WALKABILITY ASSESSMENT OF URBAN NEIGHBOURHOODS AND GENDER PERSPECTIVE, CASE OF TIRANA

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Approval sheet of the Thesis

This is to certify that we have read this thesis entitled **"Walkability assessment of urban neighbourhoods and gender perspective, case of Tirana"** and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

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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.

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ABSTRACT

WALKABILITY ASSESSMENT OF URBAN NEIGHBOURHOORDS AND GENDER PERSPECTIVE, CASE OF TIRANA

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This thesis aims to create a walkability assessment and quantification of urban neighbourhoods, by examining pedestrian and street infrastructure, and by also providing a gender perspective and creating strategy guidelines for a walkable neighborhood. Walkability has been defined as the level of friendliness towards the pedestrian environment, with all it's elements. It is also proven to have a range of benefits in health, safety, economy, livability in building a more sustainable city. Cities are not gender-neutral. (Gauvin, 2020). Research also shows that there are differences when it comes to factors that influence gender walking, which urban planners do not take into considerations. The study takes place in Tirana, a city of particular development due to its late bloom in urban infrastructure and mobility, with cars taking over after the fall of communism and their consideration as a luxury and a status symbol, in contrast to the continued neglection of walking infrastructure.

Using a mixed-method approach, this study aims to create a visualized walkability assessment mapping, and hopes to aid in answering questions like: How to assess walkability in terms of city, neighbourhood and street level. Survey participants (n=616) and focused expert interviews ranked pedestrian infrastructure and sidewalk issues, altoghether with design standards as the walkability elements with the lowest score. Results also showed differences in gender related to safety and walkability perception. The study visualizes city and neighbourhood analysis thorugh mapping, illustrations and photos. Hopefully, this thesis will serve as a means of analysis for further research in the urban mobility of Tirana.

Keywords: *Urban mobility, walkability, gender bias, bottom-up, mapping*

ABSTRAKT

VLERËSIMI I ECSHMËRISË SË LAGJEVE URBANE DHE PERSPEKTIVA GJINORE, RASTI I TIRANËS.

Golikja, Gledisa
Master Shkencor, Departamenti i Arkitektures
Udhëheqësi: Dr. Egin Zeka

Kjo tezë synon të krijojë një vlerësim të ecurisë dhe përcaktimin sasior të lagjeve urbane, duke ekzaminuar infrastrukturën e këmbësorëve dhe rrugëve, dhe gjithashtu duke siguruar një perspektivë gjinore dhe krijimin e udhëzimeve strategjike për një lagje të ecur. Ecshmëria është përcaktuar si niveli i mirëdashësisë ndaj mjedisit për këmbësorët, me të gjitha elementet e tij. Eshtë provuar gjithashtu se ka një sërë përfitimesh në shëndetin, sigurinë, ekonominë, jetueshmërinë në ndërtimin e një qyteti më të qëndrueshëm. Hulumtimet gjithashtu tregojnë se ka ndryshime kur bëhet fjalë për faktorë që ndikojnë në ecjen gjinore, të cilët planifikuesit urban nuk i marrin parasysh. Qytetet nuk janë asnjanëse gjinore. (Gauvin, 2020) Studimi zhvillohet në Tiranë, një qytet me zhvillim të veçantë për shkak të lulëzimit të tij të vonë në infrastrukturën urbane dhe lëvizshmërinë, me makinat që morën përsipër pas rënies së komunizmit dhe konsiderimin e tyre si një luks dhe një simbol statusi, në të kundërt në neglizhencën e vazhdueshme të infrastrukturës në këmbë. Duke përdorur një qasje të metodës së përzier, ky studim synon të krijojë një hartë të vlerësuar të vlerësimit të ecurisë dhe shpreson të ndihmojë në përgjigjen e pyetjeve të tilla si: Si të vlerësoni ecurinë në drejtim të nivelit të qytetit, lagjes dhe rrugës. Pjesëmarrësit e sondazhit (n = 616) dhe intervistat e përqendruara të ekspertëve renditën çështjet e infrastrukturës për këmbësorët dhe trotuareve, sipas standardeve të dizajnit si elementët e ecurisë me rezultatin më të ulët. Rezultatet gjithashtu treguan ndryshime në gjini në lidhje me sigurinë dhe perceptimin e ecjes. Studimi vizualizon analizat e qytetit dhe lagjes përmes hartës, ilustrimeve dhe fotove. Shpresojmë, kjo tezë do të shërbejë si një mjet analize për kërkime të mëtejshme në lëvizjen urbane te Tiranes.

Fjalët kyçe: *Lëvizshmëria urbane, paragjykimi gjinor, poshtë lart, hartëzimi*

Dedicated to nani.

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Psalm 9:1 I will give thanks to you, LORD, with all my heart; I will tell of all your wonderful deeds.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

With walking being the easiest and most accessible type of mobility, everyone starts or ends a journey by walking. There are a range of benefits that are associated with walking, and from a research perspective, it is also a method of understanding a city, due to its bottom-up perspective. What influences urban walkability is both the built environment and pedestrian data.

Regarding gender, research has shown that factors influencing women's walking are different from men. Daily life systems of transport and access are all prominently gendered. Although they may differ throughout cities and countries, one crucial piece of evidence stays the same. Women's walkability patterns are different from men's, and these differences are characterized by deep and persistent inequalities. Within any given urban setting, women have inferior access to both private and public means of transport while at the same time assuming a higher share of their household's travel burden and making more trips associated with reproductive and caretaking responsibilities.

Cities are not designed and planned to be gender-neutral and do not take into consideration the gender perspective in urban planning, which only reinforces a non-safe, non-comfortable, and non-sustainable oriented environment for half of the population, thus a never fully developed city. This is not to reinforce the idea that women can only be either inferior or victims. Urban planning measures should be combined to stay true to the everyday experiences of women, with soft measures that challenge stereotypes. Only when we give space to talk and act on these issues may we find ourselves a step closer to a sustainable and developed environment.

1.2 Thesis Objective

The main objective of this thesis is to create a walkability assessment and quantification by examining pedestrian and street infrastructure and creating strategy guidelines for a walkable neighborhood. Other aims from the study are as follows:

▪ To identify and analyse all indicators and physical elements that make up walkability. By choosing a set of elements it creates a better and visual understanding of the current issues.

▪ To emphasize the role and benefits of walkability in creating a sustainable city. The fact that the majority of populations are living in cities today more than ever, make us concerned and invested to explore sustainable solutions in an urban scale.

▪ To examine the bottom-up approach through pedestrian and street level as an important scale in understanding the mobility issues. As the study tries to look at the city from the human scale it is important the inclusivity and insight of the people that experience the city and its issues hand in hand.

▪ To evaluate the current situation in the vast-evolving city of Tirana and look into potential strategy solutions in a specific neighborhood.

▪ To understand and quantify gender perspective differences in walkability.

The goal of this thesis is to create and serve as a guideline proposal for new standards in urban planning which take into account the gender issue, to help in creating a walkable gender-neutral city.

1.3 Research questions

Main Research Question:

What could be some urban mobility strategies for developing a sustainable, gender-based example of walkable neighborhoods in Tirana?

Subresearch Questions:

What is it like to be a walker/pedestrian in Tirana?

What influences people's walkability choices? Why do people like, or dislike, to walk certain paths?

What are the elements that determine the level of walkability?

How to include bottom-up approach in walkability assessment?

What is the relationship between walkability and gender?

1.4 Scope of works

The aim of this study is to understand and identify, through a set of guiding indicators, what are the main issues related to walkability in the context of Tirana. It is crucial to integrate the concept and method of bottom-up approach to analyse people's perceptions and walking experience. Thus, the basis of the analysis is a survey with a set of 26 questions, which was completed by 616 inhabitants of Tirana through an extended time period of one week. The retrieved data from this survey served as a basis to validate, visualize, and score walkability according to neighbourhood and city scale.

The inceptive general data analysis was followed by a case study analysis. The chosen area was that in between the main streets of Durresi and Zogu I Boulevard. The reason for the site selection is due to the fact that there is a surprising contrast regarding walkability elements, but not only, in that area. Durresi street and Zogu I Boulevard have had major transformations in the past years which may be perceived as highly positive improvements. As soon as you cross from these perimetrial streets into the inner blocks, there is a striking lack of intervention, so this creates a basis predisposition for a critical analysis. The case study area was studied through continuous on-site visits and observations which were photographed, and Video recorded. The data is then converted into mapping and 3D drawings and analysed in DepthmapX.

The last method of analysis is through expert interviews. Four field experts were individually interviewed on the case study area and more specifically the Fortuzi Street. The reason is to thoroughly identify and discuss on the Walkability indicators.

1.5 Organization of the thesis

This thesis is divided in 5 chapters. The organization is done as follows:

Chapter I provides an introduction and scope of the topic while raising a set of research questions. This chapter gives the first insight to the issues of walkability in the city context and gender perspective.

Chapter II lays the theoretical framework through a review of existing literature on the concept of walkability and how it can be discussed in terms of different urban scales and also through the perspective of gender. The influence of the COVID19 pandemic and an overview of the mobility background of Tirana are also included in this chapter.

Chapter III focuses on research methodology. It describes the conceptual framework of the research strategy and includes different methods used in capturing, analyzing, mapping, recording, simulating collected data.

Chapter IV provides the list of collected results of all mixed methods in hierarchy from Macro to Mezzo to Micro scales. Survey data, interview information and mapping analysis are included in this chapter, altogether with findings interpretation and discussion.

Chapter V states conclusions and recommendations for further research.

Appendix chapter includes all survey data, expert interview transcripts and list of mappings.

CHAPTER 2

LITERATURE REVIEW

"Isn't it really quite extraordinary to see that, since man took his first steps, no one has asked himself why he walks, how he walks, if he has ever walked, if he could walk better, what he achieves in walking . . . questions that are tied to all the philosophical, psychological, and political systems which preoccupy the world?"
Honoré de Balzac

2.1. In the beginning there was the foot

Since the beginning of civilization, walking has been a crucial form of survival. Nomadic and hunter communities continuously moved to survive, forced by necessity and attracted by abundance across the ages. Humanity and the environment were all but stagnant and walking was influencing their environment as their environment also influenced walking. (Helfmann, 2018)

The iconic walking traveler of the medieval age was certainly the pilgrim. The conceit of pilgrims moving on foot started since the early Middle Ages.

From the church foundation, people starting traveling to Rome and Jerusalem, grasping on the long search of Jews for a motherland.

With walking being the only option for the overwhelming majority of people through most of the medieval period, they would attend church processes for events on foot, or organize festivals and carry the dead on foot to the last resting place. Sometimes they left the village when it didn't make sense to stay. At other times they would run away for their lives. (Amato, 2004)

With the formation of cities and settlements walking turned into a less obvious necessity, yet still remaining the main form of transportation together with horse backing or other animals. (Helfmann, 2018)

The first cities recognized the 'pedestrian' in their planning. In the city of Pompeii, which was destroyed in 79 AD, the streets were well paved, with sidewalks

(with a width of 1-1.5 m and a height of 0.5-0.6 m) and also stepping stones as pedestrian crossings. (Poehler, 2018)

Figure 1.Stepping stones for pedestrians to cross the streets. Source: Eric Poehler

In ancient Rome there were three types of streets: the *itinera* for pedestrians only, the *actus* for passage of only one cart at a time, and the *viae* for passage of two carts abreast. (modern one-way and two-way streets). During that age Rome was very crowded with mentioned problems of being a pedestrian: elbows, pokes, treads on the crowded streets. (S Olof Gunnarsson, 2004)

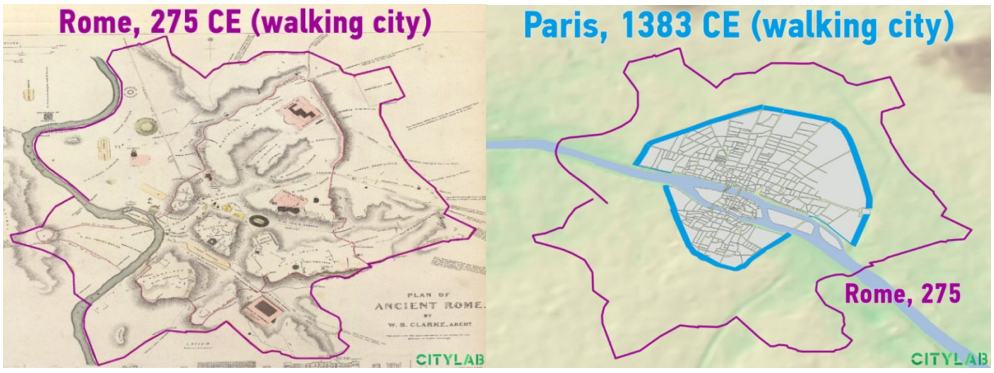


Figure 2. Rome and Paris as some of the fist walking cities. Source: David Montgomery/CityLab

Sure enough, most cities from the ancients to the Industrial Revolution did not grow larger than a two-mile diameter. Their core areas were often even smaller, though some of the poor lived in settlements outside the city gates. Ancient Rome packed as many as a million people into an area a little more than two miles in diameter. Medieval Paris stretched about two miles from the Bastille to the Louvre, (English, 2019). This meant that distances of traveling were shorter while needing much more time and effort. Yet people were always moving, although mostly pushed by external factors such as searching for resources, conflicts and environmental conditions. It is obvious to say that these first cities and settlements were based on walkability and they are considered walking cities. (Tolley) An average walk across could take an hour, while the daily travel around thirty minutes. (English, 2019) This was consciously or unconsciously used as a driving organizing method. The one-hour city has been noticed in many researches on the first cities, for example in UK they became a clear pattern-like. The city's boundaries were also within the 5-8 km diameter and with population growth the city also grew upward in levels.

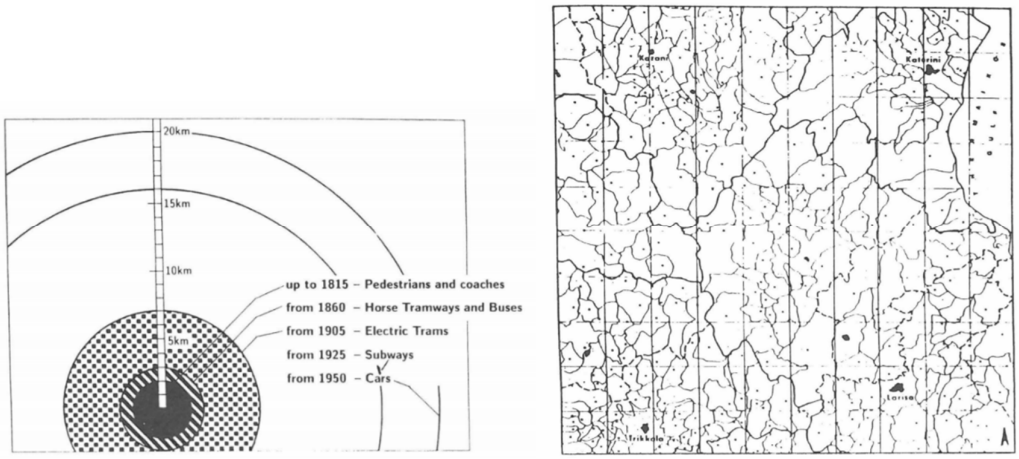


Figure 3 Left: City dimensions and speed of transport, case of Berlin.
Right: Village patterns in Greece. Source: Cesare Marchetti

There are no city walls of large, ancient cities (up to 1800), be it Rome or Persepolis, which have a diameter greater than 5 km or a 2.5 km radius. Even Venice today, still a pedestrian city, has exactly 5 km as the maximum dimension of the connected core. When introducing mechanical transportation with speeds higher than

5 km/hr, the physical size of the city can grow in proportion, as the historical analysis applied to the city of Berlin clearly shows. (Marchetti, 1995)

Figure 4 The traditional walking city (high density, mixed use, organic) Lighter areas show open spaces. Source: Cesare Marchetti

It was during the Industrial Revolution that walkable city got its biggest shift. For the first time transportation was no longer bound to human and animal power. The waste and pollution combined with the new population densities forced cities to change their forms, turning to the 'transit city'. The new spreading was along the tram lines, as rail station had also made their way to transportation methods, meaning people could live further from the city center. Later on with the emerge of automobiles into the large masses the city also changed shape becoming 'automobile city'. The car was actually not a crucial need in movement or transport but it created a feeling of freedom on time and space although meaning filling all the urban corridors. This came with many negative effects on the city, one of them being the constrained urban walking.

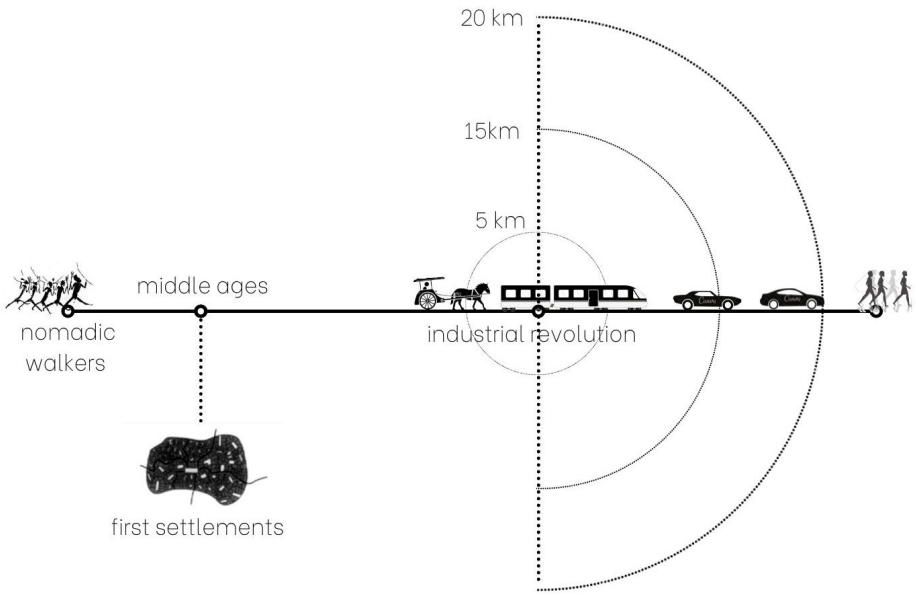


Figure 5 Conceptual diagram showing the timeline of mobility

2.2 Walkability

Research into walkability has gained attraction in the last decade, with multiple fields advocating for its potential benefits. The concept of walkability is vast and embodies a multitude of concepts on the type of context it is being used. Regarding urban mobility, definitions have been made regarding environmental features, whether an area is safe, well connected, or compact. Some other discussions deal with the mobility options of walkability. Some use the term as a measurable response to urban problems. (Forsyth, 2015)

In their study, Forsyth and Southworth (2008) state that walkability is the basis for a sustainable city and further define walkability as close, barrier-free, safe, full of pedestrian infrastructure and upscale destinations. Expanding on those characteristics, walkable may mean an area with short distance travelling, an area without physical obstacles, an area that is safe to walk in, a lively area, or an area well-designed. Walkability is, in fact, the quality of all walking factors combined (Dell'Asin, 2010), and despite its ambiguities in measurement, it is sure that it is an essential part of city development. As the keystone of walkability, walking is a primary and accessible mode of transportation available for all people. Everyone is a walker at some point;

even for a driver or a cyclist, walking is the first and last activity of the day. Its benefits range from better health, better economies to low environmental impact, social equity and inclusivity, livable environments, safety and much more (Cambra, 2012).

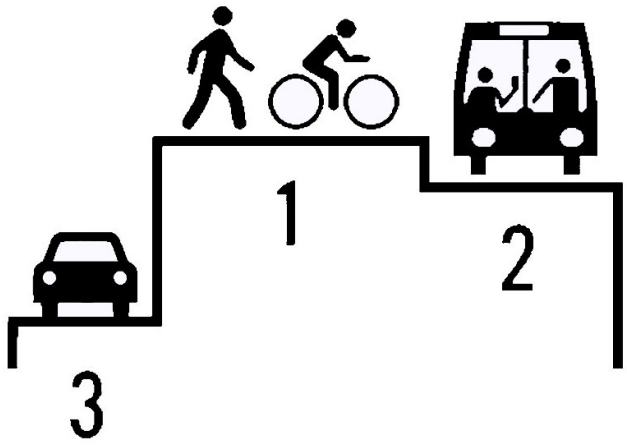


Figure 6 Graphic showing mobility priority scale (adapted from Jan Gehl Architects)

A further definition of walkability in the context of walkable neighbourhoods is given by Talen and Koschinsky (2013), who gave the concise description of a "safe, well-serviced neighbourhood, imbued with qualities that make walking a positive experience". They further expand that a walkable neighbourhood has specific characteristics that encourage walking, provide equal opportunities and access, and encourage interaction and exchange. (Talen & Koschinsky, 2013). However, it is worth noting that none of the definitions of walkability can be assumed to represent the entire concept and its social and physical characteristics. (Golan et al., 2019)

The General Theory of Walkability illustrated how a walk has to satisfy four main categories: it must be useful, safe, comfortable, and interesting. Each of these qualities is essential, they must be together and none alone is sufficient. Useful means that most aspects of daily life are located close at hand and organized in a way that walking serves them well. Safe means that the street has been designed to give pedestrians a fighting chance against being hit by automobiles; they must not

only be safe but also feel safe, which is even tougher to satisfy. Comfortable means that buildings and landscape shape urban streets into “outdoor living rooms,” in contrast to wide-open spaces, which usually fail to attract pedestrians. Interesting means that sidewalks are lined by unique buildings with friendly faces and that signs of humanity abound. As Jane Jacobs has observed, walkability is at the heart of urban vibrancy, short blocks, population density and diversity and a mix of uses, building types and ages that all play out in a “sidewalk ballet”.

2.1.1 Street

Walking, be it purposeful or spontaneous, is essential to discerning the city due to its bottom-up perspective. Seeing the city from an ordinary human-level perspective brings any insensible and inconsiderate universal thought to the ground. (Macauley, 2004) In the early to mid-twentieth century, Simmel and Benjamin considered the city as the place for movement and the flow of commodities. Thus, the urban dweller, the *‘flâneur’*, ambles through the city, indulging in the aberration of new sights and sounds, of new commodities and passers. (WATSON, 2011).

Figure 7 Elements of the city from Kevin Lynch. Source:Image of the city

Like other types of transport, city walking includes a method, a selection of passages. Different classifications have been made in the essential elements of any city, and five are known more specifically: paths, edges, districts, nodes, and landmarks. (Lynch, 1960) Paths or streets are channels along which people move, and

they are the main arteries of a city. In the 1960s, when pedestrian activities such as walking were considered a “bum’s action" (Rudofsky, 1965), Lynch, Jacobs, and Gehl presented a human face of streets against the planning policies that prioritise cars over people. Jane Jacobs recognised streets as multipurpose public spaces. On average, around 30% of the built footprint in cities is devoted to the streets (Gardner, 2011). People use streets differently throughout the day and for different activities, be it social or commercial activities, even without a planned trip. Thus, streets as public spaces have the potential to boost welfare. (HIDALGO, 2014) . Gans also looks at the street as a physical and social element and as a three-dimensional form that connects buildings both within the street and in the city scale. This link also creates unconscious social interaction between people, thus serving as a model for local urban communities. (Moughtin, 2003)

2.1.2 Neighborhood

When talking about neighbourhoods, we notice that they are not seen merely as geographical areas but rather as communities and neighbourhoods. These environments are pedestrian-oriented and incite the development of social capital (Hanibuchi et al., 2012). Social capital is broadly defined as what contributes to the security and interaction between people. (Eicher & Kawachi, 2011) It is noticeable that people with higher social capitals are more likely to participate and engage more in their communities, be it with politics, volunteer work or interactions and get together with neighbours (Leyden, 2003). Streets and sidewalks contribute towards a pedestrian-oriented environment; thus, their merge with the surrounding communities can enhance social interactions and social capital as well, be it purposeful or not.

Figure 8 Net of how to create better cities according to Jane Jacobs

If the daily walk accidentally makes people bump into each other and spark conversations, that contributes to the sense of connection with the people and the area. These interactions may happen anywhere, either in parks, shops or sidewalks. During walks in and around the neighbourhood, people can interact with the surroundings, making them feel more responsible for the area. What this also does is that it creates a sense of safety. Enforced policy rules do not keep them safe. People's interactions create a dense community network and subsequently a community of trust that is likely to help lower crime rates. As Jane Jacobs argued, an almost unconscious control keeps safety among the people themselves. An unsafe street is a street with no people. (Jacobs, 1961)

Figure 9 Eyes on the street / Photo by Mihály Köles on Unsplash

2.3 Sustainable development

Today cities carry about half of the world's population and projections show that by 2050 that will turn into two-thirds-circa 6.5 billion people.

This has led to them facing pollution due to transport, traffic congestion, occupation of public space and increased number of accidents. According to the UN, cities make up of 3% of earth's land surface area, yet they make up from 60% to 80% of the energy that is consumed, and are liable for 75% of carbon emissions. (UN, n.d.) (Hana Brůhová Foltýnováa, 2020)

Fossil fuels in internal combustion engines of vehicles increase the harmful effects of urban traffic beyond city limits by contributing to global climate change; Emissions are rising rapidly and are expected to double worldwide by 2050. (IPCC, 2014).
Although the concept of sustainability has also found its way into the political discourse on sustainable transport and some positive trends towards sustainability have been identified in cities in recent years, sustainable urban mobility is still one of the unresolved current concerns. (David Banister, 2014)

The adoption of the 2030 Agenda for Sustainable Development with the 17 Sustainable Development Goals (SDGs) gives new impetus to address the challenges of global development in the world, including transport in urban areas. In particular, SDG target 11.2 focuses on improving accessibility for all with an emphasis on public transport.

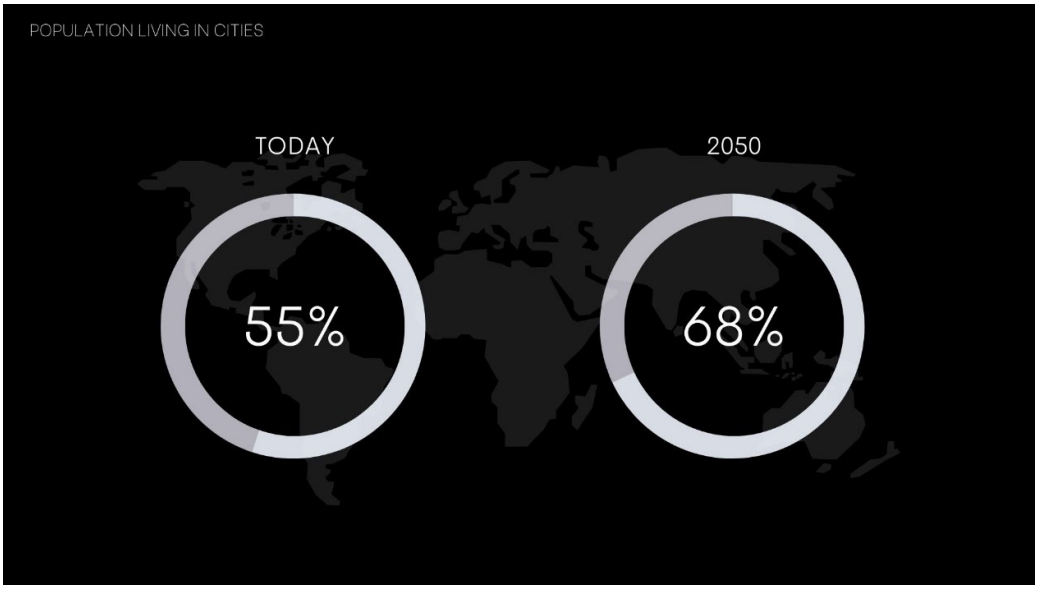


Figure 10 Population living in cities

Due to the actions taken by organizations such as the United Nations (UN), as demonstrated by its Sustainable Development Goals, and the European Union (EU), which has sponsored measures such as the Green Capital Award and the joint Urban

Initiative program. , sustainability has received a lot of attention in the context of cities and urban challenges, and cities are increasingly seen as part of the solution for a sustainable future. This is reflected in the number of voluntary international initiatives and rankings that have been introduced, such as the European Platform for Sustainable Cities and the Sustainable Cities Index, so that sustainable urban development is at the top of the national political agenda in many countries around the world. (Petra Adolfsson, 2021)

Planning processes of sustainable mobility have proven to be intricate to handle, yet many European countries are pushing forward to what is called SUMP (sustainable urban mobility plans) with short and long term strategies. Walking is also part of SUMP, as being the most sustainable type of mobility, directly affecting the environment but also economy and health and it is considered to be a critical ingredient for achieving a range of the sustainable goals - due to its multi-disciplinary contribution to our environments.

Figure 11 SDG goals related to walkability

2.3 Economic Advantages

As an accessible mode of transportation, walkability gives people the opportunity to save money from transport, be it a vehicle or other expenses (Litman, 2003). For example, one researcher discovered that households living in vehicle-dependent areas spent 50% more on transportation than households living in areas with accessible amenities and multifaceted transportation systems (McCann, 2003). Improved walkability has a significant economic impact on accessibility, consumer and public cost savings, efficient land use, economic development and equity, as further described in the table below.

Table 1 Economic Impact Indicator
Source: Adapted from Litman, 2003

Impact Indicator	***Description***
Accessibility	The degree that walking provides mobility opportunities for people with limited mobility
Consumer Cost Savings	The degree that walking provides for consumer cost savings on transportation
Public Cost Savings	The degree that walking allows for substitution of travelling by car and reduces negative implications
Efficient Land Use	The degree that walking help create more efficient and accessible land use by reducing the amount of space used for roads and parking facilities
Livability	The degree that walking assists to improve the local residential areas
Economic Development	The degree that walking makes for more attractive commercial areas
Equity	The degree that walking helps to achieve vertical and horizontal equity

Cars and generally motor vehicles cause several public costs for road and parking facilities, traffic, accidents, and other damages (McCubbin D., 2003). A shift of focus in transportation towards non-motorized modes has proven to reduce these costs. ((Litman, 2003) Walking substitutes for relatively short vehicle trips, which tend to have high costs per vehicle mile. In particular, energy consumption and pollution emissions are several times higher than average for short trips when engines are cold, and parking costs are high when measured per vehicle mile, for these costs are divided into a few miles. A short walking trip often substitutes for a more extended motor vehicle trip. As a result, each percentage shift of vehicle trips to walking can reduce external transport costs by several percentage points, particularly under urban peak conditions when emissions and parking costs are high.

2.4 Walkability in the Times of Covid-19

The global pandemic has changed our lifestyles and our mobility patterns. Social Distancing and other measures have forced people to adapt. More people are working from home; data from the US have confirmed that from 7% now, 18% of Americans are now working from home (Calvert, 2021). A study by TomTom has quantified the traffic levels around the world. They found that the levels are below 10% due to the pandemic effect, from what they would typically have been 50% to 70% (TomTom, 2020). Also, due to public transportation being an immediate source of infection, users seem to avoid them to reduce the risk of contagion. They now seem to prefer walking and/or driving. (Aloi, Effects of the COVID-19 Lockdown on Urban Mobility, 2020)

Figure 12 A busy street during the pandemic. Photo by Matteo Jorjoso on Unsplash

Another study from the University College London looked into data from an activity tracking app. They compared results from the pre-pandemic and during pandemic activities showed that people were moving more. One reason is suggested to be due to health, and people are trying to be more active than before, with another being the added free time. (UCL, 2020) With walking being the easiest solution for most people, this puts pressure on cities on how to adapt current spaces and resources to this new normal. A solution for mobilities and public spaces has been known as 'tactical urbanism', an urban methodology of intervention of applying quick-build strategies. They show the transformation and adapting the power of city spaces. (Espriella, 2020)

The pandemic showed how streets and sidewalks were not adabtable to the required distances demonstrates how sidewalks are not designed to accommodate the necessary physical distance of two meters in order to avoid risks of contamination. Future of the cities should lead to more pedestrian oriented streets, in which people can move more freely and keep physical distances if required. Forced to self-isolation, people are starting to be more aware of the importance of walking and physical activity for both the physical and mental health. The increasing public consciousness on

pedestrianisation, as well as number of pedestrian-only streets, has been well received by the citizens. (Mofidi et al, 2010)

Given the critical situation due to the Covid-19 pandemic, the European Commission (2020) has recently provided guidelines for short-term urban mobility and transport planning interventions. Among the principles included in the document, the section 'Active Mobility' has a specific focus on walkability: "Many European cities are taking steps to make active mobility (e.g. walking and cycling) a safe and more attractive mobility option during the Covid-19 outbreak. Urban areas could consider temporary enlargements of pavements and increased space on the road for active mobility options to facilitate the needs of the population to move in a safe and efficient way, while reducing speed limits of vehicles in increased active mobility areas" (European Commission, 2020, p.15).

2.5 15 minute city

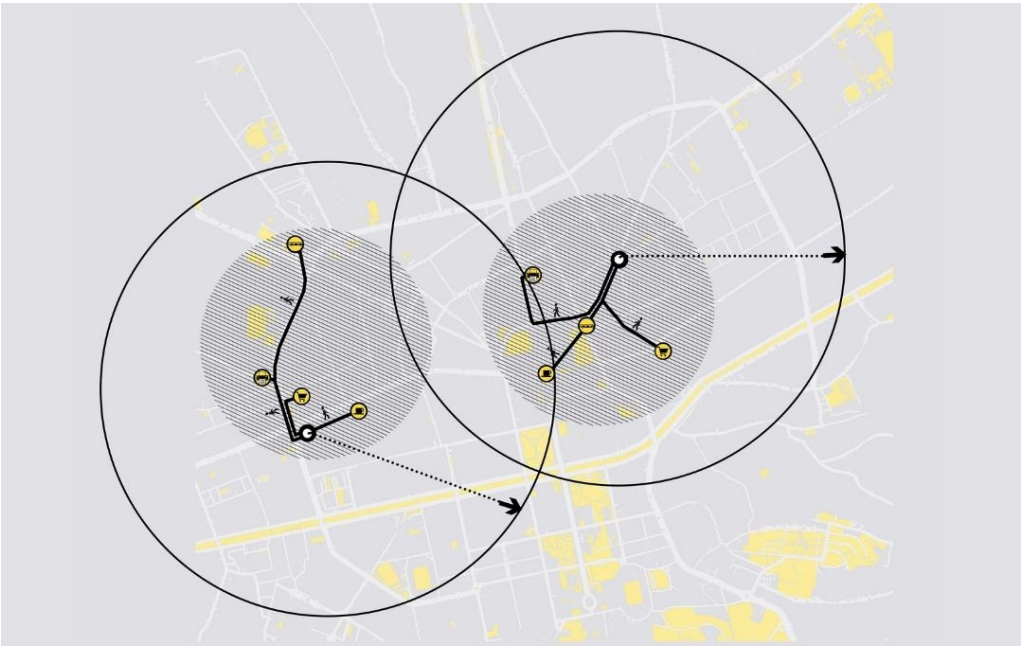


Figure 13 15-minute city experince in Tirana

15-minute city concept determines that all or most facilities ought to be within a 15 minute walk-or-bike radius. This makes it possible for people to fulfill their

essential needs within a short walking distance. The concept was introduced by Carlos Moreno and is being implemented in the city of Paris, but the back research derives from well known ideas of Jane Jacobs for lively cities. She viewed and understood cities as ‘organised complexities’ which means dealing with a system of many variables and behaviors and the 15-minute city concept tries to create a link of organic organization. Jacobs encouraged mixed-use neighbourhoods for people to live and work in the same area. (Impact, 2021)

A 15 minute city made up of a polycentric spread of 15 minute neighbourhoods would provide and sustain people's urban lifes by providing access to residential areas, workplaces, commerce, education, healthcare and entertainment.

The outcome is a view of ‘chrono-urbanism’ through the creation of a city of proximities and short distances. This is then translated into urban life saving time, that is otherwise lost in traffic, a reflection of what is commonly happening in cities nowadays and promoting so sustainable mobility. The 15-minute city evolves around the human needs and adds to the building of humane urban fabrics, as highlighted by Christopher Alexander, and thus contributes in developing safer, sustainable and equitable cities. (Carlos Moreno, 2021)

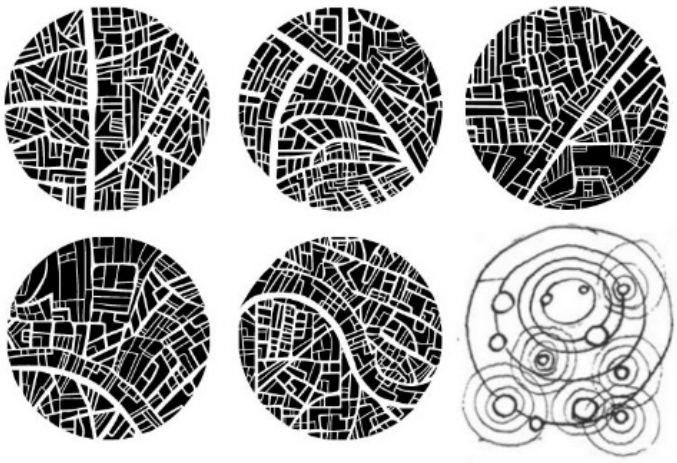


Figure 14 City as organized complexity

2.6 Gendered Mobility

Let us address the pink elephant in the room. Cities are not gender-neutral. (Gauvin, 2020). Most cities are designed with a separation in mind when placing homes as resting places and working around offices. This does not do justice to the way most women live. Statistically, women are more engaged in unpaid care work combined with paid work and this directly affects their travel patterns, making them different from men. Although there have been changes, it is a fact that employed and unemployed women bear household duties and child care leading them to have shorter yet more frequent commutes. (Houston, 2018) to spend more time moving and choosing public transport than men (Ng and Acker, 2018).

Furthermore, when we need to think very critically when we discuss data. When we think of data and statistics, we judge them as objective and unbiased, not noticing that most tools used to collect and assess data are designed for men. Many assumptions are considered the norm, not realising that they exacerbate inequalities and go to the point of creating risks. Most of the gathered information globally and in every field has been made on men and their lifestyle patterns. (Perez, 2019) Cars are designed for men. Women are 47% more predisposed to be highly injured and 17% more likely to die in car accidents because test safety measures have been based on men's parameters and psychology. (Ely, 2015) In medicine, for example, studies and research on diseases rely on data from studies and tests conducted on men and take them as the default to also apply for women. Men and women's immune systems and hormones differ, which does not only show a situation closer to reality but puts women at risk. (Perez, 2019) When it comes to smartphone design, average smartphones are about 14 cm wide. This is considered a comfortable use for the average man, while for women, their hands are not bigger than the handsets. Many or most things in the world do not work correctly for women. These biases have been there for a long time, but what was missing is the women's perspective. According to the theory of 'Man the Hunter', it has been noticed that when studying about prehistory, what is taken as the life example is the perspective of men, leaving half of the population almost invisible.

Male is the default, and this is seen everywhere, be it in literature, economics, movies, science, urban planning.

What should also be taken into account is the violence against women and its relation to public spaces. Research has shown that several factors such as fear of physical or sexual attacks, either in public spaces or public transport, is a crucial reason that limits women's movement, followed by bus locaiotns and lightings. (Loukaitou-Sideris, 2014)

Figure 15 Caregiver walking with a stroller. Photo by Ostap Senyuk on Unsplash

2.7 Urban mobility in Tirana

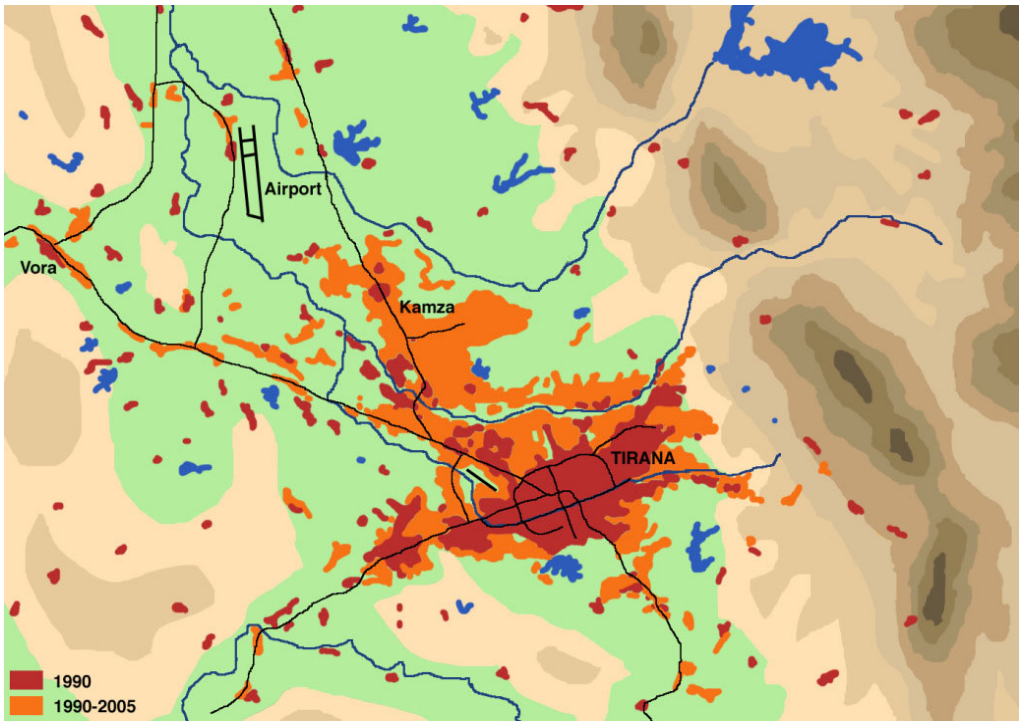


Figure 16 Map of Tirana showing population density. Source: Dorina Pojani

Tirana's mobility history is particularly new due to the late shift from the communist era when car ownership was extremely low and streets were empty from cars. After the fall of communism, there came a transformation in cities, especially Tirana, resulting in an explosion of car usage. (Battiata) The transition brought with it a significant movement in migration towards Tirana, making the city denser. Going from a non-existing pattern to an invasion of cars, the car itself started to be treated as a symbol of luxury, a treatment still ongoing nowadays. With the added sudden density of people, the results were high traffic jams in streets. What created a duality was that the city activities and services were focused in the city center, leaving the rest of the city with the opposite contrast.

Figure 17 *left: Walkable Tirana during communism. Source: Unknown/ right: Traffic in Tirana nowadays. Source: Author*

The city was not ready, and it was not designed to welcome such a sudden change, and it was unable to cope with the sudden car usage, resulting in high pollution, short crossings and inadequate stoplights. (Pojani, 2011) The public transport conditions have also been deplorable. Tirana is one of the few capital cities in Europe that does not have train stations making buses the only form of public transportation. The small bus fleet with 114 buses was inherited from the communist era, and they offered a low quality of service referencing low number of trips, overcrowdedness. This lead to the decrease of people using the buses from 50% to 16% within the 1990s, and it helped them switch to the use of automobile. In contrast with other countries, in Albania the personal automobile was and it still is considered an achievement, a well-earned luxury which people could not own during communism but now they could.

Nowadays, with the increased density of Tirana, the quality of public transport is still lacking in most areas. One can imagine the unpleasant experience of a crowded bus. Although predominantly a car-oriented city, Tirana has excellent potential when it comes to walkability. As a dense city, it has a variety of activities, services and housing nearby. Some social activities are also contributory and linked with walking, or ‘xhiro’, a walk around an area usually during evenings.

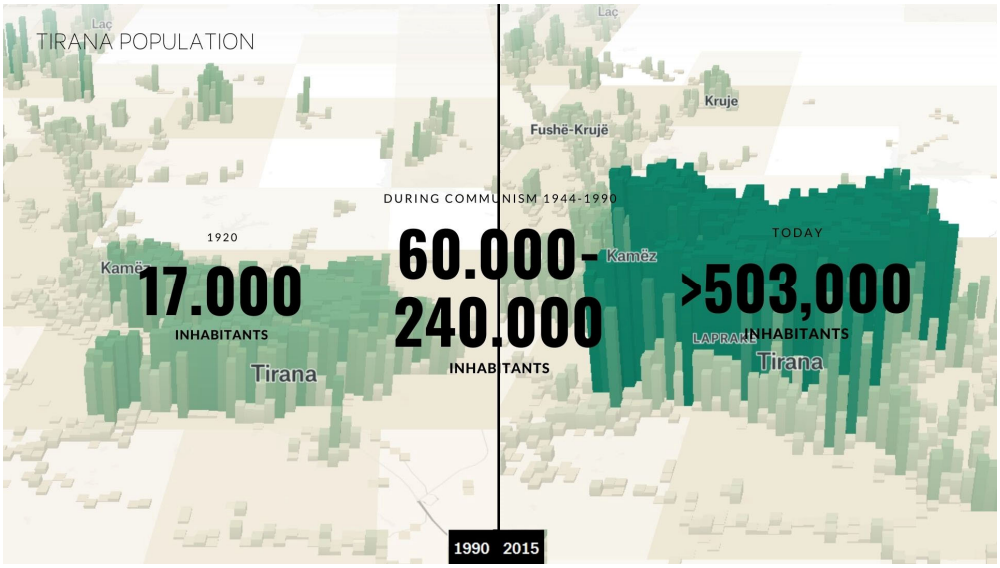


Figure 18 *Tirana population changes. Source : pudding.cool*

With Tirana's uncontrolled mobility problems being predominant throughout the last decades, people are clearly not content with their pedestrian experience. According to studies, some key concerns that pedestrians have are public transport and the street infrastructure and traffic. (INSTAT, 2014) There is also a great disproportion when it comes to women's walking patterns compared to men. (CoPlan, 2007) Men averagely spend more time in paid jobs, while women spend more time in unpaid jobs. A crucial part of the women's movement is also the fear of sexual violence, with the comparison being 79% for women.

CHAPTER 3

METHODOLOGY

3.1. Research Strategy

The research strategy that we chose because it works best for both assessing and quantifying the walking experience of the citizens of Tirana with the gender approach in mind is the Mixed Methods Strategy. A good research strategy is valued for its suitability to the research aim and questions and how appropriate and valuable it is to the researcher. [1] The rationale for choosing this strategy is in the research aim and questions that required an array of qualitative and quantitative methods and aimed to go further with the results of using a mono-method research strategy. A mixed-methods approach is problem-driven, and it allows us to choose what works best and combine different types of research, gaining, in turn, different perspectives on the same problem. The definition of Mixed Methods has evolved, and we can note multiple definitions for it; however, the leading journal in Mixed Methods Research (Tashakkori and Creswell) defined Mixed-Methods as:

> *"...in an effort to be as inclusive as possible, we have broadly defined mixed-methods here as research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry." (p. 4)*

The rationale for using Mixed Methods is threefold. Mixed Methods allow us to gain more rigorous results that are obtained by two or more methods that offset the weakness of each other. For example, quantitative methods would produce results that sometimes lack the context and in-depth understanding that qualitative methods provide. UsingMixed Methods, we allow for the strengths of one approach to offset the weakness of the other method and vice-versa. This strategy now only allows us to draw from the strengths of different methods but also improves the accuracy of our findings, in line with the concept of triangulation. The term "triangulation" embodies a multitude of definitions in different fields; however, in the Mixed Method Research, it broadly refers to the advantage of Mixed Methods in "*obtaining more valid*

conclusions. (...) by directly comparing results gained from both qualitative and quantitative methods for convergence and divergence. "(Plano Clark and Ivankova)

Our research aims to obtain triangulated conclusions by corroborating the survey results with the qualitative data from the expert interviews. This allows us to be more confident in our findings in assuming that the results are more accurate. A third rationale for using Mixed Methods is that the data produced by the chosen methods can be complementary. Complementarity is used to give us a complete picture and provide alternative perspectives about different facets of walkability. Whereas triangulation is aimed at obtaining valid findings by comparing methods, complementarity aims to gain meaningful and complete conclusions by enhancing the coverage and clarifying the results of each method to get a comprehensive overview of the subject.

The other perspective of our research aim is to gain a deeper understanding of walkability from a gendered perspective. Feminist research goes beyond the categorical variables of gender or sex by contextualising and destabilising them (Hesse-Biber 2010) and examining the interconnections between the vital differences to the research aims. Whilst Mixed Methods are not inherently feminist or non-feminist, they provide us with the tools and methods needed to answer our research questions. (Hesse-Biber, 2010) Research is intrinsically considered "*feminist*" when it tries to focus and expand on the perspective of women's experience and concerns. Our study aims to gain a more comprehensive and accurate set of explanations and understandings between the two views on walkability in Tirana. As Hesse-Biber(2010) argues that: *"A feminist perspective expands on the understanding of gender differences on social problems and issues not by adding women and stirring them into the same old questions, but by including gender as a distinct category of analysis."* Mixed Methods lend themselves to the gendered approach of walkability by exploring women's subjugated knowledge of their daily experiences and understanding the city and neighbourhoods that they reside and work in. They allow for researchers not only to test out their theories but also to *"...generalize their findings through integrating and contextualizing women's lived experiences at the macro-level (placing them into a larger socio-historical context)*" (Hesse-Biber, 2010).

We chose to proceed with a threefold method, which includes a Survey, Expert Interviews, and Case Studies that allow us to combine quantitative and qualitative data that would add to the complete picture of the walking experience in Tirana. This research strategy follows an explanatory sequential design with an initial quantitative phase, an online survey with the purpose of gaining factual information pertaining to the walkability of the residents of Tirana. This will be followed up by a qualitative phase of expert interviews which aims at following up with the quantitative results. The last stage of this strategy includes conducting a case study with the aim of gaining some in-depth information on a particular street in Tirana.

However, there are certain drawbacks associated with using Mixed Methods that need to be addressed, such as the vast number of resources that this strategy requires. Because of the extensive design and collection process phases, the time and costs of the research project can extend, and the project can take more time than was initially planned. The researcher also needs to have skills in both qualitative and quantitative approaches to get the necessary results. These limitations will be further extended and discussed in the following chapters; however, it is worth noting that a well-researched plan would allow us to overcome the limitations of the Mixed Methods strategy. The complete in-depth understanding that we could get from Mixed Methods offset the advantages of any mono-method.

3.2. Data Collection Methods

Next, an appropriate data collection method per each strategy was selected. Several methods were rejected due to the inadequacy to answer the research questions. Participant observation was rejected because of the high demand for resources and the safety of our participants in the times of the COVID-19 pandemic. On the contrary, questionnaires were selected as the appropriate method of data collection for gathering primary, factual data, provided by a relevantly large sample. Similarly, we chose to follow up with Expert Interviews which would produce valuable qualitative data and lastly, a case study to analyse in detail and reflect on the findings from the previous data collection method. What follows is an account of the threefold techniques selected for the data collection portion of our research.

3.2.1 Study Parameters ‘7C

The assessment of walkability requires a set of parameters to be taken as basis examples of reference. The chosen indicators come from a successful research carried out by the London Planning Advisory Committee developed the multidimensional 5C’s layout (Gardner, Johnson, Buchan, & Pharoah, 1996) that has been widely adopted to the present (COST 358, 2010; Kamel, 2013). Adding to the study the University of Lisbon has added two additional C’s. According to this scheme, a pedestrian friendly environment has to be Connected, Convenient, Comfortable, Convivial, Conspicuous, Coexistent and Commited. These dimensions address the built environments correlates of walking (Saelens & Handy, 2008) and can be described according to the following:

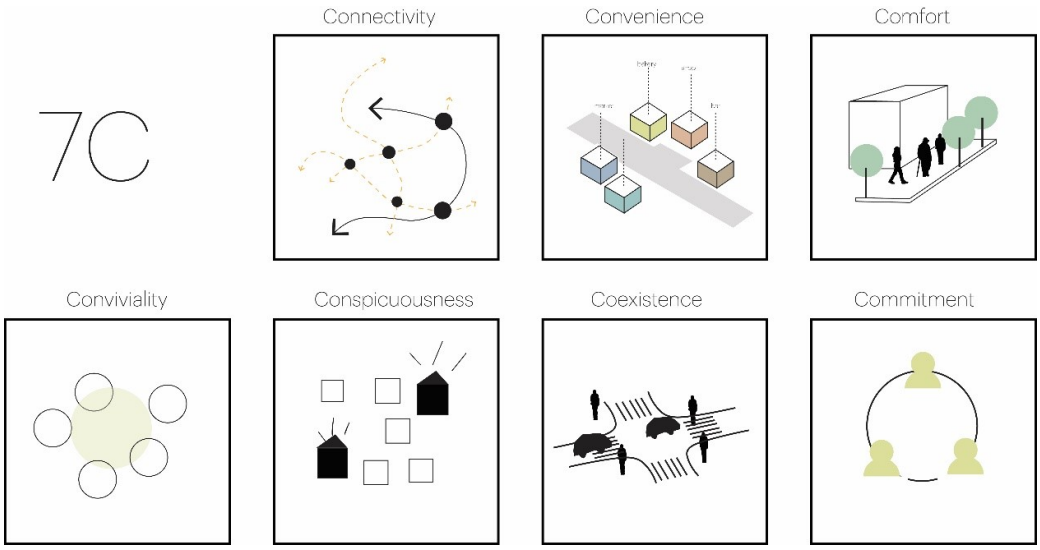


Figure 19 7C Methodology Visualised

1. Connected: the degree to which the pedestrian network is connected to the main starting points and destinations of the trip, as well as the degree of connection between the different routes of the network Connectivity is seen as an important environmental characteristic, creating more options and shorter and more direct routes to the destinations

2 Convenient: the extent to which walking is possible and able to compete with other modes of transport in terms of efficiency (time, money and space). It is related to the diversity of land uses and functions conveniently accessible on foot

3 Comfortable: the extent to which walking is tailored to the skills and abilities of all types of pedestrians, with attributes and amenities that facilitate the walking experience.

4 Convivial: the extent to which walking is a pleasant activity in terms of people interaction, the built and natural environment, and includes social and recreational activities.

5 Conspicuous the recognizability and attractiveness of pedestrian paths and public spaces for pedestrians, in terms of clear and legible signage and information as well as in terms of spatial legibility, complexity and consistency.

6 Coexistence to deal with factors which are related to pedestrian safety from traffic.

7 Commitment to incorporate pedestrian policy promotion by local authorities and communities.

3.2.2 Questionnaire

As indicated previously in the chapter there was a need to address a relevantly large sample with quantifiable questions, so a questionnaire was chosen. Questionnaires are instruments of data collection in research that generally consists of a set of questions with choices that is distributed to the participants via post, phone or the internet. They provide for very efficient and low cost means of data collection. Questionnaires can have a set timespan and could produce relatively large volumes of data. Additionally, they produce standardized answers that could be quantitatively analysed.

Moreover, the specific type of questionnaire-based data collection was chosen based on the research resources available (Denscombe, 2010) Post based questionnaires were rejected because of the lack of monetary resources and overall low mail consumption Albania(The World Bank Group & PostBank Advisory, ING Bank, n.d.). Similarly, telephone-based questionnaires were rejected for their excessive resources in terms of money and time. Moreover, face-to-face and group-administered questionnaires were rejected solely to confirm with the COVID-19 Pandemic measures of social distancing. On the contrary, internet-based questionnaires were selected as the most appropriate alternative. (Byrne, 2017). They provide a quick and cheap option and offer a significantly reduced turnaround time of sending and receiving a completed response. Another advantage of internet-based questionnaires is that they allow the researcher to access data in a ready to analyse format, reducing the transcription errors that might arise from manual data entry. The fast turnaround rate and cheap costs do not affect the quality of data. A web-based questionnaire was chosen over email embedded ones to be more user friendly and efficient. A web-based, cross-sectional survey to investigate the current walking condition of pedestrians will be conducted to gain a complete picture based on the data from the participants.

The questionnaire was designed to fit the literacy level of the general population and is carefully constructed to avoid technical architectural jargon, includes straightforward questions, and requires less than 10 minutes to complete. The use of questionnaires is a well-established approach in assessing walkability, with Krambeck(2006) introducing two sets of surveys conducted to the city residents that would attain a comparable walkability index. Additionally, Making Walking Count also provides a survey framework that catered to residents' attitudes toward walking in general and in their neighbourhood. (Thornton et al., 2013). The questions we prepared by adapting the frameworks mentioned above and were optimised and localised to fit our research scope.

The structured questionnaire involves 26 questions (Appendix A): The first part of the questionnaire refers to demographic data (gender, age, education, professional status). The second part asks for information about their modes of transportation and how much they walk daily (area they live in, average time of

services and general walking statistics). The last part of the questionnaire explores their walking habits concerning their perceptions and the walkability indicators. The questionnaire was hosted on “Typeform”

3.2.1.1. Sample Selection

The research population was Tirana residents; however, as the whole population could not be directly reached, we selected a qualitative representative sample (Byrne, 2017d). All types of conventional probability sampling techniques such as random, systematic, cluster, or stratified sampling were rejected mainly because it would be exceedingly challenging to contact a large enough sample. The researcher might have an overview of the general makeup of the population but does not have direct access to a sampling frame regarding its research population. The selection of a sampling frame becomes even more complicated when considering internet surveys, where “good sampling frames are relatively more difficult to find” (Denscombe, 2010, p. 26). The reason is that, unlike physical addresses, phone numbers in the “real world” are much more different than temporary identities online, which would not provide real value to the researcher.

Non-probability sampling, on the other hand, involves an element of choice in the sample selection. Small-scale research such as ours would lend itself to the non-probability technique of snowball sampling. An advantage of this technique is that it can be used to build a reasonably sized sample quickly as the responses would involve and refer to people in the area they live or work together. The primary rationale for choosing this technique is the lack of a sampling frame of any kind that would allow us to contact potential participants, and instead, we would build up our sampling frame by references. There is also an element of purposefulness, as the reference system could be used to ask for people living in certain neighbourhoods, having a certain age, sex, or qualifications (Denscombe, 2010, p. 37).

Alternatively, research with our scope could benefit from strata sampling, a technique also used by the “Making cities Walkable” set of surveys. Similar to quota sampling, the researchers establish certain strata and aim to fill these categories with the

population proportion. Further research on the topic could be used with this technique to draw the benefits of strata sampling.

3.2.3 Case Study

The second stage of research design involves a case study approach. Case Studies work intrinsically well with the Mixed Methods approach as they encourage the usage of multiple methods to "...capture the complex reality under scrutiny" (Denscombe, 2014, p. 35). Similarly, they allow the researcher to concentrate their efforts on the dynamic preset within single settings. The logic behind choosing this instead of a mass study method would allow the researcher to investigate and explore a unit thoroughly and deeply(Umar, 2013); this may have broader implications and would not come to light in multiple cases. This type of approach is proven to be successful from previous walkability research. In a study made in Lisbon (reference), the walkability index method was used in conjunction with a selected 500m-radius extended area.

A case study approach was used to illustrate better and analyse the walkability elements. The area selected was within the administrative unit number 9 and partially at unit number 10, precisely the neighbourhood confined within Rruga e Durresit and Bulevardi Zogu I in Tirana. The case study area is intrinsically interesting for an array of reasons. Durres street and Zogu I boulevard streets are some of the oldest in Tirana, built from the first regulatory plan of Tirana in 1923. Durresi street was then called Nana Mbretneshe (Mother Queen). 7 years later, the Deshmoret e Kombit (National Martyrs) Boulevard was built and named Zogu I Boulevard. This, and also the fact that it is adjacent to the city's main square make the neighbourhood one of the earliest neighbourhoods in Tirana, a feature visible through the narrow pathways and generally low-to-mid-rise buildings being mostly residential with street-level commercial activity.

This area includes several public transportation interfaces, bus and taxi stops, at the perimetral main streets only. Except for the side-main streets, the site has not had significant interventions in the street level making it suitable for further

development and studies. For this study a thorough analysis is conducted for each street, sidewalk and crossing within the area.

3.2.4 Expert Interviews

The final stage of data collection involves a qualitative phase of conducting discussions with experts in urban planning. The rationale for choosing expert interviews is in the research aim of going beyond the quantitative data derived from the resident's survey. Semi-structured interviews allow us to draw in-depth insights into people's experiences and knowledge. They start with a set of prepared questions to be answered that provide structure and guidance. However, they are flexible and allow the interviewer to elaborate on some information that may not have been previously thought of as relevant (Denscombe, 2014, p. 187). Expert Interviews aim at exploring a particular subject from the knowledge of an expert. They are someone identified for their particular knowledge, their position in the urban planning community or industry. Additionally, the experts provide contextual knowledge on the specific research aim. In contrast to everyday knowledge from residents, experts provide what Bogner and Menz (2009) describe as educational knowledge and classify it as particular knowledge to their advantage.

While we could ask the average resident about their perceptions of walkability in their neighbourhood, we could not ask them to rate concepts specific to walkability assessment. While focus groups are a great alternative, they allow the interviewer to be a facilitator rather than lead the discussions, thus gathering information with minimal steering. They also emphasise the group interplay that may lead to discovering important information and more significant insights. (Denscombe, 2010, p. 177). However, there are specific problems with the use of these focus groups. One of them is that they require more time and other resources to organise and gather all the participants at the same time and place. Focus Groups also can lead to some individuals taking more time than other participants that might be more hesitant to share their opinion with a larger group. In a one-to-one interview, the moderator can spend more time with a participant, and they could, in turn, be inclined to share more than they would have done in a focus group.

Furthermore, since both the interviewer and interviewee share a common interest and background in the area, the interviewee is more motivated to participate in the interview. These interviews are relatively easier to arrange and control and could result in quick and fairly good results. (Bogner, 2009)

Instead, we chose to proceed with individual semi-structured interviews with a group of urban planning experts who deal with these concepts in their academic and professional line of work. Semi-structured interviews allow us to adjust the sequence of questions and add further questions based on the specific expert area of expertise. We argue that we chose online interviews over face-to-face interviews mainly because of the restrictions of Social Distancing in Albania and the safety of all parties involved. Therefore, interviews would take place online on Google Meet. The semi-structured interviews with the experts are planned to be between 20 min to 40 min long. The experts took an online "walk" through Google StreetView and the Author's media materials of the area.

The experts provide us with qualitatively defined urban planning aspects of walkability. We acknowledged as valid the expert's evaluations of the walkability assessment of the street by virtue of their specialised expertise. The initial questions prepared in the structured part of the interviews were based on the researcher's personal and professional experience on the topic. They included the exploration of the 7Cs Method. The transcript of the interviews is found in Appendix B.

3.2.1.2. Participants

The participants of this research are experts in multiple areas of urban planning, in both industry and academic settings. Accordingly, this is an exploratory sample because the study aims to generate deep insights and information from the experts. (Denscombe, 2010, p. 24). Exploratory samples lend themselves to the extraction of qualitative data and do not aim to represent the population. The participant's selection strategy was made through a purposive sampling technique. All types of probability sampling techniques were rejected due to the nature of the data that we aim to extract, in this case, qualitative data. Non-probability sampling allows us to choose people

based on their expertise. We choose the purposive sampling technique based on the expert's privileged knowledge and experience on urban planning and walkability. The researcher knows the people who might have the expertise needed and particularly chooses to intend to get the best information (Denscombe, 2010, p. 35).

3.3. Data Analysis Methods

Generally, the process of data analysis for both qualitative and quantitative methods tend to be a five-stage approach. Table X shows a comparative relationship between the qualitative and quantitative analysis phases. Quantitative analysis uses quantifiable units such as numerical data as units of analysis. compared to the transcribed words of qualitative analysis. In contrast, quantitative analysis tends to deal with large amounts of numerical data focusing on specific variables. Qualitative research tends to understand the context that the data is found and perform a holistic analysis. (Denscombe, 2010, p. 246).

Table 2 *Data Analysis Stages*

Stage	***Quantitative Data***	***Qualitative Data***
Data Preparation	Coding (pre-data collection) Data Categorisation Checking the numbers	Data Categorization Data Transcription (Interviews) Data preparation
Initial exploration of the data	Check for initial trends or correlations.	Check for initial themes Write notes and memos to the data
Analysis of the data	Perform Statistical Analysis of the data (descriptive statistics, factor analysis, cluster analysis) Link to research questions or hypotheses	Code the data Code Categorisation in Groups/Themes Compare the themes and categories Check for major themes
Presentation and display of the data	Interpretation of the statistical findings, with the aid of tables, figures	Interpretation of the data Data Illustration with figures, tables
Validation of the data	External benchmarks Internal consistency Comparison with alternative explanations	Triangulation and member validation Comparison with alternative explanations

Our questionnaire produced multiple variables of quantitative data, such as nominal data, in the form of the participant's identity (sex, residence place), ordinal data(perceptions of walkability), and interval data(age). Overall, the questions generated X variables (Appendix X).

Typefrom allowed us to view some descriptive analysis of our questionnaire in real-time. The final generated data was transferred by Typeform in Google Sheets and Excel, preventing the errors associated with data transfer. An initial descriptive analysis of the data was initially performed with Google Sheets custom formulas to generate frequencies and percentages of each variable. We then performed normalisation of the sample data compared to the population proportion to get a better generalisation. Next, we conducted some inferential analysis of the data by comparing several variables. The results were presented in inclusive charts and tables.

The qualitative analysis of the data was based on the grounded theory approach, as the method most commonly associated with the analysis of interview transcriptions. (Denscombe, 2010, p 285) The ultimate aim of this approach is to derive what theories and concepts best capture the meaning behind the interview data. The researcher first transcribed and translated the data to proceed with the computerised coding queries analysis with NVivo. Codes are the labels that are attached to the transcribed data that are used to link bits of data to an overarching idea that connects to the analysis.

3.3.1. Space Syntax

Space syntax is a method initially developed for pedestrian movement (Hillier, 1996), and it fundamentally deals with street networks and the functional aspects of street connectivity. Research has shown that a higher pedestrian usage of the street is closely associated with the higher degree of the street connectivity measure. (Kindra et al., 2014)

Space syntax analysis is based on the relative accessibility of spaces within cities by measuring all street segments' features in a network. It is performed on an axial map with "axial lines" that correspond to all street segments and how they are interconnected to each other. The analysis of the topological relationships between the axial lines produces many indices, as indicated in Table 3.

Table 3 *Space Syntax Topological Measures*
Source: Adapted from (Hillier & Hanson, 1984, Lerman et al., 2014)

Topological Measure	**Description**
Integration Index	The average topological distance from each axial line to all the lines in the network. It shows the cognitive complexity of going to a particular street and is often thought to predict the likelihood of a pedestrian using the street.
Choice Index	It is calculated based on the presence of an axial line of the shortest topological distance route between all the other lines in the network. The Choice Index reflects the likelihood that a certain axial line is used for travelling between different places in a city, that is, the degree to which the shortest routes overlap at a given urban scale.
Depth	Depth distance examines the linear distance from each segment's midpoint to the other centres. A final graph with all the cumulative values can be achieved if we successfully choose every segment as the starting point.
Intensity	The intensity measure is more sensitive to local connectivity conditions

DepthmapX was used to analyse the axial maps and produce the needed Space Syntax indices. The axial map lines were produced by automatically recognising the circulation drawing layer. There was a back-and-forth process of redrawing and adjusting the map in Autocad to better include the needed street parts within and outside the neighbourhood line area. A final graph analysis was then carried out for a more in detailed insight into the street network.

3.4. Research Ethics

There are some main points to consider when discussing research ethics: participants should remain anonymous and understand the nature and how they are involved in the study. The researcher will ensure the confidentiality of data and the voluntary consent of the participant. (Denscombe, 2010, p 331)

To their knowledge, the researcher tried to keep track of all these principles. In appendix X, it is attached the informed consent form that the participants had to read and sign before the interview. Participants were described the research project by written means in the consent form and verbally when they were approached for the research. In this way, they were aware of their involvement and the fact that this was voluntary based participation, and they understood what they were consenting to. Similarly, for the survey, due to the non-interventional nature of the questionnaire, participants remained anonymous and no personal information was leaked to the researcher. An electronic consent form placed before the questionnaire was required to read from the responders.

The data was anonymized, and the small sample did not give away any information to track the participants. There is also no risk from the researcher's involvement as they are not parents and cannot interfere in the research.

CHAPTER 4

CONTEXT OF TIRANA

4.1 Existing situation in Tirana through mapping

Figure 20 Location of Tirana

People already walk in Tirana - benefiting their health and the sustainability of the city. The average person in Tirana is walking 65 minutes per day for transport. (women 44, Men 87) 23.65% of people are inactive (women 26%, Men 21%). Tirana is an accessible city - 80% of the urban population live within a 3km radius of the city center. 32% of car trips are less than 2km (30 minute walk). Regarding comfort, 98% of streets in Albania do not have sufficient space to walk, a safe crossing or an appropriate speed to enable people to walk.

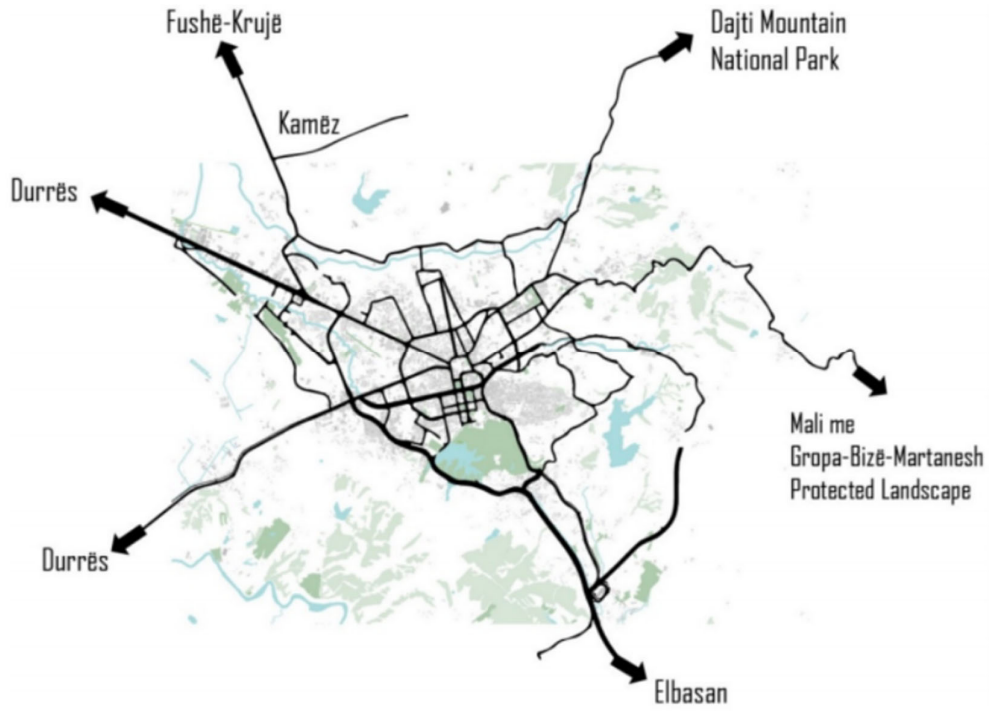


Figure 21 *Map of connections. Source:Municipality of Tirana*

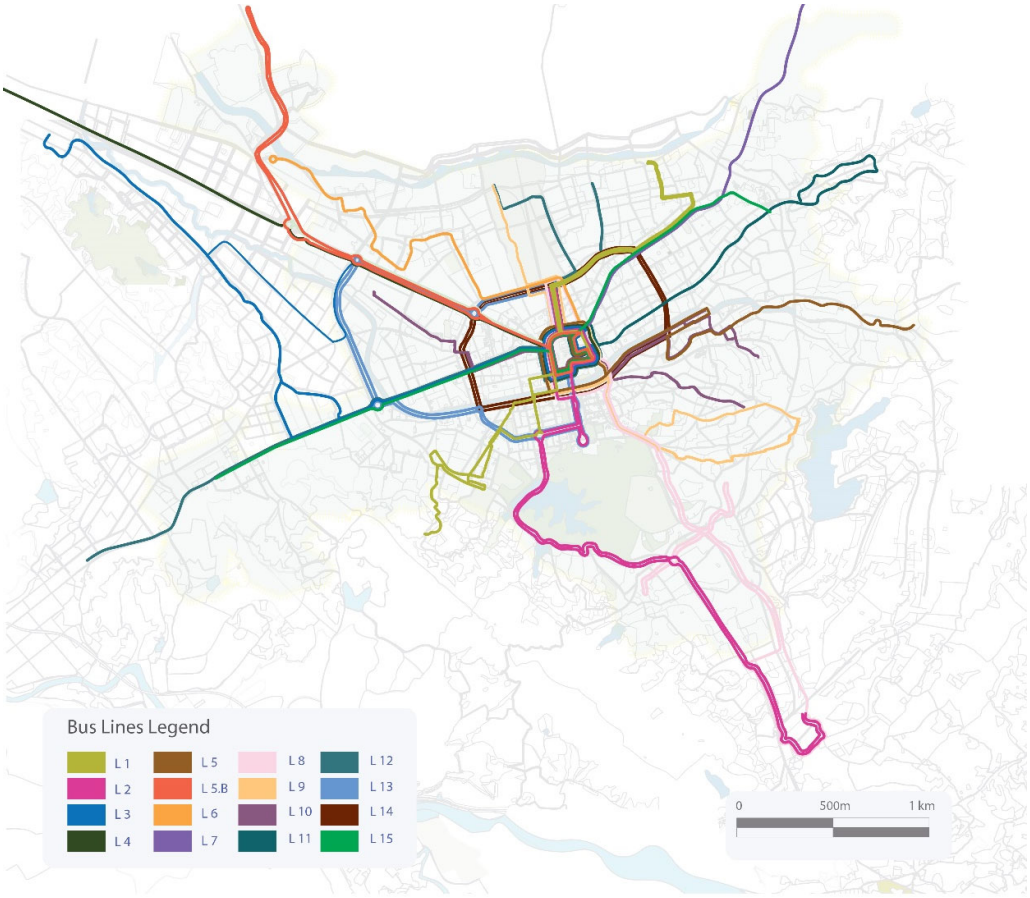


Figure 22 *Map of bus lines. Source:Municipality of Tirana*

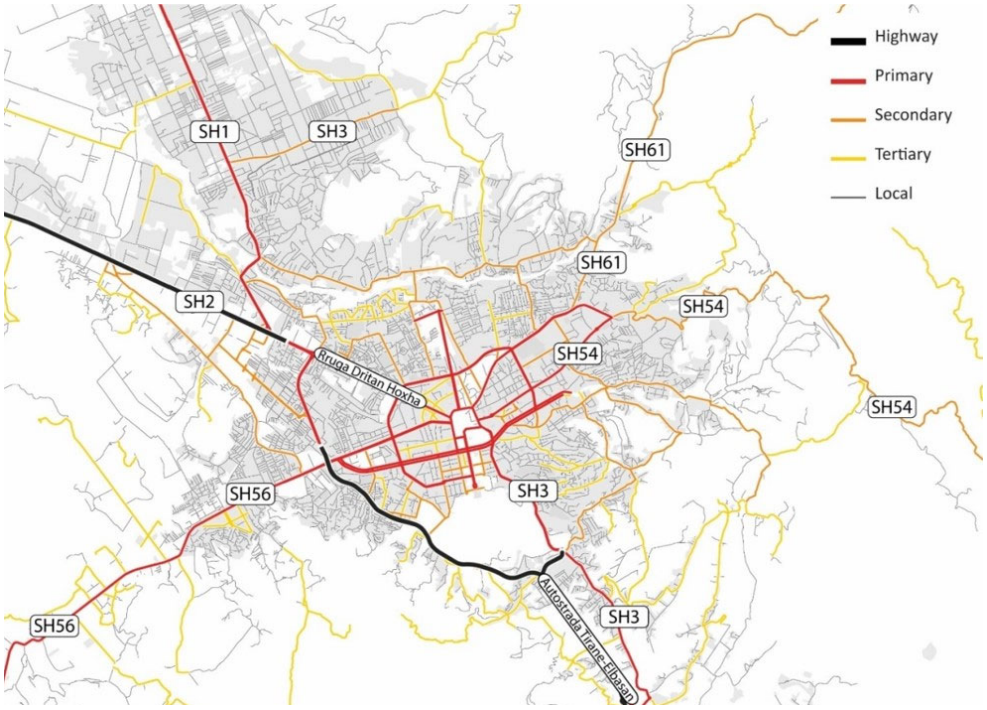


***Figure** 23 Map showing classification of streets in Tirana. Source: Municipality of Tirana*

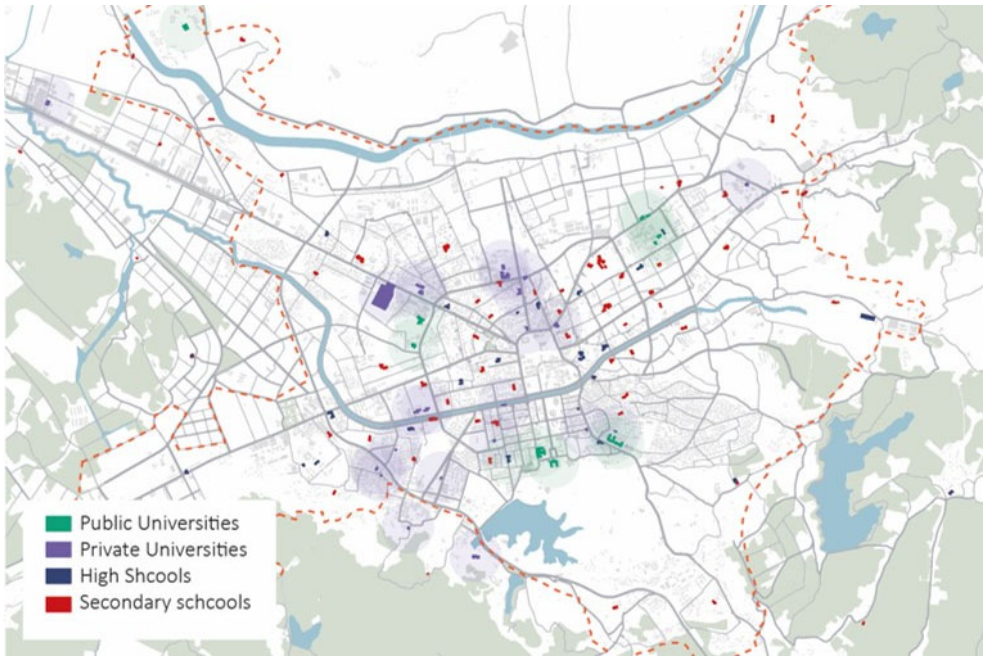


***Figure 24** Map showing locations of schools. Source:Municipality of Tirana*

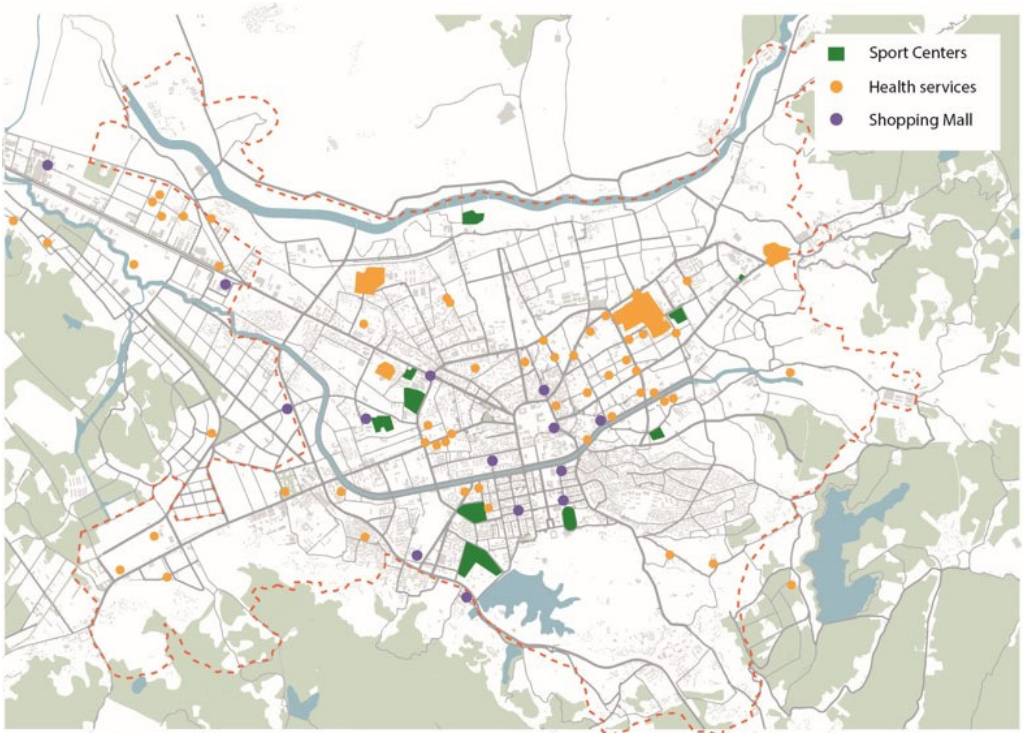


Figure 25 *Map showing location of facilities. Source: Municipality of Tirana*

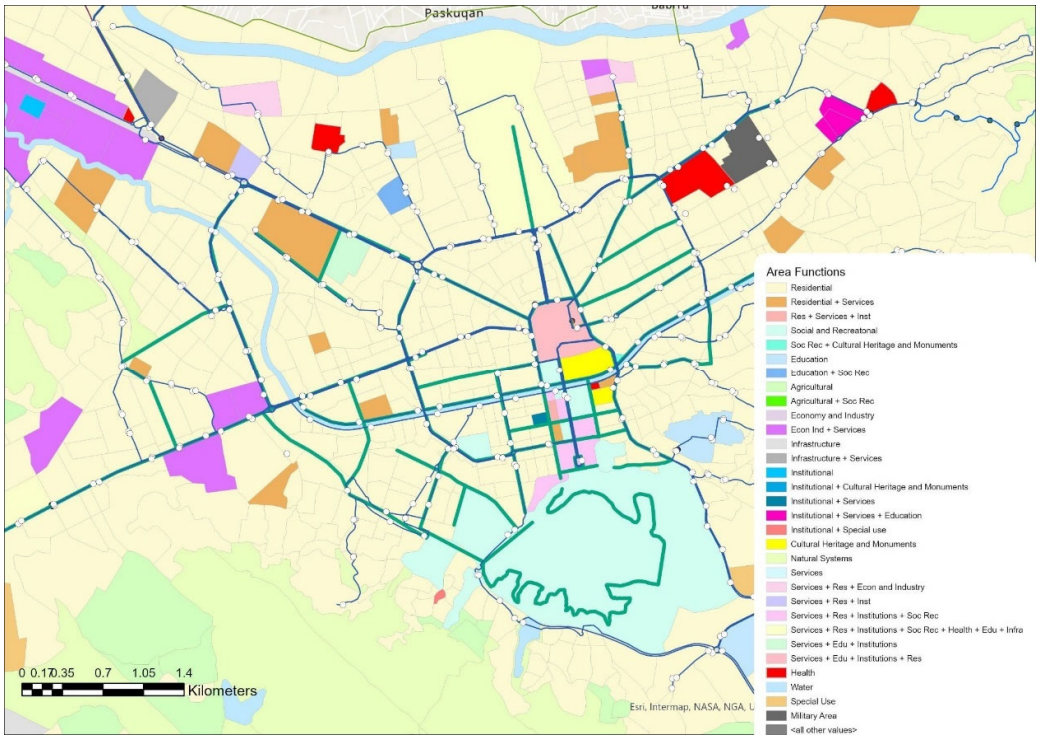


Figure 26 *Map of Land Use. Source: Municipality of Tirana*

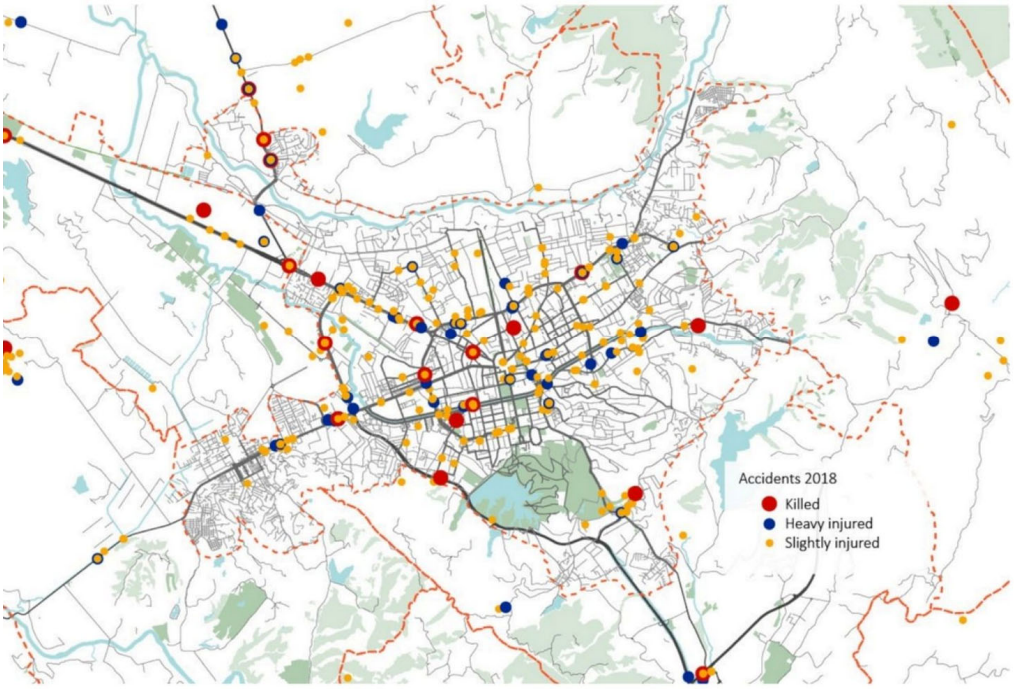


Figure 27 *Map of street accidents in 2018. Source: Municipality of Tirana*

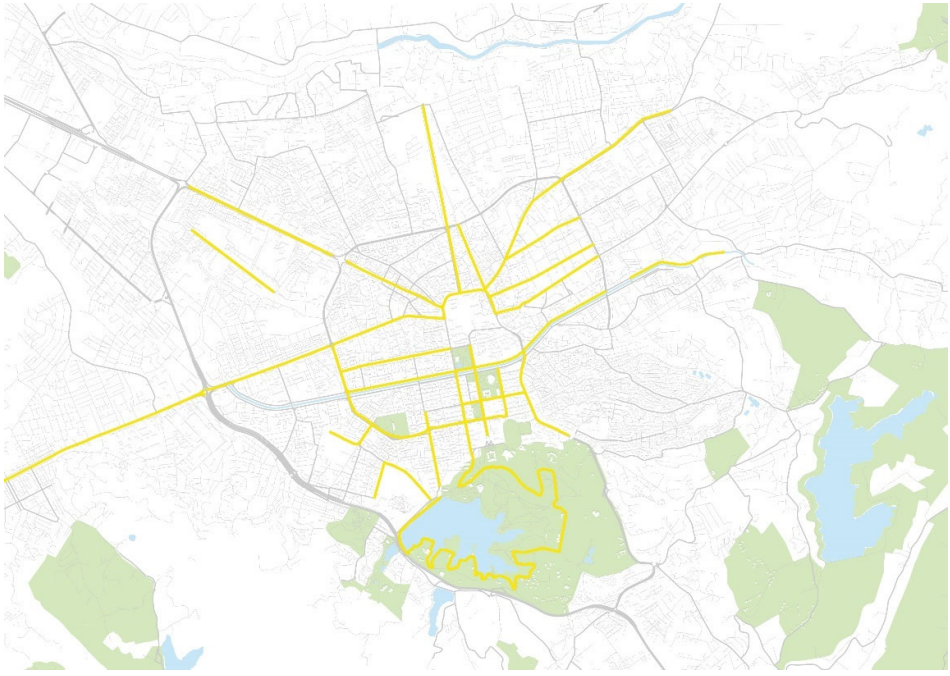


Figure 28 *Map of cycling network*

CHAPTER 5

RESULTS AND DISCUSSIONS

5.1 Macro

The initial stage of our macro analysis involved the drafting of a questionnaire that was later transcribed and uploaded in an electronic form on the Typeform Survey Platform (Appendix A). The responders were first shown the informed consent form, followed up by a set of interactive questions. There were 22 Multiple Choice Questions, two Matrix type questions and two questions that required short writing.

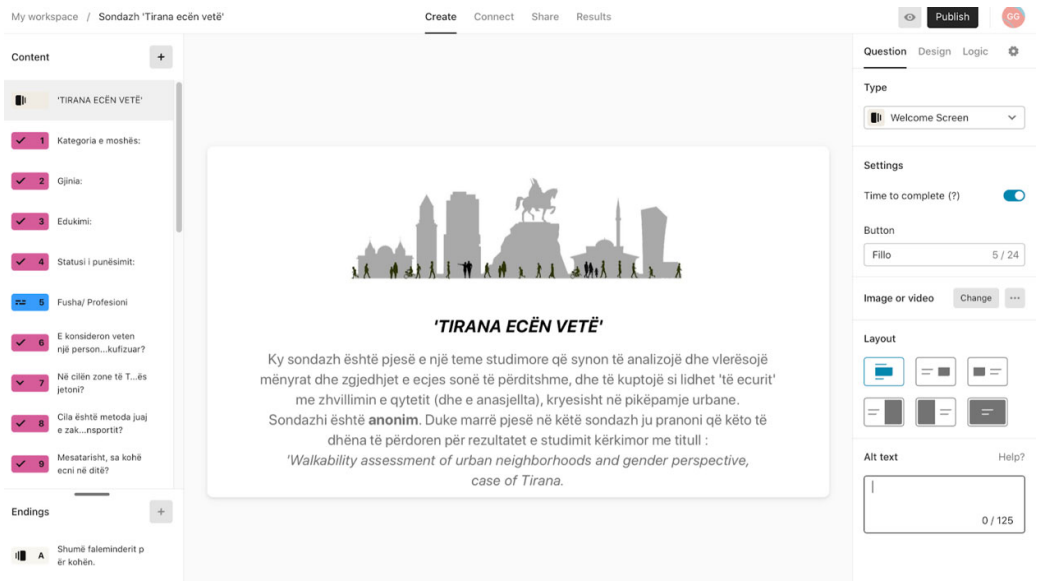


Figure 29"*Tirana Ecen Vete" Questionnaire Interface*

Between June 16th and June 27th, the link to the survey was distributed to the participants and they were asked to refer the survey to their peers and the people living in their neighbourhood. Typeform offers the ability to get real-time results on the data, starting from a big picture overview of the response details including completion time, average time, and what device was used to fill out the survey. The data from Figure X provides an overview of the results, overall, we had 616 responses with the completion rate of 59.1% for desktop devices having a higher completion rate of 62.5%, only slightly different to the mobile one of 58.7%. Overall, the questionnaire took an

average time of 09:30 minutes to complete, with mobile devices taking longer to complete, 09:38 minutes, compared to the desktop version that took 08:12 minutes.

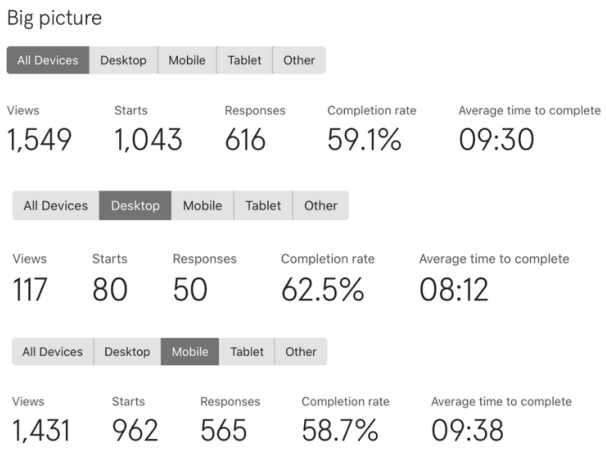


Figure 30: *Typeform Insights*

Typeform allows for the data from the questionnaires to be set automatically to Google Sheets, Excel, and other data analytics softwares. We used Google Spreadsheets to collect and work with the data, thus eliminating the data transfer and missing data errors. After pre-checking the data, we proceeded with further analysis in Google Sheets.

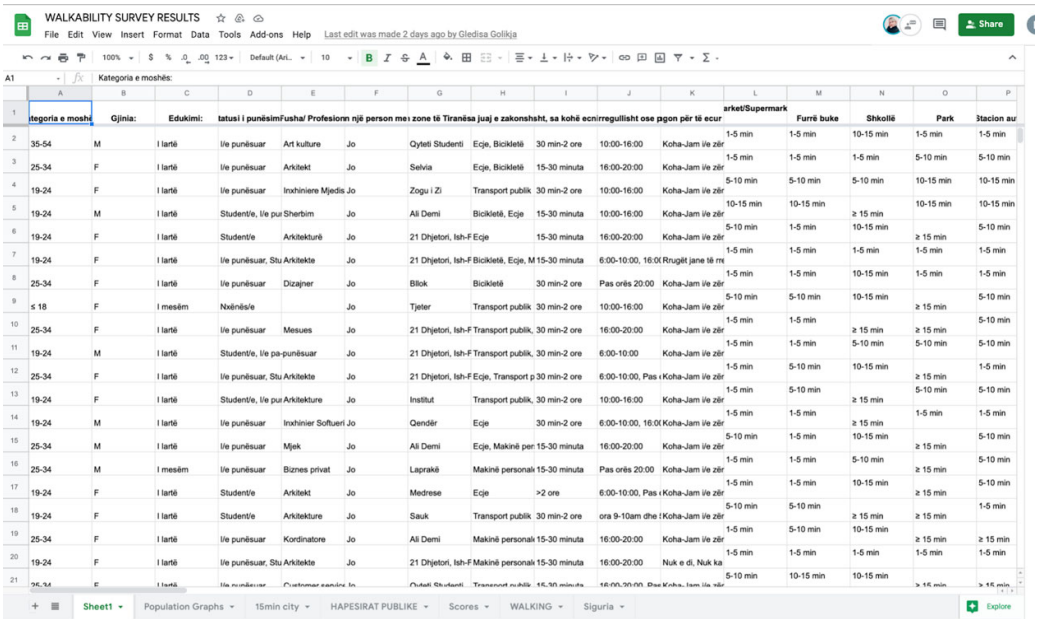


Figure 31 *Google Sheets Data*

Table 4 below illustrates some of the main characteristics of the sample proportion. 389(64.19%) of the responders are female, while what stands our the most in the table is that 366 (60.40%) of the participants are in the age range of 19-25 years old. The male participants of ages between 19-24 are the second largest group with 19.8% of the participants, followed up closely with the female participants of the ages between 25–34-year-old.

	Frequency		*Percentage*		*Total*	
Age	**Male**	**Female**	**Male**	**Female**	**Frequency**	**Percentage**
≤ 18	17	32	2.81%	5.28%	49	8.09%
19-24	120	246	19.80%	40.59%	366	60.40%
25-34	56	83	9.24%	13.70%	139	22.94%
35-54	13	27	2.15%	4.46%	40	6.60%
>=55	11	1	1.82%	0.17%	12	1.98%
Total	**217**	**389**	**35.81%**	**64.19%**		

Table 4 Demographic Characteristics

The demographic data indicated that 44% of the respondents were currently working, followed up by 42% of them being in higher education. Similarly, 7% of our respndendts reported to be unemployed or 5% being school students.

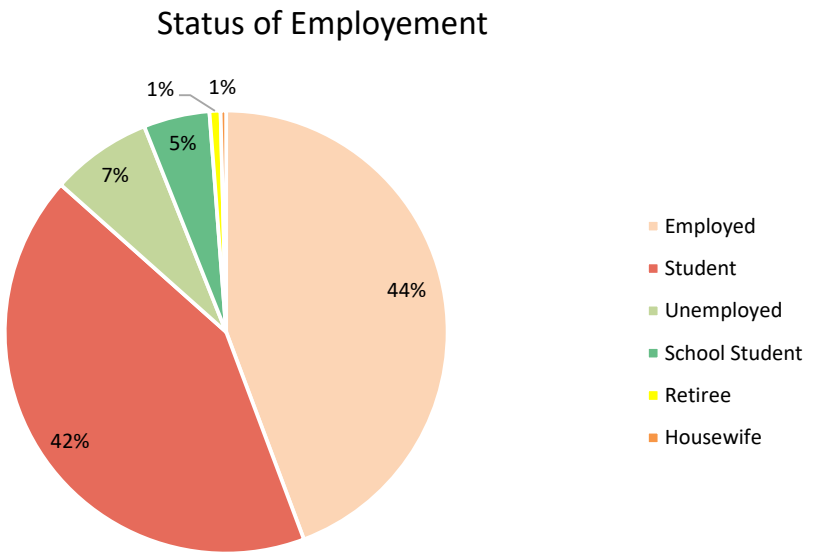


Figure 32 *Employment status graph*

The descriptive analysis yielded the following results as shown in Table 5 for the distribution of the participants in different age groups to the areas they reside in. The 21 Dhjetori area holds the higher percentage of the participants followed very closely by the "Other" option with 11.74% (71) which in our case would include any other area in Tirana not specifically mentioned. The other areas follow up very closely to each other however we could notice from the table that the age group of 19–24-year-old holds a higher frequency in each area.

Table 5 Area per age group statistics

AREA	***AGE RANGE***					***TOTAL***	
	≤ 18	**19-24**	**25-34**	**35-54**	**>=55**	**Frequency**	**Percentage**
21 Dhjetori	18	31	17	6	2	74	12.23%
Tjeter	5	43	18	3	2	71	11.74%
Astir	2	29	12	5	1	49	8.10%
Ali Demi	0	25	10	4	1	40	6.61%
Qender	2	24	10	1	4	41	6.78%
Don Bosko	1	25	9	2	0	37	6.12%
Qyteti Studenti	4	28	14	1	0	47	7.77%
Stacioni i Trenit	1	20	7	2	1	31	5.12%
Komuna e Parisit	0	21	3	3	0	27	4.46%
Brryl	1	15	6	2	0	24	3.97%

Bllok	2	8	5	4	0	19	3.14%
Zogu i Zi	1	12	2	1	0	16	2.64%
Medrese	0	13	2	1	0	16	2.64%
Selvia	1	9	6	0	0	16	2.64%
Sauk	1	13	1	0	0	15	2.48%
Kinostudio	3	4	7	0	0	14	2.31%
Pazari i Ri	0	9	2	2	0	13	2.15%
Laprake	0	5	7	0	0	12	1.98%
Selite	0	8	0	2	0	10	1.65%
Yzberisht	3	6	1	0	0	10	1.65%
Institut	0	5	2	1	1	9	1.49%
Mëzet	0	0	0	0	0	0	0.00%
Allias	2	4	1	0	0	7	1.16%
Xhamllik	0	5	2	0	0	7	1.16%

More than half of the respondents (66,28%) reported that their preferred method of transport is walking followed up by public transport at 36.88% and by personal car at 30.56%. Surprisingly the survey showed female residents preferred walking at a rate of 67% compared to the male residents. Additionally, female residents showed similar rates to preferring public transportation and shared car compared to the almost 30% of their male counterparts. Men were 62,9% more likely to use bikes as their transportatation manner.

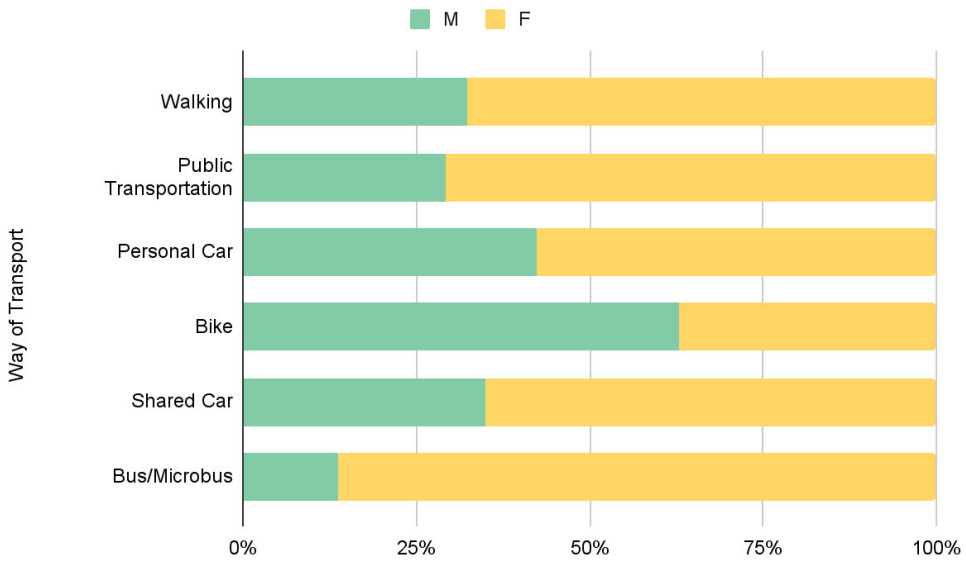


Figure 33 *Prefered way of transport*

Generally, people tend to walk more 36.9% during the 16:00-20:00 timeframe followed up by the normal time frame of work 10:00-16:00 at 29.5%.

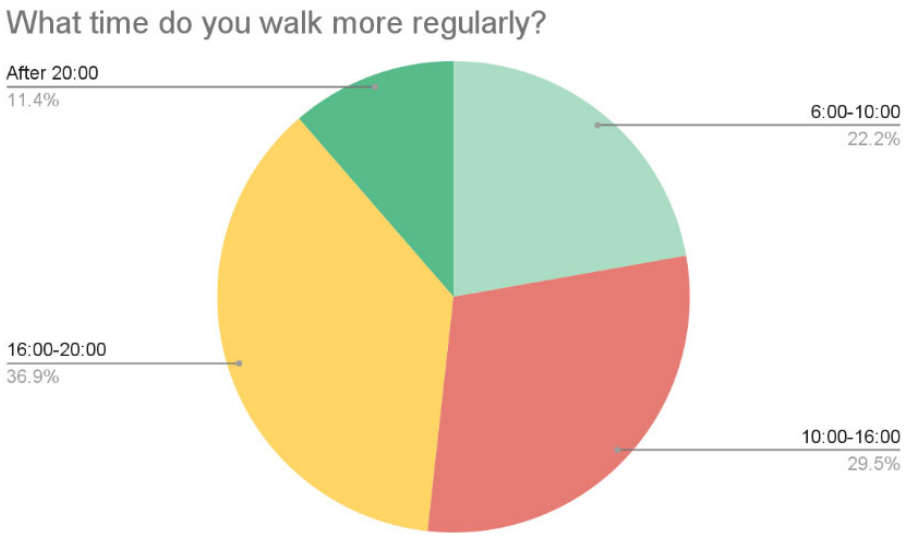


Figure 34 *What time do you walk more?*

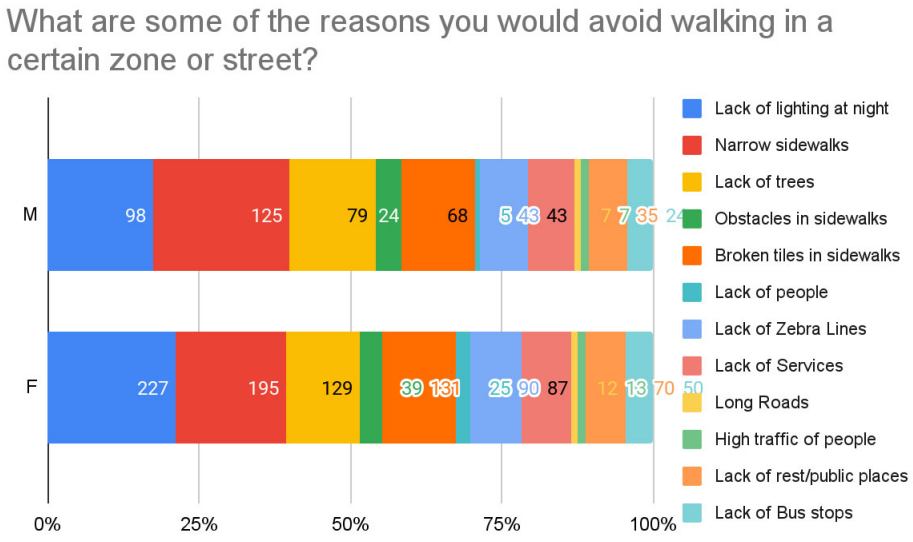


Figure 35 *Reasons that would prevent walking graph*

The figure below presents the breakdown of how close by walking are the most common utilities for residents. The purpose of this question was to assess the concept

of a “15-minute City” as further explained in the Literature Review. These results abide with the principle that most utilities are in the 15 min walking range. Noticeably, supermarkets, bakeries, bus stations and pharmacys are the ones who were significantly reported to be in the 1–5-minute range. Whereas workplaces appear to be in the highest range of time, as reported by over half of those surveyed, followed up by libraries and parks.

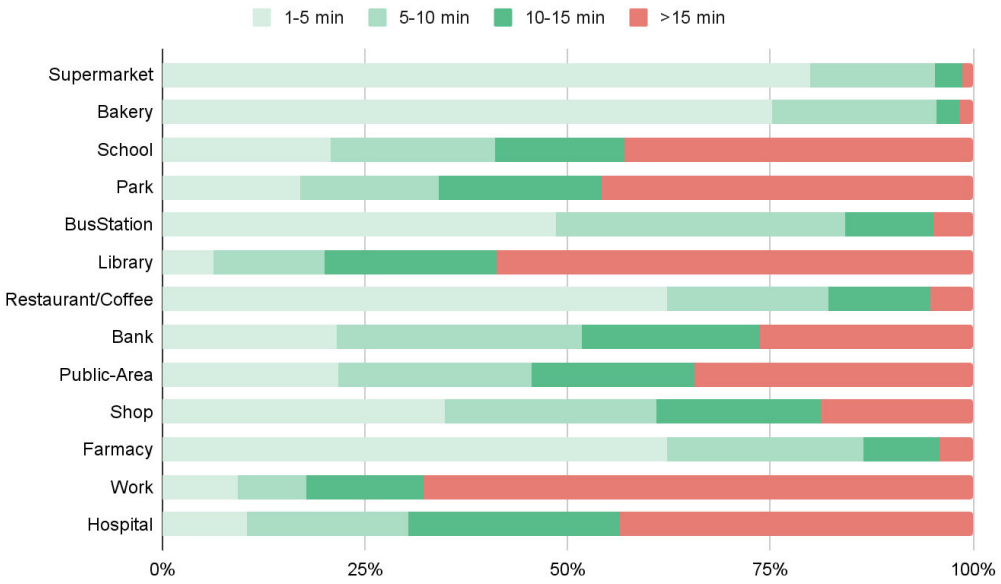


Figure 36 *How close by foot are the following utitilities?*

Respondents were asked to assess how they perceived walking during the day and during the night. Figure 6 breaks down the answers of male and female participants. As seen from the chart below, female participants reported higher in the low perceptions of security and only slightly lower in the high perception of security than male participants.

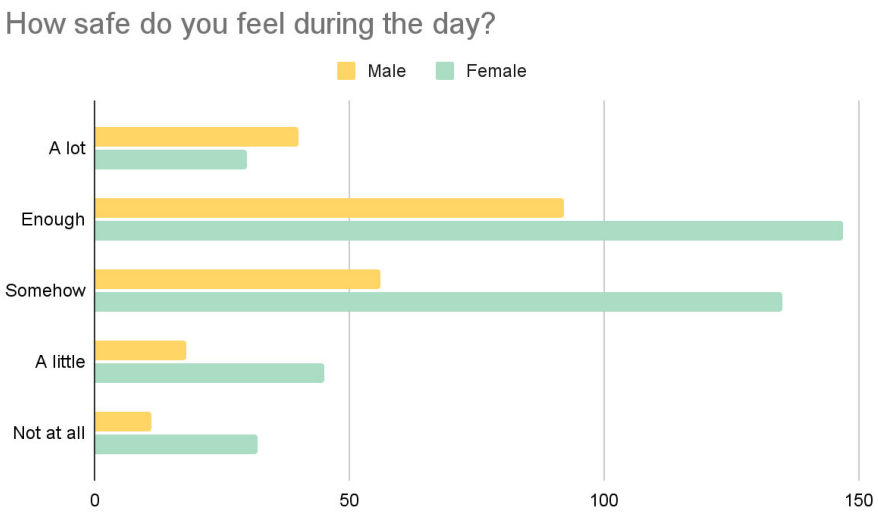


Figure 37 *Safety of Walking during the day*

What is interesting about the figures from the chart below on the perceptions of walking during the night, male participants reported overall similar percepetions of safety during the day and night. Comparing the two tables we notice that while there was a slight drop in the number for feelings of safety during the night from 6.6% to 5.12%, men reported only slightly higher feelings of unsafety during the night, with a little unsafe being from 2.9% to 5.78%. The most striking result to emerge from the data is the overall response of the female participants significalty changed to the negative percepetions of safety during the night. They reported a drastic change from 5.28% of "Not at all" being safe during the day to 18.15% during the night. Similarly, there was a decrease by half of the participants feeling enough safe during the day from 24.26% to 10.56%.

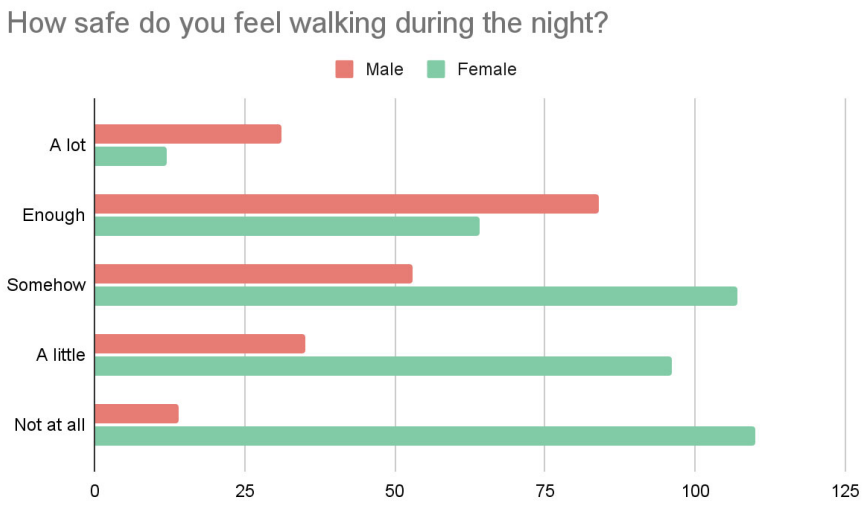


Figure 38 *Safety of walking during the night*

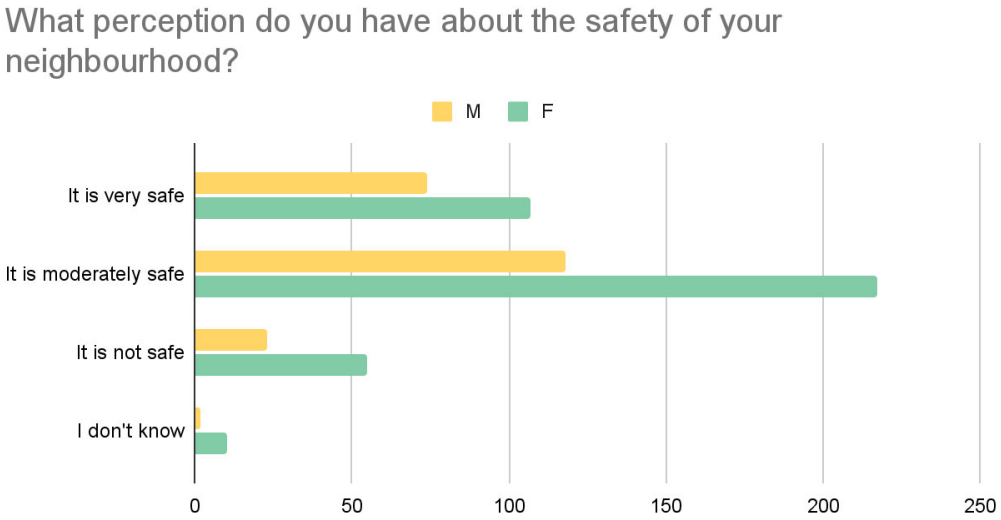


Figure 39 *Perception of neighbourhood safety graph*

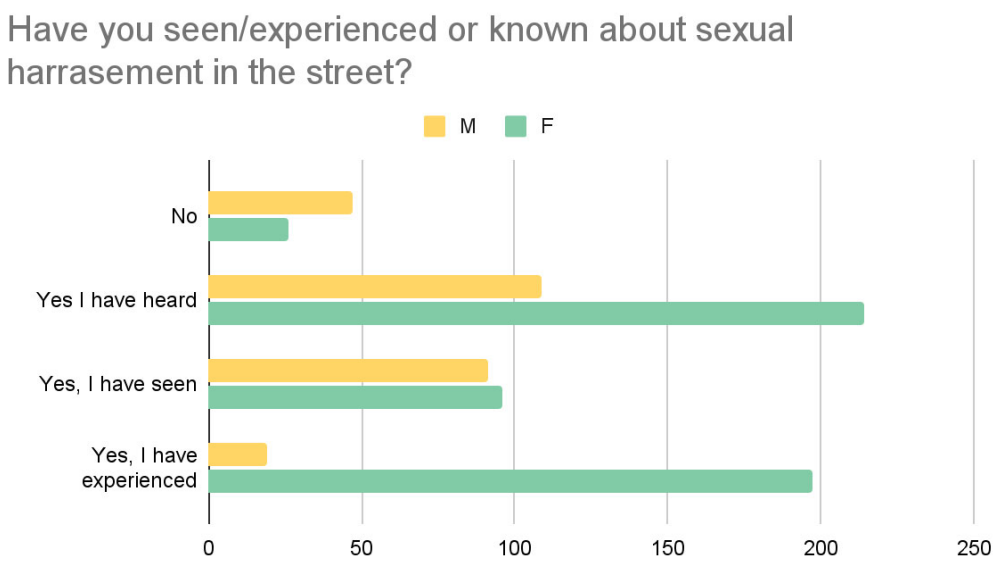


Figure 40 *Experience of sexual harrasement in the street graph*

The data for the walkability index were first derived from the participants assessment of the separate walkability indicators in their neighbourhood, on a scale from 1(not good at all) to 5 (very good). Each score was then weighted in a Likert scale of (-0,5, -0.25, 0, 0.25, 0.5). The overall score of one indicator is calculated as the sum of the all the individual scores per point. The most striking result to emerge from the data is that scores are mostly in the negative, meaning the indicators are perceived very poorly by residents. The lowest results were scored by the general aesthetics of the road (-125.25), presence or lack of public spaces (-106), how drivers (-115) and pedestrians (-102) respect the traffic rules, along with overall crossroad safety (-99.75). Additionally, the overall quality of the sidewalks ranked in the -96, along with the presence of obstacles (-117.75) and the wideness of the sidewalks (-97,5). The highest score is given to the presence of proper lighting at night with a score of 17.5, followed up by the spread in time of the services provided, albeight still in the negative -3.5.

Table 6 Walking Indicator Scoring

Walkability Indicator	*1*	*2*	*3*	*4*	*5*	*Score*
Presence of public spaces	226	144	123	72	50	-106

Presence of proper lighting at night	67	146	152	150	100	17.5
Continuous presence of sidewalks	134	150	136	114	81	-35.5
Wide enough sidewalks	208	149	128	85	45	-97.5
Presence of a sidewalks without obstacles	229	156	126	65	39	-117.75
The quality of the sidewalks	187	172	141	71	44	-96.75
The presence of services along the street	121	141	170	101	82	-29.5
The diversity of the services offered	108	151	164	117	75	-25
Visibility of the road	103	146	179	120	67	-24.5
Crossroad Safety	181	155	188	64	27	-99.75
Respecting traffic rules from the drivers	186	185	163	65	16	-115
Respecting traffic rules from the pedestrians	160	194	172	72	17	-102
Presence of Zebra Lines	142	130	164	126	53	-45.5
The presence of other people in the street(vigilence)	106	152	221	105	31	-49.25
Spread in time of the services offered	84	129	186	149	67	-3.5
Presence of meeting places	89	158	164	133	71	-15.25
Places to stay or sit	171	159	150	88	47	-79.75
Presence of road signs and toponims	139	170	190	77	39	-73.25
Presence of orientation signs	112	181	165	115	42	-51.5
Presence of landmarks	98	123	191	122	81	-8.75
Proper changes in the road according to standards	159	196	166	65	29	-97.75
Presence of trees	105	142	173	115	80	-19.25
Cleanliness of the sidewalk	133	169	178	97	38	-65.5
General aesthetics of the road	226	168	129	65	27	-125.25

Of the 616 respondents who completed the survey, 45.26% reported that they perceived there were not enough public spaces (followed up with 32.68% of them reporting that spaces were occupied. Additionally, 21.08% indicated that the spaces were not occupied and 20.78% reported there were no benches to sit. While over half of the respondents reported that there have been major changes to their neighbourhood, almost half(49.84%) of them reported that they were not consulted.

Table 7 State of public spaces in your area

How is the state of the public spaces in your area?		
	Frequency	**Percentage**
There are not enough public spaces	277	45.26%
The spaces are occupied	200	32.68%
There are no benches to sit	129	21.08%
There are not enough greenery and trees	127	20.75%
There are no public spaces at all	234	38.24%
There are enough public spaces	95	15.52%
I do not know	16	2.61%
Have there been any changes in your neighbourhood in the last years?		
	Frequency	**Percentage**
Yes	175	28.59%
A little	226	36.93%
No	158	25.82%
I don't know	54	8.82%
If there were any major change, were the residents consulted?		
	Frequency	**Percentage**
Yes	58	9.48%
No	305	49.84%
I don't know	251	41.01%
Other	1	0.16%

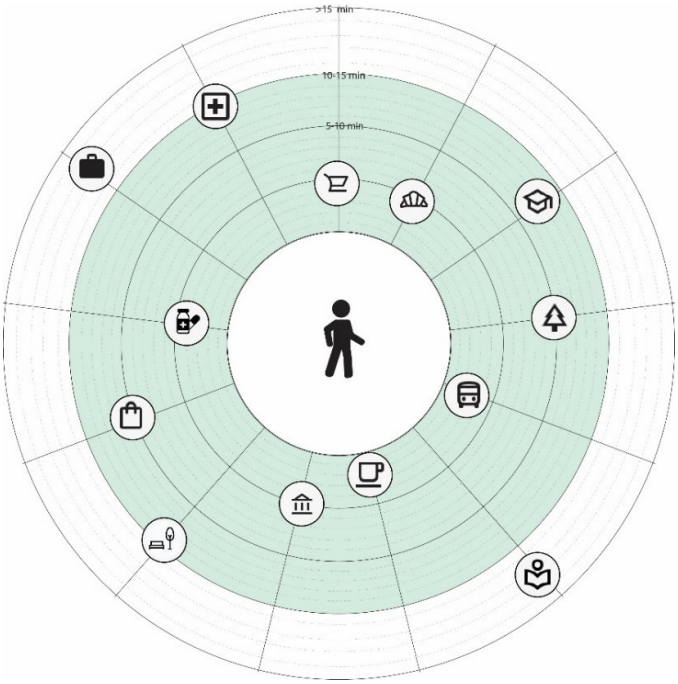


Figure 41 Diagram showing services within 15-minutes according to the survey

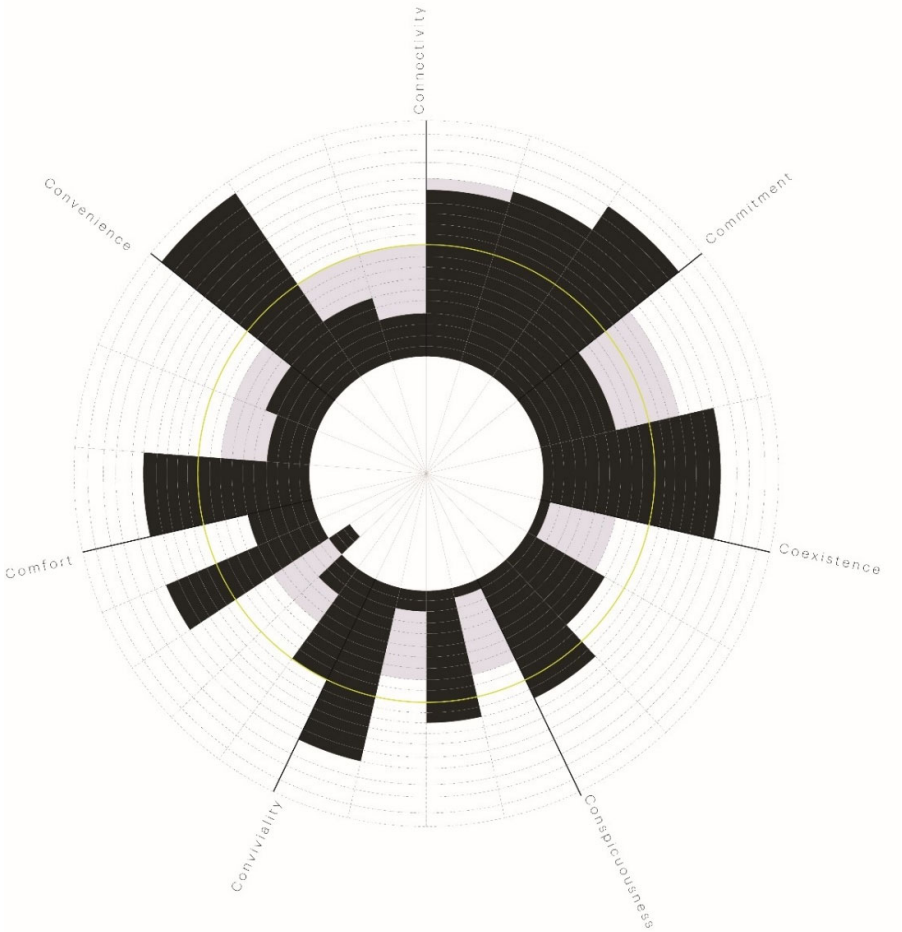


Figure 42 Walkability scoring diagram

Table 8 Walkability Scoring Table

Likert Scale - Weights of Normalisation	-0.5	-0.25	0	0.25	0.5	
Vleresimi	1	2	3	4	5	
						Score
Presence of public spaces	226	144	123	72	50	-106.00
Presence of proper lighting at night	67	146	152	150	100	17.50
Continuous presence of sidewalks	134	150	136	114	81	-35.50
Wide enough sidewalks	208	149	128	85	45	-97.50
Presence of a sidewalks without obstacles	229	156	126	65	39	-117.75
The quality of the sidewalks	187	172	141	71	44	-96.75
The presence of services along the street	121	141	170	101	82	-29.50
The diversity of the services offered	108	151	164	117	75	-25.00
Visibility of the road	103	146	179	120	67	-24.50
Crossroad Safety	181	155	188	64	27	-99.75
Respecting traffic rules from the drivers	186	185	163	65	16	-115.00
Respecting traffic rules from the pedestrians	160	194	172	72	17	-102.00
Presence of Zebra Lines	142	130	164	126	53	-45.50
The presence of other people in the street(vigilence)	106	152	221	105	31	-49.25
Spread in time of the services offered	84	129	186	149	67	-3.50
Presence of meeting places	89	158	164	133	71	-15.25
Places to stay or sit	171	159	150	88	47	-79.75
Presence of road signs and toponims	139	170	190	77	39	-73.25
Presence of orientation signs	112	181	165	115	42	-51.50
Presence of landmarks	98	123	191	122	81	-8.75
Proper changes in the road according to standards	159	196	166	65	29	-97.75
Presence of trees	105	142	173	115	80	-19.25
Cleanliness of the sidewalk	133	169	178	97	38	-65.50
General aesthetics of the road	226	168	129	65	27	-125.25

5.2 Mezzo

Figure 43 Map of selected case study area

The chosen site is that between the Durresi street and Boulevard streets. The reason behind the site selection is the obvious and immediate contrast between the perimetrial line and the actual inner site, which could be a basis for critical planning.

DEPTHMAPX

Figure 44: DepthmapX interface

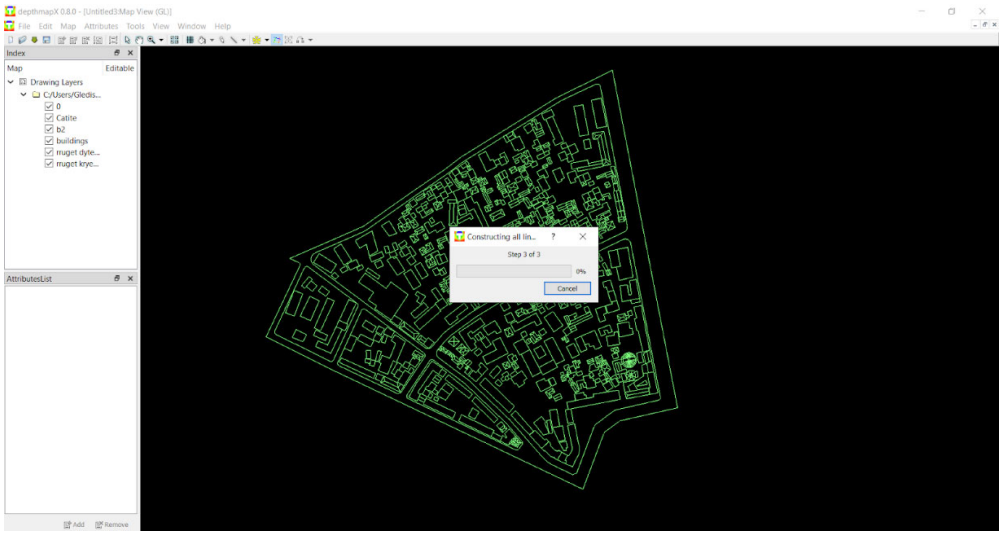


Figure 45: AutoCad map exported in DepthmapX

The figure shows the analysis of the first 'C'- connectivity from the perspective of syntax measures: Integration, Connectivity, Intensity, Entropy. The red lines represent the highest values while the blue ones the lowest values. The mapping was then converted into generated numerical data for each line. Integration is the degree which nodes are integrated or segregated from a whole system. The values show the number of turns that can be made when moving that segment and represent how easily reachable it may or may not be.

Figure 7 shows that the Fortuzi and Mine Peza street have the highest integration, followed by Bulevardi which by numerical data is a range from 3,3 to 3,9. Connectivity is the number of lines each line intersects with. Figure X shows that the highest connectivity is the Fortuzi street with values ranging from 140-170.

Entropy is the last global measure (together with 'relativised entropy') it shows the dispersion of locations, as referenced from a node in terms of the visual depth. The entropy is low when several locations are visually close to a node, because the visual depth is not symmetrical, and is higher when the visual depth is uniformly dispersed. Figure 7 shows a relatively constant and high entropy within the neighbourhood blocks, with values varying from 2.6 to 2.9.

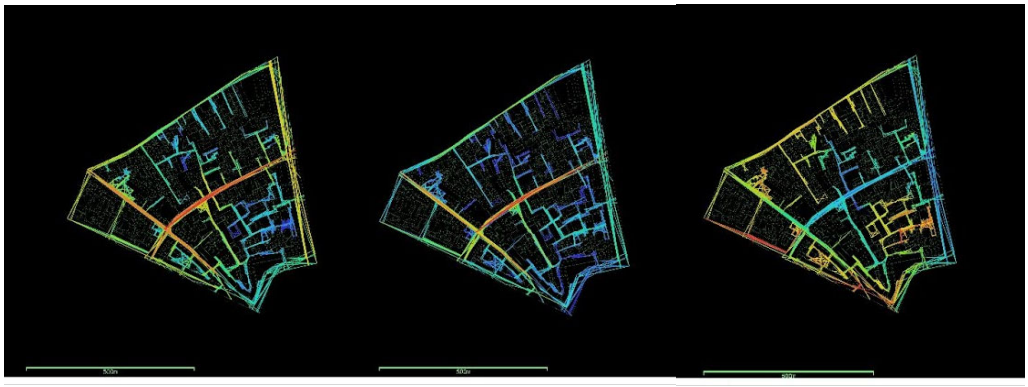
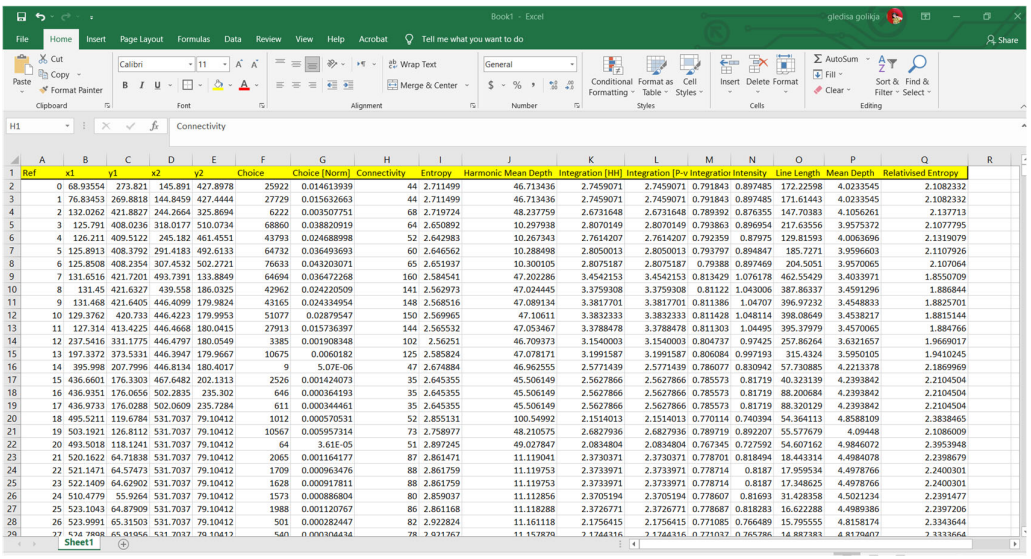


***Figure 46**:* DepthmapX syntax measures: a) Integration, b) Connectivity, c) Entropy



Ref	x1	y1	x2	y2	Choice	Choice [Norm]	Connectivity	Entropy	Harmonic Mean Depth	Integration [HH]	Integration [P-v	Integratior	Intensity	Line Length	Mean Depth	Relativised Entropy
0	68.93554	273.821	145.891	427.8978	25922	0.014613939	44	2.711499	46.713436	2.7459071	2.7459071	0.791843	0.897485	172.22598	4.0233545	2.1082332
1	76.83453	269.8818	144.8459	427.4444	27729	0.015632663	44	2.711499	46.713436	2.7459071	2.7459071	0.791843	0.897485	171.61443	4.0233545	2.1082332
2	132.0262	421.8827	244.2664	325.8694	6222	0.003507751	68	2.719724	48.237759	2.6731648	2.6731648	0.789392	0.876355	147.70383	4.1056261	2.137713
3	125.791	408.0236	318.0177	510.0734	68860	0.038820919	64	2.650892	10.297938	2.8070149	2.8070149	0.793863	0.896954	217.63556	3.9575372	2.1077795
4	126.211	409.5122	245.182	461.4551	43793	0.024688998	52	2.642983	10.267343	2.7614207	2.7614207	0.792359	0.87975	129.81593	4.0063696	2.1319079
5	125.8913	408.3792	291.4183	492.6133	64732	0.036493693	60	2.646562	10.288498	2.8050013	2.8050013	0.793797	0.894847	185.7271	3.9596603	2.1107926
6	125.8508	408.2354	307.4532	502.2721	76633	0.043203071	65	2.651937	10.300105	2.8075187	2.8075187	0.79388	0.897469	204.5051	3.9570065	2.107064
7	131.6516	421.7201	493.7391	133.8849	64694	0.036472268	160	2.584541	47.202286	3.4542153	3.4542153	0.813429	1.076178	462.55429	3.4033971	1.8550709
8	131.45	421.6327	439.558	186.0325	42962	0.024220509	141	2.562973	47.024445	3.3759308	3.3759308	0.81122	1.043006	387.86337	3.4591296	1.886844
9	131.468	421.6405	446.4099	179.9824	43165	0.024334954	148	2.568516	47.089134	3.3817701	3.3817701	0.811386	1.04707	396.97232	3.4548833	1.8825701
10	129.3762	420.733	446.4223	179.9953	51077	0.02879547	150	2.569965	47.10611	3.3832333	3.3832333	0.811428	1.048114	398.08649	3.4538217	1.8815144
11	127.314	413.4225	446.4668	180.0415	27913	0.015736397	144	2.565532	47.053467	3.3788478	3.3788478	0.811303	1.04495	395.37979	3.4570065	1.884766
12	237.5416	331.1775	446.4797	180.0549	3385	0.001908348	102	2.56251	46.709373	3.1540003	3.1540003	0.804737	0.97425	257.86264	3.6321657	1.9669017
13	197.3372	373.5331	446.3947	179.9667	10675	0.0060182	125	2.585824	47.078171	3.1991587	3.1991587	0.806084	0.997193	315.4324	3.5950105	1.9410245
14	395.998	207.7996	446.8134	180.4017	9	5.07E-06	47	2.674884	46.962555	2.5771439	2.5771439	0.786077	0.830942	57.730885	4.2213378	2.1869969
15	436.6601	176.3303	467.6482	202.1313	2526	0.001424073	35	2.645355	45.506149	2.5627866	2.5627866	0.785573	0.81719	40.323139	4.2393842	2.2104504
16	436.9351	176.0656	502.2835	235.302	646	0.000364193	35	2.645355	45.506149	2.5627866	2.5627866	0.785573	0.81719	88.200684	4.2393842	2.2104504
17	436.9733	176.0288	502.0609	235.7284	611	0.000344461	35	2.645355	45.506149	2.5627866	2.5627866	0.785573	0.81719	88.320129	4.2393842	2.2104504
18	495.5211	119.6784	531.7037	79.10412	1012	0.000570531	52	2.855131	100.54992	2.1514013	2.1514013	0.770114	0.740394	54.364113	4.8588109	2.3838465
19	503.1921	126.8112	531.7037	79.10412	10567	0.005957314	73	2.758977	48.210575	2.6827936	2.6827936	0.789719	0.892207	55.577679	4.09448	2.1086009
20	493.5018	118.1241	531.7037	79.10412	64	3.61E-05	51	2.897245	49.027847	2.0834804	2.0834804	0.767345	0.727592	54.607162	4.9846072	2.3953948
21	520.1622	64.71838	531.7037	79.10412	2065	0.001164177	87	2.861471	11.119041	2.3730371	2.3730371	0.778701	0.818494	18.443314	4.4984078	2.2398679
22	521.1471	64.57473	531.7037	79.10412	1709	0.000963476	88	2.861759	11.119753	2.3733971	2.3733971	0.778714	0.8187	17.959534	4.4978766	2.2400301
23	522.1409	64.62902	531.7037	79.10412	1628	0.000917811	88	2.861759	11.119753	2.3733971	2.3733971	0.778714	0.8187	17.348625	4.4978766	2.2400301
24	510.4779	55.9264	531.7037	79.10412	1573	0.000886804	80	2.859037	11.112856	2.3705194	2.3705194	0.778607	0.81693	31.428358	4.5021234	2.2391477
25	523.1043	64.87909	531.7037	79.10412	1988	0.001120767	86	2.861168	11.118288	2.3726771	2.3726771	0.778687	0.818283	16.622288	4.4989386	2.2397206
26	523.9991	65.31503	531.7037	79.10412	501	0.000282447	82	2.922824	11.161118	2.1756415	2.1756415	0.771085	0.766489	15.795555	4.8158174	2.3343644
27	524.7898	65.91956	531.7037	79.10412	540	0.000304434	78	2.921767	11.157879	2.1744316	2.1744316	0.771037	0.765786	14.887383	4.8179407	2.3333664

Figure 47: Syntax measures numerical data retrieved from graph analysis

Connectivity

The study area is located within the ring of Tirana with public transport access only in the main roads of Durresi street and Zogu I Boulevard. The streets are connected in a radial way with the biggest nodes of Train Station-Skanderbeg Square-Zogu i zi roundabout which give a sense of popularity to the area. (Figure8) The main streets have already been improved and redesigned, yet the secondary streets of Fortuzi and Haxhi Hysen Dalliu and all the in-between pathways lack improvement. This can be noticed from the sidewalk obstruction which is clearly visible in the secondary streets

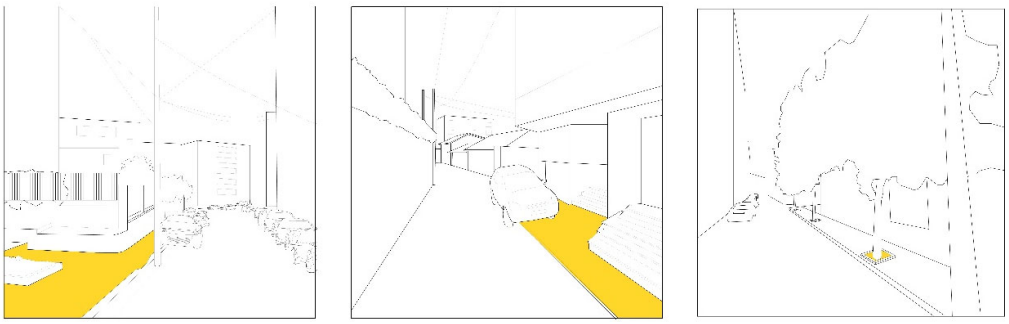


Figure 48: Pedestrian Infrastructure

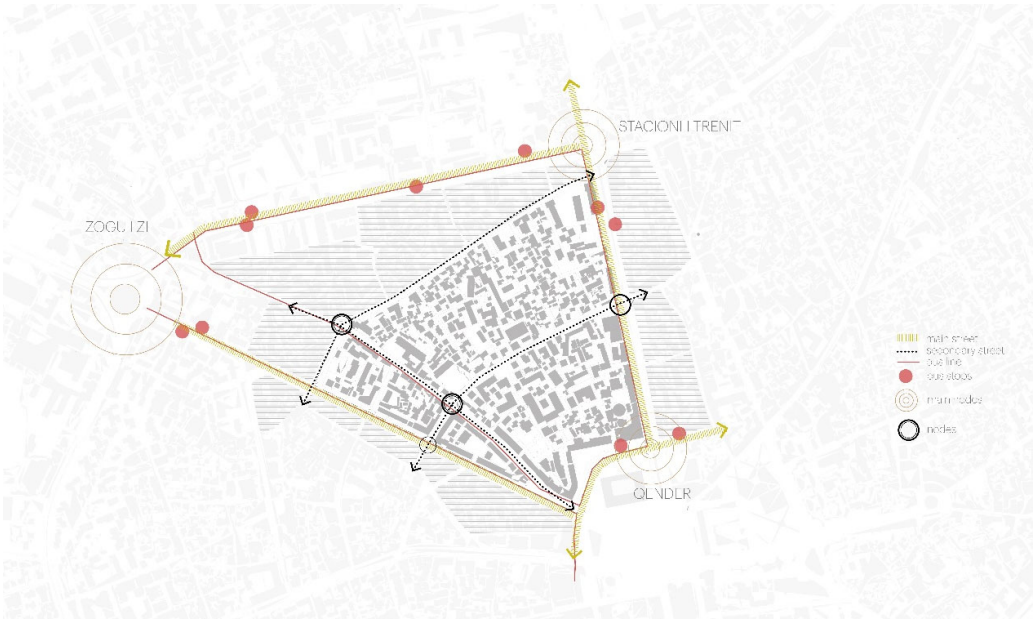


Figure 49 Map of site area.

The map below shows that the surrounding streets have wide enough sidewalks, with no obstructions, thus with a better connectivity than the rest of the paths. The streets within the blocks also have a lack of sidewalks due to them being narrow. The main streets have a better visual accessibility compared to the other cul-de-sacs and non-direct pathways.

Figure 50 Sidewalk obstruction.

Convenience

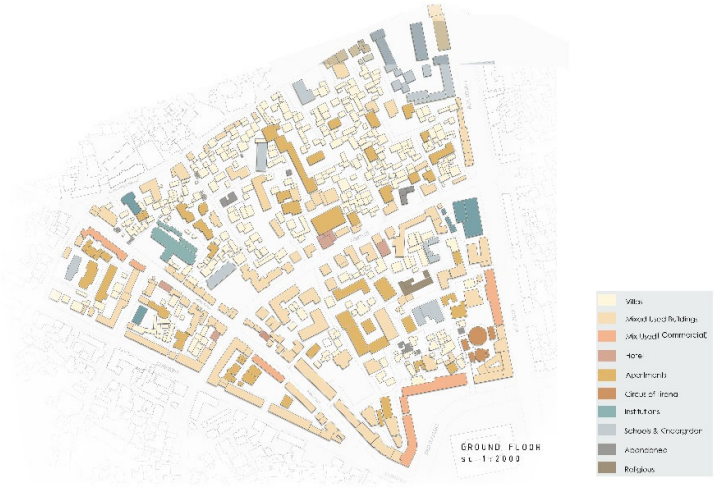


Figure 51 Land use services.

Convenience is related the extent of which walking is based on efficiency, of time, space and money. The main key-concerns of Convenience are: Land use diversity, Daily Commerce and Sidewalk width. Regarding Land Use Diversity, the neighbourhood includes mainly residential and mixed use buildings, with the main activities located in the ground floor level. There are also various institutions such as schools and ministries. Services such as coffee shops and restaurants are located plentifully throughout every street. Other daily basic services such as markets, stores are concentrated within the areas with mostly residential functions such as Haxhi Hysen Dalliu-Mine Peza-Fortuzi streets.

The sidewalk width is problematic in over 50% of the street network, with sidewalks being either too narrow or non-existent. The sidewalks of Durresi street and Zogu I Boulevard have adequate width up to 100% of their longitude.

Comfort

Comfort is about providing to all types of pedestrian's capacities. The key concerns of comfort are vigilance effect or perception by pedestrians, pavement

quality, shading and lighting. The vigilance effect alone refers to the continuous pedestrian presence, and building orientation, e.g main facades of apartment building facing the street increases the vigilance of the street. This indicator shows good evaluation for the area.. As referred in the previous subsection, this neighbourhood includes many residential buildings with services occupying either the entire building or some apartments. Although local street activity is concentrated in someparts of the network, there aren't long opaque facades. Conversely, the buildings usually found in the area have ground floor residen-tial occupation with windows at the street side, showing a better result for vigilance effect. Pavement quality is good to poor within the site area, altogether with lighting presence. There is also a continuous presence of trees throughout the streets which provide little to good shading.

Figure 52 Lighting presence.

Figure 53:Night-time photos from the study area, showing the presence/lack of lighting. Source: Author

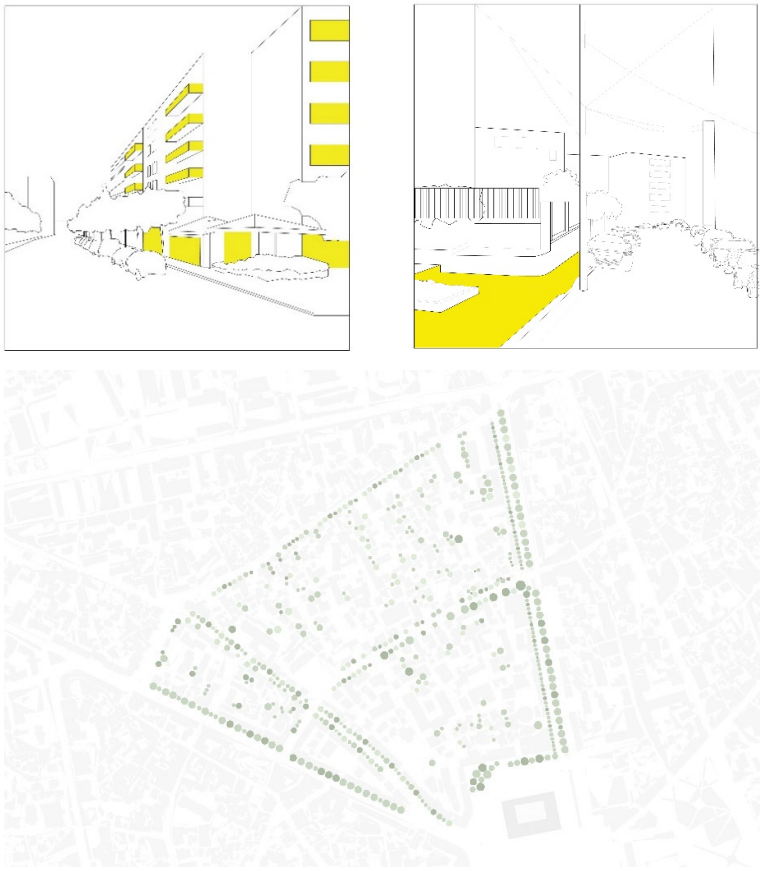


Figure 54 Presence of trees.

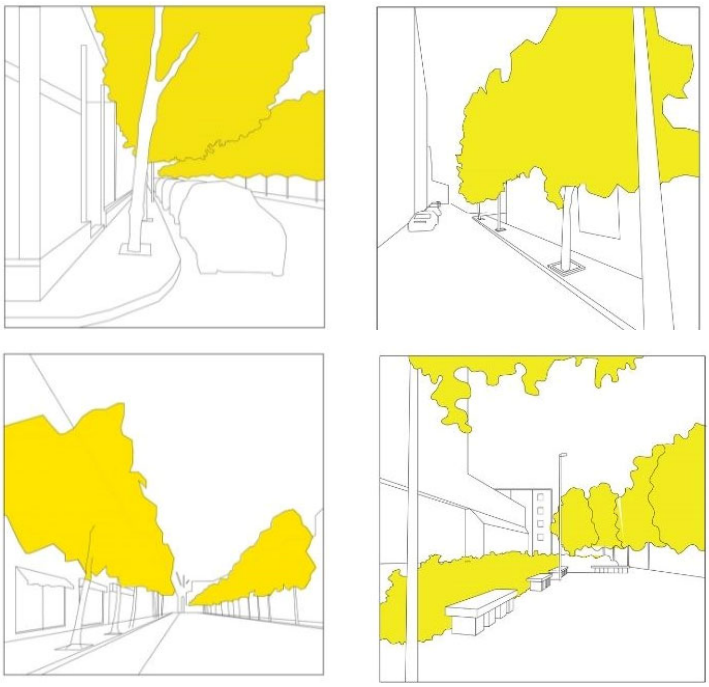


Figure 55 *3D drawings of site trees.*

CONVIVIALITY

Conviviality relates to the pleasantness of walking as an activity, in terms of people exchanges and interaction, the built and natural environment, and other pedestrians. Again, three key-concerns were selected. There are not many meeting places in the area and it seems like the streets of the area only serve for passing by, except for the public and sitting spaces in the Zogu I Boulevard, which is recently renovated Similarly, 96% of the land usesreferred in the previous subsection have extended service hours(e.g., restaurants, bars, shops, etc.), making the urban environmentmore convivial to later hours. Conversely, there aren't many anchorplaces, nor are these visible within sight lines from the study area. Conversely, public space is almost inexistent, meeting places are lacking.

Figure 56 Sitting areas and public spaces

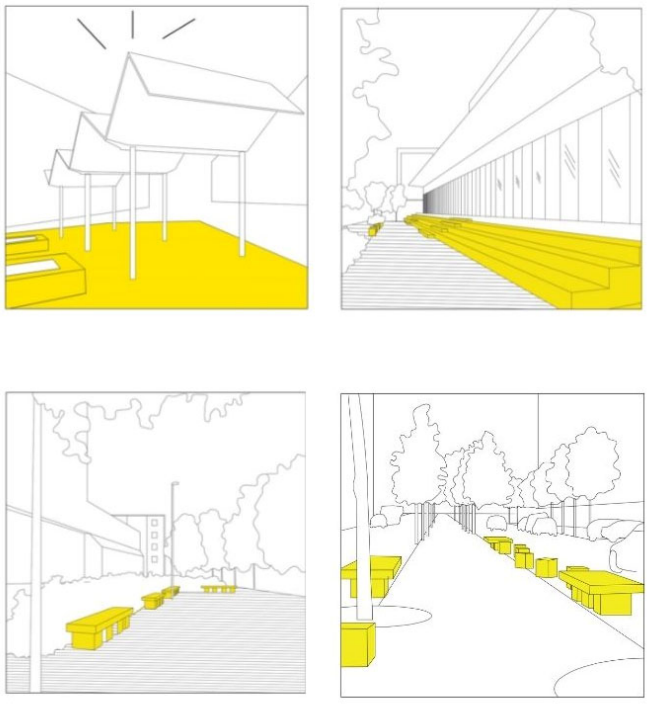


Figure 57 3D drawings of sitting areas and meeting places.

CONSPICUOUSNESS

Conspicuousness refers to the extent walking routes, and public spaces are discernible and appealing for pedestrians, in termsof termsof clear and legible signing and information. Here, key-concernsrefer to the existence or visibility of landmarks (e.g., monuments,distinctive buildings, etc.) and to the existence or visibility of streettoponymy (e.g., street names). In the area there is a good amound of landmarks which create a dense of legibility and discernment for the area. The urban fabric is relatively homoge-nous in terms of building and street typologies without many different distinctive landmarks

Figure 58 3D views of landmarks

Figure 59 Landmarks

COEXISTENCE

Coexistence indicates the extent pedestrians and other transportmodes can coexist at the same time and place with order and peace. Traffic safety (at pedestrian crossings) and Pedestrian crossing and cross-road loca-tion were selected to evaluate

this dimension. The indicator elected to quantify traffic safety is a composition of indicators that combine the crossing type, the pedestrian visibility to cars and number of potential conflicts with road vehicles (i.e., number ofvehicle paths conflicting with the crossing despite the crosswalk orgreen stage for pedestrian) The area indicated a reasonably good overall traffic safety. In the secondary streets it is noticed that people cross where there are no zebra crossings, but this does not seem to create conflicts. It actually gives a sense of safety because drivers are more cautious and tend to slow down within the study area.

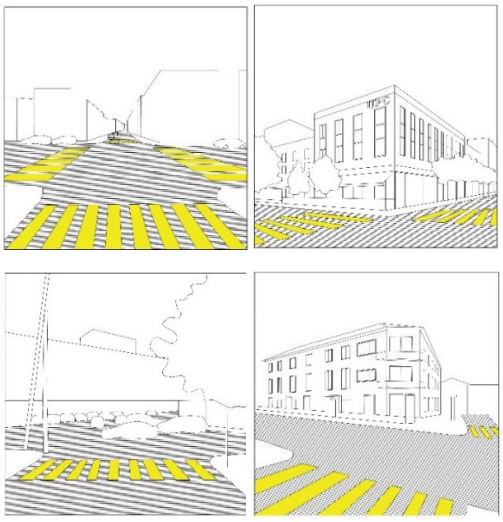


Figure 60 Pedestrian Crossing

Figure 61 Pedestrian Crossing

COMMITMENT

Commitment conveys the extent to which there is evidence of engagement, liability and responsibility towards the pedestrian environment, by local communities and authorities. The first key-concern is the commitment to design standards and accessibility of the network, starting from sidewalk width, to accessibility of the sidewalks, sidewalk obstruction etc.Overall, the study area shows poor levels of commitment regarding the pedestrian environment

5.3 Micro

The micro analysis is focused on the Fortuzi streen within the chosen neighbourhood. This scale is seen and analysed through mapping and expert interviews.

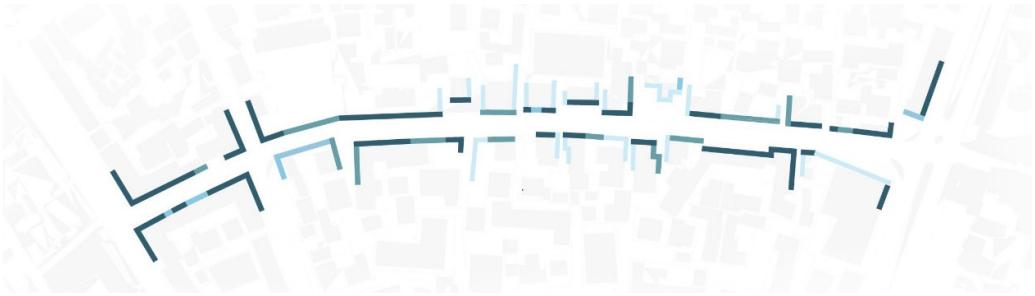


Figure 62 Street edge map

The street edge map shows the level of activeness of the street. In Fortuzi there is a mix of open facades due to it having mainly shops and services in all ground floors. The closed facades are located in the vertical intersection roads.

Figure 63 Types of Facades

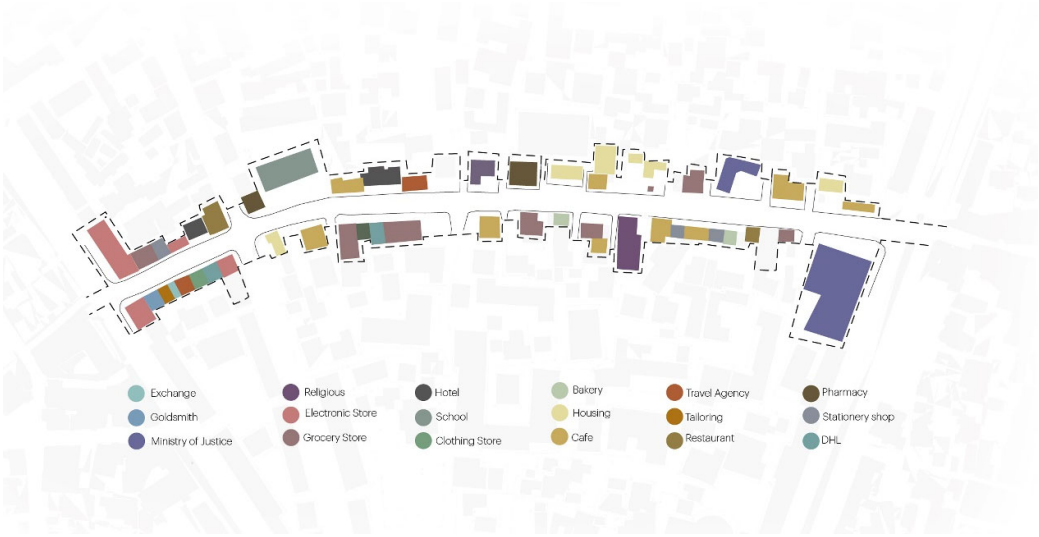


Figure 64 Ground floor functions

Figure 65 Street parking

Expert Interviews - NVIVO Assessment

The last stage of our micro assessment included interviews with experts. The interviews were transcribed and translated from Albanian to English. We used NVivo to perform the qualitative analysis of the data derived from the interviews. Each interview was manually coded with some pre-selected codes, albeit new codes were added as well during the process.

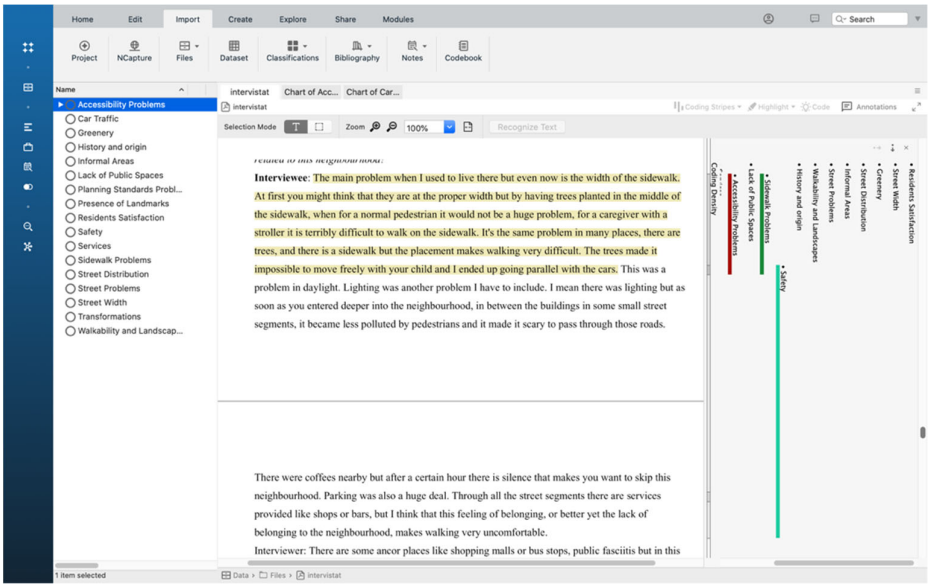


Figure 66 NVivo Coding of the interviews

In their accounts of the history and initial functionalities of the street, the experts indicated the origin that: *"...Fortuzi Street was designed for another reason, it was supposed to be the first ring of Tirana, and so the effective width was given on purpose.*". They would futher explain that the tendency of intervening only on the main street and leaving the areas in between unchanges, has continued until today and it is very difficutl to make changes.

Figure X highlights the main themes emerging from the expert interivews, with "*Planning Standards Problems*" expressed as one of the main recurring themes. When asked about the planning standards and their application in the area, the participants were unanimous in the view that the standards were not properly applied. One expert alluded to the notion of "*there are no planning standards applied. (...) In some areas for example there is enough sidewalk width, but it is taken from private activities. Based on the municipality regulations, the distance or width of the sidewalk (excluding at least 70 cm for the tree grade) should be around 2.3 m uninterrupted. Here it's not more than 70 or 80 cm...* ". This view was echoed by another expert in urban planning and design who commented on the haphazard planning of trees in the sidewalk: "*Every intervention here is done without a proper study, because trees have several functions, except for being aesthetically pleasing and bringing greenery to the area, they also provide shading so you should know where to place them, the type of trees needed.*

Here for example look how the type of tree is inappropriate, it's literally entering people's windows. Studies should be done, but here we just place them randomly." They further went to explain that this haphazard placement eventually led to a decrese in interest in the area as "They don't allow to create a pictorial view for the inhabitants or visitors." Commenting on the lack of standards the Transport Expert took a more neutral stance with admitting that ideally everything should abide by standards, but they also note that "*I understand that is more work, as you need to work with different departments, but that makes the difference in quality and as you say it should not be only technical standards on road design but a broader approach on sustainable mobility.*"

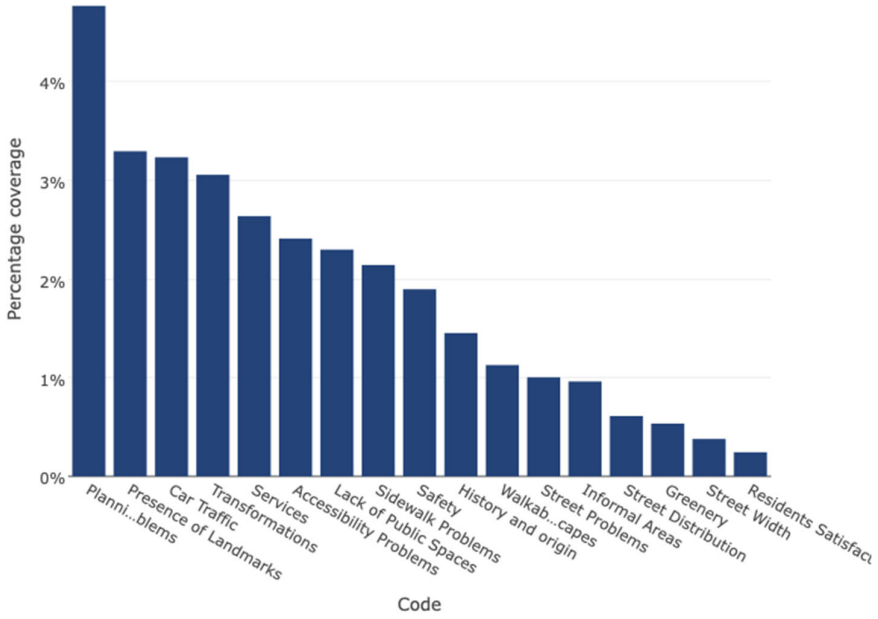


Figure 67 Bar Chart of Interview Codes

Concerns regarding the sidewalk and street were also widespread. The consensus is that there is an uneven space distribution between the street and sidewalk. References to the fact that streets are wide are eachoed throughout all the interviews, with some stating that "*The first issue here it's the street width, it's much wider than necessary*" and another going even further to explain that problematic "*One thing that*

is very problematic in this street is the width, which is not well defined, and if it weren't for this street width the sidewalks should normally be wider.". What followed were some other comments on the problems of the road all under the umbrella code of street problems. Talking about the lack of a safe design in the street one of the experts said: "*The roads don't actually have a safe design to pre-inform you about your safety and the road in general. It is not only about some zebra crossings but there is a lack of design or organisation that pre-inform, it is very uniform and you find yourself in the crossroad.* ". The lack of visuals also contributes to the negative conotations with the street, with one indicating that: "*It's mainly designed for motorized vehicles and like, even there. I mean it's basically just a paved surface without any visuals to drive slower or to watch out for other people on bicycles or even children, as you say*."

An additional concern about the street under the coding of "Accessibility" were problems related to caregivers and people with mobility issues. As one interviewee put it "*It is difficult for certain groups of people to access and walk on the sidewalks, especially for caregivers with strollers*.". The participant of the whole indicated that there is a serious issue that stems from the sidewalk problems and space distribution. As one participant pointed out: "*think this is a result of the badly distributed space. Maybe you don't see it on Google maps, but what you often see is that people often walk on the streets and especially if they have strollers or luggage because the pavement of the sidewalks is often not good and additionally the space is obstructed.*". They went on to futher comment on the fact that women as the main caregivers were not considered and that "*these elements which you showed are disproportionately disadvantageous to women because they are often the ones having the strollers and also walk more in the neighbourhood.*" This statement was echoed by the personal experience of another expert who reported that "*The main problem when I used to live there but even now is the width of the sidewalk. At first you might think that they are at the proper width but by having trees planted in the middle of the sidewalk, when for a normal pedestrian it would not be a huge problem, for a caregiver with a stroller it is terribly difficult to walk on the sidewalk. ...I ended up going parallel with the cars*.". However not ony caregivers are affected by these issues as one expert pointed out:

> "*The sidewalks are very narrow in this area. Two people at most can pass at the same time , if squishing, and it becomes harder when they are holding bags. From what I notice there are no ramps in the streets or building entrances, so people with*

disabilities have a difficult time to move without interruptions or to even access building entrances. Some buildings only offer stairs and no ramps at all so that doesn't help."

When they were asked to comment on the presence or not of the landmarks in the area, one of the experts noted that the area has a dual nature of being in between major Streets and yet being a very introverted area.

"Yes, it has this duality, while it is in between an area like the Boulevard that is a popular public area… This is a pretty introverted area in between really known public spaces. On itself it does not have much to offer, but its central location is its main advantage. It has a pretty controversial character, it is pretty much in the center and you expect it to be very public, but in reality it has not changed a lot."

In general, the experts noted that the area on itself does not have any prominent landscape with one of them reporting that: "*Right, there are some public spots or landmarks like "Kafe Flora" or "Vila Tafaj", but they are in the corners outside the area. Perhaps when you go through this area, when you have these landmarks in mind, you might walk in a careless manner*." However, one of the experts pointed out that with the street being not very long, there was not necessary to have prominent landmaarks. The additionally suggested that "*We usually refer to the entrances, whether you say that you are at the entrance from the Ministry of Justice or the other side from the Ministry of Education. Same thing for rruga Haxhi Hysen Dalliu, it's short at neutral almost all the way. Rruga e Durresit is different, it needs landmarks due to it's longitude, and it needs to be fragmented. That's how I view landmarks, it's a tendency of space fragmentation. We don't even call it landmark anymore, it's more of a cognitive aspect, since we also don't have a good relationship with addresses and toponyms. We talk in terms of 'close to this...' or 'adjacent to this' etc."*

The experts pointed out that the street lacks public spaces and places to meet, as one expert said: "*There are no public spaces, it is a street where you don't ever set meeting places with friends. It has this configuration of a neighbourhood street which only meets direct needs.*" . This view was futher echoed by amother expert who explained that: *"there isn't any place that could be thought of as a destination, rather it's an area solely to walk through and not rest anywhere*." This lack of public spaces

in general makes the area less attractive and directly affects the resident's satisfaction. As one urban planning expert further indicated that: "*The lack of public spaces makes this area less preferred, and it affects the inhabitants' satisfaction. It also makes it less attractive for other pedestrians, as people tend to go often to places where there are gathering areas. They get curious and once they visit it, although someone may not live in that area, they will visit it again.*". The focus of the street seems to be anything, but human centered as one expert put it "…there's not much beside the paved road. I mean, there's parking, so the cars are dominant. There are bars and restaurants and trees which is good but … the space distribution is not favorable,it's not human centered and therefore, of course, public spaces first have a social function that should be considered."

There were some negative comments on the lack of adequate services for the are, as one expert commented that while it did have the configuration of a neighbourhood strret, it only meets basic direct needs. Some felt that while there were services provided, they are not cattered to all age groups and in general do not add anything substancial to the area.

"There are way too many bakeries or pharmacies, more than the area actually needs, while in the meantime there are not many other services. The services are mainly the basic ones, if I can generalise it. There are no services for all age groups, but also activities, because it's not just about providing basic services, an area needs some recreational activities as well."

Picking up on that, other experts commented that this could be related to the characteristics of the residents of the area, who seem to be locals and older people: *"For example in the building that we lived in, we were the only ones who rented, the others were locals and older people. The services offered are also related to the target users of the area. That is why the area is not very lively and has been upgraded more."* Whilst some other commented on their personal experience that services such as hairdressers, or shoe reparimnen shops were not easily accessible.

When asked to discuss the safety of the street at night, some of the expert connected it the the lighting problems during the night with some pointing out that: "*Lighting was another problem I have to include. I mean there was lighting but as*

soon as you entered deeper into the neighbourhood, in between the buildings in some small street segments, it became less polluted by pedestrians and it made it scary to pass through those roads. ", like another expert who commented that "*Also the lights were flickering, so they were not working well, at least for the period when I was walking on that street, I last went there in October. The street was asphalted, there were not many people, mostly elderly ,some boys or groups of boys. (…) It was a calm area, no one bothered me, although it made me feel scared most of the time*.". And this perception is not changed even from the presence of bars or small shops in the street, as one participant said: "*There were coffees nearby but after a certain hour there is silence that makes you want to skip this neighbourhood*". This feeling was echoed by another architect who pointed out that perhaps the lack of belonging contributed to this perception of unsafety: "*I think that this feeling of belonging, or better yet the lack of belonging to the neighbourhood, makes walking very uncomfortable*."

Figure 68 Wordmap of the Interviews

Finally, the experts were asked to give their input on the future of this area and possible transformations. Whilst some considered making relatively small changes in the sidewalks like the ones made in the Boulevard: "*One solution could be that the sidewalk and the road could be at the same level. (…) It could be a very practical solution for someone with limited mobility, this is a small change that does not require*

you to move any trees or bars, but you just need to level the road to the sidewalk.", as pointed out from another expert: "*if I would be able, I would redesign the whole street to widen the sidewalks*…". Another went further at addressing not just the accessibility issues but walkability as well by: "*I doubt that there are ramps on the sidewalk. (…) you could also think about road bumpts, which gives the car the feeling that they're entering a different zone, it lowers the speed, and it gives the convenience to the pedestrians*." Some went further to suggest that while a change of material could be used to demonstrate the main functionality of the area: "*Perhaps there should be some changes in the pavements, because when you see an asphalt paved road you automatically think of cars. If it is paved with stones or other similar materials subconsciously you would think this is a pedestrian area first and cars are secondary…*", perhaps a bigger transformation could be the overall traffic deviation: "*I think the roads should be deviated from these small paths, so they won't bother the people staying there…".* Whilst a minority mentioned that since the street was not that long, we could make small changes, however in their view, it would not make any major difference: "*You can create channels for pedestrians. It's an area that has usually worked with cul de sacs and not necessarily should change. You also have short distances, so if an opening from another is 3-5 minutes, then it's not worth it.*"

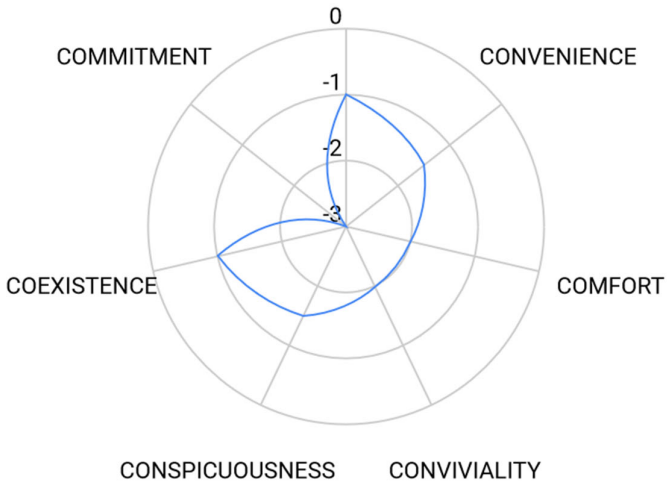


Figure 69 Scoring of 7C from interviews

5.4 Discussions

This thesis aimed at examining the city from a human scale perspective, that of a pedestrian, in terms of the concept of walkability, by answering these research questions: 1) What is it like to be a walker/pedestrian in Tirana? 2) What influences people's walkability choices? 3) What are the elements that determine the level of walkability? 4) What is the relationship between walkability and gender? And 5) What could be some urban mobility strategies for developing a sustainable, gender-based example of walkable neighborhoods in Tirana?

In regards with the first research question, this study affirms that people's first choice of mobility in Tirana is, indeed, walking. The survey results also confirm that people use several modes of transport with walking, such as public transport (36.88%) and personal vehicles (30.65%). The average time our walker spends walking is 30 min- 2 hours. If we can confront this time length with the concept of 15-minute city we can notice that this walking length is related to the fact that all amenities and services in the urban neighbourhoods of Tirana are located within a 15-min walk, except for commuting to work for which people can walk longer distances.

What can be highlighted is also the fact that the reason that there is a direct and strong correlation between people's walking route choice and pedestrian infrastructure presence or quality. The main issues evidented are lack of lighting followed by sidewalk obstruction, quality, width and lack of trees. These issues are seen as present in most of the neighbourhoods in Tirana, thus creating a sort of common issue in the city level.

Observations show that the lack of lighting is an issue that is present mainly in the secondary roads or cul-de-sacs. Also, these issues seem to be less evident in the main streets of Tirana, showing a neglection in the in-between areas.

Studies show that lighting is directly related to safety and as such it affects people's walkability. Walkabilty according to Gehl is about accommodating walking,

making it easy, efficient, and enjoyable. To evaluate walkability a set of referenced indicators is crucial in order to visualize and measure vague descriptions, such as enjoyability or efficiency etc.

For this study a pre-set group of walkability indicators were introduced and analyzed in the given context, based on previous studies in Portugal and the UK.

CHAPTER 6

CONCLUSIONS

6.1 Conclusions and recommendation

This thesis aims to create and evaluate a top-down walkability assessment by the means of quantifying pedestrian data and to aid in building strategy guidelines for a walkable neighborhood. One of the main goals of this research was to find out what could be some urban mobility strategies to develop a sustainable example of a walkable neighborhood in Tirana, taking in great consideration the gender perspective. The second aim of this study was to examine what it is like to be a pedestrian in Tirana and what are the elements that influence their walkability choices.

A mixed methodology approach is used to assess, in a bottom-up aspect, the indicators that affect walkability. Walkability as a concept is difficult to visualize and quantify, thus we set out to explore it in three scales, macro- city scale, mezzo-neighbourhood scale and micro-screet scale with a combination of qualitative and quantitative analysis. The macro scale analysis is based on the quantifiable data of our participants/residents of Tirana through a survey. In the mezzo scale we evaluated the Case Study of a neighbourhood that is located between the New Boulevard and “Rruga e Durresit”, by means of ARCGis and SpaceIndex Connectivity Indicators. It was important to take a case study of a neighbourhood as it is a manageable scale to understand the issues of walkability in terms of mapping but also through on-site observation. Finally, we set up to assess through a micro scale, the Fortuzi Street, by the means of semi structured expert interviews. I substantiate that a real experience of walkability comes from a bottom up view and can be really achieved through the engagement of residents and experts combined with on-site analysis. The result of all the analysis is a network of clear connection between survey participants (the results of whom were measured on a Likert Scale with questions evaluation from 1 to 5)

This study has reaffirmed that in Tirana, people's first choice of mobility is walking, spending on average 30min-2 hours per day. One of the most particular findings was that Tirana has all the potential to be a 15-min-city as several services are within a 15-min distance, however communing takes a major part of the day still. The survey has confirmed that indeed people's walking routines were affected by street infrastructure. The absence of improper lighting or othe road safety mechanisms, continue to have a great effect on people's walking experience.

The survey showd that the indicator with the lowest score of all is Commitment, which implies that in Tirana there is a low level of Commitment from all stakeholders , also low in terms of respect for traffic rules, and no standards when it comes to street infrastructure elements. There is an obvious validation of this result from the expert opinions. They agree that in Tirana and in the particular neighbourhood there is a poor level of Commitment, expecially when it comes to design standards. This can also be seen from the mapping, where the main streets of Durresi and Zogu I Boulevard have an overwhelming contrast compared to the streets within the neighbourhood. The result also shows that pedestrians as well do not respect traffic rules, and this was also observed in the neighbourhood and Fortuzi street where people massively cross the street anywhere else but the zebra crossings. Experts argued that this in fact a positive thing when it comes to street safety because it increases cautiousness from drivers. It also lowers their speed in the respective street which is mostly residential.

Another crucial aspect of the analysis confirmed that there are substantial differences when it comes to walkability for women and men. The survey gives the insights for the differences through questions of personal experiences.
Women walk two times more than men and their walking schedule is mainly within the day time. The main issue observed is the level of safety. During the day women feel two times 'a lot' less safe compared to men, and the difference is significant when they were asked on the level of safety during the night, where women feel five times 'a lot' less safe than men. On questions regarding elements that affect their walking experience, lack of lighting and narrow sidewalks were the two top reasons, yet lack of lighting was on much higher level of concern for women.

The issue with major differences is street harrasement. Women have experienced street harrasement ten times more than men. While it is interesting to note

that both have seen ,almost on the same level, other people being harassed, but women have heard at least two times more than men on cases of other people being harassed. With women being more targeted for harrasement they also share more experiences with each other.

The insights gained from this study may contribute to the knowledge of walkability in Tirana, especially on the gender perspective. This study lays the groundwork for future research that is longitudinal in time and employs multiple researchers of different disciplines.

This study can be used as generalised material for future research in walkability in the context of Tirana. The aim of this study is to create a walkability assessment of urban neighbourhoods in Tirana, and due to the lack of local data, this study tried a mixed method research to create some data results. It needs to be mentioned that the way the data can be considered as a validation for the whole population is through levels of normalisation for population numbers, meaning the number of women and men in this study were modified through formulas to represent the population of Tirana.

This said, a future recommendation would be making in-site interviews with locals of a chosen area, due to the bottom-up and participatory perspective. Due to the pandemic times there was a concern in approaching people in person so virtual interviews and online surveys were conducted instead. This has limited the number of participants from target groups of children and elderly people. Said this, a recommendation would be to make a walkability assessment for these other margenalized groups for whom there is a huge lack of data in the context of Tirana.

Another aspect that this study tries to mention is the future development of Tirana in alignment with TR general plan 030. A future study may serve as a critical analysis of the on-going plan and give optional proposals.

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APPENDIX A

Sondazh ‘Tirana ecen vete’

1. Kategoria e moshes
   - ☐ <18
   - ☐ 19-24
   - ☐ 25-34
   - ☐ 35-54
   - ☐ >55

2. Gjinia
   - ☐ F
   - ☐ M
   - ☐ Preferoj te mos them

3. Edukimi
   - ☐ Fillor
   - ☐ I mesem
   - ☐ I larte

4. Statusi I punesimit
   - ☐ i/e punesuar
   - ☐ student/e
   - ☐ i/e pa-punesuar
   - ☐ nxenes/e
   - ☐ pensionist/e
   - ☐ shtepiak/e

5. Fusha/profesioni:

---

6. E konsideron veten nje person me aftesi te kufizuar?

   ☐ Po

   ☐ Jo

   ☐ Nuk e di

7. Ne cilen zone te Tiranes jetoni ?

   - 21 dhjetori, Ish-Fusha e Aviacionit
   - Astir
   - Qender
   - Ali Demi
   - Don Bosko
   - Qyteti Studenti
   - Stacioni i trenit
   - Komuna e Parisit
   - Brryl
   - Bllok
   - Zogu i Zi
   - Medrese
   - Selvia
   - Sauk
   - Kinostudio
   - Pazari i ri
   - Laprake
   - Selite
   - Yzberisht
   - Institut

- Mezeze
- Allias
- Kombinat
- Xhamllik
- Babrru
- Brrake
- Tjeter

8. Cila është metoda juaj e zakonshme e transportit?

   ☐ Ecje

   ☐ Transport Publik

   ☐ Biciklete

   ☐ Furgon/Autobuz institucioni

   ☐ Makine personale

   ☐ Makine e perbashket

   ☐ Tjeter

9. Mesatarisht, as gjate ecni ne dite ?

   ☐ 15-30 minuta

   ☐ 30min-2ore

   ☐ >2 ore

10. Në cilat orare të ditës ecni më rregullisht ose pjesën më të madhe të kohës?

    ☐ 6 :00-10 :00

    ☐ 10:00-16:00

    ☐ 16:00-20:00

    ☐ Pas ores 20:00

    ☐ Tjeter

11. Cfare ju pengon per te ecur me shume ?

☐ Koha-Jam i/e zene

☐ Nuk ka mjaftueshem trotuare

☐ Rruget jane te rrezikshme

☐ Nuk ndihem mjaft i/e sigurt

☐Arsye shendetesore

☐Nuk e di

☐Tjeter

12. Sa larg nga vendbanimi juaj, duke ecur, ndodhen sherbimet e meposhtme?

	1-5 min	5-10min	10-15min	>15min
Market/Supermarket				
Furre Buke				
Shkolle				
Park				
Stacion autobuzi				
Bibloteke				
Restorant/Kafene				
Banke				
Shesh/hapsire publike				
Dyqan veshjesh				
Farmaci				
Shkolla ose vendi i punes				
Spital/qender shendetesore				

13. Sa i/e sigurt ndihesh kur ecen ne rruge gjate dites ?

☐ Shume

☐ Mjaftueshem

☐ Disi

☐ Pak

☐ Aspak

14. Sa i/e sigurt ndihesh kur ecen ne rruge gjate nates ?

☐ Shume

☐ Mjaftueshem

☐ Disi

☐ Pak

☐ Aspak

15. Keni përjetuar/parë/dëgjuar rast/e ngacmimi verbal apo fizik në rrugë?

☐ Po kam perjetuar

☐ Po kam pare dike te ngacmohet

☐ Po kam degjuar raste nga te tjere

☐ Jo

☐ Tjeter

16. Cfare perceptimi keni ne lidhje me sigurine ne lagjen tuaj ?

☐ Eshte mjaft e sigurt

☐ Eshte disi e sigurt

☐ Nuk eshte e sigurt

☐ Nuk e di

17. Nga 1-5 (1-Aspak mirë, 5-Shumë mirë) si do e vlerësonit lagjen tuaj për sa i përket :

	1	2	3	4	5
Prania e hapsirave publike					
Prania e ndricimit në rrugë gjate nates					
Prania e vazhdueshme e trotuareve					
Gjerësia e mjaftueshme e trotuareve					
Vazhdimesia e trotuarit (pa pengesa)					
Cilësia e shtrimit dhe mirëmbajtjes së trotuareve					
Prania e shërbimeve përgjatë rrugës					
Larmia e shërbimeve përgjatë rrugës					
Dukshmëria/leximi i qartë i rrugës					
Siguria në kryqëzime					
Respektimi i rregullave të qarkullimit rrugor nga shoferët					
Respektimi i rregullave të qarkullimit rrugor nga këmbësoret					
Vendndodhje të duhura të vijave të bardha					
Vigjilenca/Prania e njerëzve të tjerë në rrugë					
Shtrirja e orarit të shërbimeve					
Prania e vendeve për tu takuar					
Vende për qëndrim ose per tu ulur					
Prania e toponimeve të rrugëve					
Prania e orientimeve me shenja/tabela					

Prania e pikave të njohura reference si ndërtese, shesh, monument apo rrugë e njohur.					
Ndërhyrje të kryera sipas standarteve të planifikimit urban					
Prania e pemeve gjatë rrugës					
Pastërtia në rrugë/trotuar					
Pamje te kendshme gjate ecjes (si fasada te bukura, instalacione/objekte artistike, etj)					

18. Sa nga fqinjët, apo banorë të tjerë të lagjes, njihni ?

☐ >5

☐3-5

☐ 1-3

☐ I njoh vetem ne pamje

☐ Nuk i njoh

19. Në lagjen tuaj, do ia besonit çelsin e shtëpisë një fqinji ose një biznesi përgjatë rrugës?

☐ Po

☐ Jo

☐ Nuk e di

20. Cilat jane disa arsye që ju bëjnë të shmangni lëvizjen në një zonë apo rrugë të caktuar?

☐ Trotuaret e ngushta

☐ Pengesat në trotuare (pemë, kosha mbeturinash etj)

☐ Trotuaret me pllaka te thyera/të levizshme

☐ Mungesa e vijave te bardha

☐ Mungesa e pemeve (gjate nje dite te nxehte)

☐ Mungesa e ndricimit (gjate nates)

☐ Gjatesia e rruges (preferoni te kaloni ne nje rruge me te shkurter)

☐ Mos prezenca e njerzve te tjere (preferoni nje zone me levizje)

☐ Trafiku i larte i njerezve (preferoni nje zone me pak levizje)

☐ Mungesa e stolave/vendeve te pushimit

☐ Mungesa e stacioneve te autobuzit

☐ Mungesa e shërbimeve apo aktiviteteve pergjate rruges

☐ Other

21. Si do ta krahasonit nivelin e ecjes suaj përpara përhapjes së pandemisë me ate gjatë pandemisë?

☐ Tani eci me shumë

☐ Pak a shumë e njejte

☐ Tani eci me pak

☐ Tani lëviz më shumë me makinë

☐ Tani lëviz më shumë me biciklетë

☐ Nuk e di

☐ Other

22. Sa lehtesisht të aksesueshme mendoni që janë rrugët/trotuaret/hapsirat publike ? (për personat me aftësi të kufizuar, kujdestarët/prinderit që përdorin karroca fëmijësh, të moshuarit etj)

☐ Shumë

☐ Mjaftueshëm

☐ Disi

☐ Pak

☐ Aspak

23. Si është gjendja e hapsirave publike në lagjen tuaj?

☐ Ka mjaft hapsira publike

☐ Hapsirat janë te zëna nga makinat e parkuara

☐ Hapsirat nuk kanë gjelbërim/peme hijëzuese

☐ Hapsirat nuk kanë stola apo vende për t'u ulur

☐ Nuk ka mjaftueshëm hapsira publike

☐ Nuk ka fare hapsira publike

☐ Nuk e di

☐ Tjeter

24. Ka patur ndërhyrje për përmirësimin e lagjes suaj në vitet e fundit? Pershembull, ndryshime në rrugë, trotuare, hapësira publike, aktivitete, shërbime.

☐ Po

☐ Pak

☐ Jo

☐ Nuk e di

☐ Tjeter

25. Në rast se ka patur projekte (madhore) ndërhyrjeje në lagjen tuaj, a është konsultuar mendimi i banorëve?

☐ Po

☐ Jo

☐ Nuk e di

☐ Tjeter

26. Çfarë do i shtonit/ndryshonit lagjes suaj në mënyrë që të donit të ecnit më shpesh në të?

Survey 'Tirana ecen vete'

1. Age
   ☐ <18
   ☐ 19-24
   ☐ 25-34
   ☐ 35-54
   ☐ >55

2. Gender
   ☐ F
   ☐ M
   ☐ Prefer not to say

3. Education
   ☐ Primary
   ☐ Secondary
   ☐ Higher

4. Employment status
   ☐ employed

☐ student

☐ unemployed

☐ pupil

☐ retiree

☐ homemaker

5. Field/profession:

---

6. Do you consider yourself to have a disability ?

   ☐ Yes

   ☐ No

   ☐ I don’t know

7. In which are of Tirana do you live ?

   - 21 dhjetori, Ish-Fusha e Aviacionit
   - Astir
   - Qender
   - Ali Demi
   - Don Bosko
   - Qyteti Studenti
   - Stacioni i trenit
   - Komuna e Parisit
   - Brryl
   - Bllok
   - Zogu i Zi
   - Medrese
   - Selvia

- Sauk
- Kinostudio
- Pazari i ri
- Laprake
- Selite
- Yzberisht
- Institut
- Mezeze
- Allias
- Kombinat
- Xhamllik
- Babrru
- Brrake
- Tjeter

8. Which is your regular mode of transport?

   ☐ Walking

   ☐ Public transport

   ☐ Biking

   ☐ Minivan/institution bus

   ☐ Personal car

   ☐ Shared car

   ☐ Other

9. How long do you walk per day-on average ?

   ☐ 15-30 min

   ☐ 30min-2h

   ☐ >2 h

10. At what times of the day do you walk more regularly or most of the time?

    ☐ 6 :00-10 :00

☐ 10:00-16:00

☐ 16:00-20:00

☐ After 20:00

☐ Other

11. What prevents you from walking more?

☐ Time/I am busy

☐ There are not enough sidewalks

☐ The streets are dangerous

☐ I do not feel very safe

☐ Health reasons

☐ I do not know

☐ Other

12. How far from your place of residence, by walking, are the following services located?

	1-5 min	5-10min	10-15min	>15min
Market/Supermarket				
Bakery				
School				
Park				
Bus station				
Library				
Restaurant/ Coffee shop				
Bank				
Square/public space				

Clothing store				
Pharmacy				
School or job place				
Hospital/healthcare center				

13. How safe do you feel when walking on the street during the day?

☐ A lot

☐ Enough

☐ Somewhat

☐ A little

☐ Not at all

14. How safe do you feel when walking on the street at night?

☐ A lot

☐ Enough

☐ Somewhat

☐ A little

☐ Not at all

15. Have you experienced / seen / heard of a case / of verbal or physical harassment on the street?

☐ Yes, I have experienced

☐ Yes, I have seen someone being molested

☐ Yes, I have heard cases from others

☐ No

☐ Other

16. What perception do you have about security in your neighborhood?

☐ It is very safe

☐ It is somewhat safe

☐ It is not safe

☐ I don't know

17. From 1-5 (1-Not at all good, 5-Very good) how would you rate your neighborhood in terms of:

	1	2	3	4	5
Presence of public spaces					
Presence of street lighting at night					
Constant presence of sidewalks					
Sufficient width of sidewalks					
Pavement continuity (without obstacles)					
Quality of paving and maintenance of sidewalks					
Presence of services along the way					
Variety of services along the way					
Visibility / clear reading of the road					
Safety at intersections					
Observance of traffic rules by drivers					
Observance of traffic rules by pedestrians					
Proper zebra crossing locations					
Vigilance / Presence of other people on the street					
Extension of service schedule					
Presence of places to meet					

Places to stay or sit					
Presence of street toponyms					
Presence of orientations with signs / tables					
Presence of known reference points such as building, square, monument or known street.					
Interventions carried out according to urban planning standards					
Presence of trees along the way					
Street / sidewalk cleanliness					
Pleasant views while walking (such as beautiful facades, installations / artistic objects, etc.)					

18. How many of the neighbors, or other neighborhood residents, do you know?

☐ >5

☐3-5

☐ 1-3

☐ I know them only in appearance

☐ I don’t know any of them

19. In your neighborhood, you would entrust the key to the house to a neighbor or a business along the street?

☐ Yes

☐ No

☐ I don’t know

20. What are some reasons that make you avoid moving in a certain area or road?

☐ Narrow sidewalks

☐ Obstacles on sidewalks (trees, garbage bins, etc.)

☐ Sidewalks with broken / movable tiles

☐ Lack of white lines

☐ Lack of trees (during a hot day)

☐ Lack of lighting (at night)

☐ Road length (prefer to go on a shorter road)

☐ Absence of other people (prefer a moving area)

☐ High traffic (prefer a low traffic area)

☐ Lack of benches / resting places

☐ Lack of bus stations

☐ Lack of services or activities along the way

☐ Other

21. How would you compare the level of your walking before the pandemic spread with that during the pandemic?

☐ Now walk more

☐ More or less the same

☐ Now walk less

☐ Now moves more by car

☐ Now move more by bike

☐ I do not know

☐ Other

22. How easily accessible do you think public roads / sidewalks / spaces are? (for people with disabilities, caregivers / parents using strollers, the elderly, etc.)

☐ A lot

☐ Enough

☐ Somewhat

☐ A little

☐ Not at all

23. How is the condition of public spaces in your neighborhood?

☐There is plenty of public space

☐, Spaces are occupied by parked cars

☐ Spaces do not have greenery / shady trees

☐ Spaces do not have benches or seats

☐, There is not enough public space

☐, There is no public space at all

☐ I do not know

☐ Other

24. Have there been any interventions to improve your neighborhood in recent years? For example, changes in roads, sidewalks, public spaces, activities, services.

☐ Yes

☐ A little

☐ No

☐ I don't know

☐ Other

25. In case there have been (major) intervention projects in your neighborhood, has the opinion of the residents been consulted?

☐ Yes

☐ No

☐ I don’t know

☐ Other

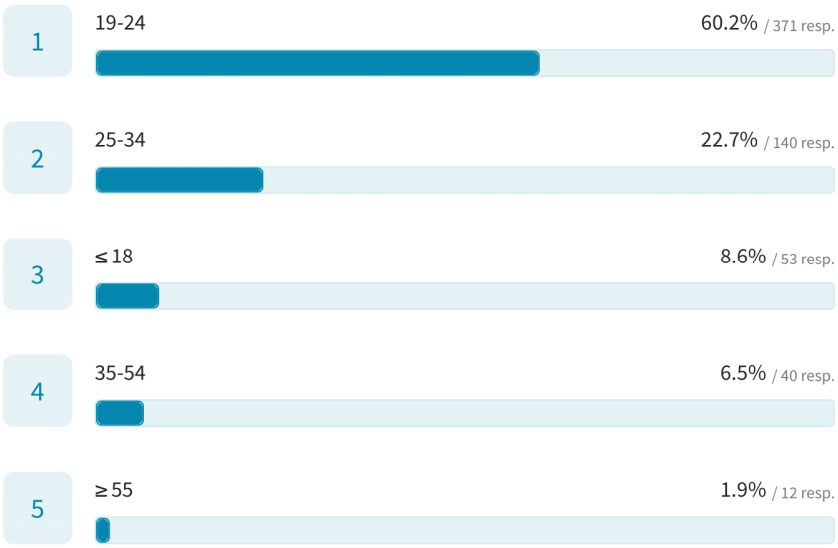
26. What would you add / change to your neighborhood so that you would like to walk in it more often?

Sondazh 'Tirana ecën vetë'

616 responses

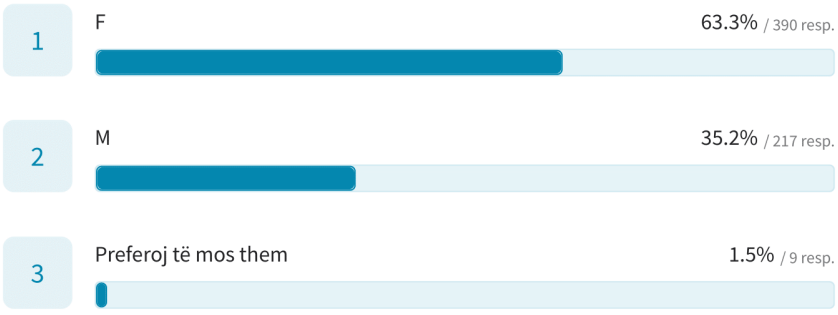
Kategoria e moshës:

616 out of 616 answered



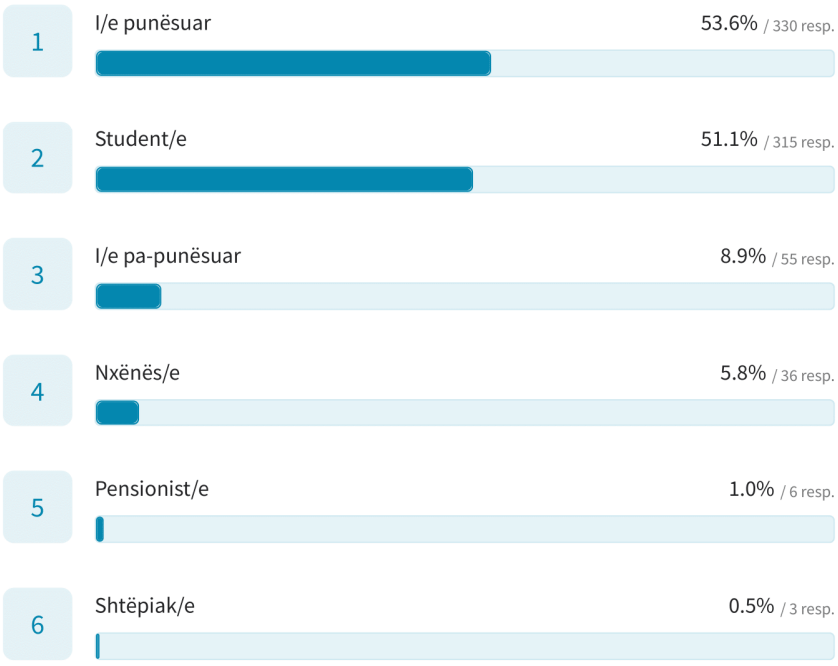
Gjinia:

616 out of 616 answered



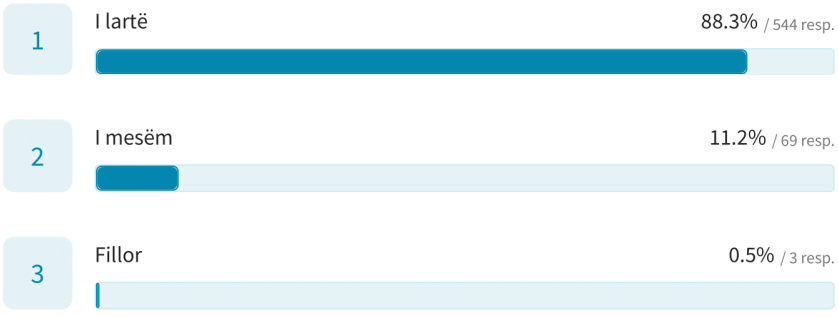
Statusi i punësimit:

616 out of 616 answered



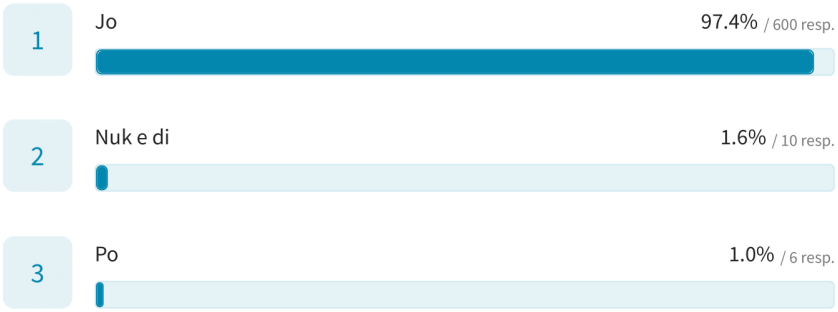
Edukimi:

616 out of 616 answered



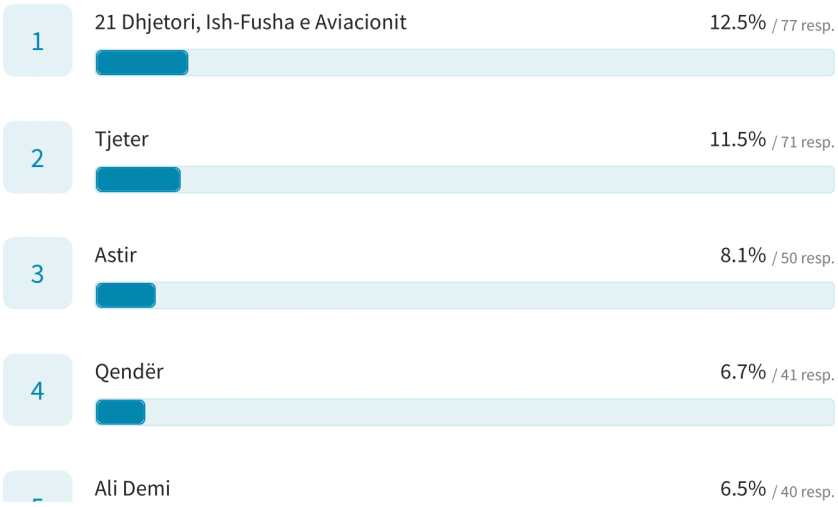
E konsideron veten një person me aftësi të kufizuar?

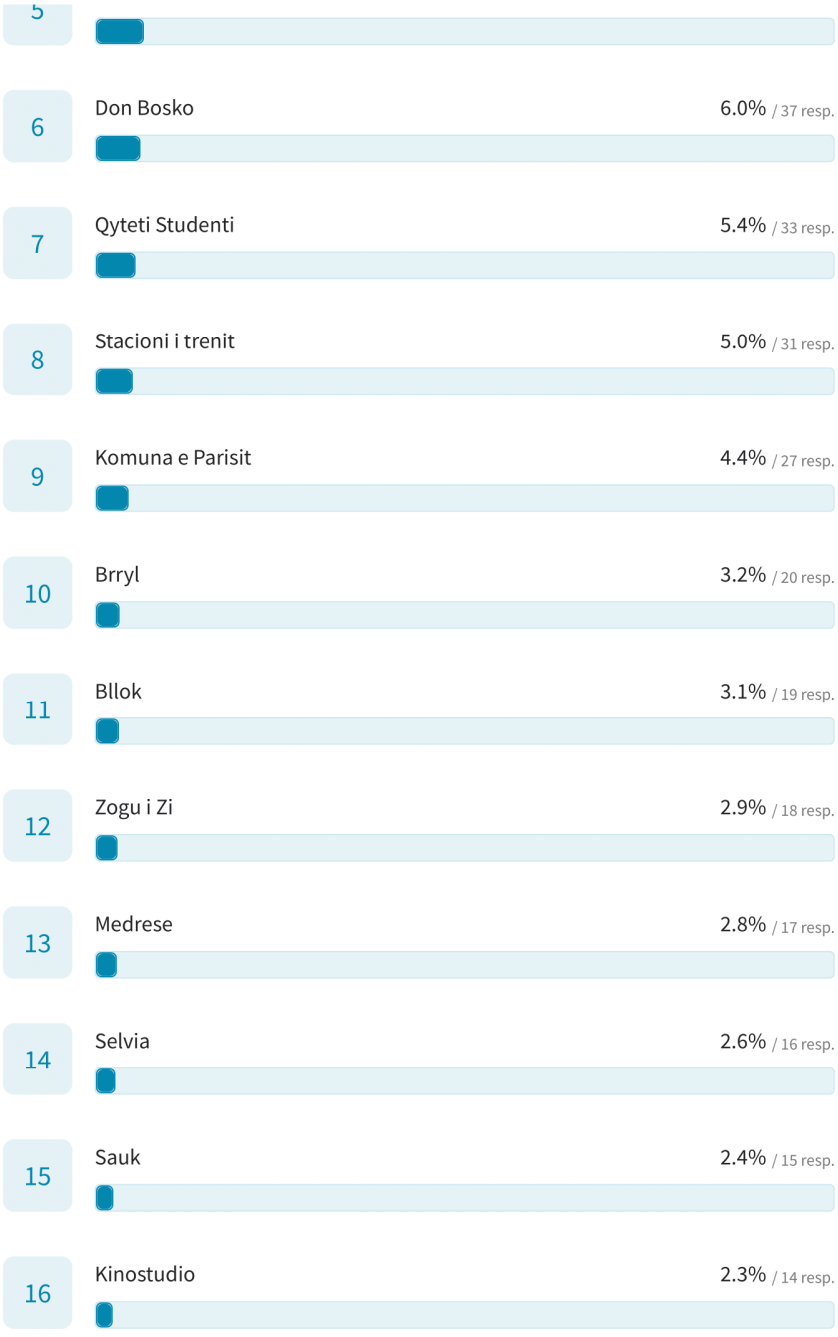
616 out of 616 answered

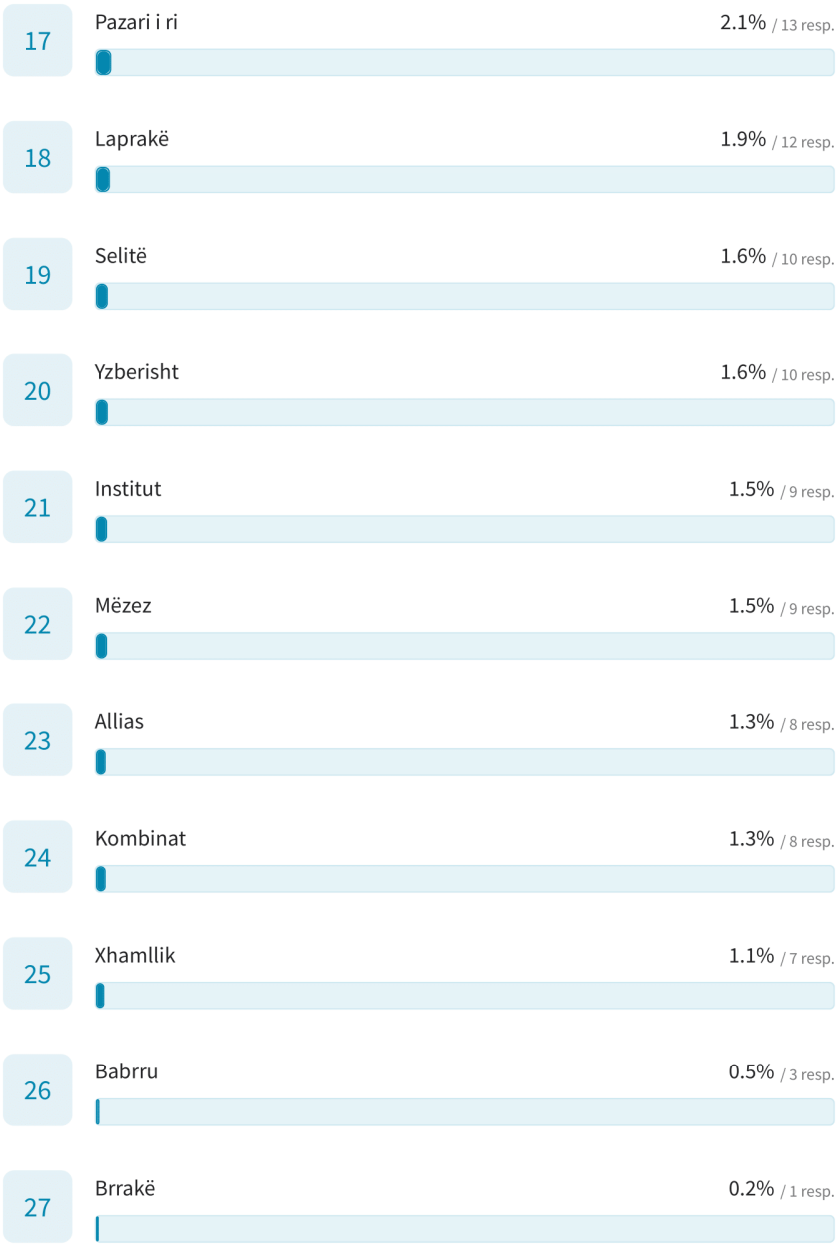


Në cilën zone të Tiranës jetoni?

616 out of 616 answered

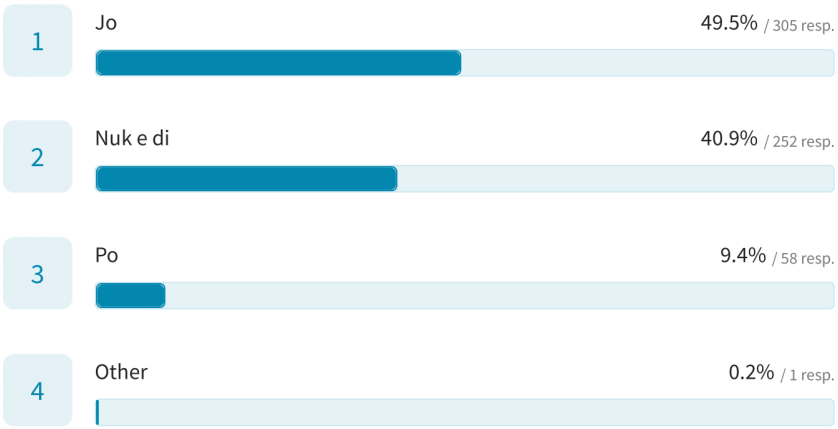



5
6
Don Bosko
6.0% / 37 resp.
7
Qyteti Studenti
5.4% / 33 resp.
8
Stacioni i trenit
5.0% / 31 resp.
9
Komuna e Parisit
4.4% / 27 resp.
10
Brryl
3.2% / 20 resp.
11
Bllok
3.1% / 19 resp.
12
Zogu i Zi
2.9% / 18 resp.
13
Medrese
2.8% / 17 resp.
14
Selvia
2.6% / 16 resp.
15
Sauk
2.4% / 15 resp.
16
Kinostudio
2.3% / 14 resp.


17
Pazari i ri
2.1% / 13 resp.
18
Laprakë
1.9% / 12 resp.
19
Selitë
1.6% / 10 resp.
20
Yzberisht
1.6% / 10 resp.
21
Institut
1.5% / 9 resp.
22
Mëzez
1.5% / 9 resp.
23
Allias
1.3% / 8 resp.
24
Kombinat
1.3% / 8 resp.
25
Xhamllik
1.1% / 7 resp.
26
Babrru
0.5% / 3 resp.
27
Brrakë
0.2% / 1 resp.

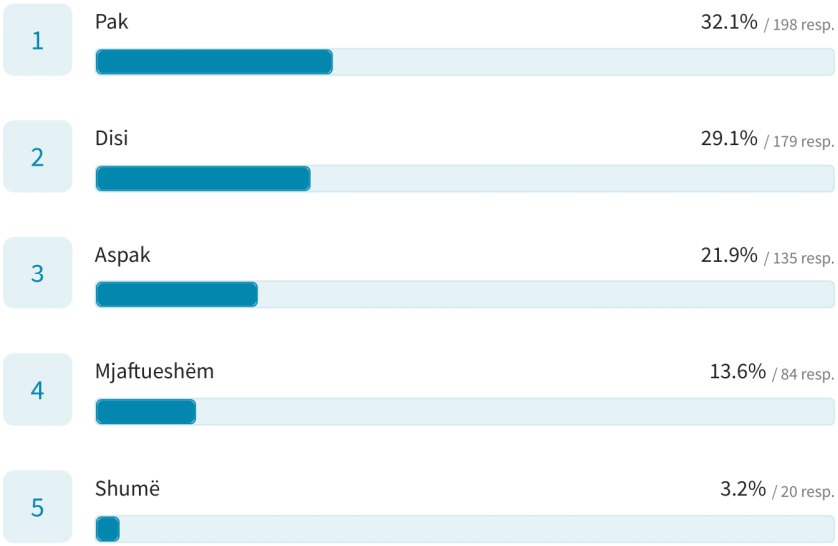
Në rast se ka patur projekte (madhore) ndërhyrjeje në lagjen tuaj, a është konsultuar mendimi i banorëve?

616 out of 616 answered



Sa lehtesisht të aksesueshme mendoni që janë rrugët/trotuaret/hapsirat publike ?
(për personat me aftësi të kufizuar, kujdestarët/prinderit që përdorin karroca fëmijësh, të moshuarit etj)

616 out of 616 answered

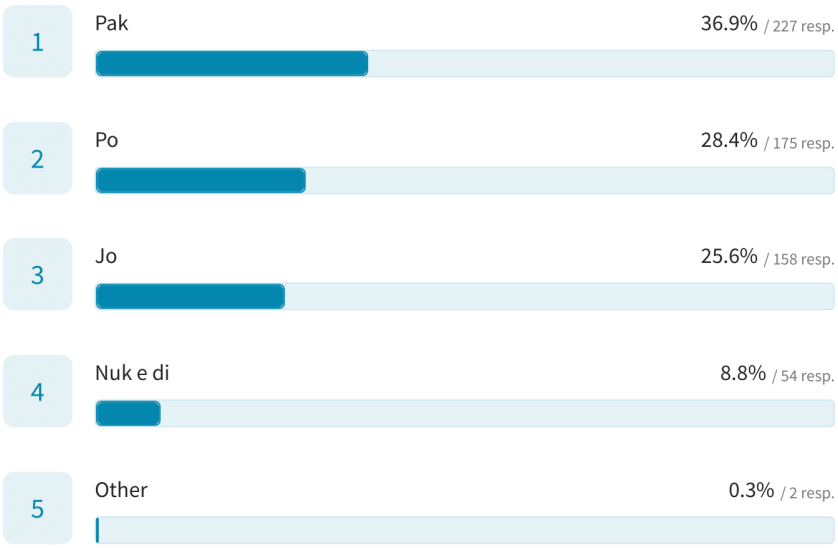


Si është gjendja e hapsirave publike në lagjen tuaj

616 out of 616 answered

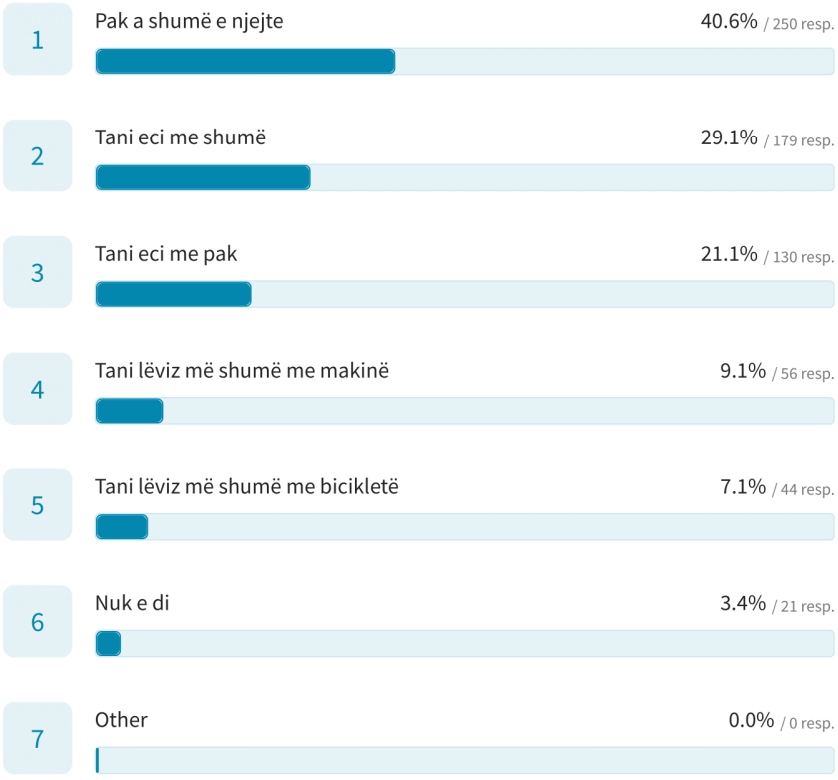
Ka patur ndërhyrje për përmirësimin e lagjes suaj në vitet e fundit?

616 out of 616 answered



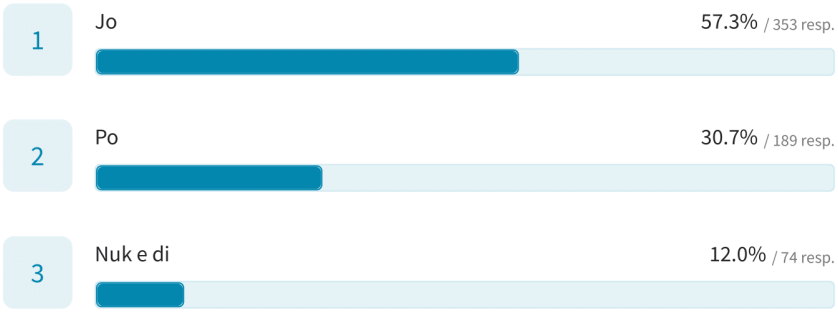
Si do ta krahasonit nivelin e ecjes suaj përpara përhapjes së pandemisë me ate gjatë pandemisë.

616 out of 616 answered



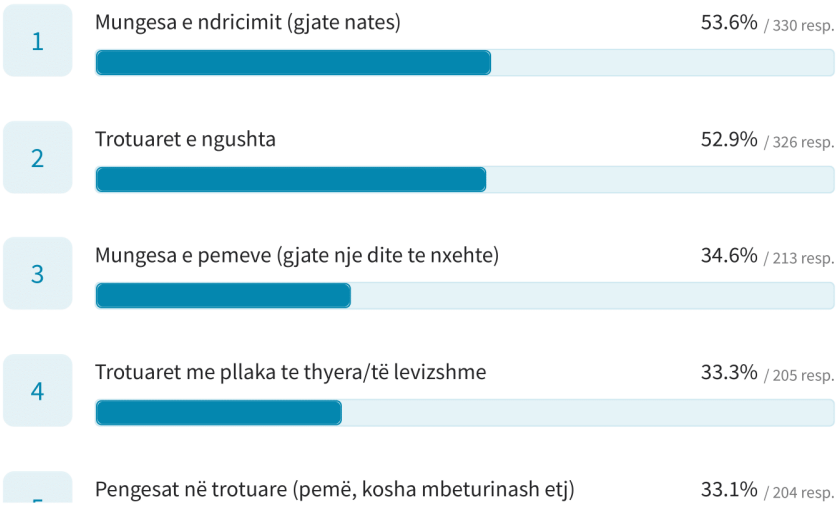
Në lagjen tuaj, do ia besonit çelsin e shtëpisë një fqinji ose një biznesi përgjatë rrugës?

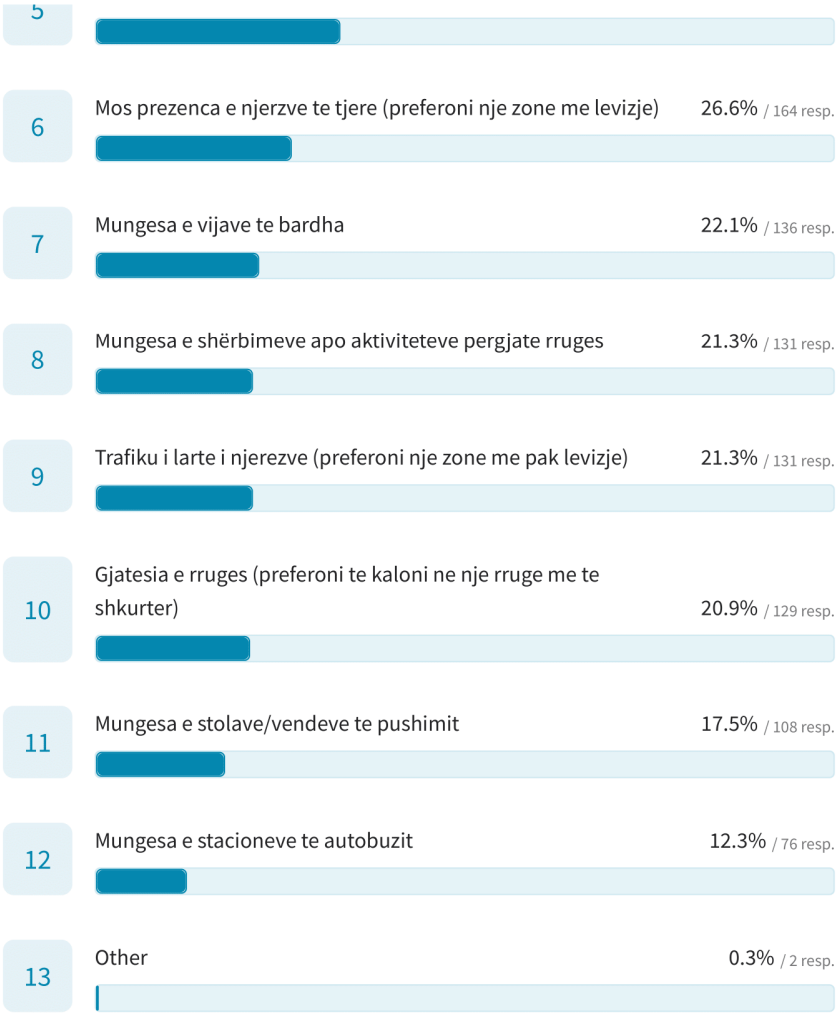
616 out of 616 answered



Cilat jane disa arsye që ju bëjnë të shmangni lëvizjen në një zonë apo rrugë të caktuar

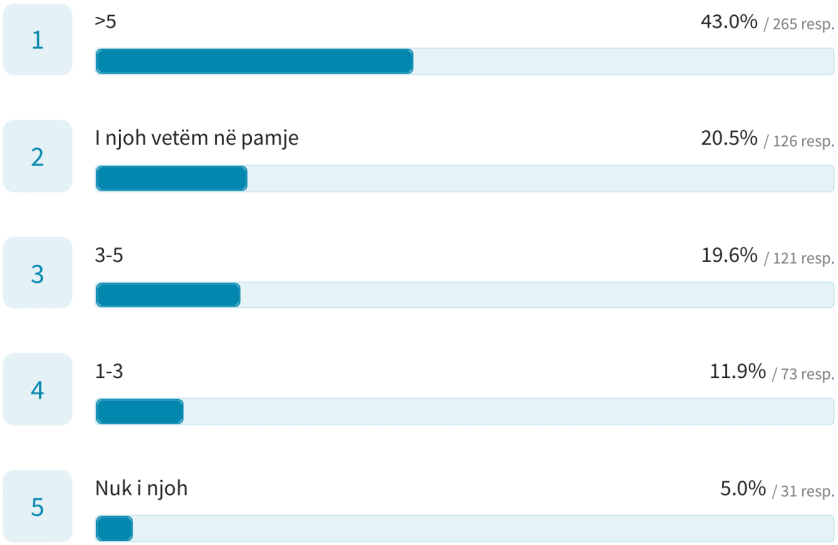
616 out of 616 answered




5
6
Mos prezenca e njerzve te tjere (preferoni nje zone me levizje)
26.6% / 164 resp.
7
Mungesa e vijave te bardha
22.1% / 136 resp.
8
Mungesa e shërbimeve apo aktiviteteve pergjate rruges
21.3% / 131 resp.
9
Trafiku i larte i njerezve (preferoni nje zone me pak levizje)
21.3% / 131 resp.
10
Gjatesia e rruges (preferoni te kaloni ne nje rruge me te shkurter)
20.9% / 129 resp.
11
Mungesa e stolave/vendeve te pushimit
17.5% / 108 resp.
12
Mungesa e stacioneve te autobuzit
12.3% / 76 resp.
13
Other
0.3% / 2 resp.

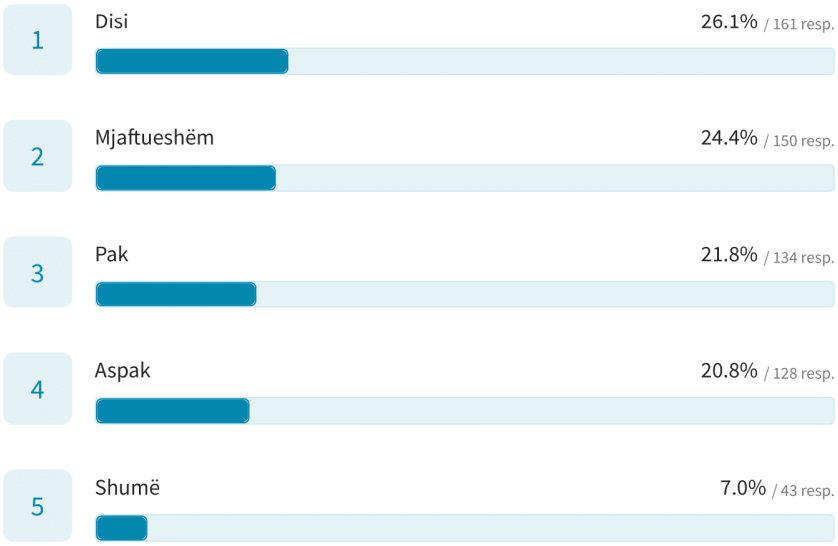
Sa nga fqinjët, apo banorë të tjerë të lagjes, njihni ?

616 out of 616 answered



Sa i/e sigurt ndihesh kur ecën në rrugë gjatë natës?

616 out of 616 answered



Çfarë perceptimi keni në lidhje me sigurinë në lagjen tuaj?.

616 out of 616 answered

1	Është disi e sigurt	54.9% / 338 resp.	
2	Është mjaft e sigurt	29.9% / 184 resp.	
3	Nuk eshte e sigurt	13.3% / 82 resp.	
4	Nuk e di	1.9% / 12 resp.	

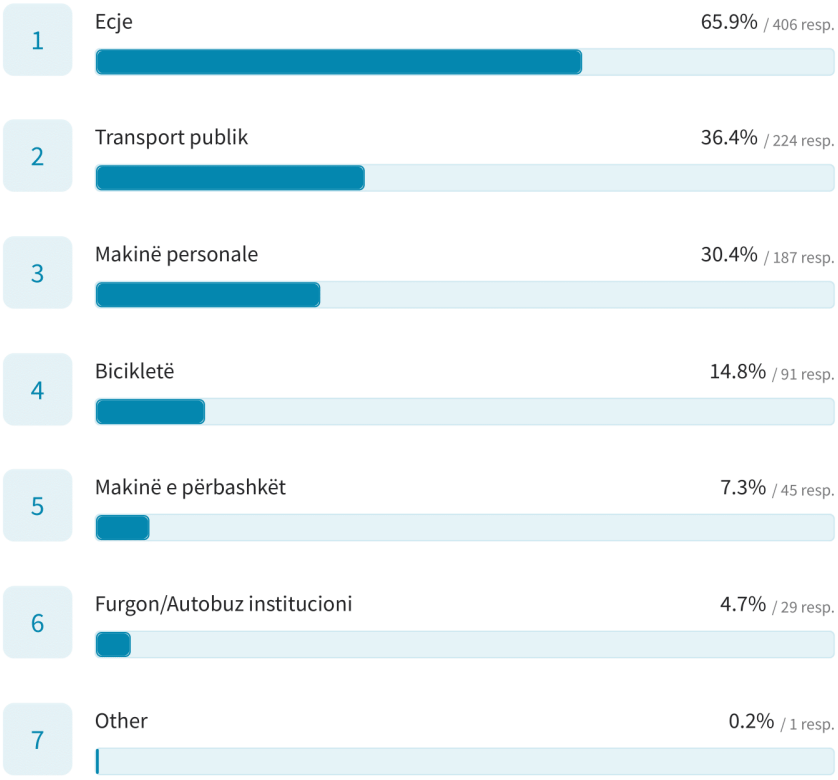
Keni përjetuar/parë/dëgjuar rast/e ngacmimi verbal apo fizik në rrugë?

616 out of 616 answered

1	Po, kam dëgjuar raste nga të tjerë	52.9% / 326 resp.	
2	Po, kam përjetuar	35.6% / 219 resp.	
3	Po, kam parë dikë të ngacmohet	31.0% / 191 resp.	
4	Jo	12.0% / 74 resp.	
5	Other	0.0% / 0 resp.	

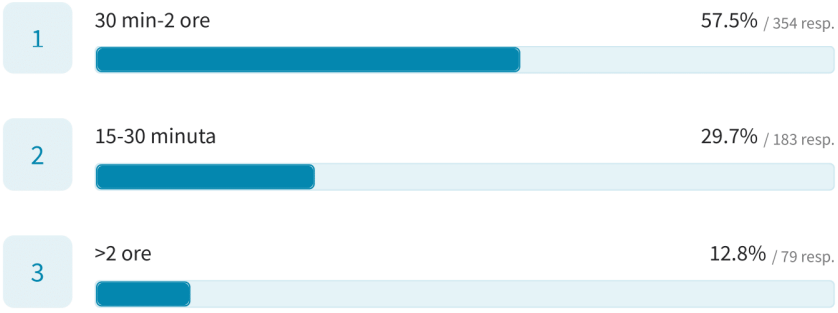
Cila është metoda juaj e zakonshme e transportit?

616 out of 616 answered



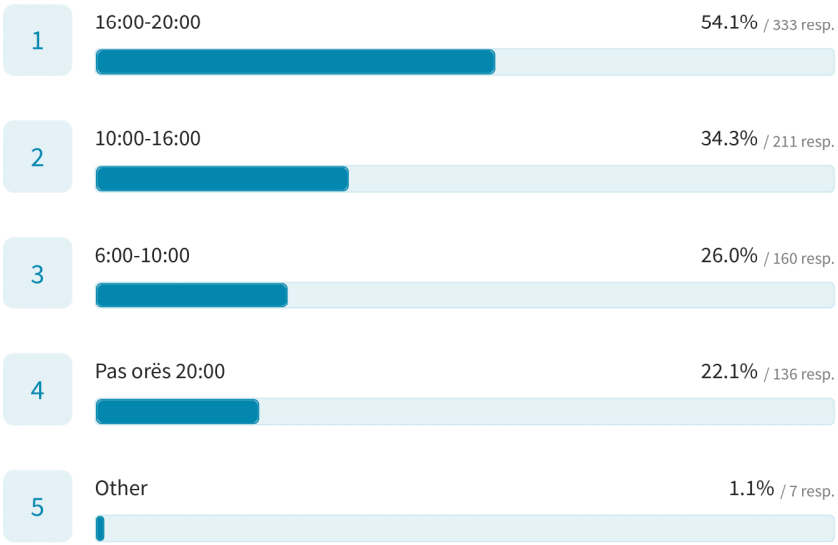
Mesatarisht, sa kohë ecni në ditë?

616 out of 616 answered



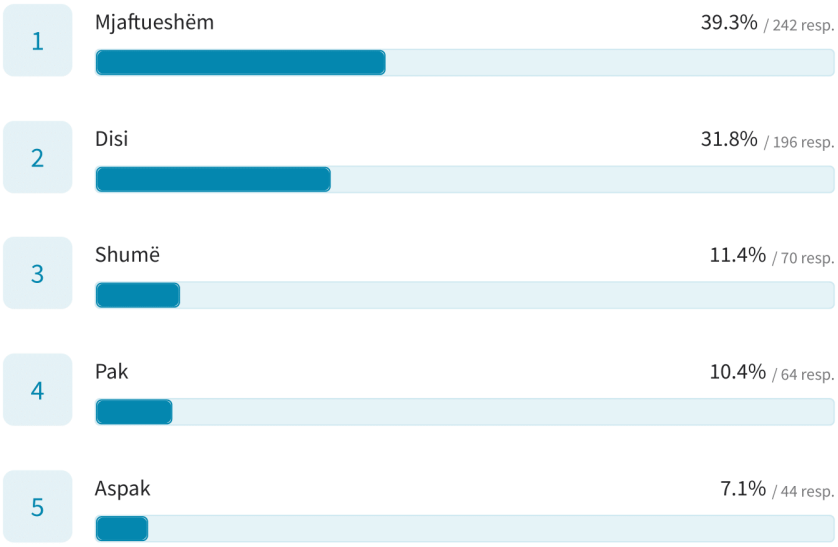
Në cilat orare të ditës ecni më rregullisht ose pjesën më të madhe të kohës?

616 out of 616 answered



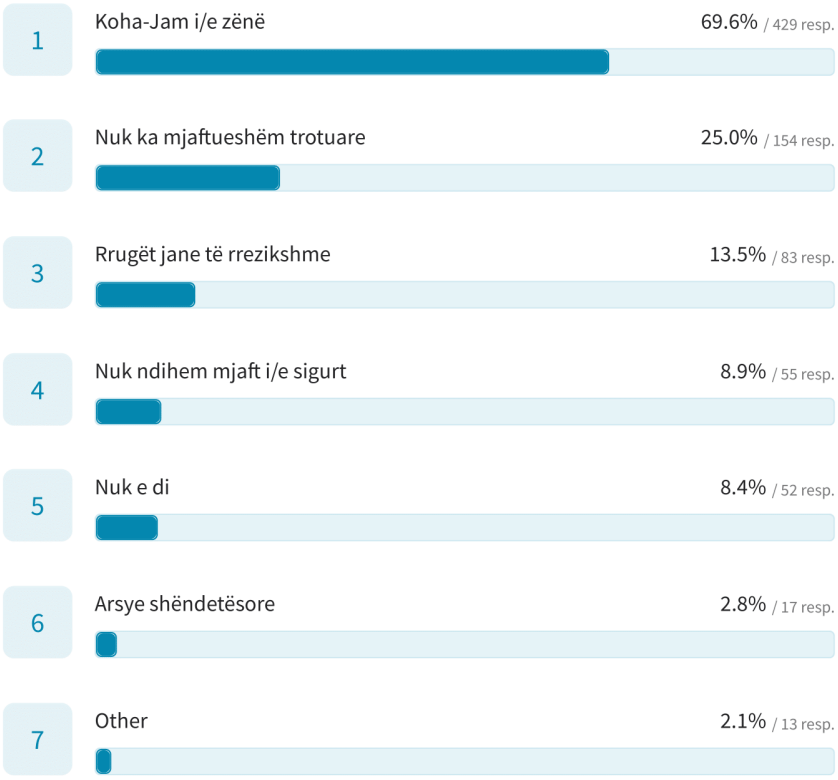
Sa i/e sigurt ndihesh kur ecën në rrugë gjatë ditës?

616 out of 616 answered



Çfarë ju pengon për të ecur më shumë?

616 out of 616 answered



APPENDIX B

INTERVIEW WITH AN ARCHITECT

Interviewer: Have you ever walked or been in this area?

Interviewee: Yes, I have almost been everywhere within this area. I pass very often throughout most of these streets.

Interviewer: So, you have a good knowledge of the area. Have you usually walked on foot in this area or some other form?

Interviewee: I have walked and biked equally often.

Interviewer: Okay I will show you a street view starting at Fortuzi street and then we will 'walk' from there to discuss some issues.

Interviewee: The first issue here it's the street width, it's much wider than necessary. This is also influenced by the fact that Fortuzi street was designed for another reason, it was supposed to be the first ring of Tirana , and so the effective width was given on purpose. They have kept it the same but now it has some 'leftovers', you can see two sides with parking and two lanes. Mainly the issue here is the sidewalks, and there's also these stairs that offset from the buildings and thus fragment the sidewalks, the sidewalk right here might be about 2m wide but these offsets give it a sort of fragmentation.

Shading as well, but at some parts from the other side is okay, here it's lacking.

*Interviewer:*What do you think about the accessibility in this area?

Interviewee: It is difficult for certain groups of people to access and walk on the sidewalks, especially for caregivers with strollers.

*Interviewer:*What about traffic safety, crossing location, or even people jaywalking , have you noticed anything specific about this neighbourhood?

Interviewee: This is a bit general for tirana and is not only confined within a street, but I actually see it as positive regarding walkability, this tendency to cross in other parts of the streets with no crossings. Because it is considered a commonsense that you would cross there it makes the drivers as well to be always alert, and it creates a

tendency of retrieval from drivers. In the basics I think this makes the street safer actually, because you know that there will be people crossing there. In cases of carelessness than that is another story. One thing that is very problematic in this street is the width, which is not well defined, and if it weren't for this street width the sidewalks should normally be wider. Regarding land use it is quite okay but it is generally a lively street.

*Interviewer:*Regarding the standards, what do you think their application is here in this area?

Interviewee: Absolutely, there are no planning standards applied. In fact here starts the abuse from the institutions. In some areas for example there is enough sidewalk width but it is taken from private activities. Based on the municipality regulations, the distance or width of the sidewalk (excluding at least 70 cm for the tree grade) should be around 2.3 m uninterrupted. Here it's not more than 70 or 80 cm.

Interviewer: What do you think about the presence or quality of meeting places/public spaces of the area?

Interviewee: There are no public spaces, it is a street where you don't ever set meeting places with friends. It has this configuration of a neighbourhood street which only meets direct needs.

If you compare it with Rruga e Durresit and Bulevardi then it's out of comparison. Bulevardi now is changed almost completely, design-wise and also improvement regarding walkability, while the Durresi street still maintains the same character because it has not had any changes in the 'walkable' part, it had a macro-level change only (the street direction) and also the bike/bus lane was added.

In “Durresi Street”, you can see small gatherings or meetings in the crossing areas, while the rest of the street is like a channel with very specific activities and services. Even talking about the character, the Durresi street is like a market. There's jewelry shops, electronics shops, while in Fortuzi you have the presence of these daily commerce activities, and you may have only a few specific services.

There's also the school Jeronim De Rada. Schools have this tendency to create dead areas, not lively regarding fencing. There is a 50-60 meter distance from the school

entrance and then you have a strip which is not (24:00) There is also the issue of trash bins being put in the sidewalks. This mainly happens along the public buildings, and schools are the ones who 'suffer'. Imagine having a dead facade on one side and a sidewalk obscured by trash bins on the other.

Interviewer: What about landmarks?

Interviewee: There are some landmarks in this area. In a big area there is a necessity for reference points. At fortuzi it can almost be said that reference points are not necessary because it is not a long street, although there is the school. We usually refer to the entrances, whether you say that you are at the entrance from the Ministry of Justice or the other side from the Ministry of Education. Same thing for rruga Haxhi Hysen Dalliu, it's short at neutral almost all the way. Rruga e Durresit is different, it needs landmarks due to it's longitude, and it needs to be fragmented. That's how I view landmarks, it's a tendency of space fragmentation. We don't even call it landmark anymore, it's more of a cognitive aspect, since we also don't have a good relationship with addresses and toponyms. We talk in terms of 'close to this...' or 'adjacent to this' etc.

So rruga e durresit has more frequent but also widely known landmarks. Same thing for the Boulevard, although maybe less, affected by the short distance of the street. But maybe now the boulevard will take more. You have landmarks in areas you use , such as coffee shops or at times institutions

Interviewer: What about thinking of landmarks as toponyms as wayfinding elements, would they be helpful when you crossed this area.

Interviewee: It stands for both, especially for rruga e Drr, but at the boulevard it's about the entrances for me. the ministry of justice is not so widely referred to, at least compared to the ministry of education.

Interviewer: What interventions can be made at a conceptual level regarding the tendency to plan the main roads?

Interviewee: This came from communism, there was an attempt to only intervene in the main street properties and the rest would remain untouched. You can notice it in the blocks within rruga e durresit and rruga mine peza. The main perimetral buildings are from communism and in the inside there's either old private (1-2 floor) properties or objects built after the 90s, which is basically a transformed area. And now because of heritage it's a bit difficult to be changed. The property prices are not the same and the density as well. Transformation in a space/area does not need to be necessarily accessible, because in essence accessibility is not necessary. You can create channels for pedestrians. It's an area that has usually worked with cul de sacs and not necessarily should change. You also have short distances, so if an opening from another is 3-5 minutes then it's not worth it.

Most problematic is the area behind the plaza, because the alleys are not well connected, it's a bit confusing as an area.

Interviewee: I am also not very supportive of changing all areas, a tendency which is being noticed nowadays, in Tirana. Old areas with low rise buildings are being seen as in need of change but they have solved everything within themselves, and if you add another accessibility that you lose their comfort. These types of areas are also very safe. They have solved the issue within each other as they have been living there for over 50-60 years.

These areas apply this woonerf concept, it's some sort of micro-climate.

INTERVIEW WITH AN URBAN DESIGNER/PLANNER

Interviewer: Do you recognize this area?

Interviewee: Yes, I recognize it and I have crossed the area. I also had a school project here, and have done on-site analysis, mostly at Bulevardi street. I also know Mine Peza street because my thesis supervisor has his studio here and sometimes I went there often to discuss my work. Durres street, obviously, I know. I also remember when going to work I would enter the street of the Ministry of Justice.

Interviewer: Fortuzi right?

Interviewee: At the Eco Market.

Interviewer: That is Fortuzi street.

Interviewee: Close to Eco Market I crossed an alley, and I remember only one part was paved. It was wintertime.

Interviewer: Have you ever crossed this street at night?

Interviewee: Yes, I would cross that street around 4 pm during winter.

Interviewer: What do you think about the safety at night here?

Interviewee: Maybe it's also a bit of a personal perspective, but I am always a little skeptical when I go to new streets, and I try to be aware of each side for other people, so It was the same with this street. Also the lights were flickering, so they were not working well, at least for the period when I was walking on that street,I last went there in October. The street was asphalted, there were not many people, mostly elderly,some boys or groups of boys. What else can I remember, hm. It was a calm zone, no one bothered me, although it made me feel scared most of the time.
The sidewalks were also discontinuous in some parts, interrupted by trash bins or other objects, so I was forced to walk in the street.

Interviewer: You can also comment while we are moving in the street view here, same as what you are doing.

Interviewee: Yes, and I have been not only in Fortuzi street though, I have passed through many alleys in this area as I had to do apartment visits. They were not asphalted and the lighting was missing as well as the sidewalks.

Interviewer: What do you think about the accessibility of the sidewalks for people with disabilities , or people with strollers?

Interviewee: The sidewalks are very narrow in this area. Two people at most can pass at the same time , if squishing, and it becomes harder when they are holding bags. From what I notice there are no ramps in the streets or building entrances, so people with disabilities have a difficult time to move without interruptions or to even access building entrances. Some buildings only offer stairs and no ramps at all so that doesn't help.

Here you can notice for example that some sidewalks are narrow and others are wide, but even the wider ones are occupied with objects, or tables and chairs that usually belong to adjacent businesses which extend their activity in the sidewalk. This also creates an interruption when walking, so one is forced to either pass through the street or move sideways instead.

Interviewer: What is your opinion about the services in this area? Is there enough diversity?

Interviewee: No, it isn't enough and you can see many of the same activities. There are way too many bakeries or pharmacies, more than the area actually needs, while in the meantime there are not many other services. The services are mainly the basic ones, if I can generalise it.
There are no services for all age groups, but also activities, because it's not just about providing basic services, an area needs some recreational activities as well.
Parks or public spaces are scarcely scattered, if not none, with no proper pavement or greenery.
The streets are accompanied by trees but they are positioned in the middle of the sidewalks, with the sidewalk being only less than 1 meter. This doesn't allow for exchanges of people. Sidewalk tiles are jiggly and once you step them you get wet. There are no investments being made, the pavings are done who knows how many years ago.

Interviewee: The lack of public spaces makes this area less preferred and it affects the inhabitants' satisfaction. It also makes it less attractive for other pedestrians, as people tend to go often to places where there are gathering areas. They get curious and once

they visit it, although someone may not live in that area, they will visit it again. So the more public spaces in an area the better. It's value also increases because an area has a higher value when the apartments or houses have value. When the property values don't change then nothing has been done in that area.
Also the interest in an intervened area would grow, and more people would also want to buy housing, and that would result in more visitors and more income for businesses.

Interviewer: This is perhaps the same correlation with the landmarks as well.

Interviewee: Yes, every area should have an activity special to that area only, or reference points, so that the area would be identified by them. For example we might think in the X area there is the biggest public space in Tirana, or a street might be the street of stores and activities for kids and be identified by it. This would obviously increase the value of that street or area.

Interviewer: In this area families with children may take them to parks which may be far away from their home.
Interviewee: This is a really good area but there is a lack of investment, look at these facades as well, there's bars usurping the sidewalks. If a street offers things to look at then you enjoy the walk. Every intervention here is done without a proper study, because trees have several functions, except for being aesthetically pleasing and bringing greenery to the area, they also provide shading so you should know where to place them, the type of trees needed. Here for example look how the type of tree is inappropriate, it's literally entering people's windows. Studies should be done, but here we just place them randomly. From what I know architects or engineers here don't study that well. Oh what am I saying, those trees are randomly placed by the municipality. They don't allow to create a pictorial view for the inhabitants or visitors.

Interviewer: What about the safety of the cars in this zone?

Interviewee: This area is not that different from the rest of Tirana. The streets for cars may be all right but the secondary streets or alleys do not allow for two cars to pass at the same time. Parking is missing as well so drivers are forced to park anywhere, being an obstacle for car circulation. Thus traffic may be created or like here where cars are

parked on the sidewalk, it interrupts the pedestrian flow. Regarding safety, I don't believe that cars drive fast in these types of neighbourhoods because these are mainly residential areas, with road signs and they are more careful because there are kids who move uncontrollably. In general I don't think many accidents happen, especially in alleys.
One thing that I really dislike are these electricity posts, their lines hang up to head level.

Interviewer: What do you think can be done to them?

Interviewee: Like the rest of the world, underground. But it may take a long time, because here the buildings were built first, streets, then these networks.
Road signals are also present in this area from what I've noticed, which also help pedestrians education and for drivers to respect the regulations.
But here for example there are no zebra crossings or signage.

INTERVIEW WITH A TRANSPORT EXPERT

Interviewer: I don't know if you are familiar with this. Here is the square. And here is the Rruga e Durresit. And the area that I've chosen is all this area.

First of all, you actually said that you try to cycle in Tirana right?
Interviewee: Yes. I use the bicycle a lot, but for shorter distances, I walk as well.

But have you ever been to this area or even close to this area?

Interviewee: Yeah, I mean on Rruga e Durresit and Bulevardi I go frequently and I think they're quite comfortable.

Interviewee: I mean at Rruga e Durresit the bicycle it's not protected yet but is okay. And I went only once or twice through the neighbourhood itself. Like most of the time, I follow the main roads, and then the ring, but that's my personal feeling, I get lost there. So I don't know the way properly. And there are a lot of one-way streets. So, for

me, it's faster to stay on the main roads, which I know have bicycle lanes. But for walking, for example, it might be good to cut through the neighbourhood.

*Interviewer:*Let’s walk with this Google Maps with you and just try to look into what you think that you observe when you walk, this is Fortuzi Street. This is one of the main streets, let's say secondary for this area. I want to ask what you think the main problems are in this street or area in general, I mean related to your expertise.

Interviewee: So I think in general already when you see it also from the aerial view, if you would like, for example, to have a drawing or something, then you see very quickly the space distribution is very unequal related to the actual mode chair. So, we have the street here, I don't know, but it looks like 80% are actually reserved for cars, and 20, maybe for pedestrians. There's no dedicated space distribution to bicycles even showing that the street is really just quite wide.

I mean, there are two parking lanes and there's the absence of road marking, but the distance between the two parking lanes is still very, very large. And so you see here, the predominance of the car. Even if we know that in Tirana many people are walking. And if you look at the sidewalk, I mean a few meters back you saw, It was abstracted by a diesel generator so it's not even if it's not even really like only for pedestrians, they are also the signage is on the sidewalk and some other obstructions. Here in this part of the street, which is already a bit better than before, your assessment in mind, that shade and light are important. And I mean, I feel it by myself with these temperatures, every shade is welcome. Yeah, I think in Albania, in general, or especially Tirana speaking, the mixed land use is good like you find a lot of stores. A lot of everyday life can be done in a short distance around your home, that's my impression. Like with the first floors, being most of the time shops like you see here, vegetable shops and there's a that's living above and there's probably some services on the left side like cafes.

Interviewer: What about the accessibility, in terms of people and sidewalks.

I think this is a result of the badly distributed space. Maybe you don’t see it on Google maps, but what you often see is that people often walk on the streets and especially if

they have strollers or luggage because the pavement of the sidewalks is often not good and additionally the space is obstructed. Here for example, I don't know exactly where the trees are planted but it seems that they are planted in the middle of the narrow sidewalk. At least it's inconvenient.It's nice that that person is selling vegetables on the sidewalk but it's again inconvenient for many uses.

Interviewer: What do you think in terms of safety, would this area give you that sense of safety?

Interviewee: Like I mentioned before, simple things like the road marking or I didn't see any crossing, there are no, like we have in other countries, pedestrian refuge islands in the middle of the road. I mean it depends because it's not an extremely large road but it's very straight and I don't know the speed limit but I am sure the cars are going rather fast. So if I would be able I would redesign the whole street to widen the sidewalks, to dedicate bicycle space and to also increase the safety in the sense that you can cross the street because this is also a social factor.If yeah, if the cars are kind of dividing the neighborhoods and I maybe this is too unclear Google Maps, but I doubt that there are ramps on the sidewalk. And I mean, you could also think about race crossings, which gives the car the feeling that they're entering a different zone, it lowers the speed and it gives the convenience to the pedestrians.

Interviewee: But I didn't see any of these elements. So, I think this is a very basic design of a street. It's mainly designed for motorized vehicles and like, even there. I mean it's basically just a paved surface without any visuals to drive slower or to watch out for other people on bicycles or even children, as you say.

Interviewer: You can also notice the lack of public spaces or meeting areas. What do you think about that?

Interviewee: I mean, also, here it's very nice, you can see it, it's obvious. I mean, there's not much beside the paved road. I mean, there's parking, so the cars are dominant. There are bars and restaurants and trees which is good but of course like the

space distribution is not favorable,it's not human centered and therefore, of course, public spaces first have a social function and should be considered, especially neighborhood and they also have a city wide function in the sense that they, for example, they can, if they are green, they can cool down areas. So in this particular area, it seems a bit lacking.In general, in Tirana, I have the feeling that this is a topic, people are first working on and secondly, also, it's important for people.
So, I have the feeling, it's sometimes taken care of, for example, that small square in the area in front of Hemingway bar. I don't know how it looked before, but that's for me, a good example of a mode of filter. A pedestrian and bicycles can pass but with a car you cannot. Secondly, it's like coming down the neighborhood in the sense that you can meet there and it has another function.

Interviewer: I thought it was very important as people need these landmarks or which also service meeting places because you also increase the walkability of that area because people tend to go and meet more in places which they know when, which they have the chance to to stay there or also just just meet and go somewhere else. But here we have that missing. Do you think that affects how this area is perceived?

Interviewee: Or that I don't know the area well enough. I don't know where their gatherings and meetings are, I guess if you're local, you still kind of do that anyway. But of course it's always easier if there's something remarkable where you can say, okay, everybody knows it, nobody can miss it to meet there.

Yeah, I think again, it's also something about space distribution. If you just give people the space, they will meet and they will walk and, and embrace that area. And as you said schools, for example, I think that they have a very important function because first, in my eyes, they are children, so you need to protect them especially against speeding and running around.

And then you also can justify interventions better because it's a lot of people directly benefiting from it. So I think for example, what QM is doing on school streets, I think this is also our starting point for discussion. Where say okay we changed the area around the school and by that we also changed the wider area and like show people also how it could look different.

If you are talking about gender and transport, then we are quickly at the topic that these elements which you showed are disproportionately disadvantageous to women because they are often the ones having the strollers and also walk more in the neighbourhood.

Interviewer: Regarding standards and planning that is being done, if you look at this area, do you think that they are done well, or is something missing?

Interviewee: I think the presence of standards is always important, otherwise there is no consistency and there is no possibility for stakeholders to know and to comment on it, because if everything is done case by case then no one has the time to comment on that. But if they are standardized, which are in a perfect world developed together with stakeholders, then you have a chance to actually have different opinions in the standards, and streets like these would not exist.
If you have standards the second step is to use them. I understand that is more work, as you need to work with different departments, but that makes the difference in quality and as you say it should not be only technical standards on road design but a more broader approach on sustainable mobility. So, if you redesign the road, thinking about pedestrians and cyclists alike, how public stops are connected. For example here you see the 30 sign but the design of the street doesn't change, there are few more cars parked although they are not allowed, but other than that it's still straight, no crossing,no narrowing of the street. The already small sidewalks have trees and parked cards, on the other sides we have the stores expanded on the sidewalks. These issues can be addressed by standards, and of course it takes time to implement them and I understand that first the bigger roads are redesigned. We see a lot of good examples of neighborhood streets in England or Spain, when you can revive an area but redesigning the street.

For a neighborhood there need to be physical measures which guarantee the equal speed of different road users. If you want to share the space, you cannot have cars going on 30 or 50. You want people and cyclists to cross easily.
There are a lot of possibilities, especially for neighbourhoods. Cutting through traffic would help a lot as people cross there as shortcuts but don't need to go there. Modal

filters are a good possibility to block the street in the middle and pedestrians and cyclists can pass through, but if you live from one side of the street you need to come from Boulevardi and if you come from one side you need to access the quartier from rruga e Durresit or Mine peza. The people who want to avoid the ring road or go through neighbourhoods don't need to go through.
You should only access a quarter where residents are living, if you really want to go there. If you want to go through, you should go on to the main roads and the easiest thing is to make it slower through the quartiers and unattractive in a sense.

Interviewer: What about pedestrian crossings,but people mostly cut through the middle of the street.Is this affected by the zebra crossing location?

Interviewee: We need to think about the function of the road. If you want the road to be a major arterial for the cars it's not good that people are crossing wherever they want, but if it's an excess road then there's no need for dedicated crossings. But this depends on the function and the speed you're allowing there. If it's in the direction of a shared space, there don't need to be dedicated crossings, It mainly should carry cars and pedestrians are secondary.
What we usually would do is to count the number of cars and people there to get an overview, and measure the speed as well. It's a political issue to decide what you want to have there and how the quarties should look like. I think the tendency goes for low traffic neighbourhoods and lower speeds in cities. Many cities are implementing 30 km/hour as maximum speed and in selected roads put it higher. If you take that approach you need to think much less about dedicated crossing. It's also nice that there is a 30 km sign but if the speed is much higher then you have a mismatch. You either need to enforce it or design it so cars cannot go faster.

That might be part of these regulations, but not only, people as well need to be more concerned. It's symbiotic. If people see that a street is more lively,with kids and adults, drivers will be more obliged to drive slower.

I think you're completely right. The discussion on design standards is very important because you design a road differently according to the speed or the function. From what you showed me from this area, there is no differentiation by design, therefore

there is little difference by speed.If that's not thought about, then it's no surprise that the actual speed differs from the allowed speed.

INTERVIEW WITH AN ACADEMIC (Design Educator/Architecture)

Interviewer: Have you ever crossed the neighbourhood?

Interviewee: Yes, I have actually lived in the neighbourhood for 6 years. I used to cross this area a lot but now it has changed since I last lived there in 2016. Back then they started with the new urban changes to the area, but now I know that the area has been affected by the new boulevard nearby.

Interviewer: The reason I chose this area is because there is a huge contrast between the new boulevard and the area. Meaning that while it is true that the new boulevard has had changes, but really in between these big areas there has not been that much change.

Interviewee: True it seems that they take care of the facades in between these main streets like "Durresi Street" and the New Boulevard, but in between there is little diffusion. There are multiple streets like Mine Peza that have had no changes, some other areas are still very informal. The only changes have been in the areas where new apartments have been built, but the rest continues being pretty much informal. Starting from the General Prosecution Office to the New Boulevard, late at night also start to feel unsafe to walk even though it is so close

Interviewer: I have noticed that too while traveling through the neighbourhood to make some measurements and take notice of the lighting in the area and it was truly scary to walk alone at night.

Interviewee: Yes it has this duality, while it is in between an area like the Boulevard that is a popular public area, it is sharply divided and it does not provide the security that you have in the Boulevard.

Interviewer: Precisely, it is an area that is so in the center and still after the first facade when you enter the neighborhood the differences are like night and day. (...)I would like to ask about some general comments regarding the neighborhood, for example what do you think about the problems related to this neighbourhood?

Interviewee: The main problem when I used to live there but even now is the width of the sidewalk. At first you might think that they are at the proper width but by having trees planted in the middle of the sidewalk, when for a normal pedestrian it would not be a huge problem, for a caregiver with a stroller it is terribly difficult to walk on the sidewalk. It's the same problem in many places, there are trees, and there is a sidewalk but the placement makes walking very difficult. The trees made it impossible to move freely with your child and I ended up going parallel with the cars. This was a problem in daylight. Lighting was another problem I have to include. I mean there was lighting but as soon as you entered deeper into the neighbourhood, in between the buildings in some small street segments, it became less polluted by pedestrians and it made it scary to pass through those roads. There were coffees nearby but after a certain hour there is silence that makes you want to skip this neighbourhood. Parking was also a huge deal. Through all the street segments there are services provided like shops or bars, but I think that this feeling of belonging, or better yet the lack of belonging to the neighbourhood, makes walking very uncomfortable.

Interviewer: There are some ancor places like shopping malls or bus stops, public fasciitis but in this area there is a lack of these public places.

Interviewee: Truly there is a lack of public places, there isn't any place that could be thought of as a destination, rather it’s an area solely to walk through and not rest anywhere. Despite that when you could, there are multiple facilities, but they do not add anything substantial to the area. For someone coming from a different neighbourhood, the Astiri area, it could be initially seen as messy or a little overwhelming, but after living there for a while you notice there is some order to that chaos. And still I feel safer there than when I lived in the Fortuzi area. I am not sure what the reason could be but some noticeable things are that sidewalks are wider here, it is merely perception but a contrast can be made. It seems that while there is a little influence from the changes deriving from the construction of the boulevard, there are not a lot of changes perceived by my or people walking in the area.

Interviewer: What do you think about the presence of landmarks or toponims that make the zone more noticeable?

Interviewee: A good thing about the neighbourhood is that everything was in a walkable distance, you could finish lots of activities by just walking and I had all my facilities in a distance easily reachable by foot. For example, in my new neighbourhood

here in Astir it is a lot harder to walk, because of the new segregation. The area was equally distanced from lots of important landmarks, like “Zogu i Zi”, Durresi Street. It was easily reachable by walking. The area pushes you to walk, it is a bit contradictory,(...) it does not provide any security after a certain time at night, but it still makes you want to walk as everything is relatively close by. If there is a positive side is that everything is at walking distance, you don't measure it by bus stations and using a car is not even a choice. I remember we used to walk everywhere and even though it might take a while because you walked though these landmark layers.

Interviewer: True, however in this area the landmarks seem to be in the perimeter of the area, rather than inside of the neighborhood.

Interviewee: Right, there are some public spots or landmarks like “Kafe Flora” or “Vila Tafaj” but they are in the corners outside the area. Perhaps when you go through this area, when you have these landmarks in mind, you might walk in a careless manner. This is a pretty introverted area in between really known public spaces. On itself it does not have much to offer, but its central location is its main advantage. It has a pretty controversial character, it is pretty much in the center and you expect it to be very public, but in reality it has not changed a lot. There are only the basic facilities at the ground level offered in any other neighborhood. You can do a lot more work in other areas than in Fortuzi Street. Small details like a hairdresser, a shoe repairman or other similar facilities that you have to know beforehand and are not easily accessible. It also depends on the profile of the residents. For example in the building that we lived in, we were the only ones who rented, the others were locals and older people. The services offered are also related to the target users of the area. That is why the area is not very lively and has been upgraded more. The other paradox is in the fact that this area is very expensive to live in and there still are not a lot of young people living there. It is a very interesting area when you think about it. (...) It is so centrally located, and yet so introverted to itself and its residents.

Interviewer: My personal experience as someone who is renting an apartment in this area, is the same as you are describing. Maybe the characteristics of the residents as locals and people who have lived there for a long time give the area a sort of compactness. What do you think about this?

Interviewee: Yes, this becomes even more evident when compared to newer neighborhoods in Tirana, where there are notices of new businesses going bankrupt more often, or neighbours that you meet once and move out pretty quickly. All of this gives a sense of discomfort and insecurity that you don't really have in the Fortuzi area. You sort of know the overall makeup of the residents and that gives you a sense of security, even though they are not very active participants or very welcoming when you are renting in the building. Truly there are a lot of interesting elements of the area.

Interviewer: Yes and picking up on what you last said, in my survey I also hinted at an interesting question of Would you trust your house keys to a neighbour or a local business nearby? Because personally, when I lived there because of this feeling of comfortness in the locals and old businesses there I felt very confident to leave my house keys there. It may be something very local, but it has a perception of the feeling of safety and security that is not in other countries.

Interviewee: True true, because these businesses have been there for a very long time and they might not be very modern but the perception of safety that they transmit is clear.

Interviewer: I wanted to ask and expand up some Design standards, if the changes made or the importance of the urban planification of the area.

Interviewee: If you think about the boulevard it is a very successful change in its design and I personally like it and it's really positive. When I compare it to what it was, in my very specific profile of a pedestrian with a stroller, it made it very difficult to cross. In the new Boulevard for example The sidewalks are larger and it's really inviting to the residents to walk on foot. The businesses have a very smooth transmission to the sidewalk and the sidewalk is at the same level to the street and that makes it very easy for pedestrians to walk. The new changes make the Boulevard very inviting to walk.

Interviewer: What about the secondary roads, what might be some changes in these areas?

Interviewee: One solution could be that the sidewalk and the road could be at the same level. I remember one of my professors used to say that if you want to understand the culture of a nation you should check the height of the sidewalk, the larger it is the less

cultured. It could be a very practical solution for someone with limited mobility, this is a small change that does not require you to move any trees or bars but you just need to level the road to the sidewalk. I am not discussing cars because you can't really stop them and they give you a sense of security. In the absence of them you do not feel that there are people around. So this small intervention could be very impactful. Adding trees or adding more lights would be more technical and would go beyond our scope.

Interviewer: What I have noticed is that these small paths into the neighborhood are used for the neighbours or kids to stay and I think they probably need to be improved by experts. They are very narrow segments where children and cars cross at the same time. Do you think there could be differences to be made?

Interviewee: Of course it needs to be improved. I think the roads should be deviated from these small paths so they won't bother the people staying there. Perhaps there should be some changes in the pavements, because when you see an asphalt paved road you automatically think of cars. If it is paved with stones or other similar materials subconsciously you would think this is a pedestrian area first and cars are secondary. There should be a difference between pedestrians and cars, with a possible traffic deviation. A material solution in hardscape could make a difference in mindset, beside traffic deviation that could be considered at times not very architectural.

Interviewer: What about safety in traffic? How do we see the coexistence of being pedestrian and having cars around you?

Interviewee: Safety is 50/50. You know the driver is watching you and the same thing could be said about the driver but you are still unsure about what to do. You think that the driver knows that you are a pedestrian and would let you walk and you just take the plunge. The cars are really close to the sidewalk and there isn't much of a buffer zone and there is really not a lot of safety. There is a constant danger especially to caregivers. I also have the feeling that there is a lack of road signs, for example lack of semaphores. There are other areas that lack road signs between pedestrian and car travelling.

Interviewer: What about the lack of road signs, does it affect the safety of people?

Interviewee: The roads don't actually have a safe design to pre-inform you about your safety and the road in general. It is not only about some zebra crossings but there is a lack of design or organisation that pre-inform, it is very uniform and you find yourself in the crossroad. Perhaps there could be some pre-prep or gradient, when you are about to reach a crossroad, the users should be oriented. It's all about instincts. It doesn't have a proper design and you have to direct yourself along these roads.

Interviewer:True, I think Roads should be accessible for everyone and especially for specific groups. What this zone has is many pockets that could be turned into meeting places for residents.

Interviewee: There was an attempt to turn these pockets into areas to relax with some benches or some kid friends area but the project stopped. It should be as a full package, if you have the bench you need to have a tree. It's how you organise and design it, to be inviting, not to be in front of the street. There have been only minor changes, and there is a lack of proper spaces that are inviting to users.

Thank you for your time and participation!