SUSTAINABLE URBAN LIVING: ENHANCING QUALITY OF LIFE THROUGH GREEN INFRASTRUCTURE IN THE CITY OF DURRES.

A THESIS SUBMITTED TO

THE FACULTY OF ARCHITECTURE AND ENGINEERING
OF

EPOKA UNIVERSITY

BY

LUIS TRAJA

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR

THE DEGREE OF MASTER OF SCIENCE
IN

ARCHITECTURE

JULY, 2024

Approval sheet of the thesis

This is to certify that we have read this thesis entitled **"Sustainable Urban Living: Enhancing Quality of Life Through Green Infrastructure in the City of Durres"** and that in our opinion it is fully adequate, in scope and quality, as a thesis forthe 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

SUSTAINABLE URBAN LIVING: ENHANCING QUALITY OF LIFE THROUGH GREEN INFRASTRUCTURE IN THE CITY OF DURRES.

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Nature manufactures mutually related systems, which are important to the survival of many species in the outside world. There is a need, now more than ever, for re-connection to the natural world. This necessity has led to the integration on a wider range of the concept of a 'green city'. What is important to mention is that future studies should go beyond documenting benefits of urban green spaces on health to literally informing (UGS) planning and design.

This study highlights worldwide urban health issues and emphasizes the concept of a 'green city' in supporting and assuring a positive impact on the citizen's well-being. The well-being of one individual is entirely associated with the surrounding environment. Therefore, the implementation of different green infrastructure typologies has immersed, especially in the last decade.

A comprehensive framework that illuminates the various elements, which have an effect on the overall well-being and health and the methodological difficulties involved, are required to follow this type of research. A thorough study of the literature was conducted to discover the potential effects of urban green spaces on the citizen's overall experience, including the psychological, environmental, and social dimensions, within the city. As a means to conduct the study, a cross-sectional 'survey' approach is developed, as a way to better understand the citizens perception of 'sustainable urban living'. The aim is to identify the best design approaches that boost and promote a healthy lifestyle within the city.

Additionally, a crucial element is the identification of urban problems and finding the best solution, by integrating and implementing different typologies of green infrastructure. The findings not only provide important information for architects and urban designers for future design projects, but also it brings attention to crucial insights in developing and building spaces that support and foster the citizen's mental and physical health.

Keywords: *Urban Green Space, Green City, Physical and Mental Health, Sustainable Design, Landscape Design, Durres*

ABSTRAKT

JETESË E QËNDRUESHME URBANE: PËRMIRËSIMI I CILËSISË SË JETESËS PËRMES INFRASTRUKTURËS SË GJELBËR NË QYTETIN E DURRËSIT.

Luis Traja

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Udhëheqësi: Dr. Joana Dhiamandi

Natyra prodhon sisteme të ndërlidhura, të cilat janë të rëndësishme për mbijetesën e shumë specieve në botën e jashtme. Ka nevojë, tani më shumë se kurrë, për rilidhje me botën natyrore. Kjo domosdoshmëri ka çuar në integrimin në një gamë më të gjerë të konceptit të "qytetit të gjelbër". Ajo që është e rëndësishme të përmendet është se studimet e ardhshme duhet të shkojnë përtej dokumentimit të përfitimeve të hapësirave të gjelbra urbane për shëndetin në informimin fjalë për fjalë (UGS) për planifikimin dhe projektimin.

Ky studim nxjerr në pah çështjet e shëndetit urban në mbarë botën dhe thekson konceptin e një "qyteti të gjelbër" në mbështetje dhe sigurimin e një ndikimi pozitiv në mirëqenien e qytetarëve. Mirëqenia e një individi është tërësisht e lidhur me mjedisin përreth. Prandaj, zbatimi i tipologjive të ndryshme të infrastrukturës së gjelbër është rritur, veçanërisht në dekadën e fundit.

Një kuadër gjithëpërfshirës që vendos fokusin në elementë të ndryshëm, të cilët kanë një efekt në mirëqenien dhe shëndetin e përgjithshëm dhe vështirësitë metodologjike të përfshira, kërkohet për të ndjekur këtë lloj kërkimi. Një studim i plotë i literaturës është kryer për të zbuluar efektet positive të mundshme të hapësirave të gjelbra urbane në përvojën e përgjithshme të qytetarëve, duke përfshirë dimensionet psikologjike, mjedisore dhe sociale, brenda qytetit. Si një mjet për të kryer studimin, është zhvilluar një qasje ndër-seksionale 'ankete', si një mënyrë për të kuptuar më mirë perceptimin e qytetarëve për konceptin e 'jetesës së qëndrueshme

urbane'. Qëllimi është të identifikohen qasjet më të mira të dizajnit që nxisin dhe promovojnë një mënyrë jetese të shëndetshme brenda qytetit.

Gjithashtu, një element vendimtar është identifikimi i problemeve urbane dhe gjetja e zgjidhjes më të mirë, duke integruar dhe zbatuar tipologji të ndryshme të infrastrukturës së gjelbër. Gjetjet jo vetëm që ofrojnë informacion të rëndësishëm për arkitektët dhe urbanistët për projektet e ardhshme, por gjithashtu sjellin vëmendjen dhe foksuin ndaj njohurive thelbësore në zhvillimin dhe ndërtimin e hapësirave që mbështesin dhe nxisin shëndetin mendor dhe fizik të qytetarëve.

Fjalët kyçe: *Hapësirë e Gjelbër Urbane, Qytet i Gjelbër, Shëndeti Fizik dhe Mendor, Dizajn i Peizazhit, Durrës*

ACKNOWLEDGEMENTS

I would particularly like to thank my thesis supervisor, Dr. Joana Dhiamandi, for her unhesitating support and instructions through-out the entire writing process. My genuine gratitude goes also to the members of the thesis committee for their perceptive feedback and comments. Their recommendations have been very insightful through-out the process of my thesis. Last but not least, a wholehearted thank you goes to my family and friends for their ongoing support.

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CHAPTER 1

INTRODUCTION

Urban environments are constantly changing and shaped by the needs of the ones who inhabit them. The implementation of the concept of a ‘green city’ in a wide range in the last decade, has come as a result of the modern civilization’s urbanization. This concept is dedicated to fight and withstand multiple environmental problems and is dedicated to protect and develop a positive relation between people and nature. It plays the role of an urban homeland, whose design and operation emphasizes the preservation of natural elements and this results in turning cities into a more sustainable one (Anderson, 2022). The loss of biodiversity and climate change, being two of the most immediate challenges up to date have led to the need of integrating the concept of a ‘green city’ on a wider range.

Additionally, the widespread of this concept has come as a result of the rapid urbanization (Honeck et al., 2020). Urban environments are in a continuous modification, formed by the needs of the ones who inhabit them. Particular needs and activities have led to the destruction of the natural element around us. This study aims to explore every scenario possible that results in enhancing the overall quality of life of the citizens in Durres and its potential to turn the city into a more vibrant and inclusive one. As a way of achieving this, the city’s current condition is analyzed, identifying areas where it could be possible to intervene and transformed into successful lively spaces. The objective is to suggest solutions that merge urban functionality with visual, cultural, historical and economic value. It results in transforming selected areas through-out the city into vibrant centers that promote the sense of community and celebrate the city’s identity.

1.1 Sustainable Urban Green Design

The concept attracted special attention in the beginning as a strategic tool for spatial planning that may be used to address a variety of social issues and challenges. It was firstly implemented in the 90s, and provided environmental, social and financial advantages, which were typically linked with the raise of property value (Ferreira et al., 2021). Whether at the municipal, regional, or national level, planning and managing green infrastructure is essential to determining the objectives and aspirations of the community as a whole. Additionally, researchers and planners have been searching for innovative and inventive scenarios to incorporate nature into the built environment to improve user well-being in response to these difficulties. Some of the approaches that have been gaining a lot of attention are public parks, vertical greening systems in the facades of the buildings, green roofs and many other methods. Implementation of these different typologies and sustainable urban green spaces are cases of innovative solutions to the environmental, social, and economic problems (Zhong et al., 2022). Moreover, it demonstrates the stimulation of citizen's activities and enhances psychological and physical health. From the beginning up until now, analysis have shown that green infrastructure has the potential to enhance urban resilience (Parker, Baro, 2019).

1.2 Problem Statement

The current condition of the city where the study is developed, Durres, raises many questions about how urban spaces like parks and squares can better meet everyone's needs. The city has a lot of historical, cultural and economic value in Albania and is considered to be the second most important city, right after the capital city, Tirana. Currently, the overuse of parks and boulevards by commercial businesses limits its use for diverse public activities. This imbalance affects the area's social dynamics, making it less inviting for broader community interactions. For some of the major problems and issues within the city, we can mention the parking and the traffic aspect, that in many scenarios has led to the destruction and

poor condition of many urban green spaces, by leading to congestion and making areas less accessible for everyone.

Furthermore, many of the current urban designs lack consideration for environmental sustainability. The aim is to emphasize the potential of the selected areas and address the appropriate solution for each of them. It highlights the need to create healthier and more sustainable cities, by combining existing research and emphasizing important discoveries and contributes to the development of guidelines and strategies for effectively incorporating urban green areas. This thesis explores several crucial cases, which foster well-being among urban residents and promotes a harmonious correlation between the built environment, people and nature. It aims to in transforming the city and finding answer to research question such as; How can green spaces and urban green elements be incorporated into the redevelopments of the city? These question aims to develop a comprehensive approach in revitalizing the city of Durres, considering various aspects of urban design such as: community needs, environmental sustainability and cultural and historical preservation.

1.3 Research Objectives

The objectives of the thesis correspond, to the better understanding of the citizen's perception regarding the concept of a 'green city'. In addition, it helps in developing an appropriate design approach that turn the city of Durres into a sustainable one, by integrated commercial activities that meet the needs of the citizens and urban green spaces. By combining these elements, it helps in the identification of current design and urban problems and proposes solutions in regard to these issues, which could be very helpful in future design processes. This includes enhancing walkability and ensuring that particular areas, function as practical connectors within the urban fabric of Durres.

The objective is to make the city a vibrant destination that promotes social interaction and community engagement, by incorporating sustainable design principles and green spaces in the city's redevelopment. The thesis centers in the demonstration and introduction of diverse activities to make the city a thriving destination as it promotes various activities catering to different age groups and interests. This contributes in the promotion of social interaction and community engagement. Finally, this approach intents to enhance quality, by creating a more visually appealing urban landscape in Durres.

1.4 Scope of Work

The scope focuses on a detailed on-site observation of the city's important landmarks, aiming to better understand their current state. A comprehensive literature review is done, in the early stages, to carry through the study. The data collection regarding the citizen's perception of crucial elements of the concept of a 'green city', is conducted through online surveys, swot analysis and on-site observation. Moreover, the outcome from the results of the surveys, is further detailed and explained in the design proposal for the selected areas in Durres. The study's main goal highlights the citizen's perception on the impact of urban green spaces into their well-being.

1.5 Organization of the thesis

The thesis is divided into seven chapters. The organization is done as follows:

The thesis organization starts with the problem statement, thesis objective and scope of works, which are represented in Chapter 1. Chapter 2 includes the methodology followed in this study, by adopting a mixed-methods approach, from statistics up to research by design. Initially, it starts with a desk approach method in gathering information from books, articles and websites. To continue with the preparation of the survey, as one of the indicators of citizen's perception and

understanding and the ‘SWOT’ analysis, to better develop a theoretical framework and design concepts for the redevelopment of the city. Chapter 3 consists of the literature review of the thesis. It provides information about the terminologies, definitions and the typologies of the urban green infrastructure. In addition, it expresses the advantages and disadvantages of the main focus of the thesis associated and interconnected with appropriate case studies. Chapter 4, analyzes the city of Durres, including its historical background, urban context, cultural and communal significance and observation to understand its current state and role in the urban landscape. Chapter 5, includes the results and analysis regarding the selected areas within the city. Chapter 6, refers to the design proposals for the route and the selected areas, including its concept, activity programs, detailed plans, site sections and visualization. Chapter 7, concludes the thesis by summarizing the findings and recommending future research highlighting the project’s implications for urban design and revitalization in Durres and similar contexts.

CHAPTER 2

METHODOLOGY

The research adopts a mixed-methods approach to better understand the urban landscape and its influence on the city's potential for revitalization. Sourcing materials from academic databases conducted a literature review to include a wide range of urban planning literature. The inclusion criteria for literature, including websites, articles and others, is based on their relevance to urban design principles. An overview of the terminologies, definitions and typologies of green infrastructure are conducted by the literature. These typologies are represented through visual presentation respectively, to give a better understanding of their description. All parts of the research framework are represented in the form of a flowchart expressing the key concepts *(Figure 1).* Case studies were thoughtfully selected to closely reflect the urban characteristics and challenges of the city, establishing a meaningful foundation. Additionally, advantages and disadvantages area analyzed and narrated through several case studies, which provide a similar urban context as the city of Durres.

The study of the city of Durres involved a detailed analysis, focusing on spatial functionality and environmental attributes. It provides a general description of the urban context of Durres, highlighting several urban problems. The urban context of Durres was thoroughly examined through the analysis of historical records, socio-economic data and cultural assessments. Furthermore, the approach used in this exploratory study is survey, to better understand people's perceptions and experiences about the presence of urban green spaces in their surrounding environment. At the end, this detailed analysis and process is supported using design visualization tools, which allows for investigating numerous design alternatives.

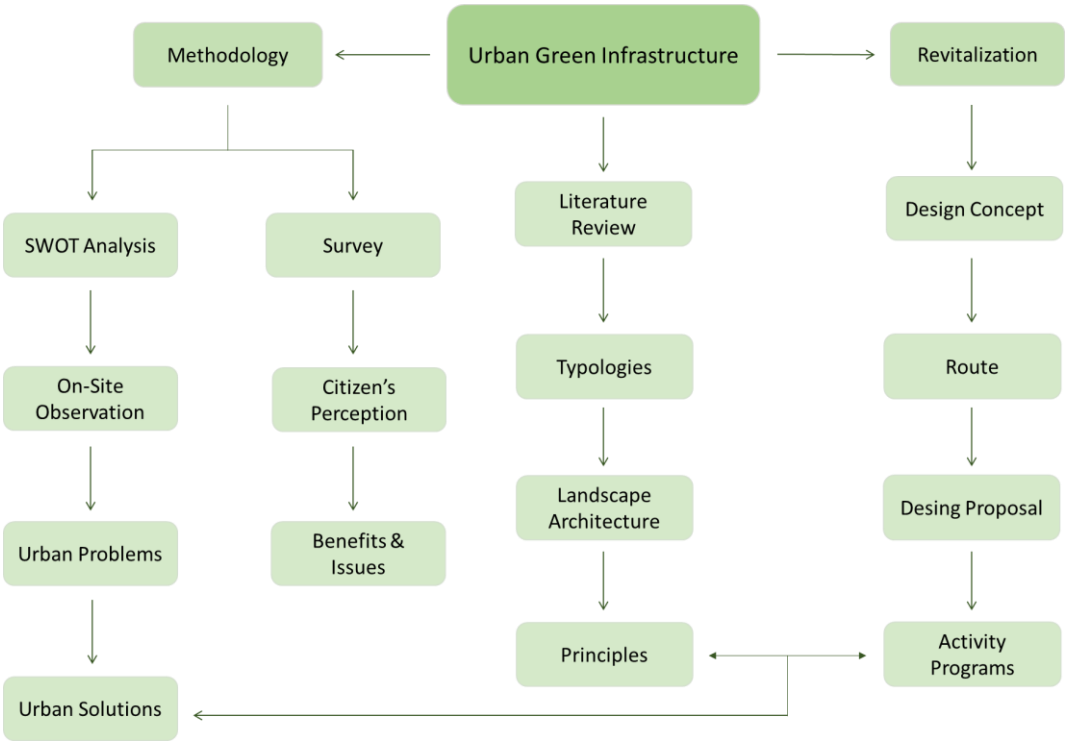


Figure 1 Flowchart of the research methodology (By Author)

2.1 Data Collection

The method selected for the gathering of data is survey. It is developed based on three key aspects: user's exposure, user's perception on the impact of green spaces into their well-being and comfort and user's perception on the impact of environmental factors *(Figure 2).* The method selected provided general data from how often people visited urban green spaces, how satisfied they are with the current conditions, to what could be some of the solutions and activities integrated for the respective areas through-out the city. Additionally, this methodology ensures the validity and reliability of the study findings by offering an organized and transparent approach to distributing surveys for data gathering. With only 105 respondents, the findings may not be representative of a larger population, especially in the case of the city of Durres, but the method selected is conducted and developed carefully, making sure to include different age groups, gender levels. Addressing these limitations often involves increasing the sample size, improving the sampling method, and ensuring the survey is designed to reduce bias and increase representativeness.

2.2 Data Analysis

The before analysis for the selected areas, a ‘swot analysis’ is included, demonstrating the strengths, weaknesses, opportunities and threats of the respective zones. This was made possible by an ongoing on-site observation through-out the city, highlighting several urban and design problems and their solutions, by taking notes, drawing multiple sketches and taking photos. The route in which the on-site and survey collecting data is conducted, starts from one of the most influential modern landmarks of the city such as ‘Sfinx monument’, from there it goes along the ‘Vollga park’, where it is connected with the museum. It continuous to connect with the amphitheater and areas along-side the castle’s remaining walls, where we reach the venetian tower. In addition, the route goes along of the main roads of the city, where it is connected with the city center after. In the city center are located some of the most important buildings such as municipality, prefecture and the cultural building. From there it continuous to be linked with small areas in the nearby neighborhoods and it is connected with zone surrounding the ‘Demokracia square’. Finally, it finishes around the area of the stadium ‘Niko Dovana’.

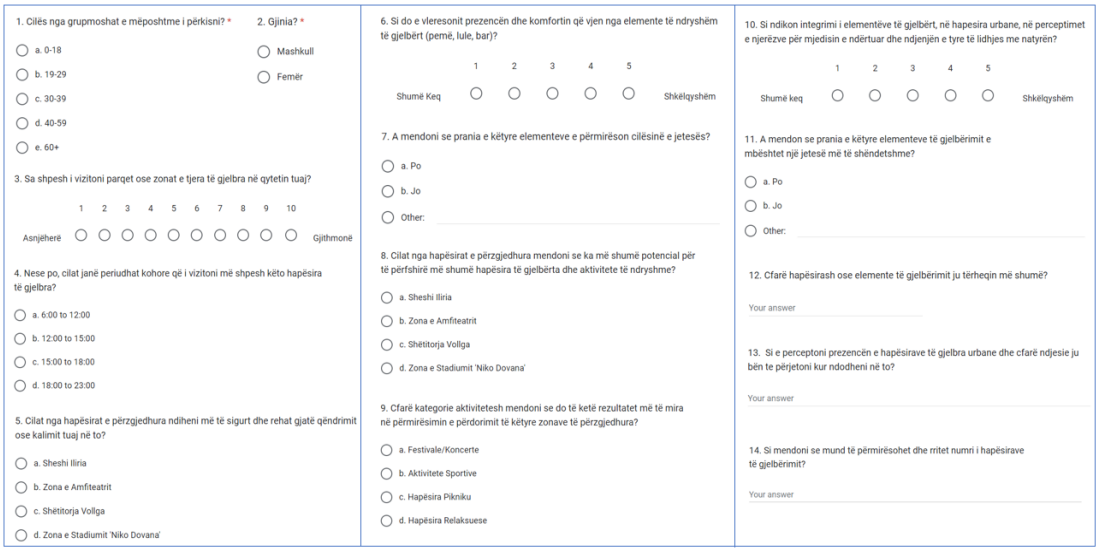


Figure 2 Question Analysis of the Survey (By Author)

2.3 On-Site Observation

Throughout the course of the route, a number of pictures and sketches were taken, the majority of which had the intention of promoting the possibilities for the suggested design and facilitating spatial understanding. The documentation makes it possible to comprehend the current state of the chosen regions and have a deeper understanding of how they are used.

Figure 3 Site Photos of the “Sfinx Monument” Zone (By Author)

Figure 4 Site Photos of the “Liria Square” Zone (By Author)

Figure 5 Site Photos from the Stadium “Niko Dovana” Zone (By author)

Figure 6 Site Photos from the “Demokracia Square” Zone (By author)

CHAPTER 3

LITERATURE REVIEW

3.1 Introduction

This chapter starts to explore and investigate essential definitions, which are very important to the study of urban revitalization. Nowadays, many cities are placing more emphasis on developing sustainable urban spaces that support a healthy lifestyle for their urban residents. Their objective is to demonstrates various cases that could be comfortably implemented into standard planning procedures. This is their way to manage rising health care costs, given the growing percentage of people living in urban areas worldwide (Galdino et al., 2023). One of the best strategies, being part as a key factor in the concept of a 'green city' is "People and Nature" strategy. It is a program that aims to manage the environment, by protecting biodiversity and humankind over the long run (Ferreira et al., 2021). In addition, one of the main risks to natural ecosystems is land degradation. This comes as a result by building in a disorganized way, everywhere possible. Decisions are needed to take place for a greater achievement. Some of green infrastructure primary goals have to do with the preservation and protection of urban green spaces and the encouragement of development in particular areas without destroying the existing natural world that surrounds us. Also, the implementation of different typologies of green infrastructure provides multiple solutions for many existing urban problems.

3.2 Principles

This study emphasizes the importance of several elements such as networks and connectivity to green infrastructure. It refers to the creation of a network of green infrastructure elements and encouragement of connectedness among people, places, and environment. As a way of promoting mobility, landscape features such as pathways, rivers and others are used. The design principles such as connectivity, element of surprise, presence of multiple activities and others, which help in the transformation of the city into a more vibrant one.

3.3 Terminologies and Definitions

Urban green spaces can be better understood and comprehend within the green infrastructure terminologies and definitions, which are related to the concept. The network of natural and semi-natural regions that offer social, economic, and environmental advantages within urban areas is referred to as urban green infrastructure. As it is mentioned, it provides a variety of typologies such as green parks, street trees, green roofs and vertical greenery. This diversity truly shows how different the implementation of green infrastructure in buildings and urban spaces, could be (Mell, 2021). By incorporating natural systems into urban planning and development, the infrastructure seeks to build sustainable urban environments. This will improve the quality of life for people, support ecosystem services, and increase climate resilience.

3.3.1. Urban Green Infrastructure

‘Urban Green Infrastructure’ is a comprehensive framework that aims to improve urban living conditions by incorporating nature into urban settings. Parks, green roofs, street trees, urban forests, green corridors, and water features are just a few of the components that make up urban green infrastructure (Korkou, 2023). Its

primary goals are to enhance environmental sustainability through encouraging biodiversity, lowering air and water pollution, and lessening the effects of urban heat islands. Second, by offering recreational areas, fostering mental and physical health, and designing aesthetically beautiful urban landscapes, urban green infrastructure helps to improve the general condition of city dwellers (Ferreira et al., 2021). In addition, structure and pattern are the two primary aspects of green space that have an impact on urban sustainability. The vertical features of a landscape, such as plant species, habitat kinds, and biological shapes, are referred to as its structure. Pattern refers to the horizontal features of landscape habitat patches, such as their size, connectedness, and spatial organization (Honeck et al., 2020).

3.4 Landscape

Landscape architecture is the art of creating buildings and paving with plants, water, and landforms. It dates back to the beginning of human civilization. One of the newest fields of environmental science, landscape science provides fresh perspectives on human behavior and the environment based on scientific theory and philosophy. The book titled "A Treatise on the Theory and Practice of Landscape Gardening, Adapted to North America," written by Andrew Jackson Downing in 1841, is where the word "landscape architecture" originated. This book is regarded as one of the founding books of landscape architecture. The subject of how to relate architecture to landscape is explored in this work by Scottish author Gilbert Laing Meason. The portion of the open landscape in an urban region that is covered in naturally occurring and artificially cultivated grass, trees, bushes, flowers, and flowers is known as the urban landscape. In addition, there are additional plants that have been protected because of human management and control, which includes adhering to legal requirements and developing relevant skills to enhance citizens' quality of life. Historians disagree on whether the fabled Hanging Gardens of Babylon actually exist, but King Nebuchadnezzar II is frequently credited with creating them. If these terraced gardens were real, they would be a wonderful example of sophisticated landscape architecture, exhibiting cutting-edge horticultural practices and irrigation systems (Keshtkaran, 2019).

3.4.1. Landscape Vision

The phrase ‘hanging gardens’ shows that these gardens were hanging in midair. Corresponding to descriptions, the gardens were constructed as a sequence of terraces stacked one on top of the other, akin to a stepped pyramid with a diverse range of trees and floral plants. It is rumored that these flowers were chosen to ‘excite’ the queen (Anderson, 2022). From the documentation of several cases, it is easy to understand the importance of landscape architecture since the ancient times. The visionaries who shaped the field and increased the importance of landscape design are known as the fathers of landscape architecture. These fathers include Gilgamesh, Vitruvius, Hadrian, Alberti, Gilbert Laing Meason, John Claudius Loudon, William Andrews Nesfield, Andrew Jackson Downing, Frederick Law Olmsted and Sir Geoffrey Jellicoe. Every "father" of landscape architecture has made a significant contribution to the subject by offering their own viewpoints, design philosophies, and design ideas (Tezgör,2021).

- **Frederick Law Olmsted** (1822-1903) - Central Park in New York, considered to be his most well-known project, is a major case of his commitment to designing urban settings that are in harmony with the natural world.

- **André Le Nôtre** (1613-1700) - His geometric and symmetrical designs, with their large axes and immaculate lawns, had a centuries-long impact on landscape architecture throughout Europe.

- **Capability Brown** (1716-1783) - Brown abandoned formalism in favor of a more organic and tranquil look during the English Landscape Garden movement.

- **Ian McHarg** (1920-2001) - He promoted taking environmental factors into account while making design decisions, thus pioneering the idea of ecological planning.

- **Roberto Burle Marx** (1909-1994) - His designs featured bright, abstract patterns and tropical vegetation, which helped to shape the distinctive Brazilian modernist landscape architecture style.

3.4.2. Urban Landscape

Urban landscape includes both the physical and psychological aspects and creates natural and wildlife habitats. It provides solution for several urban problems by increasing biodiversity, reducing pollution and regulating the microclimate. The relationship between the city and its citizens is provided in urban spaces. As a way for these spaces to be created some crucial points must be accepted such as, creating spaces that people could relate to. There is need for spaces that respond to the needs of citizens such as rest, comfort and exploration and this is possible by landscape design. In this regard, the study's purpose includes themes like life quality, the quality of urban life and its contents, and the connection between urban life quality (Tezgör,2021). Urban landscape is incredibly complex by combining the land used for residential, commercial, industrial, government-institutional and other functions, as well as secondary green spaces like parks or cemeteries and other land uses (Andersson, 2006).

3.5 Typologies of Green Infrastructure

The term "urban greenery" refers to a wide variety of components that support the aesthetic, social, and ecological life of metropolitan settings. Street trees that line roads and sidewalks give shade and enhance the quality of the air, and public parks offer vast areas for community activity (Menchawy et al., 2021). Greater concentrations of greenery, including wildlife habitats and educational possibilities, can be found in urban forests and botanical gardens. In addition, urban neighborhoods featuring green alleyways and natural reserves are prime examples of creative solutions for sustainable urban planning. When combined, these many kinds of urban greenery can make cities more resilient, aesthetically beautiful, and healthier for their citizens. Moreover, urban environments can promote a peaceful coexistence between man-made structures and the natural world by incorporating these features, which will benefit both the well-being of the inhabitants and the health of the urban ecosystem (Honeck et al., 2020).

3.5.1. Urban parks and Gardens

Parks and gardens are essential elements of urban green infrastructure, offering chances for community participation, wildlife habitat, and recreational areas *(Figure 7).* It provides good advantages in the enhancement of biodiversity, in establishing habitats, in the mitigation of climate change and microclimate regulation. Within the busy fabric of cities, urban parks and gardens are critical green havens that provide much-needed relief for city dwellers in search of nature's comfort (Mell, 2021). Also, it supports the health and well-being of individuals and communities. Within the busy fabric of cities, urban parks and gardens are critical green havens that provide much-needed relief for city dwellers in search of nature's comfort. Urban communities' collaborative attitude is embodied by community gardens, which provide areas for people to gather and work together to grow food, flowers, and plants. However, community gardens are not just beautiful to look at; they are also centers of sustainability, shared responsibility, and social interaction. Cooperative efforts are made by the residents, who share the harvest and care the garden together (Ferreira et al., 2021).

Figure 7 Urban Parks and Gardens Visualization (By Author)

3.5.2. Green Roof

Planting greenery on building rooftops is known as a "green roof." They enhance air quality, act as insulation, and lessen stormwater runoff. Urban green roofs can function as communal green spaces and enhance biodiversity. One creative way to add nature to vertical urban settings is through green roofs and raised parks. Green roofs with plants on them offer a number of advantages, such as better insulation, less runoff from storms, and increased energy efficiency *(Figure 8)*. Offering distinctive vistas of the city, these high retreats encourage a harmonious coexistence of nature and architecture while giving city dwellers a peaceful haven in the middle of the metropolis (Mell, 2021).

3.5.3. Green Wall

Vertical gardens, often known as green walls, are constructed with greenery covering them *(Figure 8).* They are frequently put in place on the outside of buildings to improve air quality, increase visual appeal, and aid in thermal insulation. Green walls, sometimes referred to as living walls or vertical gardens, are a creative and beautiful method to bring nature into cities (Mell, 2021). With so many advantages, these vertical gardens can be incorporated into interior areas or placed on the outside of buildings. In addition to improving air quality and supporting urban biodiversity, external green walls also serve as natural insulators, controlling temperature and lowering energy use. Beyond its effects on the environment, green walls improve city people' general well-being by fostering visually engaging and peaceful surroundings, particularly in highly populated places where green space may be scarce (Parker, Baro, 2019).

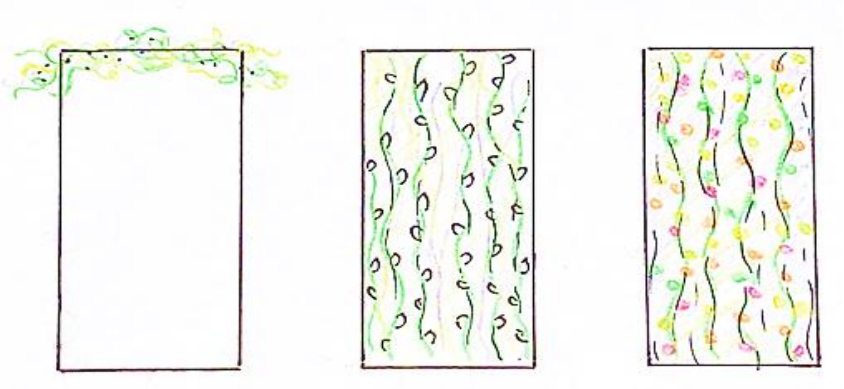


Figure 8 a) Green Roof b) Green Façade c) Green Wall Visualization (By Author)

3.5.4. Street Trees and Trees Canopies

Street trees promote biodiversity and enhance the city's beauty. The urban landscape and the environmental quality of city streets are significantly shaped by street trees *(Figure 9).* When placed thoughtfully alongside walkways and thoroughfares, these trees enhance the visual appeal of metropolitan regions and offer an array of ecological, social, and financial advantages. By absorbing pollutants and releasing oxygen, they help enhance air quality, creating a healthier environment for city dwellers and the urban ecosystem (Mell, 2021). The nature of city streets is transformed by tree canopies, which are made up of the combined foliage of street trees or trees placed beside roads. These canopies form organic arches and cast dappled shadows that shade busy urban thoroughfares from the sun and give them a peaceful feeling (Ferreira et al., 2021).

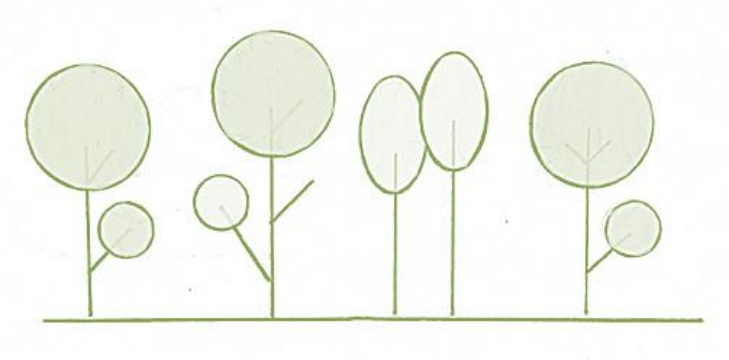


Figure 9 Street Trees Visualization (By Author)

3.5.5. Urban Forest

Urban forests, which are made up of carefully placed groups of trees within urban landscapes to replicate the advantages of natural forests, are essential elements of city design. These green spaces are essential for improving the ecological and environmental well-being of metropolitan regions. In addition to providing a peaceful haven from the stresses of city life, urban forests help people feel more connected to the natural world (Ferreira et al., 2021). They turn become vital venues for community gatherings, outdoor sports, and environmental education programs. Also, in addition to addressing environmental issues, thoughtfully incorporating urban forests into city development helps to create resilient, sustainable urban settings that put people's health and well-being first.

3.5.6. Wildlife Corridors

The design of green spaces that have interconnecting wildlife corridors facilitates the mobility of animals in urban environments *(Figure 10).* Ecological equilibrium is supported and biodiversity is encouraged by this. Wildlife corridors are crucial elements of ecological planning and conservation because they offer important routes for the migration of plants and animals between divided environments. These corridors allow different species to migrate and disperse because they act as organic links between isolated areas. These corridors could be man-made constructions like wildlife bridges and tunnels, or they could be natural elements like rivers, woods, and ridgelines. Collaboratively, urban planners, environmentalists, and legislators discover, protect, and occasionally restore these essential links among habitats. The creation of wildlife corridors is essential to guaranteeing the long-term survival and biodiversity of wildlife populations, promoting a peaceful coexistence between human development and the natural environment as cities grow and landscapes become more fragmented (Honeck et al., 2020).

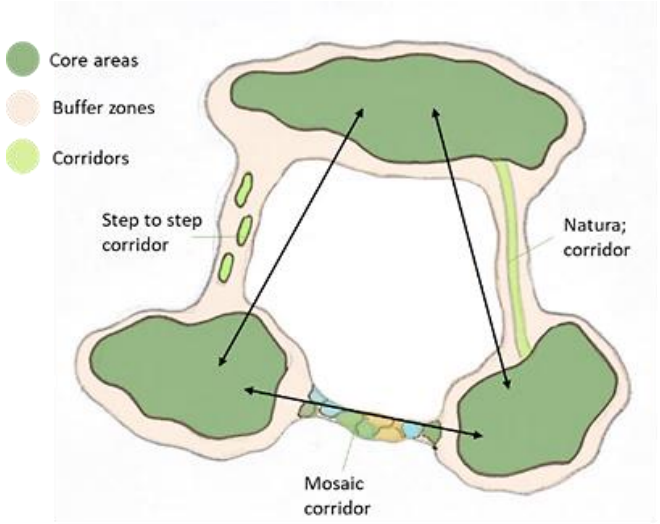


Figure 10 Wildlife Corridors Visualization (By Author)

3.6 Historic Greenways Types

Historic greenways are linear open places with considerable cultural, historical, or ecological importance *(Figure 11).* They are sometimes referred to as historical landscapes or legacy corridors. These greenways are made with the intention of celebrating, interpreting, and protecting a certain area's or community's legacy. Historic greenways are becoming more and more popular as civilizations realize how important it is to preserve and connect with their past. Linear green areas known as "greenways" are frequently used as tools of policy to solve a range of urban problems. Greenways exhibit heterogeneity in terms of their shapes, purposes, and activities (Liu et al., 2020). Regarding the context of Durres and how this city would benefit, this typology would provide leisure possibilities like walking and cycling. Additionally, these greenways protect cultural heritage and encourage environmental protection. They frequently serve as living museums, allowing visitors to engage with the historical and cultural narratives of a region through informative signage, historically significant sites, and restored natural environments. By maintaining these corridors, communities can protect biodiversity, enhance urban resilience, and provide accessible green space that contributes to residents' well-being.

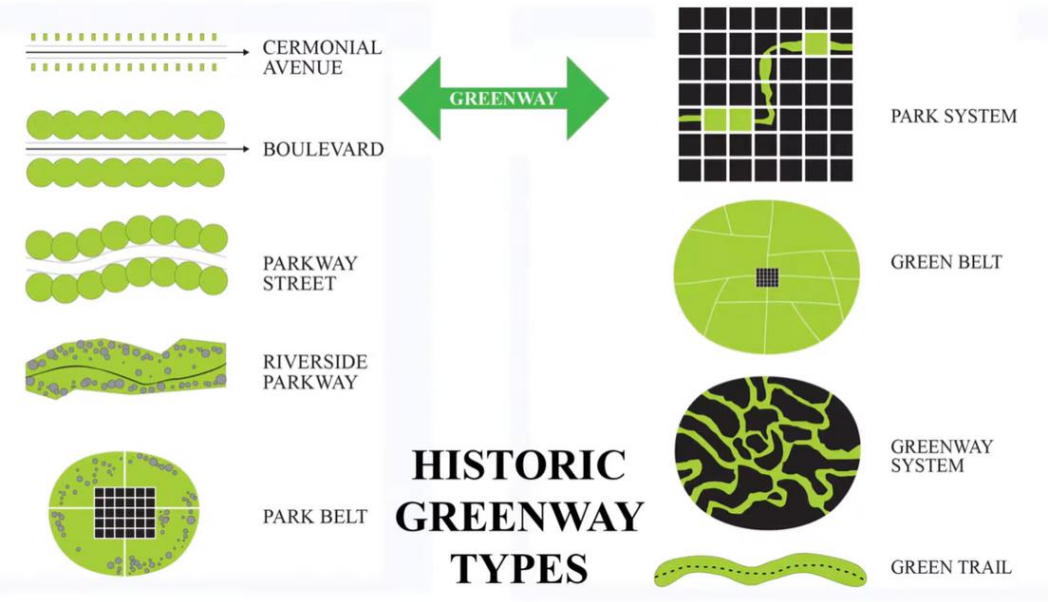


Figure 11 Historic Greenway Types (Landscape Architecture)

3.6.1. Park System

City parks were essential elements of urban design in the 19th century with the rise of the City Beautiful Movement. Insufficient multifaceted and comprehensive study on city park systems has weakened the potential contribution of these public spaces to the advancement of urban sustainability objectives. The introduction of a sustainable urban park system is based on interdisciplinary theory and ideas (Ibes, 2014). The focus switched from merely recreational areas to expansive public spaces, adding to the cities' distinct identities and personalities. In addition to providing recreational areas, these linear elements connected communities, easing pedestrian flow and fostering a sense of unity within the urban fabric. In the 20th century, extensive networks of urban parks were created. These systems included a variety of parks, from tiny neighborhood ones to larger regional spaces, in an effort to give locals a wide range of recreational options *(Figure 12).*

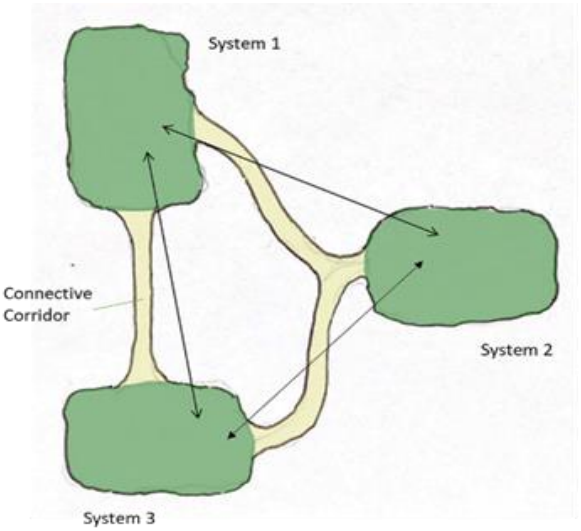


Figure 12 Park System Visualization (By Author)

3.7 Case Study 'SNFCC', Athens

Urban green spaces help in providing a calm heaven surrounded by concrete jungle (Smart CRE, 2022). One of the best examples of favorable effect on mental health, is the case of Stavros Niarchos Foundation Cultural Centre in Athens *(Figure 13).* It is referred as one of noteworthy instance of modern architecture and environmentally conscious design.

Figure 13 Stavros Niarchos Foundation Cultural Centre (SNFCC) location extracted from Google Maps

The project addresses urban green space issues with a number of solutions that combine both, the natural world with the constructed surroundings. In the centerpiece, there is a large area with greenery known as ‘Stavros Niarchos Park’ (Murawski, 2020). These areas help to improve the overall experience of everyone, by offering various sportive activities. In addition, these urban green spaces foster the sense of community and gathering *(Figure 14).*

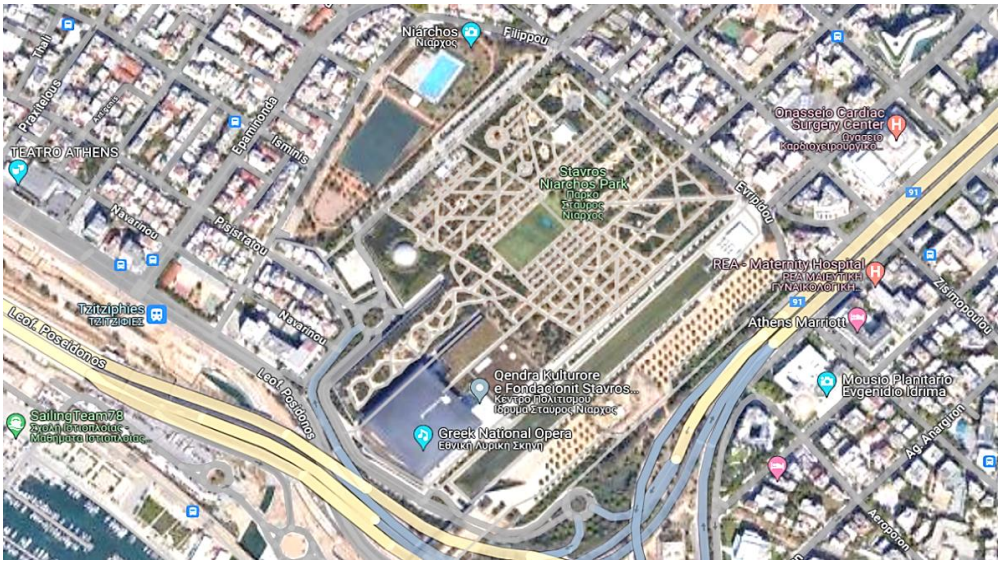


Figure 14 (SNFCC) location extracted from Google Maps

Figure 15 Photos Taken by Yiorgis Yerolymbos, Dezeen

3.8 Case Study of Hamamyolu Urban Deck

‘Hamamyolu Urban Deck’ is located in the center of Eskisehir's Odunpazarı neighborhood. It presents a fresh perspective on the revitalization of existing urban fabric, by blending with one of the most important thoroughfares in the city. It is a green pedestrian axis, which includes lush green landscape elements, picnic spots and multiple water features. Therefore, the final project resulted to be a fun meeting area for everyone *(Figure 16).* The project was design by Yazgan Design Architecture *(Figure17).*

Figure 16 Hamamyolu Urban Deck, location extracted from Google Maps

Figure 17 Plan by Yazgan Design Architecture from Landezine

The revitalization of Hamamyolu Street has positively impacted local business and improved resident's social and interaction *(Figure 18).*

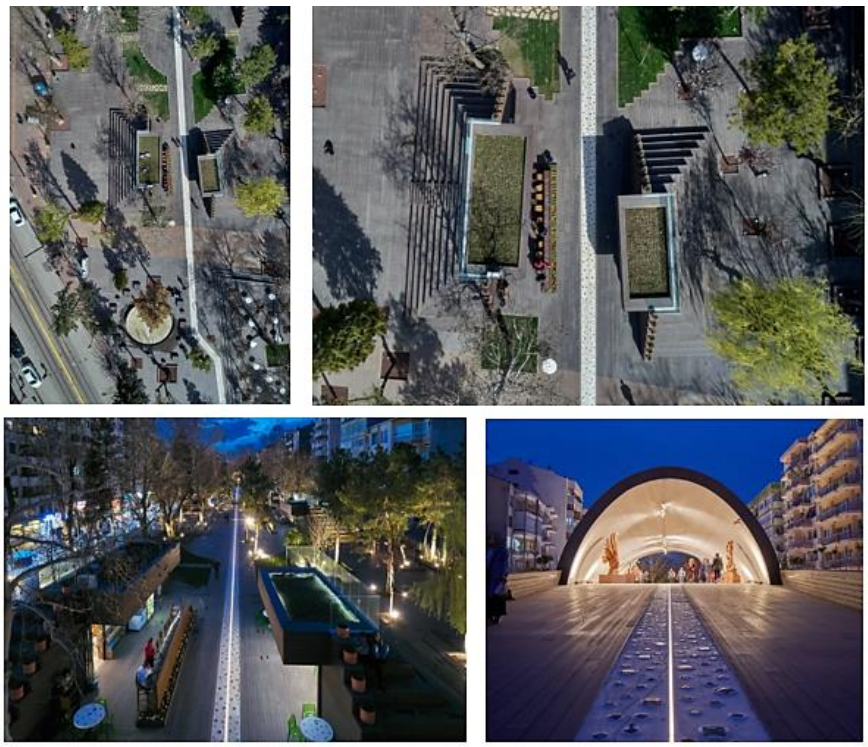


Figure 18 Photos Taken by Yunus Ozkazanc, Odunpazan Municipality 2018

On the contrary, urban green spaces provide many benefits, but they can have drawbacks. The substantial upkeep expenditures connected to these regions are one major worry. Establishing and maintaining green spaces costs a lot of money in terms of infrastructure, landscaping, and security. The difficult issue of gentrification is associated with urban green spaces (Murawski, 2020). The neighborhood's composition may change as a result of this social and economic change, which could lead to conflicts and social injustices. The long-term viability of these areas may be jeopardized by environmental deterioration brought on by excessive use or poor design (Smart CRE, 2022).

CHAPTER 4

THE CITY OF DURRES

4.1 Durres – Urban Context

The coastal city of Durres in western Albania has a rich cultural and historical legacy. Durres is one of Albania's most important and ancient ports, with traces of Roman, Byzantine, and Ottoman influences throughout its long history. It is located along the Adriatic Sea on Albania's central-western coast, the city has a Mediterranean climate. Temperatures typically range from around 5°C below zero in January to approximately 28°C in July and August. The three hottest and driest months are June, July, and August. Situated about 33 kilometers west of the capital Tirana, Durres is one of the oldest and most significant cities in Albania *(Figure 19).*

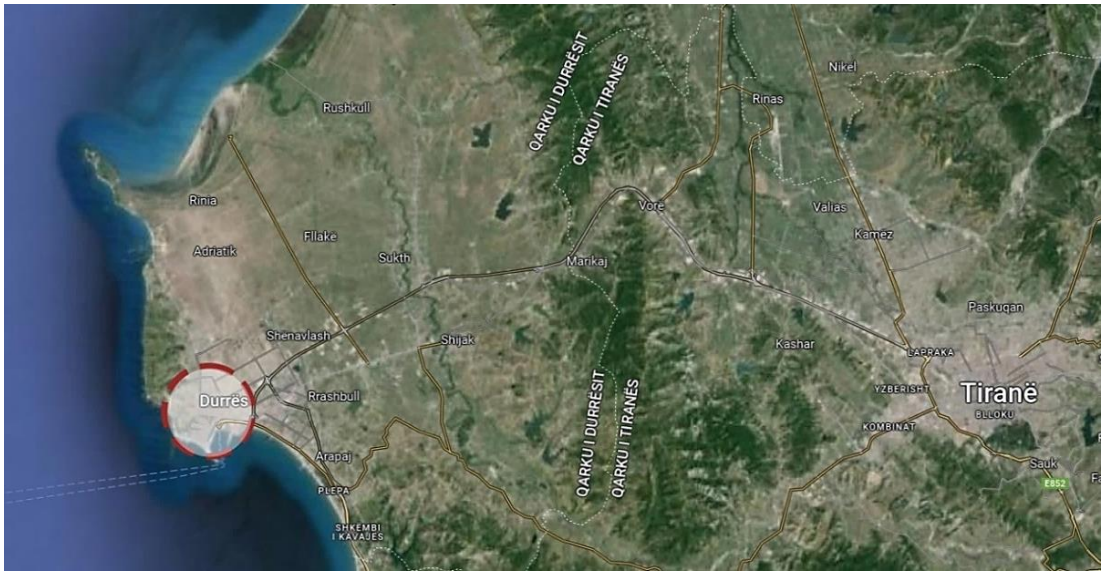


Figure 19 Regional Maps of Durres location extracted from Google Maps

The highest point in the region is Durres Mountain at 178 meters above sea level, while the lowest point is the Dajlan bridge at the city's entrance, which sits around 0.8 meters above sea level. The study focuses on areas such as ‘vollga park’; ‘Liria Square’; the stadium ‘Niko Dovana’ etc., areas that have experienced the most drastic changes through years. The goal is to showcase how the presence or the absence of urban green areas affect citizen’s everyday life experience within the selected spaces.

4.2 Historical Background

Durres, a medieval city on Albania's Adriatic coast, has a rich historical heritage spanning thousands of years *(Figure 20)*. The city has been influenced by numerous civilizations, cultures, and events throughout its history, shaping its identity and significance in the region (Prifti, 2023). During the Albanian Kingdom era (1928-1939), Durres experienced a period of economic growth, driven by Italian investments and the strengthening of local capital. This allowed the development of various companies, including those producing pasta, cigarettes, and flour. The city's progress also led to the construction of new roads, the Durres port in 1928, and the establishment of the first joint-stock firms (Qosja, 2021).

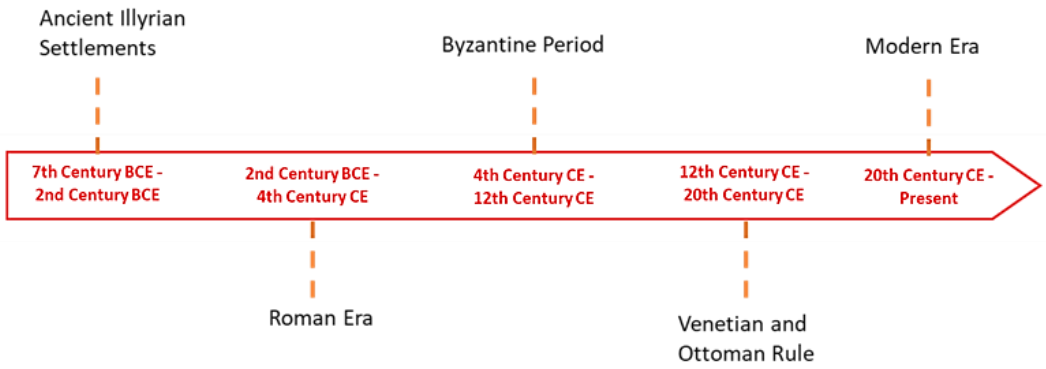


Figure 20 Historical Timeline of Durres

4.2.1. Ancient Illyrian Settlements (7th Century BCE - 2nd Century BCE)

The western Balkan Peninsula was home to the ancient Illyrian people, an Indo-European group who settled in what is now Albania, including the area that would become Durres, as early as the 7th century BCE. The Illyrians established Durres, previously called Epidamnos, which grew into a major trading and commercial hub (Kasa, 2015). In 627 BCE, Greek colonists from Corinth and Corcyra (modern-day Corfu) founded a colony at the location of Epidamnos. Due to its proximity to the sea, the city developed into an important center for the exchange of goods, ideas, and cultural influences. The traditional Illyrian villages, especially the transformation of Epidamnos into Dyrrachium, were crucial to the region's cultural and economic development (Shetuni, 2020). It is known that the Illyrians established their settlements in regions abundant in rivers, forests, and lush plains, which offered vital resources like water, wood, and arable land for farming. Moreover, to providing for their basic necessities, the surrounding vegetation was essential to their cultural and spiritual customs. In addition, the preservation of vegetation supported wildlife and increased the adaptability of these historic settlements by preserving ecological equilibrium.

4.2.2. Roman Era (2nd Century BCE - 4th Century CE)

Durres was an important city during the Roman era, from the second century BCE to the fourth century CE. It served as a key port and hub within the vast Roman Empire. The city's strategic location on the Via Egnatia, a major Roman trade route connecting Byzantium (modern Istanbul) to the Adriatic Sea, contributed to its economic prosperity (Prifti, 2023). The city's infrastructure was developed with significant Roman investment. Roman urban planning principles were used to design Durres, with well-planned streets, public buildings, and forums. One of the most famous structures from this era is the amphitheater, which hosted public events and entertainment. After the Roman Empire split into Eastern and Western halves, Durres came under the control of the Eastern Roman (Byzantine) Empire (Shetuni, 2020).

Because of their skill in urban planning, the Romans frequently included green spaces in their towns to improve the standard of living and provide residents somewhere to relax. This probably comprised tree-lined alleys, private courtyards, and public gardens in Durres. In addition to providing peaceful settings for lounging and socializing, these gardens also provided areas for cultivating decorative and therapeutic plants. In Durres, public venues like amphitheaters and forums may have been adorned with vegetation to create hospitable settings for social events, cultural activities, and business.

4.2.3. Byzantine Period (4th Century CE - 12th Century CE)

During the Byzantine era, which spanned the fourth to the twelfth centuries CE, Durres underwent a pivotal period in its history. The Byzantines recognized the city's strategic importance and strengthened its defensive walls. Even though the Byzantine period saw a slight shift in the focus on the economy, Durres continued to be a significant economic hub (Shetuni, 2020). Despite external forces, Durres experienced a cultural revival during the Byzantine era. The city evolved into a center for Byzantine scholarship and art, with churches and public spaces, creation with murals, mosaics, and other creative representations of Byzantine culture (Qosja, 2021). In both private and public structures, courtyards and enclosed gardens were common features in Byzantine architecture. These green areas would have served as venues for leisure, conversation, and meetings in Durres. Additionally, the incorporation of greenery into urban life continued and was strengthened during the Byzantine Period in Durres, demonstrating the strategic, utilitarian, and cultural importance of natural areas. These green spaces left an enduring impact that is still evident in historical narratives and archaeological artifacts, adding to the city's resiliency, attractiveness, and livability.

4.2.4. Venetian and Ottoman Rule (12th Century CE - 20th Century CE)

From the 12th to the 20th century, Durres experienced the Venetian and Ottoman eras. These periods saw changes in government, culture, and architecture. During the Venetian era, the city's management underwent significant changes, and Venetian influence could be seen across urban life. In 1501, Durres fell to the Ottoman Empire under Sultan Bayezid II. The city's cultural, religious, and architectural landscape underwent major transformations under Ottoman rule. The Ottoman investments in maritime infrastructure helped maintain Durres' importance in domestic and international trade. Durres served as a connection between the Ottoman Empire and Western Europe. On November 28, 1912, Durres played a key role in the proclamation of Albanian independence. After gaining independence, the city continued to develop and thrive. The incorporation of vegetation in Durres was shaped by the cultural and architectural traditions of the eras, both under Venetian and Ottoman administration. The Venetians improved the social and artistic life of the city by fostering the growth of both public and private gardens. By incorporating Islamic-garden design and agricultural techniques into urban areas, the Ottomans contributed to the urban greenery and made sure that green spaces remained an essential component of the urban fabric. The cumulative impact of these eras led to the creation of Durres' rich and varied green landscape, which reflects the historical growth of the city and the cultural influences that formed it.

4.2.5. Modern Era (20th Century CE - Present)

Durres, as a city, experienced a lot of significant changes with the collapse of communism in 1990s. The transition was very noticeable with the shift to a market economy and democratic government. Both required advantages and disadvantages (Qosja, 2021). The district’s terrain was transformed after 1990 as a result of the population’s freedom of mobility. This led to several green spaces to be reduced day by day and replaced by high-rise buildings (Kasa, 2015). The city had a distinguishable transformation and developed into one of the most important

economic centers in modern-day time period in the country. The focus shifted in emphasizing services and tourism. This transformation generated new roads, bridges and upgrades to transportation networks *(Figure 21).* Additionally, during this time, there was a shift in emphasis from protecting natural regions to promoting industrial and residential growth. Public space development was one of the major urban projects prioritized under the Communist dictatorship in Albania. But efficiency and usefulness were frequently prioritized, sometimes to the detriment of designing green spaces. However, certain green spaces and parks were created as a part of urban development initiatives.

Furthermore, the value of green spaces in urban settings has gained more attention in recent decades. In an attempt to bring Durres' green spaces back to life, parks, tree-lined streets, and waterfront promenades have all been developed. The livability and environmental sustainability of the city are the goals of these projects. Moreover, the contemporary era has brought forth a renewed focus on integrating and improving green areas, motivated by a confluence of factors including as community engagement, environmental consciousness, and urban rejuvenation. These initiatives are a reflection of a growing understanding of the advantages that vegetation provides to urban settings, improving the general attractiveness and well-being of the city.

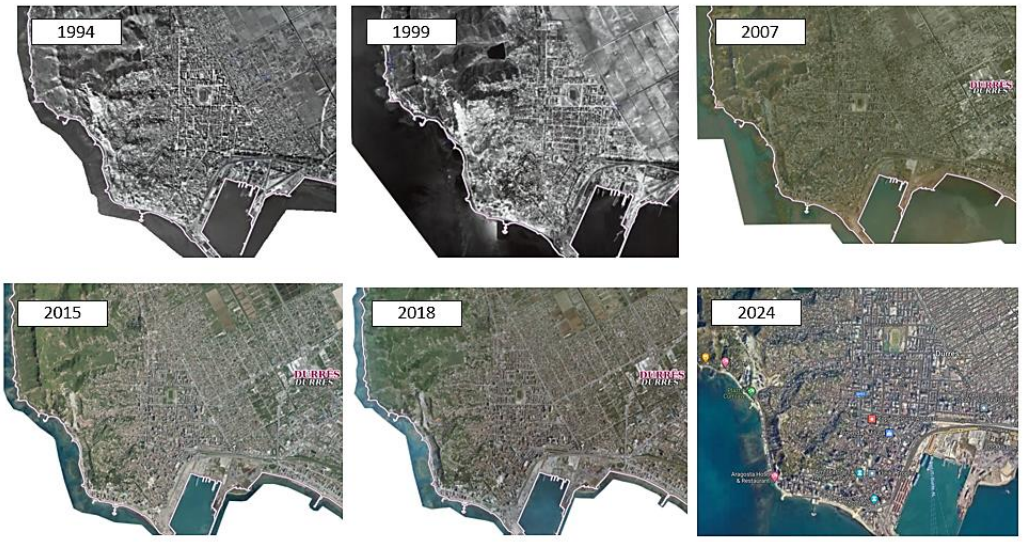


Figure 21 Durres Maps Timeline 1994-2018 from ASIG Geoportal and 2024 by Google Maps

4.3 Territorial Context

There are two separate periods (up to 2006 and after 2006) with different characteristics related to the causes, reasons, and geo-urban consequences that emerged after 1990. The urban periphery and center were recapitalized, resulting in a territorial reassessment that was represented in young political-economic variables (Draci, et al., 2014) *(Figure 22).*

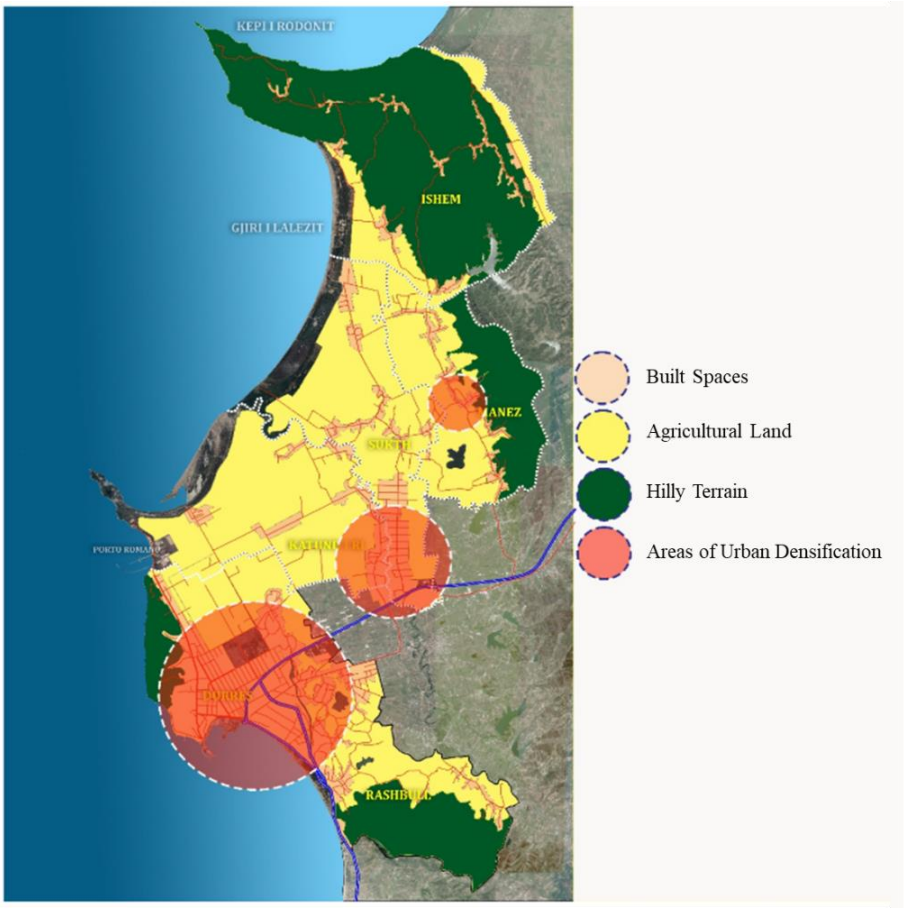


Figure 22 Territorial Context of Durres from Municipality of Durres

Furthermore, from a sociocultural perspective, the periphery zone is defined as an area where newly arrived people who are primarily from rural areas congregate and deal with environmental problems, urbanization, services, and social and cultural aspects *(Figure 23).* Over 40% of people live in informal neighborhoods, which often have two-story buildings, no social services, no urbanization requirements, primarily primary infrastructure, and either inadequate or no secondary infrastructure. Population distribution by territorial zoning (horizontal) and height: more than 45% of the population lives in informal, one to three-story dwellings on the periphery; 35 to 40% live in formal, four to five-story dwellings in the transitional zone; and roughly 13% live in the center (Draci, et al., 2014).

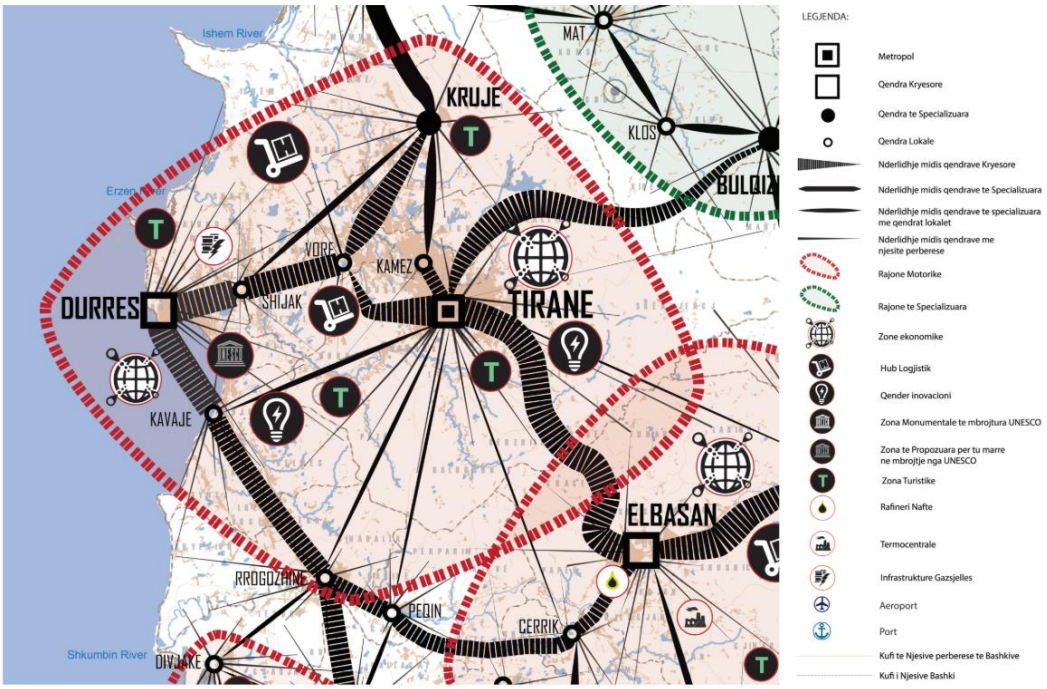


Figure 23 Urban Map of Durres extracted from the document "Strategjia e Zhvillimit per Territorin e Bashkise Durres" by Municipality of Durres

Figure 24 Images of several Important Zones taken by Author

4.4 Demographic and Economic Aspects

Demographic development was highly influenced by the Albanian internal migration in Durres. Around 60,000 people chose to relocate from their area to Durres and the neighboring area in 1990 *(Figure 25).* Its location close to the capital and the port of Durres are some of the critical factors contributing to the city's appeal *(Figure 26).* Until 1990, there were 87.559 registered residents in Durres. Developments the in the last decades have led to the increasing of the citizens up to 203.550 people by the Albanian Institute of Statistics (INSTAT).

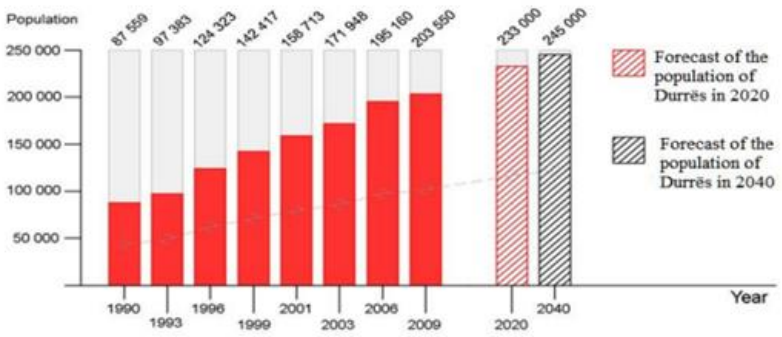


Figure 25 Demographic Change of Durres from 1990 to 2009 from INSTAT

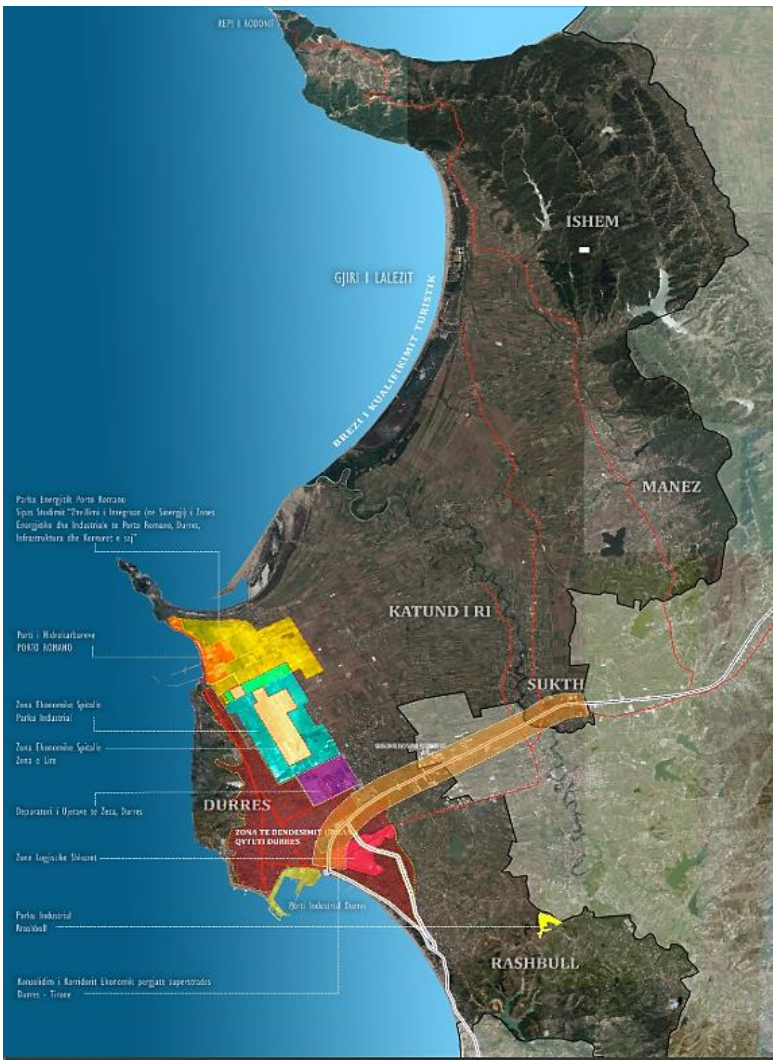


Figure 26 Economic Zones and Durana from Municipality of Durres

A significant part in Durres' urban development refers to the transportation and infrastructure industry. Following 1990, the infrastructure sector served as a guide for the emerging economic trends, especially in the services industry. Tourism serves heavily as the main source of income of Durres. Since 1990, the tourism industry went through a serious development by creating new regulations, investments in services and infrastructure (Qosja, 2021). These developments that the city experienced led to the growth of population as shown at the *Table 1* below:

Table 1 Percentage of Population Growth from 1990 to 2009 from INSTAT

	1990	1993	1996	1999	2001	2003	2006	2009
growth in %	-	11.22	27.66	14.55	11.44	8.34	13.5	4.3
growth % from 1990	-	11.2	42	62.7	81.3	96.4	122.9	132.5

4.5 Urban Greenery Infrastructure in Durres

Urban green infrastructure includes a number of elements with a goal of advancing urban green spaces. It aims to develop an environmentally friendly space. Analysis have shown that, approximately 47.65 billion ALL would need to be invested in order to reach the appropriate O2 level. Some of the greenery present in Durres are chestnut, palm, maple, pine, oak, among others, as shown at the *Table 2* below. The careless constructions are the primary element that have contributed the most in the destruction and loos of green spaces *(Figure 27).* Most of the existing urban green spaces have been left in poor conditions for a very long time. With the right decisions and appropriate urban design could be transformed into vibrant gathering spaces, releasing their full potential.

Figure 27 Map Analysis of the Greenery in Durres by Stefano Boeri Architetti

Table 2 Current Typologies of Trees in Durres

Trees Typology	Visualization
Pine	
Chestnut	
Oak	
Palm	
Maple	

This chapter concludes by outlining Durres's evolution and transformation through years and decades, from antiquity to the Ottoman era its significant contribution to Albania's 20th-century independence struggle has all been witnessed. Its significance for sustainable city planning and development stems from its position as well as its distinct environment and climate. The amphitheatre, the venetian tower, and the remaining castle walls are only a few of the cultural and historical landmarks in the city. The city has developed through time, focusing on particular aspects and a necessity for more comprehensive long-tern strategies. In conclusion, the chapter includes a detailed and comprehensive analysis of Durres's past, its condition in the present and what could happen to improve for the future.

4.6 Selected Case Studies in the city of Durres

The study focuses on areas that have experienced the most drastic changes through years. The goal is to showcase how the presence or the absence of urban green areas has affected citizen's everyday life experience within the selected spaces. One noticeable aspect of the zones is their original character, surrounded primarily by residential buildings and neighborhoods. When surveyed and interviewed on site, many residents of Durres expressed a fondness for the time when these zones provided and featured more green spaces and landscaping in the past, when the excessive commercialization we see today was not yet a prevalent issue. Two of the poles of the route development for this thesis are: "Sfinx Monument" and stadium "Niko Dovana".

4.6.1. "Sfinx Monument" Zone

This contemporary architectural work, known as the Urban Cape, is the pinnacle of Durres' land and seascapes. Using local stones and materials, it creates a smooth, white stone pathway with cascading stairs that links the promenade and square to the Adriatic Sea. The Sphinx has a magnificent reflection of the sun that evokes the enchanted atmosphere of Santorini. This abstract monument is a beautiful balance between the old and the new, even though it reflects the past. "Sphinx" has been considered as one of the most important and visited urban projects in the city of Durres *(Figure 28).* Because of its influential and its potential, it would be considered as one of the main poles of the route with the integration of greenery. Regarding its strength, it is important to mention that it is a good reference point, important monumental project that has a lot of density and its integration in the coastline. Focusing the weaknesses, it relates with the layout of the surrounding area that is not very suitable for a gathering space and the green public spaces almost non-existing *(Figure 29).*

Figure 28 Map of the Sfinx extracted from Google Maps

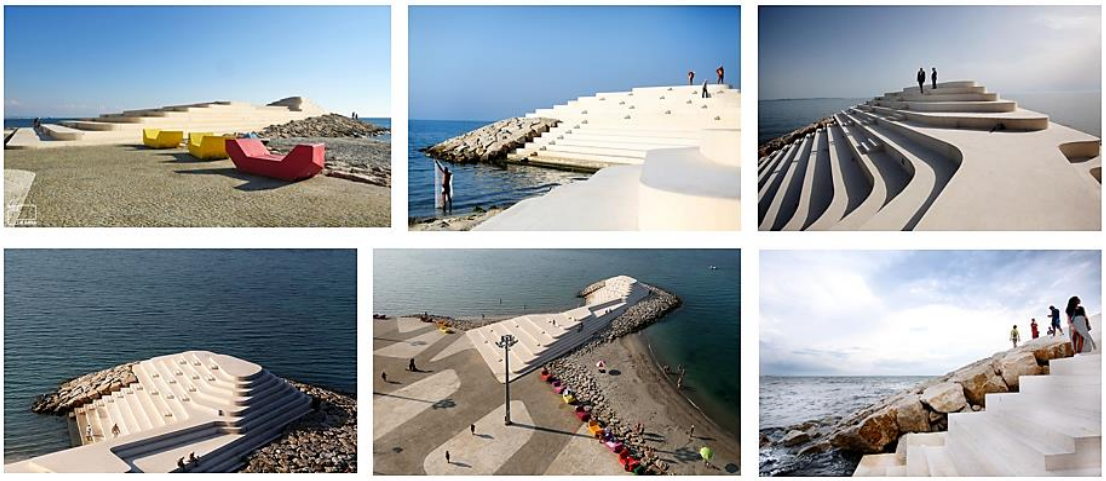


Figure 29 Images of the 'Sfinx Monument' from "Durres Lajm" and Author

4.6.2. “Liria Square” Zone

The City Hall, situated at the center of the town square, features a mix of official and coastal architectural styles. Built over a century ago in 1929 for administrative purposes, the City Hall continues to serve the same role *(Figure 30).* The only greenery factor within the city of ‘Liria Square’ are street trees, mostly in the center part and along the two roads that pass along the two sides of the square and grass areas along the ‘Grigor Durrsaku’ street. The specific number of trees in the site is 37. Some of the strengths of the site are related with the variety and density of daily use. Presence of many activities by organizing of festivals, concerts etc., for particular celebrations. While on the other hand, regarding the disadvantages, it is important to mention that greenery present in the site is not enough and the material for the pathway doesn’t provide a good experience *(Figure 31).*

Figure 30 Map of the location of ‘Liria Square’ extracted from Google Maps

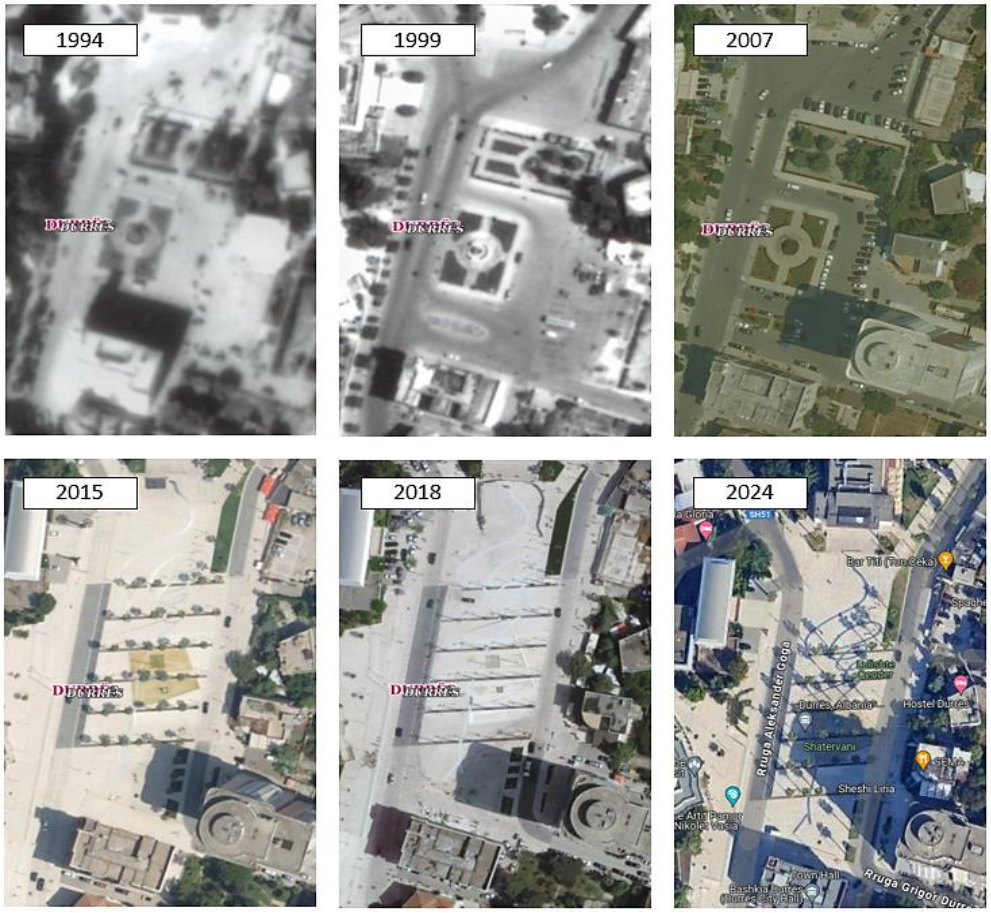


Figure 31 Maps showing the evolution of the 'Liria Square' through years from 1994-2018 from ASIG Geoportal and 2024 from Google Maps

In conclusion, the "Liria Square" is more than just a square in the city of Durres, it symbolizes cultural heritage, a platform for artistic expression, a hub for communal gatherings and a reflection of the city's identity. Through the activities on the square, it takes on a different charm. Residents and tourists use it for leisurely walks and social interactions, creating a vibrant atmosphere reflecting the city's vibrancy. Its role as a place for religious gatherings, especially for the Mosque, further underscores its importance in the community's life. The square is a testament to this Albanian city's rich and diverse cultural tapestry *(Figure 32).*

Figure 32 Images of the Liria Square by Author

4.6.3. ‘Vollga Park’ Zone

Analysis exposes that the ‘Vollga Park’ area is one of the only zones in the whole city to manage to maintain its large green spaces through the last decades from 1994 to 2018. This area provides a lot of service functions such as hotels, bars, caffes and restaurants *(Figure 33).* It is referred to be the most important park in the whole city and it is visited by many citizens and visitors every year, by providing relaxing areas and sportive spaces.

Figure 33 Map of the Location of the "Vollga Park" from Google Maps

Figure 34 Images of the 'Vollga Park' of Durres

4.6.4. “Amphitheatre of Durres” Zone

The Durres Amphitheatre is a Roman amphitheater located in the heart of Durres, Albania. The building was started in the second century AD by the emperor Trajan and was twice devastated by earthquakes in the sixth and tenth centuries *(Figure 35).* The elliptical axis of the amphitheater measures 132.4 meters (434 feet) and 113.2 meters (371 feet). The arena is 20 meters (66 feet) high, 61.4 meters (201 feet) wide, and 42.2 meters (138 feet) deep. Constructed on a gently sloping hillside, the amphitheater features galleries and stairways at varying heights. The mosaic-adorned chapel has been conserved. The zone is visited by many tourists every year, reflecting the city’s historical heritage *(Figure 36).*

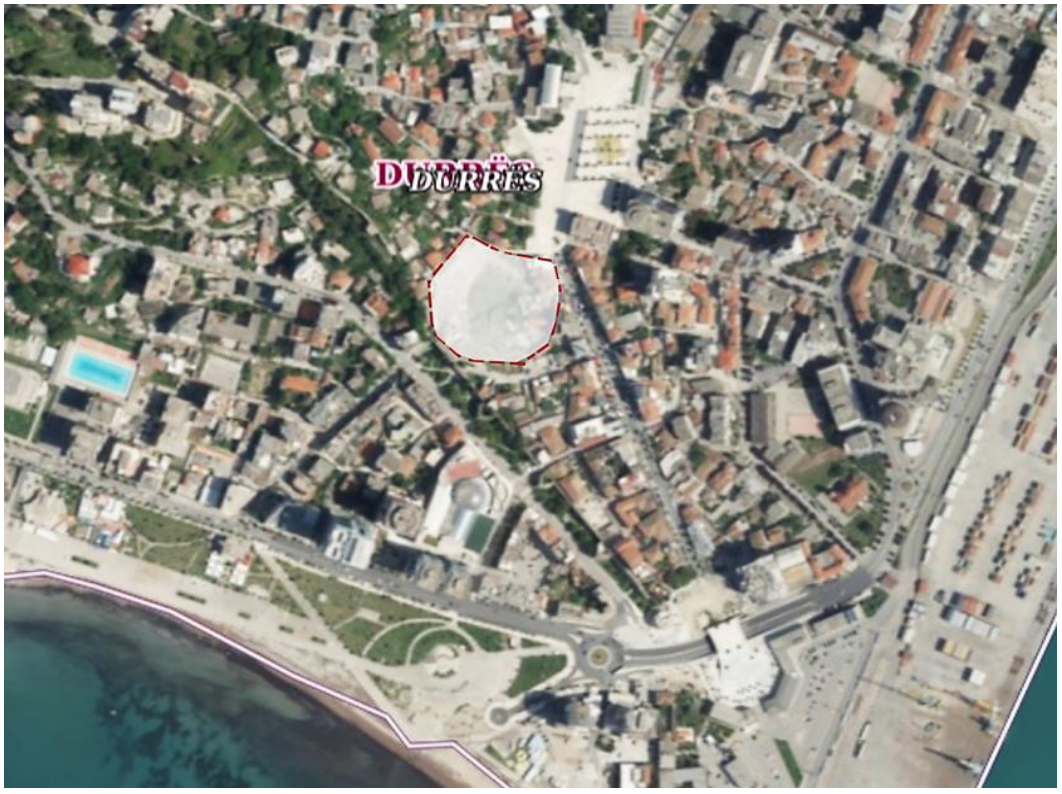


Figure 35 Map of the Location of Amphitheatre from Google Maps

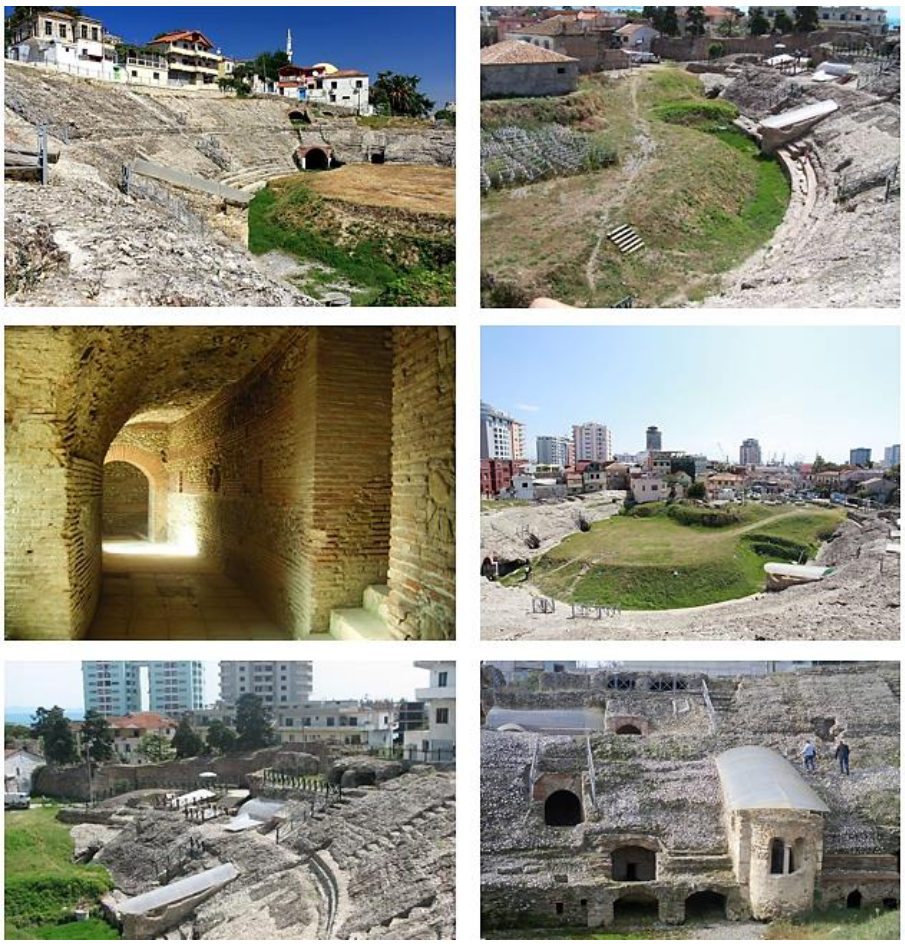


Figure 36 Images of Amphitheatre in Durres by Author

4.6.5. Stadium 'Niko Dovana'

Situated in Durres, Albania, the Niko Dovana Stadium is a multi-purpose ve-nue *(Figure 37).* It serves as the- home ground for Teuta. With a seating capacity of 12,040, it ranks as the- seventh largest stadium in the- country. The stadium was renamed in 1991 to honor the- investor and former Teuta goalke-eper Niko Dovana *(Figure 38).* The advantages of the site are related with the large green areas present around the stadium. However, these areas have been left in poor conditions for e very long time.

Figure 37 Map of Location of Stadium “Niko Dovana” from Google Maps

Figure 38 Images of the Stadium “Niko Dovana” from Wikimapia

4.7 Urban Revitalization Concepts

Urban Revitalization is a complex task that involves improving cities and how people live in them. Kevin Lynch in “The Image of the City” provides a profound understanding of the five elements that form urban spaces and how they influence human interaction and perception. At the core of Lynch’s discussion is the concept of the city as a living, breathing entity, always changing but rooted in the memories and experiences of the people who live within the city. Lynch highlights the importance of legibility in city design, suggesting that a well-defined urban environment offers emotional security and increases the human experience. His analysis of city elements such as: paths, landmarks, edges, nodes and districts, provide a framework for understanding how these components interact to form a coherent and meaningful urban landscape *(Figure 39).* The revitalization process should embrace the complexity and diversity of urban life, fostering environments that are not just orderly but also rich in sensory experience and opportunities for human interaction. This means creating vibrant, multi-use districts that cater to various human activities, enhancing paths and nodes that improve movement and social interaction. The aim is to create urban spaces that are not only aesthetically pleasing and functional but also deeply connected to the social and cultural fabric of the city. The principles should also consider the larger context of sustainability and social inclusivity.

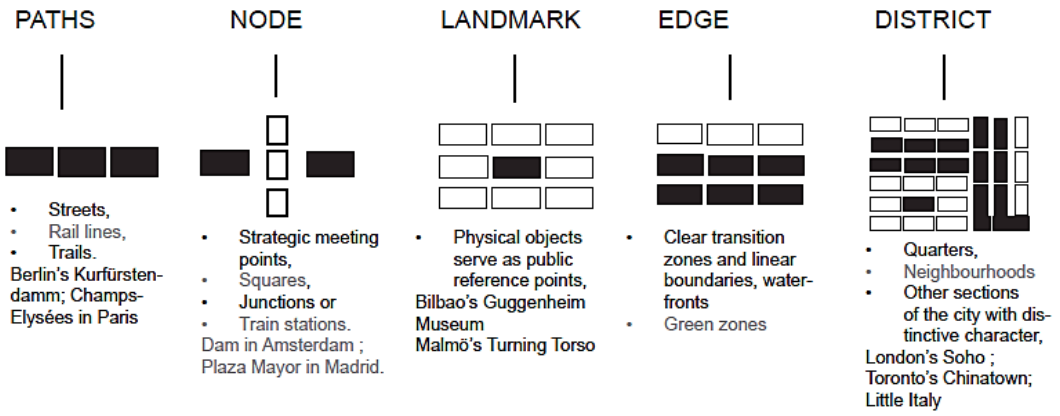


Figure 39 Five Important Elements of a City of Kevin Lynch from Research Gate

4.8 The Concept of ‘Durana’

National General Plan recognizes the Tirana-Durres area, as one of the most significant economic areas in both the nation and the Balkan region *(Figure 40).* The concept of ‘Durana’ demonstrates an unofficial linear city situated between two of the most important cities of the country, because of their historical, cultural and economic values. The region has been in the center of attention for several years, especially in terms of urban planning by the main public institution, the National Planning Agency of the Territory (Agjencia Kombëtare e Planifikimit të Territorit) (Pikark). It would be a linkage between both cities, aiming to boost many positive factors that our country could benefit from. The enhancement of their historical, cultural and economic value, would turn the district as one of the most important focal points not only in Balkan, but even in Europe.

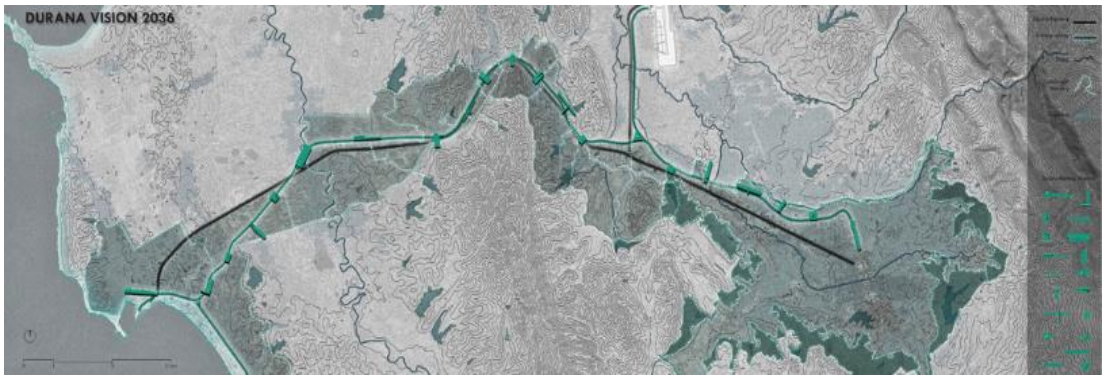


Figure 40 The Concept ‘Durana’ by Mikaela Maçka from Pikark

4.9 Selected Case Studies – Map Analysis

The major thoroughfares of the city encircle the route development, making it both very accessible and congested *(Figure 41).* Two-way car lanes are present in most of the zones that were selected for the study. The area's elevated pollution levels are a result of this strategic location, which makes it difficult for people to go about their daily lives.

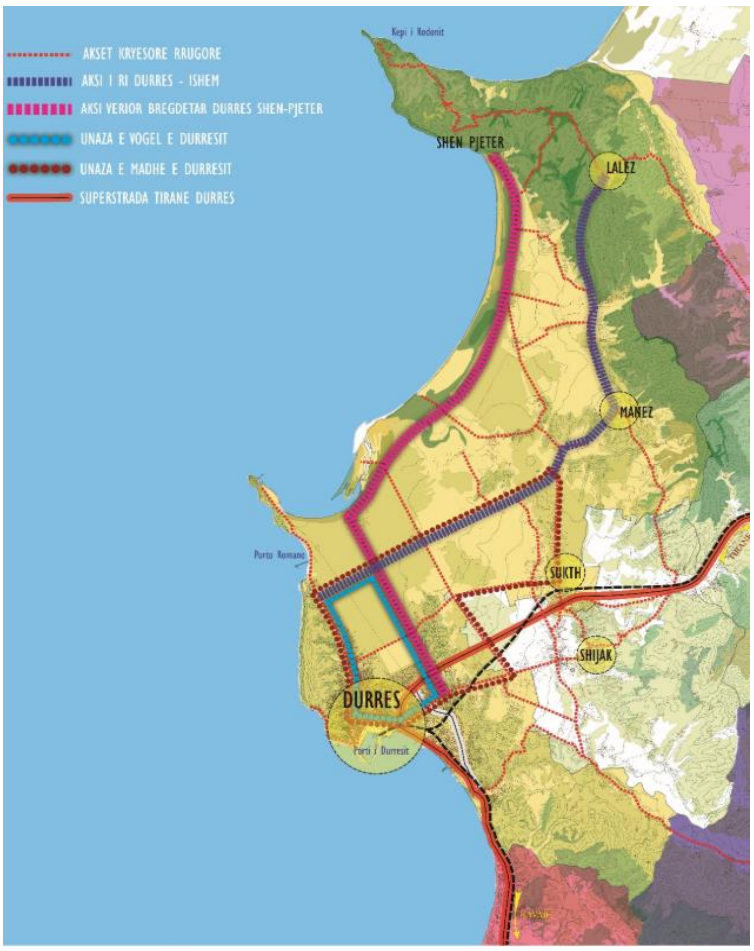


Figure 41 Infrastructure and Circulation Map extracted from the document "Strategjia e Zhvillimit per Territorin e Bashkise Durres" by Municipality of Durres

4.9.1. Conceptual Mapping (Mental Map)

This section explores the initial design decisions regarding the project. The design proposal is based on ten main principles that are: element of surprise; connectivity; mixed-activities; develop identity; balance between aesthetic and comfort; non-separateness; level of scale; contrast. The process starts with the initial sketches for the development of the route *(Figure 42).* Based on the principles for the five important elements of a city by Kevin Lynch, a similar approach analysis is conducted for the case of the city of Durres. By integrating these perspectives, urban revitalization can be envisioned as a holistic process that fosters urban inhabitant's physical, emotional and social well-being.

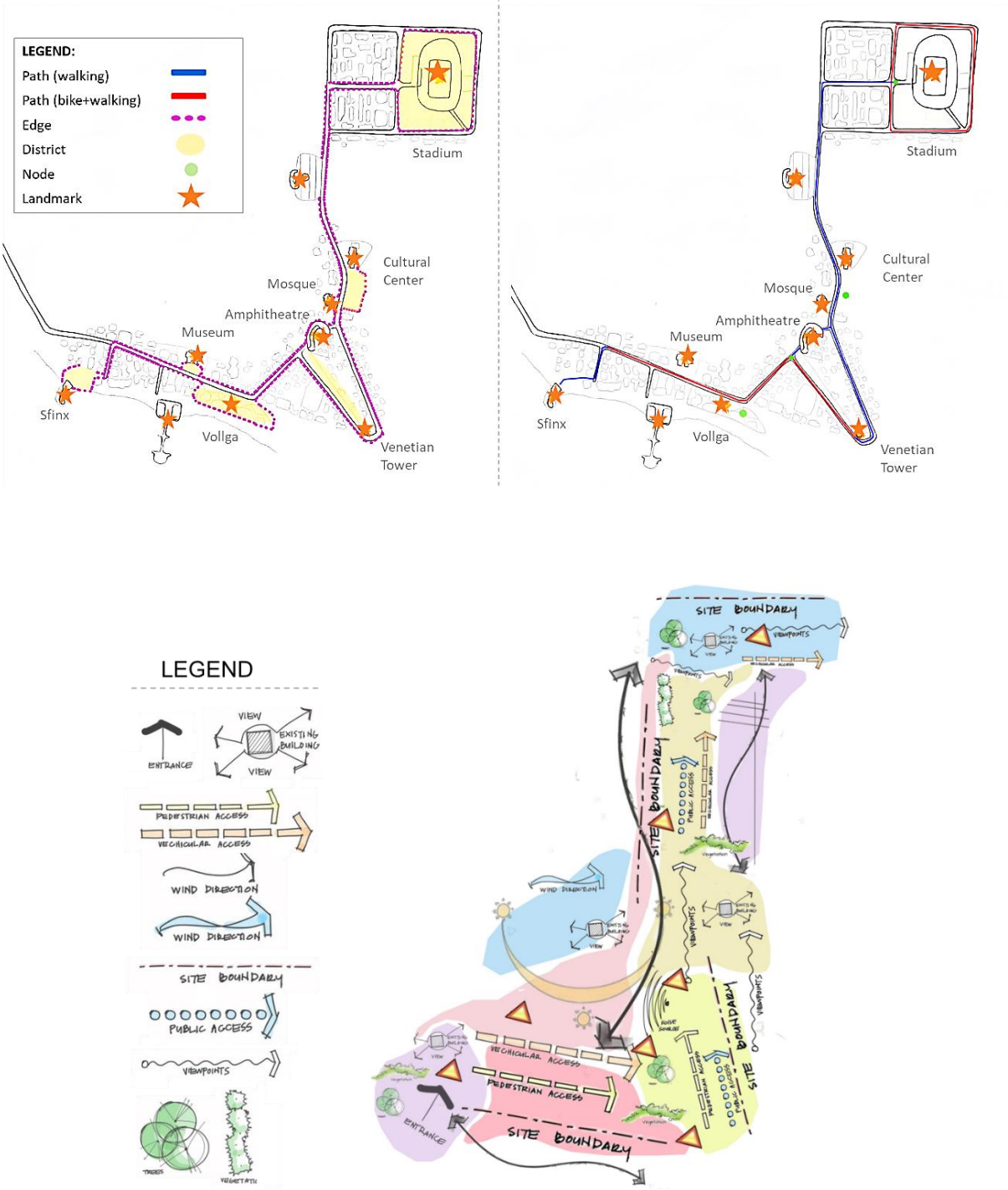


Figure 42 Conceptual Mapping (Mental Map) (By Author)

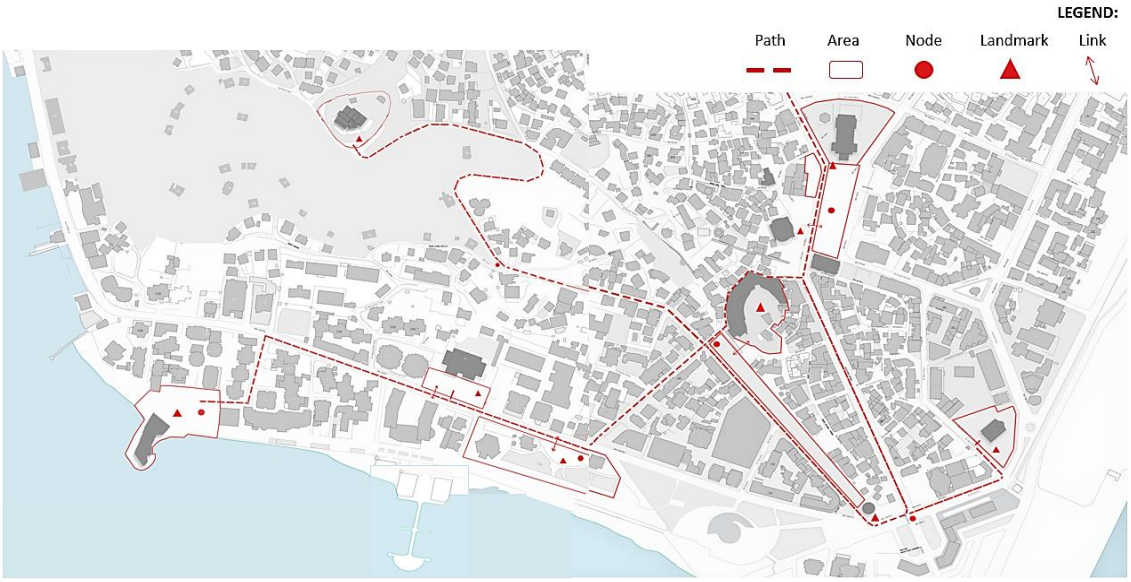


Figure 43 Conceptual Mapping – Showing Selected Areas for the Route from Sfinx Monument to Liria Square

The route starts with the 'Sfinx monument' as one of the most important landscape monuments built in the last few years *(Figure 40).* From there it goes along some part of the 'Vollga park' as it is considered to be the most visited area of the city by the city's citizens and visitors. It continues with the linkage to several landmarks of the city such as the amphitheater, the remaining caste walls, venetian tower, 'Royal Villa' and the church of the city "Apostull Pavlit and Shen Astit Church", *(Figure 44)* located approximately close to each other. Later it goes along the city center square, in which are located some of the most important buildings of the city such as: municipality, cultural center and prefecture. Also, it contains religious importance with the presence of the Grand Mosque. From there, it is linked with one of the city's main roads to the zone surrounding 'Demokracia square' and then it finishes around the area of stadium "Niko Dovana". This area provides sportive and historical importance of the city. The stadium is located in a residential zone, accessible by many neighborhoods.

In conclusion, thoughtful design and management of public spaces are crucial in creating vibrant and sustainable urban environments. This thesis explains the complex interactions between physical space and city social life. The destination region concept makes use of results related to pathways, edges, districts, nodes, and landmarks by Kevin Lynch. The goal is to create an environment that will elicit feelings of pleasure and comfort. A destination's perception can be changed by a variety of aspects, including layout, readability, comfort, and sensory experiences.

CHAPTER 5

RESULTS AND DISCUSSIONS

The study emphasizes the significance of elements like aesthetics, natural connection and comfort in influencing how consumers perceive and are generally satisfied with urban green infrastructure. These findings give urban planners, architects, and designers insightful information that paves the way for the implementation of policies that prioritize user well-being and improve the sustainability and usability of urban environments. The survey is conducted by 105 citizens of the city of Durres.

5.1 User's Exposure to Urban Green Areas in Durres

Regarding the analysis, these are the results refer to the frequency of the users and residents living and experiencing these green spaces. Based on the results, it was shown that most people selected for the survey experience these spaces frequently. 8% of them said that they don't experience these spaces and even if they do, it would be rarely. Around 26% of the residents said that they encounter these areas rarely. 28% answered sometimes; 28% answered often; 8% answered usually and 6% answered always *(Figure 44).* Exposure to urban green spaces is essential for fostering both mental and physical health, as well as offering chances for leisure, socialization, and recreation in the middle of cities. Furthermore, urban green spaces support biodiversity, lessen the effects of urban heat islands, and improve air quality, among other environmental advantages.

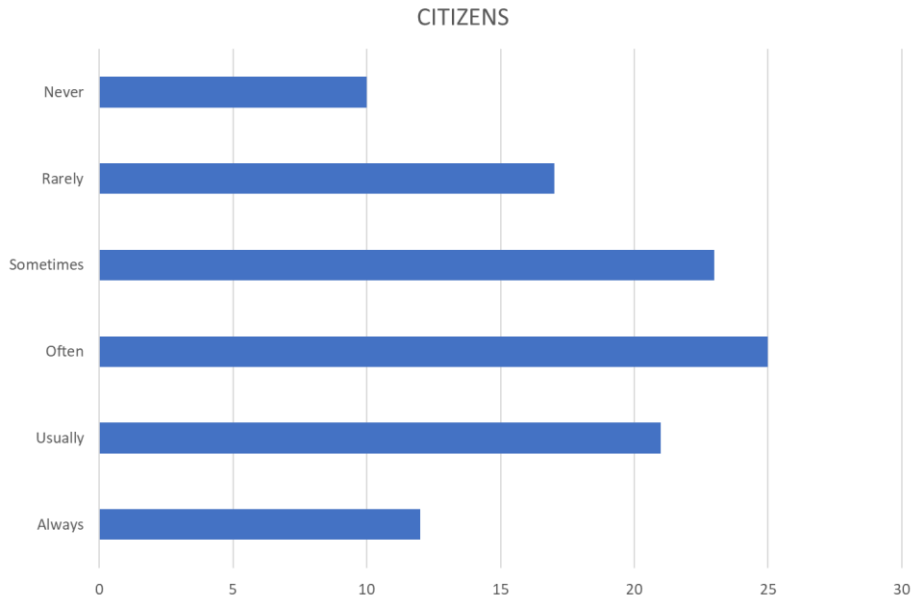


Figure 44 User's Frequency in Green Spaces from Survey

Based on the results from the survey, the number of people that decided to undertake the survey is 105. From them 53% were females and 47% were males *(Figure 45).* 14% of them were between the age range of 0 to 18 years old; 36% between the age range of 19 to 29 years old; 26% between 30 to 39 years old; 26% between 40 to 59 years old and 2% 60 plus years old *(Figure 46).* During the conduction of the survey, it was visible that many urban spaces were visited mostly by the younger and middle-age generations. The correlation between age and the frequency of green space use can vary based on several factors, including cultural context, physical ability, lifestyle, and personal preferences. The survey provides insights into how different age groups utilize green spaces and the factors that influence their usage patterns. Green places that are less accessible or appealing to one gender over another can be the outcome of urban planning and design that ignores gender differences.

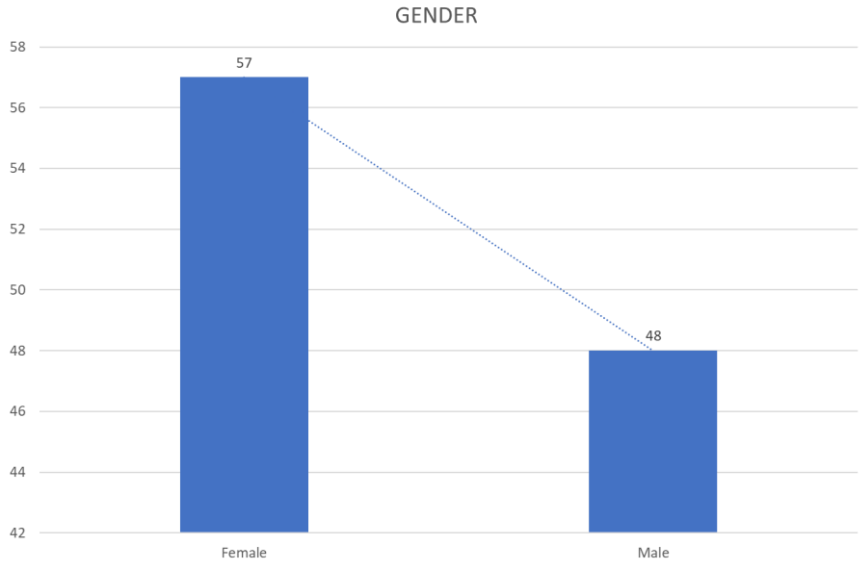


Figure 45 General Information regarding User's Gender from Survey

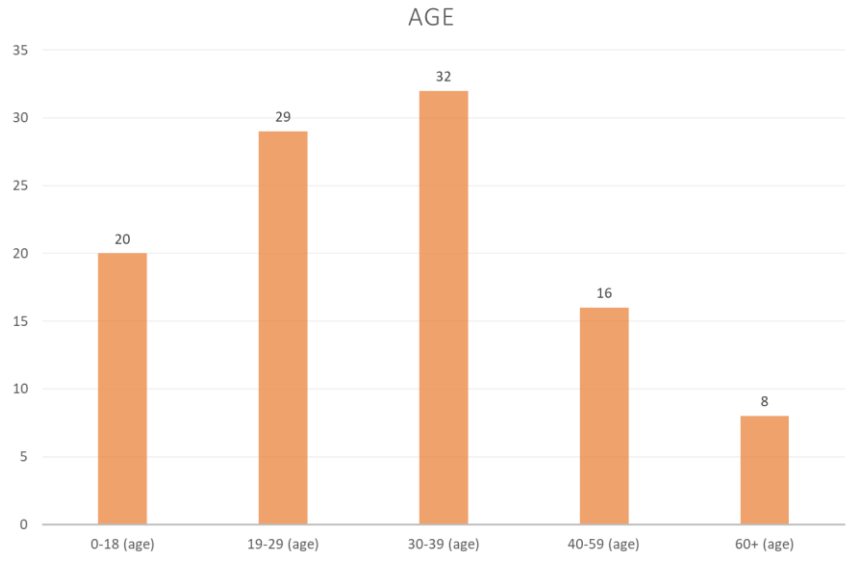


Figure 46 General Information of the Age Range from Survey

The results have shown that the most frequented time period to visit green spaces are 35% (15:00 to 18:00) and 37% (18:00 to 23:00) *(Figure 47)*. Results showed that the most visited zone is 'Vollga park' with 57% of the answers, as a result of the multiple activities and functionalities present and related with the site *(Figure 48)*. Men may give priority to green spaces with sports and exercise facilities, while women may favor those that are seen as secure, well-kept, and equipped with amenities like seating places.

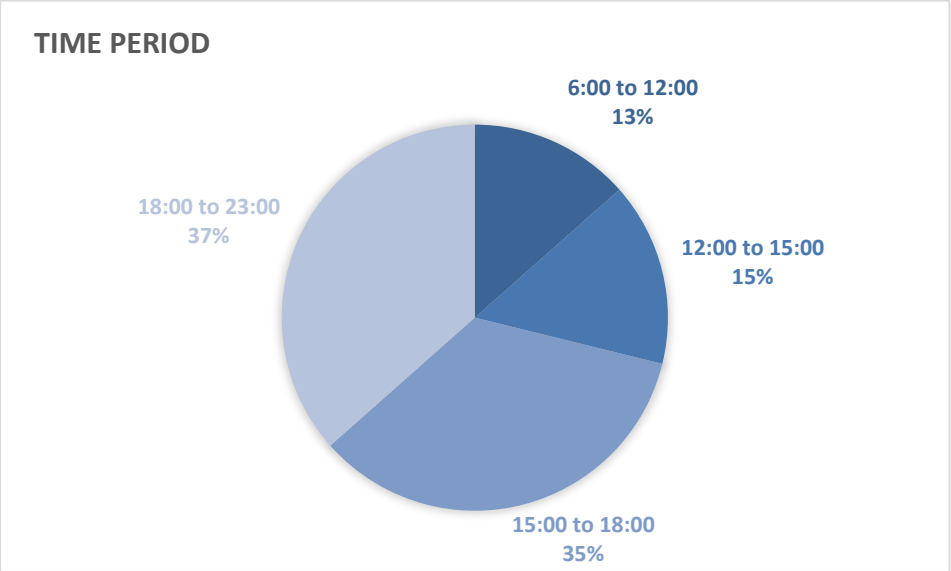


Figure 47 Time Period Analysis from Survey

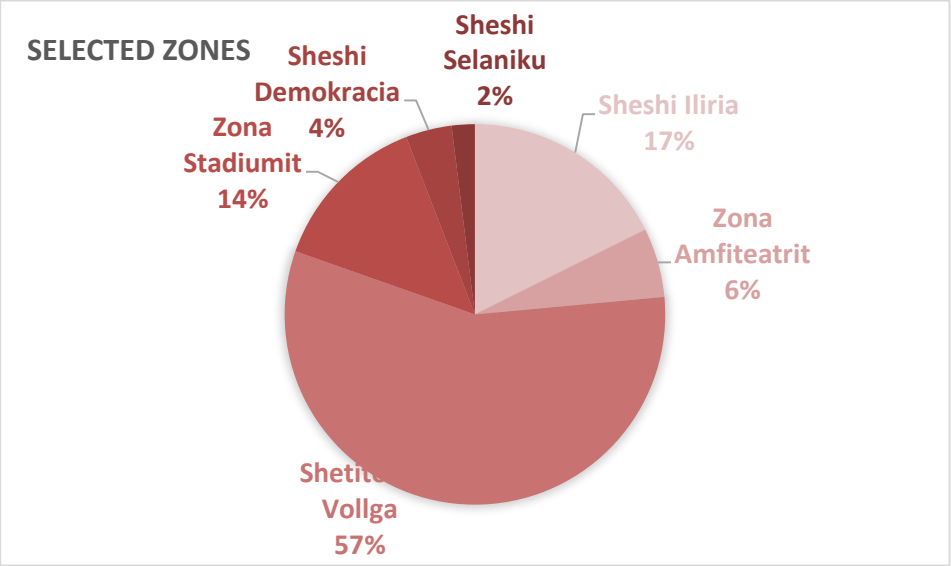


Figure 48 Selected Zone Analysis from Survey

Results showed that the majority of the ones, who completed the survey expressed that the presence of these greenery elements is good (28.8%). Around 17.3% evaluated it to be excellent. 17.3% evaluated it normal, 21.2% bad and 15.4% of them disturbing *(Figure 49).* It is evident that the majority feels that their immediate surroundings require additional urban green infrastructure typologies.

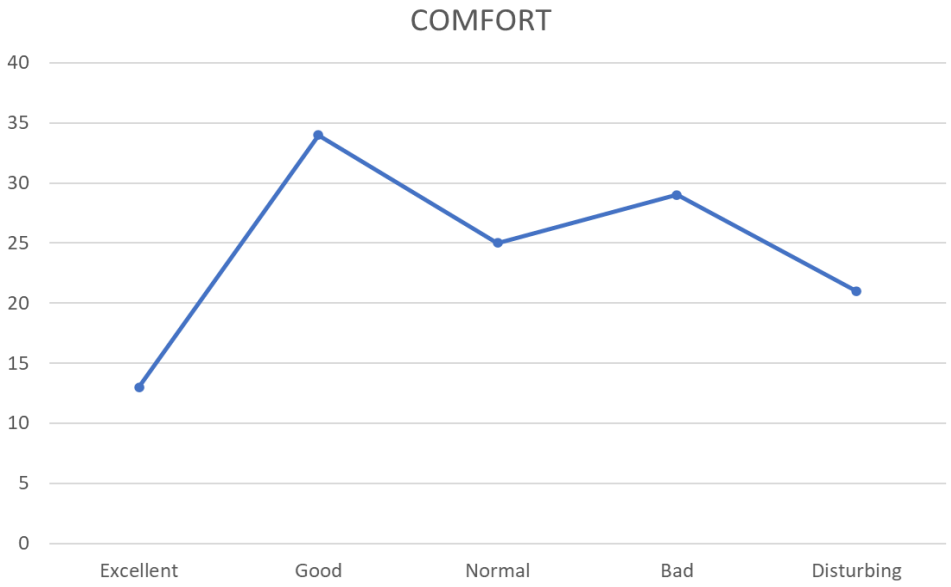


Figure 49 Evaluation of Comfort from Survey

The results showed that the majority (94%) of the citizens agree with the statement that greenery elements improve the overall quality of life. And only 6% disagreed *(Figure 50).* All the citizens have agreed with the statement that the presence of these elements in urban spaces support a healthy lifestyle *(Figure 51).*

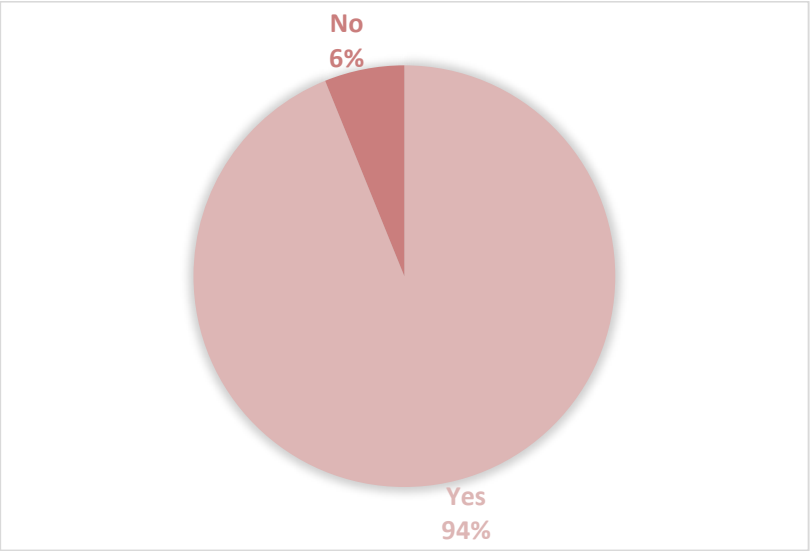


Figure 50 Evaluation of Greenery Elements in Improving Quality of Life

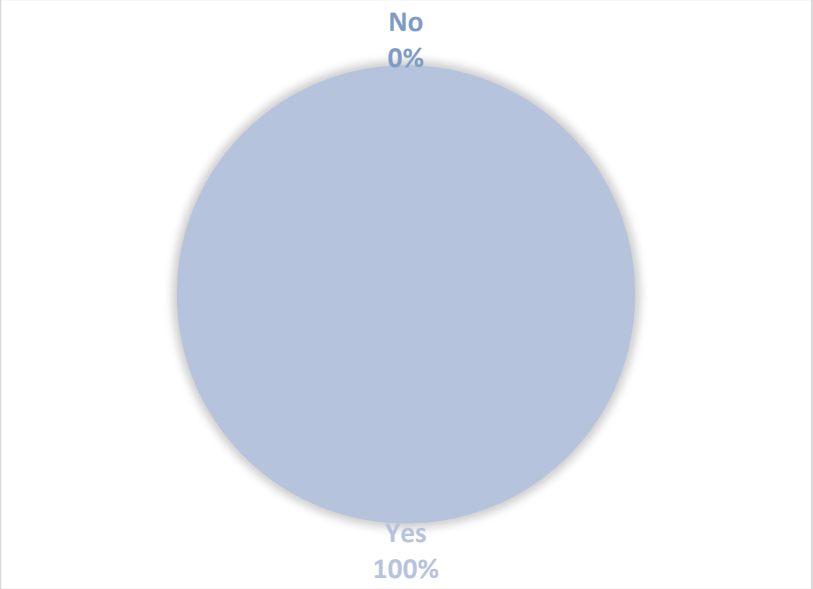


Figure 51 Evaluation of These Elements in Supporting a Healthy Life

The results showed that the majority of the ones, who completed the survey expressed that the perception of these greenery elements is excellent (52%). Around 15% evaluated it to be good. 27% evaluated it normal and 6% of them bad *(Figure 52).* The correlation between people and green space use can also be influenced by age and life stage.

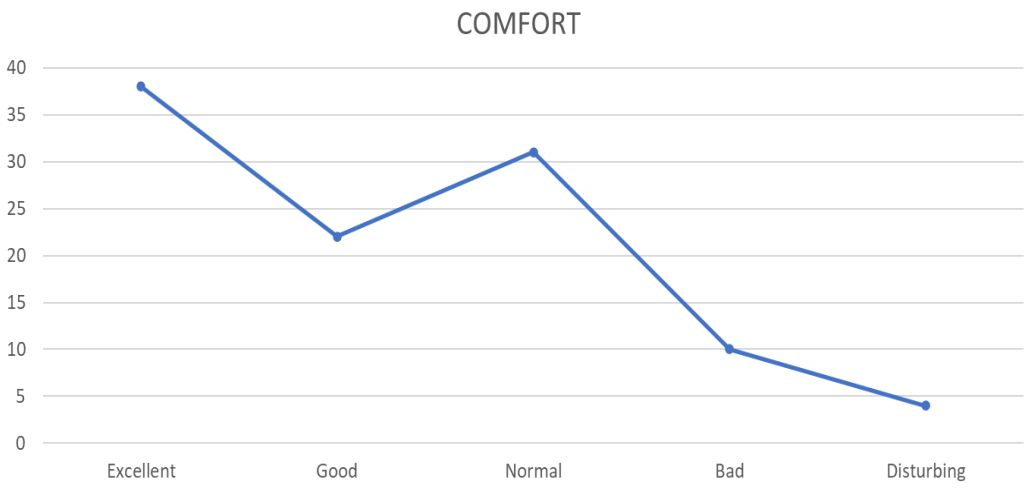


Figure 52 Evaluation of the Perception of People on how these Green Elements Effect the Connection with the Nature

Results showed that 'Vollga park' and stadium 'Niko Dovana' are seen as the two zones with the most potential by the people with 37% and 23% of them respectively because of their social, cultural and historical values *(Figure 53).*

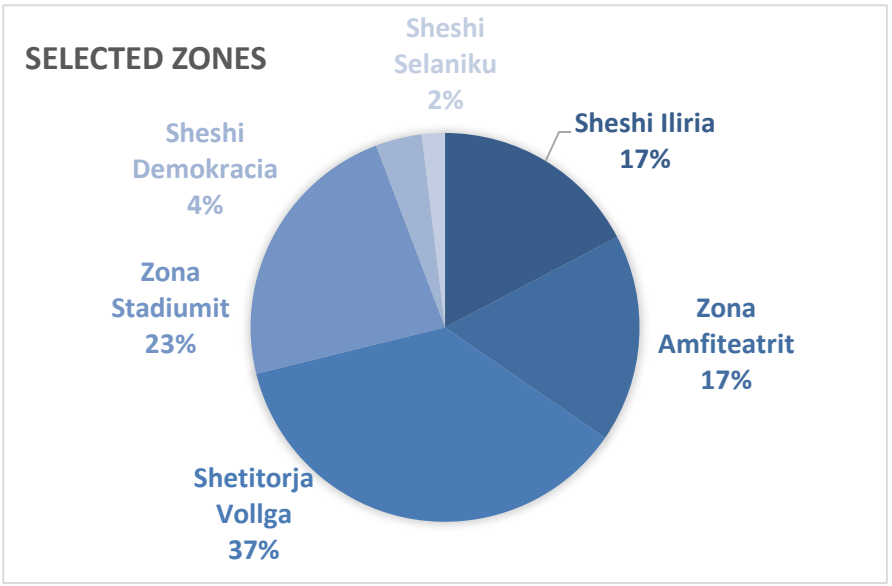


Figure 53 Evaluation of the Potential of the Selected Zones

Results showed that the most preferred activity is related with relaxing spaces with an average of 27%. It is followed up by spaces dedicated for festivals and concerts 35.3%. The next activities were selected by 21.6% of citizens for sportive activities and 15.7% for picnic spaces *(Figure 54).*

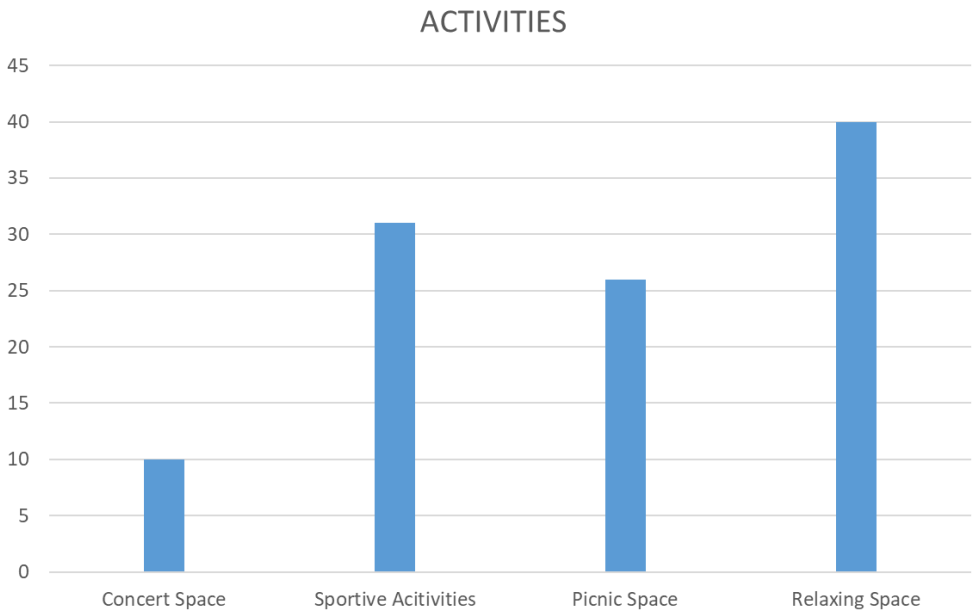


Figure 54 Activities Selection from Survey

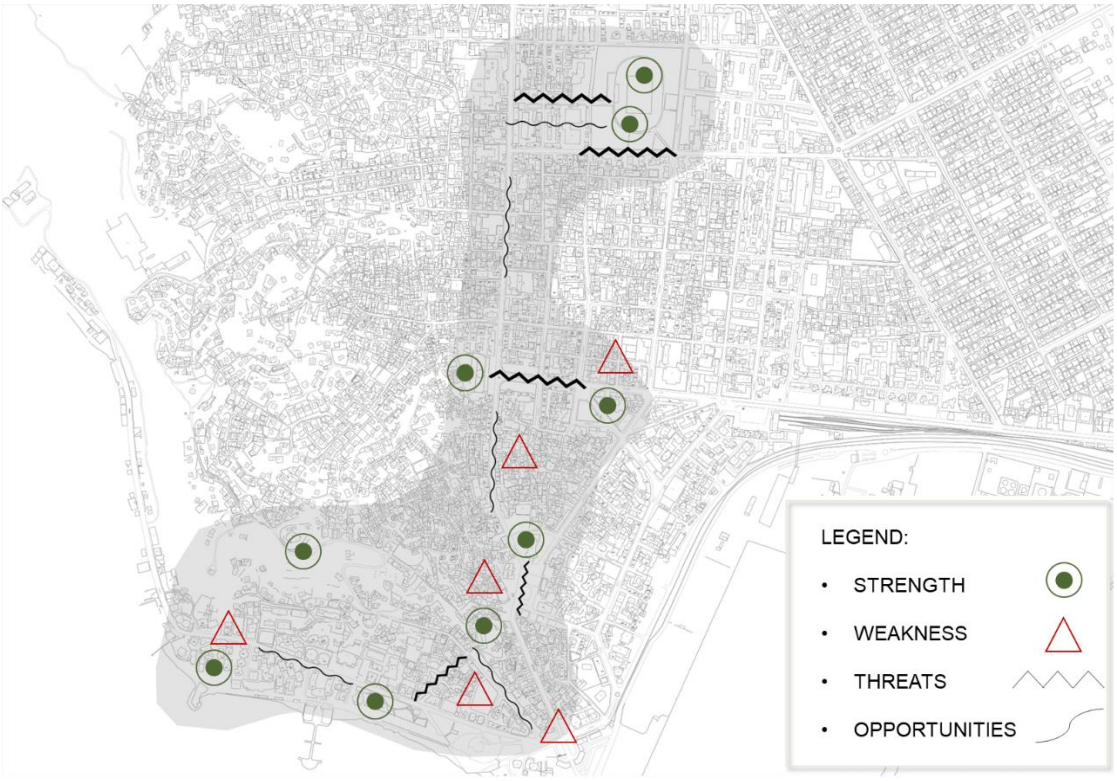
5.2 SWOT Analysis

Strength – The selected areas provide strategic urban location and function as good reference points, including cultural and historical significance as the case of 'amphitheatre zone'. *(Figure 55).* Important monumental points with a variety of density. Additionally, the integration in the coastline and the variety and density of daily use because of the presence of many activities are some of the crucial aspects of the selected areas such as 'Sfinx monument' and 'Vollga park'. Sufficient spatial resources providing a diverse range of functions, including public spaces, green zones and spaces for festivals and concerts. 'Liria square' and 'Demokracia square', are zones that provide a several values because of their location and importance as city centres.

Weakness – Limited public spaces have to do with the layout of the surrounding areas that are not very suitable for a gathering space and providing several activities. Additionally, the poor conditions of the existing small green spaces are one the main problems regarding the selected areas of the 'Sfinx monument' and the area surrounding the stadium 'Niko Dovana'. In some of them these green spaces are non-existent. Traffic congestion and pedestrian conflict has to do with the density and presence of parked cars in places, which poses challenges in terms of traffic flow and pedestrian comfort, especially in the 'Demokracia square'. Also, the material used for some of the pathways does not provide a good experience. A problematic zone regarding this problem is the 'Liria square', where the pathways provide several urban issues such as the reflective material and the 'boiling' experience that makes it very difficult to access from one point to another.

Opportunities – The areas selected for the development of the route presents an opportunity for holistic urban revitalization, enabling the integration of innovative design strategies and urban planning principles. 'Amphitheatre zone' provides a lot of opportunities as an area, in improving the overall experience of the site. The route allows for a diverse range of functions. Regarding the social and cultural harmony capitalizes on the proximity of cultural landmarks, which function as tourism, culture and economic centres such as 'Sfinx monument', 'Liria square', stadium 'Niko Dovana' and many others.

Threats – Striking a balance between the demands of various stakeholders, including café, bars and other businesses and community groups. Also, the disconnection of some transportation axes and traffic density created by the main transportation are some of the main issues. The plan proposal for the area surrounding the stadium 'Niko Dovana', leading to the creation of many more urban problems and increasing the threats of the existing problems.



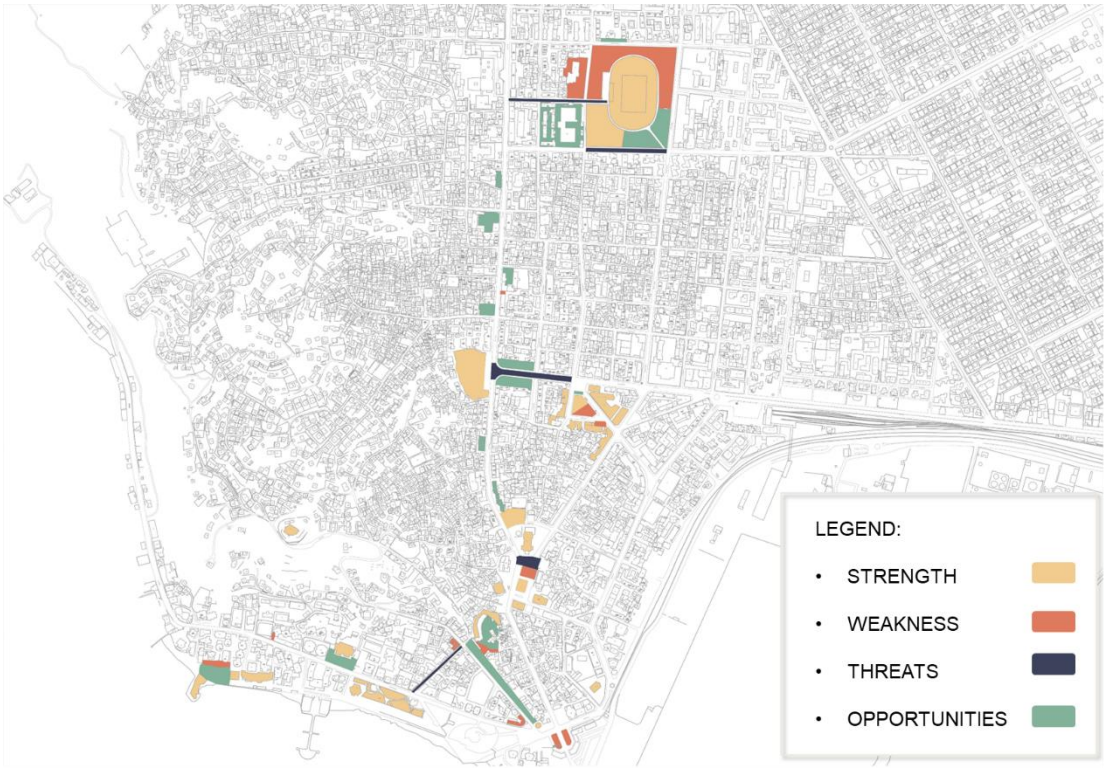


Figure 55 SWOT Analysis of Development of the Route

5.3 Land Usage

The selected areas are primarily characterized by a mixed-use environment, where residential buildings occupy most of the ground floor level, often hosting business services, café, bars and food establishments. They are surrounded by nearby green areas, which also can be found present within the site. However, these green areas currently lack a clear purpose and have been poorly designed. Unfortunately, many have been occupied by café-bars for their outdoor activities, an important issue to keep in mind in improving the overall experience in these zones.

5.3.1. "Sfinx Monument" Zone - Importance

The area is accessible to pedestrians despite the absence of proper sized walkways in particular parts *(Figure 56).* It is aligned with significant and local points. An important aspect has to do with the commercial presence nearby the site, as it is considered to be one of the most visited zones of the city because of its variety of bars, restaurant and hotels nearby *(Figure 57).* Nearly every building around the site is dedicated to commercial activities in their ground floor. Additionally, the existing small green areas within the site are in poor conditions and not used to their full potential as a park. The site is mostly surrounded by high-rise buildings with most structures standing at an average height of approximately above 5+ floors. This fact shows a new approach on the buildings designs and the whole area is considered to be one of the most development ones, in comparison to other neighborhoods of the city. The area takes on a different charm during summer. Most of the zone is characterized by hardscape with some green elements surrounding it. The greenery presence in the site is approximately around 15%.

Figure 56 Hardscape and Greenery Analysis of the "Sfinx Monument Zone"

Figure 57 Buildings Functionality Analysis of the "Sfinx Monument Zone"

Figure 58 Transportation Analysis of the "Sfinx Monument Zone"

5.3.2 Liria Square & Amphitheatre Zone - Importance

The area is accessible to pedestrians with proper sized walkways in particular parts *(Figure 59).* Additionally, it is aligned with significant, local points and important buildings such as municipality, cultural center, mosque and prefecture. An important aspect has to do with the commercial presence nearby the site, as it is considered to be the city center *(Figure 60).* Several buildings around the site are dedicated to commercial activities. The site is mostly surrounded by mid-rise buildings with most structures standing at an average height of approximately 3-5 floors. Also, present around the site are buildings that go above 10+ floors. This fact shows a new approach on the buildings designs and the whole area is considered to be one of the most development ones, in comparison to other neighborhoods of the city. The alternation between the past and present is very continuous around the site because of the amphitheater nearby. Residents and tourists use it for leisurely walks and social interactions, creating a vibrant atmosphere reflecting the city's vibrancy.

Most of the zone is characterized by hardscape with some green elements surrounding it. The greenery presence within the site of ‘Liria square’ is approximately around 18%. The exact number of trees is 37.

Figure 59 Hardscape and Greenery Analysis for the “Liria Square Zone”

Figure 60 Buildings Functionality Analysis of the "Liria Square Zone"

Figure 61 Transportation Analysis of the "Liria Square Zone"

5.3.3 “Royal Villa” Zone – Importance

The area is positioned in one of the hills of the city and is accessible by secondary streets and to pedestrians despite the absence of proper sized walkways in particular parts *(Figure 62).* Additionally, it is aligned with one of the most significant and local points “Royal Villa”. It is considered to be one of the most influential points because of its historical and cultural importance, surrounded mainly by nearby neighborhoods *(Figure 63).* Most of the buildings function as residential spaces with some of them providing commercial spaces in their ground floors. The zone is surrounded by a considerate number of green spaces, providing a number of typologies of green infrastructure. It is one of the only green parks remaining nowadays. The site is mostly surrounded by high-rise buildings with most structures standing at an average height of approximately above 5+ floors. “Royal Villa” provides a spectacular view of the city for everyone that shows interest to visit.

Figure 62 Hardscape and Greenery Analysis for the “Royal Villa” Zone

Figure 63 Buildings Functionality Analysis for the “Royal Villa” Zone

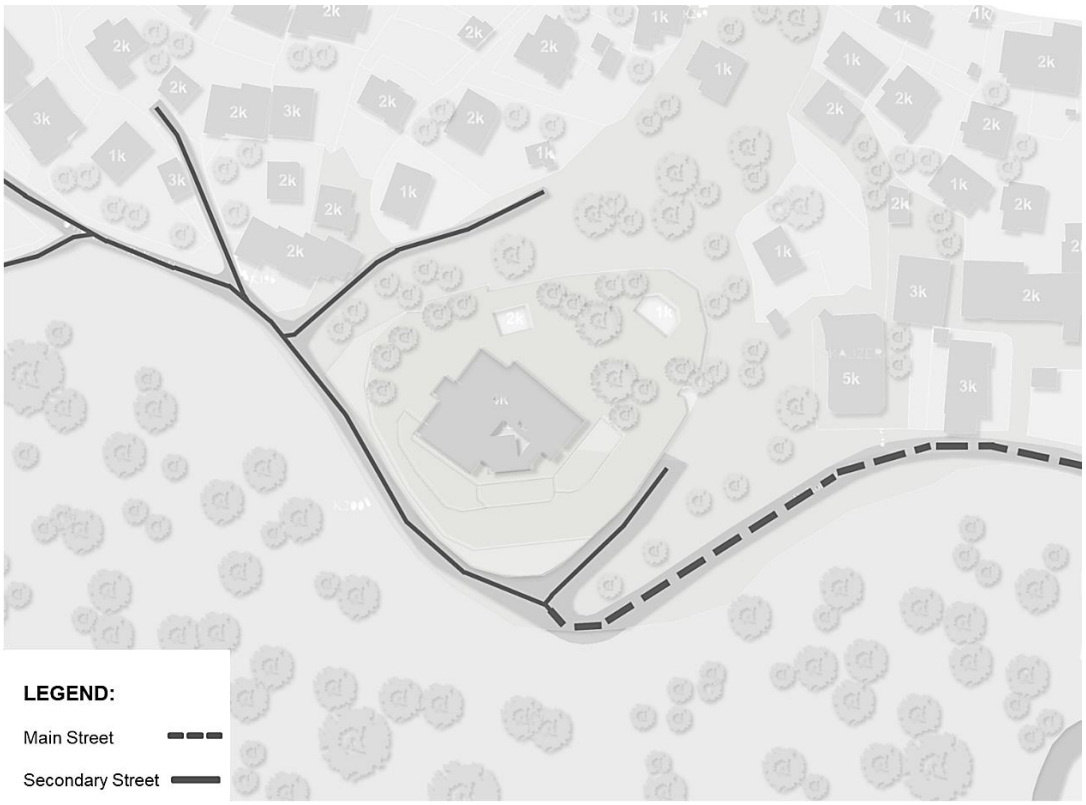


Figure 64 Transportation Analysis for the “Royal Villa” Zone

5.3.4 “Demokracia Square” Zone - Importance

The area is positioned in one of the focal points of the city and is accessible by main and secondary streets *(Figure 65).* Additionally, it is linked with “Muzeu I Deshmereve dhe Salla e Relikave te Luftes”, considered to be one of the most influential points because of its historical and cultural importance, surrounded mainly by nearby neighborhoods and greenery spaces *(Figure 66).* Most of the buildings function as residential spaces with some of them providing commercial spaces in their ground floors. It is one of the only green parks remaining nowadays. The site is mostly surrounded by middle-rise buildings with most structures standing at an average height of approximately 3-5 floors. It has potential to be considered as one of the most important areas not only in the city of Durres, but in the whole region. Most of the zone is characterized by hardscape with some green elements along-side the main road and it is mostly located around the ‘Muzeu Deshmoreve’. Also, some green typologies can be found in the park in ‘Demokracia square’. The greenery presence in the site is approximately around 30%.

Figure 65 Hardscape and Greenery Analysis for the “Demokracia Square” Zone

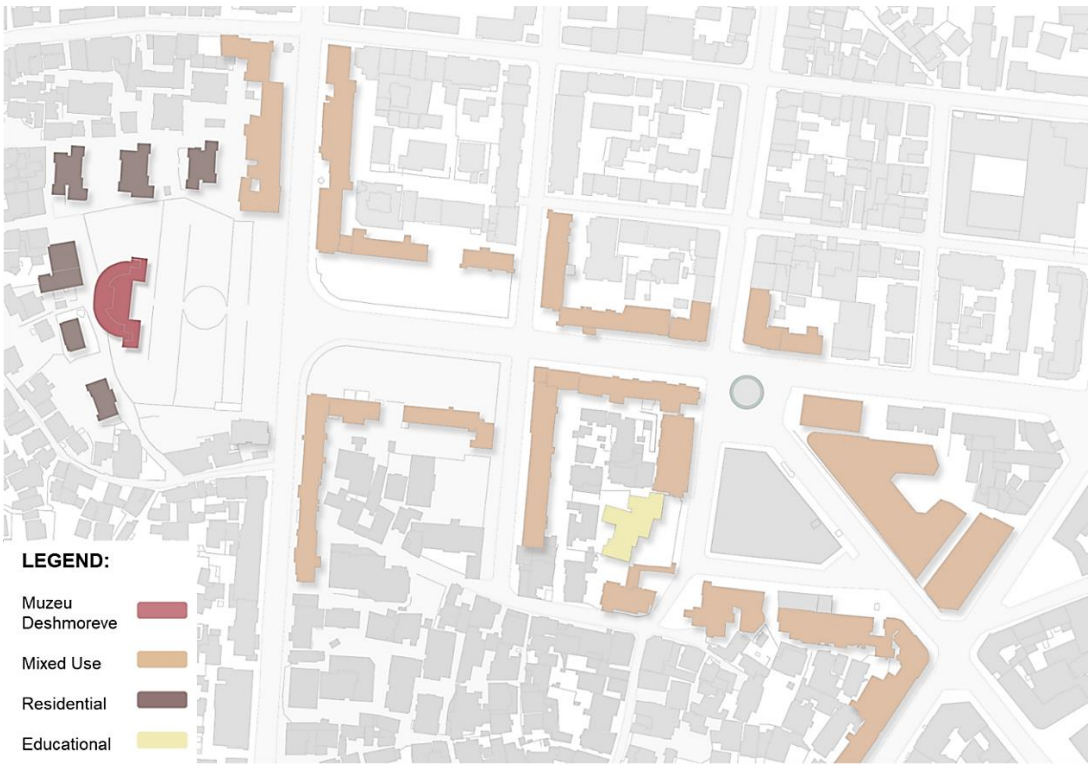


Figure 66 Buildings Functionality Analysis for the "Demokracia Square" Zone

Figure 67 Transportation Analysis for the "Demokracia Square" Zone

5.3.5 Stadium “Niko Dovana” Zone – Importance

The area is accessible by main roads and several secondary streets and to pedestrians despite the absence of proper sized walkways in particular parts *(Figure 68).* Additionally, it is aligned with significant and local points. It is considered to be a more rural zone, surrounded mainly from neighborhoods *(Figure 69).* Nearly every building around the site is dedicated to commercial activities and the upper floors are dedicated to residential spaces. The existing small green areas within the site are in poor conditions and not used to their full potential as a park. The greenery presence in the site is approximately around 45%. The site is mostly surrounded by mid-rise buildings with most structures standing at an average height of approximately 4-5 floors. Additionally, the site is surrounded by several educational buildings. Recently the stadium has been in focus of several future projects.

Figure 68 Greenery and Transport Analysis of the Stadium “Niko Dovana” Zone

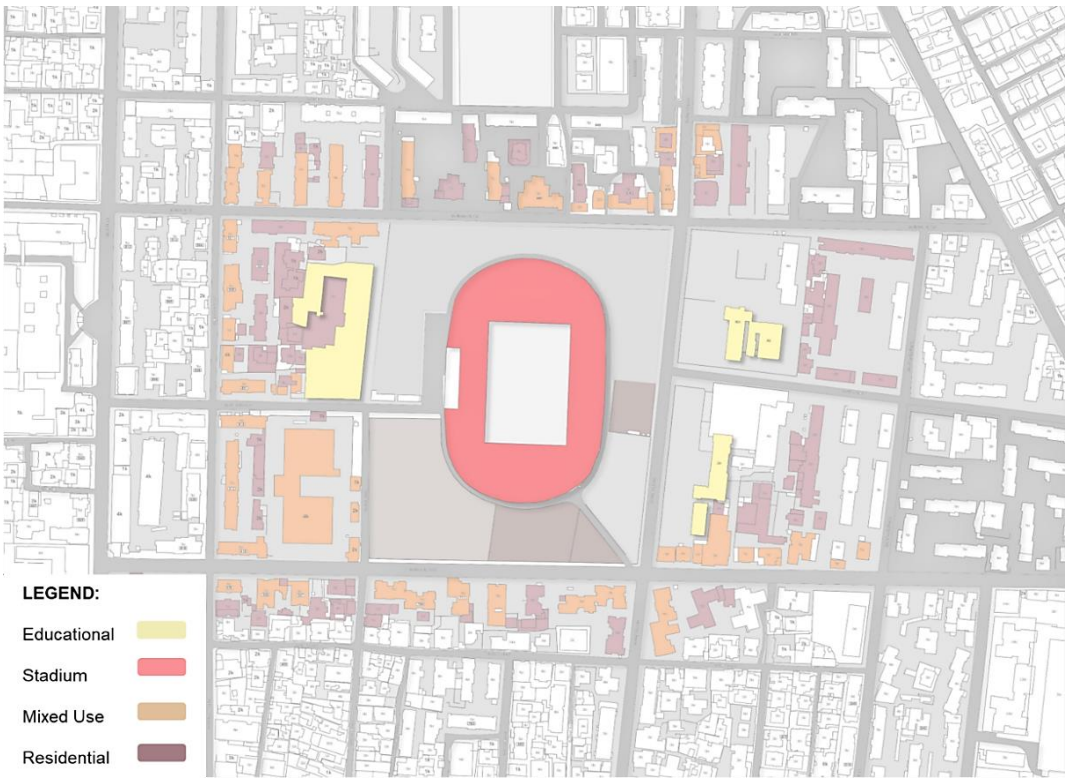


Figure 69 Buildings Functionality Analysis of the Stadium “Niko Dovana” Zone

Figure 70 Transportation Analysis of the Stadium “Niko Dovana” Zone

CHAPTER 6

PROPOSAL

6.1 Design Concept

The development of a route that goes along important areas and landmarks, would function as a historical, cultural, economic and social boost of the city of Durres. This approach allows for an expansive area for pedestrians use across various scenarios. The three particular areas, providing the primary focal points of the design interventions are the two poles “Sfinx monument”, stadium “Niko Dovana” and “Demokracia square”. These particular areas collectively represent critical elements in the design strategy, as they are crucial in reshaping the urban fabric of the city *(Figure 71).*

Figure 71 Conceptual Drawing of Areas of Interest

The design concept includes enhancing the city with more environmentally friendly green spaces. The aim is to transform the landscape of the city by integrating several typologies of green infrastructure and providing for everyone a more relaxing and peaceful space *(Figure 72).* The design aims to change these spaces to focus on long-term environmental benefits. This leads in creating spaces that promote a healthier quality of life and creating a sense community. During the analysis and on-site observation, it was visible that the expansion of cafes and bars into existing green areas, which have made less space available for citizens and visitors to enjoy. It is important that in these scenarios, the design should set clear limits for where businesses can operate. The goal is to bring the community together and to create a sense of connection with nature to the citizens of the city of Durres. The design principles of these project are based on the element of surprise; connectivity; the presence of a lot of activities throughout the route dedicated to the citizens and the visitors. The aim is to support a strong balance between aesthetic and comfort and to develop an identity. Non-separateness, level of scale and contrast are some of the key points of the project.

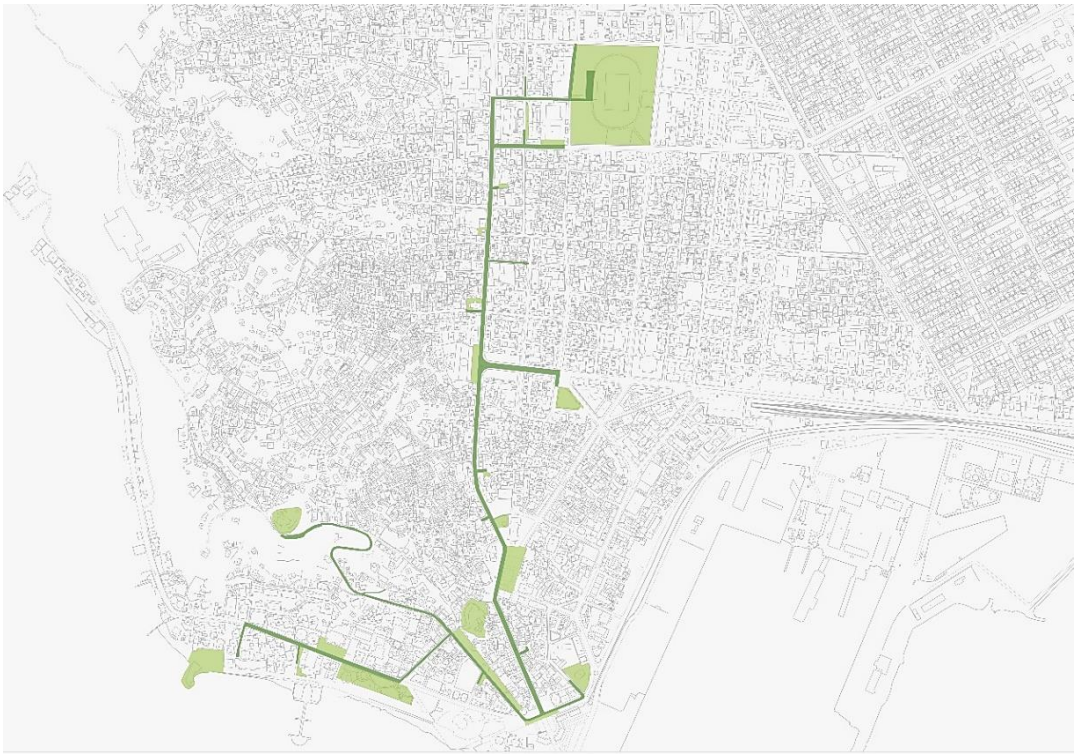


Figure 72 Conceptual Drawing of the Development of Route

6.2 Design Proposal

The proposal for the development of the route is designed to revitalize this urban tapestry, ensuring the integration of multiple urban furniture and different typologies of green infrastructure, creating functional and relaxing public spaces. It leads in the development of the city and in boosting several aspects of life such as historical, cultural, economic and social, respecting and protecting the existing city's fabric while integrating new proposals to improve it. The main focus of the design proposal has to do with the incorporation of different typologies of green infrastructure, supporting the concept of "green city". These areas are designed to enhance not only the aesthetic appeal of the zone but also elements for a sustainable design. They contribute in the enhancement of the quality of life by improving the air quality, serving as good noise barriers and improving the biodiversity aspect within the city. Additionally, water features are crucial elements in supporting a calming and relaxing experience. Beyond their aesthetic appeal, they play a role in creating microclimates. Furthermore, an important element in increasing the overall appeal of each of the selective zones, has to do with the implementation of multiple activities such as: out-door garden, stair garden, picnic zones, flea markets, playground spaces and green houses.

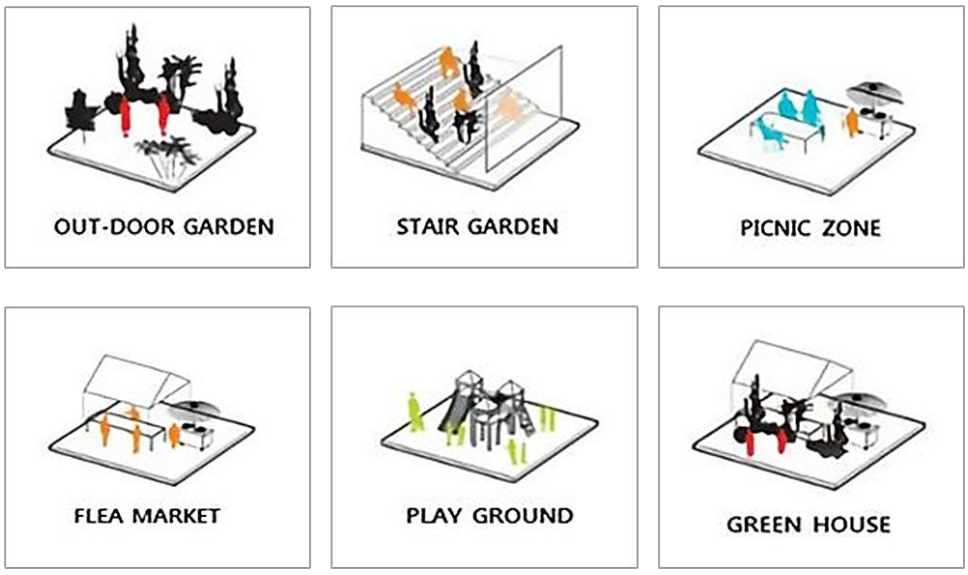


Figure 73 Activity Program Proposal

Figure 74 Development of the Design of the Route

The development of the route starts with one of the most visited areas for the citizens of the city of Durres and many visitors and foreigners every year. This area refers to the 'Sfinx monument' *(Figure 75).* This contemporary architectural work, known as the Urban Cape, is the pinnacle of Durres' land and seascapes. This abstract monument is a beautiful balance between the old and the new, even though it reflects the past. The proposal for the zone focuses on the re-design of the square in promoting a sense of community and connectivity not only between the people, but also through time *(Figure 76).* One of the most visible elements in the site is the presence of multiple colours, making it a more thriving, exacting and engaging area than it already is *(Figure 77).* The re-design helps in solving several urban problems and issues starting from the almost non-existing green spaces and its poor conditions and continuing with the existence of a parking area, which decreases the overall aesthetic of the zone. Regarding the issue related to the parking spot located near the site, the area is transformed back to its original design and by integrating public transportation options and promoting alternative modes of transport, such as biking and walking, can reduce the overall demand for parking.

Figure 75 Area of Intervention Proposal for “Sfinx Monument” Zone

Figure 76 New Design Plan Proposal for “Sfinx Monument” Zone

Figure 77 Collage for the "Sfinx Monument" Zone

Another focal point of the route is the area around the amphitheatre of the city. This zone provides cultural and historical importance and values, as it is linked with the "Church of Apostull Pavlit and Shen Astit", the Venetian Tower and the castle' walls remaining *(Figure 78).* It is considered to be one of the most influential and important areas, providing multiple activities and commercial buildings. Additionally, part of the route is a considerate space of the "Vollga Park". A zone that is considered to be the first selection for outdoor relaxation and activities for many citizens of the city of Durres. The proposal for the area focuses on the highlighting of several green spaces and finding solutions for particular urban problems. An important key element is the proposal for the park located very near the castle's walls remaining, amphitheatre and Venetian Tower *(Figure 79).* The integration of different typologies of green infrastructures, especially vertical and hanging greenery, which aims to improve the overall experience of the citizens *(Figure 80).*

Figure 78 Area of Intervention Proposal for “Amphitheatre” Zone

Figure 79 New Design Plan Proposal for the “Amphitheatre Zone”

Figure 80 Site Section A-A of the Proposal Near the Amphitheatre Zone

Figure 81 Atmosphere for the Proposal Near the Amphitheatre Zone

Continuing with the route, another important area of the route is the “Liria Square”, considered as the city centre. This zone provides cultural and historical importance and values, as it is linked with the mosque located in the west side of the square *(Figure 82).* It is considered to be one of the most influential and important areas, providing multiple activities and commercial and office buildings. Located in the area are buildings such as “The Cultural Centre” building of the city, municipality and prefecture. The proposal involves small arrangements and modifications through-out the site, highlighting several green spaces and finding solutions for particular urban problems *(Figure 83).* The integration of different typologies of green infrastructures, aims to improve the overall experience of the citizens, referring to horizontal and vertical greenery examples *(Figure 84).* The proposal refers to the increasing number of greenery elements; such as trees and green blocks through-out the site, giving the idea of an out-door garden and the positioning of multiple flea markets.

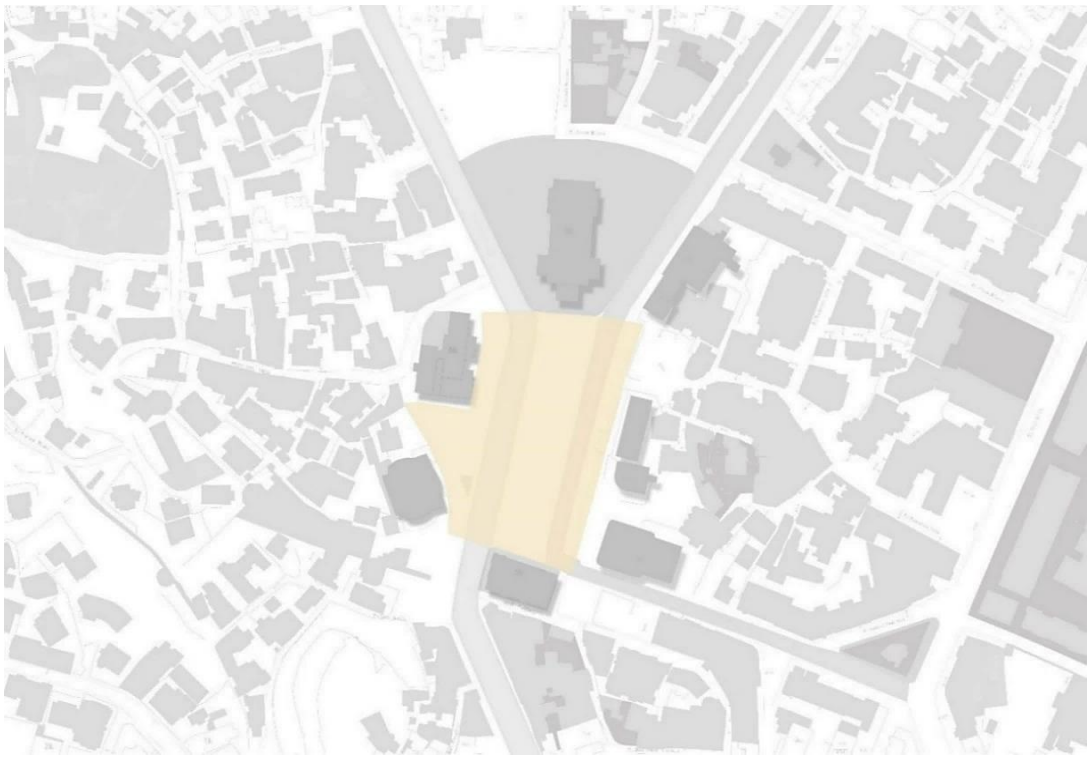


Figure 82 Area of Interventions of the “Liria Square” Zone

Figure 83 New Design Plan Proposal for the “Liria Square” Zone

Figure 84 Site Section A-A of the Proposal of the “Liria Square” Zone

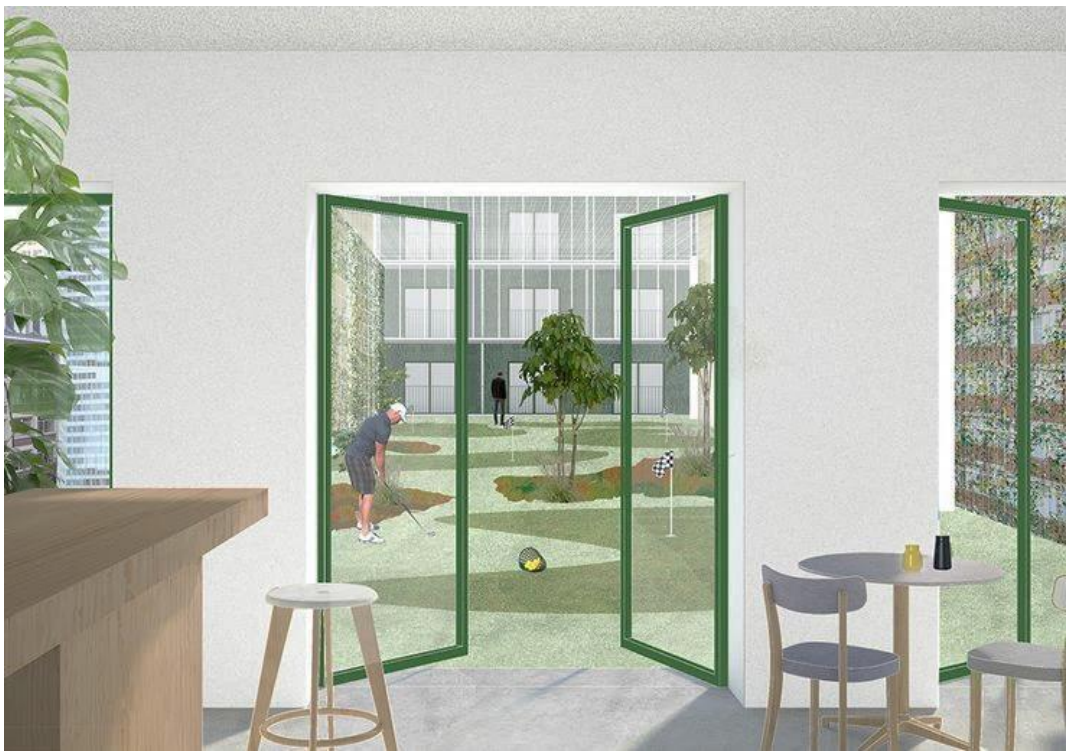


Figure 85 Atmosphere Proposal from the Service Buildings of the “Liria Square” Zone

The proposal for the area of ‘Demokracia Square’ expresses how multiple elements are integrated and merge with each other *(Figure 86).* It shows the interaction between the green spaces, outdoor areas and water features. The existing layout consist of the connection of two main roads ‘Deshmoreve Street’ and ‘Alexander Goga Street’, two outdoor green areas, which look mirrored to each other, the surrounding site around ‘Muzeu i Deshmoreve’ and the park in ‘Demokracia Square’. Residential and mixed-use buildings are located along-side each space surrounding them. The existing greenery aspect, positioned in the site, are particular green blocks and non-organized street trees. Also, another element to consider has to do with the lack of many urban furniture. The proposal aims for a total transformation of the site aiming to find solutions for several urban problems.

Figure 86 Existing Area of Intervention for the “Demokracia Square” Zone

By distributing these design elements, the proposal aims to create a successful urban space that is balanced, accessible and favourable to the well-being of its users. By replacing portions of the existing pavement, a current issue in some of the selected areas, the proposal introduces natural cooling elements *(Figure 87).* A systematic and linear position design for the street trees is necessary for the zone. Integration of colourful, aromatic and vertical gardens are crucial aspects of the proposed design. Trees act as natural air filters, improving air quality and providing shade. Additionally, the proposal centres on improving pedestrian accessibility *(Figure 89).* The interconnection between the commercial and service spaces, positioned in the ground floor of the nearby buildings and the proposed green spaces and parks, offer places for relaxation and engagement with nature. The suggested design layout and sustainability factors are influenced by principles of caring for the environment and creating a liveable urban space by positioning several flea markets, playground areas and picnic zones. *(Figure 91).*

Figure 87 New Area for Design Proposal for the “Demokracia Square” Zone

Figure 88 3D Analysis for the Design Proposal for the “Demokracia Square” Zone

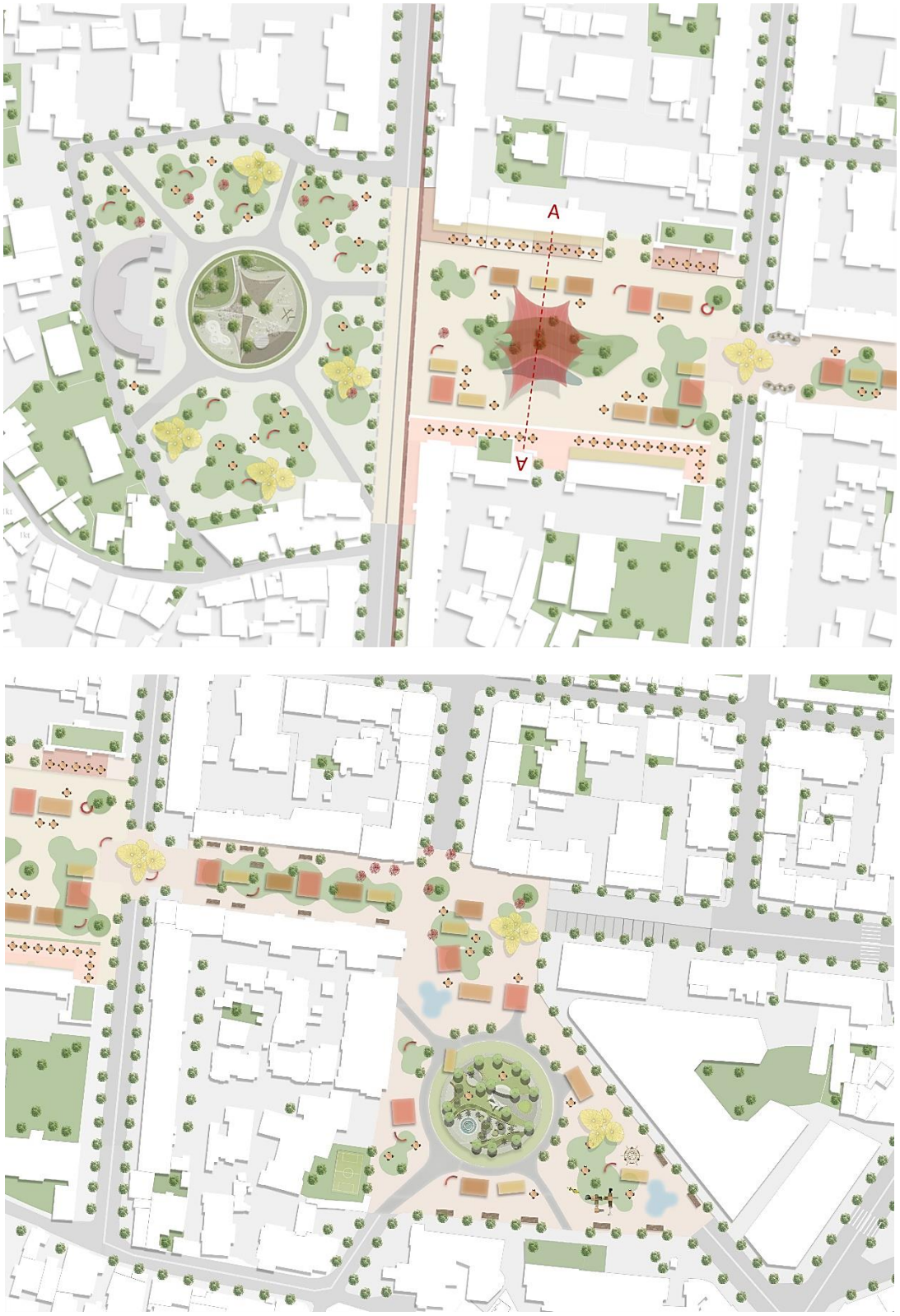


Figure 89 New Design Plan Proposal for the “Demokracia Square” Zone

Figure 90 Site Section A-A Proposal for the “Demokracia Square” Zone

Figure 91 Atmosphere for the “Demokracia Square” Zone

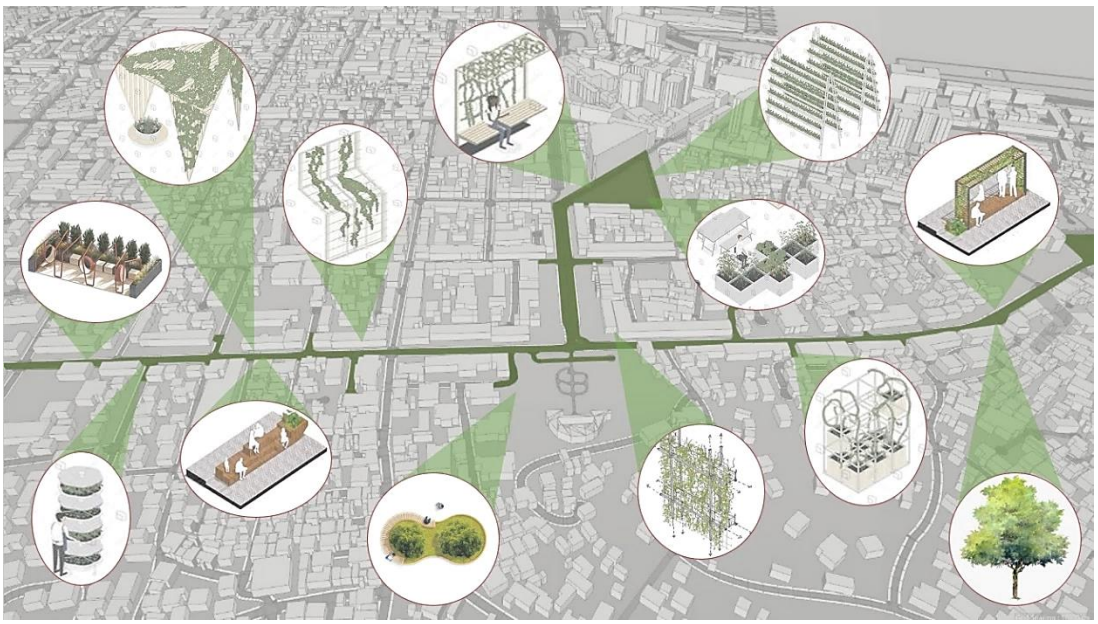


Figure 92 Distribution of Several Urban Furniture with Greenery

Stadium of “Niko Dovana” (1965) has been in a lot of focus of development, especially in the last few years. The stadium is one of the largest sports-facility, providing a total seated capacity of 12,040 plastic seats and mainly serves as the home ground of the local team KF Teuta. Additionally, the stadium includes four floodlight towers, making it possible for matches during the night. Also, a running track dedicated for athletes surrounds the pitch *(Figure 93).*

The proposal for the stadium has started with a competition between three different architectural studios, the winner being Belgian studio 51N4E. After the presentation of three projects for the new "Niko Dovana" stadium, the alternative of the Belgian studio 51N4E was declared the winner. The works for the new Teuta plant will start right now in Durres. The similarity of the new stadium will be with "La Bombonera" in Argentina, the stadium of Boca Juniors. This project will conceive the stadium as part of the city where the life of the community is intertwined not only with the city but also with the activities and sports that the new stadium will offer. The aim of the design proposed is that the project should be directly connected with the city layout *(Figure 94).* The proposal in this case, would be linked more with the better re-organization of the street trees and small areas dedicated to parks located between neighborhoods *(Figure 95).*

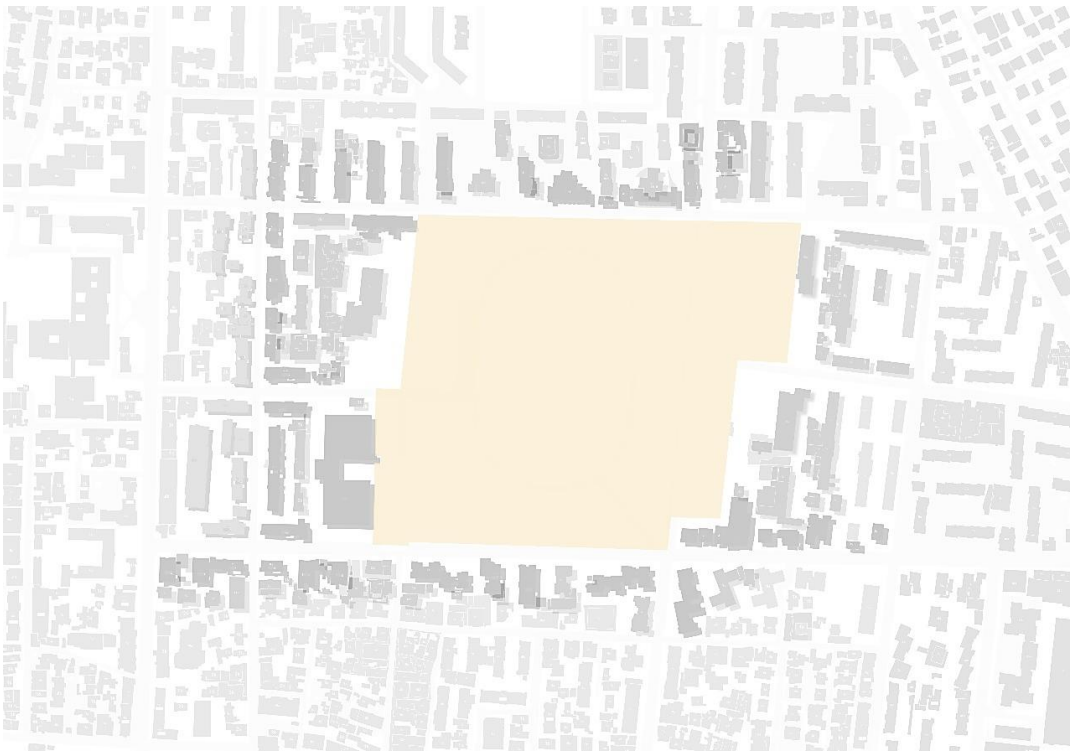


Figure 93 Area of Intervention Proposal for the Stadium “Niko Dovana” Zone

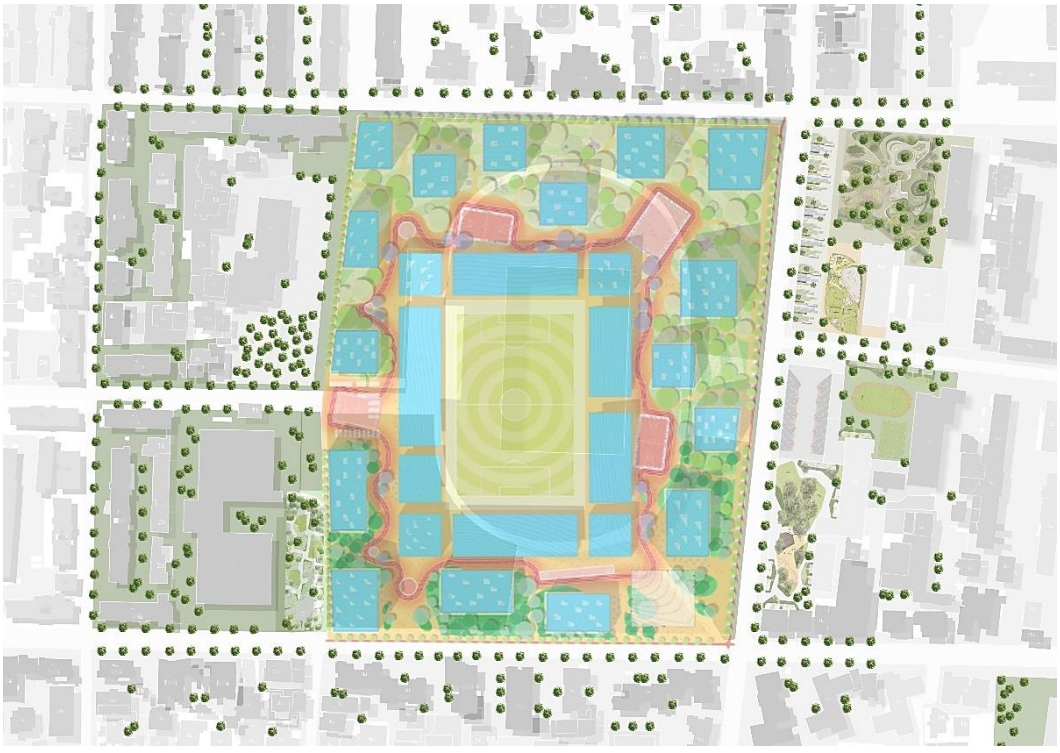


Figure 94 New Design Plan Proposal from Belgian studio 51N4E
+ Author’s Proposal

Figure 95 Atmosphere Proposal Around the Neighborhoods Surrounding Stadium “Niko Dovana” Zone

Figure 96 Collage Proposal Around the Neighborhoods Surrounding Stadium “Niko Dovana” Zone

CHAPTER 7

CONCLUSIONS

7.1 Conclusions

The revitalization of the route developed in the city of Durres serves as a comprehensive exploration of urban tapestry transformation through a detailed examination of cultural, historical, economic, social and environmental context. The final chapter emphasizes the knowledge gained and the implications of the proposed design interventions. The before analysis highlighted the need for a design approach that balances commercial activities with public space needs, finds solution for several urban problems and satisfies the need for connectivity through-out the city by integrating green design principles. The proposed design concept and interventions focused on transforming the selected areas through-out the city, into vibrant and more inclusive spaces for every age and gender. The interventions aimed to promote a strong sense of community, by celebrating Durres's rich cultural heritage. By prioritizing pedestrians experience, green spaces and multiple activities, the project highlights the importance of public spaces in enhancing urban quality of life. These areas are designed to enhance not only the aesthetic appeal of the zone but also elements for a sustainable design.

The aim is to support a strong balance between aesthetic and comfort and to develop an identity. 'Literature Review' served for a better understanding of the overall concept, data/statistics/maps are used for a better understanding of the urban context of Durres, while the methodology used, referring to the survey, provides a better understating of the citizen's experience and perception. Additionally, on-site observation is used for a better understanding of the existing condition/ urban problems and the SWOT analysis is useful for a better understanding of the strength, weakness, opportunities and threats of each particular zone.

The proposal for the area, where the ‘Sfinx monument’ is located, includes the redesign of the pathway to the original proposal and creating several green blocks that not only help in the raising number of green spaces but also in the creation of the ‘route’, which aims to develop within the entire city of Durres. From it is connected with the ‘vollga park’ as one of the most frequented zones of the city, and it continuous with the area surrounding the amphitheatre of the city. The entire street, which makes it accessible to the zone, is designed to include several typologies of green infrastructure such as street trees and vertical greenery. The entire park located along-side the remaining of the castle is re-designed in accordance to urban design principles in creating a relaxing space for everyone. Additionally, the route develops its connectivity with the city center and its proposal aims in the redesign of the pave-way, and the increase of the number of greenery typologies such as street trees and green blocks. Also, by proposing different flea market in the site, it would help turn the city center into a more vibrant destination for everyone.

Furthermore, it is proposed a new design layout for the ‘Demokracia square’, making it the zone, which would experience the most drastic developments. The area would be transformed as new important landmark of the city in providing several activities, and turning the whole area into a vibrant destination of the city for everyone (age and gender). By replacing portions of the existing pavement, a current issue in some of the selected areas, the proposal introduces natural cooling elements. A systematic and linear position design for the street trees is necessary for the zone. Integration of colourful, aromatic and vertical gardens are crucial aspects of the proposed design. The interconnection between the commercial and service spaces, positioned in the ground floor of the nearby buildings and the proposed green spaces and parks, offer places for relaxation and engagement with nature. The suggested design layout and sustainability factors are influenced by principles of caring for the environment and creating a liveable urban space with the help of flea markets and playground spaces. Several urban furniture, in which the greenery aspect would be integrated in different ways, are proposed to be located along-side the entire route.

Finally, the route ends its itinerary with the area surrounding the stadium ‘Niko Dovana’. Currently, there are several proposals for the area because it has been in the center of attention by the government for some time now and a competition was held not so long ago. The proposal in this case, focuses more on the surrounding areas of the site. In this case, it would be linked more with the better re-organization of the street trees and small areas dedicated to parks located between neighborhoods. They contribute in the enhancement of the quality of life by improving the air quality, serving as good noise barriers and improving the biodiversity aspect within the city. The thesis expresses that by protecting, respecting and highlighting the unique identity of several areas of importance, the design proposals contribute to the physical revitalization of the areas and the preservation of Durres’s cultural identity.

7.2 Recommendations for Future Research

For a new design proposal aimed at enhancing urban greenery in Durres, several areas needed further investigation to create a well-rounded and impactful plan. Key aspects to explore include the integration of historical green space patterns with modern sustainable practices, the impact of climate change on local vegetation, and the needs and preferences of the community regarding green space usage. It is essential to highlight areas where further investigation could provide deeper insights or more comprehensive data. Despite the positive developments, the city faces challenges related to rapid urban growth, climate change, and resource management. Future efforts will need to address these challenges by continuing to prioritize green space preservation and integrating innovative solutions to maintain and expand greenery in the city. Additionally, filling in any gaps or unsolved problems can greatly advance the corpus of knowledge in the topic and encourage the creation of stronger theories and applications.

The findings not only provide important information for architects and urban designers for future design projects, but also it brings attention to crucial insights in developing and building spaces that support and foster the citizen’s mental and physical-health.

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