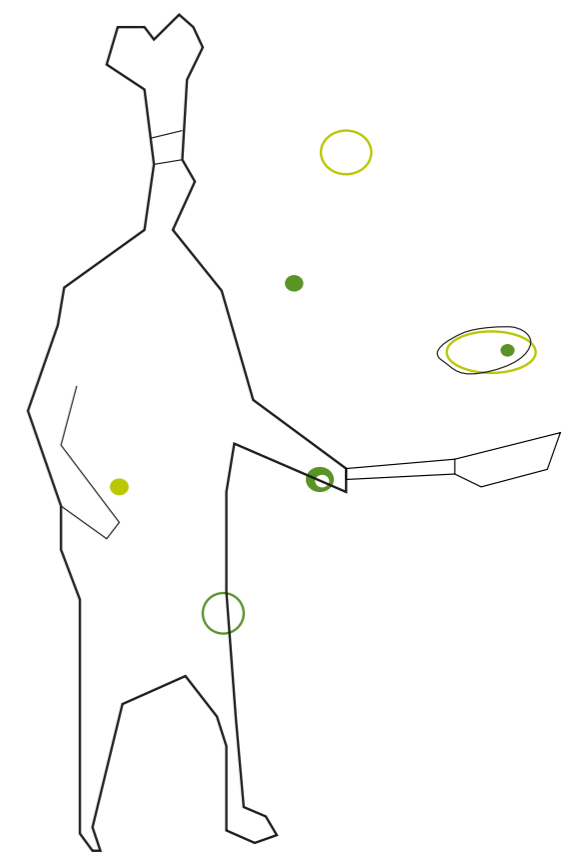


# OSLO FOOD LAB

culinary institute and restaurant

Vilde Aspen Helvik \_ Master of Architecture \_ NTNU \_ spring 2012

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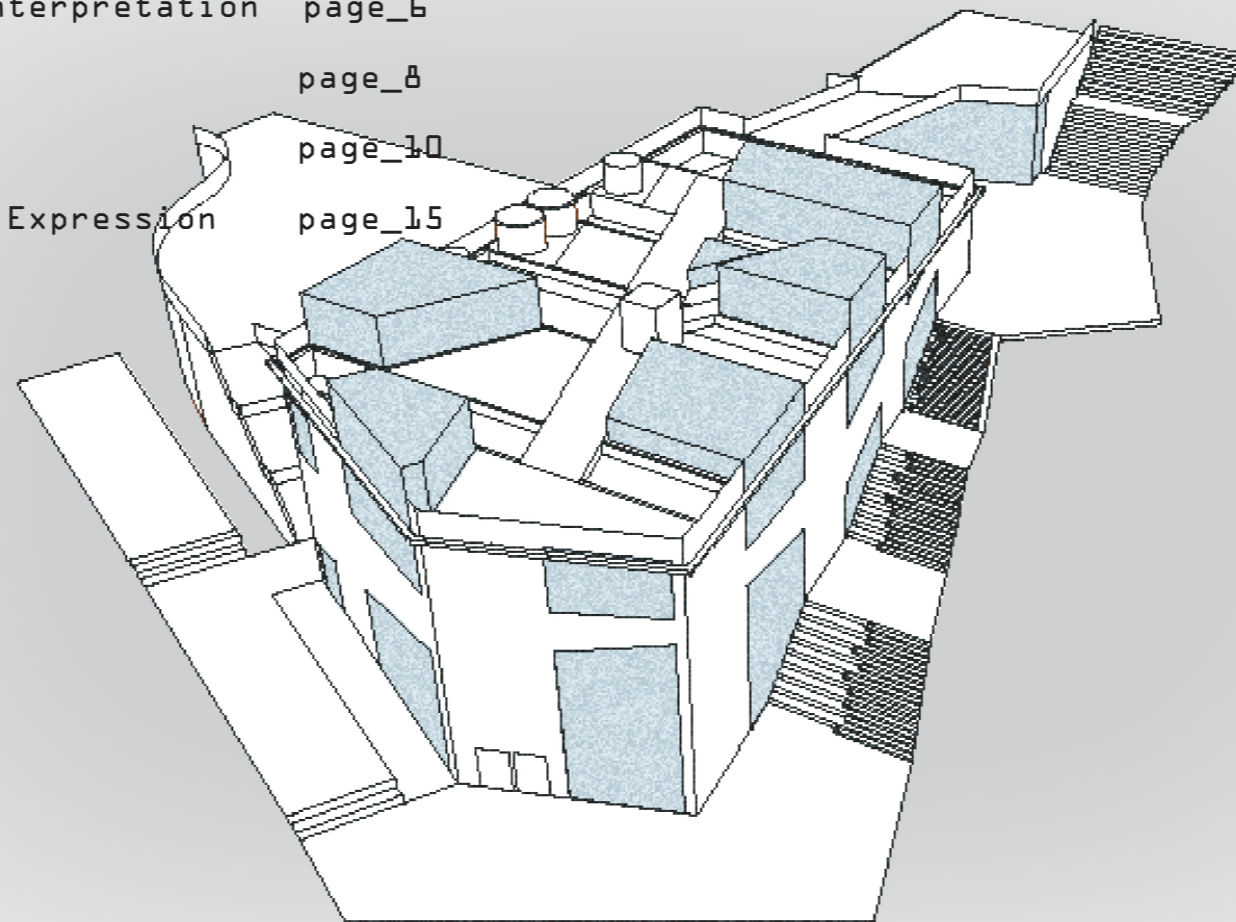
CONTENTS\_

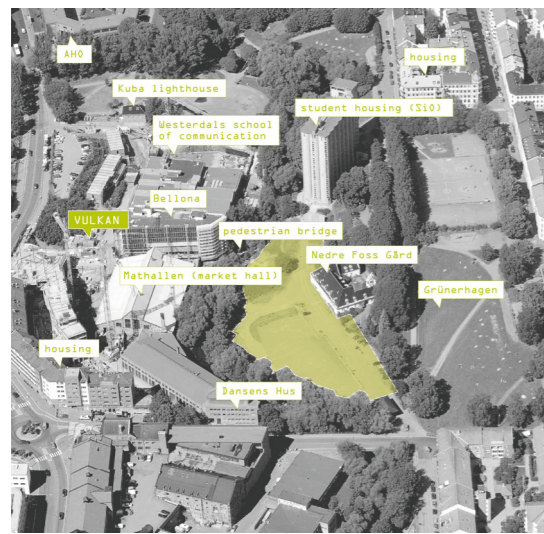
Site / Interpretation page\_6

Concept page\_8

Project page\_10

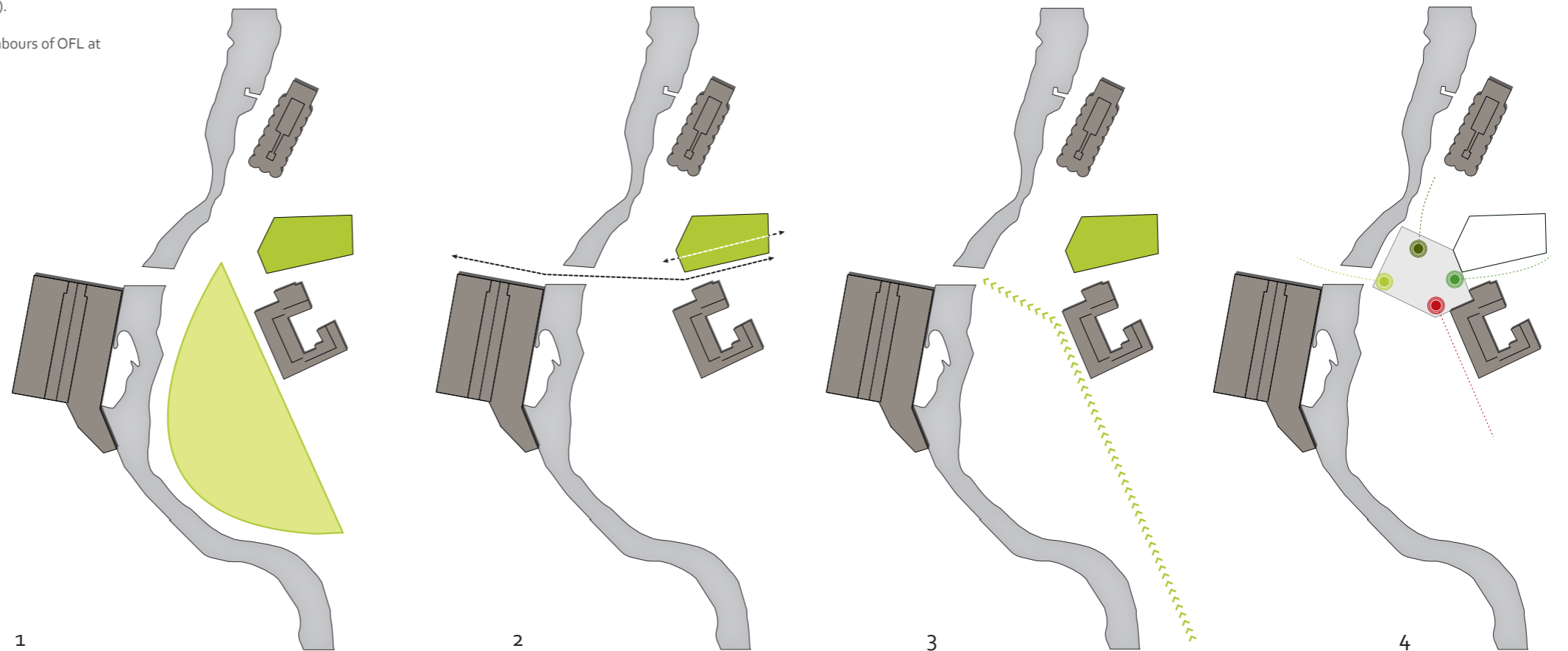
Detail / Expression page\_15





Above: The site situated between two churches and two different parts of the city (Grünerløkka and St.Hanshaugen).

Lerft: The neighbours of OFL at Nedre Foss.



SITE / INTERPRETATION

1\_ Connecting Vulkan with OFL. The project placed next to the visual axis. Liberated space for farmers market, events and cultivation.

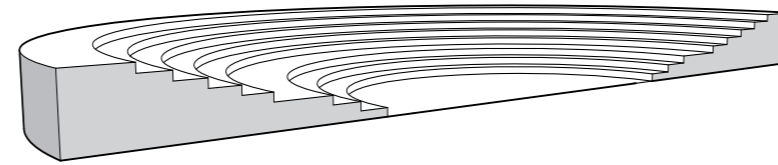
2\_ Creating a street that leads people through the project and over the pedestrian bridge.

3\_ The building enhances and connects to the visual axis across the site.

4\_ Main directions through the site causes a natural placement of a square.

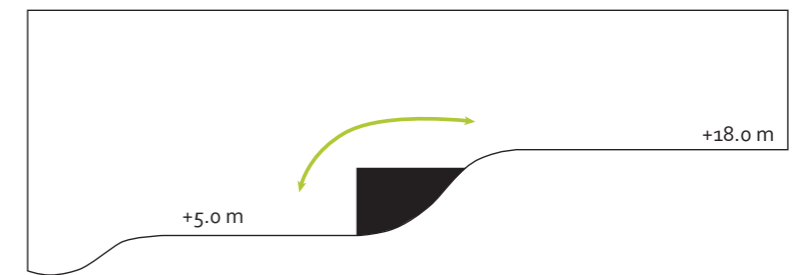


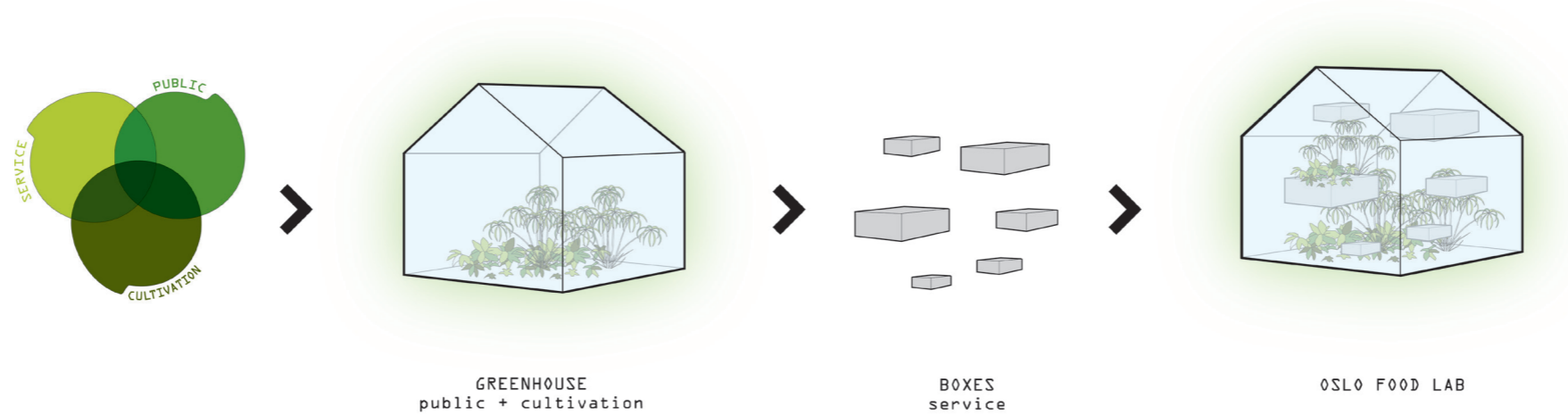
Metaphor: The Amphi Theatre



The natural inclination at the site made it obvious to work with the amphi theatre as a methaphor. The landscape slopes down towards an activity plaza.

Inclination of 13.0 meters from lower point to upper point - The project connects the levels.





### OSLO FOOD LAB

“Food Lab” is a concept for a cooking school and a restaurant joined together into one bigger complex, stressing a fusion between the academic (the school and the students), the professional (the restaurant and the chefs) and the public (the visitors).

The design process was focused on working with “flux”, a word describing the constant changing of people and activities within the building complex. Oslo Food Lab has been designed with the students, the top chefs and the visiting public mass in mind, trying to figure out a way for all of them to enjoy their stay at the food lab. It’s to be pointed out that the building tries to serve the traditional needs of a culinary academy (such as storage, good kitchen areas etc.) as well as more experimental areas for laboratory work. This creates academics and cultivation to be joined together with the concept

of cooking and enjoying food. The school gives room for workshop-based teaching, where events and cooking classes can be held during night time.

Oslo Food Lab takes part in a complex urban situation and its contribution to the surroundings has been equally important during the design process. The complex tries to connect different surrounding places as well as being a place in itself.

Working with the assignment created an engagement for cultivation within, on and around the building. The diagram on the left explains how the concept of a huge green house becomes Oslo Food Lab.

#### Project Info:

Planned area: about 17 000 sqm  
 Building footprint: 852 sqm, café 171,3 sqm  
 Floors: 4 (+ roof terrace)  
 Total area (building): 2324,3 sqm  
 Additional sqm: Store 143 sqm  
 Sqm cultivation area: outside 2754,9 sqm inside 118 sqm



**PROGRAM**

The large program of activities in Oslo Food Lab has been a challenge and an inspiration for the design. Some facilities have been added such as the laboratory, and some have been taken away. The temporary housing for the chefs has been removed from the program due to the many offers of hotels and apartments in the nearby area. Different visits to schools, restaurants etc. have caused Oslo Food Lab to change a little, and facilities in demand such as a place to hold Farmers Market has been included in the program. In total, the building area has increased due to realizing the real needs of such a complex.

**Molecular gastronomy**

Molecular gastronomy is the chemistry and physics behind the preparation of any dish: for example, why a mayonnaise becomes firm or why a soufflé swells.

If we are able to use the knowledge gained on food preparation, we might find new ways to make healthy food more attractive, we might persuade more people to cook better food and, last but not least, we might convince society to regard eating as a pleasure, rather than a necessity.

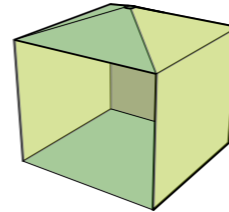
And what does molecular gastronomy hold for chefs? For them, the scientific exploration of cooking is even more important. Science is the basis for technology and new innovations, so this field helps them to create exciting new dishes and inventions.

To make experiments and molecular gastronomy a part of OFL, the laboratory was added to the program.

**Farmers Market**

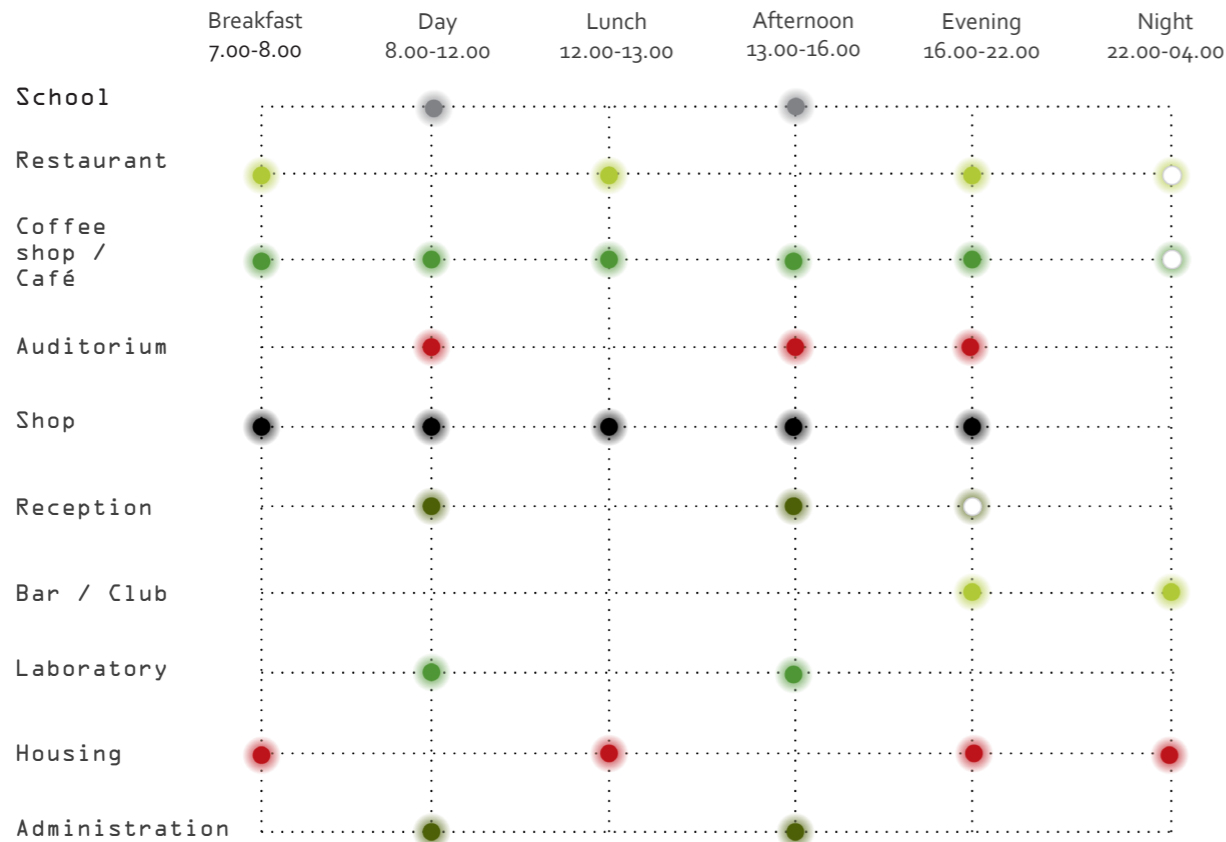
The developer of Vulkan explained that Farmers Market needed space for arranging their market during spring and summer seasons. The space around the OFL complex should be flexible enough to fit the activity of this event.

Farmers Market: 30-35 tents (tent size: 3m x 3m)  
There should be 4m space between the tent rows/ clusters.



**Polluted ground**

The ground at Nedre Foss is polluted by arsenic, lead and zinc. Therefore, changes should not be made to existing constructions beneath the ground (old basements etc.) to prevent the pollution leaking into the river. Due to this I decided to plant a belt of herbs having a positive effect on polluted grounds by over time cleaning out the pollution (bioremediation). This is a slow process but along the river this could have an instant effect on the local environment. Furthermore putting a lid on the polluted surface, such as an asphalt slab will enclose the pollution and make it even more difficult for it to leak into the river. Asphalt reduces the direct contact between humans and the polluted ground and prevent the rain water to wash out the pollution into the river.



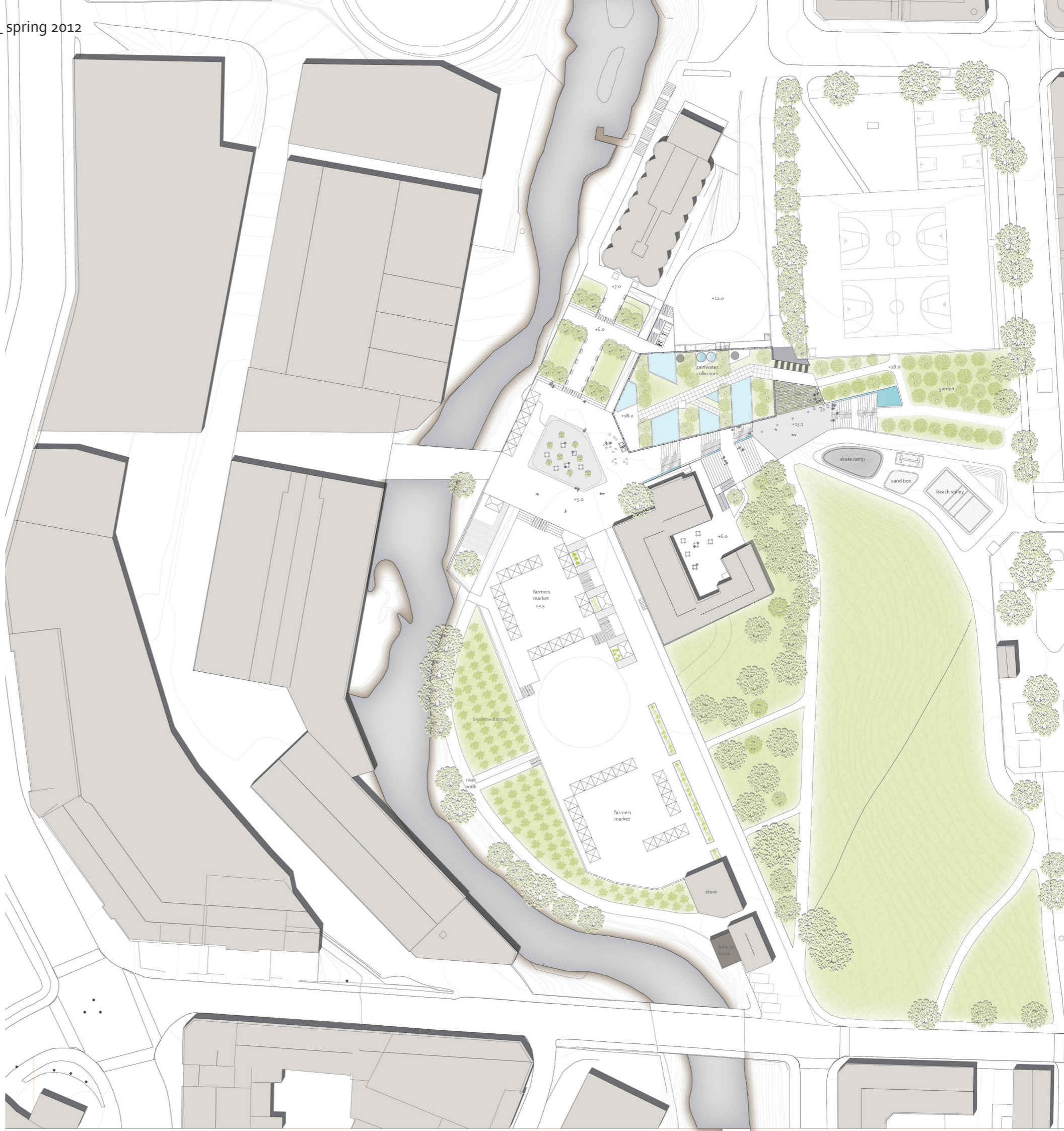
**DAY / NIGHT \_ MATRIX**

The matrix visualizes the possibilities for different activities during different times of the day and makes it easier to understand when a space is free to be used by another activity than its usual one.

One of the decisions made from looking at the matrix was to place the auditorium in the big open commonspace as it is not used that often or for such long periods at a time. When the auditorium is not used it can be a place to sit down and have lunch or a snack.

**Facility program**

Reception area/foyer	74,3 m <sup>2</sup>
Auditorium (min. 0,5 m <sup>2</sup> /person)	142,7 m <sup>2</sup>
Kitchens	248,53 m <sup>2</sup>
Class rooms	156,1 m <sup>2</sup>
Bar / lounge	112,8 m <sup>2</sup>
Administration	58,7 m <sup>2</sup>
Storage etc.	196,15 m <sup>2</sup>
Rest Rooms	90,2 m <sup>2</sup>
Showers	22 m <sup>2</sup>
Laboratory	123,8 m <sup>2</sup>
Herb- & vegetable garden	118 m <sup>2</sup>
Wine cellar	156,3 m <sup>2</sup>
Café	171,3 m <sup>2</sup>
<b>Total</b>	<b>1698 m<sup>2</sup></b>
Bike parking underneath service delivery	261,5 m <sup>2</sup>
Store	143 m <sup>2</sup>



PROJECT

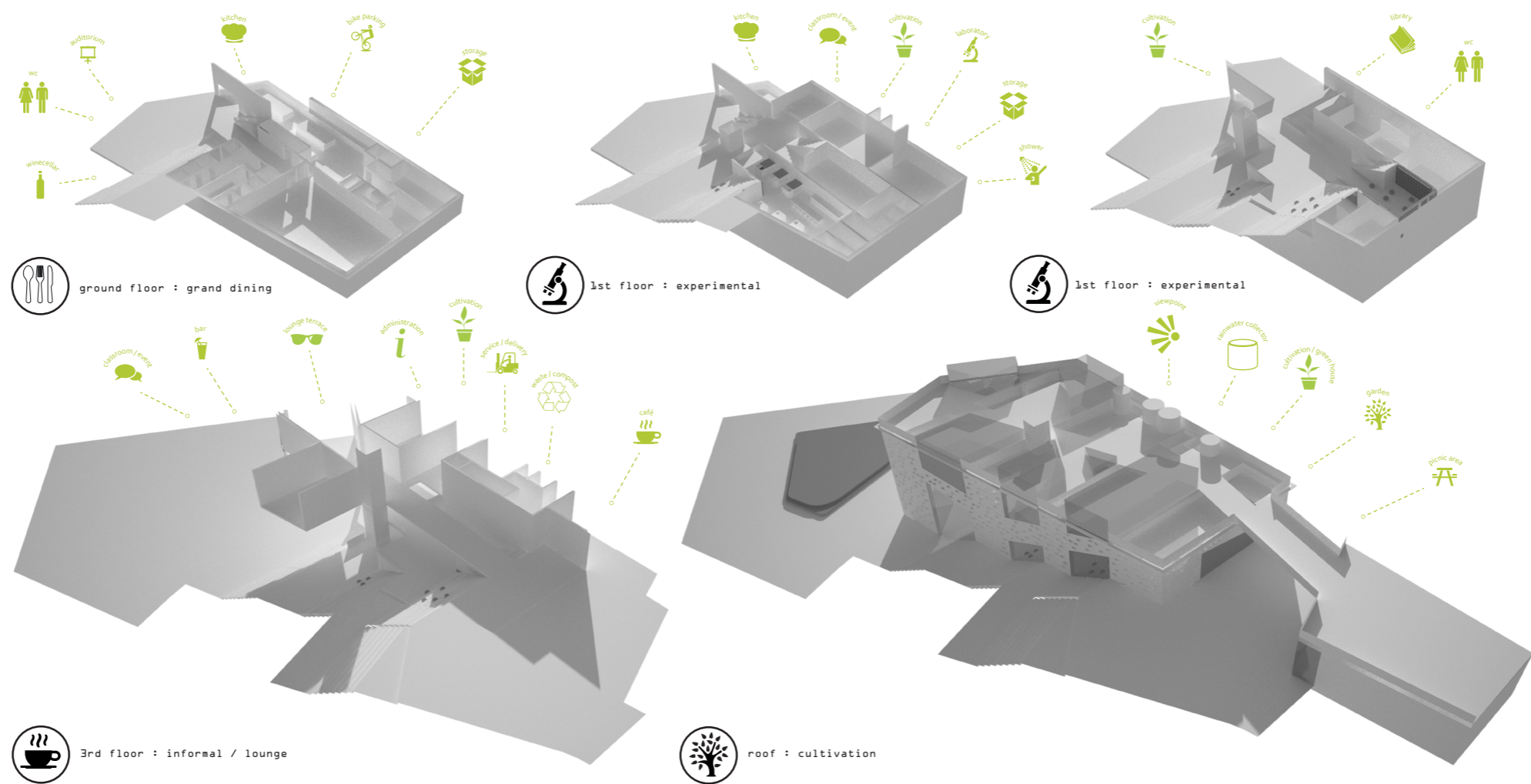
site plan 1:1000 (originally 1:500)

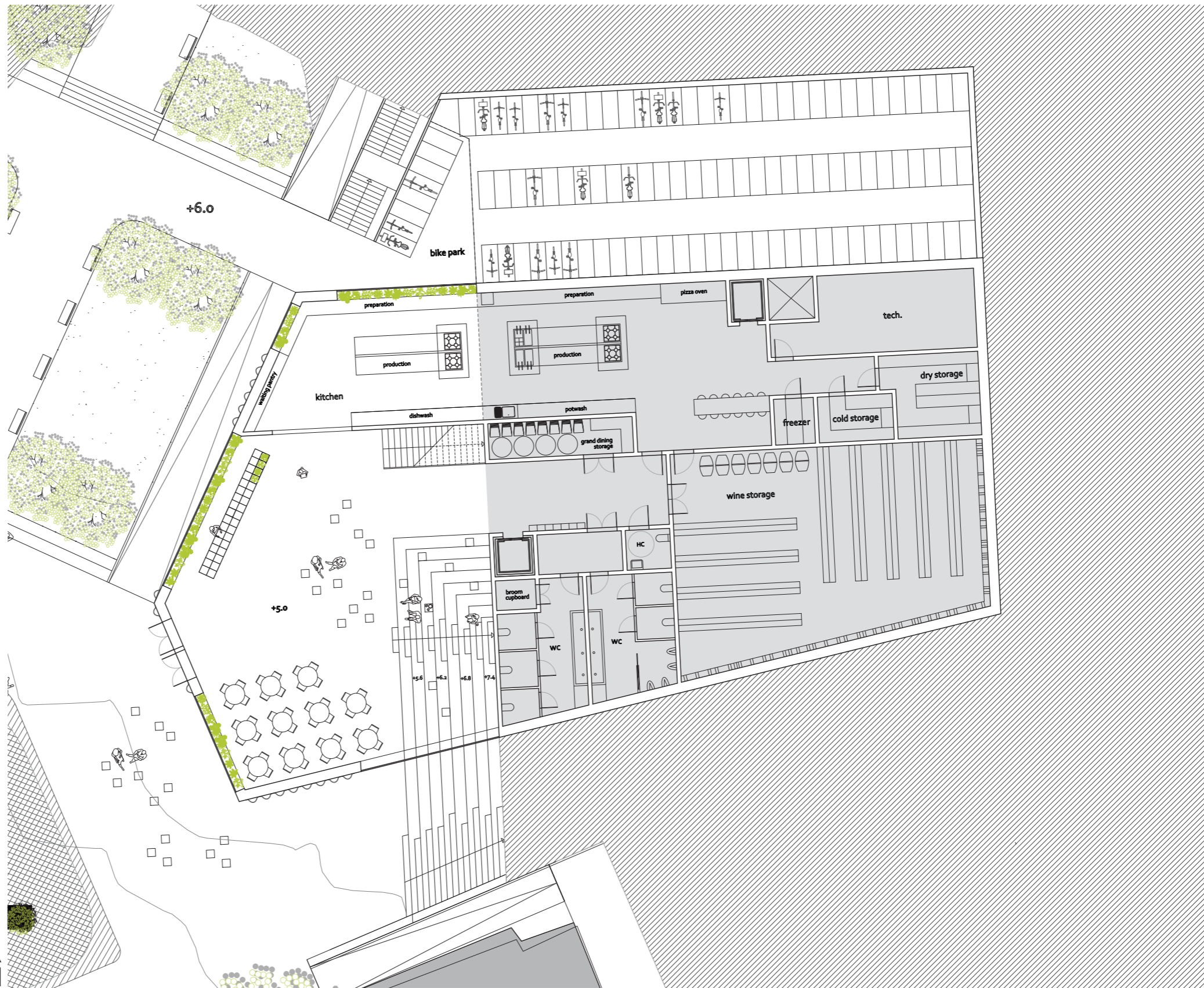




section A-A 1:1000 (originally 1:500)

axionometric diagram explaining activities and identities on each floor.





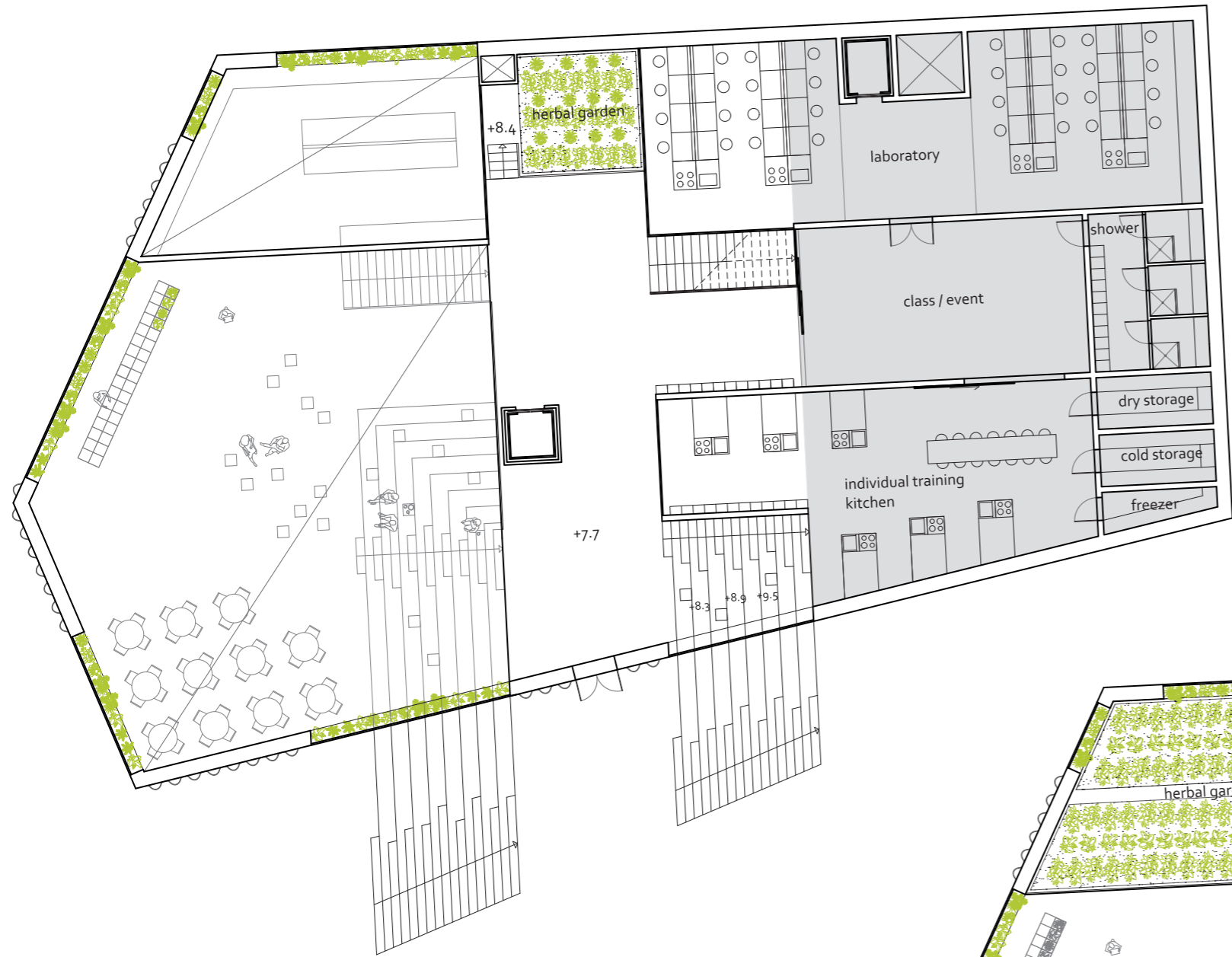
PROJECT




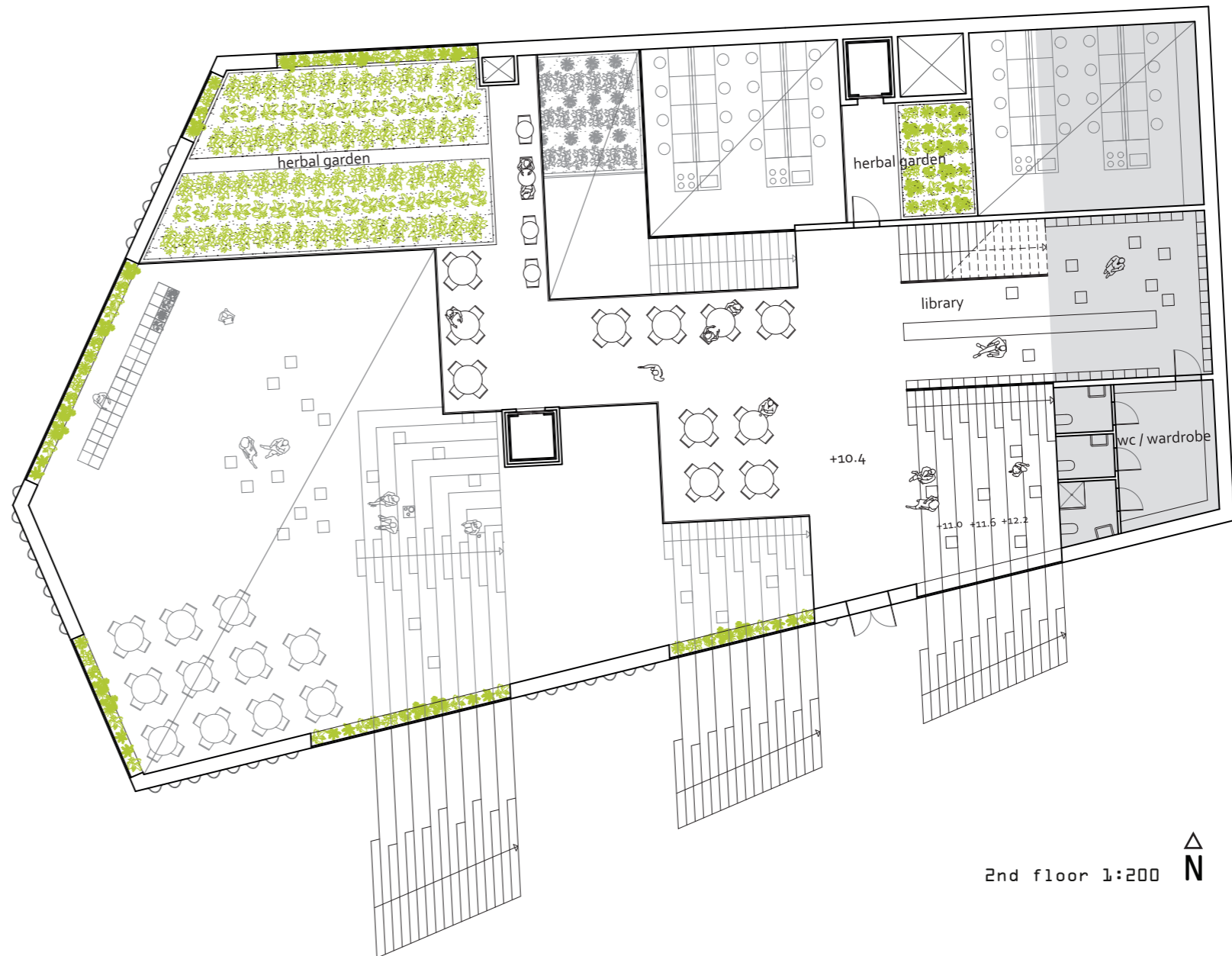
12


ground floor 1:200 (originally 1:100)

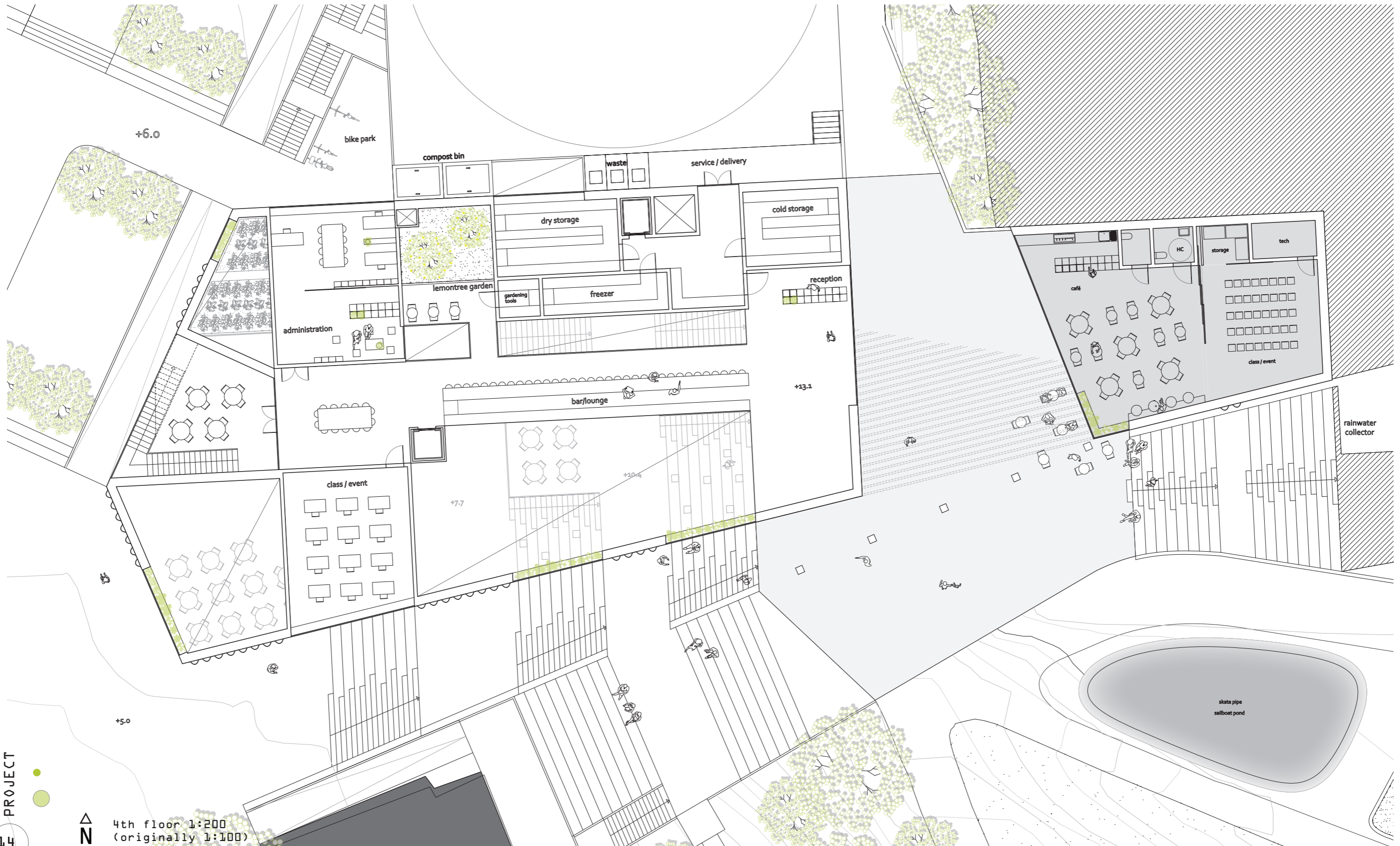




1st floor 1:200  N

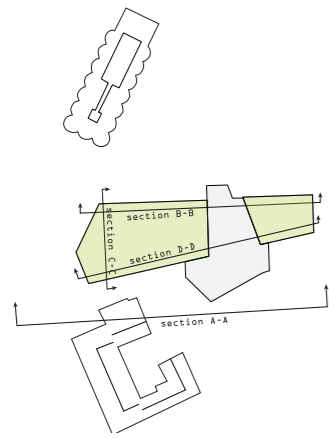


2nd floor 1:200  N



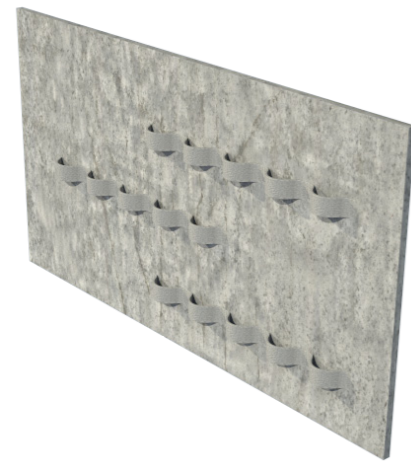
PROJECT

N  
4th floor 1:200  
(originally 1:100)

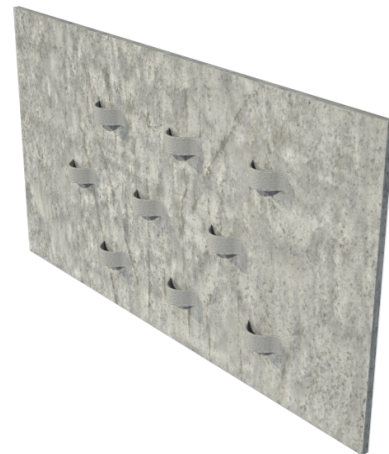




Several pots casted in a row creates a wave-like relief in the wall. The pattern and relief possibilities are varied.



The pots casted with spacing creates a different expression in the facade.

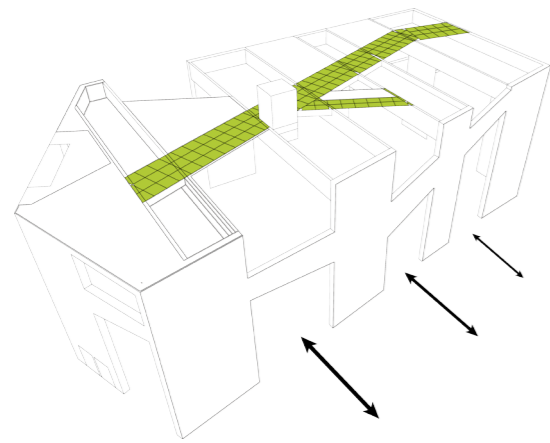


south elevation 1:400 (original 1:100)



north elevation 1:200 (originally 1:100)





The expression of the facade originates from a desire to have a certain transparency throughout the building. This is important because of the huge level difference at the site. Pots for cultivation are casted on the outside wall where a lift running around the building makes sure that it's possible to reach all the plants. These pots are watered with recovered rainwater through waterpipes inside the wall. The final facade look is a combination between the two experiments seen below.

