

# **project book**

*Graduation Project  
Learning commons -  
Stockholm Public Library extension*

AR3AI100 Interiors Buildings Cities  
Graduation Project 2023  
Stockholm Public Library extension

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# Learning commons

If it can be said that the library and the hill are two dominant objects, both very unique for the context and there is a gesture of the plinth under the library that seems to integrate it and relate it to the surrounding. Then this gesture can also be translated to the hill in such a way that it mediates both urban and natural context making a strong connection.

Some of the most important elements of the landscape that would be influencing the future design and that are to be used to its advantage rather than being a problem to solve are first the existing retaining wall that also serves as a walking path. It solves the erosion of the hill and can

be used to prevent additional heavy engineering solutions in order to work with the landscape. Secondly there is a water management system that guides water from the hill towards the pond in the middle of the square. Apart from being a technical solution it can be used as an architectural element guiding design decisions and influencing the atmosphere within the new extension. Also greenery is a big part of the landscape, especially the row of willow trees following the edge of the pond that is already part of the atmosphere of the site and therefore should be preserved and kept in mind.

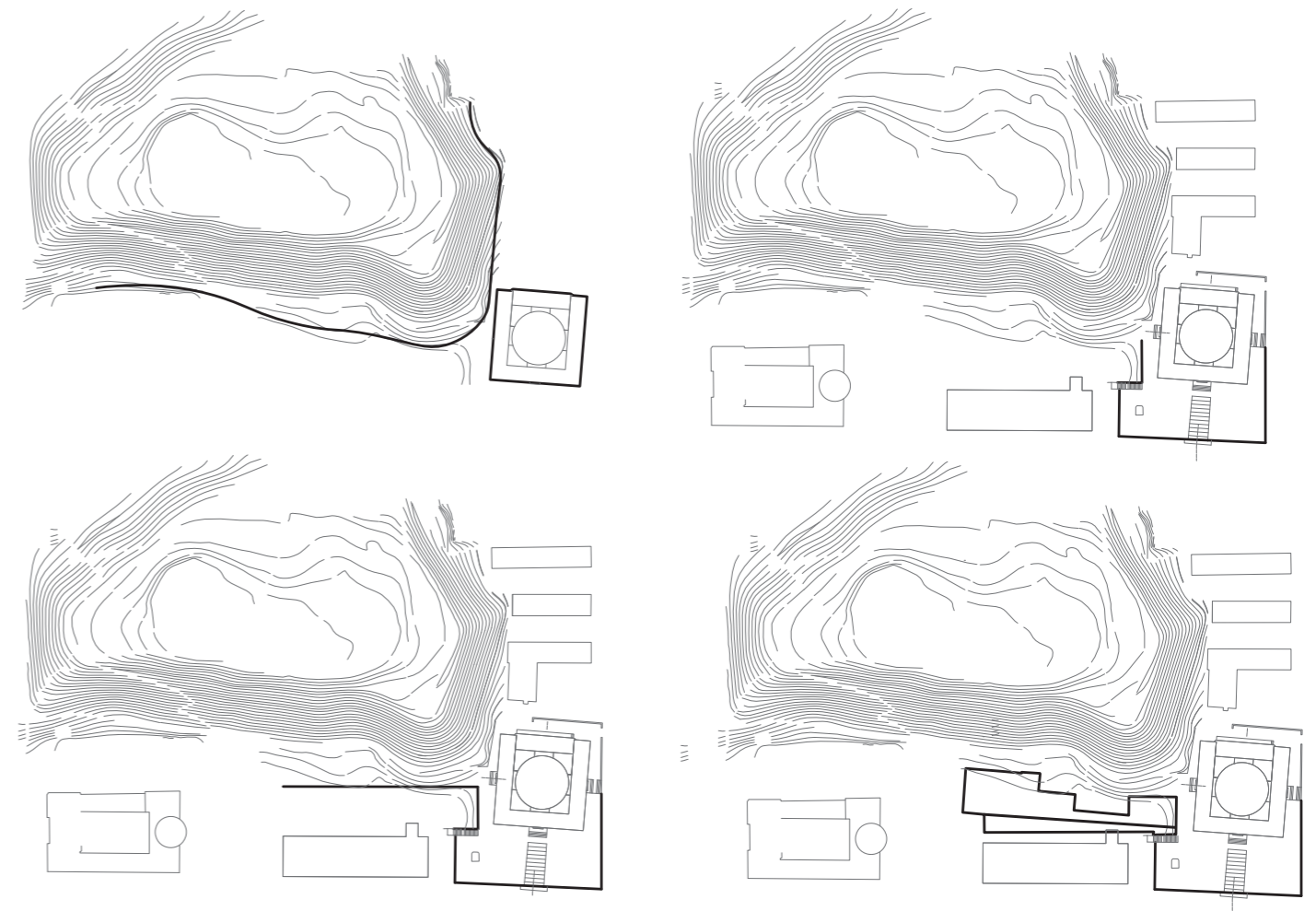


Fig. 1. Shape development

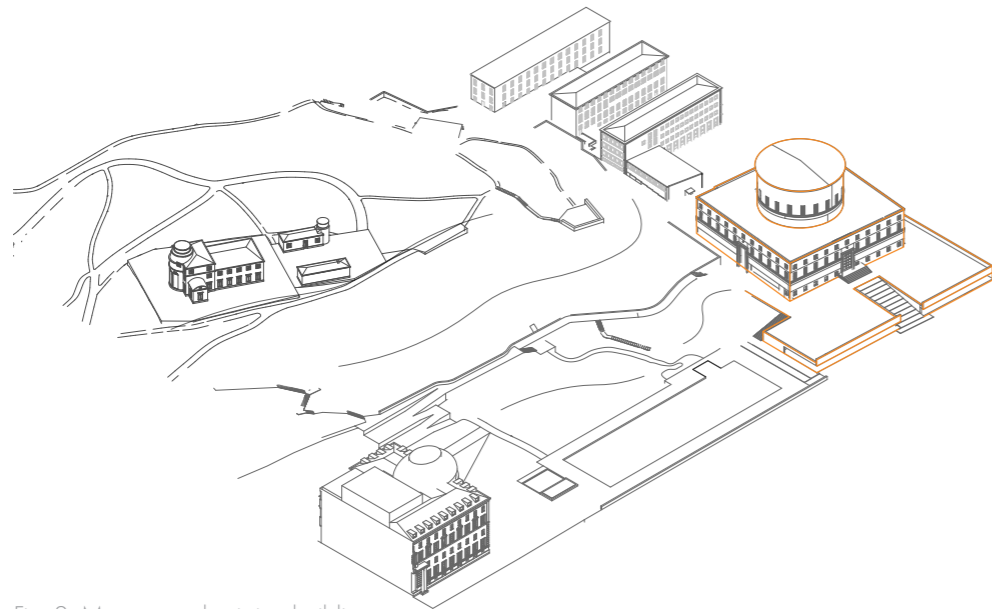


Fig. 2. Monumental existing building

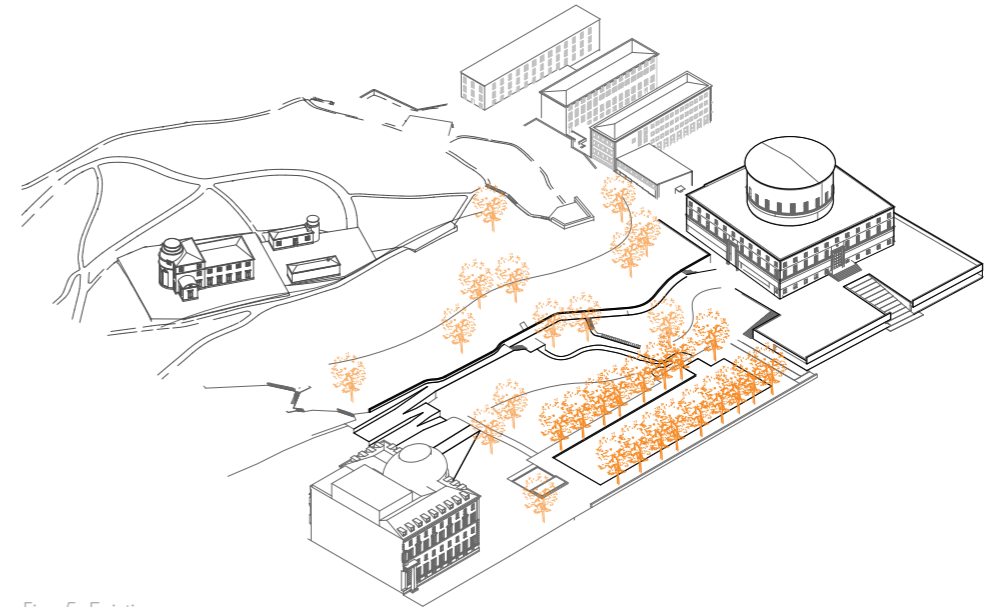


Fig. 5. Existing greenery

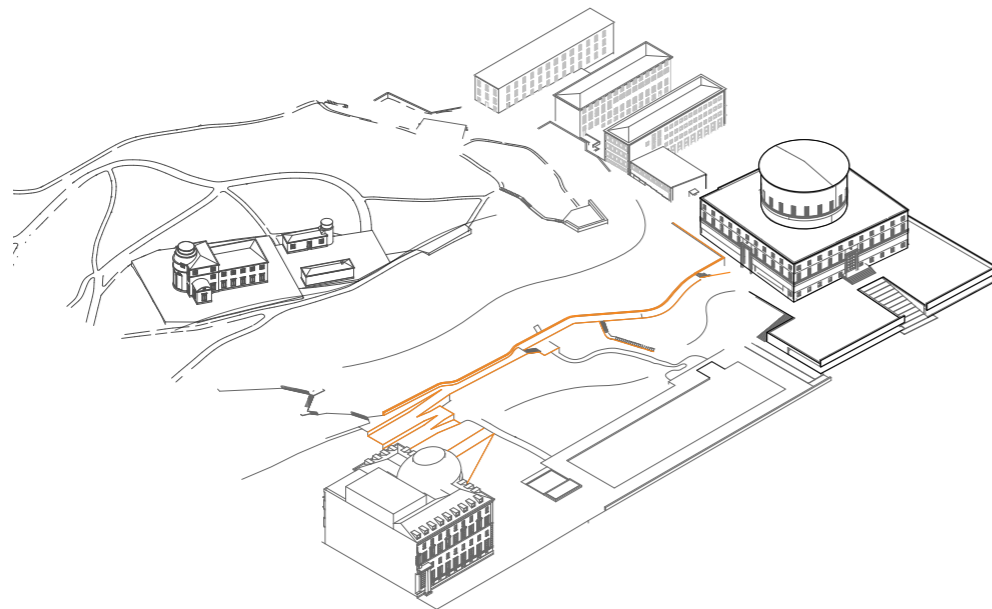


Fig. 3. Existing retaining wall with walking path

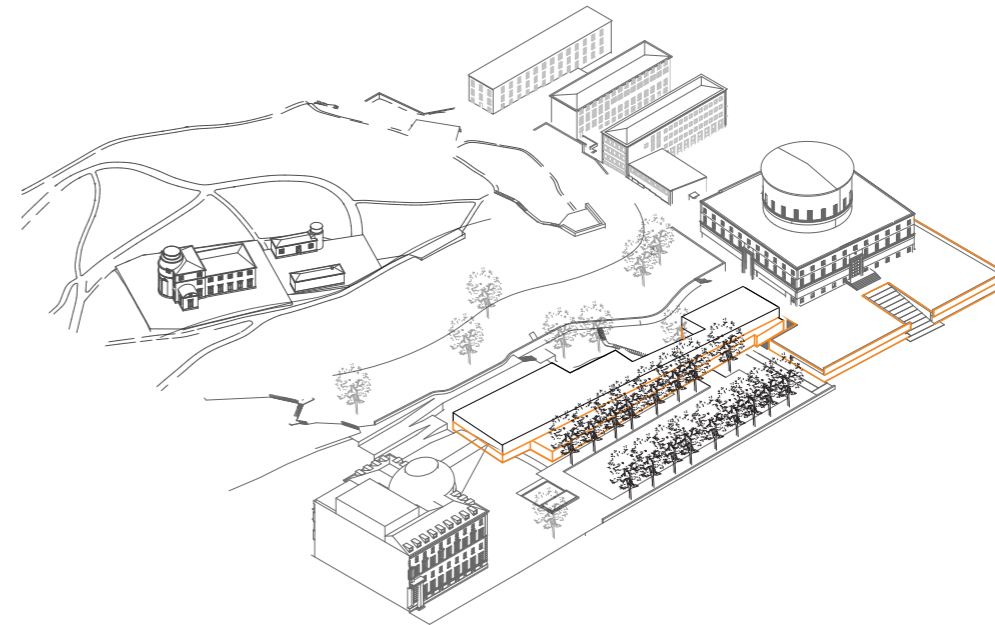


Fig. 6. Relation ground floor & existing bazaar

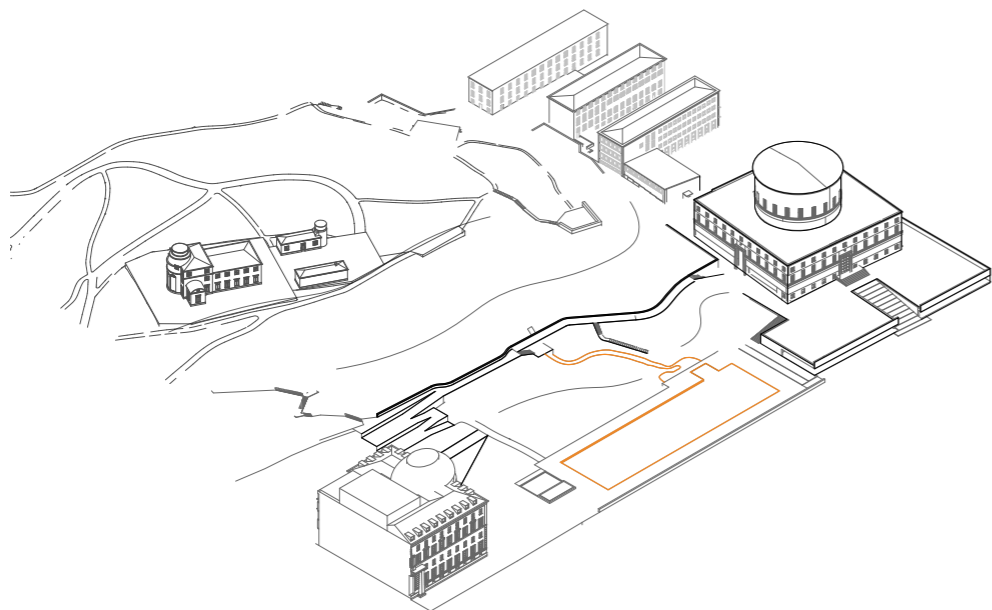


Fig. 4. Water management system

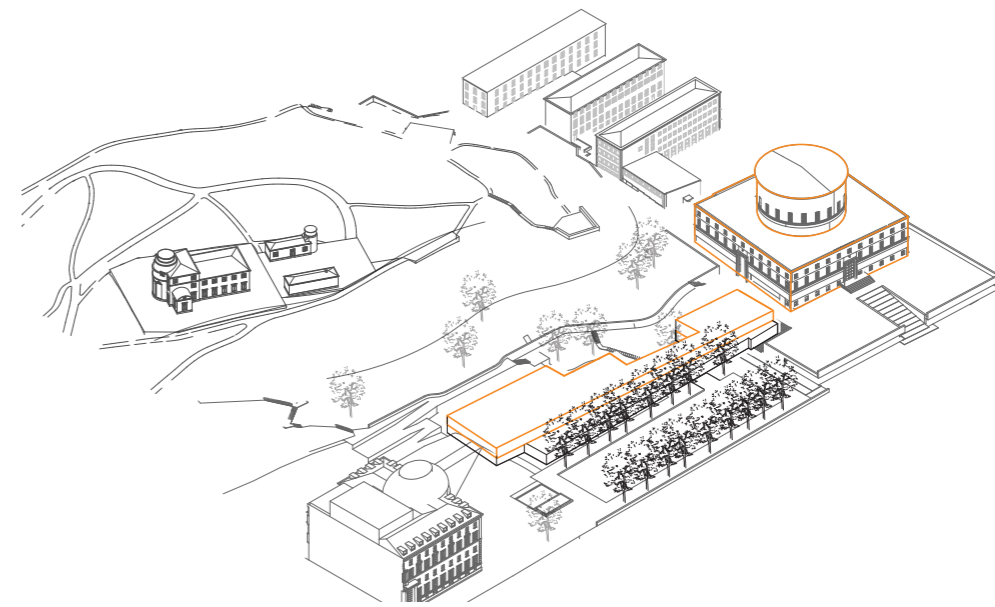


Fig. 7. Relation top pavilion and library



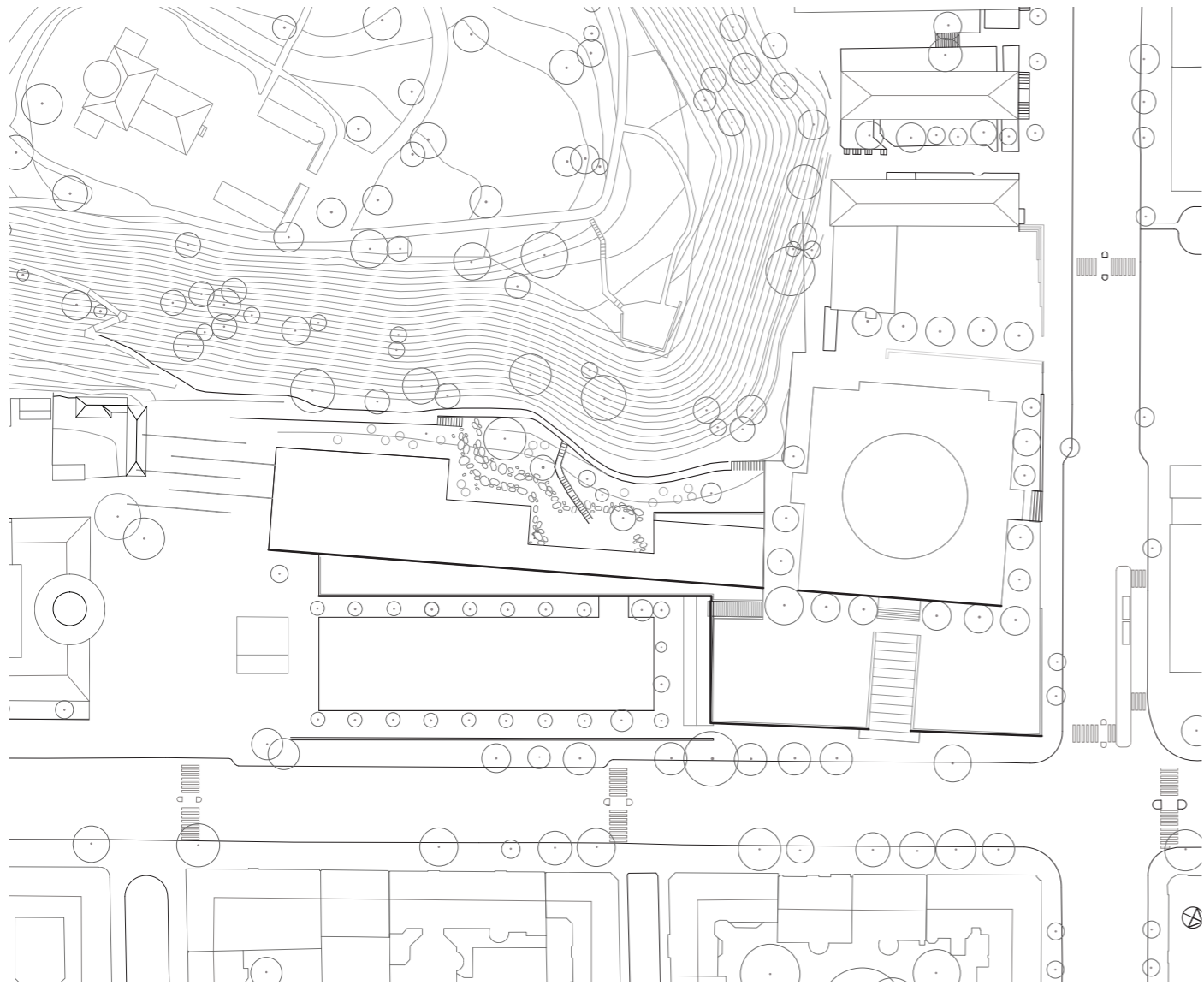


Fig. 8. Site plan



Fig. 8. New extension both present and disappearing

The shape of the hill influences the form of the plan and its program. An existing retaining wall is part of the landscape in front of it and having in mind the texture of the soil it's important to consider where stronger support is necessary to keep back the possible erosion of the hill. Also it influenced where it is possible to allow the landscape to continue and extend almost literally into the building. In the plan there are few zones that can be distinguished. There is the entrance and most formal area, then a narrower part that is like the focal point of the design where the difference in two sides of the building are the closest. And then space opens up again into an open plan that references a workshop or even a market space introducing a more creative environment suitable for group work or more informal encounters. It is a space of no expectations. As the society changes, new ways are needed to "get people out of their bubble" in order to

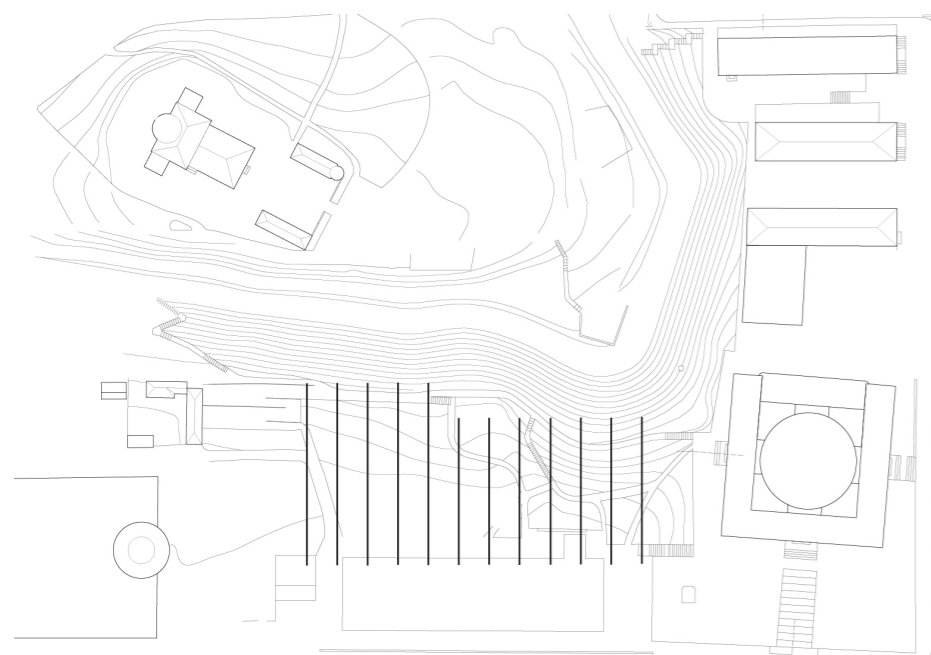
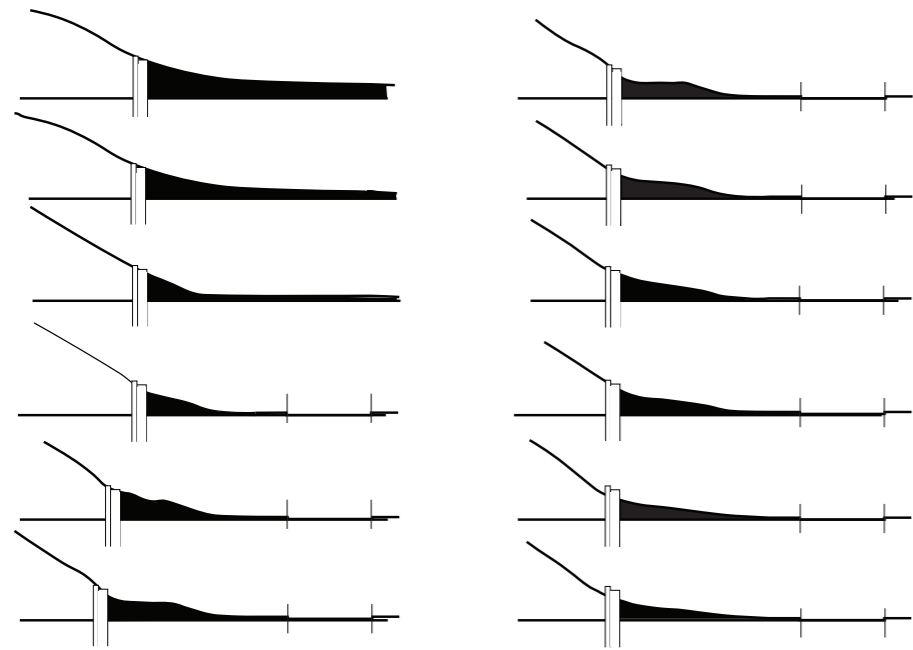


Fig. 9. & Fig. 10. Hill slope exploration

gain collective understanding and prevent segregation. Landscape structures are continuing to the interior as the columns grid is following tree axes. And the second direction of axes is under an angle following the library. This allows the complexity of structures, levels, angles and axes to meet under the same grid system. Then there is a top pavilion again with the open plan that is suitable for more quiet work but still in a less formal setting. Comparing the new program to the briefs, it focuses on offering diverse study space, also facilitating more group work, lecture or meeting spaces, as well as allowing flexibility and easily rearranging a space. Books are here not organised based on language preventing any divisions and segregations and bookshelves are also used for zone organisation and improving acoustics.

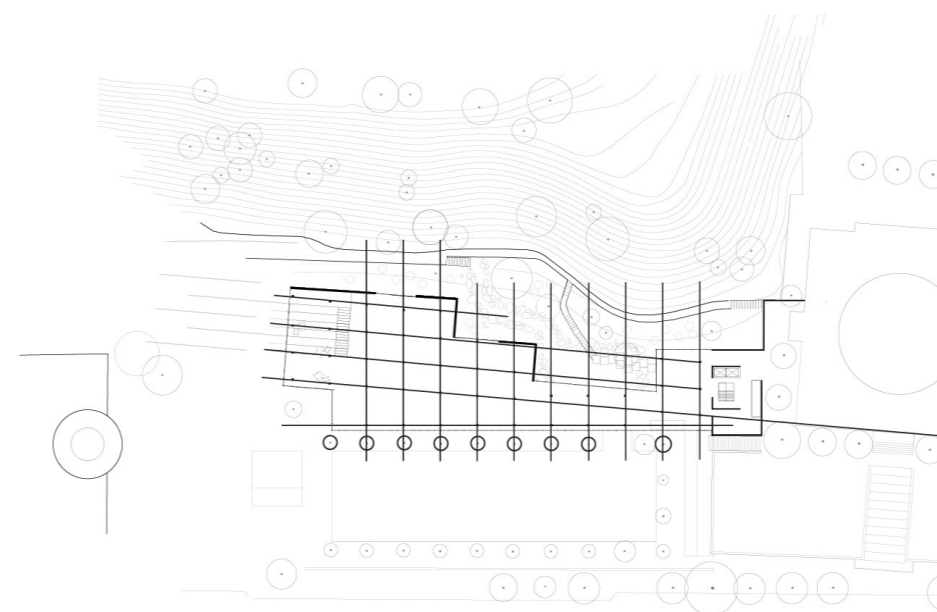
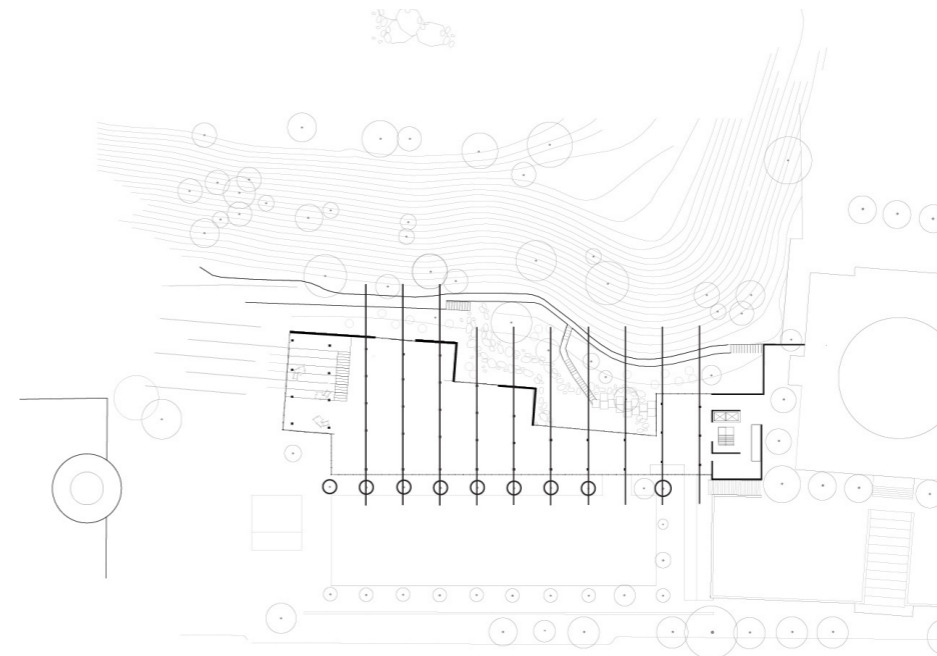


Fig. 11. & Fig. 12. Surrounding site conditions imposing grid on the interior



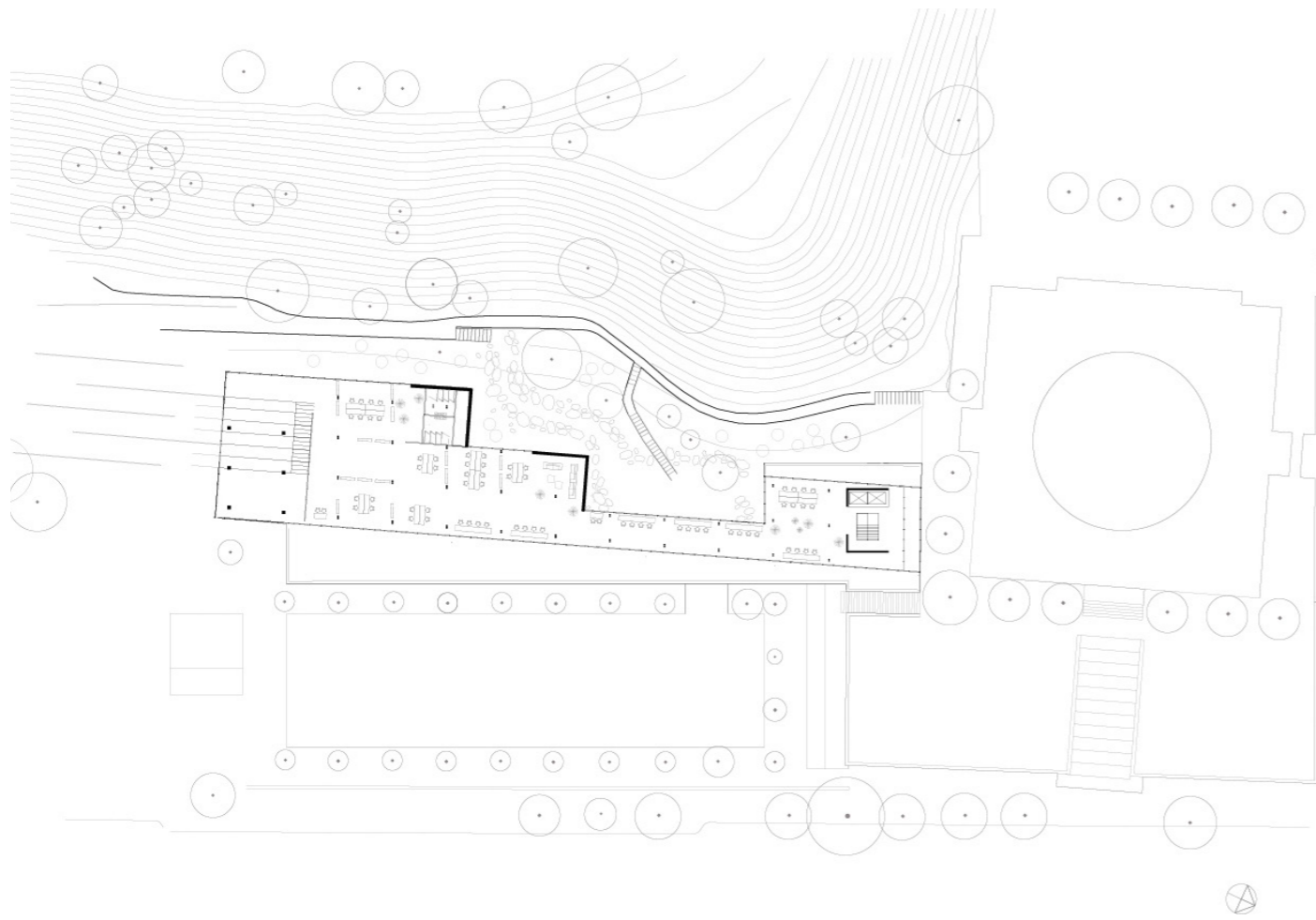


Fig. 13. Top pavilion

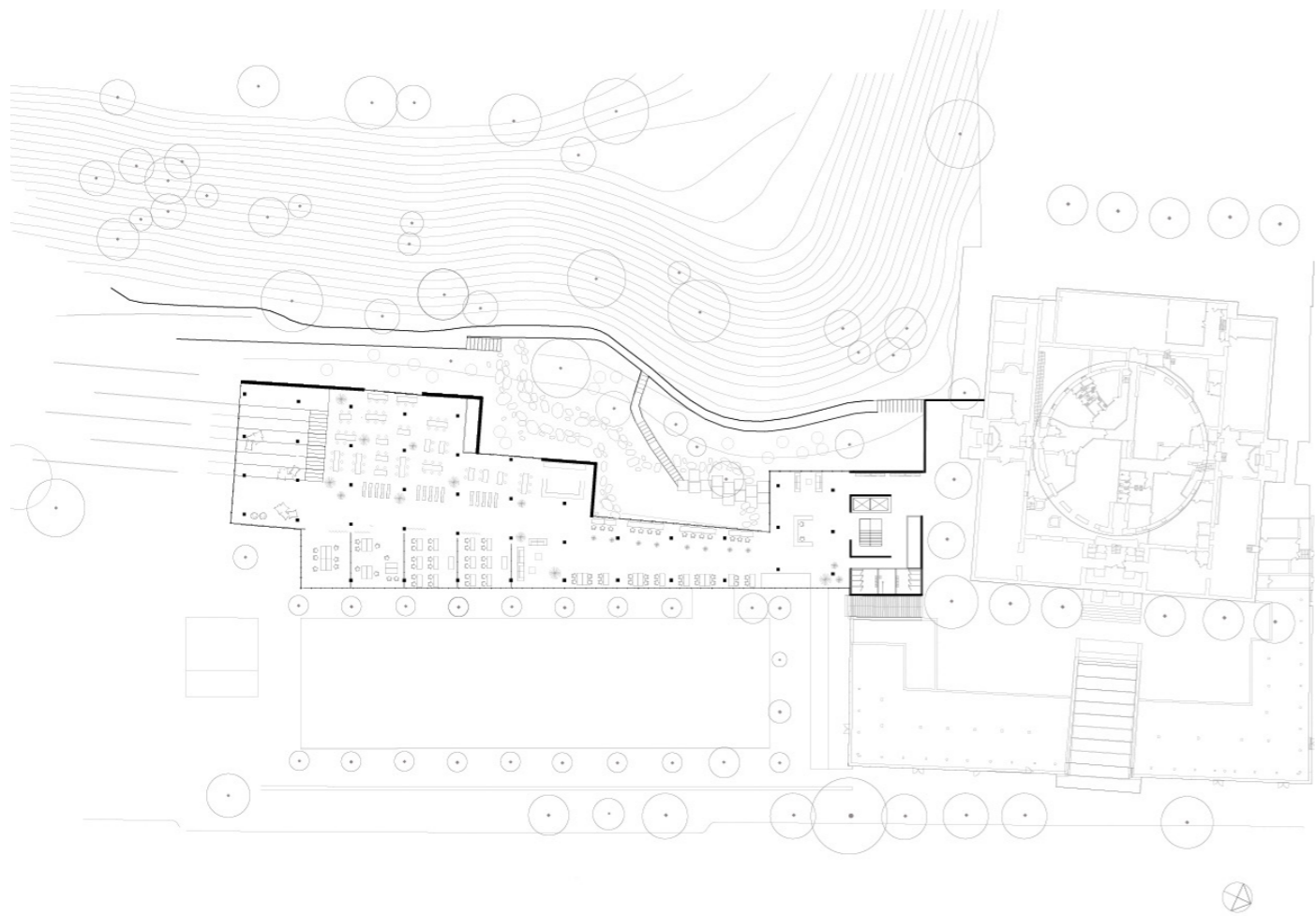


Fig. 14. Ground plan

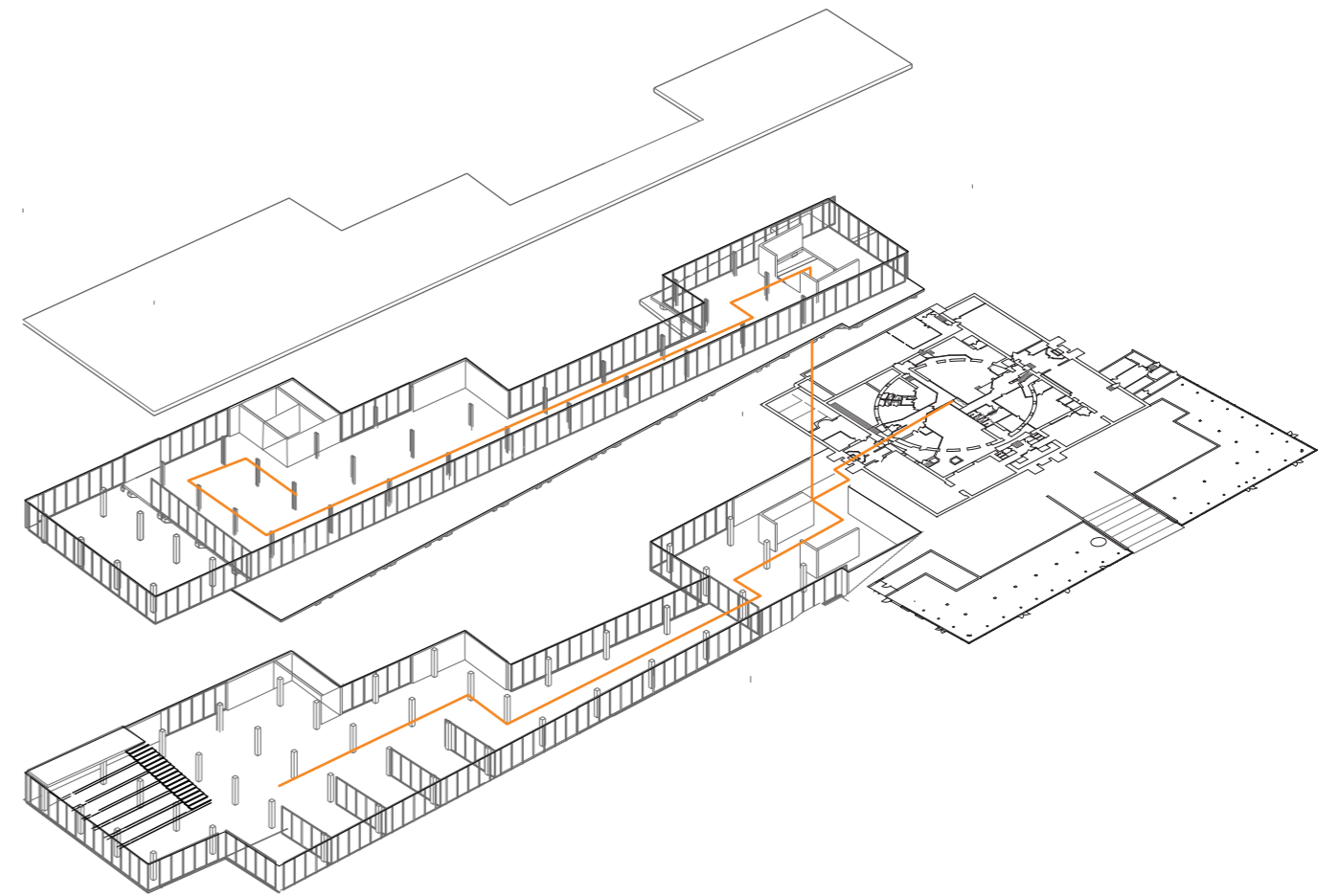


Fig. 15. Book & staff route

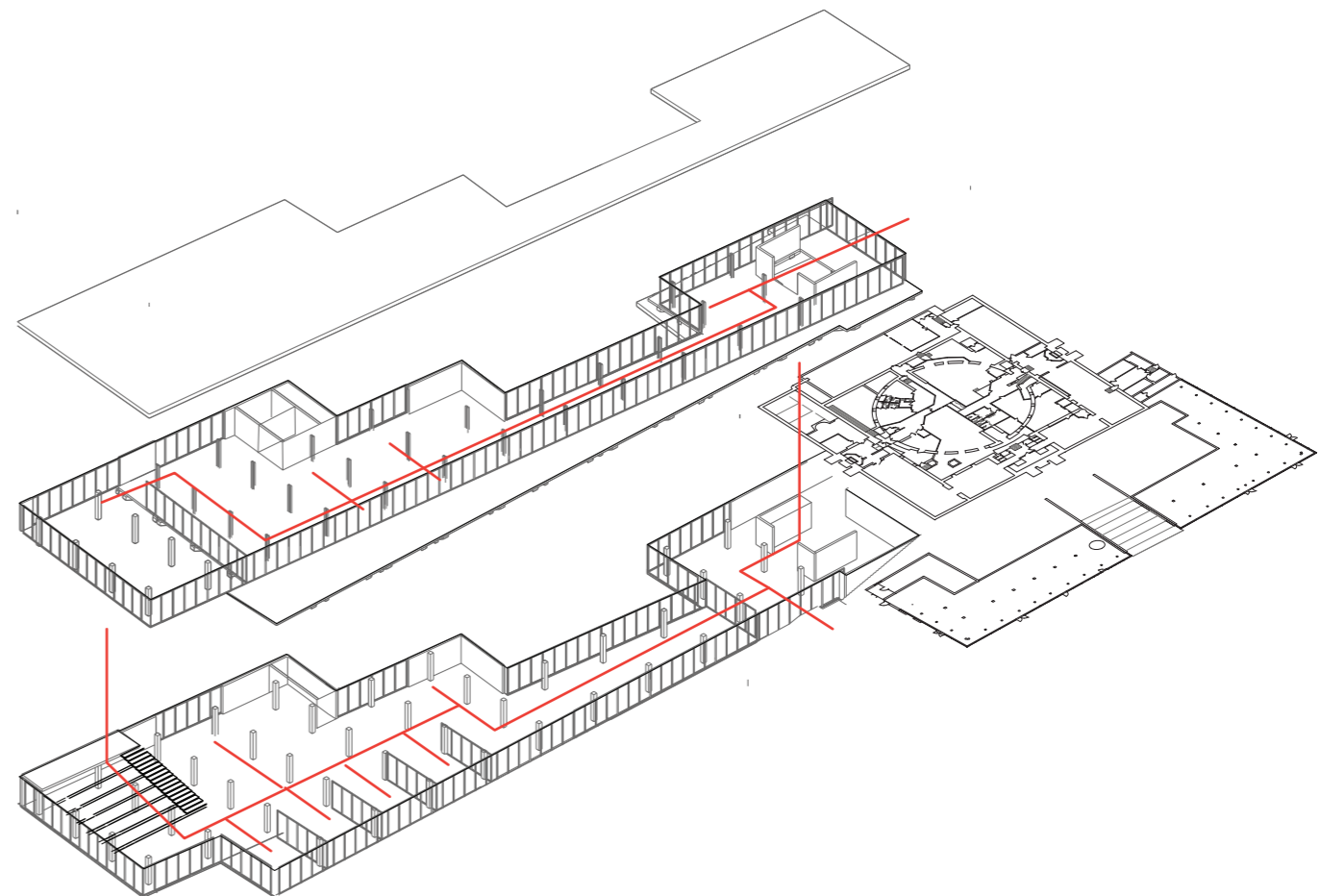


Fig. 16. Public circulation

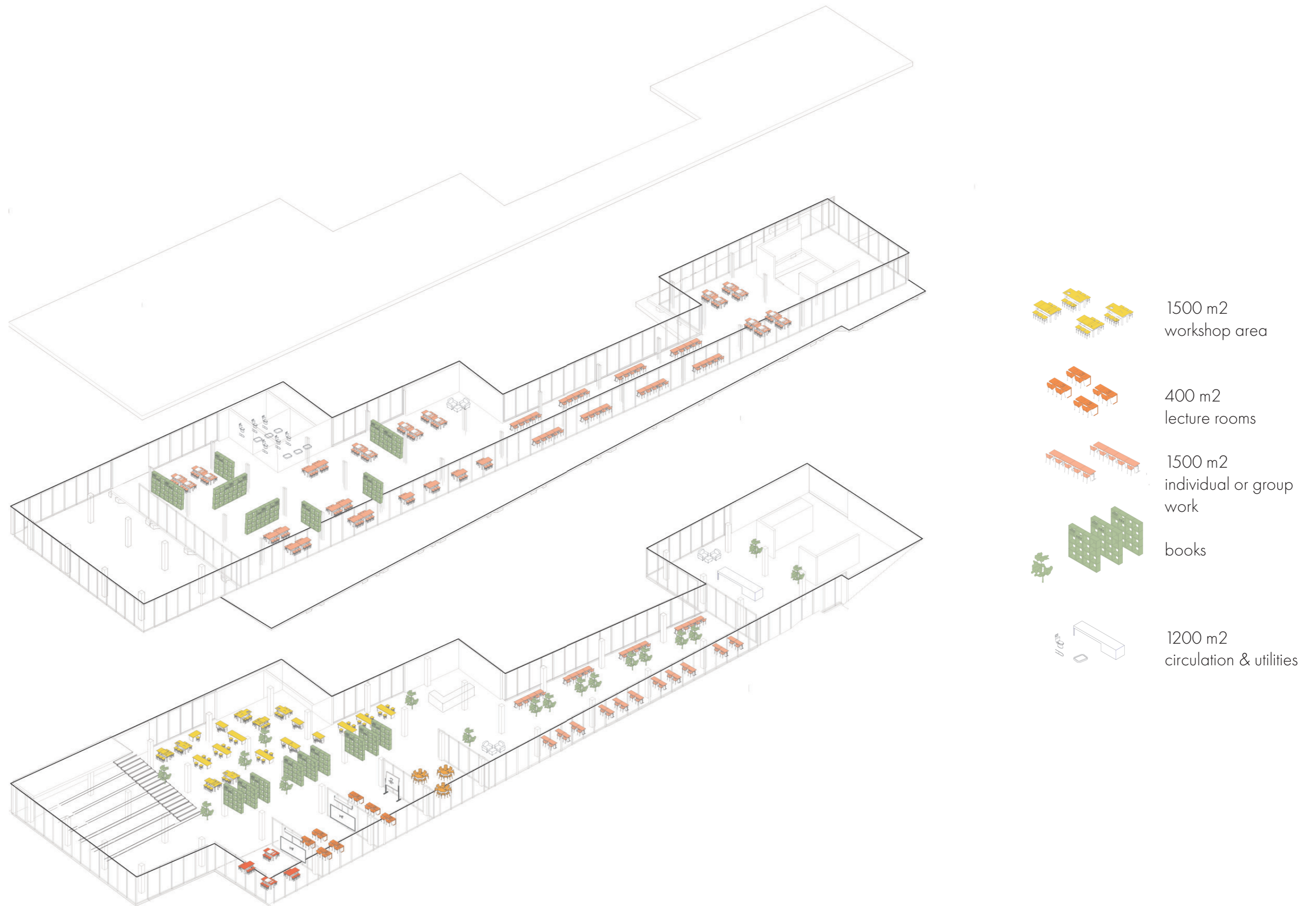


Fig. 17. Program diagram





Fig. 18. Section I - Urban vs natural surrounding

First section is a narrow zone facing on one side urban surrounding, with the view to the street, existing bazar and pond. On the other side space is facing nature, greenery and weather management system that gied the water from the hill under the building to the big pond in the square. This is a main circulation path through the building. Both calm and lively atmosphere can be used as a study or meeting space. Then there is an open zone, shown in section II where one can use the space individually or in a group. On the left are workshop tables for diverse types of use and on the right are meeting or lecture rooms with less rigid separation. The top part is a more quiet area where bookshelves are dividing the area into smaller packets of a more intimate environment. Still, sitting tables are arranged in groups.



Fig. 19. Interior impression model 1:33 - Landscape, structure & furniture

This top pavilion is surrounded with greenery and almost appears even hidden from the street sight. This also allows the row of trees in the front to be used as a sun shade still allowing enough daylight in the winter. Additionally in terms of the climate building includes floor heating which is the most efficient in large open spaces. Ventilation is organised at the ceiling allowing the reuse of the heat from the air going out and therefore being more energy efficient. Final third section shows staircases that are an interior element that is a direct continuation of the exterior landscape - hill. Here building again aims to be porous for landscape conditions of the site. This area apart from being a circulation point can also be transformed into smaller event space, lectures or gatherings.



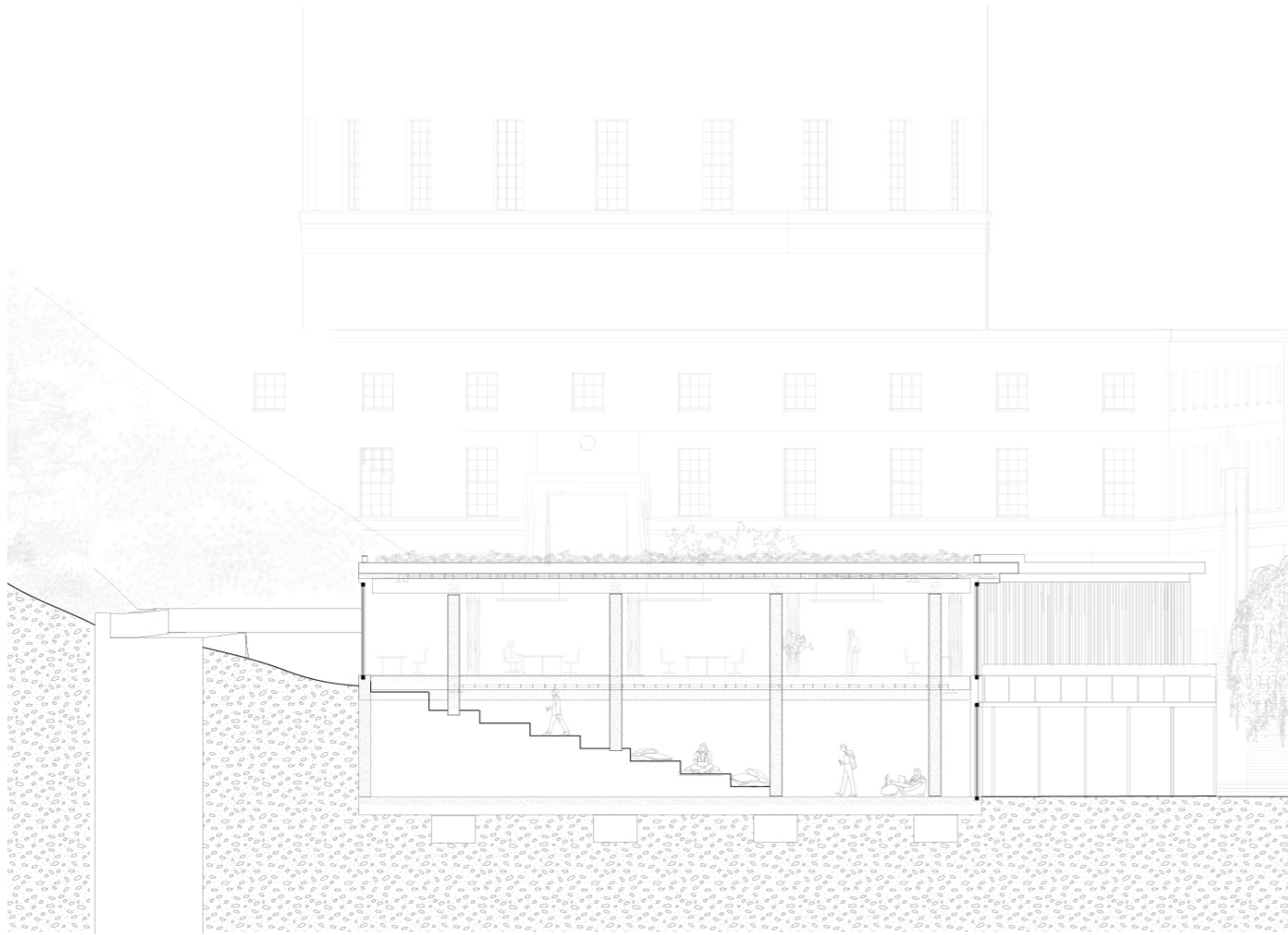


Fig. 20. Section III Continuation of landscape to the interior

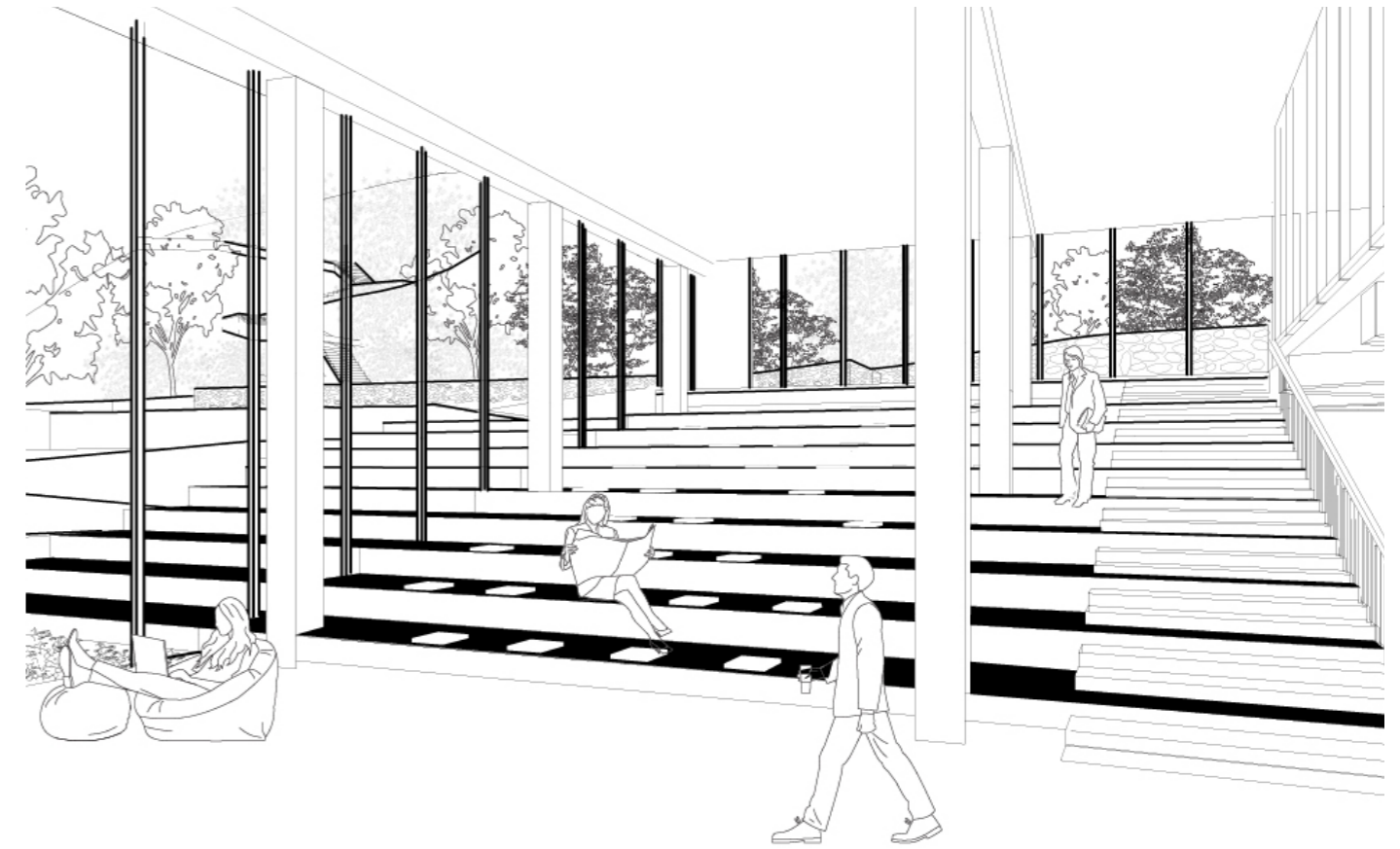


Fig. 21. Blurring the boundary between interior & exterior



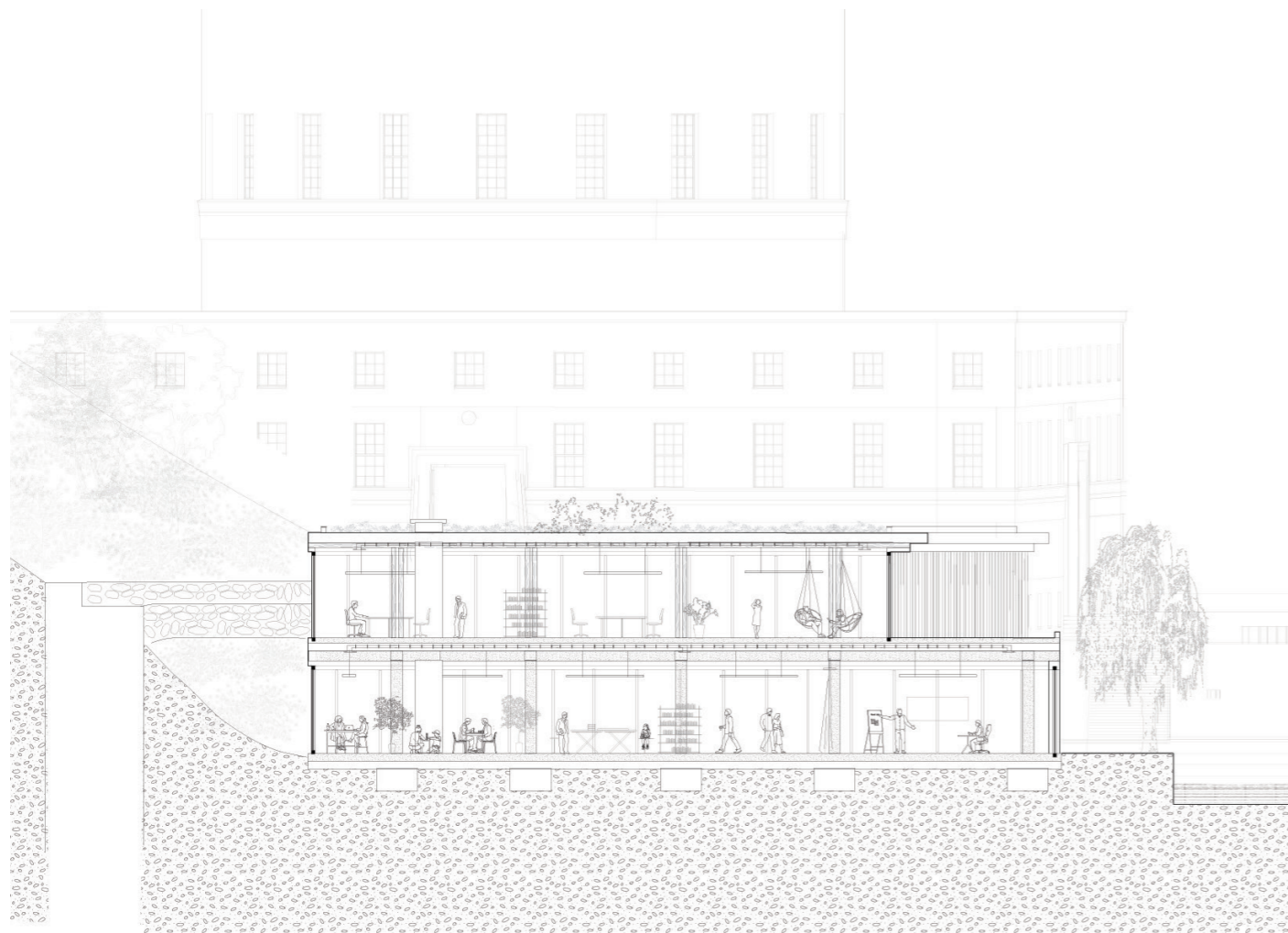


Fig. 22. Section II Open flexible plan  
 Fig. 23. Climate diagram

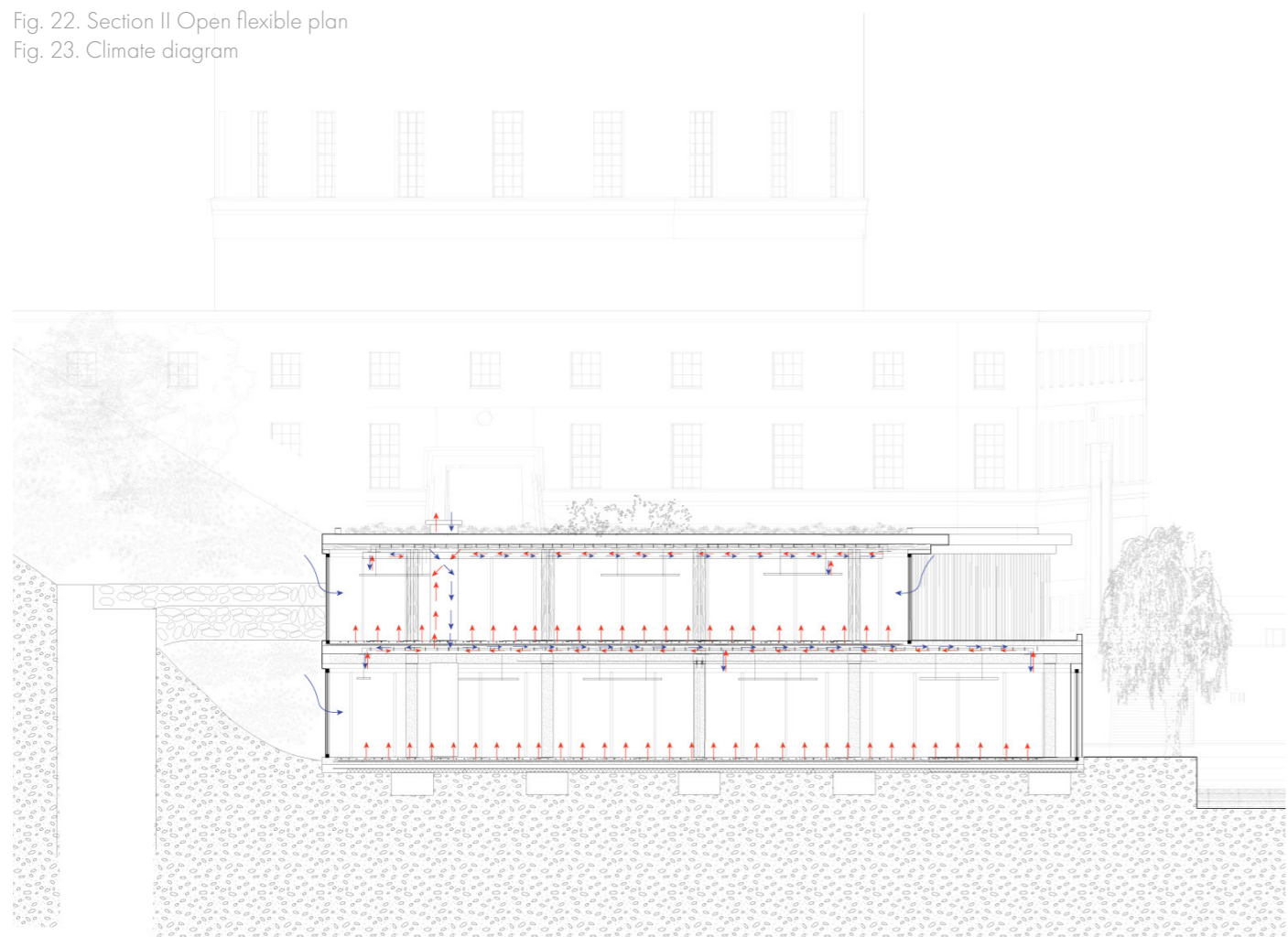


Fig. 24. & Fig. 25. Building & landscape





Fig. 26. Interior impression model 1:33 - view to the back courtyard

Building site is within the natural landscape bordered by a library and the pond in the front. The only built structures here directly on the location is the retaining wall and path for the water management system. Therefore apart from the greenery the only other material is stone. I wanted to translate this materiality to the new structure both on the exterior and the interior. Concrete on the interior of the lower level is contrasted with the warmer timber that even gives a slight colour reference to the exterior of the existing library. Interior model gives the impression of the narrow area between the entrance and the open workshop space. There are several layers of structure, interior greenery, exterior landscape and furniture. It can also be seen that the two sides of the facade are communicating differently influenced by site conditions.

As mentioned plinth and top pavilion are different in geometry, program but also structure. Base is using concrete making the structure wider while going towards the back and the top it shifts to timber and the structure gets thinner. Added structure follows the geometry and proportions of the existing plinth. Connection of old and new objects is navigated by staircases that makes the first

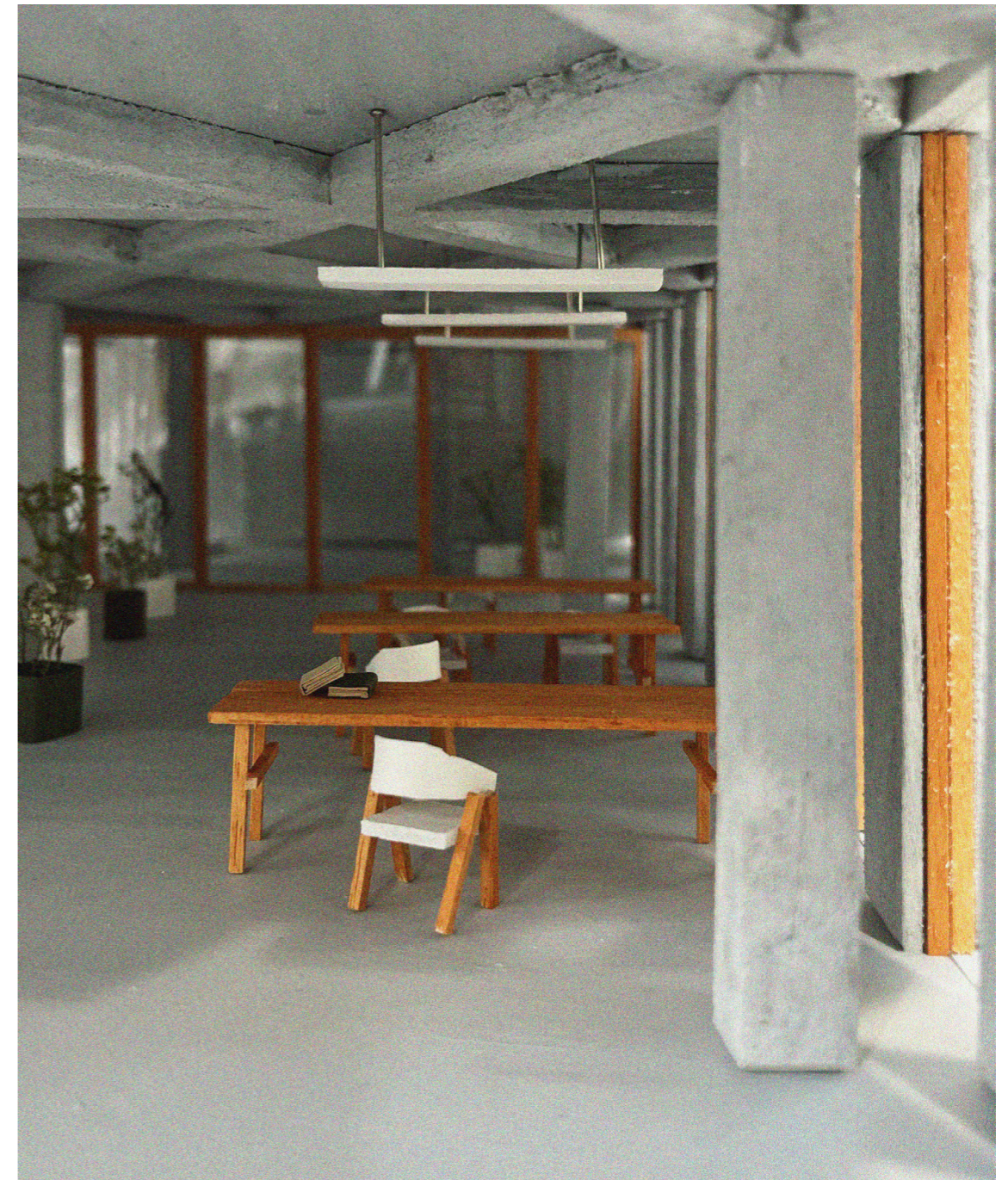


Fig. 27. Interior impression model 1:33 - view along the facade facing the urban setting

floor roof accessible while the top floor of the new pavilion is a green roof visually continuing the materiality of the hill.

Large glass facade allows for communicating with the surrounding. At the back it creates an atmosphere with the natural landscape and at the front it is displaying the program off the interior contrasting the inward looking facade of the existing structure. Close look at the details also shows this intention of the structure getting thinner as it goes higher. The set back of the overhang of the top floor aims to visually present it as a thinner structure compared to the ground floor roof. With this design I wanted to propose an extension of the Stockholm public library. Believing that the new structure should address the lack of scale and program diversity currently in the existing facilities. Offer a unique social infrastructure where people would provide their needs and organise their relationships. And all that in a structure that will reinforce the existing complement it and integrate it with the surrounding landscape.





Fig. 28. Interior impression model 1:33 - top pavilion



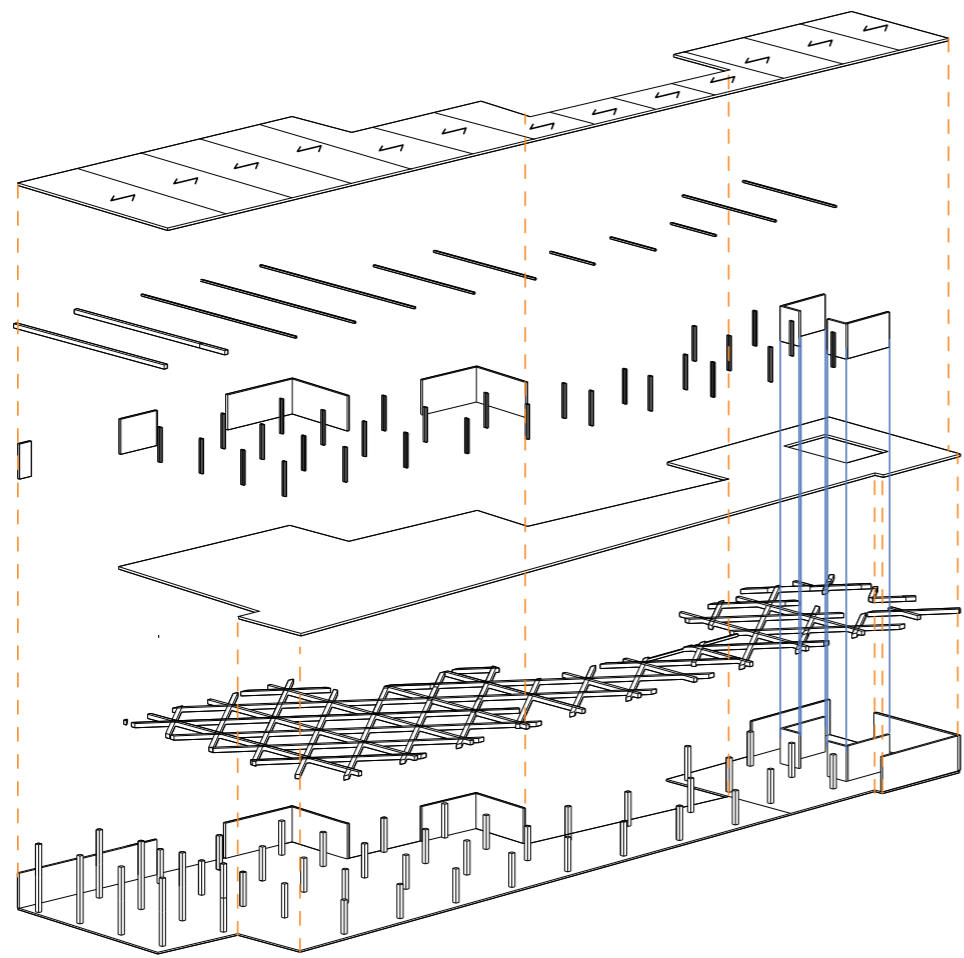


Fig. 29. Structure diagram



Fig. 30. Continuation of the existing plinth

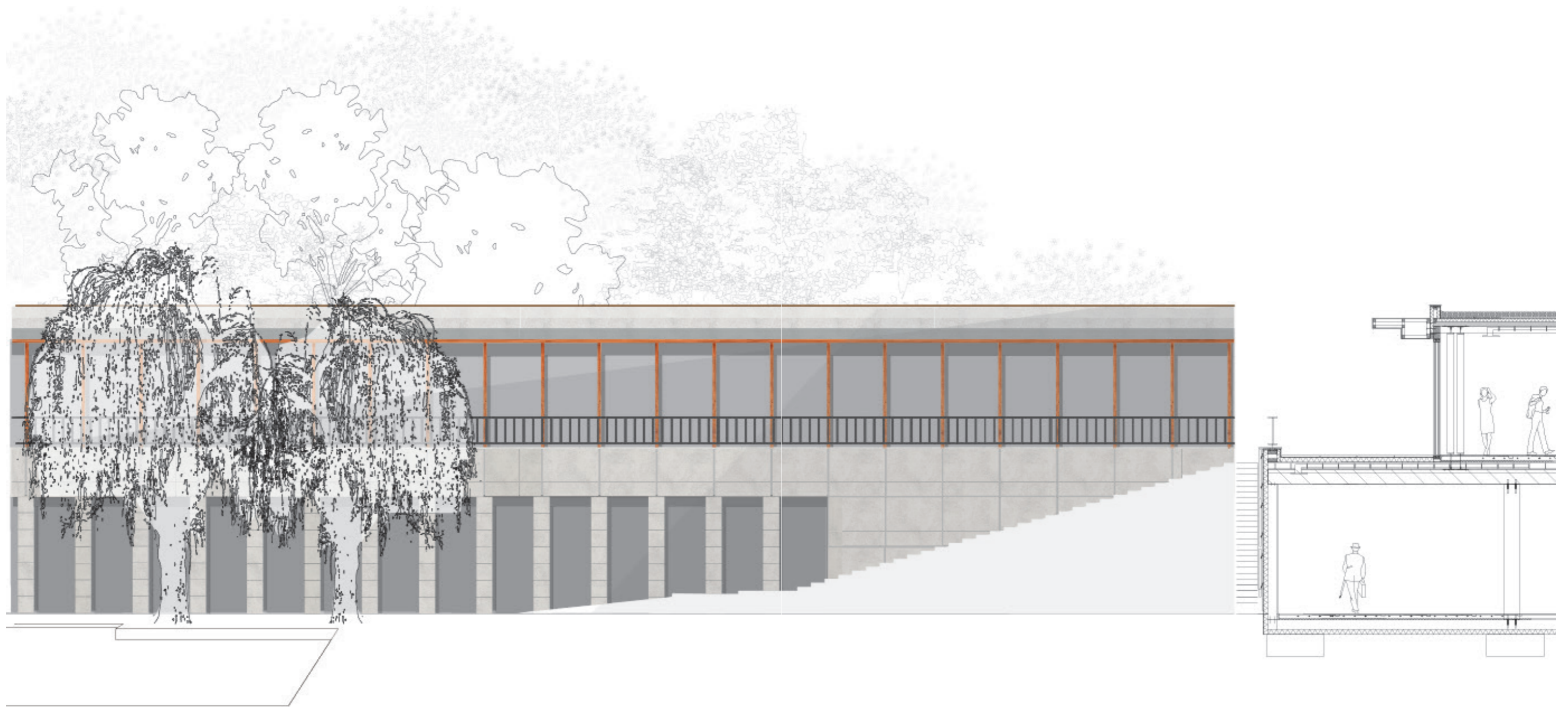


Fig. 31. Connection to the existing structure



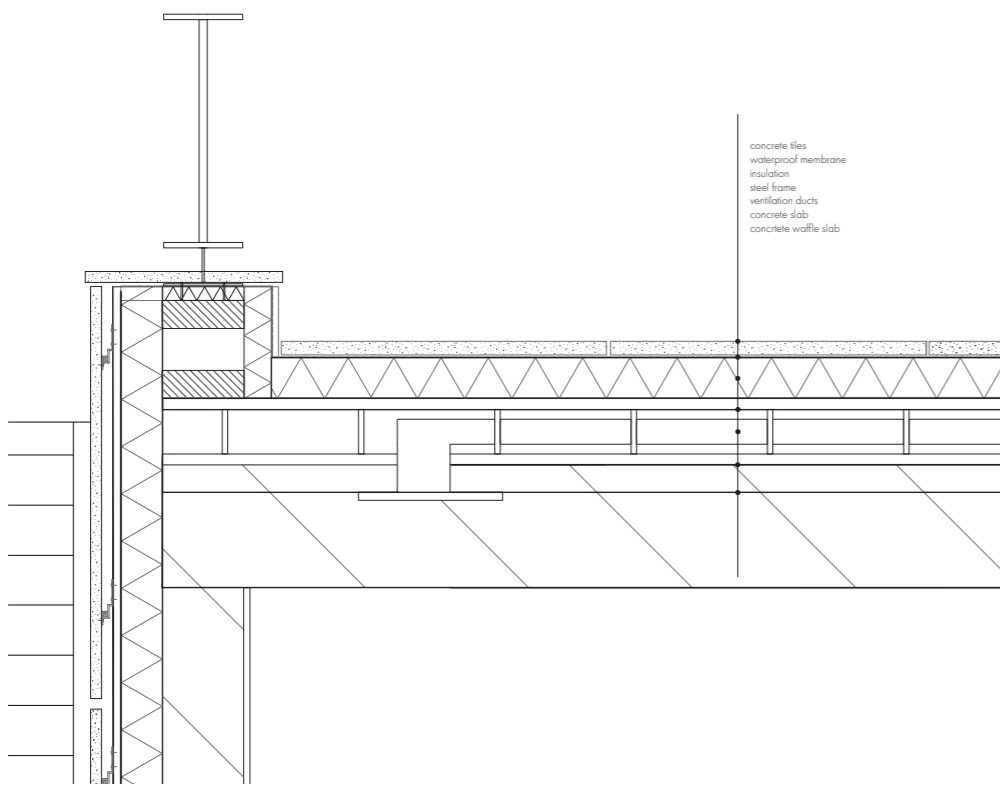
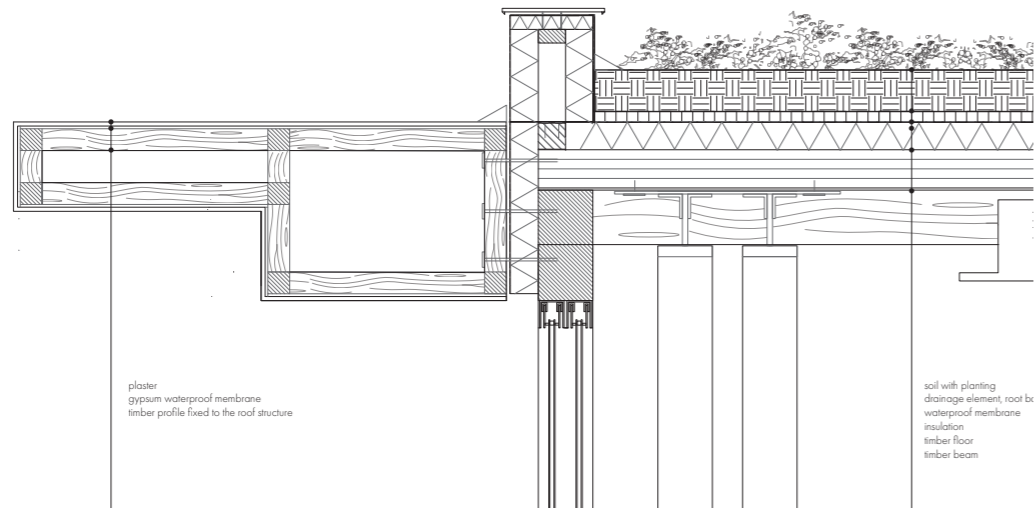


Fig. 32. Detail roof top pavilion  
Fig. 33. Detail roof bottom level

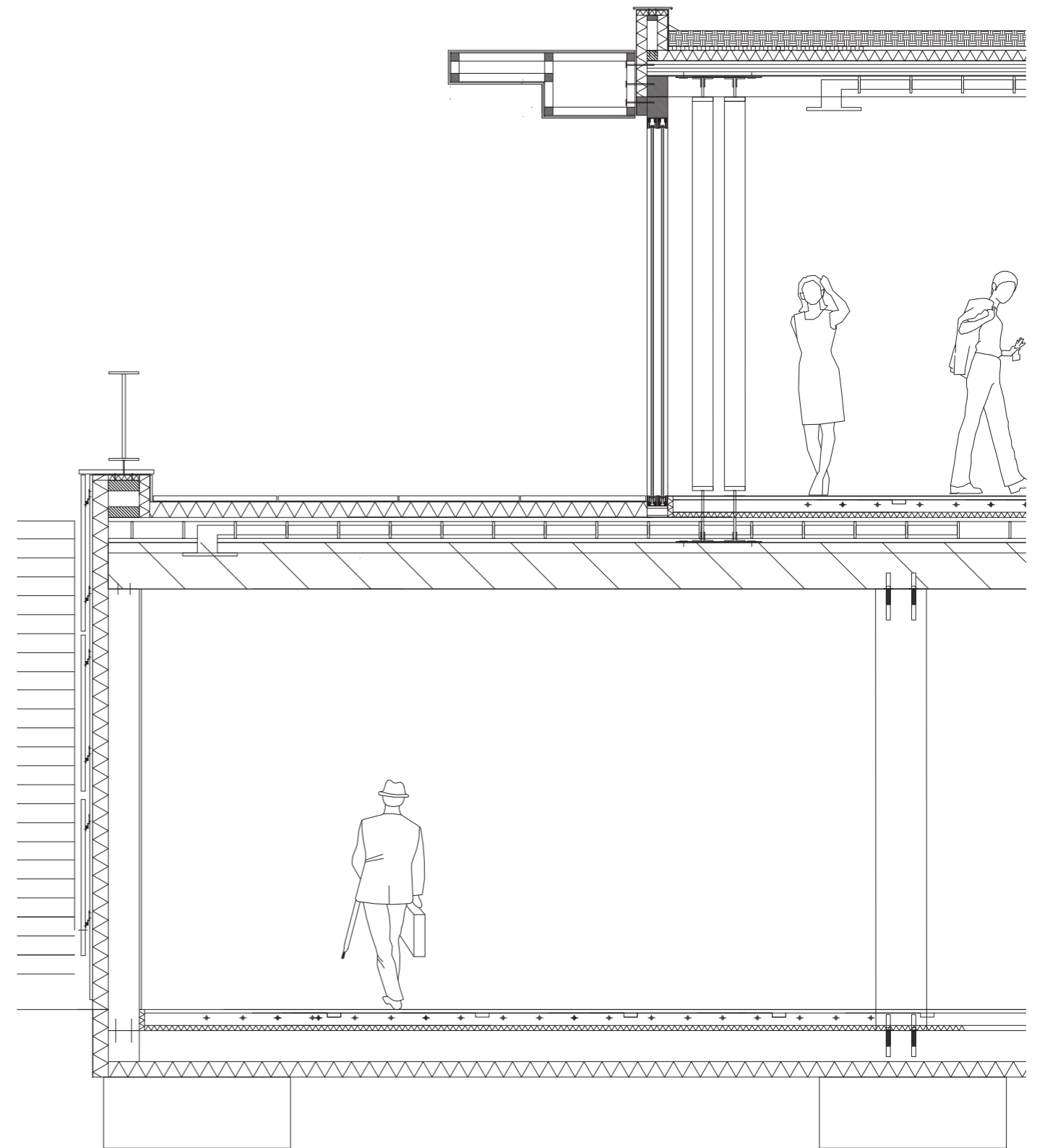


Fig. 34. Detail section





Fig. 35. Elevation site model 1:500



