IMPORTANCE OF URBAN PUBLIC SPACE IN SOCIAL INTERACTION: EXPLORING DEGREES OF PUBLICNESS. THE CASE OF NEIGHBORHOOD IN TIRANA

A THESIS SUBMITTED TO

THE FACULTY OF ARCHITECTURE AND ENGINEERING

OF

EPOKA UNIVERSITY

BY

MELISA BAHJA

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR

THE DEGREE OF MASTER OF SCIENCE

IN

ARCHITECTURE

JULY, 2021

Approval sheet of the Thesis

This is to certify that we have read this thesis entitled **"Importance of urban public space in social interaction: Exploring degrees of publicness. The case of neighborhood in Tirana"** and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Dr. Edmond Manahasa
Head of Department
Date: July, 9, 2021

Examining Committee Members:

Dr. Egin Zeka (Architecture) _____

Dr. Fabio Naselli (Architecture) _____

M.Sc. Julian Beqiri (Architecture) _____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name Surname: Melisa Bahja

Signature: _____

ABSTRACT

IMPORTANCE OF URBAN PUBLIC SPACE IN SOCIAL INTERACTION: EXPLORING DEGREES OF PUBLICNESS. THE CASE OF NEIGHBORHOOD IN TIRANA

Bahja, Melisa
M.Sc., Department of Architecture
Supervisor: Dr. Egin Zeka

Nowadays, our community has changed towards privatization and secluded life. This is due to various reasons, such as the influence of technology and the lack of common open spaces and activities. At this point, the role of urban public spaces in social life has become an important element. Issues of social life in public spaces have not been given too much attention in urban planning and design. This thesis raises the question of creating an intimate relationship between public life and people, and how public spaces encourage citizens to increase social interaction. A main focus has been given to the evaluation of different types of public spaces by exploring the concept of publicness.

Firstly, the factors that affect the quality of social life in public spaces are explained. Then, different degrees of public spaces and their elements are analyzed such as building, street, and neighborhood. Surveys on a specific neighborhood in Tirana are conducted. All the components of the neighborhood area and their degrees of publicness are explored such as: housing, terraces, stairs, paths, street, courtyard, square etc. Also, we have conducted observations of neighborhood community to see how people use a certain space, activities which take place, and interaction between inhabitants.

Keywords*: publicness, public space, community, social life, activity, accessibility, human scale, interaction, housing, neighborhood, street.*

ABSTRAKT

RËNDËSIA E HAPËSIRAVE PUBLIKE URBANE NË NDËRVEPRIMIN SHOQËROR: DUKE EKSPLORUAR SHKALLËT E PUBLICITETIT. RASTI I LAGJES NË TIRANË

Bahja, Melisa
Master Shkencor, Departmenti i Arkitekturës
Udhëheqësi: Dr. Egin Zeka

Në ditët e sotme, komuniteti ynë ka ndryshuar drejt privatizimit dhe jetës së izoluar. Kjo është për shkak të arsyeve të ndryshme, të tilla si ndikimi i teknologjisë dhe mungesa e hapësirave të përbashkëta dhe aktiviteteve. Në këtë pikë, roli i hapësirave publike urbane në jetën shoqërore është bërë një element i rëndësishëm. Çështjeve të jetës shoqërore në hapësirat publike nuk u është kushtuar shumë vëmendje në planifikimin dhe dizajnin urban. Kjo tezë shtron pyetjen e krijimit të një marrëdhënieje midis jetës publike dhe njerëzve, dhe sesi hapësirat publike i inkurajojnë qytetarët që të rrisin ndërveprimin shoqëror. Fokusi kryesor i është kushtuar vlerësimit të llojeve të ndryshme të hapësirave publike duke eksploruar konceptin e publicitetit.

Së pari, shpjegohen faktorët që ndikojnë në cilësinë e jetës shoqërore në hapësirat publike. Pastaj, shkallë të ndryshme të hapësirave publike dhe elementet e tyre janë analizuar si ndërtesa, rruga dhe lagja. Janë kryer studime në një lagje të caktuar në Tiranë. Të gjithë komponentët e zones së lagjes dhe shkalla e tyre e publicitetit janë eksploruar si: banesat, tarracat, shkallët, rrugicat, rrugët, oborri, sheshi etj. Gjithashtu, ne kemi kryer vëzhgime të komunitetit të lagjes për të parë sesi njerëzit përdorin një hapësirë të caktuar, aktivitetet që zhvillohen dhe ndërveprimin midis banorëve.

***Fjalët kyçe**: publiciteti, hapësira publike, komuniteti, jeta shoqërore, aktiviteti, aksesi, shkalla njerëzore, ndërveprimi, banesa, lagja, rruga.*

Dedicated to my family.

ACKNOWLEDGMENTS

I would like to express my special thanks to my supervisor Dr. Egin Zeka for his support and guidance through the thesis. My sincere acknowledgements go to my thesis committee members, Dr. Fabio Naselli and M.Sc. Julian Beqiri for their comments and suggestions. I am also thankful to Olti Methasani, Adrian Bahja and Fatma Bahja for their technical support and continuous moral and counselling throughout the process.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Problem Statement

Public welfare and social interaction have not been a primary motivation for creating or improving public space. Public spaces are not based on understanding why people go to the space and how they actually use it. Design for public spaces are being too constrained, not providing basic human needs such as comfort, relaxation and discovery. This has made our society to shift toward private life. Public spaces as meeting and recreational spaces need to be more user-oriented. As public space should be understood not only large open spaces of the city, but also small spaces such as paths, street, pockets etc. In the case of neighborhoods in Tirana it is evident that these small spaces have the greatest potential to develop social interaction, but there is a lack of creative and innovative design solutions for providing good quality of small spaces in neighborhood areas.

There are many problems that occurs in residential areas, usually caused by poor design. Car parking is one of main problems. In a narrow street it might hinder the vision to the space and interaction among inhabitants.

Another issue to be improved is the relation between different degrees of public space. For a better communal life, there should be a balance between public, semi-public and private spaces. Semi-public space should serve as an attractive zone between public and private which provides safety and at the same time encourages meeting, activity and building of community interaction. The attention of designers should be in small spaces in between the buildings which can make the transition between different degrees of publicness. These spaces should be visible and accessible in order to encourage engaging in the life of neighborhood.

1.2 Objectives

The objectives of the study are:

-To understand different degrees of public space, identify potential common spaces at different scales and the relationship among them [in physical, functional, social… dimensions]

-To understand the role of common areas and explore them in different scales such as residential, clusters, street, neighborhood

-To understand the role of small spaces in between the buildings in the case of neighborhoods of Tirana and their importance in interaction among inhabitants

-To highlight the balance between public, semi-public and private spaces for a better communal life

1.3. Research Question

This thesis seeks to answer these questions:

-What is the relation of public and semi-public spaces in the neighborhood design?

-Which are the most important common spaces that need to be developed in each level of publicness? What are their features and where is the potential?

- How can we increase the social interaction in these spaces by introducing [proposing] new activities, and creative design solutions?

1.4 Hypotheses

-The relation between semi-public and public spheres is one the most important aspects that define the social qualities of everyday life in the neighborhood level.

-In each level of publicness there are some small common spaces that need to be developed such as path, street, terraces, pockets, gardens, courtyards, squares etc. These small spaces in between the buildings can make the transition between different degrees of publicness.

-Apart from basic activities such as walking, standing, sitting, listening, there should also be social activities which will gather users of the space, they will feel invited and will want to interact with each other.

1.5 Methodology

In order to achieve the aim of this thesis which is analyzing the impact of public spaces in social interaction, variety methods are used.

First, the choice of the site is made which consists of the area between Kavaja Street, Durres Street and Skanderbeg Street. In the area selected, degrees of publicness are analyzed in different scales such as building, street, and neighborhood. Our focus has been more on the neighborhood, as our main unit of analysis. Below there is a short description of main means of conducting this research (*Table 1*).

Table 1. Methodology

Quantitative	Qualitative
Literature review	Site surveys: photographs, diagrams, analysis
Project masterplan	Site investigation and analysis
Excel charts	Pattern analysis

The methodology used in this research consists of an integration between quantitative and qualitative approaches. The methodology used in the quantitative approach is based on literature review, project masterplan, and excel charts. The literature review is an important component in this thesis. It includes books and articles that express a clear notion of public spaces, their importance in society and also influential features of spaces in different degrees of publicness. Jan Gehl, Kevin Lynch, Jane Jacobs, and Christopher Alexander are some of the main referred scholars of this research. The literature has been used to explore the answers to our research questions and it helped to gain more information regarding the topic of this thesis. After finalizing the analytical study of the literature background, the analysis is focused in selected area, showing it in details through the site update map. This is a crucial phase that gives an understanding of the dynamic of the neighborhood and the spaces it provides. In the qualitative approach, sources are based on site surveys, site investigation, photos, and pattern analysis. Analysis of the principles related to publicness are conducted and each principle is explained through maps, diagrams, and photos. Site survey as an important qualitative method is used to realize characteristics of the area and to understand the sense of space. Site survey is carried out with the help of camera to record the existing open spaces and their facilities. The photographs show the usage of the space and facilities, the conditions, and the related problems. A series of investigations are organized in the area to identify different typologies of space in three scale: residential, street, and neighborhood. The usage of several photographs and diagrams provides a perspicuous explanation and a comprehensive image of the area. Also, it helps to achieve a better identification of weaknesses and strengths of the area in order to evaluate them based on literature background.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The most important part of the city is its public space and the most important element of urban life is social interaction. Developing the concept of urban space helps in achieving good social relationships. So, urban space plays an important role in the development of relationships between citizens. Social interactions are formed in these urban public spaces (Gehl & Gemzoe, 2004). Lack of common open spaces and activities causes social ills and makes a city look empty (Karaçor, 2016). Firstly, it is important to understand the concept of public space and then, to emphasize the characteristics of public space that need to be developed in each level of publicness.

2.2 Understanding Public Space

Public spaces are places where people come together to enjoy the city and each other. These areas let people share experiences with unknown persons and are spaces for politics, religion, trade, sports, and relaxation. Public space is like an open-air common home. It is a vital part of urban life.

Carr et al. (1992) and Worpole and Knox (2007) share this view by defending the value of public space as the common ground for community life and the opportunity those spaces create for shared use and activity, meeting and exchange, regardless of ownership. To them, almost any place, regardless of its ownership and appearance, offers potential as a public space. “In a society becoming steadily more privatized with private homes, cars, computers, offices and shopping centers, the public component of our lives is disappearing. It is more and more important to make the cities inviting, so we can meet our fellow citizens face to face and experience directly through our senses. Public life in good quality public spaces is

an important part of democratic life and full life." (Gehl, Project for Public Space, n.d.). Public spaces play the greatest role in gathering different community groups and enjoying the city's life to the fullest. Different scholars have different approaches to public space. Carr et al. (1992) state that public spaces should be responsive, democratic, and meaningful. It means that public open spaces should be designed to serve the needs of their users, to protect the right of user groups, and to allow people to make strong connections between the place and their personal lives. So, public space should be based on understanding the reason why people go to space and the meaning it has to the users (Carr et al., 1992).

On the other hand, Gehl (2010) describes public space as an open area that allows people to practice different activities which are separated into necessary, optional, and social activities. Necessary activities are related to basic activities such as going to work, shopping, waiting for a bus or a person, running errands. Optional activities are those activities that are participated in if there is a wish to do so and if time and place make it possible such as taking a walk, standing around enjoying life, or sitting. Social activities are all activities that depend on the presence of others in public spaces. Social activities include children at play, greetings and conversations, communal activities of various kinds, and also passive contacts, that is, simply seeing and hearing other people. According to Gehl, these activities are related to the quality of the open space (Figure 1). A great public space is a place that provides all these activities and human needs such as relaxation, comfort, and discovery.

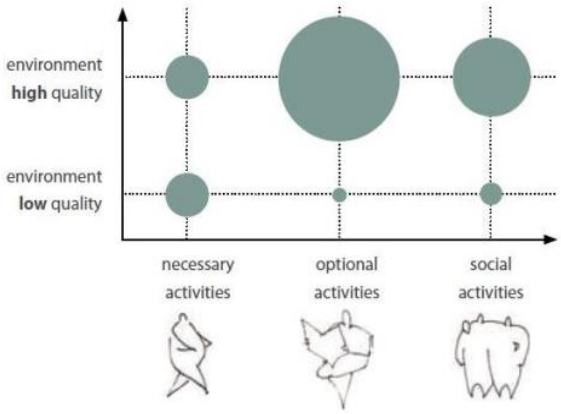


Figure 1. The impact of the quality of open space in activities (Gehl, 2010)

All public open spaces have important functions such as conservation, recreations, relationship with nature, mental and social health maintenance (Lynch, 1960). And the main feature of a great public space as meeting and recreational space is to be user-oriented.

2.3 Social Interaction

Public space is defined as space we share with strangers. It is the space where the greatest amount of human contact and interaction takes place (Wiley, 1996). Public space and society are closely related to each other. When public spaces are successfully designed, the participation of our society in urban life is increased. Public spaces are assumed to be a key part of the urban structure and city life. Social interactions are strongly supported by the design of the place and physical framework plays an important role in creating a strong community (Sak, 2016). Much of the urban design and planning literature stresses the importance of public space in social interaction and the daily experience of urban life.

In his book "Life between buildings" Jan Gehl talks about the role of a designer in creating the social structure of planned development. He claims that physical planning influences outdoor activities and social interactions are also strongly supported by the design and physical framework of the public space (Gehl, 2011).

Also, Karaçor (2016) states that public spaces should play an important role in outdoor activities and contribute to strengthening social interactions between citizens. People can see their friends, their neighborhoods and interact with strangers.

Chen et al. (2016) also emphasize that a well-designed open space encourages outdoor activity and social communication. And to have a well-designed space it is important to focus on accessibility which is a crucial factor that influences the use of public spaces. They discuss that a distance of 300 m to 400 m from a user to open space is considered an important threshold. When the distance is greater than 400 m, the use frequency decreases rapidly.

Another important factor in the design of public space is the human scale. Large-scale public space or features might cause less possibility of interaction and communication between people, which later causes unattractiveness of space due to long term unused (Edward, 2019). Also, Sim (2019) states that human-scale urban blocks with buildings that are easily accessible make social interaction easier.

On the other hand, Gehl (2011) thinks that public activity is the main factor that will draw people's attention in space, and these outdoor activities or outdoor performances can stimulate public interaction. In his book Cities for people, he also discusses that people

gather where things are happening and spontaneously seek the presence of other people and the public activity is an important element that encourages face-to-face meetings. To achieve social interactions, Jacobs (1961) proposes the term “togetherness” as a form in which more is shared with one another.

LeGates & Stout (2011) argued that a participatory planning approach is an essential tool that makes urban planning accessible and community-driven. By involving all stakeholders (e.g. employees, partners, customers, citizens, and users) in the design process, the result meets their needs and is usable. This type of approach contributes to the place-making process, because stakeholders become more engaged in the place they are designing, thus enhancing their interest in the place and the planning thereof, and building social interactions. There is a need to create spaces that are inviting for people and take into consideration people’s needs and behavioral patterns in order to encourage engaging in social life.

Above all, what is more important is that nowadays the human aspect in public spaces is considered more than before and also people are more enthusiastic in participation in these spaces. The only thing that needs to be improved is the physical quality of public spaces through factors such as access, visual attraction, natural elements, and the creation of social events (Gehl & Gemzoe, 2004).

2.4 Levels of Public Space

Some people want their houses near the activity zones. They like a lively atmosphere outside their houses. Others want their houses near quiet places. To make sure that different kinds of people can find spaces that satisfy their own desires, there should be different levels of publicness of the spaces: spaces that are nearest to action, those that are half-way between, and those that are almost isolated (Alexander et al., 1977). So, it is needed to have a dynamic balance between public, semi-public, and private spaces (Carr et al., 1992). To achieve the balance between these spaces, it is important to understand the term “publicness”. William (2009) in his article “Publicness of Urban Spaces” emphasizes the value of Publicness in urban spaces and explains that Publicness is different from Openness because it refers to the atmosphere of a place while Openness refers to the physical characteristics of a space. The atmosphere of a place is regulated through the outdoor organization, invitation, functionality,

and activity (Vassilaki & Ekim, 2015). Publicness and all these components that regulate it can be used as an effective measure of space performance.

Publicness is also presented under different interpretations. On one hand, a critical approach is centered to recognize "what is out there", focusing on particular aspects of these spaces. This type of approach seeks to understand what makes a space public and understanding public life from the users' viewpoints, which are by far neglected (Carr et al., 1992).

On the other hand, an interpretive approach is focused on society and human interaction. It takes into consideration people's opinions. If people think that a given space is a public space, it is in fact public (Lopes, 2015). Many studies have been developed to understand the features that define publicness. In the Figure below (Figure 2) there is a summary of public space related-concepts.

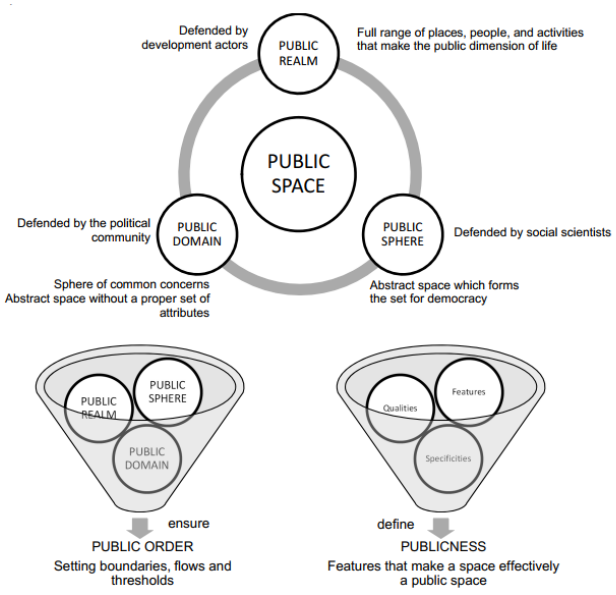


Figure 2. Public space related concepts (Lopes, 2015)

Apart from these concepts related to public space, Lopes (2015) gives a categorization of spaces into four levels according to publicness aspect: public, semi-public, semi-private, and private.

-Public open spaces: parks, plazas, streets, squares

-Semi-public open spaces: spaces to limited opening times to the public or be generally accessed and used by particular groups within society, such as school playgrounds.

-Semi-private open spaces: those where a limited number of people use the space but where the ordinary public would not be welcomed. For example: courtyards to houses or flats and communal gardens and playing spaces.

-Private spaces: spaces not accessible to the public

According to Jacobs (1961), privacy is important in people's lives and it can be achieved in several ways. Windows are crucial elements in achieving the transition between public and private. Window privacy is an easy way to get commodity and safety. By pulling down the shades or adjusting the blinds, we can get the degree of privacy we want.

Gehl (2011) also explains that different levels of space help to create various types of activities and relationships. Moving from public to private zones is limited by different rules and borders. The existence of private and semi-private gives a feeling of security and belonging by separating them from the easily accessible public. Development of all mentioned semi-, in-between spaces is important for activities, meetings, and making people feel more comfortable (Gehl, 2011).

In the figure below (Figure 3), there is a diagram explaining levels of public space.

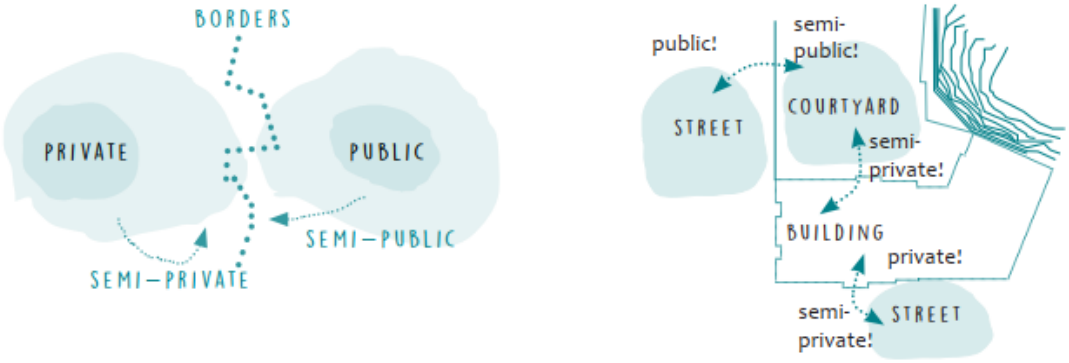


Figure 3. Levels of publicness (Vassilaki & Ekim, 2015)

According to Gehl (2011), Carr et al. (1992), and Alexander et al. (1977) it is important to understand the role of common areas and to explore them on different scales such as residential, street, and neighborhood.

2.5 Common Areas [concept of clustering]

Common space is an opportunity to socialize, spend a good time on and have physical

and visual connections among people (Vassilaki & Ekim, 2015).

People are always searching common areas to have interactions. They will not feel comfortable in their houses unless a group of houses forms a cluster, which is the fundamental unit of organization of a neighborhood (Alexander et al., 1977) The figure below (Figure 4) shows house clusters around some common land and paths.

Figure 4. House Cluster (Alexander et al., 1977)

The common land acts as a meeting place for people, allows them to be connected to a larger social system, and makes them comfortable outside their buildings (Alexander et al., 1977)

On the other hand, Lynch (1960) and Carr et al. (1992) emphasize the recognition of the public space as a shared space. So, city streets, green spaces, parks, public squares, and community gardens are all shared spaces, that increase interaction among people (Carr et al., 1992) and (Gehl, 2010).

2.6 Public Spaces in Residential Zones

The residential area is a part of the urban structure, where the area is used for housing. The residential area consists of housing and public spaces, which are elements of improving residents' life and daily activities (Edward, 2019).

According to LeGates & Stout (2011), a residential area is an area that should be designed to include mixed-use spaces such as shops, services, cafes within a walkable range and to offer the opportunity of interaction.

Another important element in residential areas is the greenery. Units of residential

should be designed facing the green areas and they should offer a safe environment, where inhabitants can see the activity in front of their house. (Marzukhi et al., 2011)

On the other hand, Gehl (2011) emphasizes another aspect of the residential areas: the social aspect. He proposes the development of the spaces in the residential zones in different degrees. According to him, these different degrees can be achieved by extending the private space of the housing area to the neighborhood's public space. In this way, public space becomes part of the residential space and inhabitants start to have a bigger interaction with each other. In the figure below (Figure 5), it is shown the diagram of different degrees of spaces in residential areas.

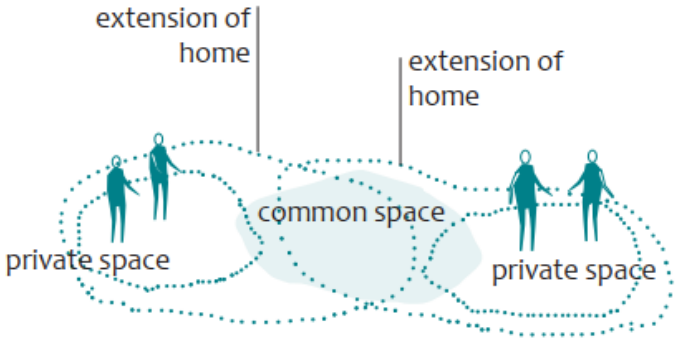


Figure 5. Degrees of space in residential areas (Vassilaki & Ekim, 2015)

Another important aspect is the pedestrian. Gehl (2011) and LeGates & Stout (2011) explain the importance of traffic calming and residential street width proposals to improve life between buildings and the safety of the pedestrians within the residential areas. Bloomberg & Sadik-Khan (2016) also explain that limited space in residential streets can result in narrow sidewalks that are inaccessible and blocked by parking. This causes pedestrian facilities to be poor. To solve this problem and to make the residential streets with low vehicular volumes and high pedestrian activity, there are some strategies that need to be taken into consideration. Vertical and horizontal deflections such as movable plantes, sculptures, street furniture, and designated parking. Signals such as depiction of children playing need to be used in order to make the drivers aware. It is important to use grade changes, paving textures, colors, and tactile strips to alert pedestrians when they cross out the street. There are also some traffic calming strategies to use in the residential areas:

Lane narrowing:

-Narrow lanes reduce speeds and minimize crashes

-Reduce the right-of-way and make drivers wary of traffic and adjacent users

-Use the additional space for pedestrian space cycle facilities or green infrastructure (Figure 6).

Figure 6. Lane narrowing (Bloomberg & Sadik-Khan, 2016)

Corner Radii:

-Narrowing corner radii reduce vehicle turning speeds and pedestrian crossing distances

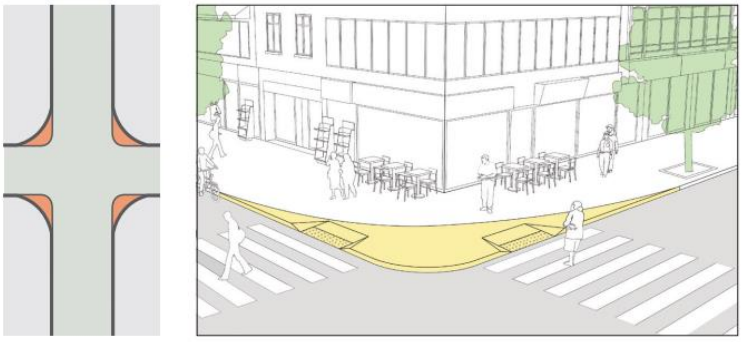


Figure 7. Corner radii (Bloomberg & Sadik-Khan, 2016)

Buildings and trees:

-Buildings at the right-of-way with articulated facades and windows indicate streets in an urban environment

Figure 8. Buildings and trees (Bloomberg & Sadik-Khan, 2016)

Gateway treatments:

-Alert drivers that they are entering in a slower area

-May include signage, entry portals, speed tables, raised crossing, and curb extension

Figure 9. Gateway treatments (Bloomberg & Sadik-Khan, 2016)

Pinchpoints:

-Narrow the roadway at a mid-block point

Figure 10. Pinch points (Bloomberg & Sadik-Khan, 2016)

Chicanes and lane shifts:

-Use alternating parking, curb extension, or edge islands to form S-shaped path

Figure 11. Chicanes and lane shifts (Bloomberg & Sadik-Khan, 2016)

Medians and refuge islands:

-Raised center medians and pedestrian refuge islands can be used to reduce lane width for vehicles

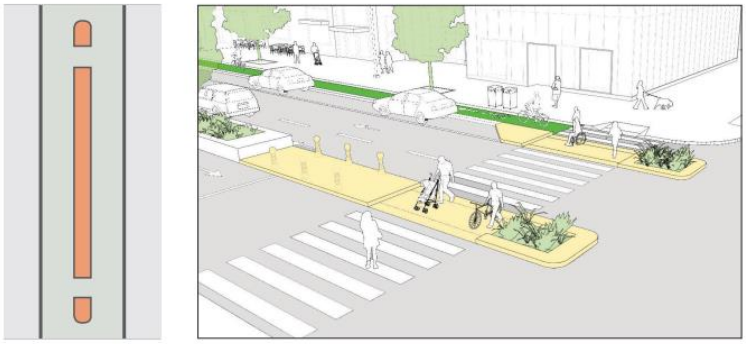


Figure 12. Medians and refuge islands (Bloomberg & Sadik-Khan, 2016)

Mini roundabouts:

-Round islands at intersections that serve to reduce speeds and organize traffic

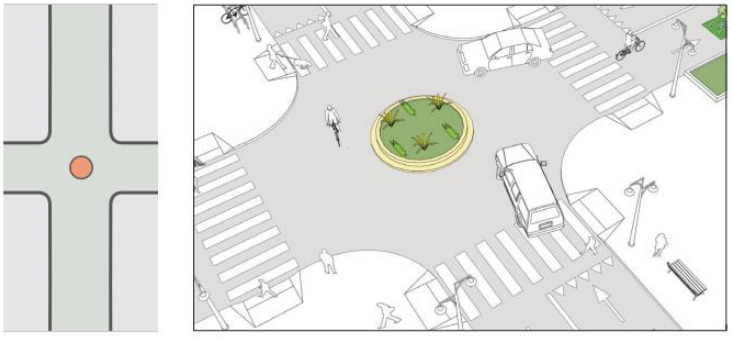


Figure 13. Mini roundabouts (Bloomberg & Sadik-Khan, 2016)

Speed humps:

-Are formed by raising sections of the road

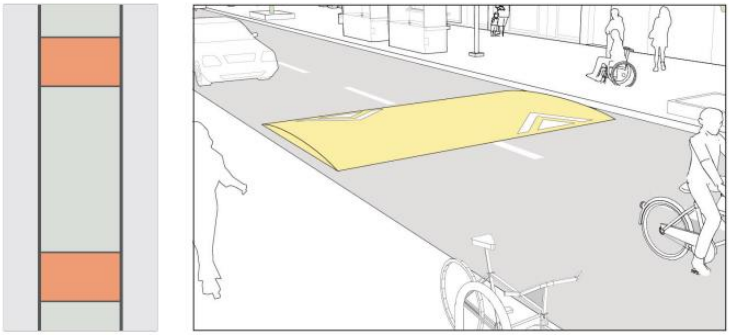


Figure 14. Speed humps (Bloomberg & Sadik-Khan, 2016)

Speed cushions:

-Similar to speed humps, but have wheel cut-out openings

Figure 15. Speed cushions (Bloomberg & Sadik-Khan, 2016)

Speed tables:

-Similar to speed humps, but have a flat top

Figure 16. Speed tables (Bloomberg & Sadik-Khan, 2016)

Pavement materials and appearance:

-Is used to make traffic calming techniques more noticeable to drivers

Figure 17. Pavement materials (Bloomberg & Sadik-Khan, 2016)

Two-way streets:

-Encourage motorists to be more cautious and wary of oncoming traffic

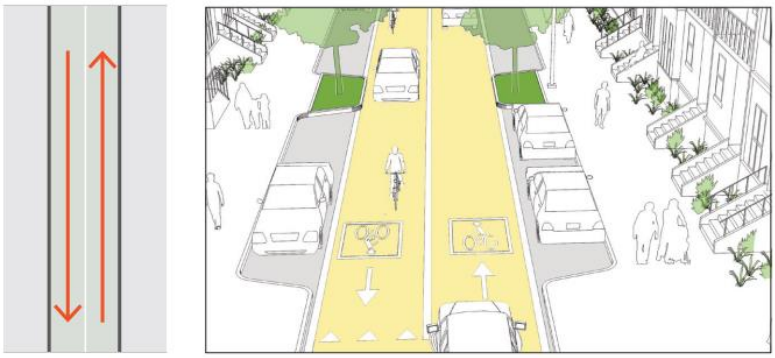


Figure 18. Two-way street (Bloomberg & Sadik-Khan, 2016)

Signal progression:

-Create lower and safer speeds along a corridor

Figure 19. Signal progression (Bloomberg & Sadik-Khan, 2016)

Diverters:

-Help in reducing motor vehicle volumes and speeds

Figure 20. Diverters (Bloomberg & Sadik-Khan, 2016)

Shared streets:

-Force all users to share the street, increasing awareness, and reducing motor vehicle speeds

Figure 21. Shared street (Bloomberg & Sadik-Khan, 2016)

Moreover, in her book "The Death and Life of Great American Cities", Jacobs (1961) discussed the function of the sidewalk and its safety. She states that planners should be more focused on people's needs than aesthetic aspects. She argued that it is important to have a combination of activities and a mixture of uses in the public spaces. She also mentioned that it is important to create a safe and attractive public space in residential areas.

However, to make a successful public space in residential areas, it is crucial to limit the number of cars, prioritize pedestrians and bicyclists, and improve the interaction among inhabitants by including different common spaces and activities (Edward, 2019).

Pfeifer & Brauneck (2015) state that a residential area contains small and large units of the building. These units form positive volume which is the unit itself, and negative volumes which are the grounds. The different volumes formed by buildings produce spaces varying privacy and openness (Pfeifer & Brauneck, 2015).

Pfeifer & Brauneck (2015) also state that there are different typologies of these

building units which provide different type of spaces regarding the publicness.

The main typologies are courtyard houses, row houses, low-rise houses, and high-rise apartments.

Manahasa & Özsoy (2019) also explain these typologies in the case of Tirana. The urban development of Tirana was divided into pre-socialist, socialist, and post-socialist periods. There were 9 housing typologies identified in each period.

In the pre-socialist and socialist periods, there was a poor development of housing typologies. By the 1970s, apartment blocks were constructed through "voluntary" work and they were of low quality. Between 1960 and 1978 Albania had a close relationship with China, and this led to the introduction of prefabricated housing blocks. Some examples of housing typologies in Tirana through the pre-socialist and socialist period were: pre-socialist ottoman influenced traditional house, pre-socialist Italian influenced urban dwelling, socialist Russian influenced neo-classicist dwelling, socialist prefabricated dwelling, socialist silicate brick dwelling, socialist low-quality dwelling, and socialist high-quality dwelling.

The post-socialist period was the most problematic for urban development. During this period, the city was facing the issue of urban identity. Informal buildings were built in public spaces. After the 1990s, there was an increase in the emigration of people, especially to Greece and Italy. There was also internal migration from eastern to western zones and from rural to urban zones. Migrants built informal dwellings on the outskirts of the city and occupied public land (Figure 22).

Figure 22. Urban pattern in the post-socialist Tirana (Manahasa & Özsoy, 2019)

The high-rise buildings were constructed in public spaces or historical urban patterns

and in this way, they damaged the urban identity of the city. There are two housing typologies that depict this period: post-socialist detached houses and high-rise dwellings.

Figure 23. Housing typologies in Tirana (Manahasa & Özsoy, 2019)

There are some design standards for residential areas in Tirana. In residential zones, raised terraces or other covered structures can be created only if their area does not exceed 1\8 of the total covered area of the building. They should also be drawn 4m from the allowed edge of the top floor of the building. For buildings with a height of one floor, the distance between them should not be less than 6m, and for two floors this distance should not be less than 12m (Dhamo et al., 2016).

2.6.1 Courtyard Houses

The courtyard is a shared common space and it serves as a good opportunity for answering different privacy needs for the residents, by connecting them to social life (Vassilaki & Ekim, 2015). According to Vassilaki & Ekim (2015), a courtyard is an opportunity for residents to spend time outdoors for resting, watching the scenery, conversing, and contributing to social life.

Gehl (2011) states that there are three main elements that regulate the privacy levels in the courtyard: physical parameters, communication, and spatial organization. Physical parameters such as distance, eye level, and activity level create a platform that invites people to communicate and interact. Communication is related to activity level and light. These two elements affect the usage pattern of the courtyard. The position of the courtyard in a good relationship with the sun has a great impact to convince people to spend more time outdoors. Also, when a place excites users by its design and invitation to different activity types, people prefer to interact and use these spaces. Spatial organization is also related to green elements and urban furniture. Green elements attract user’s interest to the courtyard by serving a

pleasant and comfortable environment. Urban furniture is also an important element that increases the comfort level of the users (Gehl, 2011).

On the other hand, Alexander et al. (1977) explain that the element that regulates the quality of the courtyard and privacy levels is the physical structure of the courtyard. He gives some guidelines in order to improve the design of the courtyard:

1. There should be an in-between area: a porch or a veranda to achieve a balance between outdoors and indoors spaces or public and private spaces

2. There should be enough doors into the courtyard. The courtyard should have doors on, at least two opposite sides in order to be a meeting point for different activities and to provide cross-circulation

3. The courtyard should not be too much enclosed. It should give some glimpse of other space beyond. These regulations are expressed in Figure 24.

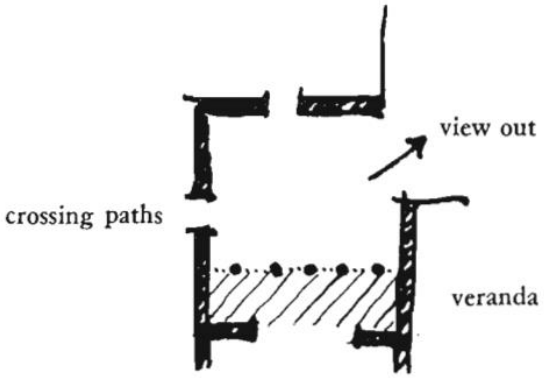


Figure 24. Three elements that regulate the quality of courtyard
(Alexander et al., 1977)

On the other hand, Edwards et al. (2006) see the courtyard as a solution to many problems related to housing blocks. They think that in a residential area, there should be houses around a courtyard in order to achieve a sense of community. Edwards et al. (2006) classify courtyard houses into two groups: the interior courtyard house, where the house encloses a courtyard, characteristic of urban areas; and the exterior courtyard house, where the courtyard borders the house, providing the protected area contiguous with the residential units but not enclosed by them.

Sim (2019) also states that there are many variations of courtyards, ranging from big courtyard enclosed by a single building, to multiple buildings surrounding a number of subdivided outside spaces. The spatial organization of the courtyard surrounded by multiple buildings helps to accommodate the diverse demands of everyday life with more options and

it offers different kinds of activities. There are also different degrees of publicness created: a large common space in the middle surrounded by private shared gardens and private spaces along the building edge (Figure 25).

Figure 25. Courtyard surrounded by multiple buildings (Sim, 2019)

There are also different patterns of courtyard in residential areas (Figure 26).

Figure 26. Courtyard patterns (City of Brighton Municipal Code)

Almhafdy et al. (2013) state that a courtyard does not have a fixed residential form. The courtyard can be circular or curvilinear, even though the basic plan of the courtyard has always been rectangular or square. The design form of the courtyard can be a great

microclimate modifier of the environment. Many studies explored the relationship between the courtyard form and shading performance, and sun location exposure. A good courtyard orientation also affects the quality of life and increases the usage of the space. So, a courtyard house plays an important role in a residential area. It regulates light, shade, ventilation, the use of the space, and interaction among inhabitants (Almhafdy et al., 2013). In the case of Tirana, the courtyard house was first developed in the post-socialist period. An example of a courtyard house was post-socialist detached house. It was developed by land owners, by adding a floor to existing houses or by building new villas in their lands. This type of house had a courtyard that served as a meeting point and also for greenery or recreational spaces (Manahasa & Özsoy, 2019).

2.6.2 Row Houses

The Row Houses lie on a road and are accessible to it from the outside (Pfeifer & Brauneck, 2015). An example of row houses is shown in the figure below (Figure 27).

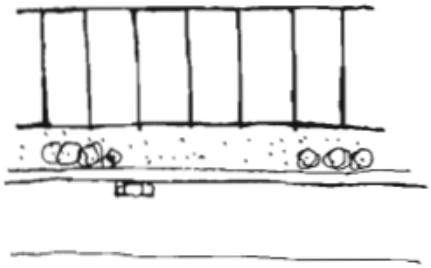


Figure 27. Typical row house pattern (Alexander et al.,1977)

According to Alexander et al. (1977), row houses have some problems in their form such as poorly lit rooms because of the long party walls, the lack of privacy in the houses, yards of the houses are at the short ends, so only a small part of indoor space can be adjacent to the garden. To solve these problems, Alexander et al. (1977) propose to make houses long and to locate them along the paths (Figure 28).

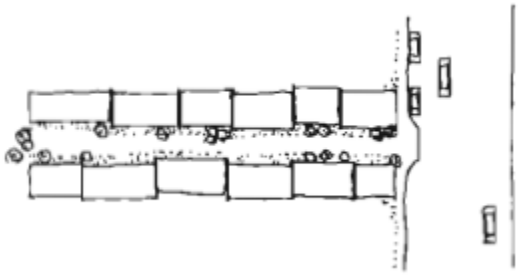


Figure 28. Row houses long and thin along the path
(Alexander et al.,1977)

Row houses can also have a variety of shapes which help to increase the privacy of the gardens and the amount of lights in the houses (Figure 29).

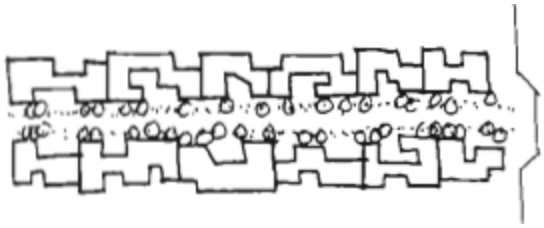


Figure 29. Form variations of row houses (Alexander et al., 1977)

On the other hand, Pfeifer & Brauneck (2008) state that the strength of the row houses lies in their economic advantages. It is very easy to add a large number of dwellings within a short time frame. According to Pfeifer & Brauneck (2008), typologies of row houses are related to the circulation within the house. The position of the staircase is an important factor that defines the different types of row houses (Figure 30 and 31).

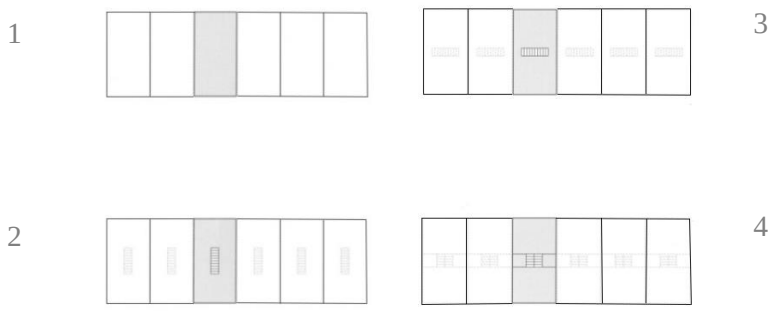


Figure 30. Different types of row houses based on staicase position
(Pfeifer & Brauneck, 2008)

1.without staicase 2.longitudinal staircase 3.transversal staircase 4.longitudinal split-level

Figure 31. Different types of row houses based on staicase position (Pfeifer & Brauneck, 2008)

5.transversal split-level 6.back-to-back 7.front-to-back 8.back-to-back, vis-à-vis

Another important element in row houses is the degree of publicness they provide. According to Rahbar (1996), there is an in-between zone or an ambiguous area, that should be given importance and should be treated in order to achieve comfort and satisfaction among row house residents (Figure 32).

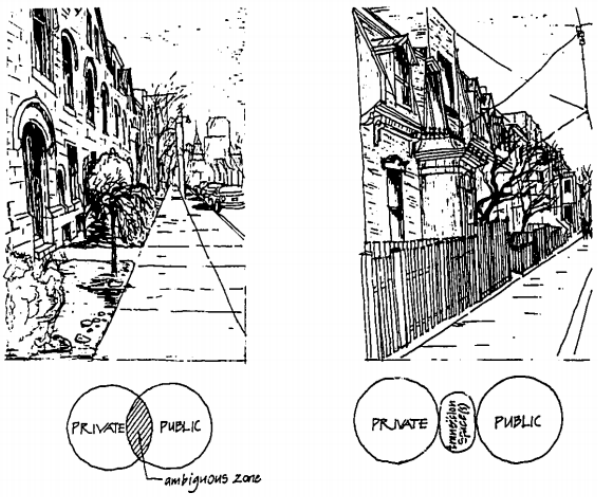


Figure 32. Ambiguous outdoor zones in two examples (Rahbar, 1996)

Left: Row houses with no transition space resulting in an ambiguous zone

Right: Row houses with strong territorial definition resulting in a clear zone between public and private spaces

Rahbar (1996) states that transition spaces are important elements in row houses because they affect also the functioning of the house. They give a balance between public-private domains for a better co-existence. Transition spaces also influence residents' involvement in street life and interactions. The author also discusses that in order to achieve a good balance between public and private domain, there should be different stages of transition in the entry of a house such as front yard space, semi-private outdoor entry, private outdoor spaces, and private indoor entrance hall (Figure 33).

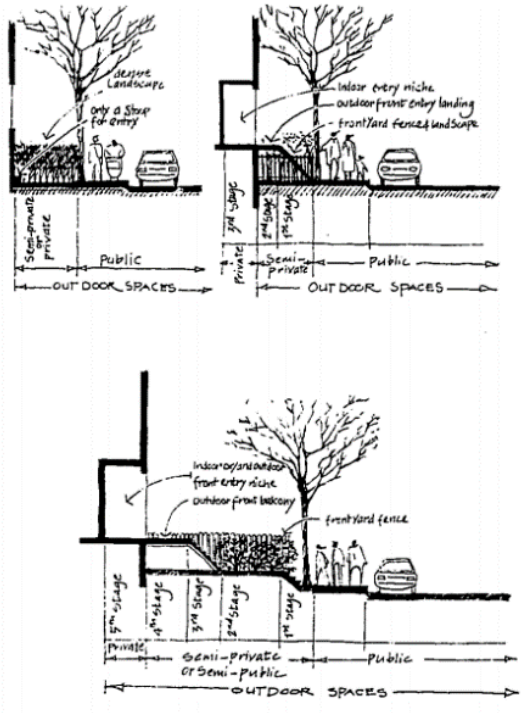


Figure 33. Different stages of transition in the entry of a house (Rahbar, 1996)

-Front yard is an important outdoor space for row houses. It is defined as a semi-public space. It helps residents to have contact with the street (Figure 34).

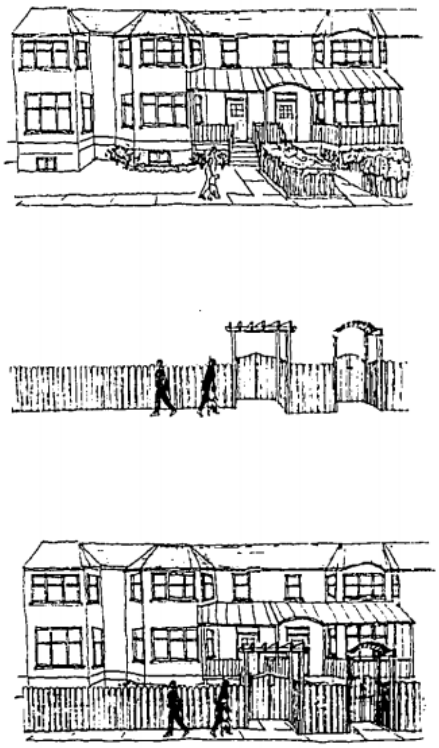


Figure 34. Top: deep front yards are not used for private family activities because of the lack of privacy
Center: high tight fence as a privacy regulatory mechanism
Bottom: Front yards can be enclosed by an aesthetically fence which Converts them into usable outdoor spaces (Rahbar, 1996)

-The front entry is a transition area from the public exterior to the private interior. It is defined as semi-private. It is also an important element of the dwelling that gives it an identity. The front entry should be well-defined and it should offer privacy and comfort. It should also contain front balconies or entry landings in order to provide an area for receiving people from the outside and a space for sitting (Figure 35).

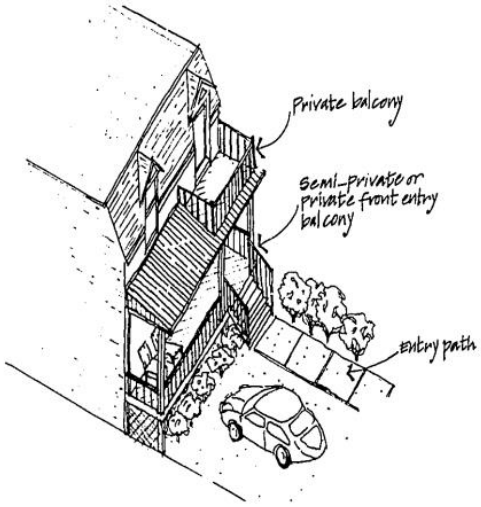


Figure 35. Example of a row house with a deep front entry balcony, a space for receiving visitors, social and family gatherings, and street watching (Rahbar, 1996)

In the front entry, there are some features that create a human-scale relationship of buildings to the street, provide opportunities for subtle variations in design between buildings along the streetscape, and can help create compatible relationships between buildings of different scales or sizes (Table 2).

Table 2. Front entry elements (City of Brighton Municipal Code)

Design Element	*Width*	*Depth*	*Details & Ornamentation*
Porch	At least 50% of front facade or 20', whichever is less	8' - 12'	Decorative railing or wall 2.5' to 4' high along at least 50% of the perimeter. If not roofed, a canopy, pediment, transom windows, enlarged trim and molding or other similar accents accompany the door.
Stoop	8' – 20'	6' – 10'	Ornamental features accent the door, including decorative side railings, canopy, pediment, transom windows, enlarged trim and molding, or other similar accents that emphasize the door over other facade features.
Entry Court	12' +, but never more than 50% of facade	10' – 30'	Recessed entry within the building footprint. Decorative wall or railing, no higher than between 2.5' and 6' high along at least 50% of the opening.
General Design	▪ All entry features shall have a sidewalk of at least 4 feet wide directly connecting the entry feature to the public sidewalk or street ▪ All entry features shall be integrated into the overall building design including compatible materials, roof forms, and architectural style and details.		

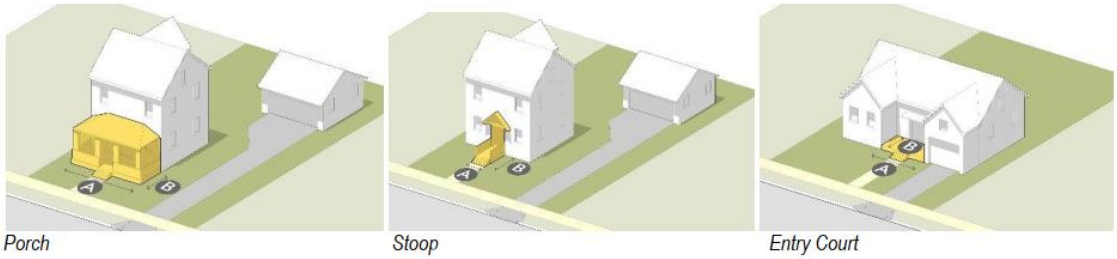


Figure 36. Front entry features (City of Brighton Municipal Code)

-Private outdoors spaces are in outdoor space part of the indoor private domain. These spaces should offer comfortable space for sitting and receiving visitors. They consist of balconies, porches, and terraces. It is important to position these spaces away from immediate neighbors' private spaces, and they should have physical elements such as walls and plants in order to offer a sense of privacy (Figure 37).

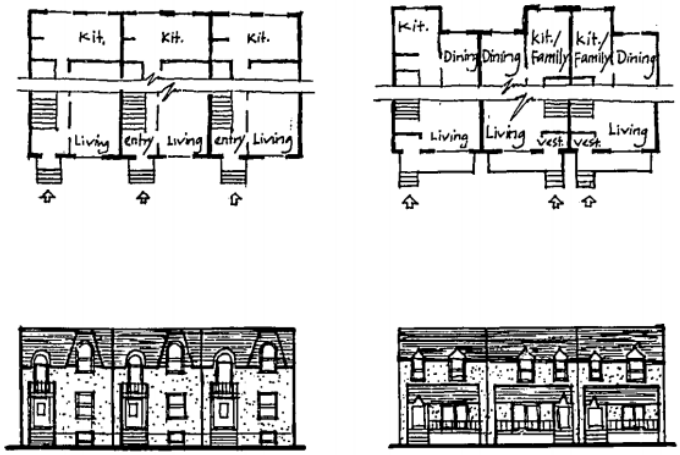


Figure 37. Two common arrangements of outdoor private spaces with respect to building layouts
Left: ln L-shaped plans, balconies of units are paired up in order to respond to the interior layouts
Right: ln rectangular plans, there is more freedom in organizing outdoor balconies to be positioned away from the neighboring balcony (Rahbar, 1996)

-Entrance Hall is a space that links and separates outdoors spaces and indoor spaces. It is a space where visitors are received, and different accessories such as coats or boots are stored. The entrance hall is an important element in regulating access between private, and public realms (Figure 38, Figure 39).

Figure 38. A typical entry portico of a nineteenth-century row house (Rahbar, 1996)

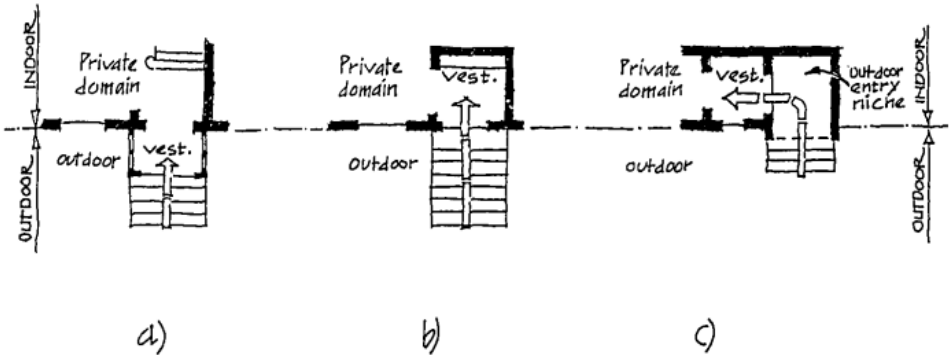


Figure 39. 3 typical arrangements of entrance halls

a) A portico enclosed to function as an exterior vestibule

b) An interior entrance hall or vestibule and change in direction prior to entering the private realm

c) A combination of an exterior entry niche and an interior entrance hall (Rahbar, 1996)

Sim (2019) also explains some important elements of residential buildings that help in experiencing different degrees of publicness. These elements are porches, verandas, arcades, balconies, loggias, and terraces.

Porches, verandas, and arcades:

-The porch is an outdoor room that serves for social activity. It is an intermediate space that connects the private realm of the home and the public realm of the street. Porches and verandas increase the opportunity to engage with people on the street. The arcade provides a space where formal and informal activities take place. The arcade also gives shade on

sunny days and wind protection on stormy days (Figure 40).

Figure 40. Arcade, porch and veranda (Sim, 2019)

Balconies, loggias, and terraces:

-Balconies offer to the upper floors the balance between indoor and outdoor. An important element in balcony design is the degree of the enclosure to increase privacy and to get shelter from the wind. Apart from private space, the balcony should also offer a semi-public and public space. Shutter, louvers, sliding doors, and screens can help to adapt different types of spaces (Figure 41).

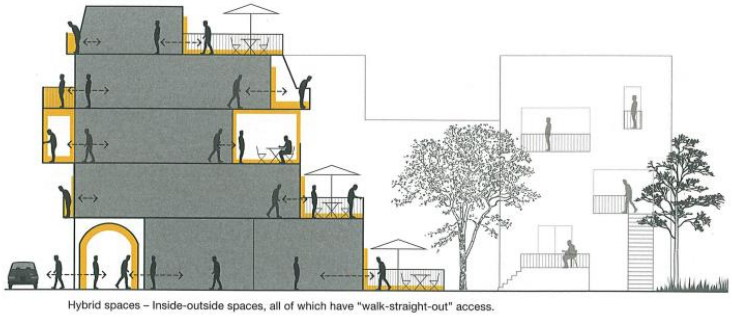


Figure 41. Balconies, loggias, and terraces (Sim, 2019)

There are also some design standards for residential frontage types explained above (Table 3).

Table 3. Frontage elements (City of Brighton Municipal Code)

Frontage Element	Terrace	Neighborhood Yard	Suburban Yard	Buffer
Description / Design Objective	A shallow open area along a block face that creates a continuous landscape element across multiple frontages and enhances the tighter relationships of buildings along a streetscape, such as courtyards, gardens or small lawns.	A small to moderate open area with a building setback from the property line to create consistent landscaped area that emphasizes the buildings relationship to the streetscape and creates a consistent rhythm of building facades along a block.	A small, moderate or large open area with a building setback from the property line to create larger, uninterrupted landscape areas along a block.	A concentrated landscaped area used to soften, screen and separate the site and any potential impacts form the streetscape.
Front Building Line	10' – 25'	25' – 40' 15' – 25', provided any front-loaded garage remains at least 12' back from the Front Building Line.	25'+ 15' – 25', provided any front-loaded garage remains at least 12' back from the Front Building Line.	30'+
Front Entry Feature	Required, See Section 5.04.D	Required, Section 5.04.D	Optional	Optional
Driveway Width (w/in first 20') [1]	15% of lot width, up to 20' maximum	20% of lot width, up to 20' maximum	40% of lot width, up to 24' maximum	25% of lot width, up to 30' maximum
Garage Limitations	▪ No more than 40% of the front elevation. ▪ If between 30% to 40% of front elevation – at least 12' behind the front building line. ▪ If less than 30% of the front elevation, at least 4' behind front elevation or 12' behind the front entry feature, whichever is greater ▪ Otherwise, side-loaded, rear-loaded, or detached garages shall be used.		▪ No more than 45% of the front elevation, except no limit applies for side facing garages or front-facing garages setback more than 40' from front lot line. ▪ At least even with or behind the front building line, or 30' from front lot line, whichever is less. ▪ Where more than two front-loaded garage bays are allowed, the third bay should be off-set at least 2' from the two primary bays or individual bays shall be used.	
Landscape (Between front lot line and front building line)	Allocation of space shall be: ▪ 70% to 90% landscape; and ▪ 10% to 30% hardscape.	Allocation of space shall be: ▪ 75% to 100% landscape; and ▪ 0% to 25% hardscape.	▪ 50% minimum landscape area	▪ Type I: 6' minimum buffer on constrained sites or minor streets. ▪ Type II: 15' minimum buffer generally. ▪ Type III: 30' minimum buffer on sites over 2 acres or major streets.

2.6.3 Low-rise and High-rise Buildings

Low-Rise residential houses include small houses produced in large quantities. These types of houses have low unit costs (Swenson, n.d.). Also, Mich (2017) states that low-rise houses are intended to increase urban density. There are different types of low-rise houses in different cities (Pojani & Buka, 2015). Pojani & Buka (2015) give an overview of low-rise house development in Tirana. During socialist times, the low-rise houses were the main house typology. Some examples of these types of houses are 2-5 story houses and also prefabricated buildings. Later on, most of these low-rise houses were demolished and new high-rise apartments were built (Pojani & Buka, 2015). The high-rise dwelling in Tirana is seen in two forms: tower type apartment blocks and residential complexes (Manahasa & Özsoy, 2019). Even though the building of high-rise apartments is increased through the years, most people prefer to live in low-rise houses. This preference of people for low-rise over high-rise bildings happens because of many reasons:

-The space outside the low-rise houses can be used not only for dwelling units but also for other purposes

-There is more comfort and security in the open space of the low-rise houses

-The open space in the low-rise houses serves as a meeting place, and it is under residents' control (Srivastava, 2002).

On the other hand, (Rogers, 1999) opposes this by pointing out that in high-rise buildings there is low coverage, the open space is larger, and it offers more opportunity for community meetings, and other activities. He agrees with Srivastava (2002) on the fact that

the open space in low-rise houses is more controllable by inhabitants, and the interaction is greater. Apart from these, according to Rogers (1999), medium-rise buildings are ideal ones to have community facilities, meeting spaces, and social interaction (Figure 42).

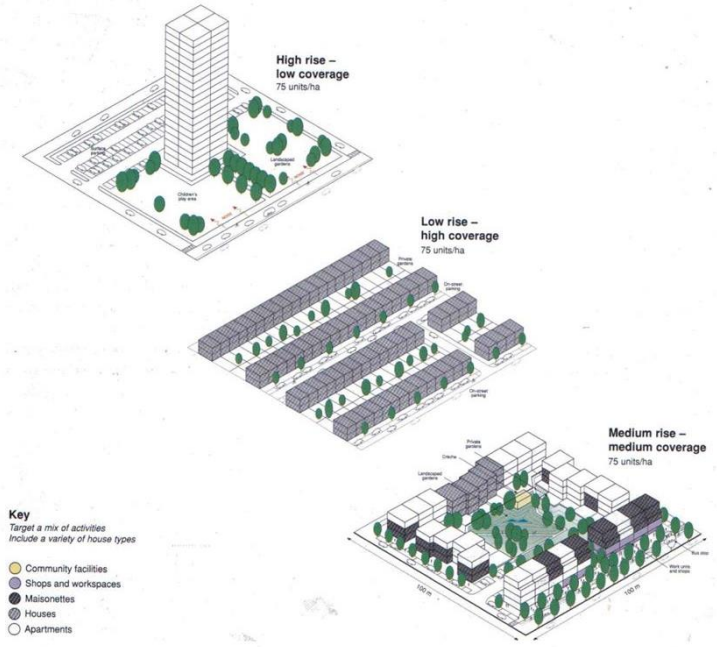


Figure 42. Density and urban form (Rogers, 1999)

On the other hand, Gifford (2007) discusses that high-rise buildings damage the character of neighborhoods, services, and infrastructure. Apart from these negative characteristics, high-rise buildings have also positive aspects. In accordance with Rogers (1999), Gifford (2007) also states that high-rise buildings have smaller footprints than low-rise housing units, and therefore they may occupy less land. This offers more room for parks, green areas, and outdoor activities. High-rise buildings also offer more urban privacy. Residents who live in upper levels experience great views, less noise from outside, and more clean air. He also agrees with Rogers (1999) in the point that in low-rise houses there is more interaction because there is less privacy than in high-rise apartments. So, high-rise apartments have poor social relationships (Gifford, 2007). This happens because in the high-rise buildings there are no in-between semi-private spaces (Srivastava, 2002).

2.7. Street

Street is the basic unit of urban space. In the early times, Greeks and Romans paved and straightened streets to provide movement and safety. Still, today street is a very crucial

element of public space and always needs improvements based on user's needs (Carr et al., 1992). According to Bloomberg & Sadik-Khan (2016) street consists of many structures such as building edges, land uses, and setbacks (Figure 43).

Figure 43. Elements of the street (Bloomberg & Sadik-Khan, 2016)

Gehl (2010) also explains some important elements that make a street a valuable public space such as soft edges, narrow façade, active ground floor, and mixed-use.

-Soft edge is the zone where the indoor and the outdoor life can interact, where the city and the building meet. Edges offer individual space, comfort, and security. Edges also offer the opportunity for sitting and standing. In a residential area, the edge zone is the most active outdoor area. The edge zone should be inviting. The edge is also a zone in which exchange points between indoor and outdoor are located (Figure 44).

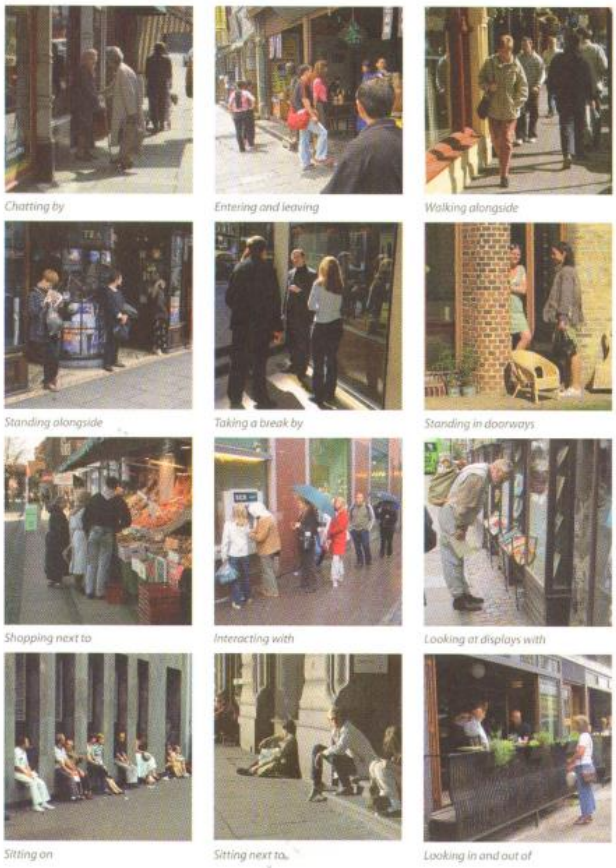


Figure 44. Soft edge examples (Gehl, 2010)

In residential areas, soft edge exists right outside of the building at ground level, near or around an entrance door. There can be different types of soft edges in residential areas and they offer different degrees of publicness (Figure 45).

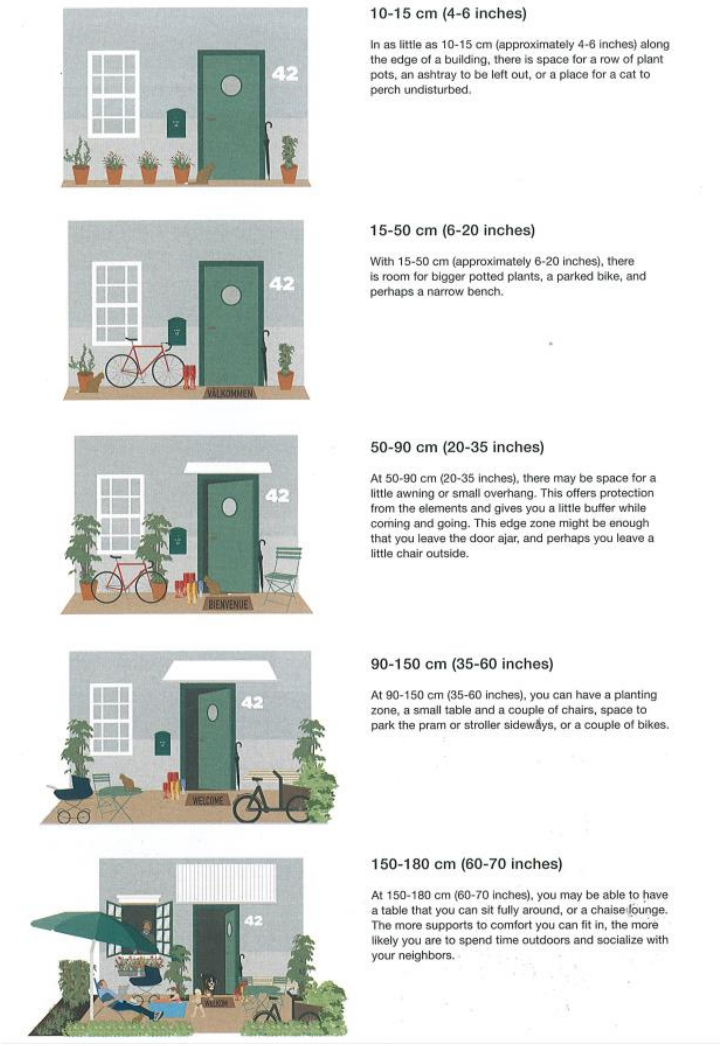


Figure 45. Different types of soft edges in residential zone (Sim, 2019)

-Narrow façades along the street offer opportunities for buyers and sellers to interact and provide exchange points between inside and outside. Narrow units make room for many buildings along the street and it makes the street more attractive and lively (Figure 46).

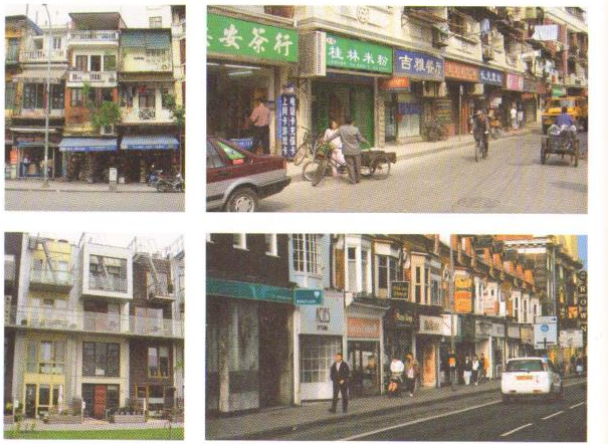


Figure 46. Narrow Facade (Gehl, 2010)

Apart from narrow façade, an important element that increases the interaction is active façade. In front of an open and active façade, there are more people stopping and staying than in front of a closed façade (Figure 47).

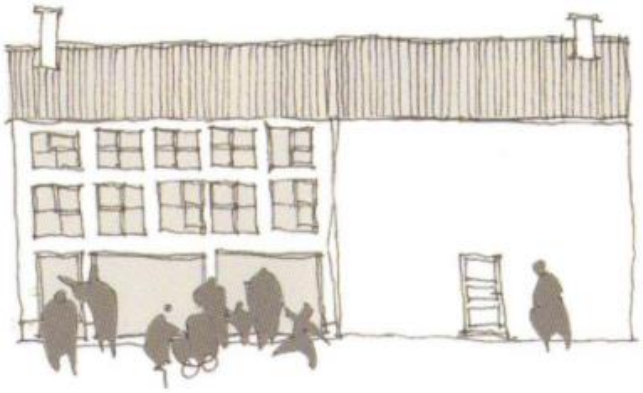


Figure 47. Active façade (Gehl, 2010)

-Active ground floor: The ground floor is experienced more by pedestrians than upper floors. When we walk in the ground floor, we experience all the details of facades, materials, and also the people and activities. All these elements determine whether our walk is interesting or not. When the ground floor is closed and monotonous, walks seem to be long and uninteresting. The quality of the ground floor is crucial in people's behaviour. According to Sim (2019), the ground floor should accommodate a diversity of uses to ensure that more people spend time at the street level. The active ground floor can help to strengthen the sense of community and security (Figure 48, Figure 49).

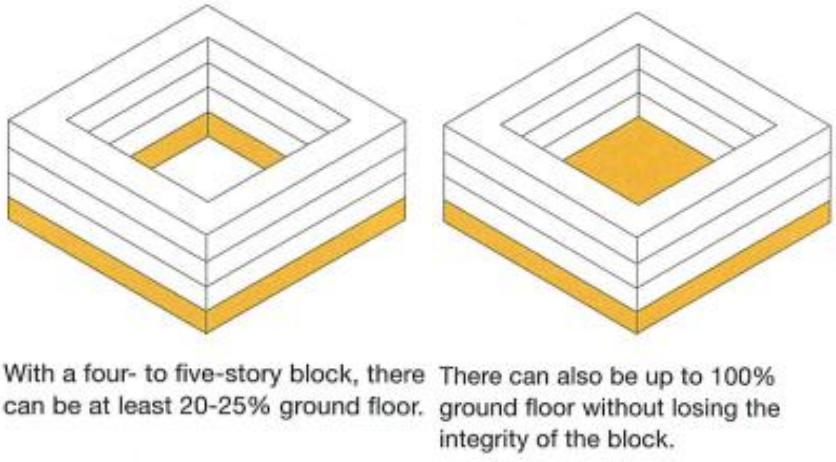


Figure 48. Ground floor (Sim, 2019)

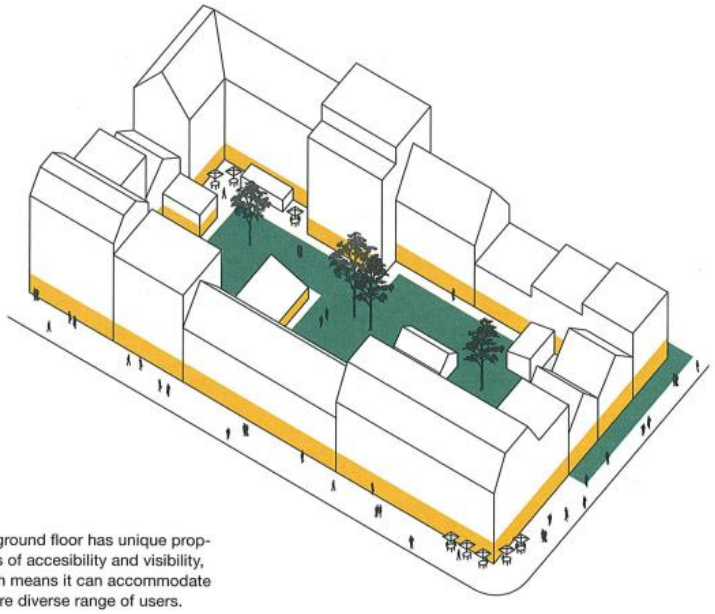


Figure 49. Active ground floor (Sim, 2019)

There are also different kinds of active ground floor (Figure 50).

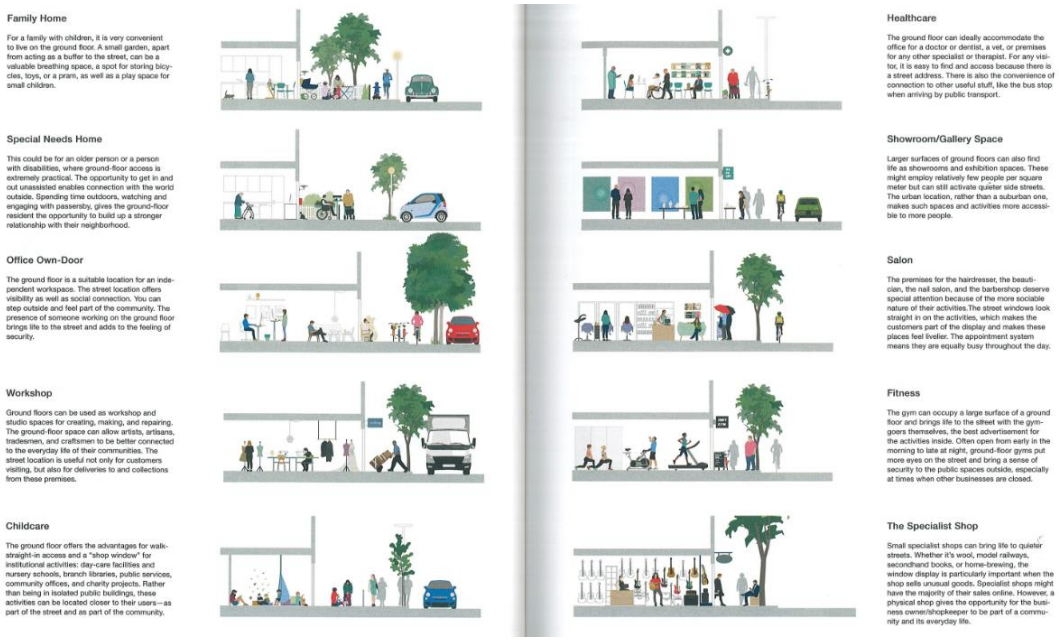


Figure 50. Different types of ground floor spaces (Sim, 2019)

-Mixed-use: A lively city needs mixed-use spaces. Spaces with different kinds of functions make the street more active and increase social interaction. Gehl (2011) emphasizes that mixed-use functions provide more activities and can bring safety and protection to residents and also visitors of the neighborhood. Different functions of the spaces give also different degrees of publicness (Figure 51, Figure 52).

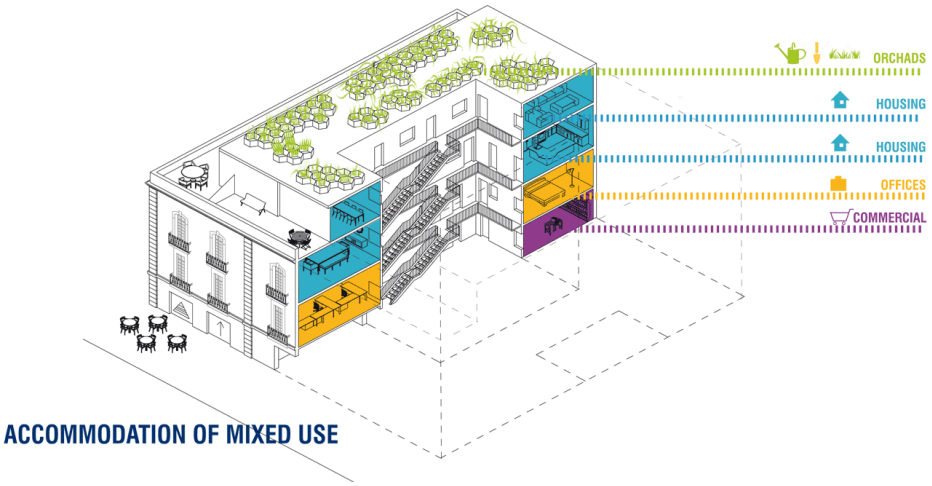


Figure 51. Mixed use functions example (Cadaval & Morales, 2021)

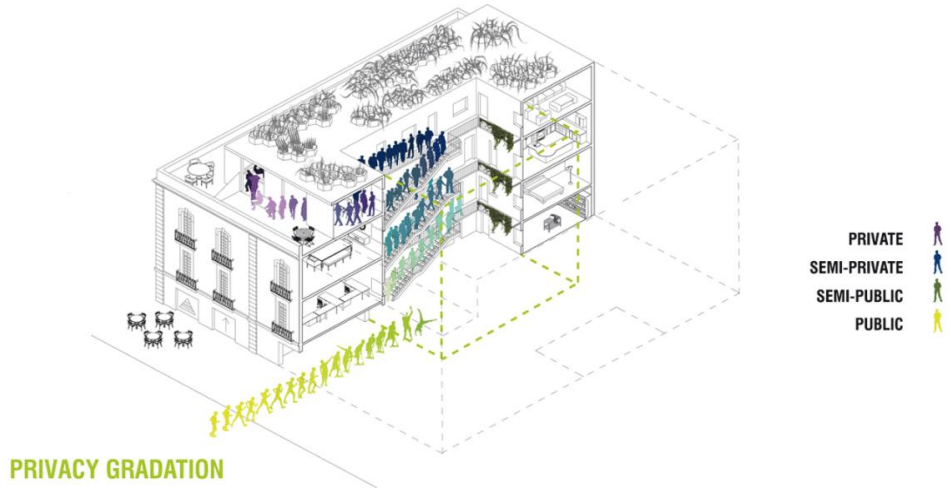


Figure 52. Degrees of publicness in mixed use functions (Cadaval & Morales, 2021)

Lynch (1960) also emphasizes some important elements of the street. He states that the street should have a directional quality and it should have the attribute of being scaled. Identifiable regions help to give direction and scaling to the street. Contrast is also an important element. It refers to how different the street looks according to the context. The street should also have rhythm. The length of the street is another important element that reinforces the differentiation of the street. Streets call for a certain continuity of form throughout their length.

Jacobs (1961) states that streets and sidewalks are the main public spaces of a city. As the most vital parts of the city, they have a strong connection with each other. So, if the design of the street is good, the city looks interesting. According to Jacobs (1961), since the

street is the place where we meet strangers and as a public space, it must offer safety. There are three main qualities of the street in order to achieve safety (Jacobs, 1961):

First, there must be a division and a balance between public and private space.

Second, there must be eyes upon the street, meaning that there should be a clear view of the street. So, inhabitants know what is going on.

Third, the sidewalk must have users on it continuously. So, the street must be inviting.

To achieve these qualities and to have more windows looking onto the street, it is important to have an active ground floor. The active ground floor makes people spend more time at street level and helps to create the feeling of community (Sim, 2019).

The relationship between the street and people is also explained by Bloomberg & Sadik-Khan (2016). They analyze the street and its elements based on the World Health Organization. The World Health Organization emphasizes the role street design in human health and well-being. Some of the factors that affect human health are:

-Traffic fatality and injury: 1.2 million people die and 20 -50 million people are injured each year as a result of road traffic crashes.

-Air quality: 3.7 million deaths worldwide in 2012 were caused by air pollution.

-Physical Activity: Insufficient physical activity is a key factor in non-communicable diseases. More than 80% adolescent population are insufficiently physically active.

-Water Stagnation: Streets should be designed for easy maintenance and proper water flow management to reduce the chances for water stagnation, reducing the risk of water-borne diseases.

-Access to Nature: Street trees and landscaping can reduce blood pressure and improve emotional and physical health.

-Noise Pollution: Street noise causes a number of health problems such as: sleep disturbance, cardiovascular issues, poor work and school performance, and hearing impairment. Street design should reduce speed while policies should reduce horn use, minimizing noise pollution, and reducing discomfort for other street users.

Apart from the role of the street in human health, street has also a big impact in shaping the human experience of neighborhood and cities. One of the most important elements of human experience are human senses. Pedestrians experience the street with all their senses.

Also, safety and access affect the human experience.

Social interaction is also an important element in human experience. Streets should be well-design in order to connect people with their communities. Bloomberg & Sadik-Khan (2016) give some key principles in designing the street (Figure 53).

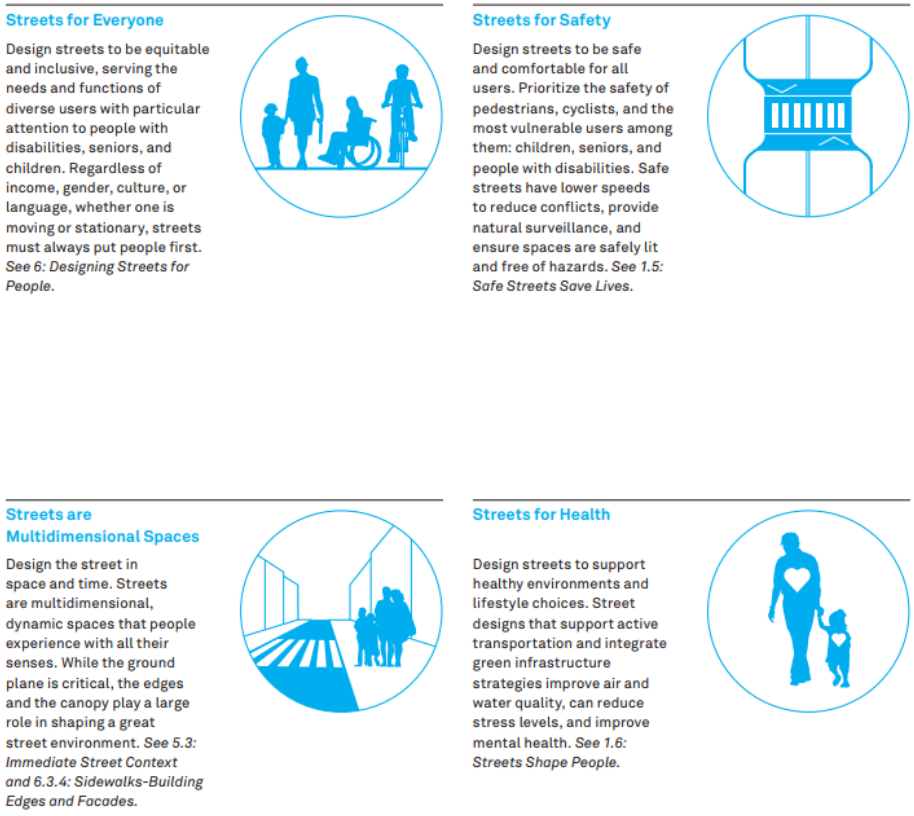


Figure 53.1. Street design principles (Bloomberg & Sadik-Khan, 2016)

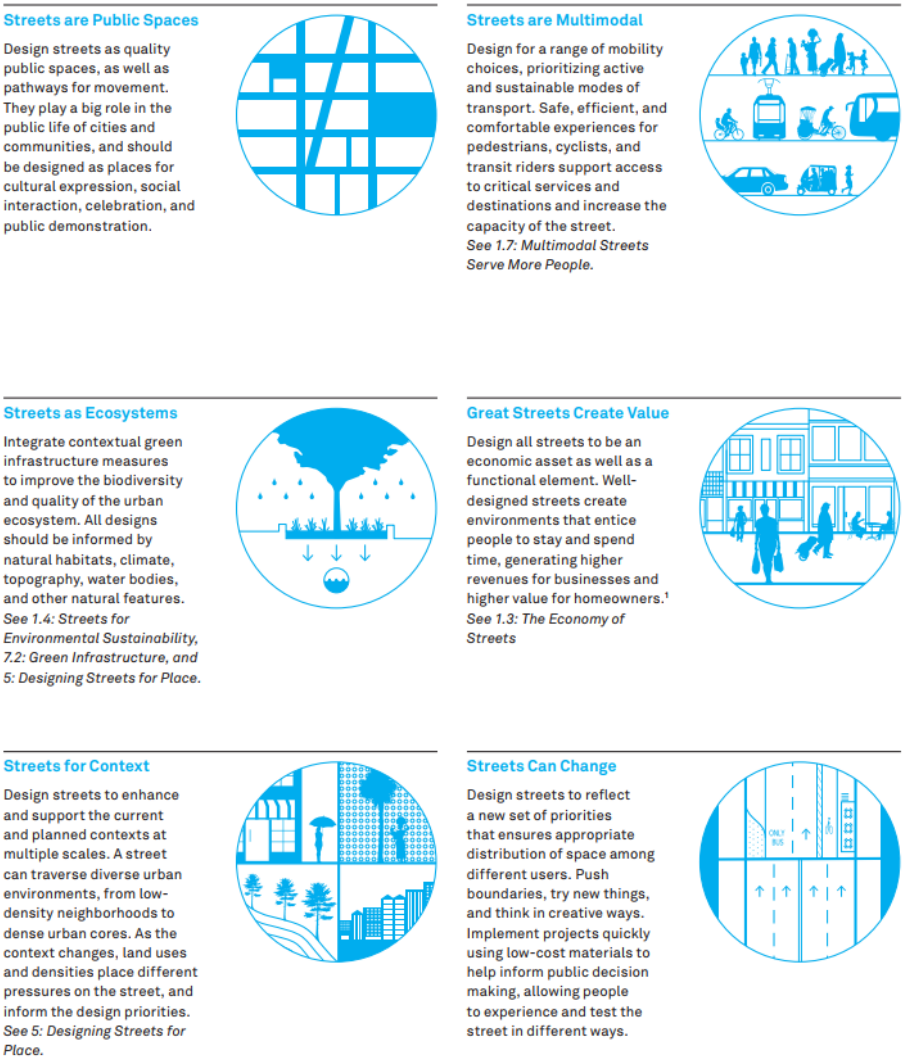


Figure 53.2. Street design principles (Bloomberg & Sadik-Khan, 2016)

Bloomberg & Sadik-Khan (2016) give also some guidelines about street design for pedestrian. There are variations of pedestrians:

- People with disabilities: Sidewalks should be wide enough to allow two people in wheelchairs to pass each other. The street should not be less than 1.8m (Figure 54).

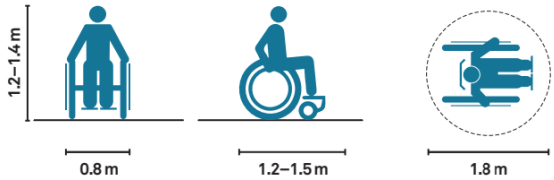


Figure 54. Guidelines for disabled people (Bloomberg & Sadik-Khan, 2016)

- Children: Streets should be safe for children. There should be low traffic speeds, signals timed for a slow walking speed, low turning speeds and visible pedestrian crossings. Designs should indicate to drivers that children are present on neighborhood streets (Figure 55).

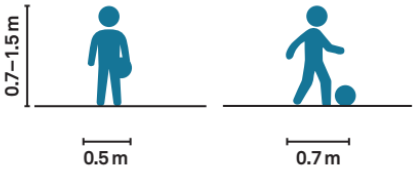


Figure 55. Children in streets (Bloomberg & Sadik-Khan, 2016)

-Adults and Seniors: Street design for seniors should provide refuge islands for every two or three traffic lanes, and curb extensions to reduce crossing distances and improve visibility at the pedestrian crossing (Figure 56).

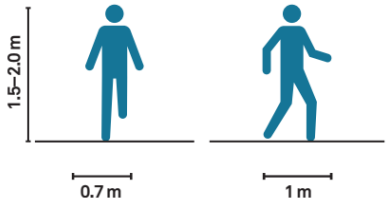


Figure 56. Adults and seniors in streets (Bloomberg & Sadik-Khan, 2016)

Another issue that Sim (2019) explains is walkability. The direct access to the street connects private life with the public one. Wiley (1996) also agrees that the walkability element of public space provides us a form of experiencing the city.

On the other hand, Gehl (2010) puts his focus on the human dimension. It is important for people to move comfortably and safely. To achieve people's comfort in the street, Edward (2019) gives some guidelines for designing better streets. He states that streets should use antislip material. For the elderly, it is important to have a shorter walking distance. It is also important to have a nice scenery along the street to make people be less tired for walking. Another important element that helps people feel safe is street lighting. A lightened street have always more users. Moreover, traffic and parking are problems that cause unattractiveness of the street. A car parking in a narrow street hinter the vision to the

public space and makes it difficult for people to walk and also gives not a nice view (Edward, 2019).

As Jacobs (1961) states, the attractiveness of the street can be created through a good environmental visual quality and this nice visual quality indicates a safe environment.

Also, Gehl (2011) mentioned the principle of a complete street, which suggests having a balance between car traffic and pedestrian. The traffic flow needs to be designed to move efficiently slow and in this way, the pedestrians are given enough space for movement and socialization. The concept of a complete street is used to balance a safe circulation that allows all users to move in democratic ways (Edward, 2019). Furthermore, according to Jacobs (1961), spatial layout is important in creating an attractive public space. So, people's behavior is affected by the arrangement of streets. According to Bloomberg & Sadik-Khan (2016), street layout should be designed to provide multiple mobility options for its users. They propose the multimodal street. This layout offers people options for safe and attractive travel by foot, by cycle, on transit, and in motorized vehicles. It also supports local businesses and more people are using the street (Figure 57).

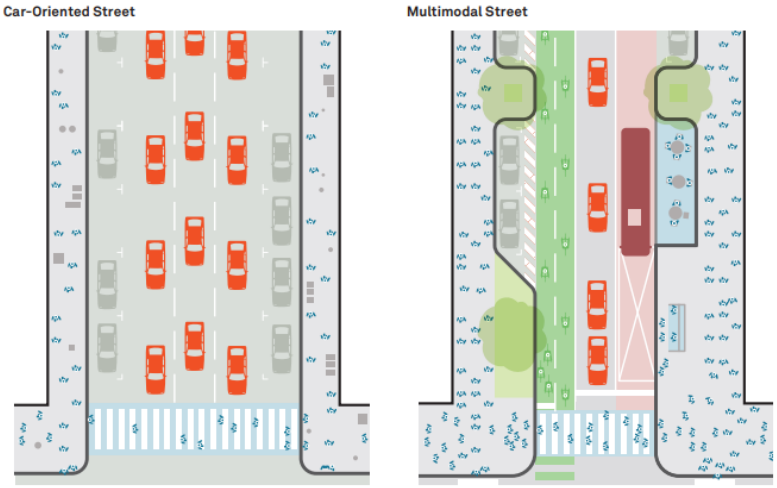


Figure 57. The capacity of car-oriented streets and multimodal street (Bloomberg & Sadik-Khan, 2016)

In addition, Gehl (2011) mentioned that in an empty and inactive area, people tend to walk faster, while in a lively and active area, people tend to walk slower. In accordance with Jacobs' (1961) study, the pattern of the street influences the attractiveness and safetiness of the area. A comfortable walking pattern makes people focus more on public activity and it offers more interactions. Jacobs (1961) states that a good neighborhood street offers a balance between people's privacy and their different degrees of contact with people around.

Also, according to Grammenos et al.,(2002), streets connect the private domain with the public one and different parts of the neighborhood. In this way, streets support social interaction. In accordance with Jacobs' (1961) study, Grammenos et al.,(2002) emphasize that the pattern of the street has a great impact on the behaviors of people and the safety of the area. They propose combining two types of streets in long blocks: loops and cul-de-sacs. These types of streets may exclude traffic at the local street level, and permit a good flow at the arterial level. According to Grammenos et al.,(2002), these two patterns are better than traditional grid patterns, because the grid is an inefficient carrier of car traffic. In addition, the physical attributes of the street affect the user's experience, through the design elements such as sociability, walkability, delight to the pedestrian, and safety. A combination of loops, cul-de-sacs, and grid patterns offers the characteristics mentioned above. The combination of these patterns leads to a residential quadrant, which contains an open and continuous network of pedestrians. In the site plans below there are shown three street patterns and their characteristics (Figure 58).

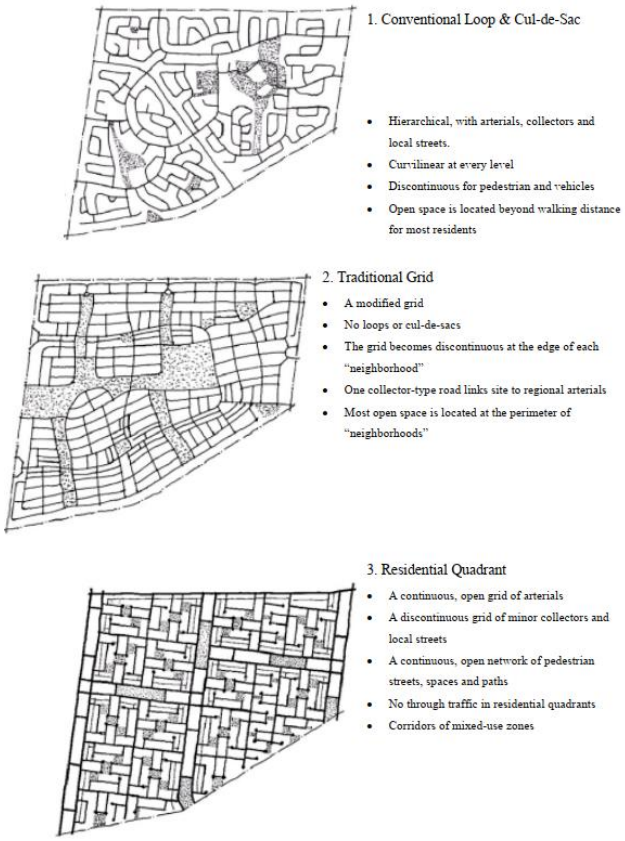


Figure 58. Site plans with different street patterns (Grammenos et al., 2002)

On the other hand, Jones & Boujenko (2009) analyze the street according to its two main functions: link and place. They state that as a link, the street provides a channel for

movement. In contrast, as a place, the street is a destination, where different activities happen. In the first function of the street, as a link, pedestrians are passing through the area, while in the street as a place, the pedestrians are spending time in the area. In addition, to understand link and place activities, comprehensive and complete consideration of street functions should be proposed. Jones & Boujenko (2009) has shown how this proposal should be done by combining conventional road plan and land use plan (Figure 59).

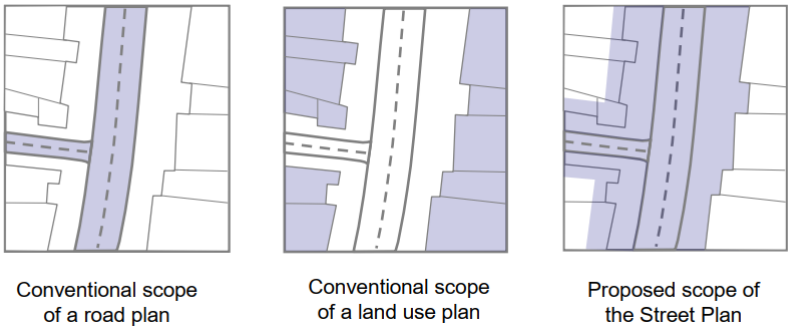


Figure 59. Combination of conventional and land-use plan (Jones & Boujenko, 2009)

Other important characteristics such as access to lots, entrances to the street, coordination with surrounding streets, street width, the layout of streets, street intersections, attention to handicapped in streets, and traffic calming need to be taken into consideration when design streets. Lane (2013) gives some regulations regarding all these characteristics:

-Access to lots: Every lot should have an approved public road that is sufficient to afford means of ingress and egress for emergency vehicles and also for other means that need to have access to the lot.

-Entrance to streets: There should be a convenient flow of traffic, and vehicles can enter and exit from the lot in a safe way for themselves, pedestrians, and other vehicles.

-Coordination with surrounding streets: The street system of a lot should be coordinated with existing, proposed, and anticipated streets outside the lot.

-Street width: Since the street is designed to serve several functions such as to carrying vehicle traffic, allow street parking, pedestrian movement, and also to offering street activities, its width should be sufficient.

-Layout of streets: The orientation of streets should enhance the visual impact of common open spaces.

-Street intersections: Streets should intersect at right angles and it is not appropriate that more than two streets intersect at one point.

-Attention to handicapped in streets: Wheelchair ramps for the handicapped should be provided at intersections and other important points of pedestrian flow.

-Traffic calming: The slow traffic speeds should be encouraged by using traffic calming features such as curb extension at intersections, traffic circles, and medians.

Lopes (2015) defines the street as a stage of performance. Simpson (2016) also describes the street as an important public space, where different activities and performances occur. Street performances affect the everyday life of the city and offer more sociable spaces. They also affect the publicness of the spaces and increase interactions. Gehl (1989) also agrees that street life and activities are essential elements of public space. Human joy is achieved through street performances. People are entertained by street artists, they can meet other people, and enjoy outdoor space. According to Gehl (1989), street life needs to be improved. More events need to be added in order to make the street a place of activities and interactions. Festivals, theater, concerts, and parades can be organized in the street to make it more lively.

Moughtin (2003) classifies streets according to publicness, in public streets, which are the main network within an area, and quiet streets of the residential areas. According to him, public streets require a different design approach from quiet streets. The public streets need to be more lively, active, and inviting, while quiet residential streets need to have more privacy and defensible space. Another important element in designing the residential street is the balance between access for the car, and safe pedestrian use of the street. Moughtin (2003) emphasized some important elements of street design such as street length, street proportion, unity, and axial planning.

-Street length: The upper limit for the uninterrupted length of the residential street should be 1.500m. When it is bigger, the human scale is lost, and when it is smaller, there are some problems with the view. The closure of it causes difficulties.

-Street proportion: The ratio of the street's width to the height of enclosing buildings is a crucial element in street design. When we have a long and wide street in an area of two-story houses, a sense of space enclosure is lost.

-Unity in street design: To have a unified street design, the form of the buildings should

appear as surfaces, not as a mass. The volumes of streets should dominate the composition.

-Axial planning: The straight street should be associated with axial city planning.

Apart from these elements of street design, Pike et al. (2009) put their focus on pedestrian connections and security in the street. They explain the importance of the street layout in achieving these connections. Pike et al. (2009) propose two design solutions for a well-connected neighborhood:

-Residential court arranged around communal area of the open space including parking

-No through-road for vehicles that permits pedestrian and cycle through access

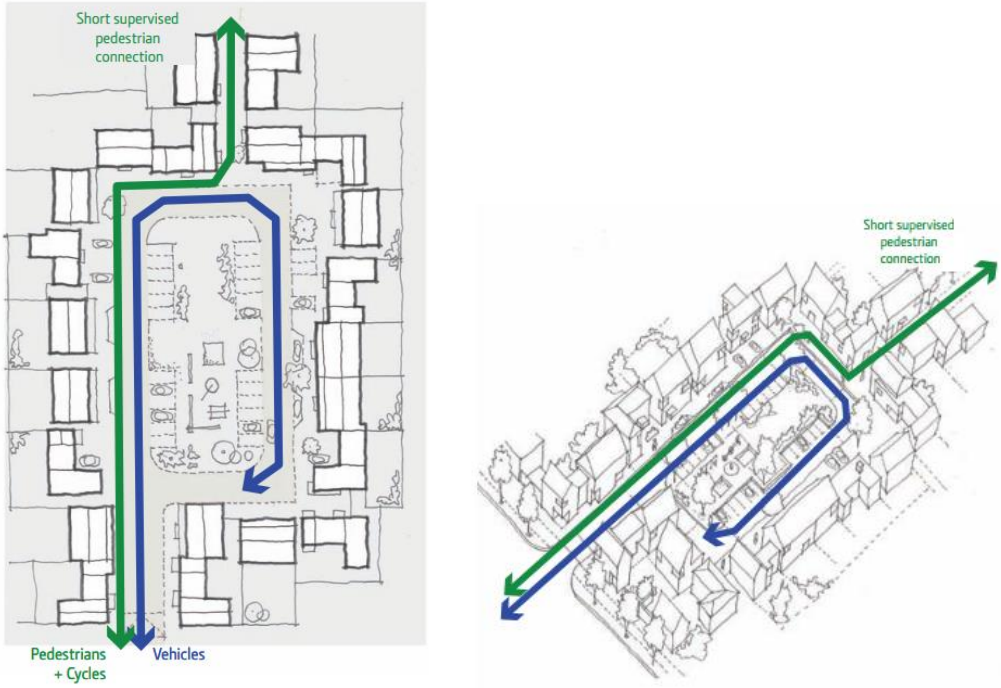
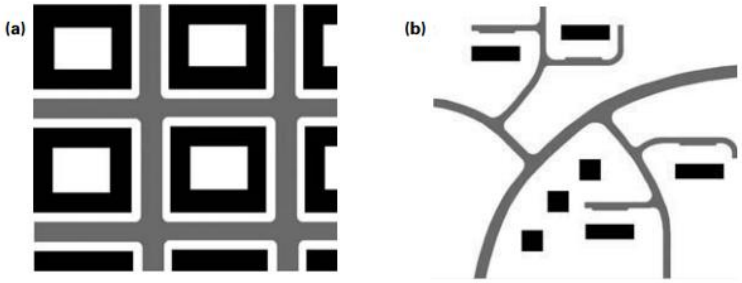


Figure 60. A no-through road allowing a continuous pedestrian and cycling route but restricting vehicle movement (Pike et al., 2009)

In accordance with Pike et al. (2009), Marshall (2005) also emphasized the role of the street layout in creating a well-connected environment. He made a comparison between traditional and modern layouts of the streets. In traditional layouts, buildings and streets were straight and locked in a grid. In the modern layouts, streets and buildings follow their own dedicated forms, in a fluid geometry (Figure 61).



1.5 • Traditional versus modern layouts. (a) Fit of roads and buildings. (b) Roads and buildings follow their own dedicated forms.

Figure 61. Traditional versus modern layouts

Fit of roads and buildings

Roads buildings follow their own

dedicated forms (Marshall, 2005)

Marshall (2005) also shows the different street types of these traditional and modern layouts, by classifying them according to the form and use (Figure 62 and Figure 63).

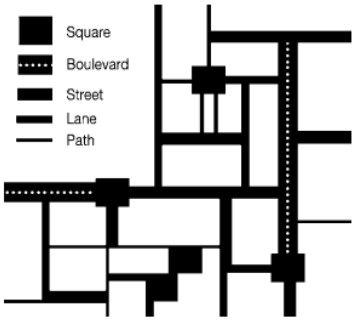


Figure 62. Pattern of street types defined by form (Marshall, 2005)

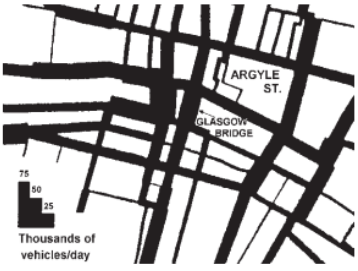


Figure 63. Pattern of street types defined by use (Marshall, 2005)

On the other hand, Bloomberg & Sadik-Khan (2016) classify streets in different categories such as pedestrians only streets, laneways and alleys, parklets, pedestrian plazas,

commercial shared streets, residential shared streets, residential streets, neighborhood main streets, central one-way streets, central two-way streets, transit streets, large street with transit, grand streets, streets to stream, waterfront and parkside streets, and historic streets.

1. Pedestrian only Street:

-Prioritize people

-Pedestrian volume is high and vehicular traffic is low

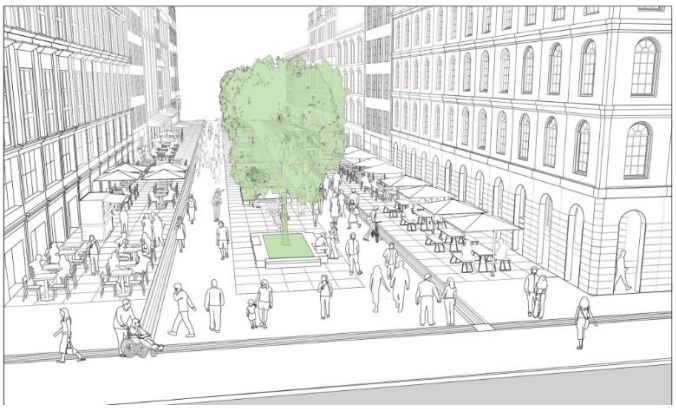


Figure 64. Pedestrian only street (Bloomberg & Sadik-Khan, 2016)

2. Laneways and alleys:

-Narrow streets that add to diversity of overall public space network

-Add vibrant spaces to a neighborhood

Figure 65. Laneways and alleys (Bloomberg & Sadik-Khan, 2016)

3. Parklets:

-Temporary or permanent conversations of on-street

-Known as street seats, pocket parks, mobile parks or curbside seating

Figure 66. Parklet (Bloomberg & Sadik-Khan, 2016)

4. Pedestrian Plazas:

-Transform underutilized areas of the street into vibrant social spaces for surrounding residents and businesses

Figure 67. Pedestrian plaza (Bloomberg & Sadik-Khan, 2016)

5. Commercial shared streets:

-Easy loading and unloading of vehicles at designated hours

-Are designed to slow traffic speeds

Figure 68. Commercial shared street (Bloomberg & Sadik-Khan, 2016)

6. Residential shared streets:

-Serve as shared space in which children play and people walk and cycle, sharing the road with driverse users

Figure 69. Residential shared street (Bloomberg & Sadik-Khan, 2016)

7. Neighborhood main streets:

-Lie at heart to everyday life

-Pedestrian volumes should be accomodated by well-designed sidewalks in the neighborhood

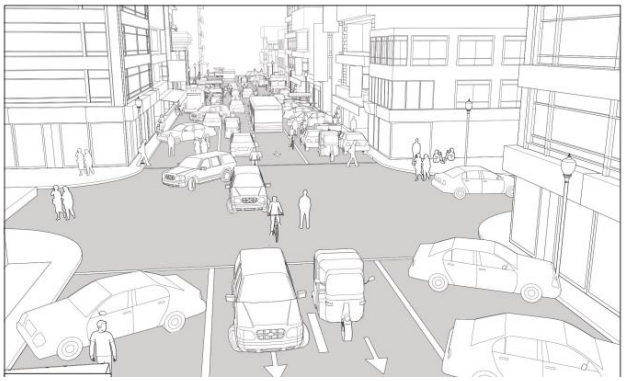


Figure 70. Neighborhood main street (Bloomberg & Sadik-Khan, 2016)

8. Central one-way streets:

-Provide an opportunity of reconfigure broad roadbeds with cycle tracks and transit lanes

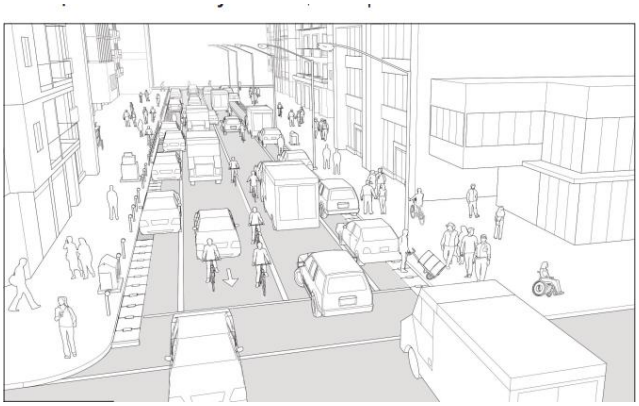


Figure 71. Central one-way street (Bloomberg & Sadik-Khan, 2016)

9. Central two-way street:

-Increases the street capacity to serve multiple users

Figure 72. Central two-way street (Bloomberg & Sadik-Khan, 2016)

10. Transit streets:

-Prioritize the street for pedestrians and transit

Figure 73. Transit street (Bloomberg & Sadik-Khan, 2016)

11. Large streets with transit:

-Help to connect neighborhoods to one another

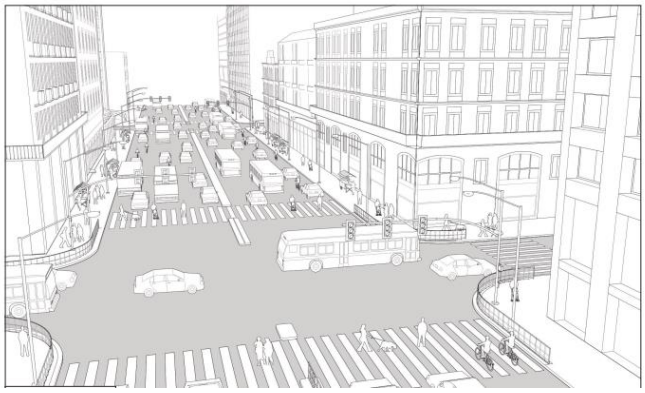


Figure 74. Large streets with transit (Bloomberg & Sadik-Khan, 2016)

12. Grand streets:

-They help to expand capacity for moving people

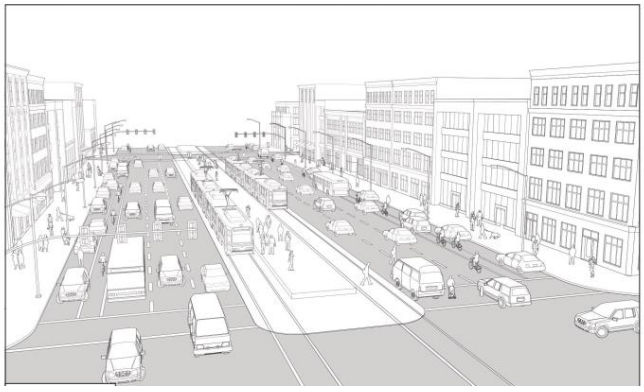


Figure 75. Grand street (Bloomberg & Sadik-Khan, 2016)

13. Streets to stream:

-It is an opportunity to provide new public spaces and create new destinations

Figure 76. Street to stream (Bloomberg & Sadik-Khan, 2016)

14. Waterfront and Parkside streets:

-These streets help to extend the public space into surrounding neighborhoods and invite users

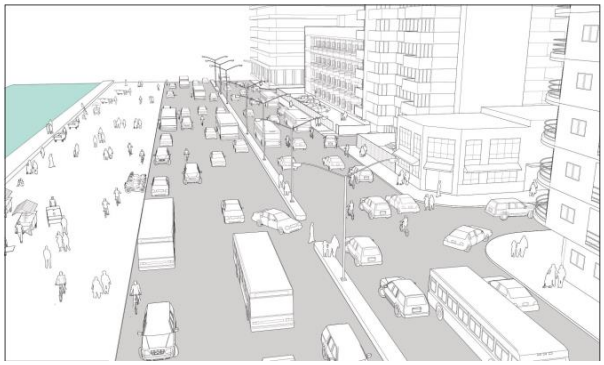


Figure 77. Street to stream (Bloomberg & Sadik-Khan, 2016)

15. Historic streets:

-They create pedestrian spaces and add significant quality to the neighborhood

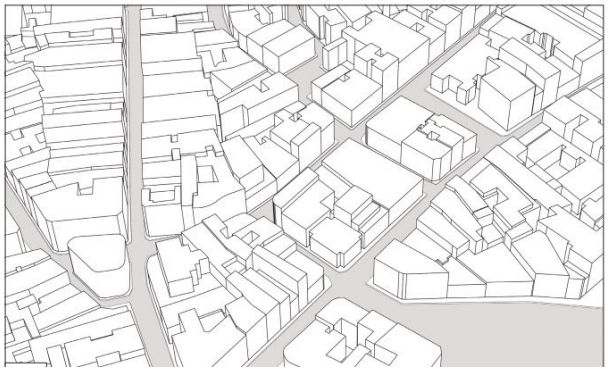


Figure 78. historic streets (Bloomberg & Sadik-Khan, 2016)

In the case of Tirana, there are some guidelines for the relation between the street and

the surrounding buildings. The width of the building front should not be less than the width of the road on which this building looks. For streets with a width of 20m, the width of the building front should not be less than 24m and not greater than 60m. On the public roads, the full perimeter walls should not be higher than 2.2m from the pedestrian quota, while the upper part should be with railings. In Kavaja street, the height for the ground floor should not be lower than 4m and the general height not higher than 14m. In Durres street, the general height should not be lower than 12m and not higher than 16m (Dhamo et al., 2016).

2.8 Neighborhood

The neighborhood should not be perceived only as a place, but much more. It is a strong relationship between people and place, and people with people (Sim, 2019). Vassilaki & Ekim (2015) describe a neighborhood as a small world, where people are socialized and they create a relationship of similarity and difference with others, forming a distinctive identity. On the other hand, LeGates & Stout (2011) state that the neighborhood is the essential element of the city. According to the authors, neighborhoods should be compact, pedestrian-friendly, and mixed-use. Another important element is the publicness of the neighborhood. Different levels of publicness in the neighborhood can bring people of diverse ages, races, and incomes into daily interactions and can strengthen personal and civic bonds (LeGates & Stout, 2011).

Jacobs (1961) classifies neighborhoods as successful and unsuccessful. A successful neighborhood is a place that deals with problems and is not destroyed by them. An unsuccessful neighborhood is a place that is destroyed by problems and there is no life in it. So, a good life creates a good neighborhood. The good life is related to the variety of space uses, interactions, visual quality of the space, comfort, and security (Jacobs, 1961). On the other hand, Alexander et al. (1977) classify neighborhoods in identifiable and unidentifiable. According to the authors, the element that helps to maintain the identifiable character of the neighborhood is the neighborhood boundary. The main feature of a neighborhood's boundary is restricted access into the neighborhood. So, neighborhoods that are successfully defined have definite and relatively few paths and streets leading into them. Alexander et al. (1977) state that a successful neighborhood is an identifiable neighborhood. It has some gateways which mark its boundaries.

According to Sideris & Ehrenfeucht (2009), a neighborhood should be livable and this is achieved by improving physical neighborhood characteristics. Some of these improvements are street trees, decorative lighting, sidewalk cafes, and public arts. On the other hand, according to LeGates & Stout (2011) in order to improve the quality of the neighborhood, and the balance between public and private domains, there are some important principles of the neighborhood unit:

-Size: The area of the residential unit should be depended upon population density

-Boundaries: The neighborhood unit should be bounded on all sides by arterial streets

-Open spaces: There should be a system of small parks and recreational spaces

-Institution sites: Sites for institutions should be grouped about a common area

-Local shops: Shopping districts should be laid out at traffic junctions or at similar districts of adjoining neighborhoods

-Internal street system: The neighborhood unit should have a street system, where streets are designed to facilitate

LeGates & Stout (2011) also explain the character of the district. They emphasize the distribution of areas in the neighborhood according to the neighborhood character: residential zone (Table 4), industrial zone (Table 5), and apartment house unit (Table 6 and 7).

Table 4. Distribution of areas in residential zone (LeGates & Stout, 2011)

Complete unit	160 acres	100 per cent
Dwelling-house lots	86.5	54.0
Apartment-house lots	3.4	2.1
Business blocks	6.5	4.1
Market squares	1.2	0.8
School and church sites	1.6	1.0
Parks and playgrounds	13.8	8.6
Greens and circles	3.2	2.0
Streets	43.8	27.4

Table 5. Distribution of areas in industrial zone (LeGates & Stout, 2011)

Complete unit	101.4 acres	100 per cent
Residences—houses	37.8	37.3
Residences—apartments	8.4	8.3
Parks and play spaces[1]	10.8	10.6
Business	5.2	5.1
Warehouses	3.2	3.2
Streets	36.0	35.5

Table 6. Distribution of areas in apartment house unit (LeGates & Stout, 2011)

Total area of unit	75.7 acres	100 per cent
Apartment buildings	12.0	15.9
Apartment yards	21.3	28.0
Parks and playgrounds	10.4	13.8
Streets	25.3	33.4
Local business	4.9	6.5
General business	1.8	2.4

Table 7. Distribution of areas in apartment house unit (LeGates & Stout, 2011)

Kind	Acres
School grounds	3.27
Athletic field	1.85
Common	.81
Park	.61
Playground	1.03
Playground	.81
Circle	.18
Small greens	1.86
Total	10.42

Jafrin & Beza (2018) emphasize the importance of open space standards in order to have a good neighborhood development. They give an overview of the open space standards used in the countries of America, Australia, Europe, and Asia. In the USA and UK, the open space standards are measured by four indicators (Table 8): quantity, quality, accessibility, neighborhood, or locality. In Australian territories, only the first three indicators are used. Asian countries use quantity and accessibility standards.

Table 8. Indicators of open space standards in American, Australian, Asian, Europian, and Asian countries (Jafrin & Beza, 2018)

Organization: National Recreation and Park Association (NRPA), USA					
Guidelines: NRPA Park Metrics					
Quantity	Quality	Accessibility	Neighborhood/locality		
Greenspace Scotland and Scottish Natural Heritage (2013)					
Quantity	Quality	Accessibility	A series of settlement or neighborhood descriptions		
Fields in Trust (fit) UK					
Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard					
1. Quantity 2. Spatial Requirements	Quality	Accessibility	Buffer zones		
Parks and Leisure Australia [17], Open space planning standards in Australia					
1. Population-ratio 2. Area-percentage	Facility specification	Catchment Area	X		
Hong Kong, Planning Department, Principals of Recreation and open space planning					
Population standard	x	Greening standards	X		
Federal Territory of Kuala Lumpur, Department of Statistics, Malaysia					
Quantity	x	Accessibility	X		Asia
Town and Country Planning Organization (GOI) in India					
Urban and Regional Development Plans Formulation & Implementation (URDPFI) Guidelines					
Quantity					
Ministry of Housing and Public works, Government of Bangladesh					
Quantity					

I. Accessibility standard
II. Quality Standard
III. Quantity standard

-Accessibility standard: It refers to how close people should be to open spaces. For example, it is important to have a green space within a 5-min walk from home. It increases the quality of life.

-Quality Standard: It is a matrix that identifies what infrastructure or landscape features are appropriate for open space.

-Quantity Standard: It is based on existing open space provision. All neighborhoods should have X hectares of publicly usable open space per 1000 people. The table below shows recommended standards for open spaces in different cities (Table 9).

Table 9. Recommended standards for open spaces (Jafrin & Beza, 2018)

	City and Country	Total Population (Million)	Urban Population (Million)	City Area (Sq. Km)	Density/ Sq. Km	Open Space/ Capita (m^2)
Europe	Istanbul, Turkey	15.02	14.79 [1]	1539 [1]	2813 [1]	6.4 [2]
	Barcelona, Spain	5.47	1.6 [3]	101.9 [3]	16,000 [3]	5.6 [4]
America	Colima, Mexico	7.11	1.7 [5]	5627 [5]	130 [5]	6.2 [4]
	Mexico City	20.9	8.91 [6]	1485 [6]	6000 [6]	3.5 [4]
	Buenos Aires	13.59	2.89 [7]	203 [7]	14,237 [7]	1.90 [2]
Asia	Tokyo	38.30	13.61 [8]	2188 [8]	6224 [8]	3.00 [2]
	Kuala Lumpur	7.2	1.79 [9]	243 [9]	6890 [9]	6.5 [10]
	Mumbai	20.74	12.3 [11]	603 [11]	21,000 [11]	1.1 [12]
	Shanghai	24.1 [13]	22.2 [13]	4000 [14]	3800 [13]	6.1 [15]
	Hong Kong	-	7.40 [16]	2754 [16]	6777 [16]	2.7 [17]
Bangladesh	Dhaka	18.89	14.39	306.38	28.410	0.16 [18]
	Chittagong	5.2	4.1	168.1	14,200	0.18

Jafrin & Beza (2018) explain that there are different types of open spaces. According to their function, they are separated into recreation spaces, sports spaces, and nature spaces.

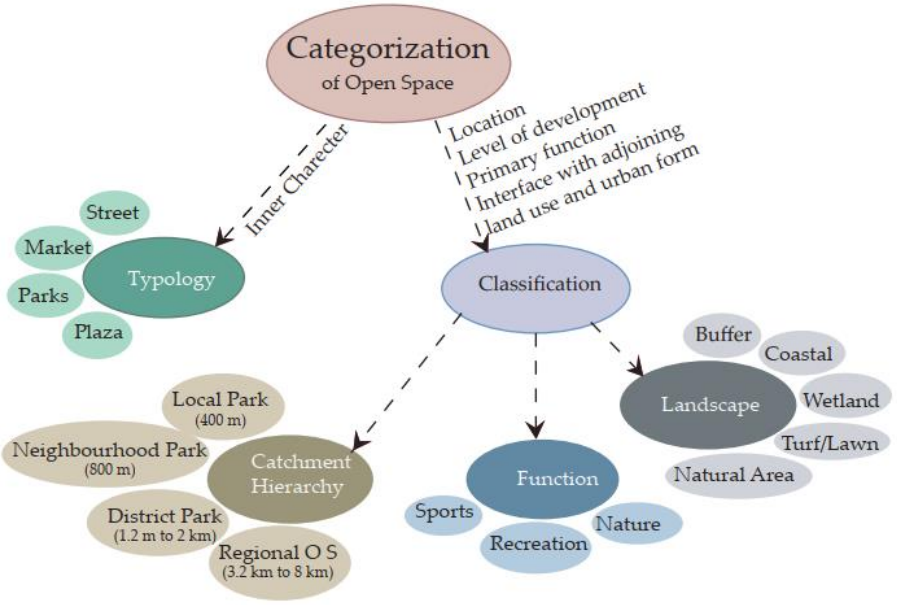


Figure 2. Categorization of open space derived from Appendix B.

Figure 79. Categorization of open spaces (Jafrin & Beza, 2018)

Gehl (2011) also mentioned the importance of physical and social structures in supporting the livability of the neighborhood. Furthermore, Gehl (2011) mentioned the importance of understanding people's sense and spatial dimensions. He states that these dimensions need to be interpreted in a humanized scale of the design.

LeGates & Stout (2011) also state that the neighborhood should be designed in human-scale units in order to create an environment that brings people together and encourages everyday interaction. According to Pike et al. (2009), the development of the neighborhood starts from understanding its surroundings. The main focus should be given to the existing landscape, buildings, and social-economic needs of the community. Another important element is connection. A successful neighborhood is a well-connected neighborhood. A well connection to places, facilities, and amenities offers a good quality of life. Residential streets should encourage walking and cycling. According to Pike et al. (2009), universal design is also an important element in the development of the neighborhood. All users of the designed environment should experience the space. Pike et al. (2009) also emphasize the mix of activities and diverse public spaces as the main elements of the neighborhood development.

A neighborhood should offer all degrees of publicness.

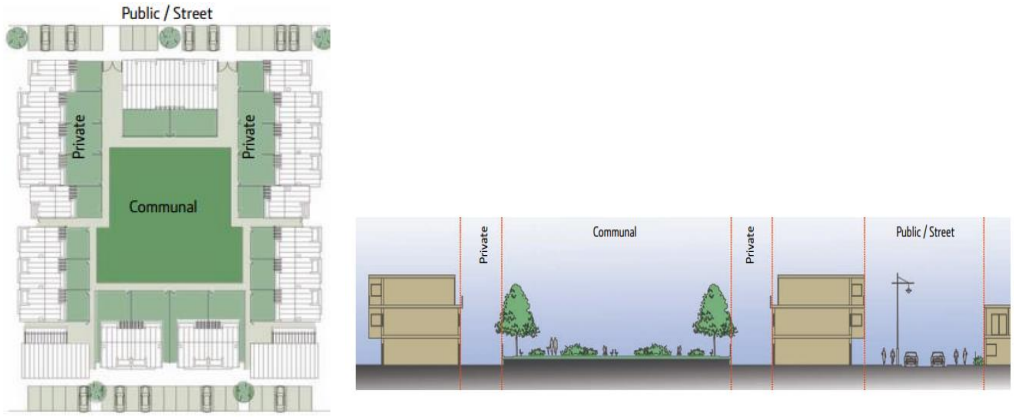


Figure 80. Diverse public spaces in the neighborhood (Pike et al.,2009)

In order to produce a planning strategy for the neighborhood, according to Lynch (1981), there are five requirements that should be completed: vitality, sense, fit, accessibility, and control. Vitality is related to basic needs that provide a healthy life for people. Sense is related to the way people perceive space. Fit is the degree of relationship between physical form and human behavior in the environment. Accessibility is related to the access to the diversity of services. Control is related to the security and safety of people in the neighborhood. Through all these elements, it is achieved social and urban sustainability inside a neighborhood (Lynch, 1981).

On the other hand, to have a sustainable neighborhood, we should be focused on the most valuable spaces within the neighborhood, and to re-shape them based on the people's needs. Spaces such as parking lots, playgrounds, green spaces, and leisure spaces should be designed and should obtain important elements such as safety, cleanness, and aesthetics (Daniela et al., 2012).

Whereas, according to Jacobs (1961), the most valuable spaces of the neighborhood are the neighborhood parks. Parks are places, where people go to sit and be alone, to play or watch a game, to read or work, to talk with other people, and to enjoy nature. The neighborhood parks offer the opportunity to explore different degrees of publicness and interactions. Pike et al. (2009) also emphasize that to have a good neighborhood, spaces that offer different degrees of publicness should be designed. A good neighborhood should have quality landscapes, open spaces, retail, leisure opportunities, and also a range of facilities. All these elements create a sustainable community (Pike et al., 2009).

2.8.1 A pattern language in the neighborhood context (Alexander et al., 1977)

1. Four storey limit

-High buildings have a negative impact in open spaces. They decrease social interactions and children's security.

-High-rise buildings bring loneliness.

-On three or four storey buildings, people can walk comfortably on the street, and the window became part of street activities.

Figure 81. Four storey limit (Alexander et al., 1977)

2. Activity nodes

-Spreaded public life and activities have no impact on the community.

-Facilities and activities should be grouped around small public squares or nodes. Nodes have four properties:

1)Nodes should draw together the main streets of the community

2)To concentrate the activity, the square should be small: 45x60

3)Different facilities should not be grouped together. Facilities placed on the nodes should function in a cooperative manner

4)Activity nodes should be distributed evenly across the community

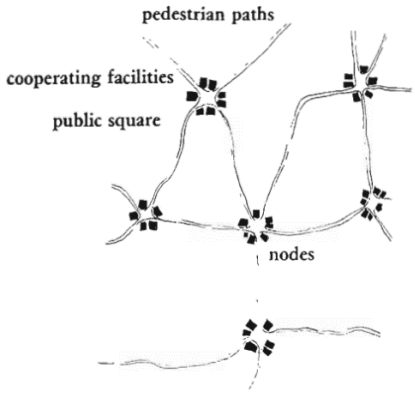


Figure 82. Activity nodes (Alexander et al., 1977)

3. Promenade

-A place of gathering.

-A promenade should have a high density of pedestrians using it in order to be successful.

-It should be no more than 150 feet from the activity.

-A very long walk may be unsatisfactory.

-A promenade should contain a variety of facilities along it such as shopping points, public gardens, bars, benches, and sidewalk cafes.

-Promenade should be placed at the center of the community, linking the main activity nodes. Each point in the community should be within 10 minutes walk of it.

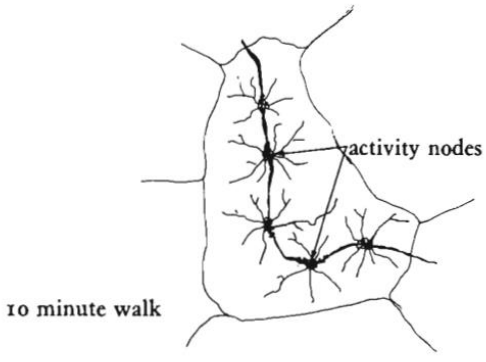


Figure 83. Promenade (Alexander et al., 1977)

4. Shopping street

-Shopping centers should be placed along the pedestrian streets to increase the

interactions and to make the street more public.

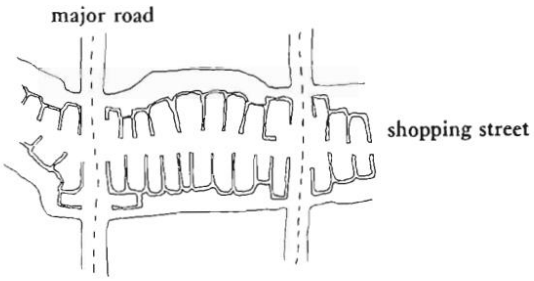


Figure 84. Shopping street (Alexander et al., 1977)

5. Degrees of publicness

Figure 85. Degrees of public spaces in the neighborhood (Alexander et al., 1977)

6. Old People everywhere

-It is a tendency of old people to gather and form communities.

-In order for the elderly to be integrated socially, they should share more streets, shops, services, and common land with others.

-The neighborhood should contain small public pockets for old people.

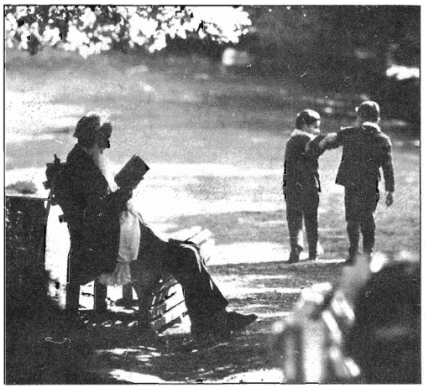


Figure 86. Old people in the neighborhood (Alexander et al., 1977)

7.Housing in between

-In the row of neighborhood houses, there should be also some in-between buildings that offer different degrees of publicness and different functions.

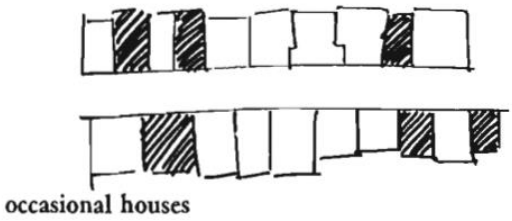


Figure 87. Housing in between (Alexander et al., 1977)

8. Green streets

-In local roads, it is important to have a field of grass with paving stones in order to make the street a focal point for the neighborhood.

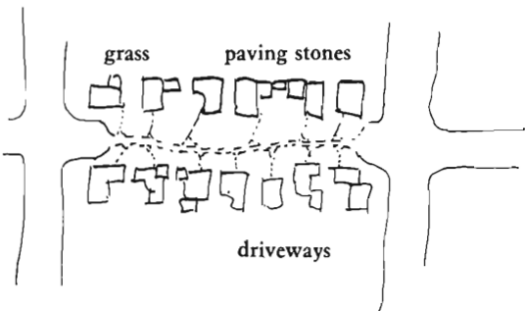


Figure 88. Green streets (Alexander et al., 1977)

9. Children in the city

-Children need a variety of places to play and to be safe.

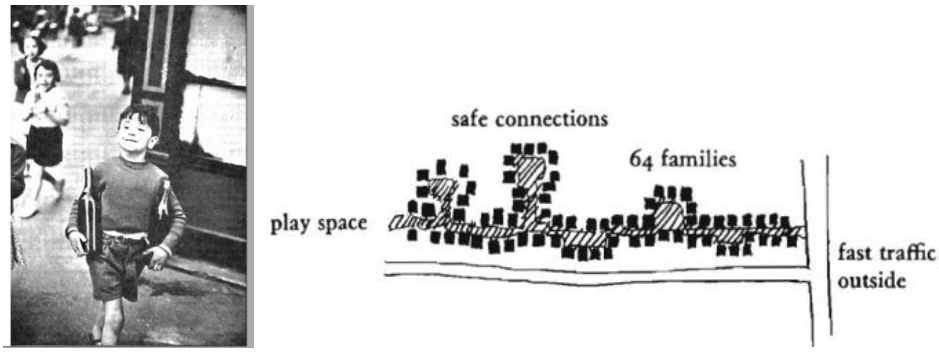


Figure 89. Children in the city and connected play (Alexander et al., 1977)

10. Quiet backs

-Buildings should have a front and a back.

-The front offers the public street life.

-The back offers quietness and privacy.

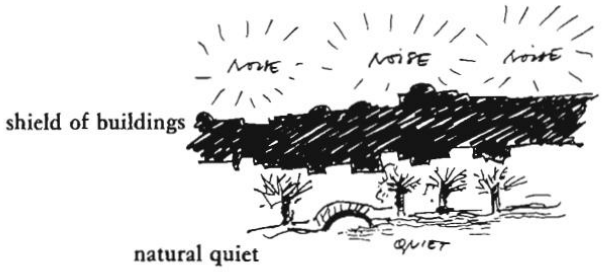


Figure 90. Quiet backs (Alexander et al., 1977)

11. Small public squares

-Public squares offer public gatherings, crowds, festivals, speeches, dancing, and other activities.

-It should not be more than 70 feet across.

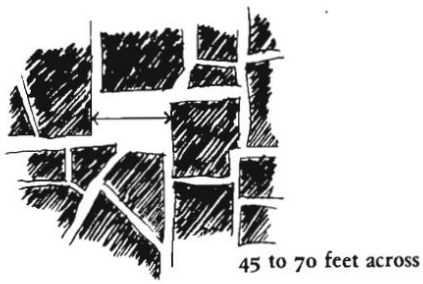


Figure 91. Small public square (Alexander et al., 1977)

12. Dancing in the street

-It is important to make a slightly raised platform in promenades or squares, where street artists can perform.

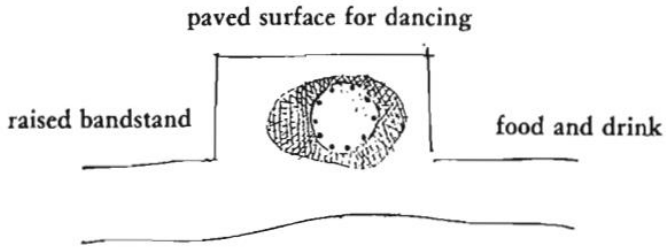


Figure 92. Dancing in the street (Alexander et al., 1977)

13. Common Land

-Common land makes it possible for people to feel comfortable outside their private territory.

-It works as a meeting place and makes people feel connected.

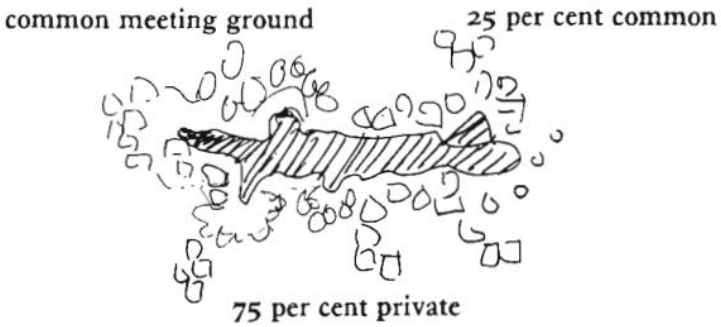


Figure 93. Common land (Alexander et al., 1977)

14. Public outdoor room

-People seek a place where they can spend time talking, hanging out, sitting, or other activities.

-Old people seek a place where they can go and find others.

-Children need a place where they can play, and mothers need a place where they can watch their children, and also sit and talk with other mothers.

-It is important to have a small open space with a balance between “openness” and “closeness”.

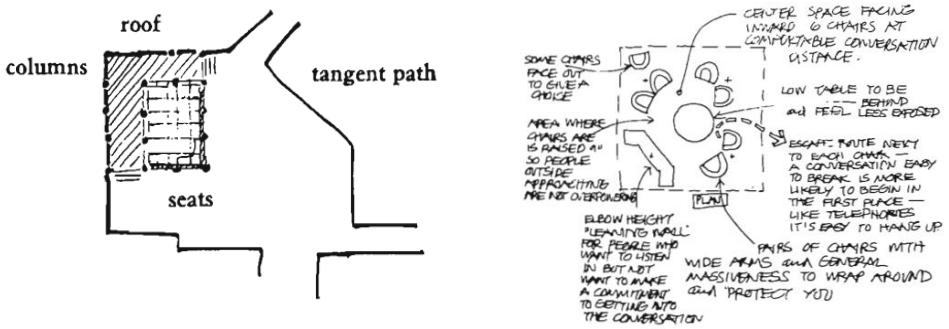


Figure 94. Public outdoor room (Alexander et al., 1977)

15. Street Café

-Street cafes are important elements in the neighborhood.

-They should offer different types of spaces, where people can sit and drink a coffee, read something, watch the activity around, or enjoy the view outside.

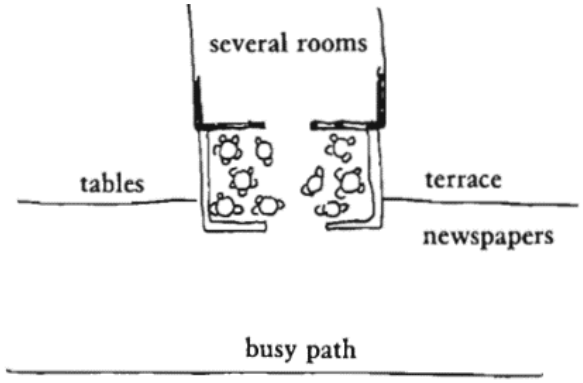


Figure 95. Street cafe (Alexander et al., 1977)

16. Corner Grocery

-Every neighborhood should have at least one corner grocery.

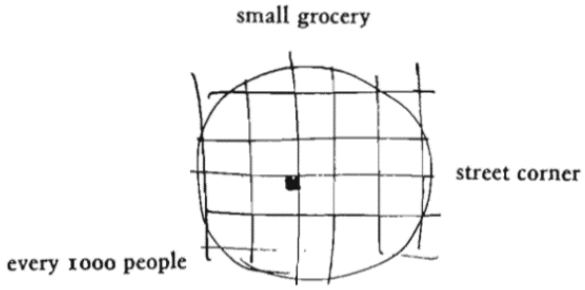


Figure 96. Corner grocery (Alexander et al., 1977)

17. Pedestrian street

-Buildings should be arranged in a way that they form pedestrian streets with open stairs and many entrances.

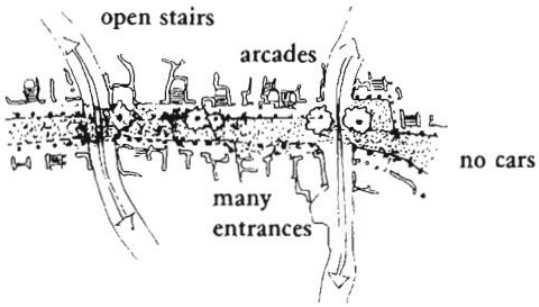


Figure 97. Pedestrian street (Alexander et al., 1977)

18. Small parking lots

-It is crucial in the neighborhood to make small parking lots, serving no more than five to seven cars.

-They should have garden walls, hedges, fences, and trees to be invisible from the

outside.

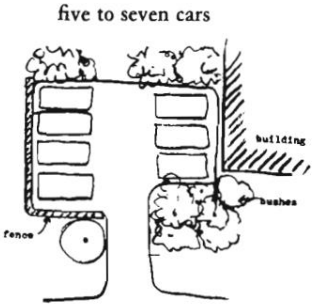


Figure 98. Small parking lots (Alexander et al., 1977)

19. Hierarchy of open space

-Places that make people feel comfortable, have a back that offers privacy, and a view into a larger public space that offers openness.

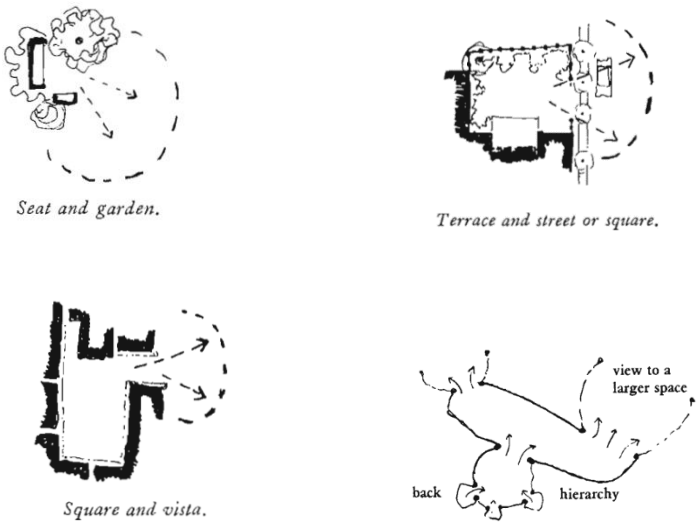


Figure 99. Hierarchy of open space (Alexander et al., 1977)

20. Courtyard which live

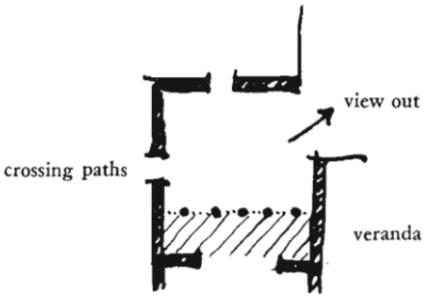


Figure 100. Courtyard which live (Alexander et al., 1977)

21. Roof garden

-Roof systems can be used as roof gardens with planting terraces, places to sit, and private spaces.

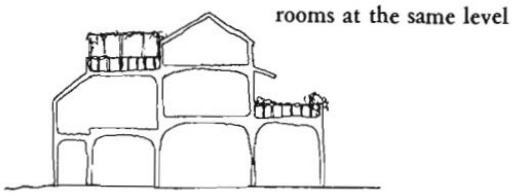


Figure 101. Roof gardens (Alexander et al., 1977)

22. Paths and goals

-First it is important to place goals, and then to connect the goals to one another to form the paths.

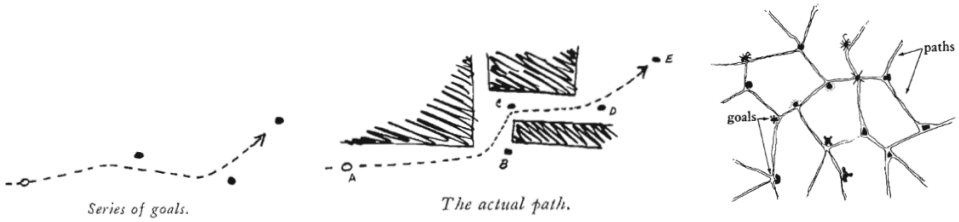


Figure 102. Paths and goals (Alexander et al., 1977)

23. Building fronts

-The building should be right up to the streets and follow the shape of the street.

-No setbacks in order to form different degrees of publicness: privacy at the back part, and openness at the front.

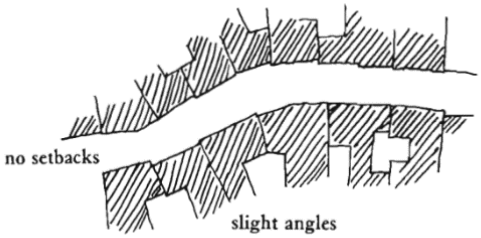


Figure 103. Building fronts (Alexander et al., 1977)

24. Activity pockets

-A public square should contain various pockets of activity such as shops, stands, benches, displays, courts, and gardens.

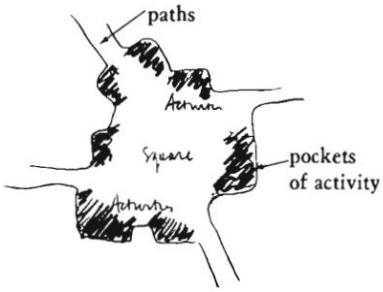


Figure 104. Activity pockets (Alexander et al., 1977)

25. Stair seats

-It is an in-between space that separates the private spaces of the building and the outdoor public spaces.

Figure 105. Stair seats (Alexander et al., 1977)

26. Intimacy gradient

-People need different degrees of publicness in spaces.

-A bedroom or a back sitting room offers more privacy. A common area or a kitchen offers an in-between space. A front porch or entrance room is more public. So, a building should have a defined gradient of intimacy.

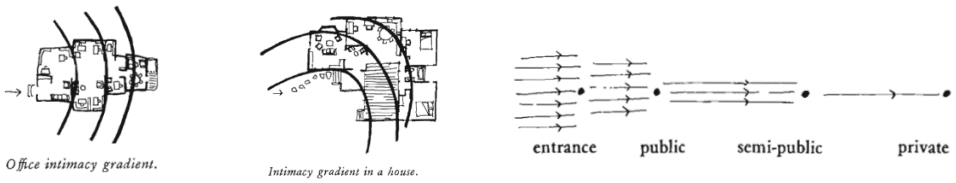


Figure 106. Intimacy gradient (Alexander et al., 1977)

27. Private terraces on the street

-A good building offers private spaces and our participation with the public world.

-Common rooms should be open onto a terrace that looks into the street.

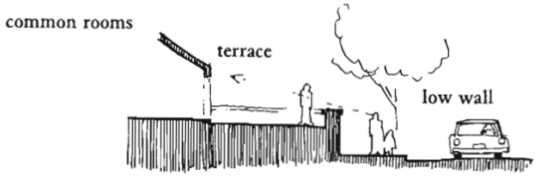


Figure 107. Private terraces on the street (Alexander et al., 1977)

28. Street windows

-Street windows provide a connection between the private life in the buildings and the public street life.

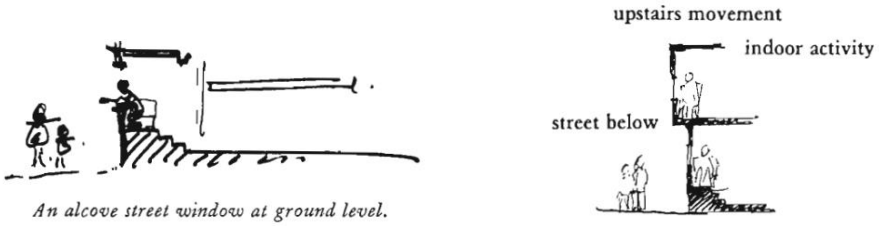


Figure 108. Street windows (Alexander et al., 1977)

29. Opening to the street

Figure 109. Opening to the street (Alexander et al., 1977)

CHAPTER 3

CONTEX OF TIRANA

SITE ANALYSIS

3.1 Site Location

The selected unit of analysis is the area between “Kavaja” street, “Durres” street, and “Skanderbeg” street. The closeness that the site has with “Skanderbeg” Square makes it easily accessible. In this area, there is an interesting combination between low-rise and high-rise buildings and these two elements offer different space types and different levels of interaction. The area offers a hierarchy of open spaces from the courtyard to path, street, and square.

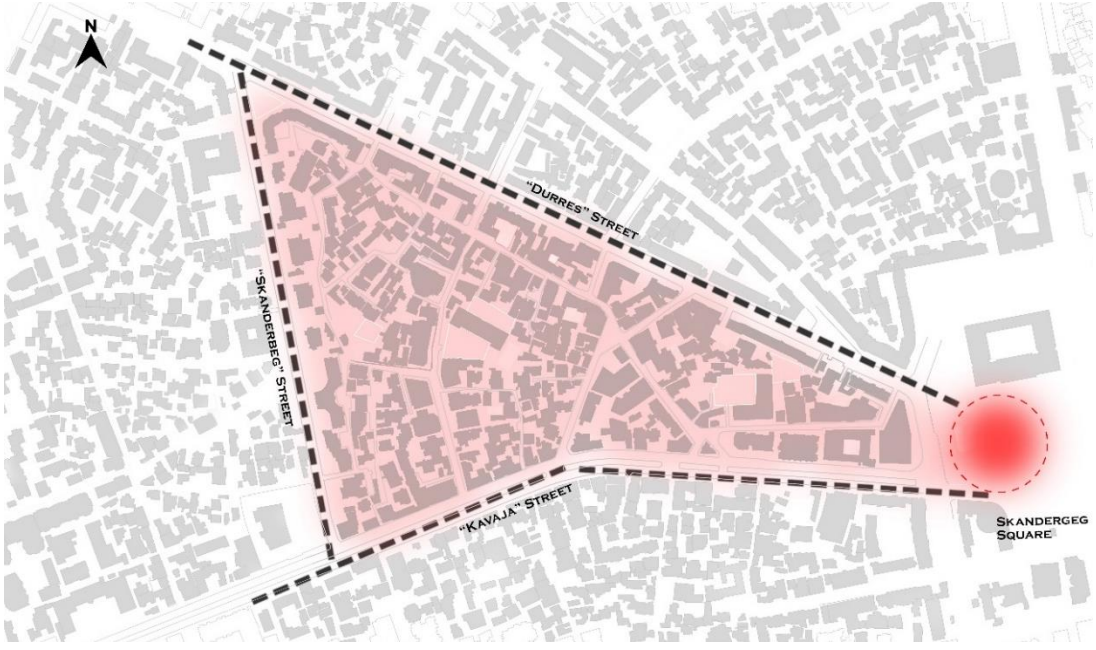


Figure 110. Location of the Site

Figure 111. Orthophoto of the site (ASIG, 2018)

3.2 Survey and Analysis of the Area

This research is focused on analyzing the impact of public spaces in social interaction through different degrees of publicness and the hierarchy of open spaces. Degrees of publicness are analyzed in three levels: neighborhood level, street level, and building level. Design principles extracted from different authors are analyzed in each level of publicness. Some of the most important principles are shown in Table 10, Table 11, and Table 12. You can find tables with all principles extracted from the literature review in Appendix.

Table 10. Principles in neighborhood level

Principles	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Brauneck	Pojani & Buka	Manahasa E.	Rahbar	Chen
Neighborhood																		
land-uses													X					X
mixed-use	X																	X
courtyard	X		X	X					X	X				X		X		
greenery												X						
four-story limit				X														
activity nodes				X														
hierarchy of open spaces				X														
square									X									
identifiable neighborhood				X														
neighborhood boundary				X														
parks									X									

Table 11. Principles in street level

Principles	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Brauneck	Pojani & Buka	Manahasa E.	Rahbar	Chen
Street																		
activities	X																	X
accessibility																		X
soft edges	X																	
active ground floor	X																	
pedestrian	X			X		X					X		X					
sidewalk						X												
eyes upon the street						X												
small public square				X														
corner grocery				X														
walkability			X															
the pattern of the street						X												
shopping street				X														
green street				X														
street cafe				X														
street windows				X														

Table 12. Principles in building level

Principles	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Brauneck	Pojani & Buka	Manahasa E.	Rahbar
Building																	
human scale	X		X				X										
common area										X							
cluster				X													
housing unit							X										
mixed-use											X						
eye-level	X																
porch \ veranda			X	X													X
ambiguous zone																	X
front yard																	X
front entry																	X
private outdoor space																	X
balcony \ terrace			X														X
entrance hall																	X
narrow facade	X																
stair seats				X													

3.2.1 Site Update

In Figure 112 is shown the site and some prominent features that offer different degrees of publicness, and different levels of interaction. Apart from buildings and parcels that offer private and semi-private spaces, there are also some common spaces such as courtyards and squares. Courtyards mostly offer semi-public spaces, so they are not always accessible. On the other hand, squares are the most public spaces. “Skanderbeg” Square that is located near the side, is the public space that has the highest level of interaction. Other squares that are located inside the neighborhood are smaller and serve as recreational spaces, and also for the residents to gather, communicate, or create interaction among them and unknown people coming from the street. Another element that seemed in the zone is the construction site. There are three construction sites in the neighborhood, and they affect negatively its overall layout. These construction areas are surrounded by walls and they hinter people’s vision and the attractiveness of the zone.

Figure 112. Site Update Map

3.2.2 Degrees of Publicness

In Figure 113 are shown spaces of the neighborhood and their degree of publicness. Residential buildings are considered private spaces because they are used only by the residents themselves. Parcels are categorized as semi-private spaces, because in these spaces a limited number of people use the space, and the ordinary public is not welcomed. Commercial and institutional buildings are considered semi-public spaces, because they can be used by particular groups of society, for commercial or institutional purposes. Parks, streets, and squares are public spaces. Public space can be accessed by every group of people, and it helps in strengthening social interaction. Degrees of publicness inside the neighborhood are explained in details in Figure 113.1

Figure 113. Degrees of publicness

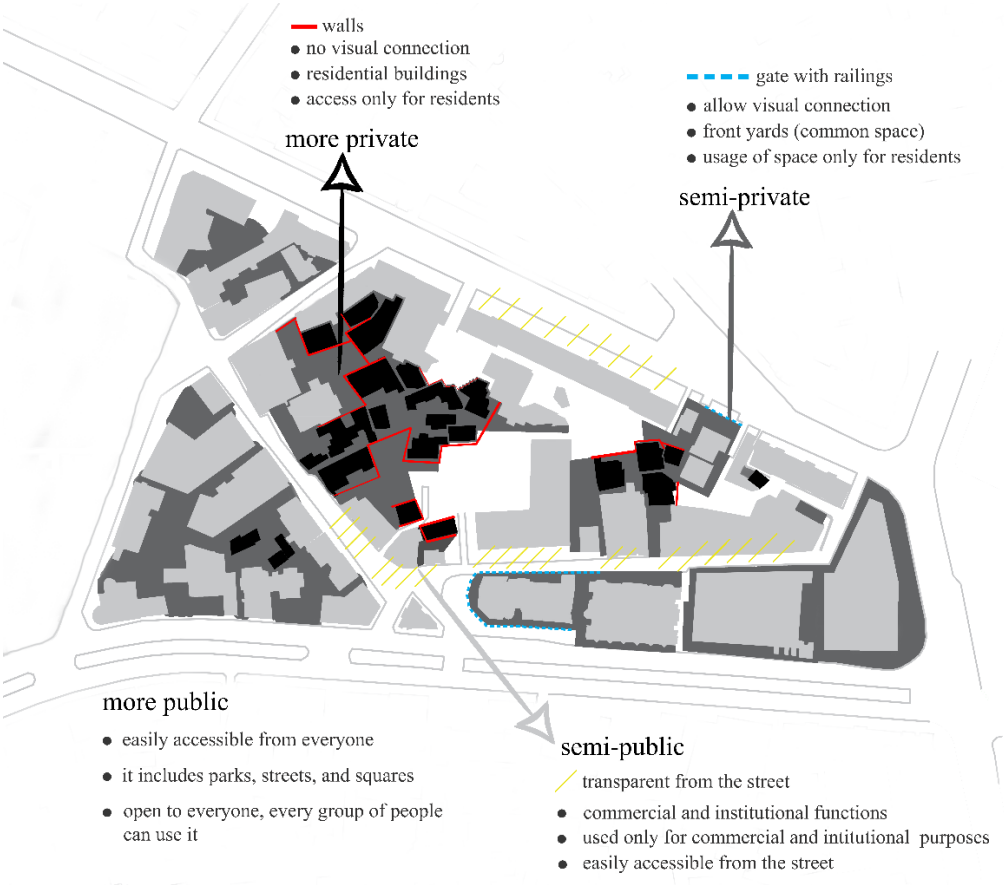


Figure 113.1. Degrees of publicness

3.2.3 Land Use

The majority of the buildings are used for commercial purposes on the ground floor, and other floors for residential functions. Apart from these, there are also some buildings with institutional functions such as school, ministry, mosque, and embassy. As it is shown in Figure 114, the commercial activities are mainly positioned along the streets, and this makes them more accessible and open to the public. The diversity in land use offers coverage of all people's needs and also increases the interaction among them.

Figure 114. Land use map

3.2.4 Mixed-use

The site has a variety of mixed-use spaces. They are in a walkable range and offer opportunities for interaction. Most of these spaces are located along the streets and in this way, they make the street more active. They also offer different degrees of publicness. In Figure 115 is shown a part of the mixed-use spaces of the neighborhood. As it is shown also in Figure 116 and Figure 117, the ground floor has shops, cafes, restaurants, hotels, groceries, services, offices, and institutional buildings. On the other hand, upper floors have residential units. In this case, the housing units are considered private spaces, while the mixed-use ground is considered semi-public space.

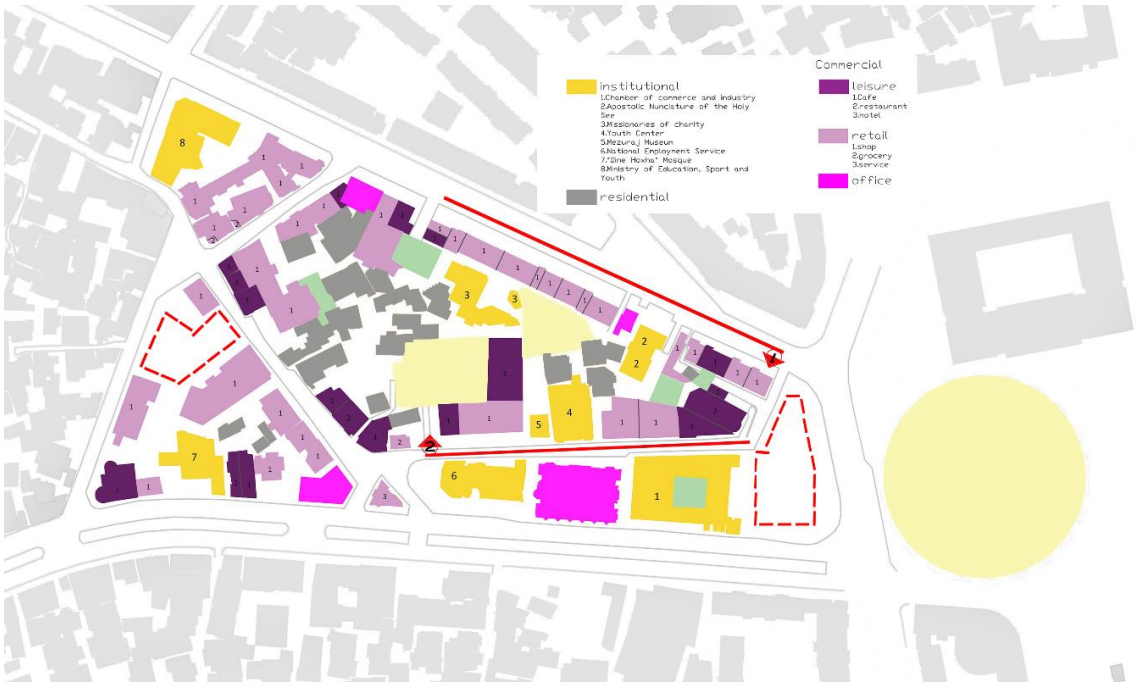


Figure 115. Mixed-use analysis

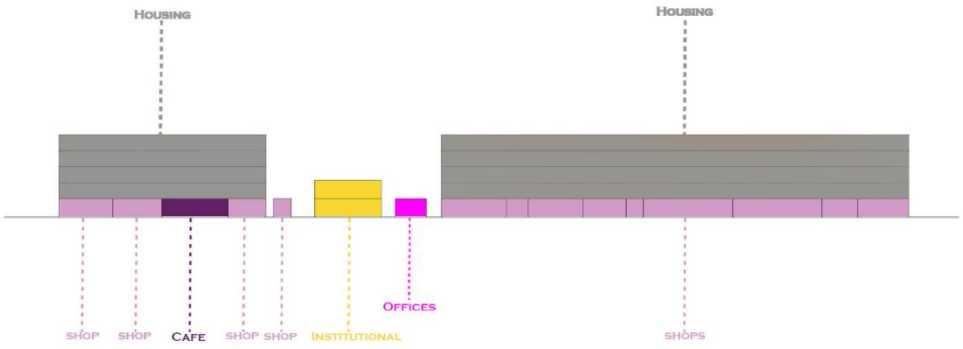


Figure 116. Mixed-use spaces (Section 1)

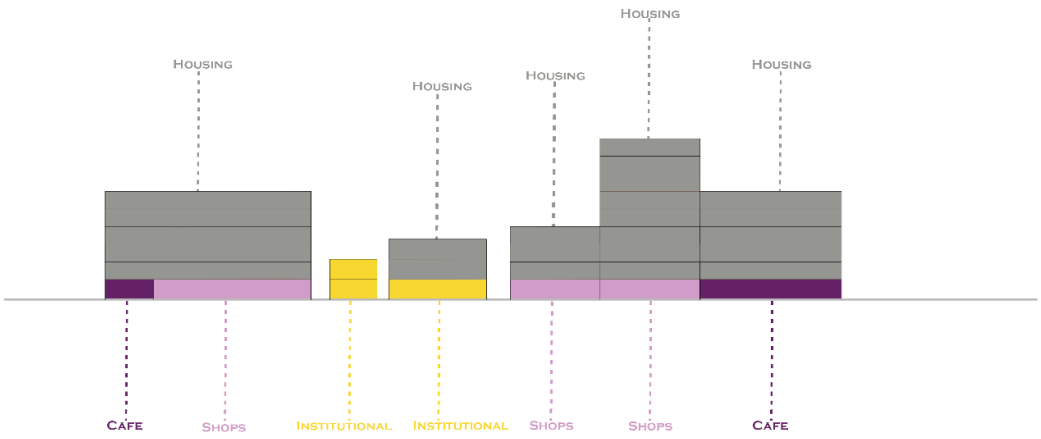


Figure 117. Mixed-use spaces (Section 2)

3.2.5 Building Floors Analysis

The neighborhood has a human scale character in streets, public spaces, and also in buildings. This has given the neighborhood more possibilities for interaction and communication between people and has also increased its attractiveness. Human-scale building blocks are easily accessible. As it is shown in Figure 118, most of the buildings on the site have low heights. There are only a few buildings that have high heights, especially newly built apartments. Residential, institutional, religious, and educational buildings are characterized by low density. While mixed-use buildings that have commercial and residential functions are characterized by high-density. The old apartment buildings consist of five to six floors and the new apartment buildings consist of seven to eleven floors.

In Figure 119, it is shown a chart that indicates in percentage the distribution of building heights on the site. One-story buildings occupy 34% of the site, two-story buildings 30%, three-story buildings 19%, four-story buildings 7%, five to six story buildings 7%, seven to eight story buildings 1%, and nine to eleven story buildings 2%.

Figure 118. Building floors analysis

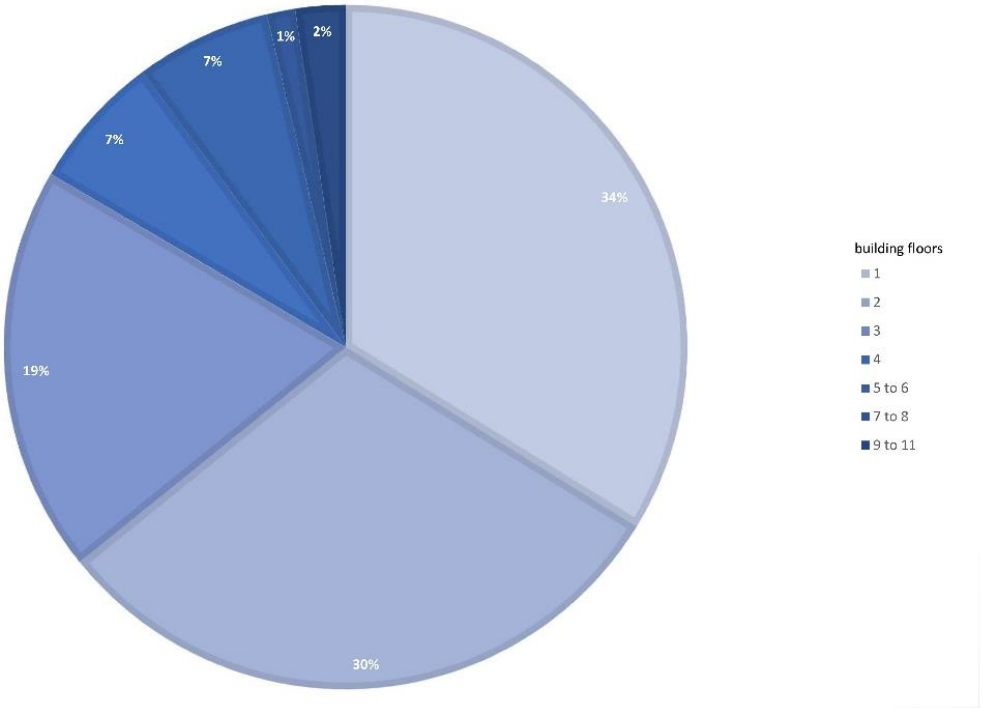


Figure 119. Building floors distribution on the site

3.2.6 Four-story Limit

High buildings have a negative impact in open spaces. They decrease social

interactions and children's security. On low buildings, people can walk comfortably on the street, and the window became part of street activities (Alexander et al., 1977). Low buildings up to four floors increase social interactions and security inside the neighborhood. They give a more public degree to the buildings since they interact with the street. In Figure 120, there are shown four-story, three-story, two-story, and one-story buildings and their relation with the site.

Figure 120. Four story limit analysis

Four-story limit offers easy accessibility to the public spaces. It forms different relations with the surrounding buildings and public spaces. These relations such as four-story limit and shops, four-story limit and courtyard, and four-story limit and square are shown in Figures below.

Figure 121. Four story limit and shop (1)

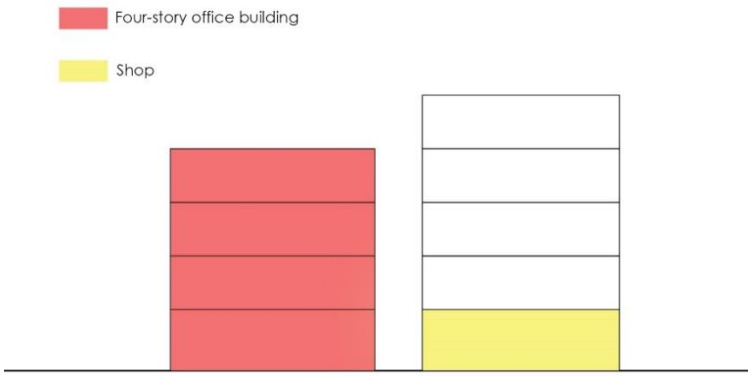


Figure 122. Four story limit and shop (2)

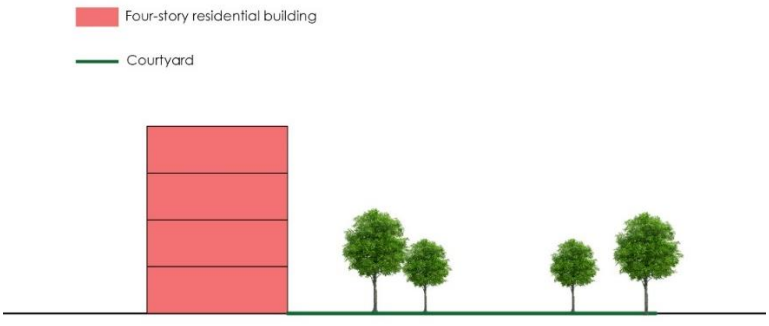


Figure 123. Four story limit and courtyard (3)

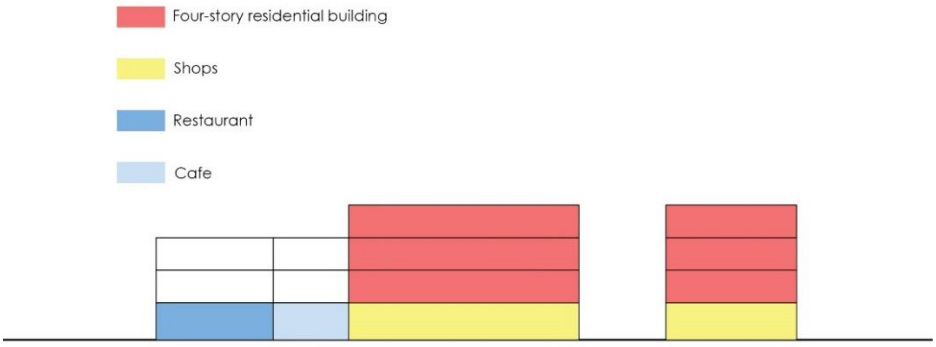


Figure 124. Four story limit, shops, restaurant, and cafe (4)

Figure 125. Four story limit and square (5)

3.2.7 Courtyard

As it is shown in Figure 126, there are many courtyards on the site that serve as a good opportunity for answering the different privacy needs of residents. They offer the resident opportunity to spend time outdoors, to relax, and also to create interactions. The courtyard surrounded by multiple buildings helps to accommodate different kinds of activities. It also helps to create different degrees of publicness such as a large common space in the middle surrounded by private shared gardens and private spaces along the building edges of the neighborhood's housing units. Although courtyards inside the neighborhood offer different degrees of public space, they are not used properly. Some of them are occupied by parking and do not offer any activity. Different functions can be added in courtyards in order to make them more attractive. They can be transformed in children playgrounds or neighborhood's small gardens. Urban furniture, lighting, greenery, and water features can be added. In this way, the usage of space and interaction among inhabitants is increased. Courtyards should

also adapt functions such as relax corner which should offer privacy for people who want to read something, listen to music, or just enjoy the view, picnic places, and gathering spaces. In this way, different degrees of publicness are achieved.

There are two main typologies of the courtyard on the site: semi-private courtyard and open courtyard. Semi-private courtyards are not accessible to the public. They serve as a common area for the buildings that surround them. Semi-private courtyards are mostly surrounded by private houses. While open courtyards are accessible to the public. They are located near the streets and offer more interactions. Typologies of the courtyard are shown in detail in the Figures below.

Figure 126. Courtyard analysis

Figure 127. Courtyard typology on the site (1)

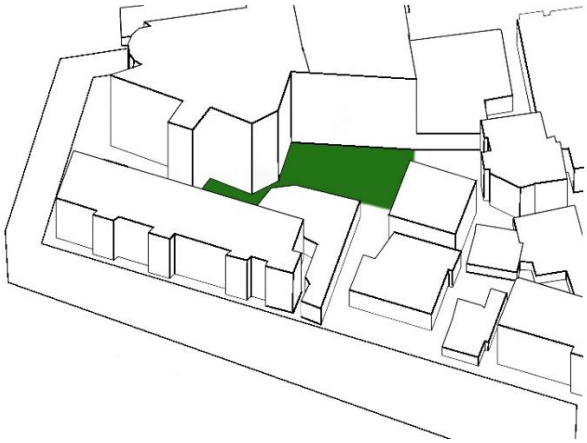


Figure 128. Courtyard typology on the site (2)

Figure 129. Courtyard typology on the site (3)

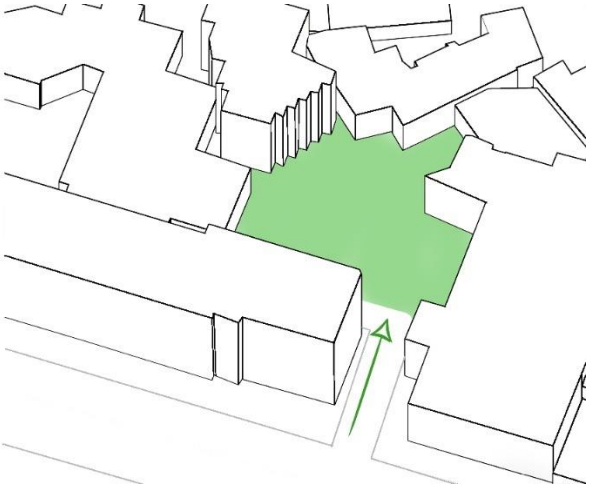


Figure 130. Courtyard typology on the site (4)

Figure 131. Courtyard typology on the site (5)

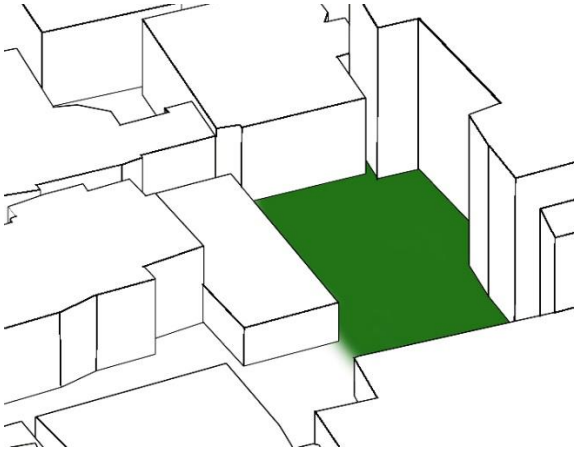


Figure 132. Courtyard typology on the site (6)

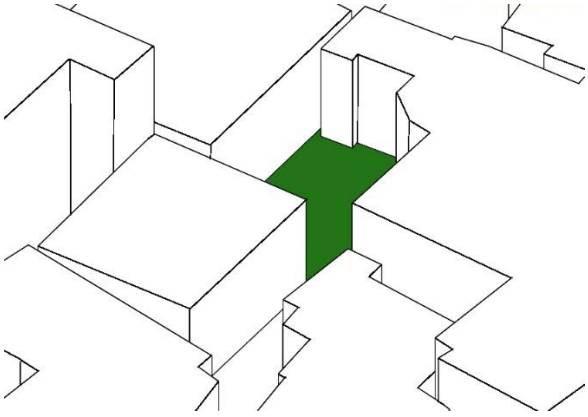


Figure 133. Courtyard typology on the site (7)

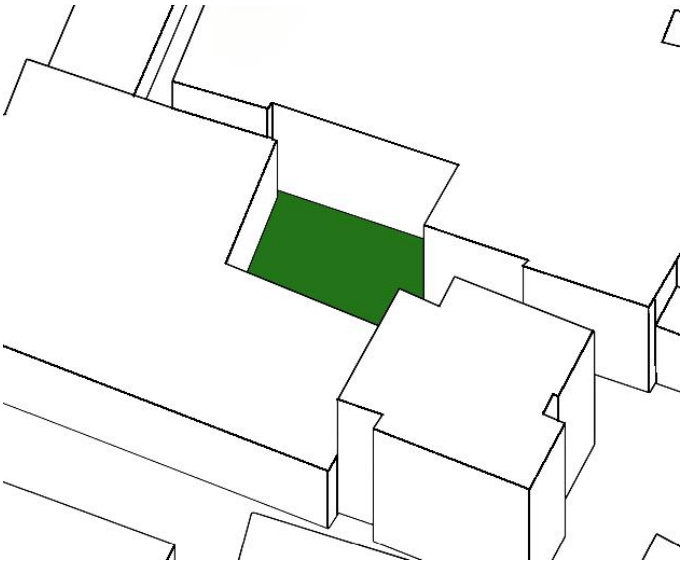


Figure 134. Courtyard typology on the site (8)

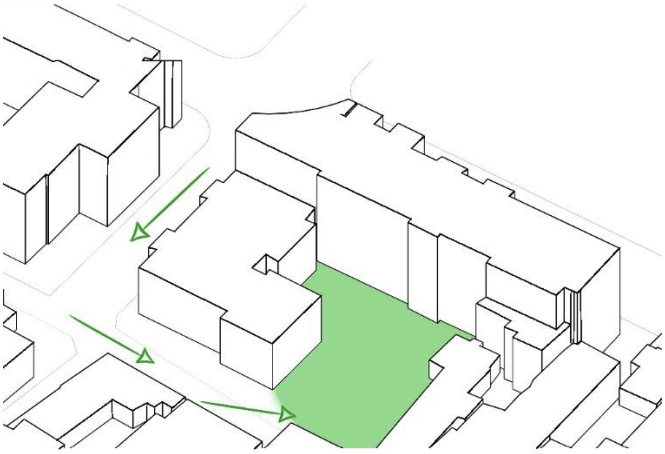


Figure 135. Courtyard typology on the site (9)

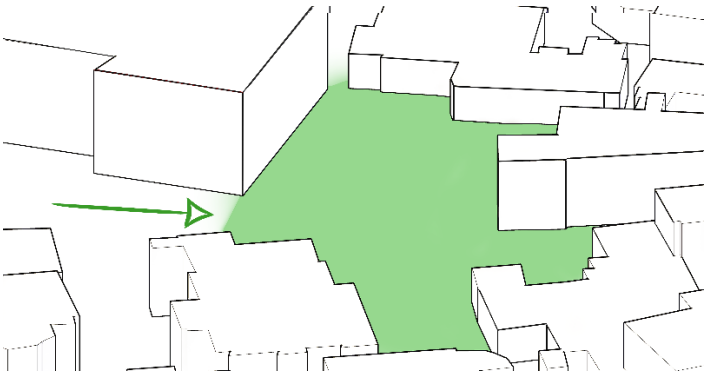


Figure 136. Courtyard typology on the site (10)

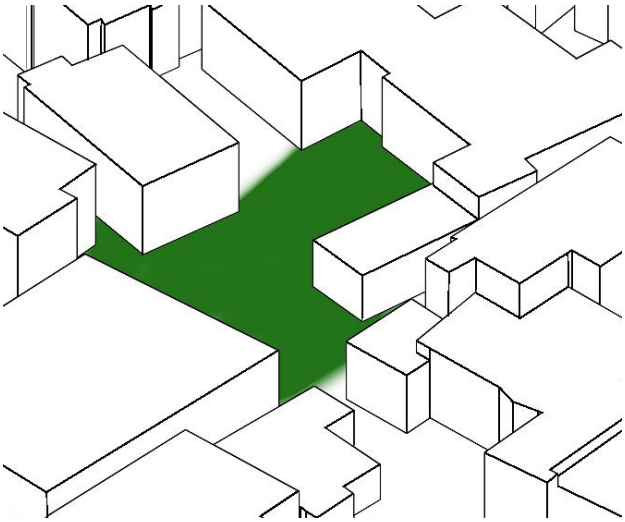


Figure 137. Courtyard typology on the site (11)

Figure 138. Courtyard typology on the site (12)

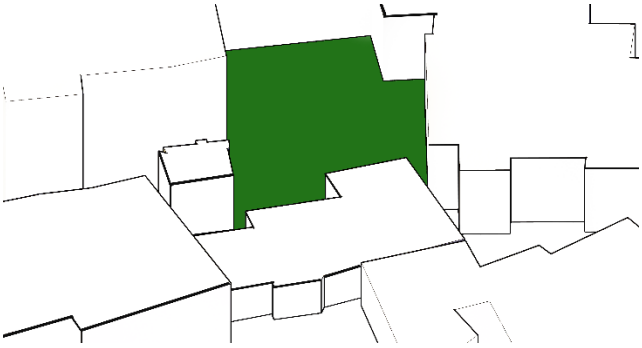


Figure 139. Courtyard typology on the site (13)

3.2.8 Greenery

Greenery is a crucial element for the neighborhood. The majority of the greenery on

the site is seen in the main streets as it is shown in Figure 140.1, in public squares, and in courtyards. Greenery has made these spaces more attractive and has increased the number of people using them. The secondary streets have not enough greenery along their sides. More greenery should be added to these streets. In secondary streets, there are also some blocking walls on the side of the streets that need to be covered with different greeneries to make the walk more interesting. Only in “Kont Urani” street there is enough greenery. This street is occupied by cars, but the trees form green tunnels and this makes the street more usable and public, thus increasing social interaction (Figure 140.2). In the neighborhood, there is a lack of parks, but there are parks in the spaces near the neighborhood such as Skanderbeg Square. There are some parks in the square that are easily accessed by residents of the neighborhood. In order to have some parks inside the neighborhood, there should be more greenery added to the squares inside the neighborhood. By adding greenery elements inside the squares they can be transformed into neighborhood’s small gardens that serve as green gathering spots or also as spaces that offer opportunity to walk pets. The distribution of the greenery on the site is shown in Figure 140.

Figure 140. Greenery analysis

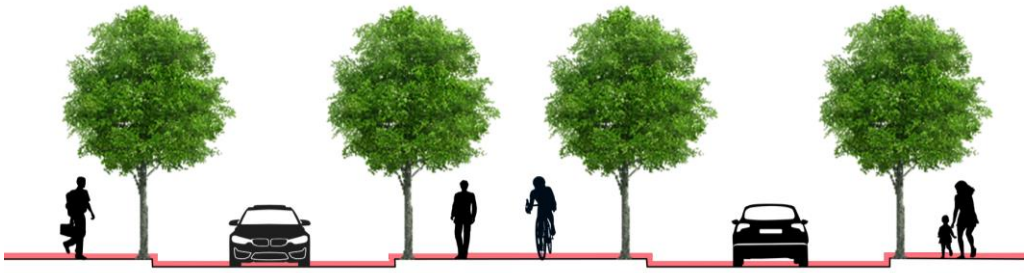


Figure 140.1. Greenery in "Kavaja" street

Figure 140.2. Greenery in "Kont Urani" street

3.2.9 Hierarchy of Public Space

In the neighborhood, there are spaces that offer different degrees of publicness. There is a hierarchy of public spaces that starts from private houses to apartment units and then to the neighborhood's open spaces. In the Figures below, there are shown different examples of the hierarchy of public spaces on the site.

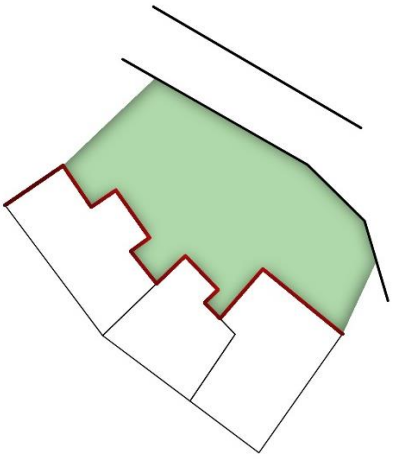


Figure 141. Private house units (private) + front yard (semi-private) + street (public)

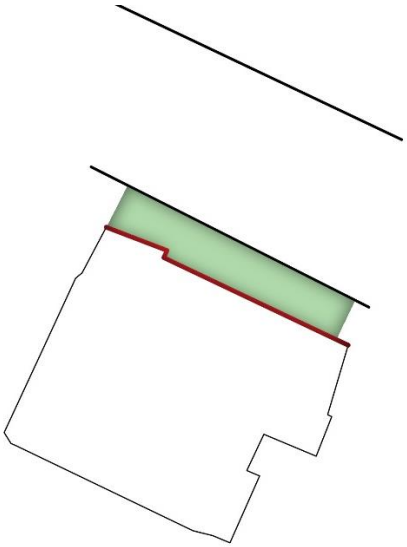


Figure 142. House (private) + front yard (semi-private) + street (public)

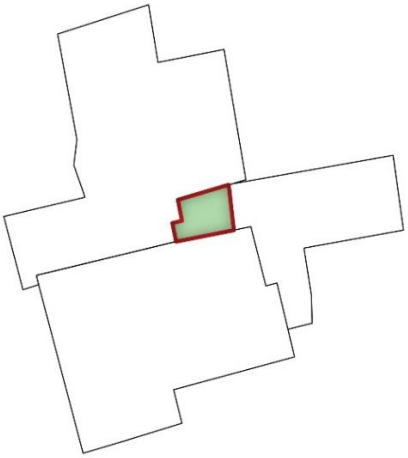


Figure 143. Housing units (private) + courtyard (semi-private)

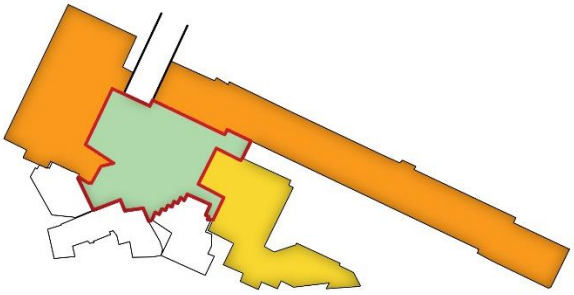


Figure 144. Housing units (private) + commercial buildings (semi-public) + institutional buildings (semi-public) + open courtyard (semi-public) + street (public)

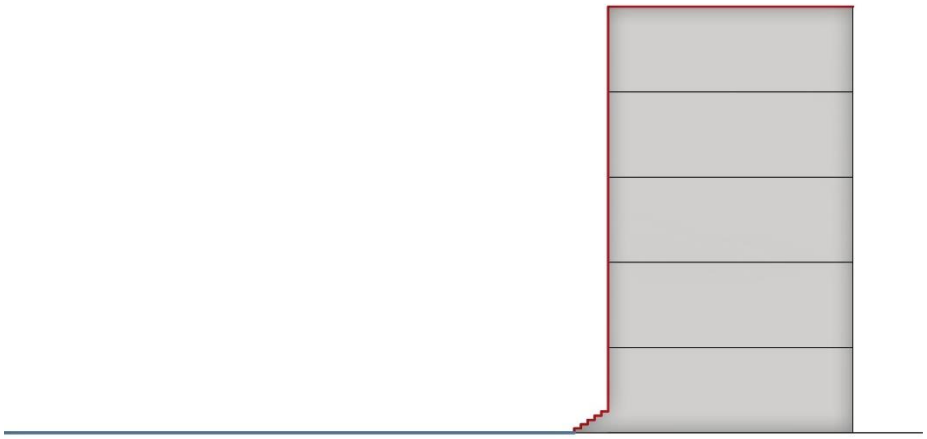


Figure 145. Apartment units (private) + stair seats (semi-public) + square (public)

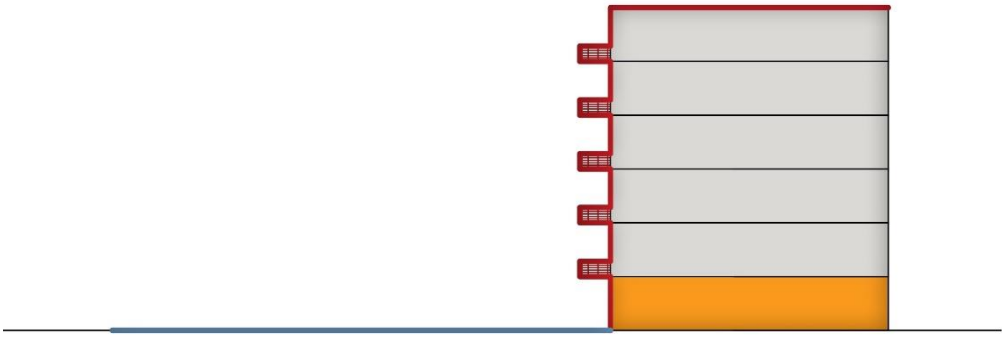


Figure 146. Apartment units (private) + balconies (semi-private) + commercial ground (semi-public) + square (public)

3.2.10 Street Pattern

In Figure 147 is shown the street pattern of the site. In the main streets, it is seen a regularity in street layout, whereas the secondary streets follow a more organic pattern. The main streets serve as boundaries and make the neighborhood identifiable.

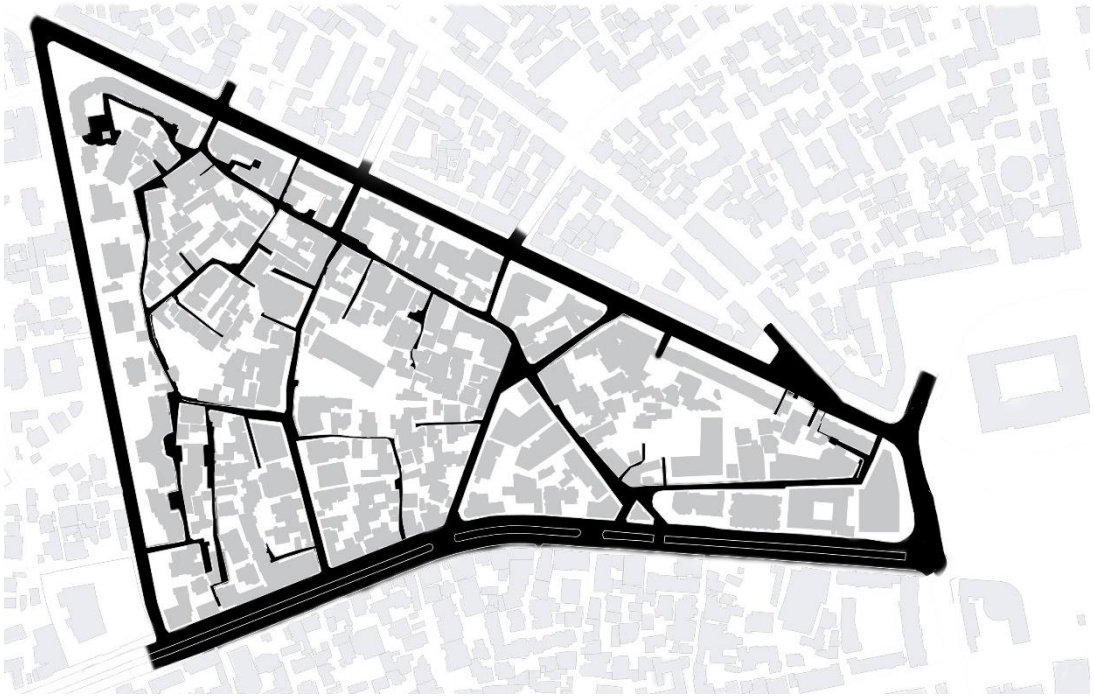


Figure 147. Street pattern of the site

3.2.11 Accessibility

Accessibility is a crucial element of the street that influences the usage of public space. The streets of the site are easily accessed and this has made the public spaces more used, especially those in the main streets. Easily access has increased the number of people in the street and has made the neighborhood a safe place. It has also made the street more active and offer more interactions.

The typology of streets is presented in Figure 148. As it is seen, the site is surrounded by main streets which are the most public streets. They are more lively, active, and inviting. On the other hand, secondary streets have more private and defensible spaces. Another important element of the street is walkability. In the neighborhood, there is direct access to the street and it helps to connect private life with the public one. Overall, the site is friendly to walking, especially in main streets where the pedestrians are encouraged to walk and experience the site because of the good condition of the roads.

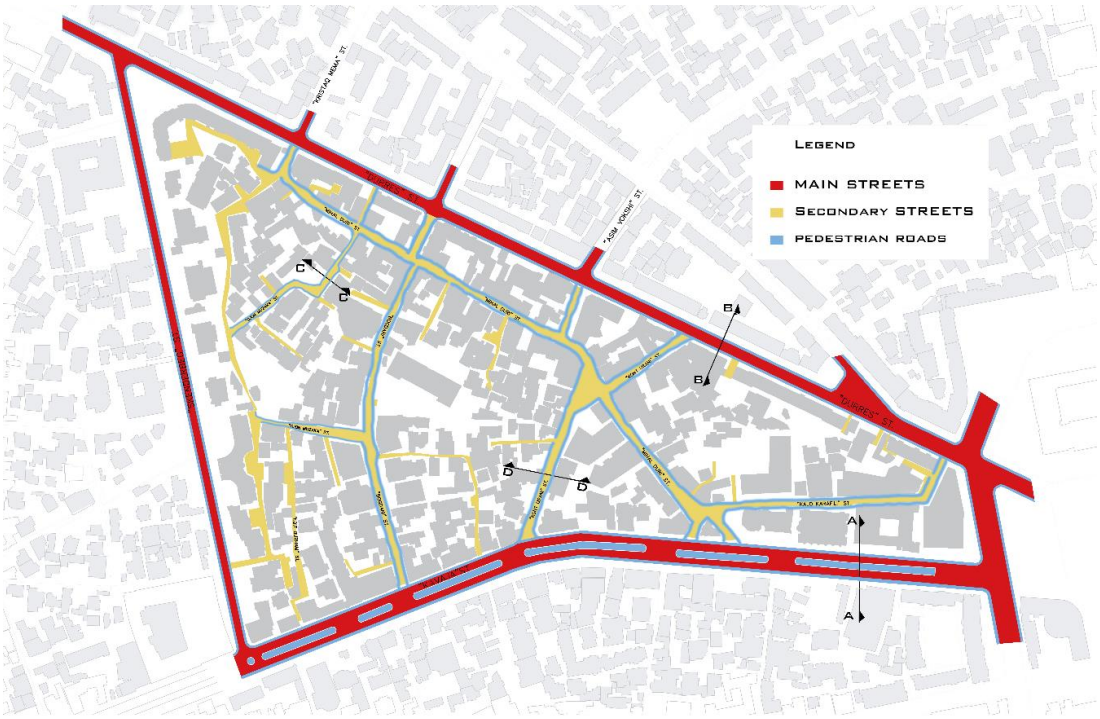


Figure 148. Accessibility Analysis

3.2.12 Street Analysis

There is a diversity of street types on the site. In Figure 149, it is analyzed every street on the site and its direction. The main streets are two-way streets, while the secondary streets are one-way streets. There are also a large number of cul-de-sacs. These different types of streets offer different degrees of publicness, starting from the main streets that are more public, and then cul-de-sacs that create a more private space. Sometimes, house clusters are formed around these types of streets. There are many activity nodes along the main and secondary streets that have made these streets more active and public. On the other hand, cul-de-sacs are more private, surrounded by residential buildings, and without any activity. Street cafes can be placed in these streets to make them more-lively. Cul-de-sacs need to be paved and to have more softscape elements. In this way, they become more attractive and their degree of publicness and interaction is increased.

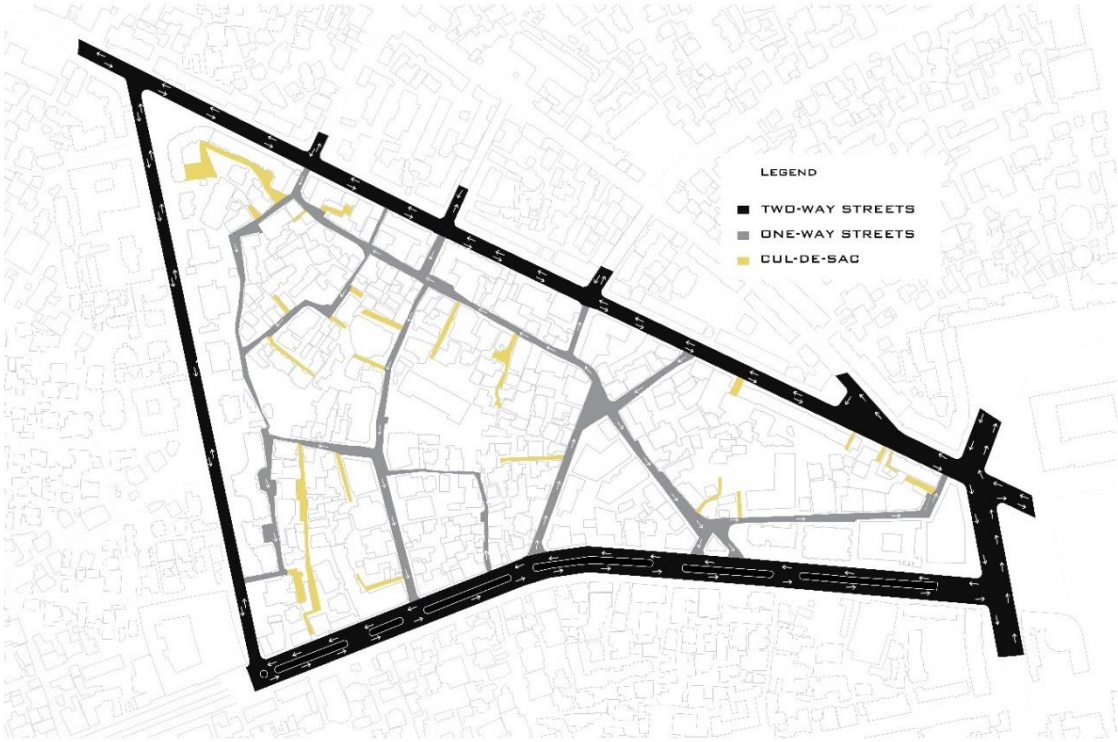


Figure 149. Street Analysis

3.2.13 Street Section Analysis

There are different street section typologies on the site related to the street type and the elements that bound it. Section A-A shows "Kavaja" Street. It has raised entry buildings and it is a two-way street. There is a good balance between access for the car and safe pedestrian use of the space. It accommodates a different range of users, and this leads to more social interactions. There are also enough pedestrian roads and each of them is in good condition.

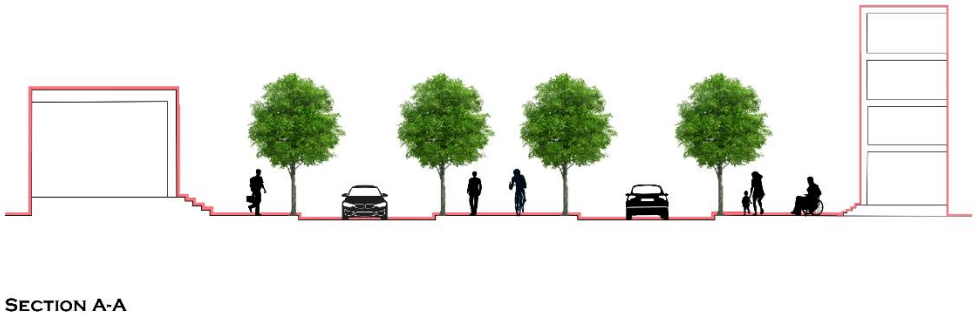


Figure 150. "Kavaja" street typology (Section A-A)

Section B-B shows "Durres" Street. It is a two-way street and has sidewalks on two

sides. There are also some raised entry buildings and the ground floor has mostly commercial functions. This is one of the reasons why the street is always full of people. The good physical condition of the street has had a positive impact on sociability, walkability, delight to the pedestrian, and safety.

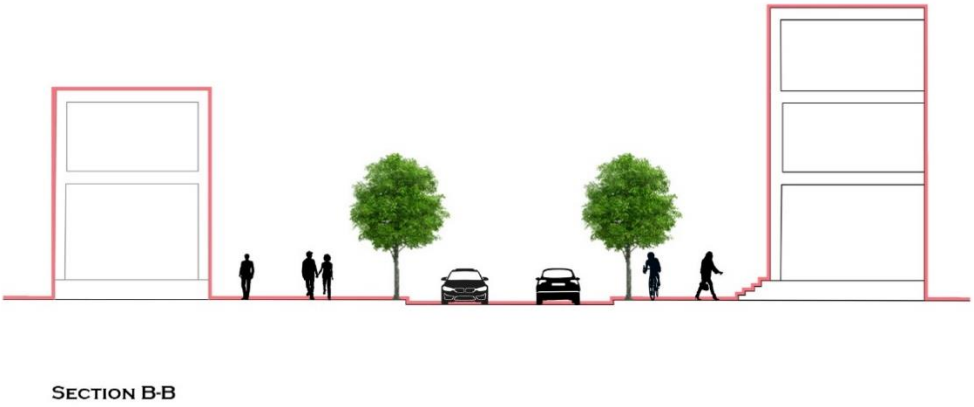


Figure 151. "Durres" street typology (Section B-B)

Section C-C shows "Gjon Muzaka" Street. It is a one-way street and there are no greenery elements in the street. The street has very narrow sidewalks and it is difficult for people to walk or exchange with other people. This has caused a decrease in usage of the street and also a decrease in interactions.

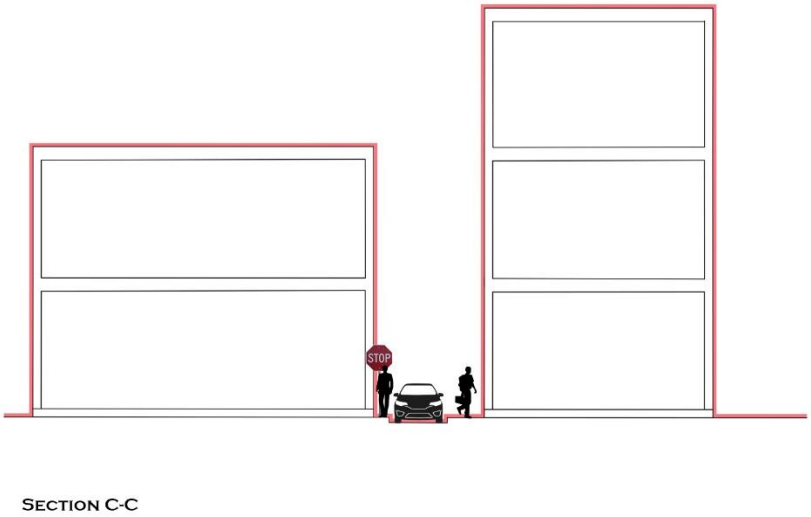


Figure 152. "Gjon Muzaka" street typology (Section C-C)

Section D-D shows "Kont Urani" Street. It is a one-way street and there are some trees along the street. Sidewalks are narrow, but since the ground has shops, the street is active

and it has interactions.

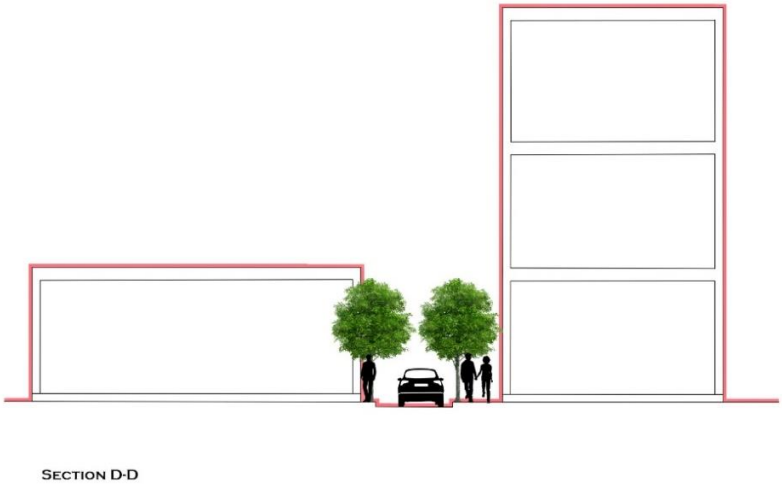


Figure 153. "Kont Urani" street typology (Section D-D)

3.2.14 Sidewalk

As it is shown in Figure 154, there are different typologies of sidewalks on the site. In the main streets, sidewalks are wide and offer opportunities for interaction. On the other hand, in secondary streets sidewalks are not wide enough to allow people to exchange with each other. This has a bad impact on interaction and makes it impossible to accommodate a different range of users. For example, it is difficult for two people in wheelchairs to pass each other. There should be an extension of sidewalks in order to have an easy access and also to form a colored curb zone that can serve as performance zone for different street performances. In this way the street became more attractive and interaction is increased.

"Durres" street and "Kavaja" street are the most positive cases related to the sidewalk. As it is shown in Figure 155 and Figure 156, sidewalks in "Durres" street and "Kavaja" street are wide. They have a public character and offer opportunities for interactions. Interactions are also related to the ground floor activities which are mostly commercial. There are trees along the sidewalks, sidewalk cafes, and decorative lighting, which make the street more attractive, and safe.

Figure 154. Sidewalk analysis

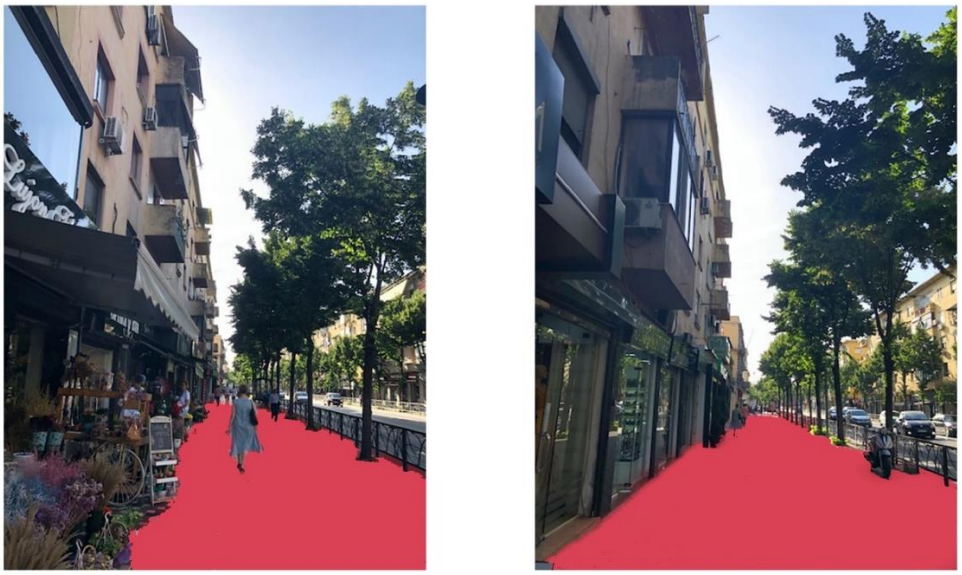


Figure 155. Sidewalk typology in “Durres” street

Figure 156. Sidewalk typology in “Kavaja” street

In “Kajo Karafili” street, there are two typologies of the sidewalk. The first typology consists of a narrow sidewalk next to car parking spaces. There are also commercial functions of the buildings extended to the sidewalk and they cause obstruction in circulation. The sidewalk on the other side of the street is inaccessible and blocked by parking. There are only a few trees along the sidewalk. In this case, a bicycle lane should be added in order to reduce parking spaces on the sides of the street, to have an easy access, and to increase the usage of the street and interactions.

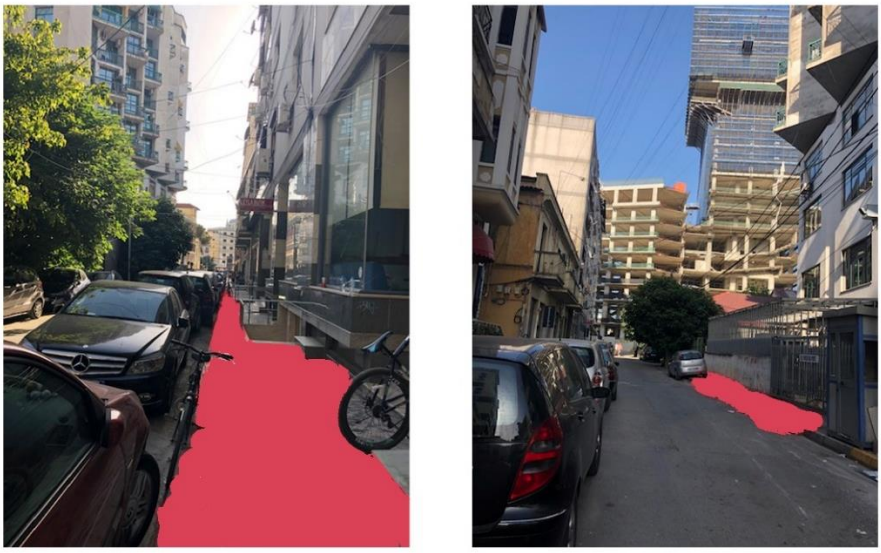


Figure 157. Sidewalk typology in “Kajo Karafili” street

In “Skanderbeg” street, there are wide sidewalks with lots of green elements along

with. It makes the street more attractive and increases its usage.

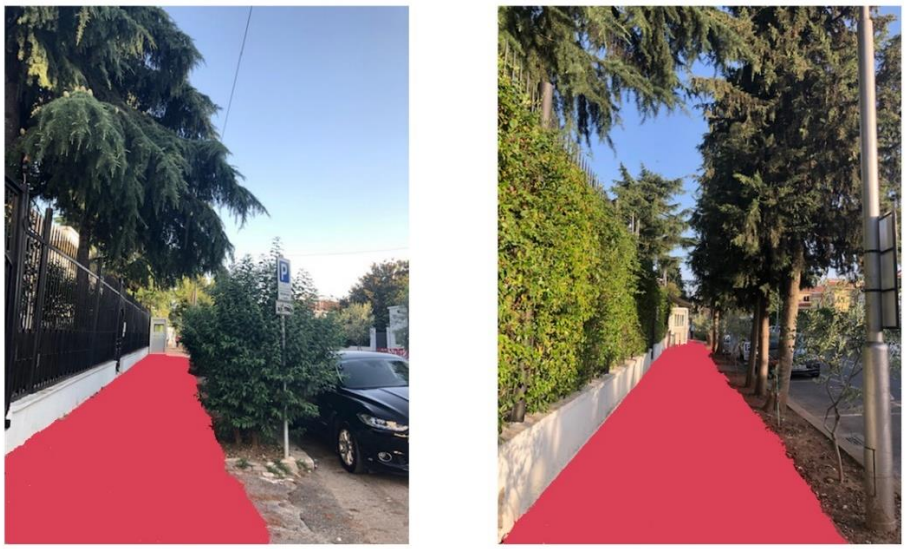


Figure 158. Sidewalk typology in “Skanderbeg” street

In “Kont Urani” street, there are narrow sidewalks with some trees along with them. There are no lighting elements, and in some parts, there are private houses surrounded by walls in the ground. It decreases safety and degree of interaction.

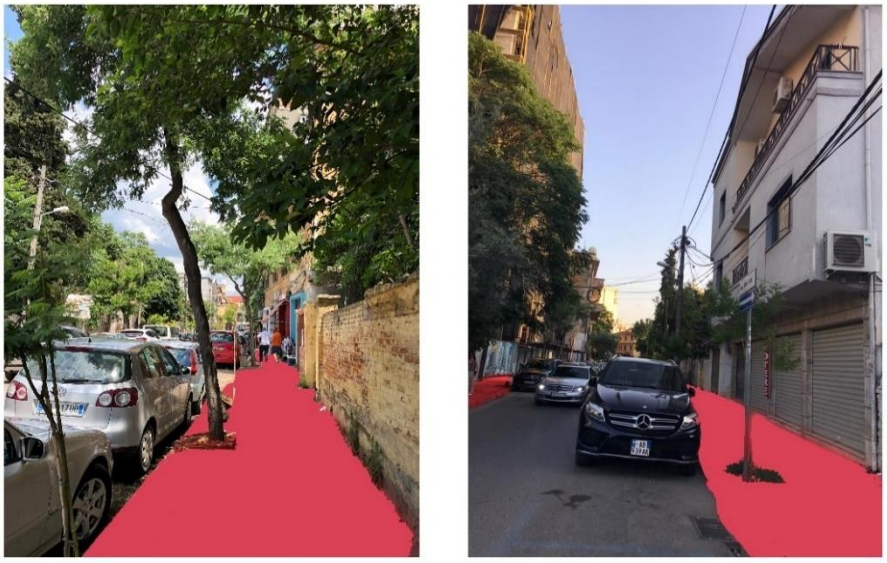


Figure 159. Sidewalk typology in “Kont Urani” street

In “Mihal Duri” street, there are two typologies of the sidewalk. The first typology consists of a wide sidewalk next to car parking spaces. There are mostly residential buildings on the ground floor, but also some buildings with commercial functions. There is a high level of interaction among residents. The sidewalks on some other parts of the street are very

narrow, only for a person to pass, and some of them are occupied by cars. There are only a few trees along the sidewalks.

Figure 160. Sidewalk typology in “Mihal Duri” street

In “Gjon Muzaka” street, there are very narrow sidewalks, only for a person to pass. There are also some pillars in the sidewalks and it makes the circulation very difficult. There are no trees along the sidewalks and it decreases the attractiveness of the street.

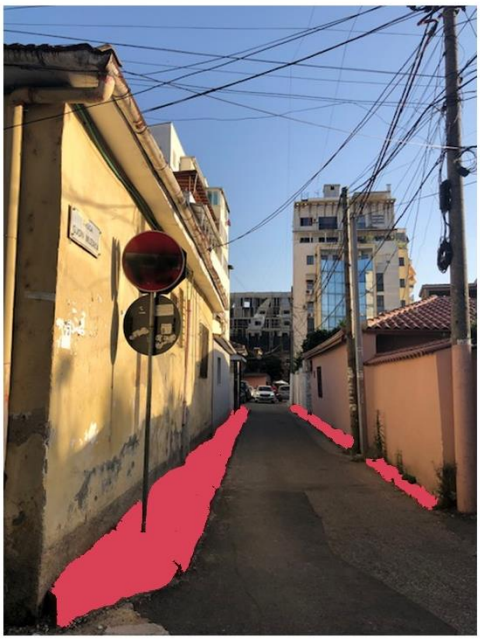


Figure 161. Sidewalk typology in “Gjon Muzaka” street

In “Bogdani” street, there are two typologies of the sidewalk. The first typology consists of wide sidewalks next to car parking spaces. There are also commercial functions of the buildings extended to the sidewalk and it increases interactions. The sidewalks on some other parts of the street are narrow, only for a person to pass. There are only a few trees along the sidewalks.

Figure 162. Sidewalk typology in “Bogdani” street

In “Edit Durham” street, there are wide sidewalks with wide streets next to it that serve

as a playground space for children. This type of sidewalk increases the degree of publicness and interaction in the street. There are also some trees in the street.

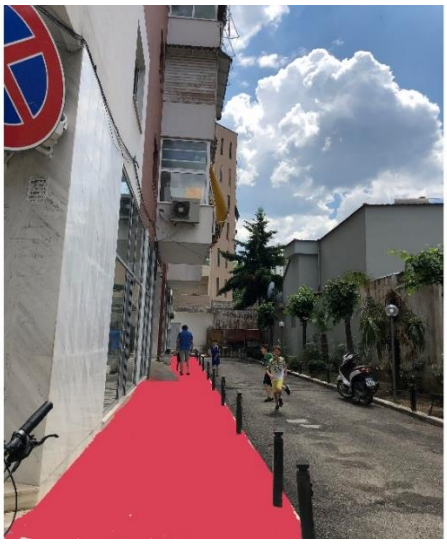


Figure 163. Sidewalk typology in “Edit Durham” street

3.2.15 Street Edge

“Kont Urani” street, “Durres” street, “Mihal Duri” street, “Kajo Karafili” street, and “Kavaja” street, are the streets where street edge analysis will be done. “Durres” street and “Kavaja” street are the main streets and are more open to the public, while “Kont Urani” street, “Mihal Duri” street, and “Kajo Karafili” street are streets that pass across the neighborhood and they have less movement and activities than main streets. The streets that will be analyzed are shown in Figure 164.

Figure 164. Selected streets for street edge analysis

In Figures 164.1 and 164.2, there are shown the boundary elements of these streets. These boundary elements define the degree of publicness. As it is seen in the figure, the streets that have construction sites or residential buildings, are dominated by opaque edges, which may be walls or walls with railings of the buildings or the walls that define the parcel of the building. These types of edges indicate private spaces. On the other hand, the semi-private spaces are dominated by gates and gates with railings. There are also some transparent edges that are represented by glass façade and are typical for commercial activities. They indicate public spaces.

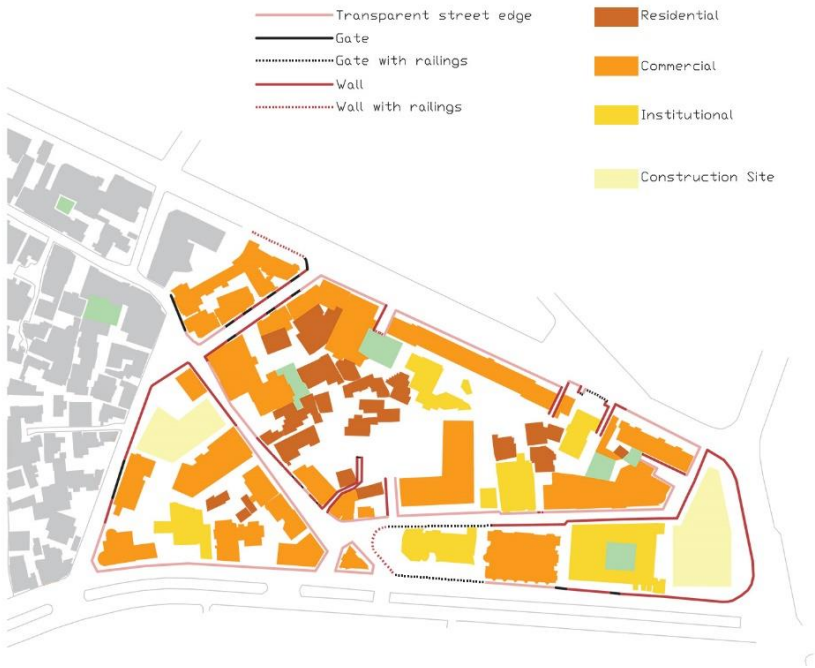


Figure 164.1 Street edge analysis

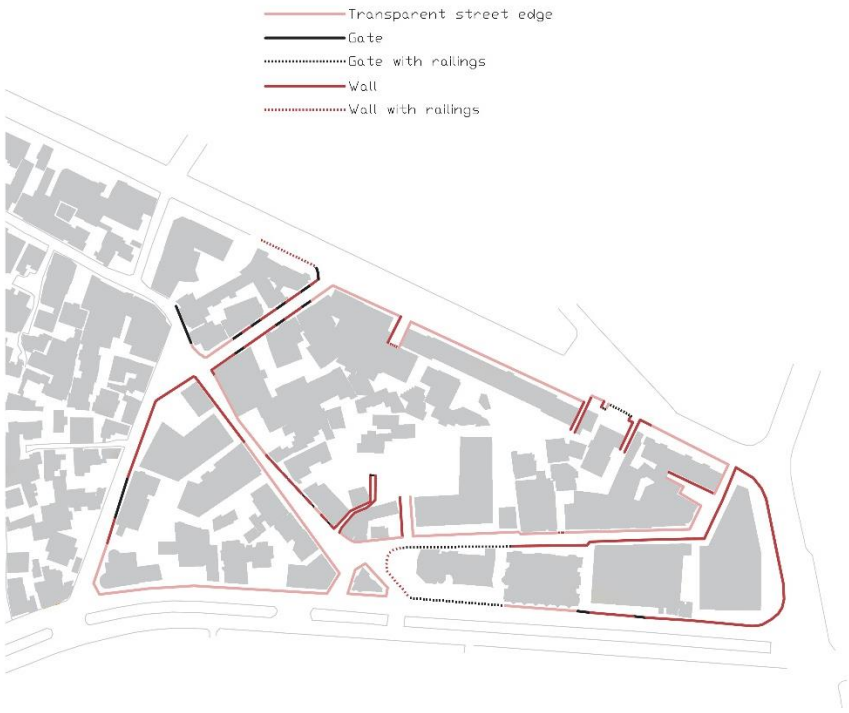


Figure 164.2 Street edge analysis

In the photos below, there are shown street edges on the site.

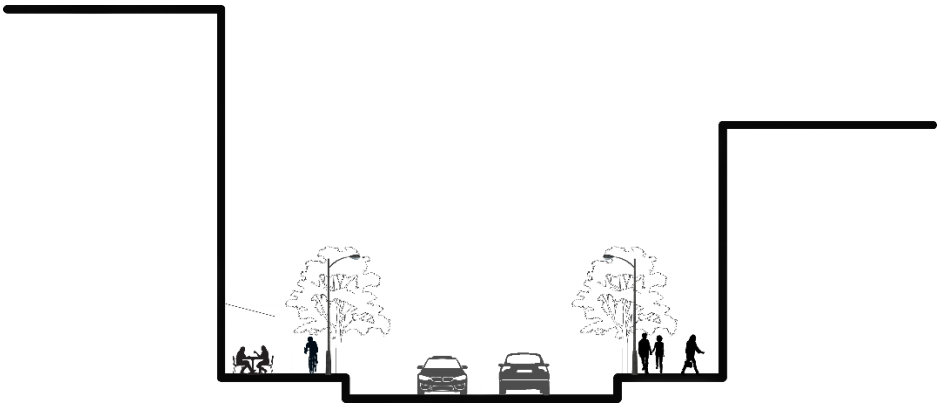


Figure 165. Street edge typology in “Durres” street

Figure 166. Street edge element in “Durres” street

Figure 167. Street edge element in “Durres” street

Figure 168. Street edge element in “Durres” street

Figure 169. Street edge element in “Durres” street

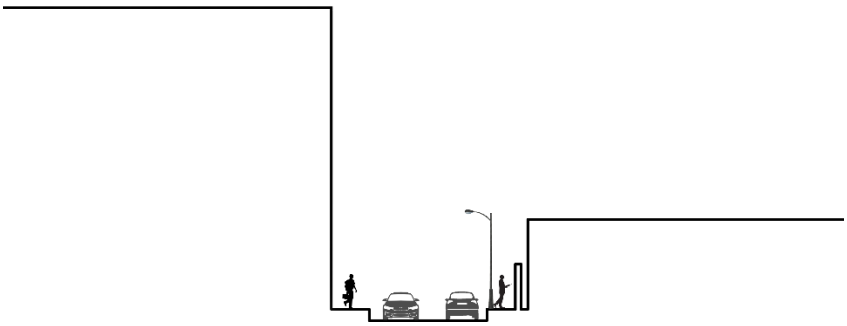


Figure 170. Street edge typology in “Kajo Karafili” street

Figure 171. Street edge element in “Kajo Karafili” street

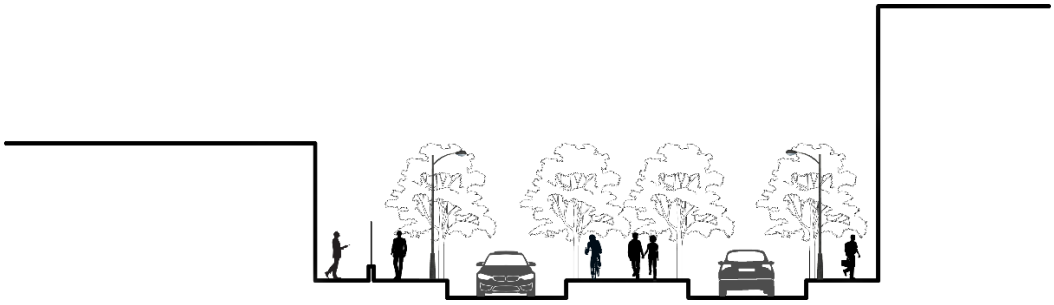


Figure 172. Street edge typology in “Kavaja” street

Figure 173. Street edge element in “Kavaja” street

Figure 174. Street edge element in “Kavaja” street

Figure 175. Street edge element in “Kavaja” street

Figure 176. Street edge element in “Kavaja” street

Figure 177. Street edge element in “Kont Urani” street

Figure 178. Street edge element in “Kont Urani” street

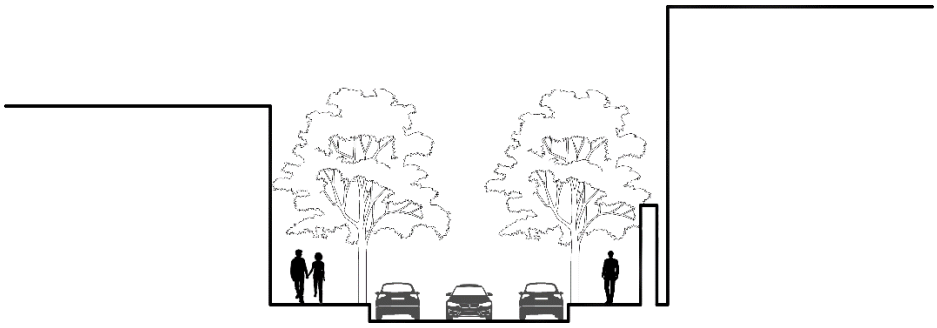


Figure 179. Street edge typology in “Kont Urani” street

Figure 180. Street edge element in “Mihal Duri” street

Figure 181. Street edge element in “Mihal Duri” street

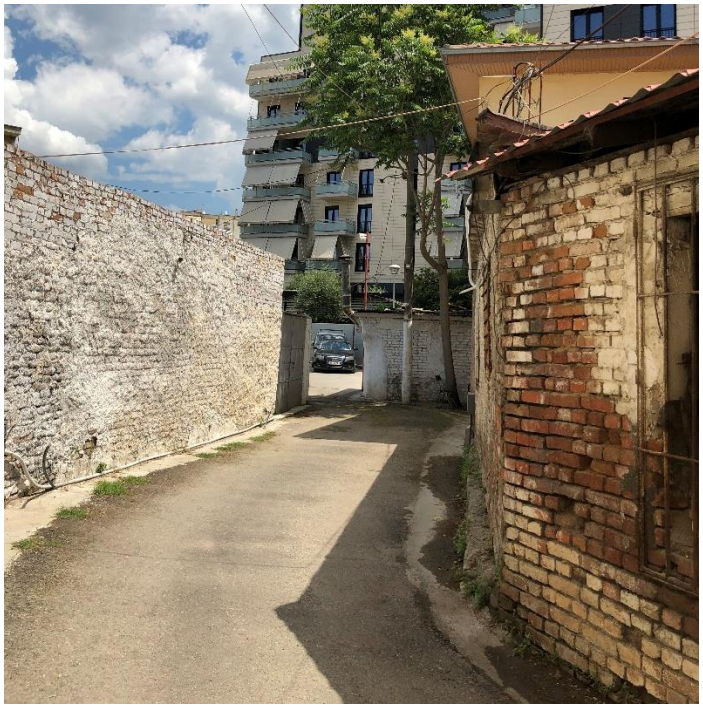


Figure 182. Street edge element in “Mihal Duri” street

3.2.16 Soft Edges

The soft edge is the zone where indoor and outdoor life interacts. They are transition spaces where the street and other public spaces of the site meet the buildings. In Figure 183,

there are shown soft edges of the site. They offer social interactions, security, comfort, and also an opportunity for sitting and standing. They invite people to use the space and make the street more active.

3.2.17 Activity Nodes

The areas that serve as activity nodes are shown in Figure 183. They are distributed evenly across the site. They concentrate the activities and increase interactions. As seen in the Figures below, there are different types of activity nodes on the site that gather people such as active facades, extension of activities in the street, shopping street, bazaar tents, street cafes, small public squares, corner groceries, and street activities.

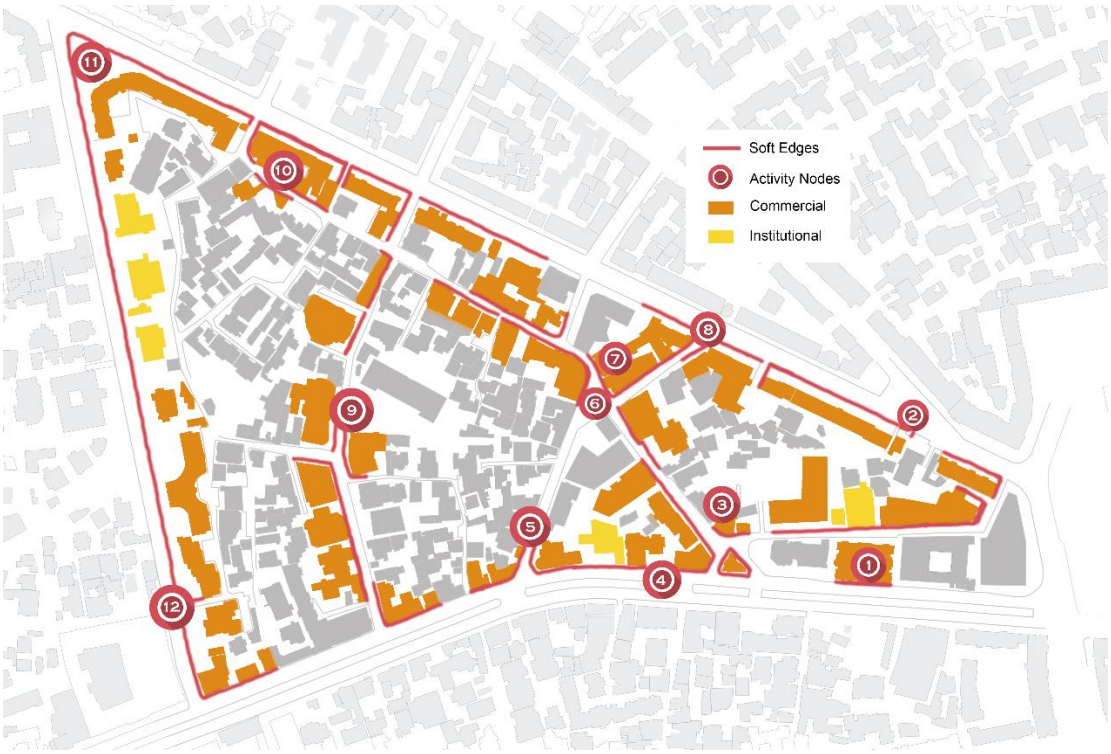


Figure 183. Soft edges and activity nodes analysis

Figure 184. Active façade (1)

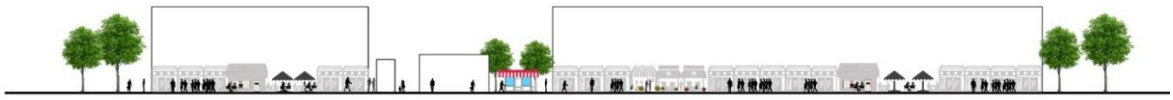


Figure 185. “Durres” street (2)

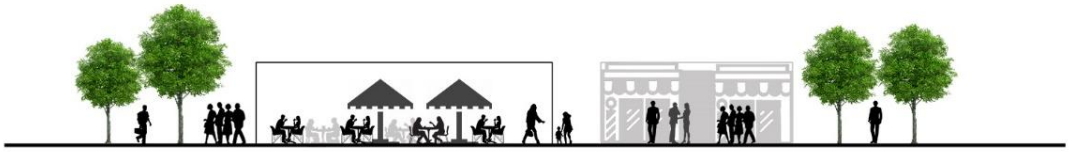


Figure 186. Cafe (3)

Figure 187. Extension of activities in “Kavaja” street (4)

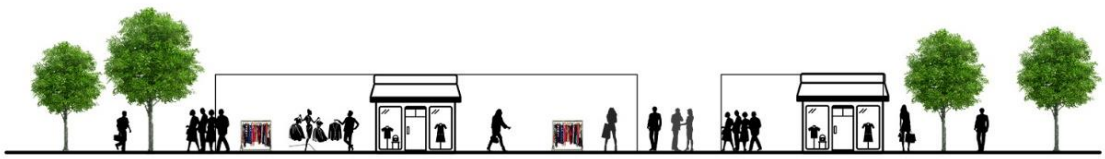


Figure 188. Shopping street (5)

Figure 189. Bazaar tents (6)

Figure 190. Small public square (6)

Figure 191. Street cafe (7)

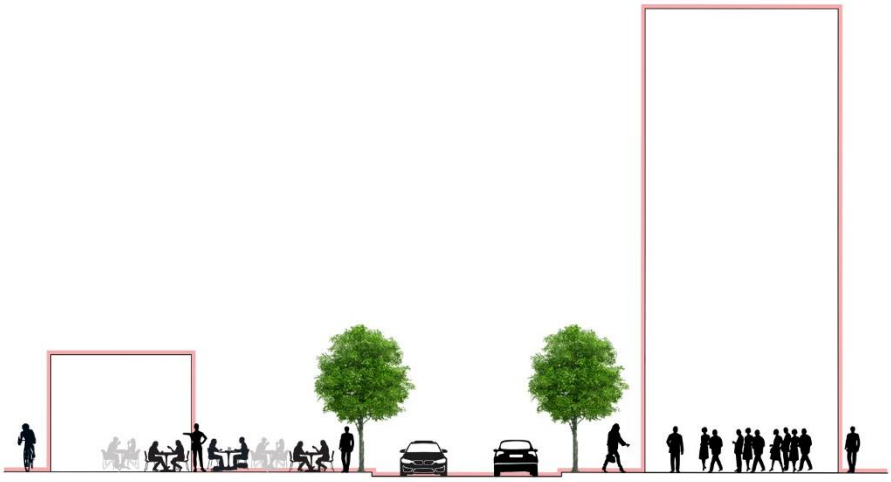


Figure 192. Extension of activities in the street (8)

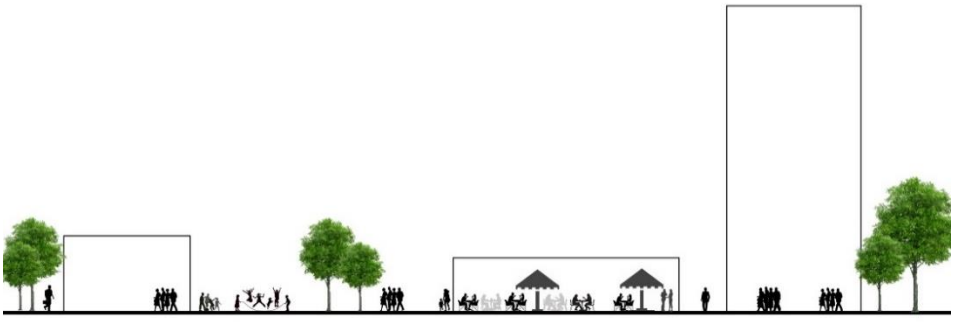


Figure 193. Street café and children playground (9)

Figure 194. Corner grocery (10)

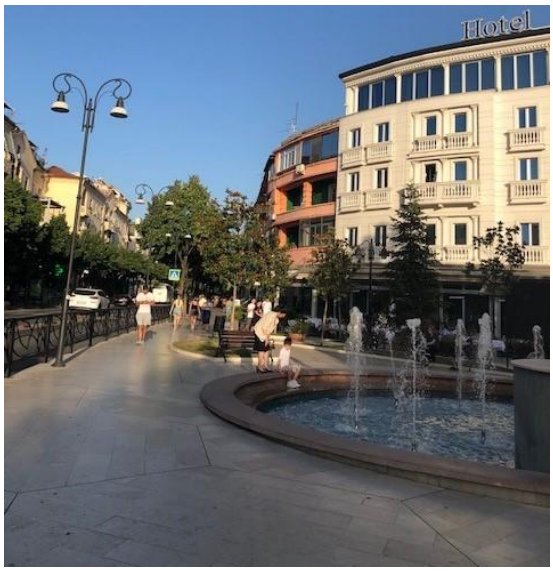


Figure 195. Small public square (11)

Figure 196. Street cafe (12)

Figure 197. Street activities (12)

3.2.18 Active Ground Floor

Different activities that happen on the ground floor affect the interaction among people and the density of movement around the site. It is noticed that the highest density is at the main streets and in the streets that have buildings with commercial functions. Along these streets, different activities that attract people occur. In these active zones are placed spaces that invite people and increase interactions such as cafes, restaurants, shops, and groceries. The less density is at the cul-de-sacs and at the streets that have residential buildings. Inactive areas have few densities of movements and interactions. This happens for different reasons such as the lack of activities on the ground floor, the lack of ground-floor activity diversity, and elements that increase privacy gradient. In Figure 198, there are shown active and inactive spaces on the site.

Figure 198. Ground floor activity performance analysis

3.2.19 Shopping Street

On the site, there are some shopping spaces that are placed along the pedestrian streets in “Durres” street, “Kavaja” street, “Kont Urani” street, “Mihal Duri” street, “Kajo Karafili” street, and “Bogdani” street (Figure 199). These shopping spaces give a more public character to the streets and increase interactions.

3.2.20 Green Street

Greenery is distributed mostly in the main streets. As it is seen in Figure 199, there are many trees along “Durres” street, “Kavaja” street, and “Skanderbeg” street. They have made these streets more attractive and have increased their usage. On the other hand, secondary streets have only a few trees.

Figure 199. Shopping streets and green streets analysis

3.2.21 Eye Level

Eye-level is an important physical parameter of the site. Most of the buildings on the site are at eye level and they invite people to communicate and interact. In general, there are many shops and other commercial buildings at the eye level which are easily accessed and open to the public because of their transparency and many openings in the façade. As shown in Figure 201, “Bogdani” street, “Kont Urani” street, and “Mihal Duri” street, are the streets where eye level analysis will be done.

3.2.22 Street Window

Street windows are very important elements of the site because they provide a connection between the private life of the buildings and the public street life (Figure 200). They give also a clear view of the street. Since there are eyes upon the street, inhabitants know what is going on and the safety in the street is increased. Their visual connection with

the street offers also more interactions.

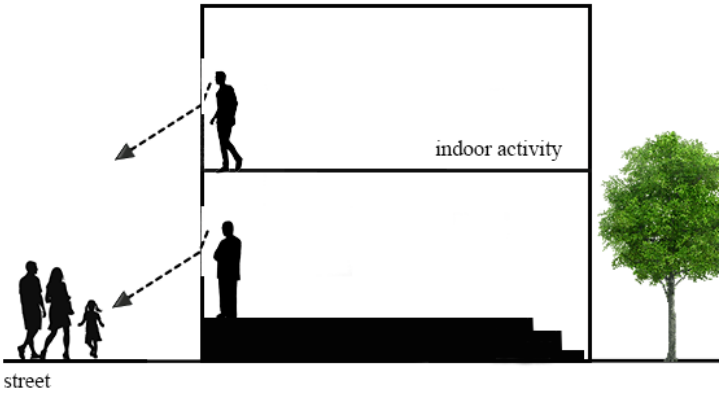


Figure 200. Street window typology in site

In Figure 201, there are shown buildings with windows looking into the street at "Bogdani" street, "Kont Urani" street, and "Mihal Duri" street, since they are the most important secondary streets inside the neighborhood.

In Figure 202, Figure 203, and Figure 204, there are shown in details eye level spaces and street windows at "Bogdani" street, "Kont Urani" street, and "Mihal Duri" street.

Figure 201. Eye level and street window analysis

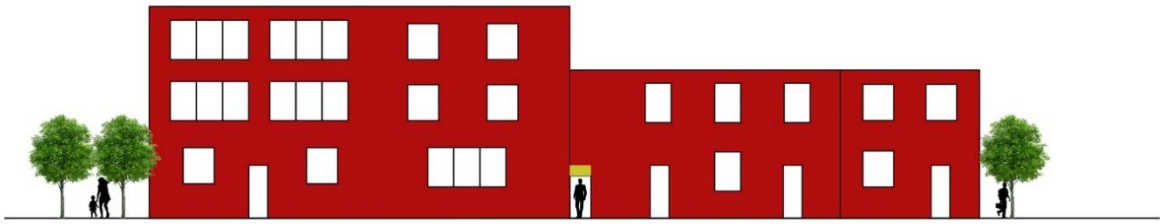


Figure 202. Street windows at “Bogdani” street

Figure 203. Street windows at “Kont Urani” street

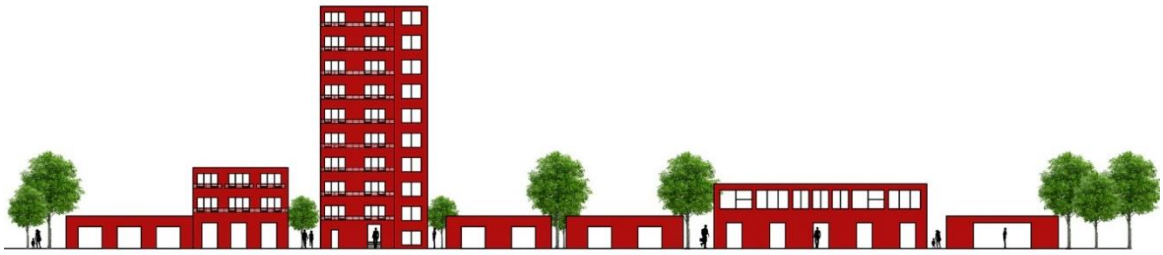


Figure 204. Street windows at “Mihal Duri” street

3.2.23 Building Typologies

There are different types of buildings on the site. They are separated into four categories based on their layout, form, and relation to the surroundings: detached private houses, attached private houses, socialist apartments, and new apartments. Detached private houses have the most private degree of publicness. They have small yards in front and sometimes are surrounded by walls. Attached private houses have common areas between each other. They form small semi-private courtyards. Socialist apartments have small

balconies that increase visual connection. They are not too high and this helps in the improvement of interaction among inhabitants. New apartments are mostly high-rise buildings. They are located along the streets and have active facades. These two elements have a positive effect in increasing social interaction. Different typologies of the site are shown in Figure 205.

Figure 205. Building typologies

3.2.24 Cluster

As shown in Figure 206, there are many buildings on the site that are grouped together and have form clusters. The common space of the cluster has increased the opportunities to socialize, and visual connections among inhabitants. It is a semi-private space and serves as a meeting point for residents. The common space of the cluster is used only as gathering space, but it has potentials to be transformed into a more active and more public space. Outdoor cafes and urban furnishings can be added, resulting in more residents spending time in common space of the cluster, and also inviting other people from the street to join. In this way, the interaction is increased and the cluster has a more public character. Cluster can serve as performance space where different concerts and festivals can be held in order for people to dance, and to socialize. Since the clusters offer a defensible and semi-private space, they should adopt functions such as small parks for residents to stay, and children playgrounds where children are safe from the main streets and controlled by their

parents from windows and balconies looking to the outdoor common space of the cluster. Cluster is formed in different ways such as cluster around private courtyard (Figure 207), cluster around dead-end courtyard (Figure 208), cluster around dead-end street (Figure 209), and cluster around the plaza (Figure 210).

Figure 206. Cluster Analysis

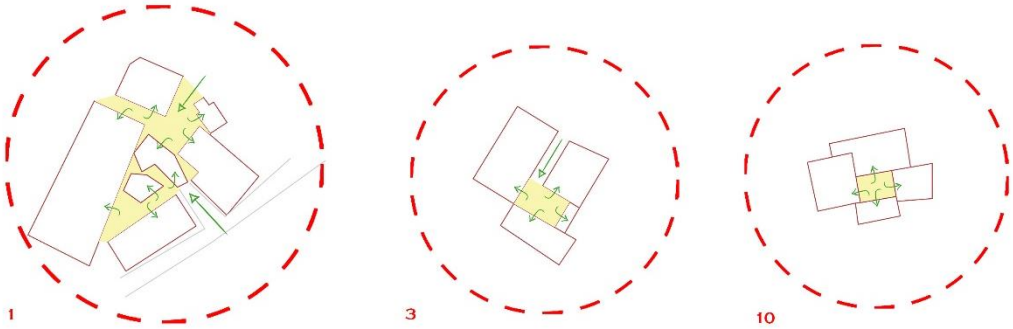


Figure 207. Cluster around private courtyard

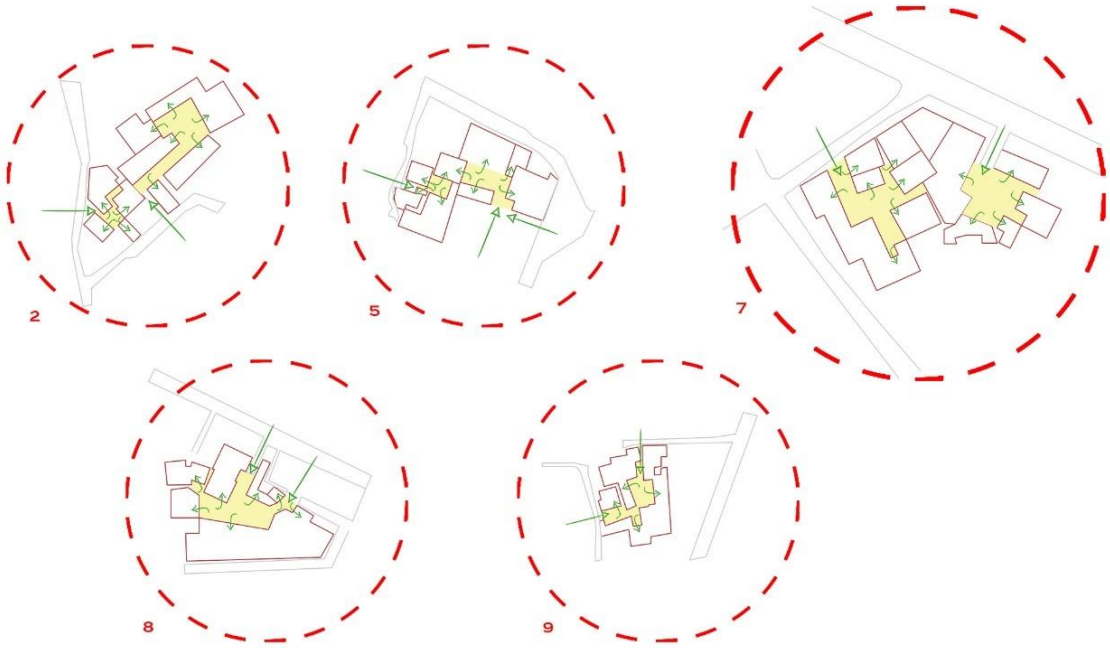


Figure 208. Cluster around dead-end courtyard

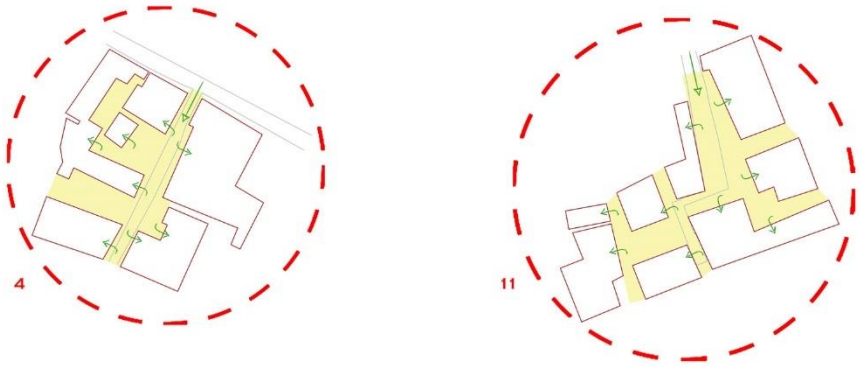


Figure 209. Cluster around dead-end street

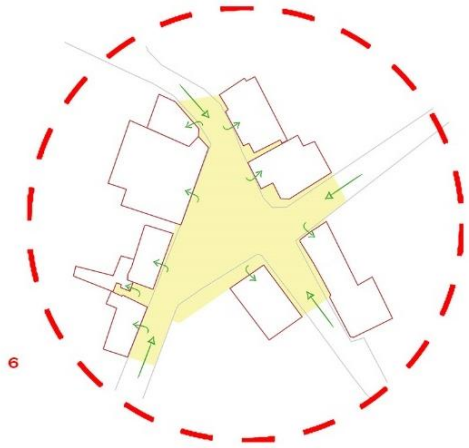


Figure 210. Cluster around the plaza

3.2.25 Private Outdoor Space

Private outdoor spaces are spaces that help to achieve a balance between public and private spaces. They are semi-private or semi-public spaces, located in the outdoor space of the housing units, but part of the public domain. They have some elements that offer privacy such as walls or plants. These spaces are crucial in increasing the level of interaction. They consist of balconies, terraces, ambiguous zone, and entrance halls.

3.2.26 Balcony Analysis

In Figure 211 are shown buildings with balconies. There are different types of balconies on the site. They offer a balance between public outdoor space and private indoor space. Some of the balconies have enclosure elements such as shutters, louvers, and plants that increase the degree of privacy. The balcony is considered a semi-private space because of the visual connection it offers. In the photos below (Figure 212, Figure 213, Figure 214, Figure 215, Figure 216, Figure 217, Figure 218, Figure 219, Figure 220, and Figure 221) are shown some types of balconies inside the neighborhood. In Appendix 2, there are all types of balconies shown.

Figure 211. Balcony analysis

Figure 212. Balcony typology on the site (1)

There are balconies looking into the street (Figure 213). This typology helps in increasing visual interaction and degree of publicness.

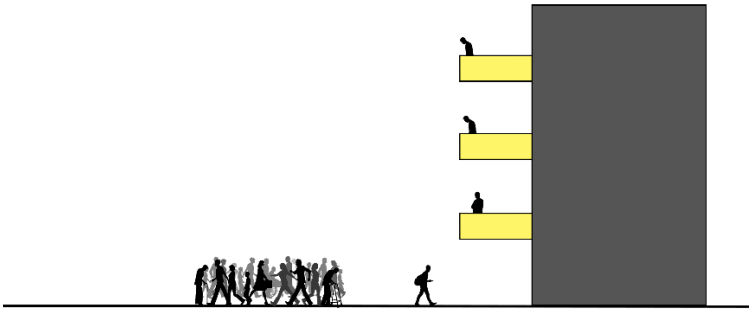


Figure 213. Balcony typology on the site (1)

In Figure 214, it is shown another typology which consists of balconies looking each other. This typology helps in increasing social interaction.

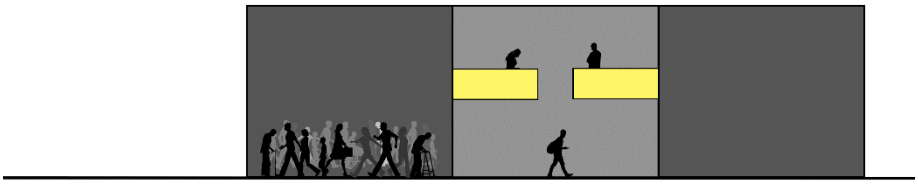


Figure 214. Balcony typology on the site (5)

In apartment buildings, there are balconies protruding outside and looking each other. They offer a high level of interaction and also increase the degree of publicness of the building (Figure 215).

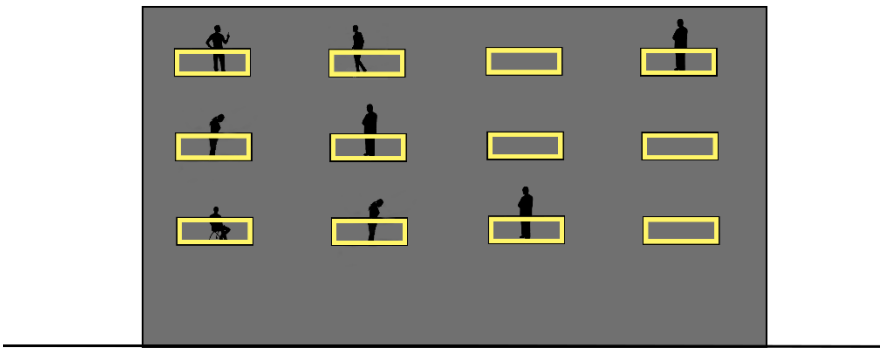


Figure 215. Balcony typology on the site (7)

In Figure 216, it is shown another typology which consists of long balcony looking into the street, with lots of greenery elements that make it more attractive, and small

balconies looking each other, also with greenery elements. These balconies make the building more attractive and increase its degree of publicness.

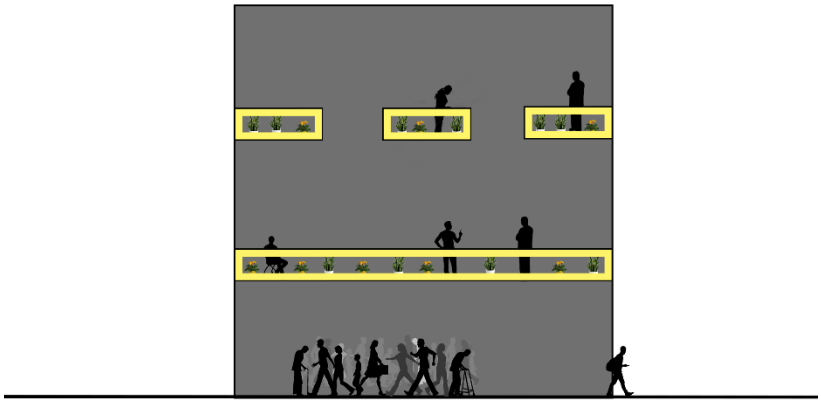


Figure 216. Balcony typology on the site (12)

The typology shown in Figure 217, consists of balcony inserted inside which offers more privacy. It is an in-between space, because it belongs to private domain but it also looks into the street and create visual connection with it. The other typology consists of balcony protruding outside and looking into the street.

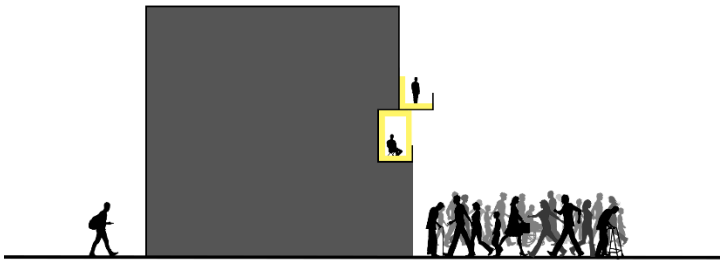


Figure 217. Balcony typology on the site (16)

The typology shown in Figure 218, consists of balconies inserted inside which offer privacy. They don’t look into each other. These types of balconies make the building inactive and decrease the degree of publicness.

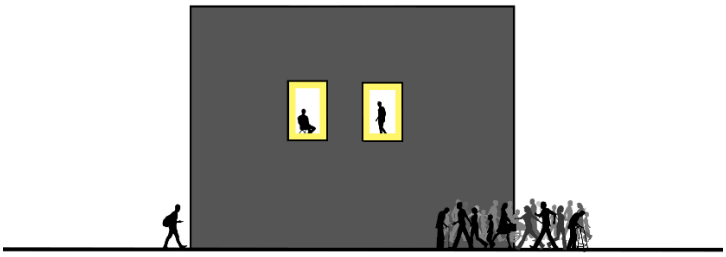


Figure 218. Balcony typology on the site (19)

Figure 219. Balcony typology on the site (11)

Figure 220. Balcony typology on the site (25)

Figure 221. Balcony typology on the site (27)

3.2.27 Terrace Analysis

In Figure 222 are shown buildings with terraces. Some of the terraces are on top of the building and some of them on the ground. Terraces that are located in the ground look into the street. This connection with the street increases the interaction and the balance between public outdoor space and private space of the housing unit. They are semi-private spaces because they belong to a family, but they can also be used by their neighbors or friends. It can be a recreational and meeting place where people can relax and also sit and talk with other people. In the photos below are shown different types of terraces on the site.

Figure 222. Terrace Analysis

Figure 223. Terrace on the street (1)

Figure 224. Terrace typology on site (2)

Figure 225. Terrace typology on site (3)

Figure 226. Terrace on the street (4)

Figure 227. Terrace typology on site (5)

Figure 228. Terrace typology on site (6)

Figure 229. Terrace typology on site (7)

Figure 230. Terrace typology on site (8)

3.2.28 Narrow Facade

In Figure 231 are shown buildings with narrow façade on the site. These buildings are separated into different units and these units lead to different activities such as shops, cafes, groceries, and restaurants. Narrow facades increase the degree of publicness and social interaction because they are exchange points between the interior and exterior space. Narrow facades along the street make room for spaces with different functions and make the street more active. In the photos below are shown narrow facades on the ground floor.

Figure 231. Narrow façade analysis

Figure 232. Narrow façade typology on site (1)

Figure 233. Narrow façade typology on site (2)

Figure 234. Narrow façade typology on site (3)

Figure 235. Narrow façade typology on site (4)

Figure 236. Narrow façade typology on site (5)

In Figure 237 it is shown in detail the relation of narrow façade on the ground with building units on upper floors. In this case, there are different degrees of publicness achieved. Starting from the housing units that are private spaces, then the balconies that are semi-

private spaces, and the narrow façade that is considered semi-public space. It has the highest level of interaction.

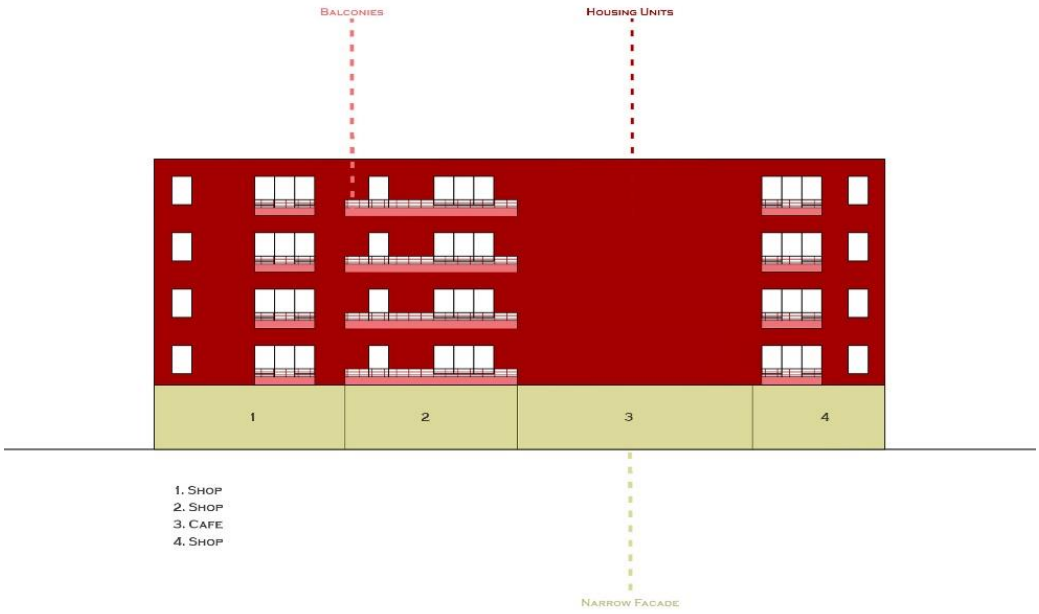


Figure 237. Degrees of publicness in building level (1)

3.2.29 Front Entry

Front entry has a crucial role as a transition area between public outdoor spaces and private indoor spaces. It is considered a semi-private space because apart from the privacy and comfort it offers, it also serves as an area that receives people from the outdoor. It has spaces for sitting, and also for social and family gatherings. Front entry has a great impact in increasing social interaction because of its strong visual and physical connection with the street. It consists of raised entry, stair seats, and ambiguous zone that itself is separated in front yard, and entrance hall. There is also front entry surrounded by walls. In this case, the level of interaction is decreased and the entry of the building is private. All these elements of front entry are shown in Figure 238. Some of them are shown in detail in Figure 239, figure 240, figure 241, figure 242, figure 243, figure 244 and figure 245. Other ones are shown in Appendix 3.

Figure 238. Front entry analysis

Figure 239. Stair seats (1)

Figure 240. Front yard (2)

Figure 241. Front yard (3)

Figure 242. Front entry surrounded by walls (9)

Figure 243. Raised entry and entrance hall (10)

Figure 244. Raised entry (13)

Figure 245. Entrance hall (20)

Stair seats are in-between spaces that separate the private indoor space of the building and the public outdoor space. Inside the neighborhood, there are only three

buildings that have stair seat spaces. They serve as recreational and meeting spaces. People may sit and read something on stair seats, they can meet other people, have conversations, play guitar, or just enjoy the street view. It has great importance in increasing social interaction. In Figure 246 is shown stair seat typology on the site.

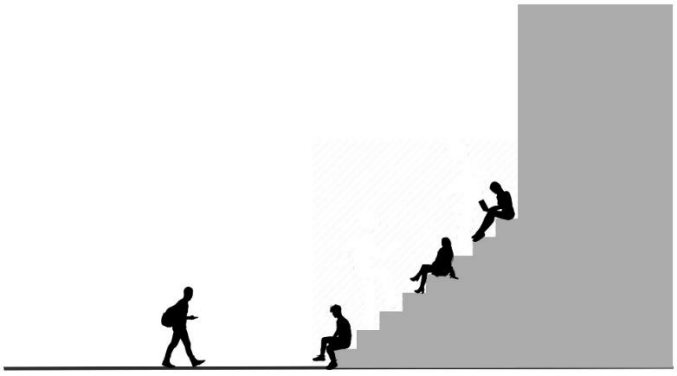


Figure 246. Stair seats (1)

Ambiguous zone is an in-between area that gives a balance between public and private domains. It consists of front yard and entrance hall. These spaces influence resident's involvement in street life and interactions.

Entrance hall is an important element of the buildings inside the neighborhood. It regulates the access between private and public spaces. In Figure 247 is shown raised entry of the house on the site and entrance hall. As shown in the Figure, the entrance hall links and separate outdoor and indoor spaces and it is an area where visitors are received.

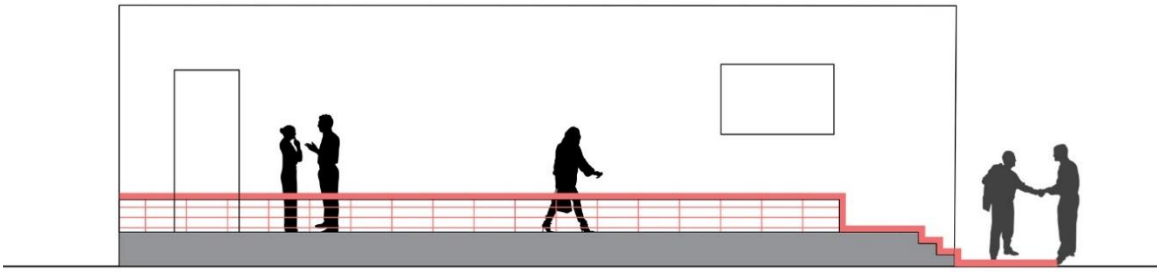


Figure 247. Raised entry and entrance hall (10)

Inside the neighborhood, there are private houses that have small yards in front. Front yard is a semi-private outdoor space that helps residents to have contact with the street. In Figure 248 is shown the private yard of a housing unit inside the neighborhood. It has a

fence that helps to obtain the privacy of the house.

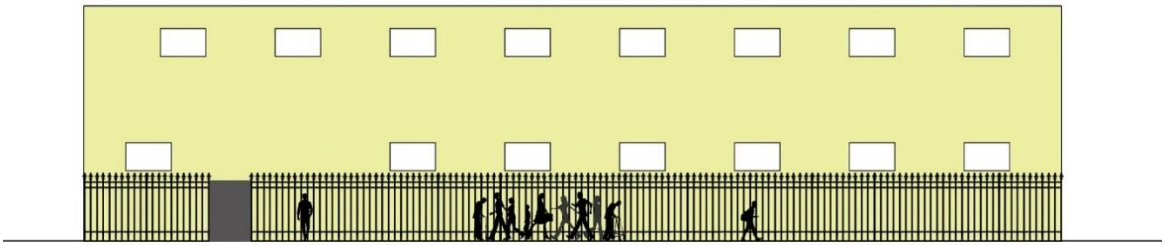


Figure 248. Front yard (8)

3.3 Synthesis of Principles

3.3.1 Greenery, Courtyard and Square

Greenery, courtyards, and squares are related to each other, since they serve as a system that improves the quality of life in the neighborhood. Squares and courtyards are considered as public spaces. Greenery is an important element of these spaces and affects the degree of publicness. As it is shown in Figure 249, a huge amount of greenery is located in squares and courtyards. Greenery makes these spaces more attractive. The more greenery there is, the more usable and public the space becomes. Squares and courtyards that have the most greenery elements, are more active and have more interaction. Based also in “Paths and goals” principle by Alexander et al. (1977), in this system there are squares and courtyards that may be considered as goals to be achieved and they are connected to each other by secondary streets of the neighborhood. Secondary streets also connect them to the main streets where most of the greenery is located. Squares and courtyards serve also as break pockets and are easily accessed from the main streets. Easily access make these spaces more public and more usable. This system offers different degrees of publicness starting from semi-private courtyards to public courtyards, secondary streets, squares and then main streets. But in terms of social interactions, it needs to be improved. More urban furnishings need to be added such as benches and public lighting. Courtyards and squares need to be more active. They can be used as areas where performances are

held. There should also be added street cafes in squares inside the neighborhood in order to increase interaction among inhabitants.

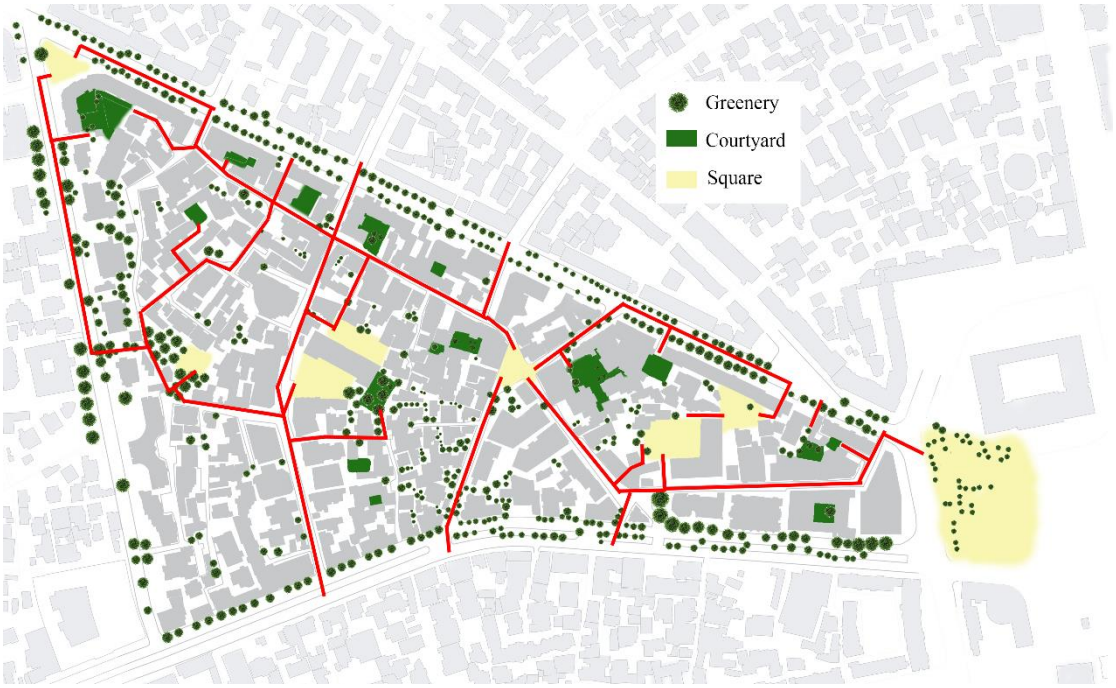


Figure 249. Greenery, squares, and courtyards analysis

3.3.2 Accessibility, Soft Edges and Activity Nodes

Accessibility, soft edges, and activity nodes work as a system that has a great impact in creating different degrees of publicness. Activity nodes are located along the main streets and secondary streets. The part of the street where the activity nodes are concentrated, is more public and more used. Soft edges are located mostly in the main streets which are the most public streets. Soft edges have made these streets more lively, active, and inviting. On the other hand, cul-de-sacs that don't have enough soft edges, offer more private and defensible spaces. There are also a lot of pedestrian spaces along the main and secondary streets that help to reach activity nodes. These pedestrian roads near activity spaces, encourage people to walk and increase interaction among residents. There is a system formed where every street leads to an activity node and it increases interactions inside the neighborhood.

In Figure 250, it is shown the system of streets, soft edges, and activity nodes in the neighborhood.

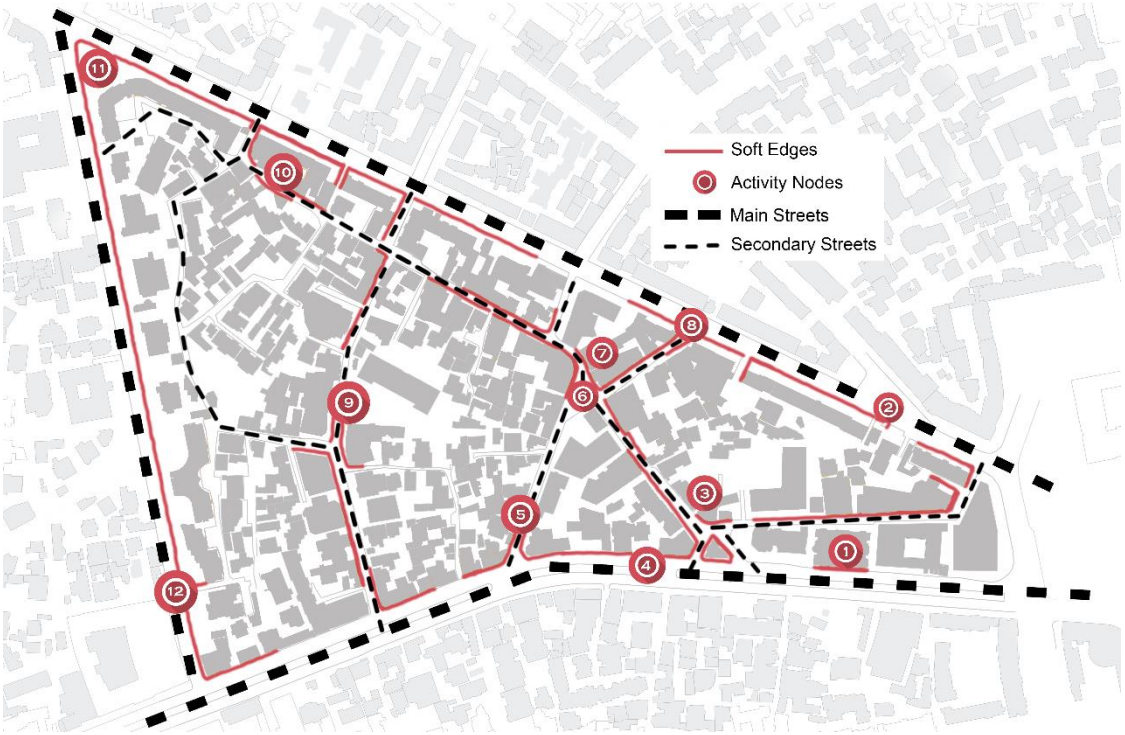


Figure 250. Accessibility, soft edges and activity nodes

3.3.3 Active Ground Floor and Land Use

Building functions have a great impact in the degree of publicness and the activity of the ground floor. In the main and secondary streets that have commercial or institutional buildings, ground floor is more active. In construction sites and cul-de-sacs, ground floor is inactive. Construction sites make the space unattractive and there are less interactions. Along cul-de-sacs, there are mostly residential buildings. So, the space is more private, inactive, and the level of interaction is decreased. In Figure 251, it is shown the degree of activity and building functions in the ground floor.

Figure 251. Active ground floor and land use analysis

3.3.4 Hierarchy of Public Space

There are different types of spaces inside the neighborhood with different degrees of publicness, starting from cul-de-sacs which offer a more private space. Sometimes, house clusters are formed around these types of streets. Then, semi-private courtyards which are not accessible to the public. They serve as a common area for the buildings that surround them. Semi-private courtyards are mostly surrounded by private houses. On the other hand, open courtyards are accessible to the public. They are located near the streets and offer more interactions. After these come the squares. They can be accessed by every group of people. Squares serve as gathering spaces and help in strengthening social interaction. The last degree of publicness are streets. Streets are the most public spaces. The streets of the site are easily accessed. Easily access has increased the number of people in the street and has made the neighborhood a safe place. All these spaces form a system and they have a great impact to one another. If there are some small interventions done in these spaces in order to improve their conditions and to make them more active, there will be more social interactions and this system will be more functional. In the Figure 252, there are shown different spaces of the neighborhood.

Figure 252. Active ground floor and land use analysis

CHAPTER 4

CONCLUSIONS

4.1 Conclusions

The purpose of this study was to understand the impact of public spaces in social interactions, by exploring them in different degrees of publicness.

The main objective of this thesis was to understand different degrees of public spaces, and to identify potential common spaces at different scales such as building scale, street scale, and neighborhood scale. Also, to highlight the balance between public, semi-public, and private spaces for a better communal life.

This is achieved through both qualitative and quantitative methods. The quantitative research serves as an assessment tool for creating a clear image of the theoretical background. There was developed an understanding of the background of public spaces based on the principles extracted from different authors such as Gehl, Lynch, Jacobs, Sim, Alexander, Pojani, and Rahbar. The qualitative research consists of a more exploratory research through detailed site analysis in order to understand the sense of the space, and problems occurring on the site. In the qualitative approach, sources are based on site surveys, site investigation, photos, and pattern analysis. Analysis of the principles related to publicness are conducted and each principle is explained through maps, diagrams, and photos. Site survey as an important qualitative method is used to realize characteristics of the area and to understand the sense of space. Site survey is carried out with the help of camera to record the existing open spaces and their facilities. The photographs show the usage of the space and facilities, the conditions, and the related problems.

A series of investigations are organized in the area to identify different typologies of space in three scale: neighborhood, street, and building.

The usage of several photographs and diagrams provides a perspicuous explanation

and a comprehensive image of the area. Also, it helps to achieve a better identification of weaknesses and strengths of the area in order to evaluate them based on literature background. Selected site consists of the area between Kavaja Street, Durres Street and Skanderbeg Street. In the area selected, degrees of publicness are analyzed in different scales such as neighborhood, street, and building. Firstly, there are some design principles extracted from different authors that are analyzed in each level of publicness. One important principle is the degree of publicness which is analyzed through a map showing spaces inside the neighborhood and their degree of publicness. From this analysis it was understood that residential buildings are considered private spaces because they are used only by the residents themselves, parcels are categorized as semi-private spaces, because in these spaces a limited number of people use the space, commercial and institutional buildings are considered semi-public spaces, because they can be used by particular groups of society, for commercial or institutional purposes, and parks, streets and squares are public spaces. Land use analysis is also made where it is seen that the majority of the buildings are used for different commercial purposes on the ground floor, and other floors for residential functions. In this case, the housing units are considered private spaces, while the mixed-use ground is considered semi-public space.

Another important analysis done is the building floor analysis. It is seen that the neighborhood has a human scale character in streets, public spaces, and also in buildings. This has given the neighborhood more possibilities for interaction and communication between people and has also increased its attractiveness. There are many buildings up to four floors that increase social interactions and security inside the neighborhood. They give a more public degree to the buildings since they interact with the street.

One of the most important analysis in neighborhood level is courtyard analysis. There are many courtyards on the site that serve as a good opportunity for answering the different privacy needs of residents, but they are not used properly. Some of them are occupied by parking and do not offer any activity. In the courtyard analysis, there are some proposals made in order to improve existing conditions of the courtyards and to provide a more vivid and dynamic space. The proposal consists of adding different functions to courtyards in order to make them more attractive. They can be transformed in children playgrounds or neighborhood’s small gardens. Urban furniture, lighting, greenery, and water features can be added. In this way, the usage of space and interaction among inhabitants is increased. Courtyards should also adapt functions such as relax corner which should offer privacy for

people who want to read something, listen to music, or just enjoy the view, picnic places, and gathering spaces. In this way, different degrees of publicness are achieved.

Another important element of the site is greenery. The majority of the greenery on the site is seen in the main streets. The secondary streets have not enough greenery along their sides. More greenery should be added to these streets. In secondary streets, there are also some blocking walls on the side of the streets that need to be covered with different greeneries to make the walk more interesting. In the neighborhood, there is a lack of parks. In order to have some parks inside the neighborhood, there should be more greenery added to the squares inside the neighborhood and to transform them into neighborhood's small gardens.

After understanding neighborhood's important spaces and their conditions, analyses are focused in the street level. The street patterns of the site are shown. Then, accessibility analysis and street analysis are done. The streets of the site are easily accessed and this has made the public spaces more used, especially those in the main streets. Easily access has increased the number of people in the street and has made the neighborhood a safe place. It has also made the street more active and offer more interactions. There is a diversity of street types on the site that offer different degrees of publicness, starting from the main streets that are more public, and then cul-de-sacs that create a more private space. Cul-de-sacs are surrounded by residential buildings and do not have any activity, but they have a great potential be transformed into activity pockets in order to make them more-lively and more usable. Street cafes can be placed in these spaces in order to increase interactions among inhabitants. Cul-de-sacs need to be paved and to have more softscape elements. In this way, they become more attractive and their degree of publicness and interaction is increased. Sidewalk is another important element of the site. There are different typologies of sidewalks on the site. In the main streets, sidewalks are wide and offer opportunities for interaction. On the other hand, in secondary streets sidewalks are not wide enough to allow people to exchange with each other. For this reason, there are some suggestions made to improve conditions of sidewalks. Suggestions consist of extension of sidewalks in order to have an easy access and also to form a colored curb zone that can serve as performance zone for different street performances. In this way the street became more attractive and interaction is increased. Bicycle lanes should also be added in order to reduce parking spaces on the sides of the streets, to have an easy access, and to increase the usage of the street and interactions.

Other important elements of the site are soft edges and activity nodes. They invite people to use the space and make the street more active. There are different types of activity nodes on the site that gather people such as active facades, extension of activities in the street, shopping street, bazaar tents, street cafes, small public squares, corner groceries, and street activities. Active ground floor analysis is also important in street level. Different activities that happen on the ground floor affect the interaction among people and the density of movement around the site. Other important elements in street level are street windows. They provide a connection between the private life of the buildings and the public street life.

After finalizing street level analyses, the study is focused in building level. There are different types of buildings on the site, separated into four categories based on their layout, form, and relation to the surroundings: detached private houses, attached private houses, socialist apartments, and new apartments. An important principle in building level is cluster. There are many buildings on the site that are grouped together and have form clusters. The common space of the cluster is used only as gathering space, but it has potentials to be transformed into a more active and more public space. There are some suggestions made to improve clusters which consist of adding outdoor cafes and urban furnishings that lead to more residents spending time in common space of the cluster, and also inviting other people from the street to join. In this way, the interaction is increased and the cluster has a more public character. Cluster can serve as performance space where different concerts and festivals can be held in order for people to dance, and to socialize. Since the clusters offer a defensible and semi-private space, they should adopt functions such as small parks for residents to stay, and children playgrounds where children are safe from the main streets and controlled by their parents from windows and balconies looking to the outdoor common space of the cluster.

An important analysis in building level is private outdoor space analysis which consists of balcony analysis and terrace analysis. Narrow facades and their elements are also analyzed. Another important element in building level is front entry. It has a crucial role as a transition area between public outdoor spaces and private indoor spaces. Front entry consists of raised entry, stair seats, and ambiguous zone that itself is separated in front yard, and entrance hall. There is also front entry surrounded by walls. In this case, the level of interaction is decreased and the entry of the building is private.

To conclude all these analyses, there is a synthesis of principles done at the end of the

study in order to give a clear explanation of the hierarchy of public space. The degrees of publicness are also shown in the form of a system which consists of different neighborhood spaces starting from cul-de-sacs to front yards, clusters, semi-private courtyards, public courtyards, squares, and streets.

This study emphasizes the value of small spaces in-between the buildings, which can make the transition between different degrees of publicness. These spaces should have a great attention. They should be visible, and accessible in order to achieve social interactions, and to encourage people to use them.

4.2 Recommendations for Future Works

The aim of this study is not to make a proposal for the neighborhood's spaces, but it focuses on a detailed analysis of design principles that could be applied in a similar context. Thus, it leaves space for more elaborations, and proposals for the neighborhood's areas, using the same set of principles. Other studies that can follow this study are proposals of guidelines for the neighborhood's public spaces to increase their quality and interaction among people.

This thesis suggests to revitalize neighborhood spaces such as squares, courtyards, streets etc. Squares and courtyards have a crucial value and they need to be improved by adding urban furniture such as benches and more lighting. Also, these spaces can be used as performance spaces in order to increase social interaction. There is a lack of children playgrounds inside the neighborhood. Courtyards and squares can be used as spaces where playgrounds can be placed.

Other spaces that need to be transformed are cul-de-sacs. There are many activity nodes along the main and secondary streets that have made these streets more active and public. On the other hand, cul-de-sacs are more private, surrounded by residential buildings, and without any activity. Street cafes can be placed in these streets to make them more-lively. Cul-de-sacs need to be paved and to have more softscape elements. In this way, they become more attractive and their degree of publicness and interaction is increased.

An important suggestion of this thesis is to use streets as public spaces. The public

character of the street can be achieved in different ways such as extensions of indoor activities to the street, street cafes, street performances, and prioritizing pedestrians and cyclists. In this way, interaction and publicness of the street are increased.

4.3 Limitations of the Research

On this research, there were several limitations regarding detailed information for the site. ASIG site had no detailed information for the site. Parcels and some other elements were draw based on existing orthophotos. Another issue was residents' dissatisfaction when someone walks inside the neighborhood and photographs or studies their living space. Also, there was a limitation related to the access inside the neighborhood spaces that was not possible in some cases. For example, cul-de-sacs and courtyards were difficult to access in some cases.

REFERENCES

Jafrin, M., & Beza, B. B. (2018). Developing an Open Space Standard in a Densely Populated City: A Case Study of Chittagong City. *infrastructures*.

Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A pattern language.* New York: Oxford University Press.

Almhafdy, A., Ibrahim*, N., Ahmad, S. S., & Yahya, J. (2013). Analysis of the Courtyard Functions and its Design Variants. *Social and Behavioral Sciences* , 171 – 182.

Birch, E. L. (2010). Public and Private Space in Urban Areas: House, Neighborhood, and City. 118-128.

Bloomberg, M. (2016). *Global Street Design.* Island Press.

Bloomberg, M., & Sadik-Khan, J. (2016). *Global Street Design Guide.* Island Press.

Cadaval, E., & Morales, C. S. (2021). *urbanNext*. Retrieved from Ch-Reurbano: https://urbannext.net/ch-reurbano/

Carr, S., Francis, M., Rivlin, L., & Stone, A. (1992). *Public Space.* Cambridge University Press.

Chen, Y., Liu, T., Xie, X., & Maruši´c, B. G. (2016). What Attracts People to Visit Community OpenSpaces? A Case Study of the Overseas Chinese TownCommunity in Shenzhen, China.

Daniela, S., Andrei, S., & Cristian, D. (2012). Bucharest: The Public Space in the Residential Areas.

Dhamo, S., Thomai, G., & Aliaj, B. (2016). *Tirana-Qyteti i Munguar*. Tirane: PEGI.

Edward, F. (2019). Regenerating Public Space in Residential Areas.

Edwards, B., Sible, M., Hakmi, M., & Land, P. (2006). *Courtyard Hausing.* New York: Taylor & Francis Group.

Gehl, J. (1989). The Changing Street Life in a Changing Society.

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

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

Gehl, J. (n.d.). *Project for Public Space*. Retrieved from www.pps.org

Gehl, J., & Gemzoe, L. (2004). *Public spaces - public life.* Copenhagen: The Danish Architectural Press.

Gifford, R. (2007). The Consequences of Living in High-Rise Buildings.

Grammenos, F., Pogharian, S., & Brown, J. T. (2002). Residential Street pattern Design.

Jacobs, J. (1961). *The Death and Life of Great American Cities.* New York.

Jones, P., & Boujenko, N. (2009). 'Link' and 'Place': A New Approach to Street Planning and Design.

Karaçor, E. K. (2016). Public vs. Private: The Evaluation of Different Space.

Lane, M. (2013). Streets and Sidewalks.

LeGates, R. T., & Stout, F. (2011). *The City Reader.*

Lopes, M. N. (2015). The Changing Publicness of Urban Spaces.

Lynch, K. (1960). *The image of the City.* England: The MIT Press.

Lynch, K. (1981). *A Theory of Good City Form.* London: The Mit Press.

Manahasa , E., & Özsoy, A. (2019). Place attachment to a larger through a smaller scale: attachment to city through housing typologies in Tirana. *Journal of Housing and the Built Environment*.

Marshall, S. (2005). *Streets and Patterns.* London and New York: Spon Press.

Marzukhi, M. A., Latfi, M. F., & Karim , H. A. (2011). Evaluating the Shah Alam City Council Policy and Guidelines.

Mich, L. (2017). The Missing Middle.

Moughtin, C. (2003). *Urban Design: Street and Square.* Great Britain: Architectural Press.

Pfeifer, G., & Brauneck, P. (2008). *Row Houses.* Berlin: The German National Library.

Pfeifer, G., & Brauneck, P. (2015). *Residential Buildings.* Berlin: The German National Library.

Pike, O., Tribal, Durney, M., & Zero-G. (2009). *Urban Design Manual.* Environment, Heritage and Local Government.

Pojani, D., & Buka, M. (2015). From Camaraderie to Detachment: The Effect of Built

Environment Transformations.

Rahbar, M. (1996). Privacy in Row Houses of Montreal.

Rogers, R. (1999). *Towards an Urban Renaissance.* London: Spon Press.

Sak, Z. (2016). Semi-Public Spaces and Community.

Sideris , A. L., & Ehrenfeucht, R. (2009). *Sidewalks.* Massachusetts: The Mit Press.

Sim, D. (2019). *Soft City.* Copenhagen: Island Press.

Simpson, P. (2016). Street Performance and the City.

Srivastava, M. (2002). A Behavioural Approach to Design High-Density Housing.

Swenson, A. (n.d.). *Botanica*. Retrieved from https://www.britannica.com/technology/construction

Vassilaki, P., & Ekim, E. (2015). Levels of Privacy.

Wiley, J. (1996). *Design of Urban Space.* England: Library of Congress Cataloging in Publication Data.

William, L. (2009). Publicness of Urban Spaces.

Worpole, K., & Knox, K. (2007). *The Social Value of Public Spaces.* England: Joseph Rowntree Foundation JRF.

APPENDIX 1

Principles	Residential	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Brauneck	Pojani & Buka	Manahasa E.	Rahbar	Chen	Wiley	Sak	Karacor	Jones & Boujenko	Moughtin
human scale		x		x				x																
activity zone					x																			
quiet zone					x																			
publicness						x			x															
courtyard		x		x						x	x				x		x							
window privacy							x				x													
common area											x													
cluster					x																			
housing unit								x																
mixed-use												x												
greenery													x											
pedestrian		x										x		x										
sidewalk							x																	
row-house					x										x									
low-rise house															x	x	x							
high-rise apartment															x	x	x							
distance		x																						
eye-level		x																						
light		x			x																			
porch \ veranda				x	x													x						
sense of community								x																
private shared gardens				x	x																			
ambiguous zone																		x						
front yard																		x						
front entry																		x						
private outdoor space																		x						
balcony \ terrace				x														x						
entrance hall																		x						
soft edge		x																						

Principles	Street	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Braunek	Pojani & Buka	Manahasa E.	Rahbar	Chen	Wiley	Sak	Karacor	Jones & Boujenko	Moughtin
activities		x																	x					
social interaction		x					x													x	x			
public space		x	x			x																x		
accessibility																			x					
publicness						x			x															
building edge														x										
land-uses														x										
setbacks														x										
soft edges		x																						
narrow façade		x																						
active ground floor		x																						
mixed-use		x																						
pedestrian		x																						
scale			x																					
contrast			x																					
rhythm			x																					
length			x																					
sidewalk							x																	
safety in the street							x																	
eyes upon the street							x																	
human senses														x										
street for everyone														x										
streets for safety														x										
multidimensional spaces														x										
streets for health														x										
multimodal														x										
streets as ecosystem														x										

Principles	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomber g	Pfeifer & Braneck	Pojani & Buka	Manahasa E.	Rahbar	Chen	Wiley	Sak	Karacor	Jones & Boujenko	Moughtin
Street																							
walkability			x																x				
human dimension	x																						
complete street	x																						
the pattern of the street						x																	
link and place																						x	
traffic calming													x										
street performance	x								x														
street proportion																					x		
unity in street design																							x
axial planning																							x
promenade				x																			
shopping street				x																			
green street				x																			
dancing in the street				x																			
street café				x																			
pedestrian street				x																			
paths and goals				x																			
private terraces on the street				x																			
street windows				x																			
opening to the street				x																			

Principles	Gehl	Lynch	Slim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Braunedk	Pojani & Buka	Manahasa E.	Rahbar	Chen	Wiley	Sak	Karacor	Jones & Boujenko	Moughtin
Neighborhood																							
public open space	x	x			x						x										x		
social interaction	x					x													x	x			
activities	x																	x					
human scale	x			x			x				x												
publicness					x																		
parks									x														
square									x														
plazas									x														
playgrounds											x												
mixed-use											x												
compact neighborhood											x												
pedestrian-friendly											x												
identifiable neighborhood				x																			
neighborhood boundary				x							x												
size											x												
local shops											x												
quantity		x																					
quality		x																					
accessibility		x																					
livability	x	x																					
people's sense	x	x																					
well-connected		x																					
vitality		x																					
fit		x																					
control		x																					

Principles	Neighborhood	Gehl	Lynch	Sim	Alexander	Carr	Jacobs	Edward	William	Lopes	Vassilak & Ekim	LeGates & Stout	Marzukhi	Bloomberg	Pfeifer & Braunek	Pojani & Buka	Manahasa E.	Rahbar	Chen	Wiley	Sak	Karacor	Jones & Boujenko	Moughtin
neighborhood parks							x																	
four-storey limit					x																			
activity nodes					x																			
old people everywhere					x																			
housing in-between					x																			
children in the city					x																			
quiet backs					x																			
small public square					x																			
common land					x																			
public outdoor room					x																			
corner grocery					x																			
small parking lots					x																			
hierarchy of open spaces					x																			
courtyard which live					x																			
roof garden					x																			
building fronts					x																			
intimacy gradient					x																			
stair seats					x																			
activity pockets					x																			

APPENDIX 2

Figure 253. Balcony typology on the site (2)

Figure 254. Balcony typology on the site (3)

Figure 255. Balcony typology on the site (4)

Figure 256. Balcony typology on the site (5)

Figure 257. Balcony typology on the site (6)

Figure 258. Balcony typology on the site (7)

Figure 259. Balcony typology on the site (8)

Figure 260. Balcony typology on the site (9)

Figure 261. Balcony typology on the site (10)

Figure 262. Balcony typology on the site (12)

Figure 263. Balcony typology on the site (13)

Figure 264. Balcony typology on the site (14)

Figure 265. Balcony typology on the site (15)

Figure 266. Balcony typology on the site (16)

Figure 267. Balcony typology on the site (17)

Figure 268. Balcony typology on the site (18)

Figure 269. Balcony typology on the site (19)

Figure 270. Balcony typology on the site (20)

Figure 271. Balcony typology on the site (21)

Figure 272. Balcony typology on the site (22)

Figure 273. Balcony typology on the site (23)

Figure 274. Balcony typology on the site (24)

Figure 275. Balcony typology on the site (26)

Figure 276. Balcony typology on the site (28)

Figure 277. Balcony typology on the site (29)

Figure 278. Balcony typology on the site (30)

Figure 279. Balcony typology on the site (31)

Figure 280. Balcony typology on the site (32)

Figure 281. Balcony typology on the site (33)

APPENDIX 3

Figure 282. Raised entry and entrance hall (4)

Figure 283. Front yard (5)

Figure 284. Front entry surrounded by walls (6)

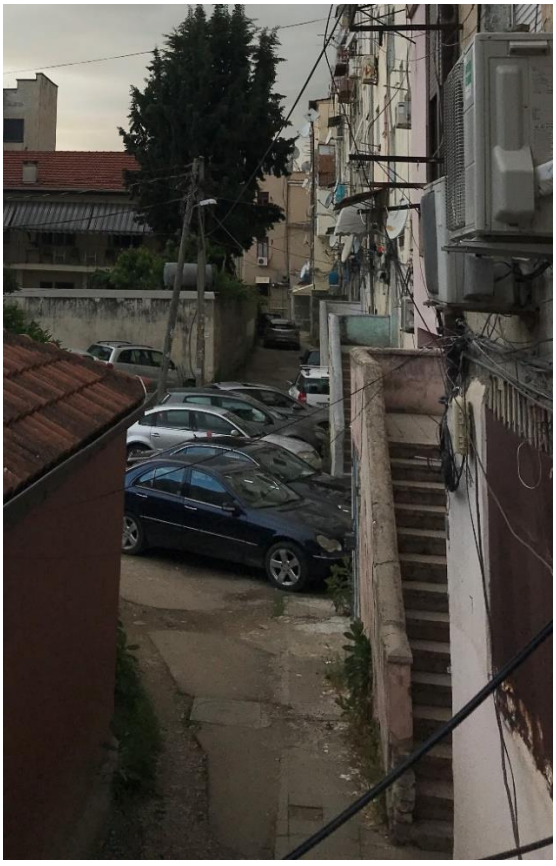


Figure 285. Stair seats (7)

Figure 286. Front yard (8)

Figure 287. Raised entry and entrance hall (11)

Figure 288. Front entry surrounded by walls (12)

Figure 289. Stair seats (14)

Figure 290. Raised entry (15)

Figure 291. Front entry surrounded by walls (16)

Figure 292. Front yard (17)

Figure 293. Front yard (18)

Figure 294. Front yard (19)

Figure 295. Raised entry (21)

Figure 296. Raised entry (22)

Figure 297. Front entry surrounded by walls (23)

Figure 298. Front entry surrounded by walls (24)

Figure 299. Front yard (25)

Figure 300. Front entry surrounded by walls (26)

Figure 301. Raised entry (27)