The new standard

Sustainable lifestyles by design

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ABSTRACT

We now stand in front of a great opportunity to change the way we live on this planet. The opportunity emerges from a crisis - the climate change. The building industry and the way we consume resources answers for a big share of the pollution. Therefore, our homes must become cleverer and our lifestyles caring. Cities worldwide are growing and more housing is constantly needed. In Gothenburg, we expect that 150.000 new inhabitants will move in before 2035. The climate change is already visible in the city. When building new housing, let´s do so with a new standard and hope for a sustainable future.

This master´s thesis explores how lifestyle influencing housing can be accomplished. The purpose of the thesis is to contribute to a solution to one of the main threats towards a sustainable development - our lifestyles. I have used research based design criteria to create a design proposal which implements lifestyle influencing design. The location of the project is the area of Rosenlund in Gothenburg.

“The new standard” highlights the important issue of lifestyle impact. The design proposal explores, by using two combined methods of design criteria, how housing can encourage the lifestyle of the future. The result shows that technical solutions of the building only go half the way, we must unite with the building to make a long lasting positive impact. Since the idea of lifestyle impact is quite new as a strategy, this thesis is one way of trying this theory out within the field of architecture.

STUDENT BACKGROUND

My name is Malin Bengtsson, I am 23 years old and I come from Växjö, Sweden. After studying art, crafts and design in high school I moved to Gothenburg to become an architect at Chalmers University of Technology.

The interest in sustainable architecture and the environmental questions concerning this caught my attention during my master studies. In the very beginning of my education I realized I very much enjoyed designing homes. These two things combined have therefore become my profile.

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Part One

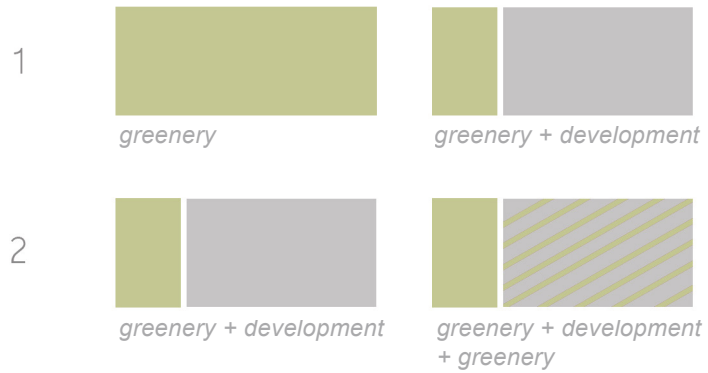
INTRODUCTION

BACKGROUND

Today we stand in front of a great opportunity to change the way we live on this planet. The opportunity emerges from a crisis - the climate change. This decay of our planet and the constraints on our natural resources is due to an unsustainable way of life. The building industry and the way we consume resources answers for a big share of the pollution. Therefore, our homes must become smarter and our lifestyles kinder. Cities worldwide are growing and more housing is constantly needed.

The population of Gothenburg is following the global trend and increases quickly. To meet the demand of housing the city needs to accomplish 4500 new apartments each year. This is not happening. Instead, Gothenburg builds around 2000 new apartments every year, not even half of the demand. Since the resolution of the city centre during the 70thies, Gothenburg never fully restored. The buildings from the post-war modernism created a new Gothenburg, a scattered city, one of the sparsest in Europe. Today this puts Gothenburg in the position of great densification potential (Höstmad 2014).

To densify a city is more than just building new housing. New additions and complements to the city should add new value to a place. At the same time, the values already there should be respected and taken care of. Densification means that the city grows inwards instead of outwards. Expanding in the outer parts of the city would mean that the city uses more land, land that needs to stay green to sustain a sustainable environment both in the city and the countryside. (Boverket 2016)



The diagram above shows the way be often build today. We remove greenery to build. Can we add both building structure and green structure at the same time?

One argument for densification is climate change. Even though we all seem to agree on the fact that the need for change is urgent, Carroon (2010) tells about a survey done 2008 in the United states that shows frightening results. Some people still question the certainty of climate change (Carroon 2010).

While climate change and the threat towards the environment might come off as a new phenomenon, it has for a fact been going on more or less in our societies way back. The challenges and issues regarding our planet have always been of our concern. We´ve always been needed to adapt our lifestyles or fight nature to make the most of the ecosystems provided and to handle the challenges nature naturally puts our way with its unpredictable climate and weather. The discussions being held today are therefore not new but they have different requisites (Wheeler 2004).

The building industry is one of the primary explanations for environmental issues and climate change (Carroon 2010). Wangel (2014) claims consumption is a big part of the decay of our planet. Changing the production is not enough, we have to make changes in the way we consume. Today we tend to focus on our right, our freedom, as a citizen to consume the things we want. It is time to consider ourselves as part of society and start talking about the responsibility in this context. There are two ways of addressing the problem of consumption. One is to change the way we consume, for instance, walking instead of going by car. The other option is to consume less.

"TO WIDELY ESTABLISH SUSTAINABLE CONSUMPTION HABITS, SUSTAINABLE LIFESTYLES NEED TO BE NORMALIZED AND BECOME OBVIOUS." **J. WANGEL**

(Wangel 2014, p. 1)

Wangel discuss the social aspects behind making changes towards sustainable lifestyles. To gain commitment together with others is crucial, she says. To stand alone in a shift of lifestyle can be hard when the small, but important, actions you take doesn’t seem to really make an impact. The action loses its value and we go back to do what we did before (Wangel 2014).

Aim and questions

The aim of this master's thesis is to explore how to support sustainable lifestyles by design in order to contribute to a solution to one of the greatest threats towards a sustainable future: our lifestyles and habits

HOW CAN WE SUPPORT SUSTAINABLE LIFESTYLES BY DESIGN?

LIMITATIONS

My project is about tackling the issue of climate change by addressing one of the biggest challenges concerning this - our unsustainable lifestyles. The thesis focus is therefore how to use design to achieve lifestyle influencing housing.

I will not go into depth into technical details and systems, though I will suggest them. I will not either study the construction at detail level but I will argue for materials chosen and show an understanding of the load bearing structure.

I will not debate the finances of the building but I will demonstrate understanding of a certain level about target groups in relation to the kind of housing I picked.

METHODS

This thesis is the result of the work during one semester. Different methods have been used in order to find a solution to the problem. I have seen the project as a research for design kind of project but looking at it now, research and design have evolved together. The design proposal has partly been developed at the same time as I´ve done my research. To gain knowledge and to explore my thesis question, I´ve read books, articles and reports. Site visits, video clips and conversations with people around me have also influenced my work and pushed it forward.

The design proposal is based on the conclusions, findings and arguments from the research phase. Here I have connected two categories of design criteria to the design. To come up with my final building proposal I have worked with diverse tools: sketching by hand, 3D- modelling, physical model, photography. I´ve been constantly experimenting with these tools as soon as new questions have been raised.

READING INSTRUCTIONS

This thesis report is divided into three parts: introduction, theory and research and design proposal. The design proposal is a result of the two first chapters.

Part one introduces the thesis and argues for the problems and questions raised within it. It gives a background to put the thesis in a broader context and shows methods of working as well as limitations of the work. Here the site is introduced.

Part two displays the theory and the research finds that this project is based upon. The chapter of theory is divided into two parts, one about sustainability and regenerative design and the other one about lifestyles. This part explores regenerative thinking and unsustainable lifestyles to find a way towards a sustainable future.

PART THREE consists of the design proposal. This part shows how the theory and the research are turned into conclusions providing a base for the design criteria. Two categories of criteria are made, one for each chapter of theory. These criteria then guided me in the creation of the design.

In the end of the thesis report I´ve stated my reflections and conclusions.

Rosenlund/Fisketorget during 1900

Rosenlund/Fisketorget 2017

THE PROJECT SITE

The site I´ve chosen for this thesis is the area of Rosenlund. This thesis is about the building and its concept of sustainable lifestyles by design, a concept that ideally would be applicable elsewhere. Relating to what I stated in the beginning drawing parallels from climate change, densification and unsustainable lifestyles, choosing a central location in a city felt logical and challenging. I chose this site because it´s a beautiful site that today is being used as a parking lot. I saw this as a possibility to densify Gothenburg from within and also a chance to turn asphalt into something more responsive and beneficial. The site is located by the water, close to a park and fully exposed to southern sun - all factors that relate to a sustainable city.

The story of the water

Located close to Feskekörka, the site has a strong historical connection to the food culture in the area. From 1874 fish and sea food have been sold and bought here. By 1900 many of the foods were sold outside along the canal but were forced to move inside twenty years later due to heavy smell and health concerns.

Today Feskekörka still serves as a covered market and restaurant for fish and sea food eaters. Since the project site is located just by the water, I believe it would be great if the fish could be used as a source of food. In a report from Göteborgs stad, Miljöförvaltningen (2013) tests and evaluations concerning the Vallgraven fish have been done. Is it possible to use the fish as a local food resource or is the water quality to poor for this? The research done by the municipality, looking at environmental toxins in fish living in Vallgraven, shows that the fish reaches the limits by Livsmedelsverket to pass as food. Yet, the recommendation not to eat it remains. The municipality do not consider the research done to be enough to safely claim that the fish is harmless to eat (Miljöförvaltningen 2013).

Plans for the future

Västlänken, a massive underground build, passes through the area. One of the new station entrances is placed on Pustervikskajen by the site I am working with and another one by Haga kyrka, also close to the project site. The architecture firm Abako have made a proposal for the station that I included into my own proposal for the area. It´s located in the very south east. Today about 17.000 people live within a short walks distance from the new station and the area is the place for over 36.000 people working or studying (Trafikverket).

Part Two

THEORY AND RESEARCH

REGENERATIVE VS. SUSTAINABLE

Two frequently used words in this thesis are Sustainability and Regenerative. Let´s define what they mean.

Sustainability

Sustainability as a word is used in many areas and contents today. It does not come as a surprise that the word can be hard to grasp since it has come to include so many different things. Something that can go on for a long period of time without causing any direct harm to us or the environment is described as sustainable. In the Brundtland report from 1987 sustainable development is described as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Wheeler (2004) have collected several meanings of sustainability, one being stated by World conservation union 1991 saying that it means “improving the quality of human life while living within the carrying capacity of supporting ecosystems.” Sustainability as a term consists of different strategies. For example, the strategy of resilient planning or Cradle to cradle. Regenerative development is about seeing how these strategies can fit together.

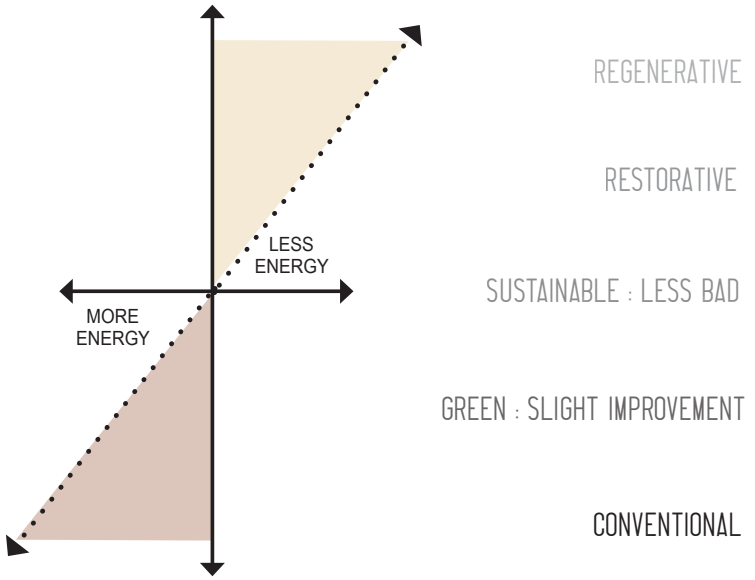
Wangel (2013) discusses the complexity of the term sustainability and how it´s used too widely, making it unclear what its true meaning is. Sustainable development comes, according to Wangel, from a social construction which aims to advise a sustainable direction of expansion. Since the term is no longer new it now contains many interpretations that are basically impossible to unite. This makes the term of sustainable development impractical. The concept needs to once again be defined in order to push the development of our communities forward. One way of doing so can be to use categories as a structure. For example, it can be divided into ecological, social and economic sustainability and it often is. This can be a start, but it also leads to more questions. How is the balance between the three, how are they connected?

The city itself is an unstainable factor when it comes to consumption. Resources of all sorts goes in to the city. Out of the city comes waste and pollution. To function, the city depends of the surrounding land, both its resources but also to handle its waste. This simply isn’t fair or sustainable. Today while the urban lifestyle promotes a high consumption the need for more surrounding land to nourish and look after our cities are needed.

Regenerative development

Regenerative development is mainly about boosting the ability to let living beings co-exist in harmony. Mang agree with what Armstrong (2009) says, we need to stop seeing us as separate from nature and start to see ourselves in relation to the places we reside in. Carroon (2010) also describes regenerative design as something being beyond green based on the assumption that green design generates buildings that are merely less harmful to the environment. Regenerative design then aims at creating buildings and places that can restore or improve our environment making them genuinely sustainable (Carroon 2010).

Regenerative development can be seen as a framework that guides us through the different strategies that is sustainability. Design should be integrating and therefore regenerative design has a positive effect on the relationship between people and the places where they live. It strives to make us aware of our local context, where we are and what energy systems surround us. Since all places on earth has its own unique qualities and systems we need to look at each place separately to let all places flourish greatly in a way suitable for that specific place. Solutions should be place specific rather than universal (Mang 2016).



The diagram above shows the conventional way of today in relation to a regenerative way of handling resources.

DESIGN FOR A REGENERATIVE FUTURE

In Green Design, Yeang (2011) says that green architecture is now on every architects' radar. We use certificate systems, wind turbines, solar energy. Yeang claims it is time we start questioning this and look at it from a new perspective. Can´t there be more to it than that? The notion of green design is more compound and problematic that what it might first appear to be. One way to go further and to get a more complex understanding of green design is to see it as an integration of the artificial and the natural. What we humans create should be able to work in harmony with the natural living systems. If everything we do, from businesses, buildings, products and services, can be integrated into the ecosystem of the nature there would be no environmental problems caused in an unnatural way.

Green design is also about more obvious things like materials. Eco systems generates no waste. One species waste is someone else's nutrient. This is a concept we humans must start to emulate. The inorganic aspects of human everyday life need to be biologically integrated in the natural living systems (Yeang 2014).

The way we work with sustainable design has changed a lot since the term were first introduced, Mang (2016) points out. First the focus was on minimizing energy use and resources and today new concepts have been introduced. Since, for example, decrease resource use does not heal past mistakes, net positive buildings are being studied. Buildings that makes a place better than if the building were not built. It can for example be that it produces more energy that it needs and that energy can be used elsewhere. One more interesting thing is to investigate how our everyday activities can be linked to the larger scale, to find a way for human activity to be connected to the natural systems and their evolution.

When designing in a regenerative way, sometimes knowledge about how that design affects smaller and larger systems are lacking. For a sustainable building to be effective it should be connected to its surroundings. This goes for everything. The real value comes from when we interact with nature, species etc. That's when we exchange value and that is what diversity is all about. Within the exchanging of value is where the evolution lies (Mang 2016). Carroon (2010) found a good quote from Stewart Brand describing that exchange and what regenerative design stands for. Brand says: "A building is not something you finish. A building is something you start."

Scientist and sustainability innovator Rachel Armstrong (2009) allege that today, the building industry practises a one-way transport process creating housing in the city. It goes from the environment and the nature to the cities. This transport process is not sustainable. She believes that the only way to truly achieve sustainable housing in the cities are to connect them to nature instead of shielding them from it which is many times what we see and do today (Armstrong 2009).

Working with ecosystem services in a reverent way can be one way of doing what Armstrong advises. Eco system services are all the services and products that come from nature's own natural processes. These services are many times imperceptible and therefore taken for granted (Boverket 2016) The value of ecosystem services have been, and still are, being treasured mainly based on its ability to be used for human purposes (Wheeler). Examples of natural ecosystems we often take for granted can be bee's pollinating harvests, plants cleaning the air we breathe and that nature in general affects our health in a good way. Green areas are important for the cities as a way of dealing with heavy rain, cleaning water, improving our well-being and generate places for play and relaxation. Urban farming can create better social inclusion among the people in an area as well as contribute with local food produce (Boverket 2016).

REGENERATIVE DEVELOPMENT AND DESIGN

The concept of Regenerative design was introduced by John T. Lyle (1996), professor of landscape architecture at California State Polytechnic University. Regenerative design aims to rethink what design has the ability to accomplish and contribute with. It strives to regenerate what the fossil-fuel-powered economy of our society has torn apart. Regenerative design wants to heal and create conditions for healthy lives. What designers and architects then come up with should be something that co-exist with nature and society, something that generates harmony (Mang 2016). Carroon suitably quotes John Muir in her book *Sustainable preservation* saying: “When we try to pick out anything by itself, we find it hitched to everything else in the universe” (Carron 2010, p. 12).

We now stand in front of a great opportunity to change the way we live on this planet. The opportunity emerges from a crisis, the urgent climate change. It´s time we realize that our attempts of stalling the pollution and decay have not been enough. As of today, more than half of our ecosystem services are getting weaker. Our systems remain threatened. Even though nature does not die, the way we treat our globe can make it inhabitable for humans. Creative ways of handling unpredictable events must be invented and implemented in order to sustain healthy human life. We also need to encourage evolution and co-evolve with all living systems. Human beings plays an important role in relation to nature. We can help making systems healthy and working. One can ask oneself why we have spent so much time and money on fighting nature and its evolution when we simply should embrace it. Regenerative design is not only about the environment. For humans to flourish, evolve and grow are just as important and a part of the concept of a co-evolving world.

I believe that Mang makes an important point saying that it´s not technology or inventions that stands in the way for regenerative design and a sustainable future. The technology needed to solve todays environmental problems do exist. The true core of the problem is us humans and the way we think and act. That is what needs to be addressed for a positive vigorous future. Changing the way we think is hard but necessary.

Östlund (2017) discusses the theory of regenerative design by Lyle (1996) in her licentiate thesis *Regenerative placemaking*. She concludes Lyle´s strategies of regenerative design in a summarized list. The list is presented to the right.

REGENERATIVE DESIGN PRINCIPLES

1. Let nature do the work
2. Consider nature as both model and context
3. Aggregate, do not isolate
4. Seek optimal functions for multiple functions, do not seek the maximum or minimum level for anyone
5. Match technology to need
6. Use information to replace power
7. Provide multiple pathways
8. Seek common solutions to disparate problems
9. Manage storage as a key to sustainability
10. Shape form to guide flow
11. Shape form to manifest process
12. Prioritize sustainability

(Östlund 2017, p.76)

THE UNSUSTAINABLE LIFESTYLES OF TODAY

LIFESTYLES: The way we live our lives, a way that lets us fulfil our dreams as well as our basic needs. Our lifestyle promotes us, it shows who we are. It displays our values and priorities. It is connected to social position and status and therefore very much linked to a consumption way of life (Backhaus 2014).

When it comes to our lifestyles, Wheeler (2004) points out the importance of our values. We get those values consciously or unwarily. The importance lies within the fact that these values sets our priorities. In some cases, that priority is not the state of our planet and human health. The values along with the worldviews create the context in which we see the world and that determines our relationship to sustainable development (Wheeler 2004).

One of the main factors causing climate change is our lifestyles. Even with over two decades of policy making to deal with the problem, it still continues to grow. A major part of the negative climate impact within the EU comes from our households including food, housing and travel (Mont 2014). Food, transportation and housing answers for almost 80% of Europe's environmental impact. As for building and construction, that generates 36% of the entire CO2emissions within the EU. The lifestyles of urban modern European countries are unsustainable and much created by this consumption and production to the extent where the planet can´t keep up (Backhaus 2014).

If we put this in relation to ecological footprint we better understand the constraints we put on the environment and our planet. Ecological footprint aims to calculate how much of the planets space we need to produce everything we consume as well as to take care of the waste we produce in the process. Fossil fuels used are also part of the ecological footprint, this is calculated by seeing how much forest is needed to absorb the co2 we emit. In Sweden, we have a footprint of about 7,3 global hectares which puts us on the list of the top 10 countries with the largest footprint. We would need 4 planets to survive if the world's population lived like us swedes (WWF 2017).

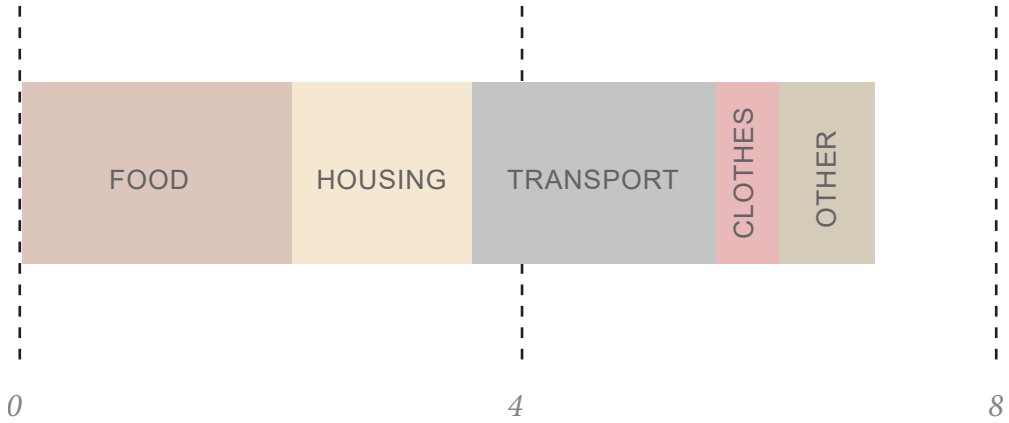
Our individual emission of greenhouse gas is increasing quickly when it needs to decrease. The reason to why is that our consumption is growing too fast. The improvements needed in productions eco-efficiency can't keep up. The emission from travel and flying has as much as doubled the last two decades and the negative impact from our food is currently at 1,8 ton co2 per year and person.

This is a lot if you compare with a vegetable-based diet that could minimize this emission by 1,5 ton, emitting just about 0,3 (Larsson 2015).

The diagram below is based on information from Naturvårdsverket and shows the three main categories of emissions from our households: food, housing and transport (Allerup 2016).

EMISSIONS FROM CONSUMPTION 2014

Ton co2 per person and year in Sweden



SUSTAINABLE LIFESTYLES

SUSTAINABLE LIFESTYLES: This lifestyle is made up of the actions and decisions we make to separate us from others, to take a stand no matter why. Compared to a consuming lifestyle which is the standard of today, a sustainable one do not endanger future generations chance of a good life (Backhaus 2014).

Even though the problem with climate change through lifestyle choices needs to be worked one, there are many positive trends happening right now as well. We should not forget about the good things. For example, a different way of owning is coming forward. Now it´s rather about having access to stuff rather than owning it yourself. Sharing, borrowing and trading is becoming more popular (Mont 2014).

An article by executive director of University of Colombias Earth Institution also describes these positive changes towards a sustainable way of life we can see in our lifestyles today. More time is spent on activites that do not consume resources in the same way as pure consumption. We socialize differently and communicate thorough technology. Instead of exhaust resources we use todays modern inventions to share information, learn something new or try a new activity. Our lifstyles, the way we spend our time, are constantly changing and will continue to do so. But we can not be sure that this change take the well-being of the planet into consideration (Cohen 2016).

There are also future scenarios for a sustainable lifestyles coming forward according to Mont (2014) and mentioned in the report of SPREAD project. The SPREAD project was a project bringing different people and stakeholders together in 2012 to envision sustainable lifestyles for 2050. One of the scenarios, called Governing the commons, predicts that the digital reality will be central. Rather than living lifestyles based on consumption we move over to a digital based lifestyle with technology as interaction and enjoyment. In relation to this, the 3D-printer is up and running giving each and one of us control over our own production and consumption. Another scenario one can imagen is Local loops. This scenario is based on a critical energy crisis which makes it necessary for communities to rearrange to ensure future well-being. The prices are rising and all essential resources become too expensive. Communities turn towards self-sufficiency. The scenario of Local loops tells the story of a green, blooming society

with focus on well-being, sharing, urban farming, space efficiency and happy effective people.

One thing many future scenarios have in common are that leisure time is spent on spending time with one another, spending quality time for self-development or taking part of local activities rather than consuming things (Mont 2014). That is something to feel happy about and to build upon.

Dealing with our lifestyles only is not enough, the problem needs to be handled in a broader perspective as well, working with several stakeholders in many levels.

LIFESTYLE INFLUENCING HOUSING

After defining lifestyle change as an important factor towards a sustainable society, I´ve looked at reports, articles and research on how to change our behaviour and how to make better choices. I found one report more relevant and interesting.

In the report Enabling sustainable choices in everyday life, Petersson (2014) states the crucial fact that what needs to change, in order to move towards a truly sustainable future, are our lifestyles, our behaviour and habits. Nature has its limits which we do not seem to understand. 86% of the world population live in countries with such a high consumption lifestyle that nature and its ecosystem services simply can´t keep up.

Petersson has written a report about how to enabling sustainable behaviour using different strategies. The report is a product of GAIA (Global Awareness in Action) which is a project bringing people from different countries together to try out new working methods. For almost a decade, Petersson has specialized in the psychology of behavioural change.

One thing to be aware of is that the factors influencing our decisions are to 80% automatic responses based on for example social norms and feelings. That means that our behaviour is not that controlled by knowledge or consciousness as we might believe. This leaves us with two different systems: the reflective one where we consider our possibilities and then the automatic one that uses our instincts. Since many of our decisions are made automatically, one ide would be to use that. To look at what shapes our automatic responses and use those factors to make us take better decisions.

I have chosen a few of Peterssons strategies that I find suitable to work with in my design proposal. I will begin describing the ones I believe can be incorporated in to the design to gain a lifestyle influencing building. After these 5 I will shortly introduce the strategies that I did not decide to work further with. When deciding which strategies to develop I chose the ones I found the most interesting. They all are suitable for implementation in this thesis but I wanted five to be able to go deeper into each and one of them.

ATTRACT ATTENTION – to use smart ways of attracting attention to desired behaviour

We are more likely to react to a message that is easy to understand and that we see at the right time. Messages that do not relate to our values, we often don´t take in or react to, we filter and pick what information to take in. The strategy of attracti attention therefore works best if the target group has some sort of interest in the message spread.

GIVE FEEDBACK – show people that their actions matters and reward them for it

One tricky thing about encouraging a green lifestyle is that people have a hard time seeing what´s in it for them. The things you gain are not easy to measure or physically see and that is why we keep doing what we´ve always done. To give feedback in form of rewards or concrete facts that makes people understand how their actions affect the planet and themselves could be one way of eliminating the feeling of pointlessness.

GAIN COMMITMENT – find inspiring ways to make people promise a sustainable behaviour

To state a promise to oneself of a sustainable lifestyle change is one thing, making it happen is another. Research show that we tend to stick to our promise if the commitment is being made in public or somehow in a formal matter. Todays technology and social media platforms makes it easy to do just that and involve friends, family and your neighbourhood.

CONNECT TO NATURE – encourage people to sustainable living by strengthen their relation to nature

In order for people to be able to change their way of life then need to be motivated. So by making them explore the wonders of nature and to discover the beauty of it they become more willing to make change in order to protect it. This could be something to include in neighbourhoods using activities like urban farming.

FORM TEAMS - inspire and motivate sustainable behaviour by working together with others towards a common goal

This strategy consists of several of the others found in Petersons study and I find it important to generate a strong social network in the building of this thesis. Two of the strategies used in this one strategy are Gain commitment and Give feedback (Petersson 2014).

The strategies that I left out are:

GREEN BY DEFAULT - to make sustainable options easy and unsustainable options hard.

USE SOCIAL NORMS - inform people about the actions of others in order to encourage sustainable behaviour.

SMART INTENCIVES - understand when and how intencives can people go green.

CREATE NEW HABITS - help people define their habits and see where change is needed.

TRIGGER RECIPROCITY - encourage environmental acts by giving something unexpected.

ENGAGE VALUES - strengthen values.

AVOID DENIAL - avoid spreading information that trigger negative attitudes towards sustainability.

What I intend to do using the five strategies I picked are to nudge people in the direction of sustainable choices. The concept of nudging is described in the book *Nudge – improving decisions about health, wealth and happiness* by authors Richard Thaler and Casso Sunstein, one being a professor in law and the other in economics and behavioural sciences. To nudge is not to change someone's values, it is about making the best option the most simple option (Naturvårdsverket 2014).

Part Three

DESIGN PROPOSAL

FROM A PROBLEM TO A REGENERATIVE SOLUTION

So how do we go from the unsustainable urban lifestyle of today to *The new standard* of future cities?

TWO COMBINED METHODS

The unsustainable lifestyles of today shows how we live our lives in the city at the moment. The new standard shows how things would ideally be and aims to include a few regenerative solutions into the new standard, gradually making regenerative principles the norm. The transition from this to that is accomplished using the design criteria. Once that transition has been made, we still need to influence the inhabitants to act accordlingly. The building can not make the work for you. This is where influence by design comes in. This is a way of making people act in the way the building demands.

I´ve concluded my statements, based on the research of lifestyles, into a few design criteria. In order to move beyond the urban lifestyle of today we need to make several changes, big and small, involving everyone and to understand the systems in which we exist. Our cities and the way we build it is one oft the things that needs to be changed along with changing our lifestyles.

The research based criteria combines knowledge about lifestyles, evaluation of the current state of our planet and includes regenerative ways of working towards a sustainable future. The criteria aim to change the way we live in the city, to generate a new standard way of creating homes.

The following pages show how the criteria from the four categories will be implemented into the design.

UNSUSTAINABLE LIFESTYLES OF TODAY

CONSUMPTION

We buy things, often. And when we buy something we also get things we didn't ask for. "Every time you spend money, you cast a vote for the kind of world you want." In a globalized world, it´s hard to know what your product comes from, what it´s made of and if it is a sustainable choice.

OWNING

Because of the consumption we have so much more than we need and instead of having more space for people, greenery and animals - we store our stuff. Once in a while that storage might be cleaned out but it doesn't take long until it´s starting to fill up again.

SELF CENTERD LIFESTYLES

Both consumption, owning and storing things and the garbage we produce I believe come from our self-centred lifestyles. We are very focused on having a nice home, comfortable everyday life, new clothes and going on trips across the globe that we simply do not have time or interest in understanding how that affects the environment and also us.

GARBAGE

If we do not store what we buy, we throw it away. What we do not realize is that there is no away. Even what we recycle ends up as pure trash later on. We have a very linear thinking about stuff in general and when we put the stuff in the trash, it ends being our problem. It still is.

THE NEW STANDARD

GREEN CONSUMPTION

We are consuming eco-positive things and services. When we buy something, it benefits the environment and ourselves. Before buying, we consider borrowing or buying second hand to minimize what we own and, honestly, do not use. We do not put unnecessary resources into the system.

LIVING WITH LESS

We are satisfied living with less, spending more time with each other and on ourselves doing life enhancing activities. Housing come with clever built in furniture and modern solutions for a comfortable everyday life, making it unnecessary and inconvenient owing a lot.

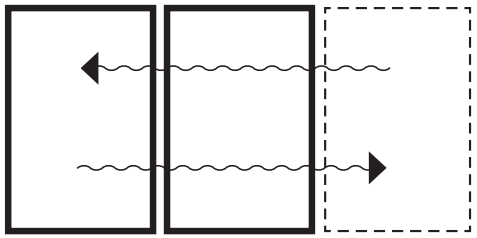
SELF IN A SYSTEM

We see ourselves as a part of the living systems. Nature and animals are not separate from us, we are connected to the same system. Realizing this, we start to appreciate what nature provides for us and stop taking it for granted. A green sustainable lifestyle will then be the new standard.

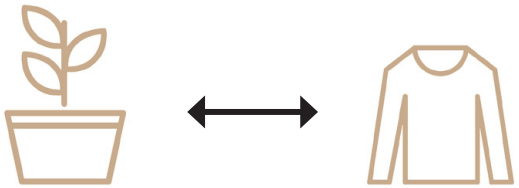
LOOP SYSTEM

We see the entire chain from manufacturing to the products final destination and how it affects the environment while walking the line. We reuse rather than throw away and realize that there is no such thing as away. We minimize our waste rapidly and use reusable goods or those that can be composted.

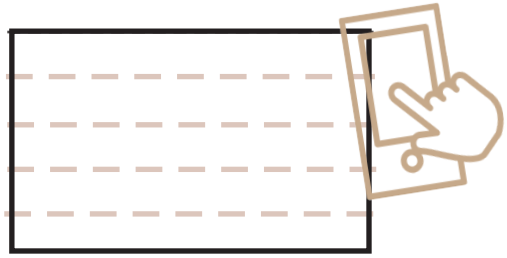
GREEN CONSUMPTION



The buildings rooms are designed to support a zero-waste life

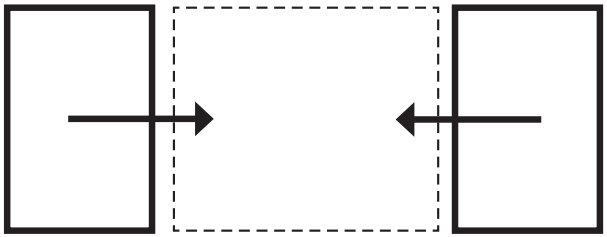


The building provides a showroom for trading things within the building – green shopping

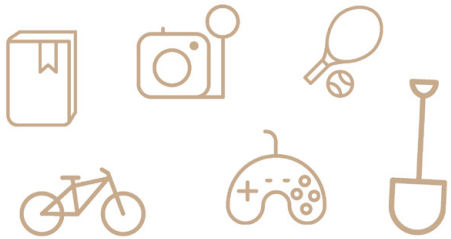


The building partly provides its inhabitants with food from a visible system

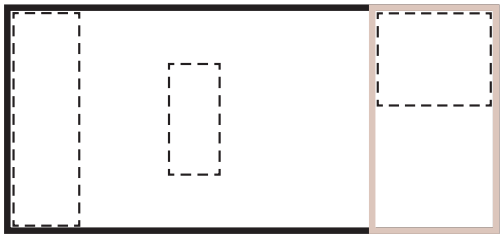
LIVING WITH LESS



The buildings storage possibilities are limited.
The building is a place for people, not things.
The livingspace is limitied within the apartments



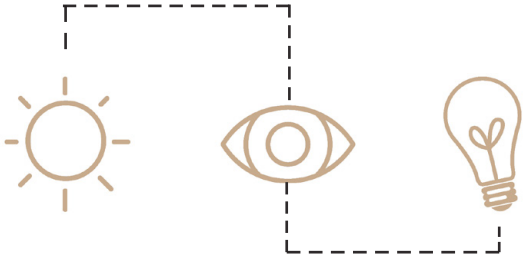
The building provides fun activites to spend time on together



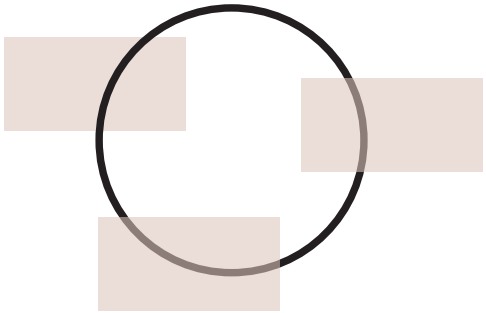
The buildings furniture will be built in and fixtures of high quality

SELF IN A SYSTEM

The building is placed to maximize use of sun

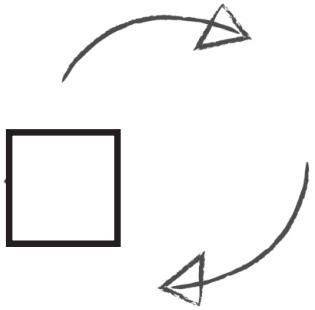


The buildings systems are exposed and educational for understanding of the global system



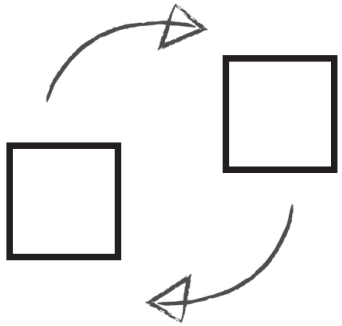
The building is aware of its surroundings and supports it as well as being supported

LOOP SYSTEM



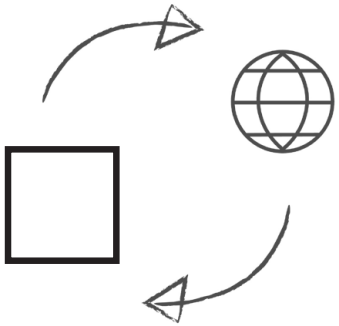
BUILDING SYSTEM

The building acts as a loop system of its own concerning consumption and energy



LOCAL SYSTEM

The building is part of a local system together with the closest surroundings



GLOBAL SYSTEM

The building understands its connection to the global systems

INFLUENCE BY DESIGN

Using the theory presented by Petersson (2014) I´d like to see how these strategies can be translated to fit the purpose of lifestyle influencing architecture. What I´d like to accomplish here is influence by the design.

Attract attention – *to use smart ways of attracting attention to desired behaviour*

Using happy, fun signage to make people smile and the task of for example composting won´t feel like a burden. Include unexpected design

Give feedback – *show people that their actions matters and reward them for it*

A digital system in your apartment that shows your progress and gives you a concrete example of how your local context is affected. A way of making sustainability understandable by putting it in a smaller personal context. The feedback also comes from your neighbours and their habits. This gives you input to how you are living your life.

Gain commitment – *find inspiring ways to make people promise a sustainable behaviour*

Working together as team to make the building flourish. This could also be an individual reward system. Do something, gain something. Energy saved on hot water could give you a gift card in the eco store.

Connect to nature – *encourage people to sustainable living by strengthen their relation to nature*

The roof of the building is a green oasis for relaxation but also s place to learn. Here you can see how your building works. Water in your tap och electricity in your lamp isn´t magic.

Form teams - *inspire and motivate sustainable behaviour by working together with others towards a common goal*

The buildings inhabitants do not compete towards each other, they make a common effort to make the building flourish! This one goes with Gain commitment as you make a commitment towards each other.

APARTMENT PROGRAM

Taking the design criteria from the principles inspired by regenerative thinking as well as the ones from influence by design, I will state an apartment program on three levels. For the outdoor environment, the building itself and the individual apartments.

OUTDOOR ENVIRONMENT

The outdoor environment and the surroundings should provide the following:

RELAXATION **PLAY** **KNOWLEDGE**

SAFETY **FUN** **SUSTAINABLE SERVICES**

INTERACTION **GARDENING**

BUILDING IN GENERAL

The building should provide the following:

GARDENING **LAUNDRY** **SOCIAL SPACE**

TRADING **ACTIVITIES** **SHARING**

APARTMENT LEVEL

There are 5 floors of apartments with 8 apartments on each floor, making it 40 in total. In every apartment there should be proper space to:

REST **EAT** **COOK** **WORK** **SHOWER**

GROW **SOCIALIZE**

The apartment and the building in general should be connected to the outdoors and the greenery as well as have spaces both private and social. Connect to nature is one of the criteria of influence by design, criteria that can be seen in the entire project. The layout of the building should be accessible and including. I will use Svensk standard as a guideline to achieve this.

Flexibility in space is present in both building scale and apartment level. Though it is not presented in a traditional sustainable way of movable walls and such, it´s shown in a variety of apartment sizes and the open plan living with a social and a private zone. Spaces can be used in diverse ways than just the classical ones. The fixtures are design in such a way that they can suit different options and to a certain extent be modified. The common spaces in the building also has its flexibility of usage. Some functions are permanent but a few is adjustable. There is plenty of room to use the way you want. The apartments open up towards the common spaces with big sliding doors which increase the area of public space within the apartment.

Sharing is part of the building concept. But what to share and what not? Bathrooms and kitchens are something I believe one want for oneself. It can depend on things that will still occur in the future: sickness, disability, pregnancy etc. To be a part of a caring social concept is important and the building emphasis this but just as important is to have your own personal space.

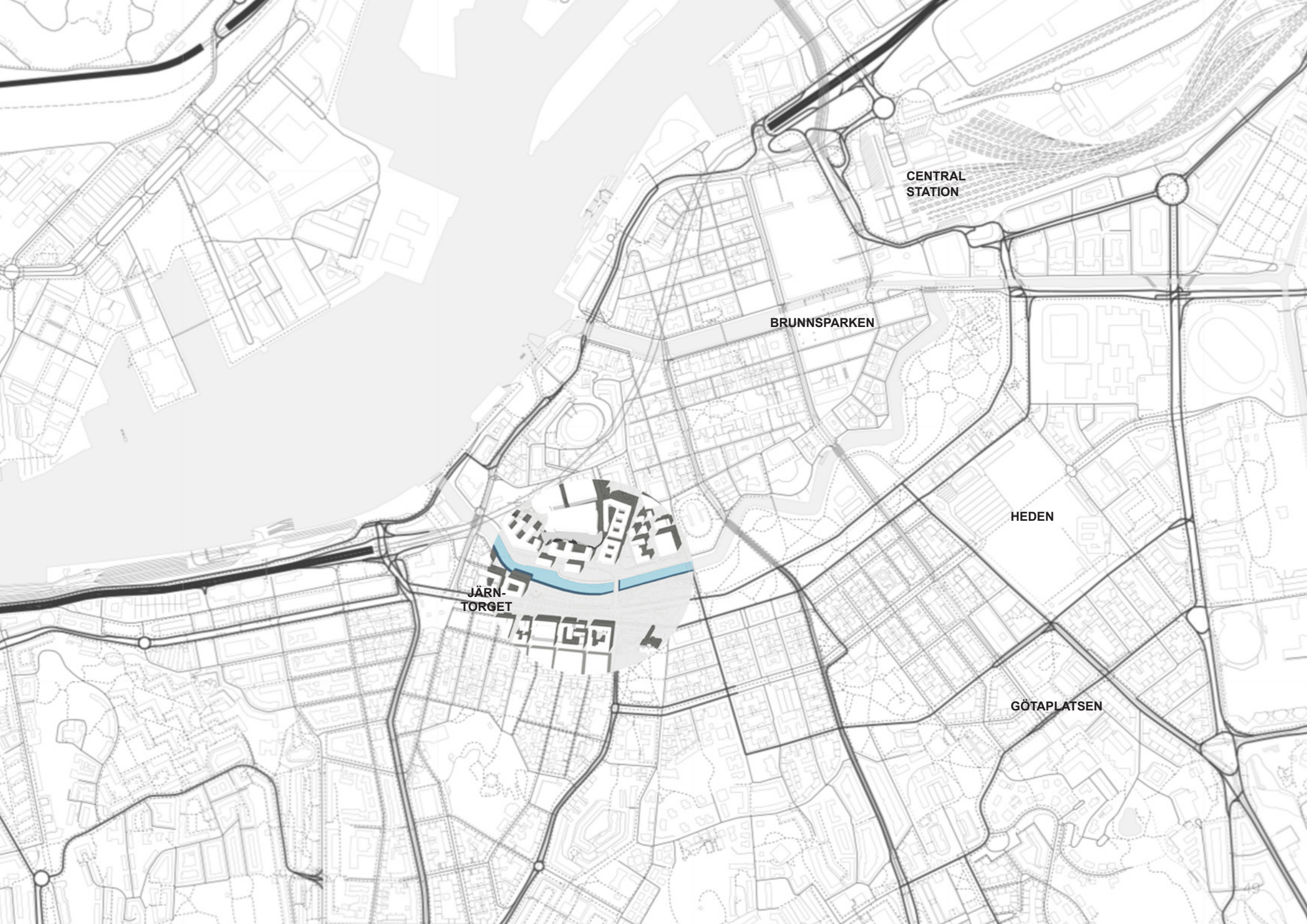
TARGET GROUP

The apartments should be seen as the new standard. Green housing should be for everyone, it should not be considered strange, inconvenient and full of compromises. The new standard housing should suit the typical urban person and be as comfortable as any other housing. But with the significant difference of being better for both human and nature.

I see the typical urban person as someone how like the pulse of the city, doesn't own a car, likes to enjoy free time in the park or at a local café. The urban person likes being in the centre of where things are happening but also requires their own personal space to breathe and rest. I believe the future urban person will have an environmental interest. Simply because in the end, there will be no choice.

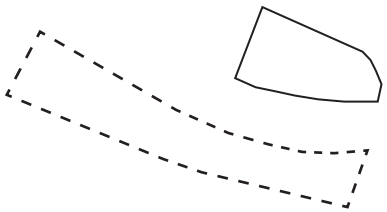
Accessibility has been important to me in this housing proposal. The building should be able to be used the same no matter if you're in a wheelchair, have a broken leg or are sick. We can all end up with difficulties that can be facilitated by architecture if we incorporate thinking about accessibility from the start.

What type of housing it is, automatically creates a target group by being more or less including and adapted. In this case I am picturing rental apartments. This would enable to have a certain amount of control of the impact being made in the apartment and keep and preserve the eminence of the fixtures – this with sustainability in mind. The living constellations can be different. There are 1 to 3 room apartments for diverse needs. The master bedroom in each apartment can be furnished with two single beds or one double.


CENTRAL
STATION
BRUNNSPARKEN
HEDEN
JÄRN-
TORGET
GÖTAPLATSEN

SITE ANALYSIS

The location of the design propsoal is Rosenlund in Gothenburg, Sweden. To the left you find a circle pointing out the area in the Gotheburg context. Moving on to the analysis on the upcoming pages, the specific site for the proposal within Rosenlund are marked as follow:



The project site

Potential continuation of the project

Vallgraven

High water 2100, + 2,65
(www.vattenigoteborg.se)

WATER

Vallgraven passes through the area and leads out to Göta Älv in the west. It symbolizes both history and the potential of a bright future. The risk of high water and flooding creates challanges but the water comes with many possibilities.

POSSIBILITIES/QUALITIES

Food production
Design feature
Health improvment
Enjoyable outdoor space

CHALLENGES

Flooding
Water quality
Barrier to the other side

Photo: Malin Bengtsson - Vallgraven towards Kungsport

GREENERY

The site is located in the end of the green Viktoriaparken/Kungsparken in the east. The park mainly consists of lawn and leaf trees. North of the site is a mountain wall with some greenery and some trees along Rosenlundsgatan. Norra Allegatan runs on the southern part of the site and has a beautiful alley of leaf trees surrounding it.

POSSIBILITIES/QUALITIES

Next to green park
Nice alley way along Norra Allegatan
Alley of trees at Rosenlundsgatan
The mountain wall

CHALLENGES

Mainly located in the park, not so much grennery mixed with the buildings

Photo: Malin Bengtsson - Kungsparken

Number of floors

BUILDING STRUCTURE

The buildings in the area varies in height, from one to six floors. There are newer buildings in the area as well as some historically important such as Fiskekyrka and the old public library. Across the street is Haga with its charming buildings. At the moment the area is basically a mix of older buildings from the 1800 and 1900 hundreds and newer ones from the 70thies.

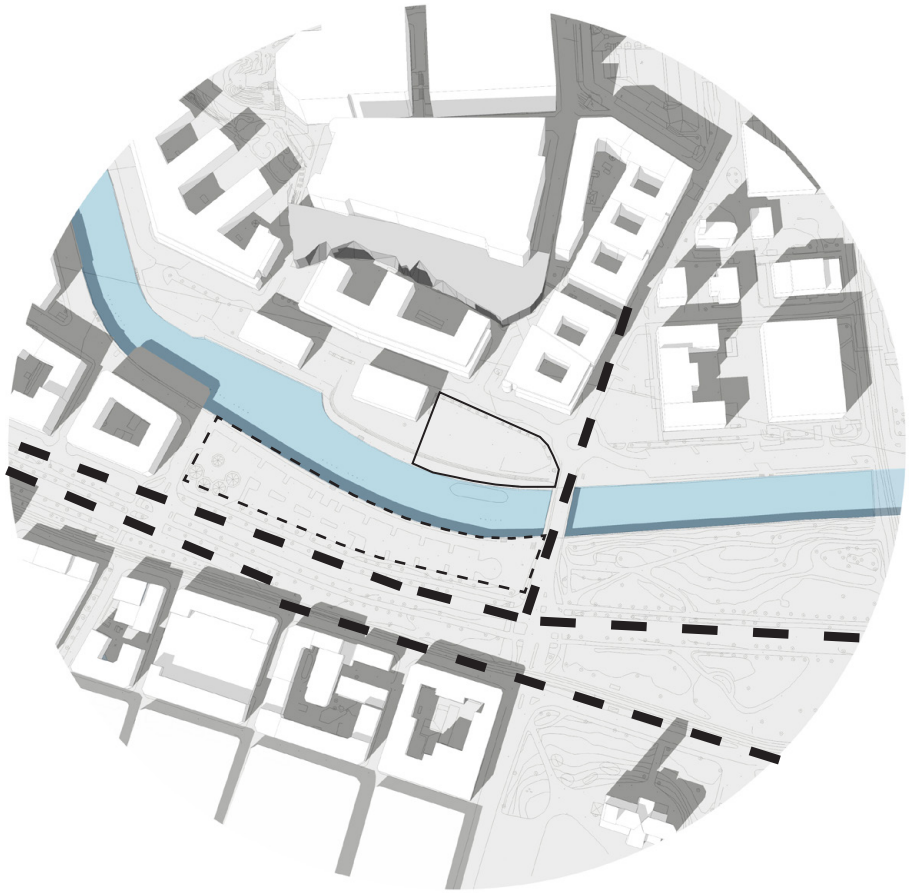
POSSIBILITIES/QUALITIES

Many offices = job oppertunities
Mixed building styles
Low rise buildings, 3-6 floors

CHALLENGES

Not much housing in the area
Everything closes at night
No eyes on the street

Photo: Malin Bengtsson - Dicksons public library in Haga



TRAFFIC

Norra Allégatan runs close by on the opposite side of Vallgraven. It is a busy road and people tend to drive fast. The traffic over Rosenlundsbron can be busy as well. The closest trams pases by along Norra Allégatan as well with stops at Haga kyrka.

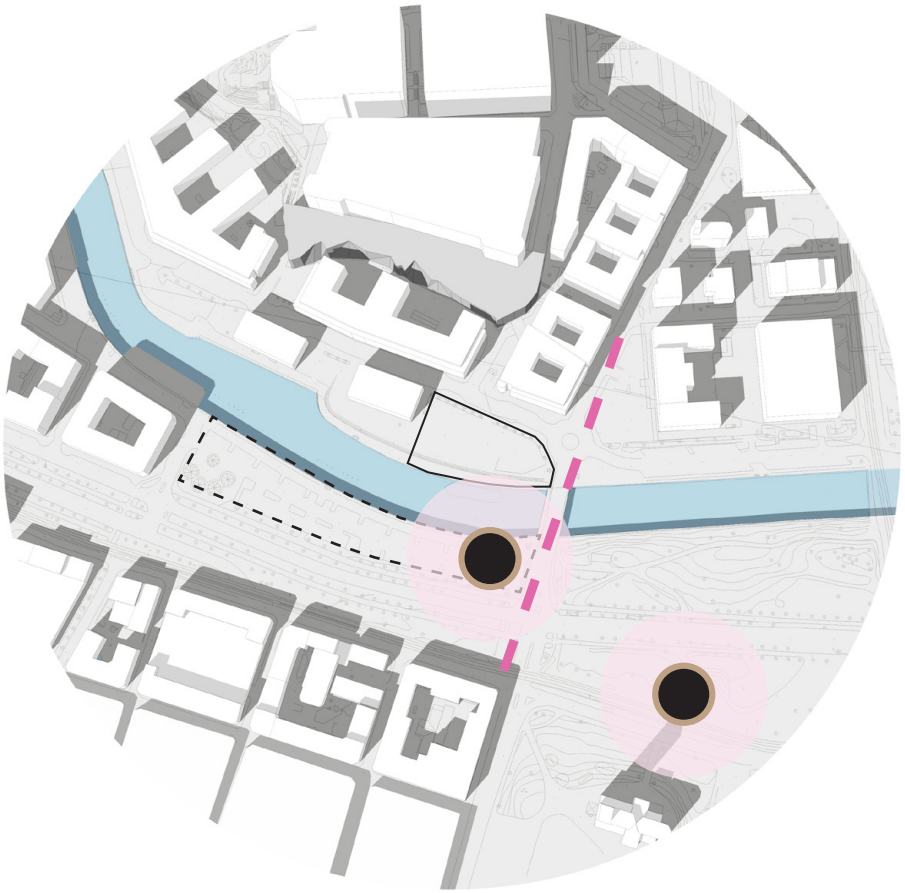
POSSIBILITIES/QUALITIES

Close to busses
Close to trams and train
Cableway being built close by
Bike and pedistrian lane

CHALLENGES

Noisy road in the south
Many cars
Building on parking lot =
loss of existing parking

Photo: Malin Bengtsson - Norra Allégatan towards Järntorget



Station Haga - Västlänken
Two of three entrancec in the area

NEW INFRASTRUCTURE

When Västlänken is being built, station Haga will have three seperate entrances to the new train station. Two of these will be located very close to the project area. One at Pustervikskajen (image below) and one at Haga Kyrka tram stop. This means a lot of new people moving by Rosenlund each day.

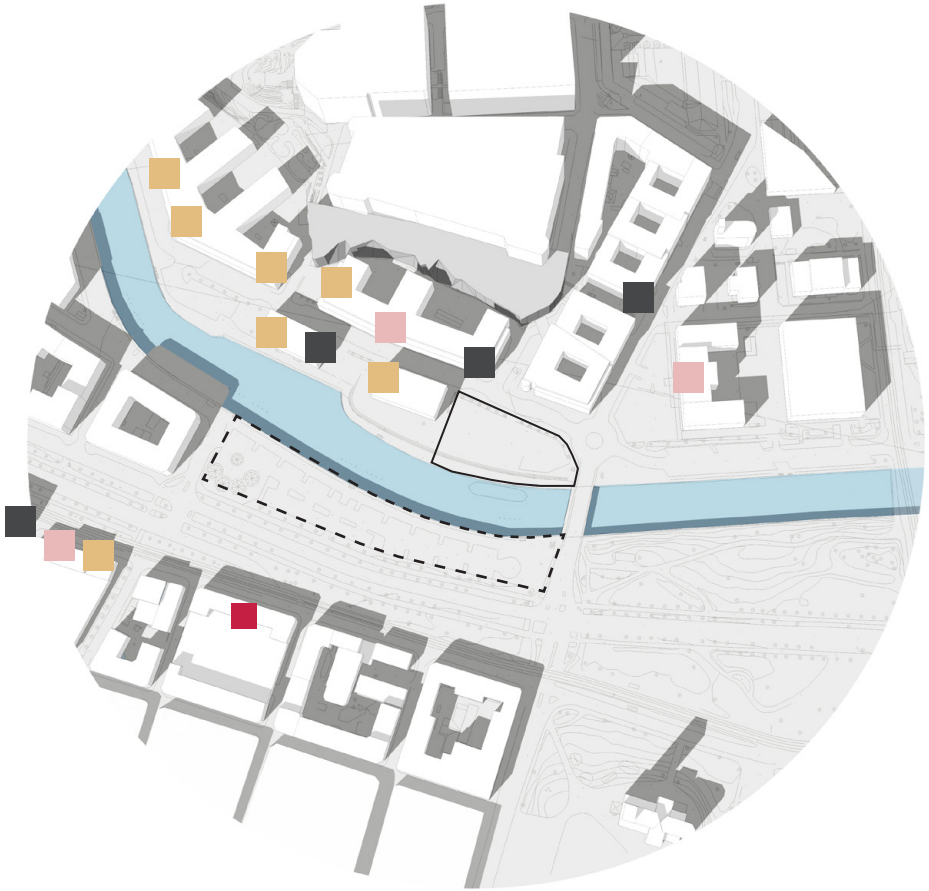
POSSIBILITIES/QUALITIES

People from the new station =
Attractive business location

CHALLENGES

People from the new station =
busy, noisy

Photo: Abako - Entrance to station Haga



Grocery shopping
Health care
Entertainment
Restaurants/Bars/Cafés

SERVICES

Located close to Järntorget, Haga and the city centre, services are never far away. There are restuarants, shops, grocery stores, an eco store, healht care, theatres, galleries and much more just a few minutes walk from Rosenlund.

POSSIBILITIES/QUALITIES

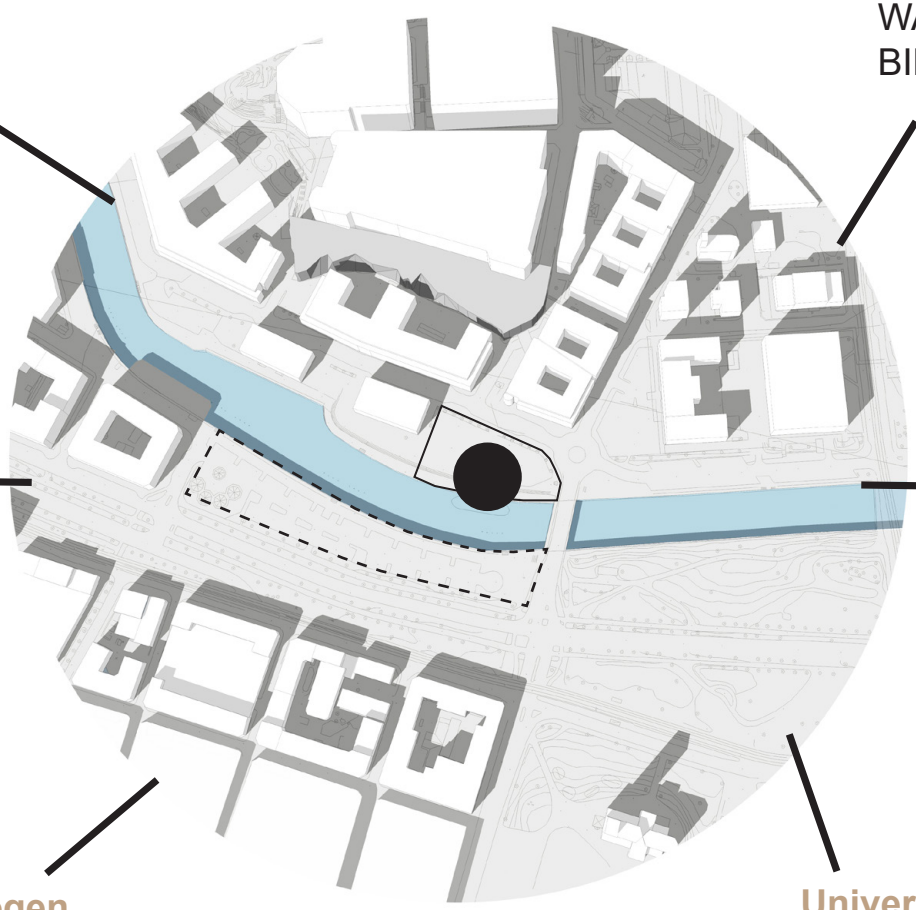
Close to eco store
All services close by

CHALLENGES

Not so much housing in the area
Only one eco-profile store

Photo: Malin Bengtsson - FRAM, eco grocery store

CONNECTIONS



Lindholmen
BIKE+FERRY 10min
WALK+FERRY 20 min

Central station
WALK 18 min
BIKE 7 min

Saltholmen
BIKE 35min
TRAM 30 min

Ullevi
BIKE 8 min
WALK 25 min

Slottsskogen
WALK 18 min
BIKE 8min

Universeum
WALK 30 min
BIKE 10 min

MUNICIPAL PLANS

2012 their where plans being developed by the municipality concerning permission to build additional floors on the already existing office buildings in Rosenlund. They idea was to build on top of existing structures but also to renovate and adapt to fit housing into the buildings already there. The plans were cancelled in 2016 due to complications. The owners of the buildings which the municipal plan concerned abandoned the idea when the planning process got to complicated (Andersson 2013).

At the moment, there are no current municipal plans of expansion in Rosenlund concerning housing. The building of Västlänken will affect the area.

CULTURAL-HISTORICAL

The history of Rosenlund goes back to the 1600 and because of this the area holds history of centuries within its buildings and environments. Rosenlunds holds cultural-historical valuable environments and is therefore classified as a national interest.

The municipality of Gothenburg has a conservation program called *Kulturhistorisk värdefull bebyggelse* and Rosenlund is covered by this program that follows PBL (Andersson 2013).

BUILDING SHAPE

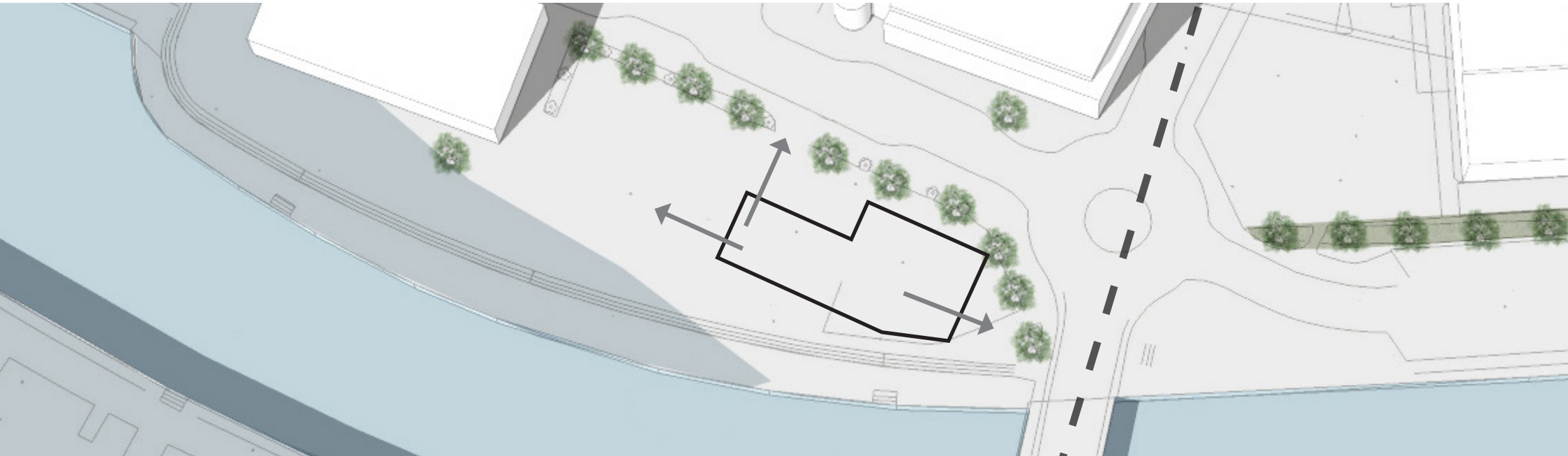
This is the building shape based on the conclusions from the site analysis. It is mainly founded upon the four arguments to the right but supported by the analysis in general.

- **The risk of flooding in the south because of Vallgraven.** Since the west parts are more affected by the risk of flooding and high water I made the building shorter and left a square to be designed to deal with stormwater.

- **To protect the green structure in the north of the site.** Removal of greenery does not match the concept of regenerative thinking. Current greenry should be protected. This helps decide the placement if the building in the northeast.

- **To make use of the future attractive location along Rosenlundsbron due to Västlänken**. More people will pass through the area making it possible to attract attention to the building with different services as well as to promote the areas new sustainable profile.

- **To connect to the areas history and bring back Fisketorget.** Because of the risk of flooding a square appears to the west of the building. Here stormwater can be handled with greenery in different constellations and the square can be a place for the sustainable profile of the area to take place with markets, events, flower carnivals and more. The businesses in Rosenlund can use the space as well to make it as vibrant as it once was.



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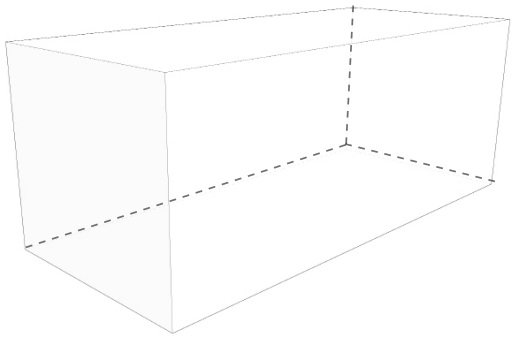

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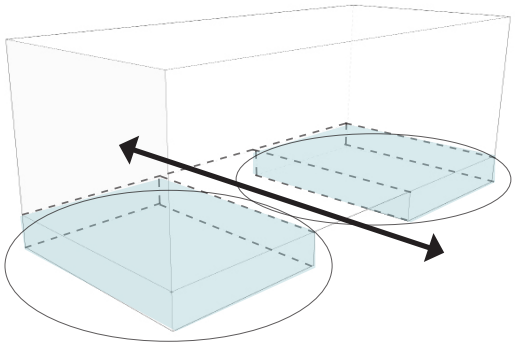

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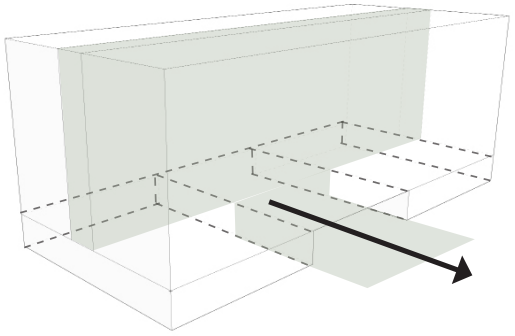


BUILDING CONCEPT

The starting point is a simple shape generated by the investigation of the site and its surroundings. I decided to opt for 6 floors, to match the highest building in the area of the analysis. This I do because of two reasons. Partly because the ground floor is not massive due to the site analysis but I still want to make the building effective. Reason number two is because I believe that this is a statement, to mark that this is something new, something exciting for people to notice. The building has 6 floors of services and apartments but since the roof has a large green house, outdoor urban farming and space to play and relax the building appear taller. What goes beyond 6 floors and pops up is the greenery.

I divided the bottom floor into two to maximize the sight and create “eyes on the street” for safety and comfort, something well needed in Rosenlund. This also creates a beautiful view towards the water lined with greenery and fun services to explore. The two boxes are open and inviting from all directions, you can enter and exit from all sides. Next I added the common spaces, the green corridor connecting the apartment floors, and I linked it to the greenery of the surroundings.

As for the building concept and its surroundings, the aim is to link the ground floor both to the city, to the apartments above and to the site-specific qualities. The services offered on the ground floor are of sustainable character and open for everyone. There is no need to consume or pay for anything in order to be a part of the social context surrounding the building and the new green area. The surroundings of the building do not belong to the residents only, instead they have their private outdoor space on the roof.

SITE PLAN, scale 1:500 (A3)

SITE PLAN

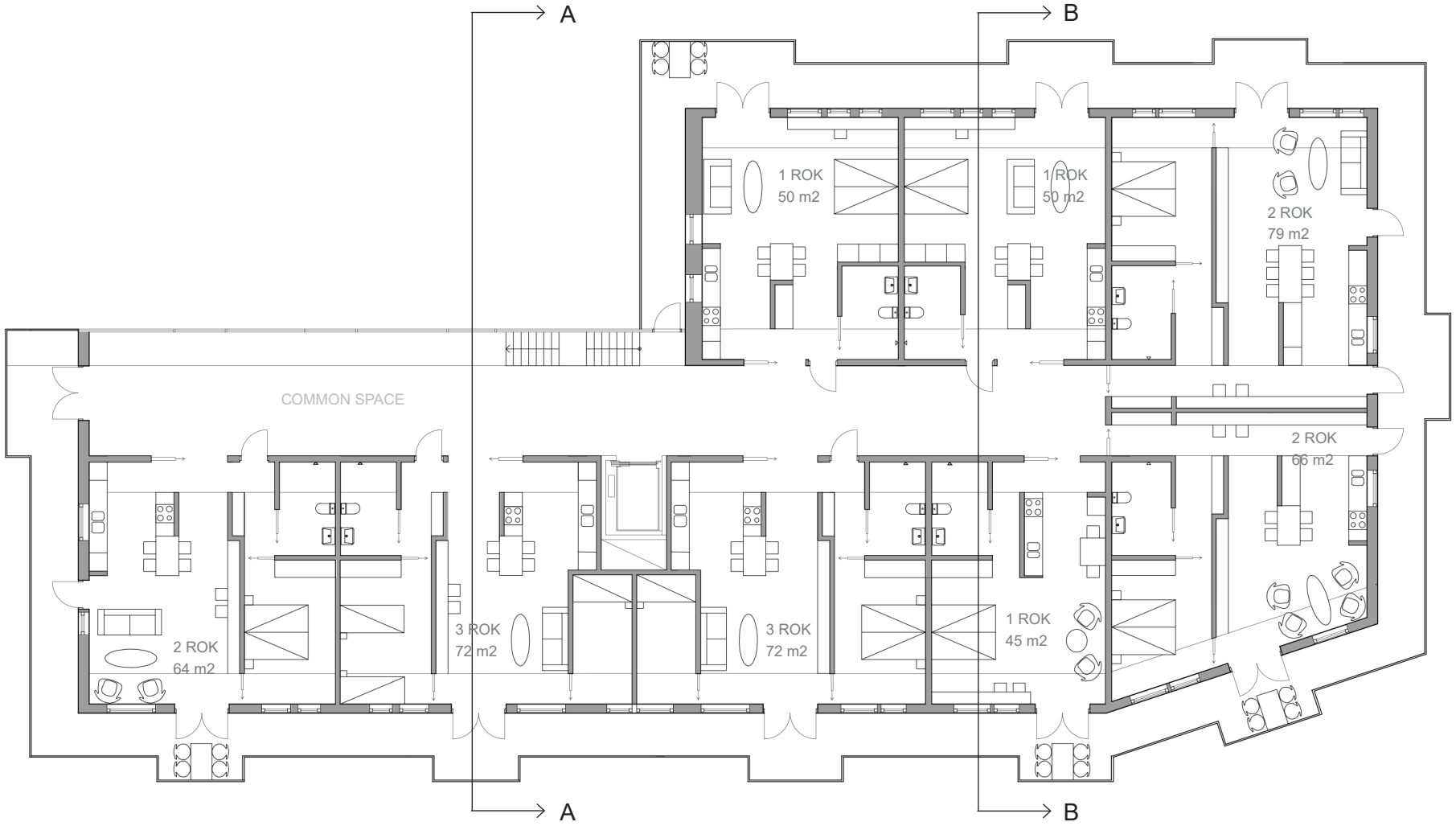
1. Informative park for play and relaxation
2. Square for fairs, markets and greenery
3. Eco restaurant
4. Apartment entrance and bike storage
5. Green zero-waste convinience store
6. Bike through workshop
7. Florist shop and learning centre
8. Walk path and cozy seating

The ground floor aims to tie the building together with the surroundings as well as contribute to a sustainable profile for the area. A new eco restaurant is located in the west part and the east part gets a flower shop and a bike through workshop. The restaurant can cooperate with Feskekyrka with fresh local food and fun events and happenings on the new green Fisketorget.

There is now parking with the building but there are a few spaces to park along the street. The building owns a common electric car to use when needed. It´s located by the entrance. The shops and restaurants have access to the street so deliveries can go smoothly.

The connection between the services on the ground floor and the inhabitants above is clear. The inhabitants have memberships and discounts as well as opportunity to get involved in the businesses.

The informative park aims to encourage to play and to relax. Walking on the green cozy path you can also gain some sustainable knowledge along the way. Small information hubs are strategically placed to inform you about the eco profile of the area and what the new standard is all about.



FLOOR 2 TO 6, SCALE 1:200

Eight apartments on each floor, 40 apartments in total

SELF IN A SYSTEM

The facades largest part are placed on the south to make the most of heating during winter. The balconies protect from overheating in the summer. Solar energy provides electricity and hot water.

The farming shows from soil to plate, the laundry room shows energy and water flow in visible pipes. There is an open part of the wall showing its materials.

Contributes with a new sustainable profile for the area, relates to Kungsparken with a small park of its own taking biodiversity into consideration.

SECTION A:A, scale 1:150

SECTION B:B, scale 1:150

EXTERIOR FLOWER SHOP

FACADE WEST, scale 1:200

FACADE EAST, scale 1:200

GREEN CONSUMPTION

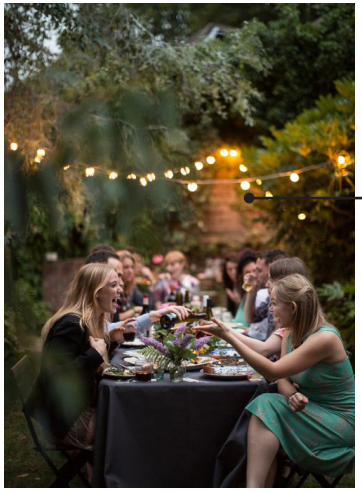
Growing food on the west facade as well as on the roof. Each balcony has a space that can be used for this purpose as well

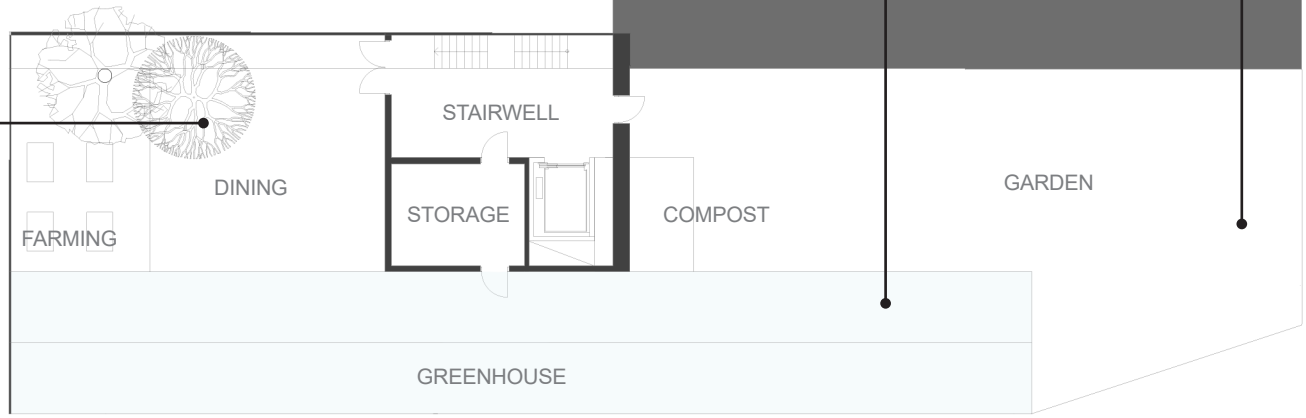
FACADE SOUTH, scale 1:200

FACADE NORTH, scale 1:200

ROOFTOP GARDEN

The roof top garden is a green oasis with lots of space to socialize and play, sit back and read a book among the trees or indulge in urban farming in different scale. The roof has a generous sized green house and a storage with equipment, furniture and toys. A part of the roof is cladded with solar panels but much of the space is used as a common garden for the residents.





ROOF PLAN, SCALE 1:250

INTERIOR GREEN HOUSE

THE COMMON SPACES

The fairly large hallways on each floor have different functions and ties the building together. The top corridor is an empty flexible space to be used in any way - then there is (following the image below) a laundry room, a gardening space, a showroom and a common living space.

LIVING WITH LESS

The corridor provides temporary use of extra space and possibility to try new sustainable experiments. There are no separate storage.

The common spaces are somewhat flexible and there are both indoor activities as well as outdoor ones of varied types.

LAUNDRY ROOM

GARDENING SPACE

SHOWROOM

COMMON LIVINGSPACE

Laundry room

ECO THINKING AND ENERGY AWARENESS AT FLOOR 5

Do your laundry in this open airy space. Understand the way things are happening - and see what impact your choices have on the screen.

3 KEY ASPECTS

- FUN FACT SCREEN
- AIR DRY CLOTHES
- VISIBLE WATER SYSTEM

Gardening space

SOCIAL CONTEXT AND GREEN KNOWLEDGE AT FLOOR 4

Plant, grow and get to know your neighbours in a relaxed context. Grow your own food, learn from each other or arrange a planting class. This space is perfect for messy days.

3 KEY ASPECTS

- SOCIAL CONTEXT
- URBAN FARMING
- GREEN KNOWLEDGE

Showroom

SUSTAINABLE BARGAINS AND FUN FINDS AT FLOOR 3

Go and find what you need in the buildings free shop - a showroom with things to re-use. Donate something, shop something or just hang out for a while.

3 KEY ASPECTS

- RE-USE
- GOOD CONSUMPTION
- BUILDING ECONOMY

Common livingspace

EXTRA SPACE AND CHANCE TO MEET NEW FRIENDS AT FLOOR 2

Do your laundry in this open airy space. Understand the way things are happening - and see what impact your choices have on the screen.

3 KEY ASPECTS

- FLEXIBLE SPACE
- NEW FRIENDSHIPS
- ACTIVITIES

LIVINGROOM SEEN FROM KITCHEN, 2 ROK APARTMENT

APARTMENT LEVEL - 2 ROK
Section through 2 ROK

GIVE FEEDBACK

A digital system in your apartment that shows your progress and gives you a concrete example of how your local context is affected.

CONNECT TO NATURE

Large social balconies for urban farming or sustainable experiments concerning lifestyle. Possibility to make the balcony a personal green oasis.

LIVING WITH LESS

The apartments have a lot of built in functions and furniture making the most of the layout and minimizes the need of things.

GREEN CONSUMPTION

Zero waste design: a to-go-kitchen - fill up at the local eco store and put the units back in.

KITCHEN, 2 ROK APARTMENT

INTERIOR OF 1 ROK APARTMENT

BALCONIES TOWARDS NORTH

MATERIAL AND CONSTRUCTION

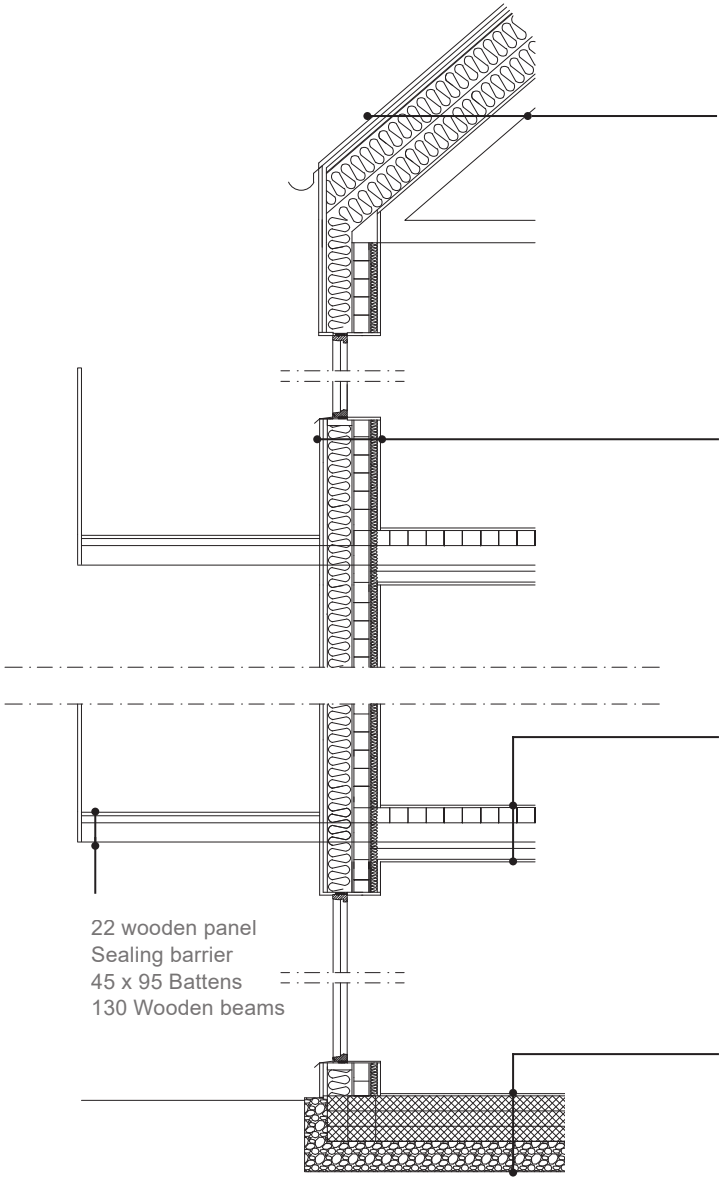
This drawing shows the materials and the construction of the building. When working with materials I´ve aimed to consider the life cycle of the materials as well as to make it a priority to use Swedish ones.

The lifecycle perspective also goes for the building in general. The wooden construction uses screws for easier demolish. The idea is that the materials used can be used in a similar way again.

The building is a well-insulated low-energy building. It produces some of its own energy, uses sustainable low energy appliances and aim to overall lower energy usage and consumption.

LOOP SYSTEM

CONNECT TO NATURE



MATERIALS

Wood

The building is mainly constructed using Swedish wood. The structure is a massive wooden construction with load bearing wooden walls. Both the exterior and the interior walls are clad in a wooden panel. Wood as a building material is natural and renewable. The wood used in the building also ties carbon as long as it stands. Less energy is used in the production, a concrete building demands four times as much energy in production. Being a natural material, it contributes to good indoor climate.

Steel

The thin steel railing that wraps itself around the building is important for the buildings character. It adds a careful and modest feature to the building. The building is yet quite soft because of the wood but also robust because of its size and shape. I used steel railing mainly because of its endless possibility to be re-used.

EXAMPLE WOODEN PANEL FOR EXTERIOR

EXAMPLE METAL RAILING FOR BALCONIES AND STAIRS

TECHNICAL SYSTEMS

Water

The building is connected to the municipal system because larger scale systems are often more sustainable and cheaper. Rainwater is collected to prevent flooding and save energy. it is later on used for the gardens on the roof, ground floor and balconies as well as for the laundry room.

Sewage

The building is connected to the municipal system. Beeing in such a central location, handling this seperatly would be hard, ineffective and expensive.

Heat

District heating is being complimented by solar energy from the system on the roof. The rooms are heated by under floor heating.

Electricity

The building is connected to the municipal system of electricity from renewable energy sources. Some of the electricity also comes from solar energy on the roof.

Ventilation

Natural ventilation is used in the building. Natural ventilation is an easy system. The air enters the building through a duct that uses the ground to heat/cool the air before it enters the house. All rooms have intakes except bathrooms and kitchens. There we have outlets run by sustainable fans.

Waste

There is a waste station on the ground floor by the entrance with connection to the outdoors and the entrance hall. Here you can compost and recycle. There is no general waste bin because things that can´t be composted won´t be used in this building in the future. There is also a compost station by the greenhouse on the roof. The comport can generate some heath for the greenhouse and the compost can be used for farming and growing.

LOOP SYSTEM

SELF IN A SYSTEM

STANDARD:
LOW ENERGY BUILDING

Conclusion and reflection

My master thesis THE NEW STANDARD has been about smart homes and kind lifestyles. I have aimed to not only create beautiful, sustainable homes to enjoy but also homes that help you make the best decisions for the planet. There is a dialog between your dwelling and yourself and when we collaborate with the built environment and the nature, that´s where we find the positive change we so desperately need.

Lifestyle influencing architecture seems, to me, as quite a new phenomenon and therefore it can be difficult to draw clear conclusions. Since project like these are rarely built it´s hard to see how influencing by design work in real life. This project is my proposal on how to try this strategy out.

Even if you live in a net positive building your environmental impact can be massive - because of your lifestyle. That´s why this is so important. Slowly moving towards a future of sustainable building, we have to take this into consideration now. THE NEW STANDARD aims to do just that. Instead of taking one step towards better housing, why not take five right away?

The new standard - what´s in the title?

STANDARD might come off as a bit of a harsh word, used in relation to rules and regulations. Theoretically we could make a certain way of building, for example lifestyle influencing, the standard by law. How we then decide to live within this building of this standard are our own decision. Lifestyles are generated by norms rather than standards. We can create possibilities for a certain lifestyle by using standards, but the lifestyle itself then comes from the norm. So, the title, and I, have to take a stand. Standard or norm?

This is the stand I decided to take. I believe that we have to set guidelines for how to build smart, kind housing. The problem of sustainable building and development is wide and more complex that one can grasp. But the general idea is that if there is an easier, cheaper, quicker option – that's the option we take. So, either we have to make sure that, in this case, lifestyle influencing housing is the easiest, cheapest and quickest way of building so people pick it by choice. Or we should set a standard of guidelines to follow in order to look after the environment. For this thesis, I will opt for the

guidelines. To make sustainable building the most appealing option is perhaps better but to explore how that can be done is a whole thesis for itself. I will leave that for someone else.

Compact living and flexibility

Today when talking about sustainable housing we often mention flexibility and compact living. I entered this master's thesis quite impartial. My mind was not set on any specific way of handling the question I wanted to answer. Reflecting upon it now, I can see how I did the opposite to what circulates in the current discussions. And I am glad I did. Flexibility in the sense of movable structures and adjustable apartments and compact living are not part of this project, instead I made reasonable sized apartments with fixtures. The reason to this is simply the quality of life. To me, the place where you live should be a place to long to. A place to feel safe and comfortable in, not just to be seen as a place to sleep. Compact living is not compatible with my crave for accessibility housing and as a place to breath. If you want to spend some time with your friends or family, you need space to do so. That doesn't necessarily always have to be in a private space but I believe that's something many of us want to be able to choose. Relating to myself as a child, private space to play away from the parents was necessary. Now as a young adult I value my relations to family and relatives even greater and having space to invite them over means a lot. That is social sustainability to me. I fully understand the arguments behind compact living and flexible housing as a sustainable approach but if we go further down that road, where will that lead us? What I see is not something that I like. The apartments I propose with my design are dignifying, they strengthen social bonds within living constellations, they make you interact with your neighbours and you do not require owning a lot living there. It´s a place for you to make feel like a home with simple matters and then enjoy with your loved ones – there is room.

Housing and home

How to turn a house into a home has also been a thought in the late process of this thesis and it is linked to what I stated in the previous section. The fixtures in the apartments of my design proposal might stand in the way of someone's vision of their dream home, we are all different. The idea with the fixtures is mainly to reduce waste and energy consumption generated by renovation. We see this a lot in today's society and it is one of the main factors for the unsustainable development happening worldwide. The fixtures are to be made with local wood of high quality and contribute with solid value and a sense of trust and belonging. The building will end up telling a story of the people passing through. I believe that the fixtures can be a part of a blank canvas for

you to shape your apartment the way you want, you will simply need less things to do so.

Design ambitions

The idea for my thesis was formed and refined during the process. The process itself and to discover new perspectives on sustainable thinking have been fascinating. If the question concerning sustainable lifestyles by design would have appeared earlier in the process of my thesis work I would have desired to go further with exploring this. My aim with the housing suggested in my proposal is that it is designed in such a way that they guide you in the direction of sustainable lifestyle choices. The design should be self-explanatory and user friendly. Since one of my conclusions is that technology can't do everything for you, I contradict myself if I say that I aim for housing designed in such a way that they automatically make you do the right thing. Because then again, it´s design or technology that acts, not your active choices. It is an idea that I would like to explore but I think I am going to conclude and stick to what I´ve said early on - our lifestyles, habits and everyday choices must change. Even if you do the right thing at home, you can still live an unsustainable life depending on what you do outside of your home. Then the design of the housing should instead encourage to sustainable lifestyle choices and facilitate them while also affecting your decision making in such a way that it changes the way you reason even away from home. That would interest me to develop, the pure design aspect of how to achieve sustainable lifestyles by design. One attempt from my side for doing just that is the idea of visible systems. Today I think many of us doesn't understand the building we live in. In my proposal, I aim to raise awareness and interest in different systems, to realize what makes your house work. It doesn't mean you have to learn the technical aspects of a system but to just get that light understanding I believe is important in a broader perspective.

Strengths and weaknesses

Looking critically at my own work, what I primarily lack is a stronger connection between my idea and my proposal. I would have liked to see a deeper relation between the two. It would have been interesting to see how that would have shaped the design and it would have created visual arguments for the thesis. The strength of the project I think comes from me being very fond of my idea. During the final seminar, I got constructive response on how to refine my work and advance it. What also was said at that meeting, and that made me pleased to hear, was that the work I´ve done is caring. Housing have been my profile during my education and my aim is always that people should feel happy and comfortable at home. That simple thought is what drives me and I can see that drive in my thesis.

Relating to the thesis question

The work with my thesis have been interesting and the question raised motivates me. My aim was to use design to ease sustainable lifestyles. As I discussed in the reflection about the projects strengths and weaknesses, I believe my visual connection to my design criteria and the general concept could have been stronger. At the same time, I also see what I have achieved and I think it's a good base within its field to be explored further. Sustainable lifestyles by design need to be seen in a broader context as well as in a local one for the most caring and effective implementation. This thesis reactions to the question of design for lifestyle influence is just the beginning. I will remain exploring and searching for answers.

Final words

After finishing this thesis and learning about lifestyle influence, my conclusion is this: Technology can't do everything itself. I truly believe that changing our lifestyles and broaden our perspective through architecture is the key. Let´s think about this - everything around us is design and architecture. Imagine the possibilities of influencing the environment in which we all exist. I think great things can happen if we use these possibilities wisely.

During the work with this thesis I´ve opened up my mind to a new way of thinking about sustainability that hopefully will develop in future projects after I graduate. The complexity that is sustainability now has gotten a deeper meaning and my understanding of how things are connected has gotten wider. I look at projects in a different way and that makes me feel proud.

Thank you

To Lena and Nils for believing in my project

To my family and my boyfriend for cheering me on

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APPENDIX

REFERENCE PROJECTS

Little big houses
Asturias, Spain

PKMN Architectures

Photo: PKMN Architectures

Photo: Javier de Paz Garcia

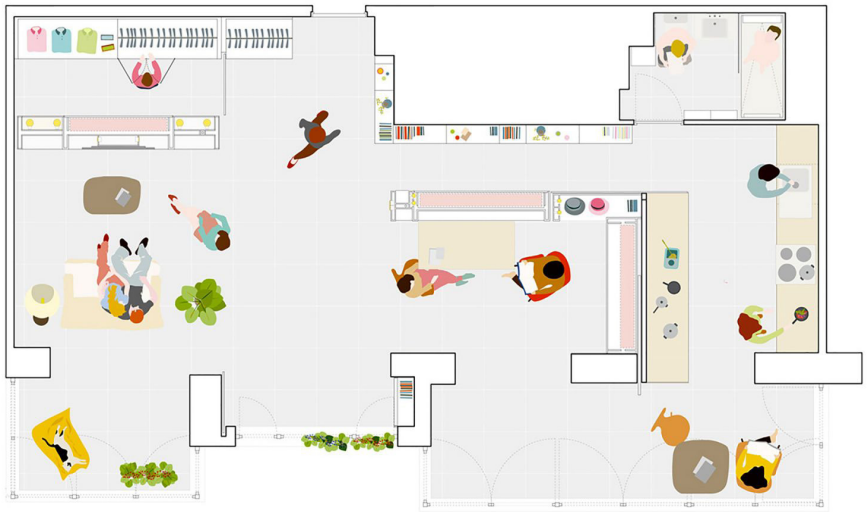

Photo: PKMN Architectures

70 square meters, 0-2 bedrooms

A large balcony provides extra square meters of living. Used as a living room when the weather allows.

Movable fixtures of furniture make the bedrooms go from 0 to 2 in seconds.

Fold out beds, tables etc.

Used as space for both variable family constellation and visiting friends.

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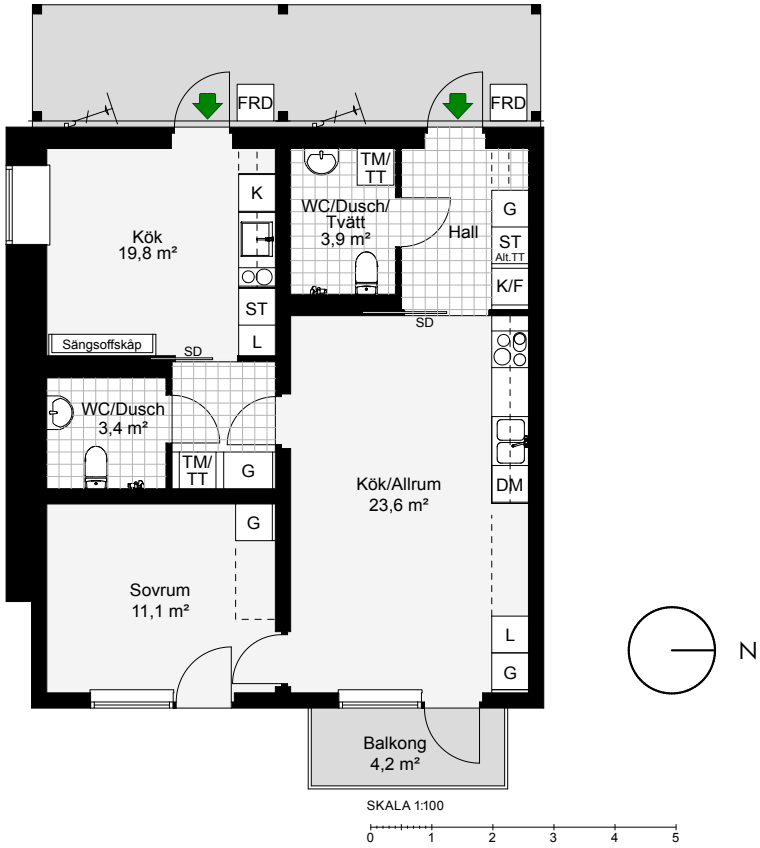
BRF Paviljongen
Vallastaden, Sweden



3 rok / 2 rok + 1 rok

Two entrances make it possible to divide the apartment into two.

Plan good for family with teenagers, families with high demands of accessibility, friends living together or for the young adult wanting to move out from the parents' home but can´t because of economic reasons or the lack of a place to stay.

If rentals - possible to rent out in two diverse ways depending on demand.

Vallastaden. Retrieved from http://vallastaden.info/bostader/

BRF PAVILJONGEN

HEMGÅRDEN
BOSTADSAKTIEBOLAG

REFERENCE PROJECTS

Apartamento JPA
Sao Paulo, Brazil

metamoorfose studio

Photo: Metamoorfose

65 square meters, 2 rok

A large balcony provides extra square meters of living. Used as a livingroom when the weather allows.

A fixed wooden panel with foldable door divides the space and creates an extra room.

A few wooden built ins. The bathroom also gets a built in feeling because of the wooden panel system.

A nice homely and warm feel throughout.

Metamoorfose (2015). Apartamento JAP. Retrieved from https://metamoorfose.com/portfolio/262/

Photo: Metamoorfose

The new standard