BORDERS

PRIVATE

PUBLIC

SEMI—PRIVATE SEMI—PUBLIC

LEVELS OF PRIVACY

on the borders of public, semi public, private residential life.

Pinelopi Vassilaki + Elif Ekim

ABSTRACT

In the framework of social sustainabilty, the relation between private and public spheres is one the important aspects that define the social qualities of everyday life in the neighbourghood level. Especially, the border of this interaction, as called semi-public and semi-private is a key element that can provide balance and well-being in the individual's social and personal life. Since the renovation acts focuses more on improving functionality rather than social life, this boundary is underestimated in the residential context.

In our master thesis, we proceed to define an example of how this public - private relation can be regulated according to a specific site in Bangatan, Göteborg. We developed tools (relating to physical parameters, communication and spatial organization) for defining the movement between public - private that has naturally generated through gradual privacy levels. With this perspective the thesis work is a laboratory for researching design possibilities in residential block. We used Gehl `s theory (2011) as an application of how to deal social issues in the housing context. By this application, the project exemplifies how the theoritical background can be integrated into the design proposal with levels of examples.Therefore the outcome could stand as a paradigm for upcoming renovation acts and it may help to the future projects.

KEYWORDS:
SOCIAL SUSTAINABILITY
RENOVATION
LEVELS OF PRIVACY
RESIDENTIAL CONTEXT
SOCIAL QUALITIES

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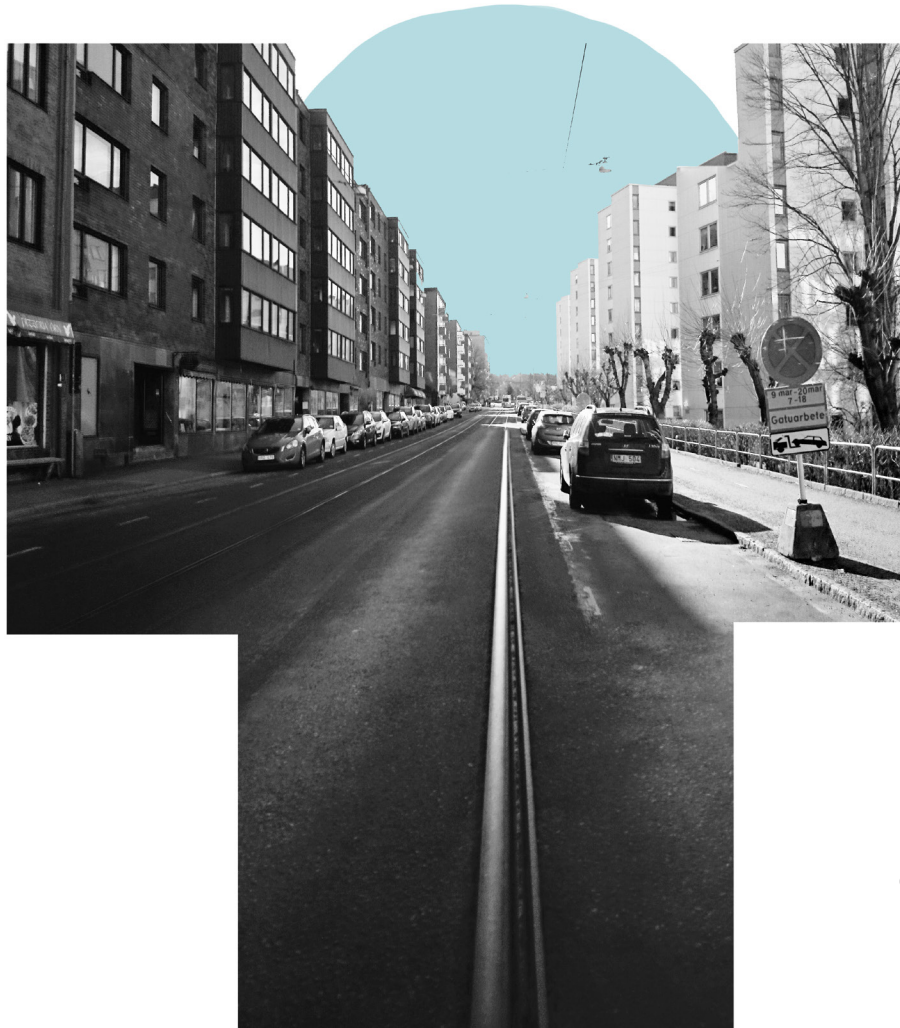
what do we propose on site?

THANK YOU

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In this way, we would like express our gratitude to our supervisor, Anna Braide Eriksson, for her precious guidance and support in every step of this project.

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We admire everybody's contribution and support. It has been a pleasure to work with you!

INTRODUCTION

BACKGROUND

social qualities
of everyday life

PRIVATE ➤ PUBLIC

in housing

WHY

+

refurbishment
projects of mass
housing blocks

WHY

*'Authentic architecture is always about life. Man's existential
experience is the prime subject matter of the art of building.'*
(Pallasmaa, J., 2005)

In this context, the human perspective of social sustainability is a very important issue that should be addressed in every project. This master thesis' focus is oriented towards **social qualities of everyday life**, that are **important for the act of inhabiting**. It is defined by these spatial attributes that encourage and serve people's needs to **strengthen their being in the world, ranging from social interaction down to individuality and intimacy**.

Why should it be implemented in a residential context? The house is man's first universe, it is the place within which we build our characters, self identity and acts as an organizing instrument of our lives (Bachelard,1958). In other words, it is the entity that **arranges people's lifestyles in a high degree** and working on this scale can provide a **stable and healthy scenery for individuals to develop**. Moreover, the **majority of the existing building** capital in Europe is housing, so it is vital to look into this sector in refurbishments (Meijer,2009). Besides these facts, Göteborg faces the big issue of **shortage of dwellings** and it is a challenge to enhance the quality of life while keeping and even increasing the number of apartments.

The problematic initiates with modernistic massive housing worldwide. The functionalist movement did not focus on the social and psychological aspects of the design of buildings or public spaces (Gehl,2011). Especially in Sweden, with the million programme massive housing quickly constructed in the face of accommodating an expected rising population during 1965 - 1975 brings functionality in the center and did not put urgency on social aspects. Initially built to overcome the
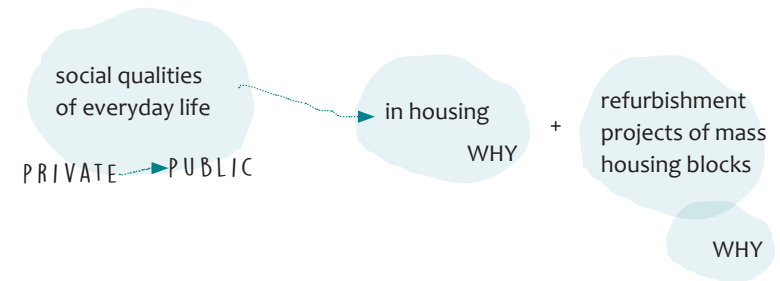
shortage of the era, this residential type was trying to give an answer to the contemporary housing standard. After forty years, all these constructions are in simultaneous need of renovation, which is already in the process. Nevertheless, the leading attitude of refurbishing is concentrated in economy, functionality, limiting energy consumption and the use of natural resources, not dealing so much again with the social level, even though this is supposed to be taken into consideration. Most of the times, a very small amount of minor necessary interventions are carried through, giving the owners enough argument to even increase the rental fees.

How can we re-establish the human in the center of this ongoing progress? Even though most sustainability activity of real estate focuses on ecological performance, it is important to remember that the sustainability is a concept with an orientation towards the enhancement of social living (Bugl,2009). In this direction we aim for bringing these qualities in the existing physical environment that offer a right balance of public, shared and common, as well as private space, corresponding to the needs and deficiencies of a specific context (Day,1990). It is of course of great importance to see all the quantitative characteristics that a sustainable renovation should take care of, but it is equally essential to focus on life patterns and needs, because after all it is for people's satisfaction that these projects are made.

AIM AND SCOPE

The aim of this master thesis is to **exemplify how the public and private relations** can be regulated in the **residential context** . Within this approach we envision the organization of **enhancing interventions** in a specific project, that could stand as a laboratory work of a qualitative renovation. In this process we focus on layering the movement from the private to the public space and stress the importance of semi private and semi public realms. By defining our own **architectural tools** from **theoritical background,** we **exemplify how the theory can be integrated to design decisions** that could strengthen a **holistic approach in renovation.**

SOCIAL SUSTAINABILITY

RESIDENTIAL CONTEXT

RENOVATION

SOCIAL QUALITIES
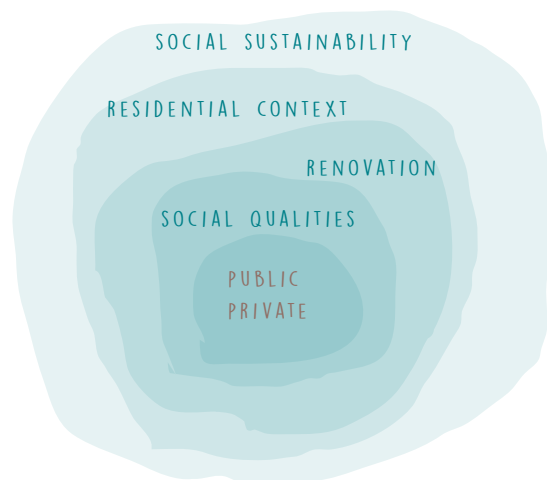
PUBLIC
PRIVATE

HOW CAN WE EXAMINE THE RELATION BETWEEN PRIVATE AND PUBLIC SPACES IN HOUSING CONTEXT ?

WHAT ARE THE TOOLS FOR DESIGNING THE 'BORDERS' BETWEEN THE BUILDING AND SEMI—PUBLIC SPACE AND HOW CAN THEY BE IMPLEMENTED IN A SPECIFIC EXAMPLE?

METHOD

High importance is put in the theory relating to the leveling of the social space. In an effort to organize our process we defined a **plan of working** that is defined by **four steps** described beneath.

1

First, the choice of the area is made and a specific spot in the body of the urban tissue is defined. An initial broad - scale analysis is carried out in order to define the public character of the site.
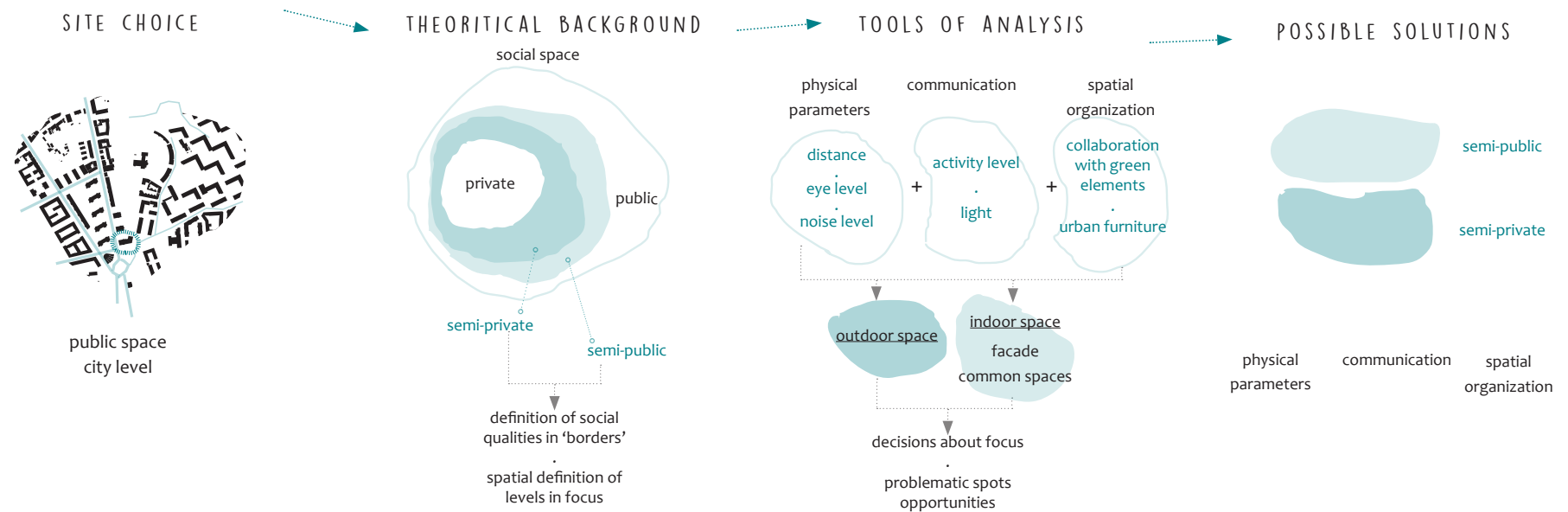
2

In this level theory, mainly taken from Madanipour(2003) and Bachelard (1958), is used to define the required layering of privacy in space and to describe the social qualities that characterize these levels in the borders of private and public. After that the different shades are matched with correspondent spaces in the complex.

3

In this step theory of public and private relations that is mainly taken from Gehl (2011) is utilized into diagrams and design tools for analyzing the existing layers in the spot. These tools are defined as three levels that can be applied for outdoor and indoor space on the project. The outcome results in the identification of the problematic spots in the block, pointing out their deficiencies and opportunities.

4

In the last step we combine the results of the previous steps, focusing on giving solutions to the borders that were picked as the most problematic according to the areas of malfunction. Again the ways of intervening are organized according to Gehl`s theory (2011) and the aforementioned tools.

SITE CHOICE

THEORITICAL BACKGROUND

TOOLS OF ANALYSIS

POSSIBLE SOLUTIONS

public space
city level

social space

private

public

semi-private

semi-public

definition of social
qualities in 'borders'
.
spatial definition of
levels in focus

physical
parameters

communication

spatial
organization

distance
.
eye level
.
noise level

activity level
.
.
light

collaboration
with green
elements
.
urban furniture

outdoor space

indoor space
facade
common spaces

decisions about focus
.
problematic spots
opportunities

semi-public

semi-private

physical
parameters

communication

spatial
organization

LIMITATIONS

The framework of our thesis is delineated by a variety of factors as it is focusing on an example of how to deal with the existing built environment of Göteborg.

In this way, this project will concentrate on the scale of one building complex and its surrounding space, in an effort to propose a way of dealing with the above stated situation. The definition of the characteristics on this scale will enable us to look in more detail the existing relations and possible spatial configurations. The outcome of this proposal could work as an example for further renovation projects in the future. In addition, choosing a specific occasion in the city places the research in a special context. In terms of dealing with renovation projects, the local character needs to be taken into account.

Göteborg's climate and weather conditions constitute another factor that influences the design criteria. On the one hand, protection from the weather elements, like the strong winds and big level of humidity, is really important and on the other hand making most use of them in a more bioclimatic way, like daylight. What is more, bringing green elements in the housing buildings sets another limitation as far as the technical efficiency of the old structure and the felt indoor environment are concerned.

Since the social qualities are a big issue to stress upon we chose to focus on the relation of private, semi-private and semi-public, in order to work with them in more detail. In connection to this decision, the focus in the relation to the outside space is placed on one of the spaces attached to the site, so the connection to the neighborhood is analyzed to a higher degree.

BALANCING THE ACTS

" .. So the simply tearing down and replacing dysfunctional buildings that are only 20 - 30 years old is frightening on many levels, with all of that waste energy and mass of rubble and rubbish to be disposed of much of it heading for landfill."
New Nature Home, 2010 (1)

Our design approach focuses on small touches aiming to big effects for individuals, neighborhood and the society. We envision the sustainable renovation projects lying on the use of the potential possibilities both on landscape and the building. Our approach is clearly not changing the whole structure of the building, but rather improves the qualities within a respectful perspective. Therefore our renovation approach handles the problematic spaces rationally, when it is necessary. Besides that, our scope to project the set of possible solutions, proposed in this research, on the broader renovation movement in Göteborg, gives one more incentive towards our orientation of doing more with less.

chapter 2
ANALYSIS

Site Analysis
Analysis of the Building

SITE ANALYSIS

ABOUT STIGBERGSTORGET

Bangatan is starting at the intersection on the level of Stigbergstorget and is located 3 minutes distance with tram and 20 minutes walking distance from Haga, the old city district of Göteborg. This long street, prominently, has a showcase of houses made of different construction techniques and architectural expressions from different eras of the town. The street starts with brick houses, continuing with Swedish cottage houses together with artneuvo style ones and further governor types of housing and, finally, the street conjucts parallel streets, where the high rise million programme houses appear just in front of our project site. People prefer to dwell on Bangatan because the location is very easy to reach and the neighborhood safe for accommodation.
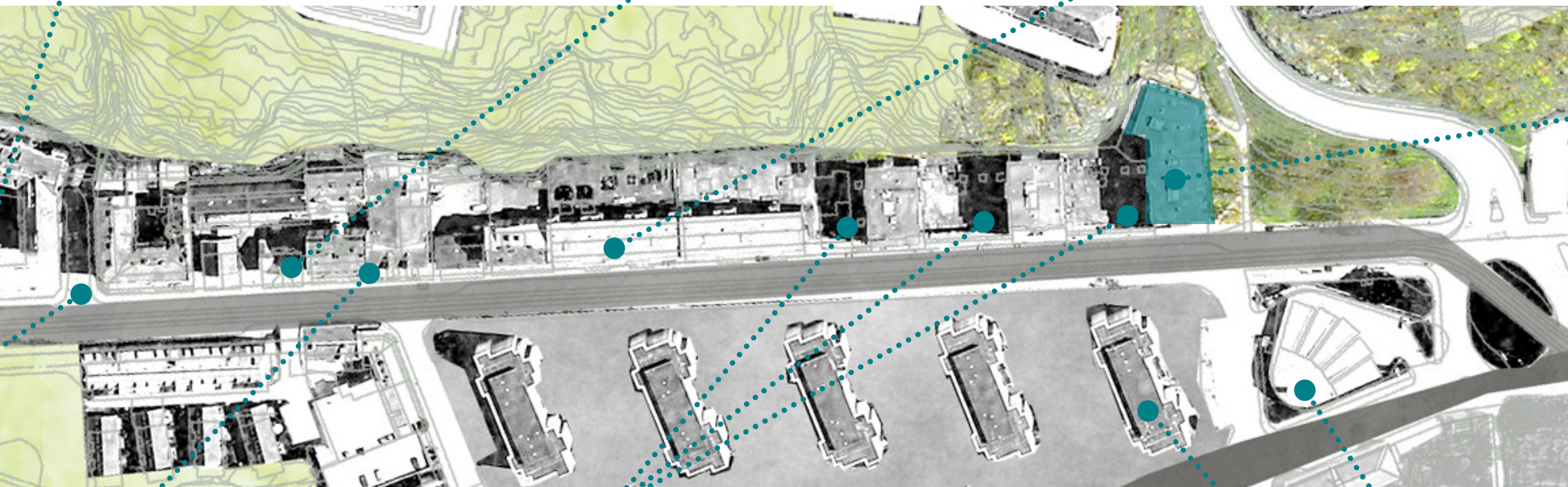
One of the main reasons that we picked our project area was firstly because Bangatan has many old blocks that need to be renovated. What is more, the formulated courtyards between the modernistic buildings provide a space to research in relation to the private sphere.
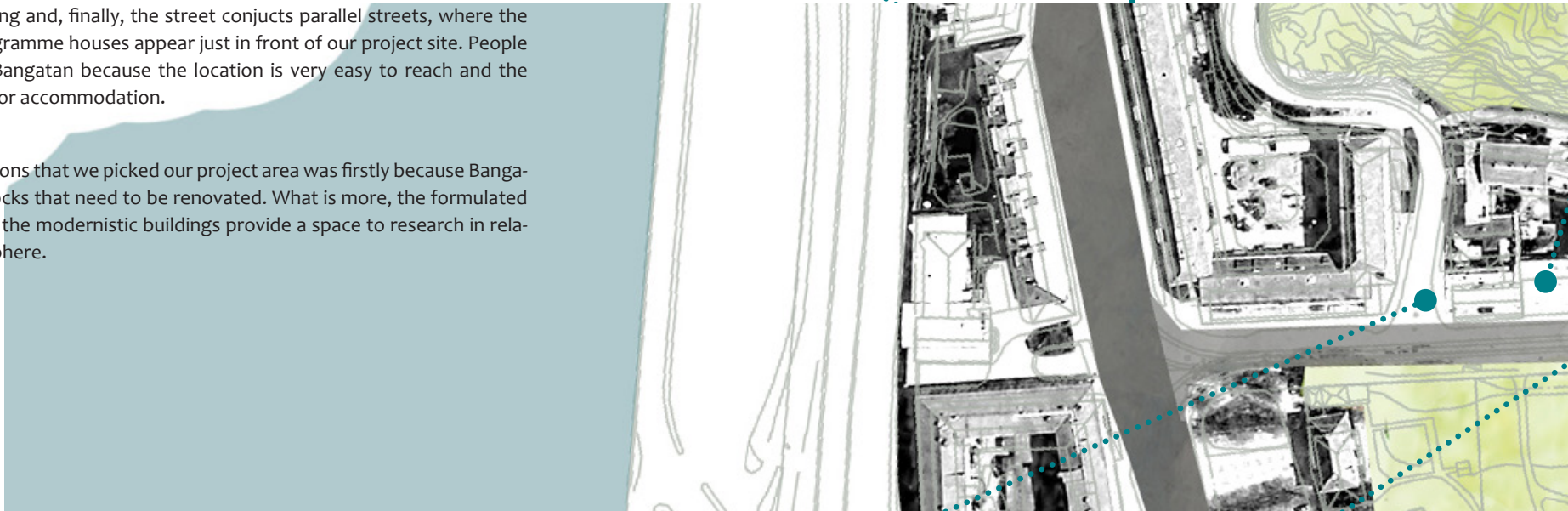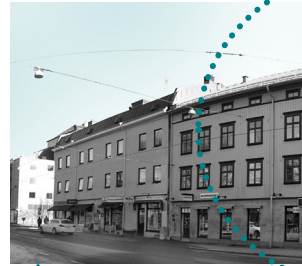
second opening

first opening to
natural elements
from Bangatan
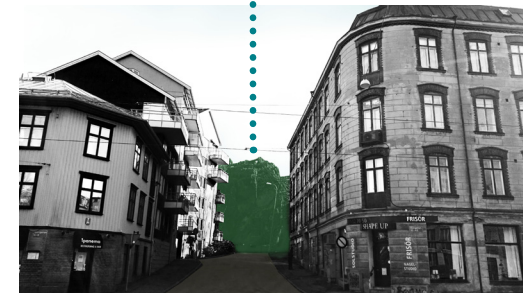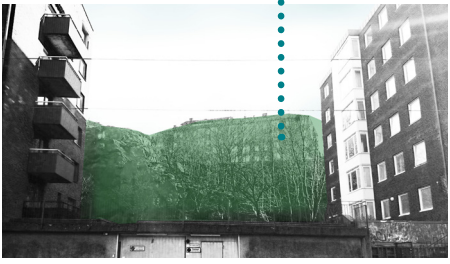
SITE

other similar openings at the height of our site

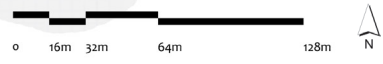third opening

high rise million
programme
houses

courtyards between
the blocks including
our site

gas station

garage

first entrance on
+33.00 level

second entrance
on the slope
+39.00 level

Fjällgatan
tram stop

0   16m   32m   64m   128m   N

## ANALYSIS OF THE SURROUNDING GREEN SPACES

The spot is surrounded by three main outdoor spaces that have different characters. Our aim is to examine the border between public and private, therefore we selected the courtyard space as one of the focused areas since it is more defined as semi public space shared between two blocks. By focusing on the courtyard, we have an opportunity to work with more gradual layers from public to private. Since we zoom in the qualities on the shared courtyard, we will not propose a solution that entails other outdoor spaces, but yet, they will be mentioned in this page.

COURTYARD

The courtyard is the shared common space on the roof of the garage (as 28x31 m2 area), surrounded by two modernistic buidings and the rocky hill. Today the accesibility to the courtyard is poor and not welcoming. This is owing to the fact that the couryard is situated one meter below the second floor of our building and the access through the courtyard is sustained only by one dark corridor and an external staircase. Since there is no connection between the east part of the block and the courtyard, the residents are not welcome to use this space.
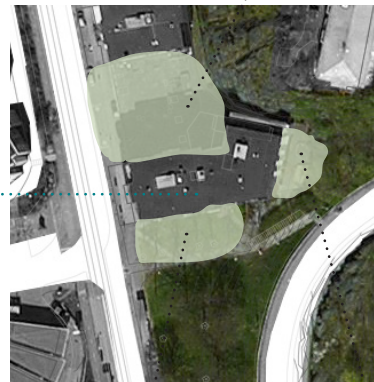
For us the courtyard has more capacity than the level that it is used today. Because of the lighting problems and spatial organization, residents from the project block are not attracted to use the space. But the location and situation of this semi public outdoor space serves a good opportunity for answering different privacy needs for the residents, by connecting them to the social life and creating a sense of neighborhood. In the framework of this master thesis' aims, we chose to study the courtyard by proposing an example of how to design this space answering different needs of privacy.
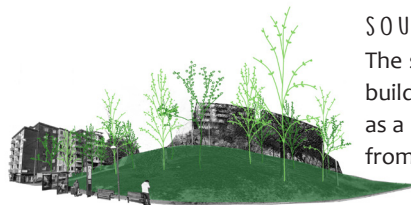
SOUTH GARDEN

The small green space on the south side of the building is an extention of the park and it works as a tampon space divided by the walking path from Bangatan up to the main road.
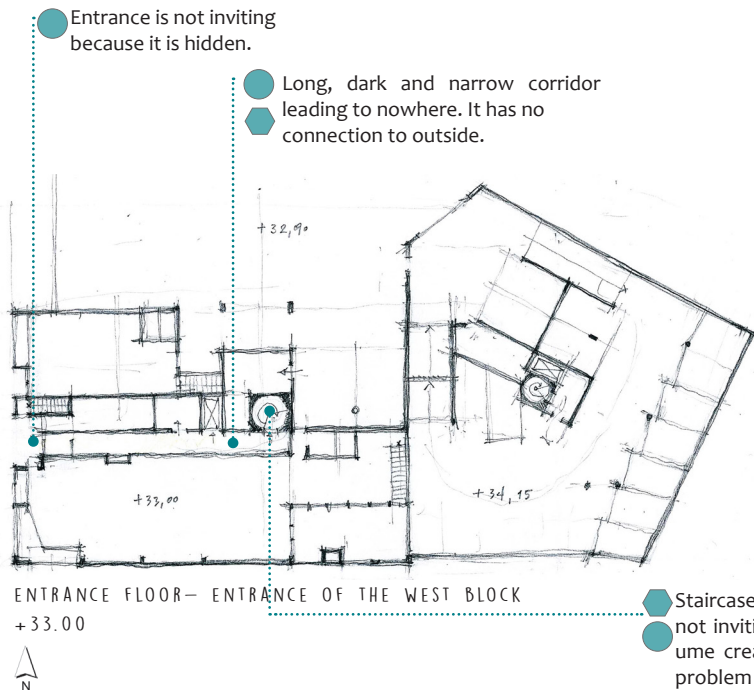
BACK GARDEN

The east garden on the back side of the block is surrounded by the rocky hills facing a lighting problem because of the landscape on the sides.
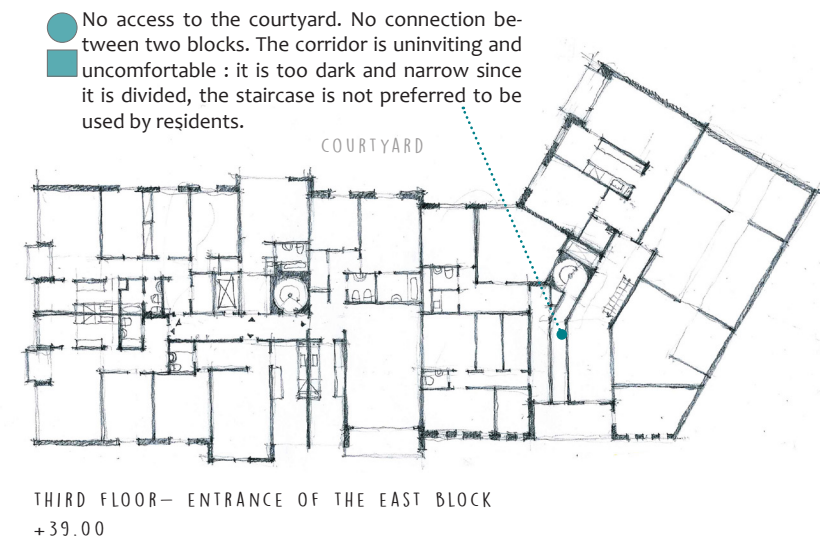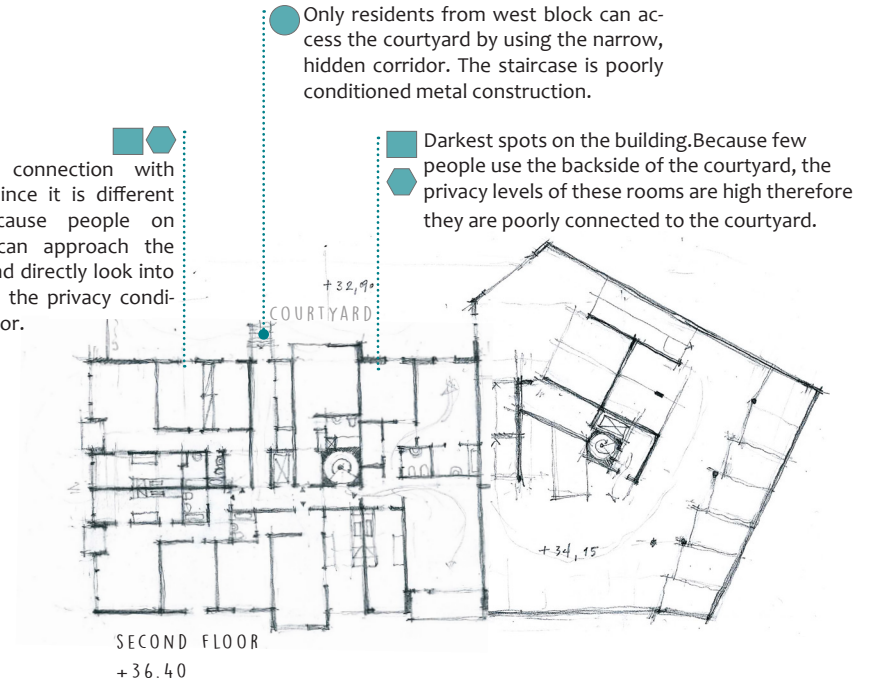
ANALYSIS OF THE BUILDING

This part is the outcome of our personal experience from our visits on site. A brief summary of the analysis of our building can be classified into three topics:

■ PRIVACY PROBLEM
⬡ LIGHTINING PROBLEM
● SPATIAL PROBLEM

● Entrance is not inviting because it is hidden.

● Long, dark and narrow corridor leading to nowhere. It has no connection to outside.

+32,90

+33,00

+34,15

ENTRANCE FLOOR— ENTRANCE OF THE WEST BLOCK
+33.00

N

⬡ Staircase is dark, narrow and not inviting. The closed volume creates an orientation problem

● Only residents from west block can access the courtyard by using the narrow, hidden corridor. The staircase is poorly conditioned metal construction.

■⬡ No direct connection with courtyard since it is different layers. Because people on courtyard can approach the windows and directly look into the houses, the privacy conditions are poor.

■ Darkest spots on the building.Because few people use the backside of the courtyard, the privacy levels of these rooms are high therefore they are poorly connected to the courtyard.

+32,90

COURTYARD

+34,15

SECOND FLOOR
+36.40

● No access to the courtyard. No connection between two blocks. The corridor is uninviting and
■ uncomfortable : it is too dark and narrow since it is divided, the staircase is not preferred to be used by residents.

COURTYARD

THIRD FLOOR— ENTRANCE OF THE EAST BLOCK
+39.00

Expended version of analysis exists on appendices at chapter 5.

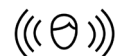## ANALYSIS THROUGH USERS PERSPECTIVE

WE TALKED WITH RESIDENTS

Approaching the residents, we found out that the courtyard is not accessible by everyone, specifically users in eastern block didn`t even know if they can reach. Families with children didn`t find courtyard so attractive because of the asphalt ground material. Because the garden in the courtyard situated in the middle of both apartments, none of the residents feel belonging to there, so the space stays undefined. Generally they describe the courtyard as cold, dark and dismissive for children to play on. When we asked if the courtyard would be redesigned as an outdoor space next to them, they replied they would be interested in staying and spending time there.

With current usage, especially lower levels` residents are disturbed by the direct visual relationship with courtyard. The residents on north side facing the courtyard express that they don't have an attached balcony where they can extend, like the residents on south .

EXPERIENCED OURSELVES

Even though a lot of difficulties for users to reach the courtyard and connect themselves physically and visually to the shared spaces, we see common space as an opportunity to socialize, spend a good time on.

One of the reason that the courtyard space is unattached to everyone, is that the facade acts like a barrier in terms of establishing communication between indoor and outdoor.

WE OBSERVED HOW THEIR LIVING PATTERNS

We visited three times the site in different days and hours, taking notes on how people were using the space.

The courtyard is mostly used by the opposite building rather than our project building, since there is a direct access from the first floor apartments. Referring to analysis that will follow, the front zone is used mostly for adults to sit and spent time while the zone near hilly rock is under use for kids to play.
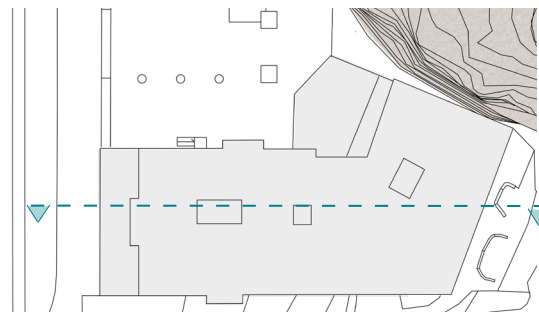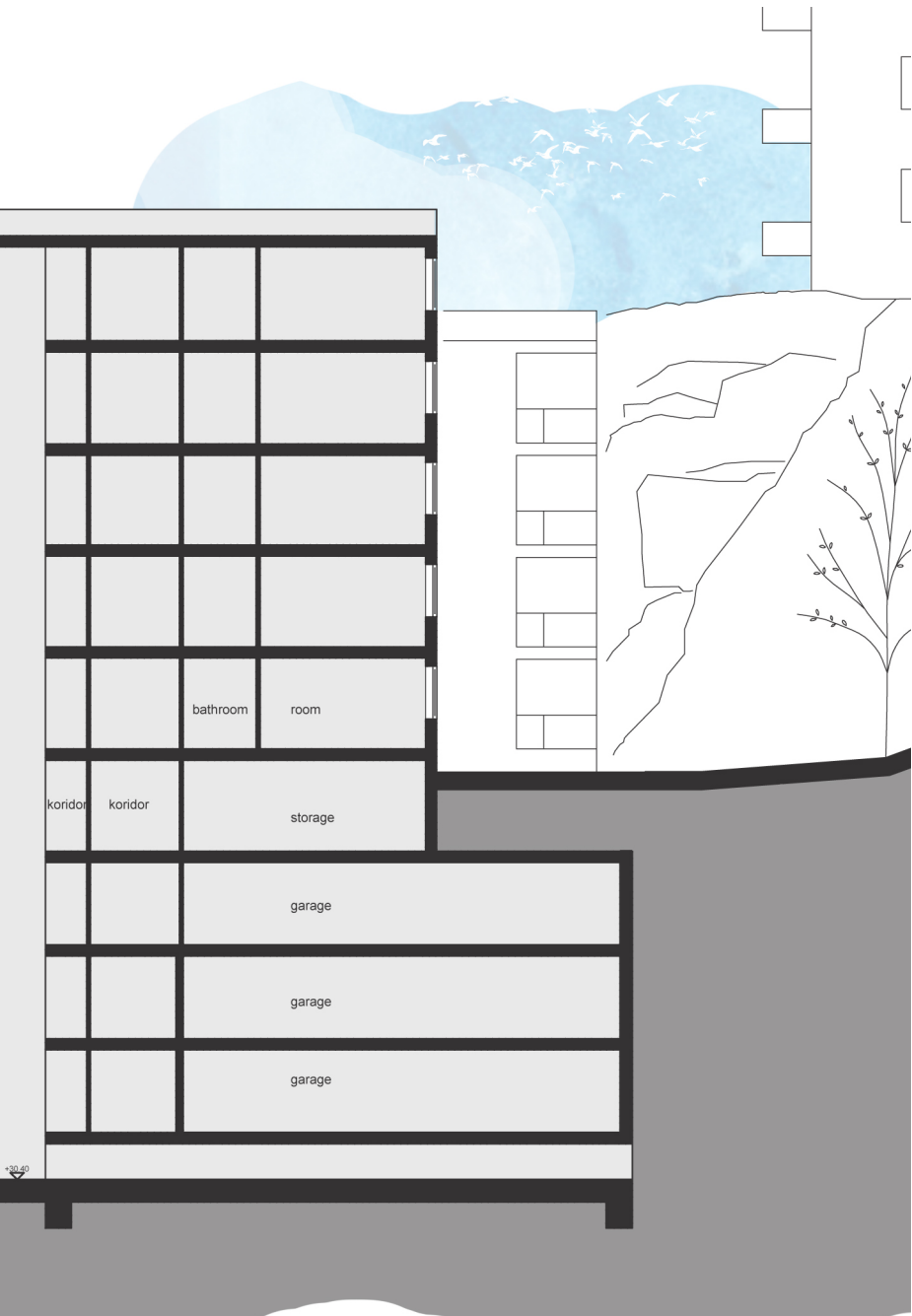
In weekdays the courtyard is mostly used by children and their mothers . Generally children cycle and run around the middle green zone in the courtyard, some boys bring their balls to play soccer on the back side while girls bring their mattress and play with their dolls. In the weekend the space hosts barbecuing and a couple of gatherings especially in the front zone of the courtyard.

As a result all those assumptions that we mentioned above, took a place into our detailed analysis combined with the theoretical background from Gehl and turned into the design proposal.

SECTION OF THE BUILDING
1/200

8th floor +54.0

7th floor +51.50

6th floor +49.0

5th floor +46.50

4th floor +44.0

3rd floor +41.50

2nd floor +39.00

1st floor +36.00

basement +33.50

3.00

6.50

kitchen

bathroom

entrance hall

storage

storage

closet koridor toilet toilet toilet kontor

pentry

garage

garage

garage

+36.65

+35.40

+34.15

+33.00

+32.90

+31.65

bathroom | room

koridor | koridor | storage

garage

garage

garage

+20.40

THE FOCUSED SPOTS ON THE THESIS

1) THE COURTYARD

The courtyard is a big opportunity for residents to spend time on outdoors for resting, drinking coffee, watching the scenery, conversing and contributing to the social life. The current courtyard design is not attractive and convincing for residents to use the space.

2) DIRECT ACCESS TO THE COURTYARD

Today there is no direct access to the courtyard from any entrance. When whole building is considered, the only connection to the courtyard is sustained by the second floor of the western block by very narrow, dark and hidden corridor. There is no connection between blocks therefore the residents from east block can`t reach the courtyard. Since the issue of accessibility to the site affects the usage pattern of the courtyard, a direct access is needed to be created on the site.

3) NORTH FACADE

Privacy problem comes into play where the courtyard and the north facade intersects. The higher level of this space in relation to the street life gives it another character, that could work in different levels of privacy connecting to the facade. The north orientation of this side of the building combined with the surrounding landscape makes this part a problematic edge towards to the outside.

north
facade

courtyard
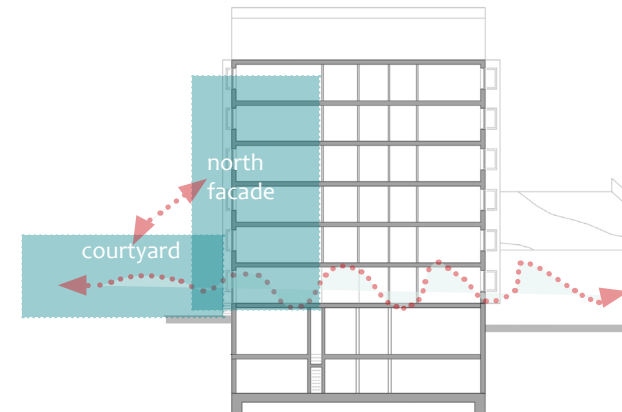
The boundary between indoor - outdoor, private and public is the place where **'something starts to exist'** and leads ultimately to the establishment of a communication, acting as **social equipment** (Psillidis, 2006). In our case all analysis has pointed out that the most crucial and problematic spots of the building are situated on this border which works as an obstacle. Therefore, as a next chapter, with literature study, we focus to define what are the layers of those borders and which tools have a contribution to build this relationship for our project site.

" Ever since the rise of the city, with its division of labour and complex, stratified social and spatial structures public-private distinction has been a key organizing principle, shaping the physical space of the cities and the social life of their citizens"
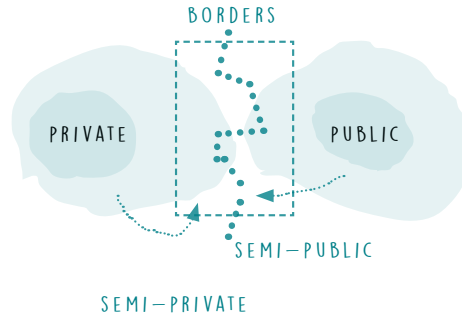
Madanipour,2003

chapter 3
LEVELS OF PRIVACY

THE BOUNDARIES

The **social space** is subdivided into **private** and **public spheres**, which are defined by symbolic and physical borders (Madanipour, 2003).

BOUNDARIES

'The boundary between what we reveal and what we do not, and some control over that boundary, are among the most important attributes of our humanity.'

(Nagel, 1998)

The level where public and private realms meet forms their borders. These take **two different roles** as mediators between the spheres. In this way, they are defining and separating them, while on the other hand, they are connecting them (Madanipour, 2003).

The boundaries regulate what is hidden and what is exposed, therefore they are really important for creating the relation between the two social spheres. They can be encountered in two orientations, which make them act in two different ways. Faced from the public side, they do not let the disruptive material to flow into the public and when approached from the other side, they shelter the private life from the scrutiny of public view.
Their formation is what articulates the two separated spheres and, thus, through their spatial expression they assign different meanings in both directions extending to the social relations (Madanipour,2003).

On the other hand, boundaries can be seen as a space of **communication** between the two realms. They can act as part of one of the realms or none of

them, functioning as a threshold. Furthermore, they can be indeterminate, since sometimes they become more permeable, focusing on connecting the worlds they divide and creating a welcome spatial development. In these cases, they activate more social interaction and social encounters.
When ambiguity and scale detailing are rising they are resulting in a more civilized connection and a more rich social life, substituting abrupt divisions, bereft of any communication (Madanipour, 2003).

Even though communication and interaction are very much desired, it would be impossible to live in a non-separated undefined world. Nevertheless, private and public cannot be dealt as clear contrasting differentiations, but rather as permeable and ambivalent areas. In real life, public and private territories become levels rather than divisions, their boundaries socially defined and porous rather than clear and natural (Epstein, 1998).

HOW TO DEAL WITH THE EDGES?

When encountering the **transition** between areas described by discrete degrees of accessibility and avoiding an abrupt division between public and private spaces, the notion of the **'intermediate'** is utilized. This kind of 'transitional' spaces, known as **thresholds**, are accessible to both spheres. They are underlining the nature of the 'limit' (Psillidis,2006).

What we aim for is creating a **hierarchical system of communal spaces**, ranging from the living room to the neighborhood scale, that will form these limits where public and private meet. These spaces are related with **residents and neighbors**, connecting indoor and outdoor by consisting shades of private and public character (Gehl, 2011).
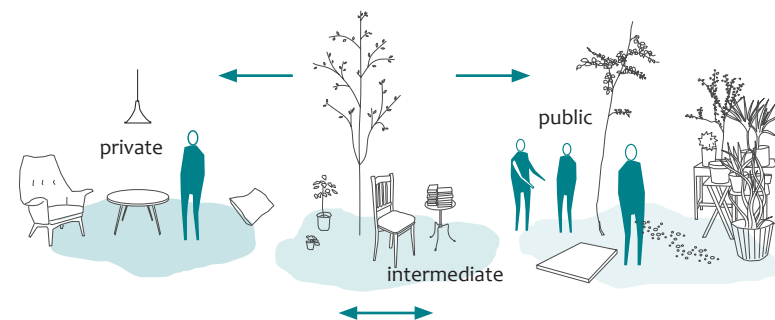
PRIVACY

In order to explain the construction of the social realm we need to provide some basic definitions of the notions of privacy and publicness.

WHAT HAPPENS IN THE PRIVATE SPHERE

According to American Heritage Dictionary(2011), privacy is defined as ' the state or condition of being withdrawn from the society of others or from public attention; freedom from disturbance or intrusion; seclusion; absence or avoidance of publicity or display; secrecy; a private or personal matter; a secret'. The intensive and complicated character of modern life has made the individual's retreat a necessity. (Parent, 1983). Nagel (1998) argues that the main goal should be to maintain civility and concealment, which would not let misleading material from the personal space affect the public space and protect private life from the scrutiny of the public realm.

WHAT IS PERSONAL SPACE?

The private sphere starts getting formed from the level of the person's mind and extends to the personal space of the body. Individuals' **personal space** is the functioning unit of social meetings, where individuals **regulate their interaction** through taking a desirable distance from one another in the process of **interpersonal communication**. These interpersonal relations are very important for the people's psychological and biological wellbeing (Nagel, 1998). The ability to hide and show parts of our lives is essential for every person to **feel in control of his life**. That is why people need to build borders, which nevertheless must not be strict and impenetrable. Therefore a balance between the two spheres of privacy and public realm needs to be achieved (Madanipour,2003).

The personal space locates the individuals in the world and helps them create a sense of belonging and become **part of the process of communication**. It therefore enables them to develop a dialogue with society.
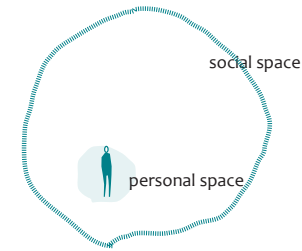
Through the control of private property's boundaries individuals regulate their social interactions, and the **balance** between being on their own and being with others, both in space and in time (Madanipour, 2003).

Both the inner core of a person and the space outside the body are mainly contructed through interaction with others. Therefore, the permeability of the personal boundary has direct relation to the levels of privacy around the individual (Altman, 1975).
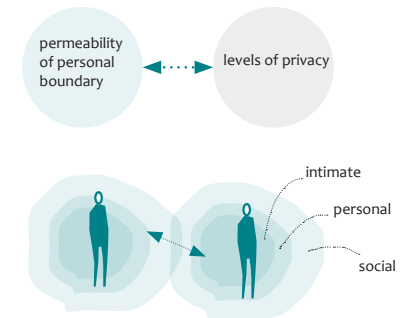
WHAT IS TERRITORY? — HOME

Territory is defined as the continuous effort of an individual or a group for control over a particular physical space. Territoriality offers feelings of **distinctiveness, privacy and a sense of personal identity**. Furthermore, it can act as an instigator of aggressiveness or a stabilizer to prevent aggression (Bell,1996).

There are different levels of territories according to the duration of stay, the power of the space to impose a feeling of ownership and the possibility of defending it in case of trespassing. **Home** can be considered as one of the **primary territories**, as it is thought to be owned relatively permanently, it is highly personalized and the owner has complete power over the place. It provides a small group of people - usually family - with a territory, with a multi-functional character serving a variety of needs of the individual, ranging from physical to psychological ones. Furthermore, it consists the institutionalized realm of privacy, standing as a symbol for it (Madanipour, 2003).

SOCIAL QUALITIES OF PRIVATE SPACES

In the prospect of evolving this project the focus is based on specific social qualities towards the formation of a sense of privacy, by answering to certain human needs.

SECURITY

These entail **safety**, strongly connected to the initial use of the dwelling as a shield against the forces of nature and the dangers of the impersonal outside social life. Private zone is considered a space where one can feel **secure** in a physical way, protected by the hostile world (Madanipour,2003). But also, be embraced by **a sense of stability and continuity** through its protective imagery and symbols (Bachelard,1958).
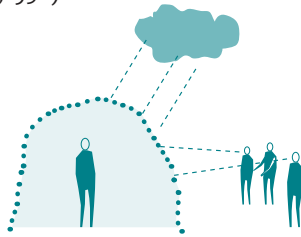
INDIVIDUATION

Individuation is really important in the process of defining the home as it enables dwellers to have **a space of their own, where they can express themselves with freedom**. They can work on a dynamic development of their identity. This is constructed upon the individual's past experiences but also the current ones but, also, what the person would desire to be. The development of this self-image is reflected on the material capital of the house, which evolves in time in parallel to the person's gradual transformation through the years. Thus, a person creates his personality by dwelling (Eleb, 1980) and as Young says (1997) the interior of his house mirrors his inner self.
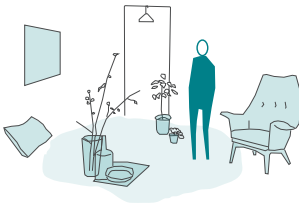
SENSE OF BELONGING

Private spaces are also territories that evoke a sense of affection and **belonging** which extend to the limits of the neighbourhood, essential in the formation of **collective identity**. The dweller feels connected in his setting, while he is part of a community. In these spaces only specific people belong, different from "others" who can be felt as separated from them. Within the frame of private property the space becomes place, with a specific meaning for its dwellers. Among the group, the process of defining oneself is also a result of going through a socialization procedure, where social relations have shaped the singularity of the self. (Madanipour, 2003)
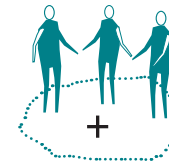
WITHDRAWAL FROM OUTSIDE WORLD

When the person wants to **withdraw** from the world he prefers to stay in a private space. This is the place, where someone can feel privacy, protected from the eyes of the outside world. Within this shell, one can find his **peace of mind**, free to day-dream and discover oneself. Between its nooks and corners the dweller can hide, find the warmth of serenity (Bachelard, 1958). Some agree that in a private territory one can protect himself from the 'bad object' of the outside world, the social sphere, by providing him with comfort and consisting a 'remedy' the shortcomings of the interaction with the outside world (Madanipour, 2003).
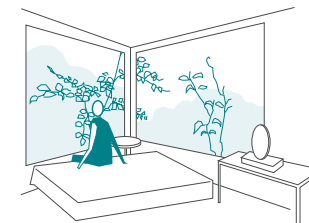
PUBLIC

The degree of privacy or publicness is defined by the degree of accessibility, the interest and the agency. In this way varying degrees of publicness can be identified and through the relations of the subdivided spaces in the social realm a different relative character can be detected (Madanipour, 2003).

WHAT IS PUBLIC SPHERE?

Public sphere refers to the whole body of society and the state. That means that public space is controlled by the state and available and used by the society.

SOCIAL QUALITIES OF PUBLICNESS

2. sociability   1. sense of belonging

3. sense of neighbourhood
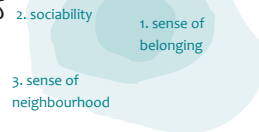
SENSE OF BELONGING

EXTENDING HOME TO SEMI-PRIVATE ZONE

It is crucial for the social structure to be reflected on the physical formation of space (Gehl, 2011). In this way, communal spaces can develop at various degrees, evolving gradually from smaller social groups to bigger scale ones and from private to public realm. These gradual steps can provide a greater feeling of security and a stronger sense of belonging. This lies on the fact that the area that residents perceive as belonging to their private space extends outside the borders of their house to their surrounding neighborhood. In other words, the public space becomes a part of the residential space.

As a result individuals get to know their area and the people in it better, use the outdoor space more, which rises the level of surveillance and the feeling of collective responsibility. Since, residents make full use of their neighborhood and feel that it is their property, they take care of it and keep it safe, reducing the level of crime and vandalism in the long process. (Gehl, 2011)

extension of home

extension of home

common space

private space   private space
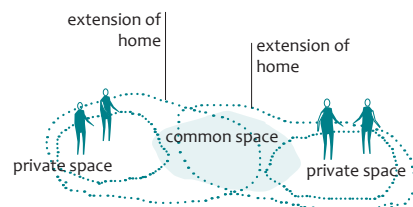
SOCIABILITY — INTERACTION

Being the space where interpersonal and impersonal exchange relations form, it imposes on the individual the need of a public social face, with which to confront the society. This social front is an essential part of trying to maintain **internal peace and continuity**, of attempting **internal structural integrity**, as hides the private life from the scrutiny of the outdoor relations, keeping the personal balance.

In the modern period the focus has been limited on intimate relations, the private part of people's lives and their associations to close friends and family. Nevertheless, this was obstructing from the quality of life, since the psyche is less stimulated, concealed in its private shelter, and it becomes more difficult for the person to express feelings. (Sennett, 1976) In other words, public interpersonal relations are important for the health of the individual. Public sphere is where people present their differences and identities, forming common opinions, while regulating the level of concealing or reveling themselves in their relations to others. (Madanipour,2003)

SENSE OF NEIGHBORHOOD — IDENTITY ON THE DISTRICT

In the impersonal urban space of today the stability of strong communities seems to be unbalanced or even absent. This implies the need for new social ties rigidly bound to the way people develop their identities. 'Social identity is a process ,which systematically establishes and signifies the relationship of similarity and difference between individuals, between collectivities, and between individuals and collectivities (Jenkins, 1996)'. Through the use of space people create a relationship of similarity and difference with others, forming a distinctive identity connected to an urban area (Jenkins, 1996).

A neighborhood is a small world, where children are socialized and develop through self-identification, it is where meaning is created.
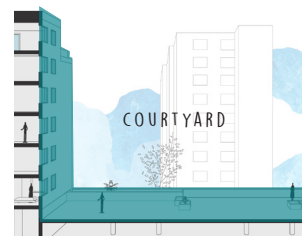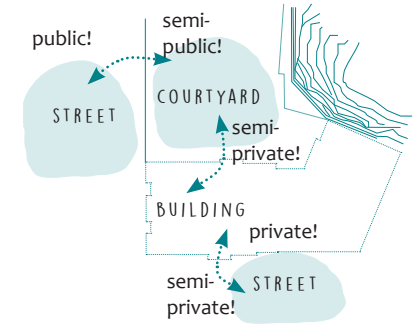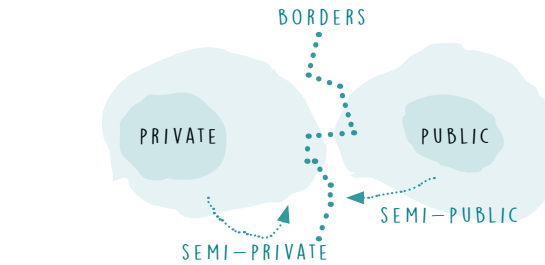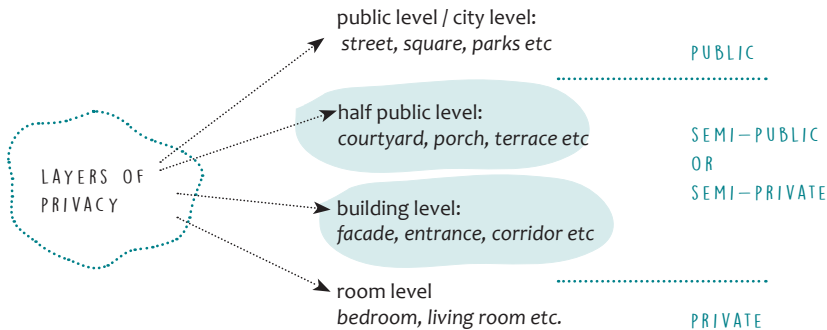
SEMI PUBLIC / SEMI PRIVATE

Boundaries have a semi public and semi private character and carry features from both public and private sectors. Semi public or semi private is the transition zone between intimate space for human beings and exposed common zone. In that way this border establishes the relation between two opposite zones through regulating communication. Depending on how the design of this border is considered, this relation can be open, closed or filtered. Social qualities offered to human are changing according to sense of privacy, that brings different perspectives of how users perceive the space.

According to Benn and Gaus (1983), the level from public to private is defined through the degrees of access, interest and agency. That means, if more people use the space or can have an access to the space, this space is defined as more public. So since our courtyard is leveled up from the street, it is shared only from two blocks which strengthens a more semi public character.

In the borders between semi public and semi private, there are a lot of shades that enable gradual transformation, and since the relations are complicate, there is not one formula that defines what the exact level .Therefore we merged semi public and semi private into one level, and like this privacy levels are defined into 3 layers:

LAYERS OF PRIVACY

public level / city level:
street, square, parks etc
PUBLIC

half public level:
courtyard, porch, terrace etc
SEMI—PUBLIC OR SEMI—PRIVATE

building level:
facade, entrance, corridor etc

room level
bedroom, living room etc.
PRIVATE

WHAT HAPPENS ON THE SEMI PUBLIC?

Depending on the level of permeability on this zone, this intermediate space works as a connection between users and courtyard or as a barrier that protects the inner space from outside. In our case the interaction level of this zone can change level of communication that may strengthen sense of belonging on our site. By designing this semi public/ semi private layer in order to create another level of communication, the meaning of the site for users can be improved. With this new identity of the space and sense of neighborhood can appear differently in bigger scale.

28

SENSE OF NEIGHBOURHOOD
SENSE OF BELONGING
SAFENESS AND PROTECTION

BORDERS

PRIVATE

PUBLIC

SEMI—PUBLIC

SEMI—PRIVATE

public!

semi-public!

STREET

COURTYARD

semi-private!
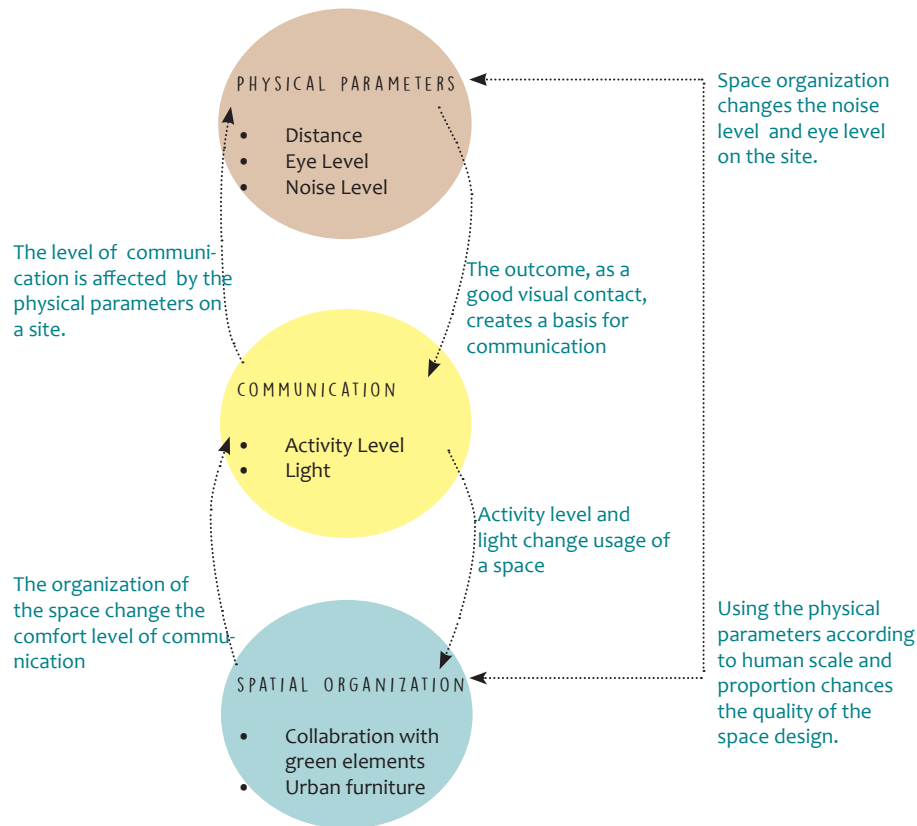
BUILDING

private!

semi-private!

STREET

COURTYARD

THE INTERMEDIATE SPACE APPEARS AS THE COURTYARD IN OUR CASE

Today the courtyard acts almost like no man's land since it is not defined where it belongs and for whom it is. By leveling it in intermediate shades of privacy and publicity, it could be possible to regulate in a more clear way which parts entail all the residents and which ones could be used by the dwellers of specific apartments.
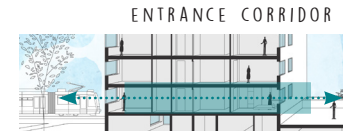
ENTRANCE CORRIDOR

THE ENTRANCE CORRIDOR AS A TRANSITION ZONE

Every block has its own private corridor that does not let different blocks`residents to see each other during their daily life. The current design of the corridor as narrow, long, dark, brings the higher level of privacy that encourage residents to go home as soon as possible, rather then to stay, spend time on.
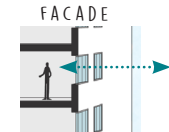
FACADE

FACADE AS A CONNEC—TOR ELEMENT TO PUBLIC

The most inward spaces of a house such as bedrooms, need a filtering layer since the strong visibility from outside. The privacy problem occurs on these spots since there is no intermediate filter space to control the connection between inside and outside. On the other hand the north side facade do not connect the living rooms to courtyard. As Gehl says (2010) when people do not visually connect to the space by seeing existing activities , they will not prefer to connect physically either.

PRIVACY LEVELS ON THE COURTYARD

WHAT ARE THE TOOLS FOR DIFFERENT PRIVACY LEVELS ON THE COURTYARD?

PHYSICAL PARAMETERS

- Distance
- Eye Level
- Noise Level

Space organization changes the noise level and eye level on the site.

The level of communication is affected by the physical parameters on a site.

The outcome, as a good visual contact, creates a basis for communication

COMMUNICATION

- Activity Level
- Light

Activity level and light change usage of a space

The organization of the space change the comfort level of communication

SPATIAL ORGANIZATION

- Collabration with green elements
- Urban furniture

Using the physical parameters according to human scale and proportion chances the quality of the space design.

The diagram was drawn inspired from Gehl in the chapter of "Senses, Communications and dimension" (Gehl, 2011)
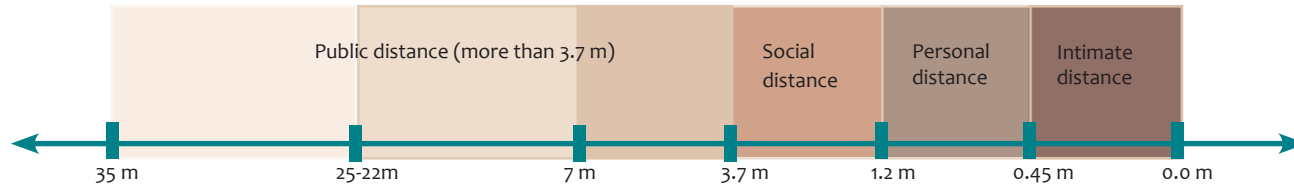
"In urban context, where the relationship between the senses, communication and dimensions is an important theme when we speak of a social field of vision"   *(Gehl,2010)*

The natural starting point of designing outdoor space with human perspective starts with experiencing a space through human body and feelings. When a person strolls around the space, sensory impressions, such as seeing, hearing, touching, come into play with feelings and emotions, for all establish the idea of how we observe the space or what does the space mean for a person.

Every site has specific character that needs to be handled with specific design tools during the space making process. Referring to Gehl (2011), we describe **three architectural tools** which regulate the privacy levels on the courtyard.

First tool as physical parameters; distance, eye level, activity level has a contribution to sensory impression of vision. The level of visual connection with its surrounding directly affects the sense of privacy for a person: when one sees better and more detailed, the privacy level decreases. Physical parameters create an invisible platform that invites people to communicate and interact with their outer world. In this platform, light and the activity level have a direct contribution on convincing people to stay and spend time on the site. By the time communication level increases, the privacy appears on low levels. The presence of communication is formed by organization of space in collaboration with green elements and urban furniture. The outdoor organization, invitation, functionality and comfort to use the space are other factors that regulate publicness. Privacy level gets decreased when spatial organization encourages people to stay on the place.

	Public distance (more than 3.7 m)		Social distance	Personal distance	Intimate distance
35 m	25-22m	7 m	3.7 m	1.2 m	0.45 m	0.0 m

A) DISTANCE AT COURTYARD

" Sensory development is closely tied to evolutionary history and can be simply classified into the distance senses: seeing, hearing and smelling; and the close senses: feeling and tasting. " (Gehl, 2010) . The quality of information that one perceives from outer world, changes with distance, horizontally or vertically. According to Edvard T. Hall[2], the hidden dimensions of 4 district communication levels can be defined with four different categories: *Public, social, personal and intimate distance.* In order to analyze the distance on the courtyard, we defined the public distances of Hall`s diagram by adding two important thresholds as 22-25 m and 35 m which we got from the book of "Life between buildings" (Gehl, 2010) :

At a distance of about 35 meters horizontally, one way communication can be conducted in a loud voice. In our spot, the distance between two buildings is 29 meters, which means the residents can easily hear one`s screamings from the other block.

At a distance about 22-25 m, one can accurately decode facial expression and dominant emotions while they can exchange a short message. The residents can observe if a person is excited, even they can hear his conversation until the garden in the courtyard.

Within the range of 7 meters, all the senses can be used to experience the details. This level is the significant threshold for designing the courtyard in terms of establishing communication and exchanging the most intense feelings. When the distance decreases down from 7 meters to 3.7m, user can get more detailed view and an opportunity to establish an articulated conversation. This distance is considered as a good range to create a contact while keeping privacy between residents from first floor and a person in the courtyard.

Social distance is described between 3.7 m to 1.20 m, where one all daily conversation can be made and ordinary information can be exchanged. It is known as the most neutral and comfortable distance to start a conversation between people who don't know each other well.

This distance will be taken into account on designing the edge zones between the building and the courtyard.

Personal distance appears when contacting with his friends or family members during social gatherings, between the distance of 1.2 m to 0.45 m.

Since personal distance affects how people feel themselves (safe or relaxed while they are a part of the conversation), this distance will be added at the courtyard design.

Intimate distance, inscribed between 0.0m - 0.45 m, is known as a distance for love. In this zone, warm, personal communication increase its intensity level with feeling and senses such as holding, touching or kissing.

In the courtyard this zone can find it`s place on the urban seatings.
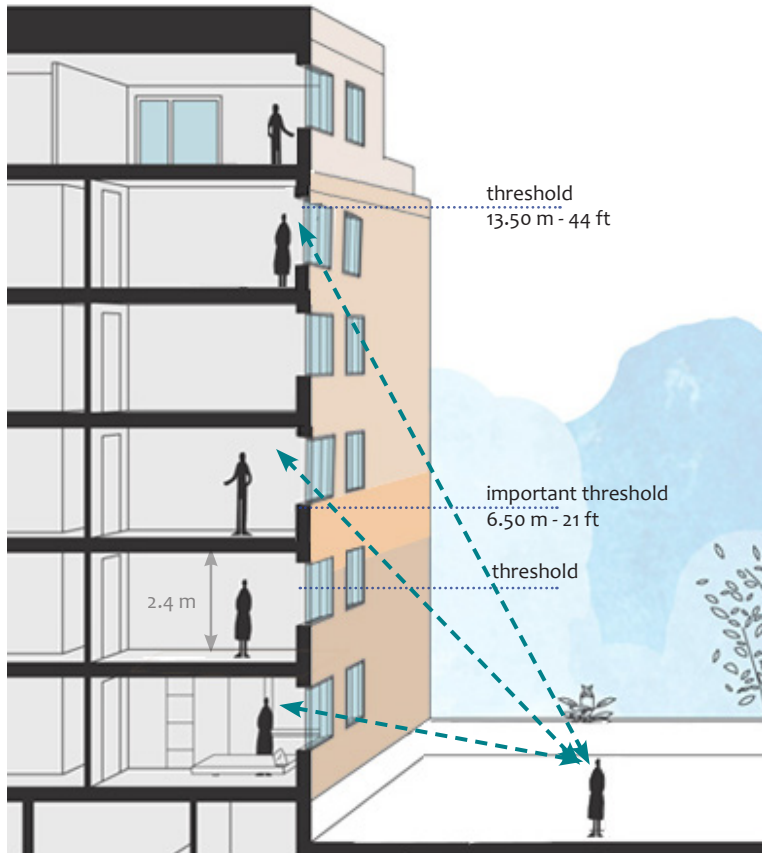

3.7 m

7.0 m

22.0 m

29.0 m
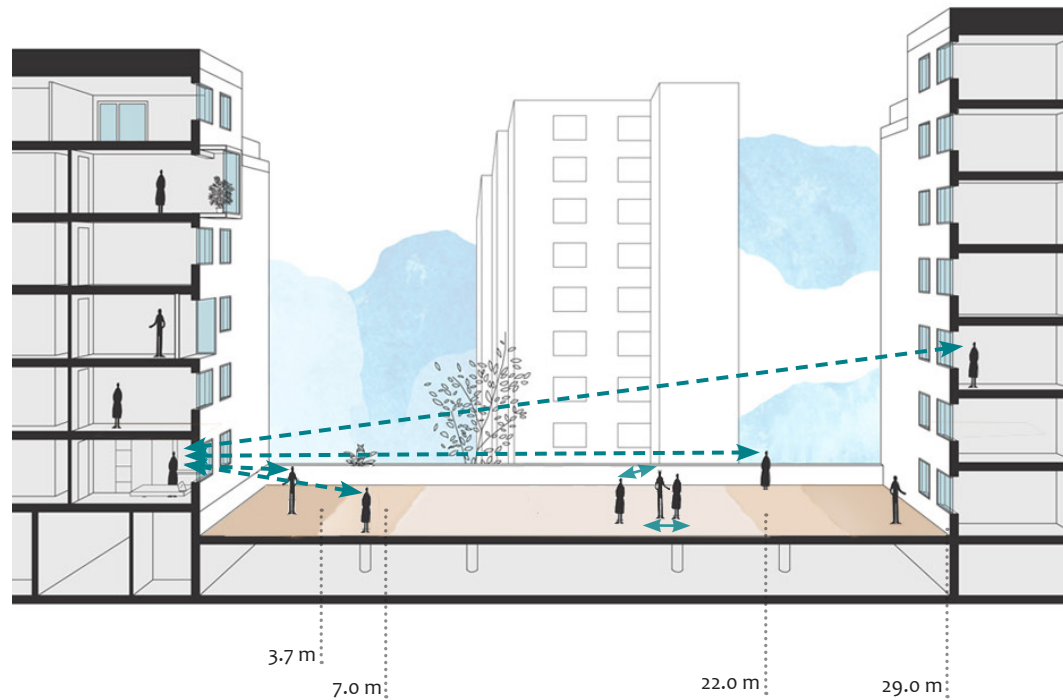
B) EYE LEVEL

From all of the senses, sight is one of the dominant human senses that helps a person to orientate and communicate with outer world so that directly regulates the privacy level. *Our sense of sight has essentially developed on horizontal plane. Horizontal plane is wider than vertical, so people see and get more information about its environment to orientate himself easily. As Gehl(2010) explains, human eye is frontally oriented and see up to 70-80 degrees below while 50-55 degree up to the horizon. While we are walking, we mostly see our surrounded environment by bowing our heads 10°*

50° - 55°

10°

70° - 80°
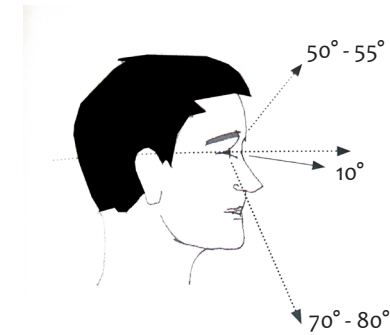
The angle of sight (Gehl, 2010)

threshold
13.50 m - 44 ft

important threshold
6.50 m - 21 ft

threshold

2.4 m

In the horizontal field of vision human eyes focus to contact and get attracted on ground floors when one is walking through the buildings. Visual communication establishes naturally on first two floors between inside and outside, the ore this level is the most important threshold on regulating privacy level inside. One can see easily from 6.5 m and up to 13.5, but during this range the details and the visual connection differs according to our sensory apparatus. Above fifth floor the eye contact gets blurry and it gets harder to follow (Gehl, 2010).

Therefore, in our project, the facade design of the first two floors will be in focus in order to create a rich and detailed proposal while making the edge inviting. We believe these interventions will add the visual and functional qualities to the site.
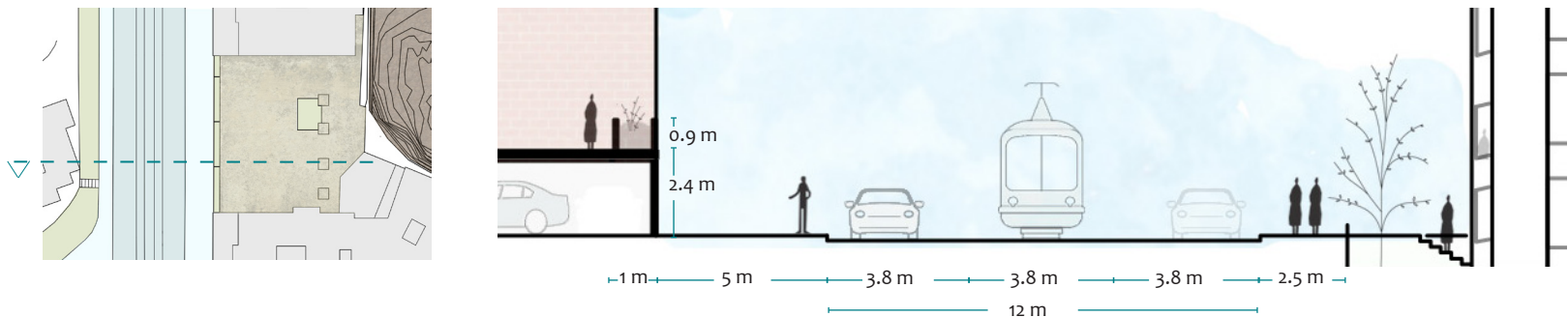
C) NOISE LEVEL

The noise level is one of the factors that affects the quality of an ongoing conversation in the courtyard. The noise contributors of the courtyard are mainly the tram line, the car road and pedestrians who walk through Bangatan. Today, the railway is used by one tram line (tram 11), that reaches to the tramstop Fjällgatan in every 5 minutes in day time(5.00- 21.30 o`clock) and every 20 min at night(21.30- 5.00 o`clock) [1]. The car trafic in front of the site, is not dense and since the whole area uses as residential purposes and the existance of the speed limitation.

The courtyard situates 2.4m upper than the road where the level of noise occurs on site. It is protected with the green elements infront that avoids having direct relationship with the road. According to Gehl (2010), 60 decibel is given as the upper limit for carrying on a conversation.

During our visits on the project site, the courtyard was in use by the residents eventhough the noise. Since our aims and limitations in the framework of this thesis are not focused to solve the traffic problem on the neighborhood and we are interested in connecting residents to the street life , there is not much left to do in reducing noise.

According to Gunnarson, adding natural sounds such as birdsong and presence of vegetation positively affected perceptions of a ventilation noise-contaminated residential environment (Gunnarsson,2012). In this referance it is important to stress green can not take the noise but it can provide good quality to change the focus point of users. So this researchs points out the importance of the green elements on spatial design process.


0.9 m

2.4 m

1 m   5 m   3.8 m   3.8 m   3.8 m   2.5 m

12 m

[1] Vasttrafik: http://www.vasttrafik.se

According to all our analysis, the usage behaviour in front of the courtyard (near the road side), is denser than the opposite part close to the hill. For us, there are two main factors that affect this usage scenario in this courtyard: edge effect and sun position.

For our site, the close relationship between the street and the courtyard , the edge of the courtyard, attracts and convinces residents to stay and spend time on.
The front edge of the courtyard makes users to contribution in a passive way to the social life on the street. The privacy level of the front zone is affected by the horizontal and vertical distance

to the road and to the building near. The visual connection from the edge point is good enough to give an updated information about the street, that awereness creates "controlability" for individuals and strengthens the "sense of protection". Therefore users prefer to sit, converse and spend time on this zone, despite of noise level.
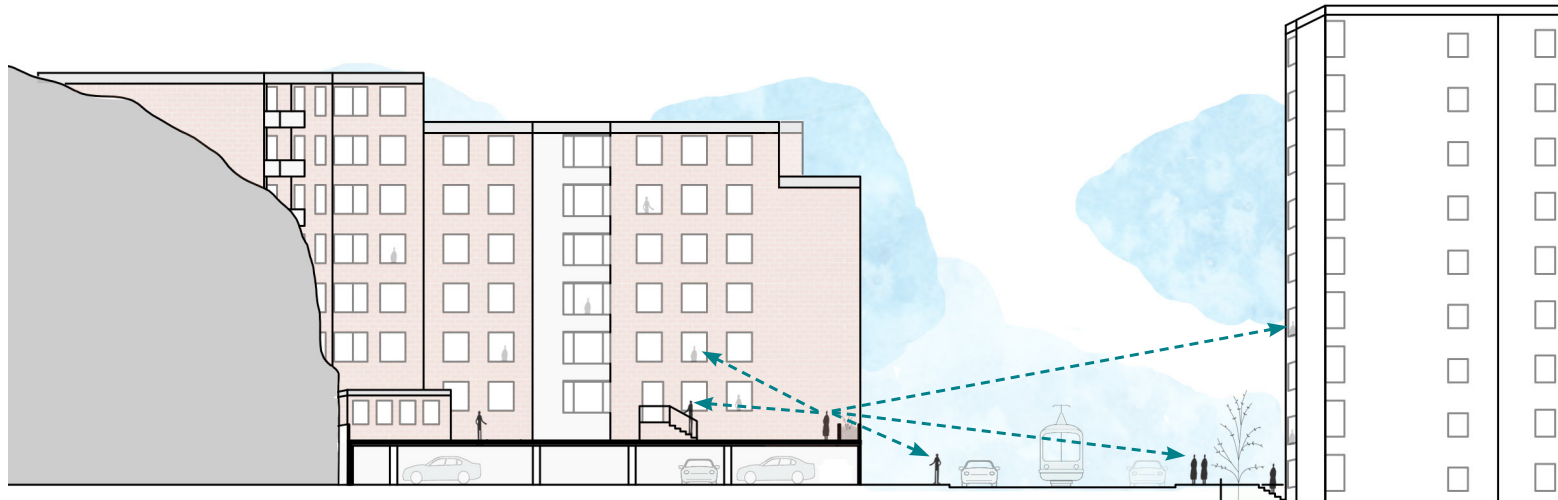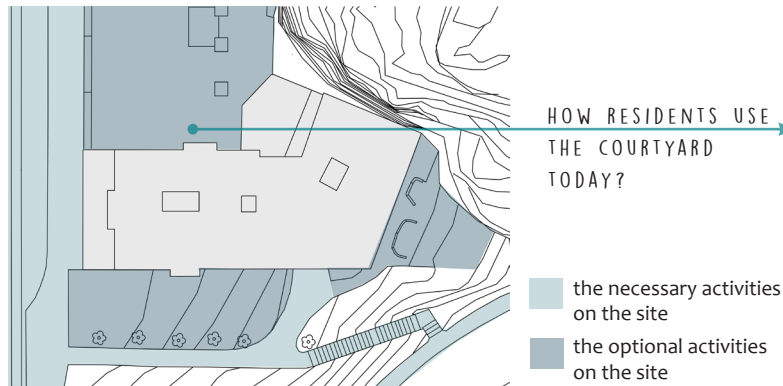
A) ACTIVITY LEVEL

> "Public- private partnership can be formed to undertake a range of activities."
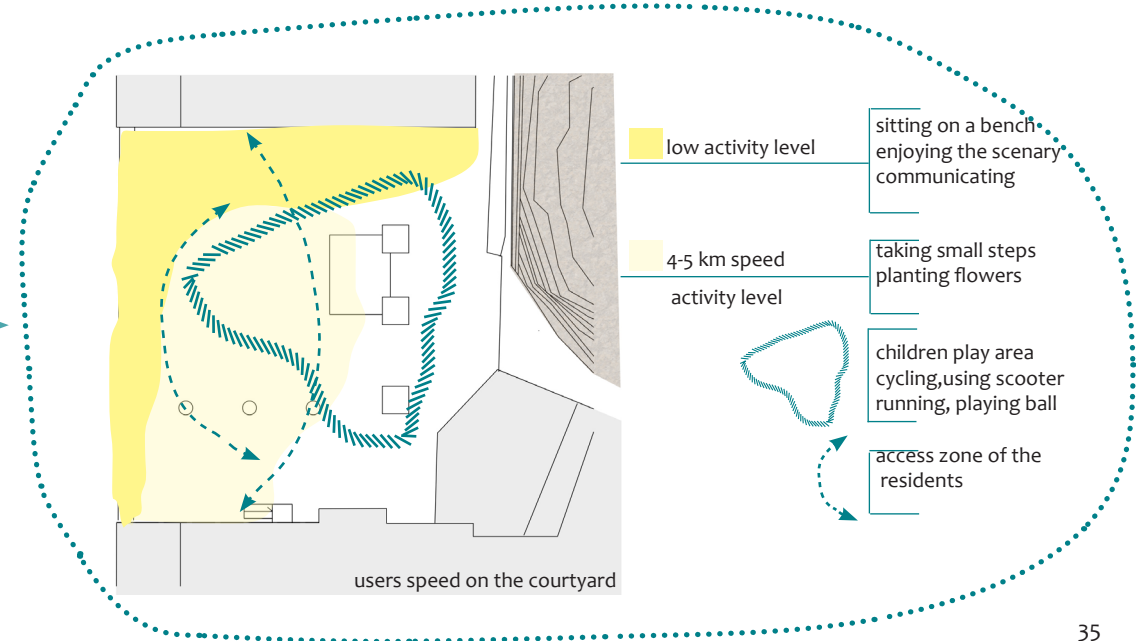>
> Madanipour, 2003

Gehl (2010) distinguishes activities into two categories: Firstly, necessary activities are the functional activities that one has to do during his daily life (such as going to work, walking to tram station etc.) . Therefore the zones of these activities are always in use. The optional activities, which are the recreational and social activities, are the second category formed according to the user's preferences and the spatial qualities. When a place excites users by its design and invitation to different activity types, people prefer to interact and use those spaces.

In this framework, there are two factors that convince a person to join the place by taking their interest on site. First factor is to keep presence of people on the spot to inspire and second one is to attract other people to contribute. For example, when a child sees his friend from a window, he goes and joins him to play (Gehl, 2010).

Generally, every activity type occurs in a different range of a movement as a numeric value of speed. According to our analysis about activity types and speed on the site, we reached the outcome of the most preferred and ongoing activities take place between 0-4.5 km speed. That pointed us the importance of the
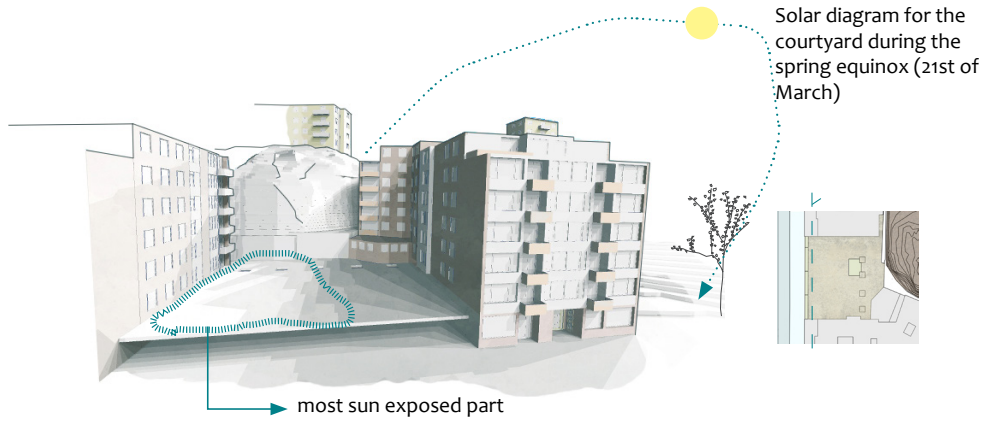
speed on the courtyard

10-12 km/h — cycling on slow motion running — moslty for kids

4-5 km/h — slow motion walking — activities for everyone

taking a step
moving your chair one place to another
planting flower

communicating with other
sitting on a bench
enjoying the scenary
reading a book

0 km/h

doing barbecue
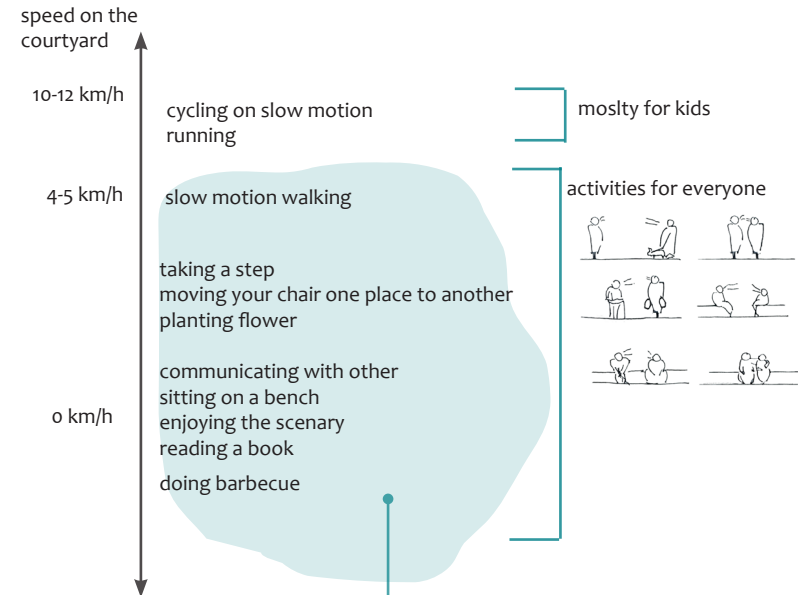
WHERE DO THOSE ACTIVITIES TAKE A PLACE ON SITE?

HOW RESIDENTS USE THE COURTYARD TODAY?

the necessary activities on the site

the optional activities on the site

low activity level — sitting on a bench enjoying the scenary communicating

4-5 km speed — taking small steps planting flowers

activity level

children play area cycling, using scooter running, playing ball

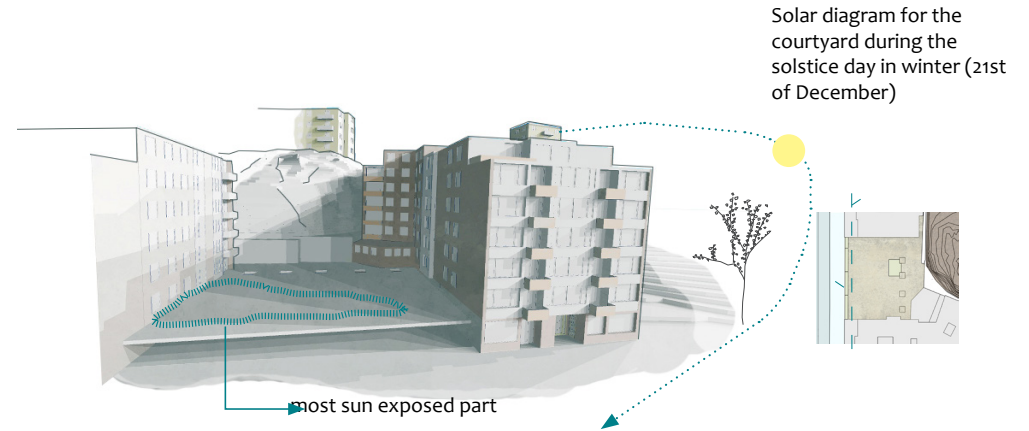access zone of the residents

users speed on the courtyard

35

B) LIGHT

The other biggest factor that affects the usage pattern is the orientation of sun. Especially for Scandinavian countries, the position of the sun has a great impact to convince people to spend more time on outdoors.
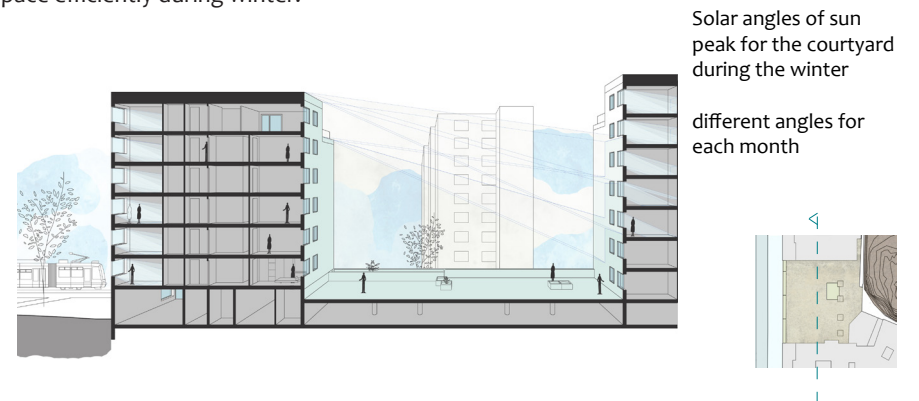
Solar diagram for the courtyard during the spring equinox (21st of March)

Solar diagram for the courtyard during the solstice day in winter (21st of December)

most sun exposed part

most sun exposed part

SPRING

WINTER

07 08 09 10 11 12 13 14 15 16 17 18

08 09 10 11 12 13 14 15 16

By making a solar diagram for the courtyard during the spring equinox, taking the shadow path for every hour starting at 7 in the morning and ending at 6 in the afternoon, it becomes clear that the south side of the courtyard remains in the shade for most of the day. Light in the north though is really important and it is one of the most essential elements of site. That means that in our design we intend to take into consideration the path of sunlight and place suitable functions and levels of activity in the various parts of the plan.
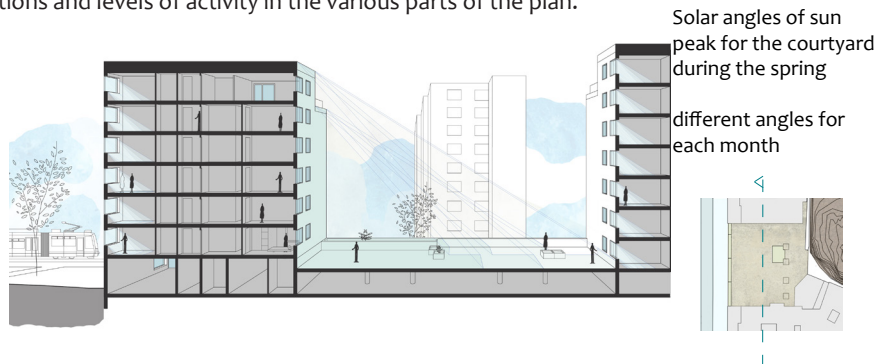
Analyzing the shortest day of the year, by taking the shadow path for every hour from 8 in the morning until the sunset at 4 in the afternoon, one can realize that the courtyard is really dark and only the north-west part of it is adequately lighted. This practically means that it is really difficult to utilize this outdoor space efficiently during winter.
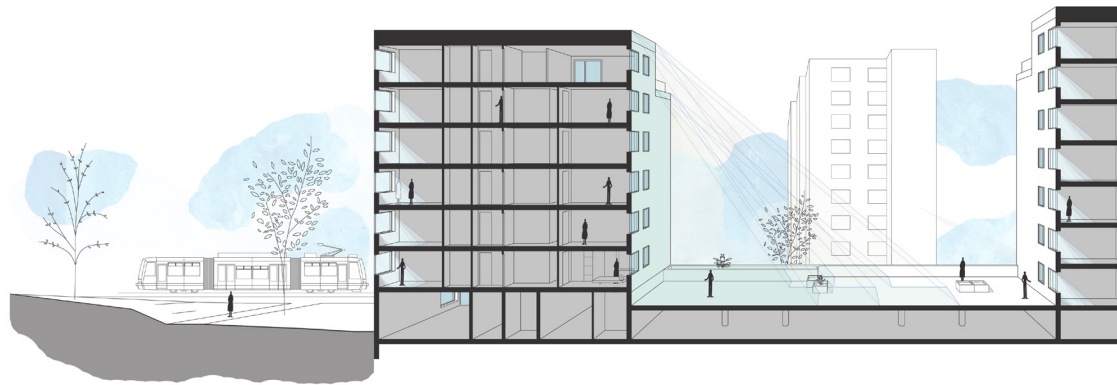
Solar angles of sun peak for the courtyard during the spring

different angles for each month

Solar angles of sun peak for the courtyard during the winter

different angles for each month

...un is in the peak position, the courtyard does not receive
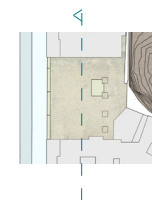
Solar angles of sun peak for the courtyard during the autumn

different angles for each month

...e courtyard gets the most light during the day and ...ation of the day time corresponds to a lot of hours, ...ties to activate the courtyard.


SUMMER

Solar angles of sun peak for the courtyard during the summer

different angles for each month

SPATIAL ORGANIZATION

A) COLLABORATION WITH GREEN ELEMENTS

The quality of the relation with surrounding green environment, affects the quality of one`s regular day, consciously or unconsciously. Since human mind and soul is affected upon this quality (Kellert, 2008), composition of green plays a vital role in human health and well-being (Mayer & Frantz, 2004), in the level of the individual as well as that of society, therefore it should be taken into account in space organization. In the residential building context, accessibility to the green outdoor spaces is one of the important key of the usage pattern.

Individuals can interact and connect themselves to the green spaces only if the urban geometry permits such interaction (Day, 2004). Therefore, we want to articulate the relation to green elements as one of the contributors that could attract users interest to the courtyard by serving a pleasant and comfortable environment.
Since we will give a proposal on how to design accessibility to the courtyard, firstly we divide the action of access into three categories: physical accessibility to green space, visual accessibility to green space, opportunity for interaction.
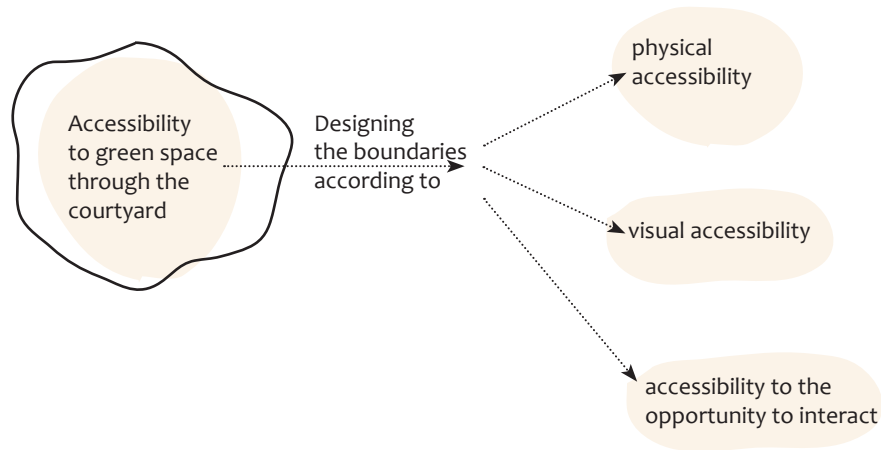
Accessibility to green defines the level of how easy it is to reach green settings from your departure point. With person's flow, accessibility to green can include encountering plants and animals in green environment. The feature of the boundaries (form, shape, material) regulates the quality of visual connectivity. In terms of bounding indoor and outdoor spaces visually, blurring the boundary is a useful strategy by establishing a communication for people by viewing natural scenes.

Interaction with nature can happen in two different levels: Firstly, one can interact with natural elements, by means of direct sun light, the sound of water or bird-songs, smell the flowers, trees etc. Human experience the space through his body with senses and feelings. Secondly, one can interact physically by participating in green recreational activities or nature-based therapy programs. In order for this to happen,the usage of space should allow to be regulated according to different types of events or activities.

- accessibility from the entrance
- accessibility from the eastern block

Accessibility to green space through the courtyard ⋯ Designing the boundaries according to ⋯→ physical accessibility

⋯→ visual accessibility

⋯→ accessibility to the opportunity to interact
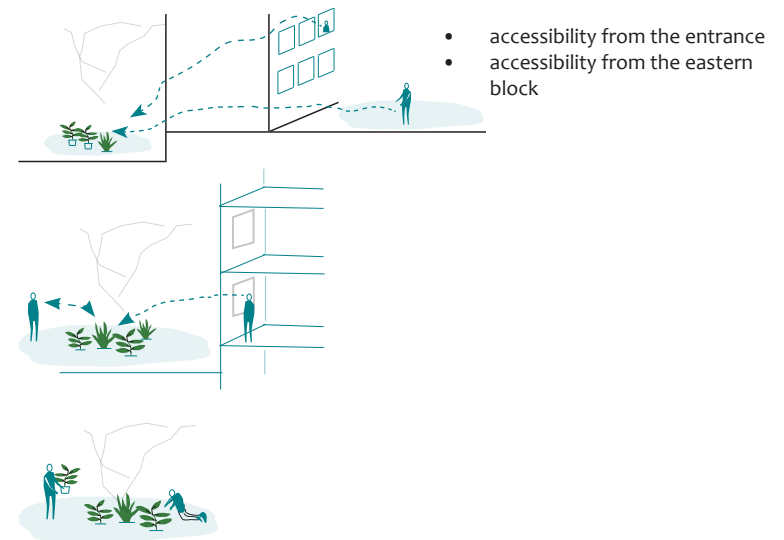
B) URBAN FURNITURE

Good sitting arrangements involves with the activity time residents spend on the site. If the sitting opportunities on the area are few or bad, people prefer to walk on by. This means not only the visit is short but many attractive and worthwhile outdoor activities are precluded (Gehl, 2010).

There are two types of furniture existing in the courtyard: fixed outdoor seatings and the movable chairs. Fixed seatings have no backs and arms, therefore they do not serve as a comfortable stay for a long time. Movable chairs are brought by the residents to the courtyard and they give users the freedom to arrange their location upon their requirements. This situation sustains spatial flexibility on site and increases the comfort level of the user.

FIXED SEATINGS

MOVABLE CHAIRS
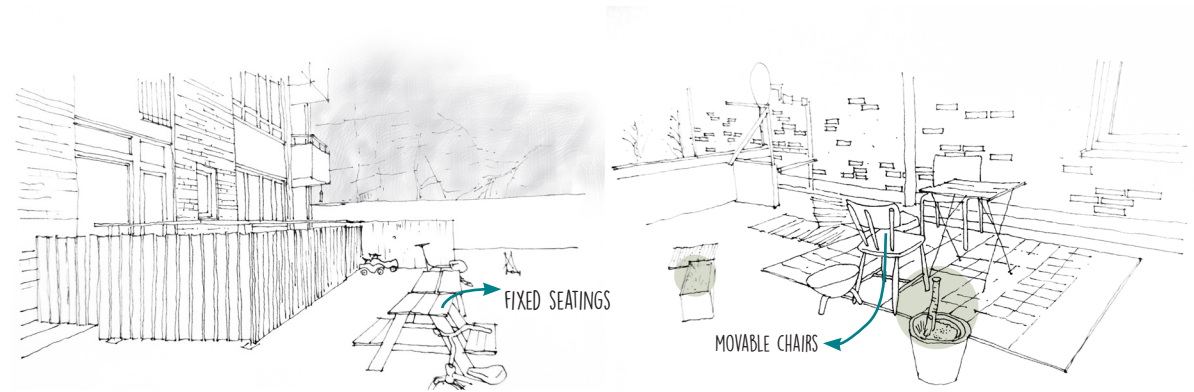
"Sitting activities in general take place only where the external conditions are favorable, and the sitting locations are chosen far more carefully than are locations for standing" (Gehl, 2010)

Analysis of the existing design

Analysis of the existing usage
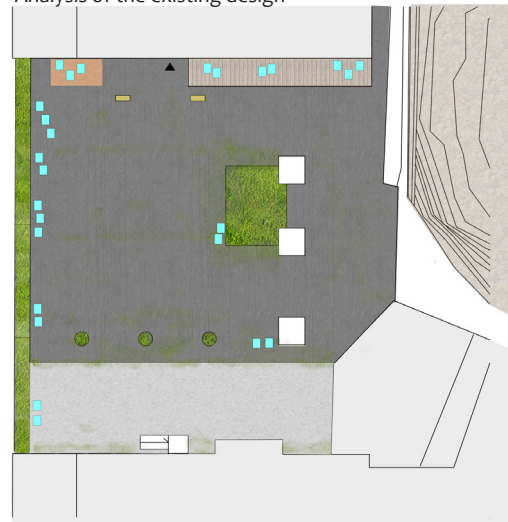
- ◻ fixed seatings
- ◻ flexiable seatings
- ◻ greenary
- ◻ barbecue place
- ◻ extention of a house
- ◻ rough surface
- ◻ asphalt surface
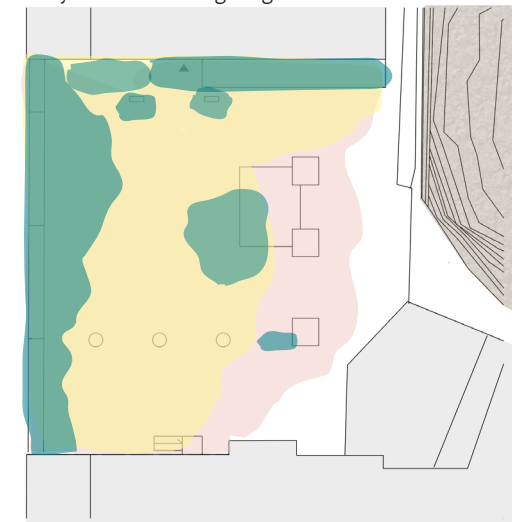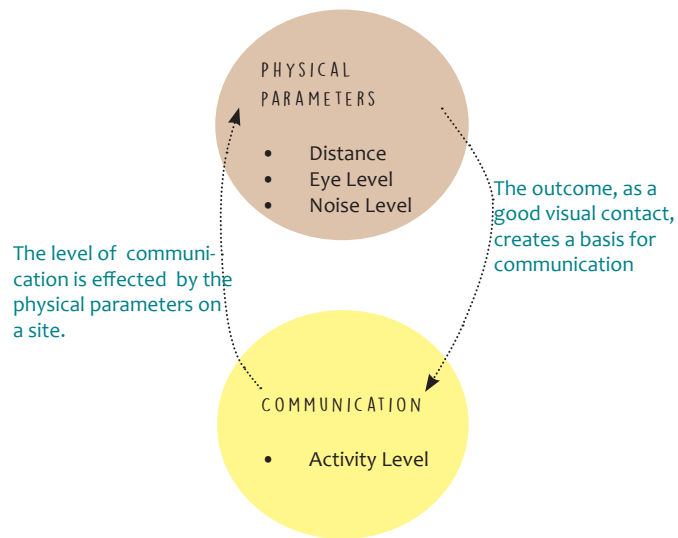
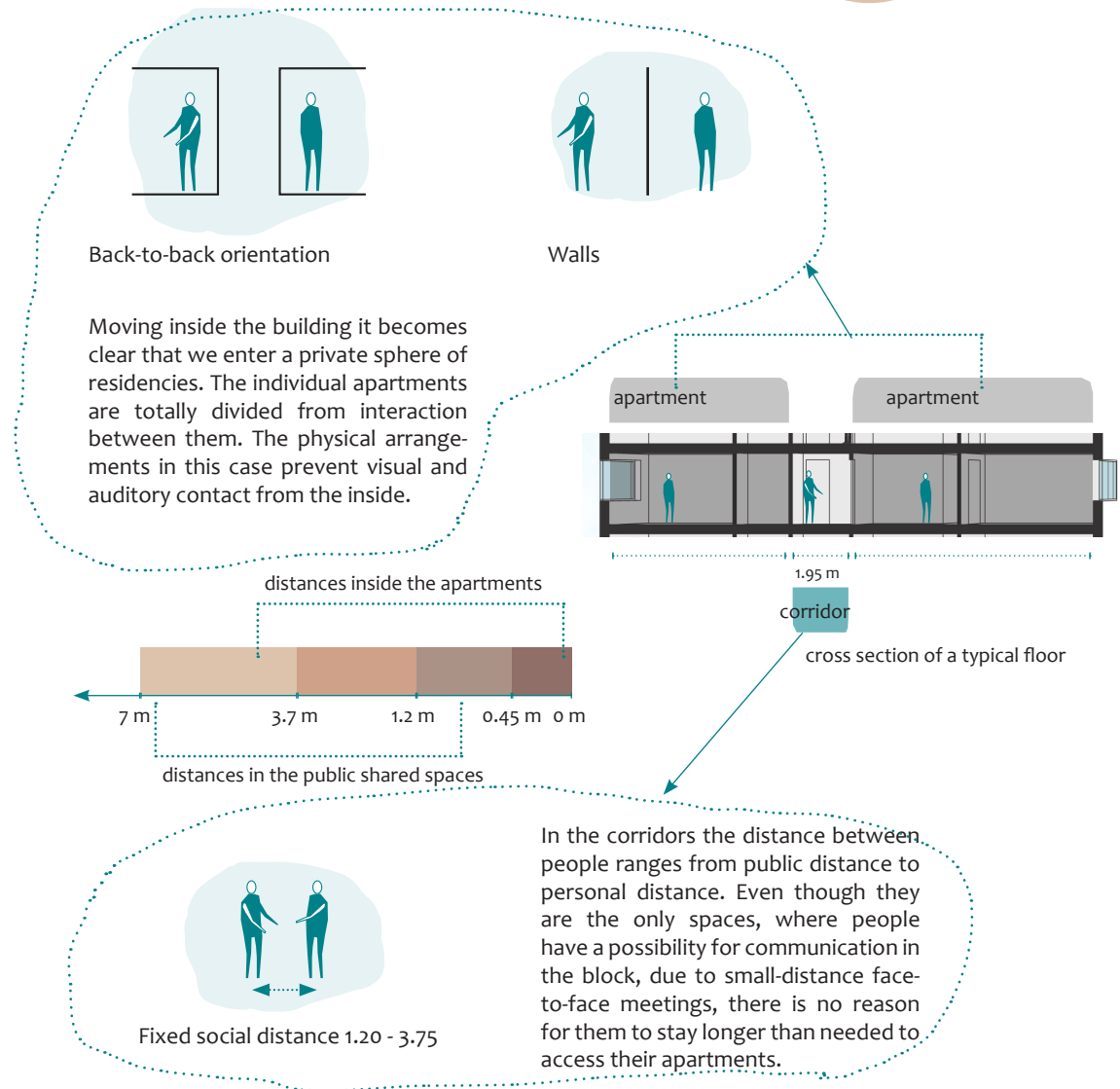- ◻ mostly used zone
- ◻ areas in usage
- ◻ less used zone
- ◻ neglected zone

N

ENTRANCE CORRIDOR
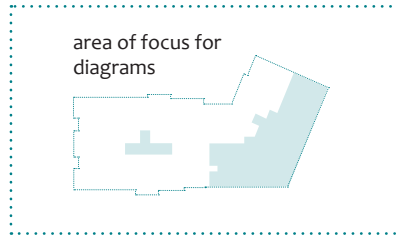
WHAT ARE THE TOOLS FOR DIFFERENT PRIVACY LEVELS ON THE SPACES INSIDE THE BLOCK, WHERE DWELLERS INTERACT WITH OTHER PEOPLE?

PHYSICAL PARAMETERS

- Distance
- Eye Level
- Noise Level

The level of communication is effected by the physical parameters on a site.

The outcome, as a good visual contact, creates a basis for communication

COMMUNICATION

- Activity Level

These tools are implemented for the analysis of indoor common spaces and the places, which connect to the outside world. In other words, the focus is put on the entrance corridor and the facade on the north.

Back-to-back orientation

Walls

Moving inside the building it becomes clear that we enter a private sphere of residencies. The individual apartments are totally divided from interaction between them. The physical arrangements in this case prevent visual and auditory contact from the inside.

apartment   apartment

1.95 m

corridor

cross section of a typical floor

distances inside the apartments

7 m   3.7 m   1.2 m   0.45 m   0 m

distances in the public shared spaces

Fixed social distance 1.20 - 3.75

In the corridors the distance between people ranges from public distance to personal distance. Even though they are the only spaces, where people have a possibility for communication in the block, due to small-distance face-to-face meetings, there is no reason for them to stay longer than needed to access their apartments.

area of focus for diagrams

Even though small dimensions of circulation spaces bring people close, ranging from social distance down to intimate distance, they do not always lead to interaction but rather uncomfortably narrow situations. That happens in the elevator and the landing space right attached to it. The fact that people only use these spaces in order to move and there is no other activity for them to stay longer, they do not really socialize. As residents move further the proximity changes back to normal distances, when they finally reach their destination.

0.70 m
0.50 m
access corridors
2.30 m
1.95 m
8.60 m
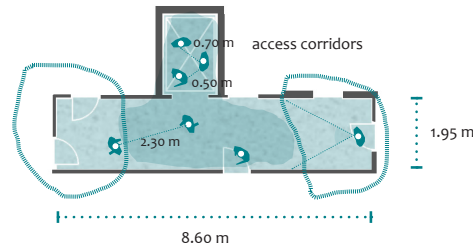
Today there is no visual connection between the south and north facade of the building. Therefore, most of the residents are not even aware of their right to access the courtyard.

X

cross-section of building
eye level relations
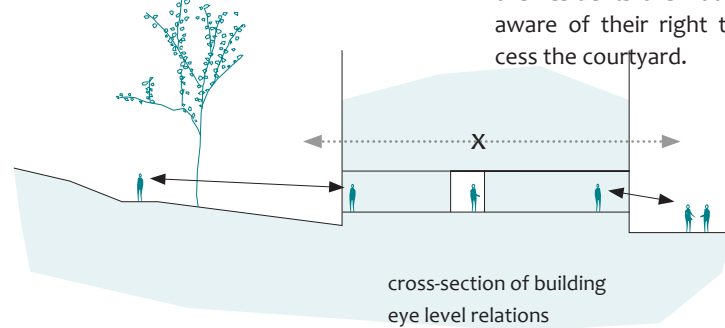
If an eye level connection would be established, it would be more welcoming for dwellers to use their outdoor space.

cross-section of building
eye level relations

COMMUNICATION

+ 33.00 level
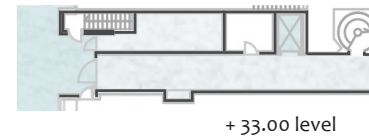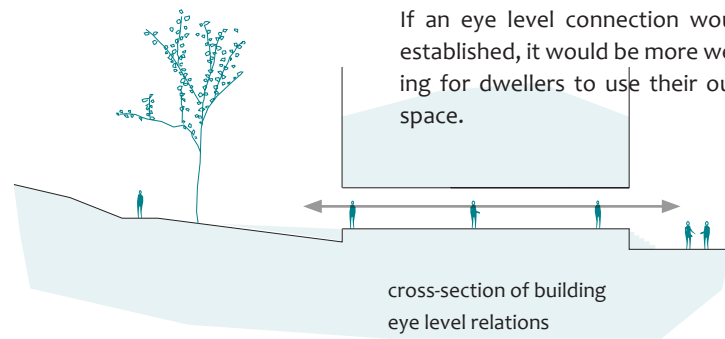
COMMUNICATION DIAGRAM

First level: High communication
Second level: Communication is rare
Third level: Poor communication

access corridors

storage spaces
laundry

storage spaces

8.60 m

+ 39.00 level
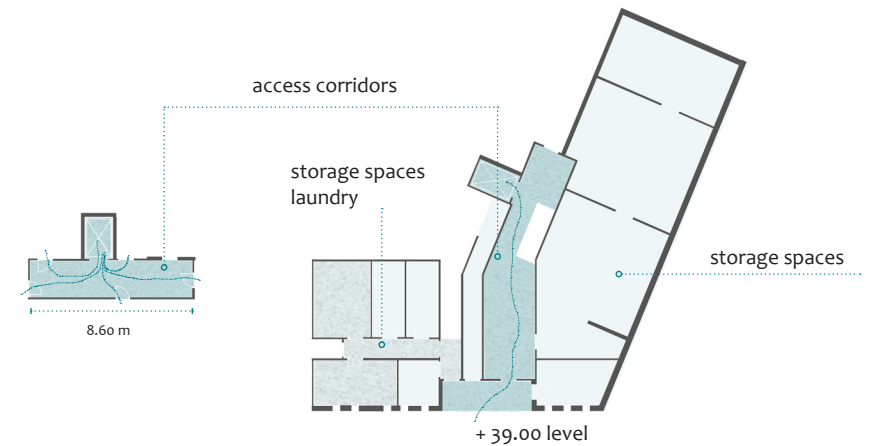
During our visits, we observed how people used the space, therefore we identify three different levels of communication on site. In the first layer people mostly communicate with each other, such as in main corridors, entrance of the building and certainly the main street. Second level is the common space where people have a chance to communicate need a reason to be there because of the space does not convince them to spend time on. The third level refers to the place where the least communication exists, because of the reason of low spatial quality in the space. These places are not very useful and friendly, most of the time they are quite narrow and dark.

public → private

High activity level

Lower activity level

+ 39.00 level

4-5 km/h — slow motion moving
accessing the apartments
circulating around the spaces

movement flow

standing

0 km/h — standing to do laundry
storing belongings
taking the bicycle

+ 39.00 level
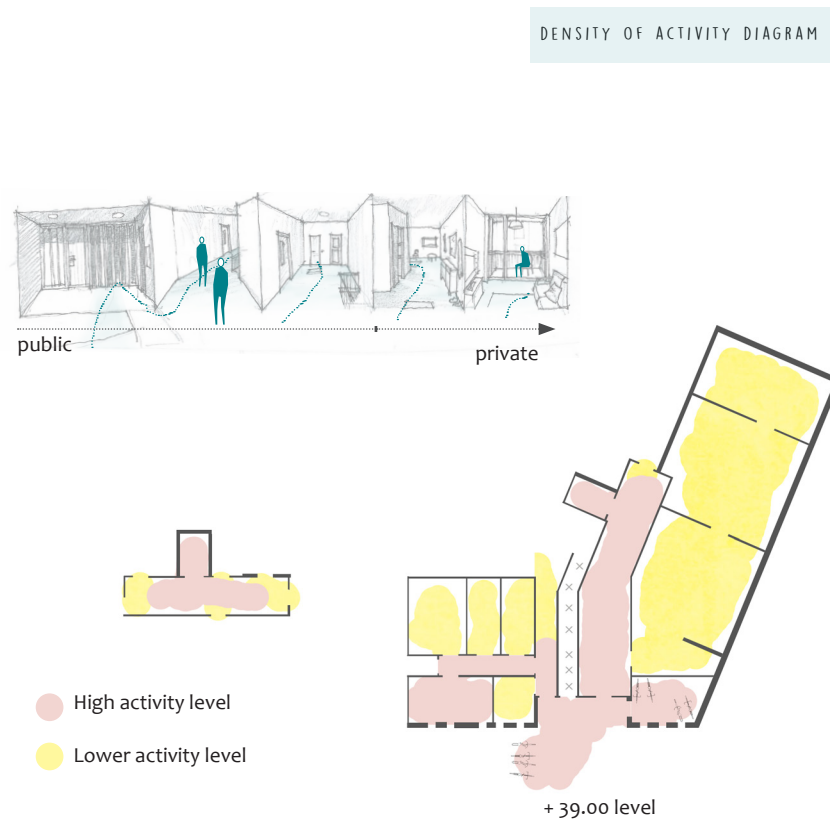
By focusing on the usage pattern in the building, one can see that the spaces of circulation are the ones that has been mostly used since they let necassary activities to occur. Also, the rooms for the storage of the bikes and the laundry spaces present a high activity level. The activity is lowered in front of the entrances for the apartments and in the storage rooms. On the other hand, the corridor in the middle which leads to the staircase is not used at all since this space is extremely private and not inviting.
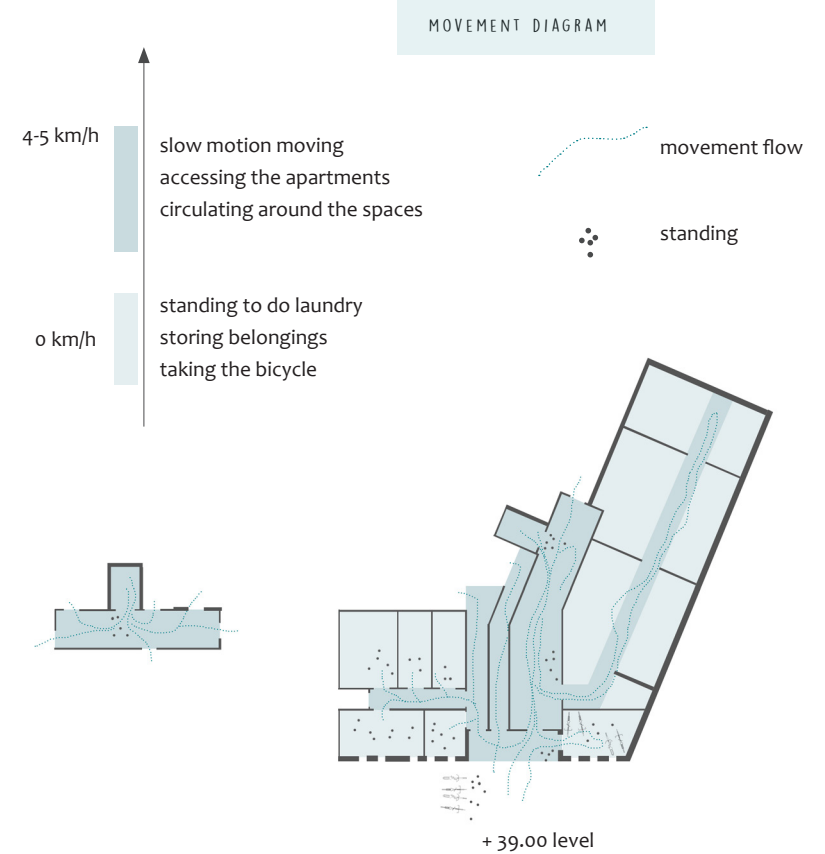
The speed of movement flow inside the block is dimished to low motion for accessing the apartments and circulating the secondary storage spaces. At some points individuals are dropping their rythm of moving doing manual work of laundry, retrieving their bike or mail, opening the door, etc. In any case there is no space for long stay, as there is no reason offered for sitting, talking or interacting. In other words, residents are just passing by, carrying out nessecary actions, that entail no social interaction. The prevailing activity is the **"coming and going" traffic**, whereas there is no space for stationary activities to develop (Gehl, 2011).

EXISTING PRIVACY LEVELS
INSIDE THE BUILDING

+ 33.00 level

Almost absolute privacy

Privacy decreased - indirect sensual connection

Shared spaces by residents - direct interaction

Interaction with outside world

+ 33.00 level

bookstore
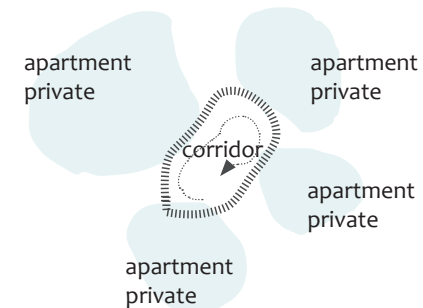
storage

circulation paths

unused shop

parking space

As mentioned before on the ground floor the two shops open up quite efficiently to the central street bring light in and views towards their interior space. The south one, which is currently not rented, extends deep into the slope of the green space next to the building. This fact makes it very private and this feeling is intensified by the closed wall on the north part attached to the entering corridor. All the spaces, in general, give a sense of a more private atmosphere because of their small size, complexity of vertical partitions and the storage space volumes disconnecting the little shop from the corridor.

Even though the uses in the ground floor do not have an initial need for privacy and could have been formed in a more open way, the design of the building fails to do so. The only side that enables light to get in, as well as visual connection, at this level is the one facing the main street. The rest of the sides are surrounded by earth, the covered parking space and storage rooms.

apartment private

apartment private

corridor

apartment private

apartment private

■ Almost absolute privacy
■ Privacy decreased - indirect
   sensual connection

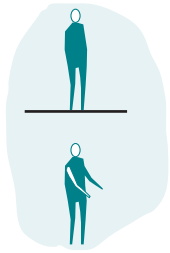■ Shared spaces by residents -
   direct interaction
□ Interaction with outside world

■ kitchen
■ bedroom
■ livingroom
■ entrance
■ bathroom

■ laundry
□ 'recreation' outdoor space
■ storage
■ balcony
□ circulation

Privacy levels in the site are distributed in an uneven way, meaning that spaces that are shared and should be more welcome and open are felt like closed and secret (like the main circulation corridors). What is more, there are a lot of in between the levels spaces that belong to none or none wants or bothers to access. These rooms or areas have no character in order to receive more attention and attendance. In a lot of situations, there is abrupt change from completely private to completely public, lacking a transition level that would create a natural flow and provide the user with the option to regulate the interaction with the public domain. This obstructs the movement into the public environment if it not necessary to do so by **clearly demarcated borders**. (Gehl,2011)

The privacy diagram can be better evaluated when it can be compared with the distribution of functions in the plan. In this way it is understood that in the level of the shared spaces, dwellers experience a more closed and impersonal spatial condition, instead of having an open and welcoming circulation intermediate layer that would assist a better social development in the frame of the building. What is more, even inside the apartments the entrances and corridors are more protected than the rest of the rooms, which might need a higher level of privacy, such as the bedrooms. In some cases the balconies play the role of a border to the outdoor environment, filtering the incoming noise and the level of sight.

FACADE

Multiple levels

The physical arrangement is multiple levels that do not have visual connection between them. In the north facade, there are no transitional spaces, like balconies, that could act as a filter between indoor-private and outdoor-public space.
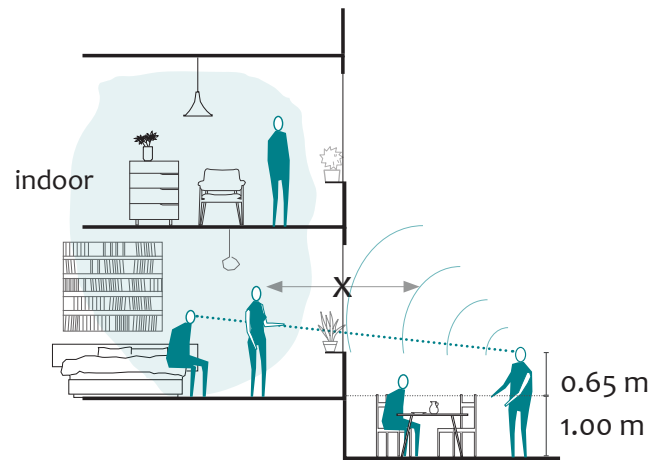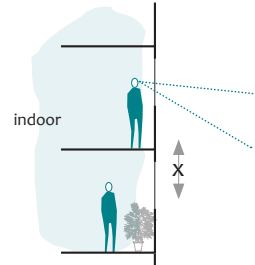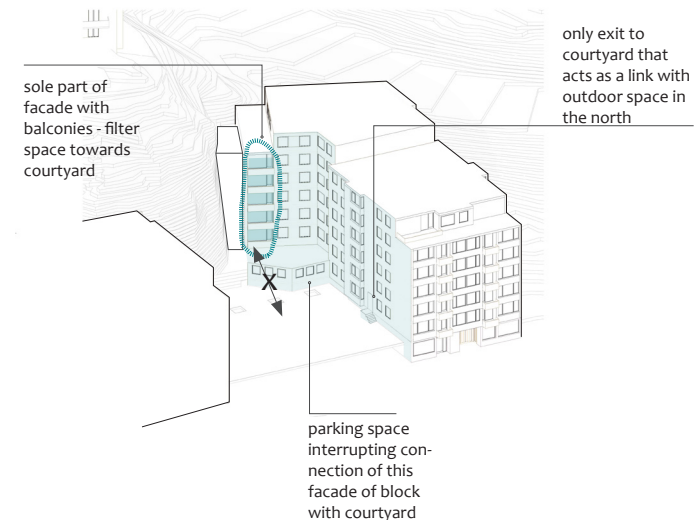

indoor

In the level that there is connection to the courtyard, a height difference of 1 m makes **difficult** the **flow of events between indoors and outdoors**. Except from this, only windows are positioned in relation to the facade, posing another obstacle to linking towards the outside in a functional level as well as a psychological. (Gehl, 2011)

On the other hand, the location of private rooms in direct relation to the outside exposes to a degree these spaces to the sight of external individuals. Various efforts to reduce this disturbance have been made by the residents of this level, such as putting plants on their window sills in order to provide a border towards the outside, but without obstructing the light coming in, since it is really important in the north.

indoor

0.65 m
1.00 m

diagram-section of north facade at the level of courtyard

courtyard

outward pointing

inward pointing

outdoor part of house
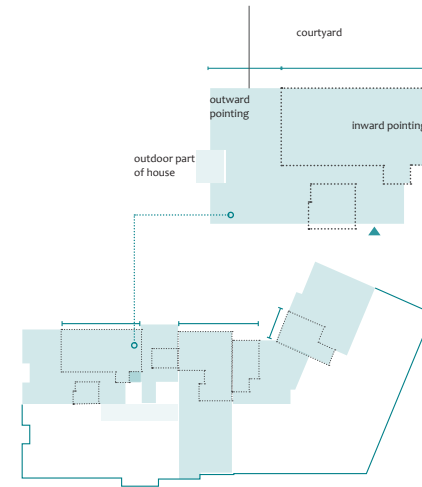
The parts of the apartments at the courtyard-level that face the common outdoor space are mainly **inward pointing**. This means that they have a more private function and cannot easily link socially to the public yard. The organization of the space inside the house is not corresponding that effectively to the way it relates to the outside wold. (Madanipour, 2003)
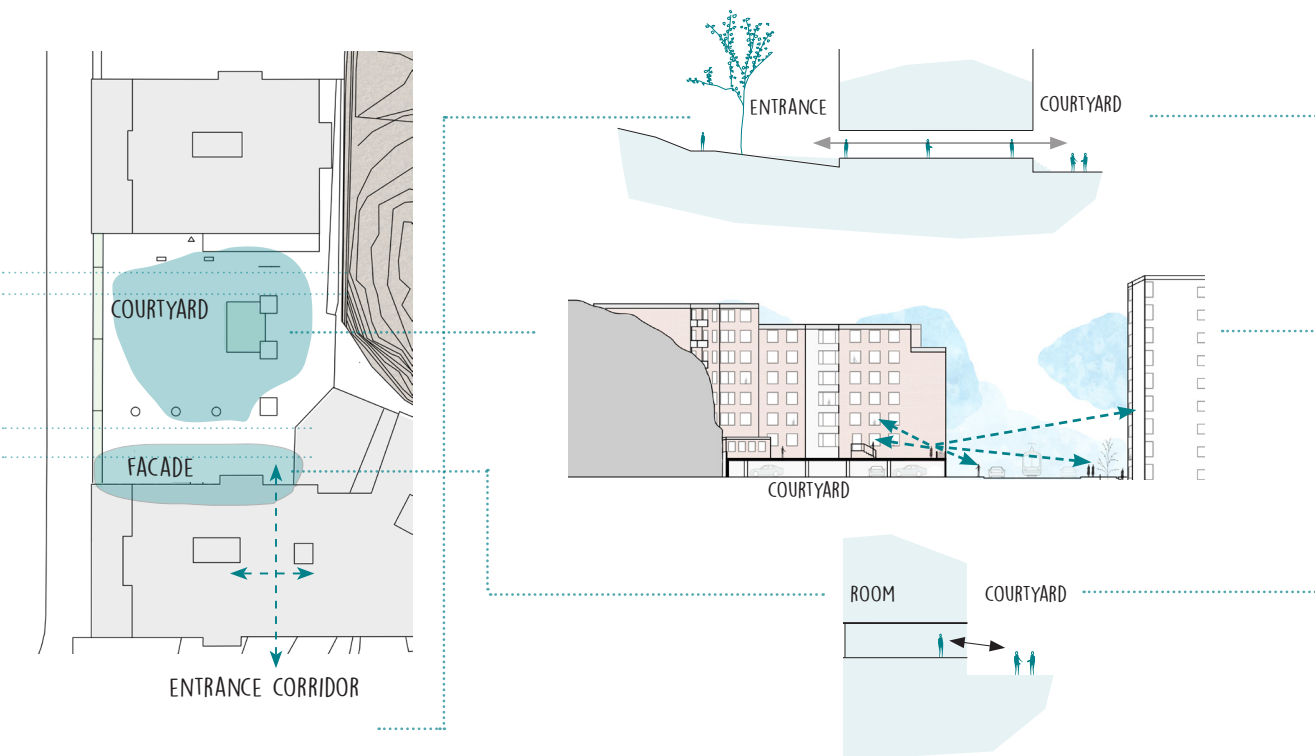

only exit to courtyard that acts as a link with outdoor space in the north

sole part of facade with balconies - filter space towards courtyard

parking space interrupting connection of this facade of block with courtyard

chapter 4

DESIGN PROPOSAL

Entrance Corridor
The Courtyard design
Facade

COURTYARD

FACADE

ENTRANCE CORRIDOR

ENTRANCE   COURTYARD

COURTYARD

ROOM   COURTYARD

In the context of this master thesis work, we reached **three main decisions** according to the analysis on the focused spots:

Direct Access:
- Constructing a common corridor from the entrance to the courtyard, strengthens the visual and physical accessibility between these two spaces. Connecting two different layers on the entrance corridor encourages communication through the neighborhood.

More lively courtyard:
- By improving the existing quality on the courtyard, this common space can be attractive to convince residents to spend time on. Therefore this zone can be transformed into a place for gatherings and daily activities.

Regulate the privacy level on the north facade
- Within increasing the amount of people in courtyard, especially in the front zone, there might be privacy problems for the residents, that points a need for an extra protection layer on the north facade of our building.

THE ENTRANCE CORRIDOR

LEVEL +36.00

The strong connection is created by the new entrance corridor from +36.00 level where residents can **access** both **physically and visually** the courtyard.
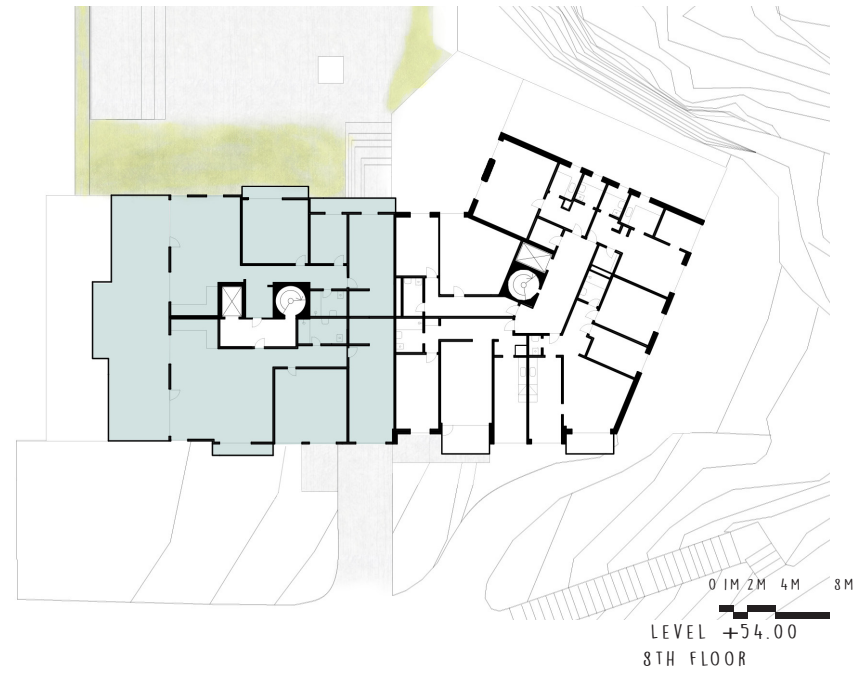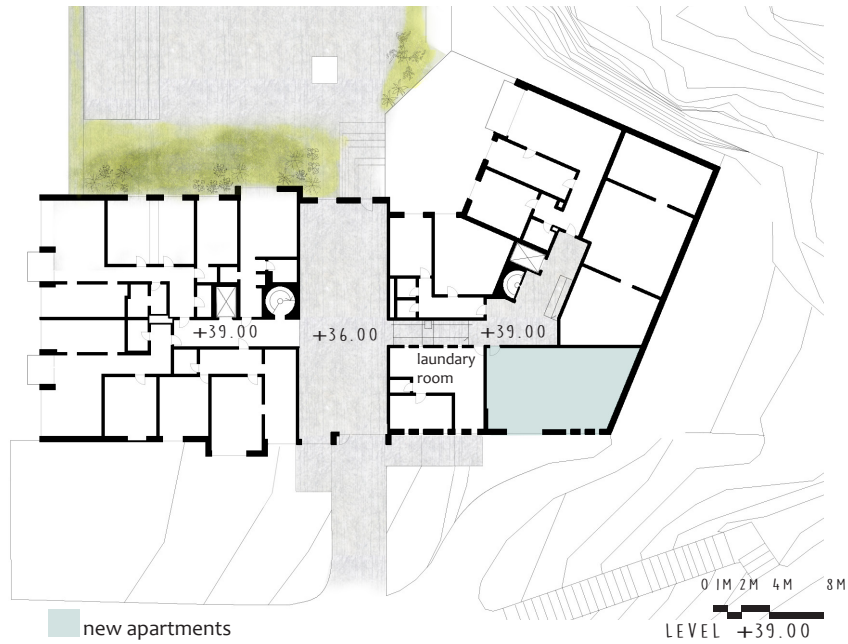
With the new design, the entrance corridor **connects different levels** between blocks, merges both blocks` residents in **same entrance** and serves as **a social common space,** where users have an opportunity to see each other effortlessly in a daily life. Such a zone gives an extra space equally **for every resident** to access, get a chance to socialize and communicate.

But, as we learned from Gehl (2010 and 2011) if people have a reason to be in the corridor zone, they would spend more time on site that would strengthen participation and the **communication** on the zone.

In our proposal this corridor is considered as a stationary poll : **a precondition for small everyday activities**. Here residents can sit on a couch, check their post boxes, converse, fix their bikes, exchange their items , enjoy to be under sun on the south terraces used like an extension of their houses.

+39.00 +36.00 +39.00

laundary room

new apartments

0 1M 2M 4M   8M

LEVEL +39.00

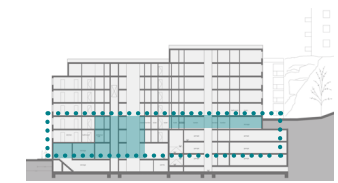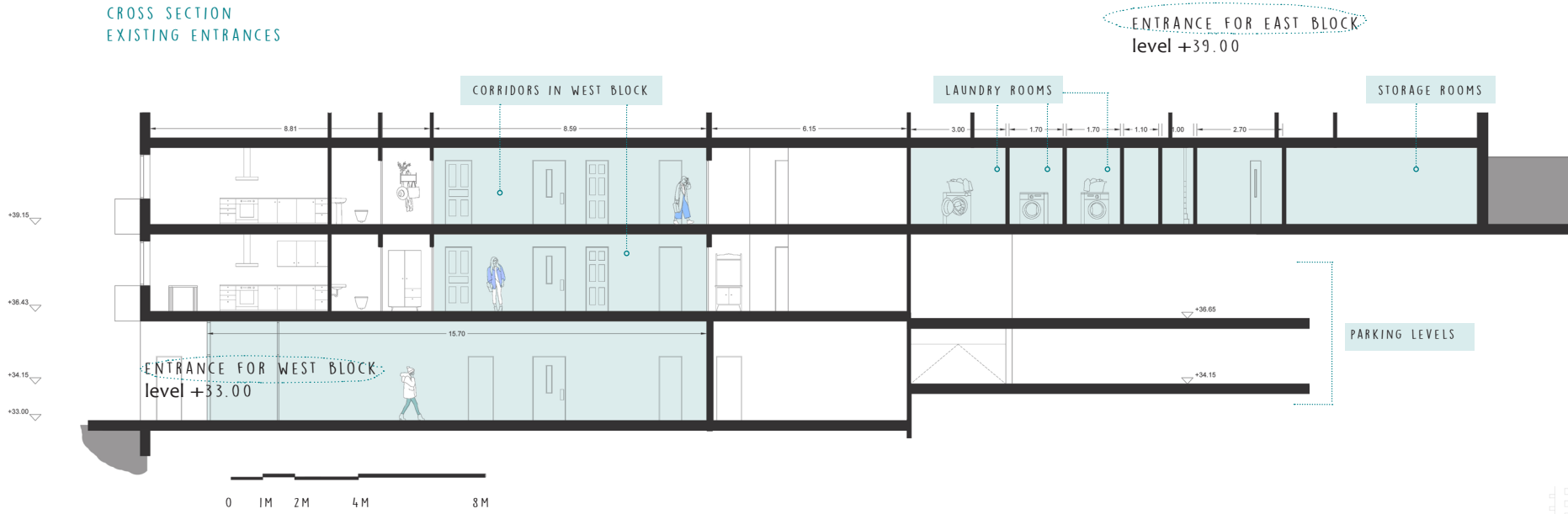0 1M 2M 4M   8M

LEVEL +54.00

8TH FLOOR
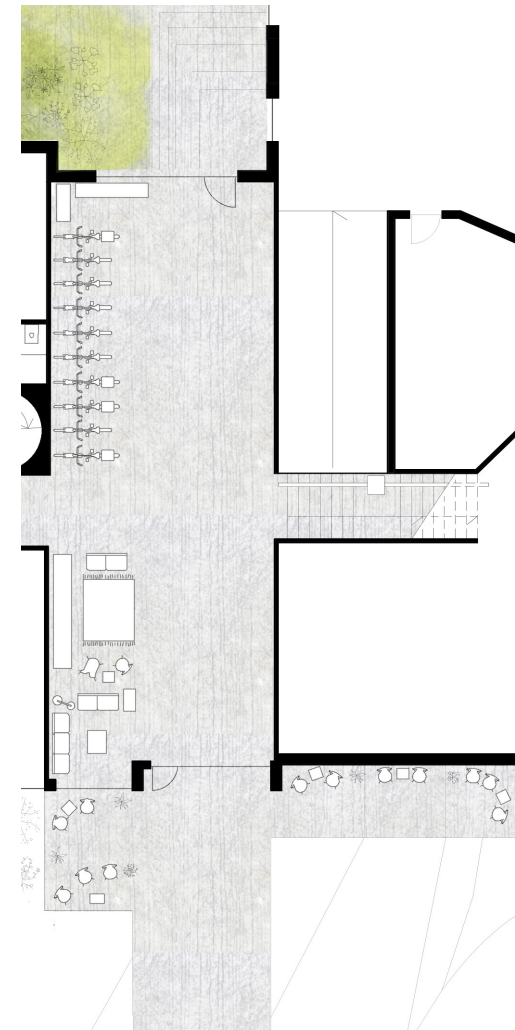
For placing this new corridor, **two** apartments have been taken away (where the corridor is situated on level +36.00 and +39.00) and instead, **three** of them have been added.

The former entrance on the level +39.00 that was merged with the storage space for bikes and those have transformed to the **new apartment.**
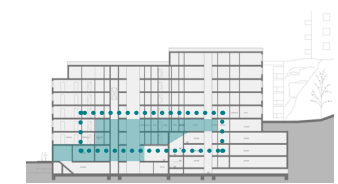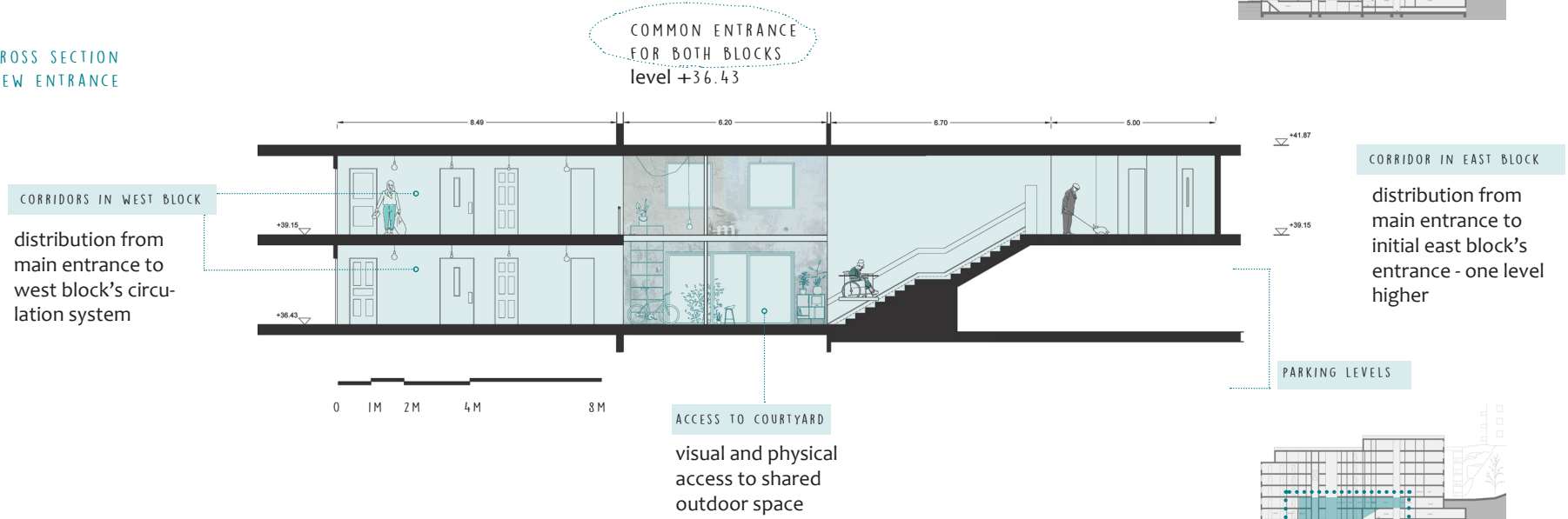
Since the added apartment on top have a bigger size with shared terrace toward southwest, they can be an opportunity to sustain the renovation cost.

Moreover, the other two new apartments have been added at the 8th floor (level +54.00) By the new design the laundry room became accessible to residents both from two blocks.

ENTRANCE FOR EAST BLOCK
level +39.00

CORRIDORS IN WEST BLOCK

LAUNDRY ROOMS

STORAGE ROOMS

8.81   8.59   6.15   3.00   1.70   1.70   1.10 1.00   2.70

+39.15

+36.43

+36.65

PARKING LEVELS

15.70

+34.15

ENTRANCE FOR WEST BLOCK
level +33.00

+33.00

+34.15

0   IM   2M   4M   8M

CROSS SECTION
NEW ENTRANCE

COMMON ENTRANCE
FOR BOTH BLOCKS
level +36.43

8.49   6.20   6.70   5.00

+41.87

CORRIDOR IN EAST BLOCK

distribution from
main entrance to
initial east block's
entrance - one level
higher

CORRIDORS IN WEST BLOCK

distribution from
main entrance to
west block's circu-
lation system

+39.15

+39.15

+36.43

PARKING LEVELS

0   IM   2M   4M   8M

ACCESS TO COURTYARD

visual and physical
access to shared
outdoor space

The physical context can affect the inhabitants' social situation (Gehl, 2011). In this way, the space can be designed so that the desired contact forms are possible to arise.
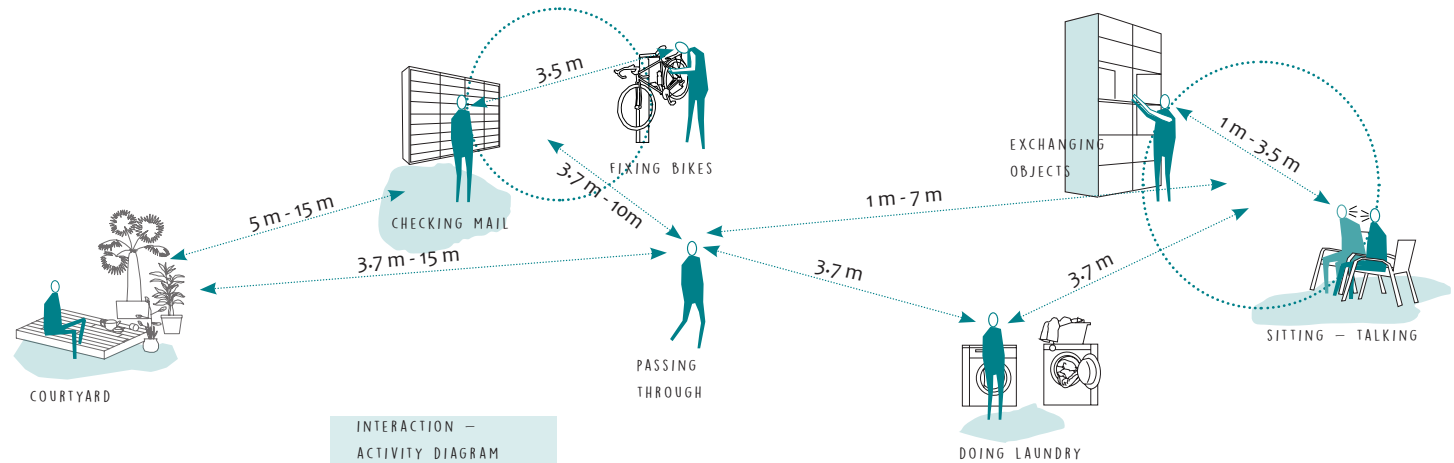
"Possibilities can be impeded - or they can be facilitated."
(Gehl, 2011)

By placing all the necessary activities and some optional ones in the new common entrance for the two blocks, we aim to give rise to the social activities. Social activities happen spontaneously in connection to the other ones in space, that make people pass by one another, meet in or just be within view (Gehl, 2011).

Working on the right placement of the uses in the spot, we provide the relaxed sitting zone towards the south and the more necessary activities towards the north. A double height in this space enables the visual connection of the common area with the east block entrance, located one level up. What is more, more light is reaching the south dark side, giving it a more open and light feeling.
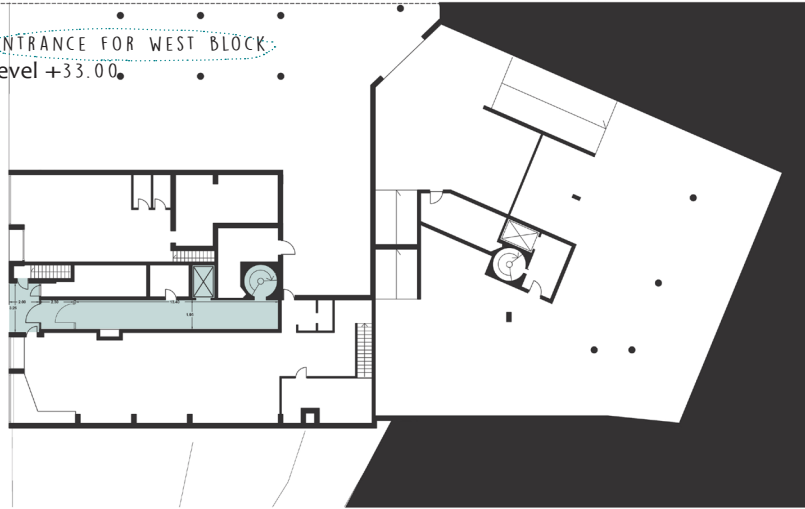
Low-intensity contact provides opportunities of being able to meet, see and hear others, to experience others functioning in daily life. This is important for satisfying the human need for contact, serving the lower degree of interaction.

This could serve in everyday life as a contact in a modest level, a possble initial point that could lead to contact in other levels, a possibility for maintaing contacts in the neighbourhood, a source of information about the close social worls and a source of stimulation (Gehl, 2011).

3.5 m
FIXING BIKES
EXCHANGING OBJECTS
1 m - 3.5 m
5 m - 15 m
3.7 m - 10m
CHECKING MAIL
1 m - 7 m
3.7 m - 15 m
3.7 m
3.7 m
SITTING – TALKING
PASSING THROUGH
DOING LAUNDRY
COURTYARD
INTERACTION – ACTIVITY DIAGRAM

8.10   1.80   6.00
+39.00
+35.00
+36.00
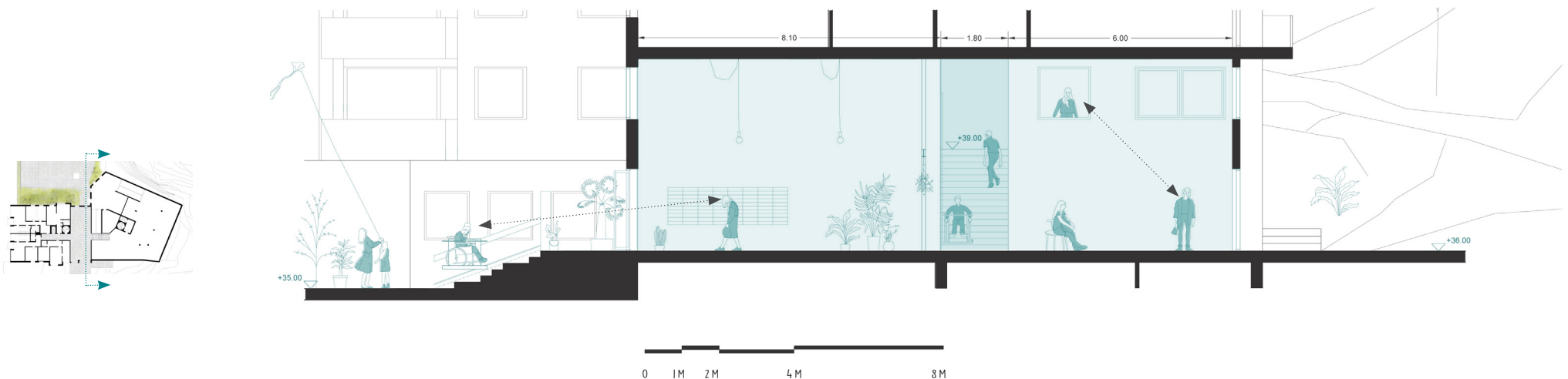
0   1M   2M   4M   8M

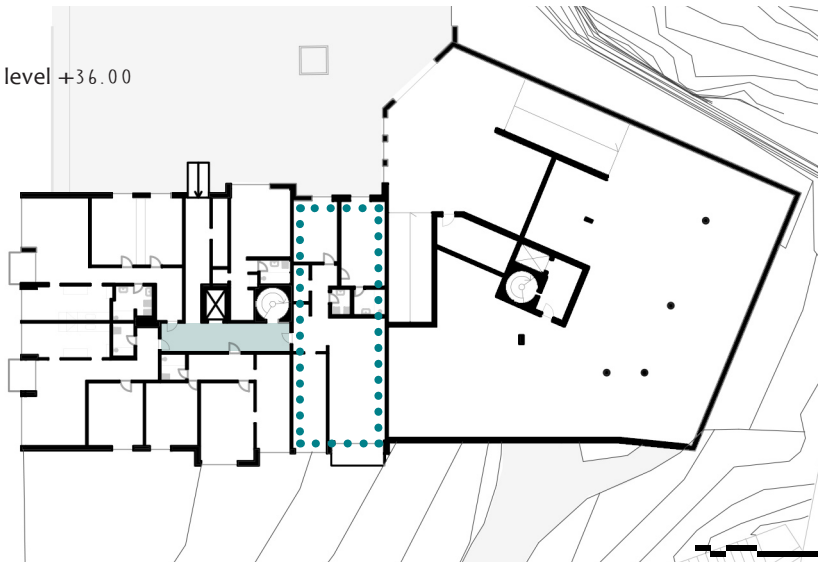ENTRANCE FOR WEST BLOCK
level +33.00

0 1M 2M 4M   8M

ENTRANCE FOR EAST BLOCK
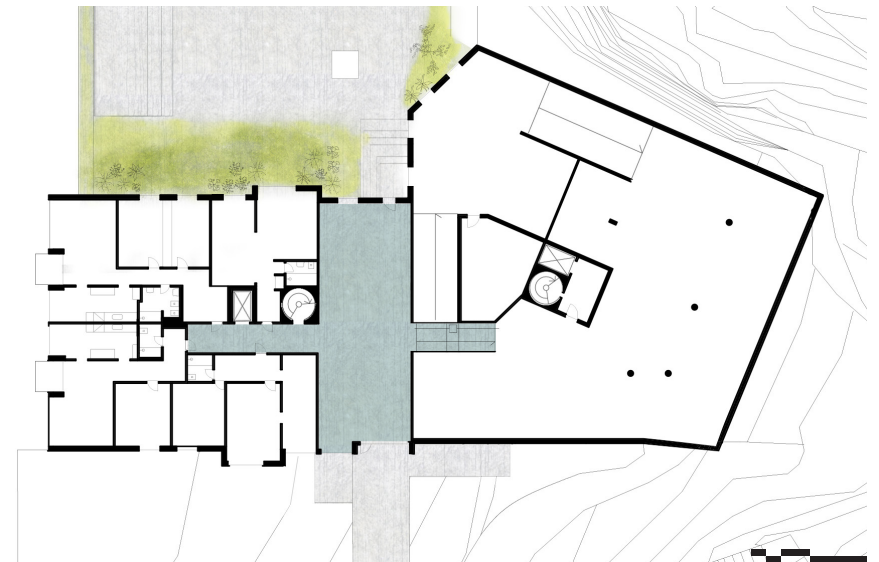level +39.00

0 1M 2M 4M   8M

level +36.00

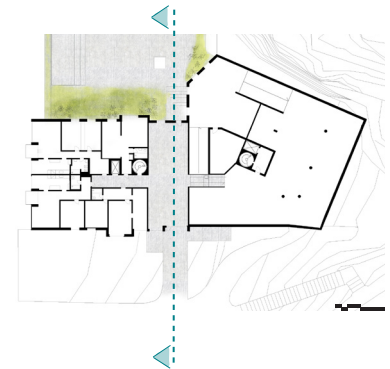0 1M 2M 4M   8M

PLAN
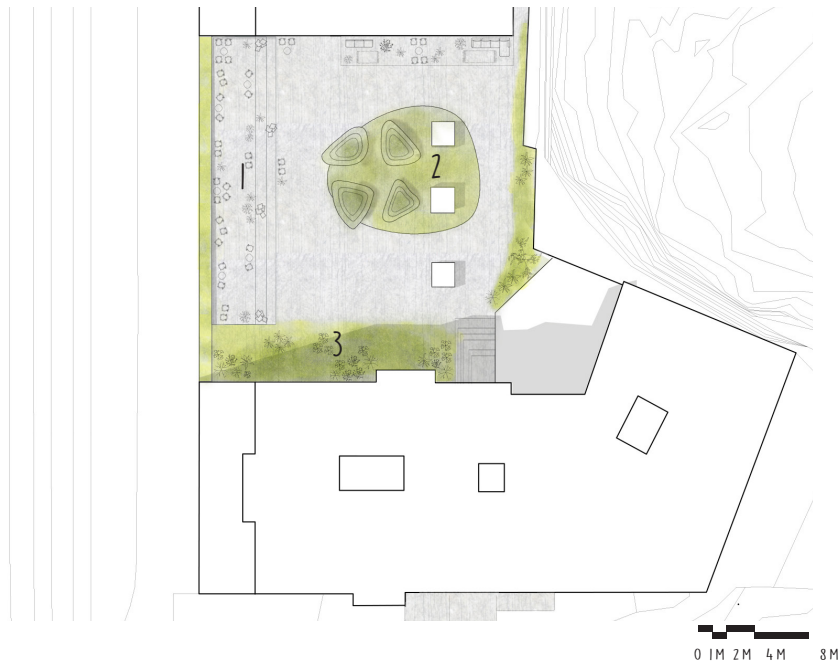NEW ENTRANCE
level +36.00

0 1M 2M 4M   8M

0   0.8M   1.6M   3.2M   6.4M

THE COURTYARD

Refering to analysis chapter of this thesis work, the improvements of the courtyard have been applied to **three** different places:

FRONT ZONE: Since the prime actions occur in the front zone of the courtyard where sun exists, the new design proposes to improve the recent **spatial and visual qualities** especially on this space. Today, the boundary between street and courtyard was created by 90cm height wall with the small bushes in front. So, the current usage allows people to have direct connection only **when they stand up**. By adding three steps height (15 cm each), light wooden platforms, people can have **direct relation** to the street while having an extra place to spend time on.

SITTING,
WATCHING THE STREET,
CONVERSING, EATING,
SUNBATHING,
READING,
KNITTING,
PLAYING CARDS ETC.
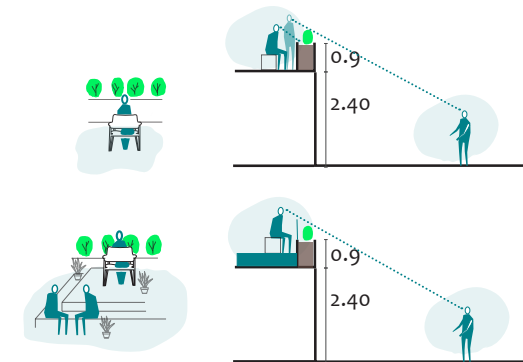
With this platform design **all communication and social activities are merged into one place**, that creates a basis for upcoming conversations between **residents** from different blocks. By replacing the asphalt ground to the rest of the space (that is existing today) with a wooden outdoor surface, that is used in the new platforms, the courtyard becomes visually coherent in its entirety. Residents use those platforms by **sitting, conversing, bringing their flower pots** and also regulate their comfort level by bringing their pillows to sit on.

MIDDLE ZONE

Nowadays, the middle zone is mostly used by children, even though the current spatial organization **does not serve** as a friendly and interesting zone to play. This situation cannot convince children to stay long time on site while it could. For us, one of the most powerful way to take children's attention more on this zone, is to give them **an opportunity to play** in a qualitative space and **involve them to the social life** on the courtyard through a range of outdoor activities.

With the small touches on elevating some parts of the terrain, the small hills give children another level to exercise and explore. Through these hills they can **connect themselves** to the site both **physically** by climbing on them, swinging, racing, rolling, running between hills, and **emotionally** by getting familiar with landscape.

At the end, extending the playing times on outdoors gives a positive contribution to their personal skills such creativity, exploration and imagination (Zhou,2010). Also, from parents perspective, improving the conditions for playing in the courtyard brings a safer situation for their children.

These hills are made of soil covered by moss on top for not harming children while they play and at the same time it sustains a color for the wooden courtyard appearance.

These hills break the uniformity of the terrain,attracts children to experience. We placed those hills in the middle of the courtyard where there is a small garden existing today. This garden is not under use since it's situated in the middle where both blocks' residents do not get involved, as an undefined space (mentioned as page 17). By keeping the circle of movement on the site (refers to page 33), our intervention can let children cycle and use the back side of the courtyard.


0 1M 2M   4M   8M

0 1M 2M 4M   8M
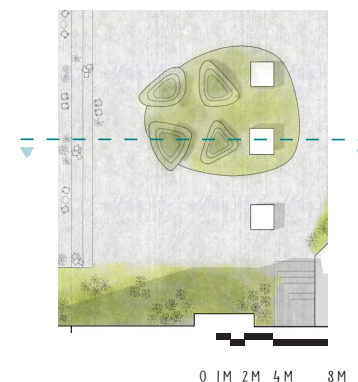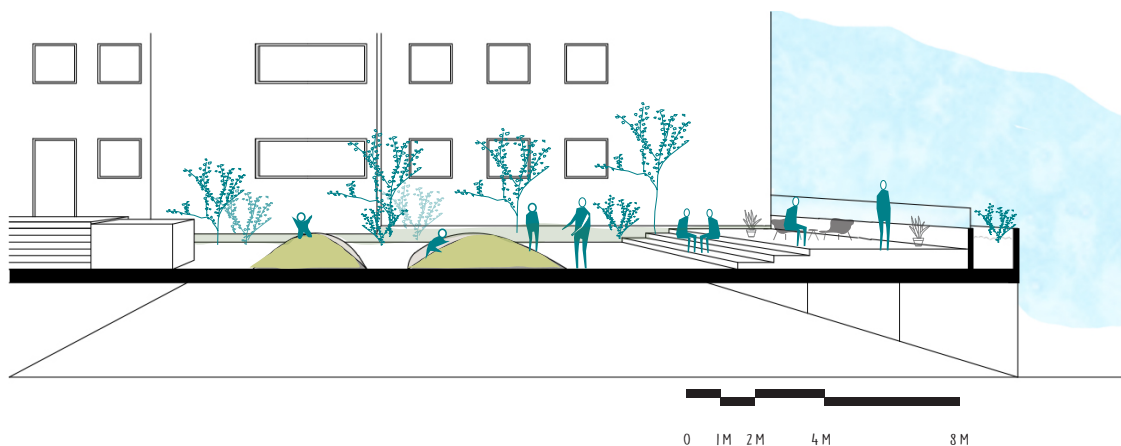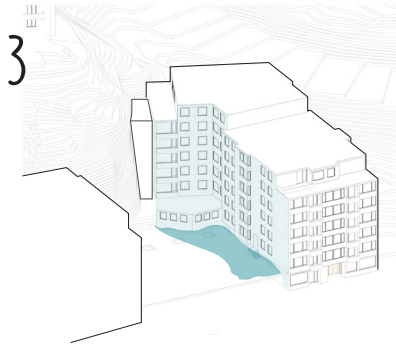
THE EDGE:

Today the dark edges are likely not much in use. With our proposal we bring the social situations in the front zone which is sun exposed, so that the users **are not required** to stay in dark spots on edges.

In this way, these edges have a potential to be used as a **supportive green zone** that provides green elements to the courtyard while improving **the quality** of the space. Huge beautiful gardens can sustain good scenery for residents to enjoy and feel pleasure to look at where they can interfere at the same time optionally. In this zone residents can plant some flowers that do not demand so much light, such as fern, *lily of the valley, lavender, hydrangea, begonia, succulents.* Also users can add their flower pots on this zone and organize this common garden.

TOO MUCH EXPOSED   SMOOTH EDGES
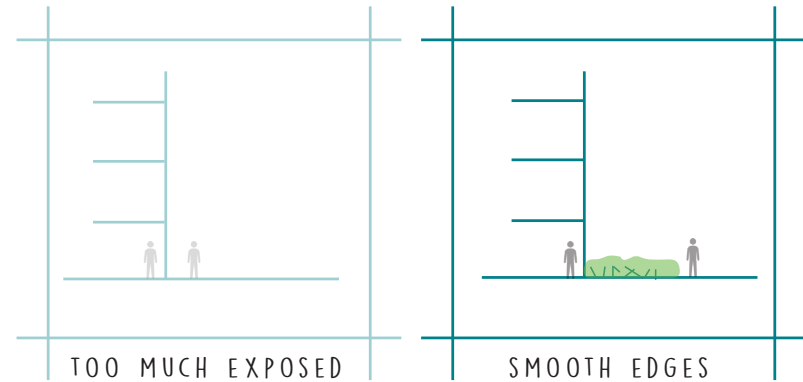
[1]   [2]   [3]   [4]   [5]   [6]

[1] Available at: <http://fine-art-prints-store.com/images/15635-northern-hard-fern.jpg> [Accessed 10 May 2015]
[2] Available at: <http://sr.photos2.fotosearch.com/bthumb/CSP/CSP992/k12924078.jpg> [Accessed 10 May 2015]
[3] Available at: <http://thegraphicsfairy.com/instant-art-printable-superb-lavender-botanical/> [Accessed 10 May 2015]
[4] Available at: < http://2.bp.blogspot.com/-8tEU9BvPL50/TlRAUtIFCuI/AAAAAAAAN3E/X2lS6VvyYD4/s640/hydrangea-graphicsfairy008whsm.jpg> [Accessed 10 May 2015]
[5] Available at: < https://wakefieldplantidhrt1.wikispaces.com/Begonia+X+semperflorens-cultorum> [Accessed 10 May 2015]
[6] Available at: < http://www.polyvore.com/cgi/img-thing?.out=jpg&size=l&tid=18916094> [Accessed 10 May 2015]

USAGE OF THE COURTYARD

Since our courtyard is located on the north side, it is not very possible to get a direct sunlight during autumn and winter time, therefore the possibility to use the courtyard according to **weather conditions** becomes an important issue to discuss. With this framework, flexible design offers users a possibility to move and chance their sitting locations according to sun and lightning. Such a condition gives freedom to user to arrange themselves according to desired conditions or upcoming conversations therefore it directly **strengthens the social life** on the site. Moreover allowing to control and manipulate the current usage enables residents to be engaged with the courtyard and make them to feel a part of it.
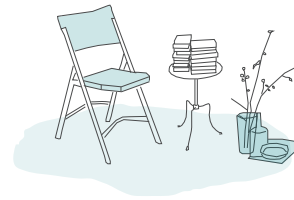
WHICH LEVELS OF FLEXIBILITY WE OFFER?

During our time work, the way of approaching the concept of "flexibility" for the courtyard proposal was gathered on two different options according to weather conditions: First option was designing the courtyard with big interventions for a rainy or windy day. There could be additive protected spaces composed by transparent, removable modules on the courtyard, integrated to the floor, serving more private feeling in half private zone. But since those spaces require labor to assemble and disassemble, transport and store, budget to produce and repair and responsible person/s to take care of , this option does not seem as realistic for our site.

Therefore, we focused to **increase the social quality of life on the courtyard**, mainly for good weather. In this framework we decided to offer users a comfort zone, which includes social life qualities, sustained by **small interventions** and low budget. Therefore we decided to have the fixed platform but movable chairs on the courtyard. Those flexible chairs can be stored and taken from the common entrance.


0 1M 2M   4M   8M
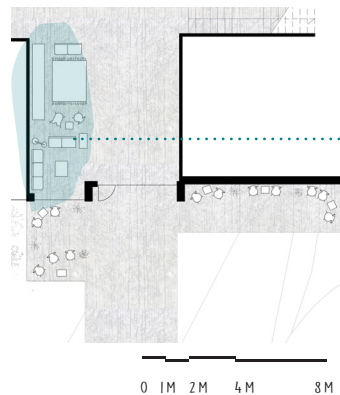
THE NORTH FACADE

Encouraging people to use front zone on the courtyard and designing a stage which is 0.45 cm above the ground, brings up the considerations about **privacy issues**. Especially the rooms close to the front zone might be the place which is most affected from this situation in comparison to the whole facade.

Within the framework of this master thesis, we exemplify how can privacy issues be dealt on a facade through using this building as a showcase. Since the facade is the most important part of the **boundary** by constructing **semi private and private relations,** we want to give a solution in this thesis work.


front zone
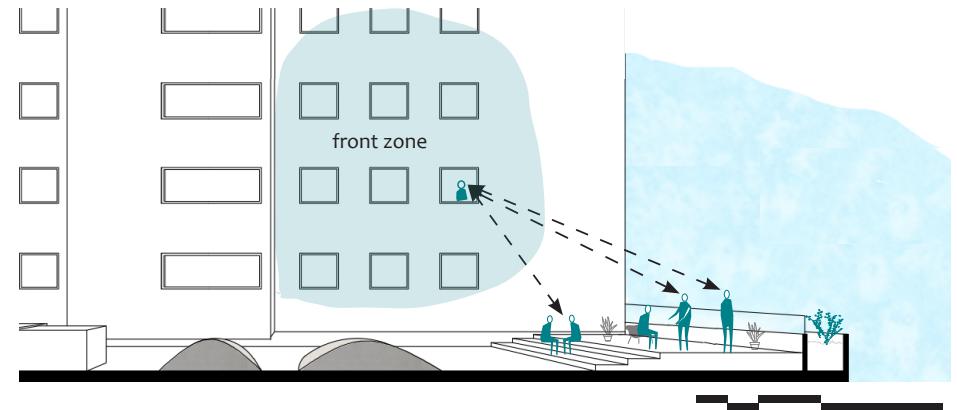
PRIVACY— LIGHT —SPATIAL RELATIONS ON THE FACADE

Referring to our analysis the visual connection on first two floors, points us the crucial parts of the privacy levels over the facade. As Gehl said, one of the good ways to create privacy on the ground floor, is to use right amount of distance on horizontal plane (Gehl,2010). Therefore, in our proposal the green zone on the edge is set 5 meter away from the facade, creating a sense of private room at the same time connecting the residents to the courtyard visually.
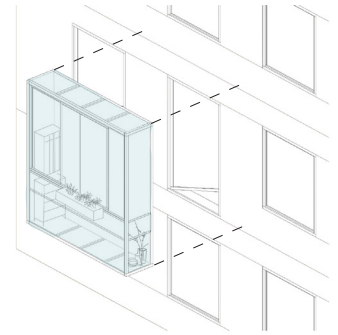
Since the front zone on the west block has not serious lighting problems, it is possible to add some small interventions on the design solution, in order to regulate the privacy vertically.

When we look at the spatial plan of the building, bedrooms are the most private spaces in the apartments, situated between living rooms. This organization limits us in a way when establishing new additions, by not giving a possibility to share a common balcony between apartments. So that creating new spaces as balconies, can be considered only room scale in our site.

PRIVACY

LIGHT

SPATIAL

front zone

east block

west block

■ bedroom
■ living room

indoor

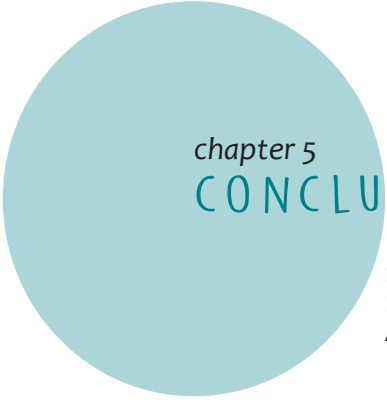5 meter
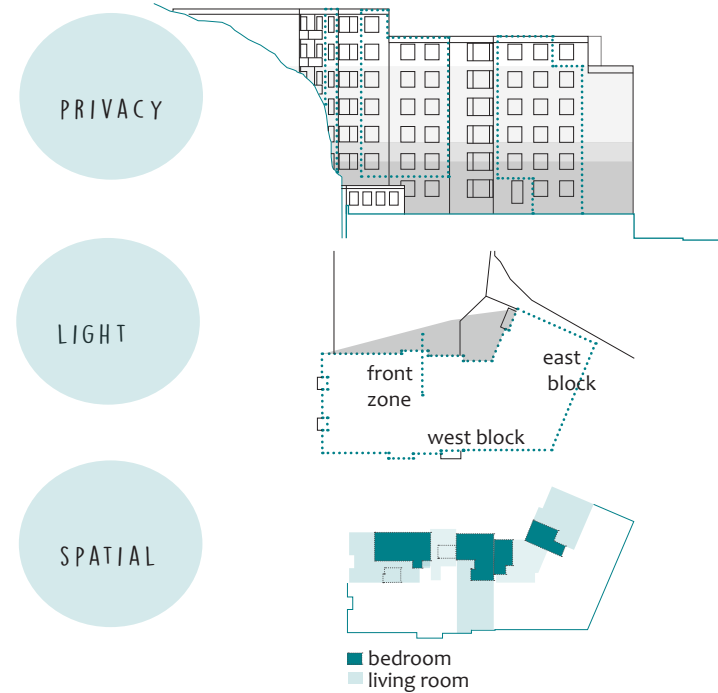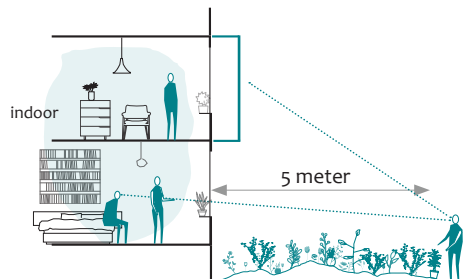
NEW ADDITIONS AS GREEN LAYERS

The new construction is added on the facade in order to provide the privacy level on the border between semi public and private. These new additions create an extra filter in room scale, while serving as a flexible space for residents to connect themselves to the border. By designing this zone with green elements, they can arrange their flowers, sit and watch the courtyard, store their books.

This 60cm wide modules are considered as a lightweight structure with transparent panels that encourages to sustain visual connection to the courtyard. The floor surface of the volume is designed as a transparent as well in order to not to obstruct light to reach the facade underneath.

0 0.6M 1.2M 2.4M 4.8M

This section is showing the 'inward parts' of the apartments, meaning the most private spaces, in this occasion the bedrooms. The new additions, put on facade, act like a filter through which residents can regulate the connection to the semi-public outdoor space. This provides them with the ability to relate in a more protected way with the outside, by connecting them indirectly with the courtyard.

0 0.6M 1.2M   2.4M   4.8M

chapter 5
CONCLUSION

Discussion
Reference
Appendices

CONCLUSION

This master thesis lies on investigating the borders between public - semi private and private including human dimension through senses and feelings. By regulating privacy levels another layer of communication is introduced on the site . In this way, the thesis is connected to the social sustainability in a larger scale.

With the theme of levels of privacy as a point of departure, the project is an example of how to deal with border issue in renovation concept, in order to increase the architectural and spatial qualities in a specific site.

Every intervention in the renovation projects, brings up the questions of how to deal with waste and how a new design can support its cost. Therefore, our approach was focused in doing small gestures that achieve a big effect to the public and private relations, by creating an intermediate level of communication. Within the outcome users have an opportunity to meet and socialize in the entrance corridor and the courtyard with various activities. Those spaces are not only inviting users physically but also visually. The interventions on the facade give a chance to residents to extend their home towards the courtyard .

A person needs a balance between his private zone and social interaction, since both restraining parts of his personal life and socializing are important psychological needs (Madanipour, 2003). We believe that this way of dealing in the border of public and private can also change the usage behavior of dwellers, they have the desire to socialize and prefer to communicate in their everyday life.

What we did was to make a story, by establishing a bridge between problematic spaces and theory. In order to link our analysis of project site and the literature, we defined architectural tools that act as binders between the two. In that way, we limited ourselves into maximum three tools. The outcome stands as one possible solutions out of a variety of different alternatives. Nevertheless, the way of thinking applied in the design could possibly be used to structure other projects.

What we learnt in this process is how to research on one subject in a limited time, and structure our work in order to take the most crucial parts and incorporate them into a specific project.

REFLECTION

Our approach mainly examines the borders between public and private with a strong connection to theoretical background by defining tools and implementing them by through an example on this specific site. The schedule for the past four months has been very tight in order to result in connecting theory to a detailed design proposal.

We see our design as a composition of ideas nourished from theories and the design solution is considered as a showcase, rather than a concrete final architectural design. Despite of our satisfaction regarding the project, the design is a subjective issue and it could vary according to the use of different tools, approaches through a budget. This project stands as one possible solution to the problems faced in the specific site.

We are aware of the fact that the design proposals are not so well detailed since both of us were interested in taking a role in researching part as seeing this thesis as a last opportunity during our studies to deepdive in research. Therefore, in our time-schedule we preferred to give more attention to research and how to tie it with problematic spots, in order to answer the needs.

In the beginning of our project, we had a vision of creating better spatial solutions for the interior planning of the building. This intervention was conflicting to the need of accommodation in Göteborg and also the budget that is usually disposed for renovations. Besides that this approach as a big impact to the environment through the production of building waste.

Integrating users to the project could be done through the participation method, nevertheless this takes a lot of time and a thorough organization plan is needed in order to support a process that does not bother users and owners since it is not the real project. Moreover an language barrier could limit us to communicate only younger people.

The spatial organization of the existing plans is composed by the rhythm of bedroom and living room in a row through the facade. This situation does not allow us to create additional volumes that could bring a communicative environment, connected to different apartments on facade. Nevertheless, this could happen in another project site.

REFERENCE LIST

American Heritage® Dictionary of the English Language, Fifth Edition, 2011. *The free Dictionary by Farlex*.[online] Available at: <http://www.thefreedictionary.com/privacy> [Accessed 22 April 2015]

Altman, I., 1975. *The Environment and Social Behaviour: Privacy, personal space, territory, crowding*. Monterey, California: Brooks / Cole

Bachelard, G., 1958. *The Poetics of Space*. Translated from French by M. Jolas, 1964. Boston: Beacon Press books

Bell, P. A, Fisher, J. D. and Baum, A., 1996. Environmental psychology, 4th edition. Fort Worth: Harcourt Brace College Publishers.

Bugl, R., Leimgruber, C., Huni, G. and Scholz, R., 2009. 'Sustainable property funds: financial stakeholders' views on sustainability criteria and market acceptance. Building Research & Information. Vol. 37, No. 3, (pp. 246–263).

Day, C. (2004). Places of the Soul: Architecture and Environmental Design as a Healing Art (2nd ed.) Architectural Press : Oxford, UK.

ECO - EMPLEO, 2011. *Executive summary: Job creation in building renovation and energy efficiency improvement*. [pdf] ECO - EMPLEO. Available at: < http://www.istas.ccoo.es/descargas/Resumen_Ejecutivo_Rehabilitacion_y_Empleo_ENG.pdf> [Accessed 20 April 2015]

Epstein, R. (1998). Principles for free Society: Reconceiling individual Liberty with the common good, Perseus Books: Reading MA

Gehl, J. (2010) Cities for People. London: Island Press

Gehl, J. (2011) Life between Buildings London: Island Press

Gidlöf-Gunnarsson A, Ögren M, Jerson T, Öhrström E., 2012. Railway noise annoyance and the importance of number of trains, ground vibration, and building situational factors. Noise Health 2012;14:190-201

Hall, E. T. (1990) . The Hidden Dimension. Gardencity : NewYork

Jonge, D. D. (1967-68). Applied Hodology. Landscape 17/2,p 10-11

Kellert, S. R., Heerwagen J. H. and Mador M. L., 2008. Biophilic Design: The theory, science and practice of bringing buildings to life. New Jersey: John Wiley & Sons

Madanipour, A., 2003. *Public and Private Spaces of the City*. Abingdon and New York: Routledge

Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. Journal of Environmental Psychology, 24(4)

Meijer. F, Itard. L and Sunikka-Blank. M, 2009. Comparing European residential building stocks: performance, renovation and policy opportunities. Building Research & Information. Vol. 37, No. 5-6

Nagel, T., 1998. 'Concealment and Exposure', *Philosophy and Public Affairs*, Vol. 27, No 1 (Winter 1998)

Parent, W.A., 1983. A new definition of privacyfor the law, Law and Philosophy, Vol 2, New York: Raider Publishing Company

Psillidis, A., 2006, *The Dipole Public - Private: Classic Approaches*

Sennett, R., 1976. The Fall of Public Man, Cambridge: Cambridge University Press

Young, 1997. A source of information. In: Johansson, H. & Saarikangas, K. (eds.) 2009. Homes in Transformation: Dwelling, Moving,Belonging. Helsinki: Suomalaisen Kirjallisuuden Seura.

Appendicies

Sequence Analysis

One who walks from Stigbergstorget to Bangatan or gets of the Fjällgatan tram stop can easily reach the building. One of the first thing when a person sees the building from street level on west side, both two corners is reserved for shops.

1   The shop on south side, has a direct access from the street and a limited interaction with the south facade, where the sun soaks into the building and beautiful green exists. This obscure space extends towards its pitch-black storage downstairs where there is no possibility for sunlight to come in.

2   The shop on the north, which is used as a secondhand bookshop today, has a better lightning condition since its darker part is almost half on that level, but for us it is still ponderous.

3   Moving away from the north shop, one can see door attached to the entering facade, near the main entrance, used as a bicycle storage. Also, next to that space, there is another mysterious door opens which leads through a narrow staircase to the cellar.

4   The entrance of the building for the apartments might be described as quite hidden and not welcoming; but like the other two shops it is directly linked to the street level and easy to reach.

4

scale 1/500   N

5   7
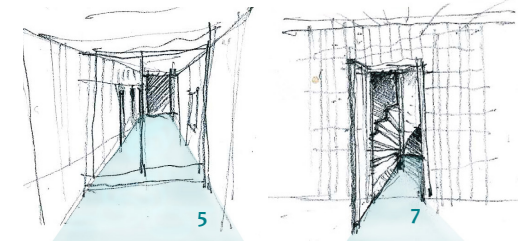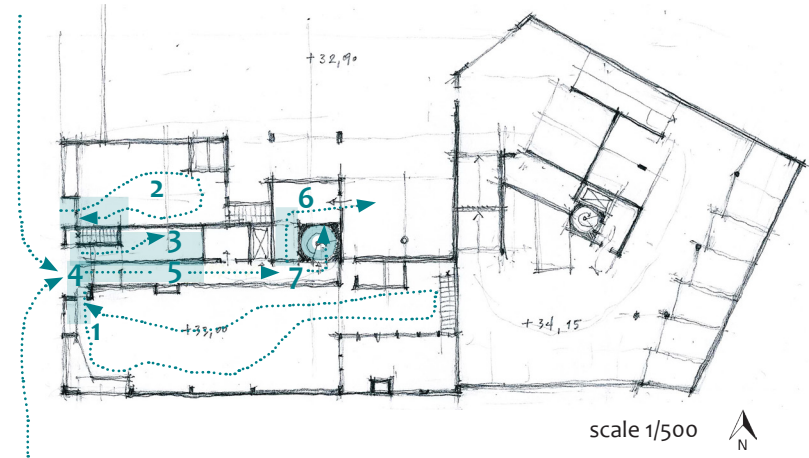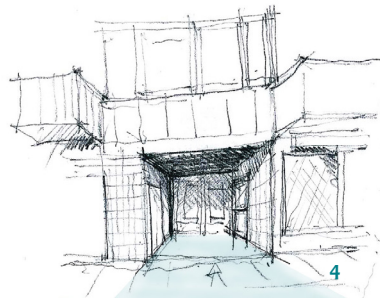
5   Entrance opens dreary, narrow and long corridor that leads nowhere.

6   After one passes the elevator he can find a door that links to the private garage which is located between the street and the other garage serving the next building block.

7   But if one doesn't open that door and continues through until the end of the corridor, he finally reaches the round staircase behind the solid wall. The quite hidden staircase can be a good space saver on spatial planning but not a good vertical connecting element for users in terms of orientation and pleasure.

8   When one pursuits the spiral staircase, he reaches to the upper floor and finds himself in another corridor where five apartments enter from.

8   8

scale 1/500
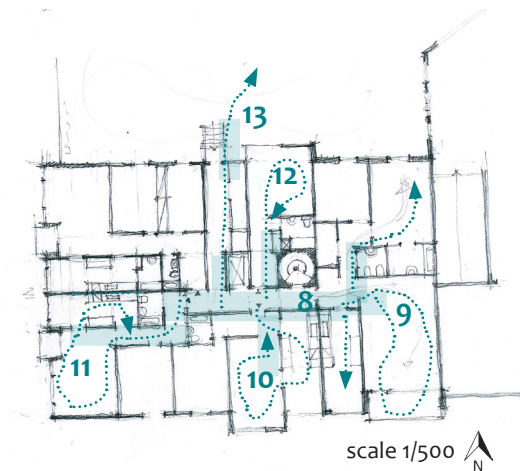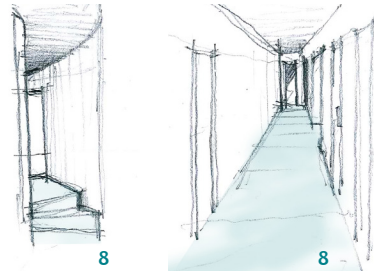
9   The closest apartment , for us the best apartment in this plan, is the 3 room apartment that extends from south to north. When one enters the home and passes the entrance hall, he finds himself in a living room which opens itself to the garden view linked with a balcony on the south. One can hear the bird-songs or see the green just sitting in his sofa maybe reading his favorite book. The narrow kitchen attached to the same side of the living room by having the same view. A person who continues towards the bedrooms on north facade, understands that bedrooms are more private and quiet, since the courtyard is not effectively used. From the bedroom window, very limited light comes in but in terms of visual connection, user can easily see the living rooms from the opposite building. The volumes of the toilet and bathroom, situated in between living room and bedroom, makes it hard to move between each other, so that regulates privacy level in the house. 10 The attached house to this 3 room apartment, is 2 room apartment which has similar space qualities with its kitchen and living room. The only difference is that there is no balcony in connection to the living room. Nevertheless, there is an intention to get close to the garden outside, by shifting its space towards south.

11   Proceeding through the corridor, one reaches the houses on west side. For us these houses are the less private ones in the building. When one enters the house in this case, he is received by the narrow corridor again and finally reaches the living room with a street view. This living room is attached to the kitchen confronted with the noise from the street and the tram line.

12   In the same level, there is a 1 room house, which directly looks to the courtyard and has a very poor daylight condition. There is also no proper kitchen in this house .

13   While a person continues towards the corridor, this intersects with another one, which reaches a door opening up to the courtyard. This way of entering the courtyard is very hidden and private.

14   There is an another entrance for the other building which users encounter on +39.00 level.

15   When one enters the building, finds three different corridors (due to fire regulation). After passing the laundry space towards the west corridor, the route opens up to an apartment on the north side (former offices).

16   The east corridor is the main access space which is linked to storage rooms one level down. The corridor meets the elevator and leads to a 2 room apartment.

scale 1/500
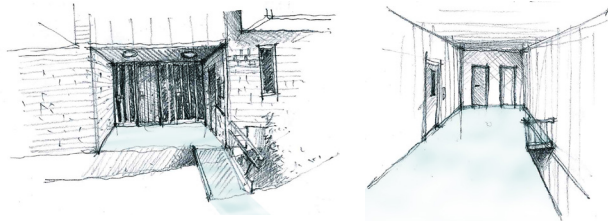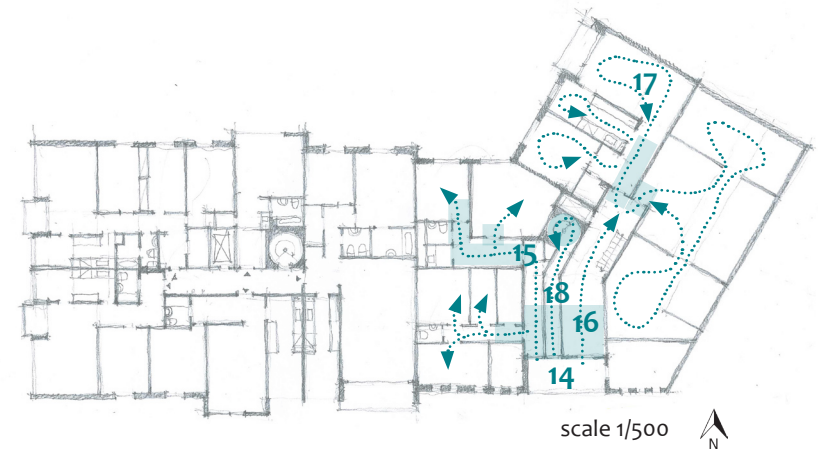
17   Although the 2 room apartment is locates near the rocky hill, it doesn't have an interaction or visual communication with it, because the in between space is filled with concrete. All spaces in this apartment have a visual connection with the courtyard and especially the living room approaches the courtyard with a balcony. Unfortunately, overall, this two room apartment can not catch the direct sun easily. In the morning, the sun rises behind the rocks so that the apartment only gets its shade and because of the long distance it is hard for the sun to reach this space in wintertime, the space gets light from north.

18 The middle corridor, is the darkest corridor and leads to the round staircase without contacting with any other spaces and links itself to the upper floors. Today, owing to its being very unfriendly and narrow, nobody prefers to use it.
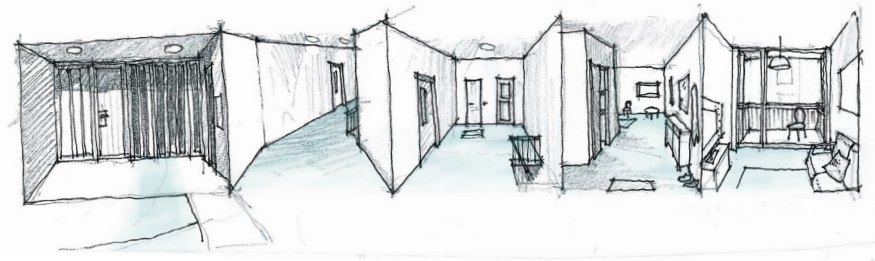
19   When reaching the 3rd floor, one can see that the east block's floor hosts five apartments, while the apartments in the west block continue as the floors below.

20   First apartment on north side carries the same qualities with office/apartment space, one floor below .

21   The 2 room apartment on south side, opens up with a long hall from the circulation corridor. Space is divided by a series of horizontal walls. Therefore all rooms are narrow. At the balcony the user has an opportunity to come closer to green elements, without leaving his home, merged with living room.

22   The apartment in the corner of the south facade carries the same architectural qualities as the other before. Since the building extends through the rocky mountain, spaces are defined according to the building form. One room in this building looks the backyard garden.

23   The apartment in the corner is one of the most private ones in the block since the backyard garden is not used very often. Furthermore, the slope and trees on the backyard hide these apartments. The spaces get sunlight in the early morning and become dark during afternoon.

scale 1/500