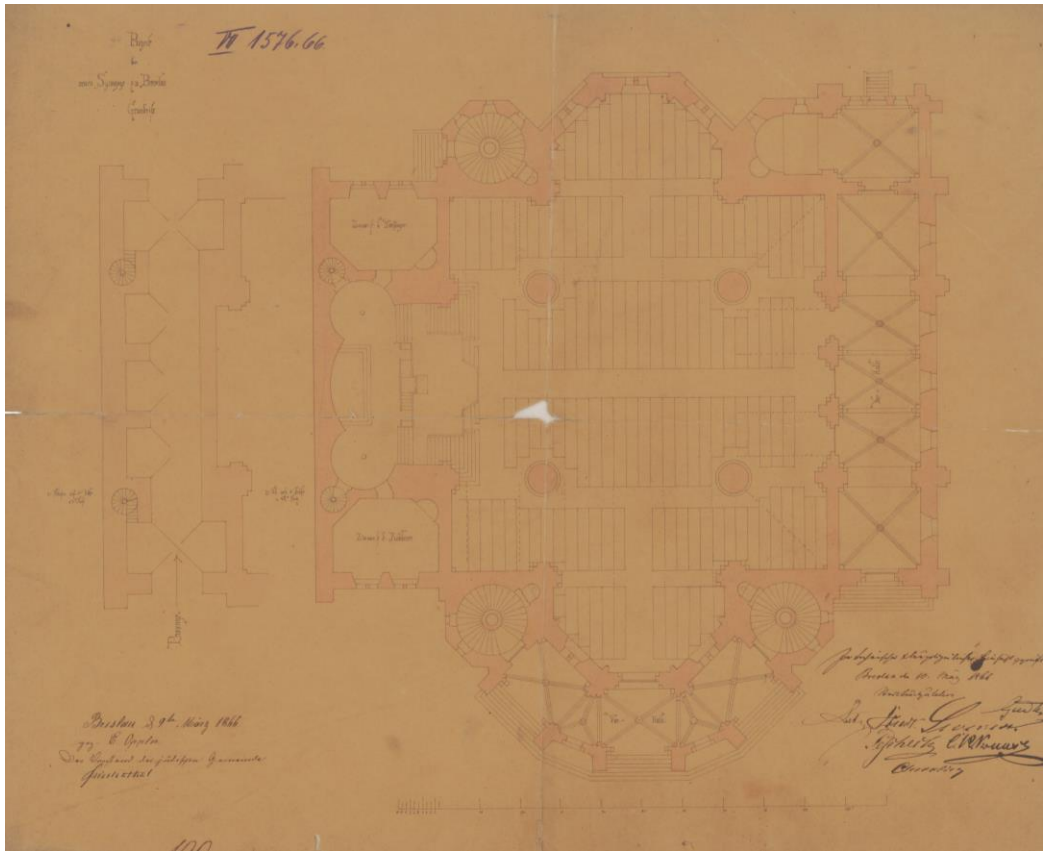
Result of the excavation

The average dimensions, based on archeological research, were assumed as **7 x 14 x 29 cm** + 1 cm of a joint thickness.



Starting materials for working with the module

Floor plans

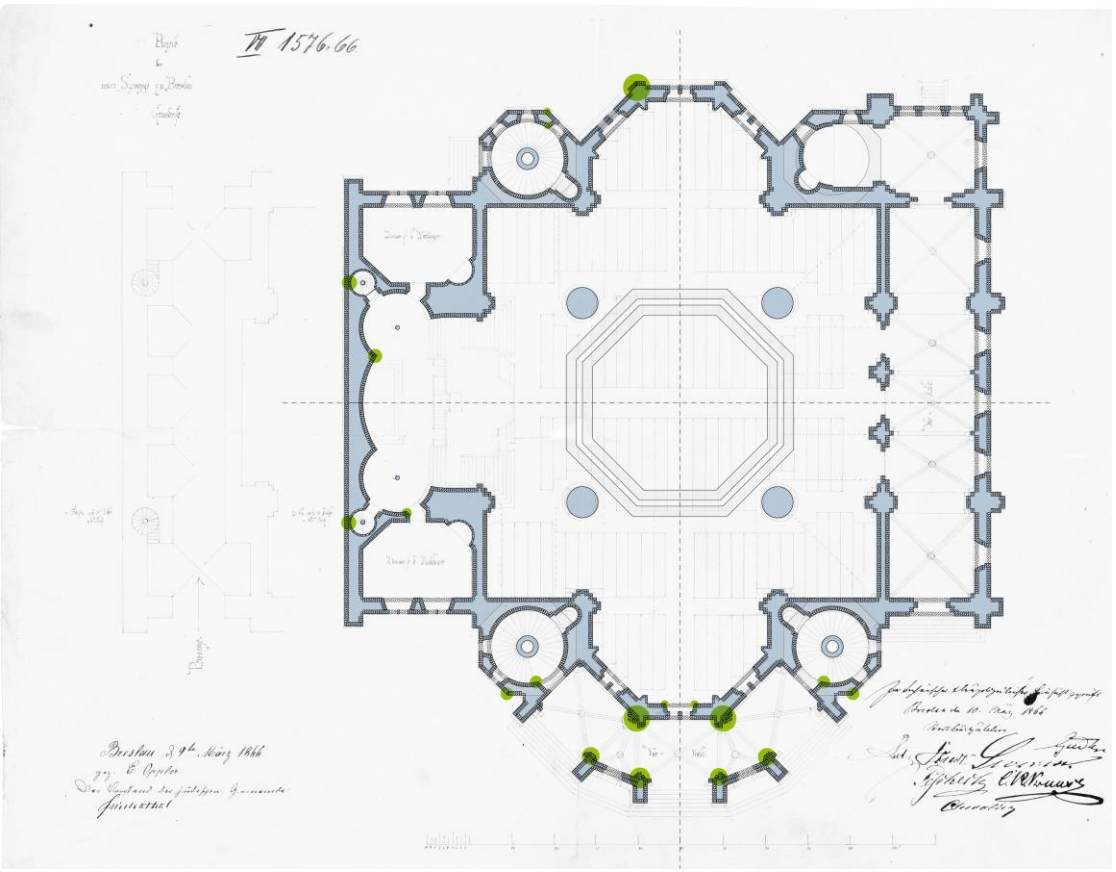


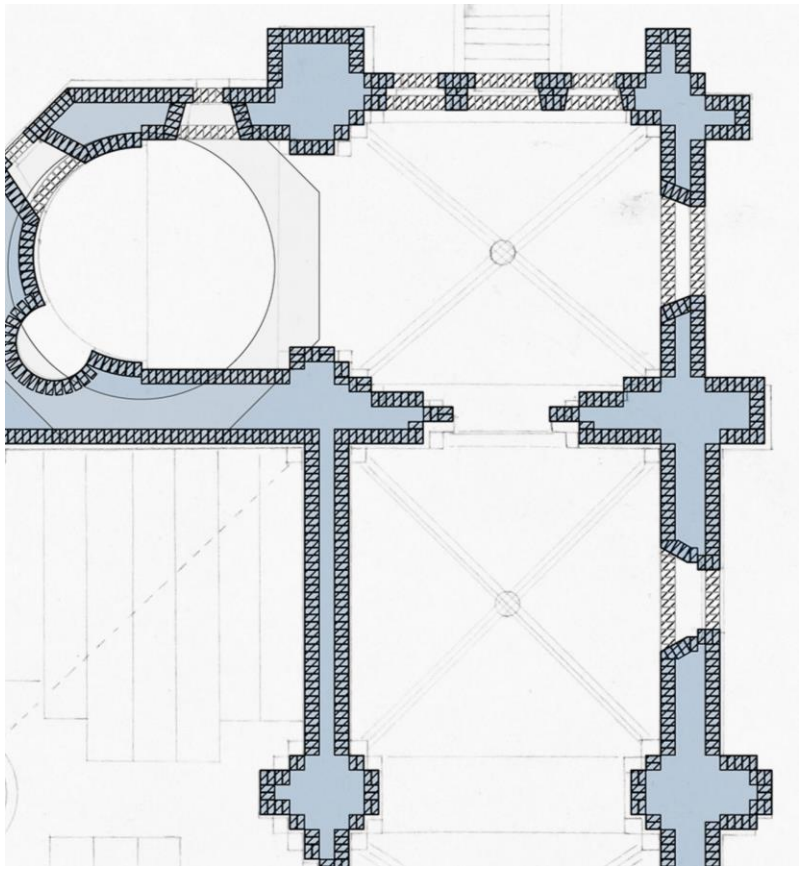
First floor plan of the executive project

Source: Museum of Architecture in Wroclaw, Department of Building Archives of the City of Wroclaw, Akta Policji Budowlanej, MAt–AB–70589

Division of the plan according to the module

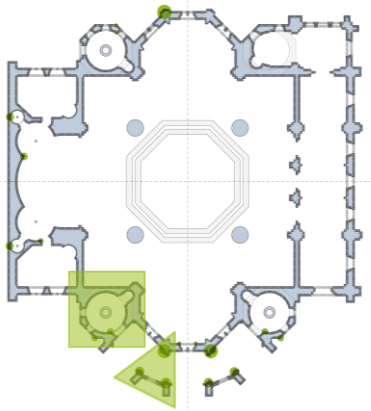
based on the drawing of the executive project

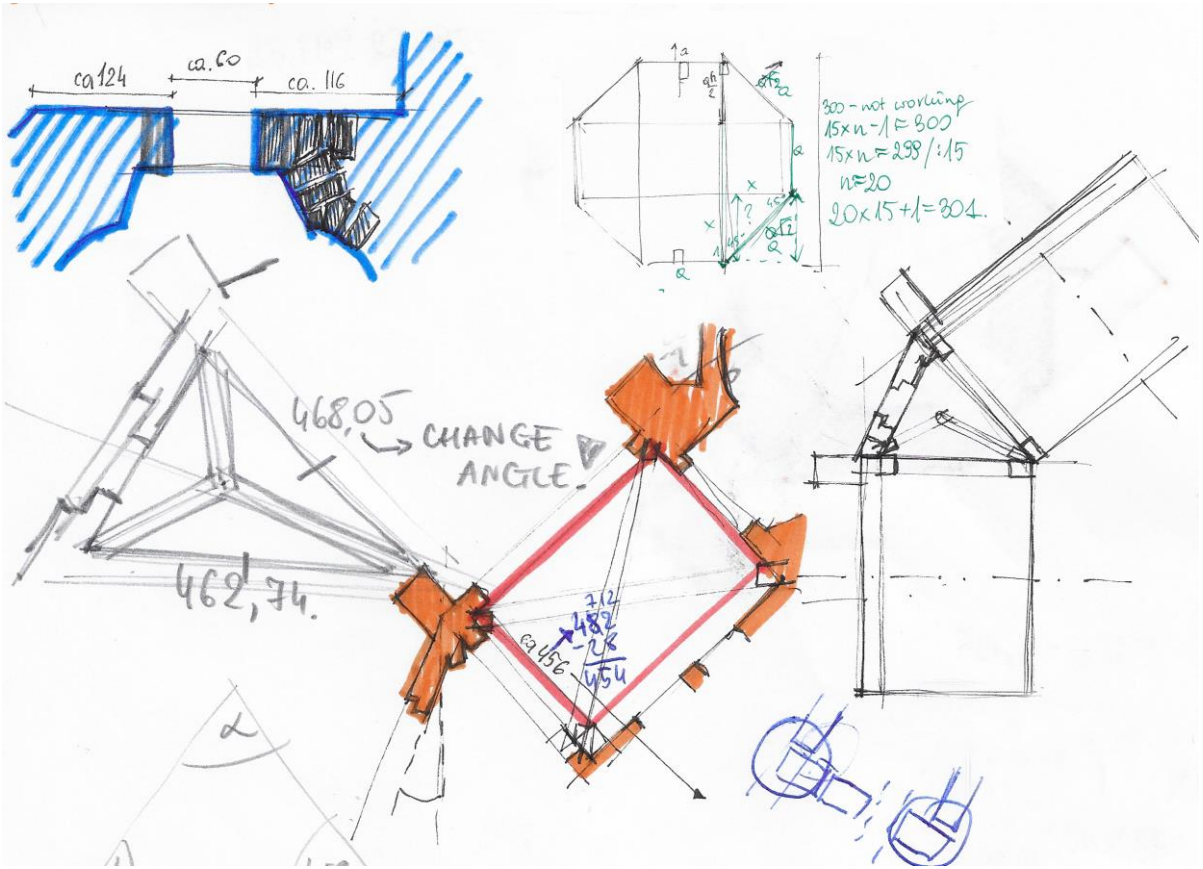




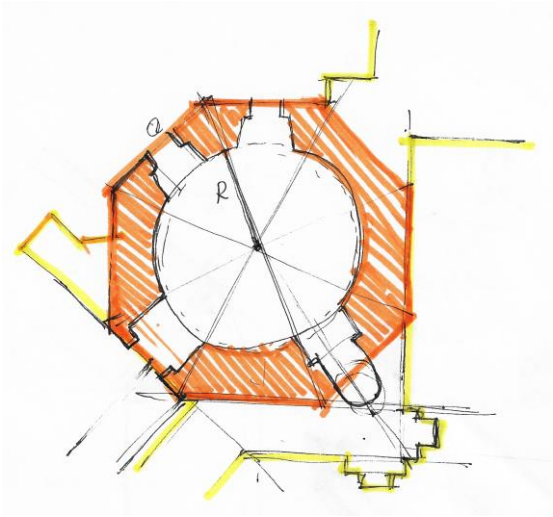
Troubles with the plan

Problematic angles and towers



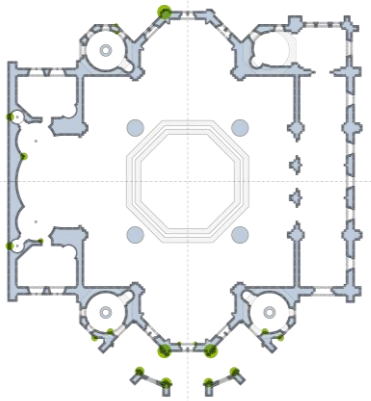


While modeling were problems with **right angles of walls in entrance part** and **with fitting octagon tower in the plan** appeared. Sketches and calculations helped with better understanding of the building and finding the solutions of the problem.



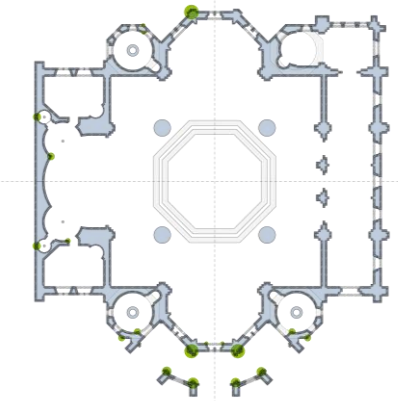
Troubles with the module

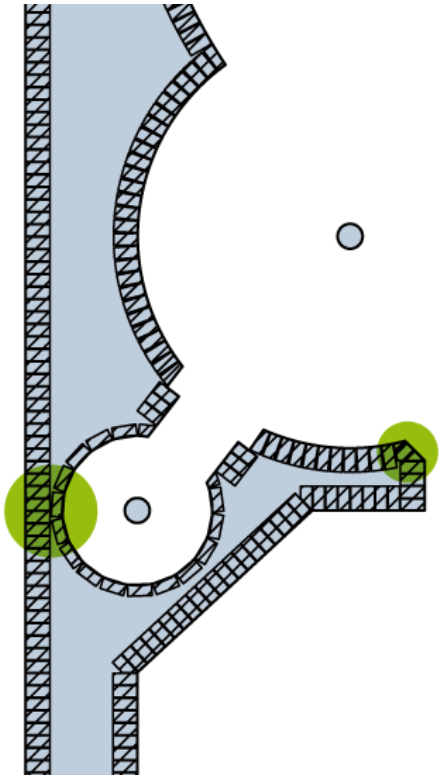
Problematic parts of bricks arrangement

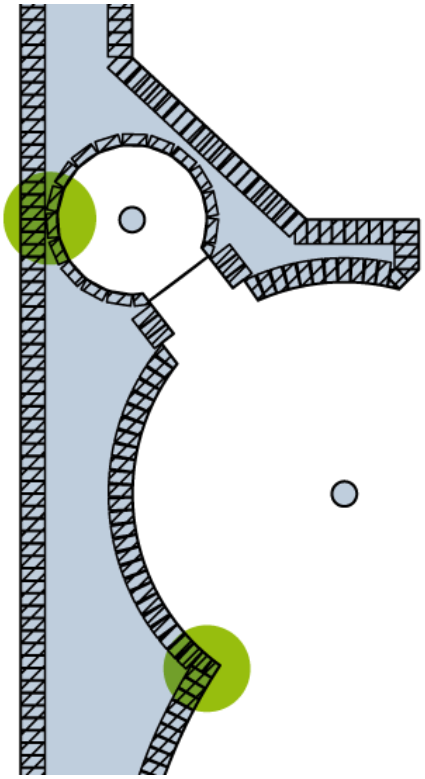


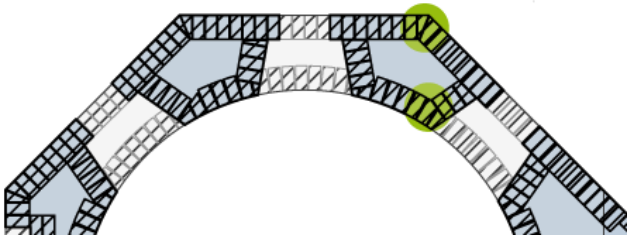
Troubles with the module

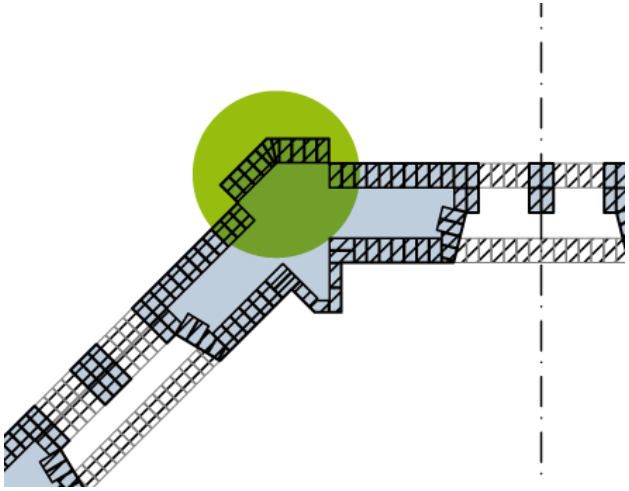
Problematic parts of bricks arrangement





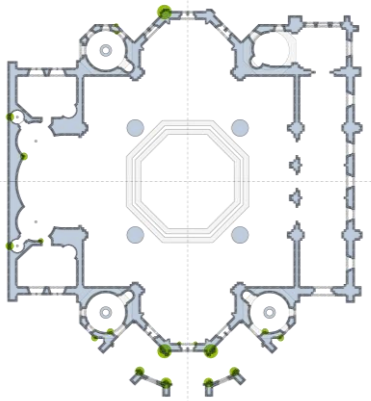


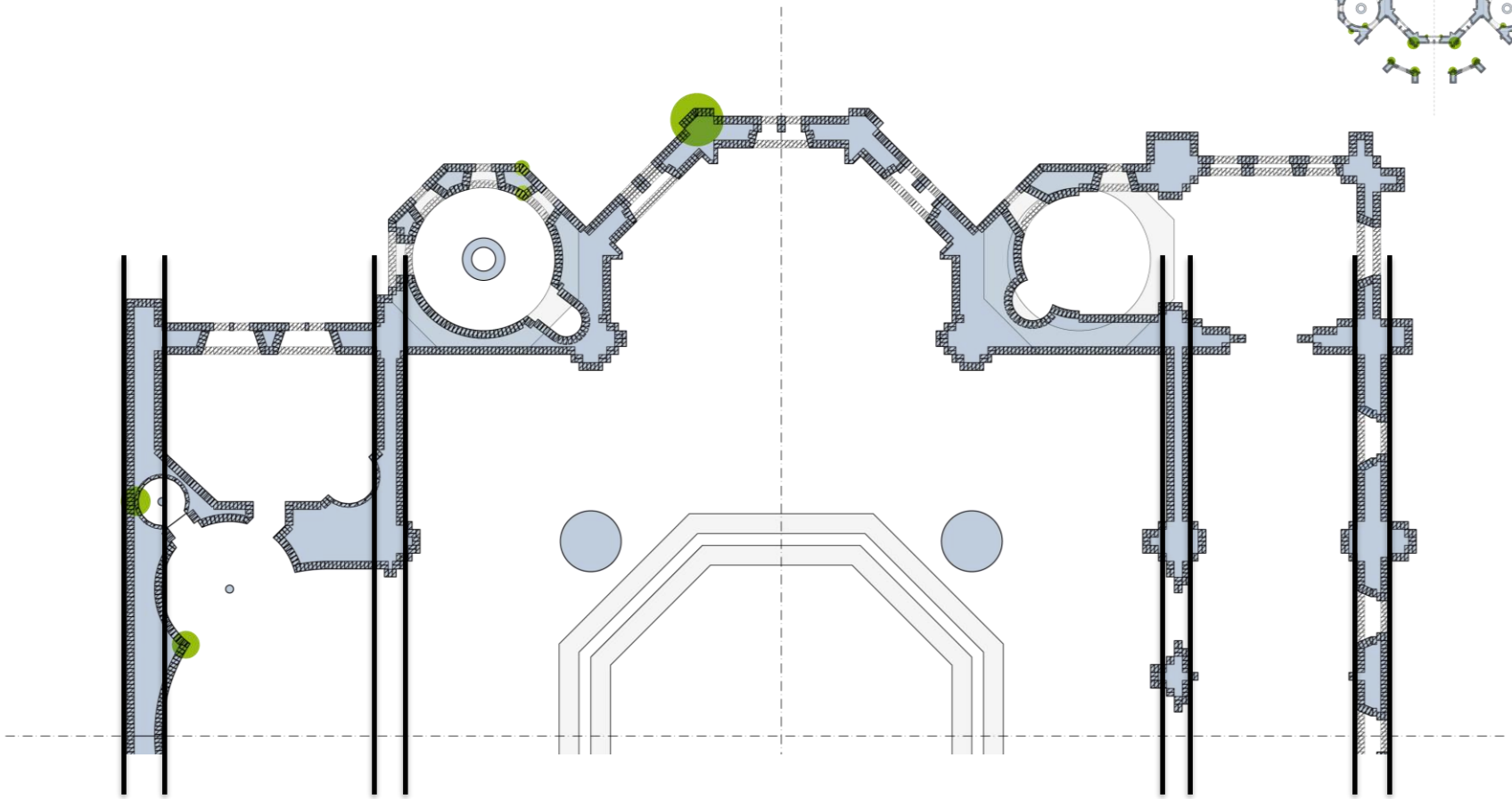




Troubles with the module

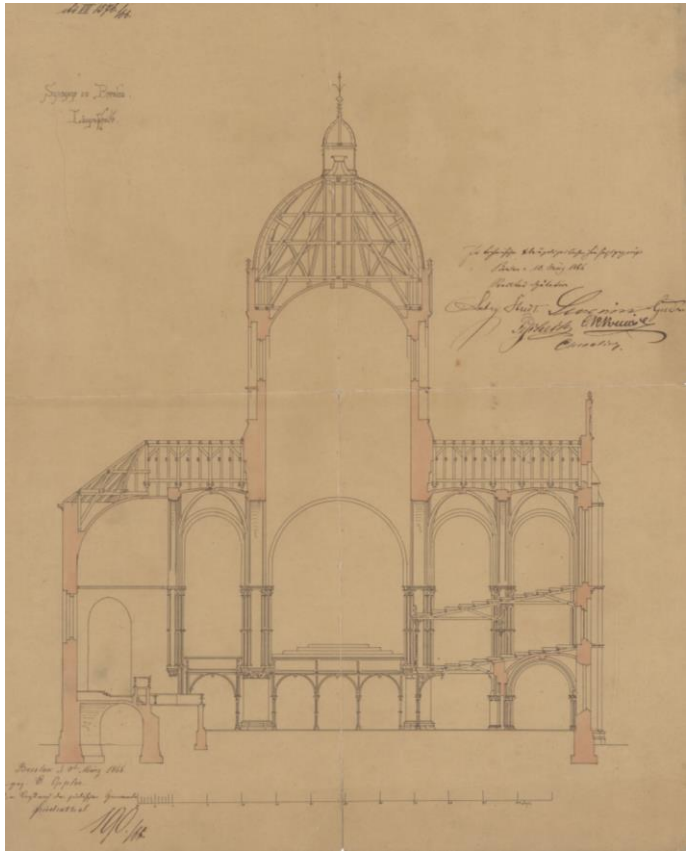
Different thickness of symmetrically situated walls





Starting materials for determining heights

Sections and elevations



Longitudinal section of the executive project

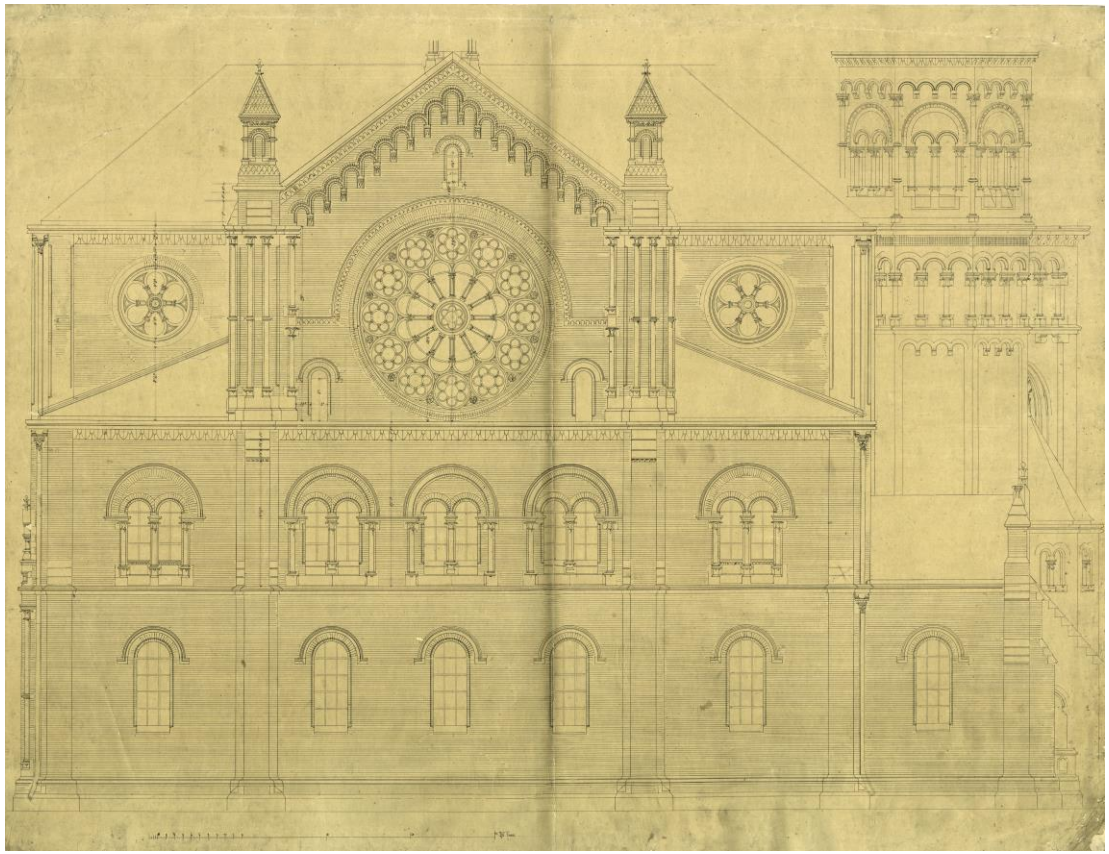
Source: Museum of Architecture in Wroclaw, Department of Building Archives of the City of Wroclaw, Akta Policji Budowlanej, MAt–AB–70588

Dome and tower elevation – additional, later drawing

Source: Stadtarchiv Hannover, Nachlaß Oppler, Mappe 60, Blatt 13.

Starting materials for determining heights

Sections and elevations



West elevation of the executive project

Source: Stadtarchiv Hannover, Nachlaß Oppler, Mappe 60, Blatt 12.

Division according to the module

7 cm of the brick height + 1 cm of the joint

12.64 top of the window opening (east elevation)

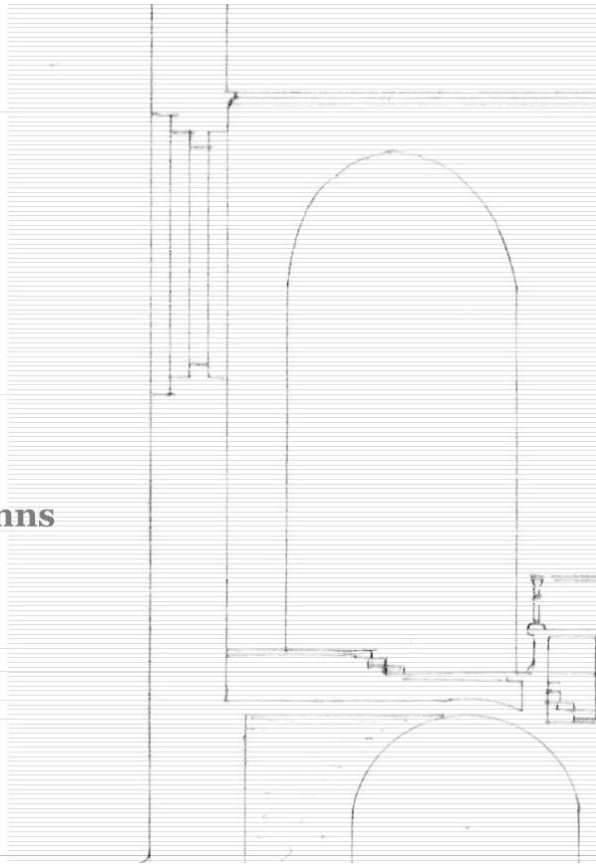
7.84 bottom of the window opening (east elev.)

5.52 top of the ground floor columns

BIMA

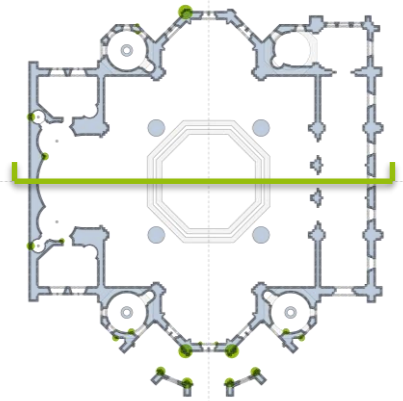
3.52 stairs - upper part (top)
3.12 stairs - lower part (top)
2.64 floor - upper part (top)
2.32 floor - lower part (top)

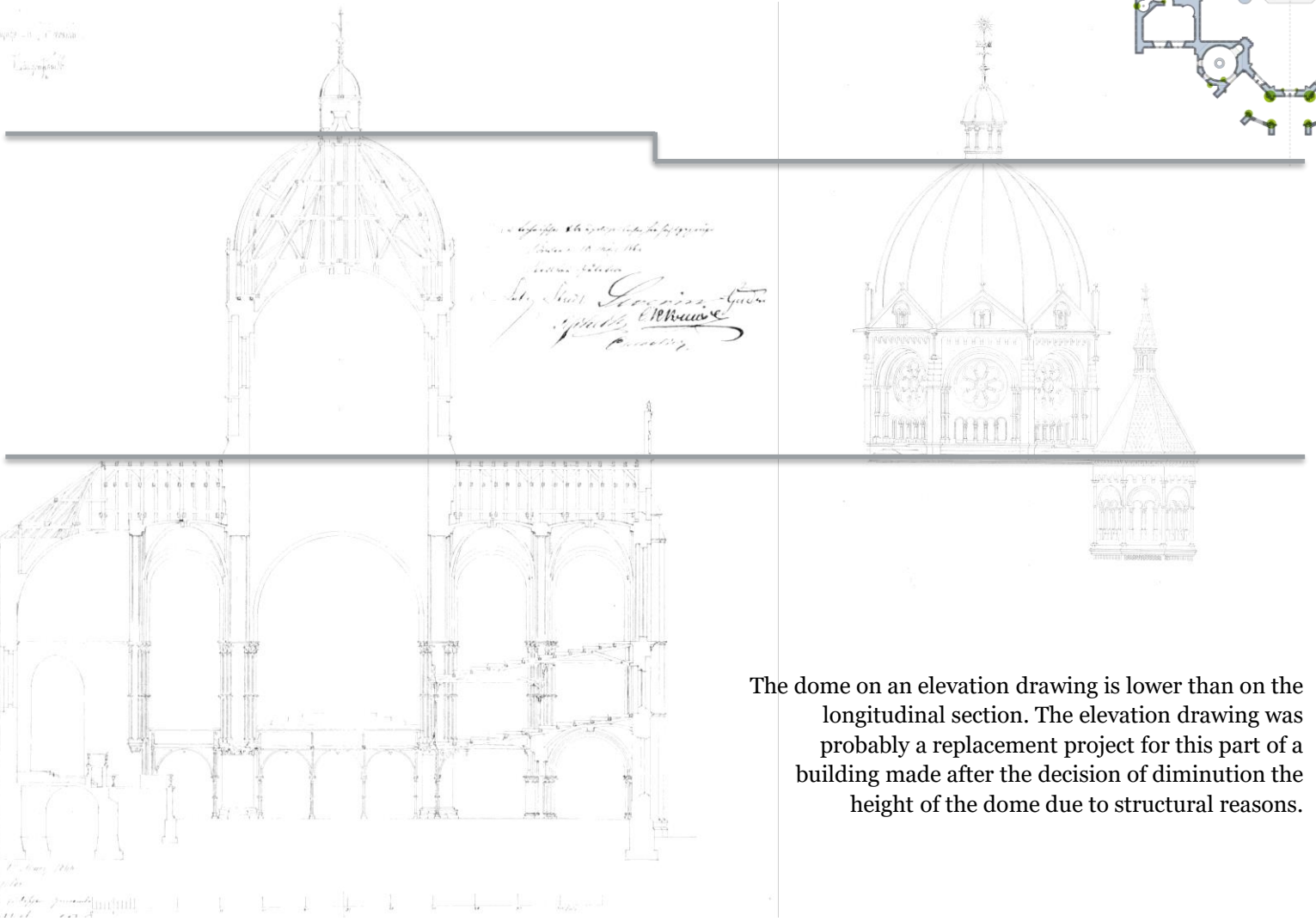
0.00 ground level



Troubles with the section drawing

Differences between section and elevation of a dome

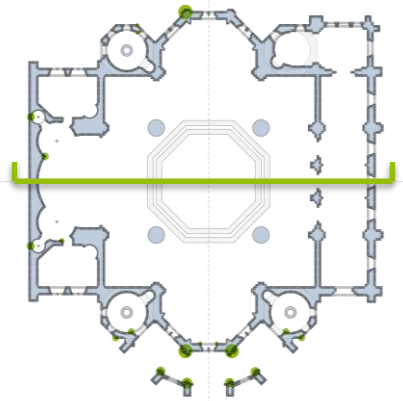


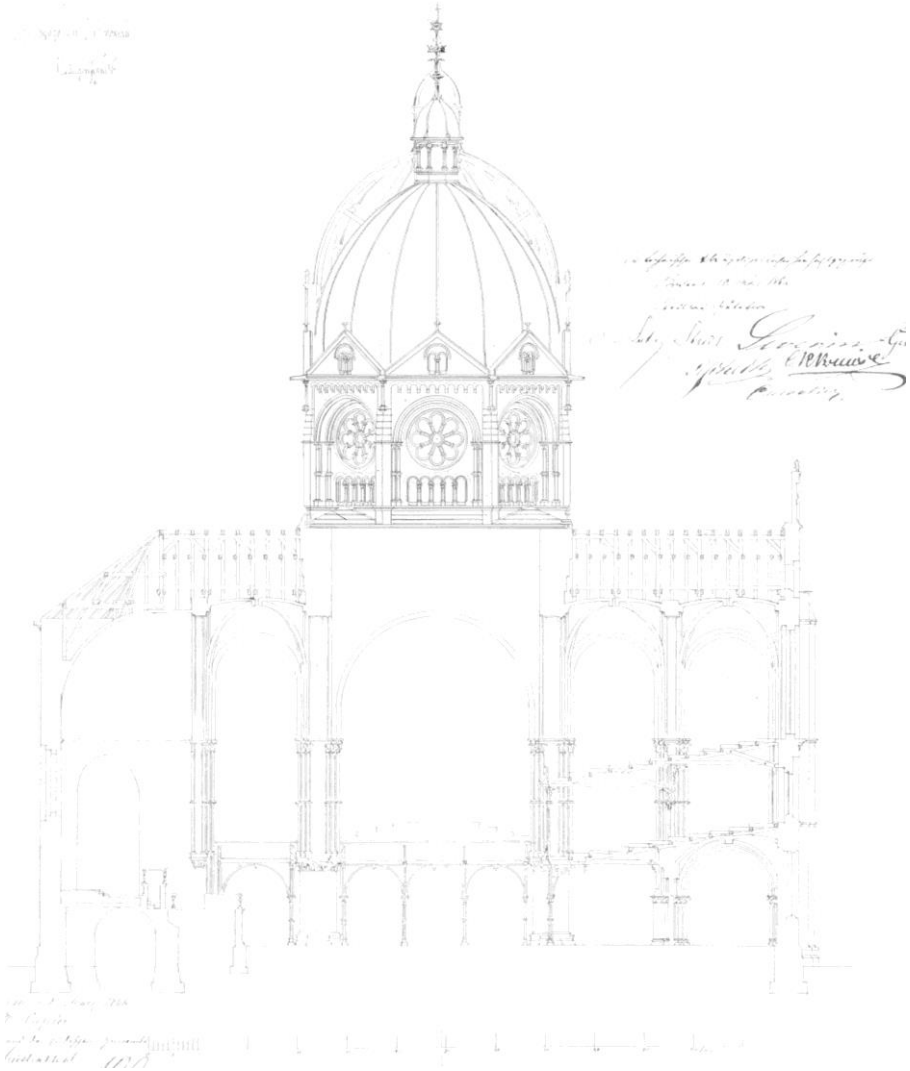


The dome on an elevation drawing is lower than on the longitudinal section. The elevation drawing was probably a replacement project for this part of a building made after the decision of diminution the height of the dome due to structural reasons.

Combining drawings

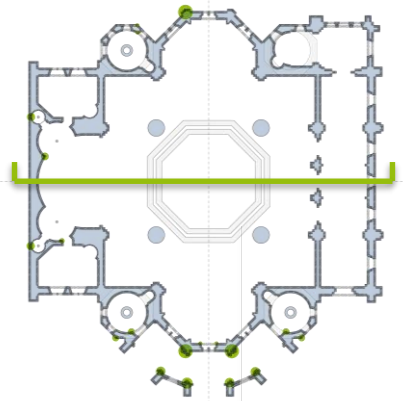
to obtain the latest version of the project

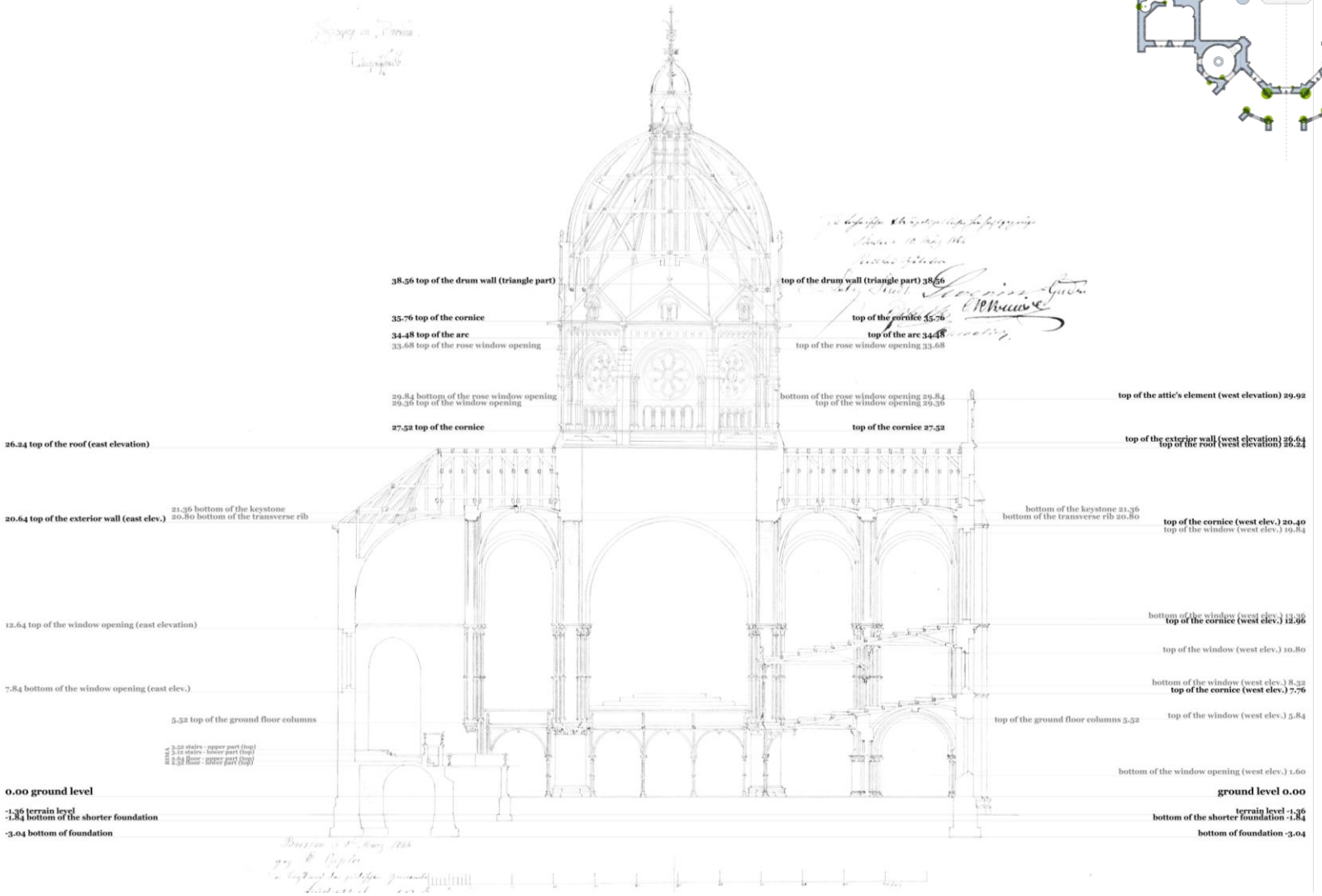




Determining important heights

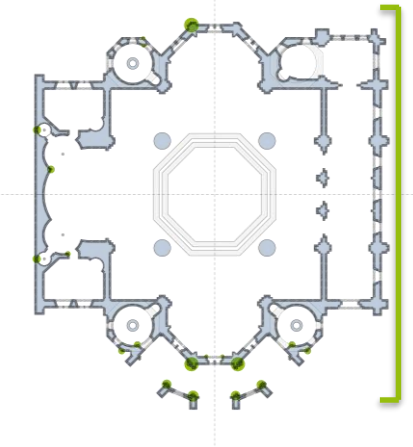
based on the drawings of the executive project

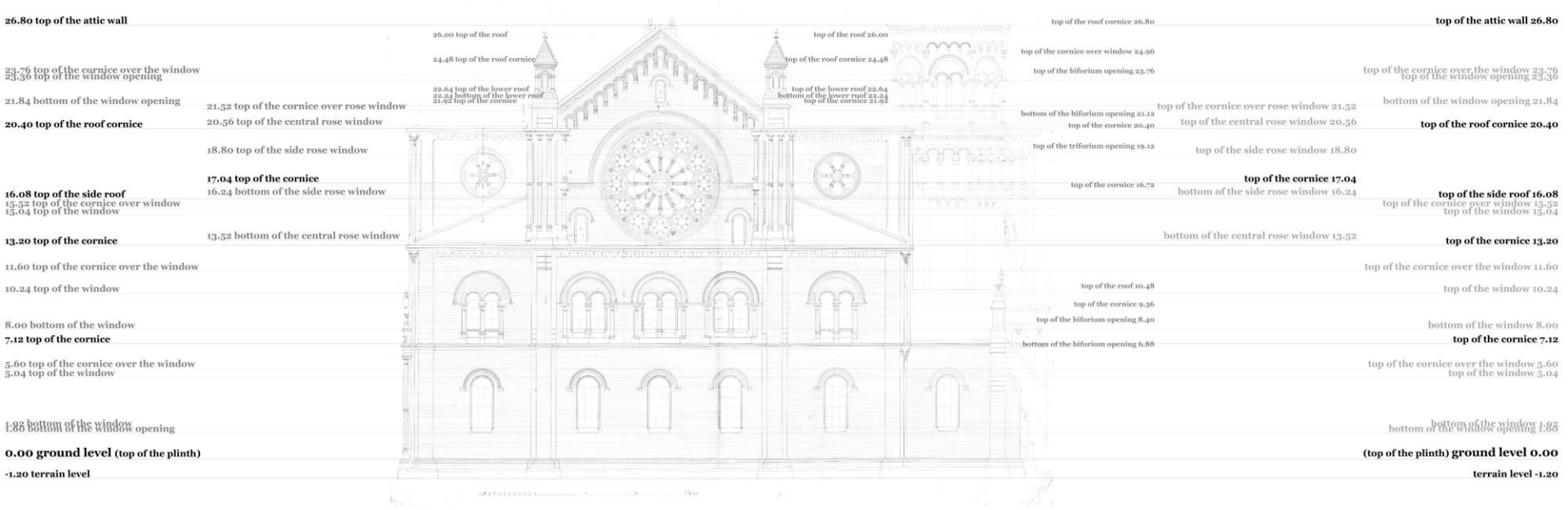




Determining important heights

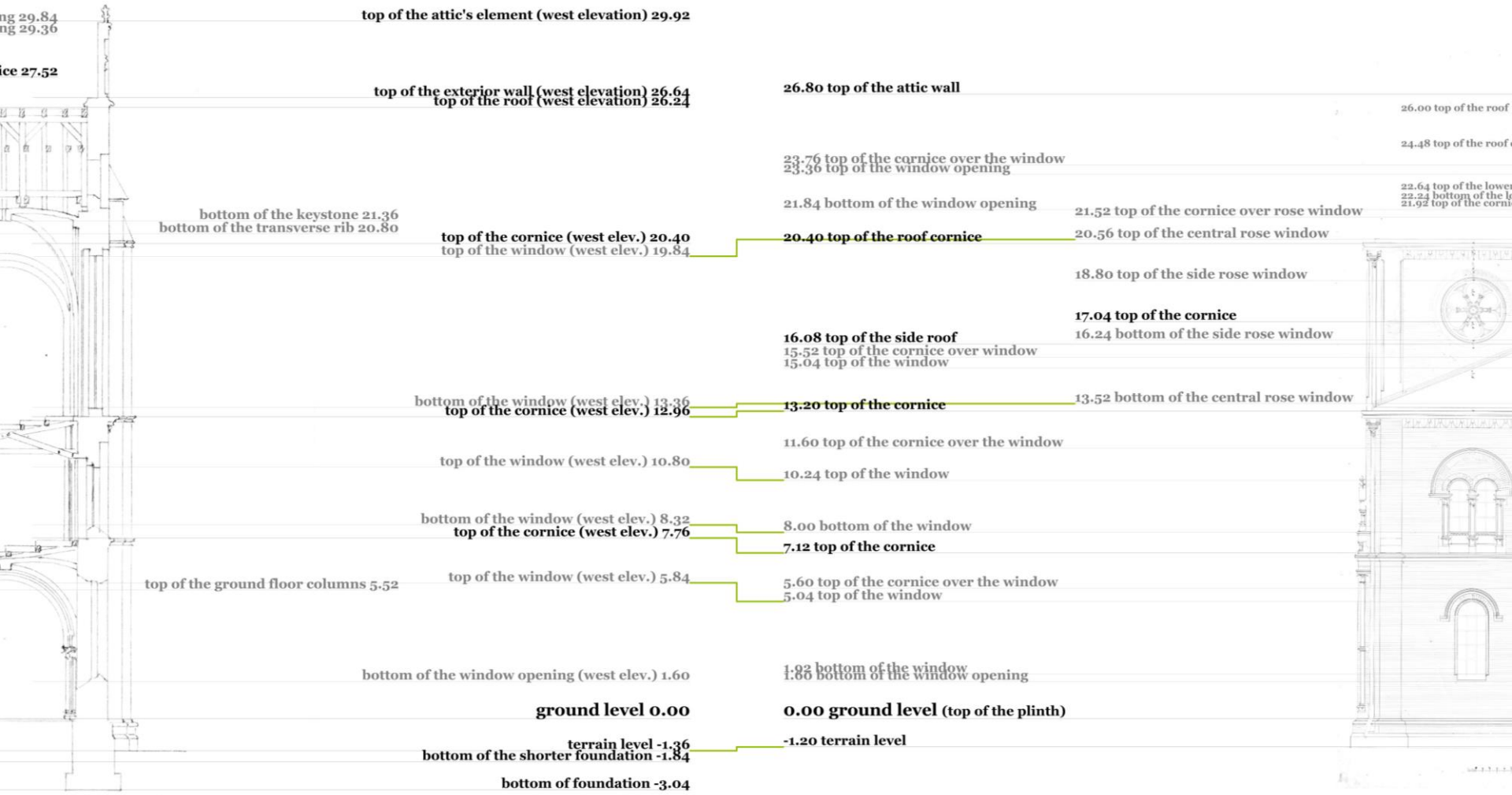
based on the west elevation of the executive project





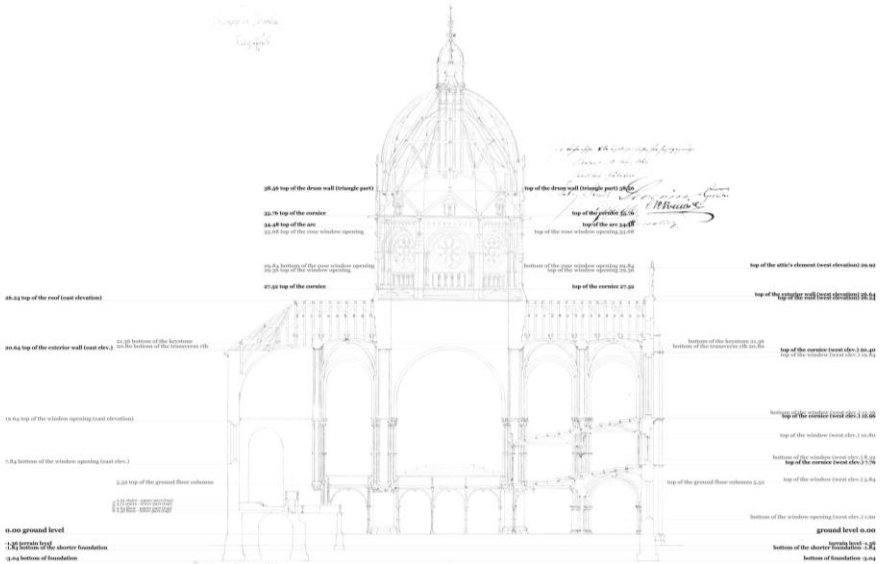
Troubles with differences between heights

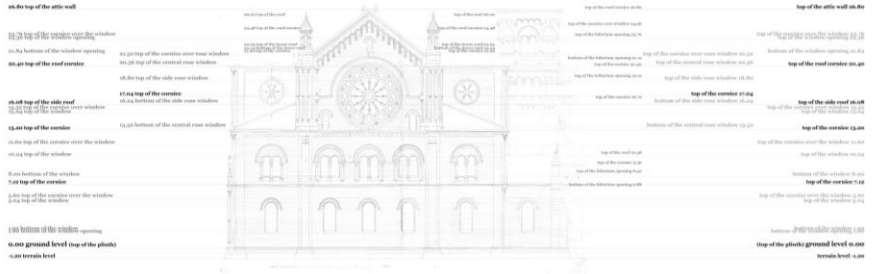
Inaccuracy of drawings / changes in the project

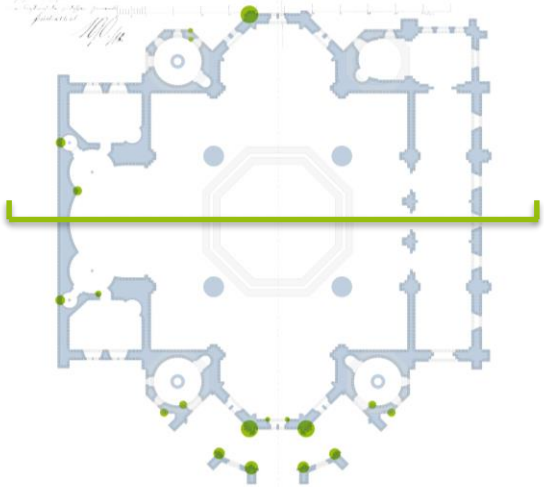


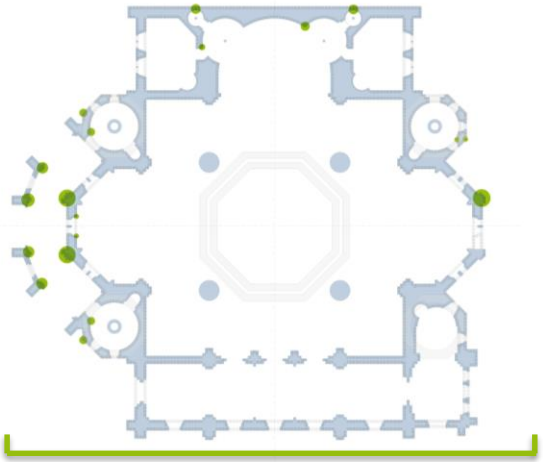
Coordinated drawings

Starting point for modelling synagogue



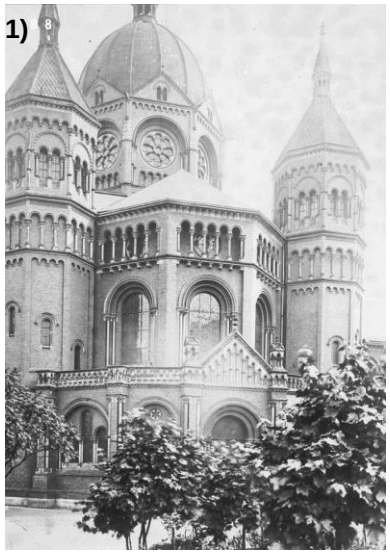


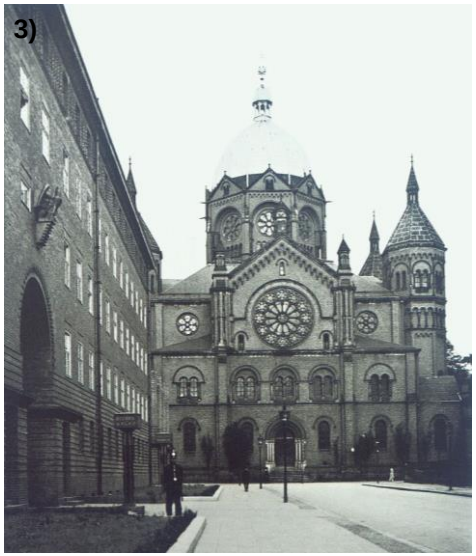


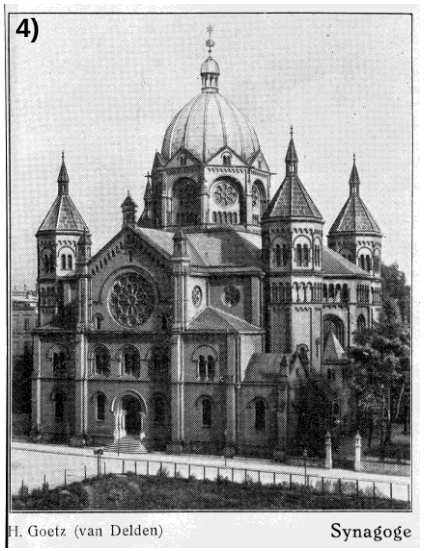


Starting materials for modeling

Iconography and old photos







1) Synagogue Herder, New synagogue in Wroclaw, 1885–1920
Source: Bilddatei-Nr. fmkbb8951, © Bildarchiv Foto Marburg.

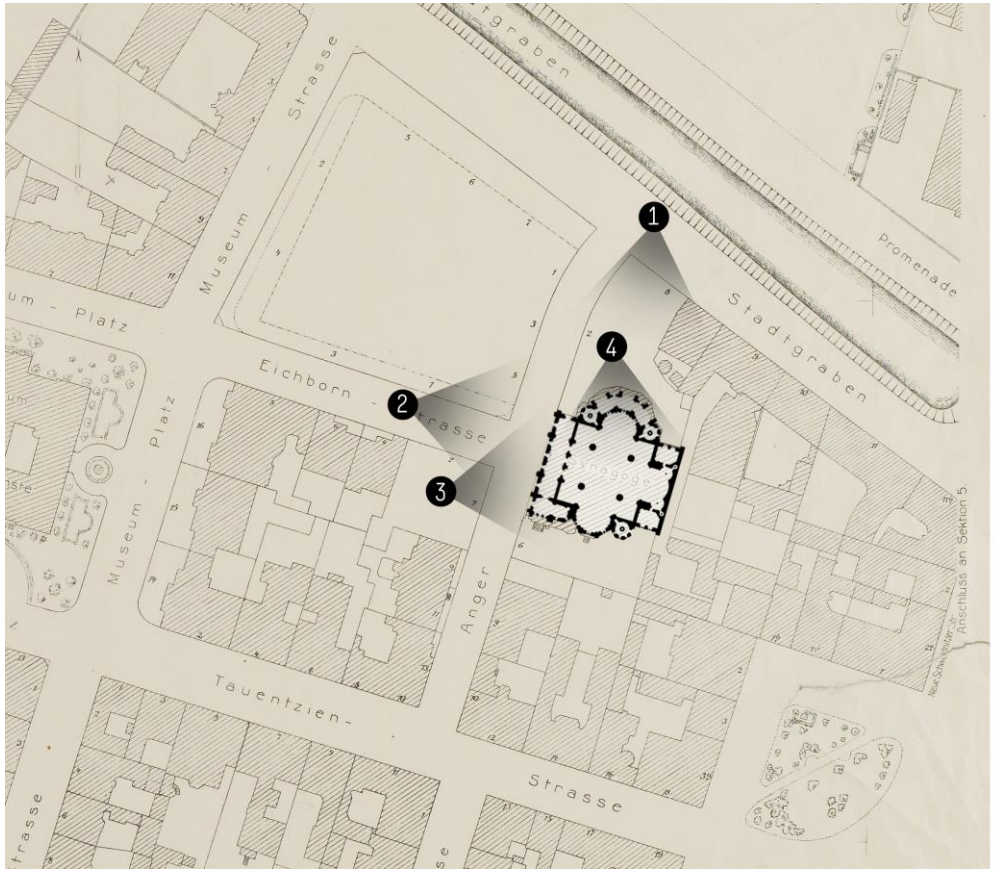
2) Pic. 17, North view of New Synagogue, 1870‘s
Source: private collection of Maciej Łagiewski.

3) Pic. 21,Piasek, West view of synagogue from Eichbornstraße, 1929
Source: University Library in Wroclaw, Department of Graphic Collections, Building inspection photo. 6815–30.

4) Pic. 27, New Synagogue , southwestern view
Source: private collection of Maciej Łagiewski.

Starting materials for modelling

Indetification of photos on a map



1 View 1

2 View 2

3 View 3

4 View 4

Pic. 10, Fragment of Wrocław's section plan in the scale 1:1000 from 1921.

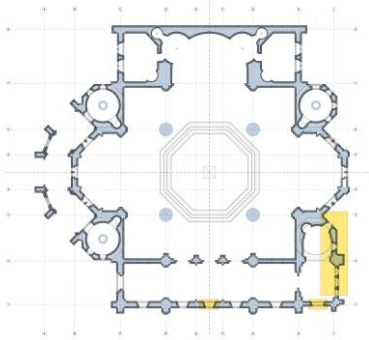
Source: Museum of Architecture in Wroclaw, Department of Building Archives of the City of Wroclaw, MAt–AB–110312.

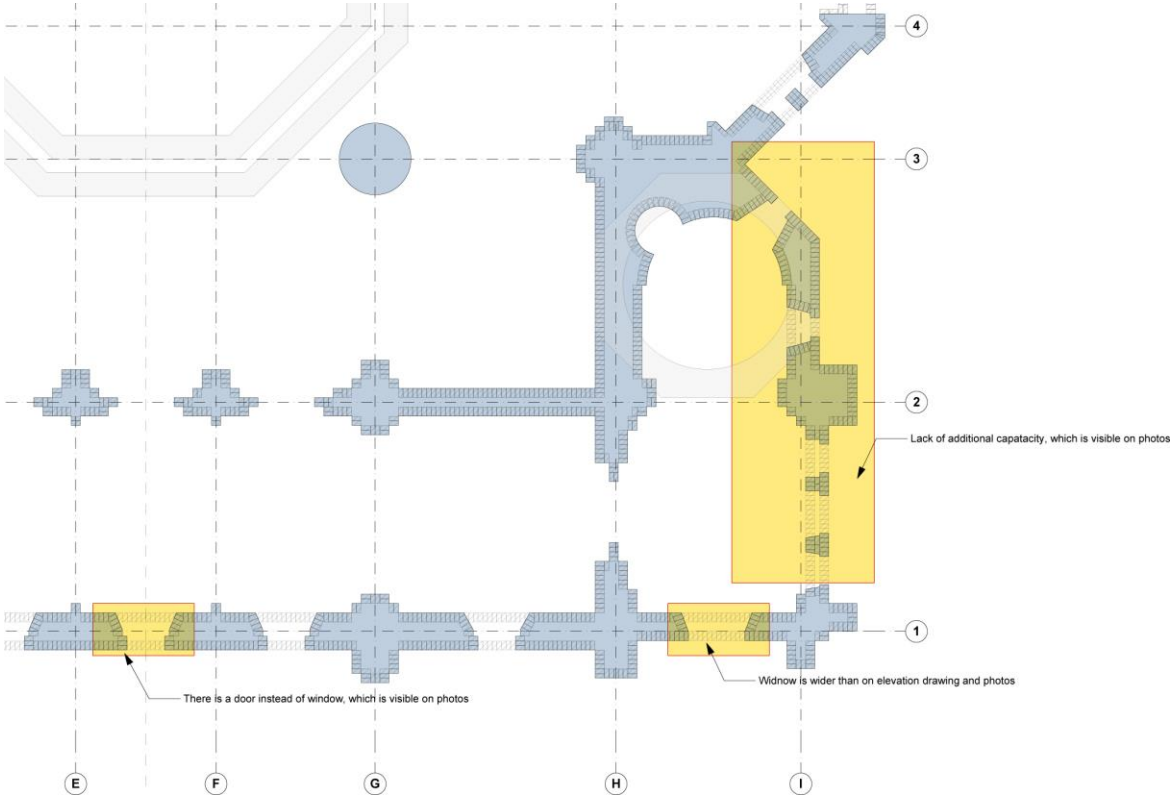
The first step was putting module plan on the map and checking if it fits to synagogue contour. Contour and plan don't fit correctly to each other.

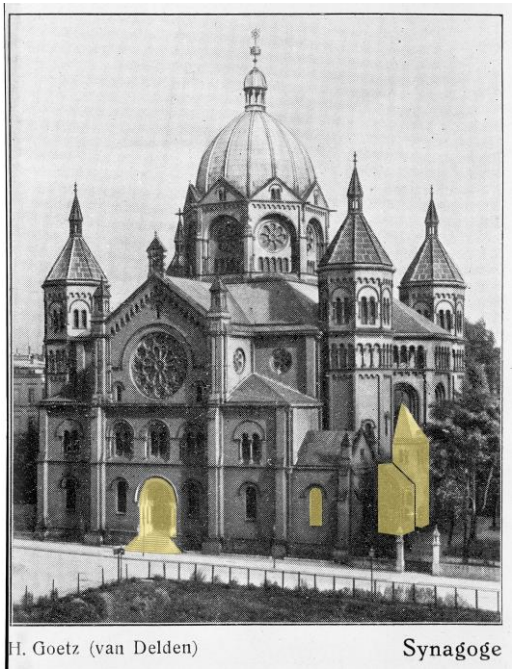
Then the views of each photos were marked on the map. Localization of photos was helpful with creating model of synagogue.

Problems with the starting materials

Differences between plan and a reference photo



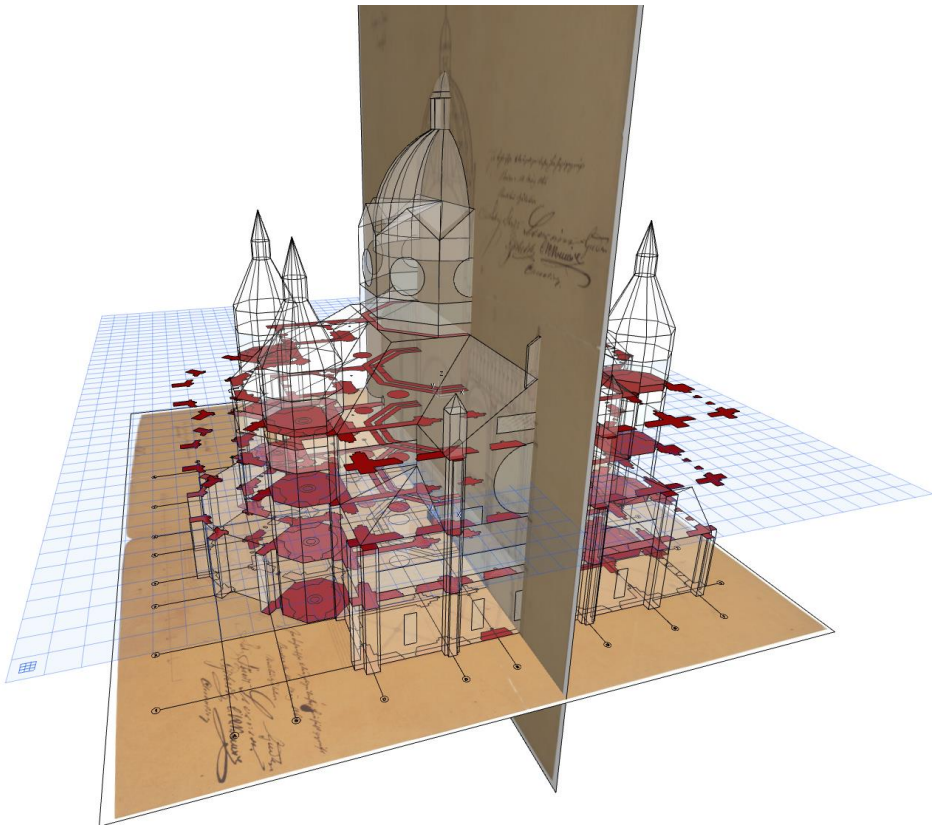




Pic. 27, New Synagogue , southwestern view
Source: private collection of Macieja Łagiewskiego.

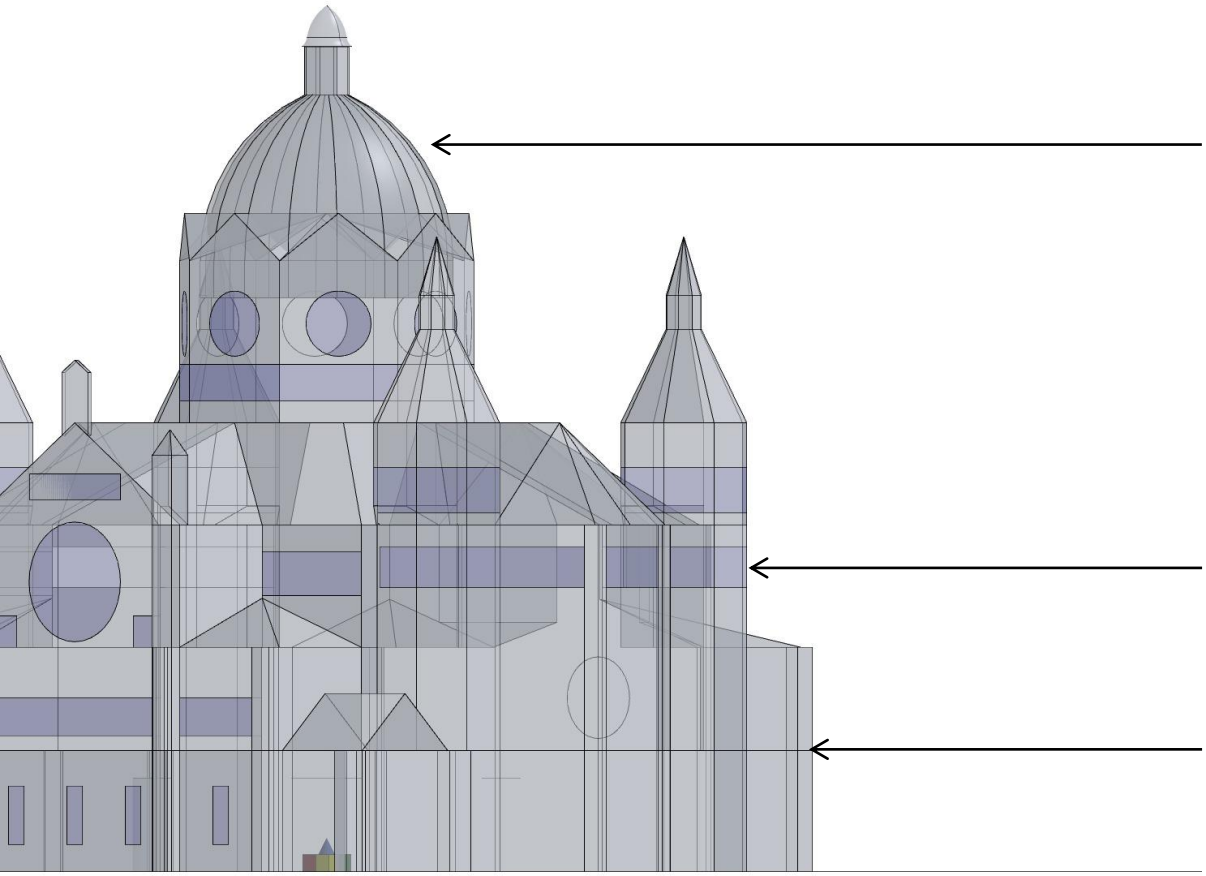
Working on a glass model

Creating a model



Divisions on glass model

Important heights in model



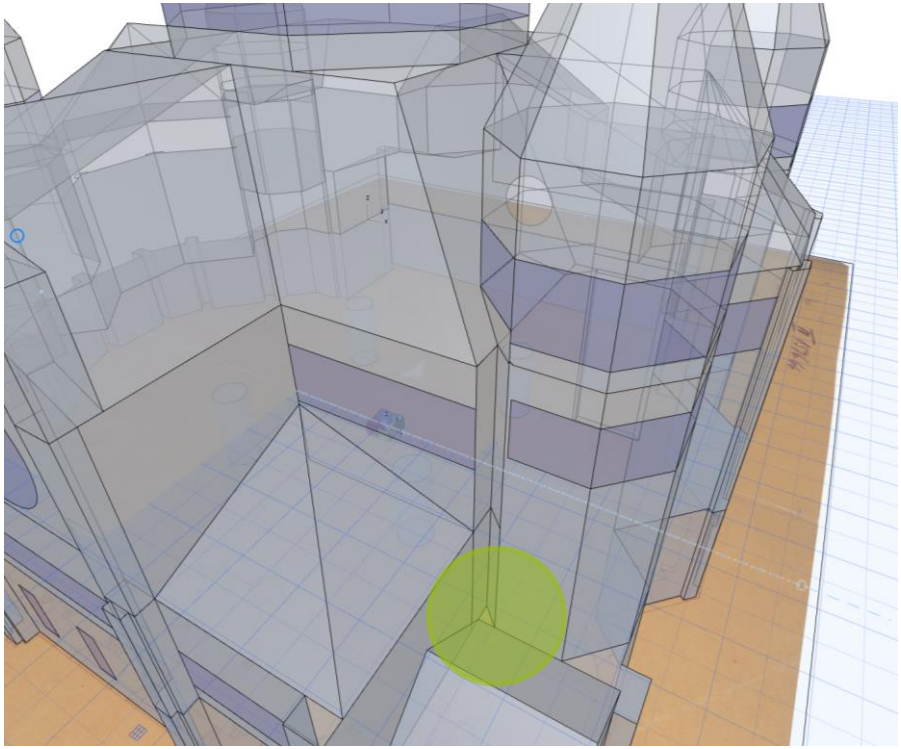
Divisions on roofs and dom was marked correctly to **situation plan of the concept project** and old photos.

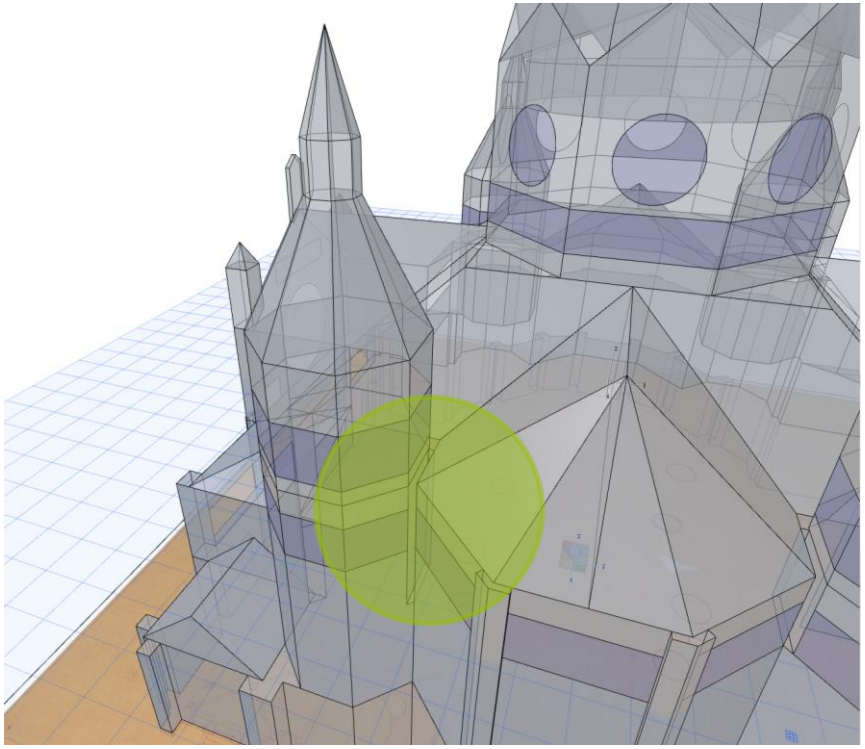
The blue shapes are the space for windows. Only rose widnows and windows on the ground floor (which are visible on the plan) have the right shape.

End of cornices was marked on model by lines on elevations

Problems with glass model

Connection between towers and synagogue





Solid model

Current stage of modeling

Next steps in modeling

What problems should we resolve?

- Find sources about additional capaticity on southern elevation
- Find sources about connection between towers and building
- Prepare windows heights on the southern and northern elevation
- Create simple model of interior