

Shape UP

a master thesis in architecture by
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Synopsis

Last year Walltopia - a world leading manufacturer of artificial climbing walls and climbing holds, announced that they would finally build their new headquarters.

The idea was to build something that would host a combination of activities as well as offices for people working on designing, engineering and selling climbing walls.

The aim of the Center is to unite many popular activities in just one place, next to a major underground station. Avoiding the traveling between different locations, the Center will save time for people to invest in themselves doing sports, resting, networking, drinks and food or just having fun with friends. The plot will host both the program that

reaches up to 6000 m², and there will be a park with activities next to it.

Main design qualities

The structure is offering an experience of natural climbing environments. The great view to Vitosha Mountains in the south from the bar, terrace connects the architectural experience and the nature. From the bar you get 360 angle to Mladost, inside and outside climbing walls, the park and Vitosha mountain. As much volumes, facades, roofs and floors are used for active purposes. The structure itself is used for climbing, balconies, overhang for climbing, sledging and much more.

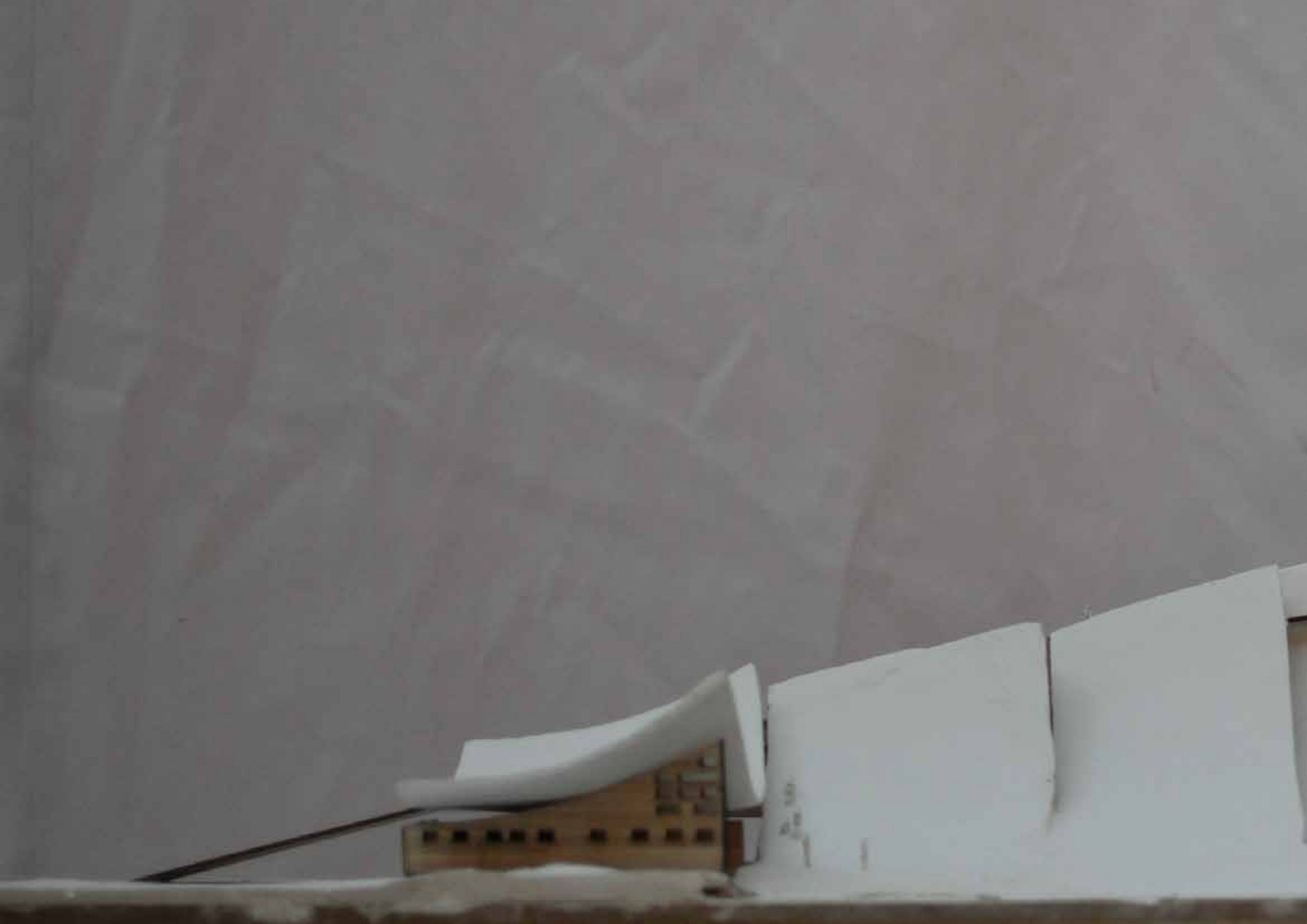
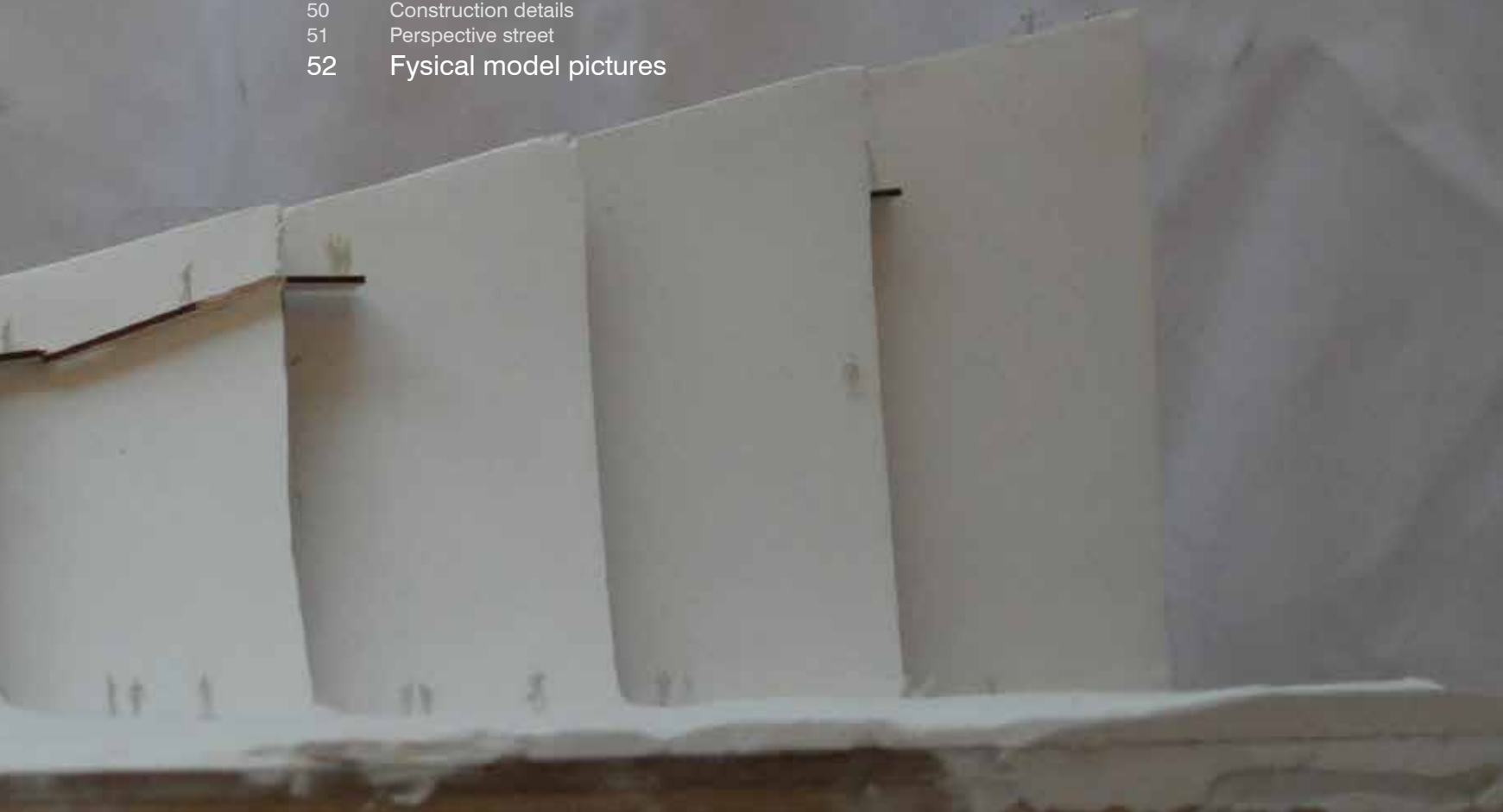


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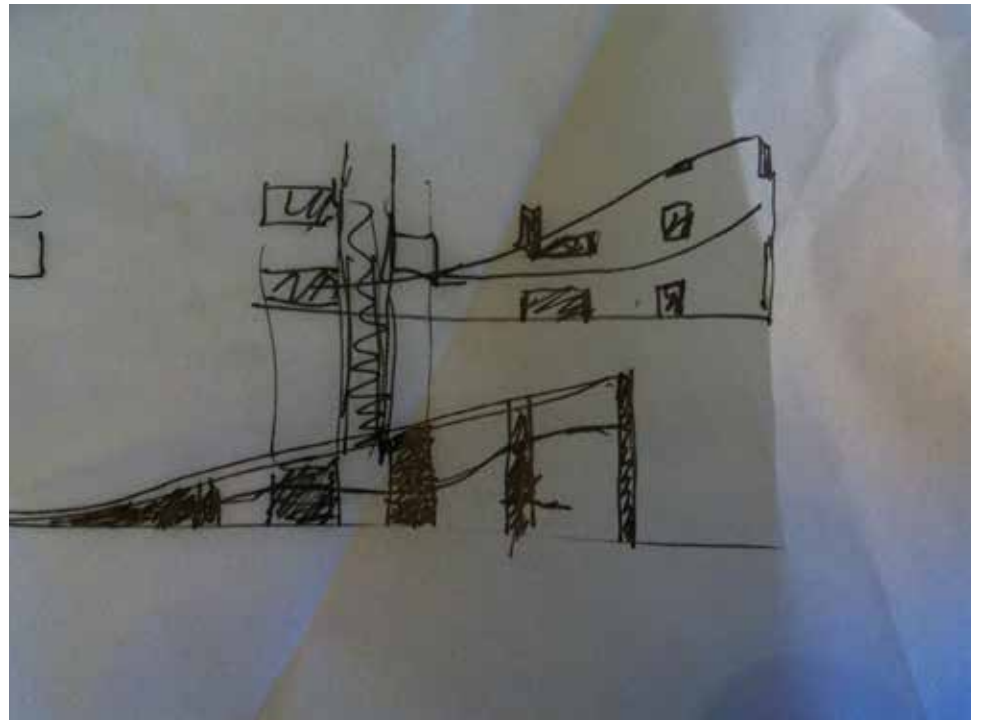
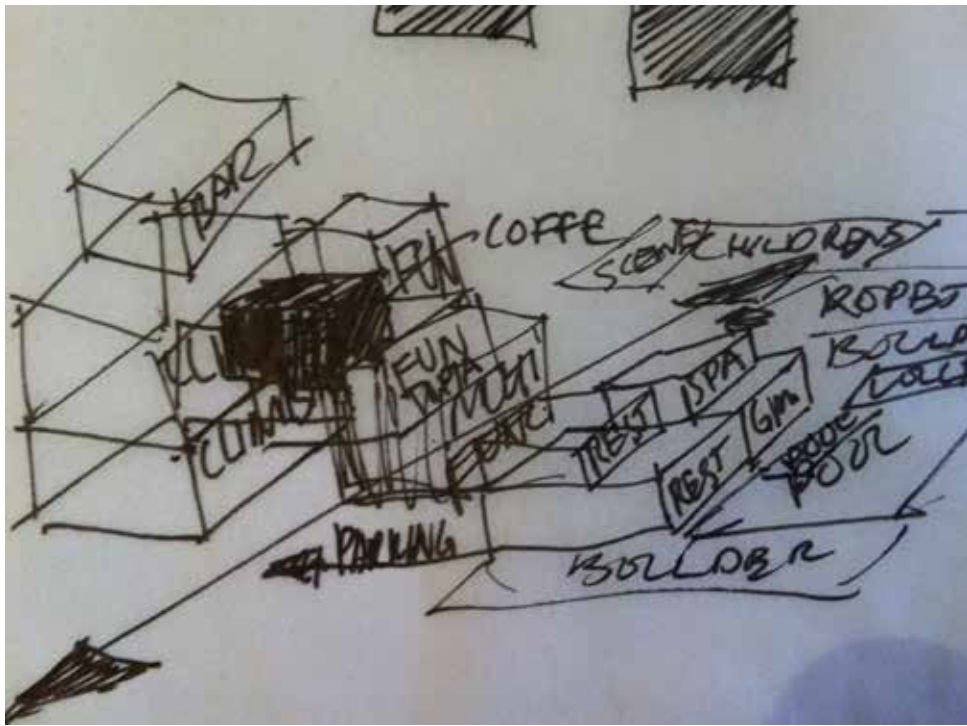


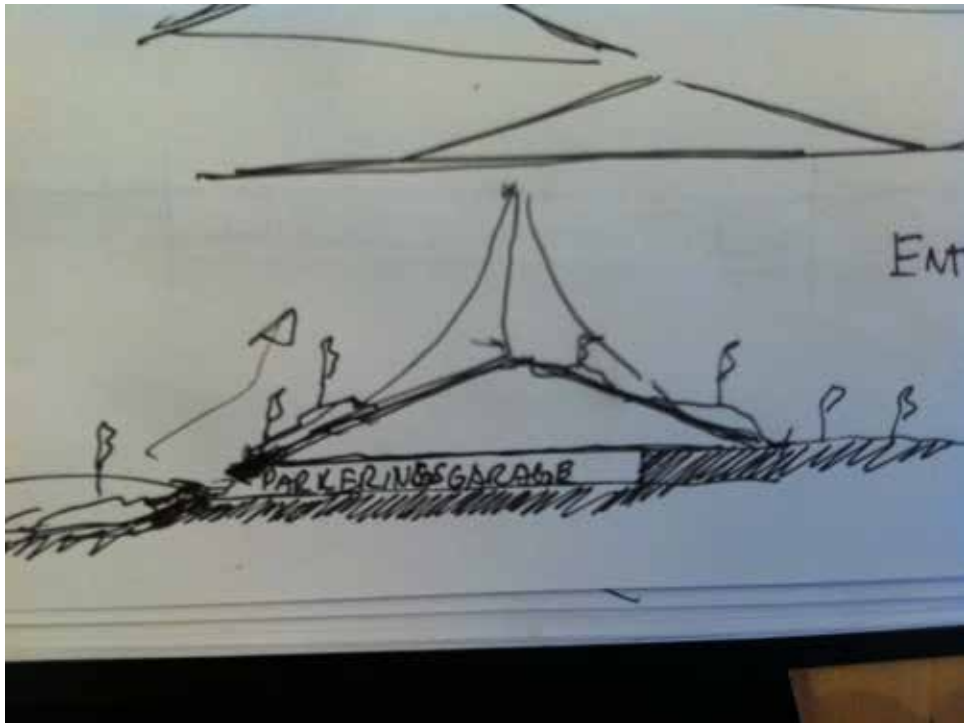
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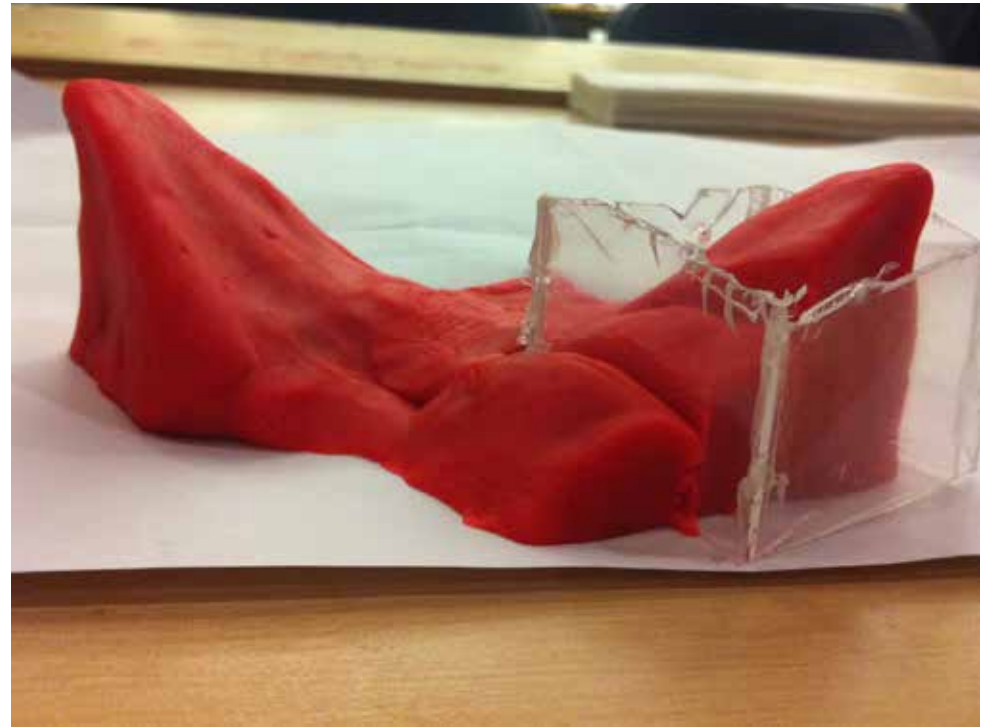
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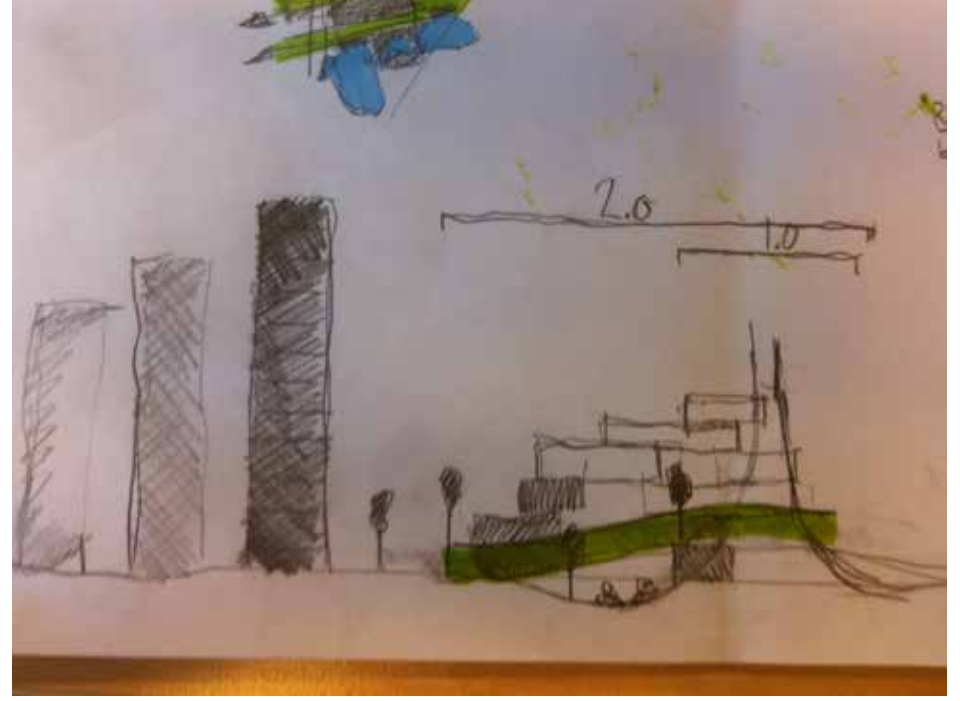
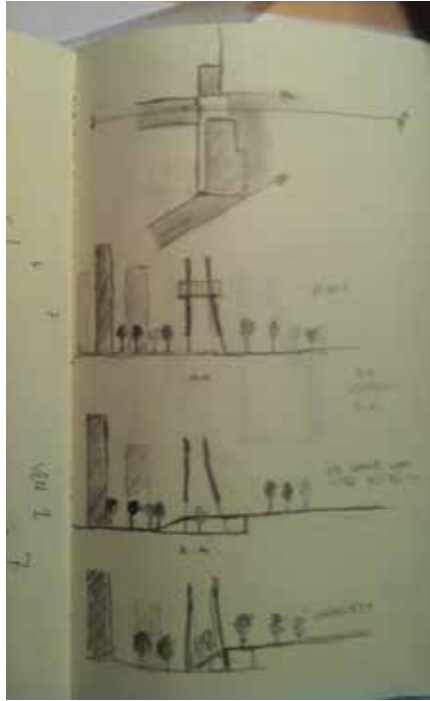
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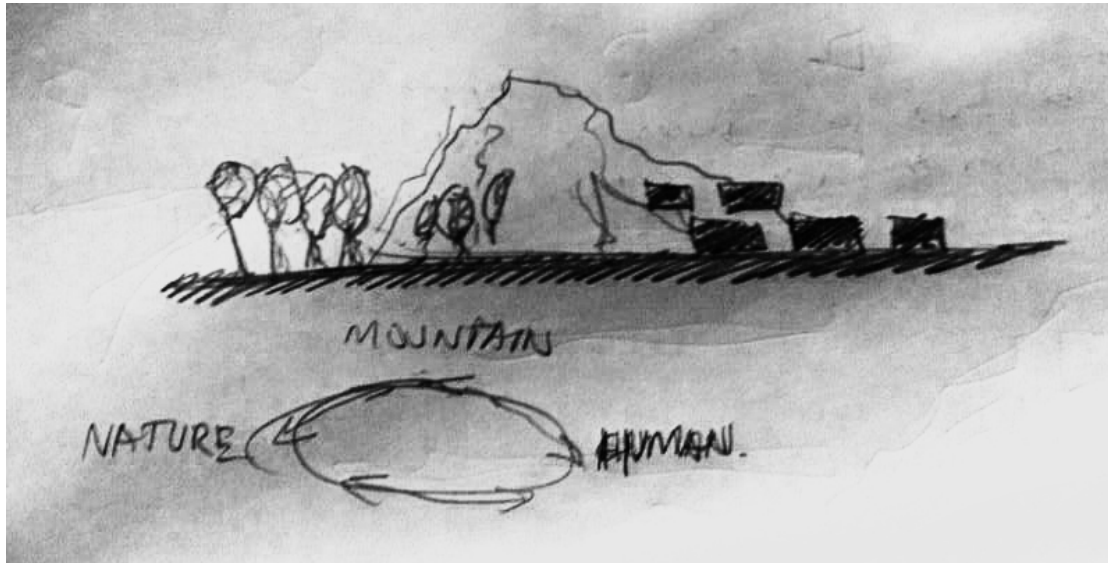
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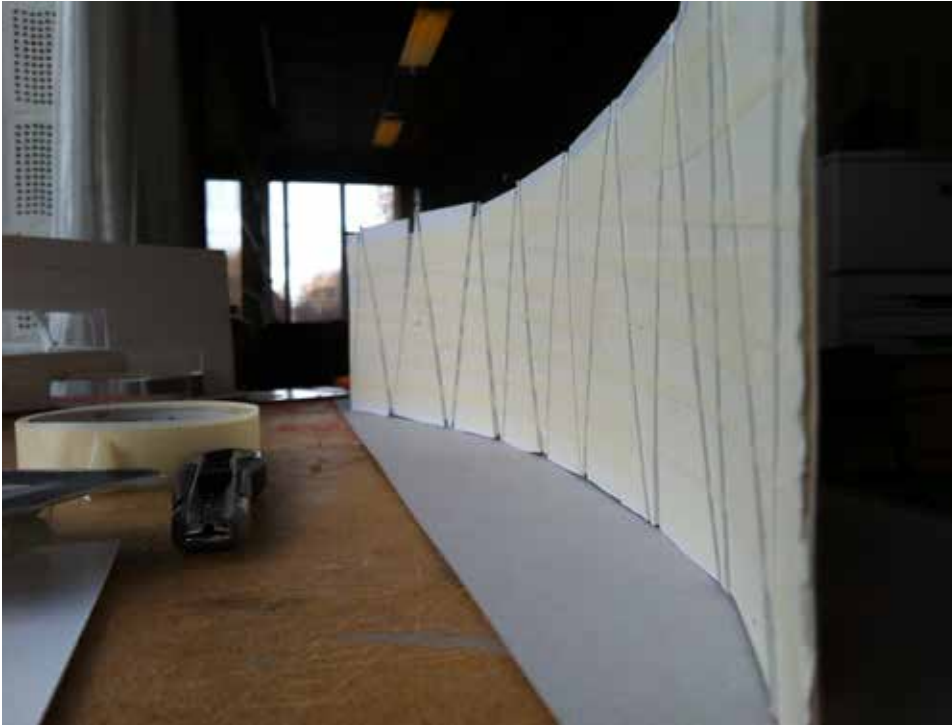






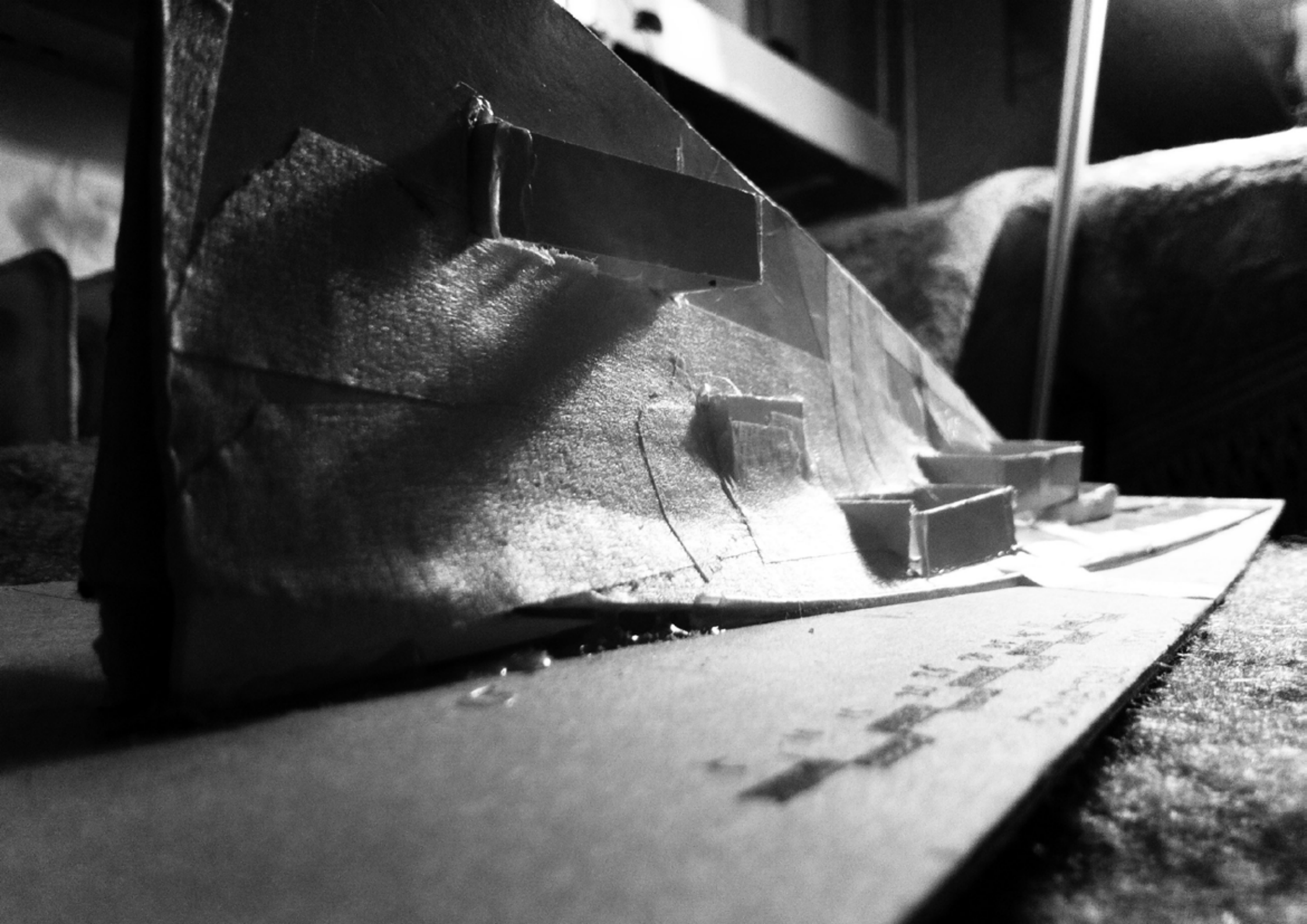


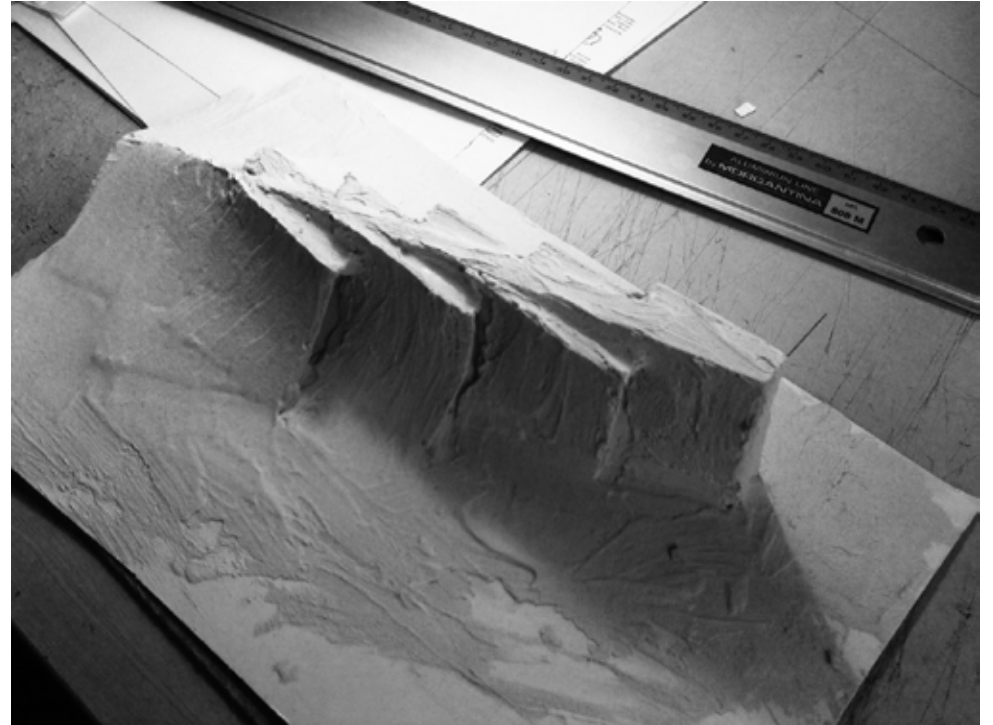


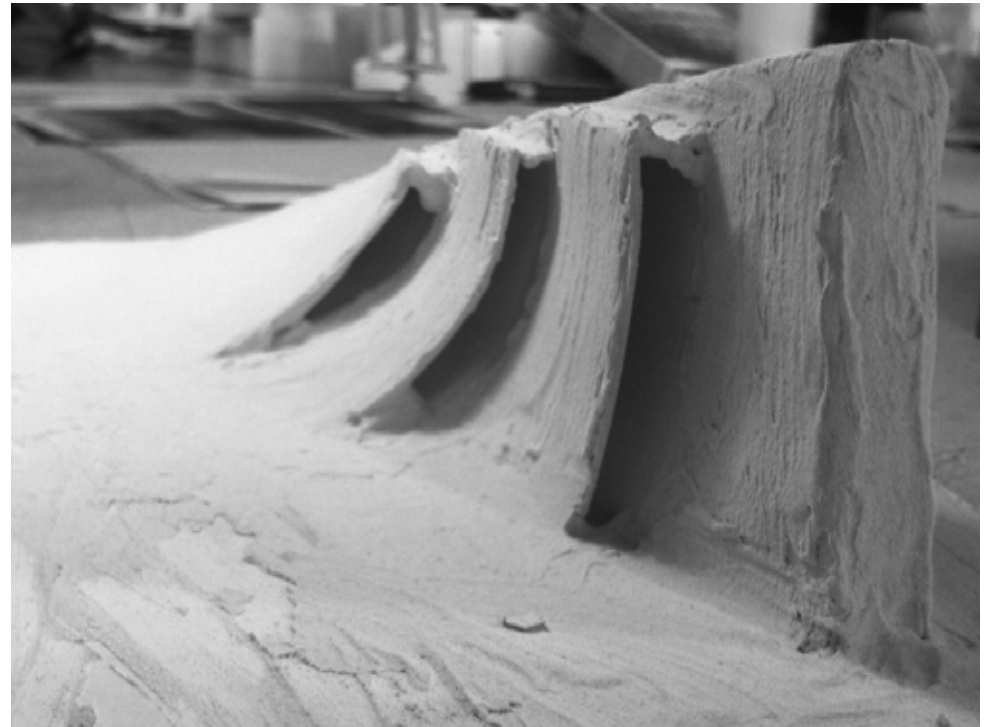
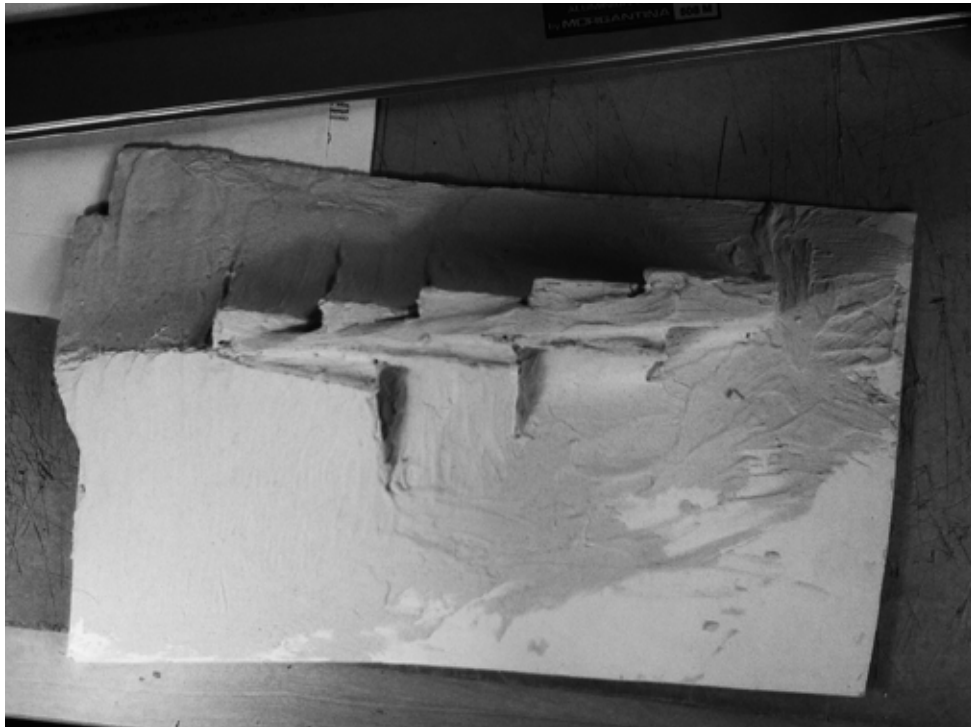




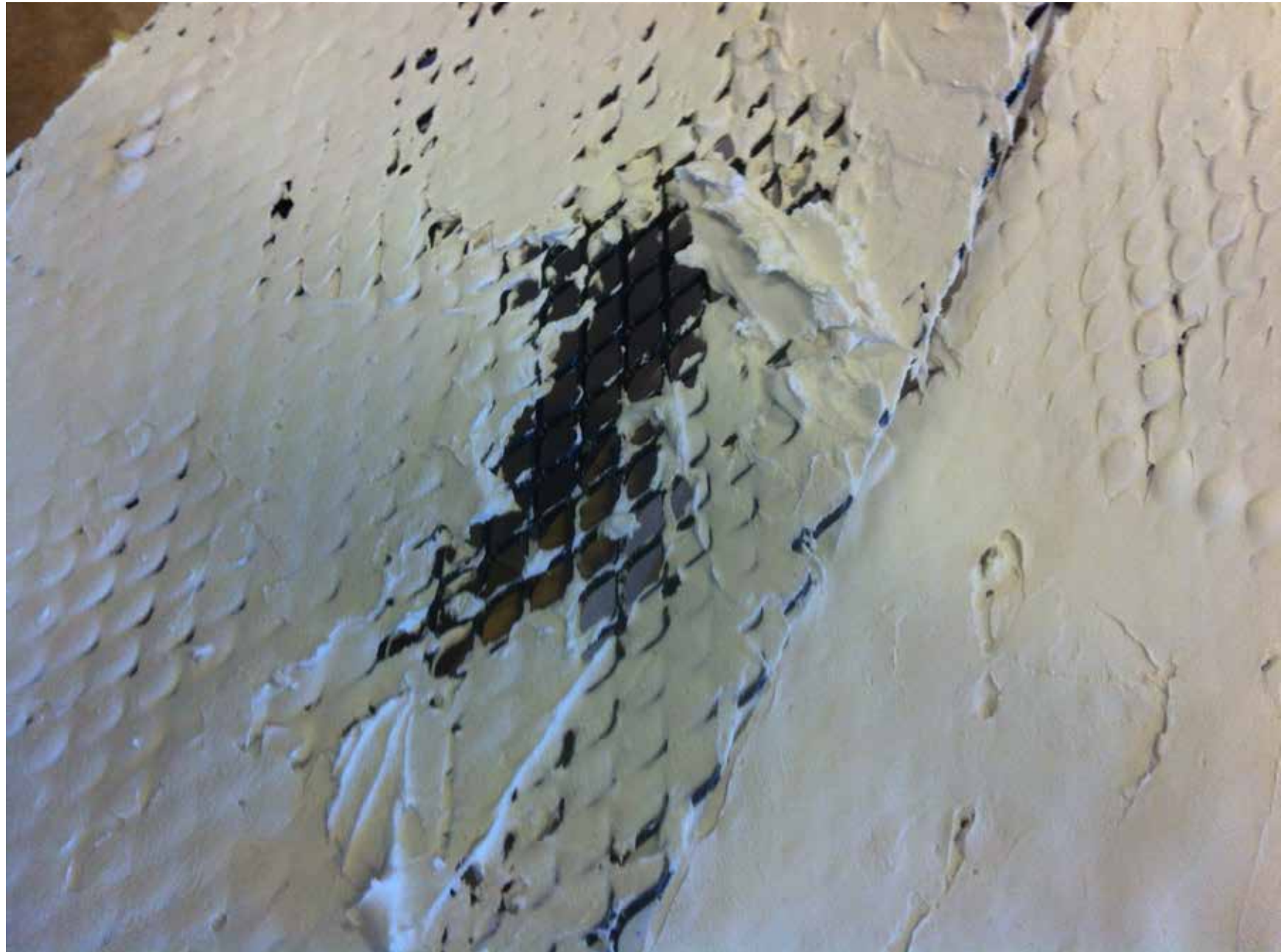


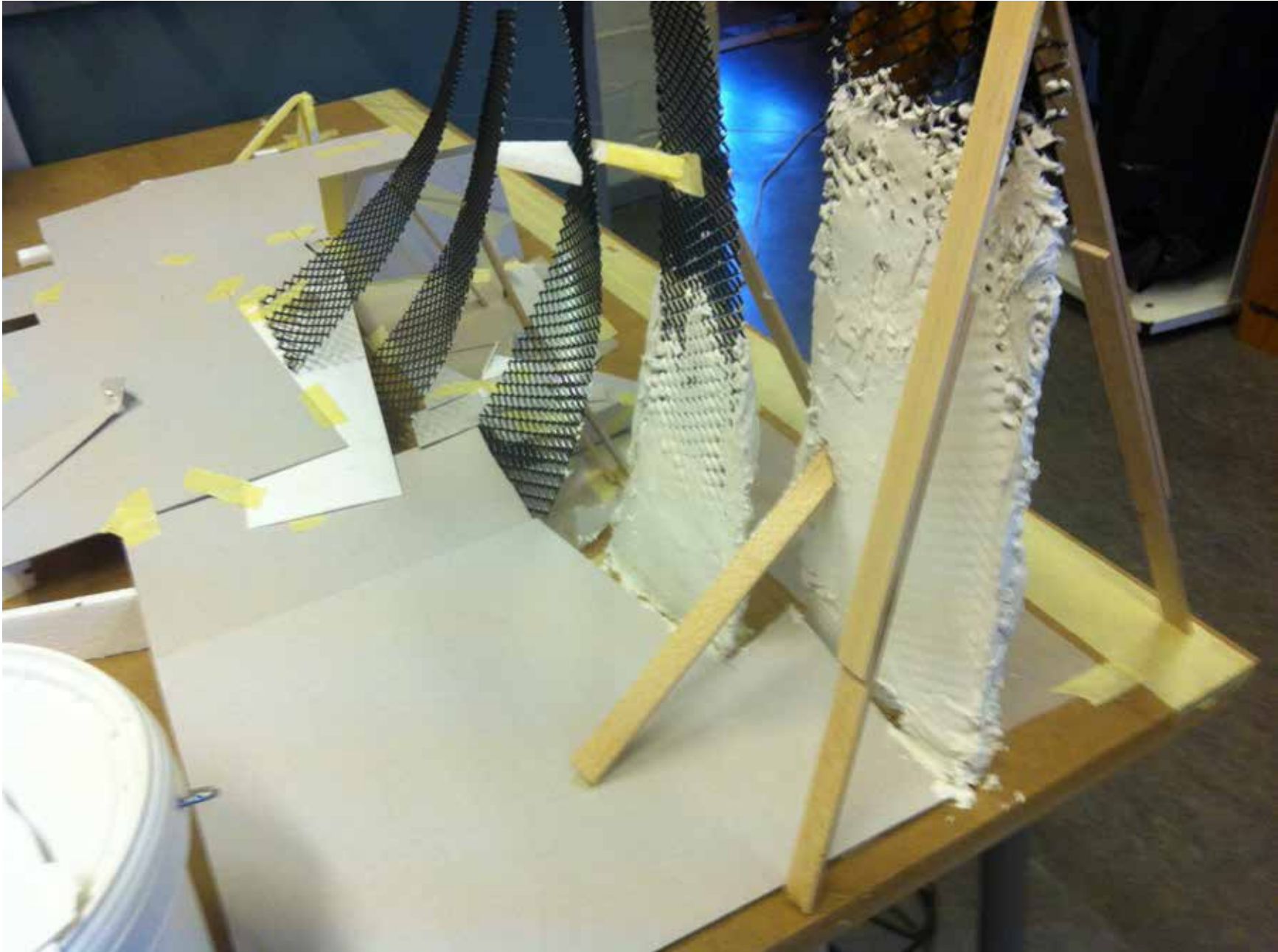
















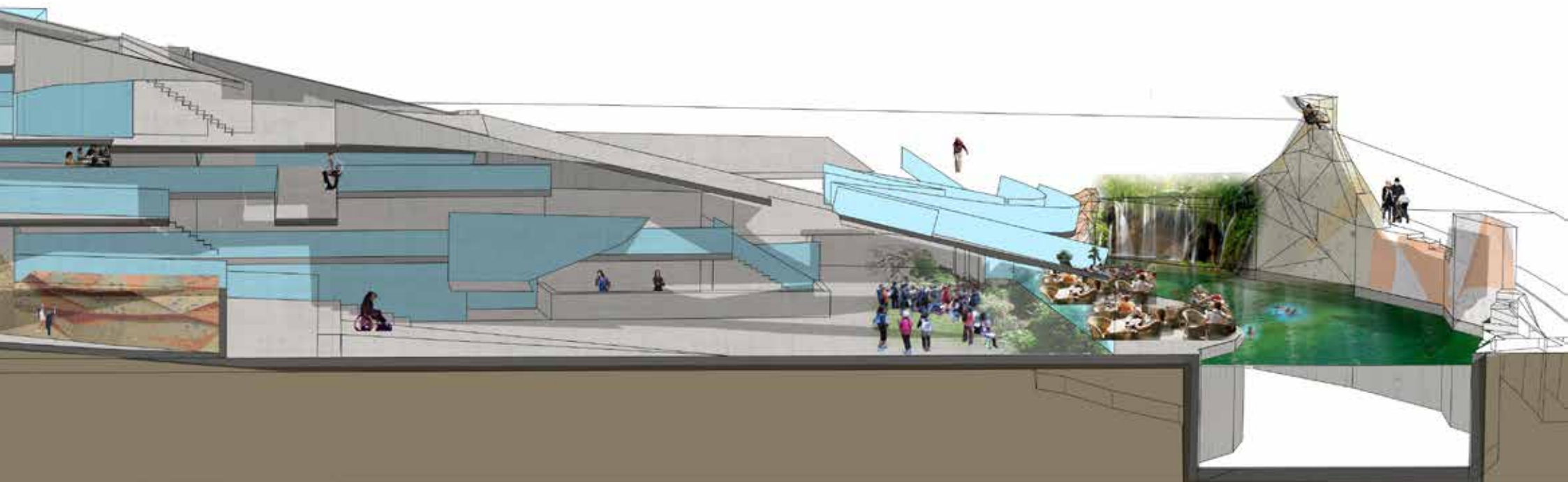


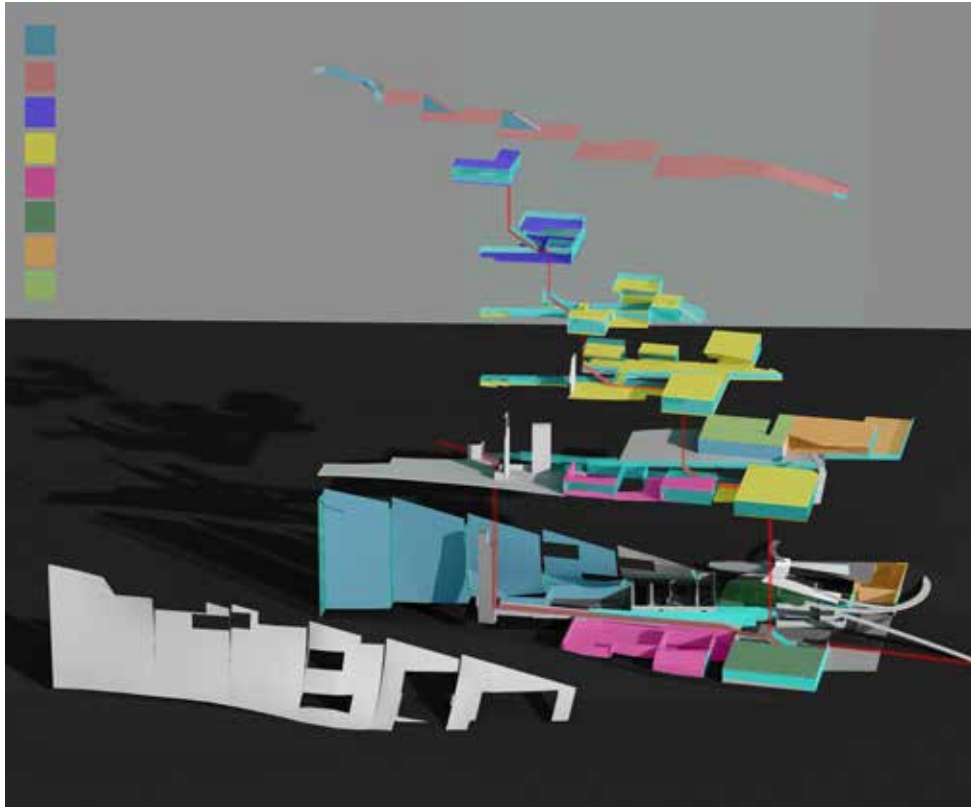


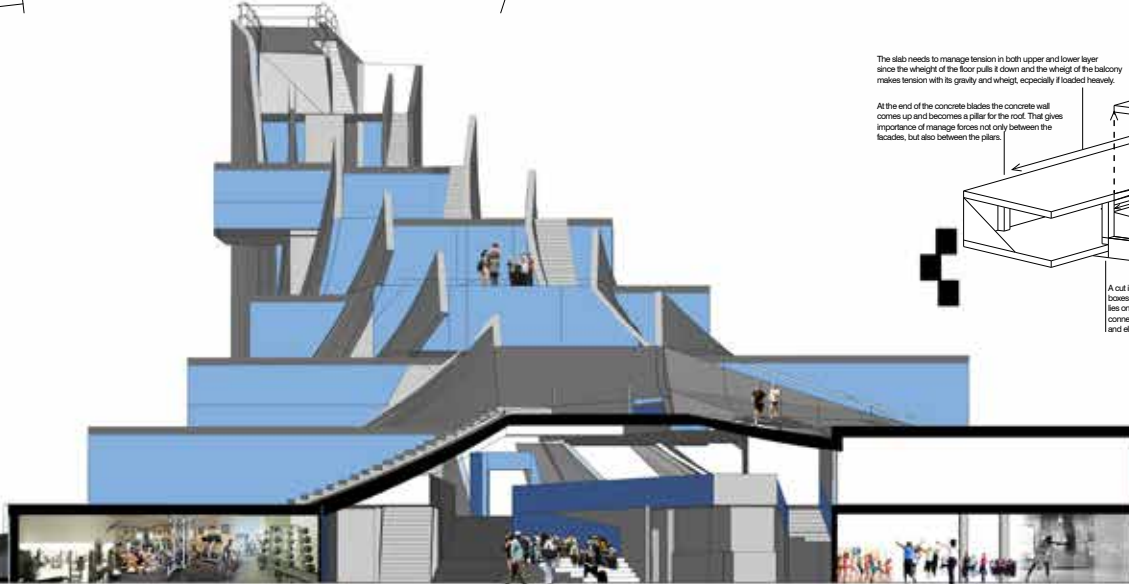
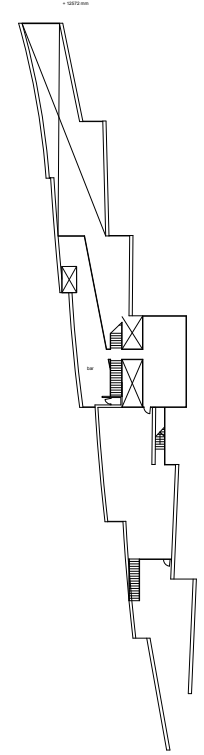
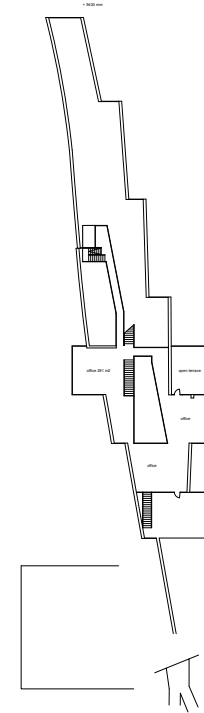
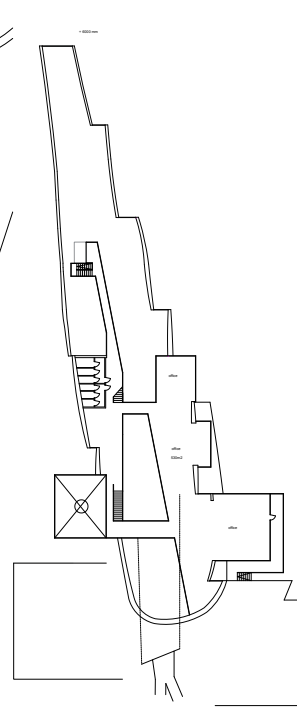
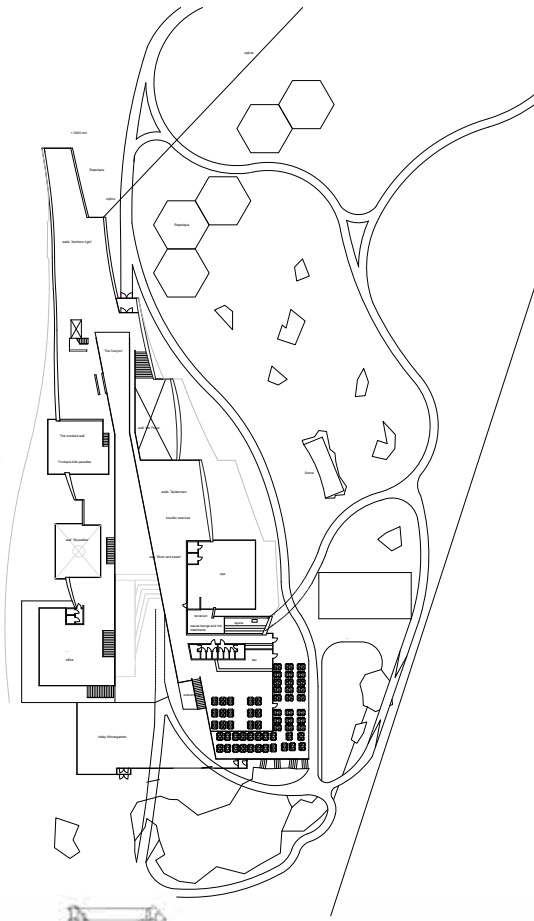
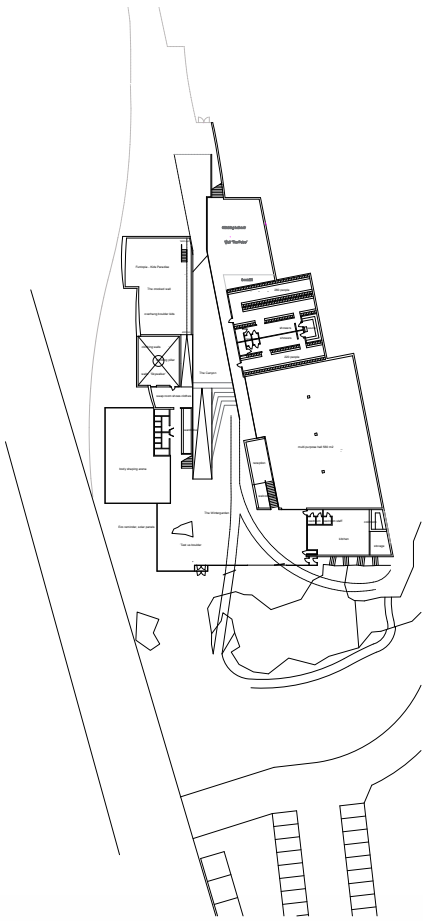




Shape UP v.1.0 BETA

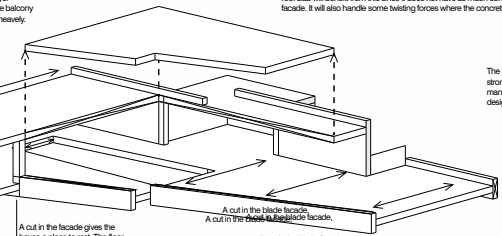






The slab needs to manage tension in both upper and lower layer since the weight of the floor pulls it down and the weight of the balcony makes tension with its gravity and weight, especially if loaded heavily.

At the end of the concrete blades the concrete wall comes up and becomes a pillar for the roof. That gives importance of manage forces not only between the facades, but also between the pillars.

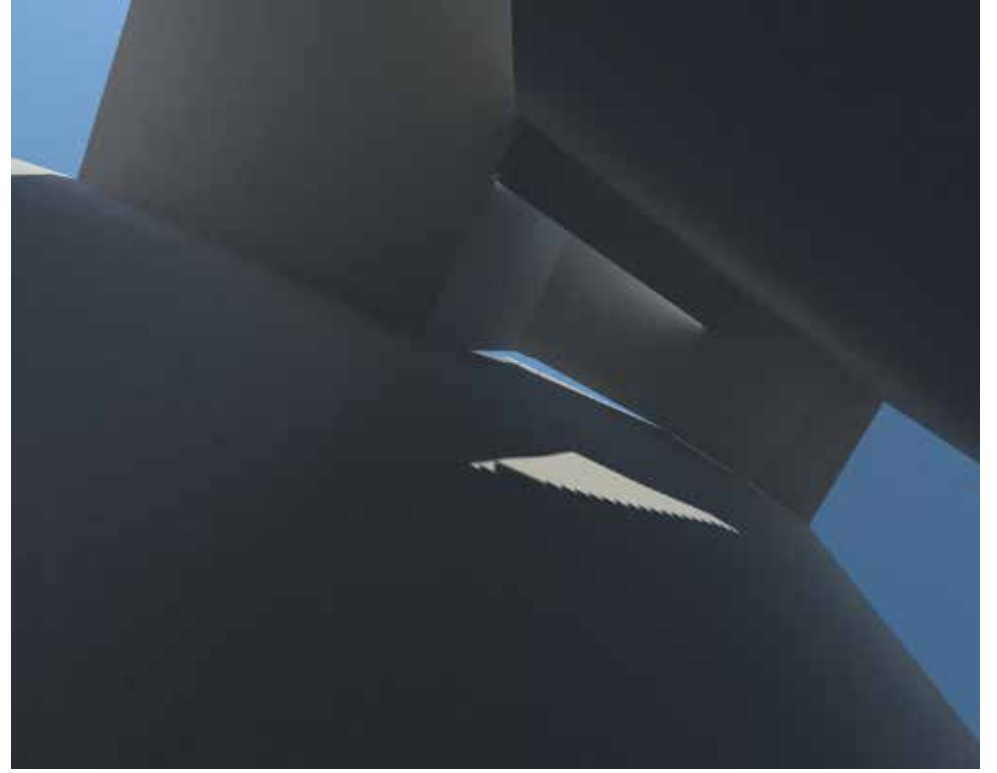
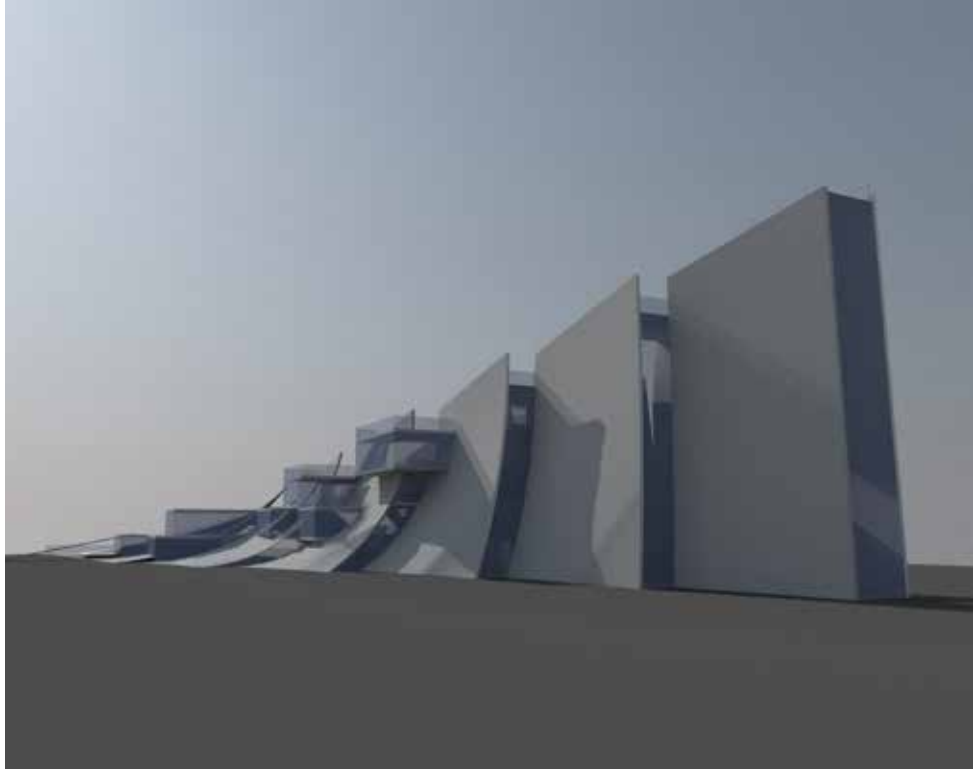


A cut in the facade gives the boxes a place to rest. The floor lies on the cut, and there connections for the restrooms and electricity can be made.

A cut in the blade facade. A cut in the blade facade. A cut in the blade facade.

The boxes and balconies have concrete floors and concrete roof slabs with reinforcement to manage the overhang of maximum 6 meters, and also manage the gap in between the concrete facades. The roof is not supported by the floor, but from the outer shell. The roof is not hanging, but resting on niches, loading forces down to the ground through the concrete. The floors and roofs reaches from both sides of the outer construction, which gives both the outer construction stability and the floors and roof. Connecting the floors between both facades will take away some issues of the twisting in the point of attachment in the facade. Especially the roof slab will benefit from this since it does not have as much connection area to the outer facade. It will also handle some twisting forces where the concrete walls meets the ground.

The facade will have to be stronger in some places, to manage the overhang that the design suggests.





Shape UP





Background

Last year (2013) Walltopia - a world leading manufacturer of artificial climbing walls and climbing holds, announced that they would finally build their new headquarters. The idea was to build something that would host a combination of activities as well as offices for people working on designing, engineering and selling climbing walls.

The aim of the Center is to unite many popular activities in just one place, next to a major underground station. Avoiding the traveling between different locations, the Center will save time for people to invest in themselves doing sports, resting, networking, drinks and food or just having fun with friends.

Shape UP

Mladost new venue rising to the sky. Right from the metro station the eye meets a characteristic sharp, but curved shape. Intriguing. The façade facing the city is in pine, at first glance, massive stacked laminated beams raised on a steel structure. But if you look again a playful longitudinal window setting appears, contributes to the massive impression.

The creation of something that is both nature and urban, meeting the scale of Mladost, meeting the scale of the beautiful Vitosha mountains.

The reinforced steel posts along the way draws the line for the city, which meets the nature. The urban context meeting the park in the housing. The contrast is in focus.

Mladost new meetingplace rise from the ground. The

massive concrete blades penetrate the earth. The project looks into how to experience a built environment for movement and moving in nature - the mountain. It is developed along questions of spatial experiences, movement, relation of architecture to nature, city to environment.

Mladost III

Mladost, a fairly poor area of Sofia, is given an opportunity to experience climbing, sports and networking in their own back yard. The buildings aim is to welcome everyone.

Architecture in Nature

From the competition site, Vitosha Mountains lay in the sightline, just in between the worn out concrete constructions. The man built cover and the bare nature are two extremes - Nature, by just being nature and our houses, to isolate us from nature's elements. The cover and the element, can they be one? That contrast is the most interesting at Mladost III; therefore I will use it in my project. How can this opposition be translated into one building?

Mountain and Climbing

Through out history, climbing high peaks has always fascinated mankind. This fascination will always be present in this project. At first glance at a great distance - the structure invites for adventure. When you get closer, you are feeling the height and power. When you are inside, you will feel space and distances. The heights related to your own body and movement.

Main design qualities

The structure is offering an experience of natural climbing environments

The great view to Vitosha Mountains in the south from the bar, terrace connects the architectural experience and the natural. From the bar you get 360 degree to Mladost, inside and outside climbing walls, the park and Vitosha mountain. As much volumes, facades, roofs and floors as possible are used for active purposes. The structure itself is used for climbing, scene area, balconies, overhang for climbing and more.

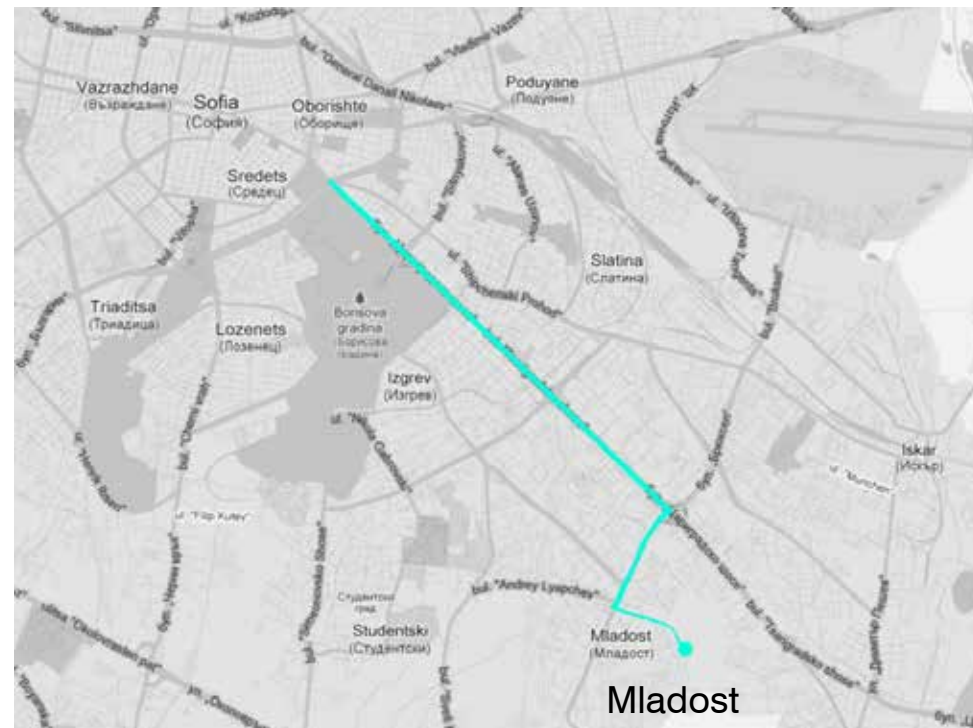
The area

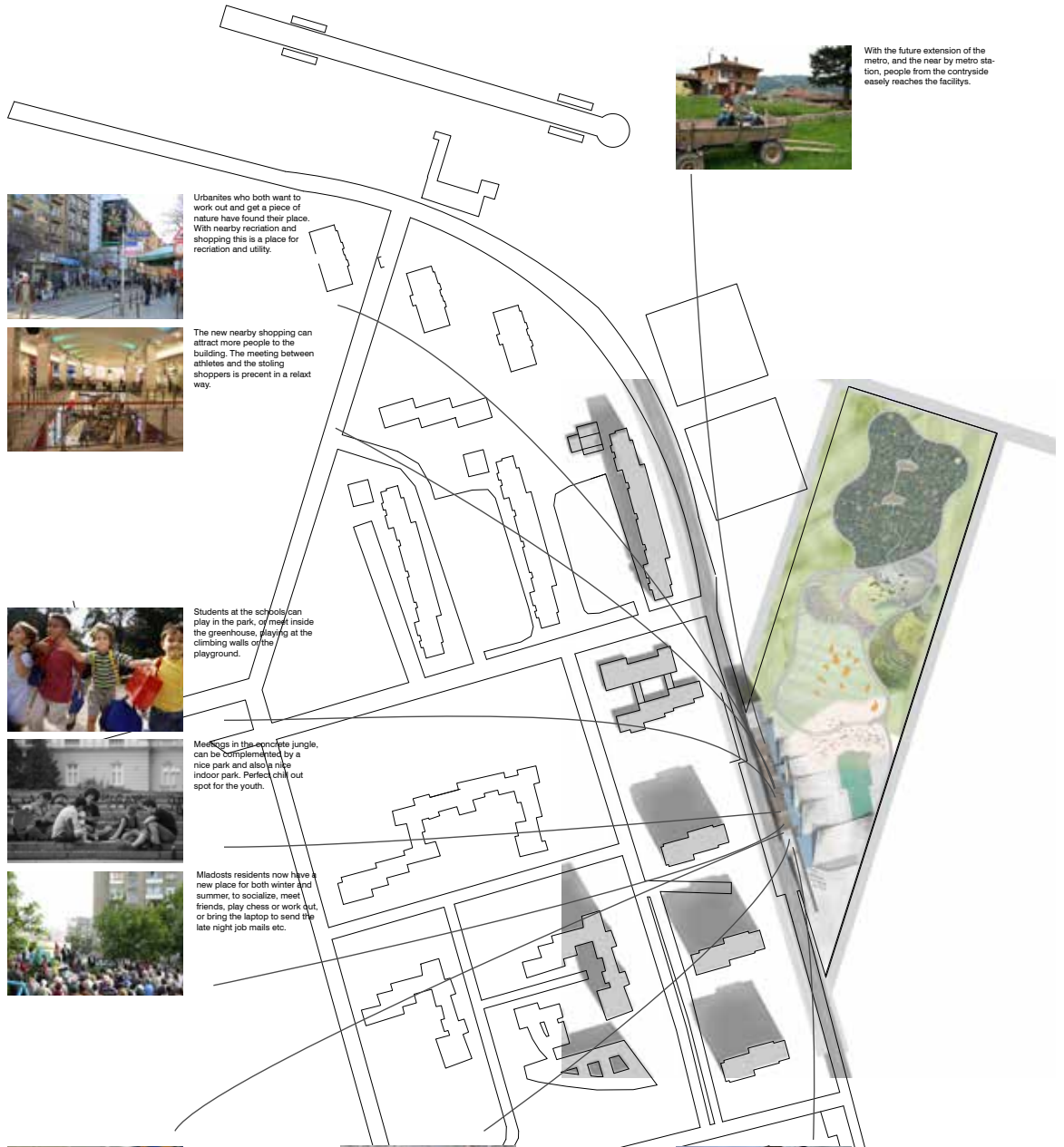
Sofia is growing and sprawling along the metro routes. Mladost is a predominantly residential area in the southeast of Sofia.

In Mladost, the metro stops right at the end of the built environment.

The most common house type is approximately 14-storey slab blocks and some 23-storey tower blocks, in concrete. Between the houses, there are empty flat plans with grass and walkways. The condition of the houses varies, but most of them are in a really bad shape. Cracks in the façade, balconies and windows display the area's lack of resources and finances. The homemade solutions for windows and repaired balconies suggest that people control their own apartments. On the ground floor you can find smaller shops, but more often they are pure residential buildings.







With the future extension of the metro, and the near by metro station, people from the countryside easily reaches the facilities.



Urbanites who both want to work out and get a piece of nature have found their place. With nearby recreation and shopping this is a place for recreation and utility.



The new nearby shopping can attract more people to the building. The meeting between athletes and the strolling shoppers is present in a relaxed way.



Students at the schools can play in the park or meet inside the greenhouse, playing at the climbing walls or the playground.



Meetings in the concrete jungle, can be complemented by a nice park and also a nice indoor park. Perfect chill out spot for the youth.



Mladost residents now have a new place for both winter and summer, to socialize, meet friends, play chess or work out, or bring the laptop to send the late night job mails etc.



All Sofias climbing enthusiasts now have their new Mecca. Hundreds vertical meters and a summer land with "boulder fungi" in the park and on exterior roof and park facade. Climbing in all forms all year round.



Ice skating rink on the lake and also a sledding hill



In wintertime alpinists can perfecting their technique on the frozen walls on the facade. There are artificial ice climbing walls, even for the beginners.



The expedition towards the summit.
Climbing the Ridge, finding the
ways with a variety of experiences,
look outs and exiting hights.

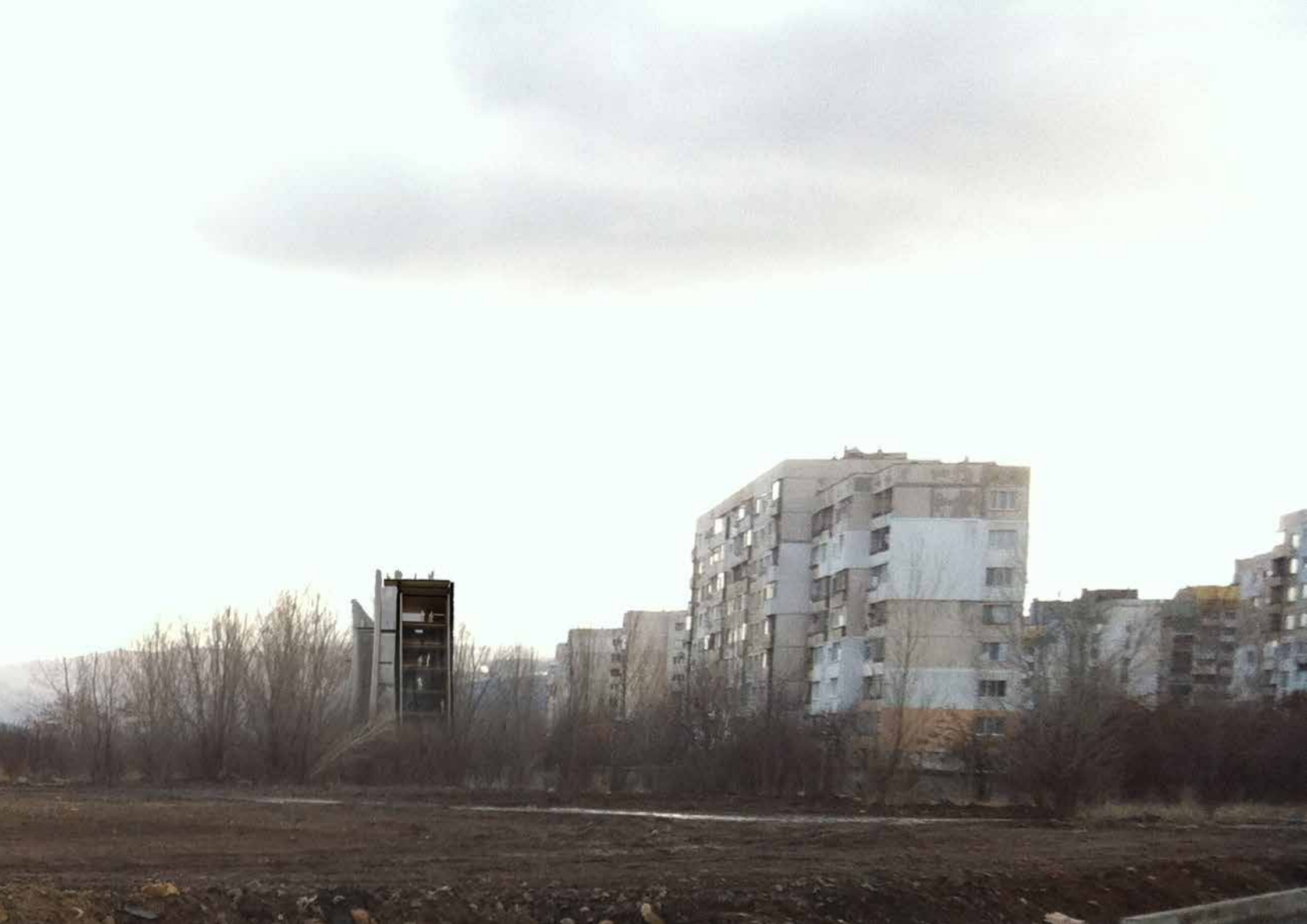




Different levels for dynamic experience. The indoor wood facade have large openings with windows, to let the room and light inside the programatic volume. The windows are placed in a seemingly random pattern to enhance the massiveness in the wood.

Panorama view of the Site, with
Vitoshas mountainridge in the
background. Looking to the south.



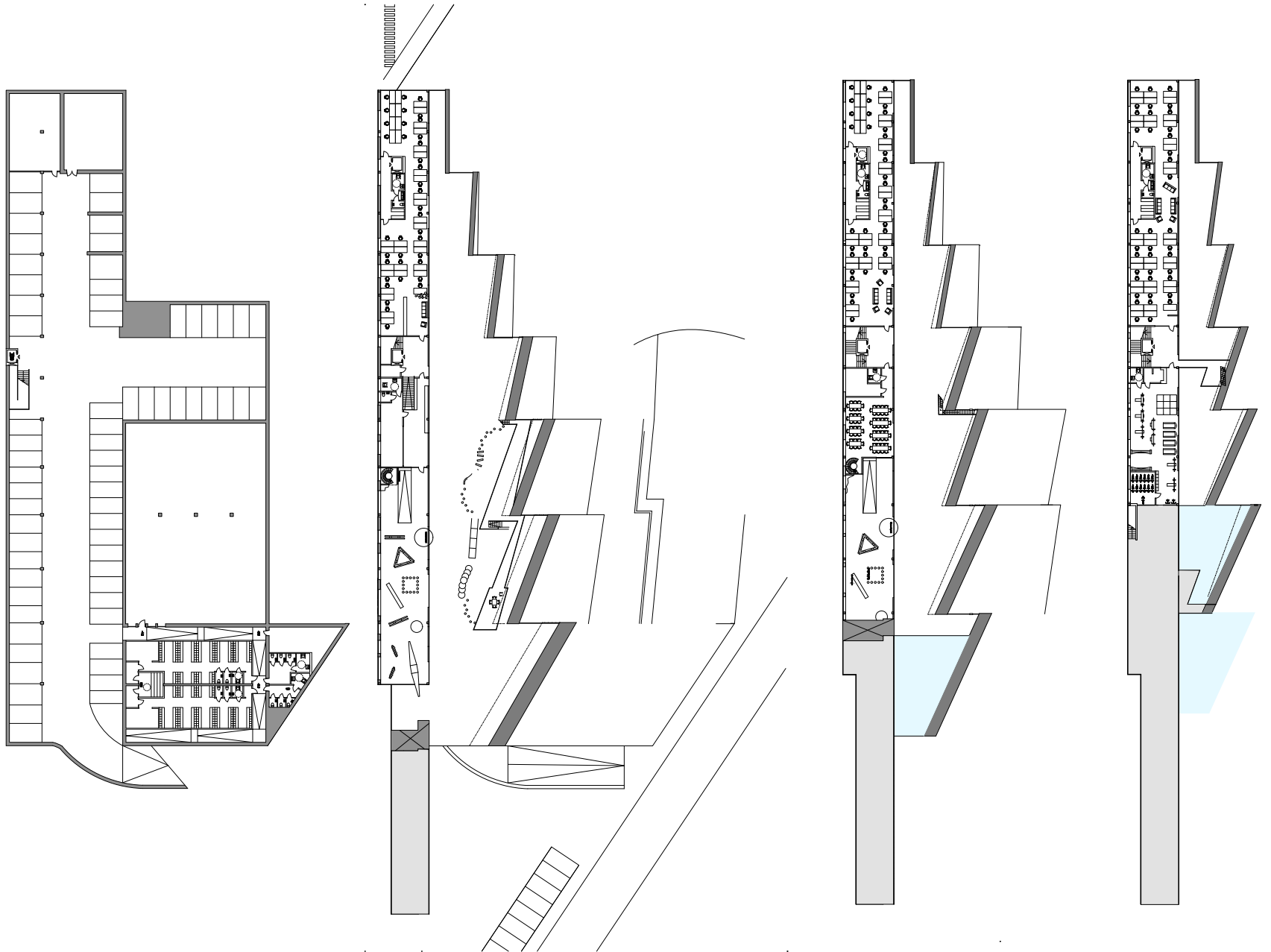


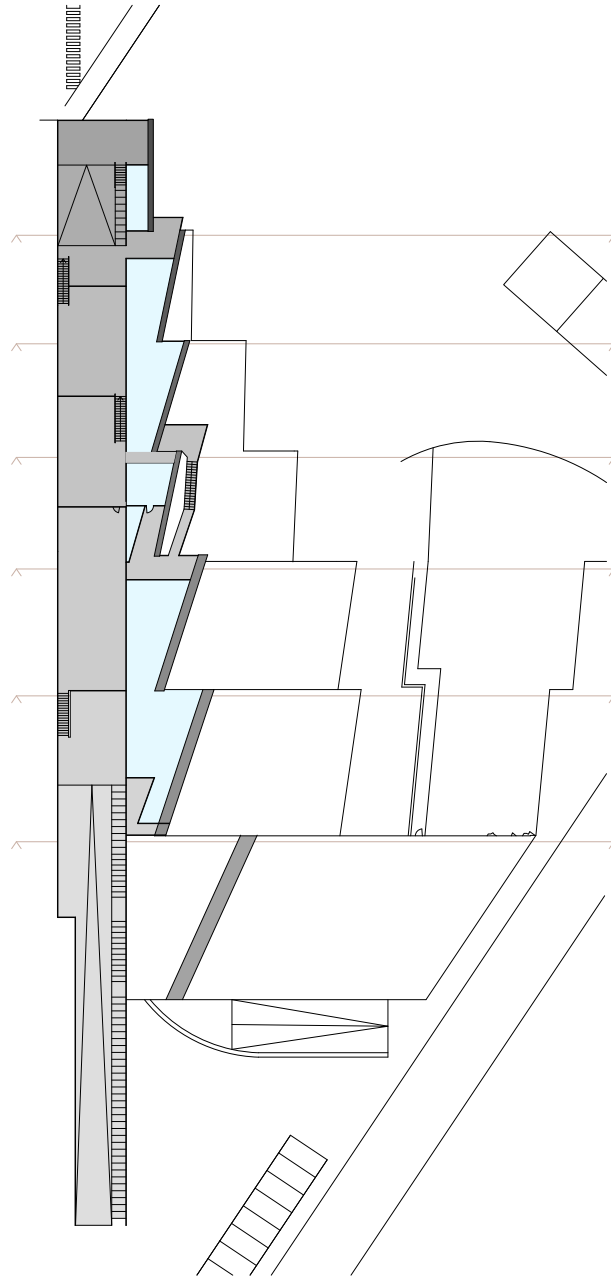
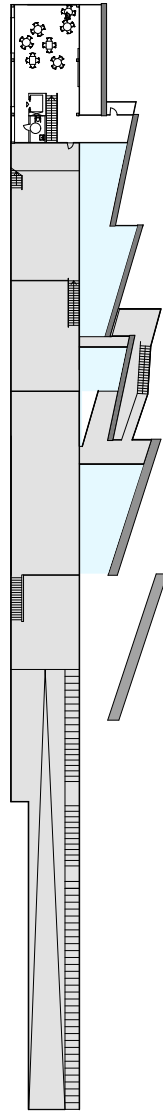
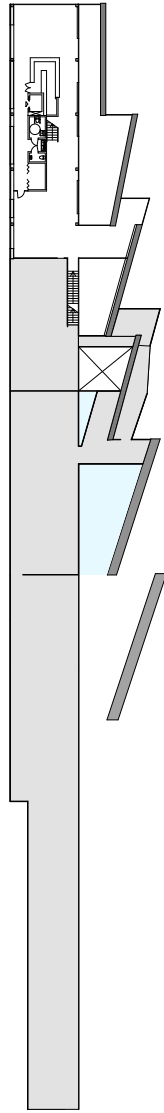
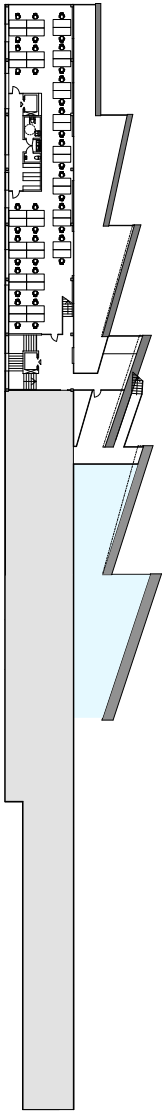
Plan in aquarelle, org. 1:100
Entrance floor

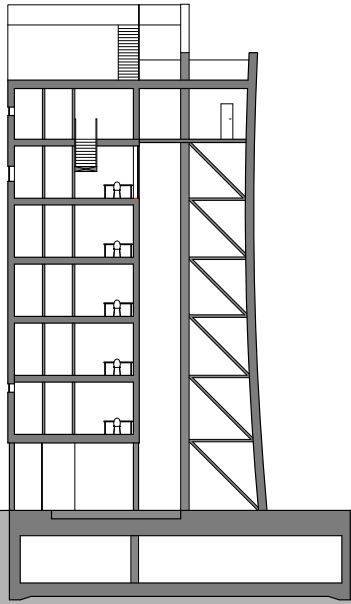




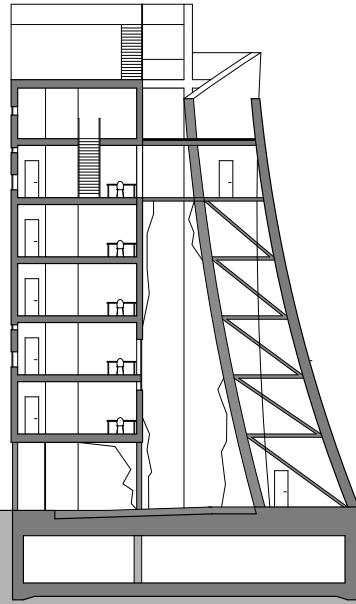
Plans 1:400
Basement,
2nd-8th



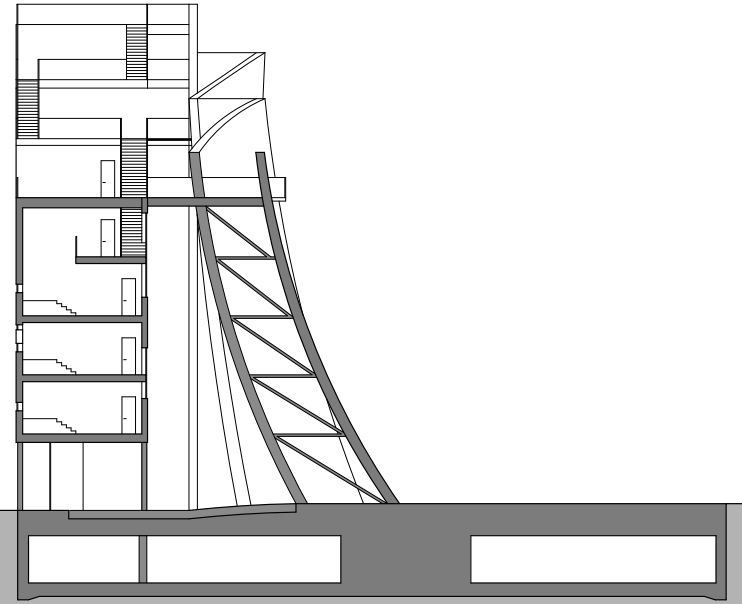




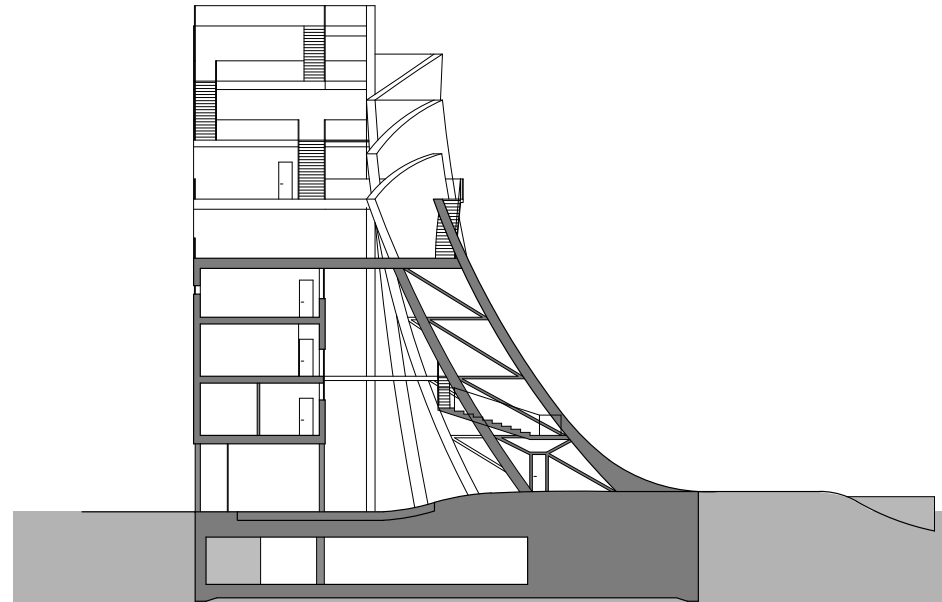
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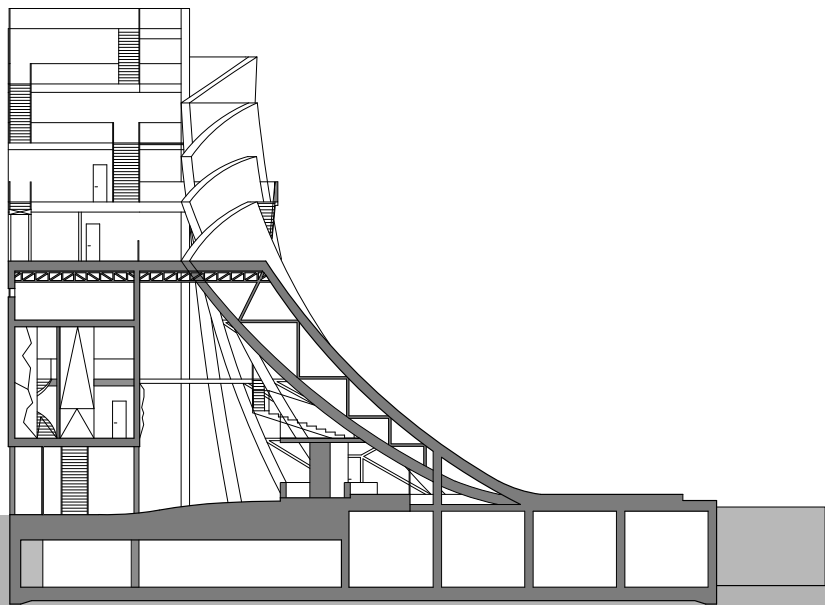
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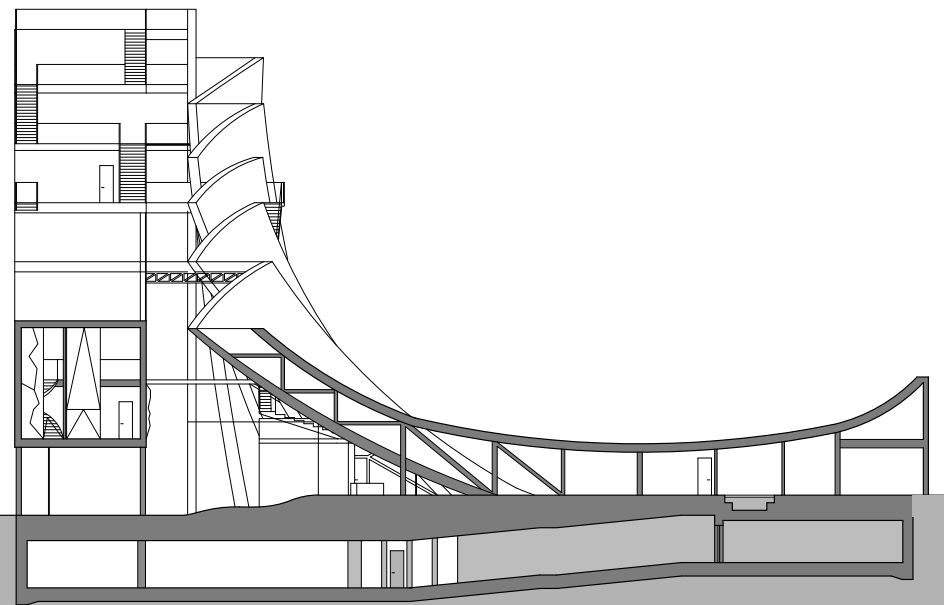
C-C



D-D



E-E



F-F





