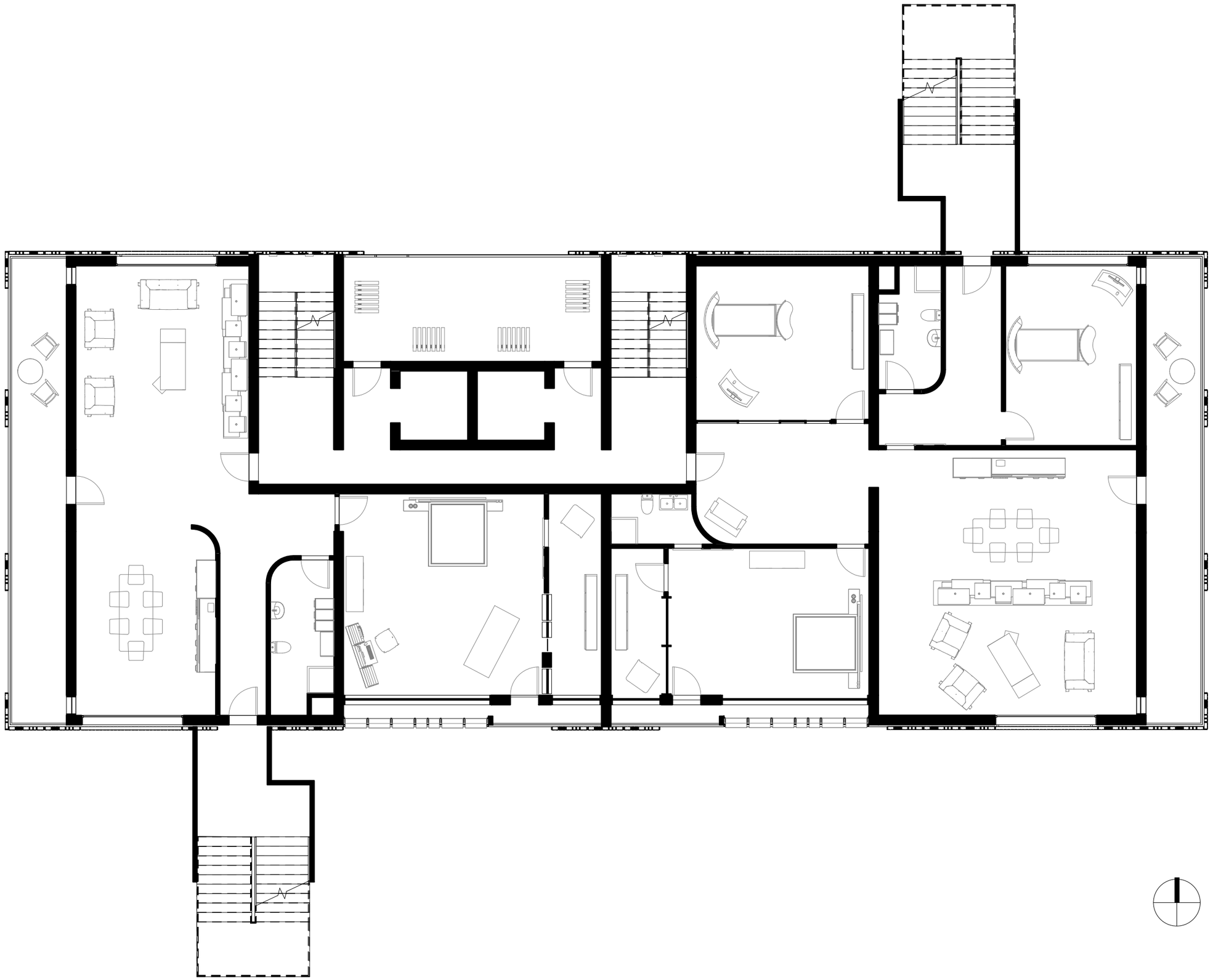
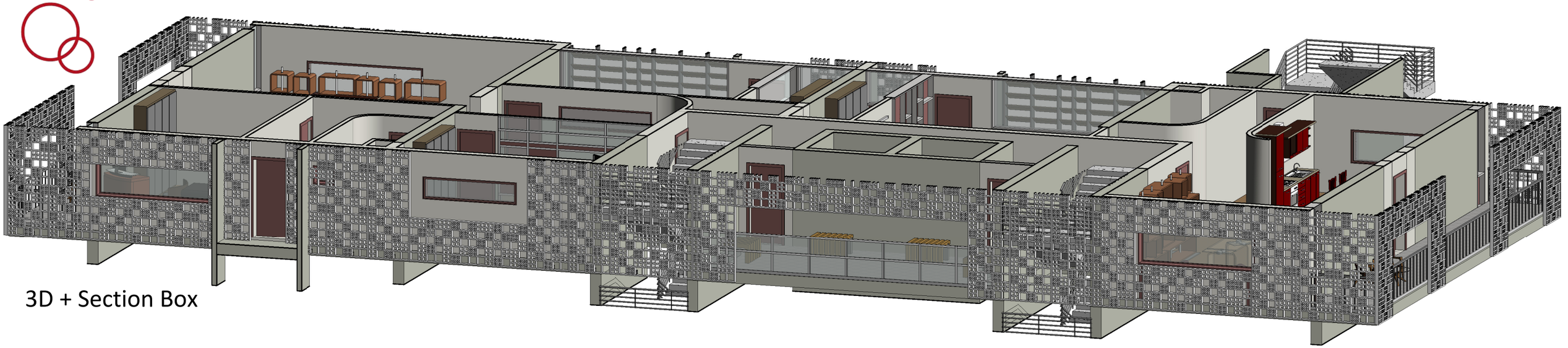
Cloud Design



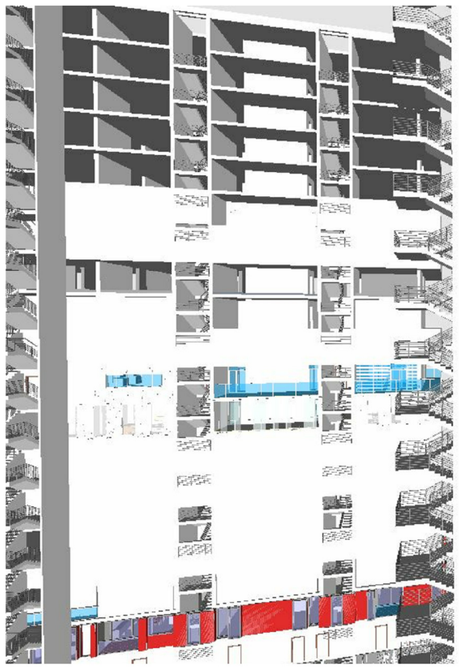
Student - Giovanna Maria Marino

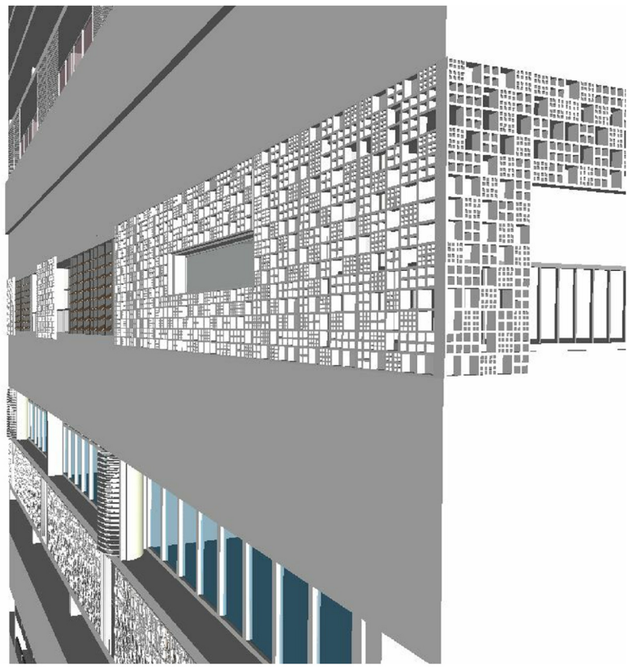
Pianta - B 14

Cloud Design

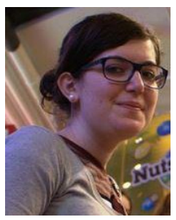


3D + Section Box





Views - Autodesk BIM 360 Glue

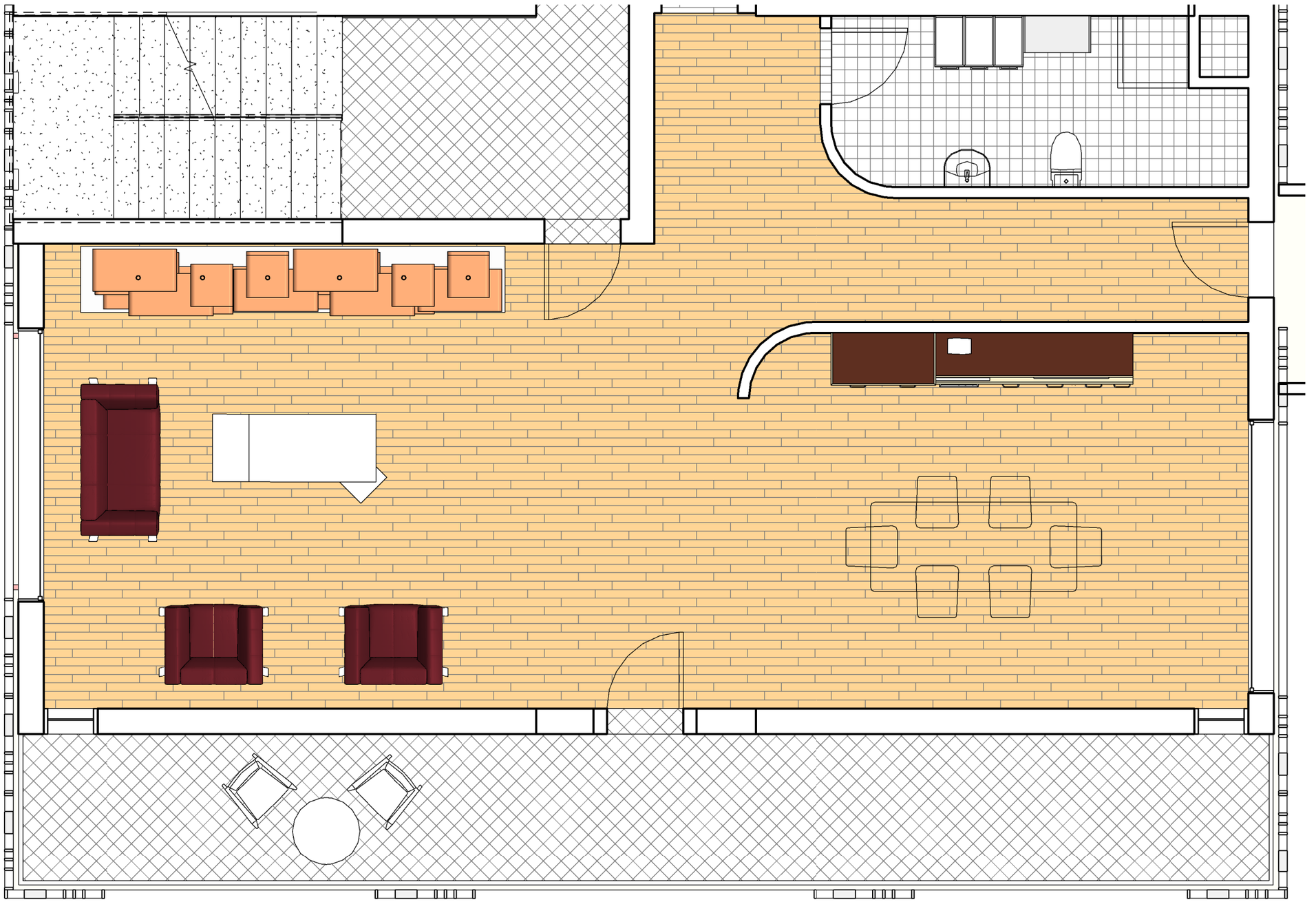


Student - Giovanna Maria Marino

Report

The theme of this year of the course Parametric techniques is the development of an apartment chosen among those present in one of the towers of Vigini; the system will contain all of our ideas in a "Bim 360 Glue application".
The grouping of each project in one big project has created a complex system; each of us has had the opportunity to work at their own level and to post from anywhere on the server at any time our project work.
My project is about the level 14 of the B tower; I started the architectural development from within, then from his division, in fact I have created two apartments of different surface and having three exposures each: NES and NWS. The first apartment has one bedroom with private bathroom, two single rooms, a shared bathroom, a kitchen-living room and a balcony along the East exposure; the second apartment is much smaller, so I created a single bedroom with walk-in closet, a common bathroom, a kitchen-living room and even here a balcony, but exposed to the West. Both apartments are accessible by stairs and elevators and each have a balcony facing at North.
In the second part of the work I have treated the floors, in fact I inserted over the pre-existing slab a layer of 5 cm of insulation and 2 cm of floor, differentiated for each single function: for bathrooms I used a white ceramic, for terrace a material suitable for external, while for the interior of a mahogany parquet.
The facade system was developed thinking about the division that I had created in the apartments; as can be seen from the plant, some of the walls of the building are more indented than others, this allowed me to think about developing brise soleil, and systems protection from the sun and weather conditions.
As developed in a post that I put on the group "Bim - Parametric Techniques", the entire facade system is designed as a parametric element developed according to a system of proportion; I used a square and from this I extrapolated a further four smaller squares that follow almost the perimeter of the larger square; the same thing was done starting from the four smaller squares. The system was applied to a panel that hides both floors in the facade and this allowed me to tie them to the existing structure by plates with visible bolts inserted and embedded in the floors. In addition, the Brise Soleil, since it is mobile, can be placed either vertically with protection function from sunlight, or horizontal as railing system.
Another element that I created is a parametric system of shutters which functions as brise soleil with an uppercut in the fixed structure and developed in the balconies of the bedrooms face at South.
The last phase of the project was the inclusion of standard or no-standard components within each apartment, according to the development and characteristics that I wanted to show. So I made some simple Curten Panel with uprights, both for use by parapet or a partition.
To conclude, I would like to point out that I think this way of designing, places the search of the result of the project on an even more modern and interesting level, trying to make us understand how it is progressing the way of making architecture.

Cloud Design



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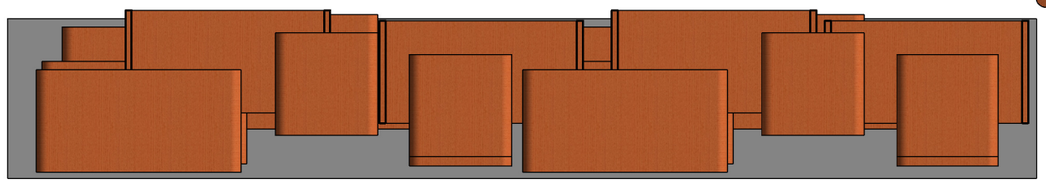
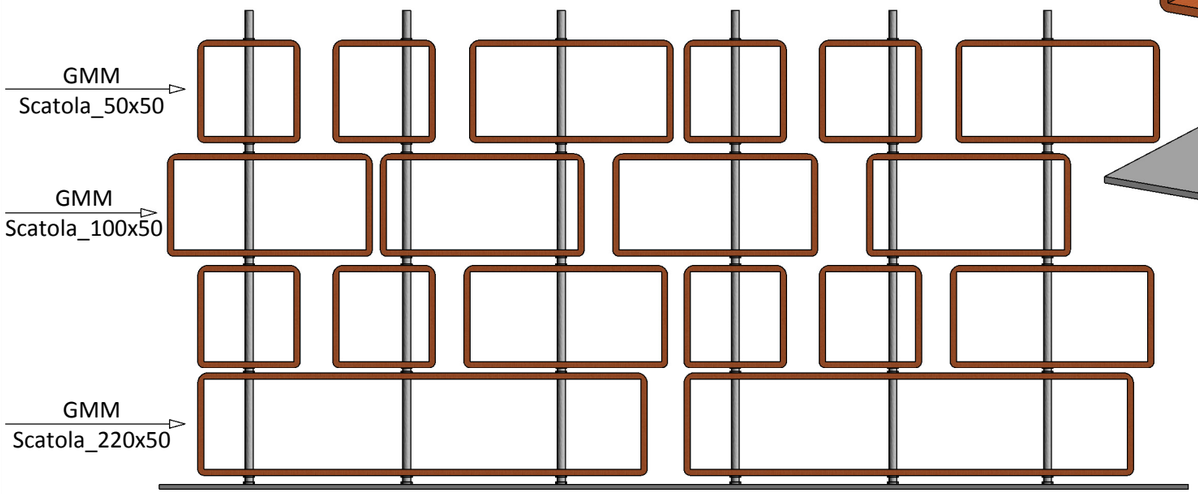
Pianta - B 14

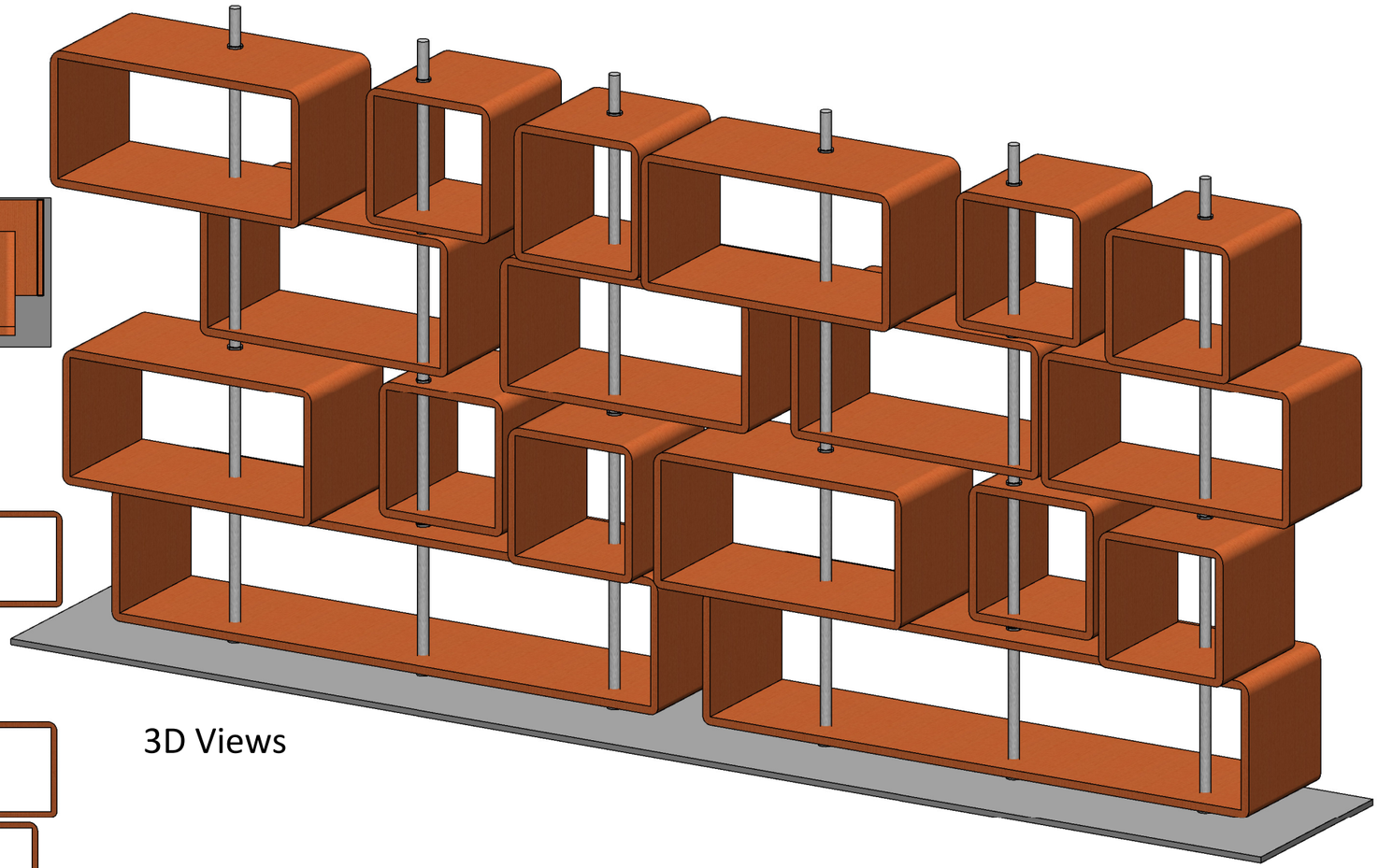
Cloud Design



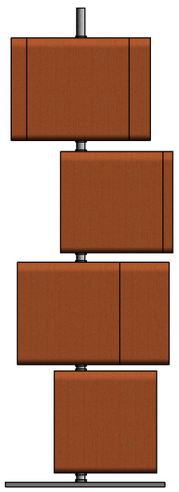
Floor Plans_Level 0



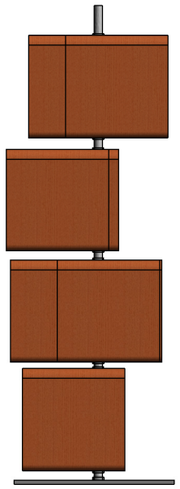
Elevations north



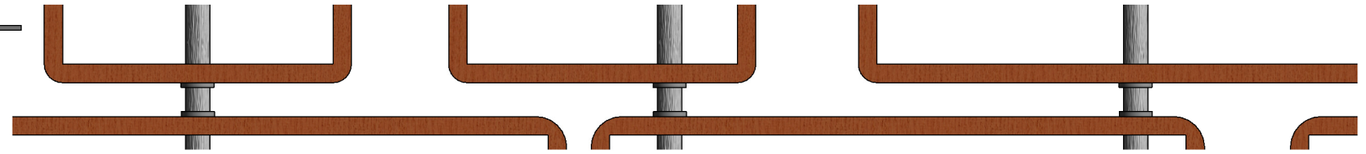
3D Views



Elevations east



Elevations west



Detail_ junction

GMM_Schedule_Library

GMM_Type	GMM_Height	GMM_Lenght	GMM_Thickness	GMM_Radius	GMM_Material	GMM_Count
1 GMM_Libreria						
1 GMM_Libreria						2
2 GMM_Giunzione						
2 GMM_Giunzione	232.0 cm			4.0 cm	Aluminum 5052	12
3.1 GMM_Scatola_50x50						
3.1 GMM_Scatola_50x50	50.0 cm	50.0 cm	50.0 cm		Wood (Oak)	16
3.2 GMM_Scatola_100x50						
3.2 GMM_Scatola_100x50	50.0 cm	100.0 cm	50.0 cm		Wood (Oak)	16
3.3 GMM_Scatola_220x50						
3.3 GMM_Scatola_220x50	50.0 cm	220.0 cm	50.0 cm		Wood (Oak)	4

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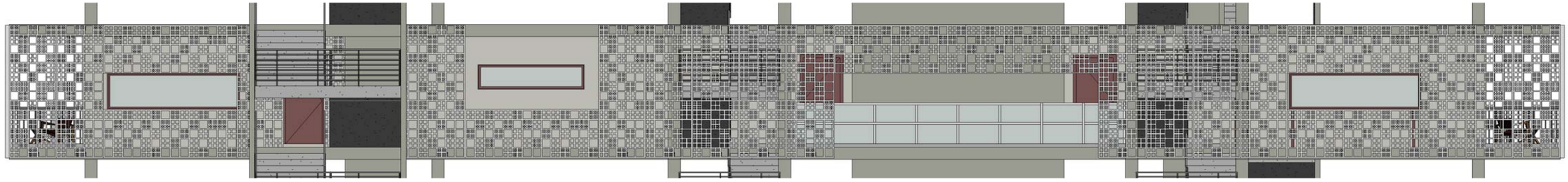
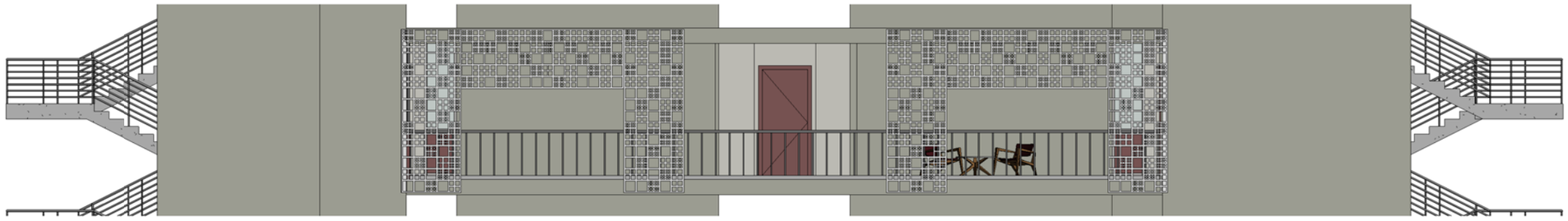
Parametric Library

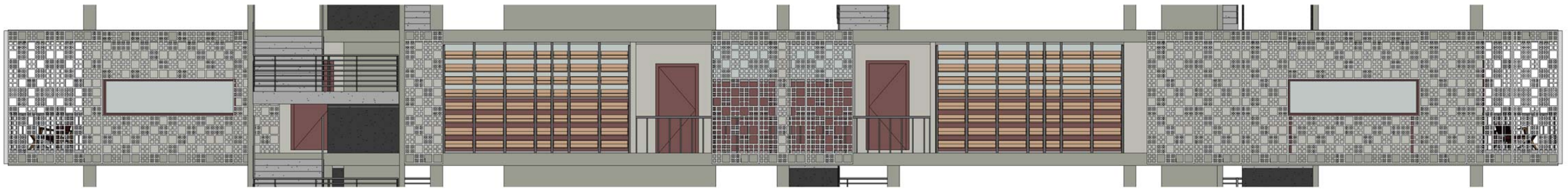
Cloud Design



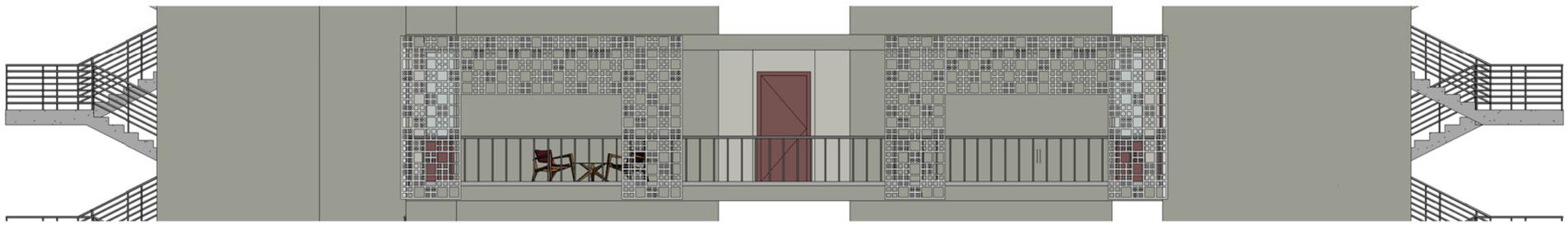
Elevation north



Elevation east



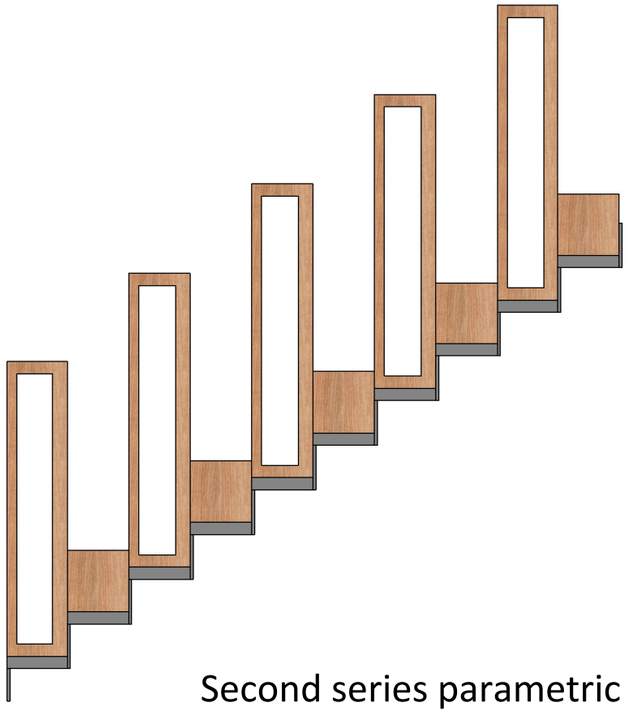
Elevation south



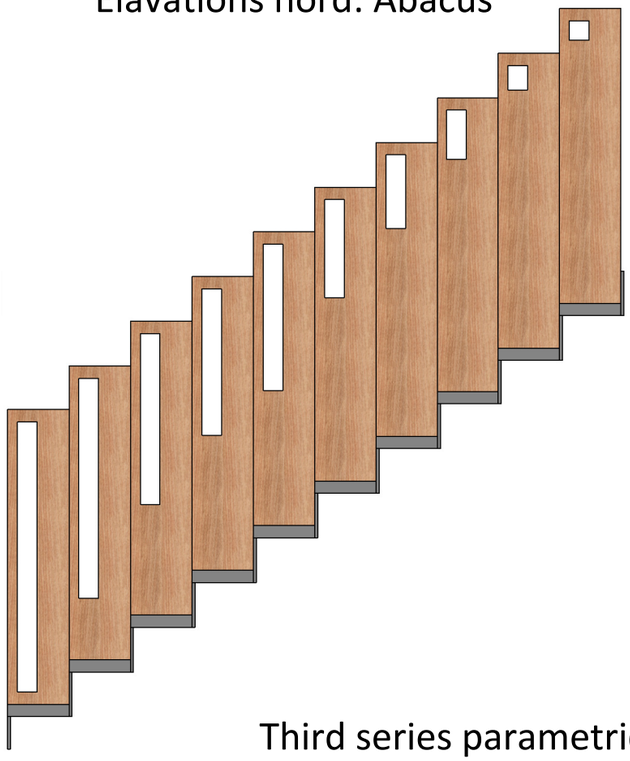
Elevation west

Cloud Design

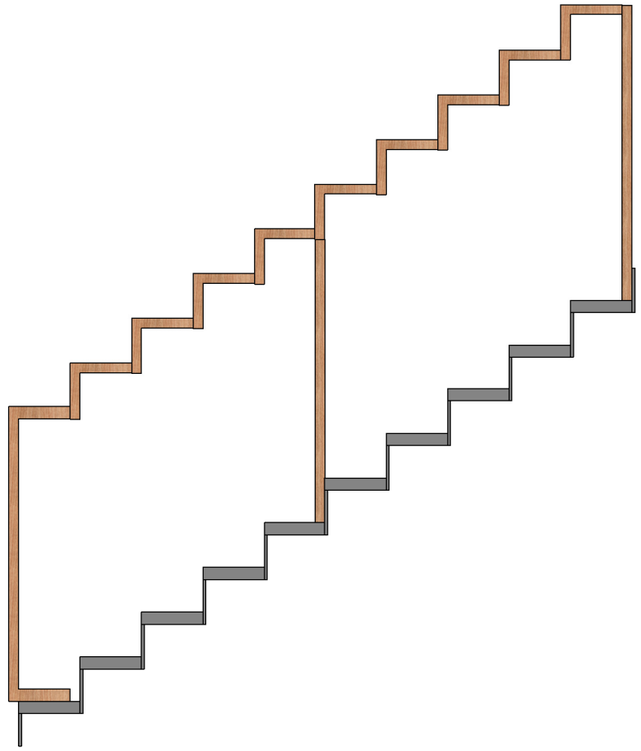
Elavations nord: Abacus



First series parametric



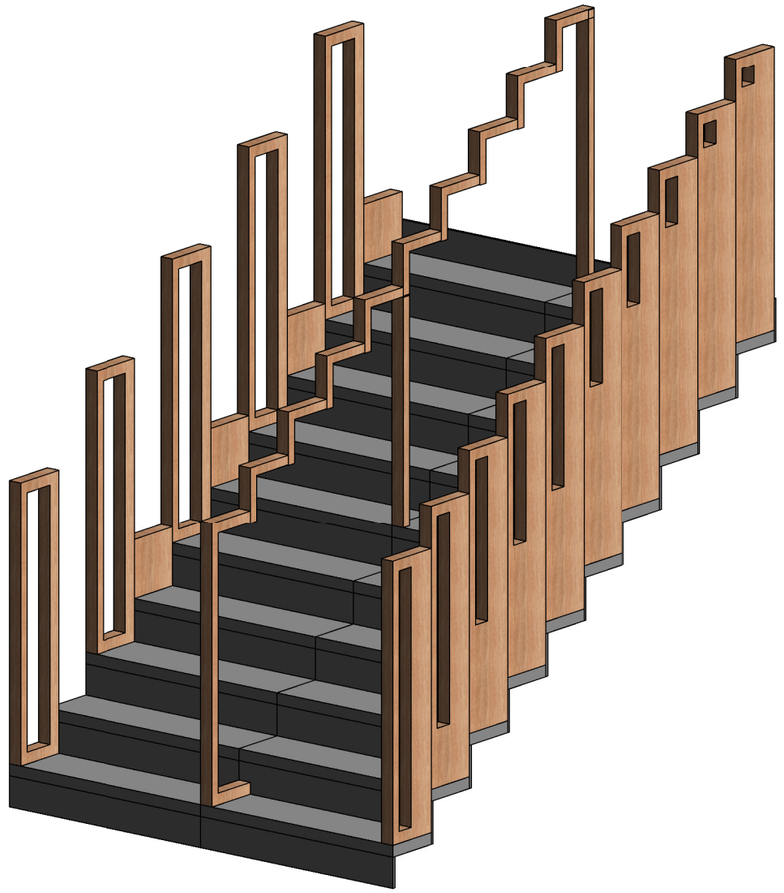
Second series parametric



Third series parametric

In the first exercise I developed the railing element with parameterization of height, difference of emptiness and width , in three different examples .
All these elements are made of wood with a steel junction , designed as a second exercise.
The junction is hidden between the scale and the railing and attaches to both elements with simple pins.
I also decided to give it the shape of the steps , so as to make "the railing from the outside view lighter".

Detail of the junction



3D views

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Parametric series_Railing