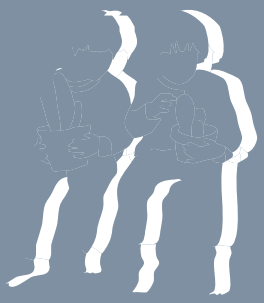

A New Paradigm for City Life

Bringing Borlänge's Center Back to the Human Scale

Linnéa Lindman

Master Thesis - Spring 2025

Chalmers School of Architecture
Department of Architecture and Civil Engineering
Examiner: Julia Fredriksson
Supervisor: Liv Sonntag

As a child, it was my only image of a big city, as a teenager, it was a place I wanted to escape. But after leaving Borlänge and Dalarna, a sense of pride grew over the years, a pride in a place that is bold, that despite its young age has been at the forefront, dared to try new things, and is a mix of everything, making it so much more.

CHALMERS
UNIVERSITY OF TECHNOLOGY

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I have a strong interest in architecture and urban development that contributes to long term positive change on a societal level. I am particularly drawn to the early stages of projects such as mapping, analysis, planning and concept development, where thorough groundwork lays the foundation for well informed and sustainable outcomes. I also value working with visual and graphic material as an integral part of effectively articulating and conveying ideas.

Master Degree: (2023-2025)
Master´s Program of Architecture and Planning beyond sustainability MPDSD
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Abstract

The thesis has addressed urban planning from an era focused on modernizing cities and promoting the independent, free human being, an identity closely tied to the car. This approach has deteriorated pedestrian life and removed essential urban functions. Consequently, car-centric cities that have left little room for alternative mobility, urban life, detail, or interaction on the city's fundamental infrastructure: The Street.

This thesis has aimed to define principles of sustainable, healthy, and democratic urban areas where people want to engage. The objective has been to develop a proposal strengthening pedestrian city life in Borlänge's core, with emphasis on revitalizing Borgarnäsvägen, an important connection with historical value. The proposal was grounded in urban principles, functions, and aesthetics that reflect local identity, promote inclusivity, and encourage community and movement. The thesis has addressed three main questions: 1) "What key elements should a city incorporate from a sustainability perspective?", 2) "How might the urban landscape and human behavior evolve if the car-centric norm were challenged?", and 3) "Which cultural and local aspects should be emphasized in Borlänge?"

The background outlined the car-centric city's evolution, focusing on Borlänge's centers transformation in the 1960s. It also reviewed a 1994 article envisioning "Borlänge år 2024" and its reflections on the city's character, including the historically significant Borgarnäsvägen. The theoretical part has established key principles for developing human-scale cities and has presented methods for shaping urban spaces. The methods included literature reviews, a site analysis, photo studies, site visits, and inventories. The expected results include an urban analysis of the challenges and opportunities in central Borlänge. This has informed a vision for the center, focusing on a human-scale urban environment that fosters social activities and urban life. Additionally, a design suggestion was presented, aimed at activating the trafficked section of Borgarnäsvägen, grounded in local aesthetics, the site, culture, functionality, and materiality to promote movement, activity, and social interaction. This is presented to encourage further discussion and imagination about how Borgarnäsvägen could be transformed.

Keywords: Urban planning; Human scale; Human pace; Edge zones; Pedestrian

Table of content

1. Introduction
1.1 Problem, Focus, Scale

This thesis addresses urban planning from an era that sought to modernize cities and embrace the ideal of the independent, free human being, an identity closely tied to the car. The car was seen as a symbol of freedom, leading to the development of car-centric urban networks worldwide. However, this approach to planning, where cities are designed for the scale and speed of the car rather than the needs and pace of people, has proven problematic, as it has caused urban life to suffer.

Car-centric cities from the modernist era still exist today, and car-oriented urban environments continue to be developed. In many planning processes, the automobile remains the top priority, which results in environments that lack essential human functions and contribute to the decline of urban life. As a result, public spaces often fail to fulfill their intended purpose: to support democratic life, promote inclusivity and engagement, and encourage social interaction and everyday activity.

The focus of this thesis is to contribute to a shift in how we shape our urban environments and to advocate for more pedestrian-friendly cities, by demonstrating what values it can bring. The project will take place in Borlänge city centre, with a particular focus on the street Borgarnäsvägen and its potential to evolve into a key urban link, serving not only as a transportation route but also as a meaningful public space.

1.2 Aim, Objective and Research questions

Aim

The aim of this thesis is to explore and define the principles of sustainable, healthy, and democratic urban areas where the people want to be, engage and thrive.

Objective

The objective is to develop a proposal that strengthens urban life in the core of Borlänge with a special emphasis on revitalizing the central street, Borgarnäsvägen as it serves an important connection and holds historical value. The proposal will be grounded in urban principles, functions and aesthetics that reflect the local identity, promote inclusivity, and foster community engagement and movement.

Research Questions

- *What key principles should a city incorporate from a sustainability perspective?*
- *How might the urban landscape and human behavior evolve if the car-centric norm were challenged?*
- *Which cultural and local aspects should be emphasized in Borlänge?*

1.3 Delimitations - Positioning

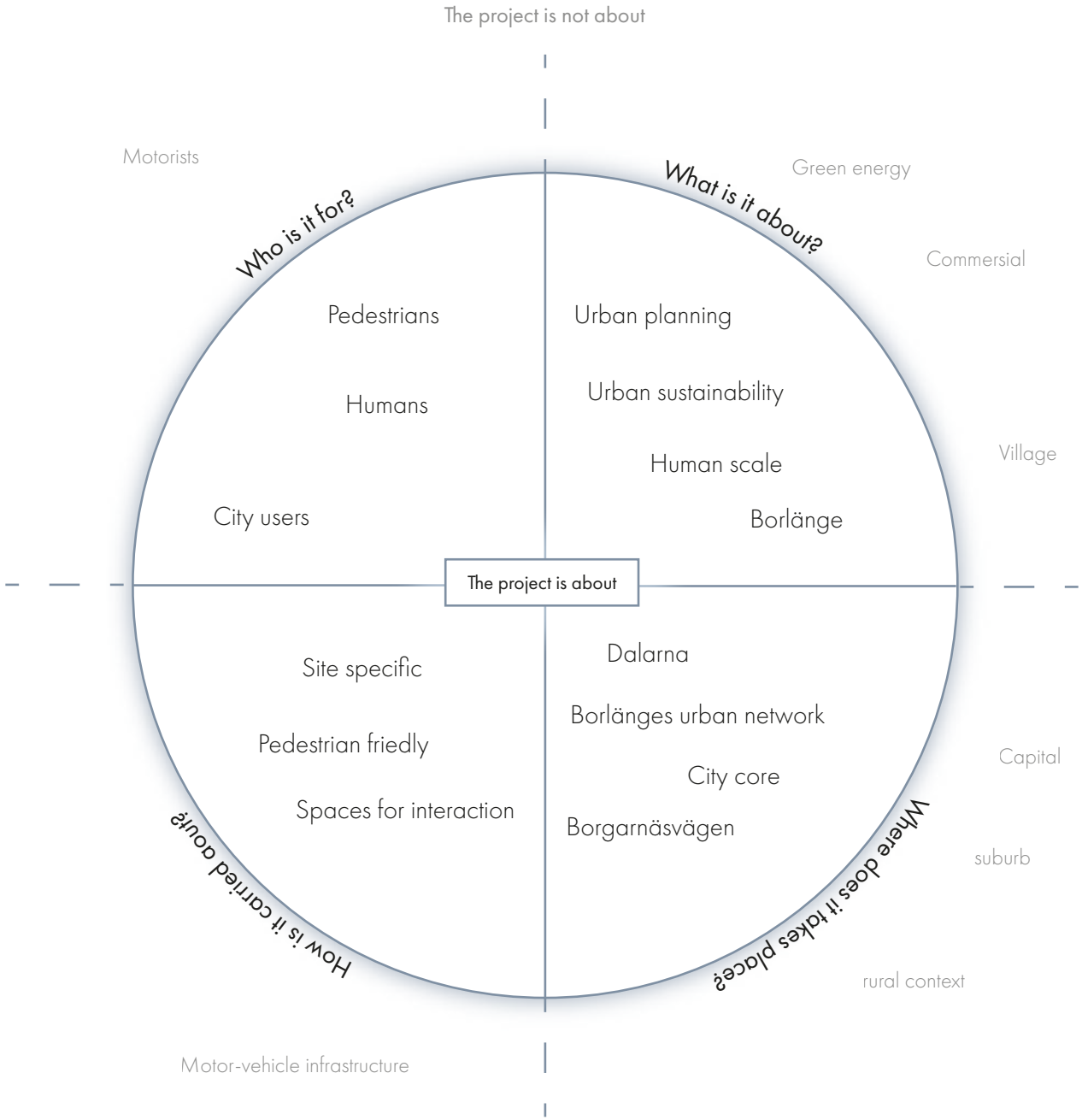


Figure: diagram positioning

1.4 Relevance for sustainable development

This thesis will investigate methods to understand how, where and what to develop to be able to create spaces in urban areas that offer rather than urges. Thus an urban area with a foundation in equality and democracy for everyone and all groups of society. This is how the thesis addresses sustainability socially, thus it supports people's right to the city likewise as it promotes functions that do not promote consumption but rather something else, as culture, specifically local culture and interaction. Environmentally this thesis works with sustainability in the investigation of connections within the city to create stronger resilient connections that the population uses to promote a more pedestrian friendly city. The investigations related to the connections are to see the connecting lines as the nodes rather than solely paths from place a to place b, which hopefully will create resilient connections that promote walking rather than driving.

The UN Sustainable development goal 11 *"Make cities and human settlements inclusive, safe, resilient and sustainable"* is relevent for my thesis. It highlights the complex issues within cities, which is especially important given that half of the world's population currently lives in urban areas. Likewise, projections indicate that by 2050, approximately 70% of the global population will reside in cities. In this goal, Target 11.7 highlights that data from 1,365 cities across 187 countries reveals a significant deficiency in access to open public spaces. There is a big difference between Low-developed countries and high-performing countries in this question. (United Nations, Department of Economic and Social Affairs, n.d.). Sweden is considered a high-performing country, but there is a difference in quality and density of public spaces in Swedish cities, coming back to the notion of "Urban privilege".

1.5 Method and Process

The methodology of this thesis includes an iteratively conducted literature review, site analysis and design Process. The literal review has played a crucial role in shaping the structure of the thesis and supporting its development at every stage. The theoretical framework is largely based on Jan Gehl's developed principles for creating cities for people. Gehl argues that the foundation of attractive, safe, and lively urban environments is the improvement of conditions for pedestrians, as this naturally fosters foot traffic and, in turn, vibrant human life. Gehl has conducted extensive research on scale, pace, and human senses, as these factors influence how we perceive others emotions and expressions and contribute to our desire to be in spaces with a strong presence of other people. Likewise, Gehl's studies on urban activities show that when the quality of the physical environment is high, optional and social activities in the city increase. To support the identification of necessary interventions, Gehl's 12 urban quality criteria have also been used as a theoretical foundation, helping to highlight weaknesses and determine what needs to be improved in the selected urban area. The theoretical background also draws from the design guide for creating smart streets. These theories have helped me select a site based on guidelines indicating when street transformations are most appropriate, as well as factors that contribute to improving the quality of urban space.

The development of the background for this project has likewise been an iterative process, involving extensive learning about how the modernist period reshaped cities and how research from this period influenced city planning. This research has highlighted how this approach to urban planning persists today. A key part of the background research has been gaining an in-depth understanding of Borlänge's historical development, particularly in terms of infrastructure, and how the city has evolved into what it is today. This also involved exploring the city's current conditions and its vision for the future. The background research has been thorough and has shaped the focus of the thesis: The car-centric development of Borlänge and its impact on the cityscape and its users. Investigating reference projects has also been an ongoing and iterative part of the process, something I engaged with daily throughout the project. This work was done in parallel with the design development, not always formally documented in this booklet but rather serving as a continuous source of inspiration. The process was supported by a study trip to Copenhagen, Malmö, and Stockholm, where I visited numerous urban reference projects such as Superkilen, Tåsinge Plads, Sankt Kjelds Plads, and Friisgatan. This experience helped shape my

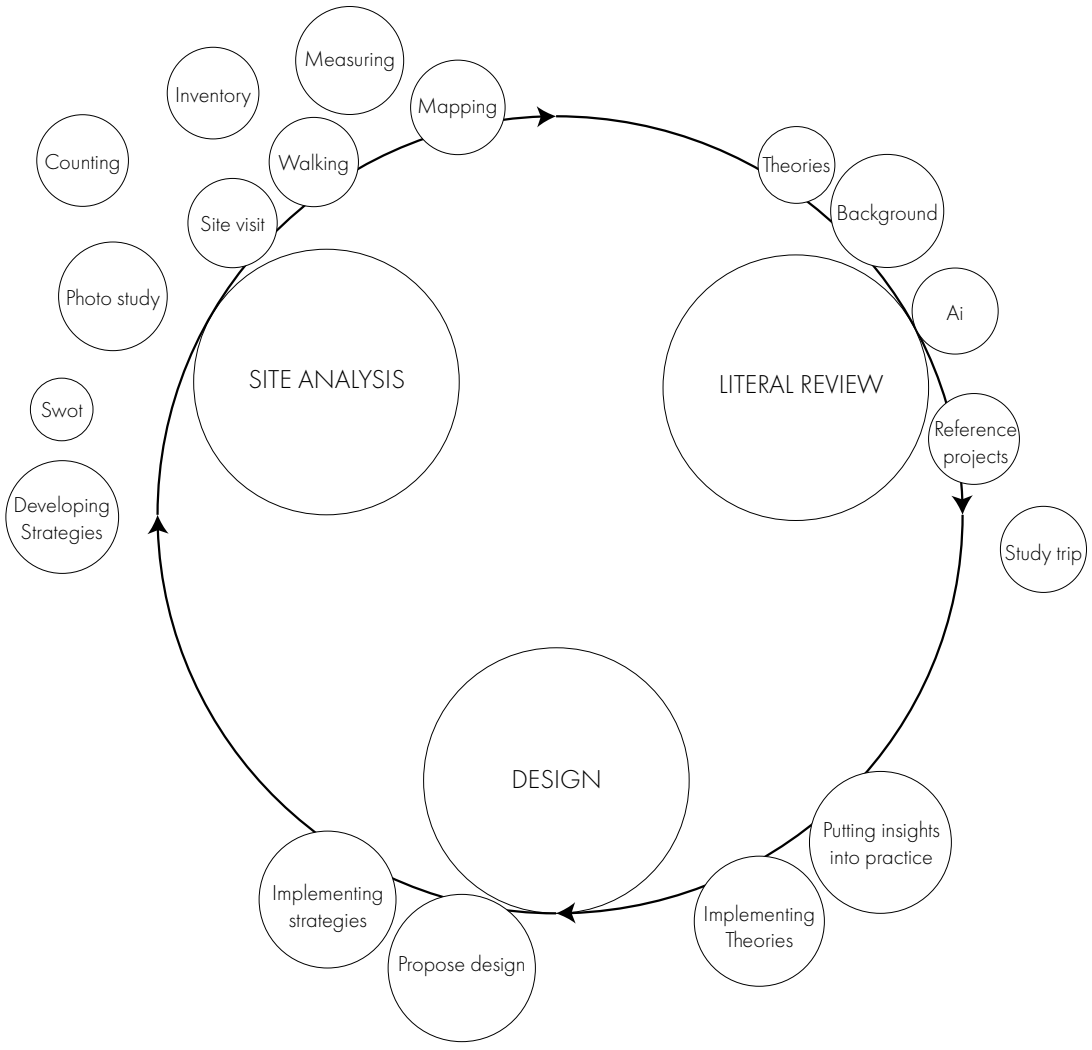
personal understanding and identify what sustainable urban environments can be, moving beyond inspirational images on a screen to direct, honest experiences.

The site analysis has likewise been an iterative process, involving weekly visits to observe and learn about the site. Engaging with the site through walking and direct observation allowed me to analyze details, identify patterns, and gain a deeper understanding of the spatial experience. This process led to an understanding of the cityscape as a place that is close to all key functions but poorly connected for pedestrians. It also helped identify potential key projects in Borlänge city center, aimed at creating pedestrian-friendly spaces and improving connectivity between different areas. During these visits, I walked extensively around the area to grasp its identity, barriers, and spatial qualities. I also analyzed Borlänge in a broader context, using mapping techniques to study functions and flows, and conducted a SWOT analysis, which I refined throughout the project. One key opportunity identified in the SWOT analysis is the existing foot traffic in Borlänge, which presents an opportunity to design spaces that encourage people to stay and engage with the city, rather than simply passing through as they do today. The site analysis also included a counting to register pedestrian and vehicle flow, as well as optional activities, this helped determine the current activity and identification of movement and of potential places for interventions. Mapping has played a central role in this project. The design is largely based on detailed mappings of the city and of the existing physical conditions. Throughout the thesis, extensive work has been carried out to capture accurate measurements of the site's layout in order to understand spatial relationships and distances. This was made digitally likewise as physically being on site with pen and paper and camera and trying to get the parts that the data online could not offer me. This has been crucial for creating realistic and well-founded conditions for the design.

The design process and methodology have been iterative, shaped and refined by all aspects of the thesis and ultimately leading to a proposed street design. The design is grounded in Jan Gehl's theories, with the street's specific needs identified through an inventory based on his 12 urban quality criteria. These insights guided the development of strategies aimed at creating a higher-quality urban environment on this particular site. The design is also informed by research from Smarta Gators, which highlights key factors that enhance quality of life, such as greenery, lighting and places to rest. In addition, the design draws inspiration from site visits and the historical context, which helped form a design language applied throughout the

street. The design language both supports and contrasts with the existing environment while referencing the site´s history. It has been tested and developed through sketch modeling, exploring historical elements in various ways as well as through both digital and sketching by hand. The method for developing a design for this long, linear street was to divide it into distinct sections. I identified four such sections and treated each as a separate "room" with its own character. These rooms were defined based on their unique spatial qualities. For each zone, I analyzed sun exposure to identify the most suitable locations for various design interventions and to determine where public engagement would be most effective.

AI-based grammar correction tools were utilized throughout all textual components of this thesis to support language refinement and minimize repetition. The writing process involved initial drafting by the author, followed by AI-assisted editing, and subsequent final revisions by the author to ensure clarity, coherence, and consistency.



2. Theory

2.1 Cities for People: Jan Gehl's Principles

Invite people to walk

The key to sustainable cities is when people are encouraged to walk, bike, and interact. This requires the creation of public functions, public spaces, and safe walking conditions. (Gehl, 2010, p. 7) Gehl argues that improving walking conditions is the starting point, as he has observed that in cities where the environment is more conducive to walking, the range of social and recreational activities increases. (Gehl, 2010, p. 19) It is an obvious fact that more roads invite cars into the city, just as more cycling paths attract cyclists. Therefore, it follows that improving conditions for pedestrians will naturally encourage more pedestrian traffic. (Gehl, 2010, p. 14) There are many examples of cities that have devoted significant space and resources to pedestrians, such as Copenhagen and Melbourne. These cities demonstrate that such efforts truly work, serving as excellent examples of successful pedestrian-friendly urban space, clearly showing that when people are given the opportunity to walk, sit, and gather comfortably within the city, it creates a more vibrant urban environment where people are encouraged to stay and engage. (Gehl, 2010, p. 13)

The edge zone

He also discusses the importance of the edges of ground-floor structures within the city. This is the zone where people walk and where the city is experienced. It is the point where city life meets the building, serving as the threshold where people enter and exit, and where indoor and outdoor spaces interact. The edge zone offers the best places for people, as it provides a full view of everything in front of them, rooted in the human instinct for protection. (Gehl, 2010, p. 75)

Human senses - Human scale

When designing cities, we should thoroughly investigate human pedestrian mobility and incorporate the human senses, as they form the foundation for how people act and react to different spaces and dimensions. This approach also helps us understand how humans communicate most effectively within urban environments. Therefore, it is essential to prioritize the human scale when planning and designing cities. (Gehl, 2010, p. 33) To understand the human scale, Gehl studied the human field of vision. Research shows that the human field has a limit of 100 meters, which is the maximum distance at which we can perceive other people in motion. The social field of 100 meters has historically been used in old squares, as it allows one to stand in one corner and still have a good general view of what's happening at the opposite

corner. This distance is also the limit at which we can recognize someone and identify who they are. Gehl also discusses the human field of 25 meters as an important dimension, as it is within this range that we begin to understand emotions and facial expressions of others. (Gehl, 2010, p. 35)

The Human Pace - 5km/h

The human ability to understand emotions and impressions is not solely dependent on distance but it is also adapted to pedestrian movement. The average human walking speed is around 5 km/h. At this pace, people have the ability to properly perceive their surroundings. (Gehl, 2010, p. 43) Areas designed for 5 km/h pedestrian movement are often smaller, with more details, and place people closer together, which is why we enjoy spending time in these areas. (Gehl, 2010, p. 67) This fact has been the subject of many studies, emphasizing the importance of activity and life as key urban attractions. People are naturally drawn to places where the presence of others is high. (Gehl, 2010, p. 25) In contrast, places where people travel at faster speeds, such as in cars, don't require or typically have a connection to the surroundings, since people in cars are unable to notice details at such speeds and need to prioritize safety. As a result, these areas tend to feature larger spaces, larger signs, and a lack of finer details and do not attract people. This makes it clear that distance and speed plays a significant role in how we experience space. In small, narrow spaces, we can see people as they are close to us and perceive details. These areas are therefore perceived as welcoming, and people are inclined to spend time there. One key to fostering vibrant city life is to create compact cities with streets designed for pedestrian movement, where the human scale is prioritized. This allows people to connect with their surroundings, creating life between buildings. (Gehl, 2010, p. 67)

2.2 Jan Gehl's Studies on Urban Activities

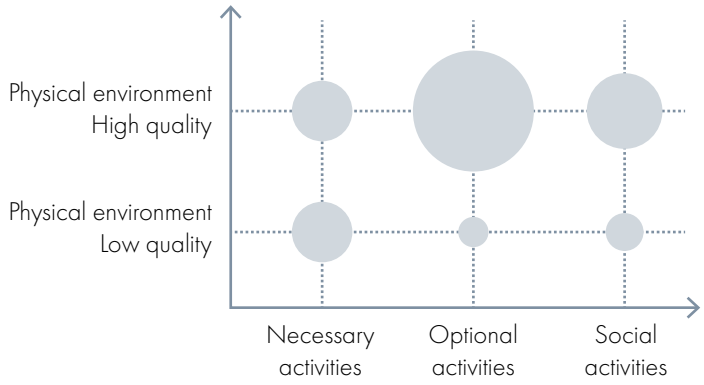
Dynamics of Urban Activities

The activities in a city are varied, but they influence each other. The activities people engage in within the city are also diverse and shift between different types. Gehl has categorized the city's activities. He has categorized them into three main types.

- Necessary activities: These are activities where people use the city to fulfill a purpose or get somewhere, such as commuting to work or making a delivery.

- Optional activities: Activities without obligations, such as taking a walk, recreation, resting, enjoying a nice day outdoors, observing the city, or window shopping. These optional activities are the most popular in cities, for which high quality is a requirement for them to take place. (Gehl, 2010, p. 20)

- Social activities: These encompass all forms of interaction between people in urban spaces and depend on the presence of individuals in the city environment. If the streets are empty, social activities will not take place. Therefore, the interplay between different activities is essential, as necessary and optional activities create the conditions for social interactions in the city. (Gehl, 2010, p. 22)



Graphic representation of the connection between outdoor quality and outdoor activities. (Gehl 2010, sp21).
Illustration: Author

2.3 Gehl´s 12 Urban Quality Criteria

Gehl has developed 12 urban criteria that my thesis will use as a theoretical framework for understanding urban environments, identifying their weaknesses, and determining what needs to be improved. The criteria are divided into Protection, Comfort, and Enjoyment, see below.

12 quality criteria. (Gehl 2010, p.239).
Illustration: Author

2.4 Designguide for smart streets

The guide, *"Designquide för smarta gator"*, outlines an overarching framework for city development and urban planning, with a specific emphasis on street design. It complements existing policies, ranging from EU-level regulations to Swedish national strategies, all aimed at fostering sustainable urban environments. What distinguishes this guide is its enhanced focus on the role of streets in urban sustainability. The guide is intended to serve as both an inspirational resource and a foundation for the renewal and improvement of Swedish street policy. (KTH, 2022, p.6)

The theory I gained from this guide helped me understand what type of street to focus on for transformation. There are many car-dominated streets in central Borlänge, but the guide provided a foundation for how to approach site selection.

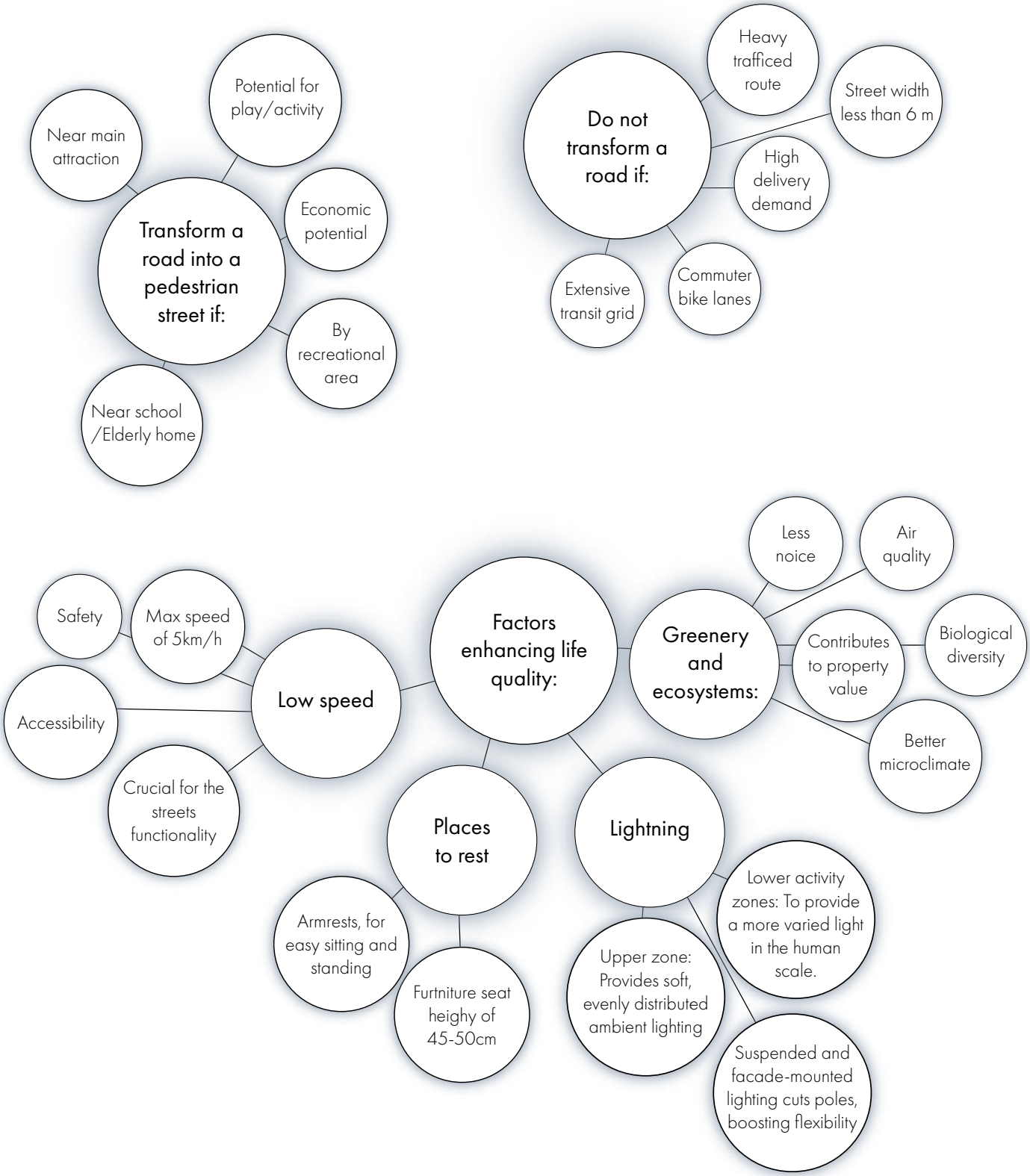


Diagram based on rules and riktlinjer från Designguide för smarta gator.
Illustration: Author

3. Background

3.1 The Spatial Division of 20th-Century Cities

During industrialization, city cores had turned into dirty environments that modernists sought to move away from. They envisioned cities designed for the modern human, centered around the car, which they believed contributed to human freedom (Stråhle, 2016, p. 21). The influential car manufacturer Henry Ford is said to have stated in 1912, "We will solve the city's problems by leaving it." (Stråhle, 2016, p. 22)

Since the emergence of the car, human life has not been prioritized in urban planning, while car traffic has been given significant importance. For instance, ideologies such as modernism have placed low priority on creating pedestrian-friendly cities and in developing urban areas into meeting places, which is the traditional function of a city, to be a social hub for interaction. This trend was already discussed in Jane Jacobs book The Death and Life of Great American Cities (1961). In it, Jacobs critiques modernist ideology, and how it separates city users from their surroundings by promoting large, free-standing structures that are disconnected from the ground and their environment. She foresaw how this approach would ultimately bring an end to city life. (Gehl, 2010, p. 3)

Sweden

At the turn of the 19th to 20th century, the first cars were introduced in Sweden (Kågeson, 2007, p.14). The Swedish Road Association was founded in 1914, and at that time, 5,000 cars were registered (Kågeson, 2007, p.15). Between 1920 and 1940, the national road network expanded by 40%, but the war slowed the development of cars. By 1945, there were 50,000 cars in Sweden, but just five years later, the number had skyrocketed to 242,000. This made Sweden the most car-dense country in Europe, a title it held until the early 1970s (Kågeson, 2007, p.16). World War II had left the rest of Europe in ruins, and Sweden's industrial apparatus therefore had a head start in the post-war export market. These conditions led to significant economic growth, which remained relatively constant until the mid-1970s. Particularly strong was the growth during the so-called "record years" (1960-1970) (Ärnbäck, 2019, p.50). The breakthrough of mass car ownership in Sweden occurred around 1960. Between 1955 and 1965, the number of registered passenger cars tripled, from just over 600,000 to 1.8 million (Kågeson, 2007, p.20).

In the early 1900s, residential areas and streets began to be built further from the city center in what were called suburban districts. The urban core was polluted and had

poor air quality due to industrial activity, and many buildings within the city were in very poor condition, which resulted in many people wanting to escape the city. (KTH et al., 2022, p.15) During these years, major reconstructions, demolitions, and new developments took place in Swedish cities. (Ärnbäck, 2019, p.54) Modernist urban planning in the mid-1900s led to major changes in cities and the surrounding land. Many new highways and roads were constructed, with a strong focus on separating different types of traffic within the network. The Miljonprogram housing areas are a clear reflection of this era and its approach to urban planning. (KTH et al., 2022, p.15) Thus, heavely influenced by the car culture. (Kågeson, 2007, p.17). Apartments were now required to have parking spaces; according to the guidelines, there should be 12 parking spaces for every 1,000 square meters of residential area (Kågeson, 2007, p.17). During this time period, mid 1900, the number of shopping centers and supermarkets increased sixfold. The rise of external shopping centers is therefore a direct result of the car (Ståhle, 2016, p.55).

The rapid increase in car usage led to a significant number of accidents as the cities were not adapted to the increase in car usage. During the 1960s, there was a need to better understand the causes of these accidents and clarify which countermeasures should be implemented, as there was a lack of guidelines on traffic safety issues to mitigate accident risks. On behalf of the Swedish Road Administration, the research group SCAFT (Stadsbyggnad, Chalmers, arbetsgruppen för forskning av trafiksäkerhet) at the Department of Urban Planning at Chalmers University of Technology had been studying ways to improve traffic safety through urban planning since 1961. The purpose of the research was to gain insight into the relationship between traffic accidents and the design of the traffic environment, enabling the development of guidelines and traffic planning strategies. In 1968, SCAFT published Guidelines for Urban Planning with Regard to Traffic Safety (Borlänge kommun, 2001, p.48). These guidelines provided directions on separation and differentiation (Borlänge kommun, 2001, p.109). SCAFT 1968 became the national guideline that had the greatest influence on physical urban planning in Sweden, including the city of Borlänge (Borlänge kommun, 2001, p.48). Separation in planning aimed to divide all traffic modes, with different streets designated for each. The differentiation focused on making each traffic flow as homogeneous as possible, and where different modes of traffic met, grade separation would be implemented. The location of functions was also important, aiming to reduce traffic by encouraging people to live closer to where

their activities took place, thereby implementing localization. Overall, the guideline emphasized that clarity and visibility were crucial, and vehicle drivers should have a clear line of sight at all points in the network (Statens planverk, 1968, p.9).

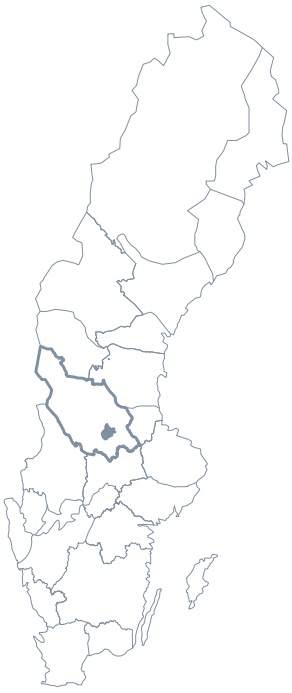
"SCAFT 1968: Guidelines for Urban Planning with Consideration for Traffic Safety."
Source: (Borlänge kommun, 2001, p.48)

3.2 Borlänge context

Before examining how car-centric modernist ideals influenced Borlänge's cityscape, a brief introduction to the city, located in Dalarna and marked in blue on the map, follows.

The foundation of what is now the city and center of Borlänge can be traced back to the 1870s, when Stora Kopparberg Bergslag decided to establish a new ironworks in the village of Domnarvet. The location Domnarvet was chosen due to the construction of a railway connecting Gävle, Falun, and Gothenburg. As a result, a station was established in Borlänge, though not directly adjacent to the ironworks, but rather one kilometer south of it on undeveloped agricultural land. This led to the development of Borlänge's station community. This community was making its emergence as an important regional hub and in 1898, the Borlänge community was elevated to a köping (market town). During the 20th century, the town grew as a center, attracting many traders and craftsmen who established themselves there, making it a focal point for commerce and craftsmanship. This growth culminated in the merger of Domnarvet and Borlänge köping, forming the city of Borlänge in 1944. Following this, during the post-war period, population growth around Borlänge accelerated, with the city expanding from 18,000 inhabitants in 1944 to 27,000 by the turn of the year 1963–64. This rapid population increase was largely driven by new job opportunities in the city's many industrial enterprises (Ärnbäck, 2019, p.9).

Today Borlänge is the most populous city in the region, with a population of 52,000. and According to Sveriges Kommuner och Regioner (n.d.) The city of Borlänge is classified as a large city.



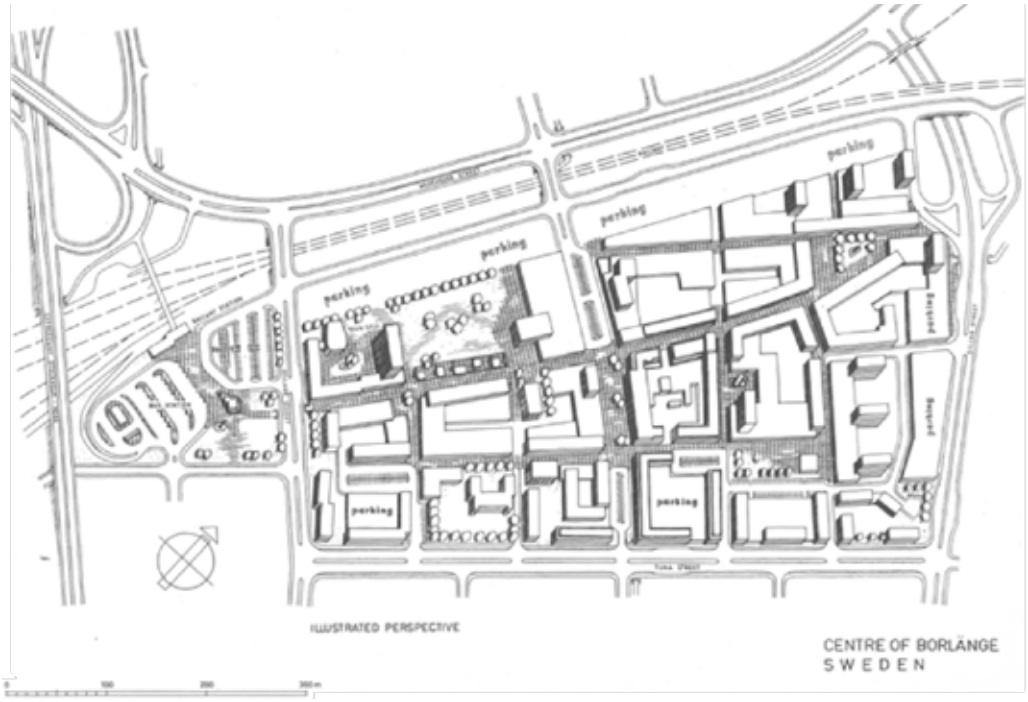
3.3 Borlänge 1960: Physical planning

Borlänge received a new general plan in 1958 (Borlänge kommun, 2001, p.37). But a need for disposition plan arose due to the expansion of traffic, as traffic increased, commercial life became more difficult. The disposition plan proposed that motor traffic should approach the city center via a ring road around the city core, encompassing Magasingatan, Siljansvägen, Tunagatan, and Bygatan. Along this ring, there would be numerous parking spaces where drivers could park and then walk into the city center to run errands. Key measures included traffic differentiation, which involved creating a car-friendly traffic system with accessible parking areas and motor traffic routes that protected pedestrian paths in the inner city (Borlänge kommun, 2001, p.41).

This disposition plan was created by John Linnaeus the city architect for that time. In Linnaeus plan you can see ideas that were foundational to the physical planning of the record years (Ärnbäck, 2019, p.58). The purpose of traffic separation was to distinguish car traffic from pedestrian traffic, and this could not be achieved by simply widening the streets, as that would be too expensive. Drivers would follow designated routes until they found parking in nearby parking areas. As a result, the distance to the desired shops was not too far, while car traffic did not circulate in the city center.

According to newspaper reports, there was no discussion regarding the proposal for the disposition plan for the city area of Borlänge at the city council meeting on Thursday, November 24, 1966. The proposal, developed by John Linnaeus, was adopted by full consensus. Nevertheless, the vehicle traffic in the city center would be maintained for the time being, and the pedestrian street system would not be implemented until the economic and planning conditions allowed for it. But, as an attempt to explore how pedestrianism would work in the center, Borgarnäsvägen from Stationsvägen to Siljansvägen and Sveagatan were closed off to vehicle traffic to observe how the system would function. (Borlänge kommun, 2001, p.43). The traffic differentiation in Borlänge and the Linnaeus plan were considered groundbreaking, and in 1964, they attracted significant international attention when presented at the International Study Week for Traffic Engineering in London (Ärnbäck, 2019, p.58). The traffic separation in Borlänge's city center still reflects the city's layout today. (Ärnbäck, 2019, p.60)

1960´s Proposed disposition plan borlänge



Traffic plan from John Linnaeus' 1960s Borlänge layout. Early plans show the entire center within the ring as pedestrian-only.
Source: (Ärnbäck, 2019, p.59)

Realised

Borlänge Center: Proposed and realized road network, 1957. The city still follows this layout.
Source: (Borlänge kommun, 2001, p.43)

3.4 ”Borlänge year 2024”

At the beginning of the 1990s, discussions arose regarding the future development of Borlänge. Five architectural firms were tasked with envisioning and proposing ideas to improve and transform the city's central areas, outlining their vision for Borlänge in 2024, 30 years into the future. (Borlänge kommun, 2001, p.154) These ideas were published in the magazine *”BO I BORLÄNGE”*, in an article titled *”BORLÄNGE ÅR 2024”*,

Many argued for a Borlänge that moves away from modernism and envisions small scale Borlänge as a model suggesting the city that gradually develop intimite streets, squares and neighbourhoods. As well as some want improved connection in the city and propose creating new routes for pedestrians as wel as public transport to connect the cities key points better. Likewise as thet wich for Borlänge to become a greener city and environmenttally concious city where green areas are connected .

The article also includes a section written by city architect Ludvigsson, in which he discusses the emergence of a ”new human” in the rational world of the 20th century. He compares the deep railway cut that runs through Borlänge and the tall Miljonprogram structures, known as *”Dagny-husen,”* to Le Corbusier's vision of *”Ville Radieuse”*. Ludvigsson further explains that Borlänge's urban form is influenced by various planning models. The oldest traces can be found in the medieval village structure, still evident today in the winding layout of Borgarnäsvägen. In the late 1800s, Borlänge began to be planned according to a grid pattern, yet Borgarnäsvägen retained its curved form.

Samhällsbyggandet bygger alltid på visioner och förebilder. Borlänges äldsta planeringsförebild är den medeltida byn. Än idag tydlig i den krökta Borganäsvägen. Titta på Bo i Borlänges första sida. Vandra Borganäsvägen och upptäck nya vyer hela tiden utmed den krökta gatan som är kännetecknande för medeltiden.

Excerpt from news article ”Borlänge År 2024,” published in April 1994, from the magazine Bo i Borlänge. Source: (Borlänge kommun, 2001, p.156)

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Bo i BORLÄNGE — Nr 1 • 1994 April — 9

Borlänge 2024

BORLÄNGE ÅR 2024

Arkitektkontorens förslag

ARKEN

Ta det bästa ur det **småskaliga Borlänge** som **förebild** och låt staden steg för steg få karaktäriseras av småskalighet och intimitet både vad gäller gator, torg och kvarter. Låt staden **växa ut mot älven**. Bygg ut området längs järnvägen mot Mora och mot Kupolen. **Mängder med förslag till kompletterande bebyggelse ges**. Centrum och Hagalund knyts ihop och **kollektivtrafiken prioriteras** genom att på sikt flytta järnvägs- och busstationen till Stationsgatan. Reservera plats för konserthus vid Maximtorget och låt **Sveatorget** karaktäriseras av **historiska teman som järnet**, masugnen och skogstjärnen. Planera utifrån **förebilder "Lex Borlänge". Gör upp med modernismen, de "nya" städerna blev inte städer utan förorter**.

PONTVIK

Låt Borlänge bli den gröna staden och den miljömedvetna staden där befintliga grönområden kopplas samman, kontakt med älven skapas och alla överblivna ytor planeras med skog. Förstärk det centrala stråket Stationsgatan - Hagavägen med nya verksamheter. Vid Maximtorget ges plats för stadskyrka och konserthus. **Låt centrum bli tydligt** genom att **spårdiket får kantas av nya byggnader** och verksamheter dit också ny bebyggelse i form av "stadsmur" leder.

HUS & PLAN

Skapa utrymme för ett **alléstråk längs Ovanbrogatan** genom att ersätta järnvägsulikets slänter med murar. Stråket utgår från den nya Stationsparken intill det utbyggda resecentrat och möter **Stationsgatan** som genom att utvidgas **blivit stadens Stora Torg**. Torget kantas av Musikens hus istället för Domushuset och sluts mot Ovanbrogatan med två nya affärs- och bostadshus. Det ersatta Domushuset ger möjlighet för Liljekvistskaparken att öppna sig mot stadskärnan och locka med parkdamm och vattenkälla.

STINTZING

Låt järnvägsstråket kantas av den nya "Bergslagsallén" som lämnar plats för **nya byggnader längs centrums norra sida** och som binder ihop den nya stationsplanen intill den nya stationsbyggnaden med Siljansvägen. **Centralbron kringbyggs med fyra torn** som också leder ner till **framtida pendeltågsstation** och norr om bron reserveras plats för stadskyrka. Domushuset byggs om till stadsbibliotek och konserthus och leder ut i Liljekvistskaparken. Vid Sveatorget görs påbyggnad av Åhlénshuset och ny bebyggelse i kv Sigge och Halvdan får kanta det föreslagna "Nytorget".

FFNS – BRINK

Borlänge - den måttfulla staden. Borlänge som navet i det nätverk av orter som omger staden. Men då måste de **interna kommunikationerna förbättras**. Låt ett nytt **huvudstråk för gående och kollektivtrafik binda ihop viktiga punkter från Kupolen, ett utbyggt resecentrum vid station, gångbro från Sveatorget över till Folkets hus med intilliggande ny konsertlokal**. Längs stråket finns utrymme för nya verksamheter. Stationen nås från Centralbron genom att plattformarna vänds. **Gör motorvägslandskapet till en boulevard som ekologiskt bälte runt innerstaden.**

Dessutom har ett deluppdrag för en begränsad skiss givits

SÖDERBLOM & PALM

Omgärda **Sveatorget** med **nya husrader** och **belägg torget med gatsten**. Ny större damm med omgivande sittplatser tillskapas. Även **Liljekvistskaparken förses med ny damm** och häckar får skapa rumsbildningar på ett livfullt sätt. En ny scen placeras intill Hantverksbyn.

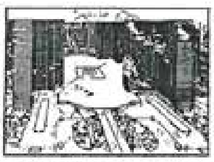
Framtidens Borlänge fordrar bra förebilder

Försök att minnas Borlänge 1964 och jämför med 1994. Det ger perspektiv på hur mycket som kan förändras på 30 år. Vad kommer att förändras i Borlänge fram till 2029?

Fem olika framtidsbilder presenteras i detta nummer av Bo i Borlänge.

Samhällsbyggandet bygger alltid på visioner och förebilder. Borlänges äldsta planeringsförebild är den medeltida byn. Än idag tydlig i den krokta Borganäsvägen. Titta på Bo i Borlänges första sida. Vandra Borganäsvägen och upptäck nya vyer hela tiden utmed den krokta gatan som är kännetecknande för medeltiden.

I slutet av 1800 talet hade Borlänge fått växtvärk. Då hämtades rutnätsmönstret från antiken till Borlänge. Fd Apotekshuset hör samman med antiken i byggnadsstil. Liksom Borlänge Tidnings byggnad. Men Borganäsvägens krökta väglinje fick vara ifred!



Le Corbusiers vision. Jämför spårdiket och dagnyhusen.

Trädgårdsstadens ideal från England kom till Borlänge 1915 genom Bergslagsbyn. Det mest genomplanerade område vi har. Även Soltorget har trädgårdsstaden som förebild. Men vår tids mest dominerade byggnadsstil är funktionalismen. Industrisamhällets byggnadsstil med "hus i park" istället för rutnätsstadens "hus i kvarter". Den nya människan skulle också träda fram i den nya rationella världen. Också denna idealbild kom fram tidigt på 1920-talet.

Arkitekten Le Corbusier var den skickligaste visionären för de nya tankarna. Till Borlänge kom funktionalismen 1931 med Konsum vid Sveatorget.

Var sak har sin tid och sina föreställningar. Nu ska vi i grova drag bestämma oss för vilka förändringar som är önskvärda för 30 år framåt.

En alldeles nödvändig och grundläggande förändring är anpassning till kretsloppet. Jorden är ett slutet system. Utan fungerande kretslopp blir jorden en stor sophög. Fortsätter vi i gamla hjulspår kommer alla tillgångar att ligga på tippen och i luften i form av molekylsopor. Vi lever redan nu bokstavligen mitt i soporna och samtidigt undrar vi varför allergier och andra sjukdomar ökar.

På kretsloppsområdet har Borlänge startat bra. Därför fick Borlänge Kungens Miljöpris. Men det är ett Maratonlopp och vi har långt till mål.

Låt oss nu tränga in i vad de fem arkitektkontoren har för visioner under 30 år framåt i tiden.

Här bredvid finns förslagen i sammandrag. På följande sidor presenterar vi en del av de viktigaste punkterna i förslagen. På utställningen i Dragegallerian finns hela förslagen presenterade.

Ta del av utställningen. Fundera över vad du tycker. Skriv gärna ner dina tankar och lämna brevet i förslagslådan i utställningslokalen i Bragegallerian direkt efter påsk, eller skicka dem till: Stadsarkitektkontoret, Borlänge kommun, 781 81 Borlänge.

Arne Ludvigsson
Stadsarkitekt

Här är de som skapat framtidsvisionerna

*Borlänges stadsarkitekt Arne Ludvigsson omgiven av de som skapat arkitektförslagen: **Söderblom & Palm**: Ove Staffin, Tomas Andersson, Elisabet Johansson, Veronica Krause. **Stintzing & Koinberg** Ingalill Stintzing, Martin Stintzing, Sture Koinberg. **HUS & PLAN**: Leif Engdahl, Steve Johansson, Kurt Axelsson, Claes-Göran Ahrén, Peder Melin, Fredrik Wulz. **FFNS-BRINK**: Jan Ouchterlony, Jack Hansson, Ola Wikström, Fredric Elsner, Ulf Gillberg, Thorbjörn Andersson. **ALEXIS PONTVIK ARKITEKTATELJE AB**: Alexis Pontvik, Sven-Olof Nyberg. **ARKEN ARKITEKTER AB**: Torbjörn Einarsson, Lars Gunnars, Lena Påsson, Peer-Ove Skånes, Ulf Nordfjell.*

News article "Borlänge År 2024," published in April 1994, from the magazine Bo i Borlänge.
Source: (Borlänge kommun, 2001, p.156)

3.5 Borgarnäsvägen Historical value

Borlänge Station was established on what was once agricultural land, the station community began to develop. The early settlement expanded along Sveagatan (called Lilla gatan at that time), Stationsgatan, and Borgarnäsvägen. (Ärnbäck, 2019, p.9) Borgarnäsvägen became the main street of Borlänge center in 1875 (Karlsson Liljan, L. 2021, p. 50) and buildings grew along Borgarnäsvägen from the country road in Borlänge, past today's railway station to Hushagen and to the river. (Karlsson Liljan, L. 2021, p. 42). This distinctive curve was shaped by river ravines that extended into the agricultural landscape. But, despite these ravines being filled in, the road's curve was never straightened (Karlsson Liljan, L. 2021, p. 43) Between 1927 and 1928, Borgarnäsvägen was paved with asphalt, making it the first asphalted road through an urban area in Sweden. (Ärnbäck, 2019, p.10)

3.5 Borgarnäsvägen - Section A - B

When Borlänge's station community was established, most of the houses were built of wood. However, after a major city fire in 1900 that destroyed large parts of the city's older structures, the inhabitants began rebuilding primarily in stone (Ärnbäck, 2019, p. 9). Some years earlier, in 1880, eight wooden structures were built along Borgarnäsvägen, intended to be rented out to workers and craftsmen. Over the years, some of these structures were demolished. However, in the 1970s, public opinion turned against further demolitions, leading to a decision to preserve the remaining wooden buildings. This group of structures along Borgarnäsvägen represents the last cohesive wooden housing environment from the 1880s in Borlänge's city center. In 1983, additional regulations were introduced for all remaining buildings in this block. This plan also aimed to transform the area back into what it historically was, a so-called crafts village (Hantverksbyn). Today, this area, known as Hantverksbyn, is located along Borgarnäsvägen section A-B. (Mol, Ärnbäck, 2023) In proximity to Hantverksbyn, the park "Liljeqvistska" is located. It was originally a garden that was transformed into a public park in the 1970s. Today, it serves as Borlänge's city park. The park features a section known as the stone park, showcasing a variety of rock types, many with regional connections. The stone park also includes some flowers, such as traditional perennials, herbs, and medicinal plants. (Borlänge kommun, 2024)

Both Hantverksbyn and Liljeqvistska are located along the trafficked section of Borgarnäsvägen, section A-B. This section connects the city core and the University with the train station and centrally located external shopping areas.


5
D
4
C
3
B
1
A
2
1
1. Shopping areas
2. Trainstation
3. City core
4. SSAB
5. Dalarna River
A-B. Borgarnäsvägen trafficed part
B-C. Borgarnäsvägen pedestrian part
A-C. Borgarnäsvägen today
A-D. Borgarnäsvägen's length during the 1800s and early 1900s
0
100
200m

3.6 Borlänge's Current Design Strategies

Borlänge latest comprehensive plan 2014: Made in collaboration with the city of Falun. The comprehensive plan for Falun-Borlänge emphasizes that the overall layout of these cities is crucial in influencing whether people choose to walk or not. They argue that a densified well structured city gives a base for a sufficient number of nodes to be reached by foot. Thus, the plan states that FalunBorlänge should plan for an attractive, walkable city, and to achieve this, they will implement a pedestrian program. (Kommunfullmäktige i Falun & Kommunfullmäktige i Borlänge, 2014 p.42)

Borlänge has likewise developed an own architectural program that outlines six principles guiding Borlänge's development and planning (Borlänge kommun, 2023, p.7).

1. An architectural idea: All construction shall be preceded by an architectural idea that describes the project´s aim and values. Streets, buildings, squares, and parks will be shaped with consideration for their surroundings and a strong focus on the human scale (Borlänge kommun, 2023, p.13).

2. Designing with consideration for the site's conditions: All planning should be preceded by an analysis of the area's existing conditions. This analysis should include a description of the area, its character, external factors, and axial lines and sightlines to consider. (Borlänge kommun, 2023, p.14)

3: Respecting the historical context: Structures and their surroundings should reflect and convey the story of Borlänge. (Borlänge kommun, 2023, p.17)

4: Building with long-term sustainable methods and materials: Architecture must be sustainable, promote the use of local materials, and incorporate materials with minimal environmental impact and a long lifecycle perspective. (Borlänge kommun, 2023, p.19)

5: Making the municipality inclusive and accessible: The city center of Borlänge should be connected to other areas, prioritizing pedestrians over motor vehicles. Municipal spaces should encourage social interaction, with ground floors opening to public spaces. Borlänge aims to create places for public dialogue and the democratic process. (Borlänge kommun, 2023, p.20)

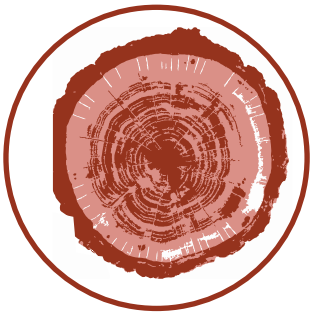
6: Integrating green infrastructure and biodiversity: Borlänge should feature diverse green spaces, including trees, plantings, urban gardens, and parks. These will help manage stormwater, reduce noise, and improve air quality. (Borlänge kommun, 2023, p.23)

1. Idea

2. Site specific

3. Respecting context

4. Long term materials
+ methods



5. Inclusivity/
Accessibility

6. Green infrastructure
+ biodiversity

4. Analysis

4.1 Central Borlänge - Spatial Distribution

Borlänge has an interesting cityscape. Many key hubs are present within central Borlänge such as industries and shopping areas but they are not well connected with each other nor the city core due to extensive infrastructure.

City core of Borlänge

External shopping area

The industry of SSAB

0 500 1000m

The white space primarily reveals areas designated for cars and trains.

In the northeast and southwest, it's evident that much of the space is taken up by parking deserts due to external shopping areas and industry. Similarly, extensive train and car infrastructure cuts through the city.

4.2 Income

Income - Borlänge

What's interesting is that many people with lower incomes live within the city core, which is quite unusual. Typically, the more central the location, the higher the living prices and the more desirable it becomes.

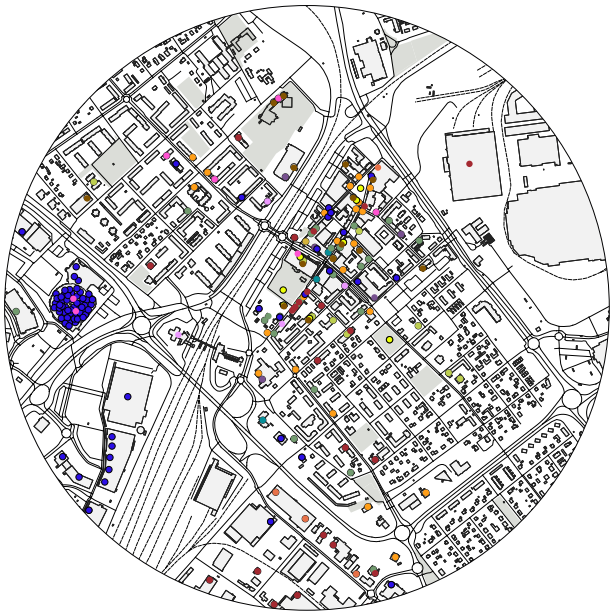
Income - Centre

Zooming in on the center, the lighter shade of red covers most of the city center, with a few exceptions.

In many cities, the quality of the spaces between buildings plays a key role in driving property values. In Borlänge, one could argue that these interstitial spaces currently lack the necessary qualities to make city center living more attractive..

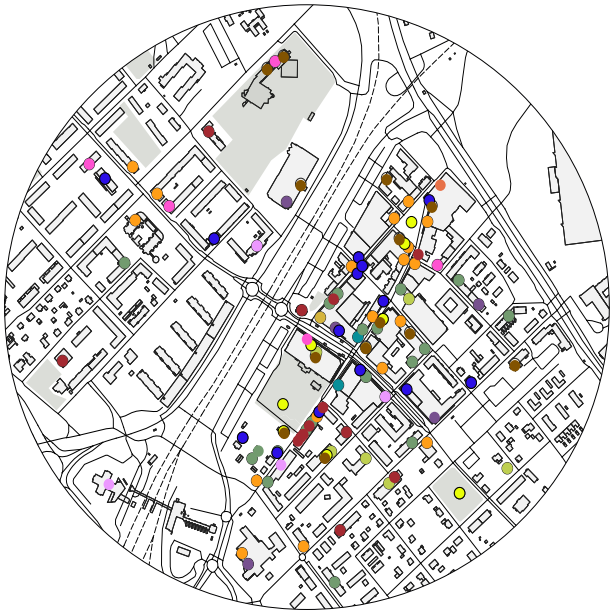
4.3 Existing functions

- Café
- Bar
- Authorities
- Bank
- Hairdressers / care
- Business
- Free Amenities
- Public/Cultural Amenities
- Activities
- Education
- Commersial
- Hotel
- Restaurants



Zoom in City Centre

Borlänge hosts a variety of functions, as categorized in this map. While the city center features a diverse mix, other areas are more homogeneous. Though a high concentration of functions should support vibrant urban life, this is not necessarily the case. The issue appears to lie not in the number of functions, but in the quality of the spaces between buildings.



4.4 Cafés, Culture, Activities, Recreational

Cafés

What Borlänge notably lacks in terms of amenities is cafés—there are only two in the city center. One is within Högskolan Dalarna and, while open to the public, it doesn't fully convey a public atmosphere. Additional cafés exist near the center and in the external shopping area.

Cafés, I would argue, are essential to city life, offering spaces to sit, study, or socialize at a relatively low cost.

Public / Free Amenities

The yellow dots on the map represent places with free access, such as parks, squares, libraries, museums, and organizations like ABF, which offer free courses and study circles. One location also offers free equipment rentals.

The brown dots mark cultural venues with entrance fees, highlighting the range of cultural opportunities available in Borlänge.

4.5 Site analysis - Traffic flows

Borlänge = Cartopia

Borlänge has a highly car-dependent transportation network. On almost all streets where walking is possible, cars are also allowed.

Bike network

The city's bike and pedestrian network mirrors the car network. Where car roads end, bike routes often also stop. As a result, bike lanes do not provide access closer to the city core, making cycling a less time-efficient option.

The map illustrates this relationship: The car network is shown in black, and the bike network in red.

Pedestrian streets

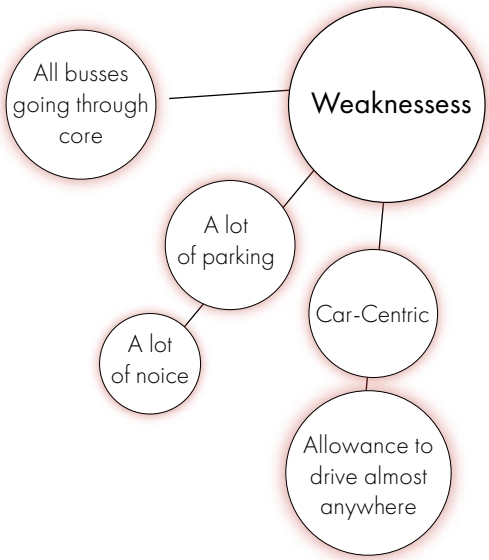
The area marked in red highlights the only pedestrian zone in Borlänge center, which includes Sveagatan and part of Borgarnäsvägen. However, this pedestrian street is weakened by two road crossings, one of which is the main bus route and station. This creates an unsafe environment for pedestrians, making the area less comfortable to spend time in.

Pedestrian centre

The 1960s plan for Borlänge envisioned a pedestrian only inner city. It could serve as a model for transforming the current vehicle network but not creating this solid ring road but rather connect pedetsian and bike routes from the core to other parts.

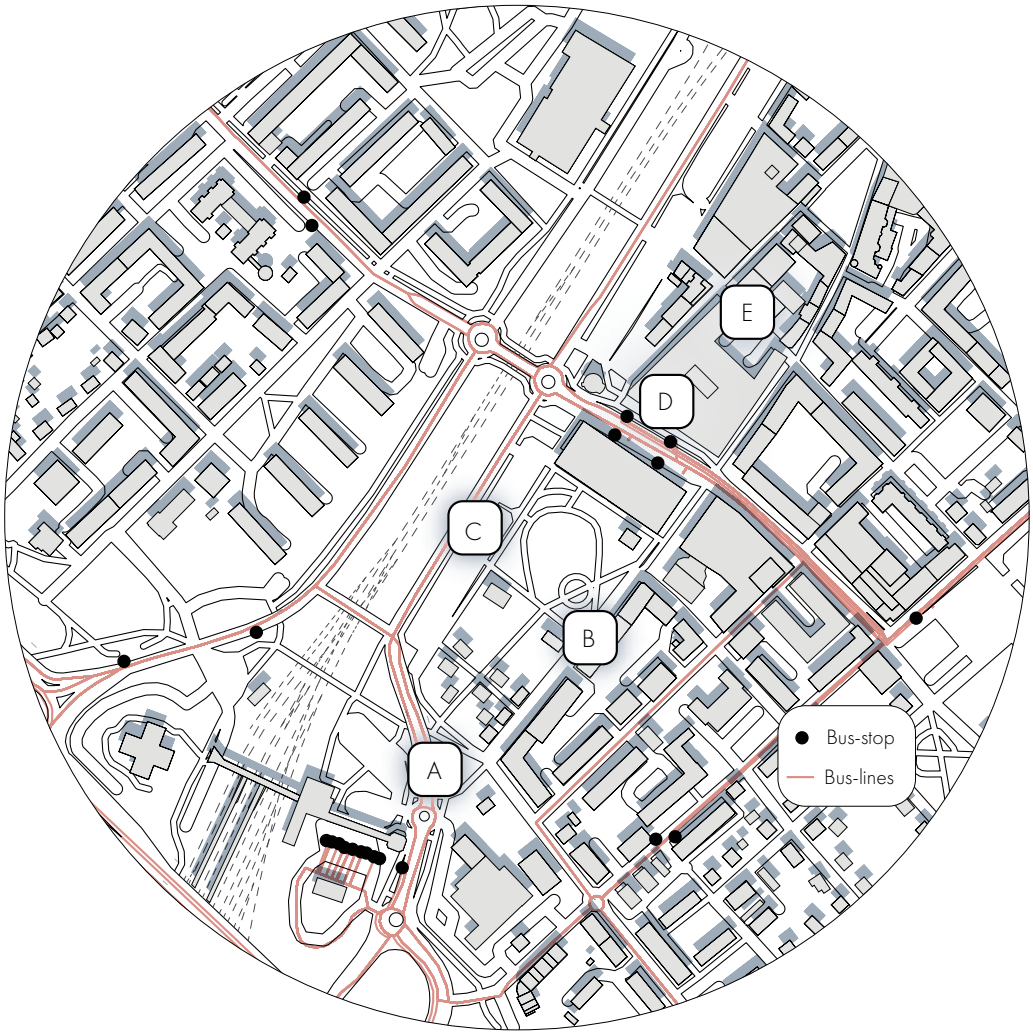
Traffic plan from John Linnaeus' 1960s Borlänge layout. Early plans show the entire center within the ring as pedestrian-only. Source: (Ärnbäck, 2019, p.59)

4.6 SWOT Borlänge Center



4.7 Potential Key Projects

This mapping presents issues in Borlänge center related to car traffic, creating barriers, noise, and unsafe environments



A: This highly trafficked road, filled with cars and buses outside the train and bus station, creates a barrier between the train station and Borlänge city center.

B: The trafficked section of Borgarnäsvägen serves as an important link to key nodes. However, due to its design as a car-centric road, it is primarily used for transit rather than for staying or engaging.

C: Bygatan Road and Ovanbro Parking create an unsafe, insecure, and noisy environment in the center.

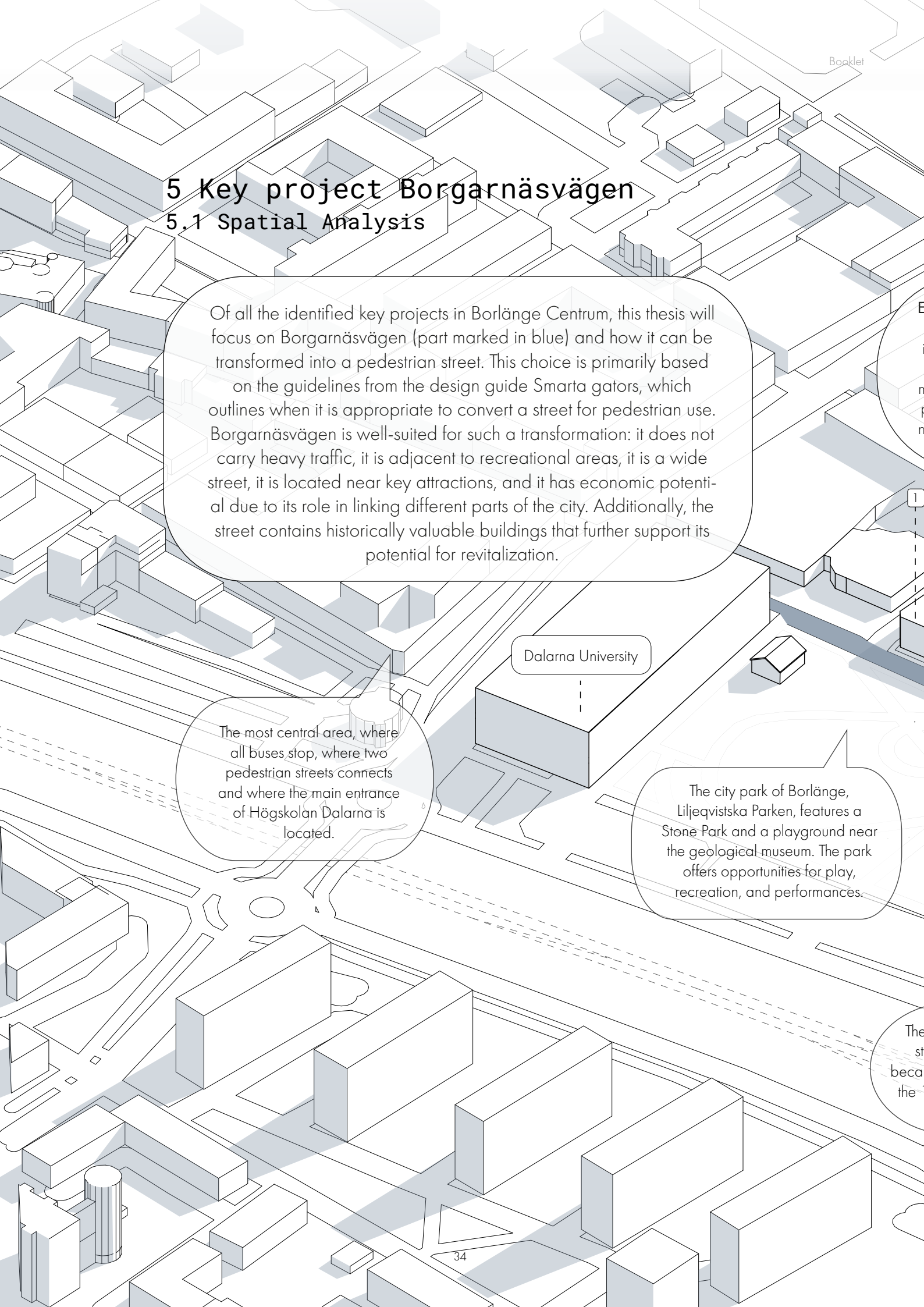
D: Stationsgatan creates a barrier between the two sides of Borlänge city center. As this street is home to the "Borlänge Centrum" bus stop, serving all city buses as well as many intercity buses.

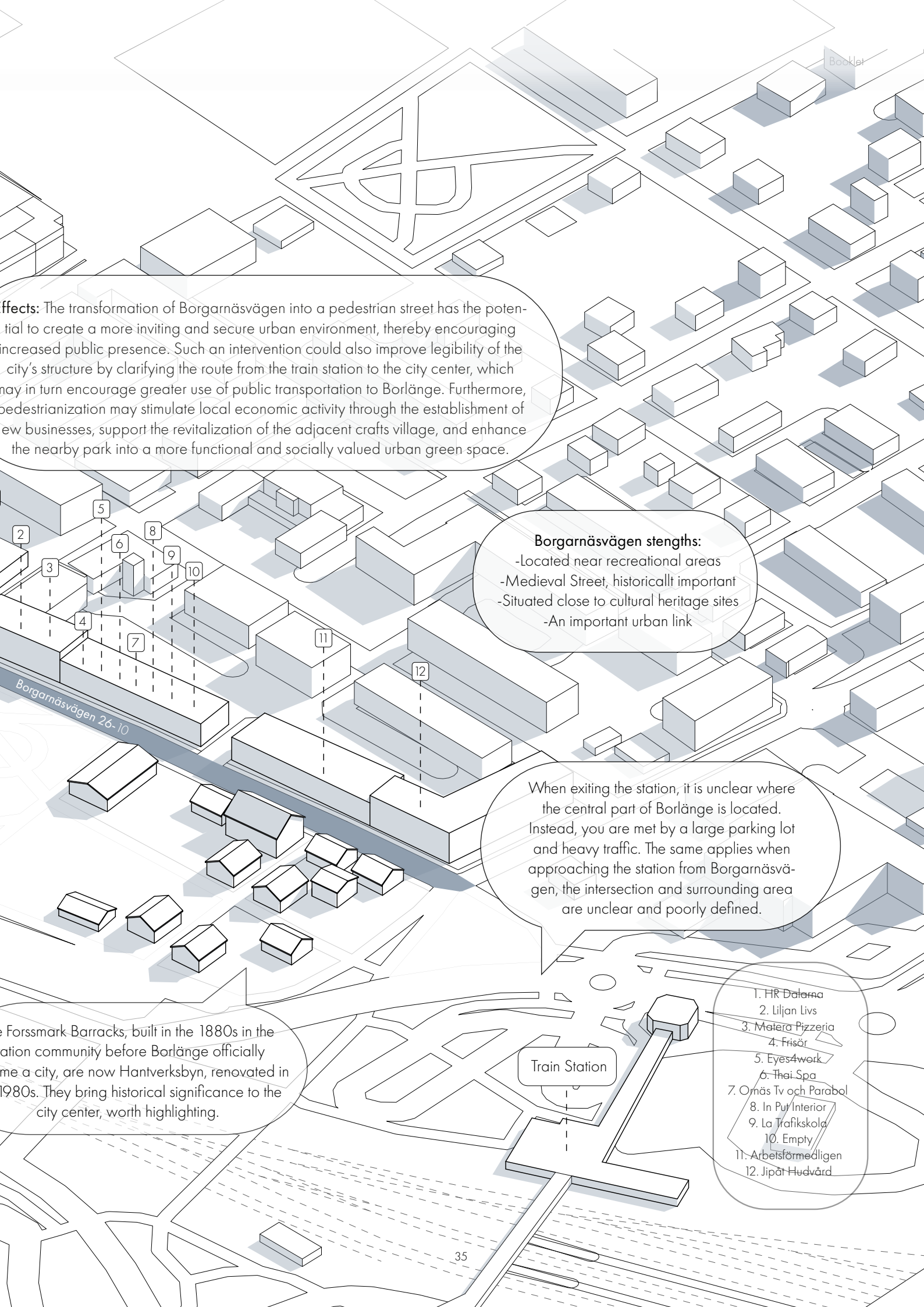
E: Streets that cross the only pedestrian area in the city. These crossings are highly trafficked and create an unsafe environment in the part of Borlänge city center that should be safe and pedestrian-friendly.

5 Key project Borgarnäsvägen

5.1 Spatial Analysis

Of all the identified key projects in Borlänge Centrum, this thesis will focus on Borgarnäsvägen (part marked in blue) and how it can be transformed into a pedestrian street. This choice is primarily based on the guidelines from the design guide Smarta gators, which outlines when it is appropriate to convert a street for pedestrian use. Borgarnäsvägen is well-suited for such a transformation: it does not carry heavy traffic, it is adjacent to recreational areas, it is a wide street, it is located near key attractions, and it has economic potential due to its role in linking different parts of the city. Additionally, the street contains historically valuable buildings that further support its potential for revitalization.




ffects: The transformation of Borgarnäsvägen into a pedestrian street has the potential to create a more inviting and secure urban environment, thereby encouraging increased public presence. Such an intervention could also improve legibility of the city's structure by clarifying the route from the train station to the city center, which may in turn encourage greater use of public transportation to Borlänge. Furthermore, pedestrianization may stimulate local economic activity through the establishment of new businesses, support the revitalization of the adjacent crafts village, and enhance the nearby park into a more functional and socially valued urban green space.
Borgarnäsvägen stengths:
-Located near recreational areas
-Medieval Street, historicallt important
-Situated close to cultural heritage sites
-An important urban link
Borgarnäsvägen 26-10
When exiting the station, it is unclear where the central part of Borlänge is located. Instead, you are met by a large parking lot and heavy traffic. The same applies when approaching the station from Borgarnäsvägen, the intersection and surrounding area are unclear and poorly defined.
e Forssmark Barracks, built in the 1880s in the ation community before Borlänge officially me a city, are now Hantverksbyn, renovated in 1980s. They bring historical significance to the city center, worth highlighting.
Train Station
1. HR Dalarna
2. Liljan Livs
3. Matera Pizzeria
4. Frisör
5. Eyes4work
6. Thai Spa
7. Omäs Tv och Parabol
8. In Put Interior
9. La Trafikskola
10. Empty
11. Arbetsförmedligen
12. Jipat Hudvård

5.2 Counting Borgarnäsvägen

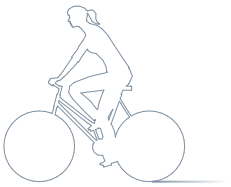
To understand the activity on Borgarnäsvägen Street, some basic facts will be gathered. Since the street is relatively quiet, observations will be conducted at longer intervals. The site will be visited four times during the day, and the following will be recorded:

- Number of pedestrians

- Number of people engaged in conversation

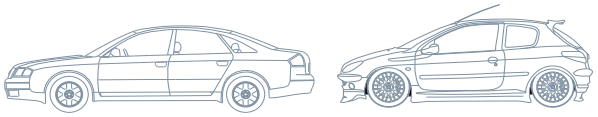
- Number of people who stop

- Numbers of biking



- Number of passing cars

- Number of parked cars



The observation was conducted on March 31st, a sunny Monday in Borlänge.

08:00: 3°C
12:00: 8°C
16:00: 10°C
20:00: The sun has set, and the temperature is 6°C.

Observed data:

08:00–09:00
Number of passing pedestrians: 109
Number of people engaging in activities: 2 (short conversation)
Number of people who stop: 3 (all 3 smoked)
Numbers of biking/scooters: 16
Number of passing cars: 17
Parked cars: From 5 to 9 cars during that hour

12:00–13:00
Number of passing pedestrians: 207
Number of people engaging in activities: 3 (on a park bench near the street)
Number of people who stops: 0
Numbers of biking/scooters: 26
Number of passing cars: 33
Parked cars: From 4 to 8 cars during that hour

16:00–17:00
Number of passing pedestrians: 128
Number of people engaging in activities: 0
Number of people who stops: 1
Numbers of biking/scooters: 56
Number of passing cars: 29
Parked cars: From 9 to 5 cars during that hour

20:00–21:00
Number of passing pedestrians: 86 (the majority the first half hour)
Number of people engaging in activities: 2
Number of people who stops: 1
Numbers of biking/scooters: 15
Number of passing cars: 18
Parked cars: From 7 to 6 during that hour

Reflection:

During my counting, I noticed the lack of seating, which forced me to stand the entire time, making me quite noticeable on a street where few were engaged in activities or conversation. The flow of people was steady during the day, with the street mainly serving as a transitional path, but significantly less at night, particularly in the last half hour around 8:30 PM. A small store and a pizzeria drew some visitors, but the street remained otherwise quiet. The number of pedestrians was higher than expected, and there were more cyclists than I had realized. I hadn't known biking was so common in Borlänge. Additionally, there were fewer cars than anticipated. Despite the street being one-way, I observed drivers going in the opposite direction without causing significant disruption, which could have been problematic with higher traffic volume

This inventory contributes to the thesis by clearly highlighting the lack of opportunities to sit and observe street life, as well as the absence of functions that engage people, both at ground level and in the public realm. It also underscores the low level of motorized traffic, providing a strong basis for proposing the transformation of the street into a pedestrian-only zone.

6. Strategies

6.1 Inventory – Borgarnäsvägen Using Gehl's 12 Quality Criteria

A site inventory based on Gehl's Urban Quality was conducted to assess the urban qualities of the street. The inventory took place on-site on March 5, 2025, at 11 AM. The criteria have been color-coded to reflect how well the street meets each one. On the next page, comments recorded during the site visit are presented for all criteria.

Excellent | Good | Adequate | Poor | Critical

Gehl's 12 Urban Quality Criteria

Protection

1. Protection against traffic and accidents - Feeling safe
2. Protection against crime & Violence - Feeling secure
3. Protection against unpleasant sensory experience

Comfort

4. Opportunities to walk/cycle
5. Oppertunities to stop & stay
6. Opportunities to sit
7. Opportunities to see
8. Opportunities to talk & listen
9. Opportunities for play and exercise

Enjoyment

10. Dimentioned at human scale
11. Opportunities to enjoy the positive aspects of climate
12. Aesthetic qualities + Positive sensory experience

Criteria

1. Few cars were driving on the street, and those that did moved slowly. Parked cars line the street, obstructing visibility and increasing traffic risks. There are no pedestrian crossings, but they are not necessary, as the low traffic volume and speed minimize the risk of accidents.

2. Street lighting is present along the entire street but only in the lower zone, not the upper. There is little vehicle and pedestrian activity. From a crime prevention perspective, the street is not well-protected, as it is a straight road with limited visibility from other directions and parts of the city.

3. The street is constantly noisy from nearby traffic, with no noise barriers. The facades offer some wind protection but are too straight to shield from winds in different directions. There is no direct rain protection, except for trees in the adjacent park.

4. There are two straight and direct sidewalks, one 2.5 meters and the other 2 meters wide. The 2.5-meter sidewalk is asphalted but uneven and damaged in some places. The 2-meter sidewalk is paved with 25x25 cm tiles. The facades offer little, despite potential, as the street features low structures and glazed ground floors.

5. There is nothing to lean on along the street, except for a stone wall by the park, which functions more as a piece of art and a 1-meter-high stone barrier that also serves as a division between the street and the park. The street lacks defined spaces for people to stop, chat, or gather, and there are no areas to lean or socialize along the facades.

6. There is only one bench on the street, located at the beginning. While there are places to sit in the adjacent park, there are no seating options along the street itself. Currently, there's no opportunity to sit and watch people walk, and this wouldn't be possible if traffic remains, as the narrow sidewalks and parking create barriers, making people feel too close when people-watching. Some distance is needed.

7. The sightline runs the entire length of the street, with no obstructions or protruding features from the facades. The only obstruction is the parked cars along the street. However, the sightline is too long; for example, a square should have a maximum sightline of 100 meters, while this street is about 250 meters long. It's easy to orient oneself, but the street ends abruptly and unclearly. It's difficult to know how to continue to the station, as there is no natural flow from Borgarnäsvägen to the station.

Criteria

8. There is a constant hum of cars on the surrounding roads and buses driving on nearby routes, as well as noise from cars along Borgarnäsvägen. Additionally, there are no seating arrangements that encourage conversation or social interaction. This makes conversation and socializing along the street difficult and uninviting.

9. In the park adjacent to the street, there are opportunities for activity, but not on the street itself. However, it feels like there is potential for this street if it were allowed to change.

10. The street is not designed with the human scale in mind. The straight facades do not invite engagement. This street requires interesting shapes and details that spark curiosity.

11. There is no shade along the street other than from the facades. There are no places to sit and enjoy the weather or to rest. There is also no rain protection, as the facades' roofs do not extend far enough to provide shelter during bad weather.

12. The views along the street are poor, but the views from the street into the park are good, which gives the street an acceptable rating in this criterion. Liljeqvistska Park is a beautiful park with many plantings and trees. It also features a stone play area for children.

6.2 Criteria-Based Design Strategies

1. Parked cars and moving traffic obstruct visibility. For increased safety and a better urban atmosphere, where people want to be and live, traffic should be removed, and this street should be transformed into a pedestrian zone.

2. More lighting in the upper zone. Integrate lighting into new modules/volumes/ functions.

3. More spatiality would reduce noise and create a better experience in different weather conditions

4. Two direct sidewalks are not needed. One clear sidewalk is enough. It should be well-defined to reduce confusion and be inclusive for all people.

5. Social zones are needed. Places where people can naturally stop and gather.

6. Places to rest are needed along this 250-meter-long street. For this to be done optimally and properly, traffic needs to be removed.

7. More spatiality is needed; a long room of 250 meters is not ideal. It's important to consider the human scale and the senses to create places where people enjoy being.

8. Safe spaces to talk with people are needed. These areas should also potentially create sound barriers to block out traffic noise from the surroundings.

9. Spaces where people want to organize activities are required, as well as spaces where people want to engage in activities

10. The human scale should be taken into account. Design with the possibility for businesses to open up their ground floors. The potential for this exists. One side features fully glazed ground floors, while the other side is a cultural heritage with low wooden houses. Additionally, create new spaces in the human scale

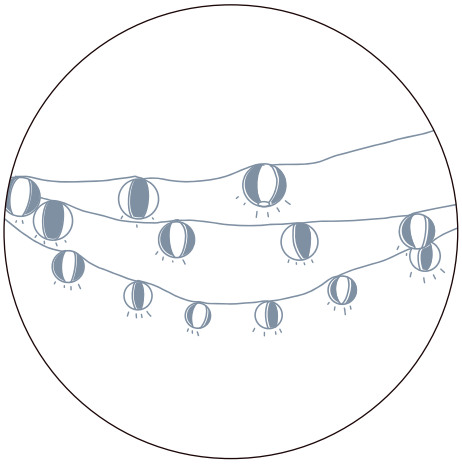
11. Create spaces and places to be in all types of weather condition

12. Make the street more aesthetically appealing. Enhance the outdoor environment's floors, walls, and ceilings

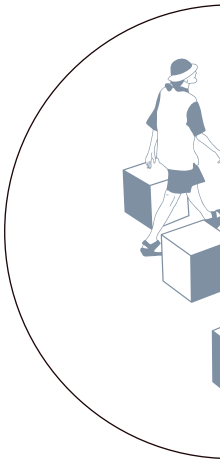
Based on Gehl's 12 urban criteria, the needs of the site have been identified. The strategies are illustrated and translated into keywords, developed with consideration for the site's specific context.

PEDESTRIAN ZONE

LIGHTNING UPPER ZONE

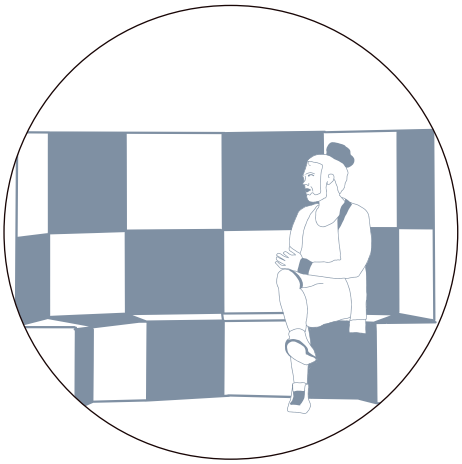


SPATI



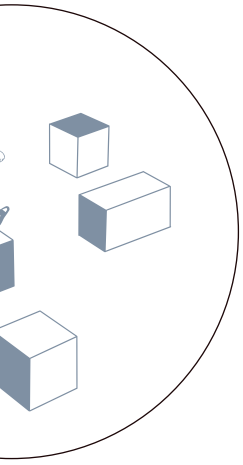
PLACES TO REST

SAFE SPACES



PLACES

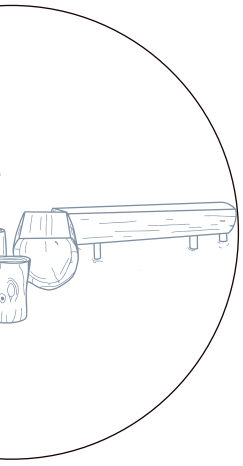
IALITY



ONE CLEAR WALKWAY

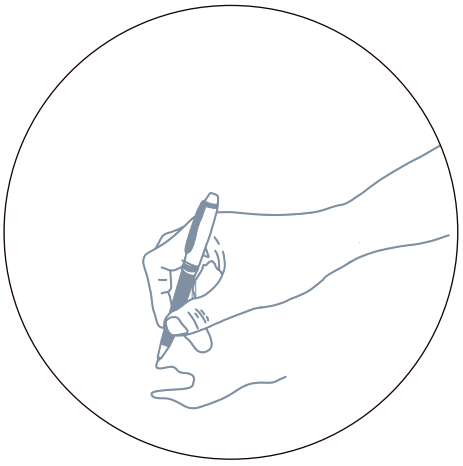
SOCIAL ZONES

TO ENGAGE



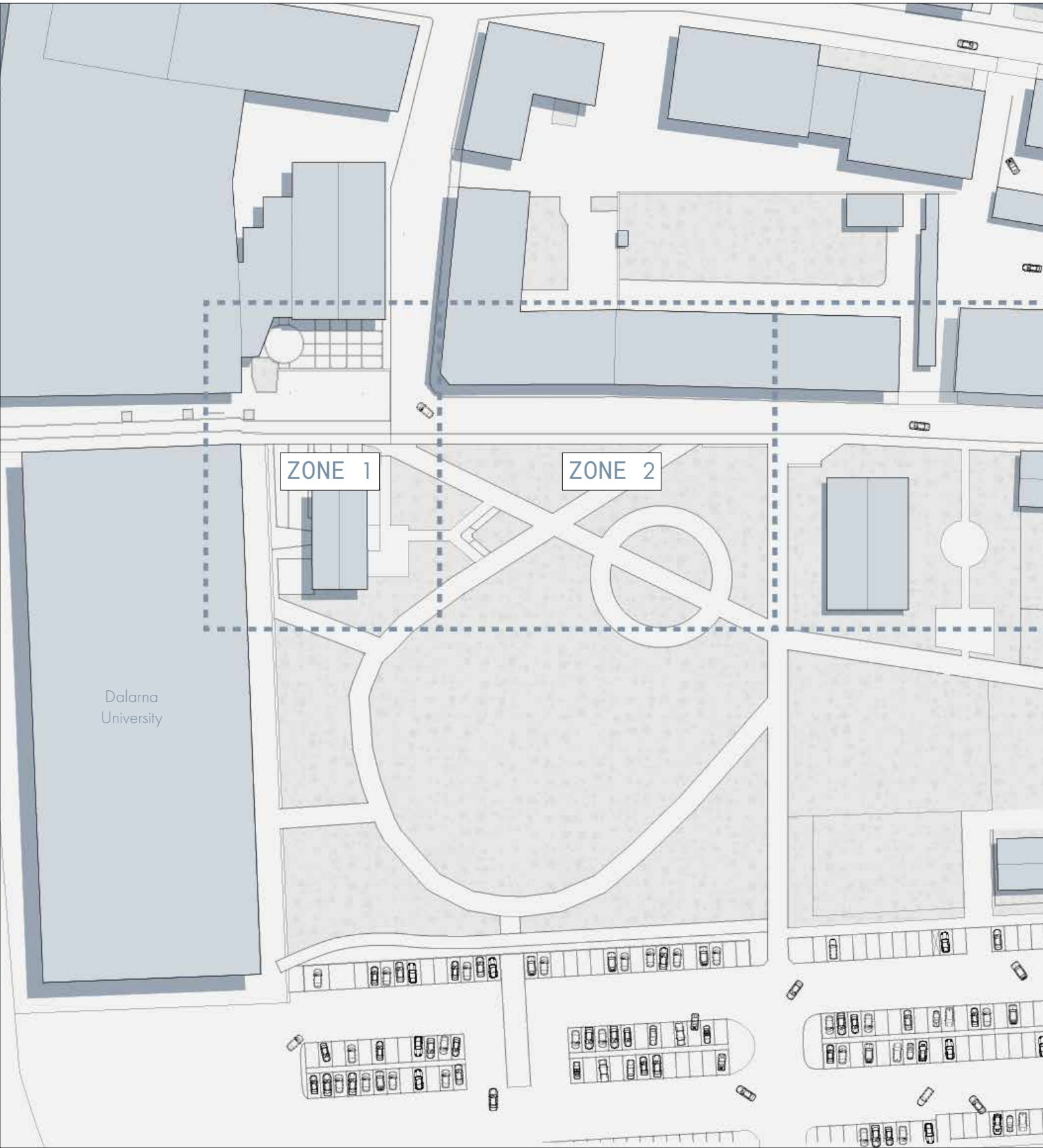
INVITING GROUND FLOORS

WELL DESIGNED

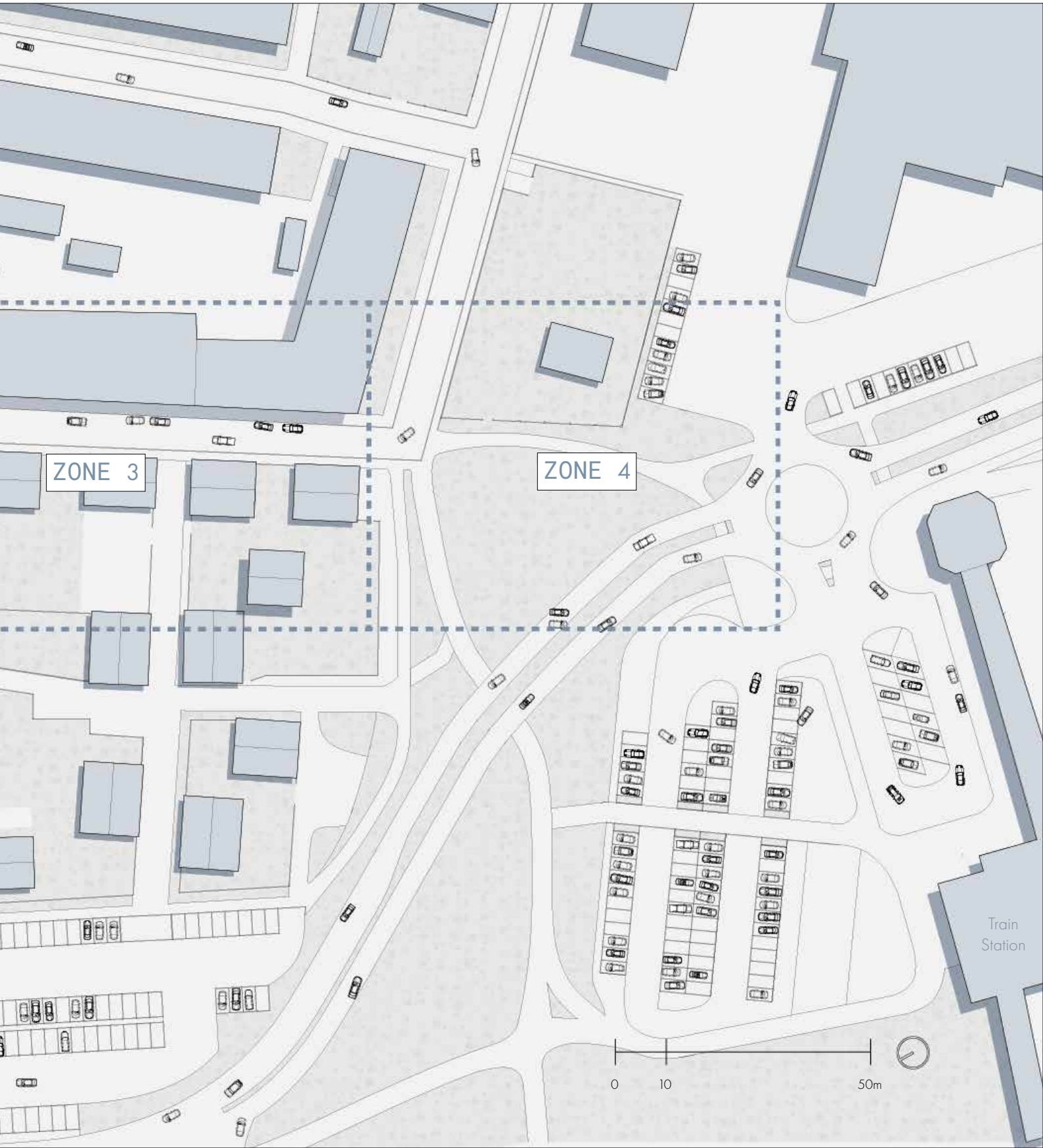


7. DESIGN EXPLORATION

7.1 ZONES Borgarnäsvägen



Borgarnäsvägen is divided into four zones, each proposed to be treated as a distinct room, as all zones offer different spatial qualities. However, in the design example, a unified aesthetic is suggested in certain aspects. Weathered steel and wood are proposed as example materials to be used throughout the street, both for their low maintenance and as a subtle reference to Borlänge's industrial heritage. A circular design element is also introduced, drawing inspiration from existing site characteristics as well as the broader built environment of Borlänge. The circular form is additionally intended to create contrast with other spatial structures on site.

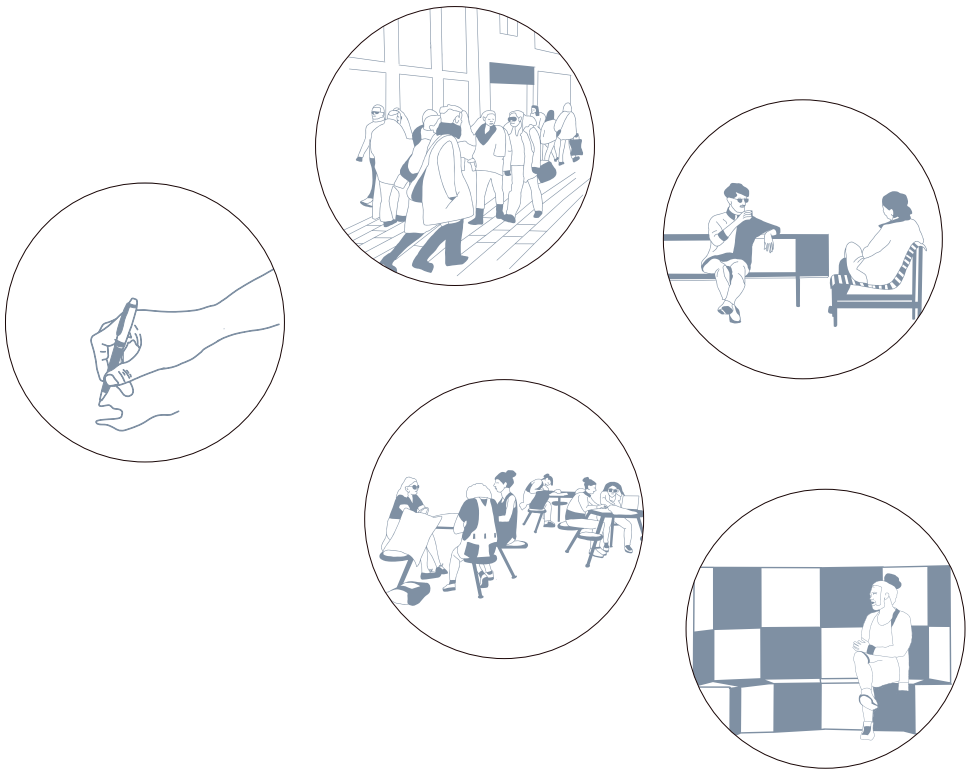


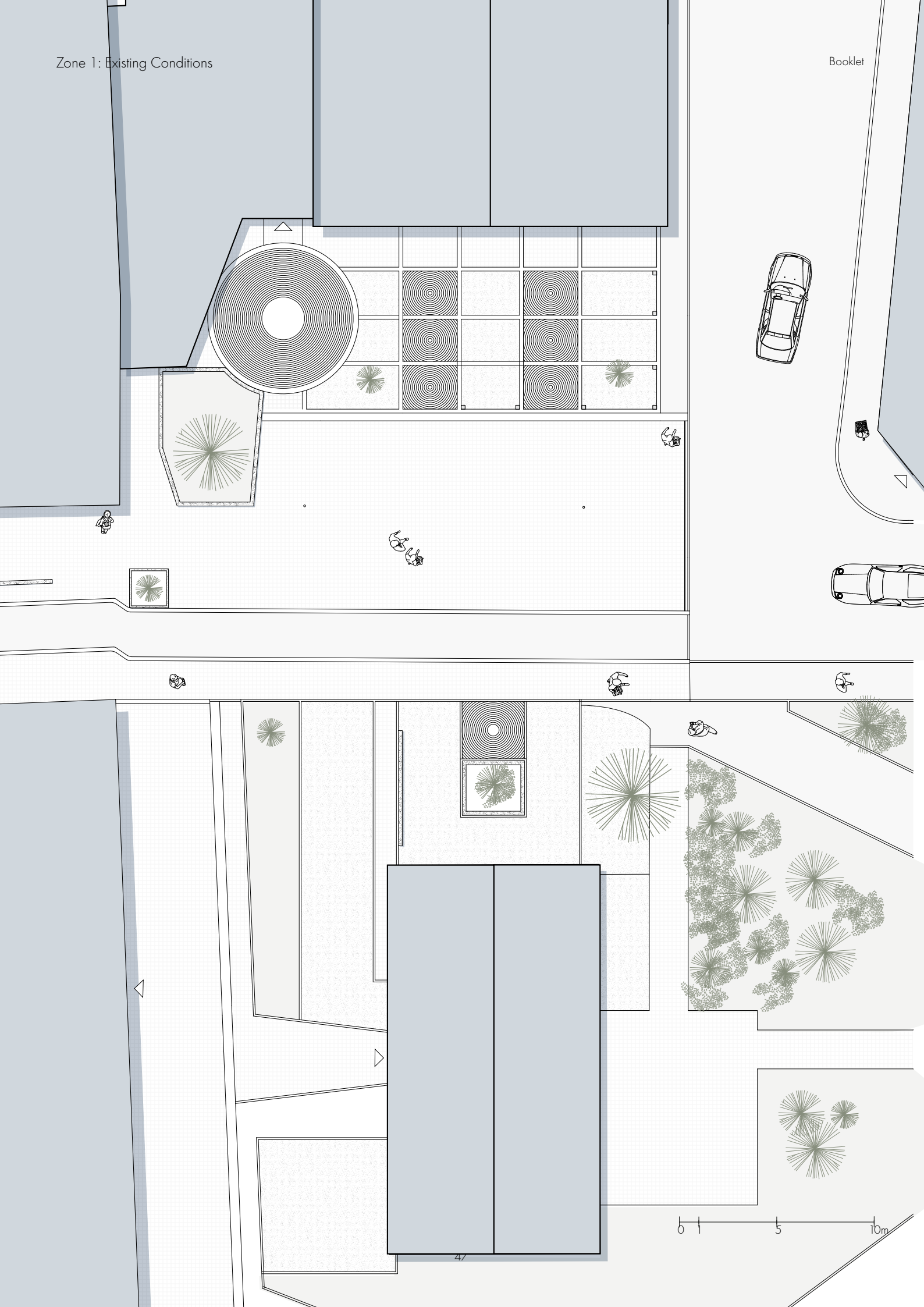
7.3 Zone 1

This semi-pedestrian area functions as a transitional space where the pedestrian zone meets the road. It is located near a church, the university, an empty building that formerly housed the Jussi Björling Museum, and a brick building with commercial space on the ground floor and apartments above. The surrounding architecture is strikingly eclectic: the newly built university stands alongside a historic church, which connects to both brick and stone buildings.

Site values include the presence of large trees, most notably a historic oak dating back to the 1600s. The area is also defined by carefully designed paving and a generous spatial width, giving it the potential to develop into a lively and inviting public square. The space incorporates a range of existing design elements, including various paving materials and tree beds.

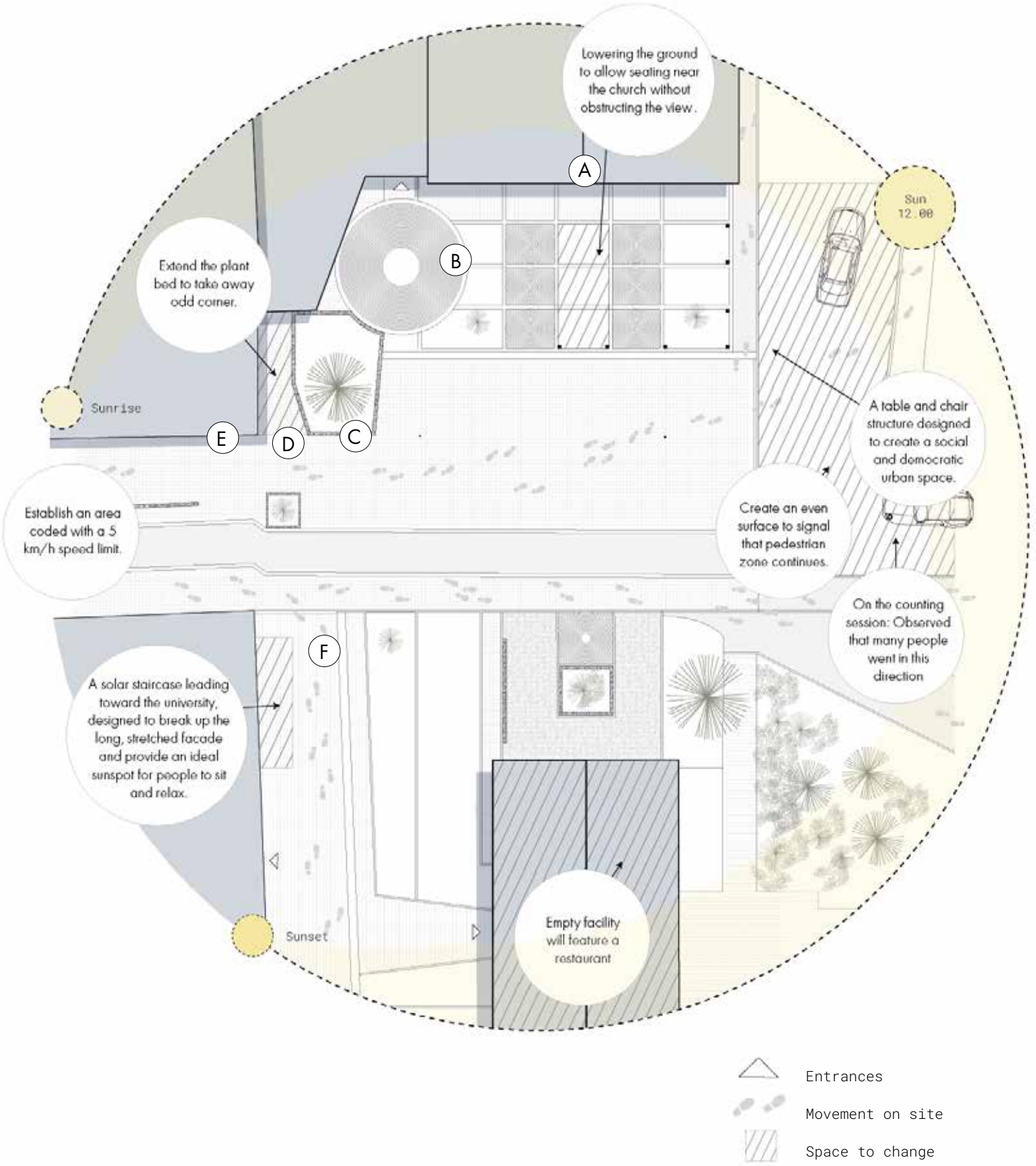
However, the space currently lacks sufficient seating and areas that encourage social interaction. It functions primarily as a passage rather than a destination. Nonetheless, the area holds great potential to evolve into a vibrant gathering spot for creativity and temporary interventions. Several existing features could be reimagined as seating or transformed into sunny places for rest and enjoyment.




0
1
5
10m

The process involved exploring the site's conditions and potential. Observations were made on movement and relevant places on site for interventions, as well as an exploration of sun exposure. All solar diagrams are based on June 21st, the date of the summer solstice.

Analysis

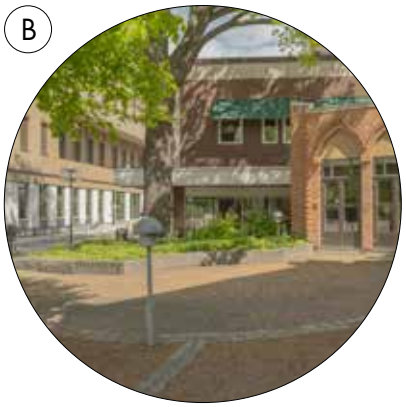


Pictures from zone

A

The church on the site dates back to the 1800s.

B



Circular paving in front of the church.

C

An oak dating back to the late 1700s is elevated on a planted bed.

D

A rather odd corner.

E

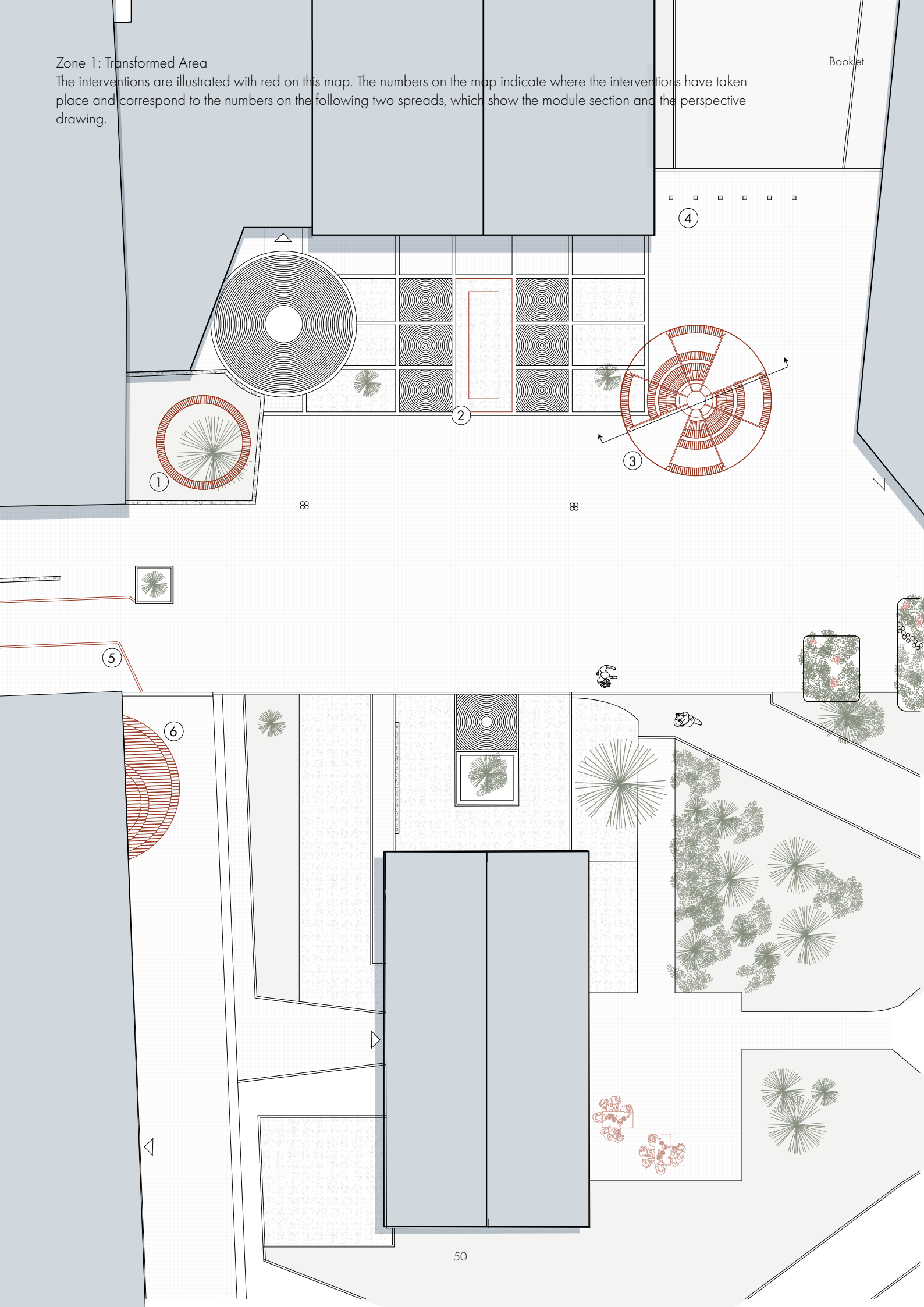
Post-war modern structure.

F

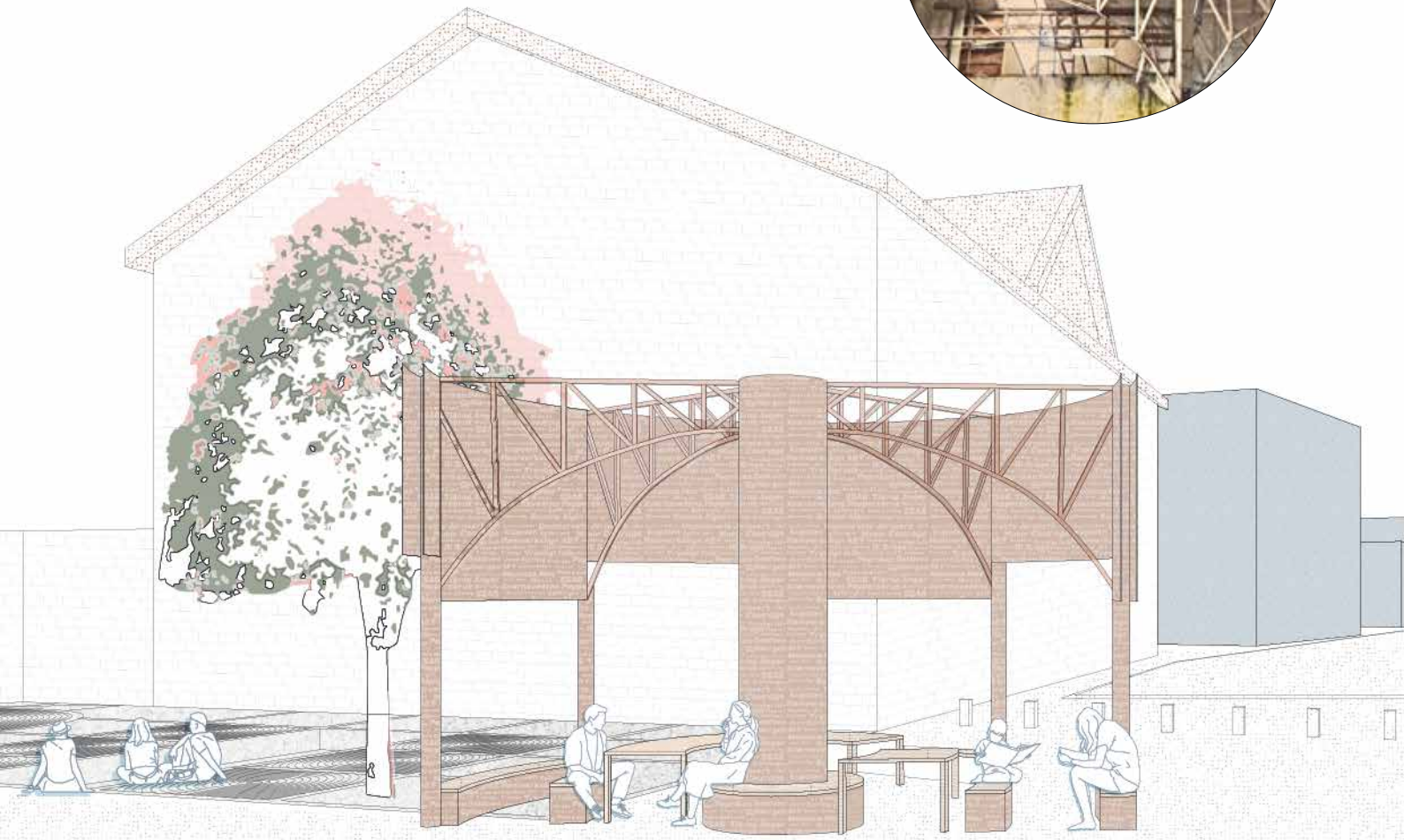
The long facade of the newly built university is on the right, with a stone structure on the left.

Zone 1: Transformed Area

The interventions are illustrated with red on this map. The numbers on the map indicate where the interventions have taken place and correspond to the numbers on the following two spreads, which show the module section and the perspective drawing.



The lattice structure is a tribute to *"Boberghallen"*, designed by architect Ferdinand Boberg for the 1897 General Art and Industrial Exposition in Stockholm. Built with modern steel from Domnarvet ironworks, it stood in Borlänge until its demolition in 2023, a loss deeply felt by many.

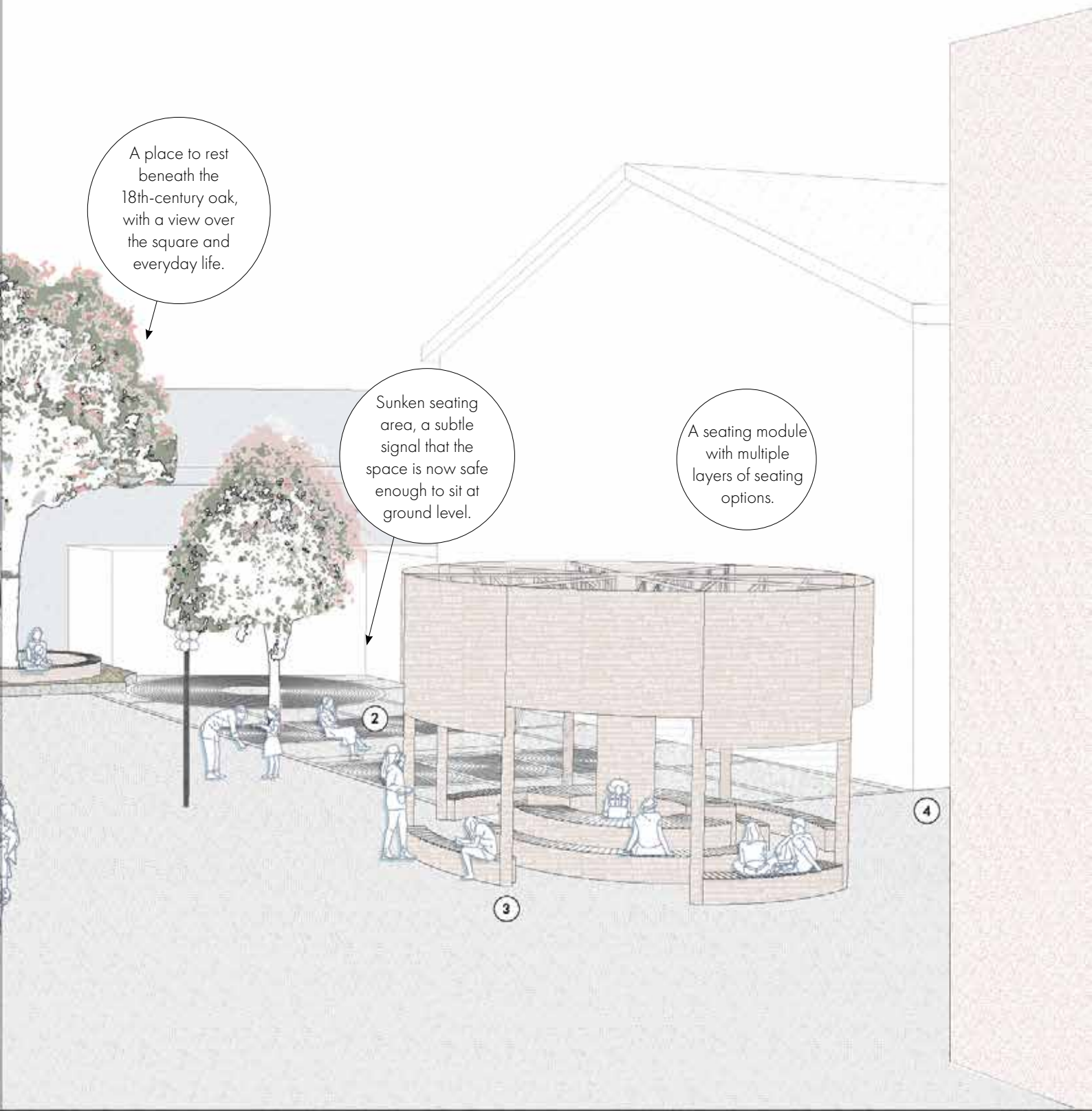


A perforated pattern in weathered steel allows light to pass through, creating a lighter and more transparent structure within the square. Light will also be integrated into the central cylinder and between the surrounding steel elements, enabling the structure to illuminate at night. The pattern is composed of numerous words that reflect the identity of Borlänge

Perspective

Examples of interventions that could potentially create a safer area for people, with more secure seating, additional places to rest, opportunities to observe others, and to engage

1. Circular bench
2. Sunken seating area
3. Weathered steel module
4. Reused stone pillars to hinder cars
5. Bike lane stops
6. Sun stair

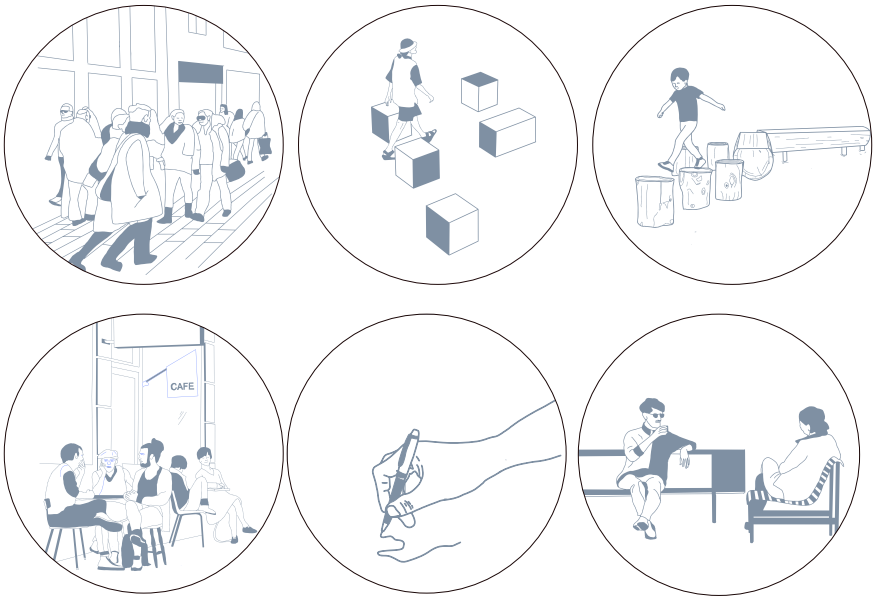


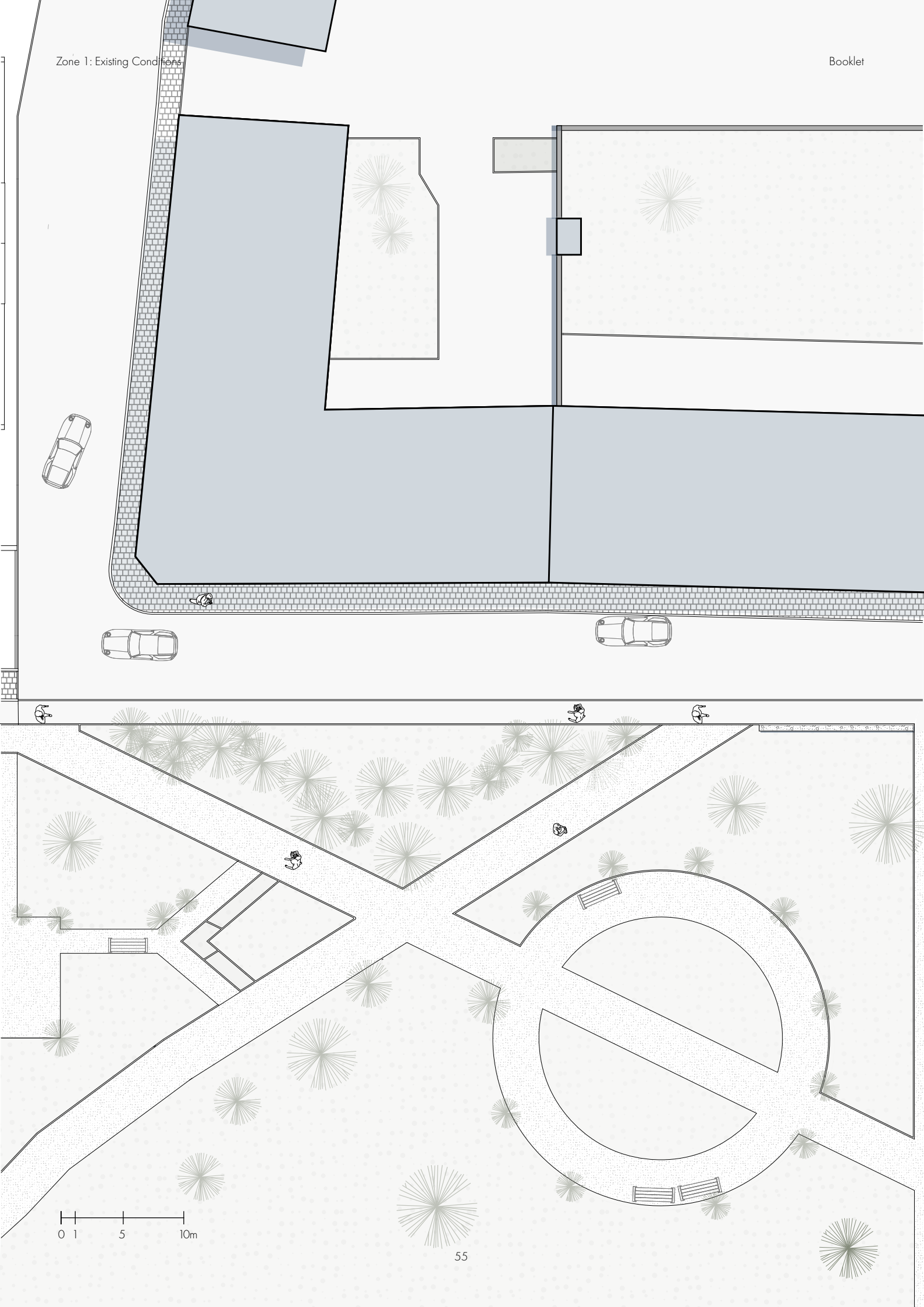
7.4 Section 2

Zone 2 features a tall brick building on one side and a park on the other. The park side is lined with dense bushes and trees that currently hinder access from the street.

One of the site's key values is the visual and physical presence of greenery along the street. The existing park offers strong qualities and plantings that could be extended into the street space to enhance the urban environment. A one-meter-high stone wall could potentially serve as informal seating, but its close proximity to the sidewalk makes it uncomfortable, placing seated people too close to passersby. Additionally, a pizzeria and a small store are located on the ground floor of the brick building, businesses that could thrive if given the opportunity to extend their activity onto the street.

The zone's biggest problem is the lack of meaningful integration with the park. Although it borders green space, access is blocked by vegetation that acts as a physical barrier. There is also no seating available.

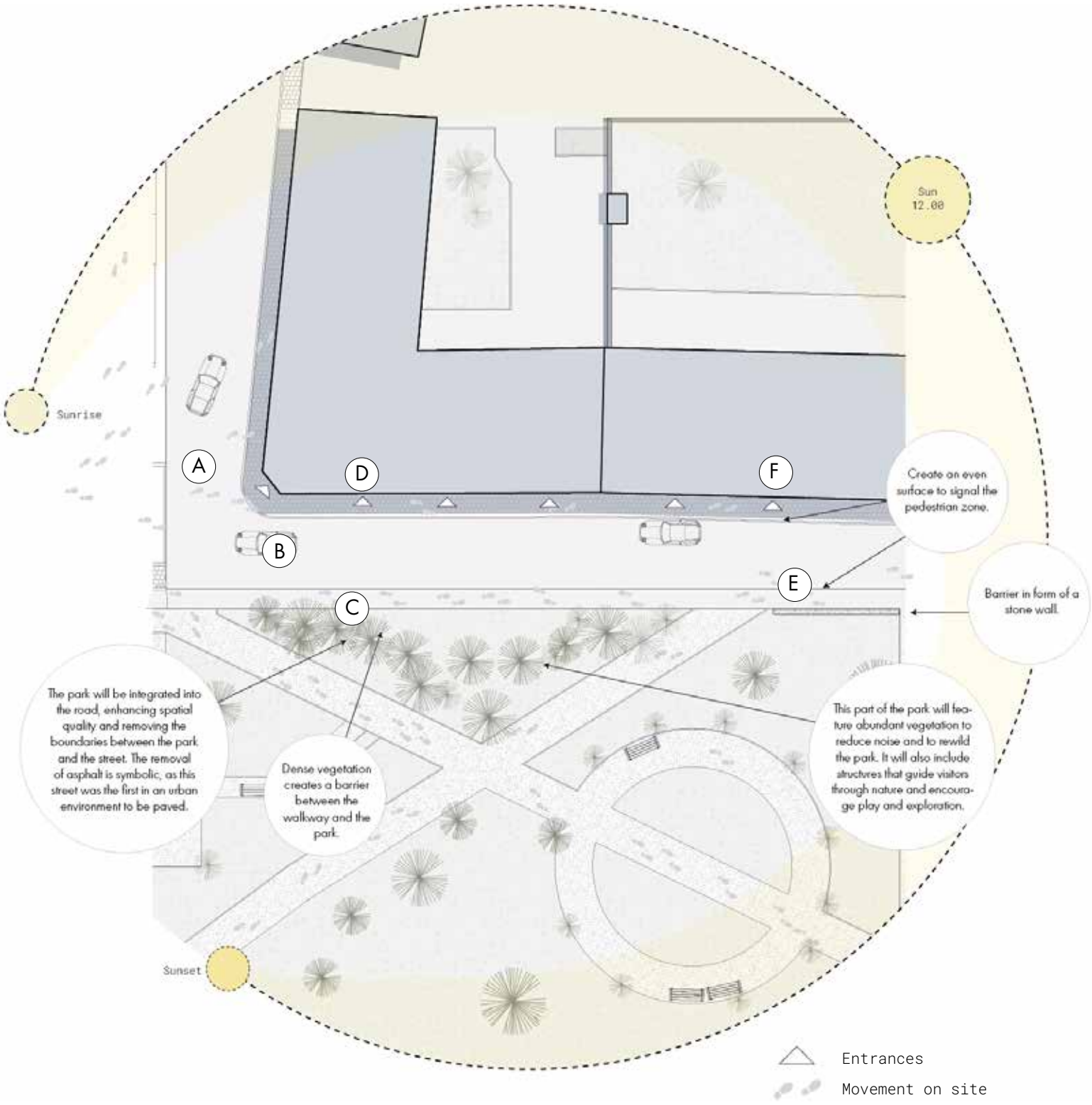



0 1 5 10m

Zone 2: Analysing/Process of transformning

Borgarnäsvägen was the first street in an urban area in Sweden to be asphalted in 1927, and by removing the asphalt we are celebrating a new era! Greenery will be extended out in the street and there will be possibilities to engage and inteact with the park.

Analysing



Picture of zone

A

To the right of the church, where the road currently turns.

B

Borgarnäsvägen today, with a 12-meter structure on one side and dense vegetation on the other

C

Dense parkland limits street interaction.

D

A moderately busy store.

E

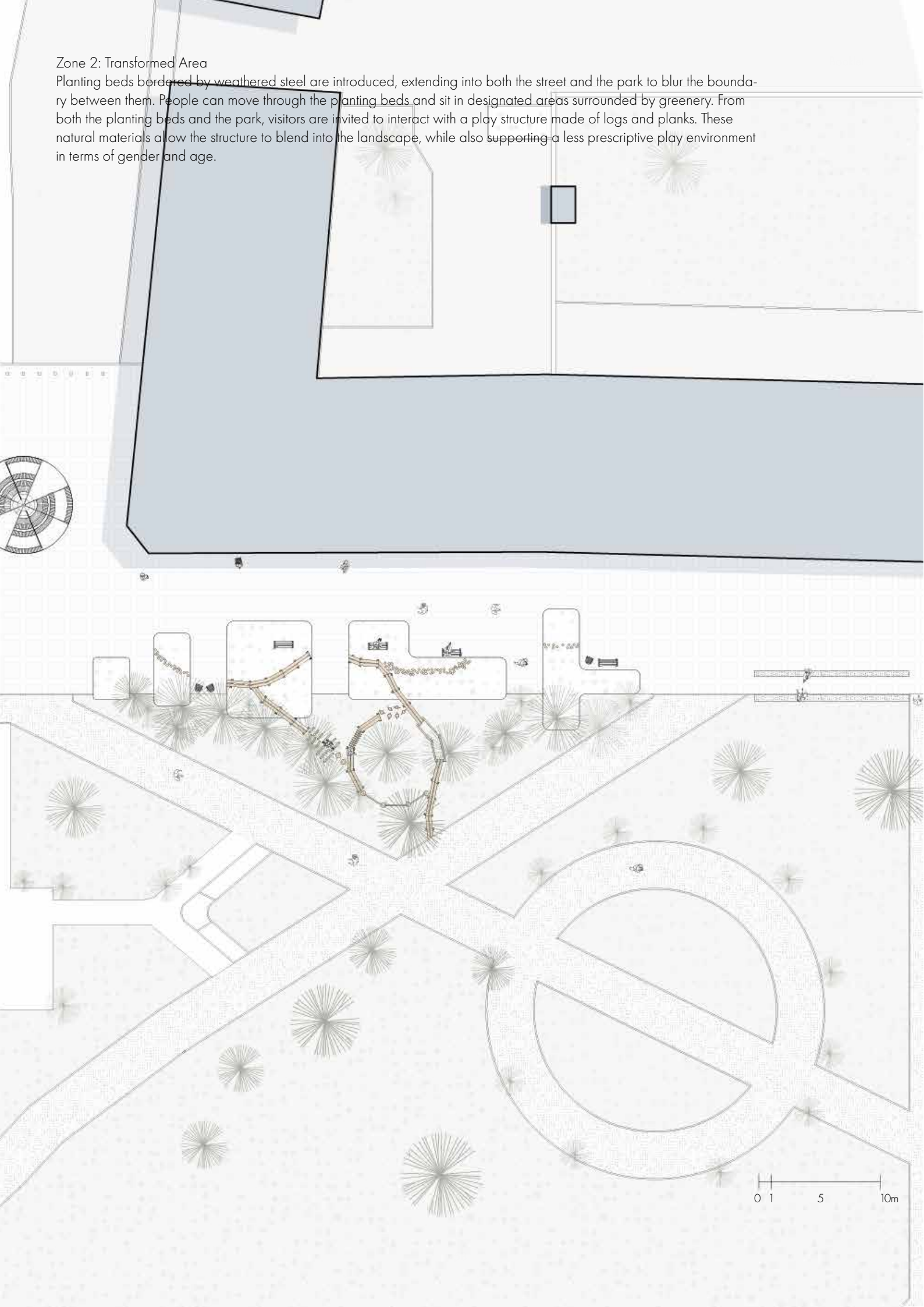
A 1-meter stone wall that acts as a barrier.

F

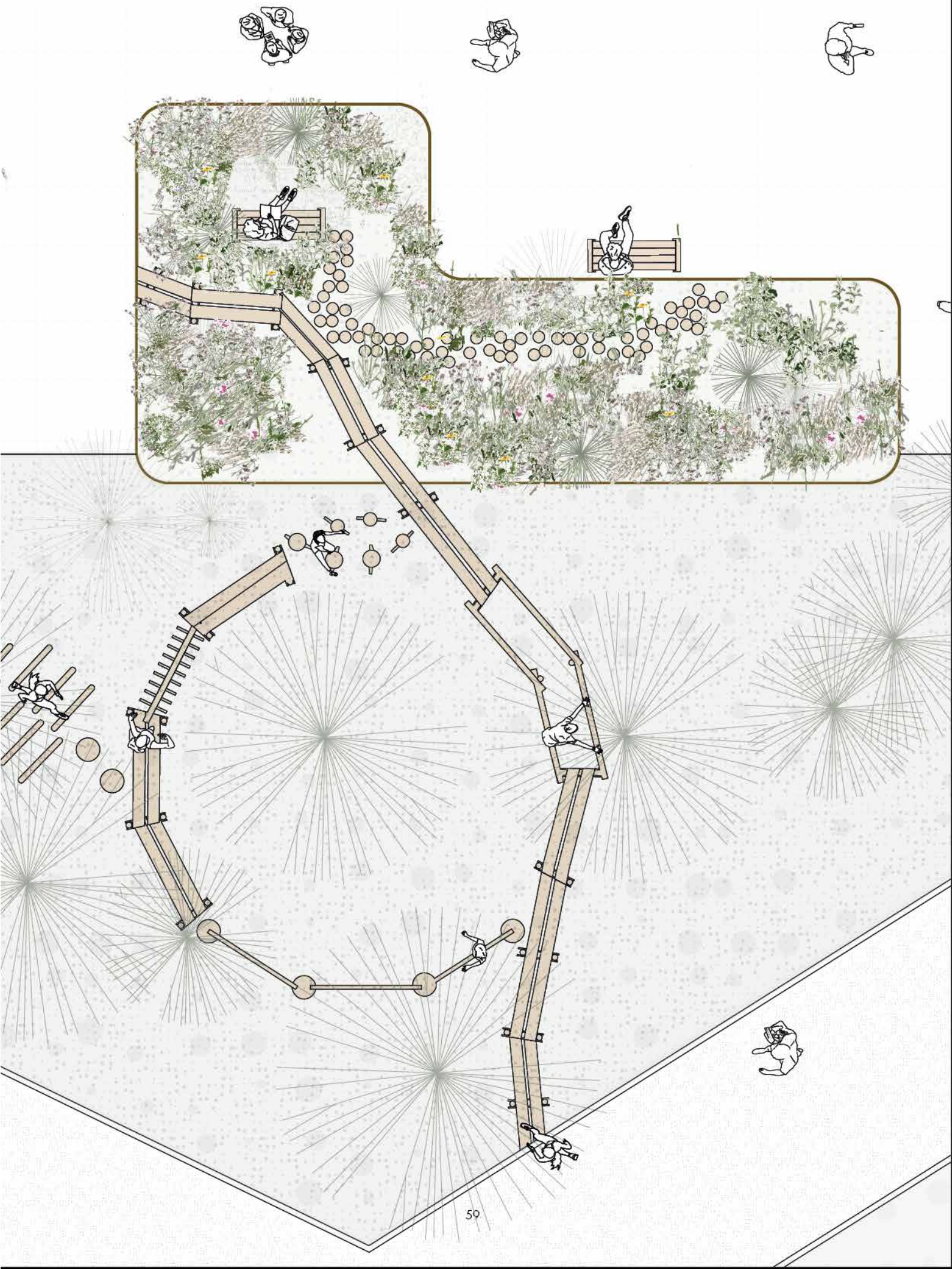
A 12 meter hight brick structure.

Zone 2: Transformed Area

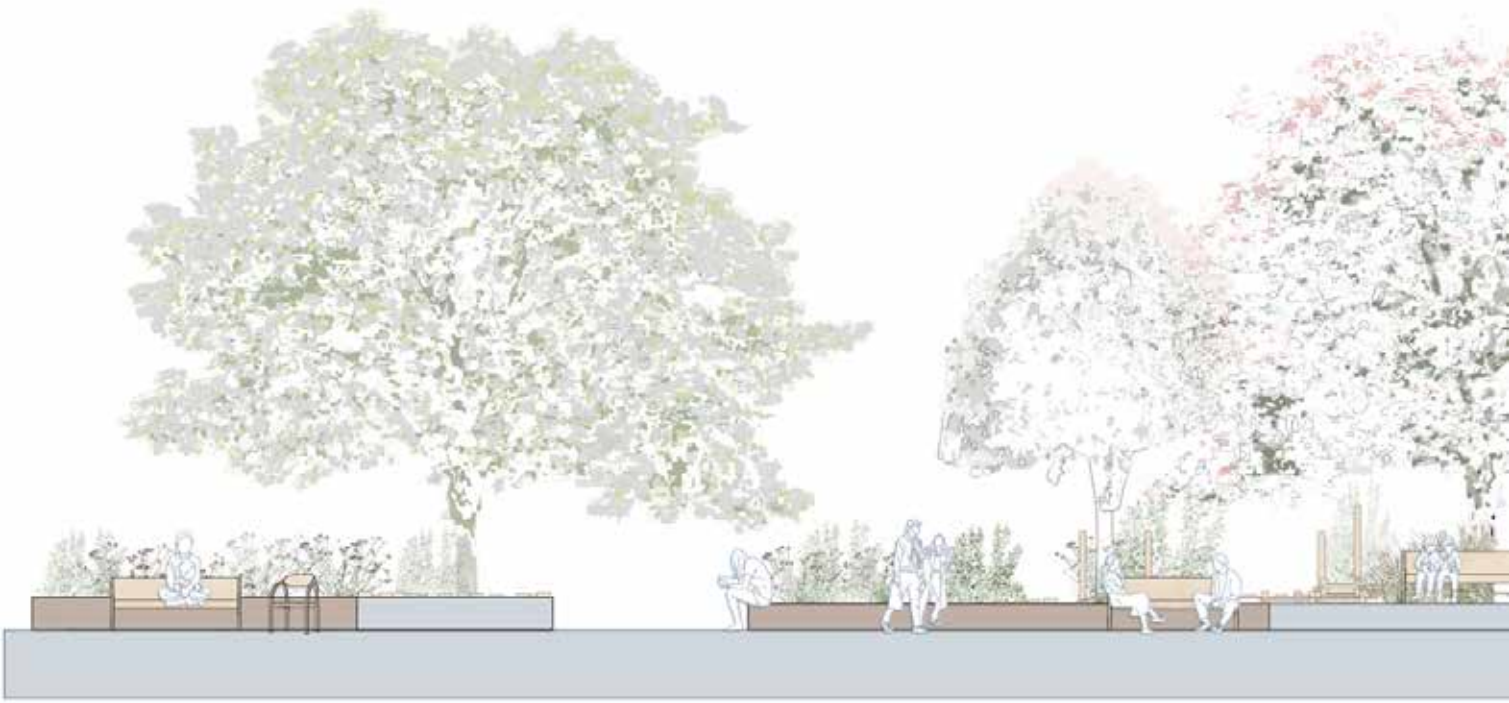
Planting beds bordered by weathered steel are introduced, extending into both the street and the park to blur the boundary between them. People can move through the planting beds and sit in designated areas surrounded by greenery. From both the planting beds and the park, visitors are invited to interact with a play structure made of logs and planks. These natural materials allow the structure to blend into the landscape, while also supporting a less prescriptive play environment in terms of gender and age.



Zoomed-in plan — play installation.



The planting beds vary in height from 200 to 500 mm and will feature a diverse selection of pl
beds and the adjacent street environment remain low-maintenance



ants. Research on suitable perennials has been conducted to ensure that both the planting

Perspective

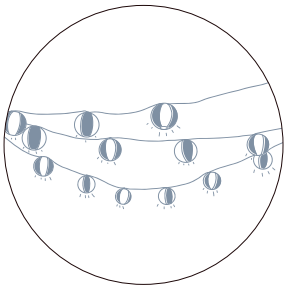
Examples of interventions that could potentially create a space for interaction and engagement with the greenery, while also providing noise barriers, supporting biodiversity, and creating places to rest and socialize.

7.5 Section 3

Zone 3 features tall brick buildings on one side and Hantverksbyn on the other, the cluster of wooden buildings that represent the last remaining wooden structures in central Borlänge.

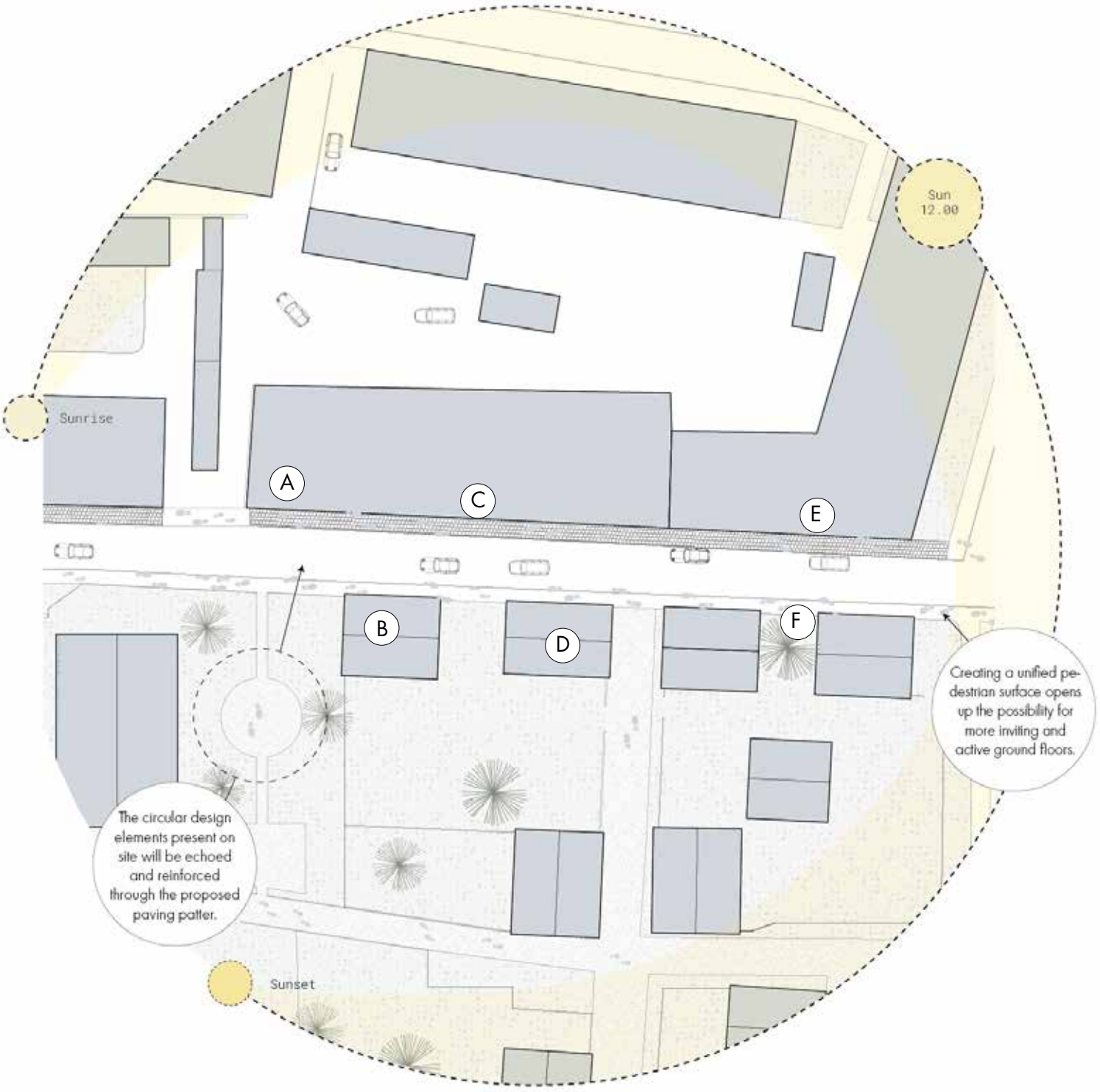
A key value of this zone lies in its historical heritage, which holds strong potential to become a central attraction for the city. Another important quality is that the Hantverksbyn side doesn't act as a solid barrier. The small-scale structures, with their irregular axial lines, offer glimpses of the adjacent park environment, creating a more open and varied spatial experience. The street has the potential to evolve into an intimate, pedestrian-friendly street by linking both sides, the street could be transformed from a corridor flanked by two disconnected facades into a cohesive, human-scaled urban space.

The main challenge in this zone is the existing roadway and narrow sidewalks, which limit interaction between the buildings and the street. As a result, the area currently feels uninviting and lacks a strong sense of place.




0 1 5 10m

Analysing


Sun
12.00
Sunrise
A
C
E
B
D
F
Creating a unified pedestrian surface opens up the possibility for more inviting and active ground floors.
The circular design elements present on site will be echoed and reinforced through the proposed paving patter.
Sunset

Picture of zone

A

The Employment Agency in a postwar modern structure.

B

Wooden structure that is part of Hantverksbyn

C

Entrance to the employment Agency.

D

Stone A stone structure located in Hantverksbyn.

E

Brick structure from the 60s.

F

Falured wodden structures part of Hantverksbyn.

Given the limited sun exposure, the design approach for this zone emphasizes spatial quality through paving that defines gathering areas and encourages movement. This is complemented by wire-suspended lighting, which adds a sense of intimacy and spatial definition to the streetscape

Perspective

This drawing illustrates the envisioned basic conditions for the zone. With these conditions in place, it is hoped that the ground floors of the existing buildings will extend into the street in unique and engaging ways.

7.6 Section 4

Section 4 marks the end of Borgarnäsvägen, where the car street transitions into a narrow path leading toward the train station.

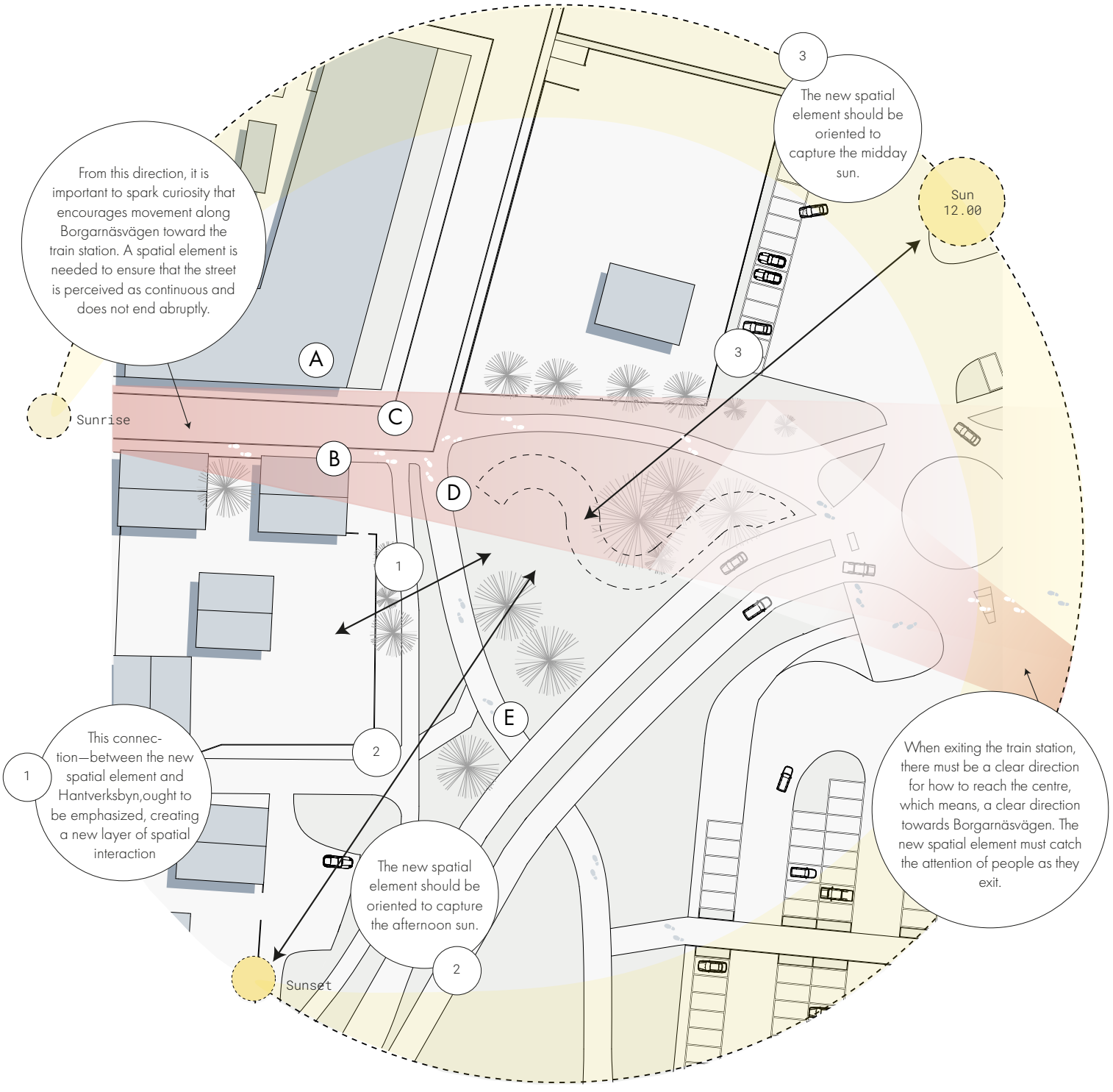
A key value of this zone is its connection to Hantverksbyn in the opposite direction, an aspect that could be emphasized more, with new spatial interventions oriented to strengthen that link. Another important quality is the undefined and largely untouched character of the area. The street opens into a loosely defined space, which is both a strength and a weakness. On one hand, the openness offers potential to introduce new spatial qualities; on the other, it lacks clear direction. As, when approaching from Borgarnäsvägen, it's difficult to discern where the train station is. Likewise, when exiting the station, there's little guidance toward the city center.

The main challenge in this zone is to introduce spatial qualities and design elements that clearly guide movement, both toward the train station and back toward Borgarnäsvägen.


0 1 5 10m

The analysis of this site revealed the need for a new spatial element that encourages movement in both directions. A curved spatial element is proposed to encourage movement and invite continued exploration. The circular paving patterns at the entrance of the zone help define a more distinct square, reinforcing the identity of this space as a unique urban place

Zooning



Picture of zone

A

Brick structure from the '60s, the last building on the street.

B

The last structure on the opposite side is a wooden part of Hantverksbyn.

C

The street opens up without a clear direction.

D

The connection between the zone on the left and Hantverksbyn on the right should be improved if the site is developed.

E

Differentation in the city scape.

8. Discussion

8.1 Aim and objective

The aim of this thesis was to explore the principles of sustainable urban environments where people want to be, engage, and thrive: Through iterative literature review involving studies of Jan Gehl's principles, this thesis has identified key factors that contribute to such environments. The central principle is to design at a human scale. This includes working with edge zones, such as inviting and active ground floors and ensuring appropriate distances between elements in urban environments. People are unable to perceive other people or details when distances are too excessive, which reduces interaction and a sense of presence. The attractiveness of a space also diminishes when it becomes too large, as people tend to seek out places where others are already present. Narrower, more intimate streets fill up more quickly and contribute to a vibrant atmosphere. Gehl argues that people are naturally drawn to places with a high presence of others, an observation I can confirm through personal experience. Safety is also closely linked to the human scale: when individuals can clearly perceive their surroundings, they gain a better understanding of the context and ongoing activities, which fosters a sense of security. The concept of human pace is equally important. At a walking speed of approximately 5 km/h, people are able to perceive details of both the city and its inhabitants. The slower pace also supports a sense of safety. Fast-moving vehicles, by contrast, are a major contributor to unsafe urban environments. Reducing vehicular speed, or limiting vehicles altogether, creates safer and more inviting public spaces. To summaries: People want to be, engage, and thrive in spaces where the principles of human scale and human pace are considered, as these principles foster safety, interaction, spatial awareness, understanding, a welcoming atmosphere, and a sense of intimacy.

The objective of this thesis was to develop a proposal that strengthens urban life. To explore this, the thesis focused on Borlänge and the revitalization of Borgarnäsvägen, a street that serves as an important connection and holds significant historical value. A design proposal was developed based on the principles explored throughout the thesis. Yet equally important to the design was an understanding of both the city of Borlänge as a whole and the specific character of the street. Accordingly, the design principles formed the foundation of the proposal to strengthen urban life, as they shape how people perceive and experience space. However, for a design to succeed in a real-world context, not just in theory, it must be site-specific. This means the local identity and existing spatial elements must be carefully considered to create

interventions that respond to, rather than conflict with, the existing environment.

8.2 Research questions

In response to the research question: *"What key principles should a city incorporate from a sustainable perspective?"*, this thesis emphasizes the importance of designing at a human scale and for a human pace, as previously discussed. In addition to these principles, the thesis also highlights factors that enhance quality of life, as outlined in the Design Guide for Smart Streets. This includes the provision of resting places, appropriate lighting, greenery, and support for ecosystems. These elements are integrated into and acknowledged by this thesis as key principles that complement and extend Gehl's more philosophical approach. While Gehl's principles focus on broader human-centered urban thinking, the Smart Streets guidelines offer more practical, hands-on strategies for enhancing street environments and overall quality of life.

The question: "*How might the urban landscape and human behavior evolve if the car-centric norm were challenged?*", is addressed through background research on Borlänge as well as the theoretical framework. The background investigates changes in the infrastructural network in Borlänge's city core during the 1960s and 1970s, when the entire center was redesigned with a car-centric focus. This structure still defines the city core today, a space that is not experienced as intimate. Streets function primarily as transitional routes rather than as public spaces where people feel invited or entitled to stay and engage. This illustrates the consequences of not challenging the car-centric norm: you end up with a city designed for cars, not for people. As Jan Gehl argues, it is a simple and observable fact that more roads invite more cars into the city, just as more cycling paths attract cyclists. It follows, then, that improving conditions for pedestrians will naturally lead to increased pedestrian activity. If the car-centric norm were challenged and people were invited on foot into the city, they would use it. Jan Gehl presents examples such as Copenhagen and Melbourne, cities that have successfully shifted away from car-dominated planning and created more pedestrian-friendly environments. These changes led to a noticeable increase in how much people used and engaged with urban spaces, clearly demonstrating that when people are given the opportunity to interact with the city, they do. Gehl argues that improving walking conditions is the essential starting point, as cities that support walkability tend to see a broader range of social and recreational activities emerge.

This question is also addressed through the design proposal developed in this thesis. In this proposal, the urban environment is transformed into a more pedestrian friendly space. By prioritizing pedestrians, the design reconfigures the urban landscape, shifting away from a car centric model. As a result, human behavior is expected to change, with people engaging more actively with the space rather than merely using public urban areas as transitional routes. Additionally, interventions derived from an inventory that ranked the area's current urban qualities from critical to excellent are implemented. Along this pedestrian street, interventions are introduced to enhance these urban qualities, thereby improving the physical environment. According to Gehl's research, improving the physical environment encourages more optional and social activities within the city, which, in turn, can increase human activity within the space. In this way, the proposal can contribute to the evolution of human behavior toward greater engagement.

In response to the question of *"Which cultural and local aspects should be emphasized in Borlänge?"* I have concluded that much of Borlänge's identity lies in its diversity, progressiveness, and boldness, qualities worth recognizing and emphasizing in future urban development. I base my answers on the extensive work done in this thesis, an iterative process involving literature review and site analysis. Particularly, the method of walking and following local updates and news during this period has helped develop a better understanding of the cityscape, movement, and overall attitude.

To clarify the research underpinning this answer, examples will now be presented. For instance, despite Borlänge's young age, the city has been shaped by many diverse influences. Since the early 1900s, Borlänge has been unafraid to experiment with new ideas and has often been at the forefront of change. This is clearly evident in Borlänge's center, which is a blend of many different influences. When Borlänge started to develop into a city it started from agricultural land and evolved, in a short time, into something vibrant and multifaceted. Today, Borlänge's center showcases a variety of architectural styles from different time periods, ranging from contemporary designs to an 1800s church, 1960s brick structures, stone buildings, and postmodern architecture, to old low wooden structures from the late 1800s, all within the core of the city, even along a single street like Borgarnäsvägen. This reflects the dynamic nature of the 1900s and illustrates how multiple architectural styles have shaped

the city. It speaks to the many paths Borlänge has chosen to take throughout its development, as well as the opportunities it has embraced. It illumine that city has never stood still, it has been in constant motion throughout its young history. Another example supporting this view of Borlänge being a brave and progressive city is that Borgarnäsvägen was the first street in Sweden to be paved with asphalt in an urban area. This marks a significant moment in the city's history, symbolizing its forward-thinking nature. Similarly, while we may now view the car ring road around Borlänge city center as problematic infrastructure, disrupting pedestrian access to the city core, it was a pioneering project both within Sweden and internationally at that time. This answer is also based on my personal experience of Borlänge. I grew up in a small nearby village, had relatives in the city, attended school there, and have now studied the area during the thesis period. Through this, I have observed and followed local news and community engagement to better understand the overall atmosphere and cultural identity of Borlänge, and to reflect on how the notion of Borlänge is or has been expressed in the city. What I perceive is a strong sense of local pride and engagement, a desire to see Borlänge grow and become a better city. This attitude, I believe, is shared and valued by the residents and contributes to the city's strong sense of identity

In summary, the cultural and local aspects that should be emphasized in Borlänge are closely tied to its identity as a young yet forward-looking city. Its rich mix of architectural styles and history of embracing innovation reflect a spirit of boldness, diversity, and movement. These qualities should not only reflect the past but should also guide future development. The richness and forward-looking spirit allow for continued growth, the exploration of new ideas, innovation, and a progressive approach, staying at the forefront of changes in line with the times.

8.3 Discussion Methods

Working iteratively with methods has helped shape the thesis. This approach has facilitated the discovery of methods and processes that align with the project's goals, and the areas of interest have evolved throughout the process. Applying Gehl's strategies and research aligned well with the goals of this thesis, which centers on creating high-quality urban spaces with a strong focus on the human experience. Gehl prioritizes the human being at the top of the planning hierarchy, which aligns with the core values of this work. His research offers both overarching principles,

such as the importance of human scale and human pace, and specific quality criteria that define what a street should consist of. These two components were crucial: the general principles provided a rationale (the "why"), while the criteria offered practical guidance (the "how"). The quality criteria, in particular, served as practical tools to assess the existing conditions of the street and identify targeted interventions for improvement. Together, these aspects offered both a theoretical foundation and a methodological framework for working with street design in a human-centered way.

A method I would have liked to work with early in the process involves engaging relevant stakeholders. As, there is a strong sense of shared ownership in the city. Public spaces belong to all of us, and it is important that we care for and shape them collectively.I believe for a project like this to succeed, involving the community is essential. When it comes to Borlänge's identity, I sense a deep local pride. With open and transparent communication, even in a car-centric context, I believe people would embrace the idea of transforming Sweden's first asphalted street into a space designed for pedestrians and human life rather than cars. If the historical significance and the reasons behind the change are clearly communicated, it could become a source of civic pride rather than resistance.

8.4 Discussion Design

The design is based on insights gathered throughout the entire thesis process and can be seen as a product of the theoretical framework. I would argue that the strongest aspect of the design is the chosen location, Borgarnäsvägen, and the specific sites of the interventions along the street. In contrast, the way the interventions are designed is of secondary importance. The final design, in the form of interventions placed along Borgarnäsvägen, should be seen as one example of what this street needs. It is a design process that illustrates what is lacking and offers a suggestion for how it could look, not through detailed structural solutions, but through a more philosophical approach. It emphasizes movement, creates opportunities to observe others, invites interaction and engagement. It fosters the kind of intimacy you might feel while sitting on a bench in a park surrounded by greenery, or the feeling of walking down a cobblestone street lined with low-rise buildings and active ground floors.

Another important design feature is the choice of material. The cultural aspect I've emphasized architecturally is the city's connection to steel and its industrial history. For

that reason, steel, specifically weathering steel, serves as a unifying element along Borgarnäsvägen. In a young and bold city characterized by a mix of architectural styles, steel becomes an effective material to both contrast with and tie together these varied expressions. I initially considered using red-painted steel, inspired by Borlänge's red political movement that shaped the city likewise as the red color is referring to a red artwork of Borlänge, the "Paprikan". An artwork that also acts as a structure for playing, which is a well-known identity marker for Borlänge. However, after visiting several reference projects, such as Superkilen and Kalvebod Bølge in Copenhagen, I saw that the painted steel elements there had deteriorated badly. The red paint had faded, and the materials were in bad condition. This led me to rethink my material choices. I began to focus on materials that could endure over time with minimal maintenance. I wanted to create a place that ages beautifully and doesn't require constant upkeep. That's why I chose weathering steel likewise as creating seatings in wood. The design is also strongly influenced by Borlänge's circular identity and distinctive character. The circular form is an element that appears in some structures, paving patterns, and park layouts throughout the cityscape, including along Borgarnäsvägen, making the design a tribute to this local visual language. As a relatively young city with a varied architectural landscape, the circular form offers an alternative that neither aligns with nor favors any specific surrounding style. Instead, it reflects Borlänge's own path, which I believe is a fundamental part of the city's identity and a cultural quality worth highlighting.

8.5 Discussion Result

This thesis presents a cohesive theoretical framework on how to work with car-centric cities, along with a comprehensive historical background on how we ended up with city cores where the car occupies the top of the hierarchy. The shift that fundamentally changed Sweden's road infrastructure, was when urban planning began to follow the principles of SCAFT. In one sense, this change was necessary, as it helped address the problem of traffic accidents. However, little thought was given to how it would affect human life and the quality of urban environments. By documenting this shift and its impact on the cityscape, this thesis serves as a starting point for rethinking and working toward better urban environments.

The result of this thesis is that it presents arguments for developing more attractive human centered urban environments and intends to spark discussion, contributing

to the dialogue about how and why we should transform the car-centric city. The dialogue is essential for change as the exchange of knowledge and keeping the discussion ongoing play a crucial role in driving change. The human centered city is something Jane Jacobs already discussed in the 1960s, but what these kinds of work provide to the discussion more than theory is that it gets puts into practice visually and provides concrete examples. They help us begin to think and imagine how such a future could look, once it is visualized, it starts to feel possible, even real. Therefore, the thesis holds the potential to influence planners in Sweden as well as the Borlänge municipality, as it adds a compiled work, including visuals, to the discussion on the relevance of this matter. The specific proposal to transform Borgarnäsvägen could generate significant value for Borlänge and hopefully encourage reflection for future development. This street was not chosen by chance, the selection is based on research and contextual understanding. Reestablishing Borgarnäsvägen as a main street in the city speaks directly to its historical role. It was once a central street, and there are qualities along this route that deserve to be highlighted. Transforming the core of Borlänge into a pedestrian area also addresses a historical intention. The disposition plan for Borlänge's city center in the 1960s envisioned the creation of a pedestrian inner city. However, vehicle traffic was maintained for economic reasons, with the expectation that a pedestrian core would be implemented once conditions allowed. At the time, Sveagatan and parts of Borgarnäsvägen were closed off to observe how such a system might function. Now is an appropriate moment to reflect on and evaluate how this system evolved, and to carry out the original vision by applying pedetrian streets to the entire city center, while also improving its connections to other parts of the city.

The car can be seen as a symbol of the modernist individual, reinforcing a mode of living that prioritizes autonomy and separation within the urban context. The typical modernist lifestyle involved commuting alone by car from work to a suburban villa, reflecting a desire for both physical and social distance. This distance was considered a luxury compared to the cramped and unsanitary conditions often associated with inner-city living. But this is no longer the reality of city cores. They are no longer overcrowded places, yet we continue to live as if they were. Today, the behaviors associated with an individualistic mindset contribute to social fragmentation and foster a culture where personal interest takes precedence over collective well-being. This individualism undermines the development of inclusive and supportive urban

communities. In contrast, a more socially sustainable urban life depends on shared public spaces where people can encounter one another, collaborate, and build mutual trust. To build such common spaces, we need to challenge and redirect the dominant symbol of individualism: the car.

In a broader sense, the thesis connects to contemporary issues and societal unrest. Since, inclusive and accessible common spaces, such as those found in the city core, play a crucial role, especially in times of crisis or when society begins to move in a troubling direction. These spaces are essential for people to come together and actively resist harmful developments. Collective strength is far greater than the isolation of suburban villas, where individuals often become paralyzed, indifferent, and feel powerless to act or create change. In the absence of natural gathering places, the burden of survival during crises falls entirely on the individual. What is needed are resilient, shared public spaces, available at all times, where mutual support, exchange, dialogue, engagement, and solidarity can occur.

8.6 Conclusion

This thesis have identified principles of sustainable urban ennvironments and putted theory into practice by working with a street in Borlänge, Borgarnäsvägen. The principles worked as an overall base that could be applied to all cities but in the example of Borgarnäsvägen needed to be site specific and create strategies that resulted in interventions that responds to rather than conflict with the exitsing environmet. In respose to the question *"What key principles should a city incorporate from a sustainable perspective?* This thesis emphasisis to design in human scale and in the human pace as base to be long term sustainable but it also go into that it is importance of integarting places to rest, greenery and approapriate lightning. In the question: *"How might the urban landscape and human behavior evolve if the car-centric norm were challenged?"* It concluded from referneces examples, and theory that the invitation of cars leads to more cars likewise as the invitation of people leads to more people. Therefor improved walking conditions in a city will make the city life to increase. In response to the question of *"Which cultural and local aspects should be empasised in Borlänge?"* the thesis concludes that it lies in the diveristy, progressiveness dna boldness. Things that should be empahzied as the richness and forward-looking spirit allow for continued growth, exploration of new ideas and staying progressive.

The methods has been an iterative work during all parts of the structure of thesis. Different types of methods have been used more getting overall knowledge and some more that work as a tool that can make you develop strategies and being very site specific. The method To being able to understand the why of something is important likewise as how to develop a street. The design discussion concluded that the design is both a product of and grounded in the theoretical framework. In addition, a strong emphasis has been placed on the specific context, as reflected in the locations of the proposed street interventions. The design language has been carefully considered; since the street is influenced by various architectural periods, the aim was to break with the existing rather than replicate selected features. Materials were also a key design principle, chosen for their long-term durability.

The discussion addresses what this thesis contributes to its field. Which is a cohesive theoretical framework for working with car-centric cities, along with a practical example. The thesis gathers information on the types of urban planning that have negatively impacted Sweden, particularly in terms of human life, in order to review what went wrong and to support a shift toward creating better urban environments. In addition to the theory, the visual representation which help us imagine and understand how this theory could be put into practice. The specific proposal on Borgarnäsvägen intends to encourage reflection and discussion for the future development of Borlänge, as it gives a cohesive background framework on how Borlänge developed into a car-centric city during the 1960s, a cohesive contemporary framework and an example on how this place could develop. Lastly, it places the discussion in a broader perspective, examining how the car symbolizes the modernist individual and reinforces a lifestyle that prioritizes autonomy. The car enabled suburban villa areas to flourish, allowing people to distance themselves from the city. This fostered a culture of individualism, where personal interests took precedence over collective well-being. As, shared public space becomes less important when you have your own house and garden which makes individualism to undermine the development of supportive communities. This fact widens the gaps between people, as we lose space for encounters. These places play a crucial role, especially in difficult times, where else can we gather for collective strength? This discussion emphasizes the importance of meeting places and the city as such a space. However, today, most cities no longer fulfill their intended purpose.

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I would like to extend my sincere thanks to Chalmers, my examiner Julia Fredriksson, and my supervisor Liv Sonntag for their valuable support throughout the project.