



care of **MASTHUGGSKAJEN**

- modern cohousing with focus on sharing and social interaction



Gustav Jönsson | care of Masthuggskajen | 2019 | Chalmers University of Technology
Architecture and Planning Beyond Sustainability | Examiner: Ola Nylander | Supervisor: Kaj Granath



CHALMERS
UNIVERSITY OF TECHNOLOGY

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Cover:

Figure 1. Water perspective of the final design proposal from Göta Älv.

ABSTRACT

Collaborative consumption, built upon sharing, is a growing movement that is here to stay (Botsman 2015). Through online communities individuals are given access to goods and services provided by others, in scales not possible before the internet (Richardson 2015, p. 1).

Within architecture, the collaboration trend recreates the interest for cohousing and raises a demand for collaborative functions in residential projects. Collaborative consumption contributes to shed light on the positive outcomes of doing things together. Therefore the idea of the community is rebranded as we are relearning how to share again (Becker et al. 2015, p. 18).

Parallel to this development, Swedish municipalities report a shortage of mainly rental apartments between 1-4 rooms (Boverket 2018). An ongoing climate crisis also increases the demand for more sustainable housing solutions (Sveriges Radio 2018).

With the research question "How can residential architecture be designed to support collaborative lifestyles?", the purpose of this thesis is to investigate how collaborative functions can be implemented in residential architecture. The thesis also looks into how conscious design affects social interaction and neighbor relations.

Through a theoretical framework based on a literature study and reference projects the thesis presents design elements that promotes collaboration and social interaction. The elements are implemented into a design proposal for a multi-family residential project at Masthuggskajen in Gothenburg.

The proposal is called "*care of Masthuggskajen*" with the vision of being a modern cohousing community. The building is centered around a social entrance floor that is divided into one part with shared facilities for the residents and a public office. The residential program contains three typologies to create a variety of residents. The most common one amongst them is a cohousing apartment where the average square meter per person is lowered by ~30%.

The outcome shows that designing with a collaborative perspective can bring forward residential architecture that better respond to contemporary demands of sustainability. It also states the importance of providing more social arenas in residential projects to enhance the social interaction among neighbors.

The proposal aims to be one contribution to the housing debate, suggesting a modern interpretation of cohousing where elements of collaboration is highlighted.

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INTRO

PROBLEM STATEMENT

The Swedish housing shortage is a serious issue, as 243 out of 290 municipalities report a lack of dwellings. At the same time building costs are very high making it hard to produce affordable apartments for those who really need it (SABO 2018). Along with an ongoing climate crisis, there is a need for more resource efficient forms of residing on the Swedish housing market (KTH 2015).

Many actors and researchers are reporting a gained interest for cohousing and collaborative lifestyles, yet there seems to be a gap in range and demand for these housing solutions.

RESEARCH QUESTIONS

How can residential architecture be designed to support a collaborative lifestyle?

How can conscious architectural design promote social interaction among the residents?

PURPOSE

The purpose of this thesis is to look into the field of collaborative consumption and investigate the possibilities of implementing a collaborative lifestyle in residential architecture. The purpose is also to show how conscious architectural design can have impact on the social interaction in a neighborhood, raising trust among residents and thus enabling a sharing culture in a residential community.

AIM

The aim is to make a design proposal for a residential community and show how collaborative lifestyles can be implemented. The aim is also to make architecture that promotes social interaction among tenants. The proposal aims to be one contribution to the housing debate, suggesting a modern interpretation of cohousing where elements of collaboration is highlighted.

DELIMITATIONS

The selection of Masthuggskajen as project site is done within the academic freedom of not having to consider the economic realism.

The project is limited to the boundaries of the chosen block and will not take a full grip on the whole of Masthuggskajen.

The project does not look into any economical calculations regarding apartment rents or costs.

METHOD

This thesis is built up as research by design meaning that the design process is an activity that strives to bridge theory and design (Martin & Hanington 2012: 146).

The methods for the project has consisted of a literature study on the field of collaborative consumption, sharing economy, cohousing and design for social interaction. It has also implied the studying of relevant reference projects from both Sweden, Europe and other parts of the world.

Literature study

The design proposal will be founded on a theoretical framework based on a literature study.

The literature research is based on the following keywords: sharing economy, collaborative consumption, residential community, community, social interaction

Reference projects

The reference projects will be positioned on a scale depending on the level of sharing. They will also be evaluated with a +/- list.

Design elements

The literature study and the study of reference projects will be summarized through a list of *design elements* that will be used in the design proposal.

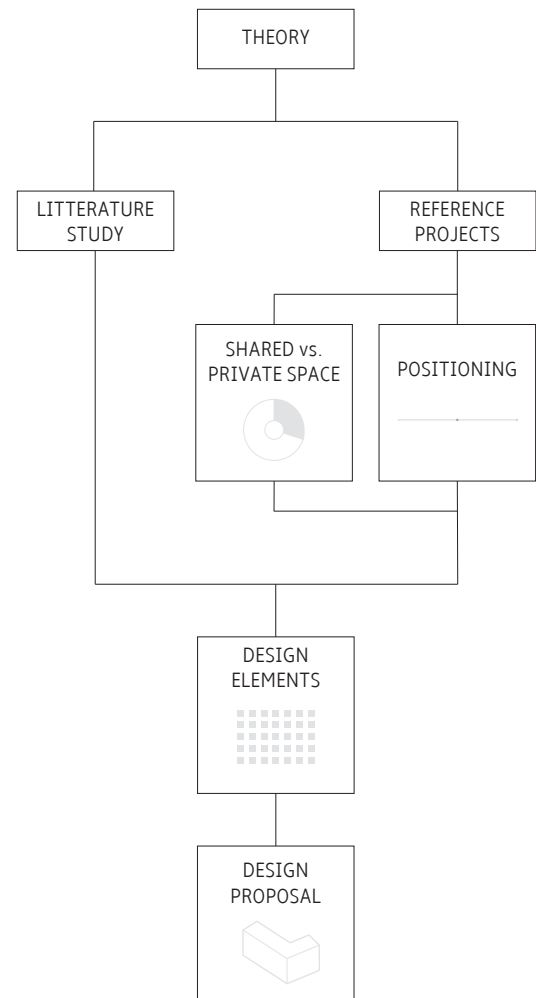


Figure 2. Method diagram.

ABOUT ME



I became interested in collaborative consumption in 2014 when taking my first Über ride with some friends. The logic of take use of other peoples assets instead of hire companies made perfect sense. In 2017 I started to rent out my apartment on Airbnb. Yet I felt a lack of collaborative services and social interaction in my neighborhood. Then the idea began to grow of new housing community, one where I myself would like to live in.

This thesis is the result of that idea.

Educational background

2012-2015

Bachelor - Spatial Planning 180 credits
Blekinge Institute of Technology, Karlskrona

2017-2019

Master - Architecture and Planning Beyond Sustainability 120 credits
Chalmers University of Technology, Gothenburg

THEORY

TERMINOLOGY

Important terms that needs further explanation.

collaborative consumption (kollaborativ konsumtion)

Consumption behaviours that has emerged during the recent 10-15 years. Instead of buying and owning, consumption is about renting, lending, swapping, sharing, bartering and gifting. Often takes place through online peer-to-peer relationships, where individuals are connected directly to each other without any middlemen.

In this project, collaborative consumption is used as an umbrella term for a collaborative lifestyle.

sharing economy (delningsekonomi)

Closely related to collaborative consumption. Sharing economy focus strictly on the sharing part in the collaborative consumption.

In Sweden this term is more frequently used when talking about collaborative lifestyles.

Examples: Airbnb, Sunfleet, Hygglo (see page. 14)

on-demand services

Services that directly match customer needs with providers to immediately deliver goods and services. Ride-services and food deliveries are the most common ones.

Examples: Über, Lyft, Foodora (see page. 14).

conventional housing (konventionellt boende)

In this thesis used as a term for traditional forms of housing where the dwellings are private and no spaces or functions are shared with people outside the household.

cohousing (kollektivboende)

a group of dwellings within a neighborhood where residents share some common spaces and facilities, and occasionally gather for meals or other activities.

STEPPING INTO THE WORLD OF COLLABORATION

Globally, individual consumerism emerged in the 1920's and around the mid 50's, it had developed into patterns of hyper-consumption, where the consuming, using and throwing away of products became the norm and displayed wealth and social power (Botsman & Rogers 2011, p. 20). The hyper-consumption has continued to grow and during the last 50 years we have consumed more goods and services than all previous generations together. We live in a society where consumerism is linear, which implies extracting natural resources for creating products that are eventually thrown away as trash. (Minimeringsmästarna).

According to Botsman & Rogers (2011, p 69-70) children has for the recent 50 years grow up in a hyper-individualistic society, and its no surprise that peoples willing to share has been disregarded. But today this is changing. A new revolution of collaboration is on the rise and we are relearning the valuable outcome of sharing resources with other people.

Today, people all over the world is realizing the positive outcomes of access over ownership (Botsman & Rogers 2011, p, xvi). Even if many millennials has grown up with a collaborative mindset, this lifestyle is not limited to only young and technical experts. Anyone with basic internet knowledge can be part of the collaboration, either as a provider, user or both (Botsman & Rogers 2011, p. 70-71).



Figure 3. Sewing thread. (Vladimir Proskurovskiy 2019).

AT THE CORE OF COLLABORATIVE CONSUMPTION

Collaborative consumption is primarily a way to make use of underused resources by encouraging access to things rather than owning them. It can be both material things such as tools, vehicles and space but also services performed by others (Minimeringsmästarna 2019).

During our lifetime we have all picked up some skills that others could benefit from. The idea of making use of what we have, whether it's a skill, a product or a space, by offering it to someone that needs it makes perfect sense (Botsman & Rogers 2011, p. 156).

Botsman & Rogers (2011, p. 75, 83, 88, 91) argues that companies working with collaborative consumption share four principles at its core - critical mass; idling capacity; belief in "the Commons" and trust between strangers.

Critical mass is about getting enough people to participate and make something become self-sustaining. For a collaborative service to be attractive it needs to be the most convenient choice compared to conventional alternatives. Only with a large customer base a service can continue to develop, squeeze costs and become successful.

Idling capacity represents the unused potential of things. With a collaborative mindset it makes no rational sense of owning a product that is used only a few minutes per year. We need to identify and give power to this capacity.

Belief in "the Commons" refers to the rediscovered belief that it is possible to balance personal interests and still looking out for the commonly good. In collaborative lifestyles the commons can handle shared resources on their own as long as they are given the right tools to do so.

Finally, trust between strangers, acknowledges the power of the community where individuals meet online without the need of traditional middlemen. These peer-to-peer platforms enable new forms of marketplaces where people can form and build trust between other people, often strangers.

COLLABORATIVE CONSUMPTION IN NUMBERS



Figure 4. Bubble diagram.

EXAMPLES OF COMPANIES BUILT UPON COLLABORATIVE CONSUMPTION

As seen in the terminology, the services within collaborative consumption can be categorized differently based on what they do and on how collaborative and sharing-oriented they are.

Here is listed some of the globally most recognized companies as well as some swedish companies that might be not as famous.



Founded 2008. Site for renting out and booking dwellings from private hosts all over the world (Airbnb 2019).



Founded 2000. Car-sharing service where you book a car hourly by your needs (Zipcar 2019).



Founded 2012. Car-riding service at your demand. Trips can also be coordinated so that several people rides together (Lyft 2019).



Founded 1998. Swedish car-sharing service owned by Volvo Cars. Users subscribe monthly and can book cars hourly and on demand (Sunfleet 2019).



Founded 2014. TaskRunner is a swedish platform matching supply and demand regarding household services. Private people puts up a request and individuals respond with their offer. (TaskRunner 2019).



Founded 2016. Swedish company making it possible to lend and rent stuff from people close by (Hygglo 2019).



Founded 2010. Company providing shared workspaces and services forer startup companies, smaller and larger businesses (WeWork 2019).



Founded 2003. Nonprofit movement of people who gives away and receives stuff for free (Freecycle 2019).



(Neighborhood Stuff. Founded 2015. Swedish company making it possible to lend and rent stuff from people close by (Grannsaker 2019).



Founded 2015. Swedish company focusing on finding job opportunities for young adults by matching demands from households who needs help with babysitting, tutoring, gardening etc (Yepstr 2019).

THE COMMUNITY IS BEING REBRANDED

Similarly to cohousing, collaborative consumption reveals the power of doing things together. Brands that work in the collaborative world often shift power to their consumers, by creating online communities where users can interact with each other. People express who they are by what they join (Botsman & Rogers 2011, p. 201).

Today we can see that the community or neighborhood has once again become an important aspect where people are interested in who lives next door (Becker et al. 2015, p. 18). Living in a residential community is a useful asset where you share obligations, expectations and trust with your neighbors. If a community is effective or not depends on how strong the relations are between individuals (Ferguson & Ferguson 2015, p. 195).

Sveriges Radio (2018) reports an increasing awareness of environmental aspects, the interest for collaborative consumption and a search for more social interaction as driving factors when people are looking for more efficient ways of residing.

Collaborative consumption contributes to shed light on the positive outcomes of doing things together and thus helps to the rebranding of the community.



Figure 5. Friends (Helena Lopes 2019).

NEIGHBORS AND SOCIAL RELATIONS

Neighbors are usually people sharing a staircase, a neighborhood street or other semi-private spaces and together they constitute a neighborhood. Neighbors and the relations to your neighbors is by many considered as the most important aspect in a residential community. They are often seen as useful assets that provides safety, but are also a common reason why people do not thrive (Olsson et al. 1997, pp. 35-36).

Social interaction among neighbors occur on different levels, where low interaction consists of passive contact and unintentional observation of while high interaction consists of intentional contact. Activities based on mutual trust are important assets to reach a higher level of interaction. It is on the higher level where kinship and eventually friendship can arise (Ferguson & Ferguson 2015, p. 195).

Traditionally, neighbors are neighbors and not necessary friends why a distance between the private and public sphere is important. People want to decide for themselves who can enter their own borders. The key to good neighbor relations is to know who lives next door and who uses the common spaces (Olsson et al. 1997, pp. 40, 46, 126).

Spontaneous meetings with neighbors when arriving, leaving or doing other daily activities is a valuable opportunity to establish and foster social relations (Gehl 2011, p. 19).

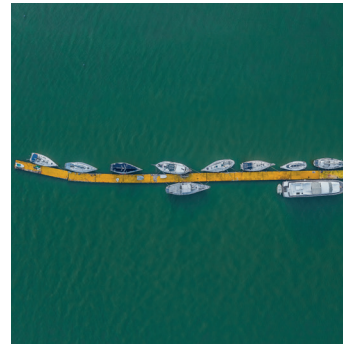


Figure 6. Boats (Chris Fowler 2019).

SPACES FOR SOCIAL INTERACTION

As stated by Botsman & Rogers (2011, p. 73, 91, 157-158) collaborative lifestyles requires trust between people. To increase the opportunities for building trust and forming social neighbor relations, it is necessary to look into which spaces are important and how to design these to create opportunities for social interaction.

The most important spaces for social interaction in a residential neighborhood are the semi-private ones. The courtyard and staircases are the most common examples, much thanks to their opportunities to interact with others without them getting too close. During the 1800s these spaces were seen as possible threats to society since people gathered here and organized against the community. Today it looks a bit different (Olsson et al. 1997, pp. 50, 106-108, 126).

Although courtyards and staircases have good conditions for social interaction, they both have limitations. A courtyard is highly weather-dependent and therefore sensitive in a Swedish climate. Staircases could potentially become social spaces but are generally designed as merely communication routes with no good places to meet. However, both spaces play an important role for casual meetings and conversations with neighbors. This random interaction also affects safety and comfort (Olsson et al. 1997, pp. 124-125).

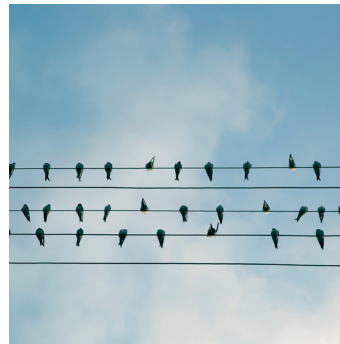


Figure 7. Birds (Slava Bowman 2019).



Figure 8. Café (Toa Heftiba 2019).

VARIOUS KINDS OF ACTIVITIES

Neighborhood can promote social interaction and establish relations, however, the architectural design has a direct impact whether neighbors are seen as resources or threats (Ferguson & Ferguson 2015, p. 194).

The prerequisite for anything at all to occur is that people and events are assembled in time and space. But what is most important is what kind of activities are allowed to develop. Three kinds of activities are possible in public and semi-private spaces - necessary, optional and social activities (Gehl 2011, pp. 9-12, 129).

Necessary activities are unavoidable and involve going to school or work, running errands or taking out the trash. These represent a low level of interaction and demand little of the quality of space.

Optional activities involve talking a walk, standing and enjoying, sitting, sunbathing etc. These activities require high quality of space and good weather.

If the goal is social interaction, then design of places should strive towards developing social activities. That is activities like children playing, conversations and greeting with others and passive contact that is being able to see and hear other people.



Figure 9. Table and chairs (Daniel von Appen 2019).

CONSCIOUS ARCHITECTURAL DESIGN

Jan Gehl (2011, pp. 72-73) suggests five principles for how the physical design can increase the conditions for social interaction between people - no walls, short distances, low speeds, one level and orientation toward others.

For spaces to encourage social activities they must have good conditions for moving around and elements that invite sitting and staying. A good overview of the surrounding is important to see and hear others. Pedestrians prefer direct routes towards the goal without creating long straight pathways. A walking network with alternative routes and small stops will make the walking distance seem shorter (Gehl 2011, pp. 11, 17, 27-28, 141).

To enhance the potential of interaction, shared pedestrian spaces are promoted for walking to and from the apartment. Facades towards these common walkways and courtyards should have large windows (Marcus & Sarkisian 1986, pp. 82, 188).

The degree of visibility should make it possible for neighbors to look out for each other without having the feeling of being under surveillance. Entrances to dwellings should be clearly visible and have a private front porch to mark the transition from public to private (Marcus & Sarkisian 1986, p. 76).



Figure 10. Bridge (John Tower 2019).

REFERENCE PROJECTS

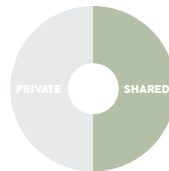
EVALUATION METHOD

+ / -

The reference projects will be evaluated on a +/- list.
On the plus side will be listed design features that
I will consider for the design proposal.

SHARED vs. PRIVATE SPACE

The projects are compared regarding the
percentage distribution of shared and private spaces.



POSITIONING

Each project is finally placed on a scale between conventional housing
where sharing is low and cohousing where sharing is high.

**CONVENTIONAL
HOUSING**
(low sharing)

COHOUSING
(high sharing)

XPLORION, LUND

Architect: LINK arkitektur

Client: Lunds Kommuns Fastighets AB

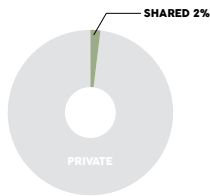
Apartments: 54

Gross area: 4000 m²

Year: construction started 2019



Figure 11. Xplorion, Lund (LINK arkitektur 2019).



Residential block in the new city development Brunnshög outside of Lund. Municipal housing project where sharing is encouraged and simplified. 54 apartments spread out on 3 volumes, connected through external entrance balconies.

- +
- digital platform for exchange of services and information.
- entrance balconies.
- car- & bikepool included in the rent.
- courtyard building for bike parking and repairing.
- public café on entrance plan.

-
- conventional one household apartments.
- small indoor common spaces
- regular laundry room

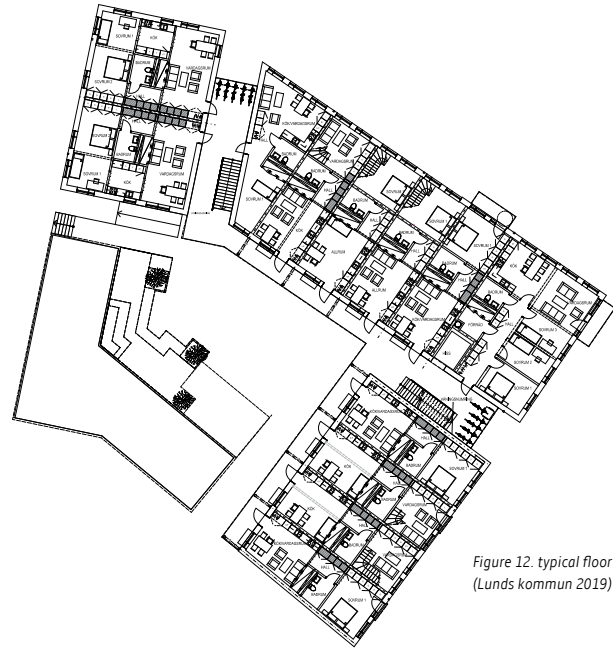


Figure 12. typical floor plan 1:500
(Lunds kommun 2019)

**CONVENTIONAL
HOUSING**
(low sharing)

COHOUSING
(high sharing)

BRF VIVA, GOTHENBURG

Architect: Malmström Edström

Client: Riksbyggen

Apartments: 132

Gross area: ~ 12000 m²

Year: 2019



Figure 13. BRF Vivas six volumes (Riksbyggen 2019).



Figure 14. The common conservatory (Riksbyggen 2019).

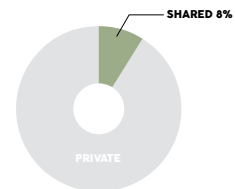
BRF Viva is a large residential community developed as a result of research on sustainable building and housing. The community offers a variety of shared spaces and collaborative services to lower costs and minimize the projects ecological footprint (Riksbyggen 2019).

+

- car pool & bicycle pool (8 electric cars).
- conservatory.
- multi sport area.
- green house and allotment gardens.
- outdoor gym.
- repair shop.
- smart laundry rooms
- entrance balconies
- good visibility
- space efficient apartments (2 room apartment of 48 m² most common)
- workspaces owned by the BRF

-

- no digital platform to connect the residents
- no shared residential areas
- conventional apartments



**CONVENTIONAL
HOUSING**
(low sharing)



COHOUSING
(high sharing)

SOFIELUND COHOUSING, MALMÖ

Architect: Kanozi arkitekter

Client: MKB

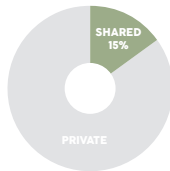
Apartments: 45

Gross area: ~ 4000 m²

Year: 2014



Figure 15. Courtyard facade with entrance balconies
(Lukac 2019).



Sofielund Cohousing is located at Kv Trevnaden in Malmö. The main idea was to question traditional apartment buildings by developing a house that invite to social interaction and collaboration with your neighbors (Sofielunds Kollektivhus 2019).

+

- common kitchen, dining hall, kids room, tv room, music room, workshop, yoga room, sauna, roof terrace.
- guest apartment
- entrance balconies
- flexible apartments
- cooperative organisation with collaborative decision making.

-

- no digital platform to connect the residents
- conventional apartments

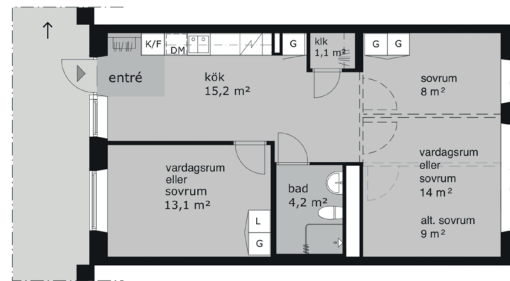


Figure 16. 2 or 3 room apartment
1:200

**CONVENTIONAL
HOUSING**
(low sharing)

COHOUSING
(high sharing)

BIKUBEN STUDENT RESIDENCE, COPENHAGEN

Architect: AART architects
 Client: Bikubens Kollegiefond
 Apartments: ~ 100
 Gross area: ~ 7000 m²
 Year: 2006

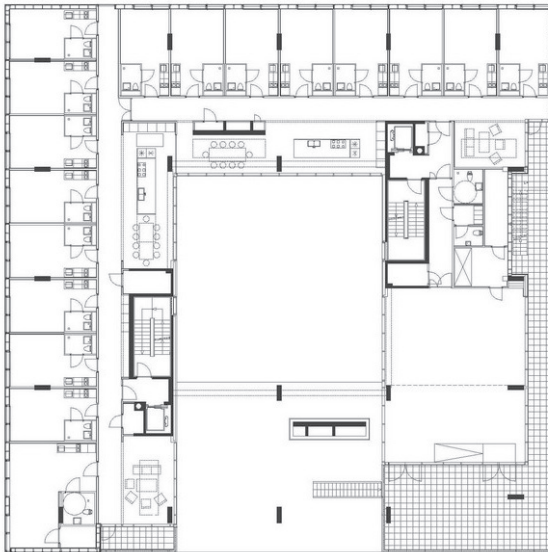
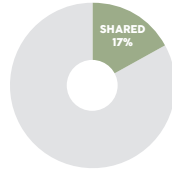
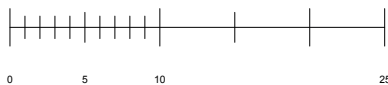


Figure 17. Floor plan 1:500 (Arthitectural 2019).



The vision for Bikuben Student Residence was to rethink social life for student housing and provide possibilities for communities to arise. With an inspiring form and an integrated walking experience the building seeks to minimize the social loneliness that many students suffer from. Designed as a helix around a central courtyard the student rooms are always facing the shared spaces to promote social interaction (Scandinavian-Architects (2019).

- +
- research-based design.
- community branding.
- promote social interaction among the residents.
- integrated walking experience.
- many shared spaces.
- kitchens & living areas.
- gym.
- laundry room.
- roof garden.
- good visibility towards common spaces.
-
- no digital platform to connect the residents

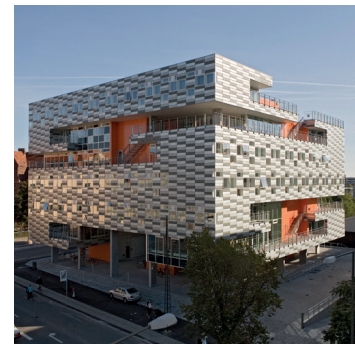


Figure 18. Bikuben Student Residence (Eskeroed 2019).

**CONVENTIONAL
HOUSING**
 (low sharing)

COHOUSING
 (high sharing)

ROAM COLIVING



Figure 19. Roam Bali (Roam 2019).



Figure 20. Roam Tokyo (Roam 2019).



Figure 21. Roam London (Roam 2019).

Roam Coliving is a community for living and working, with apartment complexes on six locations around the world. San Francisco, London, Bali, New York, Miami and Tokyo. Each location has hotel apartments with private bathrooms.

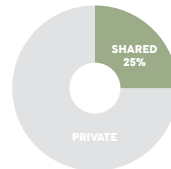
The idea is to attract travellers and workers who wants to enjoy the freedom of being able to perform their work from anywhere in the world. With Roam the idea is to test the boundaries between work, travel and adventure (Roam 2019).

+

- compact hotel apartments without kitchen
- many shared spaces
- suitable for travelling people
- high promotion of social interaction
- one concept at many locations

-

- temporary housing solutions
- relatively expensive (120 US\$/night)



**CONVENTIONAL
HOUSING**
(low sharing)

COHOUSING
(high sharing)

SOCIAL BALCONIES

Designer: Edwin van Capelleveen

Year: 2018

Status: Competition - Social Design Talent Award

Award: 3rd place

Social Balconies is a design concept consisting of a modular structure that promotes interaction amongst neighbors in urban area's. The aim is to adress social isolation by creating a semi-public space of interconnected stairs between balconies (Edwin van Capelleveen 2019).

+

- radical balcony solution
- high level of trust
- space efficient common outdoor space

-

- complex structure
- exposed to weather



Figure 22. Social balconies (Edwin van Capelleveen 2019).



Figure 23. Social balconies (Edwin van Capelleveen 2019).

**CONVENTIONAL
HOUSING**
(low sharing)

COHOUSING
(high sharing)

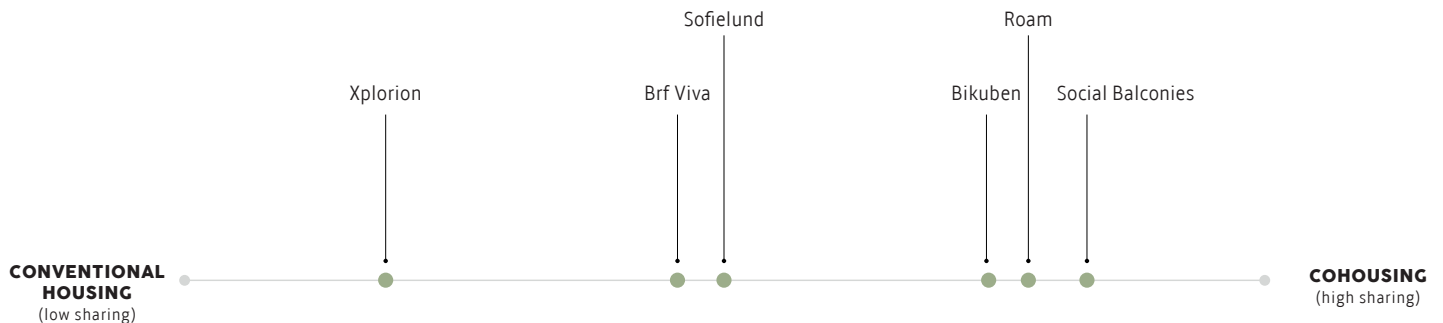
SUMMARY

AVERAGE PERCENTAGE OF SHARED SPACE



DESIGN FEATURES TO BE LIFTED INTO THE DESIGN PROPOSAL

- +
- digital panel for exchange of services and information.
- community branding.
- green house and conservatory..
- smart laundry rooms.
- collaborative use of space from morning til night time.
- co-working space.
- entrance balconies.
- good overview towards shared spaces..
- common kitchen & dining hall.
- roof terrace.
- guest apartment.
- promote social interaction.
- integrated walking experience.
- many shared spaces.
- compact hotel apartments without kitchen.



DESIGN PROPOSAL



GOTHENBURG

MASTHUGGSKAJEN



Figure 24. Satellite photo Gothenburg (Eniro Kartor 2019)

MASTHUGGSKAJEN



JÄRNTORGET

--- detail plan boundary
— new development

50 100 200



Figure 25. Satellite photo Gothenburg (Eniro Kartor 2019).

SITE

1:1000

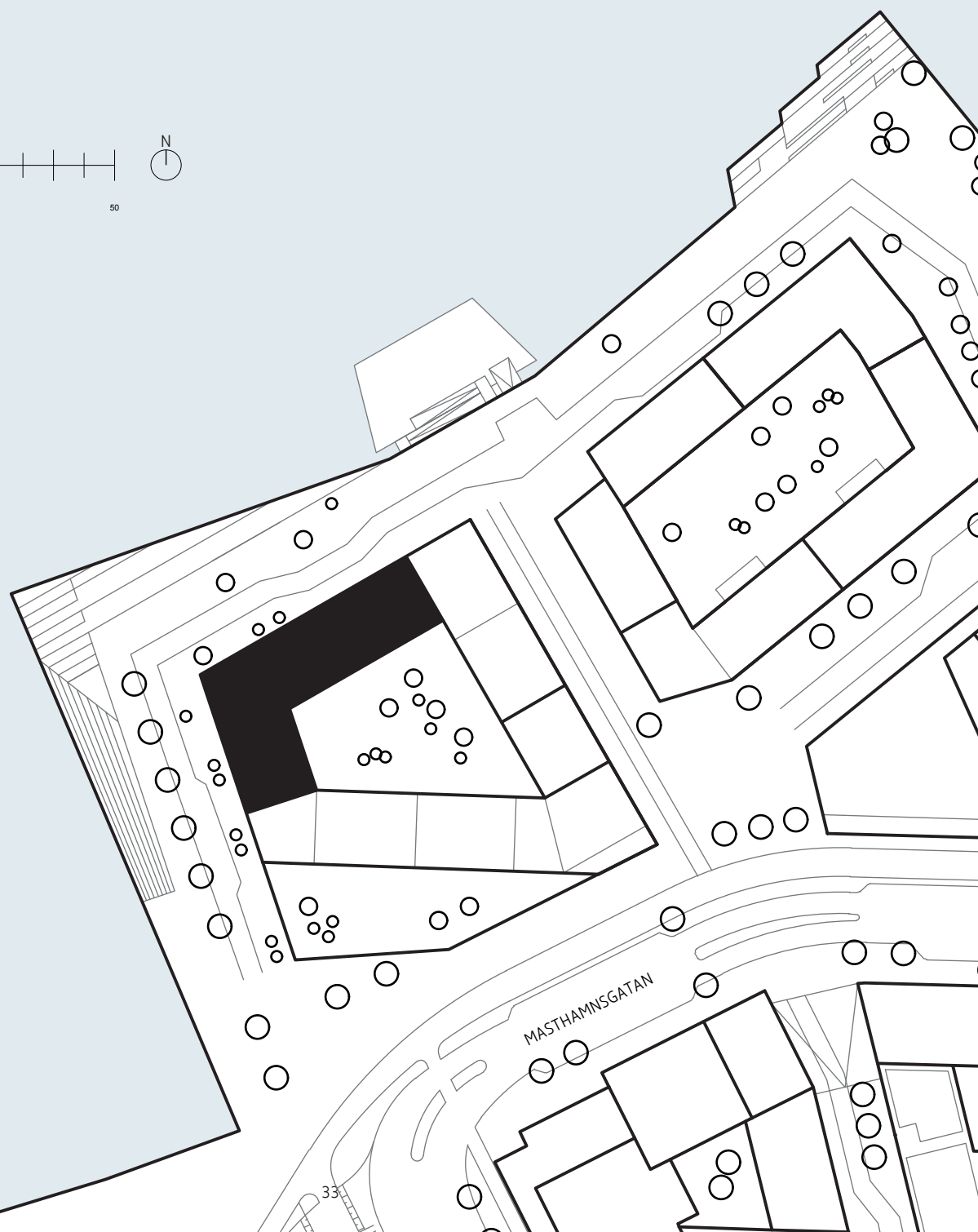
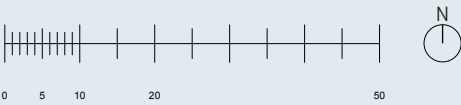
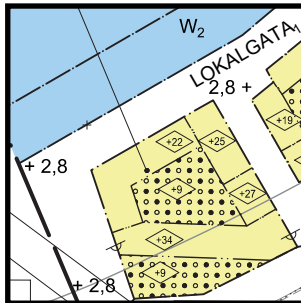


Figure 26. Site plan.

ABOUT MASTHUGGSKAJEN

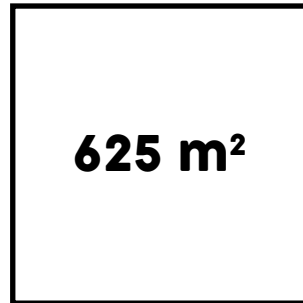
The project site is located at Masthuggskajen, on manmade land, as a part of the development aiming to bring Gothenburg closer to the river. The municipality plans for 1300 dwellings and 5000-6000 workplaces. A new detail plan began to apply in March 2019 (Älvstaden 2019).

The site was chosen for its current relevance and because new development areas are good testbeds for new ideas.



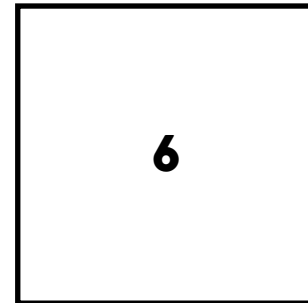
DETAIL PLAN

Figure 27. Detail plan (Göteborgs Stad 2019).



SITE FOOTPRINT

625 m²



MAXIMUM NUMBER OF FLOORS

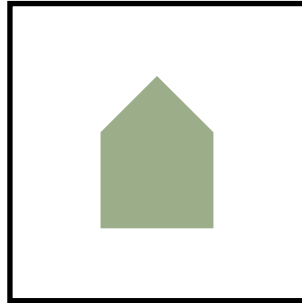
6

VISION



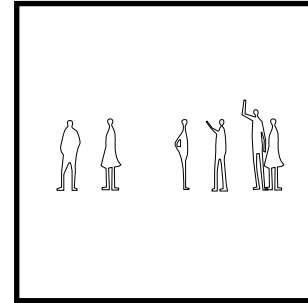
BUILD A COMMUNITY

the residential community of the future with smart housing solutions and a sharing culture among the tenants.



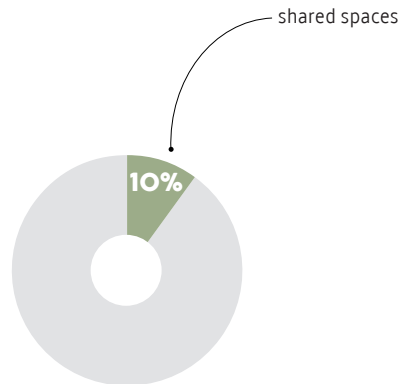
MODERN COHOUSING

cohousing apartments for the modern household that wants to live more socially and resource efficient.



SOCIAL ARCHITECTURE

conscious design and a variety of shared spaces that invites to collaboration and promotes social interaction.



**CONVENTIONAL
HOUSING**
(low sharing)



COHOUSING
(high sharing)

DESIGN ELEMENTS

Based on the literature study, reference projects and creative brainstorming, design elements promoting collaboration, sharing and social interaction has been selected to be brought into the design proposal.

conceptual



CARE OF MASTHUGGSKAJEN

The project is branded with a logotype and graphical profile to create the feeling of a community.



DIGITAL PLATFORM

A digital platform is the central core of the community. News, info, booking of spaces, bartering of stuff or setting up an event is managed here. The platform is accessed from ones phone, computer or tablet and on screens on the entrance floor.



VARIOUS HOUSING TYPOLOGIES

To create a diversity of residents in terms of age and family situation, three different housing typologies is necessary. Collaborative lifestyles is dependent on people that can act as both users and providers.



A SOCIAL ENTRANCE FLOOR

The entrance floor is the storefront to the city and should showcase all the activities going on. It is the most dynamic storey and an important space for collaborative functions and social production.



SEMI-PRIVATE SPACES

Many varying semi-private spaces are created since they are proved to be the most important for social interaction. The spaces should offer various activities to provide something for everyone.

functional



LOBBY

The residents entrance gets the atmosphere of a lobby to strengthen the feeling of coming home and encourage people to spend time here and socialize.



THE VERTICAL STREET

A combination of the indoor staircase and the outdoor entrance balcony to turn vertical communication into a social space. The vertical street is the urban interpretation of the villa street with exterior housing entrances.



BIKE POOL

The bike pool is about simple bike riding and sharing your bike with others. Everyones bike is part of the pool and can be rented by the other residents. Price is set depending on bike type and renting length.



KITCHEN

To provide possibilities for cooking for yourself or others, on your own or together, a spacious kitchen with dining place is designed.



LAUNDRY PLACE

Laundry is a an activity that can't be avoided, yet it can be done more effectively and socially. The laundry place is about turning laundry into a visible and social activity. Book the machines and functions you need and stay in the lounge area meanwhile.

functional



COFFICE

Part of the entrance floor is assigned for a cooffice which is the modern collaborative office combined with a café.



FIXING PLACE

A place for carpentry and repairing of things. The residents can work on their own stuff or help others and get something for it.



ROOF GARDEN

The location of the house by the river makes it unavoidable not to create a roof top garden. A major outdoor space that becomes the natural meeting point when the weather is good.



GREEN HOUSE

The interest in growing and urban farming is gaining interest. A green house offers possibilities to socialize around growing and harvesting.



DELIVERY ROOM

To simplify external deliveries and internal lending and renting of people's stuff a room with smart lockers is provided that can be managed online.

design and mental



FRONT PORCH

The place outside each housing entrance is important to allow the private sphere to extend out in the semi-private and enable social life and spontaneous meetings in the vertical street.



TRANSPARENCY

Facades facing semi-private spaces are glazed up to create light and visibility towards common walkways.



PLACES FOR STAYING

Provide inviting places for staying to simplify for social activities to occur.



HEARING

Opportunities to hear others is proven to be an important feature instead of being alone.



OVERVIEW

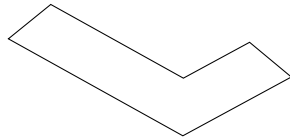
Common spaces are arranged transparent in relation to each other with glazed walls to give people a good overview of what's going on in different rooms.



DEGREES OF PRIVACY

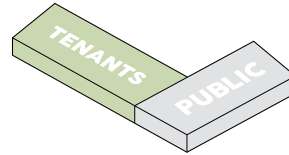
An important feature when living collaboratively is to choose your degree of participation and being able to be more or less private.

PROGRAM DISTRIBUTION



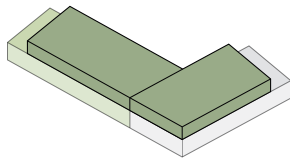
1. BUILDING FOOTPRINT

The gross area of the site is 625 m².



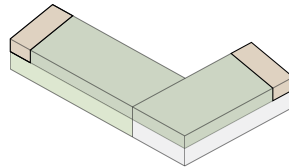
2. A SOCIAL ENTRANCE FLOOR

The entrance floor is divided into one area with shared facilities for the tenants and a public coffee.



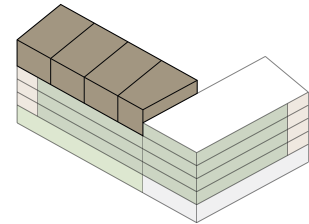
3. TYPOLOGY 1 - COHOUSING APARTMENTS

The most common typology is a modern interpretation of urban cohousing.



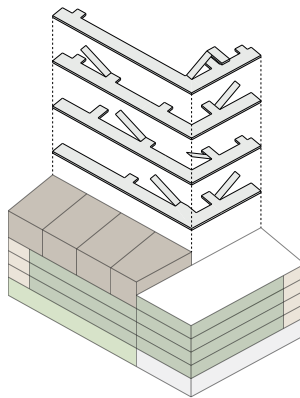
4. TYPOLOGY 2 - HOTEL APARTMENTS

The smallest typology is designed as a hotel room for more temporal housing for several tenants.



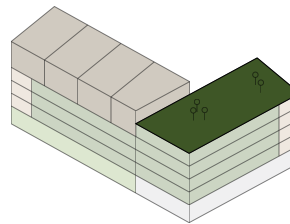
5. TYPOLOGY 3 - ROWHOUSES

To provide the qualities of ground level housing, four rowhouses are placed on the fifth floor. Suitable for families with children, younger couples or elderly couples.



7. THE VERTICAL STREET

The vertical street is the urban interpretation of the villa street with social meeting places.



8. ROOF GARDEN

Prime location towards the evening sun available only for the residents.

Figure 28. Program distribution.

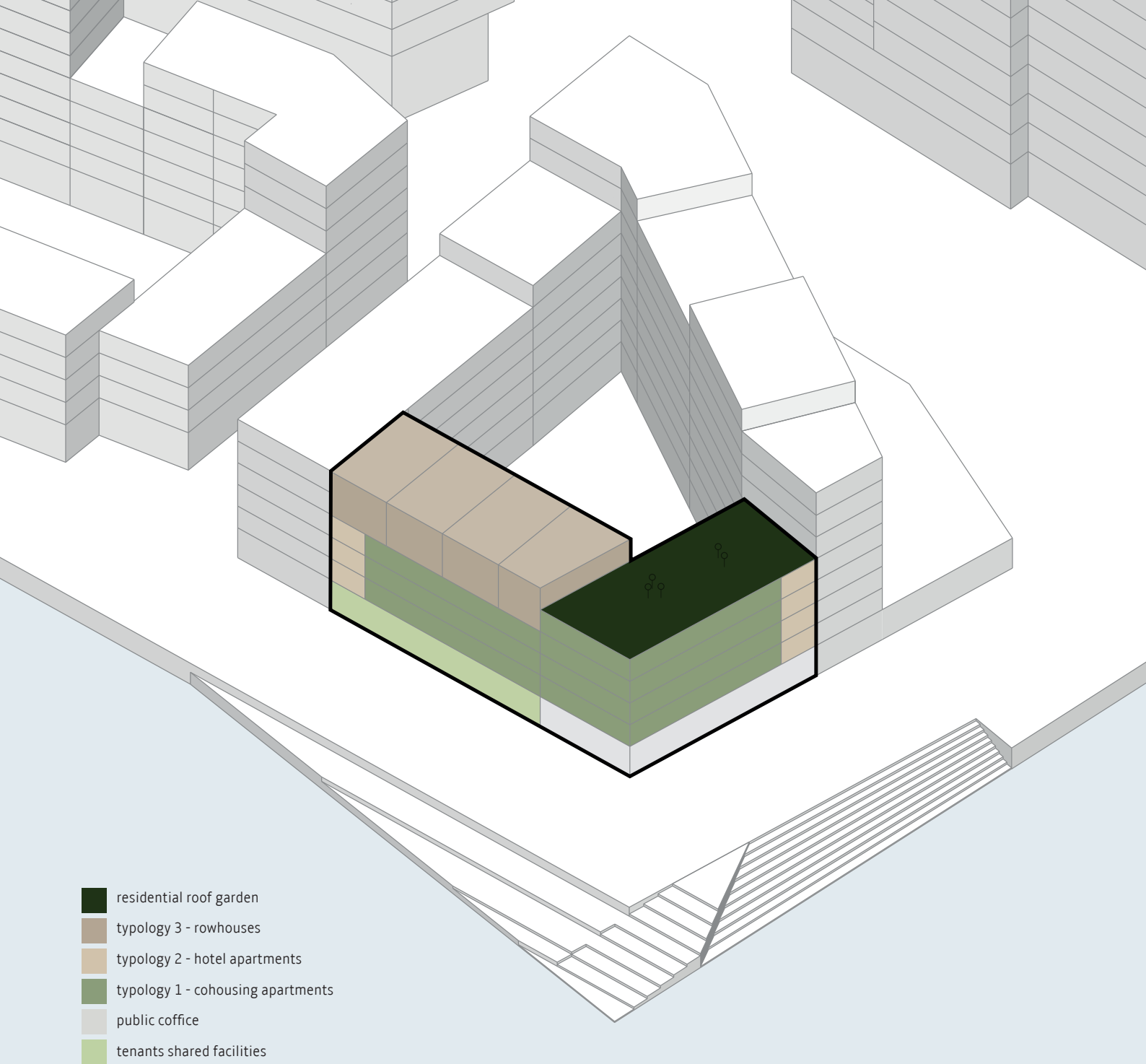
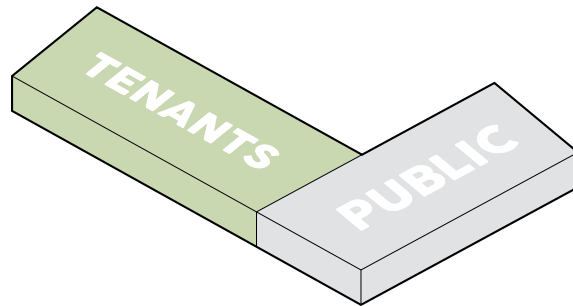


Figure 29. Program distribution.

FOR THE TENANTS & THE CITY

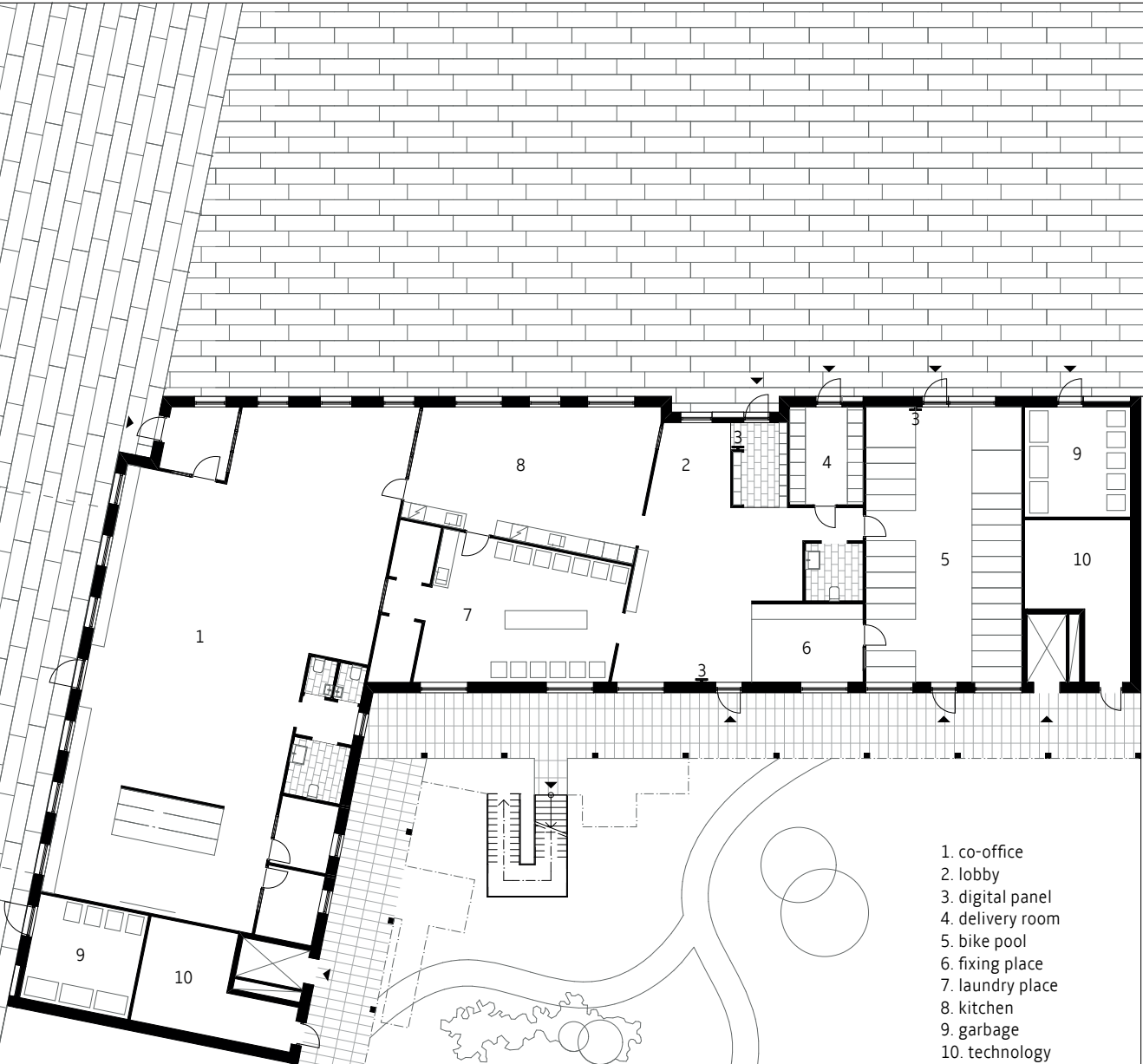
The entrance floor is the storefront to the city designed as one big social space with a variety of functions.

The residents have access to the entire floor while the public have access to the cooffice.



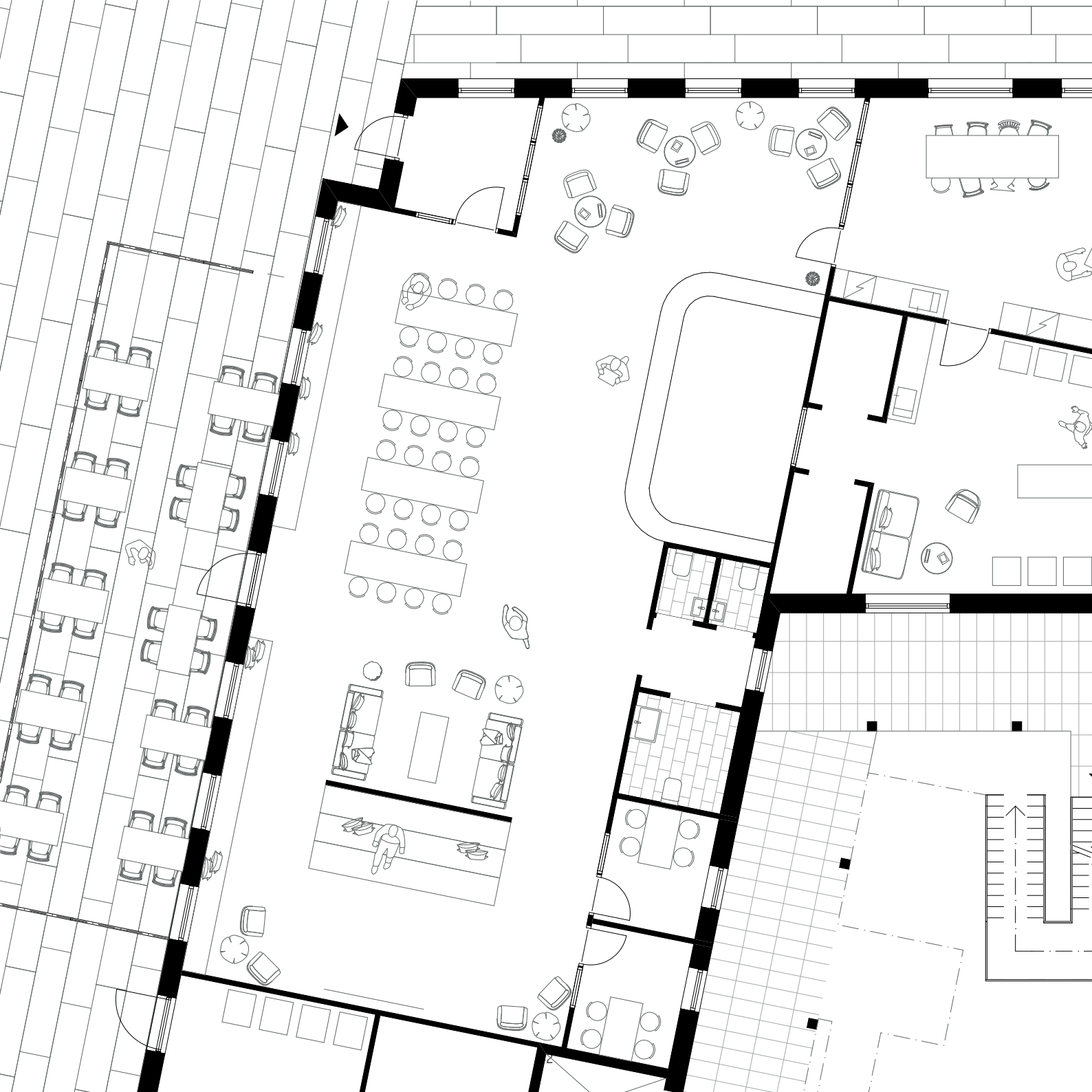
ENTRANCE FLOOR

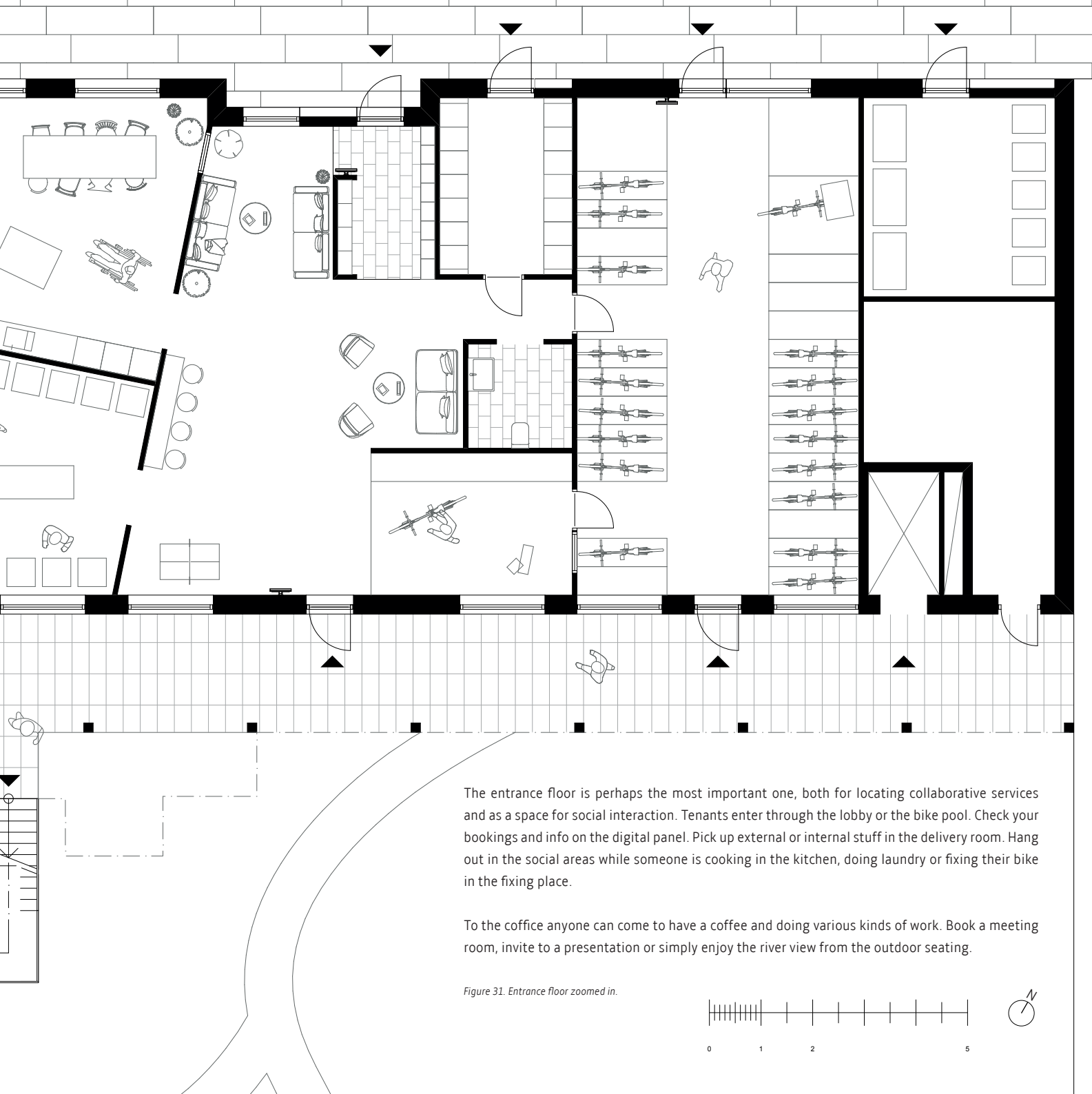
1:250



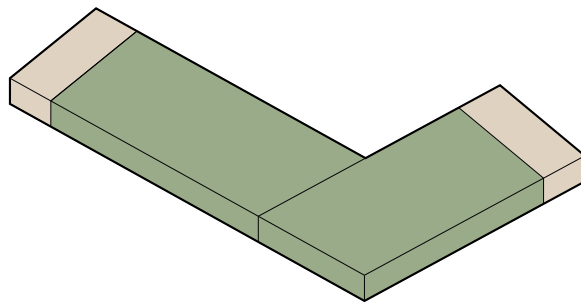
1. co-office
2. lobby
3. digital panel
4. delivery room
5. bike pool
6. fixing place
7. laundry place
8. kitchen
9. garbage
10. technology

Figure 30. Entrance floor.





TYPICAL FLOOR PLAN - TYPOLOGY 1 & 2

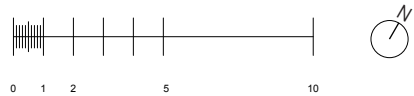


TYPICAL FLOOR PLAN

storey 2-4 | 1:250

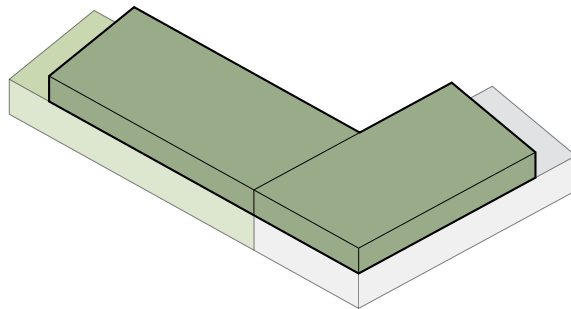


Figure 32. Typical floor plan.



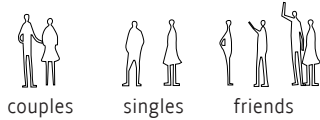
- 1. the cohousing apartment
- 2. the hotel apartment
- 3. the vertical street

TPOLOGY 1 - COHOUSING APARTMENTS



THE COHOUSING APARTMENT

1:100 | 190 m² | 4-8 people | ~ 30 m²/person (6 people)



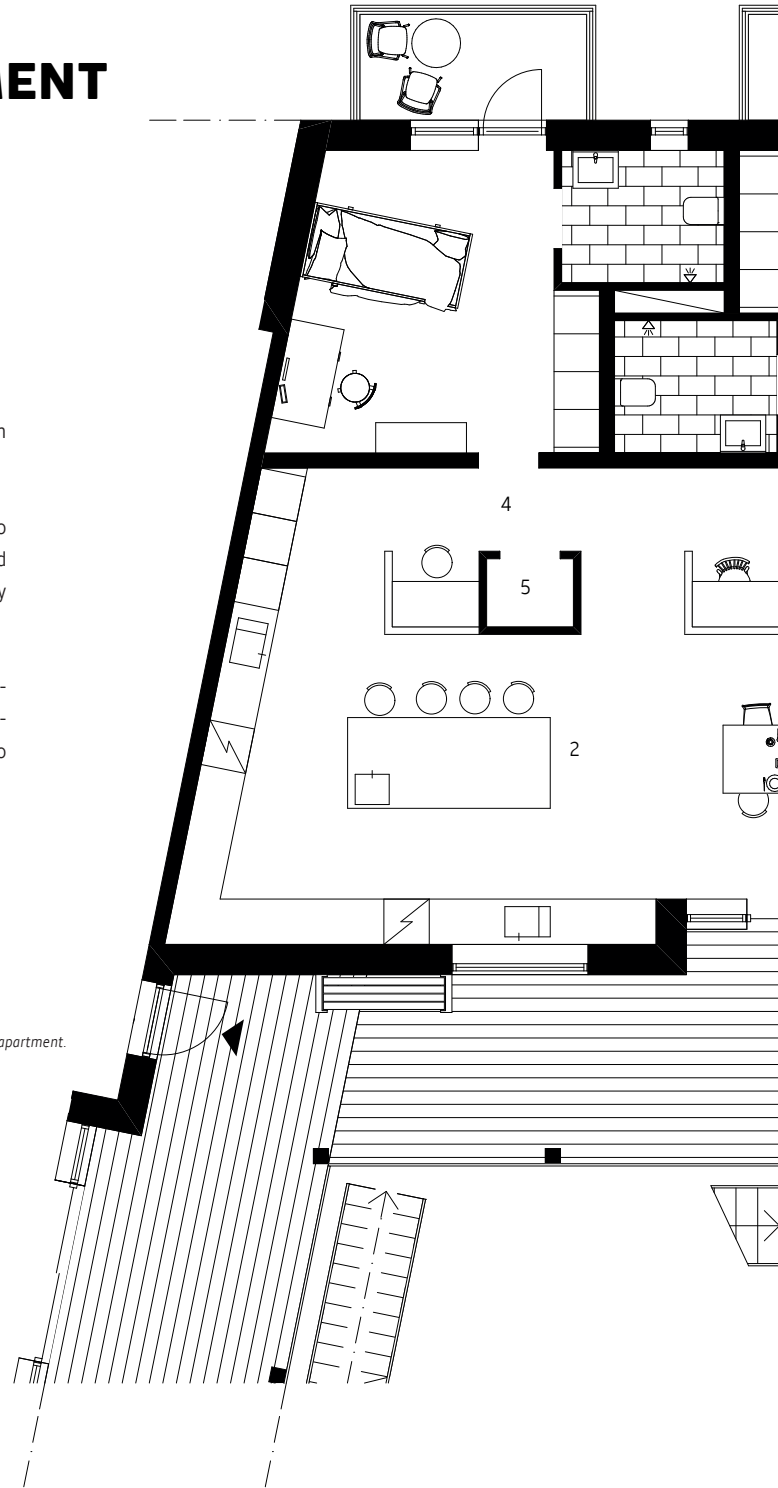
The cohousing apartment is the modern interpretation of urban cohousing. It is 190 m² and designed for four households, up to eight people. If six people live here its ~ 30 m²/person which is 30% lower than the swedish average at 44 m².

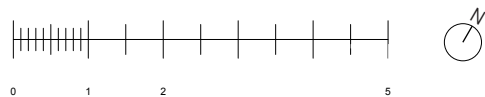
The entrance is centrally located with kitchen to the left and livingroom to the right. The common areas are placed towards the vertical street with good transparency. From the living room the residents access a common balcony oriented towards the river.

Each household has a private unit with room for resting, bathroom and balcony. Outside each unit is a transition zone with a furnishable area and personal storage. This zone provides degrees of privacy and allows for people to choose how social they want to be.

1. entrance hall
2. kitchen
3. living room
4. transition zone
5. personal storage
6. common balcony
7. private area
8. private balcony
9. guest toilet
10. front porch
11. the vertical street

Figure 33. The cohousing apartment.





SPATIAL QUALITIES

1:250

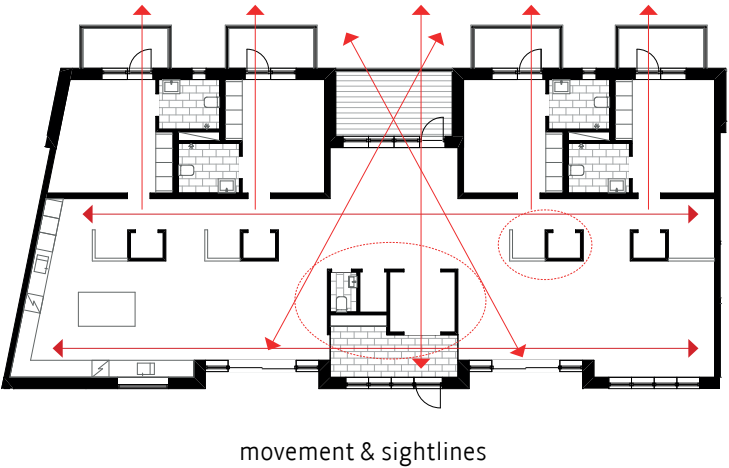
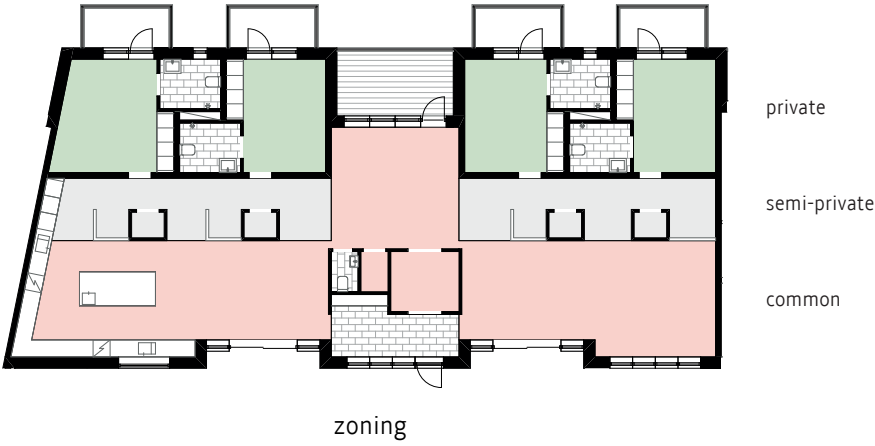
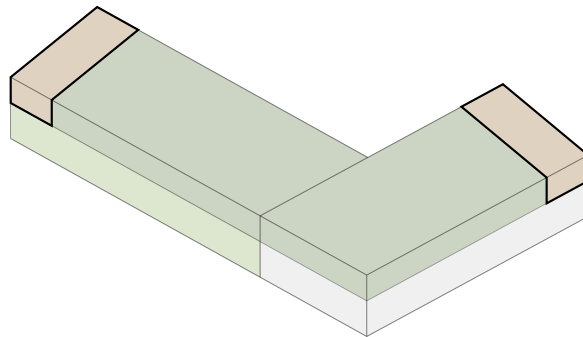


Figure 34. Spatial qualities.

T TYPOLOGY 2 - HOTEL APARTMENTS



THE HOTEL APARTMENT

1:100 | 27 m² | 1-2 people



couples



singles

The hotel apartment is designed for more temporal housing forms. is designed along degrees of privacy. From the outdoor vertical street, into the common spaces, on to the semi-private transition zone and finally the tenants private unit.

The hotel apartment is designed for 1-2 persons, suitable for temporary residents or people that tends to be on the move a lot. One apartment could have many tenants/ owners.

They could be administrated by the community and be rented out on Airbnb when not used. The administration of this can create a job opportunity for a tenant within the community.

1. entrance hall
2. open bathroom
3. workdesk
4. kitchenette
5. private balcony

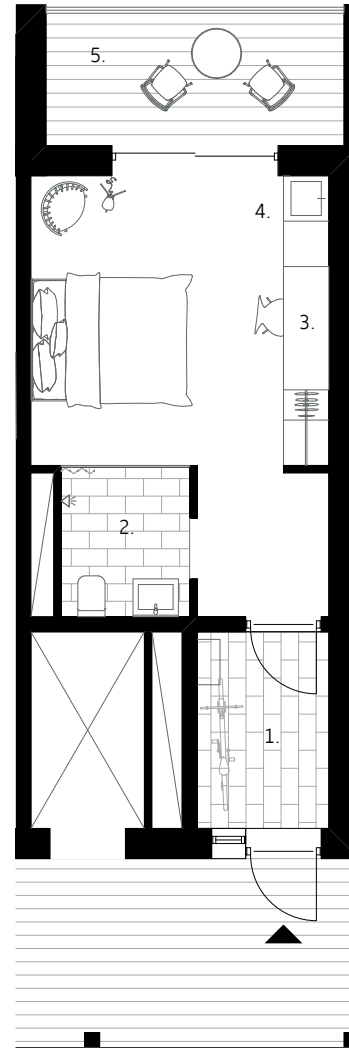
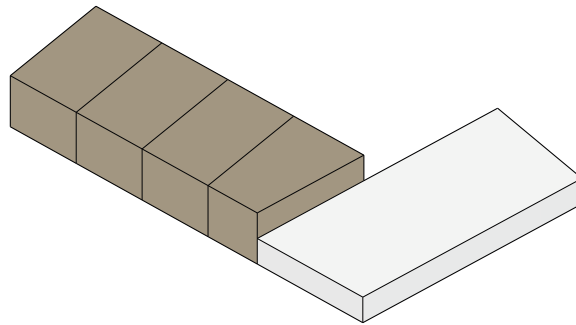


Figure 35. The hotel apartment.



Figure 36. The hotel apartment with frosted glass in the bathroom.

TYPOLOGY 3 - ROWHOUSES



THE ROWHOUSE

1:100 | 2 storeys | 130 m²



couples

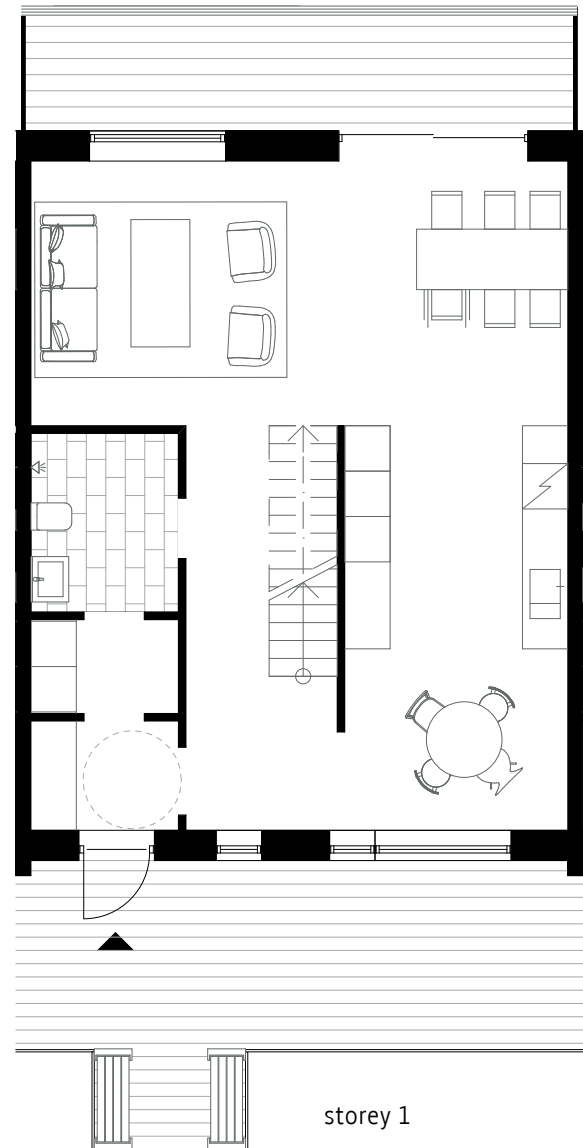


families with children

The rowhouses are about providing the qualities of ground floor housing in an urban setting. Suitable for couples, families with children or elderly couples.

Located on the fifth floor, this typology is important to attract tenants with more purchasing power. Collaborative services are dependent on both users and providers. Households that are financially stronger thus becomes an important user of services such as shopping, babysitting or ridesharing.

Similarly to typology 1 the social areas are located towards the vertical street with good transparency. Living room and a balcony towards the river. The second floor contains bedrooms and a terrace with a magnificent view.



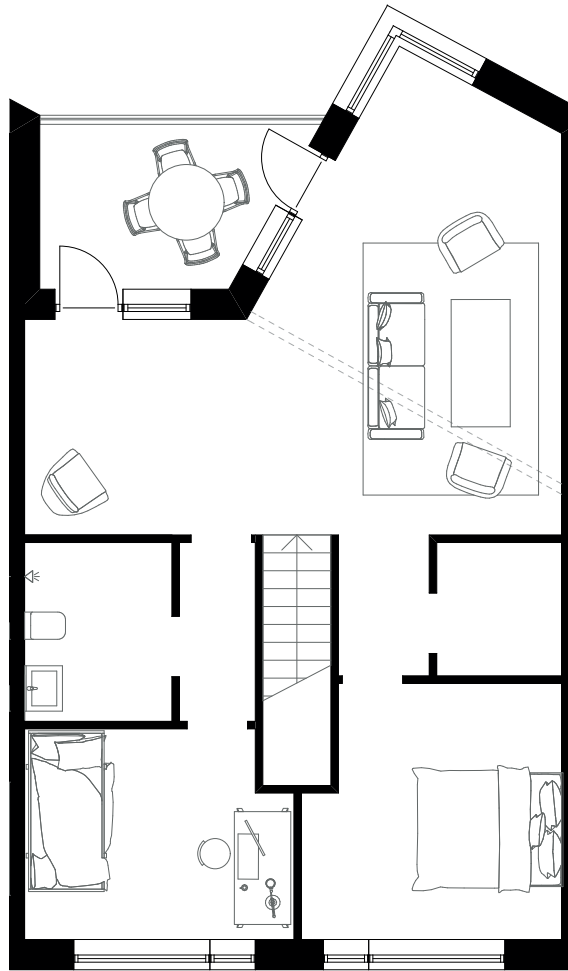


Figure 37. The rowhouse.

storey 2

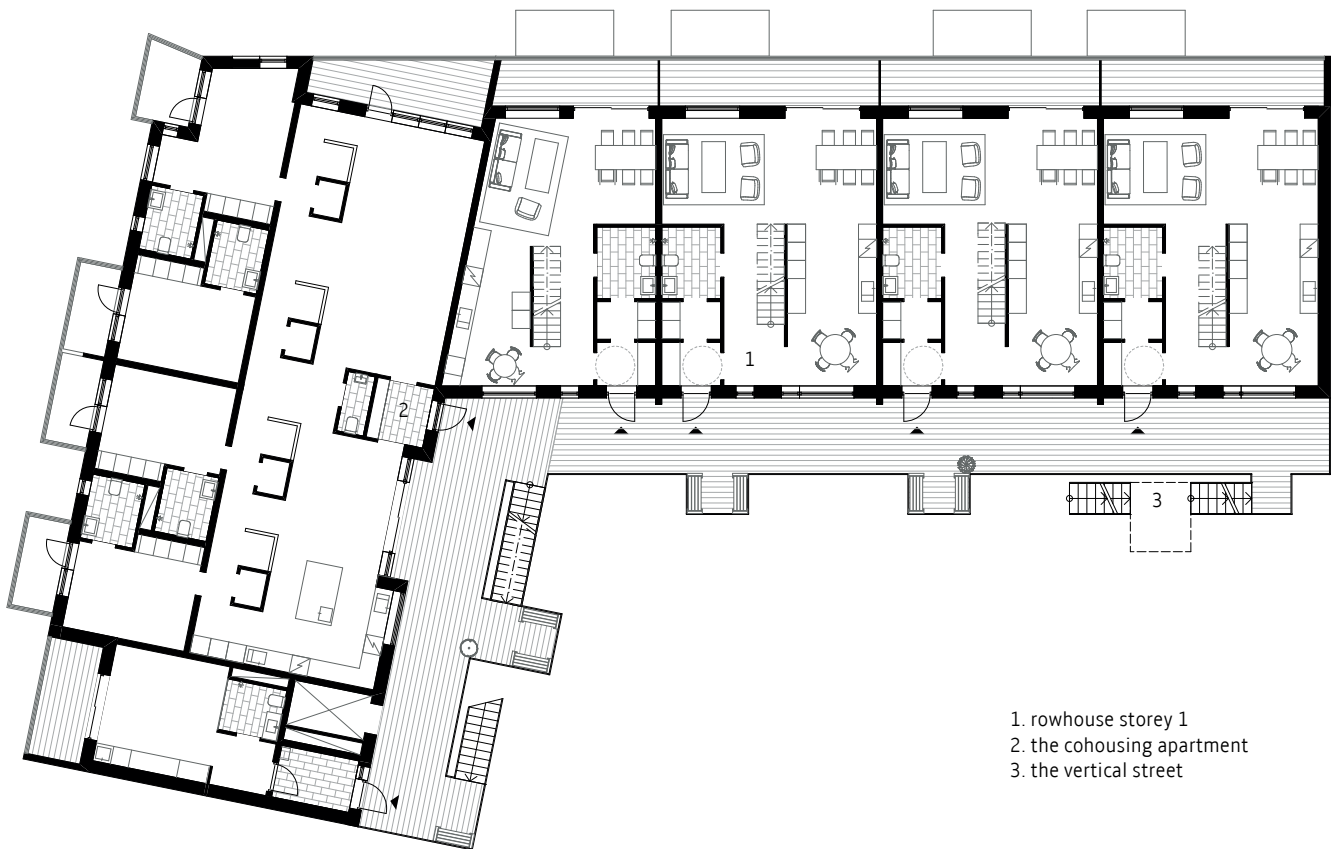




Figure 38. River view and terrace from the second storey of the rowhouse.

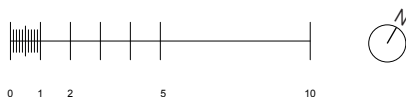
STOREY 5

1:250



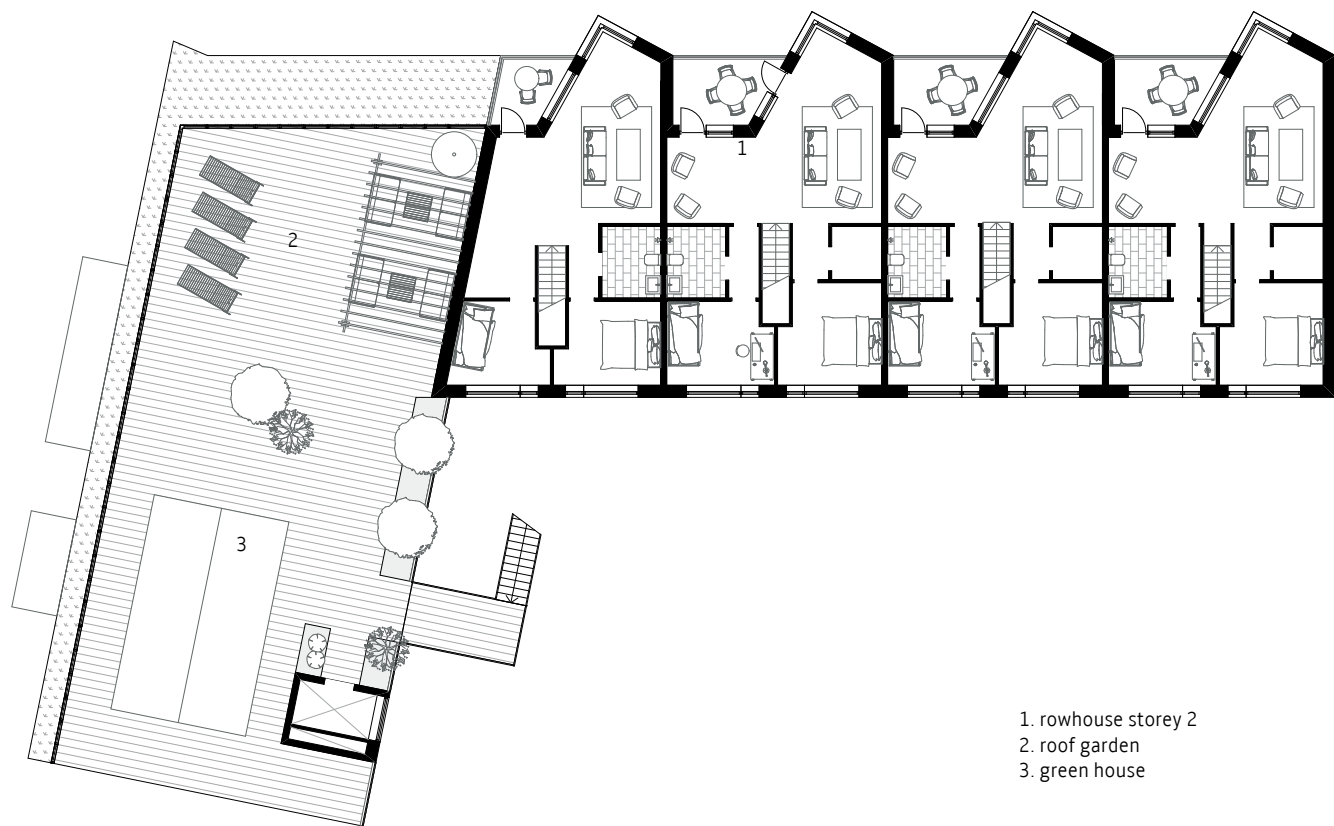
- 1. rowhouse storey 1
- 2. the cohousing apartment
- 3. the vertical street

Figure 39. Storey 5.



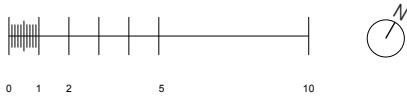
TOP FLOOR

1:250



- 1. rowhouse storey 2
- 2. roof garden
- 3. green house

Figure 40. Top floor.



MATERIALITY

The material palette consists of green glazed bricks towards the city and wood shingles towards the courtyard.

Glazed bricks was chosen for its reflective aesthetics that allows for the facade to change expression depending on weather.

With the green facade the building can become a colorful splash in the new city skyline of Gothenburg.

Wood shingles was chosen for its warm characteristics which is suitable for the courtyard where people move close to the facade.

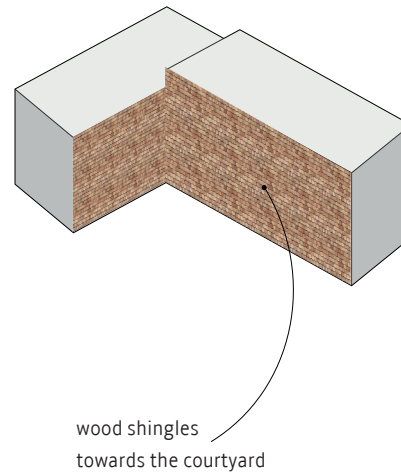
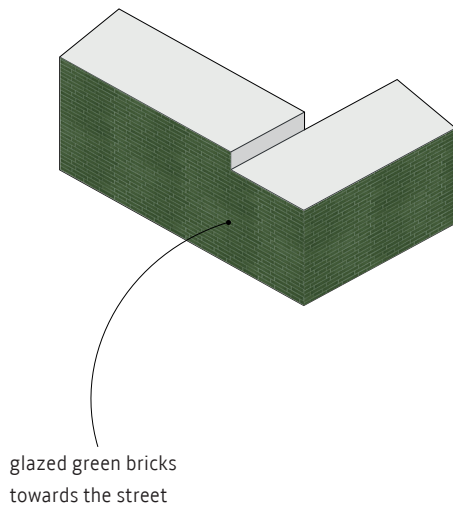




Figure 41. Water perspective of the final design proposal from Göta Älv.





Figure 42. The courtyard and the vertical street.



Figure 43. North facade with residents entrance.



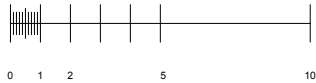
Figure 44. The courtyard with wood shingles and white steel staircases.

NORTH ELEVATION

1:250



Figure 45. North elevation.



WEST ELEVATION

1:250



Figure 46. West elevation.



EAST ELEVATION

1:250

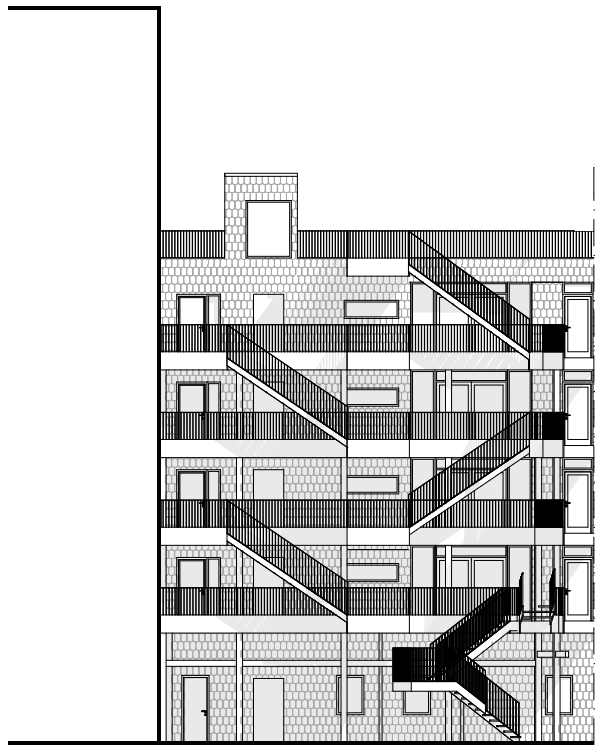
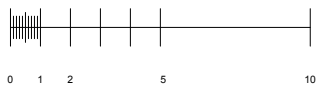


Figure 47. East elevation.



SOUTH ELEVATION

1:250



Figure 48. South elevation.





c10



Figure 49. Glazed bricks and wood on the north facade.

CONCLUSIONS

As stated in this project, there is an increasing demand for more social and sustainable housing forms. The current housing shortage, a longing for more social capital and an increasing environmental awareness contributes to push this development.

When learning more about collaborative consumption it becomes clear that the collaboration trend contains some solutions to the problems on the housing market. Creating spaces for collaborative services such as laundry, biking, carpentry and cooking saves both square metres and energy and at the same time contributes to more socializing among the tenants.

It is clear that collaborative consumption is closely related to traditional cohousing, why its natural that they go hand in hand. The sharing trend helps to shed new light on cohousing, by reshaping it into a modern and conventional housing form for anyone who wants to live more sustainable from a social, economical and environmental point of view.

With modern cohousing the traditional idea of the neighbor is also challenged. No longer need neighbors to be kept on a reasonable distance, rather we are willing to let people even closer into our private sphere. Neighbors should be seen as valuable assets that can provide products or services that others might be in need of.

The idea of the home as a secure nest is also changing when the borders between private and common are allowed to overlap. Its also time to rethink the social arenas in residential neighborhoods and start to recognize the social potential that lies in the semi-private spaces. Staircases and social entrance floors are just two examples for how conventional functions can be designed to strengthen social relations.

With care of Masthuggskajen I have sought to make one contribution to the housing debate, suggesting a collaborative residential community with modern cohousing and social architecture. Hopefully it showcases one possible housing solution that we will see on the market in the near future.

How can residential architecture be designed to support a collaborative lifestyle?

The outcome shows that designing with a collaborative perspective can bring forward residential architecture that better respond to contemporary demands of sustainability.

To succeed with a collaborative residential community it has been shown that branding and creating a digital platform are key aspects. Common collaborative services must also be provided that are easy to access and attractive enough compared to the alternative.

Collaboration is about the power of the community why it is suitable to provide housing forms where people live closely together and housing forms that creates various tenant constellations. A mix of people regarding age and civil status is crucial to get both users and providers into the system.

How can conscious architectural design promote social interaction among the residents?

This thesis has stated the importance of providing more semi-private spaces and social arenas in residential projects to enhance the social interaction among neighbors.

Another important aspect is to design for transparency towards these social arenas and let the private sphere extend into the semi-private space. The entrance balcony allows for high transparency if kitchen and living room are located towards it.

Design that allows for staying and spending time in the semi-private space are of great importance to populate these spaces and create a flow of people. When people are there, activities can occur and eventually shape neighbor relations.

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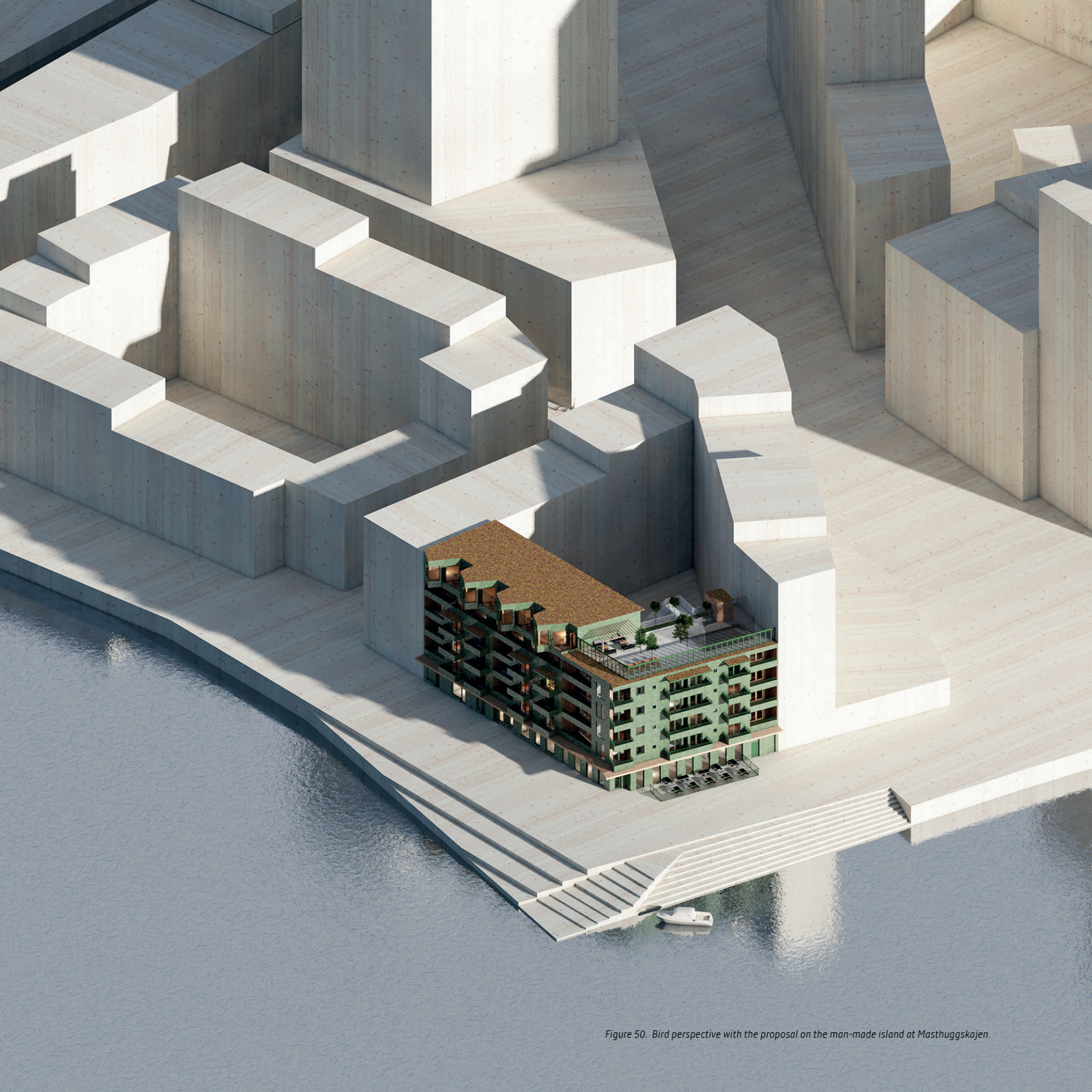


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