

TO COMBAT LONELINESS
A search for urban togetherness

Lovisa Einarsson
Chalmers University of Technology
Department of Architecture and Civil Engineering
Matter Space Structure Studio
Examiner: Morten Lund
Supervisor: Cecilia Oldenqvist



CHALMERS
UNIVERSITY OF TECHNOLOGY

Master Thesis in Architecture and Urban Design
Spring 2020
Chalmers University of Technology
Department of Architecture and Civil Engineering
Matter Space Structure Studio
Examiner: Morten Lund
Supervisor: Cecilia Oldenqvist

TO COMBAT LONELINESS

A search for urban togetherness

© Lovisa Einarsson
lovisa.einarsson@gmail.com

Gothenburg, 2020.
All rights reserved.

CONTENT

PART I INTRO	7
Abstract	9
Student background	10
Thesis background	11
Discourse	12
Thesis question	13
Claim	13
Delimitations	14
Methodology	15
PART II THEORY	17
Placemaking	19
Elements	21
Triangulation	29
See without being seen	29
Proxemics	31
The star and the grid	35
PART III CASE STUDY	39
Observing and mapping	41
Situations	45
PART IV CONTEXT	47
Purpose	49
Preconditions	49
Timeline	51
Observing and mapping	52
Topography	53

CONTENT

PART V DESIGN PROCESS	55
Concept	56
Strategies	57
Program	57
Structure and flow	58
Design layers	61
Sitting space	62
PART VI PROPOSAL	65
Overview	66
Scenarios	70
Towards the middle	72
By the water	74
Under the tree	76
By the moat	78
In the middle	80
PART VII OUTRO	83
Discussion	85
Bibliography	86

"I remember the year eye contact stopped. It was not some big demographic shift. People just seemed to give up relating to each other. Now this town is one of the loneliest places on earth".

– Unknown

I
INTRO

(Cacioppo & Patrick, 2008, p. 199).

ABSTRACT

Loneliness is merely a human phenomenon that afflicts most of us at some point in life. Yet, it is strongly stigmatized and associated with shame. Man's strive for a sense of belonging is deeply rooted and tied to her evolutionary struggle for survival. (Cacioppo & Patrick, 2008, p. 52-72). Loneliness can be experienced during moments of solitude, or when accompanied by others. Loneliness stands out especially in contrast to a busy city and is also more common among people living in cities. (Brülde & Fors, 2015, p. 58).

Architecture itself cannot solve this complex and multifaceted issue. The aim of this thesis is to explore and illuminate what role architecture can play in this combat, by understanding the phenomenon of loneliness and its background, investigating the linkage between architectural elements and human behavior in public, urban space and subsequently, propose a design of a public, urban space that encourages social interaction. The thesis focuses on public space, simply because that is the most including of arts (architecture), accessible to all.

The first phase of the thesis mainly focuses on understanding the phenomenon of loneliness and simultaneously investigating how architectural elements shape behavior in public, urban space. This is conducted by studying relevant theoretical and built references, and through mapping and observational studies, analyzing design and human behavior.

The second and third phase of the thesis mainly focus on translating knowledge and observations gained in the first phase, into a design proposal with the intention to combat loneliness. The method is iterative, and the translation will therefore develop during the process.

Keywords: Loneliness, Urban, Public space, Social, Interaction



Figure 1: Urban loneliness. Author's own photo.

STUDENT BACKGROUND

MASTER OF ARCHITECTURE

Chalmers University of Technology
Architecture and Urban Design
Gothenburg, 2018-2020.

BACHELOR OF ARCHITECTURE

Chalmers University of Technology
Gothenburg, 2013-2016.

STUDIOS AND COURSES

Sustainable Building Competition, 2019
Housing Inventions, 2019
Urban Planning and Design Theory: Dealing with inequalities, 2019
Nordic Architecture, 2019
Matter Space Structure, 2018

PREVIOUS WORK

AG Arkitekter
Stockholm, 2016-2018.

THESIS BACKGROUND

Lonely is defined as a negative sensation evoked by isolation, where the emotional component separates the word from lone, alone or solo. (Stevenson, 2010). Loneliness can be experienced during moments of solitude, or when accompanied by others. Loneliness stands out especially in contrast to a busy city and is also more common among people living in cities. (Brülde & Fors, 2015, p. 58).

Loneliness is merely a human phenomenon that afflicts most of us at some point in life. Yet, it is strongly stigmatized and associated with shame. Man's strive for a sense of belonging is deeply rooted and tied to her evolutionary struggle for survival. Being part of a group has meant such a powerful survival benefit that hundreds of thousands of years ago, man developed strong mechanisms to seek community and avoid loneliness. (Cacioppo & Patrick, 2008, p. 52-72). Yet, between half a million and one million Swedes are considered lonely (Brülde & Fors, 2015, p. 58) and more people than ever before live alone, commute alone and eat alone (Montgomery, 2013, p. 131).

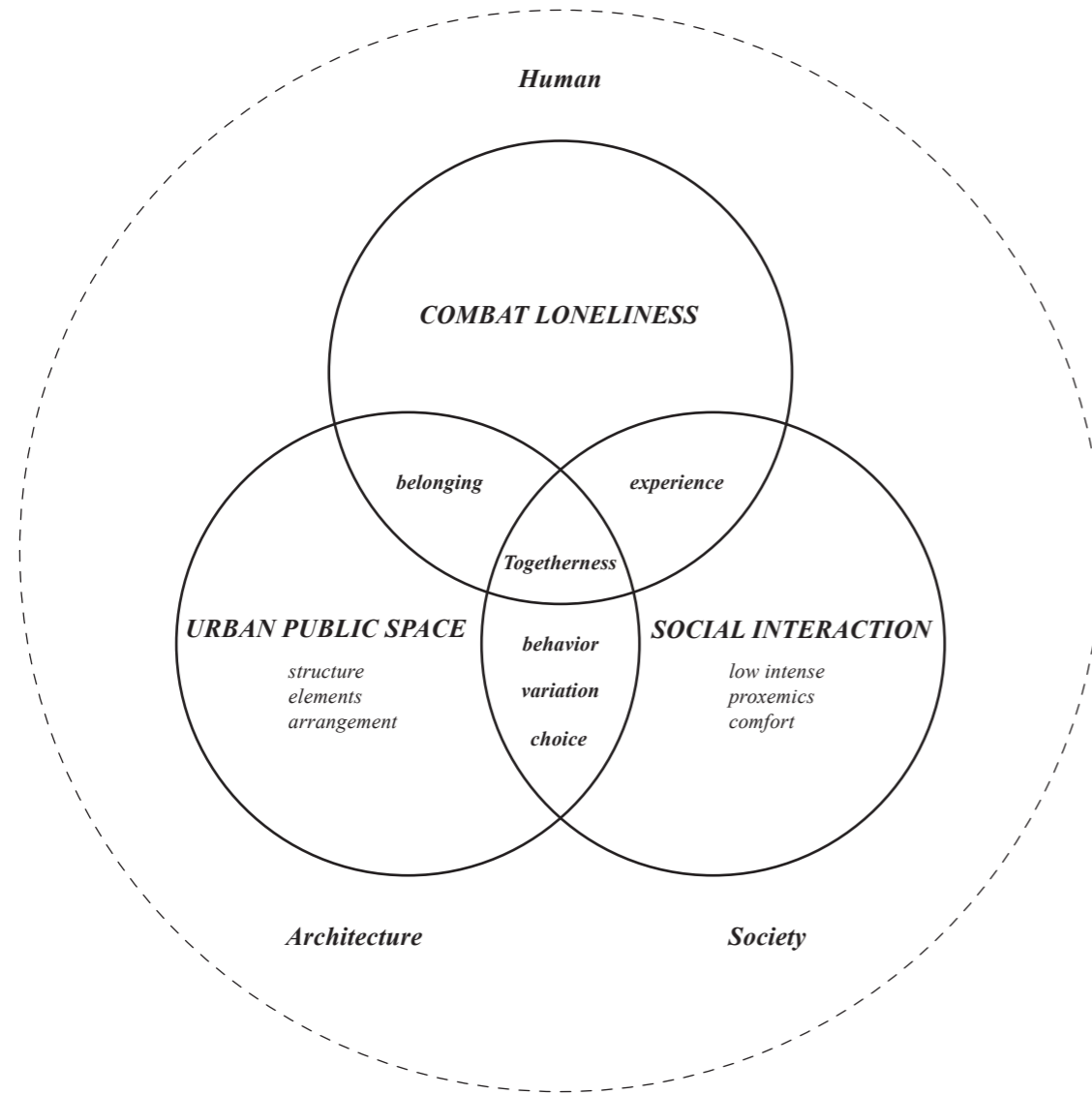
The health-related consequences of loneliness are severe. The human brain responds similar to the sensation of loneliness as to the sensation of physical pain. Prolonged experience of loneliness involves an increased risk of developing physical and mental illness, that eventually may cause premature death. (Cacioppo & Patrick, 2008, p. 5-19).

What does the extensive issue of loneliness mean to the creation of public space? It is said that architecture shapes behavior. Given that, is it possible to use architecture as a tool to combat loneliness?

DISCOURSE

THESIS QUESTION

How can architecture, and more specifically the design of an urban, public place, contribute in combatting loneliness?



CLAIM

It is said that architecture shapes behavior. Given that, the claim of this thesis is:

Through the design of public urban space, togetherness can be encouraged and loneliness combated.

The aim of this thesis is to explore and illuminate what role architecture can play in this combat, by understanding the phenomenon of loneliness and its background, investigating the linkage between architectural elements and human behavior in public, urban space and subsequently, propose a design of a public, urban space that encourages social interaction. The thesis focuses on public space, simply because that is the most including of architecture, accessible to all.

DELIMITATIONS

This thesis is not about solitude, it is about loneliness. The word lonely is defined by the negative emotional component that separates the word from lone, alone and solo.

The aim of this thesis is not to make strangers become best friends. In fact, only to be around, watch and hear other people can cure the worst feeling of isolation. This is a low intense form of social interaction. The intention is to make people feel comfortable and experience a sense of belonging, which is a prerequisite for social contact. (Montgomery, 2013, p. 126-140).

Loneliness is not geographically restrained, but research show that it is more common among people living in cities (Brülde & Fors, 2015, p. 58), which is why an urban context is chosen for this thesis and its design proposal.

Regarding the site and its context, social values are prioritized rather than historical values during the design process.

is about

is not about

loneliness

solitude

urban

rural

public space

residential architecture

physical space

digital space

health

social space

low intense interaction

high intense interaction

human behavior

social values

historical values

safety

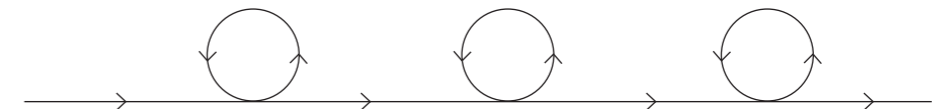
METHODOLOGY

PHASE 1: COLLECT AND EXPLORE

Collect knowledge and prepare toolbox by studying theoretical and built references and simultaneously testing and verifying these theories on existing sites by mapping elements and behavior. This phase uses both a research for and research by design approach to build knowledge and understanding.

PHASE 2 AND 3: EXPLORE AND PROPOSE

Use the knowledge and toolbox to translate the theories into design in a certain context. Iterate the design into one final design proposal. These two phases are mainly research by design driven.



II
THEORY

PLACEMAKING



Figure 2: Ira Keller Fountain (O'Brien, 2018).

A prerequisite for social interaction is physical proximity. To be at the same place. Therefore, a starting point for this thesis is to investigate what makes a place attract people. The intention is to detect what elements and layouts make people feel comfortable and want to stay in a certain place and subsequently interact.

People perceive and process the environment in order to understand the opportunities for action or behavior that are supported within that environment. Therefore, the layout of a space and its elements may encourage certain actions or behaviors and discourage others. (Flanders Cushing & Miller, 2020, p. 22-27).

In the project *The social life of small urban spaces*, urbanist William H. Whyte, studies human behavior in relation to architectural and natural elements in an urban context and emphasizes the importance of casual human contact in public space. In the following section a selection of his theories is presented.

ELEMENTS

SUN, WIND, WATER AND TREES

Sun and wind are natural phenomena that cannot be commanded, but designers can control orientation, building heights, materials, placement of seating and trees et cetera, to create the best conditions possible. People actively seek sun and suntraps with absence of wind. When given the right conditions, people sit in remarkably numbers even in quite cold weather. The more northern the latitude, the more ardently they do so. Small spaces enclosed on three sides function well. People are often found sitting or leaning in niches and crannies.

South oriented plazas are preferable, but complementary places in shadow or semi-shadow form important interruptions during hot sunny days. For example, places in shade of the foliage of trees. The foliage provides a pleasant combination of shade and sunlight. (Whyte, 1980, p. 40-47).

The fact that human well-being and exposure to nature have a connection is well known and research in this field has increased exponentially in recent years. Nature is essential for a healthy human habitat and exposure should be part of every person's daily routine, especially in an urban context. Even small doses of green make a difference. (Montgomery, 2013, p.108-125). Preferably, trees should be placed in close proximity to sitting spaces. All too often trees are wired or fenced, which cuts us off from nature. Optimal is when trees are accessible to touch and feel. When touching a tree, it secretes a defense substance that triggers the human immune system which increase the entire well-being (SVT, 2019).

The same goes for water. People like water in all forms: waterfalls, fountains, ponds, meandering brooks et cetera. What is important is that the water is accessible. More senses than vision should be activated. The sound of water has a soothing effect on humans, and it can also mask intermittent noise, for example from traffic. Furthermore, it may mask conversations between people and create a feeling of privacy. (Whyte, 1980, p. 47-48).



Figure 3: Freeway Park (Freeway Park Association, 2019).

Project: Freeway Park
Architect: Lawrence Halprin
Year: 1976
Location: Seattle, Washington, US
Inspiration: Landscaping, water design,
inherent sitting features

ELEMENTS

SITTING SPACE

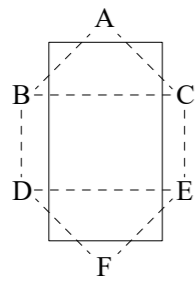
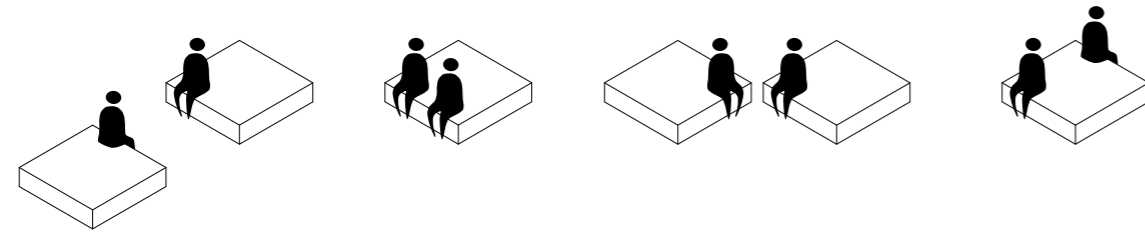
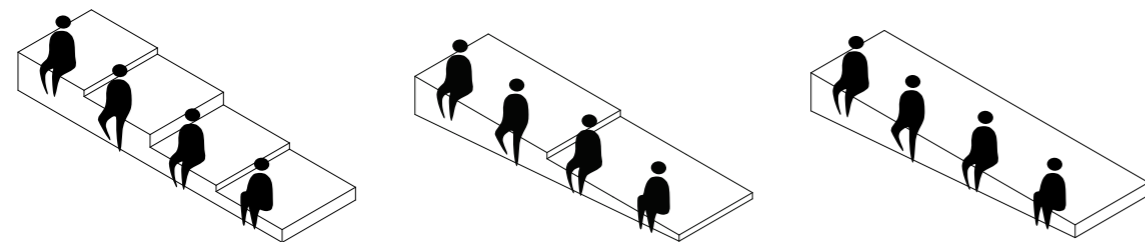
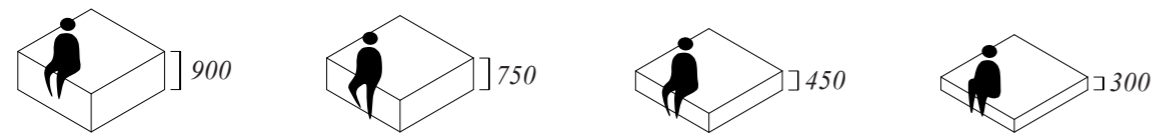


Figure 4: Table conversations

A-B twice as frequent as C-E
 C-E three times as frequent as E-D
 A-B six times as frequent as E-D



*terraced sitting space
flat ground*

*terraced sitting space
sloping ground*

*flat sitting space
sloping ground*

Sitting space must be physically and socially comfortable. Socially comfortable means choice and should be built into the design. Choice is achieved by offering a variation of sitting space in regard to location, constellation and arrangement. Location means where on the site the sitting space is placed; up front, to the back, by the side, in the sun or in shade et cetera. Constellation means sitting in groups or off alone. Arrangement means how to sit in relation to other people; face to face, side by side, back to back or perpendicular. (Whyte, 1980, p. 24-39)

The most preferable seating arrangement to promote conversation is to sit perpendicular to one another (Figure 4). This position enables eye contact, but also gives a natural opportunity to break eye contact when needed. The confrontational face to face arrangement does not allow for the same natural pause. (Hall, 1966, p. 108-111).

Seating can be added later on to a design, but according to Whyte, it is preferable to maximize the ability of sitting on inherent features. For example, making ledges sittable or build seating into the inclination of the landscape as terraces. Steps give the perception of choice and offer good views from all seats. Although optimal sitting height is 450 millimeters, people tend to use inherent sitting features from about 300 to 900 millimeters and even lower or higher given certain circumstances. If people are to sit comfortably in a back to back arrangement, the minimum depth of the seating is approximately 800 millimeters.

People are most likely to sit where the pedestrian flow bisects sittable space. If the flow between street and plaza is easy and unobstructed, people are more likely to move between the two and subsequently tarry and sit. (Whyte, 1980, p. 24-39)



Figure 5: Pioneer Courthouse Square (Papadopoulos, 2011). Adapted with permission.

Project: Pioneer Courthouse Square
Architect: Willard Martin
Year: 1984
Location: Portland, Oregon, US
Inspiration: Inherent sitting features,
steps, landscaping

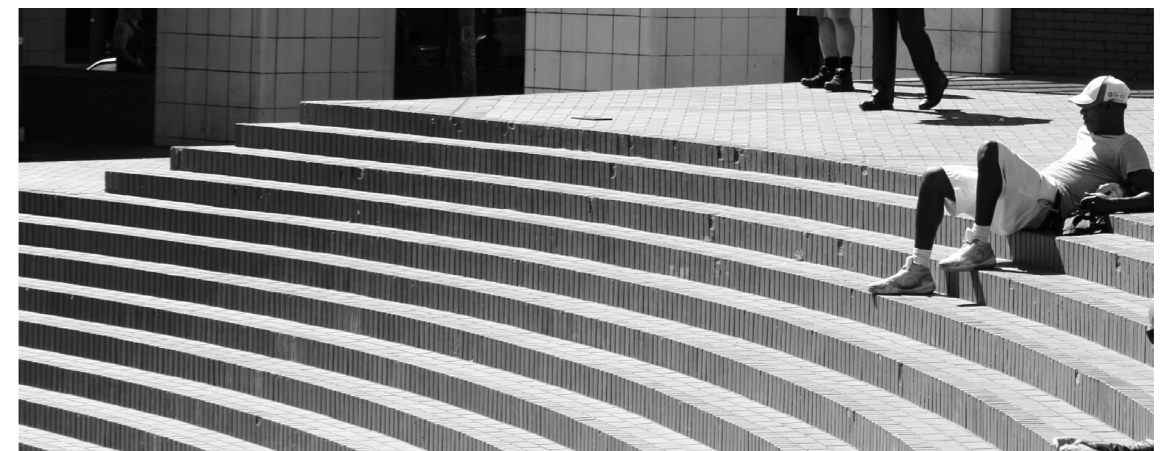


Figure 6: Pioneer Courthouse Square (McCord, 2014).



Figure 7: Ira Keller Fountain (Snyder, 2011). Adapted with permission.

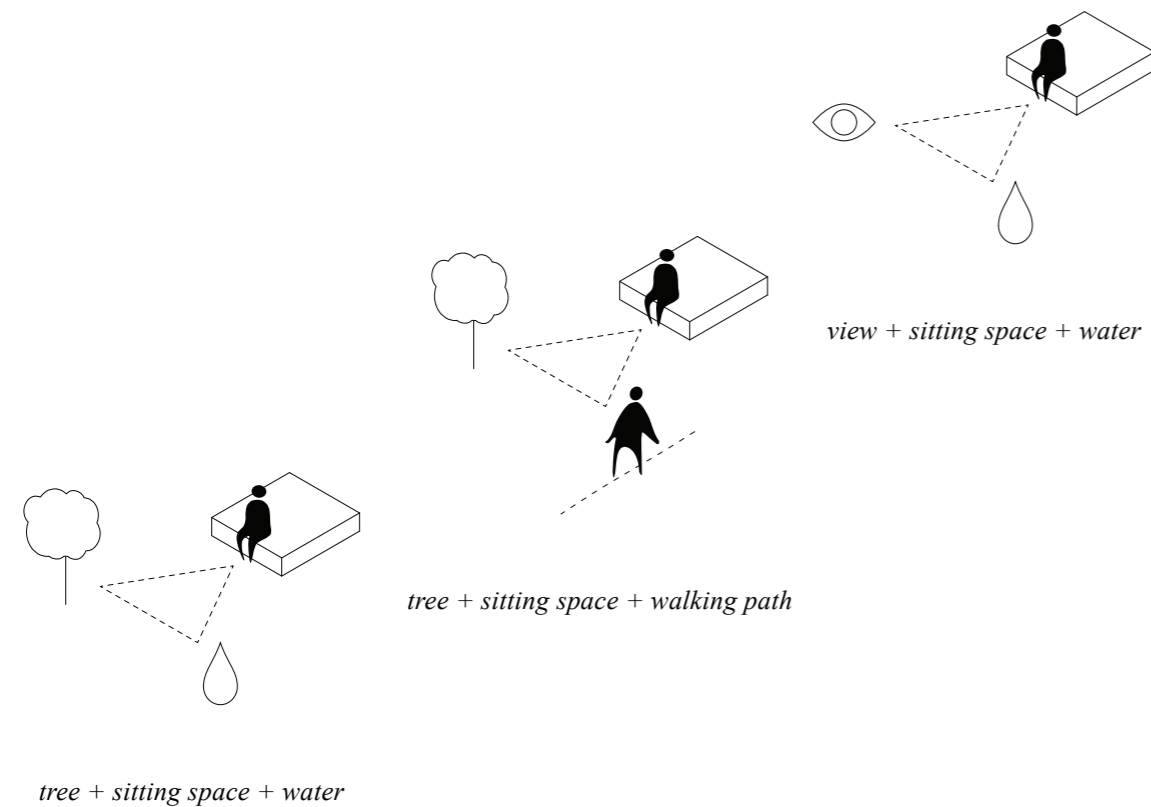
Project: Ira Keller Fountain Park
Architect: Lawrence Halprin
Year: 1971
Location: Portland, Oregon, US
Inspiration: Landscaping, water design,
inherent sitting features



Figure 8: Teikyo Heisei University Nakano Campus (Hiroki Hasegawa, 2013). Adapted with permission.

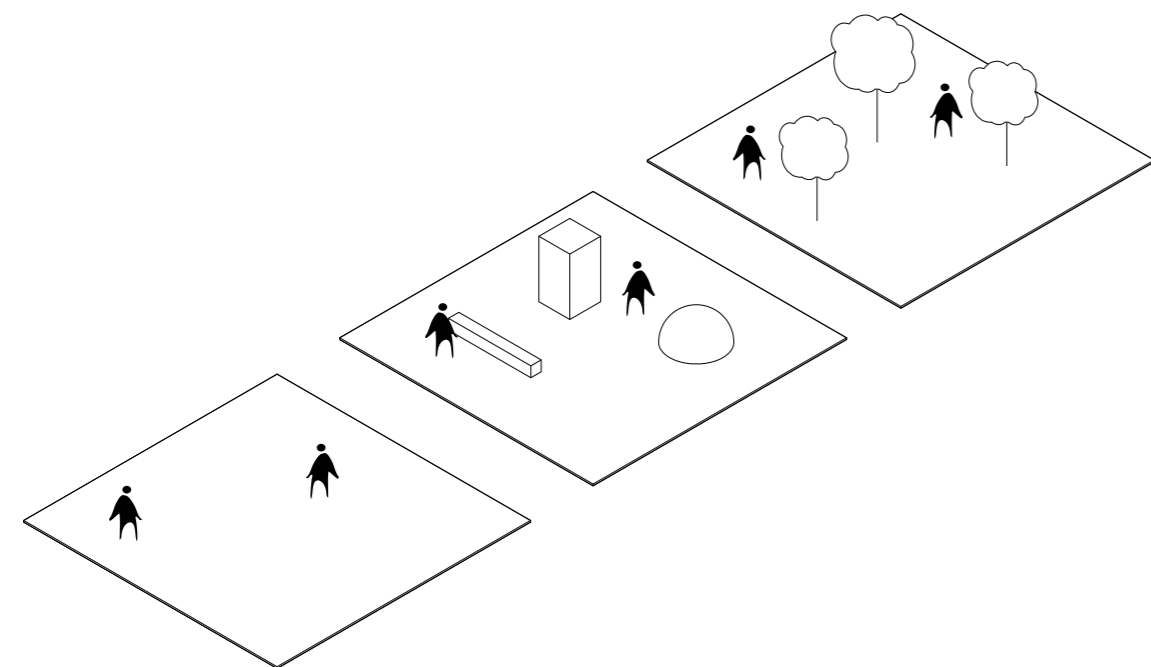
Project: Teikyo Heisei University Nakano Campus
Architect: Hiroki Hasegawa
Year: 2013
Location: Tokyo, Japan
Inspiration: Inherent sitting features,
relation to trees

TRIANGULATION



”Triangulation is the process by which some external stimulus provides a linkage between people and prompts strangers to talk to other strangers as though they were not.” The stimulus can be a physical object or sight. In other words, architectural elements may serve as “ice-breakers” and promote social interaction. Whether the triangulation process is set in motion or not, is determined by the choice and arrangement of different elements in relation to each other. (Whyte, 1980, p. 94-101). Triangulation can also occur on a larger scale. For example, if a children’s book section in a library, a playground and a café are located adjacently, more activity will surround these spaces than if they were sited separately. The elements become more than the sum of their parts. (Project for Public Spaces [PPS], 2018, p. 101).

SEE WITHOUT BEING SEEN



The prospect and refuge theory is one of the most well-known environmental preference theories and has since geographer Jay Appleton published it in 1975, significantly influenced the design of urban space. (Flanders Cushing & Miller, 2020, p. 22-27).

People prefer places where they have the possibility to survey their surroundings while also being protected. Places with both prospect and refuge conditions are perceived as safe and comfortable to explore and inhabit. The prospect and refuge theory is based on evolutionary studies, reasoning that such conditions have increased human’s probability of survival, since they make it possible to anticipate threats and opportunities and therefore protection from harm. In the urban landscape, the choice and arrangement of elements must be carefully considered in order to attain these conditions. (Appleton, 1996. p. 70-80).

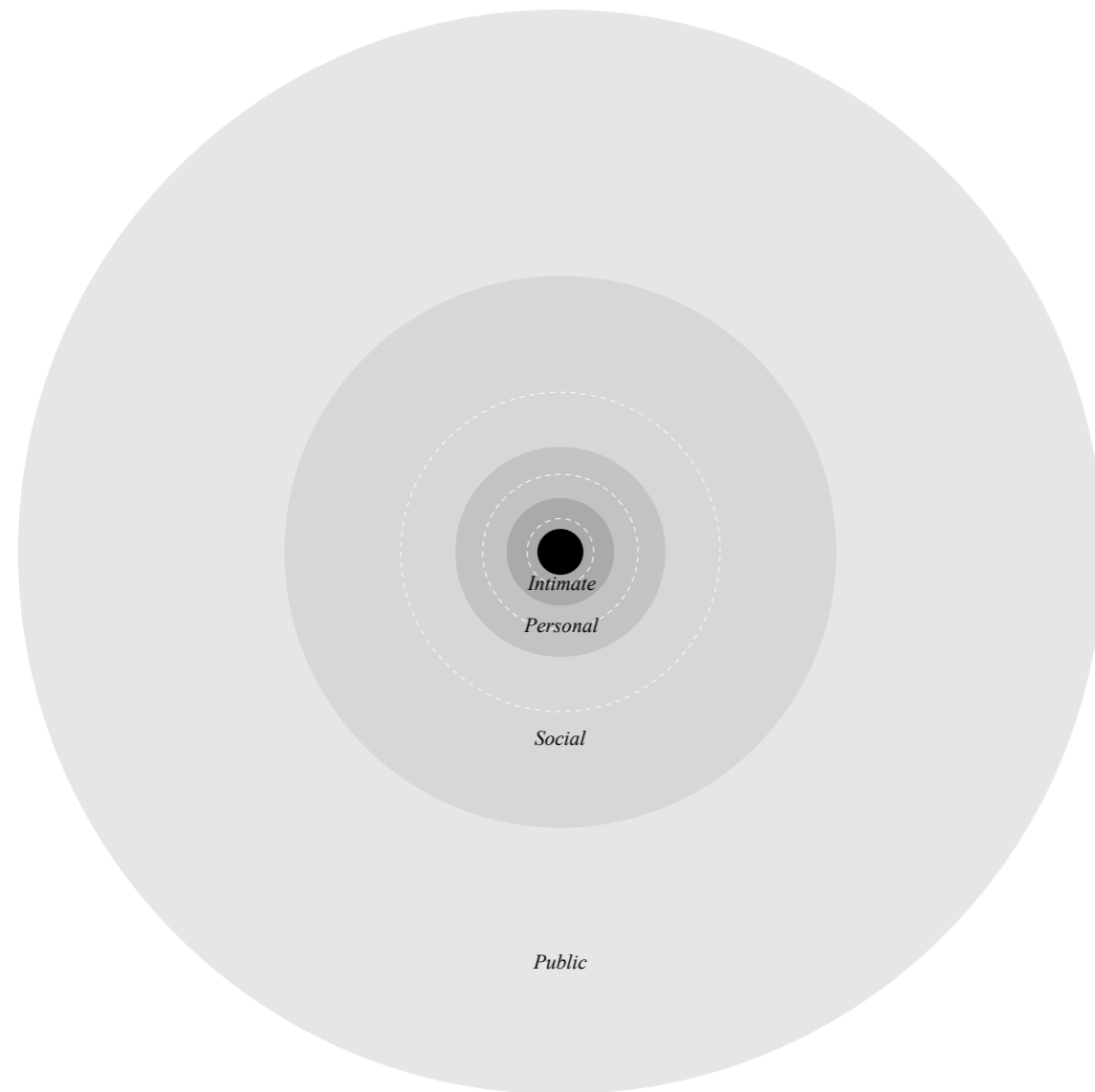
PROXEMICS

Proxemics is the study or interpretation of man's use of space and the effects physical proximity between people and objects has on behavior, communication and social interaction. The study of proxemics stretches throughout the whole spectrum of architecture, from furniture, to walls within buildings, to buildings themselves and ultimately to layouts of entire cities in which these buildings are organized. The term was coined by anthropologist Edward T. Hall in 1963.

According to Hall, there are three different types of space; fixed-feature space, semifixed-feature space and informal space. Fixed-feature space has immovable structures that determine distances between people, while semifixed-feature space has movable structures which enable alteration. The distance surrounding a person constitutes the informal space. Informal space is the relative distance between people or objects and is divided into four zones; intimate space, personal space, social space and public space. (Hall, 1966, p. 101-112).

It is the relationship between people and the situation that determines which distance is appropriate to keep. For example, the small distance between strangers in a crowded elevator is acceptable due to the situation, but it would be inappropriate to keep the same distance after a few people have stepped out of the elevator.

Understanding the subtle physics of sociability is crucial. Human density and crowding are not the same. Density is a physical state, whereas crowding is a psychological and subjective experience. A person needs to have the possibility to moderate the contact with other people to feel socially comfortable. Pushing people together physically, actually pushes them apart socially. (Montgomery, 2013, p. 108-141).



Intimate

*Close phase 0-0,15m/far phase 0,15-0,45m
Interaction between people who share a strong bond.*

Personal

*Close phase 0,5-0,8m/far phase 0,8-1,2m
Interaction between good friends and family.*

Social

*Close phase 1,2-2m/far phase 2-3,7m
Interaction between acquaintances and colleagues.*

Public

*Close phase 3,7-7,6m/far phase 7,6-
Interaction between people whose only association is being in the same place at the same time.*

(Hall, 1966, p. 113-129)



Intimate distance close phase



Intimate distance far phase



Social distance close phase



Social distance far phase



Personal distance close phase



Personal distance far phase



Public distance close phase



Public distance far phase

THE STAR AND THE GRID

Hall and psychologist Humphrey Osmond describe two major systems for patterning space, the sociopetal or radiating star design, and the sociofugal or grid design.

"The grid separates activities by stringing them out, whereas the star can integrate several activities by arranging a system in which activities flow in and out from a series of interlocking centers. Each pattern therefore promotes certain kinds of behaviors and discourages others". (Harrison-Pepper, 1987, p. 95).

A waiting hall at an airport or train station are typical sociofugal spaces, whereas a café or restaurant are examples of sociopetal spaces. Washington Square Park is a large scale example, and since it is situated within the sociofugal grid of New York City, its sociopetal design is even more significant.

In the dissertation *Drawing a circle in the square*, Sally Harrison-Pepper investigates the design of Washington Square Park and the effects it has on people's behavior.

The walkways create a funnel into the park, directing the pedestrian flow towards the center. Additionally, the curved walkways present circular choices of movement and encourage a spiralled route towards the center. The center is from where both space and social life are generated, radiating towards the edges of the park. The further away from the center, the lower level of action and intensity. This gradient of activity can be divided into zones that produce a pattern of concentric rings.

The active center of the park and the decreasing intensity of its surrounding zones make the sociopetal design both centrifugal and centripetal. Visitors are alternatively attracted towards and repelled from the center. (Harrison-Pepper, 1987, p. 95-99).

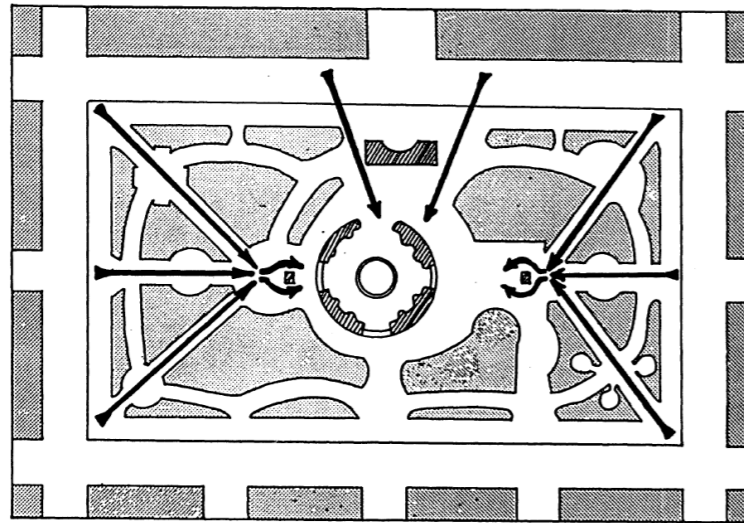


Figure 9: The funnel effect (Harrison-Pepper, 1987, p. 85).

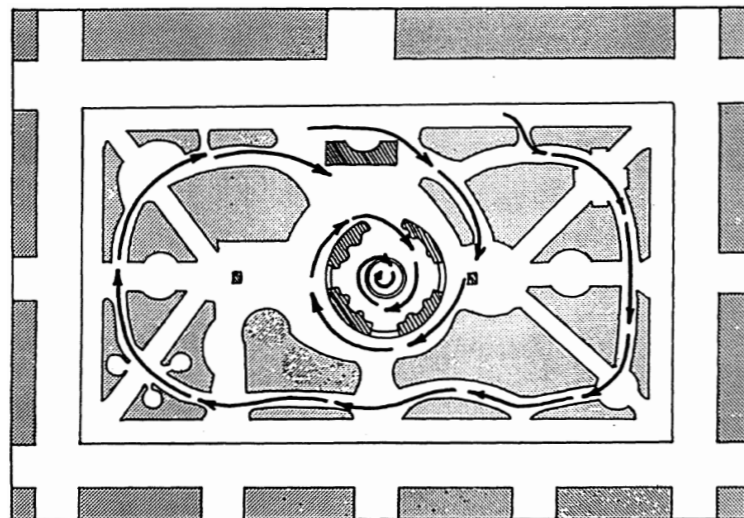


Figure 10: The spiral effect (Harrison-Pepper, 1987, p. 86).

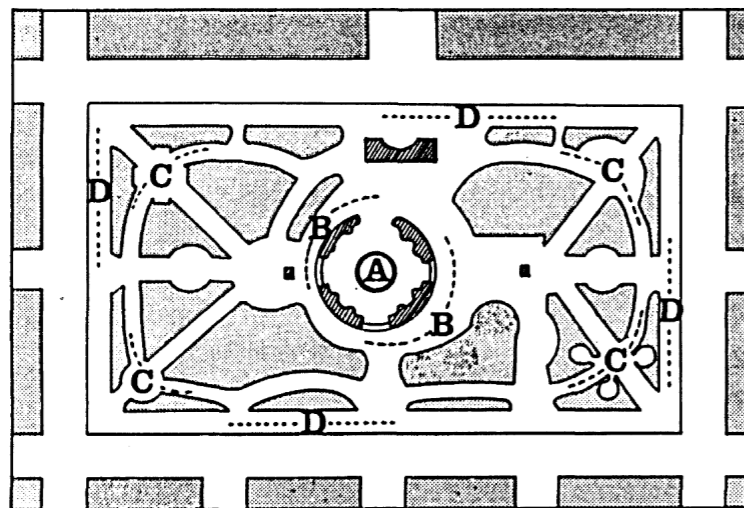
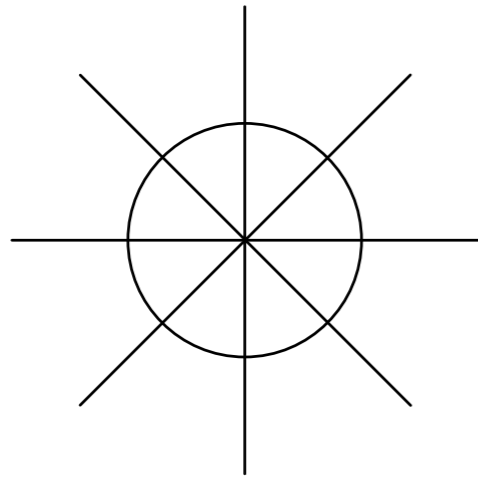
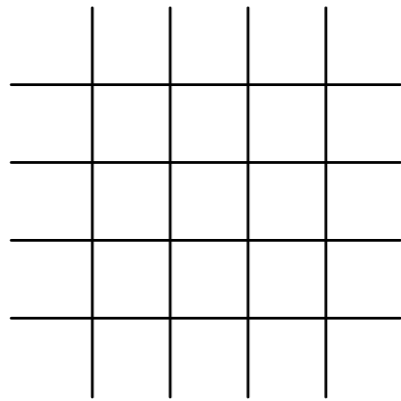


Figure 11: The concentric ring effect (Harrison-Pepper, 1987, p. 97).



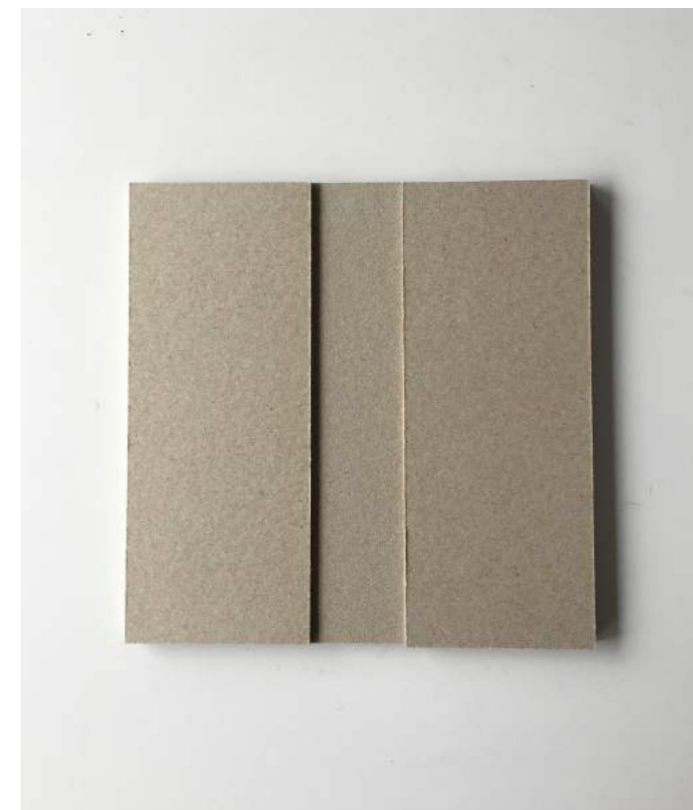
Sociopetal space brings people together and encourages interaction.



Sociofugal space keeps people apart and discourages interaction.



Interpretation of sociopetal space.



Interpretation of sociofugal space.

III
CASE STUDY

		<i>MASTHUGGS-TORGET</i> 12:20-12:35	<i>JÄRNTORGET</i> 13:00-13:15	<i>OLOF PALMES PLATS</i> 13:20-13:35	<i>GUSTAF ADOLFS TORG</i> 14:15-14:30	<i>GÖTAPLATSSEN</i> 14:55-15:10	
E L E M E N T S	<i>SEATING</i>			 <i>integral seating: podium, steps</i>	 <i>integral seating: statue, steps</i>		
	<i>TREES</i>						
	<i>SCULPTURES</i>						
	<i>WATER</i>		 <i>direct access: no</i>			 <i>direct access: no</i>	
	<i>SHADE</i>						
	<i>SCALE</i>						
	<i>AREA</i>						
B E H A V I O R	<i>STAYING</i>	singles					
		duos					
		groups					
	<i>MOVING</i>	singles					
		duos					
		groups					

OBSERVING AND MAPPING

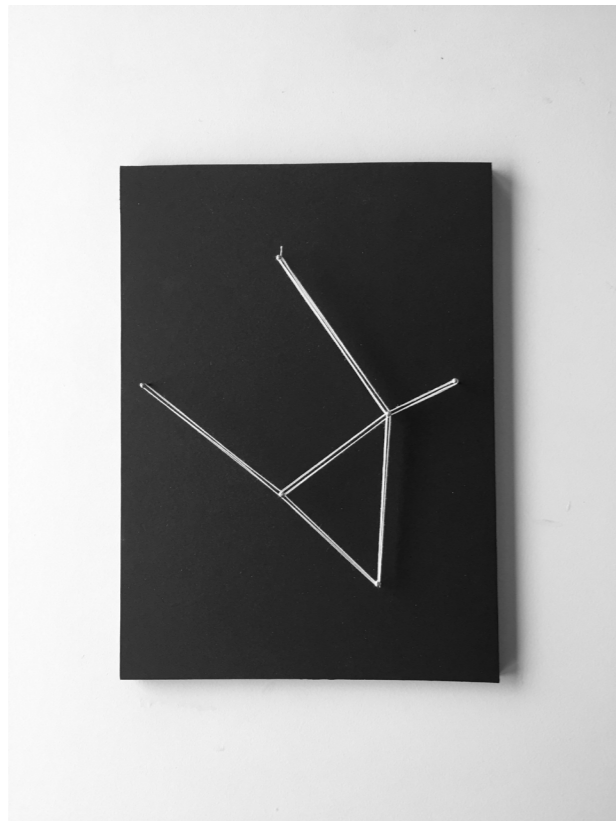
The theories mentioned in Part II are tested and verified through observational studies and mappings of five different plazas in Gothenburg: Masthuggstorget, Järntorget, Olof Palmes Plats, Gustaf Adolfs Torg and Götaplatsen.

Important architectural elements in accordance with Whyte's theories are mapped at the plazas and so are people's behavior. The pedestrian flow and stationary activity are observed and mapped; where and for how long people stay, what they do when staying and whether they move or stay alone, in pairs or in groups. The results are presented in Figure 12.

Most stationary activity takes place at Gustaf Adolfs Torg and least at Götaplatsen. However, the pedestrian flows at these plazas are almost equal. The most distinct difference between these plazas is the sun conditions. Götaplatsen is at the occasion completely shaded, whereas Gustaf Adolfs Torg is only partly shaded. Gustaf Adolfs Torg also offers more sitting space, both in form of benches and inherent features.

The second most stationary activity takes place at Masthuggstorget, which has similar sun conditions to Gustaf Adolfs Torg and also offers a generous amount of sitting space. Masthuggstorget is superior to all the other plazas regarding the amount of greenery and trees.

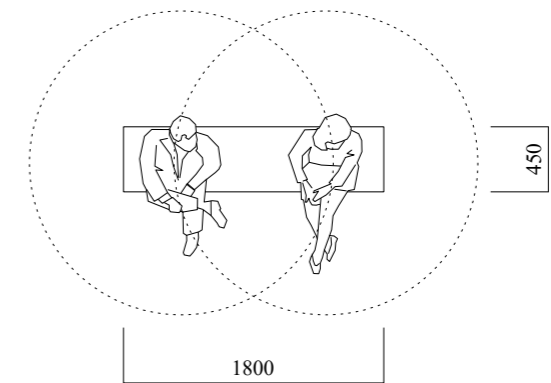
Furthermore, specific situations at the plazas are studied in relation to relevant theory (see page 42-45).



Pedestrian flow at Götaplatsen. Few intersections.



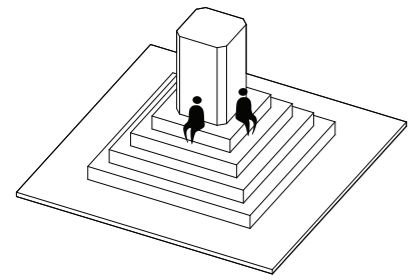
Pedestrian flow at Masthuggstorget. Many intersections.



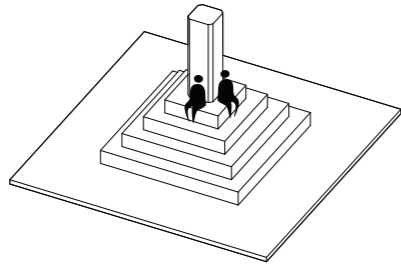
..... personal distance close phase



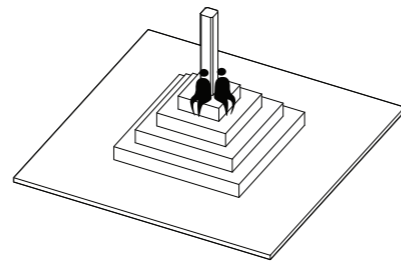
An ordinary park bench. People sitting keep a distance equal to personal distance close phase (0,5-0,8m). Their informal spaces are in conflict, but the situation and side by side arrangement make it acceptable although they are complete strangers.



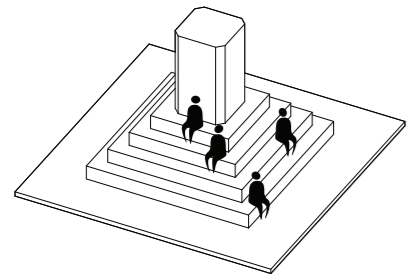
1a.



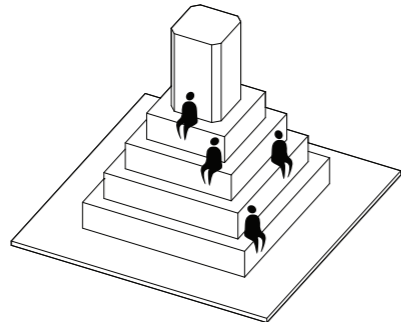
1b.



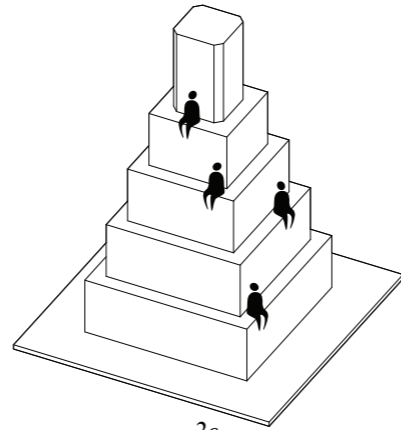
1c.



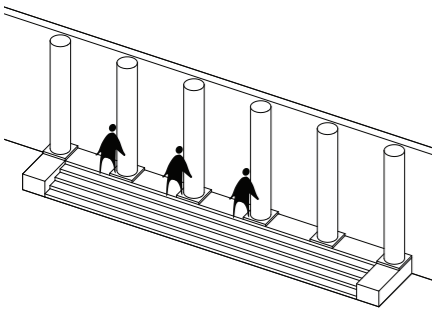
2a.



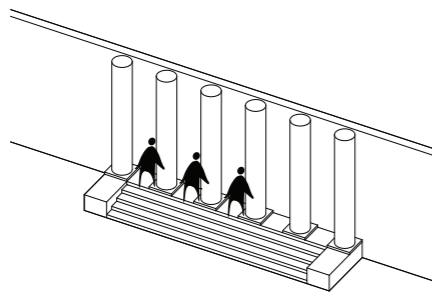
2b.



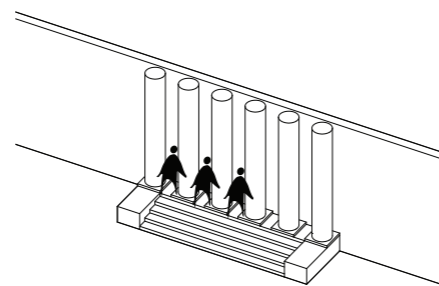
2c.



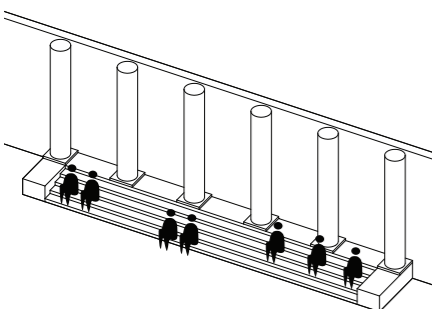
3a.



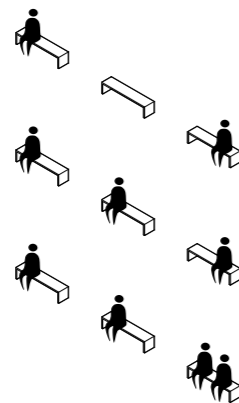
3b.



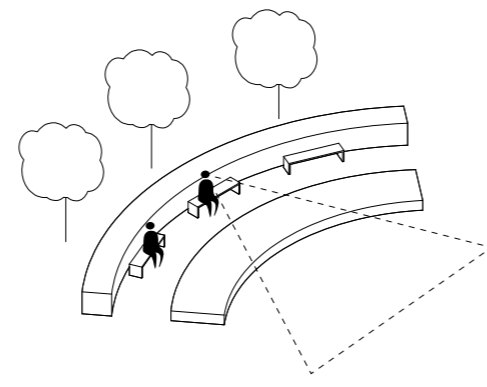
3c.



4.



5.



6.

SITUATIONS

1a. The foundation of the statue at Gustaf Adolfs Torg constitutes the fixed feature space that cements the informal space or the distance between people. Apparently personal distance far phase is comfortable for two strangers in this situation.

1b and 1c. The fixed feature space is manipulated to decrease the distance to personal distance close phase and further to intimate distance far phase. These distances would be perceived as intrusive.

2a. From the stepped foundation people have a good view over the plaza in any chosen direction and can at the same time sit back. The prospect and refuge conditions are good.

2b and 2c. The inherent sitting feature that the steps constitute are manipulated in height. Excessive vertical distance between people can be perceived as uncomfortable, since it in many cases is understood to communicate social hierarchy. Looking up at or down on a person is often literally interpreted, affirming the vertically higher person greater status.

3a. The columns at the entrance of Börsenhuset at Gustaf Adolfs Torg constitute the fixed feature space that cements the informal space between people. Social distance close phase is comfortable for these strangers in this situation.

3b and 3c. The fixed feature space is manipulated to decrease the distance to personal distance close phase and further to intimate distance far phase. These distances would be perceived as intrusive.

4. Like the stepped statue foundation, the steps outside Börsenhuset is a popular sitting space, oriented towards south and with good prospect and refuge conditions.

5. People tend to keep as much distance as possible, when choosing where to sit on the benches at Gustaf Adolfs Torg. Not until all benches are occupied, people choose to share bench with a stranger. Once that level of occupation is attained, personal distance close phase is apparently acceptable.

6. High shrubs behind the sitting space (benches) and low in front, provide good prospect and refuge conditions at Masthuggstorget. Additionally, the sitting space is located along curved walking paths without dead ends, which further strengthens the possibilities for refuge.

IV
CONTEXT



Plan 1:4000

GRÖNSAKSTORGET

PURPOSE

The site is used as a tool for further exploration. It provides the framework for continued translation of theory into design. The specific site, Grönsakstorget, is not important in itself, except that it has the desired preconditions according to previous research.

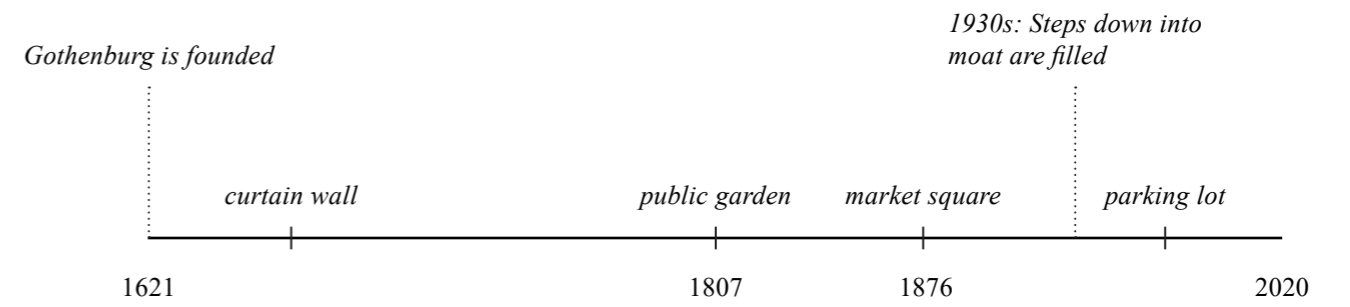
PRECONDITIONS

Grönsakstorget is enclosed on the north, east and west side by buildings. The south side is left open, which creates preferable sun conditions, but is still framed by the old moat that winds through the city center of Gothenburg. Across the moat, the green area of Kungsparken and Floras Kulle constitutes a pleasant view from the site. The close connection to water is of great value and was even stronger before, when Grönsakstorget served as a market square and there were steps leading from the square down into the moat. The steps were filled in the 1930s, but traces are still visible in the masonry (Figures 19-20, page 50). Today, Grönsakstorget serves as a parking lot. (Göteborgs Stad Stadsbyggnadskontor [SBK], 2011).

The central location with shops, restaurants, university facilities and a junction for public transport nearby, provides the site with a steady flow of pedestrians.











TIMELINE



(Göteborgs Stad SBK, 2011)

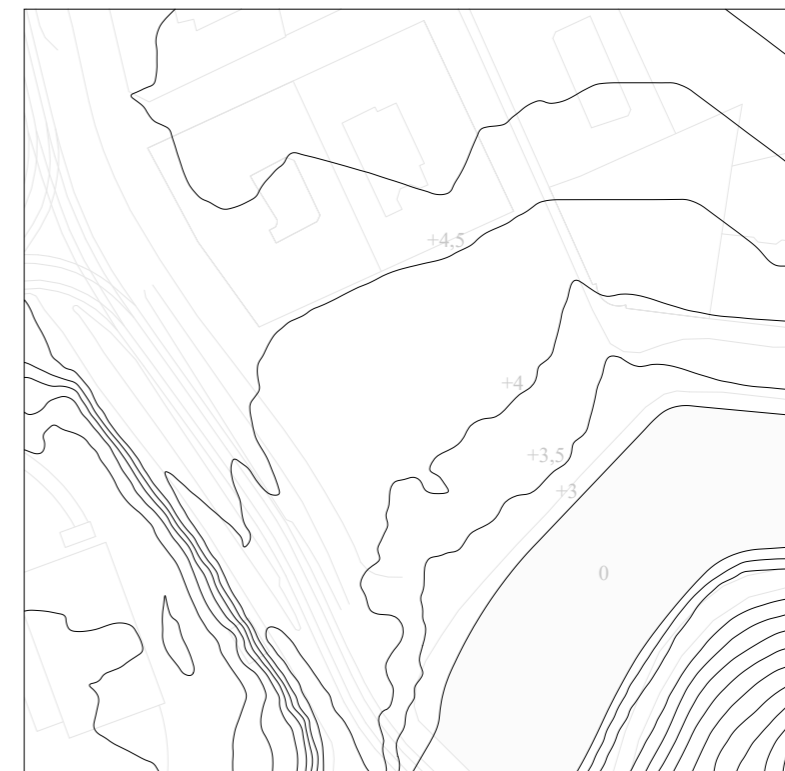
Figure 13-20: Grönsakstorget. Author's own photos.

E L E M E N T S	GRÖNSAKS-TORGET 15:35-15:50					
	SEATING					
	TREES					
	SCULPTURES					
	WATER		 <i>direct access: no</i>			
	SHADE					
	SCALE					
	AREA					
B E H A V I O R	STAYING	singles				
		duos				
		groups				
	MOVING	singles				
		duos				
		groups				

date: Monday 20.03.02
 weather: 4°C sunny, blue sky

Figure 21

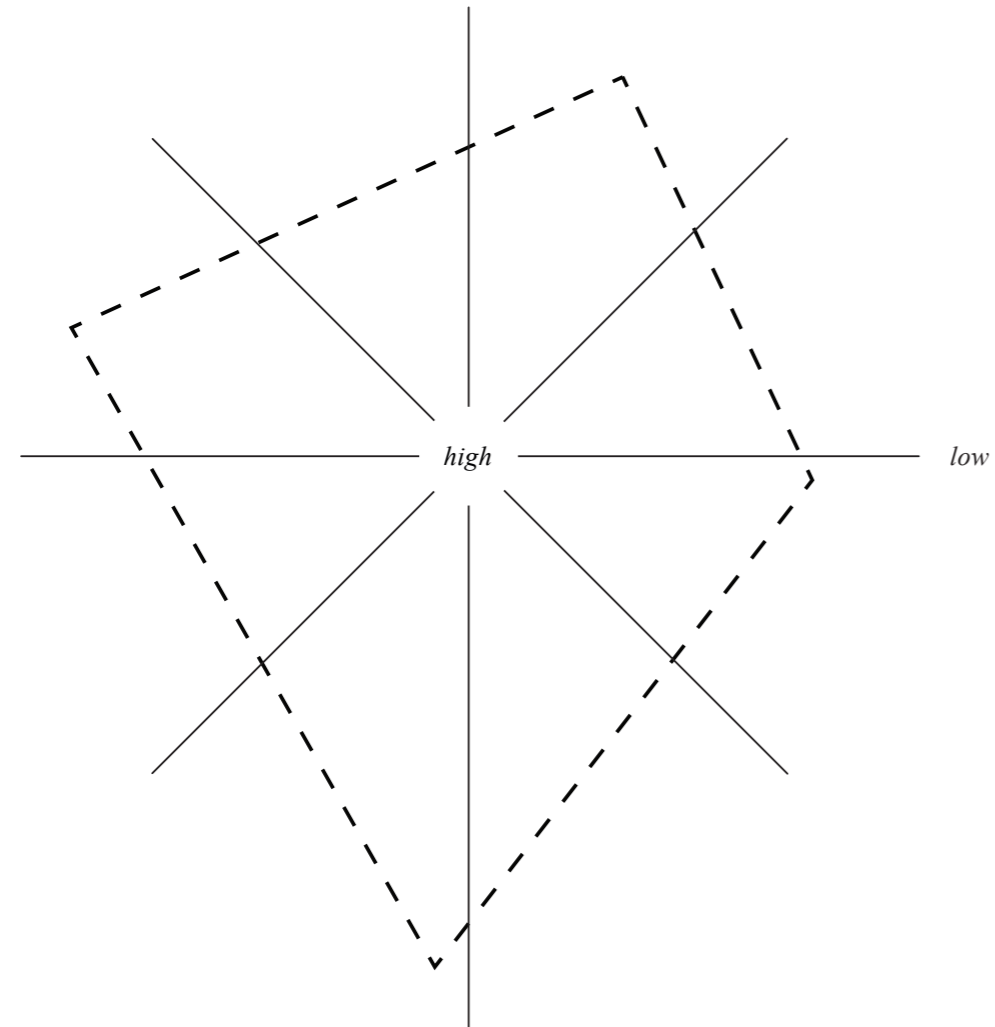
TOPOGRAPHY



The landscape is sloping towards the moat. The total height difference is approximately 1,5 meters.

V
DESIGN PROCESS

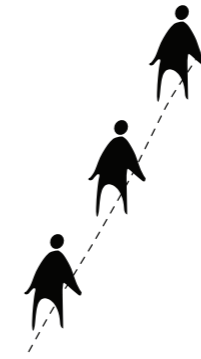
CONCEPT



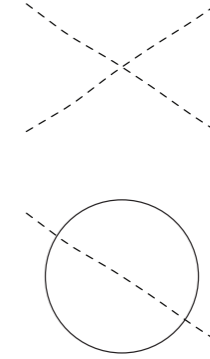
The conclusion made based on theory and case studies is that variation and choice are key aspects when designing for social interaction. A design concept is formulated:

A sequence of social interaction, as a gradient radiating from the center. From the lowest level of social interaction at the edges, to the highest in the middle.

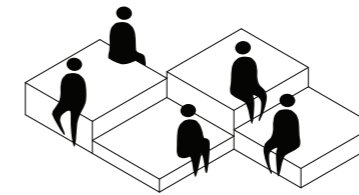
STRATEGIES



Capture and channel pedestrian flow



Intersect paths and territories



Provide comfortable and varied sitting space



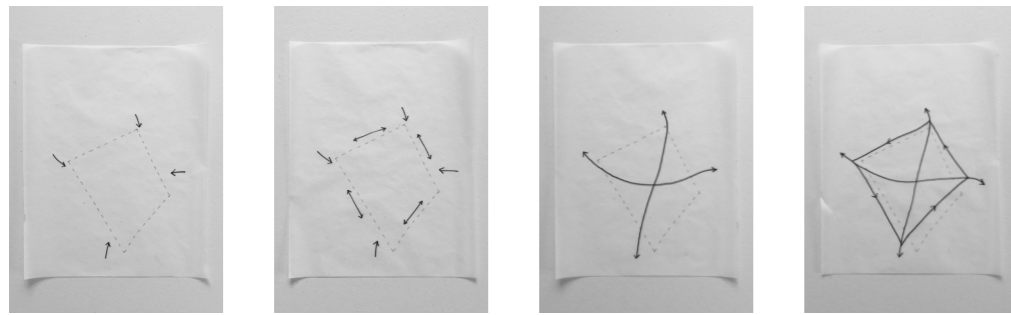
Connect to and access water

PROGRAM

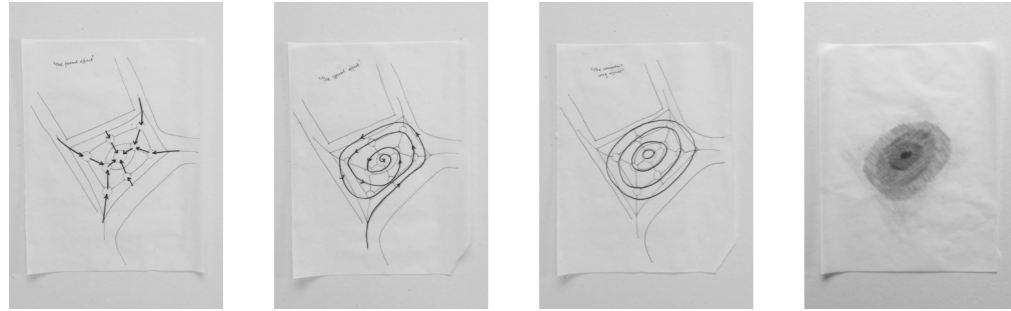
The parking lot of Grönsakstorget is transformed into an urban recreational place that contributes in combating loneliness, by encouraging a low intense form of social interaction. A place where people feel welcome and comfortable.

STRUCTURE AND FLOW

1.



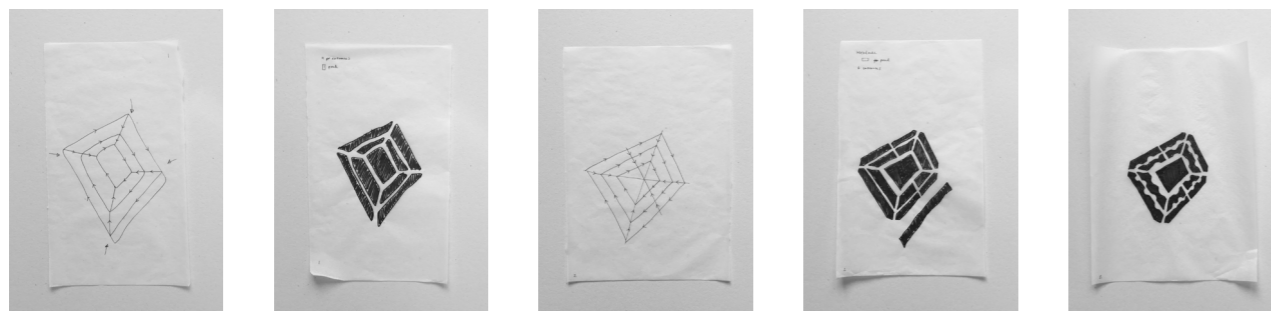
2.



3.



4.



The pedestrian flow has been guiding when designing the layout of the structure. To the left, there is a selection of sketches from that process. As mentioned in previous section, the strategy is to capture the pedestrian flow, direct it through the site and create situations where paths intersect along the way.

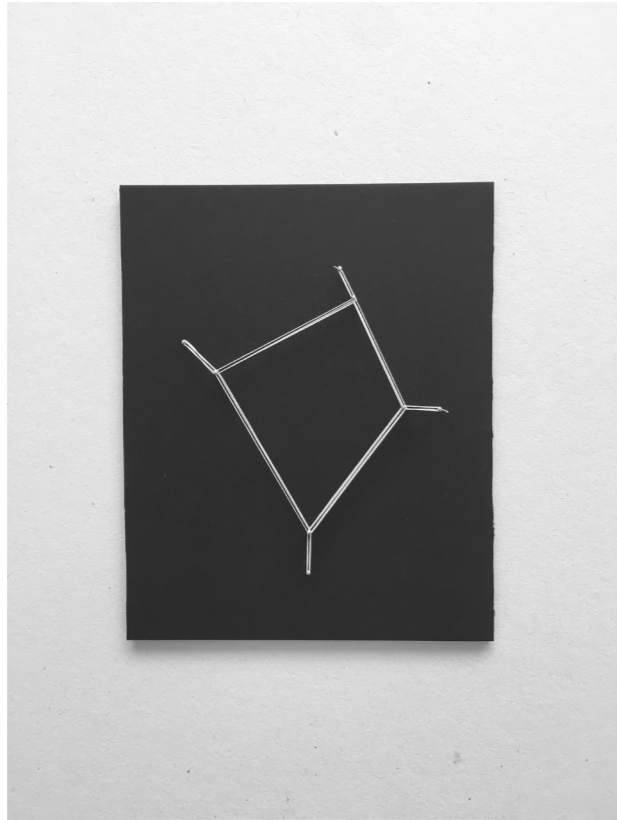
1. In the first two sketches, the arrows represent the existing pedestrian movement. People move around the site, but not across or through it. The third and fourth sketch show the desired movement.

2. In the first sketch the funnel effect is applied, showing how the pedestrian flow is funneled towards the middle. In the second, the spiral effect is applied, showing how the choices of paths create a spiral movement towards the middle. In the third and fourth, the concentric ring effect is applied, showing how the site is divided into zones of intensity, where the darkest part on the fourth sketch is where the highest level of interaction takes place – in the middle.

3. In the first sketch the arrows represent the pedestrian flow, and in the following sketches the spaces in between the arrows form the structure. Different entrance and path designs are tested.

4. These sketches are close to the final layout of the structure. In the first sketch, the lines represent the pedestrian flow and in the second, the spaces in between the lines form the structure. The greyscale in the third sketch, shows how the site is divided into zones of intensity.

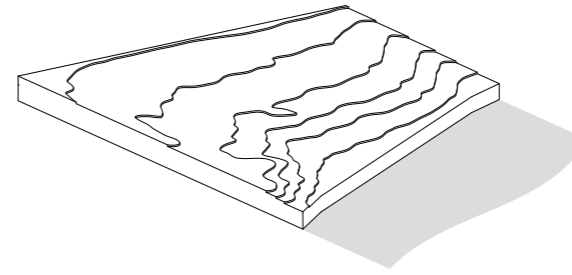
DESIGN LAYERS



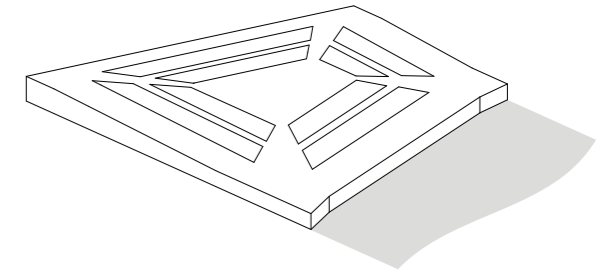
Existing pedestrian flow at Grönsakstorget. Few intersections.



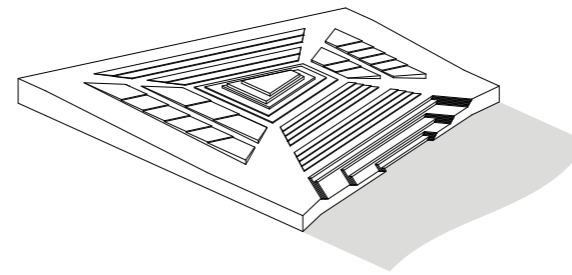
Desired pedestrian flow at Grönsakstorget. Many intersections.



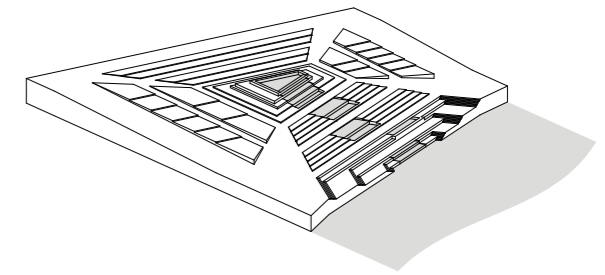
The existing landscape is slightly sloping towards the moat.



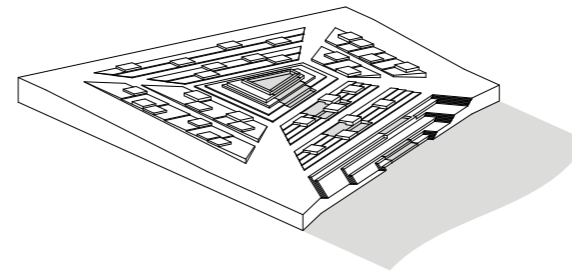
The foundational structure is applied on the site. It captures and channels the pedestrian flow towards the centre.



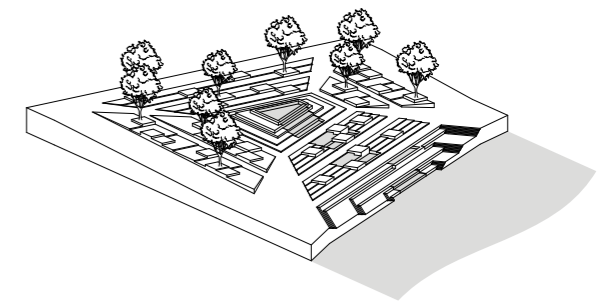
The structure is terraced in accordance with existing landscape levels. Steps down into moat are reconstructed.



Water flows along the structure and connects the site and the moat.

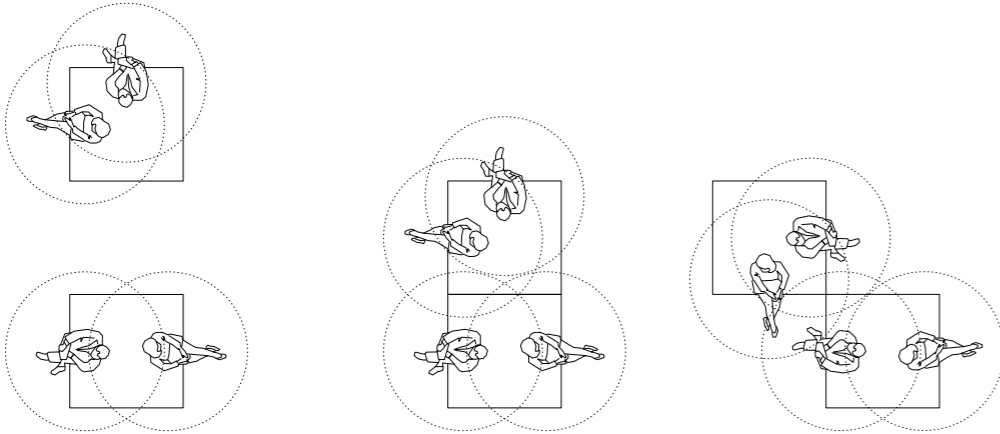


Additional levels create smaller spatialities and varied sitting space.

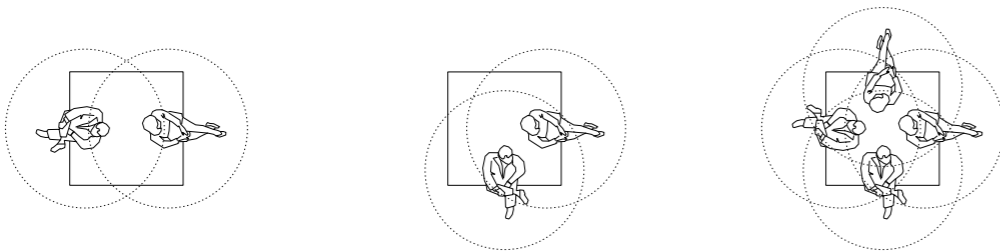


Trees embrace and frame the site and also provide shade.

SITTING SPACE

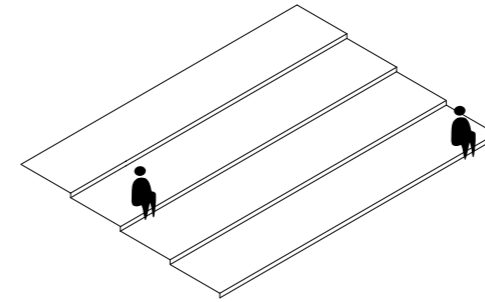


Different distances and arrangements affect the level of interaction. The dashed line represents each person's personal distance close phase (0,5-0,8m).

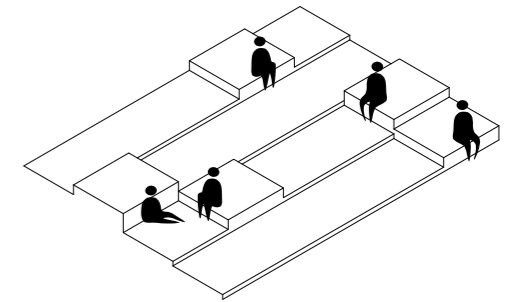


Sitting space in close relation to a tree. The tree constitutes the fixed feature space that cements a comfortable distance between people sitting next to it. It serves as a barrier that neutralizes their personal space in conflict. Additionally, the tree provides good prospect and refuge conditions, protecting the backs of people leaning against it.

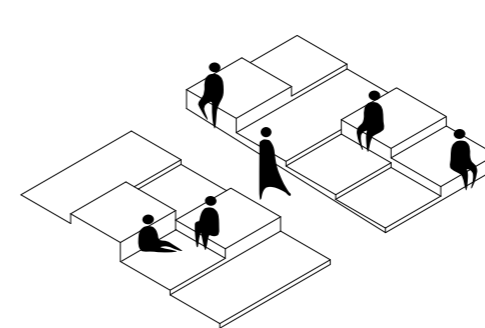
SITTING SPACE



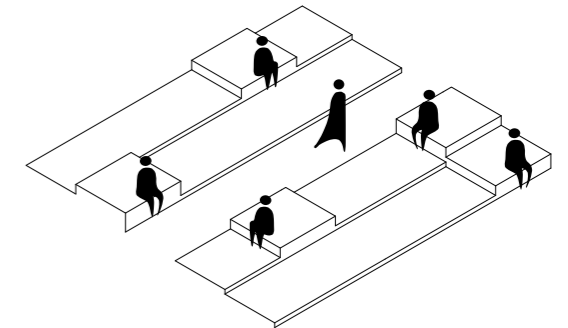
Sitting space built into the inclination of the landscape as terraces.



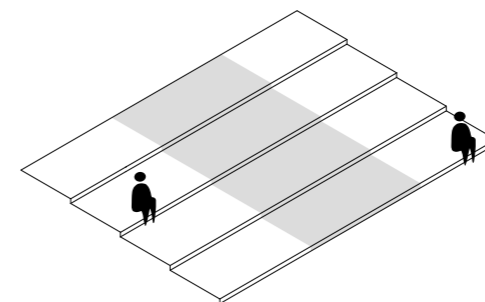
Additional levels create smaller spatialities and varied sitting space.



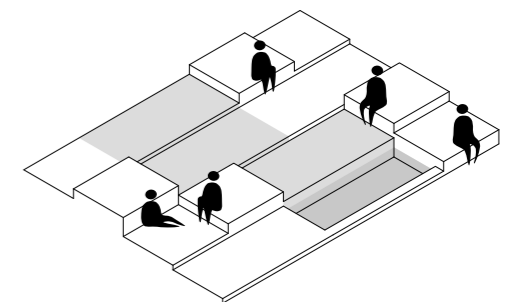
Walking path bisects sitting space across its axis. Opportunities for visual and auditory interaction are created.



Walking path bisects sitting space along its axis.

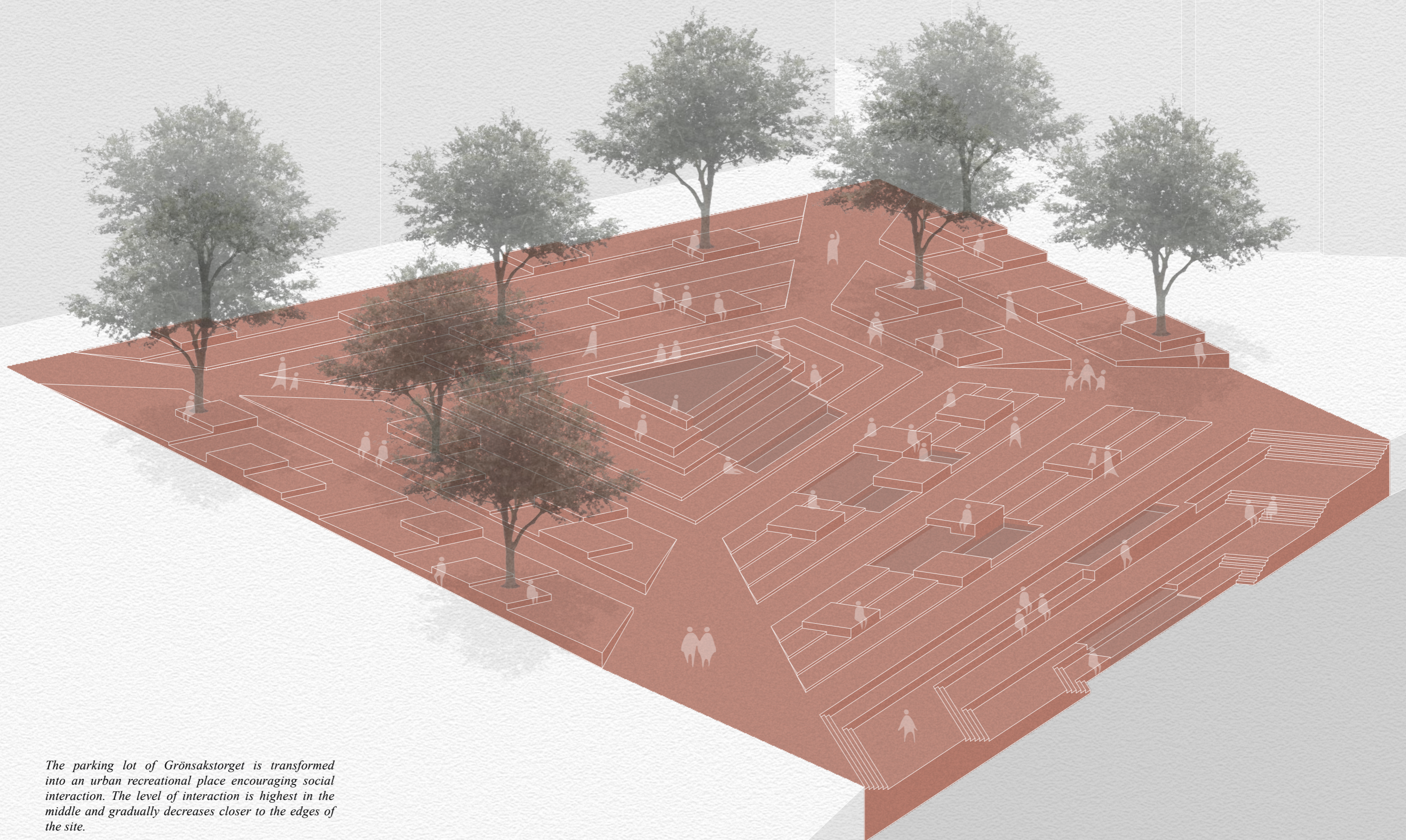


Water flows through the sitting space, connecting the site and the moat.

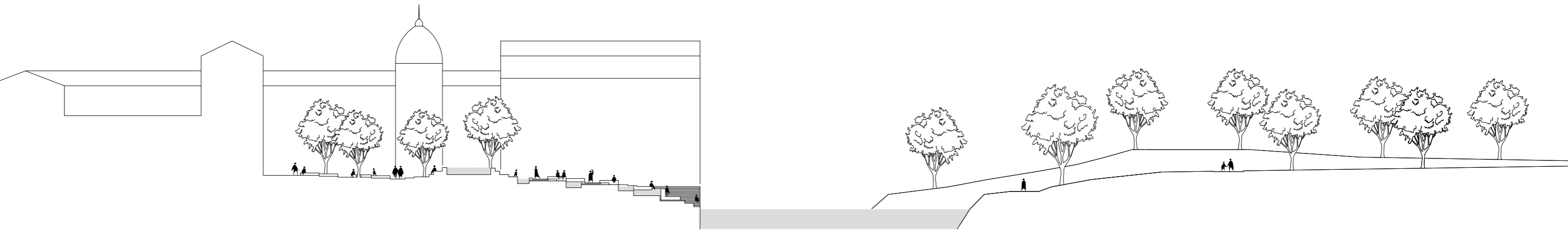


Basins in the landscape collect the water. The access is unobstructed.

VI
PROPOSAL



The parking lot of Grönsakstorget is transformed into an urban recreational place encouraging social interaction. The level of interaction is highest in the middle and gradually decreases closer to the edges of the site.



SCENARIOS

1. Towards the middle

The wide entrances invite the pedestrian flow. The funnel shaped paths further channel the flow towards the middle.

2. Overlapping space

Where walking paths bisect sitting space, opportunities for visual interaction are created. People sitting, can from a comfortable distance casually watch people passing by.

3. Less contact

This zone is close to the edges of the site and offers more distance between its elements and therefore less contact. The sitting space is arranged for side by side or back to back situations. Smaller spatialities are created in between the elements, which encourage smaller groups of people or individuals to tarry and sit here.

4. More contact

This zone is close to the middle of the site and offers less distance between its elements and therefore more contact. The sitting space is arranged for perpendicular situations. Smaller spatialities are created in between the elements, which encourage smaller groups of people or individuals to tarry and sit here.

5. Under the tree

The tree constitutes the fixed feature space that cements a comfortable distance between the people sitting on each side of the tree trunk.

6. By the moat

The steps leading down to the moat offer a variety of sitting space and good views from all seats towards the south and Kungsparken across the water.

7. By the water

The connection to water is unobstructed. People may play, touch or just listen to it flowing, which may encourage unexpected interactions.

8. In the middle

In the middle the level of interaction is highest. The structure generates an attracting and repelling movement, which creates face to face situations. To encourage visual and auditory interaction, the structure is also more open and may gather many people.

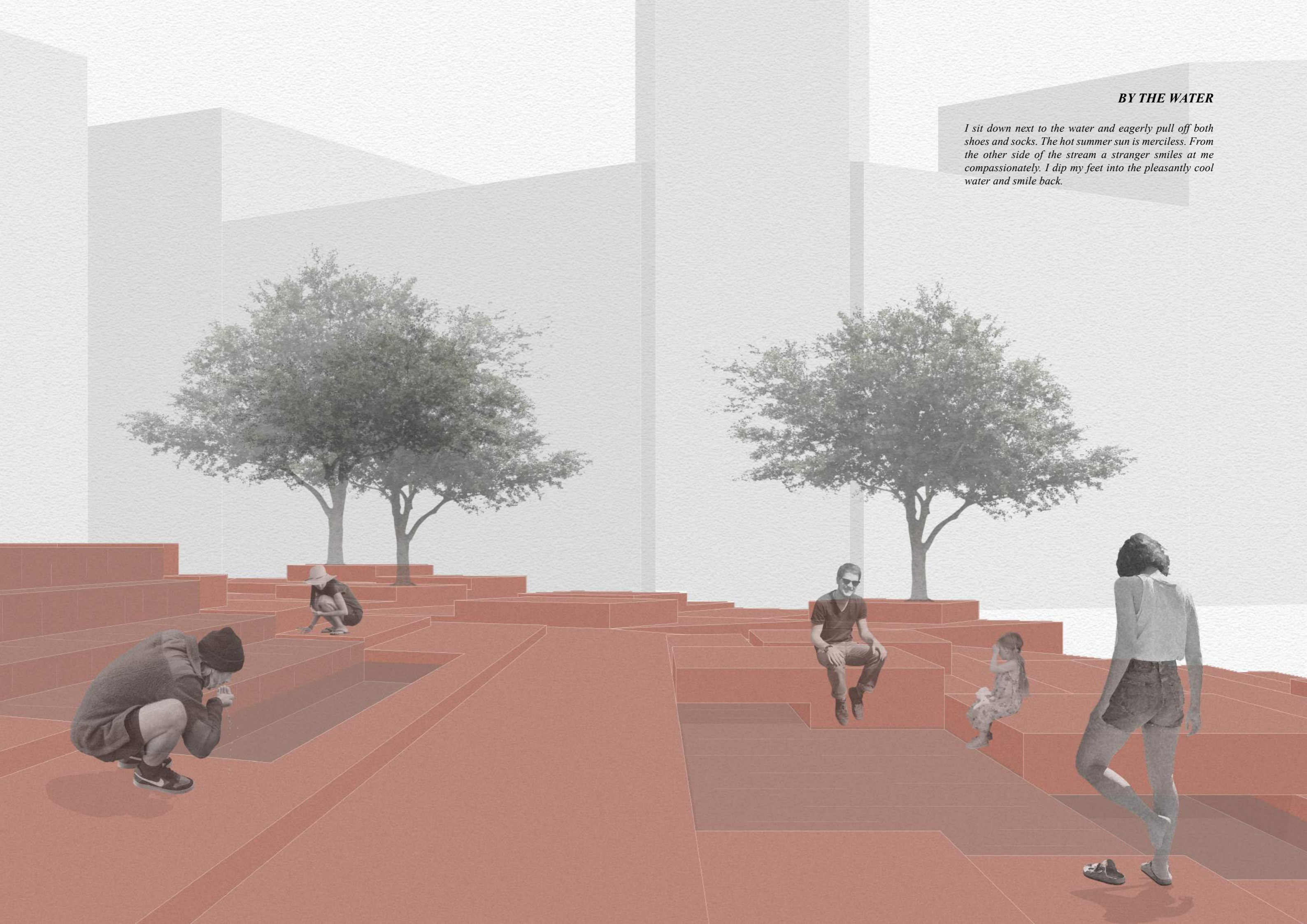


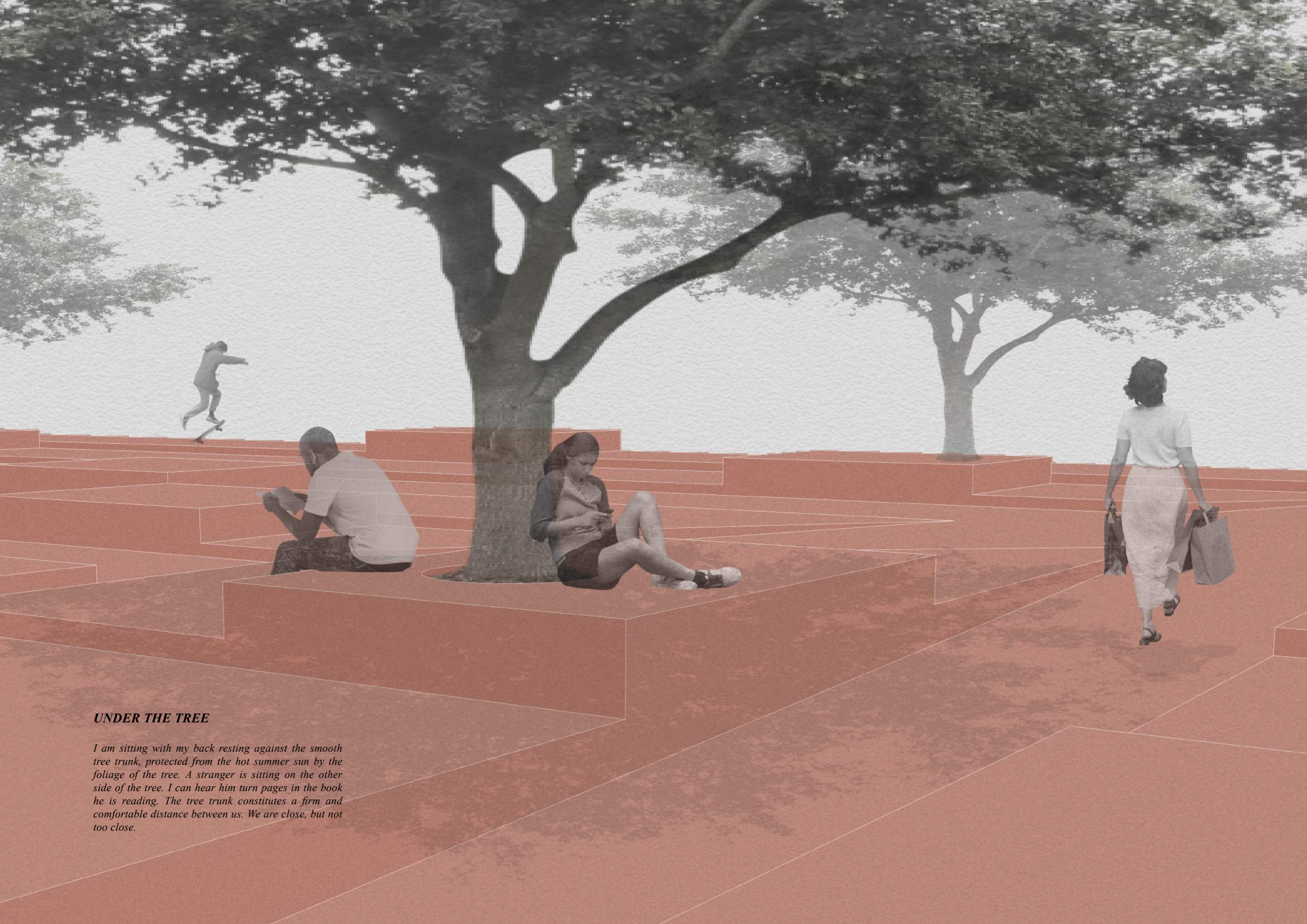
TOWARDS THE MIDDLE

The wide entrance invites and directs me towards the middle of the site. Ahead, I see people sitting. Some alone, some together. If I want to, I can choose another path. A quieter, more secluded place. Maybe in the shade of a tree? Today, I continue forward. I am intrigued by the sounds and movement. I want to be a part of it.

BY THE WATER

I sit down next to the water and eagerly pull off both shoes and socks. The hot summer sun is merciless. From the other side of the stream a stranger smiles at me compassionately. I dip my feet into the pleasantly cool water and smile back.



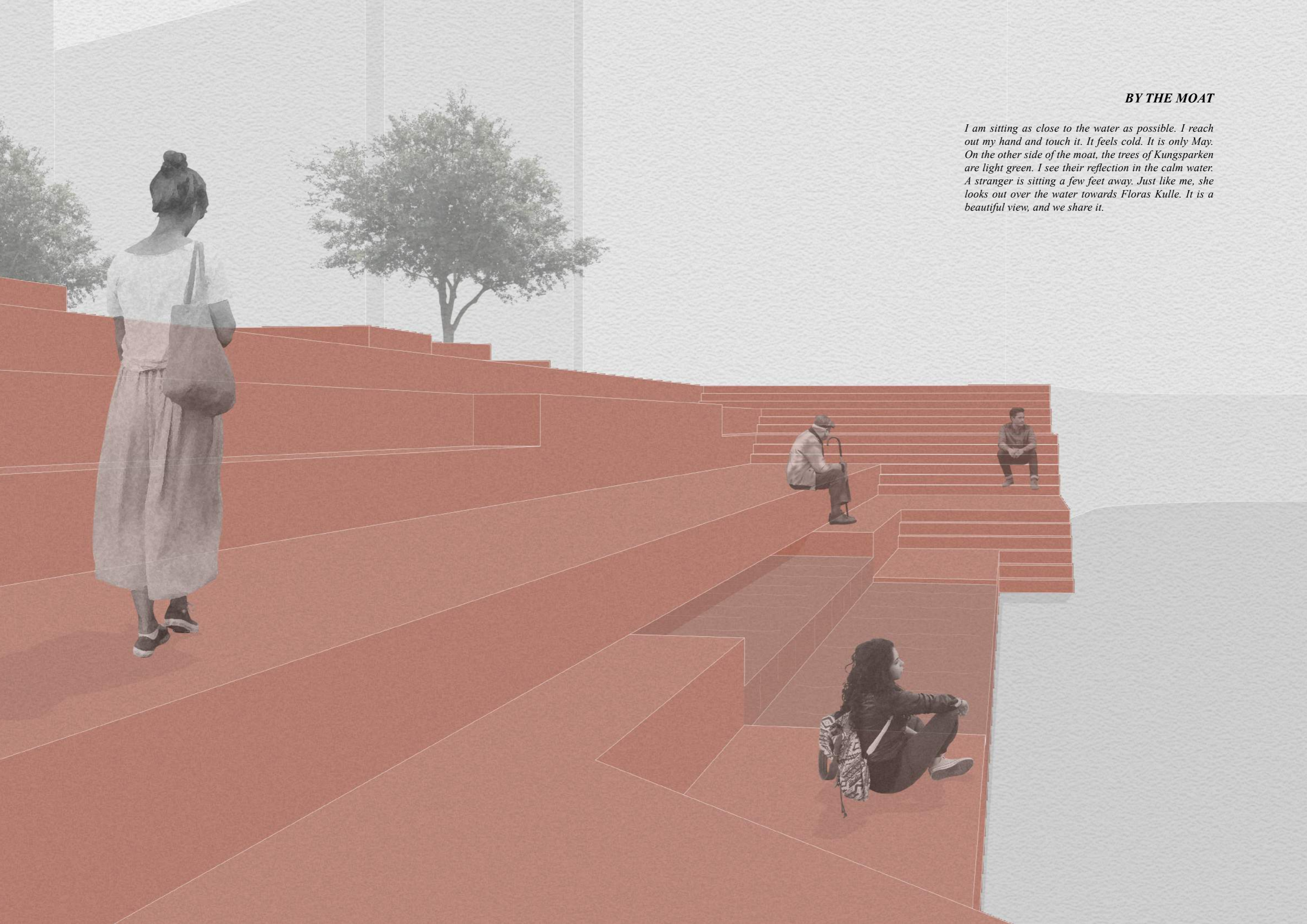


UNDER THE TREE

I am sitting with my back resting against the smooth tree trunk, protected from the hot summer sun by the foliage of the tree. A stranger is sitting on the other side of the tree. I can hear him turn pages in the book he is reading. The tree trunk constitutes a firm and comfortable distance between us. We are close, but not too close.

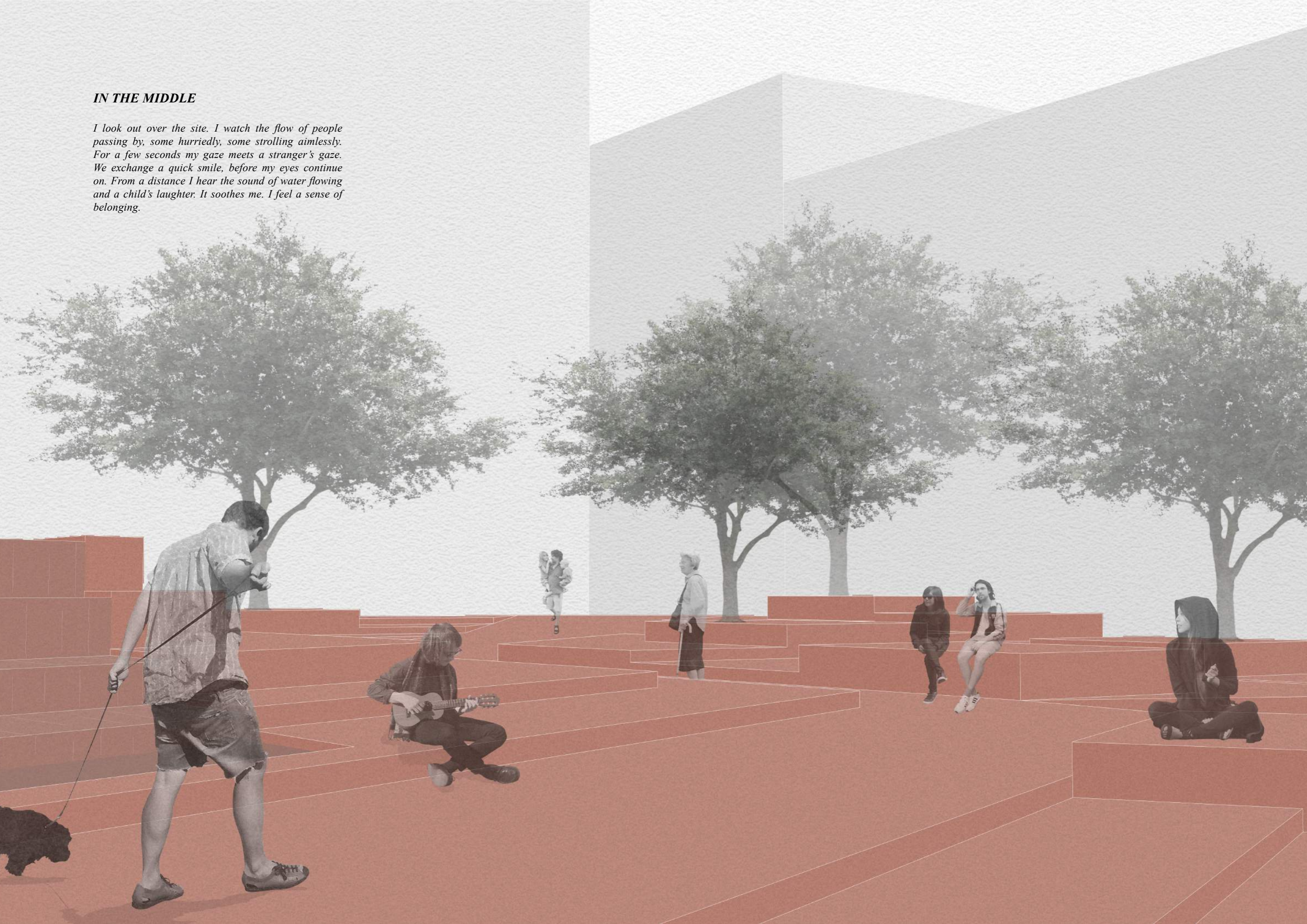
BY THE MOAT

I am sitting as close to the water as possible. I reach out my hand and touch it. It feels cold. It is only May. On the other side of the moat, the trees of Kungsparken are light green. I see their reflection in the calm water. A stranger is sitting a few feet away. Just like me, she looks out over the water towards Floras Kulle. It is a beautiful view, and we share it.



IN THE MIDDLE

I look out over the site. I watch the flow of people passing by, some hurriedly, some strolling aimlessly. For a few seconds my gaze meets a stranger's gaze. We exchange a quick smile, before my eyes continue on. From a distance I hear the sound of water flowing and a child's laughter. It soothes me. I feel a sense of belonging.



VII
OUTRO

DISCUSSION



Figure 22: "Together". Author's own photo.

Loneliness is a growing issue and the consequences are severe, not least at an individual level. Prolonged experience of loneliness involves an increased risk of developing physical and mental illness. As the title states, the desire to combat loneliness is the driving force behind this thesis. Architecture itself cannot solve this complex and multifaceted issue, but to explore and illuminate what role architecture can play in this combat, may contribute in finding a solution and hopefully bring understanding.

Architecture constitutes the stage of people's lives. It affects both behaviors and feelings. The public space is the only social forum for an increasing amount of people. This leaves great responsibility to architects and urban designers – but also opportunities to enshrine the social significance of public space.

The final aim of this thesis is to propose a design of a public, urban space that encourages social interaction. To find the balance of social interaction is crucial. Pushing people together physically, tends to push them apart socially. Architects and urban designers have a responsibility to create places that help people moderate their interactions with strangers without feeling the urge to retreat entirely.

The design proposal strives to achieve a gradient of social interaction where choice is built into the structure and its components. An urban space where people feel welcome and comfortable. A place where low intense interaction can take place, because such small gestures and impressions matter so much. To exchange a look or perhaps even a smile, to hear a laughter or overhear a conversation, to watch a stranger pass by or linger in the sun, to share the same view or experience. Such gestures and impressions can cure the worst feeling of isolation and create a sense of belonging. A sense of togetherness.

BIBLIOGRAPHY

LONELINESS

Brülde, B. and Fors, F. (2015). Den svenska ensamheten: Om hur olika former av ensamhet påverkar vårt välbefinnande. I Bergström, A., Johansson, B., Oscarsson, H. and Oskarsson, M. (Red.), *Fragment: SOM-undersökningen 2014* (pp. 47-61). Göteborg: SOM-institutet.

Cacioppo, J. and Patrick, W. (2008). *Loneliness: human nature and the need for social connection*. New York: W.W. Norton & Company.

Stevenson, A. (2010). *Oxford Dictionary of English (3rd Ed.)*. Oxford: Oxford University Press.

PUBLIC SPACE

Appleton, J. (1975). *The experience of landscape*. London: William Clowes & Sons, Ltd.

Flanders Cushing, D. and Miller, E. (2020). *Creating Great Places: Evidence-Based Urban Design for Health and Wellbeing*. New York: Routledge.

Gehl, J. (2013). *How to study public life*. Washington DC: Island Press.

Hall, E.T. (1966). *The Hidden Dimension*. New York: Doubleday & Company, Inc.

Harrison-Pepper, S. (1987). *Drawing a Circle in the Square: Street Performing in New York's Washington Square Park* (Ph.D. dissertation). New York University, New York.

Montgomery, C. (2013). *Happy City*. London: Penguin Books, Ltd.

Project for Public Spaces (2018). *How to turn a place around*. New York: Project for Public Spaces, Inc.

Whyte, W.H. (1980). *The social life of small urban spaces*. Washington DC: Conservation Foundation.

BIBLIOGRAPHY

OTHER

Göteborgs Stad Stadsbyggnadskontoret. (2011). *Program för Grönsakstorget och Kungstorget*. Retrieved from [https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Centrum%20-%20Gr%C3%B6nsakstorget-%20och%20Kungstorget-Program%20-%20samr%C3%A5d-Programhandling/\\$File/Program.pdf](https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Centrum%20-%20Gr%C3%B6nsakstorget-%20och%20Kungstorget-Program%20-%20samr%C3%A5d-Programhandling/$File/Program.pdf)

SVT. (2019). *Vetenskapens Värld: Frisk av naturen* [TV program]. Stockholm: Sveriges Television.

FIGURES

Freeway Park Association. (2019). *Freeway Park* [Online Image]. Retrieved from <https://www.freewayparkassociation.org/>

Harrison-Pepper, S. (1991). *Drawing a Circle in the Square - Street Performing in New York's Washington Square Park*. Jackson: University Press of Mississippi.

Hiroki Hasegawa. (2013). *Teikyo Heisei University Nakano Campus* [Online Image]. Retrieved from <https://www.s-on-site.com/works/detail.html?id=80>

McCord, M. (2014). *Pioneer Courthouse Square* [Online Image]. Retrieved from <https://www.flickr.com/photos/133508048@N03/25411340123>

Papadopoulos, E. (2011). *Pioneer Courthouse Square* [Online Image]. Retrieved from <https://www.flickr.com/photos/25137388@N08/6007204493/in/photostream/>

Patrick M. (2008). *Ira Keller Fountain* [Online Image]. Retrieved from <https://www.flickr.com/photos/ppix/2770126710>

Snyder, E. (2011). *Ira Keller Fountain* [Online Image]. Retrieved from https://concreteandsky.files.wordpress.com/2011/08/0009_16a.jpg

To Combat Loneliness
A search for urban togetherness
By Lovisa Einarsson

Master Thesis in Architecture and Urban Design
Spring 2020
Chalmers University of Technology
Department of Architecture and Civil Engineering
Matter Space Structure Studio
Examiner: Morten Lund
Supervisor: Cecilia Oldenqvist

© Lovisa Einarsson
lovisa.einarsson@gmail.com

Gothenburg, 2020.
All rights reserved.

THANK YOU

Cecilia and Morten for your guidance.
Family and friends for your support.