

Joachim Midjo Andersen. Diploma project. Master of Architecture. NTNU. Supervised by Svein Skibnes

IF
**LIVING IS MORE
THAN DWELLING**

WHAT CAN THE URBAN HABITATION BE?

Living is more than dwelling.
Diploma project. Master of Architecture.
NTNU. 2012
by Joachim Midjo Andersen.
Supervised by Svein Skibnes

Special thanks to:
Svein Skibnes
Kim Lenschow Andersen

Thanks to:
Bjørnar Johnsen of INFILL
Merete Kolstad Løberg of JM Byggholt
Dimicita
Mom and dad
Los perros de Cerro Alegre



WHAT CAN THE URBAN HABITATION BE?

Our cities are condensing, and it is becoming increasingly important to discuss the relationship between city, habitation, and inhabitant. Because living in the city can be a life experience that reaches far beyond the four walls of the dwelling. How can living densely enrich our daily lives? How can densification be the incentive for new dwelling experiences? How can the habitation and its inhabitant give life to the city and vice versa?

The project looks at three sites centrally in Trondheim which have given three different answers to these questions. A student collective invites contact and interaction, a cloud structure gives elasticity to existing urban housing environments, and three houses give breathing space to both its inhabitants and to the city.

Each of the three sites has a unique context that has given birth to a specific concept of urban living. Difficult sites have been chosen in order to try to find peculiar questions and solutions that can spark the monotonous and homogenous urban housing development in Norway today.

THREE SITES



Trondheim
1:10000



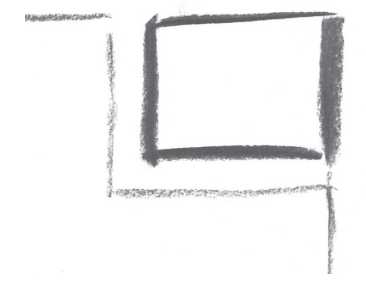
GJEVANGVEITA

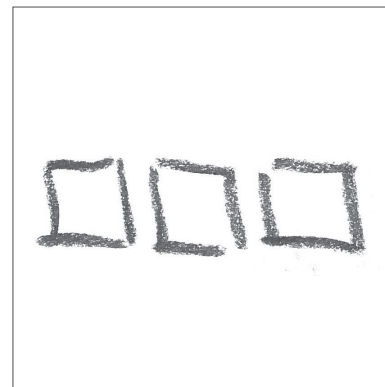
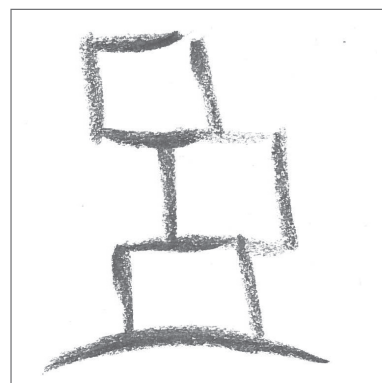


VERFTSGATA (VIEW FROM INNHERREDSVEIEN)



ERLING SKAKKES GATE





“Maybe like urban pavillions... the infill strategy can say something about where we are and where we want to go. I suggest an infill of more than mass, of more than volume. Densification must be a quality. Sustainability must include the well being of people. ...It is infill as urban stimulation, seeking to make the city a better place to live.”

- from preproject

THREE CONCEPTS

ONE CITY

The investigation of three urban sites has brought forward a vision of not only what the urban habitation can be, but also how the urban habitation can be the catalyst for a new and better city.

This is the social city, where urban structures are shaped by social networks and relations. It is a three-dimensional city, where both the vertical and horizontal extent of the city are exploited to create a socially stimulating, spatially effective, and typologically rich city. A dynamic city that embraces development, creativity, and diversity, a city that continuously re-defines itself. This is a city for everyone, where density, quality, and identity are united. This is a city where living truly is more than dwelling.

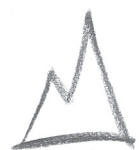




Trondheim is the student capital of Norway, where 7000 new students arrive every year. They are in a phase of their lives where they want to explore, play, experience, and learn, but are met by an overpriced and scattered housing stock of flats and rooms that do not reflect their social form of living. How can the dwelling embody the student spirit? What can arise in the fusion of student life and student dwelling?

The Mountain is a student collective that promotes an active and inspiring life form for the students of Trondheim. A canvas for expressing oneself and one's contemporary. In the Mountain, the inhabitants live densely among each other and they share functions and spaces. This stimulates contact and interaction. They are given the spaces and distances needed to interact with each other in different scales and intensities, from studying in their private rooms, to cooking with friends in a shared kitchen, to lazy sunday relaxation in the roof garden, to watching a movie in the common area, to a full blown open house 6 storey party, making the Mountain a rich and diverse social arena. The Mountain also features a student-run bike workshop and coin laundry that are open to the public so as to let the students put their own touch on the both neighborhood and city.

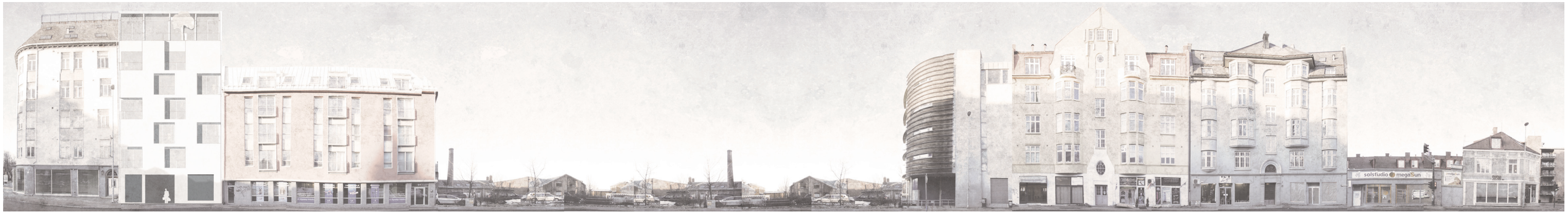
The Mountain becomes an arena for interaction, a place to meet, and a place for students to live as students. And thus student life becomes the premise for a different dwelling experience that also enriches urban life.



THE MOUNTAIN

A STUDENT COLLECTIVE IN VERFTSGATA, TRONDHEIM





THE IN-BETWEEN

Situated between Innherredsveien and Verftsgata at Solsiden in Trondheim, the site is narrow and tall between two residential buildings with commerce on the ground floor. The site is part of a sequence of buildings from numerous decades and resultingly numerous architectural styles expressing the changing ideals of what the city should look like. It reveals the dynamic nature of the growing city, and of perhaps even more us, the citydwellers. Solsiden is an old industrial area on the banks of Nidelva that now has been transformed into residential, commercial, and cultural use.

The local area is defined by the surrounding neighborhoods, and characterized by people going to and from them as an area of movement and passing by. The site is centrally located right across the river from the city centre and along the eastbound collective transport vein, both bus and bicycle, making it well connected with the bigger city.



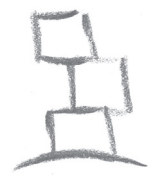
Section A:A
1:750



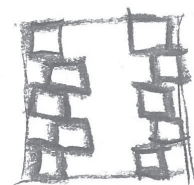
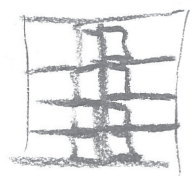
Section B:B
1:100

-3.80
Basement

-3.80
Basement

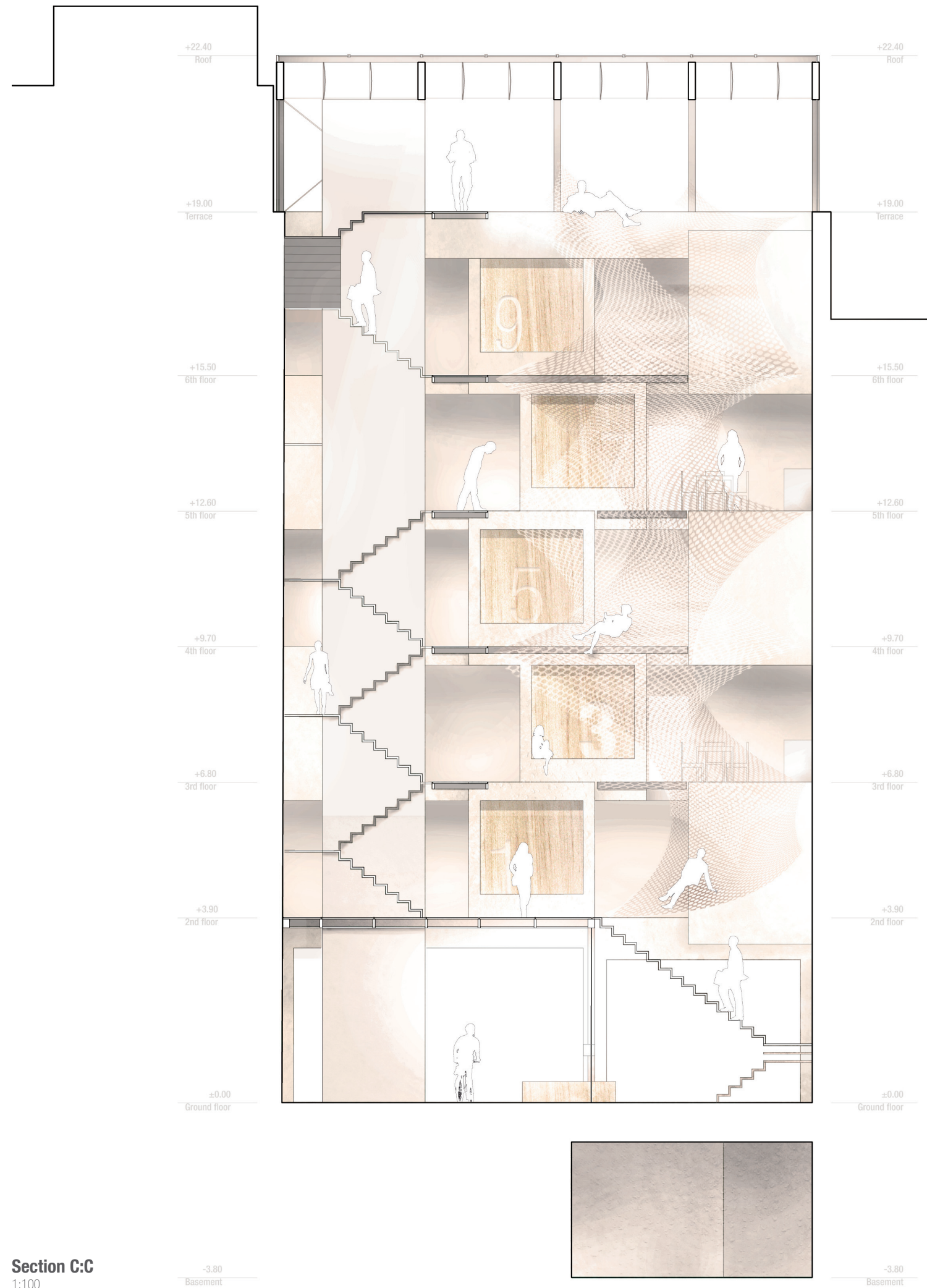


STACKING



Total site area:	258m ²
Total built area:	1550m ²
Site exploitation:	600%
5 stories housing 50 inhabitants	1250m ² 25m ² pr inh.
Private space pr person	8-10m ²
Shared space pr unit	30m ²
Common space	400m ²
Available space pr person:	440m ²
Social area exploitation:	8600%

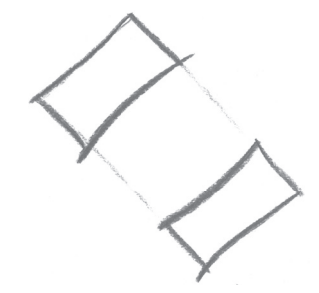
By reorganizing the private and public spaces of traditional apartments and collectives into private bases stacked around a big shared space, we get a major increase in area available per inhabitant. Each person has access to 440m², which gives an area exploitation of 8600%, calculated from available space per person.



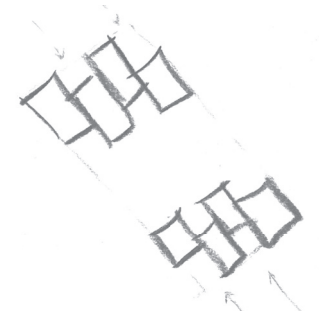
Section C:C
1:100



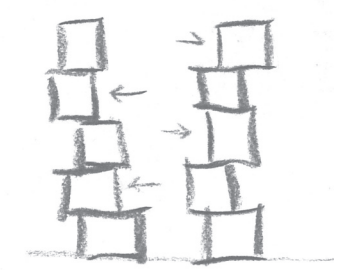
3rd floor
1:100



The site is organized from private to shared to common to shared to private again, from one facade to the other. The habitations face the streets for light and air



One habitational base per person, a core unit of four are juxtapositioned and pushed so as to make space for a shared kitchen, a bathroom, and two balconies. This core unit is then repeated and flipped, creating a common space between the two units.



This layout is then inverted and repeated upwards, creating stacks of boxes facing each other across a multi-level common space that is lit from above. By pulling the boxes back as the room heightens the top of one box becomes a useable area for the next level, while more light is permitted into the space.

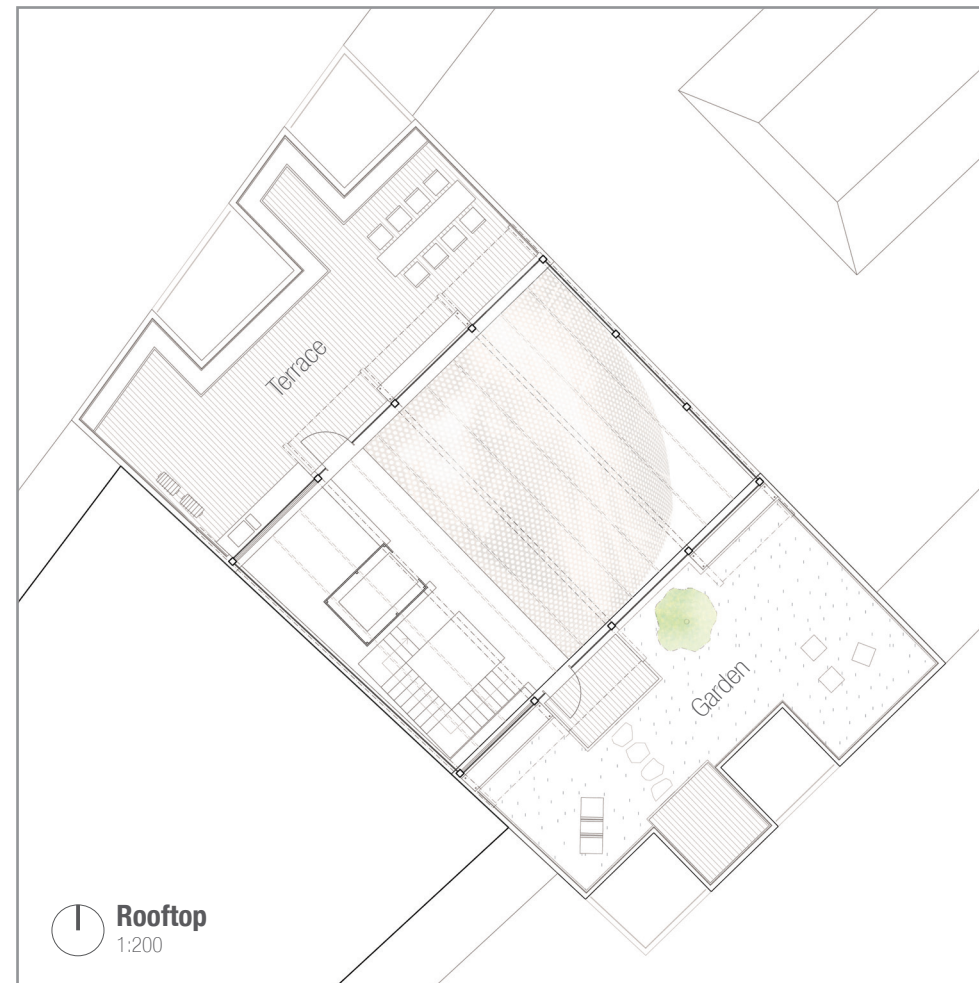


At the top, a light structure holds big canvases that catch and spread a warm-tinted light downwards into the building, creating a distinct atmosphere and spatial experience.

EXPERIENCING THE VOID



In order to exploit the spatial and luminous potential of the vertical void resulting between the habitational cores, a large three-dimensional and translucent net structure is stretched between the edges and levels throughout the entire space. The net turns the space into a three-dimensional functional experience, making it possible to lay floating four floors above the ground while watching a movie projected onto the wall, to climb through the entire room to visit friends, and to comfortably read a book while enjoying the fjord view from the top level. This celebrates the verticality of the site, permits light into the structure and creates a continuous social network throughout the space.

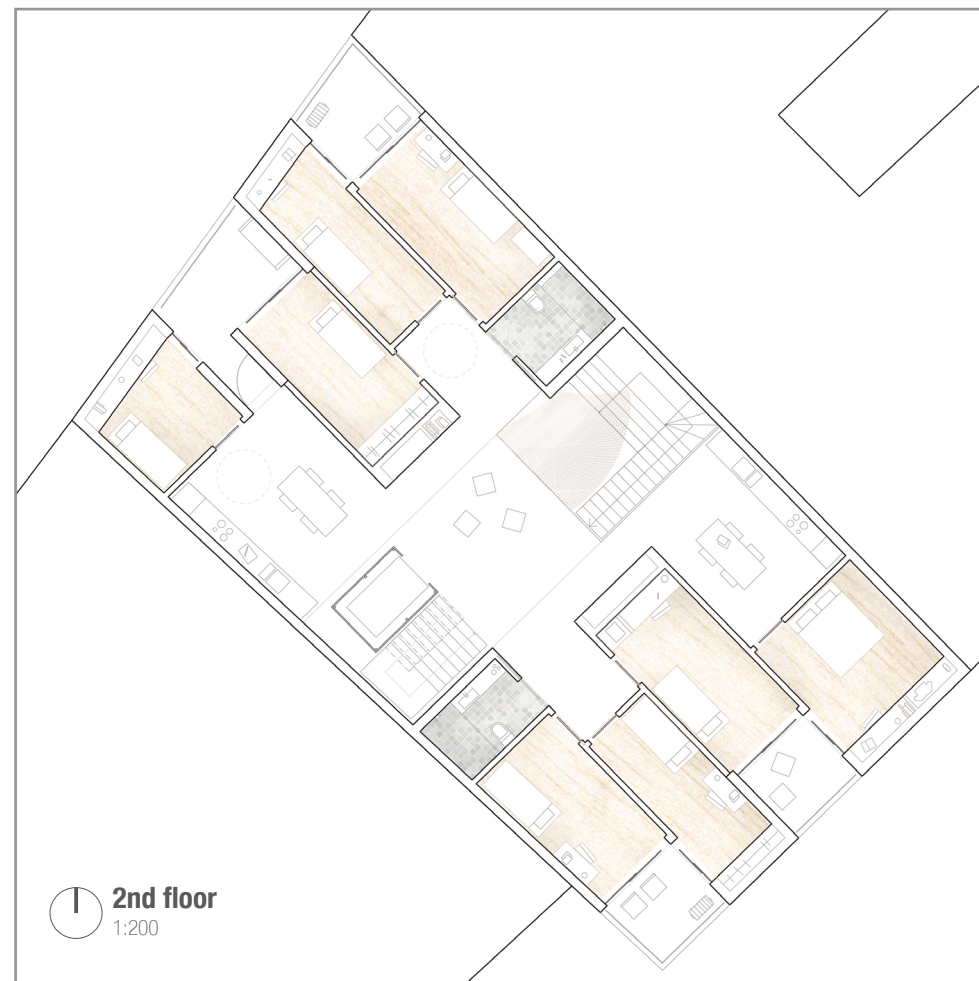


A SOCIAL CANVAS

The structure is built with white prefabricated sandwich concrete elements in order to obtain smooth surfaces and crisp corners. Outer wall elements contain slim foamlglas insulation, while the elements facing the individual bases are fitted with massive wood. The white surfaces are easy to paint, and serve as canvases for artistic expression and customization for the students while reflecting light through the structure. Glass and steel are used for the walkways and stairs connecting the stacked boxes. The elevated roof structure is of steel and glass, with cables handling the forces.

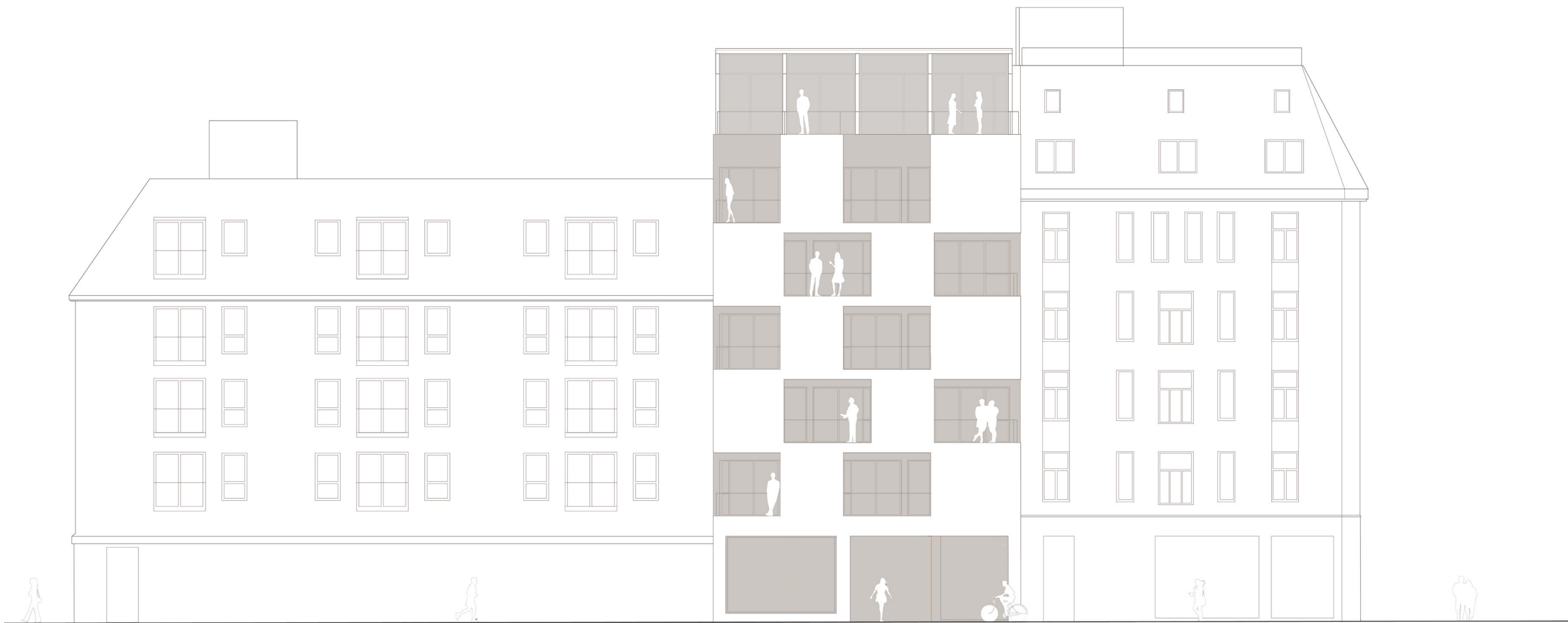
THE STUDENT CITY

A coin laundry facing Innherredsveien and a bike workshop facing Verftsgata invite to interaction between the public and the students. Gossip and neighborhood talk at the coin laundry can make the Mountain a casual meeting and stopping place for the people moving through the area, while custom student bikes can be seen throughout the entire city. This makes both the Mountain and the students positive contributors to the neighborhood and the city, while providing the collective with some much needed coin for rooftop barbeque parties.





Facade south D:D
1:200



Facade north E:E
1:200



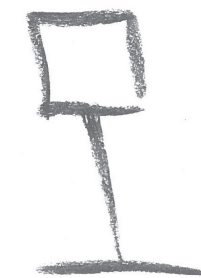
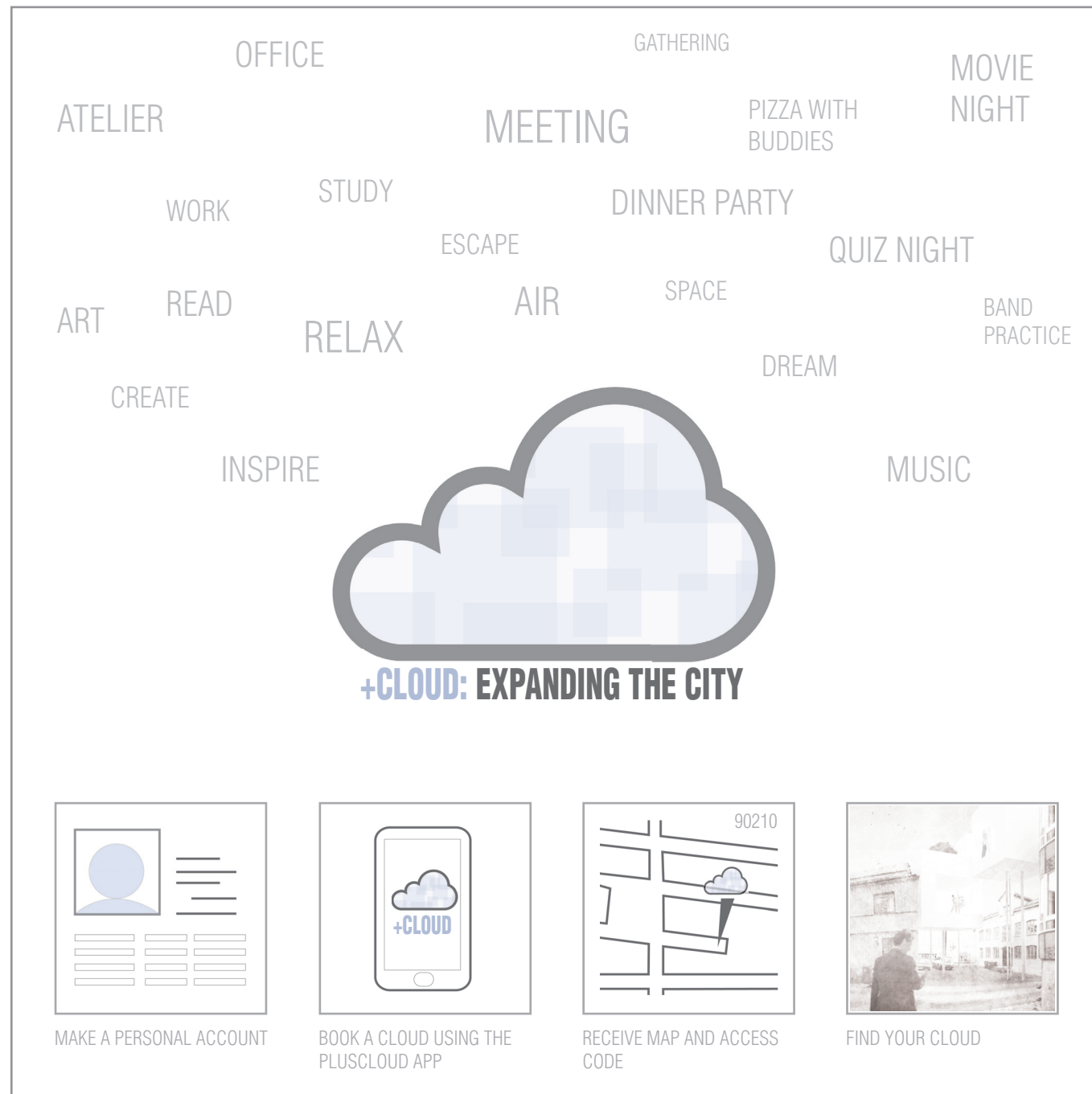
PLUSCLOUD

EXPANDING THE CITY FROM WITHIN. GJEVANGSVEITA, TRONDHEIM

As a global society we are in a continuous development. We are moving into a future of unknown possibilities given by globalization, technological development, and needs for sustainable forms of living, but also challenges. As architects, we know little about the demands and trends of the future, and which structures that will be needed to meet them. How can we build for an uncertain future? What we do know is that we will live more and more densely. Today 50% of the global population lives in cities, and by 2050 70% will do so. More people, less space. This will put increased pressure on existing urban structures and make urban housing environments increasingly static. How can the hourly, daily, weekly, monthly or year-ly changing spatial requirements of the urban population be met? How can elasticity be provided to urban housing environments? Is it possible to add more functions to the city without taking up more space?

Pluscloud is a densification concept that gives elasticity to existing urban housing environments by adding functions and activity to unused and overlooked urban spaces. It is a concept of expanding from within, of adding space and function where there at first sight is none to take. Pluscloud makes the city more spacious, more functional, and more fun for everyone without interrupting the current urban life.





CLOUD STRUCTURE

The Pluscloud concept is derived from the properties of a cloud. A light structure that floats over, within and around the city. Its density will change according to the current use, to the transparency of the facades and the time of day. This dynamicity is also present in the social relations that the structure facilitates, as there will be a continuously changing crowd inhabiting it.

In Gjevangeveita a multiuse activity space, a habitation for two, and a small studio/workspace will be the backdrop for casual interaction between different people doing different things over different periods of time. The social compositions will never be the same, every meeting unique. The Pluscloud structures suddenly become social points of interest, where relations can be formed, friendships made, and stories told on the basis of every-day activity. The every-day activity of the inhabitants, and not commercial activity, becomes the catalyst of social activity in the city. This is architecture as an expression of time, and a celebration of the present, the moment of interaction.

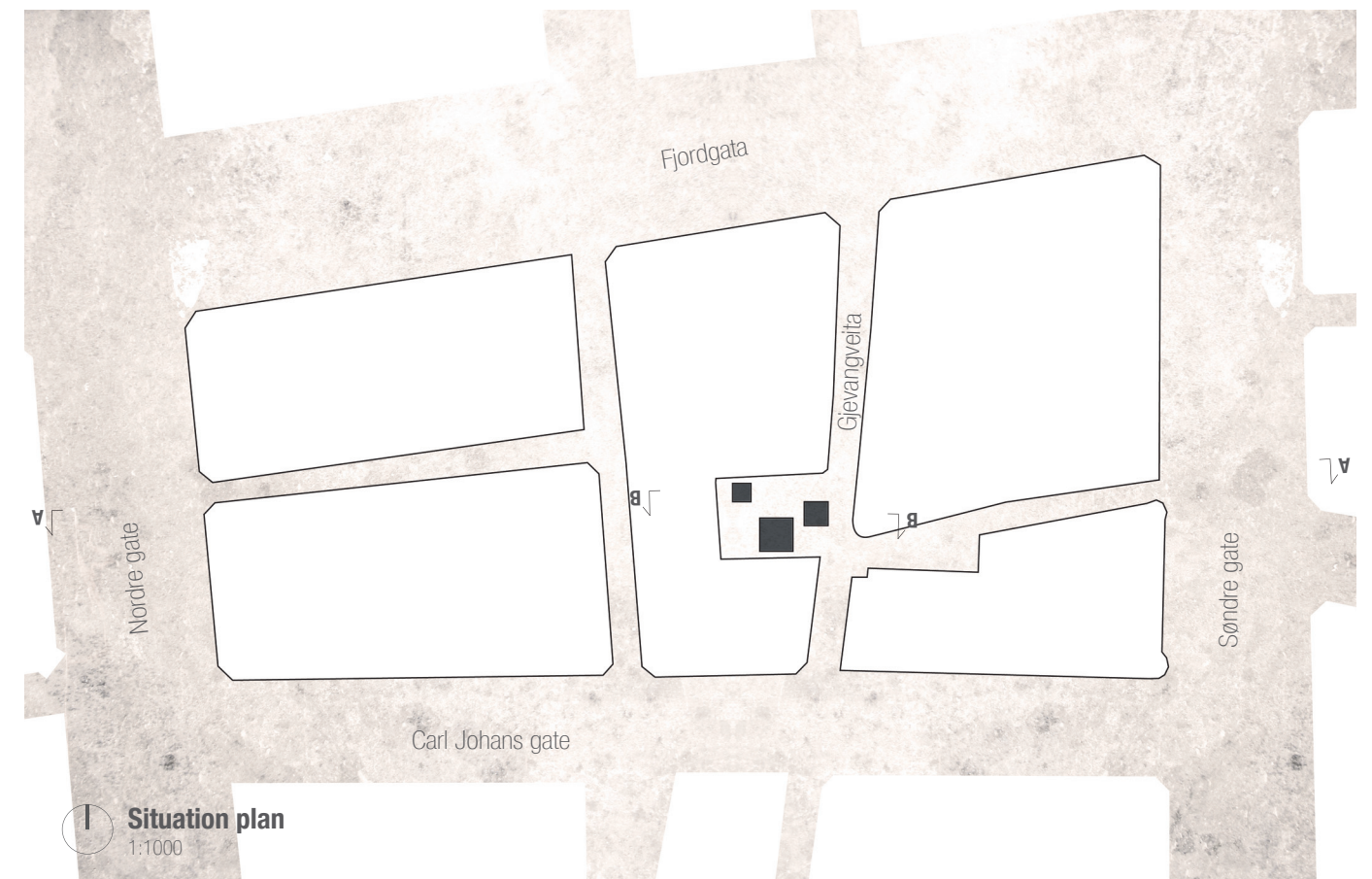
The Clouds are available to everyone. They can be booked online at any time for from one hour to one month. Can this be the library of the future? A public sharing of not only knowledge, but also daily life functions and activities? This idea promotes a highly social city where the concept of public space is reinterpreted, expanded and programmed.



THE HIDDEN SITE

The Pluscloud concept has sprung out of a site in Gjevangeveita in the very centre of Trondheim. It is a back alley site with little immediate appeal, as it is poorly lit and awkwardly faced by a facade that limits the possibilities for building on the first two levels. It is a difficult site, and that is its potential. Its quality. The site invites to experimentation as there are no obvious solutions. And through experimentation we can perhaps find solutions to problems we in the beginning never thought of addressing.

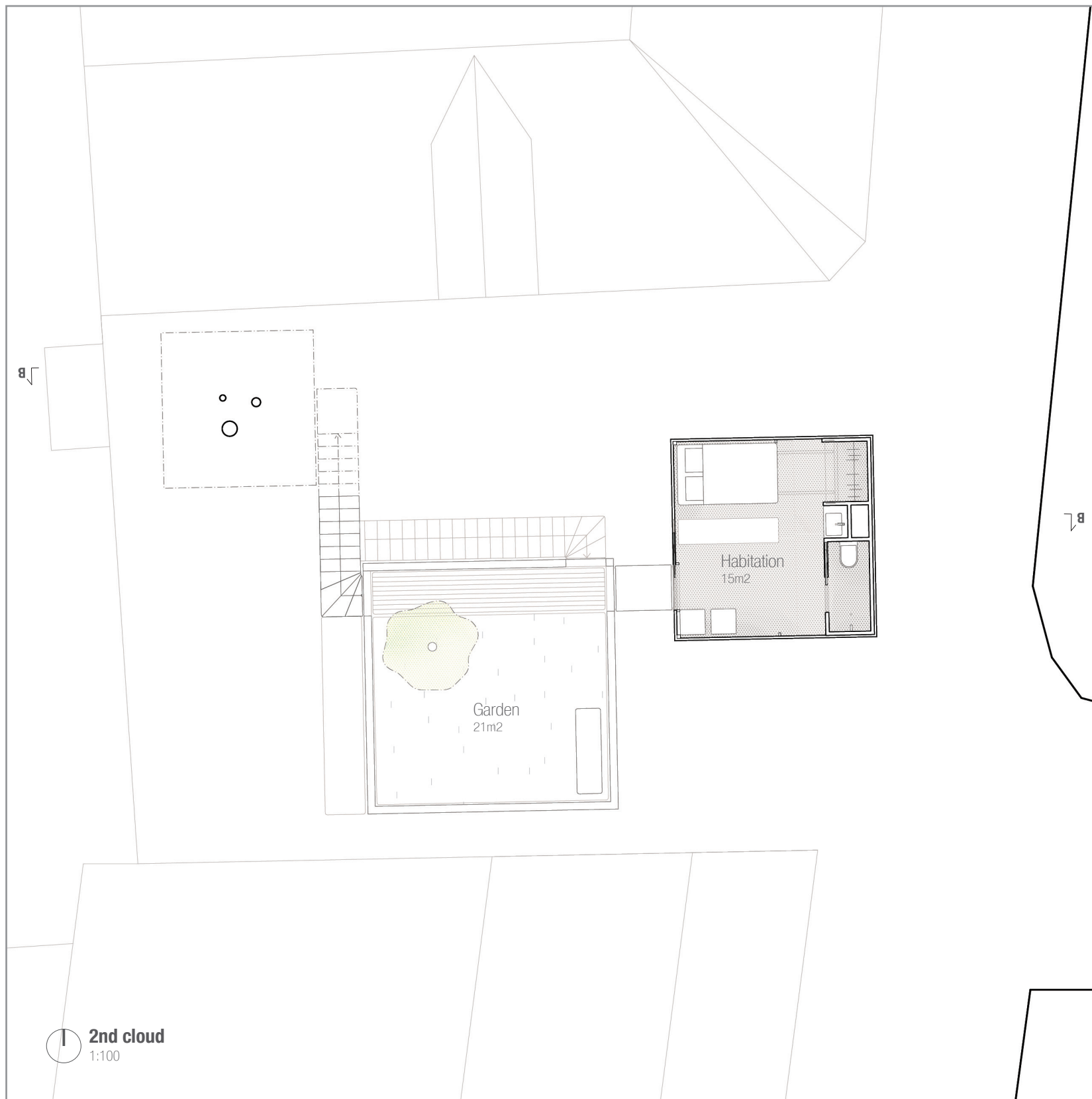
By adding functions and activity to unused and overlooked urban space without hindering their current use, the Pluscloud concept can be called a 'plus-concept'. It gives more than it takes. It exploits the vertical component of urban spaces, and thus simply adding another layer of function while still permitting light and activity on the street level. Low impact, big effect. The site thus becomes a 'plus-site', holding an extra layer of function. The site in Gjevangeveita is one of many similar sites throughout our cities. By investigating the vertical component of urban spaces we can find potential we did not know existed. Maybe our cities can become three-dimensional constellations of not only space and mass, but also function.



Section A:A
1:500



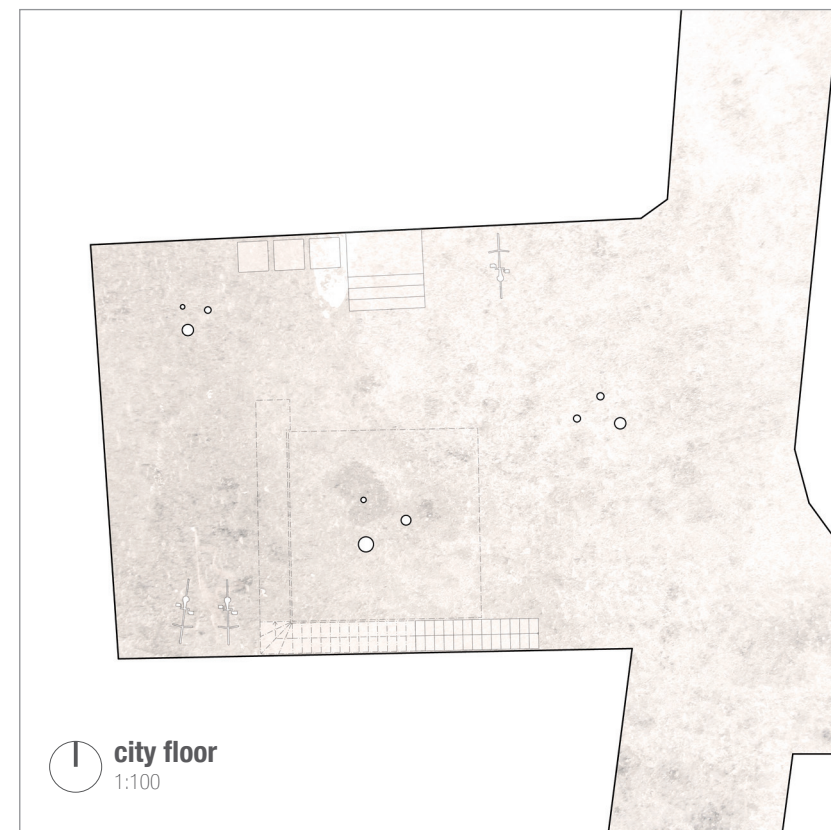
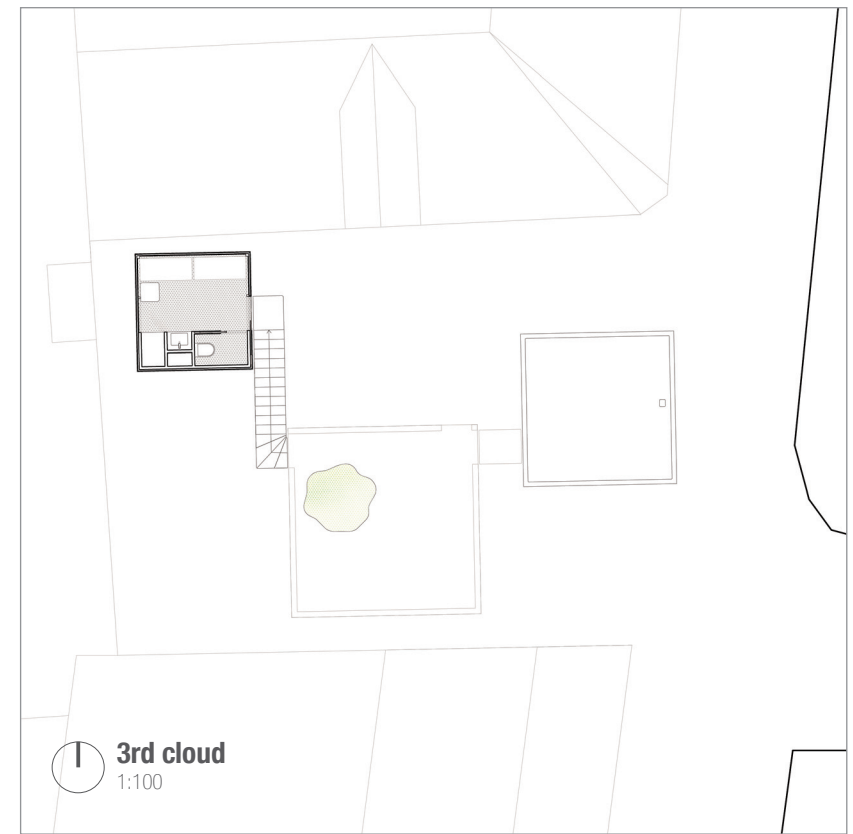
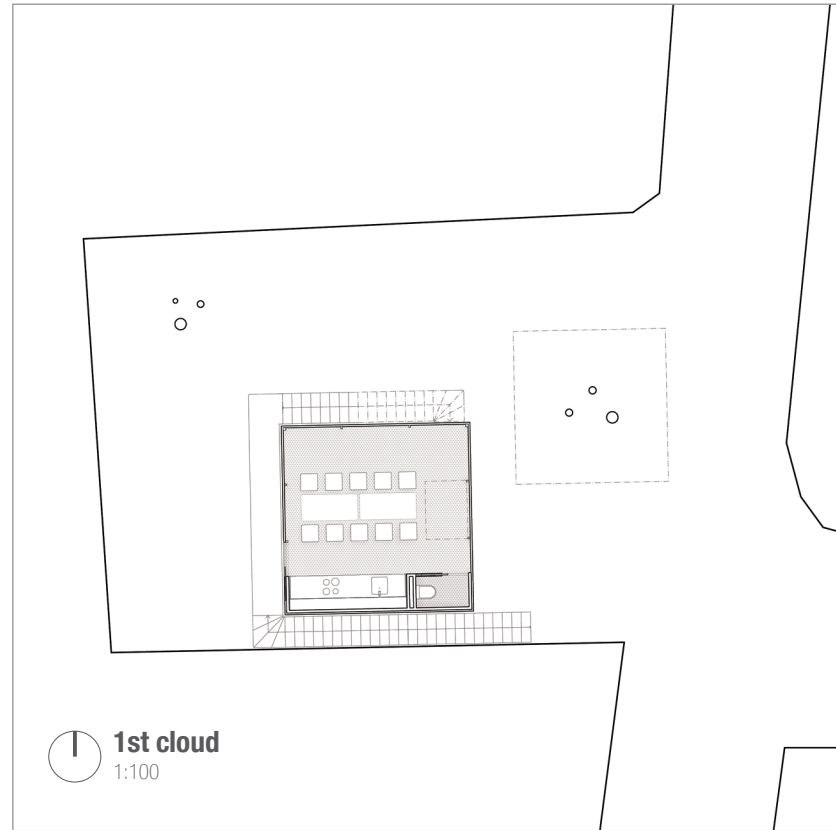
Section B:B
1:100

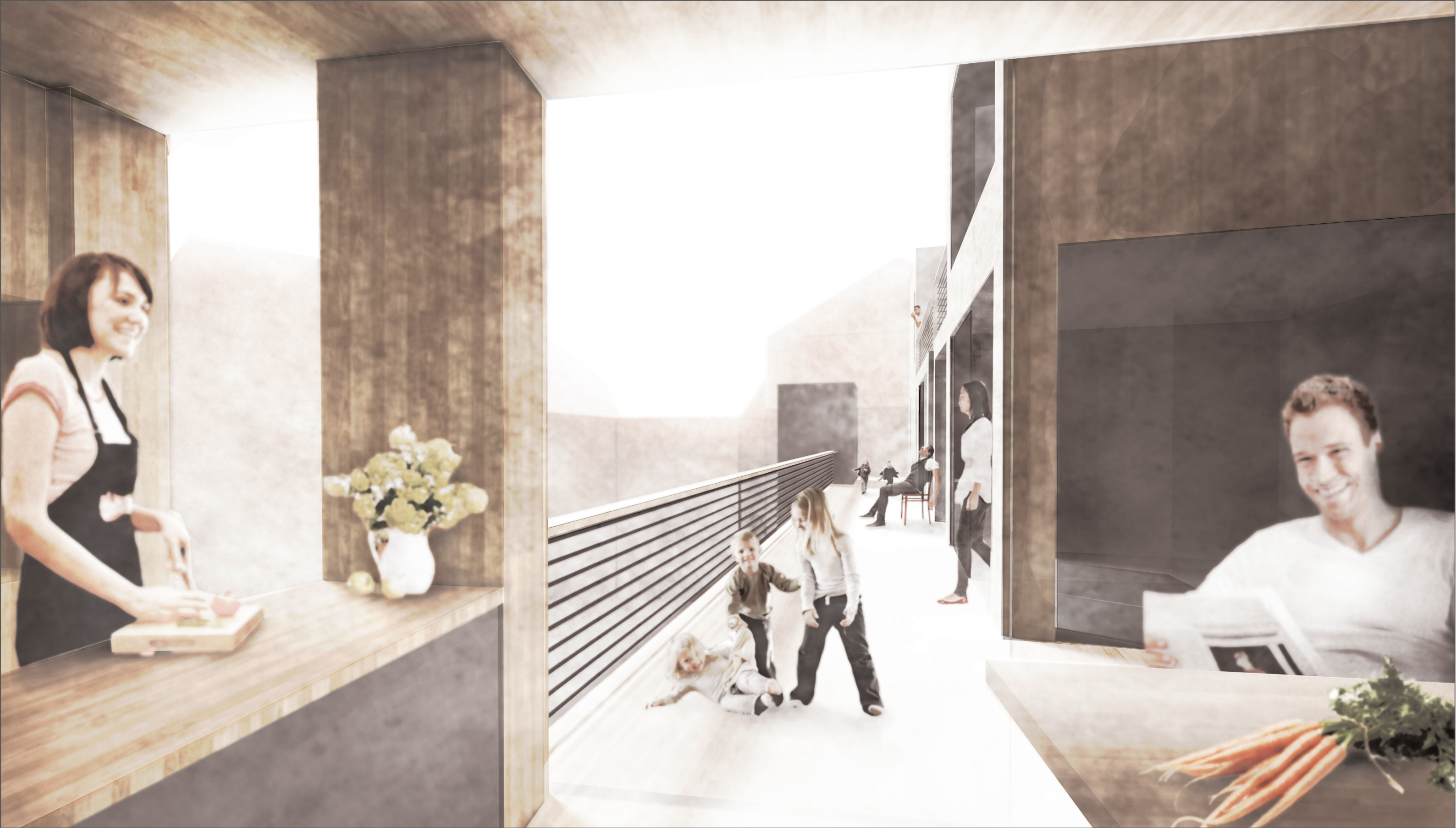


FRIENDLINESS

The Clouds are friendly. As friendly as amigos. To the environment, to the city, to the users, and to each other. By collecting rainwater for showering and wc and using solar energy for heating and electricity, the Clouds have a minimal energy and water usage. A nano-mesh facade regulates the indoor climate by adjusting its porosity and thereby controlling the transportation of light, temperature, and humidity. The support columns allow street level activity and are easy to install and remove. The interiors of the Clouds are highly flexible in a way that the user can create the setup he or she needs to do their desired activity. The nano-mesh covering the Clouds lets the user control the opacity of the facade and thus adjusting their presence in the city. The Clouds support each others wind-loads through the interconnecting stairs and walkways of steel, making the cloud structures solid and safe. The most generous of amigos even have functions that benefit the users of other clouds, in this case a roof garden.







FILTER

URBANE HOUSES IN
ERLING SKAKKES GATE, TRONDHEIM

Urban life and sustainability have become social trends: people want to live centrally, bike to work, and buy organic products. It is environmentally friendly, practical, and cool. But low housing quality, a monotonous housing stock, and an overpriced and speculative housing market cripples the development of cities as sustainable urban ecosystems. It causes great drafts of people moving in and out, low continuity, and a lack of communities. This, along with noise and a lack of immediate and safe outdoor areas makes the city unattractive for many well established couples and families with children. How can we make the city attractive for these people? How can the city be a fun and safe place to grow up? A nice place to live for everyone?

Filter is a housing project that seeks to create three sociable and spacious dwellings in the city centre of Trondheim. The three houses sit separately on top of a vegetable market run by the owner of the neighboring vegetarian restaurant Persilleriet, and are connected by a 'social structure' that encourages the inhabitants to interact. A long lost courtyard is revitalized into a shared yard for the new and existing inhabitants as well as for the adjoining vegetable market in order to try to create a meeting place for the inhabitants, a gradual transition from the city to the doorstep, and a better utilization of urban space. **By creating a gradual transition from the city to the doorstep the project tries to create a housing community that encourages various types of interaction a between the habitation, the inhabitant and the city**

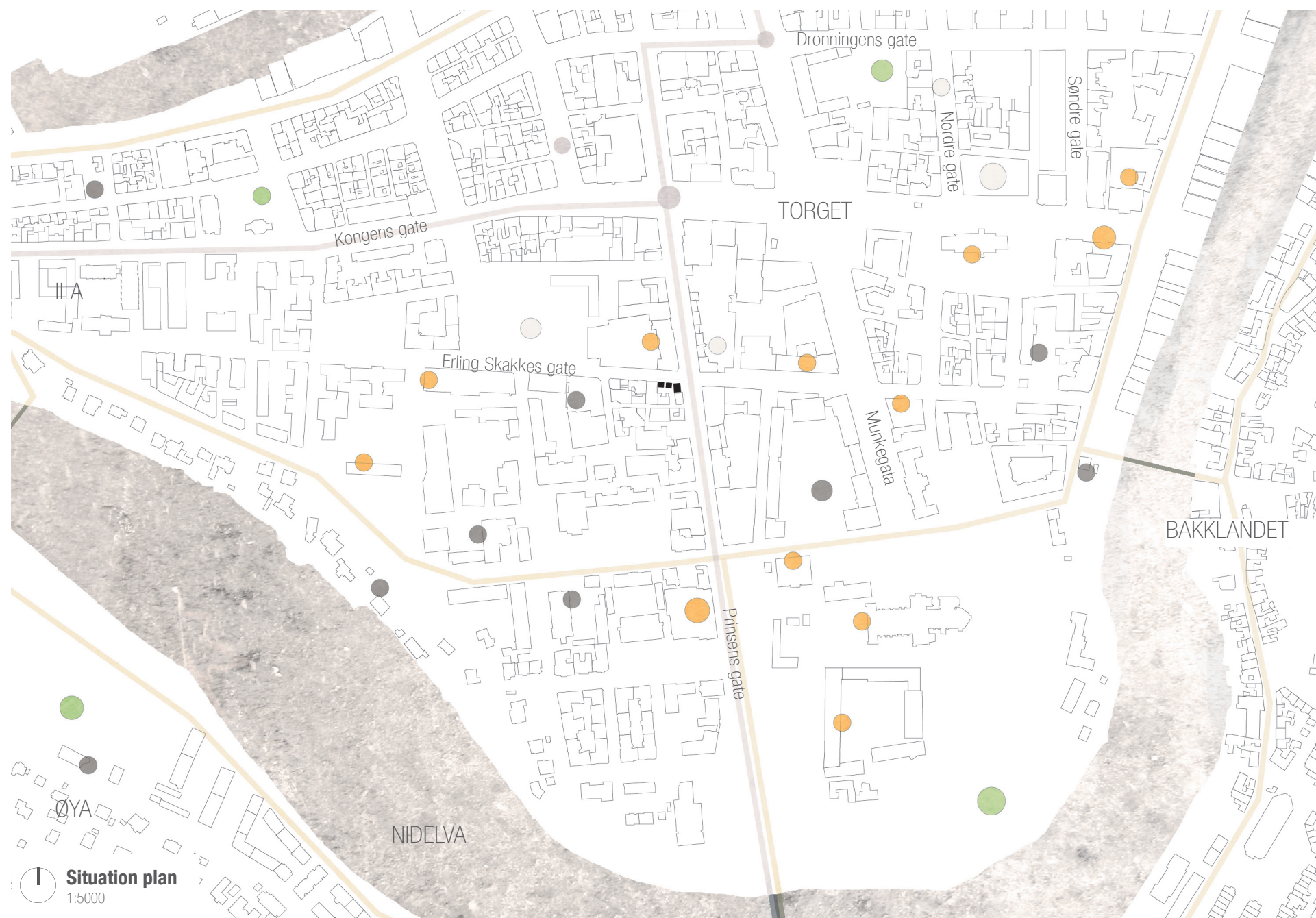


THE CORNER

The site lies at the corner of Prinsens gate and Erling Skakkes gate. Prinsens gate is the main street leading out of Trondheim southwards. It connects the site with the immediate surroundings as well as cultural and recreational options accessible via bus and tram. The street is planned to be less busy when the new traffic machine will direct the traffic around and under the city. This is further supported by visions of a car-free city centre and a new collective transport hub a block away. A grand quality of Trondheim is proximity. Within a short radius, one can find culture, food, shopping, parks, kindergardens, education and much more, and within 20 minutes one can be walking in the forest or fishing out in the fjord. Living centrally in Trondheim can be ideal for both families and people who enjoy recreation in nature.

Erling Skakkes gate is coined the museum street of Trondheim and features museums, shops, restaurants and municipal offices. At the corner of the site, a 70s infrastructural solution puts a turning lane through the site, and has left the block unfinished for years. The surrounding houses have built fences towards the street, separating and destroying the courtyard that once was. The xx-project ties up this intersection, and revives the courtyard.

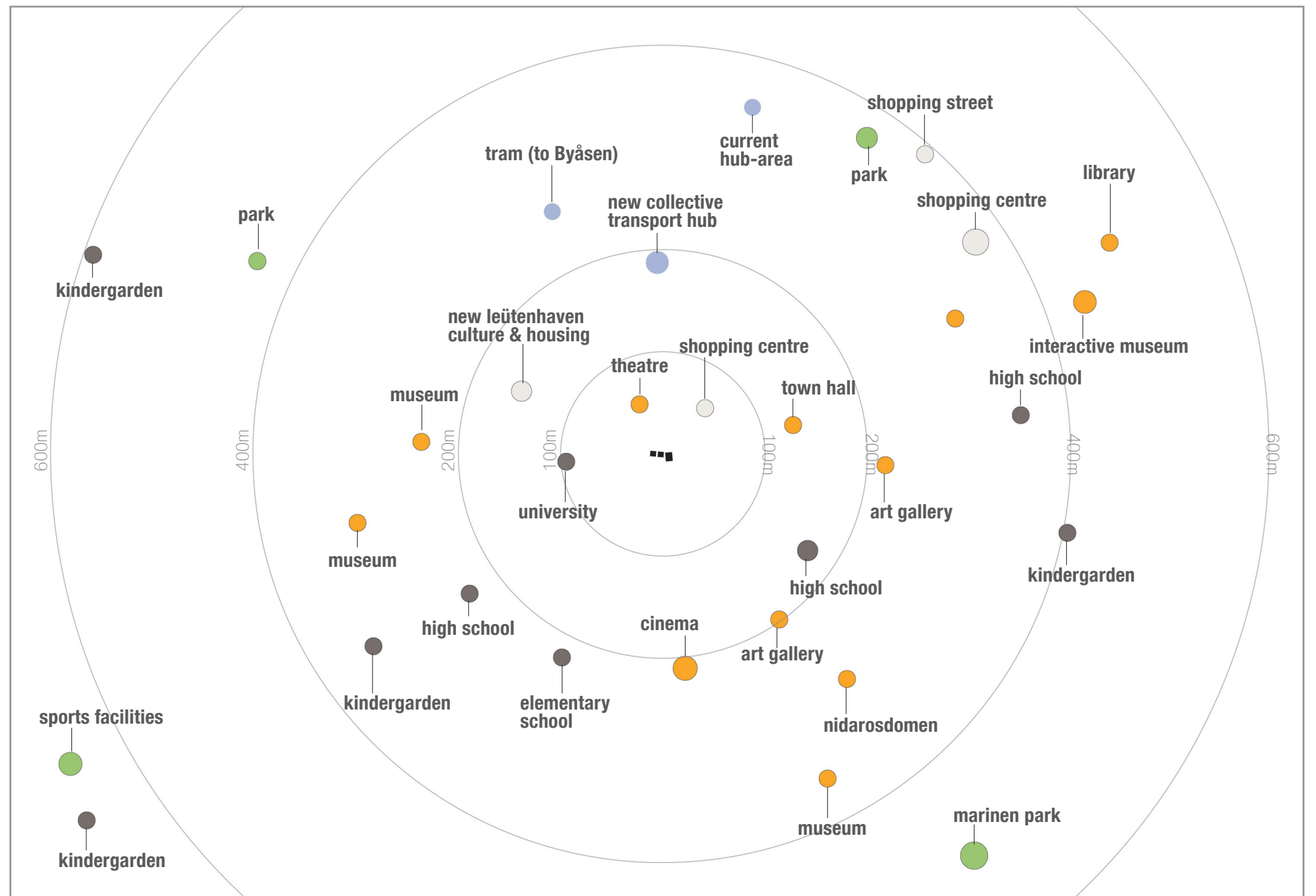
Trondheim is known for its wooden houses and their courtyards. These are remnants from a past when whole families lived alongside their livestock in the middle of the city, and they have in many cases now become dead spaces for garbage and cars. They have a great potential in their slight retreat from the public city, but do not have a function that responds well to contemporary lifestyles. If they are given programs that generate activity and also benefit the surrounding inhabitats, the dead courtyards can reflourish as urban gardens, playgrounds, and oasises.



1 Situation plan
1:5000

PROXIMITY

ref. situation plan previous page





THE POROUS CITY



By lifting up the volumes and creating a filter between the city and the home, a continuous urban space differentiated through multiple shades of private and public can be achieved. This promotes a more porous urban structure, where the daily lives of the inhabitants dictate the articulation of mass and space and not the car. In Erling Skakkes gate, the filter is articulated as a vegetable market that can open and close towards both the street and the back yard. This way the filter obtains a functional aspect.



Section A:A
1:100



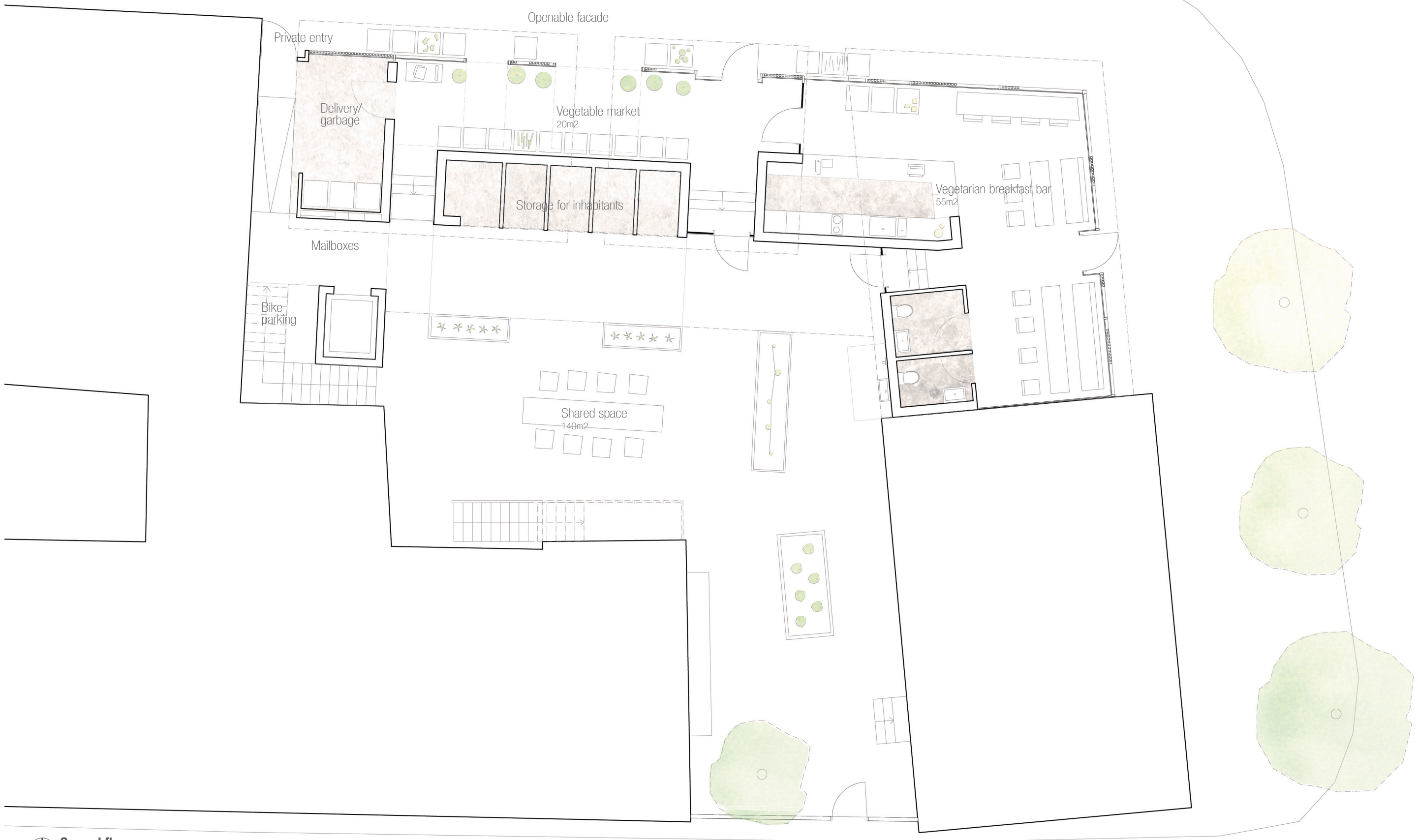
Section B:B
1:100

ERLING SKAKKES GATE

3

7

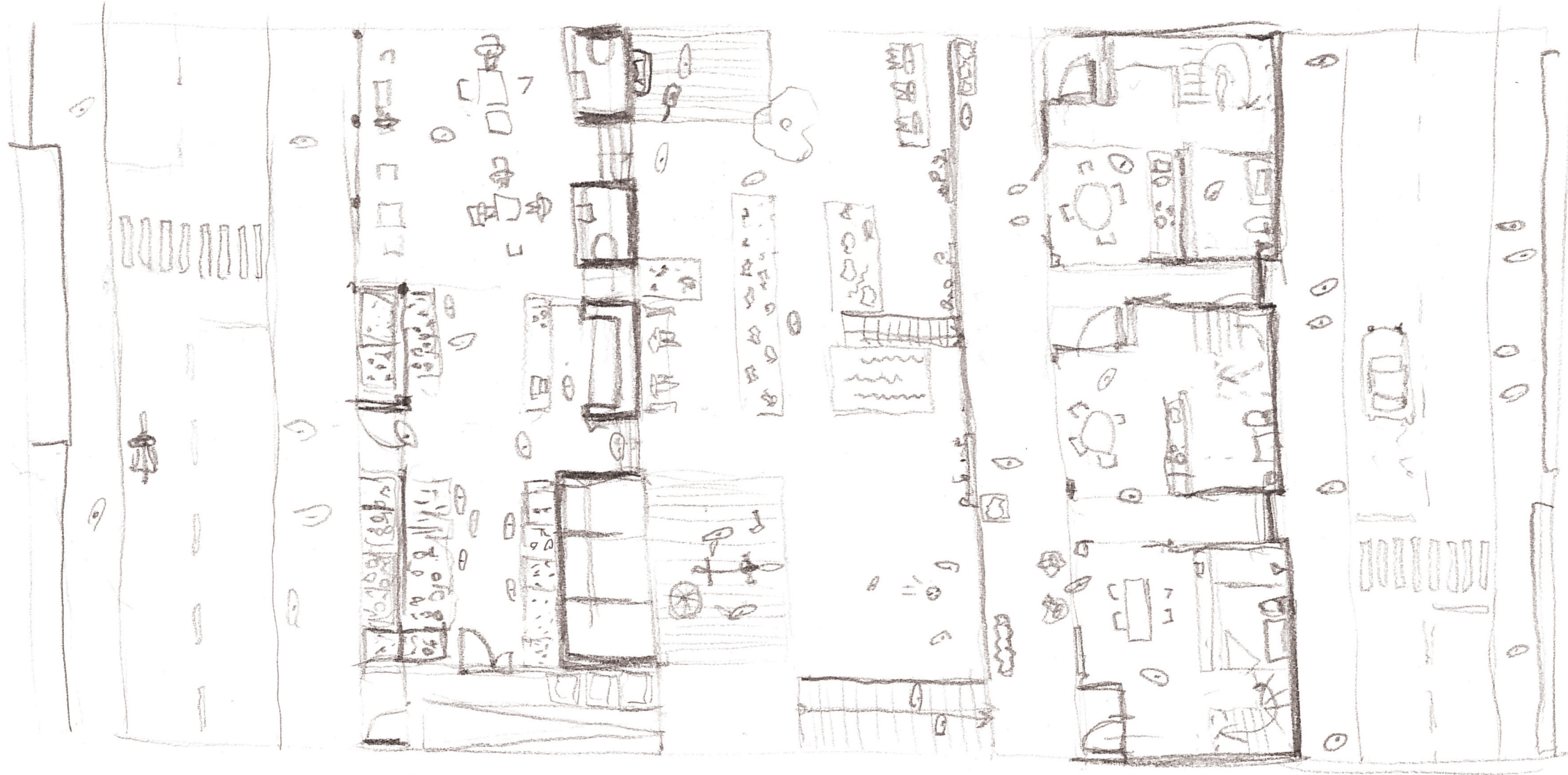
PRINSENS GATE



Ground floor
1:100

HVEDINGSVEITA

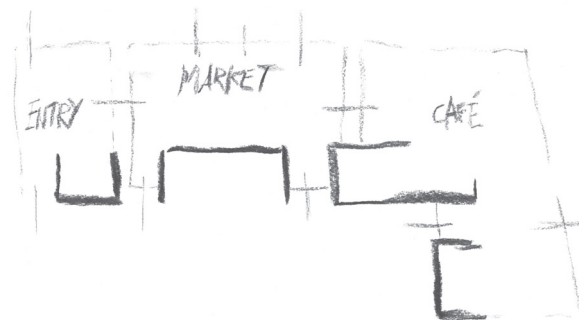
A1

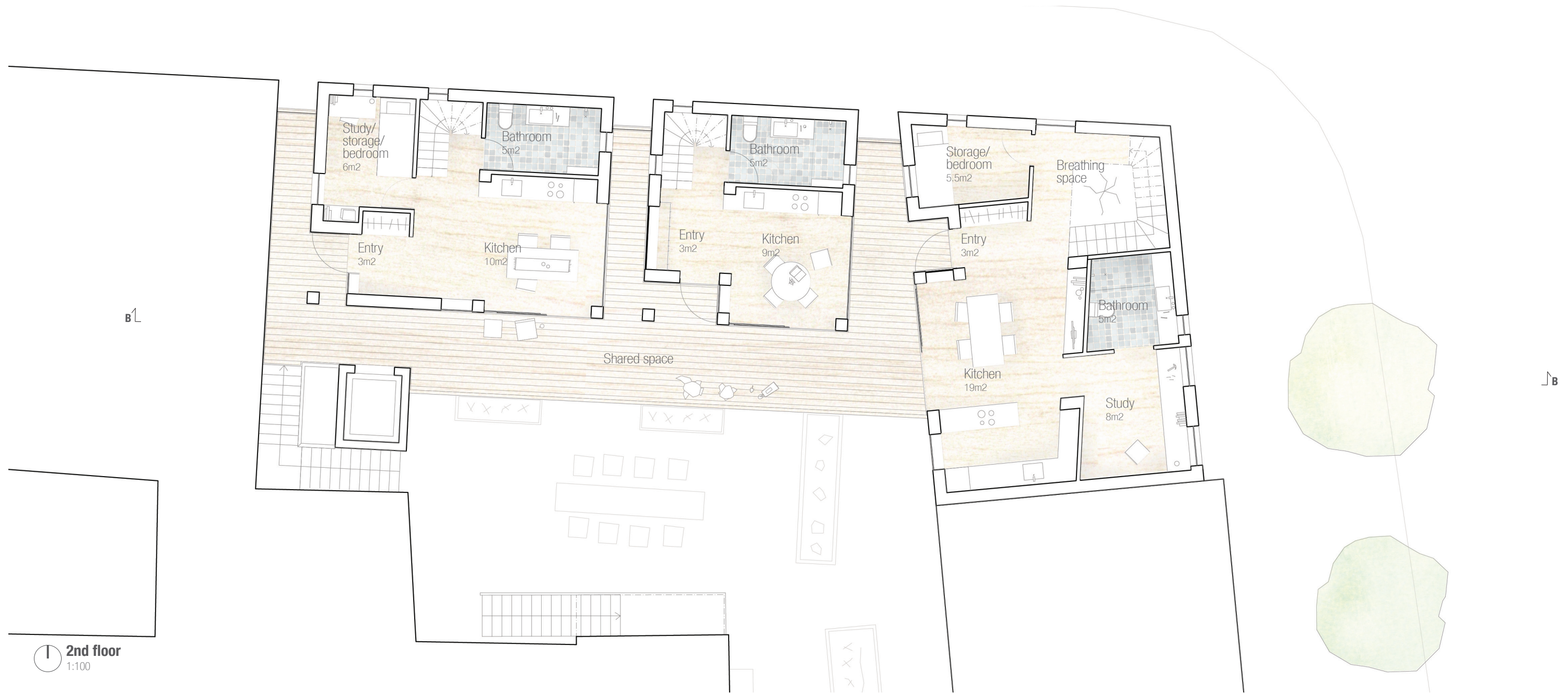


PUBLIC TO PRIVATE

The filter structure consists of three parts, a climatized vegetarian breakfastbar/café, a half-climatized vegetable market with openable facades towards both the street and the courtyard, and a private entry for the inhabitants and deliveries for the kitchen. From 10-5 on weekdays and 10-2 on Saturdays the vegetable market has the rights to use the courtyard.

Perhaps more appealing in the summer season, the market can extend from the street, through the structure, into the courtyard and out through the café. The garbage room, storages for the inhabitants, and the kitchen and the bathrooms of the café are concrete cores that support the habitations on top and permit a continuous transparent facade towards the street.





2nd floor
1:100

On top of the filter structure are three habitations:

Small: 40m²

1st floor: Kitchen, bathroom, entry
2nd floor: Open bedroom-livingroom, balcony.
Suited for an active, younger couple

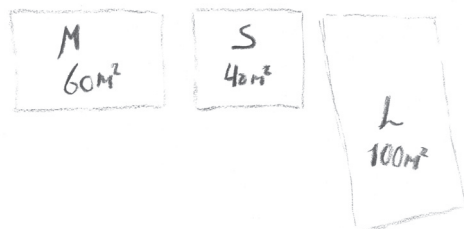
Medium: 60m²

1st floor: Kitchen, bathroom, entry, bedroom/study/storage
2nd floor: Living room, balcony, bedroom, wardrobe
Suited for a small family or mature couple

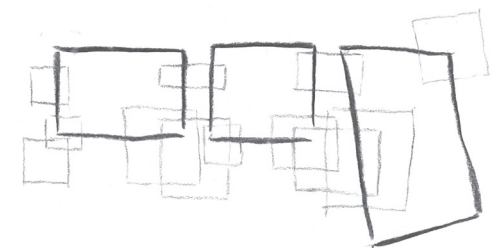
Large: 100m²

1st floor: Kitchen, bathroom, entry, bedroom/storage, study
2nd floor: Living room, balcony, master bedroom, bedroom, bathroom
Suited for a full family. Life cycle and handicap friendly

Total site area:	220m²	Housing:	200m²
Est. useable area:	170m²	Social space:	40m²
Total built area:	320m²	Commercial:	100m²
Site exploitation:	150%	Courtyard:	150m²



The openings give a greatly increased spatiality to the houses as the interior spaces are allowed to expand beyond the house in three directions. This creates overlapping zones that let the houses 'talk' with each other. The corner house merges the directions of the building lines of the block by letting the exteriors follow Prinsens gate and the interiors Erling Skakkes gate.





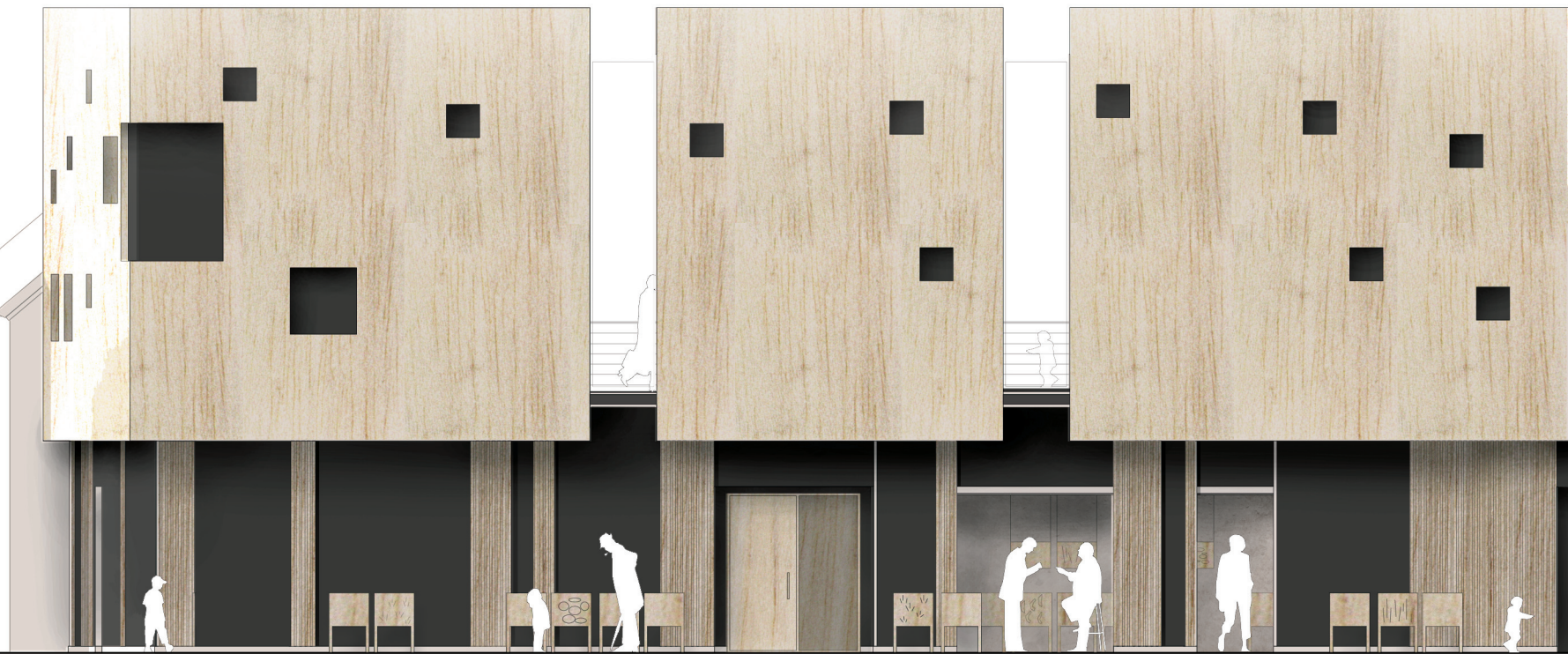
3rd floor
1:100

By having entries and kitchens face south on the first floor of the habitations, a social zone is shaped between the houses. The social space is a wood-clad steel gallery wide enough for kids to play, having plants, and early morning coffees in the sun. The kitchens feature floor to ceiling windows with sliding glass doors that emphasize the extension of interior space onto the social space.



The habitations are facing south into the courtyard, leaving a more closed facade towards the streets. The sharp volumes are done in massive wood to create a both sleek and tactile expression that merges the contemporary and the nostalgic. The openings between the houses are fitted with sound-proof glass towards the streets and can therefore provide the facing rooms with fresh air and light.

The second floor contains more private bedrooms and living rooms, while the balconies invite to interaction.



Facade north C:C
1:100

SIEMPRE PARTIENDO

This project has been an investigation into what the urban habitation can be. It has been an exploration of my own creativity, of what architecture can be for me. In January, the sites and programmes were not chosen. They have appeared through the spatial and conceptual investigations done in the tension field between the specific and the general on each the sites. The path has become as I have walked it.

The project began by competing in 120 HOURS, where the topic was infill. After choosing three sites at the end of January, I worked one week on a project then switched to the next. This way I came back to a project with a fresh mind after two weeks of doing something else. This approach ensured progress through short working horizons, gave me the ability to maintain distance to my own work, and allowed the projects to grow on each other. The approach is inspired by the methodology of the Valparaíso group.

The Valparaíso group works in rondas. Work must be produced in order to be comprehended. Like in poetry, the universe of possibilities for the second line can only be fathomed when the first is written. It is an emotional approach, where one designs with the spontaneity of feelings. ... Through their methods, the Valparaíso group allow them selves to always think freely about their projects and works. Every line and every dot are both ends and new beginnings. Everything is moving with the energy of a new project, everything is possible. Siempre partiendo, they say. Always setting off.



Outdoor chapel in Ciudad Abierta, Valparaíso, Chile