care of MASTHUGGSKAJEN
- modern cohousing with focus on sharing and social interaction

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- modern cohousing with focus on sharing and social interaction
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Cover:
Figure 1. Water perspective of the final design proposal from Göta Älv.
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 coffice. The residential program contains three typologies to create a variety of residents. The most common 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.
## CONTENT

<table>
<thead>
<tr>
<th>05 INTRO</th>
<th>30 DESIGN PROPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Problem statement</td>
<td>33 Site</td>
</tr>
<tr>
<td>06 Research questions</td>
<td>34 About Masthuggskajen</td>
</tr>
<tr>
<td>07 Purpose</td>
<td>35 Vision</td>
</tr>
<tr>
<td>07 Aim</td>
<td>36 Design elements</td>
</tr>
<tr>
<td>07 Delimitations</td>
<td>38 Program distribution</td>
</tr>
<tr>
<td>08 Method</td>
<td>41 Entrance floor</td>
</tr>
<tr>
<td>09 About me</td>
<td>45 Typical floor plan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10 THEORY</th>
<th>48 The cohousing apartment</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Terminology</td>
<td>52 The hotel apartment</td>
</tr>
<tr>
<td>12 Stepping into the world of collaborative consumption</td>
<td>56 The rowhouse</td>
</tr>
<tr>
<td>13 At the core of collaborative consumption</td>
<td>60 Storey 5</td>
</tr>
<tr>
<td>14 Examples of companies built upon collaborative consumption</td>
<td>61 Top floor</td>
</tr>
<tr>
<td>15 Collaborative consumption in numbers</td>
<td>62 Materiality</td>
</tr>
<tr>
<td>16 The community is being rebranded</td>
<td>68 Elegancies</td>
</tr>
<tr>
<td>17 Neighbors and social relations</td>
<td>74 CONCLUSIONS</td>
</tr>
<tr>
<td>18 Spaces for social interaction</td>
<td>76 REFERENCES</td>
</tr>
<tr>
<td>19 Various kinds of activities</td>
<td></td>
</tr>
<tr>
<td>20 Conscious architectural design</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21 REFERENCE PROJECTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Evaluation method</td>
<td></td>
</tr>
<tr>
<td>23 Xplorion, Lund</td>
<td></td>
</tr>
<tr>
<td>24 BRF Viva, Gothenburg</td>
<td></td>
</tr>
<tr>
<td>25 Sofielund Cohousing, Malmö</td>
<td></td>
</tr>
<tr>
<td>26 Bikuben Student Residence, Copenhagen</td>
<td></td>
</tr>
<tr>
<td>27 Roam Coliving</td>
<td></td>
</tr>
<tr>
<td>28 Social Balconies</td>
<td></td>
</tr>
<tr>
<td>29 Summary</td>
<td></td>
</tr>
</tbody>
</table>
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 choosen 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 litterature 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.
I became interested in collaborative consumption in 2014 when taking my first Uber 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
The image contains a text about collaborative consumption and related terms. Here is a transcription and expansion of the content:

**TERMINOLOGY**

Important terms that need 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 focuses 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: Uber, 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.
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 were 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 acces over ownership (Botsman & Rogers 2011, p, xvi). Even if many millennials has grown up with a collaborative mindset, this lifestyles 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 Proskurovs’kiy 2019).
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 (Mini-meringsmästarna 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, weather its 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 convinient 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 enables new forms of marketplaces where people can form and build trust between other people, often strangers.
COLLABORATIVE CONSUMPTION IN NUMBERS

- "sharing economy" is introduced into the Oxford English Dictionary
  - 2015
    - (Fast Company 2015)

- Revenue of collaborative economy in Sweden by 2025 in MDKR
  - 10-15
    - (Ny Teknik 2017)

- Hours per year that the average lawn mower is used
  - 4
    - (Botsman & Rogers 2011)

- 2017 revenue of the collaborative economy in billion U.S. dollars
  - 18.6
    - (Statista 2019)

- 2022 revenue of the collaborative economy in billion U.S. dollars
  - 40.2
    - (Statista 2019)

- Minutes that the average power drill is used in its entire lifespan
  - 25
    - (Botsman & Rogers 2011)

- Hours per day the average car is unused
  - 22
    - (Botsman & Rogers 2011)

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.

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

**Zipcar**

**Sunfleet**

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

**TaskRunner**
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).

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

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

**Freecycle.org**

**Yepstr**
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).
Similarly to cohousing, collaborative consumption reveals the power of doing things together. Brands that work in the collaborative world often shifts power to their consumers, by creating online communities where users can interact with each other. People express who they are by what they join (Botzman & 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.
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).
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 was seen as possible threats to society since people gather here and organize 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).
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 involves going to school or work, running errands or taking out the trash. These represent low level of interaction and demands little of the quality of space.

Optional activities involves talking a walk, standing and enjoying, sitting, sunbathing etc. These activities requires 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.
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 invites to 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 & Sarkissian 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 & Sarkissian 1986, p. 76).
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.
XPLORION, LUND

Architect: LINK arkitektur
Client: Lunds Kommuns Fastighets AB
Apartments: 54
Gross area: 4000 m²
Year: construction started 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 11. Xplorion, Lund (LINK arkitektur 2019).](image)

![Figure 12. typical floor plan 1:500 (Lunds kommun 2019)](image)

**CONVENTIONAL HOUSING** (low sharing)

**COHOUSING** (high sharing)
BRF VIVA, GOTHENBURG

Architect: Malmström Edström
Client: Riksbyggen
Apartments: 132
Gross area: ~ 12000 m²
Year: 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
SOFIELUND COHOUSING, MALMÖ

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

Figure 16. 2 or 3 room apartment
1:200
BIKUBEN STUDENT RESIDENCE, COPENHAGEN

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

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
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)
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 address 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).
**SUMMARY**

**AVERAGE PERCENTAGE OF SHARED SPACE**

- **PRIVATE**
  - Xplorion
  - Sofielund
  - Roam

- **SHARED**
  - Brf Viva
  - Bikuben

**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
Figure 24. Satellite photo Gothenburg (Eniro Kortor 2019).

GOTHENBURG

MASTHUGGSKAJEN
Figure 25. Satellite photo Gothenburg (Eniro Kantor 2019).
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.
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.

shared spaces

project positioning

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 coffice 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 peoples 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 space 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.
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.
residential roof garden

typology 3 - rowhouses

typology 2 - hotel apartments

typology 1 - cohousing apartments

public coffice

tenants shared facilities

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.
Figure 30. Entrance floor.

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
The entrance floor is perhaps the most important one, both for locating collaborative services and as a space for social interaction. Tenants enter through the lobby or the bike pool. Check your bookings and info on the digital panel. Pick up external or internal stuff in the delivery room. Hang out in the social areas while someone is cooking in the kitchen, doing laundry or fixing their bike in the fixing place.

To the coffice anyone can come to have a coffee and doing various kinds of work. Book a meeting room, invite to a presentation or simply enjoy the river view from the outdoor seating.

Figure 31. Entrance floor zoomed in.
TYPICAL FLOOR PLAN - TYPOLOGY 1 & 2
Figure 32. Typical floor plan.

1. the cohousing apartment
2. the hotel apartment
3. the vertical street
TYPOLOGY 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.
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. It 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.

storey 1
Figure 37. The rowhouse.

storey 2
Figure 38. River view and terrace from the second storey of the rowhouse.
STOREY 5

1:250

Figure 39. Storey 5.

1. rowhouse storey 1
2. the cohousing apartment
3. the vertical street
TOP FLOOR

1:250

Figure 40. Top floor.

1. rowhouse storey 2
2. roof garden
3. green house
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 Åve
Figure 42. The courtyard and the vertical street.
Figure 43. North facade with residents entrance.
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.
Figure 46. West elevation.
EAST ELEVATION
1:250

Figure 47. East elevation.
SOUTH ELEVATION

Figure 48. South elevation.
Figure 49. Glazed bricks and wood on the north facade.
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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ILLUSTRATIONS
Figure 1. Water perspective of the final design proposal from Göta Älv (illustration by the author).

Figure 2. Method diagram (illustration by the author).
Figure 3. Sewing thread. (Vladimir Proskurovskiy 2019).
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Figure 4. Bubble diagram (illustration by the author).
Figure 5. Friends (Helena Lopes 2019).
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Figure 6. Boats (Chris Fowler 2019).
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Figure 7. Birds (Slava Bowman 2019).
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Figure 8. Café (Toa Heftiba 2019).
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Figure 9. Friends (Daniel von Appen 2019).
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Figure 10. Bridge (John Tower 2019).
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Figure 11. Xplorion, Lund (LINK arkitektur 2019).

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

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

Figure 14. The common conservatory (Riksbyggen 2019).

Figure 15. Lukac, B (2019). Kv Trevnaden [fotografi].
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Figure 16. 2 or 3 room apartment (Sofielunds Kollektivhus2019).
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Figure 17. Floor plan 1:500 (Arthitectural 2019).
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Figure 18. Eskerod, T. (2019) Bikuben Student Residence [fotografi].

Figure 19. Roam Bali (2019) [fotografi].
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Figure 20. Roam Tokyo (2019) [fotografi].
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Figure 21. Roam London (2019) [fotografi].
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Figure 22. Social balconies (2019).
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Figure 23. Social balconies (2019).
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Figure 24. Satellite photo Göteborg (Eniro Kartor 2019).
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Figure 25. Satellite photo Göteborg (Eniro Kartor 2019).
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Figure 26. Site plan (illustration by the author).

Figure 27. Detail plan (Göteborgs Stad 2019).

Figure 28. Program distribution (illustration by the author).

Figure 29. Program distribution (illustration by the author).

Figure 30. Entrance floor (illustration by the author).

Figure 31. Entrance floor zoomed in (illustration by the author).

Figure 32. Typical floor plan (illustration by the author).

Figure 33. The cohousing apartment (illustration by the author).

Figure 34. Spatial qualities (illustration by the author).

Figure 35. The hotel apartment (illustration by the author).

Figure 36. The hotel apartment with frosted glass in the bathroom (illustration by the author).

Figure 37. The rowhouse (illustration by the author).

Figure 38. River view and terrace from the second storey of the rowhouse (illustration by the author).

Figure 39. Storey 5 (illustration by the author).

Figure 40. Top floor (illustration by the author).

Figure 41. Water perspective of the final design proposal from Göta Älv (illustration by the author).

Figure 42. The courtyard and the vertical street (illustration by the author).

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Figure 45. North elevation (illustration by the author).

Figure 46. West elevation (illustration by the author).

Figure 47. East elevation (illustration by the author).

Figure 48. South elevation (illustration by the author).

Figure 49. Glazed bricks and wood on the north facade (illustration by the author).

Figure 50. Bird perspective with the proposal on the man-made island at Masthuggskajen (illustration by the author).
Figure 50. Bird perspective with the proposal on the man-made island at Masthuggskajen.