

The background of the entire page is a topographic map with brown contour lines. The map shows a central peak with many concentric lines, and several smaller peaks and valleys scattered across the landscape. The lines are thin and light brown, creating a subtle texture.

# URBAN RESILIENCE IN HISTORICAL CITY CORES

a spatial design framework for  
ulus, ankara

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# URBAN RESILIENCE IN HISTORICAL CITY CORES: A SPATIAL DESIGN FRAMEWORK FOR ULUS, ANKARA

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# ABSTRACT

Historic city cores face increasing spatial, social, environmental, and economic pressures that threaten their continuity and adaptive capacity. Urban resilience provides a framework to address these challenges by strengthening the ability of historic environments to adapt while preserving their identity. This thesis investigates how resilience principles can be translated into spatial design strategies through the case of the Ulus district in Ankara.

The research is based on six resilience pillars: identity and heritage continuity, social cohesion, spatial adaptability, ecological integration, economic vitality, and governance capacity. These pillars are used to analyze existing spatial conditions and identify weaknesses within key urban areas. A node-based design approach is applied, focusing on three strategic nodes. Spatial interventions including pedestrian network improvements, ecological elements, adaptive reuse strategies, public space activation, and heritage interpretation are proposed to strengthen resilience at the node level.

Over time, these node-based interventions form interconnected pedestrian, ecological, economic, and heritage systems. The final masterplan demonstrates how localized design strategies can evolve into an integrated resilience network, supporting the long-term sustainability, spatial continuity, and adaptive capacity of the historic urban fabric.

*keywords:*

*urban resilience, heritage continuity, spatial design strategies, historic urban fabric, ankara, ulus, temporal evolution*

I centri storici urbani affrontano crescenti pressioni spaziali, sociali, ambientali ed economiche che ne minacciano la continuità e la capacità di adattamento. La resilienza urbana offre un quadro teorico e operativo per affrontare tali sfide, rafforzando la capacità degli ambienti storici di adattarsi al cambiamento preservandone al contempo l'identità. Questa tesi indaga come i principi della resilienza possano essere tradotti in strategie di progettazione spaziale attraverso il caso studio del quartiere di Ulus ad Ankara.

La ricerca si basa su sei pilastri della resilienza: continuità dell'identità e del patrimonio, coesione sociale, adattabilità spaziale, integrazione ecologica, vitalità economica e capacità di governance. Tali pilastri vengono utilizzati per analizzare le condizioni spaziali esistenti e individuare le criticità all'interno delle principali aree urbane. Viene adottato un approccio progettuale basato su nodi strategici, concentrandosi su tre ambiti urbani principali. Gli interventi spaziali proposti includono il miglioramento delle reti pedonali, l'introduzione di elementi ecologici, strategie di riuso adattivo, l'attivazione degli spazi pubblici e strumenti di interpretazione del patrimonio, con l'obiettivo di rafforzare la resilienza a scala locale.

Nel tempo, questi interventi basati sui nodi generano sistemi interconnessi di mobilità pedonale, ecologia urbana, attivazione economica e continuità del patrimonio. Il masterplan finale dimostra come strategie progettuali localizzate possano evolvere in una rete integrata di resilienza urbana, sostenendo la sostenibilità a lungo termine, la continuità spaziale e la capacità adattiva del tessuto urbano storico.

*parole chiave:*

*resilienza urbana, continuità del patrimonio, strategie di progettazione spaziale, tessuto urbano storico, ankara, ulus, evoluzione temporale*



# 01

## Introduction

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The chapter includes the how the thesis framework works. The challenges and opportunities of historic city cores in the urban resilience term will be discussed and Ulus, Ankara will be used as the case of projection on the understanding of this theory. Aim of the thesis and how those achievements will be done with the concepts and developments that are discussed over time. Within the researchs aims and questions the methods of the project will be released in the chapter.

## Introduction

Historic city cores around the world face increasing pressures from spatial, social, environmental, and economic changes. These areas, often containing significant architectural and cultural heritage, struggle to maintain their identity and functionality amidst rapid urbanization, population growth, and changing economic patterns. Ankara's Ulus district exemplifies such a challenge: its historic urban fabric, shaped during the early Republican period, has been subjected to transformations that threaten both its spatial continuity and social vitality. Preserving the character of historic districts while enhancing their adaptability is a critical concern for urban planners, architects, and policymakers today.

Urban resilience has emerged as a guiding concept for addressing these challenges. Rather than focusing solely on preservation or restoration, resilience emphasizes the adaptive capacity of urban systems, enabling them to respond to disturbances and changes while maintaining core functions and identity. For historic districts, resilience requires balancing the conservation of heritage with interventions that accommodate contemporary social, environmental, and economic needs. This thesis argues that resilience principles can be translated into spatial design strategies, providing actionable solutions that support long-term sustainability and continuity in historic urban areas.

The Ulus district is selected as a case study because it represents a historic core that has undergone significant transformations, both planned and spontaneous, over the last century. Its urban structure reflects layers of history, while current challenges ranging from fragmented public spaces and declining pedestrian networks to underutilized heritage assets and limited governance mechanisms highlight the need for a strategic and integrated design approach. By analyzing Ulus through the lens of resilience, this study aims to identify vulnerabilities and opportunities in its spatial, social, ecological, and economic systems.

## Research Problem

Historic city cores face increasing pressures from rapid urbanization, socio-economic changes, environmental stress, and evolving mobility patterns. These pressures often result in the fragmentation of urban fabric, decline in public space quality, underutilization of heritage assets, and weakened social cohesion. Ankara's Ulus district exemplifies these challenges: despite its historical and cultural significance, the area struggles with disconnected pedestrian networks, vacant or underused historic buildings, limited green spaces, and fragmented governance. Such conditions threaten both the continuity of its identity and its capacity to adapt to contemporary urban demands.

Traditional preservation approaches often focus narrowly on safeguarding monuments or maintaining aesthetic appearances, neglecting the broader socio-spatial and functional aspects that sustain a historic district. Consequently, interventions may fail to address systemic vulnerabilities, leaving the urban fabric ill-prepared for future changes. In Ulus, this tension manifests as a mismatch between heritage conservation and urban functionality, resulting in declining economic activity, limited community engagement, and environmental inefficiencies.

The central research problem, therefore, is how to strengthen the resilience of historic urban cores like Ulus, ensuring they can adapt to changing social, economic, and environmental conditions while preserving their heritage and identity. This requires translating resilience principles encompassing identity, social cohesion, adaptability, ecological integration, economic vitality, and governance into practical spatial design strategies. The challenge lies in identifying strategic nodes and interventions that not only improve localized conditions but also form integrated networks supporting long-term sustainability and urban continuity.

This thesis addresses the research problem by focusing on the translation of theoretical resilience principles into actionable design strategies, emphasizing node-based interventions, pedestrian connectivity, ecological enhancements, adaptive reuse, and public space activation. By doing so, it proposes a method for historic districts to maintain their identity, strengthen community engagement, and adapt to future urban challenges. The research problem, therefore, bridges the gap between heritage preservation and adaptive urban design, positioning resilience as a framework for sustainable transformation.

## **Aim and Objectives**

The aim of this thesis is to investigate how resilience principles can be applied to historic urban cores to enhance their adaptive capacity while preserving their identity and heritage. Using the Ulus district in Ankara as a case study, the research seeks to explore how localized node-based design interventions can address spatial, social, ecological, and economic challenges. The ultimate goal is to demonstrate how small-scale, strategic interventions can cumulatively form an integrated resilience network, ensuring the long-term sustainability and continuity of historic urban fabric.

To achieve this aim, the research focuses on the following objectives:

Analyze the current spatial, social, economic, and ecological conditions of Ulus using a six-pillar urban resilience framework:

- Identity and heritage continuity
- Social cohesion
- Spatial adaptability
- Ecological integration
- Economic vitality
- Governance capacity

Identify vulnerabilities and opportunities within Ulus to determine strategic nodes for intervention.

Develop node-based spatial design interventions that strengthen connectivity, public space quality, adaptive reuse of heritage buildings, ecological integration, and community engagement.

Demonstrate the integration of interventions into a district-wide resilience network, showing how localized strategies contribute to long-term urban continuity, adaptability, and sustainability.

Provide design guidelines and spatial strategies that can inform both policy-making and practical urban interventions in other historic districts facing similar challenges.

## Research Framework and Methods

This thesis adopts a structured research framework that integrates theoretical understanding, spatial analysis, and design experimentation to explore how resilience principles can inform interventions in historic urban cores. The framework is based on the six pillars of urban resilience which provide a comprehensive lens to evaluate the current conditions and vulnerabilities of the Ulus district. These pillars form the backbone of the research, linking conceptual resilience principles to practical design strategies.

The methodology combines qualitative and quantitative approaches, structured around three main phases: analysis, strategy development, and integration. The first phase involves a layered spatial analysis, documenting Ulus's urban fabric, pedestrian networks, public spaces, heritage assets, and ecological features. This phase also considers socio-economic data and governance structures, highlighting areas where the district is vulnerable to spatial, social, or economic decline. The temporal dimension is incorporated to understand historical transformations, demonstrating how past changes have shaped current challenges and opportunities.

In the second phase, node-based design strategies are developed for three strategic areas within the district. Nodes are selected based on their potential to maximize impact on connectivity, public space activation, ecological improvement, and heritage utilization. Each intervention is designed to address multiple resilience pillars, creating localized improvements that reinforce broader district-wide networks. Strategies include pedestrian network enhancements, adaptive reuse of heritage buildings, ecological interventions such as green corridors, and public space activation to encourage social cohesion and community engagement.

The final phase focuses on integration and synthesis, linking individual interventions into a district-wide resilience network. This phase demonstrates how localized strategies can collectively strengthen urban adaptability, economic vitality, ecological integration, and heritage continuity over time. Throughout the process, the methodology emphasizes iterative design and evaluation, ensuring that proposed strategies are responsive to both the historic context and contemporary urban needs.

By combining theoretical frameworks, spatial analysis, and design experimentation, this research provides a comprehensive approach to translating urban resilience principles into actionable interventions. The methodology ensures that strategies are not only conceptually grounded but also spatially feasible and adaptable, offering a model for other historic urban cores seeking to balance heritage preservation with long-term resilience.

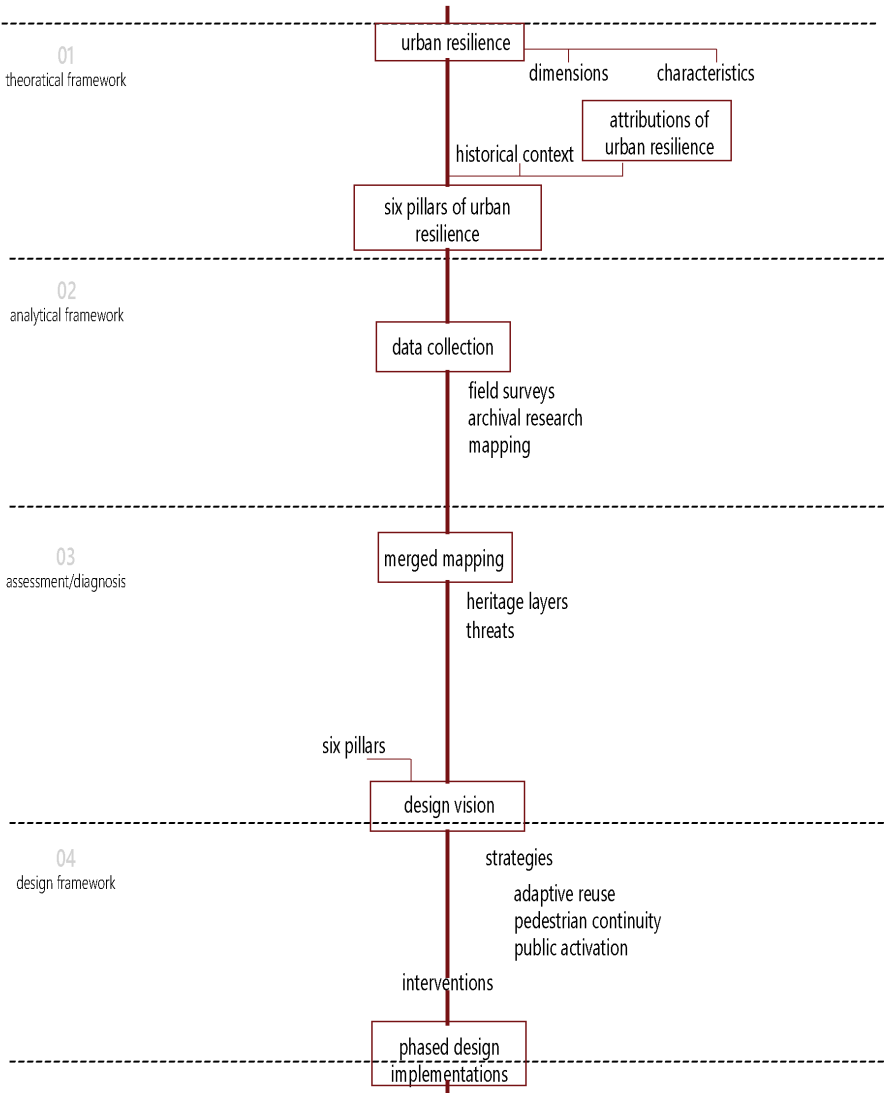


Figure1: Methodological framework of thesis. Produced by author.



# 02

## Theoretical Framework

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Resilience has its roots from different disciplines before being adapted to urban studies. The development of urban resilience has its origins in ecological studies. Important resilience characteristics and dimensions are mentioned to understand how cities absorb shocks, adapt to changes, and evolve over time. Within the theoretical framework, we can understand the attributes we need to focus on in urban resilience. These attributes are derived from the mentioned dimensions and characteristics, and their effects can be observed over time.

## 2.1. Resilience: from Ecological to Urban Resilience

### 2.1.1. Origins of Resilience

The roots of the resilience idea date back centuries. The word resilience comes from the Latin words “resilio” and “resilire”, which mean “to bounce” (Manyena et al., 2011). In Latin, it was used to express the idea of bouncing back. Since then, the concept of resilience has been applied in various fields, including law, literature, and other disciplines.

In the 19th century, the term resilience was used in the field of mechanics to describe the strength of steel beams (Alexander, 2013). In this context, resilience referred to the ability to withstand applied forces by resisting them through strength while simultaneously absorbing energy through deformation. Later, the concept was also applied in psychology, referring to the ability to recover from psychological trauma.

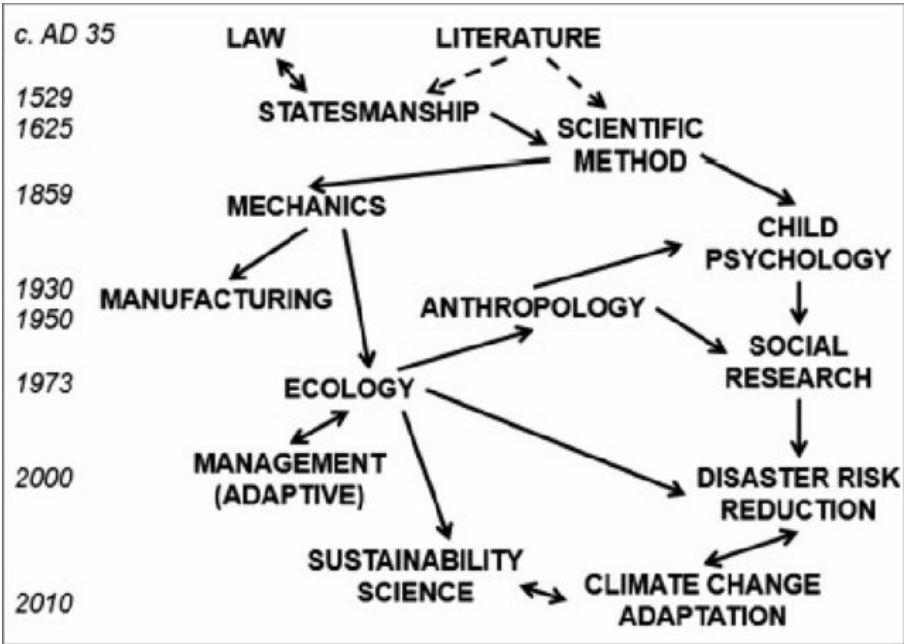


Figure 2: Schematic diagram of the evolution of the term “resilience”. *Resilience and disaster risk reduction: an etymological journey* (D.E. Alexander, 2013)

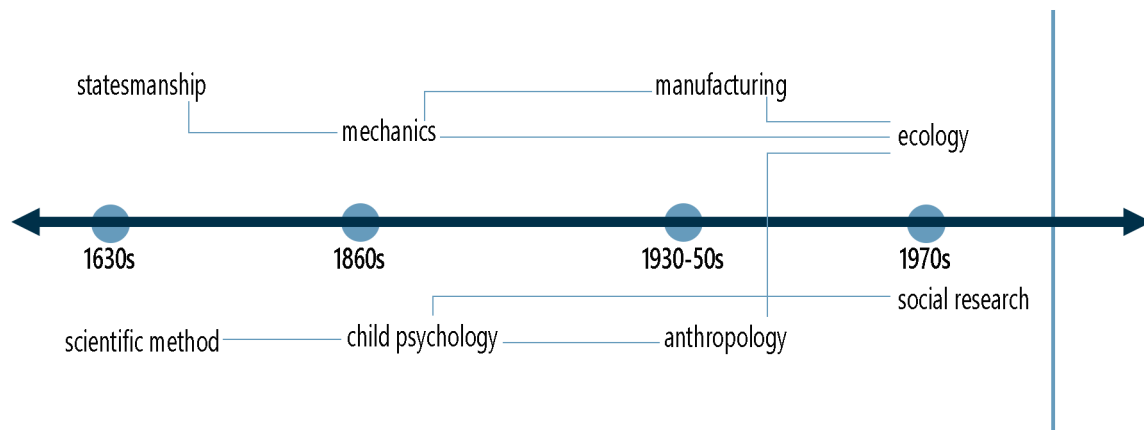


Figure3: Timeline of resilience showing the used literature. Produced by author.

In the early 1970s, the term resilience began to be used in the field of ecology by Holling. In this context, which treats ecosystems as complex systems, Holling (1973) defined resilience as the ability to maintain the relationships between system variables while absorbing change and disturbances. In his definition, the system can absorb disturbances without the need to return to its previous state. Later, Walker et al. (2004) described resilience as the ability of a system to absorb disturbances and reorganize while preserving its core functions and identity. From these perspectives, the multi-equilibrium perspective emerged, emphasizing that systems do not always return to pre-disturbance conditions.

By the early 2000s, it became clear that ecological processes could not be separated from human activity. This understanding led to the concept of social-ecological resilience, which views people and nature as linked systems. This perspective built on the work of Holling and Gunderson (2002), who introduced the concept of adaptive cycles. Adaptive cycles describe how systems move through different phases, explaining why they can persist for long periods in a stable state but also undergo collapse and renewal.

Social-ecological systems (SES) emphasize resilience, adaptability, and transformability as three main attributes. In this framework, resilience is described as the capacity to absorb disturbance and reorganize while retaining function, structure, identity, and feedback. Folke et al. (2010) also highlight that SES resilience is linked to institutional systems, making it a multi-scalar system with a variety of interactions. In social-ecological systems, disturbances are no longer seen as purely ecological shocks but also include social drivers. Resilience, in this context, is therefore not only about bouncing back but also about evolving and innovating in ways that sustain the long-term integrity of coupled systems.

From these perspectives, resilience is no longer seen as a property of ecosystems alone but as the outcome of interactions between people, institutions, and the environment, making it dynamic, interconnected, and multi-layered. In recent decades, this broader perspective has been applied to a growing range of disciplines, from climate adaptation and disaster risk management to infrastructure, planning, and energy transitions (Meerow et al., 2016). The urban environment has also become a central focus within the concept of resilience.

### 2.1.2. Urban Resilience

The perspectives of the authors on the concept of resilience have contributed to the idea of urban resilience. Drawing from the origins of ecology, material sciences, and social sciences, urban systems began developing a concept of resilience that aligns with the needs of cities. Therefore, various definitions have been proposed by different authors. The concept cannot be identified with a single definition; instead, it changes its aspects according to the context, needs, and circumstances. For instance, Meerow (2016) defines urban resilience as “the ability of an urban system and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity.”

	<b>Ecological Resilience</b>	<b>Urban Resilience</b>
<b>Definition</b>	Ecosystems absorb disturbance and persist (Holling, 1973).	Cities maintain, adapt, and transform under shocks (Meerow et al., 2016).
<b>System Characteristics</b>	Non-linear, thresholds, multi-equilibrium	Socio-ecological-technical, networked, multi-scalar
<b>Aim of the system</b>	Preserve biodiversity, ecological function.	Protect urban functions, equity, sustainability
<b>Disturbances considered</b>	Natural shocks	Complex crises
<b>Scale of application</b>	Ecosystem, landscape	Neighborhood, city, region

Table1: Table that showing the comparison of ecological resilience to urban resilience. Produced by author.

The perspectives of the authors on the concept of resilience have contributed to the idea of urban resilience. Drawing from the origins of ecology, material sciences, and social sciences, urban systems began developing a concept of resilience that aligns with the needs of cities. Therefore, various definitions have been proposed by different authors. The concept cannot be identified with a single definition; instead, it changes its aspects according to the context, needs, and circumstances. For instance, Meerow (2016) defines urban resilience as “the ability of an urban system and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity.”

In urban resilience, cities are not necessarily expected to return to their original working systems; instead, they can “bounce forward” and adapt to change. In the context of resilience, disturbances are seen as both external and internal. In the UN-Habitat City Resilience Profiling Tool (2018), disturbances are classified as shocks, internal stresses, external stresses, complex stresses, and stresses with no direct inducers. Therefore, to apply an effective urban resilience system to a city, its specific needs should first be identified. Based on the classification of the city’s dimensions, a suitable working pathway can then be determined.

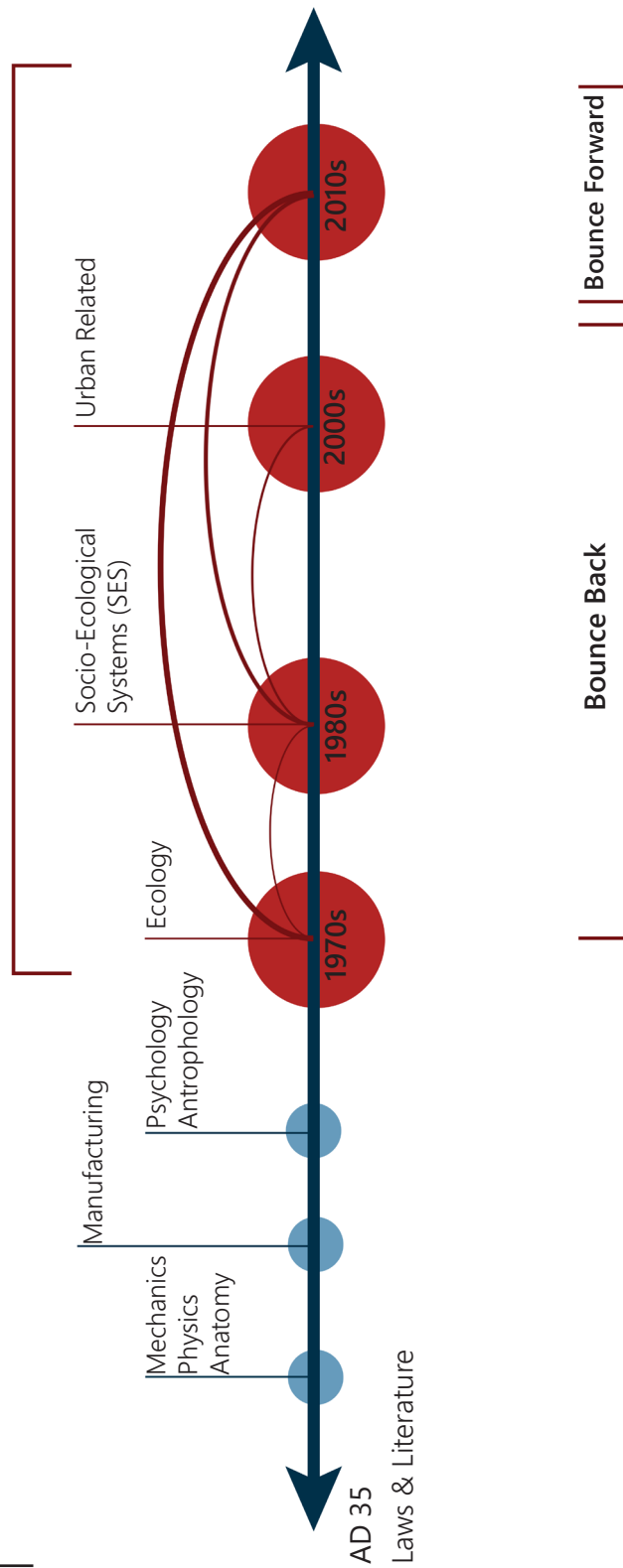


Figure4: Timeline of term resilience evolution. From ecological resilience to urban resilience over time. Produced by author.

## 2.2. Temporal Dimension of Urban Resilience

Resilience is never a fixed state but evolves through the processes that the city has been facing. This describes a city's ability to adapt, reorganize, and transform while maintaining its essential functions and identity (Folke, 2006; Davoudi et al., 2012). Therefore, temporal conditions are also a part of urban resilience. The changes are not happening instantly, but they happen gradually over time. Adaptation in the cities is happening over years and generations, which makes the cities in motion constantly (Pickett et al., 2004; Batty, 2013).

Within the perspective of evolutionary resilience (Davoudi et al., 2012; Wilkinson, 2012), the city is seen as a dynamic and learning system that adapts through feedback and experience. This perspective suggests that the time effect in urban resilience defines both how systems recover from shocks and how they learn and evolve from them. Therefore, urban resilience is not measured by how quickly a city returns or recovers from a disruption, but by how it improves through this situation and develops (Ahern, 2011; Meerow & Newell, 2019). This kind of temporal understanding emphasizes that the phase of design should be considered through a gradual change. Design and planning should be considered together to allow for adjustments over time.

In this context, the temporal dimension of time becomes a guiding principle. Resilience strategies should be considered within the framework of time for the evaluation of the city. Short-term actions can improve the quality of the city and enhance the safety, accessibility, or environmental conditions of the city. Over a longer time period, the actions can affect the governance mechanisms, ecological systems, or help to develop new spatial connections through the city. Even longer time has passed, the resilience grows to the regeneration, where social cohesion, environmental balance, and cultural identity become self-sustaining components of the urban system (Ahern, 2011; Pelling, 2011; Rotmans & Loorbach, 2010). Within these, we can see that resilience is not achieved in a single moment or action, but it develops through time, and with the help of today's actions, it develops a future potential.

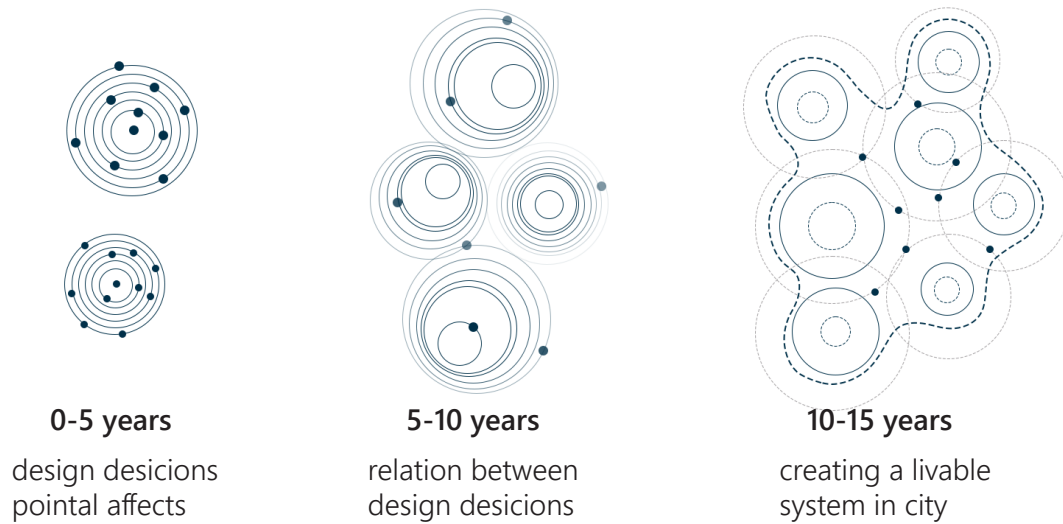


Figure5: Diagram that is showing the time effect on the urban resilience. Produced by author.

Urban resilience can be examined through three time frames. Short-term as the actions, medium-term as the transformation, and lastly long-term as the regeneration. Within the planning of long-term achievements, small actions should be planned and developed over this time period. The scales and processes change accordingly.

Overall, time as a temporal dimension emerges as an essential point for urban resilience. In this perspective, urban resilience is seen as a long-term process shaped by decisions and actions that have been made today rather than an achievement in the short term. Recognizing the cities as dynamic systems, adaptation and transformation after the shocks will have time to have an impact on the city. Therefore, the planning approaches need flexibility and capability to respond to uncertainty over time. The design decisions, small actions that will be taken today, cannot be separated from the future capacities of a city. Therefore, to achieve the planned resilience points in the future, the actions should be taken now without separating the two processes from each other.

### 2.3. Dimensions of Urban Resilience

Urban resilience is analyzed through different dimensions of cities. Being a complex system, the cities cannot be examined only with physical structures but there should be other considerations like social networks, economic activities, governance structures, and ecological systems. Analyzing those different dimensions of cities is essential for the ability to respond to disturbances. With the help of breaking down those elements helps researchers to understand and improve the interconnections of those components. Later, the vulnerabilities, design strategies can be made for enhancing adaptability, robustness and long-term changes in the city (Meerow et al., 2016; Jha et al., 2013).

Several frameworks for conceptualizing the dimensions of urban resilience have been proposed. Jha et al. (2013) identify four primary components: infrastructure, institutional, economic, and social resilience. In this framework, it is suggested that for cities to be able to withstand shocks and maintain their essential functions, it is a need to integrate physical infrastructure with governance systems, economic functions, and social networks. Similarly, the Resilience Alliance (2007) outlines four urban sub-systems, governance networks, metabolic flows, the built environment, and social dynamics. These systems emphasize the connection between material, social, and institutional aspects of urban systems.

Meerow et al. (2016) expand this perspective by introducing the natural environment as a distinct dimension, proposing five key areas: natural, economic, social, physical, and institutional. In this approach it is highlighted that the ecological considerations are also included for the enhancing the cities alongside the traditional urban planning and governance for a comprehensive resilience strategy. Ribeiro (2019) similarly defines a five-dimensional framework including natural, social, economic, physical, and institutional aspects. Consideration of several dimensions in urban resilience also shows the multiple interacting components in resilience planning.

Meerow et al.	Natural	Social	Physical	Economic	Institutional	
Jha et al.	Infrastructure	Social	Economic	Institutional		
Resilience Alliance	Governance	Metabolic Flows	Built Environment	Social Dynamics		
Ahern	Ecological	Adaptive Capacity	Physical			
Davoudi et al.	Social	Spatial	Temporal			
Ribeiro	Natural	Economic	Social	Physical	Institutional	
Anhorn et al.	Governance	Economy	Society	Infrastructure	Environment	Health
Vale & Campanella	Cultural	Social	Physical	Economic		
Rodwell	Governance	Social	Cultural	Adaptive Reuse		
Pickett et al.	Ecological Systems	Human Systems	Hybrid Systems			
Rockefeller Foundation – CRF	Health & Well-being	Economy & Society	Infrastructure & Environment	Leadership & Strategy		
UN-Habitat	Environmental	Social	Spatial	Economic	Institutional	
OECD	Environmental	Social	Economic	Institutional		
World Bank	Institutional	Social	Physical	Economic		
ICLEI	Environmental	Social	Governance	Economic		

Table2: Table of dimensions for in different papers. Produced by author.

Anhorn et al. (2014) propose a six-dimensional model, governance, economy, society, infrastructure, environment, and health. This perspective shows how urban resilience emerges from the interaction of institutional, socio-economic, and physical systems rather than isolated interventions. With the selection of these six-dimensions Anhorn et al. allows a holistic look for urban resilience, including both structural capacities and human well-being. The dimension of health is a unifying factor for the vulnerabilities across all urban systems. Additionally, the City Resilience Framework (CRF) developed by the Rockefeller Foundation identifies four core dimensions: health and well-being, economy and society, infrastructure and environment, and leadership and strategy. The dimensions in this framework are defined with the combination of the elements that need to be considered for the resilient urban communities.

Urban resilience is a multidimensional concept that mentions the elements that compose the city although the terminology and focus of dimensions differ from each other in several different frameworks. Analyzing those dimensions we can understand how the cities function, how they are all in relation to each other and how it affects the idea of urban resilience. Therefore, it is essential to recognize and mention on those dimensions. While different perspectives define and relate these dimensions in varying ways, collectively it can be identified in the selection of four core dimensions, physical and ecological dimensions, social dimensions, economic dimensions, and governance dimensions.

### 2.3.1. Ecological and Physical Dimensions

Ecological and physical dimensions are the essentials of understanding urban resilience. In this dimension we can capture both the built structure and the environmental systems that are present in the city. Even though the terms can change between different authors it can be seen as the core part of resilience thinking.

The physical dimension represents the built forms of the cities. Infrastructure, transportation systems, housing and utilities are some of the topics that are mentioned. Godschalk (2003) emphasizes that resilient cities depend on well-designed and adaptable physical networks that can resist disruptions and recover functionality. Similarly, Meerow et al. (2016) explains the built environment as one of the main dimensions of urban resilience, emphasizing that the arrangement and quality of infrastructure affect how effectively a city can respond to shocks and disturbances.

The ecological dimension focuses on natural and environmental systems and how they process in the city can be observed in this dimension. Timmerman (1981) was one of the first to link resilience with environmental change, explaining that urban systems cannot be understood separately from the natural environment. The Resilience Alliance (2007) identifies ecosystems, biodiversity, and natural resources as important parts of resilient urban systems. Protecting healthy environmental functions like air quality and green spaces emphasized in this dimension's explanation. Those functions help cities to adapt and recover from disturbances.

These two dimensions are taken into consideration under one because of their connections with each other. While the physical environment gives the visible structure of the city, it is supported by the ecological systems around it. As Meerow et al. (2016) remind, cities should be seen as socio-ecological systems where infrastructure and natural processes overlap. To have urban resilience cities should have both ecological and physical systems that maintain the conditions of cities.

### 2.3.2. Social Dimensions

Urban resilience is directly linked with social systems therefore, the social dimension on urban resilience becomes important to understand how communities prepare for and recover from the shocks. It emphasizes the shared knowledge and collective actions' importance on cities' ability to adapt to disturbances.

Adger (2000) defines social resilience as the ability of communities to cope with external stresses while maintaining their essential structures and functions. This point of view helps us to understand the resilience is not only about surviving but also about protecting the social networks and communities' shared resources. This helps to hold communities together after the disturbances. Cutter et al. (2008) also emphasize the social systems are significant to urban resilience because they have an impact on the distribution of resources, the perception of risks, and the speed at which disruptions are recovered from.

Social dimension also takes into consideration the factors of community trust, social ties, and collective actions. Peeling (2003) argues that societies with stronger connections within individuals are better prepared for the sudden shocks and disturbances and long-term stress. They react and learn from them in the longer process. Similarly, Meerow et al. (2016) point out that resilience relies on the communities that can organize, share information, and collaborate effectively across different groups.

Social dimensions are linked with the other dimensions also. When we mention the societies, we should also take into consideration of access to education, health services, and social support networks which enrich the adaptive capacity of individuals and stabilize the urban system better. As the Resilience Alliance (2007) highlights, social systems cannot be separated from ecological and economic processes; instead, they are an integral part of the socio-ecological framework of cities.

### 2.3.3. Economic Dimensions

The economic dimension of urban resilience supports economic activities and recovers from financial disturbances for the city's livelihoods to continue. Adapting to the changing conditions and continuing to provide opportunities for its residents in times of crisis shows how the resilient urban economy acts in the case of shocks and disturbances.

Cutter et al. (2008) emphasize that the diversity of local economies and the availability of resources are crucial in determining how effectively a city can adapt and recover after disturbances. This shows how the economic dimension should keep stable employment for the individuals by protecting the industries that are crucial for the city and maintaining access to the services during the times of disturbances. Similarly, Meerow et al. (2016) identify the economic system as one of the key components of urban resilience, highlighting that cities with diversified economic structures are less vulnerable to external shocks. Therefore, strengthening economic resources will help the resilience.

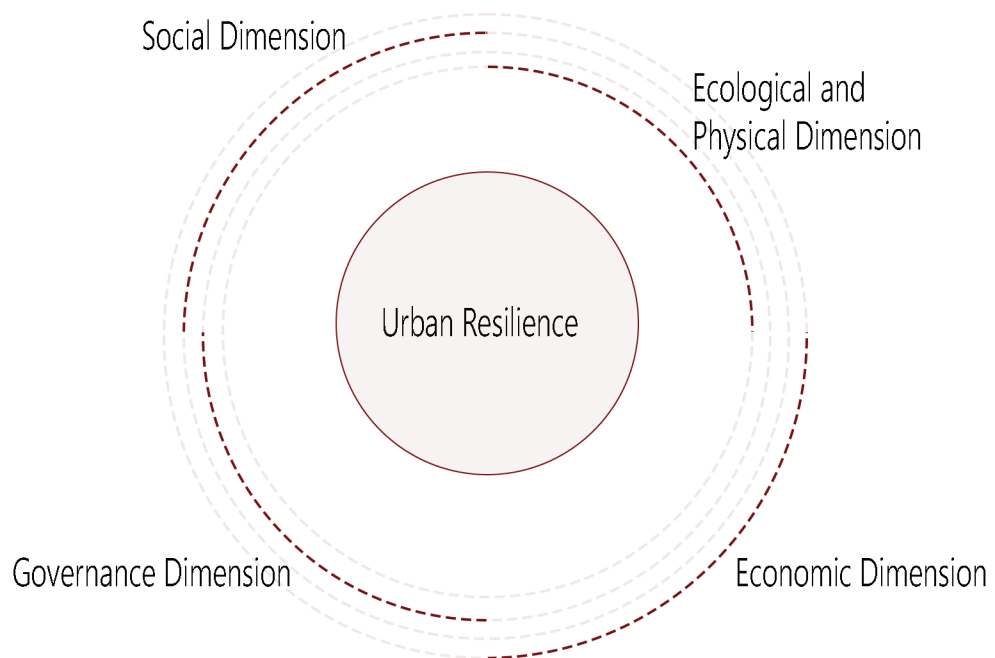
Economic dimensions should be equal and inclusive for everyone. Pelling (2003) notes that economic inequalities often leave certain populations more vulnerable to both sudden disasters and long-term stresses. Individual and collective resilience within the city is linked with equal access to resources, financial support, and economic opportunities for all social groups, and all these systems strengthen resilience.

### **2.3.4. Governance Dimensions**

The governance dimension refers to the systems, policies, and decision-making processes that guide how cities prepare for, respond to, and recover from shocks. Effective governance is a significant part of urban resilience because it affects how resources are distributed, how risks are managed, and how different stakeholders are involved in shaping decisions.

According to Godschalk (2003), resilient cities are characterized by collaborative and adaptive governance structures that can work with information from various sectors on different scales. Therefore, when we mention the governance, it is not only about formal institutions like municipal governments and planning authorities, but also informal networks, civil society organizations, and community participation.

Similarly, Meerow et al. (2016) highlights that governance is also one of the core components of resilience because it determines how decisions are made under uncertainty. Various conditions like inclusive participation and collaboration of different sectors allow cities to respond more effectively to sudden shocks and long-term stresses. Resilience Alliance (2007) also emphasizes that governance should encourage flexibility and learning, enabling urban systems to adjust policies and strategies as new information and challenges arise.



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Figure6: Diagram that is showing the dimensions that are decided by the author. Produced by author.

## 2.4. Characteristics of Urban Resilience

Urban resilience focuses on a city's capacity to absorb, adapt, and transform in response to shocks or disturbances. Within the various conditions and ways that can be researched, it creates the characteristics that researchers focus on their papers. For instance, Ahern (2011) emphasizes robustness, redundancy, flexibility, and ecological integration, with a primary focus on urban planning and infrastructure. In this framework, urban resilience should be taken into consideration to maintain functional stability under stress, with a focus on the environmental performance of the city. Similarly, Vale and Campanella (2005) emphasize flexibility and learning. In this perspective, it is important to focus on the post-disaster urban recovery to maintain continuity and support long-term health of the city.

In other perspectives that are coming from social-ecological systems theory, the focus is on the importance of ecosystem services and adaptive capacity for the cities' long-term continuity. For example, Folke et al. (2010) examine in their work that redundancy, adaptability, learning, and transformability are the characteristics of urban resilience. Their work underlines that resilience is not only about protecting the function but also the capacity to transform urban, social, and ecological conditions with the changing conditions at the time of stress or after.

Meerow et al. (2016) provide a comprehensive urban resilience framework that integrates robustness, adaptability, learning, and inclusiveness, covering the physical, social, economic, and governance dimensions of cities. In this framework, the combined system of theoretical and applied perspectives is highlighted by drawing attention to the point that urban resilience must include social equity and participatory governance alongside infrastructure and ecological considerations. Davoudi et al. (2012) further focus on the social and governance dimensions, emphasizing learning, transformability, and inclusiveness, and highlighting that resilient cities empower communities, reduce vulnerabilities, and ensure equitable participation in decision-making processes.



Figure 7: The complex character of city resilience. *City Resilience Framework*. (Arup and The Rockefeller Foundation, 2015)

Pendall et al. (2010) emphasize the economic dimension, highlighting adaptability and economic robustness as essential for sustaining urban vitality and supporting diverse, shock-resistant local economies.

Characteristics that authors focus on are changing according to their perspectives on the topic; however, there is also a considerable overlap in some of the characteristics that are taken into consideration, like adaptability and transformability. With all these perspectives, a comprehensive framework for urban resilience can be constructed, encompassing robustness, redundancy, adaptability, flexibility, learning and transformability, inclusiveness, and ecological integration. This multi-characteristic approach ensures that urban resilience addresses physical infrastructure, social systems, governance, economic stability, and environmental sustainability in a coherent and operationally meaningful manner.

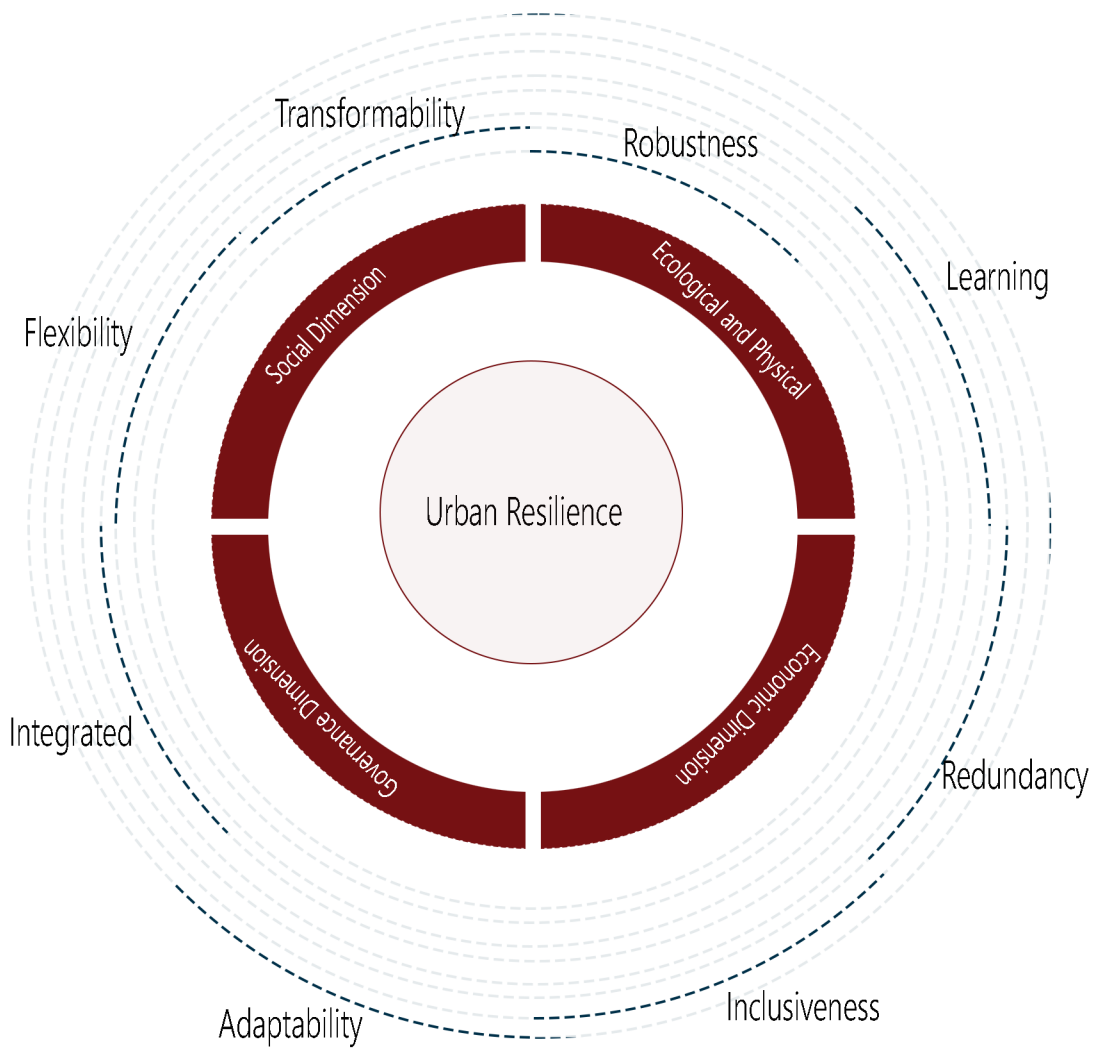


Figure8: Chart of characteristics and dimensions of urban resilience. Produced by author.

## 2.5. Attributions of Urban Resilience

In urban resilience, it is essential to move from abstract dimensions and characteristics to the actual outcomes and attributes that a city can achieve. Attributions of urban resilience are used to define the goals or guidelines for the cities' planning and policies. Until now we mentioned the theoretical resilience principles and with the attributions they will be turned into measurable and actionable results. These attributions reflect the city's ability to maintain essential functions, support communities, adapt to disturbances, and transform sustainably over time (Meerow et al., 2016; Folke et al., 2010).

To achieve these attributions, the connections between the characteristics and dimensions of urban resilience are taken into consideration. The physical, social, governance, and economic dimensions provide the structural and functional context, while characteristics such as robustness, adaptability, flexibility, learning, inclusiveness, and ecological integration will give how to manage react to those dimensions. With combining these characteristics and dimensions, we will be achieving policies to be used for increasing the cities' urban resilience.

For this study, six core urban resilience attributions have been identified based on their significance in the literature and their applicability to contemporary urban challenges:

- Identity Preservation
- Adaptive Governance
- Infrastructural Flexibility & Redundancy
- Social Equity & Community Capacity
- Ecological Integration
- Economic Diversity & Stability

These six attributions were chosen with the collectively covering the needs of urban resilience. Each attribution is linked with one or more urban dimensions and characteristics, which shows how theoretical ideas developed into the actual ways for enhancing the cities' resilience. The following sections detail how each attribution is achieved, highlighting the specific combinations of dimensions and characteristics that enable cities to realize these resilience outcomes.

Attributions	Dimension	Characteristics	Explanation
<b>Identity Preservation</b>	Physical Social Governance	Robustness Adaptability Learning & Transformability	Physical robustness and adaptability protect heritage buildings and urban landmarks; social learning ensures communities maintain traditions; adaptive governance integrates identity preservation into planning.
<b>Adaptive Governance</b>	Governance Social	Adaptability Flexibility Learning Inclusiveness	Governance systems are flexible and learning-oriented, coordinating institutions and engaging communities; inclusiveness ensures equitable participation and legitimacy.
<b>Infrastructural Flexibility &amp; Redundancy</b>	Physical	Robustness Redundancy Flexibility	Infrastructure networks are robust and redundant, with alternative pathways and modular designs allowing continuity and rapid reconfiguration during disruptions.
<b>Social Equity &amp; Community Capacity</b>	Social	Inclusiveness Learning Transformability	Inclusive planning and participatory governance empower communities; learning and transformability enable adaptive practices, social cohesion, and reduced vulnerability.
<b>Ecological Integration</b>	Physical & Ecological	Adaptability Ecological integration	Integration of green infrastructure, ecosystem services, and nature-based solutions enhances the city's capacity to absorb environmental shocks and maintain biodiversity.
<b>Economic Diversity &amp; Stability</b>	Economic	Adaptability Robustness Learning	Diverse and adaptable local economies withstand shocks, maintain employment, and innovate; learning processes support risk anticipation and long-term economic vitality.

Table3: Table of attributions that are formed with the dimensions and characteristics. Produced by author.

### **2.5.1. Identity Preservation**

With identity preservation, it is aimed to achieve protection of heritage buildings, landmarks, and public spaces, which is one part of the identity of the cities, while making the use of adaptive reuse to meet contemporary urban needs. For this we need to take into consideration physical dimensions with characteristics of robustness and adaptability. It is not the only part that attributions cover. Also, social dimension and learning and transformability characteristics enable communities to preserve traditions while applying adaptable and learning oriented policies that integrate heritage protection into urban planning. Together, these combinations allow cities to maintain a unique identity while evolving sustainably (Ahern, 2011; Folke et al., 2010).

### **2.5.2. Adaptive Governance**

Adaptive governance attribution emerges from the governance dimension, and it is supported by the characteristics of adaptability, flexibility, and learning. Governance systems work as the decision-making part of the city, and with the combination of the characteristics, they will respond to uncertainties, work with various institutions, and integrate diverse stakeholders. In addition to this, inclusivity is one of the characteristics that will also enrich equitable participation, strengthening communities. With this perspective, governance systems will manage the urban challenges effectively and responsively (Davoudi et al., 2012; Meerow et al., 2016).

### **2.5.3. Infrastructural Flexibility & Redundancy**

This attribution is the combination of physical dimension and robustness, redundancy, and flexibility characteristics. Within this attribution, the achievement will focus on the urban networks, such as transportation, water, and energy systems, and how they have alternative pathways, overlapping capacities, and modular components to have stability during disturbances. Flexibility also allows temporary reconfiguration of spaces and infrastructure to respond to crises without compromising essential services (Ahern, 2011).

### **2.5.4. Social Equity & Community Capacity**

This attribution mainly focuses on the social dimension of urban resilience. It is achieved through the combination of social dimension and combining inclusiveness, learning, and transformability. To reduce communal vulnerabilities, enhance collective capacity to respond to disturbances, and strengthen the social relations between individuals, communities should be included in the planning and decision-making process. A social system that focuses on learning empowers the city's resilience conditions (Davoudi et al., 2012; Meerow et al., 2016).

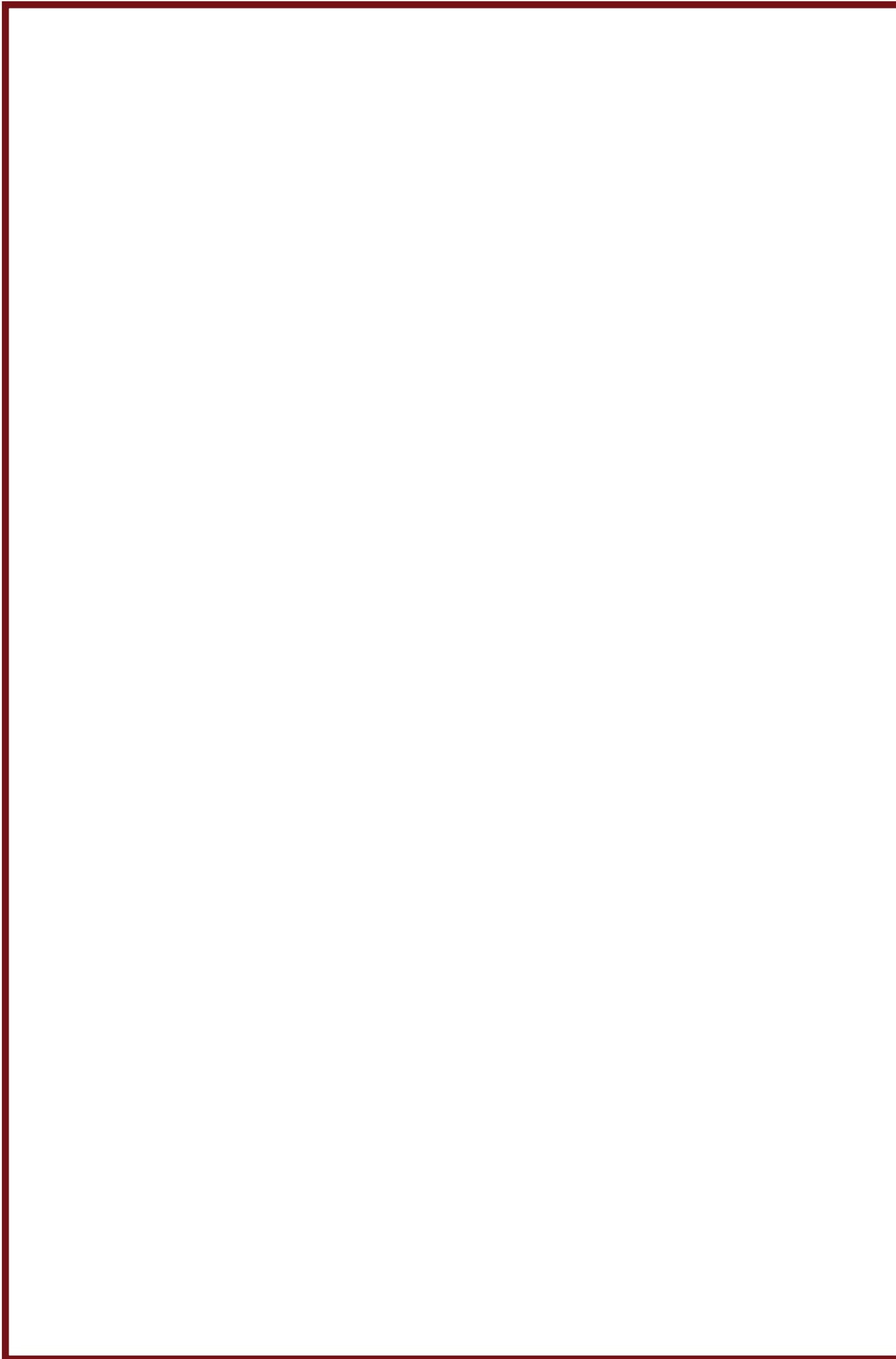
### **2.5.5. Ecological Integration**

By this attribution, it is aimed to achieve sustainable and resilient ecological systems by giving importance to regulating climate effects and maintaining biodiversity. This physical and ecological dimension integrates with adaptability. Cities are focusing on environmental systems to absorb environmental shocks, including green infrastructure, urban forests, wetlands, and nature-based solutions into the urban fabric. Enriched urban fabric provides the resilience of environmental conditions (Folke, 2006; Ahern, 2011).

### **2.5.6. Economic Diversity & Stability**

The economic dimension, characterized by adaptability, robustness, and learning, supports economic diversity and stability. Diverse and adaptable local economies can withstand shocks, maintain employment, and innovate under stress. Learning mechanisms allows economies to anticipate risks and adopt new strategies, ensuring long-term vitality and urban prosperity (Pendall et al., 2010).





# 03

## Implications of Urban Resilience on Historical Context

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Urban resilience attributes that have been developed from theoretical understandings with the dimensions and characteristics that have been chosen. With the consideration of historical elements that define the idea of historical context, these attributes will be linked to urban resilience in historical context. Linking all the information that has been taken from papers are the six pillars for examining urban resilience in historical context.

### 3.1. Understanding Historical Context

The historical context of a city is crucial for understanding and designing the city's urban systems and protecting its heritage and culture over time. This understanding is also important for urban resilience. Historical context is formed with the cultural, architectural, social, and spatial layers, and as they come together, they create the memory and identity of the city. As Jokilehto (2007) emphasizes, heritage cannot be understood only as a collection of individual monuments or iconic structures. It should be seen as part of the wider urban fabric, embedded in everyday practices, public spaces, and symbolic meanings. In this sense, historical context is dynamic. It is reshaped by adaptation, transformation, and interaction between tangible and intangible elements.

UNESCO's Historic Urban Landscape (HUL) Recommendation (2011) advanced this view by defining historical context not as static conservation, but as a living urban system. In this approach, the historical context includes not only the heritage of the city but also landscape, socio-economic processes, ecological systems, and cultural identity. Bandarin and van Oers (2012) argue that historical urban areas represent living heritage. Over time, a city can develop and adapt to the changes and create resilient environments that will carry collective memory while responding to contemporary challenges. Therefore, historical context is a vital point of urban resilience because of the importance of preservation of identity with heritage management.



Figure9: Collage of historical context. Produced by author.

### 3.2. Elements of Historical Context

To understand how historical context affects resilience, it is important to take into account several elements that form heritage landscapes. The built fabric and urban morphology ensure the material basis of historical environments, including not only monuments but also the street patterns, block structures, and spatial organization that shape urban identity (Bandarin & van Oers, 2012). In addition to the physical layers, public spaces and symbolic landscapes like squares, markets, and ceremonial axes work as the collective part of social life, and a symbolic representation of community identity (UNESCO, 2011).

Intangible heritage is equally crucial, comprising traditions, crafts, practices, and languages that give meaning to urban environments. These intangible dimensions provide a linkage for the community to pass their cultural and urban past to the next generations (Jokilehto, 2007). Cultural expressions are protected by social dynamics, local communities continue the traditions, they will deliver cultural values and keep the balance between preservation and change (Davoudi et al., 2012).

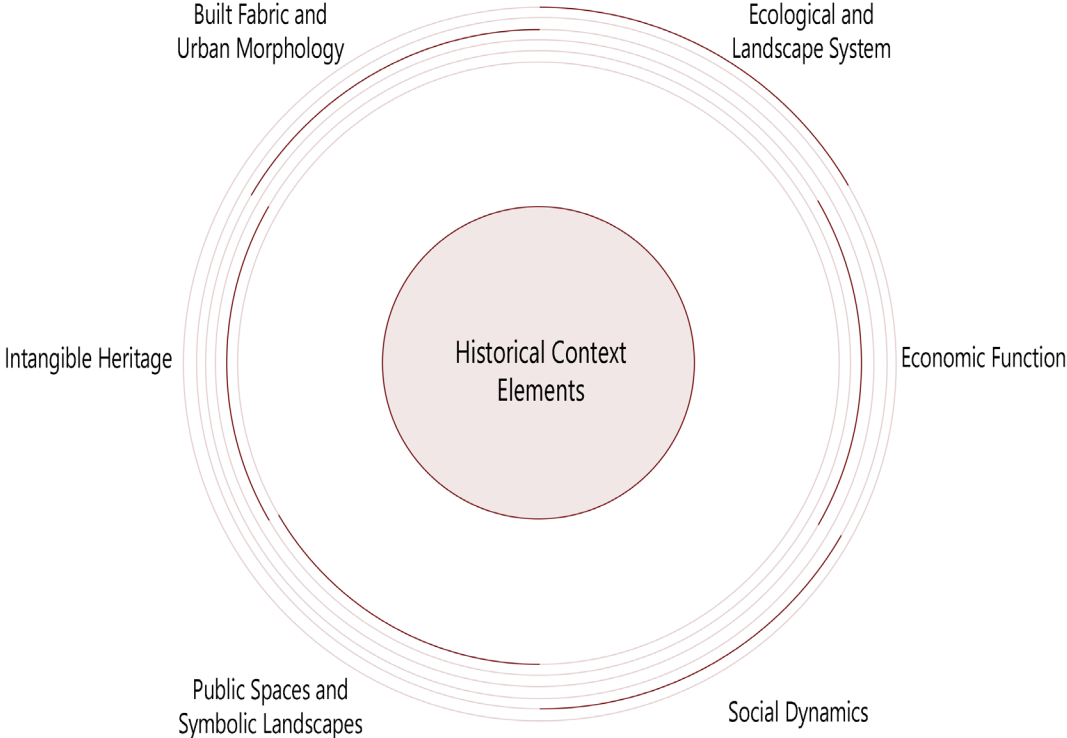


Figure10: Chart that is showing the elements of historical context. Produced by author.

Another dimension that supports the historical cores is economic functions. Small businesses, traditional markets, and heritage-based economies support local livelihoods and ensure that historical areas remain socially vibrant rather than preserved as static remains (Pendall et al., 2010). At last, ecological and landscape systems like rivers, gardens, courtyards, and urban green spaces provide environmental services that provide water stability and increase human livelihood (Pickett et al., 2004). Historical context is also important, with the conditions of the natural resources that have been protected and taken into consideration.

Within all these layers and elements, we can see that historical context is combined with various factors that reveal the complex nature of the city. In that sense, resilience in historical context depends not only on protecting physical structures but also on protecting social, economic, and ecological functions.

### 3.3. Urban Resilience in Historical Context

When we mention urban resilience, we take into consideration the contemporary challenges such as climate change, globalization, rapid urbanization, and socio-economic instability (Meerow et al., 2016; Davoudi et al., 2012). These approaches created a general look at the attributions of urban resilience based on dimensions and characteristics of resilience. In the historical context, however, it is not valid to apply those outputs directly. Historic urban areas carry a layered complexity with cultural identity, heritage values, and community continuity intersecting with environmental and economic pressures; therefore, it cannot be taken into consideration only with infrastructural or governance issues. As Bandarin and van Oers (2012) argue, historical urban areas must be treated as living heritage systems, in which continuity and transformation are inseparable.

When resilience is looked through the lens of historical context, several issues may emerge. First, there can be the risk of treating heritage as a static object and not taking it as part of an adaptive system. UNESCO's Historic Urban Landscape (HUL) Recommendation (2011) explicitly addresses this, emphasizing that heritage conservation must be integrated with social, economic, and ecological processes rather than confined to monument preservation. All these systems should work together in the historical context, also. Second, historical context can be threatened by the developmental design ideas because it can cause the city to lose its identity and cultural distinctiveness. Pendall et al. (2010) point to the dangers of economic monocultures in cities, which, when applied to heritage, may result in overdependence on tourism. It should be considered that historical context is the main part of the differentiation between cities.

Third, governance in historical areas tends to be fragmented, with conflicts between preservation authorities, local governments, and communities, limiting adaptive capacity (Jokilehto, 2007). Therefore, when we look for resilience, it cannot be appreciated as the same in urban parts of the cities. Finally, ecological considerations, such as the role of historic landscapes, water systems, and urban green, have been overlooked in traditional conservation frameworks, despite their increasing relevance in the context of climate change (Pickett et al., 2004).

Thus, applying urban resilience to historical contexts requires reframing resilience not only as a technical capacity but as a socio-cultural, ecological, and economic negotiation embedded in history. This means that dimensions such as governance, economy, and ecology must be interpreted through heritage values, and characteristics such as adaptability, inclusiveness, and transformability must account for continuity of traditions, the adaptive reuse of built fabric, and the integration of ecological systems into heritage settings. In this way, urban resilience in historical contexts becomes both a theoretical and practical framework for addressing the contemporary challenges of heritage environments.

Application of urban resilience in a historical context may require complex systems to understand how some of the important parts of the resilience may work in a historical context. Dimensions and characteristics of urban resilience should be reevaluated in the context of heritage values. In this way, urban resilience in historical contexts becomes both a theoretical and practical framework for addressing the contemporary challenges of heritage environments.



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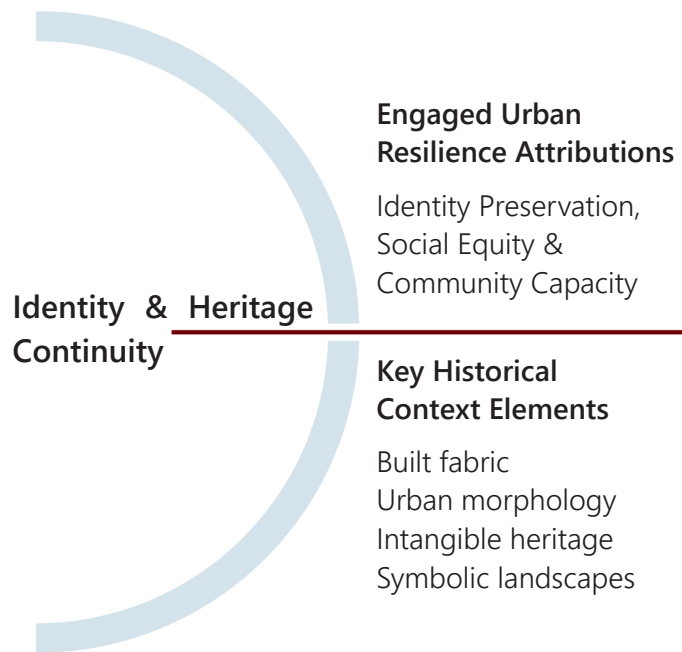
Figure11: Collage of historical context elements. Produced by author.

### **3.4. Six Pillars of Resiliene in Historical Context**

Urban resilience theory should be contextualized within a historical framework by considering its elements in relation to the historical context. Six attributions that have been defined and decided in the theoretical framework are also important in this part, but they should be reconsidered with the heritage environment conditions. Resilience in a historical context should be approached through a complex system because it is not only about physical settings but also socio-cultural and ecological systems. The relations between these systems are significant for urban resilience in the historical context. Each attribution that has been developed interacts with several historical context elements, and in the end, they become the six pillars of urban resilience in the historical context.

#### **3.4.1. Identity and Heritage Continuity**

The first outcome is Identity and Heritage continuity. These pillars can be seen as the most foundational ones that have been directly connected with the heritage. Attribution of identity preservation emphasizes the importance of preserving cultural distinctiveness; in a historical context, this is not only about maintaining the conditions of monuments alone. The built fabric, street patterns, and public spaces should be protected along with the intangible practices, traditions, and symbolic values that give meaning to them. In this pillar, we can see the combination of identity preservation with social equity and community capacity. Resilience conditions are not possible without the participation of communities that support the cultural memory of the cities. Therefore, we can say that the first pillar is the outcome of a relation of physical, social, and cultural dimensions of resilience, and not only the change of the six pillars.



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Figure12: Diagram of six pillar "identity and heritage continuity". Produced by author.

### 3.4.2. Inclusive Governance and Community Participation

A similar process can be observed in the formation of Inclusive Governance and Community Participation. The starting attribution of this pillar is adaptive governance, connecting with the historical context elements. Dynamics of this pillar are reshaped with heritage management; in this situation, conflicts of interest often arise between conservation authorities, local governments, private stakeholders, and residents. Another point that is inseparable from this topic is governance inclusiveness. To have effective planning, communities should be included in the design and conservation steps. Moreover, economic diversity also plays a role in this pillar. Governance systems should balance the pressure of tourism in the historical context to protect the heritage and still have the economic part of tourism. In the end, pillar emerges as a form of governance that comes from the roots of community participation and heritage-based parts.



Figure13: Diagram of six pillar “inclusive governance and community participation”. Produced by author.

### 3.4.3. Infrastructure and Spatial Adaptability

Forming the pillar of Infrastructure and Spatial Adaptability, attribution of infrastructural flexibility and redundancy is used in a complex expression in historical contexts. In the urban resilience attribution, emphasis is placed on the capacity of infrastructure to function under stress. In historical areas, the need for attribution grows for protecting the heritage parts of the built fabric and urban morphology. As a result, flexibility and redundancy characteristics should be achieved through the interventions that respect the historical layers of the city. Furthermore, spatial adaptability grows its boundaries to include the public spaces and symbolic landscapes to have new functions in addition to the infrastructure systems. These parts of the city should serve as social functions to support the cultural identity of the context. Therefore, this pillar reflects the combination of physical resilience with design approaches that are dedicated to the heritage of the city.

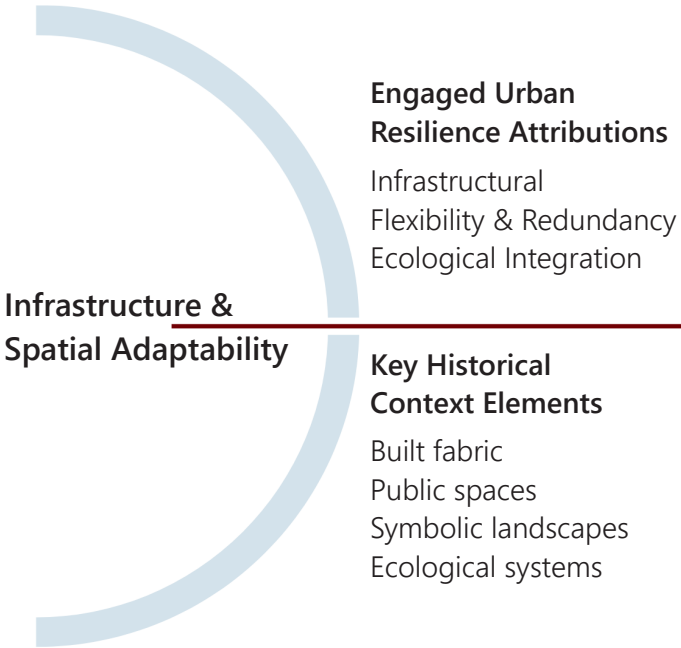


Figure14: Diagram of six pillar "infrastructure and spatial adaptability". Produced by author.

### 3.4.4. Social Cohesion and Cultural Capacity

The fourth pillar, Social Cohesion and Cultural Capacity, emerges at the intersection of social equity, community capacity, and identity preservation. Resilience literature has consistently underlined the importance of inclusiveness and collective action (Davoudi et al., 2012). In historical contexts, this condition is implied by the presence of intangible heritage. Traditions, rituals, and crafts are protecting cultural continuity, in addition to that it also strengthens the relation of communities with generational learning. As a result, social consistency becomes more than equitable resource distribution. It is also a cultural capacity of communities existing in the historic areas.

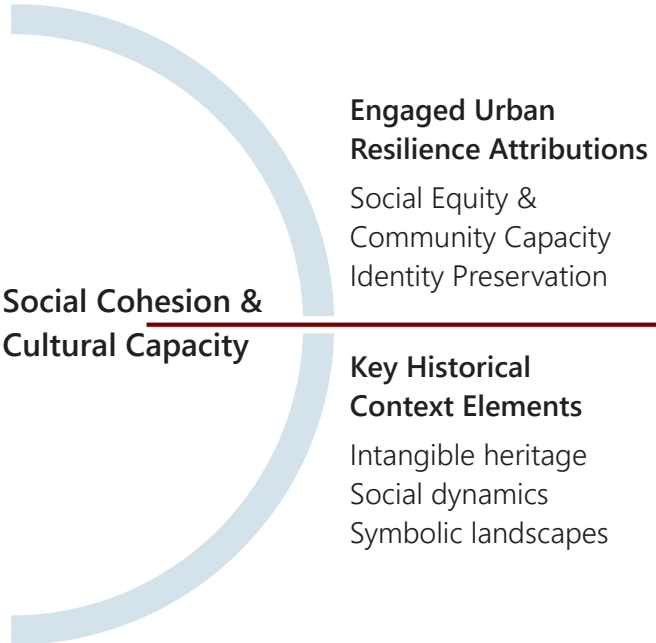


Figure15: Diagram of six pillar "social cohesion and cultural capacity". Produced by author.

### 3.4.5. Ecological-Heritage Integration

Another pillar of Ecological-Heritage Integration comes from the connection between the attribution of ecological integration and the ecological and landscape systems. In the contemporary urban resilience idea, the role of green infrastructure and ecosystem services in regulating urban environments is emphasized (Pickett et al., 2004). In historical areas, however, these functions can be seen in heritage landscapes such as rivers, gardens, and courtyards. Resilience in this perspective is both on the conditions of integrating ecological strategies into the urban cores but also recognizing their cultural significance as part of the historical identity of the place. This pillar reflects the environmental role of ecosystems and their cultural role within the heritage landscape.

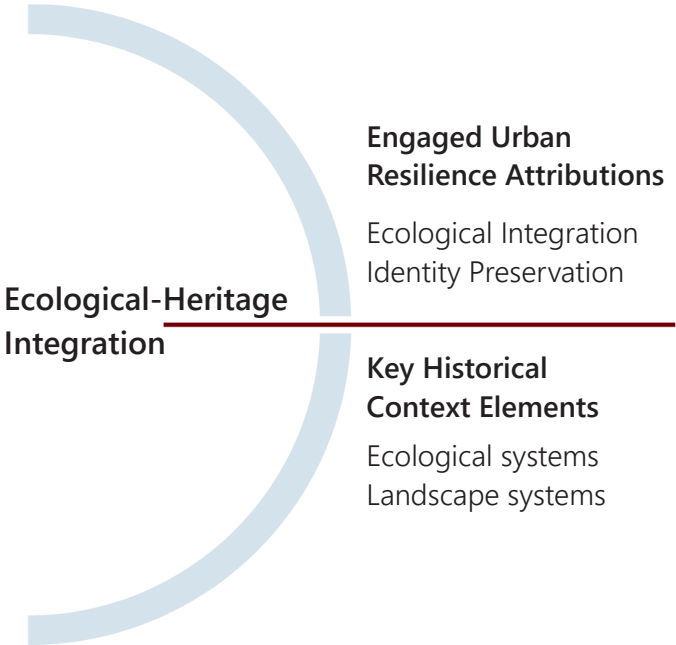


Figure16: Diagram of six pillar "ecological-heritage integration". Produced by author.

### 3.4.6. Economic Vitality and Adaptive Reuse

Finally, Economic Vitality and Adaptive Reuse are formed primarily from the attribution of economic diversity and stability. In a contemporary perspective, resilience requires diverse and adaptable economies. In historical contexts, these conditions are achieved through strategies that are specific to heritage, which focus mostly on adaptive reuse, with refunctioning the historic buildings for new uses, supporting the industries, small businesses, and therefore the cultural economies. In that way, historic cores can become alive for both people who are living in the city and the people coming as tourists. This also prevents the historic core from being dependent on tourism only. Furthermore, economic vitality is closely linked to governance and social cohesion, as inclusive decision-making and strong community engagement are prerequisites for ensuring that reuse strategies benefit residents and do not displace them.



Figure17: Diagram of six pillar "economic vitality and adaptive reuse". Produced by author.

These six pillars explain how resilience in a historical context emerges from the attributions and context elements, which are combined to understand the needs of the city. Each of these pillars is a combination of different attributions; therefore, it cannot be reduced to a single attribution. They are outcomes of overlapping attributes in the given context elements. Identity depends on social cohesion, governance is strengthened by economic vitality, ecological integration enhances heritage continuity, and infrastructure adaptability is supported by inclusive governance. From this system, we will have six pillars providing a framework for analyzing and designing strategies that protect both the continuity and the adaptability of historical urban environments.

Pillars	Key Questions to Answer
<b>Identity &amp; Heritage Continuity</b>	How can built fabric, urban morphology, and symbolic landscapes be safeguarded while allowing adaptive reuse? How do intangible traditions sustain identity across generations?
<b>Inclusive Governance &amp; Community Participation</b>	How can governance structures integrate local communities and social dynamics? What mechanisms ensure participatory decision-making and balance between conservation and development pressures?
<b>Infrastructure &amp; Spatial Adaptability</b>	How can infrastructure (mobility, energy, water) be adapted within historic cores without undermining heritage integrity? How can public spaces and landscapes serve multiple adaptive functions?
<b>Social Cohesion &amp; Cultural Capacity</b>	How can intangible heritage and collective practices strengthen community bonds? How can inclusiveness prevent social displacement in historic cores?
<b>Ecological-Heritage Integration</b>	How can ecological and landscape systems (rivers, gardens, courtyards) be integrated into heritage conservation? How can climate adaptation strategies align with cultural heritage values?
<b>Economic Vitality &amp; Adaptive Reuse</b>	How can historic buildings and spaces be adaptively reused to sustain diverse economies? How can small businesses, creative industries, and local markets reduce dependency on tourism?

Table4: Table of six pillars and the questions they will answer. Produced by author.





# 04

## Historical and Spatial Context of Ulus, Ankara

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This chapter focuses on the development of Ankara, capital of Turkey. The city has been gone through several urban planning stages because of the unexpected increase on the city's population. Through those developments the center of the city has been changed, transportation settlements have grown, and city become more significant for Turkey. Within those changes and developments, the historical core of the city, Ulus, carried out its heritage. The historical importance of Ulus can be seen in two different timelines. Despite of its historical background the city and Ulus, Republican period has the most impact on the city. In this chapter we will be seeing those developments and importance of Ulus as the historical context of Ankara.

## 4.1. Urban Development of Ankara and the Transformation of Ulus

Ankara is located in the Central Anatolian region of Turkey. Within its strategic location the city was surrounded by the mountains. Those parts were open at the western but closed at the eastern, is where the Citadel is located. The Castle of Ankara has constructed on these heights to have an advantageous defense opportunity. At a broader scale the city is on the linkage between Europe and Middle East. Which makes the city in an important location for the country.

The first settlers to be known in Ankara was the Hittites. The city was mentioned as the Ankuva (Günay, 2012). In the 12th century Hittite Empire ended and the new settlers were the Phrygians who were powering the Anatolia. From the 14th century onwards, the city was under the rule of the Ottoman Empire. In those times the center became Istanbul again by leaving Ankara within the effects of it.

In the 19th century infrastructural developments were already made but the city was not conducive to development. Old walls of the outer city were still protected; however, the terrain of the city was full of marshland offering no opportunity for urban development (Günay, 2012). By the end of Ottoman Empire, the industrial developments were focused on Istanbul leaving mostly Ankara out. In the 20th century, with the new nation emerging, Ankara become the center again. With the Republican period the city of Ankara was the capital city. Strategic location of the city was giving the power of control but also developing the economic structures in the Anatolian region

Urban transformation of Ankara presents a unique example showing how an Anatolian city is becoming a modern one. Before it's becoming the capital city, Ankara was a modest settlement centered around the citadel and Ulus area, with a population of approximately 30,000 (Yalçiner Ercoşkun, 2013). Within the few years of it becoming the capital, Ankara has experienced rapid population growth. By 1927, the population had already risen to 74,553, surpassing 2.5 million by 1990, and reaching over 4.5 million by 2012, reflecting a more than hundredfold increase within less than a century (TÜİK, 2012).

This rapid and unexpected growth finalized with a several urban plans that would capture the structure of new capital. The historical center, Ulus was also taken into consideration while focusing on this planning system to be functional. The city was now developed toward the south and west, creating the duality in the city with the "Old City" and "New City." Historical fabric of Ulus and citadel area was maintained with the Ottoman morphology and the newly planned modern quarters, designed to embody the ideals of the Republic (Tankut, 1993). This also shows the duality of the city.



Figure18: Ottoman map of Ankara. *Ankara Spatial History*. (B. Günay, 2012)

### 4.1.1. Lörcher Plan

The first plan, drawn by German architect Carl Christoph Lörcher, protected the historic core of Ulus as it is and new developments were districted toward Çankaya, symbolizing progress and modernity (Cengizkan, 2002). Center of the city was around the central station and the proposing a new compact city.

One of the first solutions that was developed with the planning was the arrangements of the new government buildings which were needed with the new capital city. Also, new series of boulevard and public squares were planned to increase the quality of the civic life. With the development of the key axes between central station, citadel, and parliament, connection between the new and old part was conducted.

Although the plan was never fully implemented, it established the foundation for Ankara's urban hierarchy and the ideological link between spatial design and the new state's modernization project (Sargin, 2009).



Figure19: Ankara City Plan by Lörcher. (A. Cengizkan, 2004)

### 4.1.2. Jansen Plan

In 1928, a national competition was held for the new planning of Ankara with three urbanists plans. At the time Ankara's population was 75,000 and it was given to the planners that the plan should be considered for a period of 50 years and an estimated population of 300,000. Following the competition, Hermann Jansen's plan was selected as the master plan of Ankara. The idea behind Jansen's plan was to develop a modern and contemporary living environment. The plan was inspired from Garden city principles, and he wanted to develop urban structure organized into neighborhood units (Günay, 1988).

The green belt system was also introduced in the plan with the systems of integrated valleys and riverbeds. The city's development was structured through north and south axis, connecting the old city with the administrative and residential districts of Yenışehir and Çankaya. In a period of time when the population growth was the same as it was seen, the plan worked. City was representing the modesty of the Republican period, there was no monumentality, but it was offering new modest city.

However, the plan was not working the same as it was on paper because of the ecological problems and population growth that exceeded the plan's projections. The city was planned to have central functions with the central station. Marshland type of the city was not allowing to make these plans work. This was conducted to leave the central station as a free-standing elements and ecological corridors and sport facilities were added. The population growth was much more than planned and it also created the planning problems in the longer periods, the boulevards and roads were not enough, and the new urban planning was needed with the new considerations.

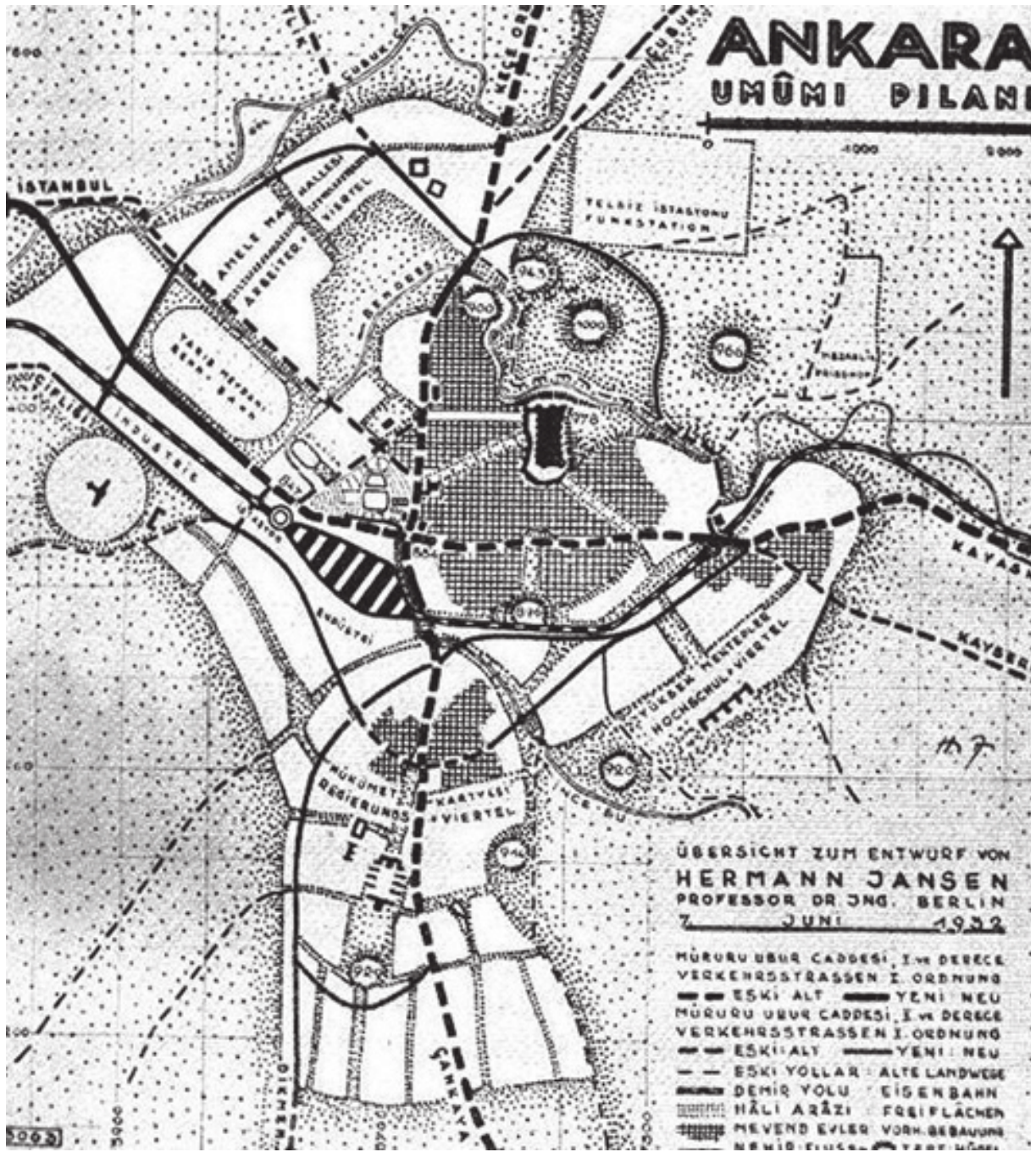


Figure20: Ankara City Plan by Jansen. *Urban Gateway: Just a Symbol, or More?* (O. Çalıřkan, 2010)

### 4.1.3. Uybadin-Yucel Plan

By the 1955, a new competition was held for the new master plan of Ankara. Now the population of the city was 450,000 and was expected to be 750,000 by 1985. With the international and Turkish jury members the Uybadin-Yucel Plan was selected as the new plan of Ankara.

With the new plan polycentric form of the city emerged. The plan was to hold ideas of peripheral roads connecting highways and improving accessibility. However, building densities were increasing higher than were foreseen. Squatter areas were starting to develop, and the socio-economic status of the city was now clearly reflected. In the end, the planned green belts become the squatter city and garden city become the apartment city. This showed how the planned development and the real development of the city were different than each other. This process led to the problem of a chaotic city in the end. Urban fabric was totally replaced, and model contemporary city lost its value.

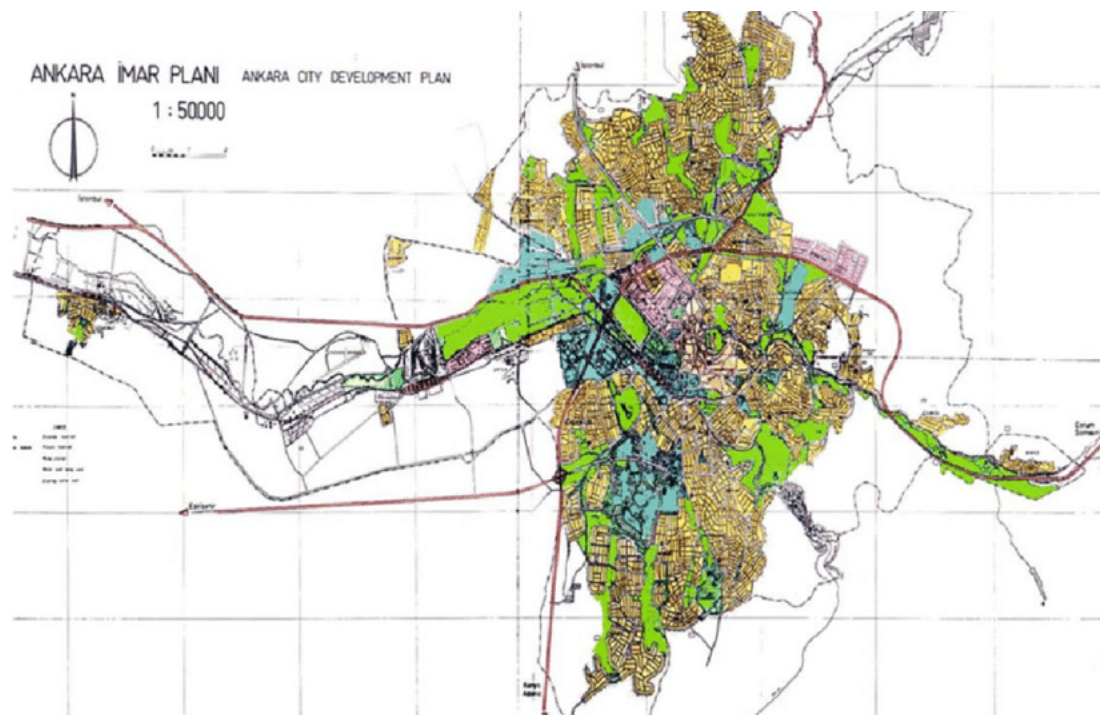


Figure21: Ankara City Plan by Uybadin-Yucel. *Emergence and Evolution of the Urban Public Open Spaces of Ankara within the Urban Development History: 1923 to Present* (N. Ozdil, C. Bilsel, H. Vejre, 2019)

#### **4.1.4. Metropolitan Planning Office Plan**

The fourth plan of the city was departed from the idea of Master plan and introduced a structure plan. The 1970 Metropolitan Planning Office Plan was created with the intention of creating a corridor-based expansion in the city. Plan was to create new residential and employments possibilities for the middle class in the city.

In this sense, it attempted to reshape the town and addressed numerous issues that had been disregarded in earlier plans for the first time. Growth along the Western Corridor seemed like the most practical solution following a thorough review of numerous options.

The local government would take the lead in putting the planning decisions into practice throughout the following implementation process, starting massive home development projects along the western corridor and providing additional support in the form of new industrial zones. In the end, the strategy has also started measures to turn the city into a peripheral area.

#### **4.1.5. METU 2015 Structure Plan (1985)**

Developed by the Middle East Technical University (METU) planning team, this plan adopted decentralization as the primary strategy to address the city's unbalanced growth. It proposed six growth corridors, green belts between them, and a parallel transportation system to manage the expanding population, projected to reach five million (Günay, 1988; Ceylan, 2003).

However, informal settlements continued to proliferate in peripheral areas, undermining the plan's sustainability goals. The city expanded into ecologically fragile zones, revealing the gap between planning vision and urban reality (Ercoşkun et al., 2005).

#### **4.1.6. 2025 and 2023 Master Plans**

The 2025 Plan by the Greater Municipality expanded the city beyond the ring road, designating new residential, industrial, and recreational zones. Yet the excessive development area raised concerns regarding ecological sustainability (Ercoşkun, 2013). The legally approved 2023 Master Plan (2007) aimed to integrate environmental, social, and economic considerations by identifying five main development corridors, strategic sub-centers, and water basin protections.

Nevertheless, top-down implementation and the persistence of car-oriented, low-density urban growth have continued to threaten the ecological and social resilience of the city (Yalçiner Ercoşkun, 2013).

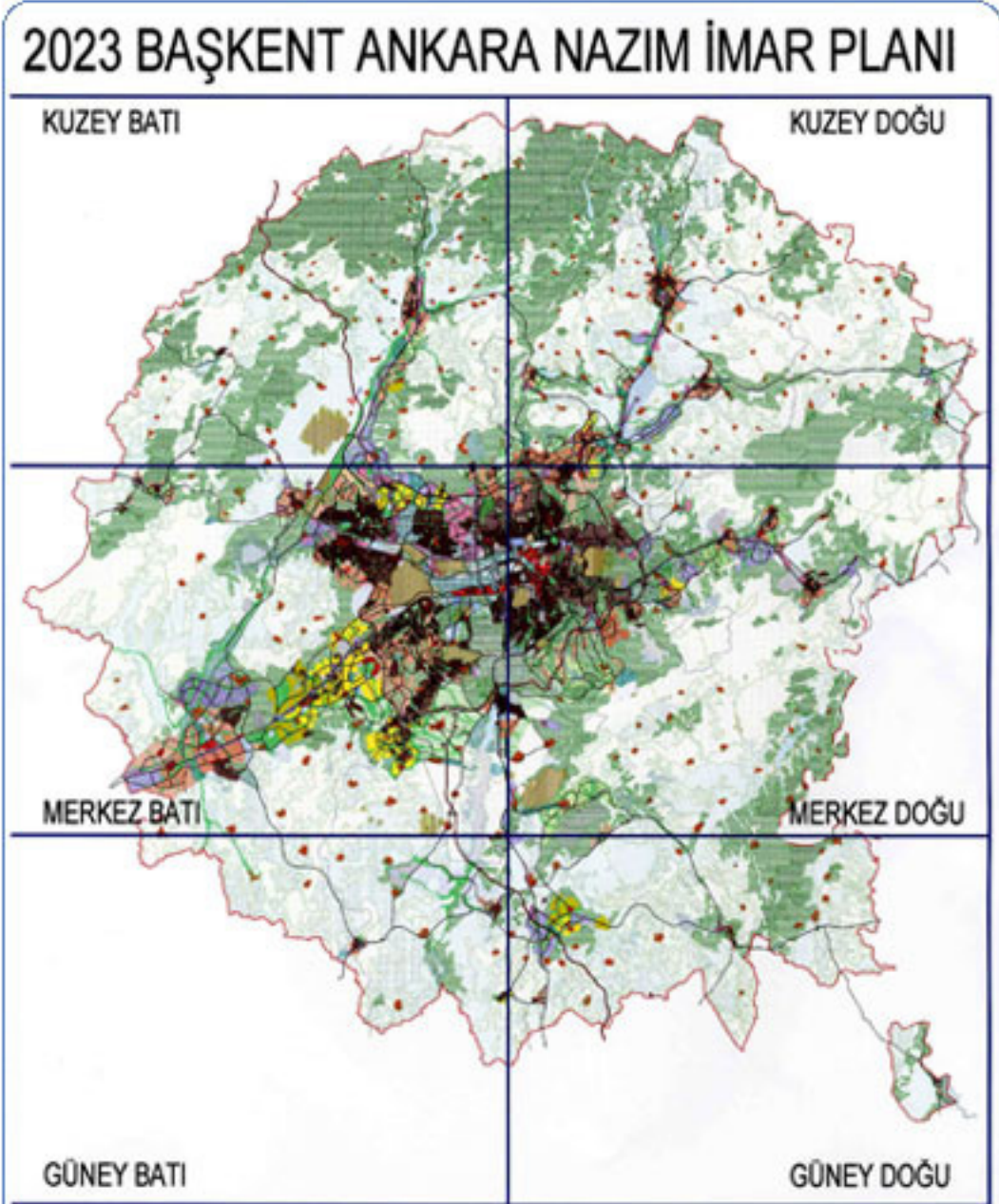


Figure22: Ankara 2023 Master Development Plan. *Ankara Metropolitan Municipality Official Website.*

Ankara has developed and become to a big city scale from a small town. The changes in the urban development of the city were directly related to the rapid increases of the population. The small town with a 20,000 population, reached 5.8 million in the year 2024. These changes were pushing cities’ limits to extend and to have this urban growth the new urban plans were seen necessary. Therefore, we can see that these growths were happening in relation to each other. The planners were given information about a city that will have the population increase in a limit. However, with the new job opportunities in the city the increase in the population happened larger than expected. In the end, the new plans needed to be developed over time, but also those plans were not indicated as planned.

### Ankara Population

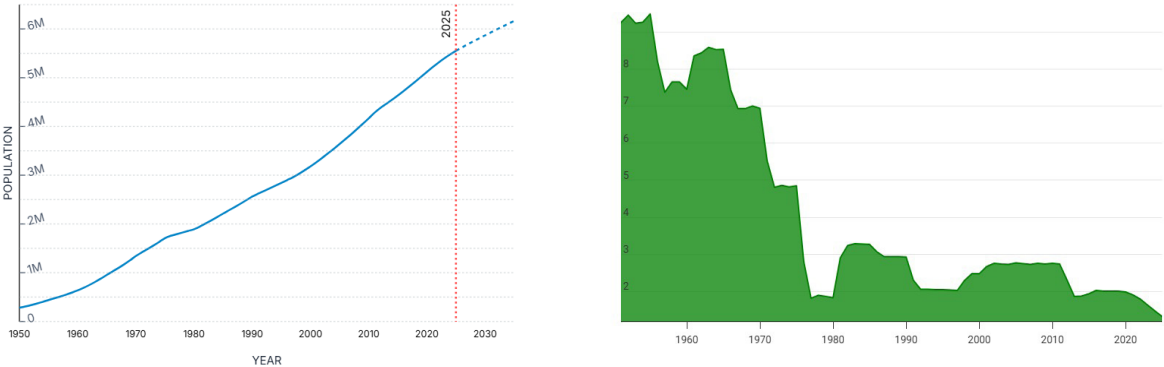


Figure23: Population change of Ankara. *Turkish Statistical Institute (TÜİK, 2025)*

With the unexpected increases and solutions that emerge from the people, the city becomes a car-oriented city with high-rise buildings and settlements that are separated according to the income of the people. From the first plan, city was planned to be a pedestrian friendly environment, however, the ecological conditions were not convenient. Planners also wanted to achieve an urban development plan for a higher number of the population, because of the developments of cities beyond expectations. This was also causing the problem of a city leaving its cores with no one living there.

As a result of all those changes over time and unexpected developments, city become as its condition of today. However, the population growth for Ankara was not expected to drop any time soon. Therefore, new growths of the city have been still seen. With the new developments of the city, the center of it changed over time. However, the historic city center, Ulus, remains as it is. The conditions of the historic core of the city are combination of the before and after Republican times. Therefore, we can see the new and old city in Ulus all together.

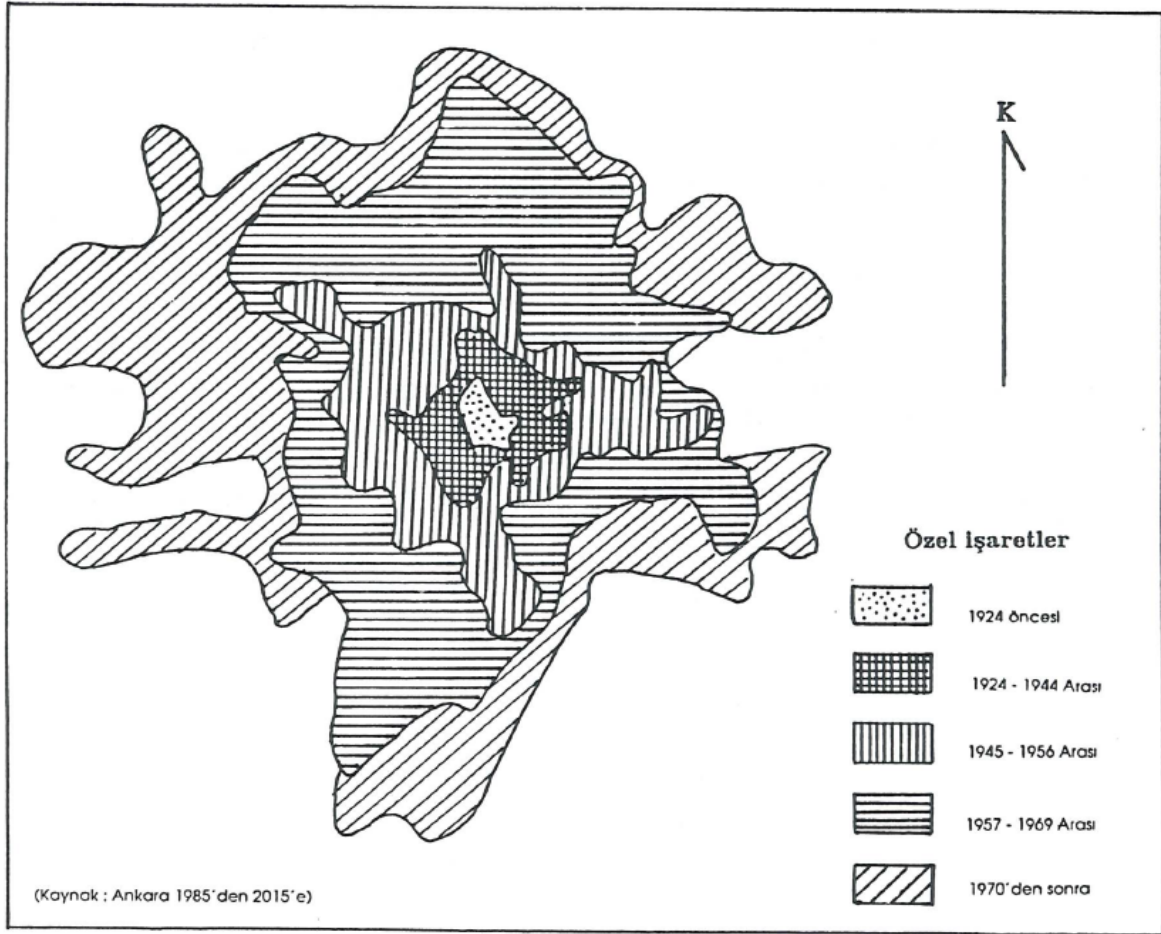
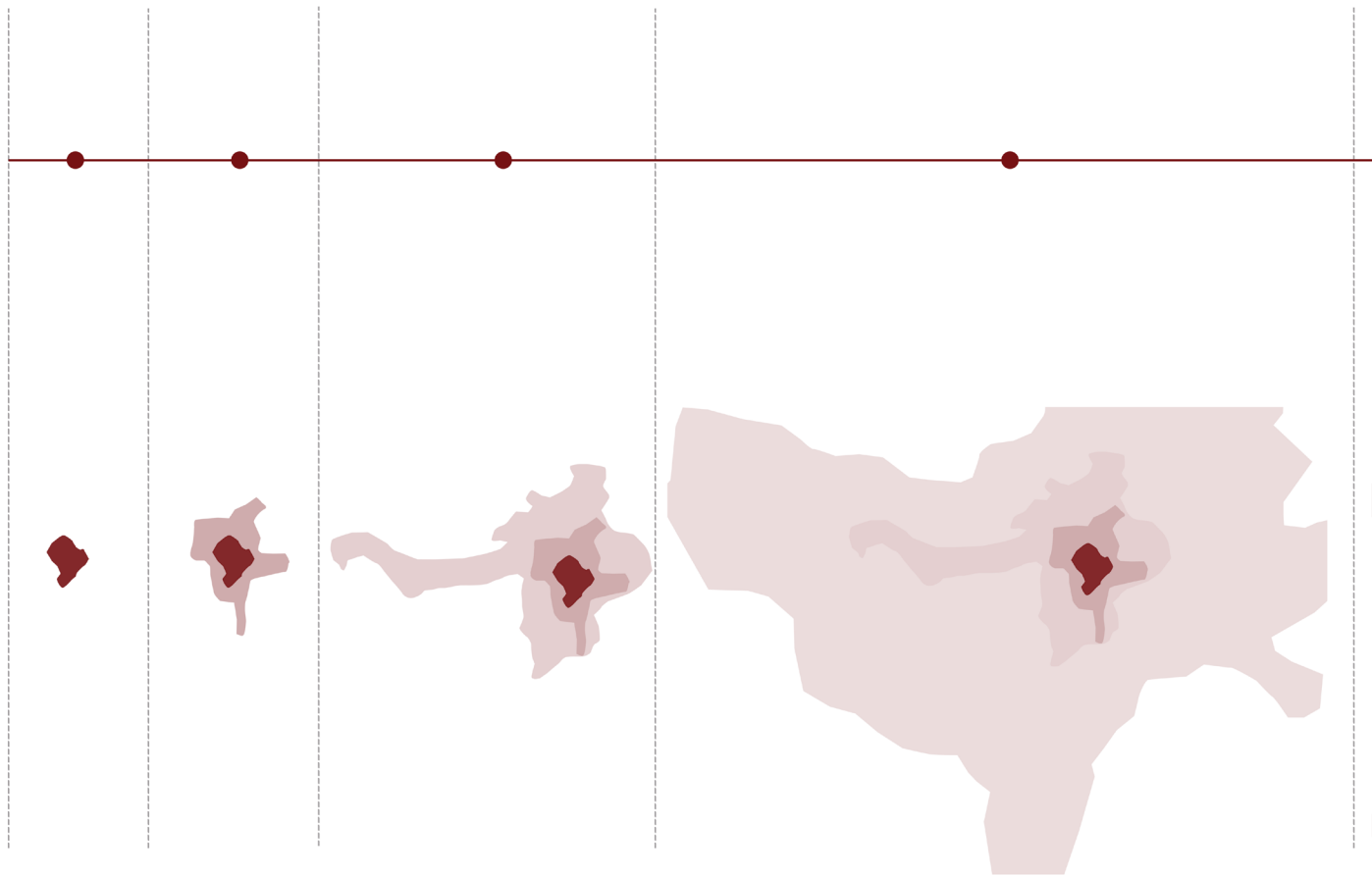


Figure24: Urban development map of Ankara over time. *Ankara'nın Kentsel Gelişimine Haritalarla Bakış* (H. Akdeniz, 1997)



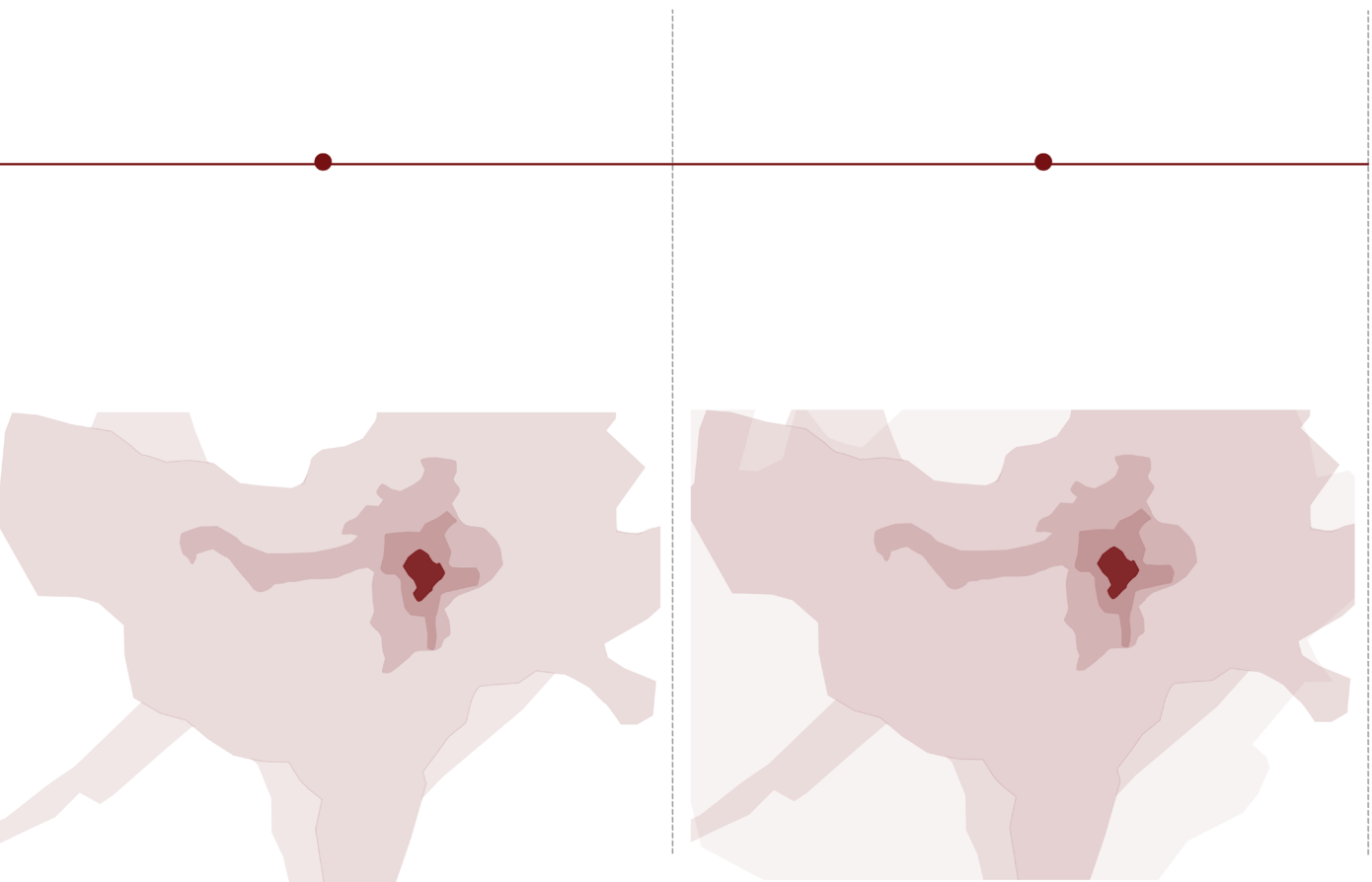


Figure25: Urban development map of Ankara over time. *Produced by author.*

## 4.2. Historical and Architectural Significance of Ulus

With the developments of Ankara, we can understand that Ulus is the oldest urban area of Ankara. Historical and cultural values of the city have been carried out in Ulus. Ulus is where we can see the traces of different periods that shaped the city over time. These include the Roman period, the Ottoman period, the Early Republican era, and later modern interventions. Ulus is not an old city district, but it is the combination of the different urban identities, therefore, it becomes a layered structure of Ankara.

The Roman period forms the earliest visible layer in Ulus. Remains such as the Roman Theater, Roman Baths, and the Temple of Augustus are located close to the historic core. These remains show that Ankara was an important settlement in ancient times. However, many Roman elements are not well connected to today's urban life. They remain isolated within the dense city fabric. This makes them hard to access and hard to read as part of the everyday city. Research on the Roman remains in Ulus shows that these sites are often treated as separate objects instead of being integrated into the surrounding public spaces (Mutlu, 2012). This situation reduces their visibility and weakens their role in shaping the identity of the area.

During the Ottoman period, Ulus developed as a traditional commercial and religious center. The street network, small-scale shops, inns (hans), and religious buildings created a compact and active urban fabric. The Hacı Bayram area is one of the most important examples of this layer. Religious buildings, small public spaces, and everyday trade activities shaped social life in this part of Ulus. This period added a strong social and cultural dimension to the district. The Ottoman layer still plays a role in daily life today, but many traditional functions have weakened due to economic change and physical decay.

The most radical transformation of Ulus took place during the Early Republican period. After Ankara became the capital in 1923, Ulus turned into the main political and administrative center of the new Republic. Public buildings, banks, ministries, and cultural institutions were built to represent the ideals of the new state. Modern architectural language and planning ideas were used to express progress and modernization.

The urban axis along Atatürk Boulevard connected Ulus to other important state buildings and public spaces. This axis became one of the main symbols of Republican urban identity. The importance of this planning and architectural period has been recognized at the international level through Ankara's inclusion on the UNESCO Tentative List for World Heritage as a planned modern capital city (UNESCO, 2023).

The Early Republican housing stock in Ulus also forms an important part of the architectural heritage. Apartment buildings and housing blocks from this period once supported a mixed urban life that included living, working, and social activities in the same area. However, many of these buildings have lost their original function or are underused today. Research on Early Republican housing in Ulus shows that these buildings face problems such as neglect, functional loss, and lack of proper conservation strategies (Genç, 2022). This weakens the continuity of everyday life in the district and affects the social sustainability of the historic center.

Atatürk Boulevard, which passes near Ulus, also carries strong architectural and symbolic value. It represents the main urban spine of the Republican capital and includes many significant public buildings. Studies on the architectural heritage of Atatürk Boulevard show that this corridor is a key element of modern urban identity in Ankara. However, changes in traffic patterns and land use have reduced its role as a civic and social space (Uzgören, 2019). This transformation has also affected Ulus, as the boulevard once supported strong physical and visual connections between the historic core and other parts of the city.

The coexistence of Roman, Ottoman, and Republican layers makes Ulus a unique urban landscape. These layers form a dense cultural environment where different historical periods overlap in a limited area. This richness gives Ulus strong symbolic meaning. It also makes the area an important place for collective memory and national identity. Ulus is not only a collection of old buildings. It is a living archive of Ankara's urban history. Streets, squares, and public buildings together tell the story of the city's transformation.

Despite this strong historical and architectural value, Ulus faces serious challenges today. Many heritage buildings are physically deteriorating. Some are abandoned or used in ways that do not support their long-term preservation. The connection between heritage sites and everyday public life is weak in many parts of the district. Large roads, traffic pressure, and fragmented pedestrian routes reduce accessibility between key heritage areas. This physical fragmentation also affects social life and weakens the sense of continuity between different historical layers.

The fact that parts of Ankara, including the Republican planning axis related to Ulus, are included on the UNESCO Tentative List shows the global importance of this heritage (UNESCO, 2023). However, this recognition alone does not guarantee effective protection. The gap between heritage value and daily urban use remains a major problem. Without integrated conservation and adaptive reuse strategies, the historical and architectural richness of Ulus risks becoming disconnected from contemporary urban life.

In this sense, Ulus should not be seen only as a preserved historic area, but as a living urban environment that needs to adapt to current social, economic, and environmental conditions. The historical and architectural significance of Ulus forms a strong foundation for future transformation. Yet this transformation needs to support everyday use, public life, and accessibility. Only in this way can Ulus continue to function as a meaningful part of Ankara's urban identity.

### 4.3. Morphological & Functional Evolution

The morphological evolution of Ankara reflects the intentional transformation of an Ottoman market town into the planned modern capital of the Republic of Türkiye. Prior to the foundation of the Republic, the city consisted of a dense, narrow-street urban fabric clustered around Ankara Castle and the historic Ulus quarter, shaped through centuries of incremental growth. With the designation of Ankara as the national capital in 1923, stated planning initiatives fundamentally reorganized this fabric. Early plans, beginning with Lörcher's layout and culminating in Hermann Jansen's comprehensive scheme, established a new north-south structural axis that oriented urban expansion away from Ulus toward the southern plateau where administrative and representative functions would be located. This planning paradigm introduced broad boulevards, systematic zoning, and modernist spatial principles that contrasted sharply with the dense and organic morphology of the historic core.

Driven by the new capital's rapid population increase and administrative needs, Ankara's morphology shifted from its traditional center toward emerging districts such as Yenışehir and later Kızılay. The implementation of Jansen's vision along Atatürk Boulevard catalyzed the concentration of governmental, commercial, and public functions along this central corridor, effectively creating a dual-centered urban form in which Ulus maintained its historical significance while Kızılay grew into the principal modern center for commerce and civic life.

This juxtaposition of old and new is clearly visible in land-use patterns and circulation networks: the historic urban fabric of Ulus is characterized by irregular street patterns, small-scale parcels, and mixed uses that emerged over centuries, whereas the modernist expansions of the Republican period introduced orthogonal grids, hierarchical road hierarchies, and public spaces organized around state institutions and parks. Over the latter half of the 20th century and into the present, Ankara's urban form continued to evolve through piecemeal densification, suburban expansion, and infrastructural projects that connected former periphery zones back into the metropolitan core, further diluting the singularity of the traditional center and producing a polycentric metropolitan morphology.

#### 4.4. Ecological and Environmental Context of Ulus

The ecological and environmental context of Ulus is shaped by the interplay between topography, fragmented green structure, and dense historic urban fabric, all of which have been produced through Ankara's long-term urbanization processes. The historical development of Ankara has been characterized by the gradual transformation and reduction of natural and landscape elements, particularly after the mid-twentieth century, when rapid urban growth led to the occupation of valleys, slopes, and open lands that once functioned as ecological continuities within the urban system (Çavdar Sert & Baş Bütüner, 2021). In the Ulus district, this broader landscape transformation is spatially manifested through the isolation of limited green patches and the absence of a continuous green infrastructure network. As we can see on the map, green areas appear as scattered and discontinuous elements embedded within a dense built fabric, limiting their ecological performance and reducing their capacity to contribute to environmental comfort in everyday urban life.

The topographic structure of Ulus further conditions its ecological and spatial performance. The citadel area, located on a steep slope, introduces significant height differences that continue to shape movement patterns, pedestrian accessibility, and spatial continuity within the historic core. These elevation changes function not only as a physical constraint but also as an environmental determinant that influences microclimatic conditions and the experiential quality of public space. Research on urban climate and structural landscape features in Ankara indicates that dense built environments with limited vegetation and complex topography are particularly vulnerable to increased surface temperatures and reduced thermal comfort (Yıldız & Şahin, 2025).



Figure26: Map of Ulus showing the boundaries and terrain of the area. *Produced by author*

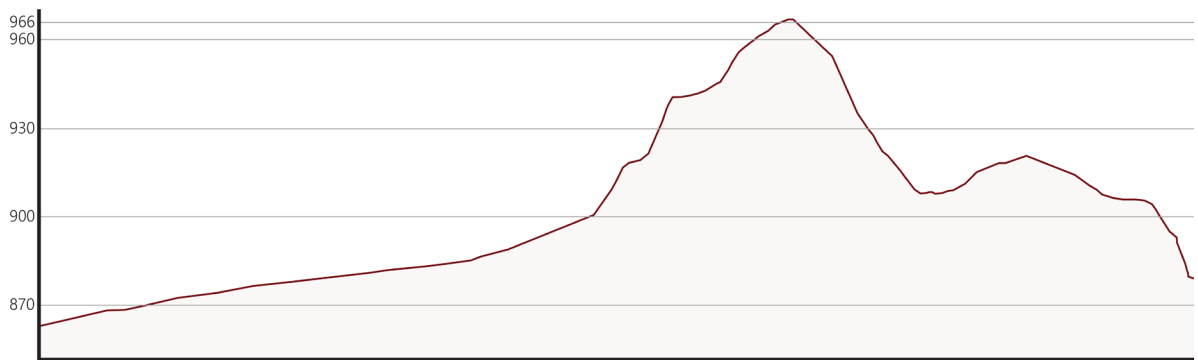


Figure27: Map of Ulus showing the greenery spaces. *Produced by author*

In parallel, the quality and distribution of green spaces in Ankara have historically been shaped by planning approaches that treat open and green areas as residual or secondary elements rather than as integral components of everyday urban life. Studies focusing on urban green spaces in Ankara emphasize that the separation of green areas from daily activity patterns limits both their social use and ecological contribution (Bingöl, 2006). This condition is also observable in Ulus, where existing green spaces are weakly connected to pedestrian networks and heritage nodes, resulting in limited use and low environmental impact. According to this assessment, the current ecological structure of Ulus does not support a continuous relationship between heritage spaces, public life, and environmental performance.

Furthermore, studies on green infrastructure in Ankara emphasize the importance of connecting isolated green patches through linear and networked systems to improve ecological continuity (Duru, Hoş, & Ersoy Tonyaloğlu, 2022). In Ulus, however, such connective structures are largely absent. The merged map analysis indicates that existing green areas remain spatially fragmented and environmentally weak, while topographic constraints further limit the integration of ecological elements into everyday movement routes. According to this combined reading of topography, green fragmentation, and urban density, Ulus' ecological challenges are embedded in its spatial configuration rather than resulting from isolated design shortcomings.

Accordingly, the ecological and environmental context of Ulus functions as a determining layer shaping both present urban experience and future transformation potential. The fragmented green structure, together with steep slopes and dense built form, constrains environmental comfort, pedestrian continuity, and ecological performance in the historic core. At the same time, these conditions reveal latent potentials, as the slope-based morphology and residual green patches offer opportunities for reinterpreting ecological integration within heritage landscapes and informing subsequent design strategies.



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Figure28: Elevation of Ulus emphasizing the height changes of the area. *Produced by author*

## 4.5. Social and Public Life Structure of Ulus

The social and public life structure of Ulus reflects its historical role as Ankara's primary administrative, commercial, and symbolic center, a role that continues to shape the spatial distribution of everyday urban activities. Since the early Republican period, Ulus has accommodated a concentration of public institutions, commercial functions, and symbolic urban spaces, reinforcing its position as a focal point of collective urban life (Tankut, 1993). This historical centrality, however, has gradually evolved into a spatially uneven pattern of public life, in which social and public functions are clustered in specific areas while surrounding residential neighborhoods remain weakly integrated into daily public activity networks. As observed through the distribution of social functions, commercial uses, and institutional buildings, public life in Ulus is primarily concentrated around key nodes and corridors, producing localized intensity rather than a continuous public space system.

The distribution of mobility infrastructure further reinforces this fragmented pattern of public life. The concentration of bus stops and transport-related functions along specific corridors increases accessibility to certain nodes while leaving other areas relatively disconnected from the everyday movement network. These uneven accessibility shapes where public life can emerge and persist, as areas with limited public transport access tend to attract fewer everyday users and remain socially under activated. According to urban public life theory, the intensity and continuity of social interaction in public spaces are closely linked to accessibility, walkability, and the presence of mixed-use environments (Gehl, 2011). In Ulus, the spatial imbalance in transport accessibility contributes to the uneven distribution of public activity across the historic core.



Figure29: Map of Ulus with the traffic routes and bus stops. *Produced by author*

Furthermore, the presence of underused buildings and mono-functional areas within the historic center limits the diversity of everyday urban life. Central areas dominated by single-use commercial or institutional functions tend to lose vitality outside working hours, reducing opportunities for continuous public life throughout the day. As noted in studies on urbanization and functional centralization in Turkish cities, the concentration of services and public functions in limited zones often weakens social continuity and inclusive access to urban spaces (Tekeli, 2010). According to this analysis, Ulus' social and public life structure is characterized by a strong but spatially concentrated public realm, alongside extensive areas with limited access to active public spaces. This reading highlights that the current distribution of social functions, mobility nodes, and public institutions shapes a fragmented pattern of everyday public life, revealing the need to reconsider how social activity, accessibility, and functional diversity can be more evenly distributed within the historic urban fabric.

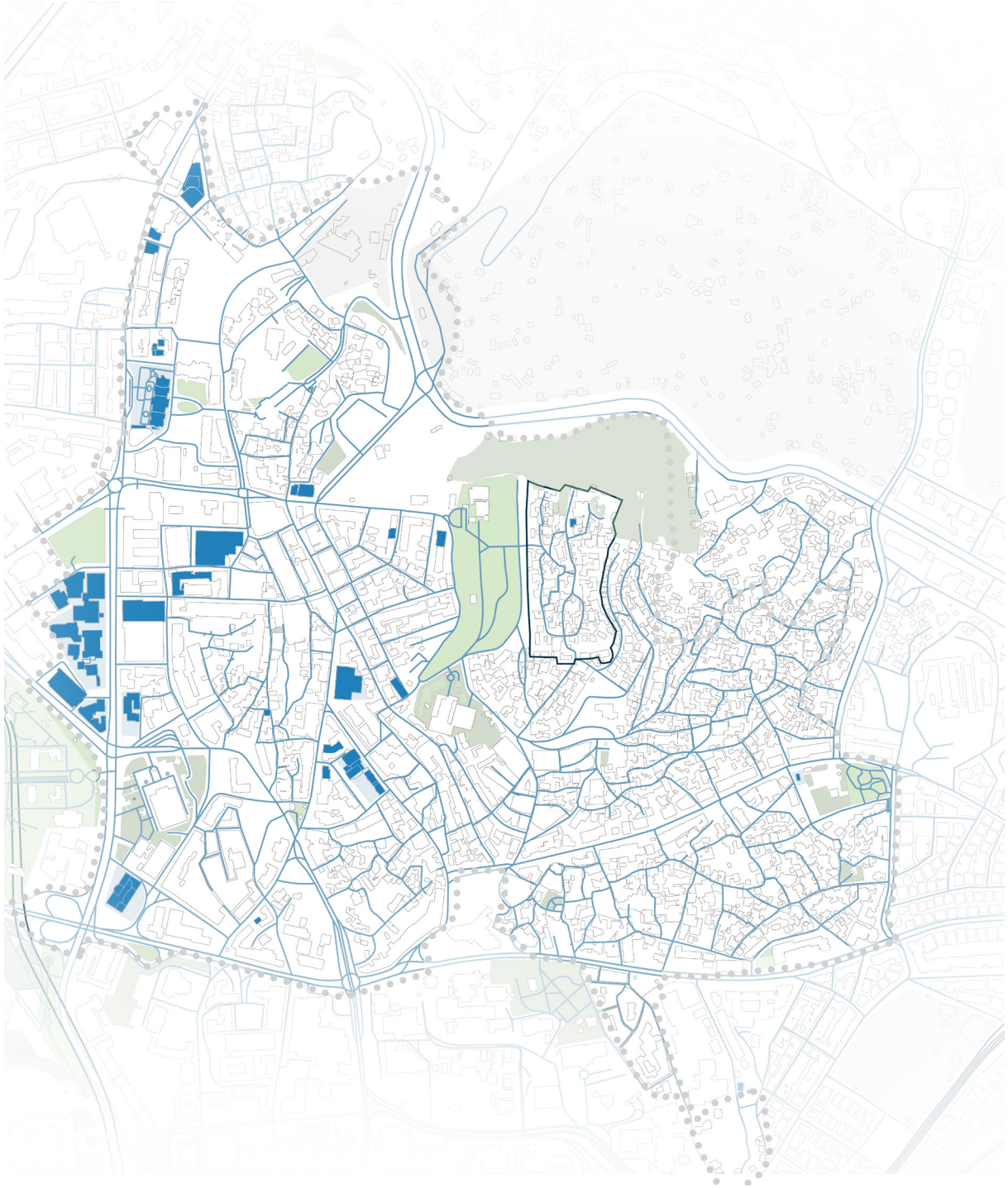


Figure30: Map of Ulus showing governmental buildings. *Produced by author*



Figure31: Map of Ulus showing the hospitals. *Produced by author*

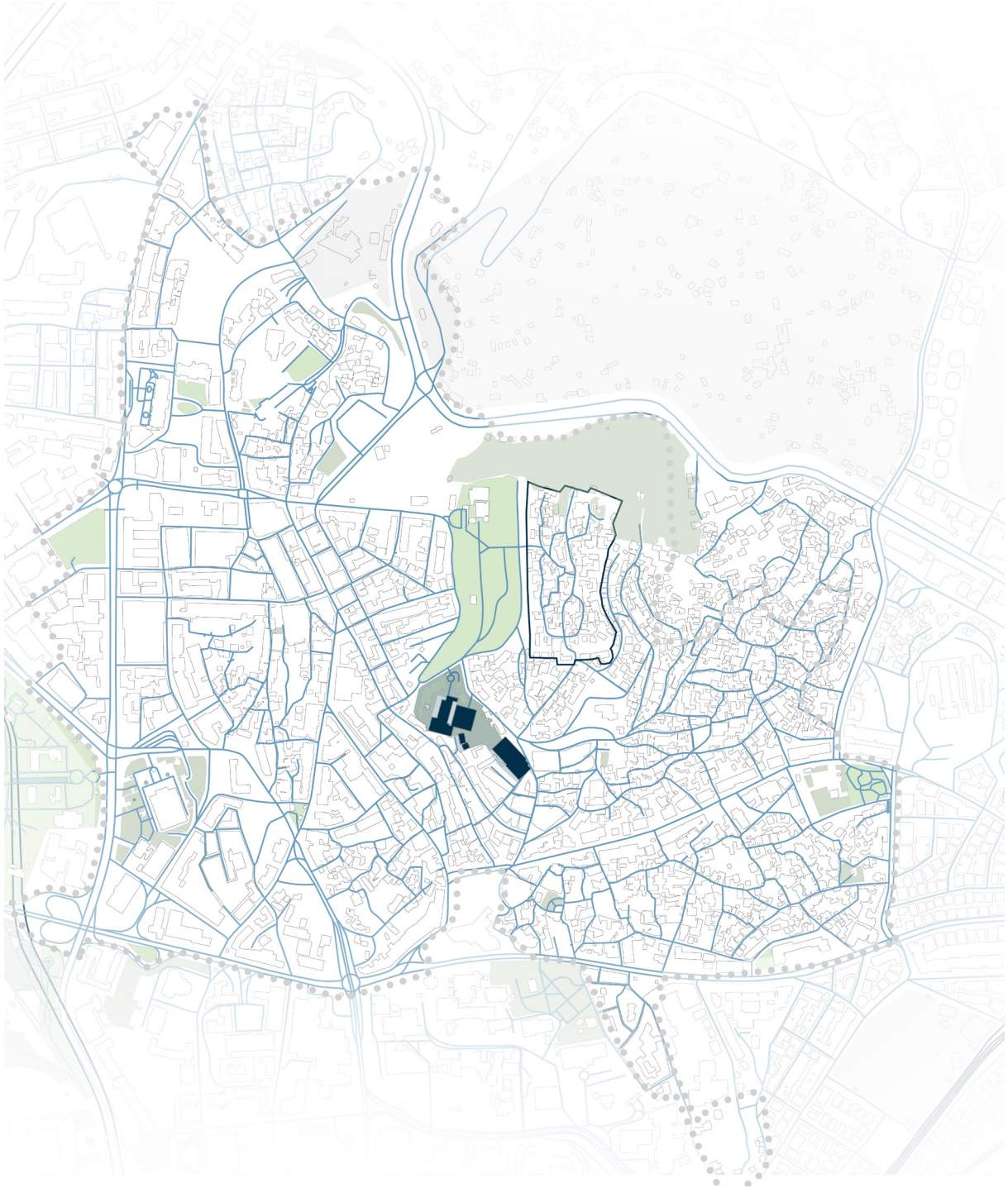


Figure32: Map of Ulus showing the museum. *Produced by author*



Figure33: Map of Ulus showing the educational buildings. *Produced by author*



Figure34: Map of Ulus showing the religious buildings. *Produced by author*

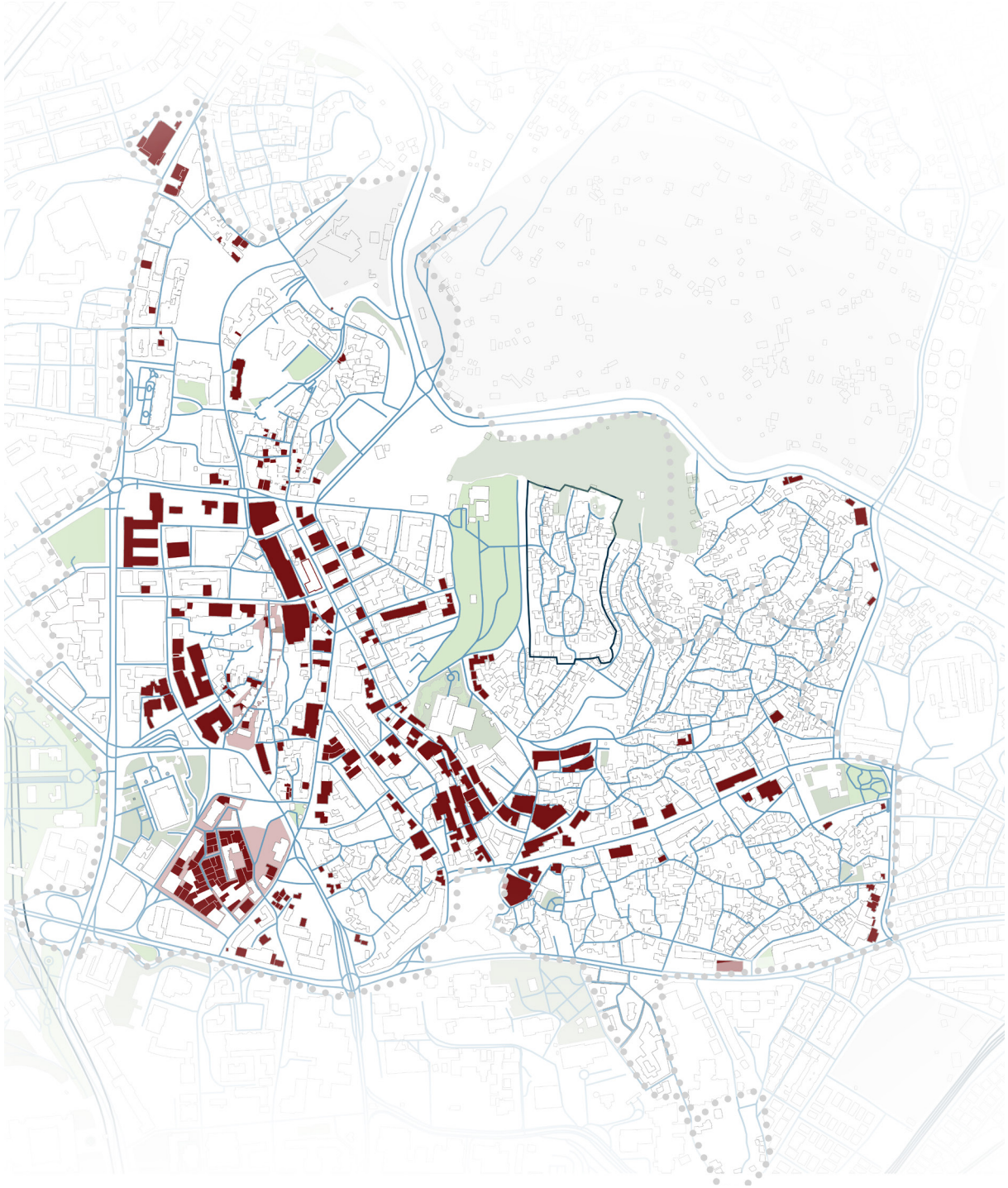


Figure35: Map of Ulus showing the commercial buildings. *Produced by author*

## 4.6. Heritage Structure and Risk Areas in Ulus

The heritage structure of Ulus is characterized by the coexistence of two distinct yet interconnected historical layers: the traditional historic core centered around the Citadel and its surrounding organic urban fabric, and the early Republican modern heritage associated with Atatürk Boulevard and the institutional axis extending toward Yenışehir. These two layers represent different periods of urban formation and embody contrasting spatial, architectural, and ideological values. The historic core reflects pre-Republican urban morphology with narrow streets, dense parcel patterns, and vernacular building typologies, while the Republican layer introduces a modernist planning logic defined by axiality, monumentality, and institutional representation (Tankut, 1993). The spatial relationship between these two heritage layers remains fragmented, with limited physical and functional continuity between the historic fabric of Ulus and the modern heritage corridor of Atatürk Boulevard.

The early Republican heritage along Atatürk Boulevard has gained international recognition through its inclusion in Turkey's UNESCO Tentative List, highlighting its significance as part of the nation-building process and the modernization of Ankara as a capital city. This axis embodies the symbolic and institutional transformation of the city through modern public buildings, representative spaces, and a new urban image of the Republic (UNESCO, 2023). However, despite this recognition, the spatial and functional integration of this heritage layer with the historic core of Ulus remains weak. The two layers operate as parallel heritage territories rather than as components of a coherent heritage network, limiting the potential for a continuous cultural landscape that connects different periods of Ankara's urban history.

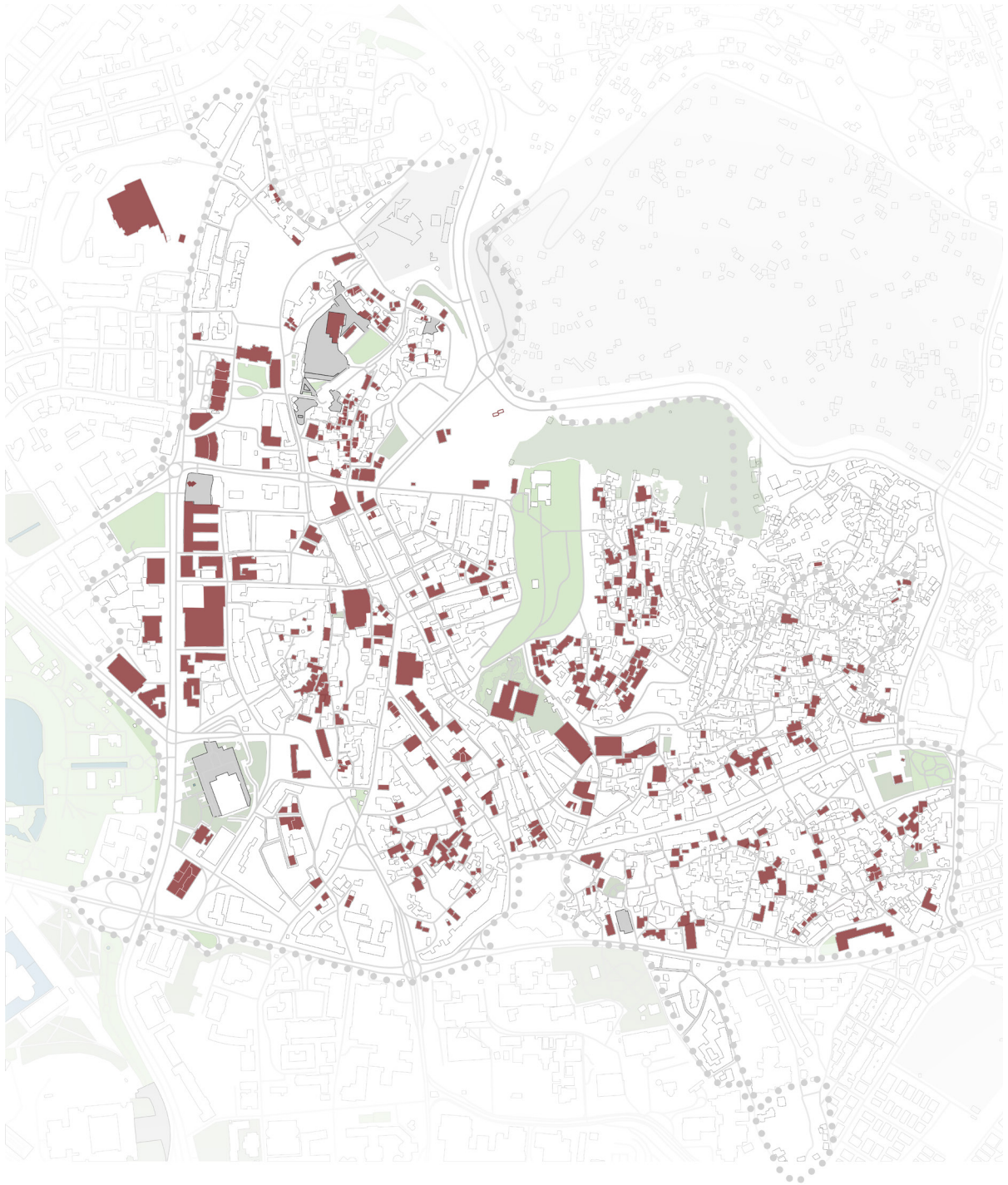


Figure36: Map of Ulus showing the tentative list buildings. *Produced by author*

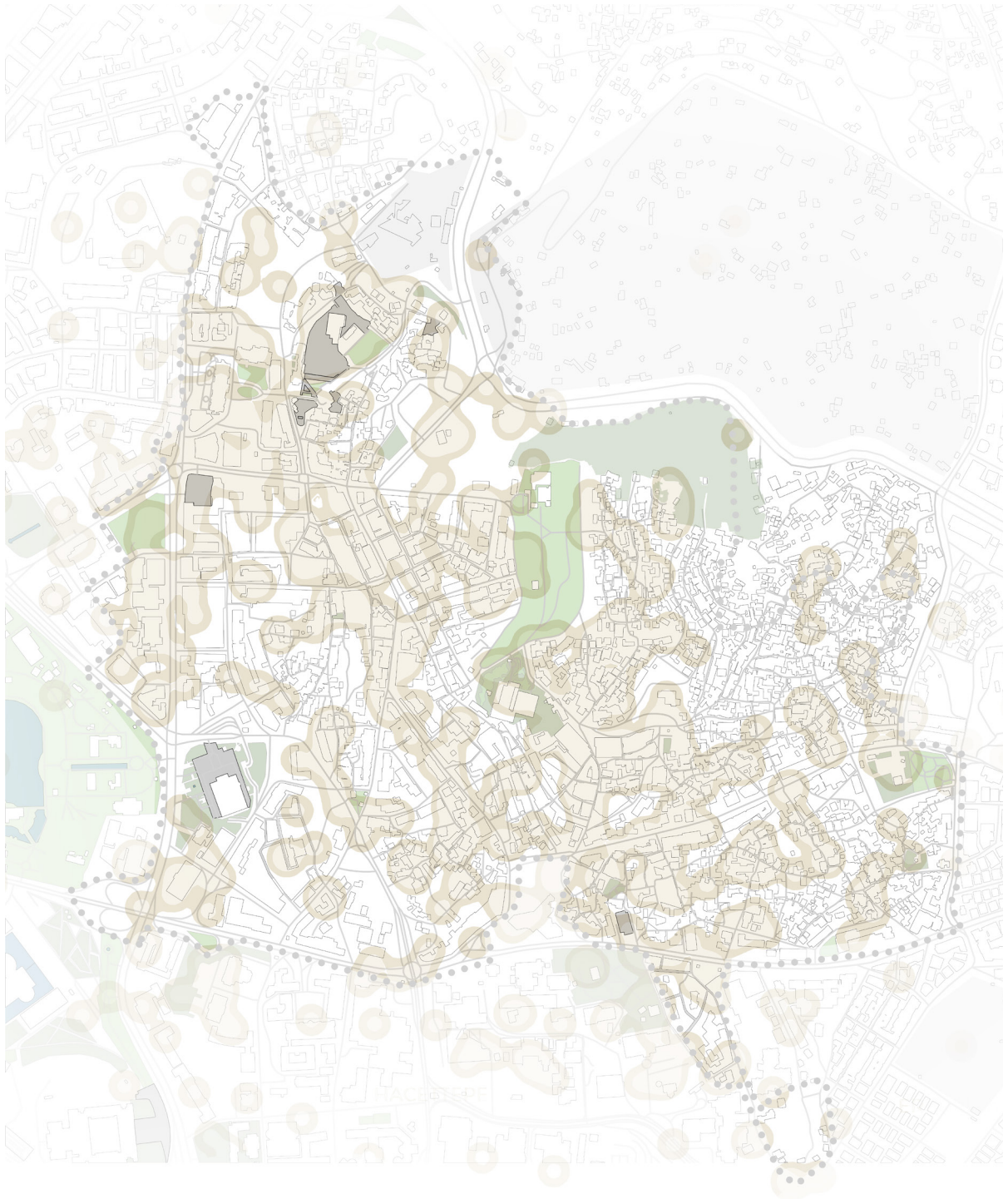


Figure37: Map of Uluç showing the heritage area. *Produced by author*

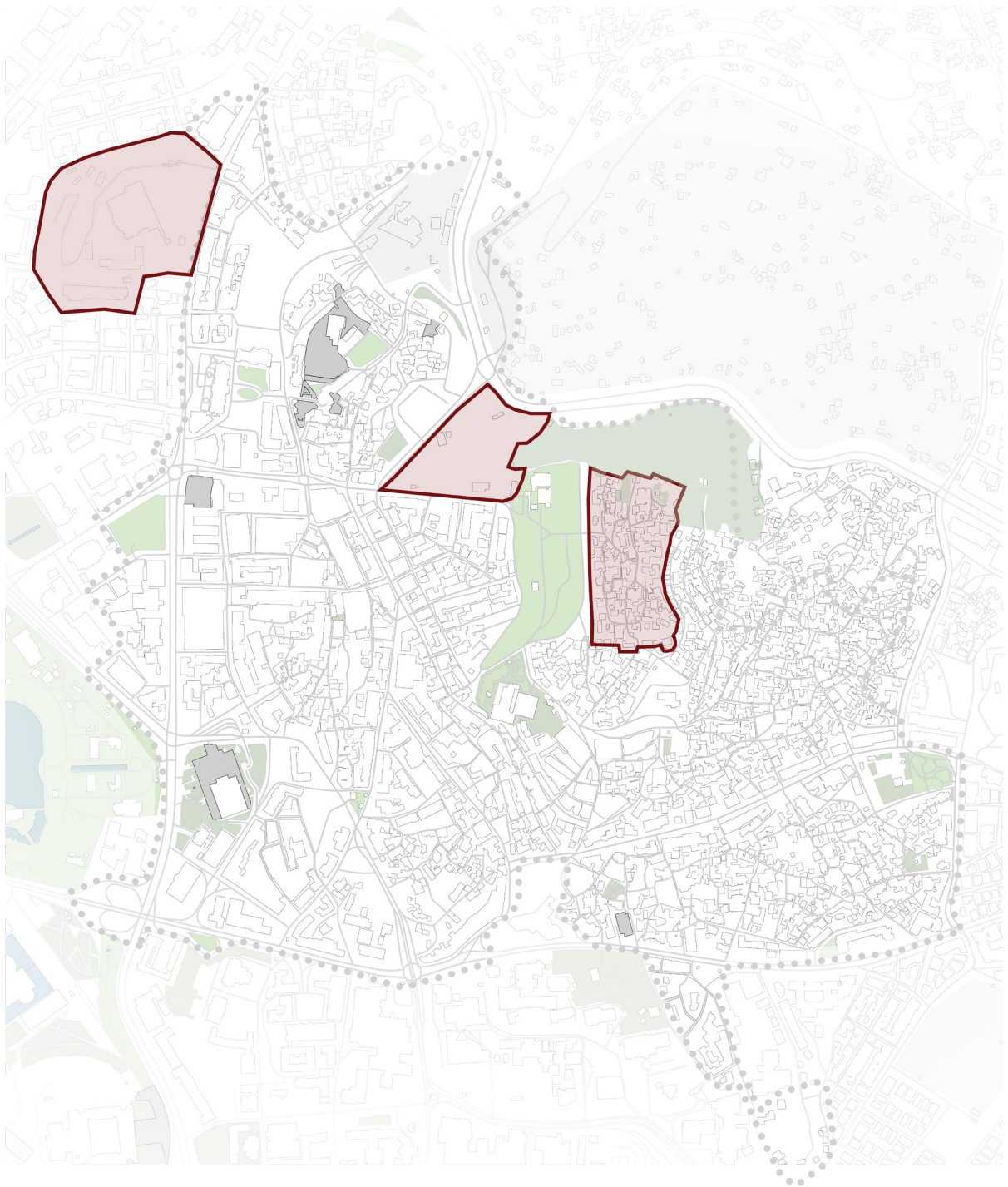
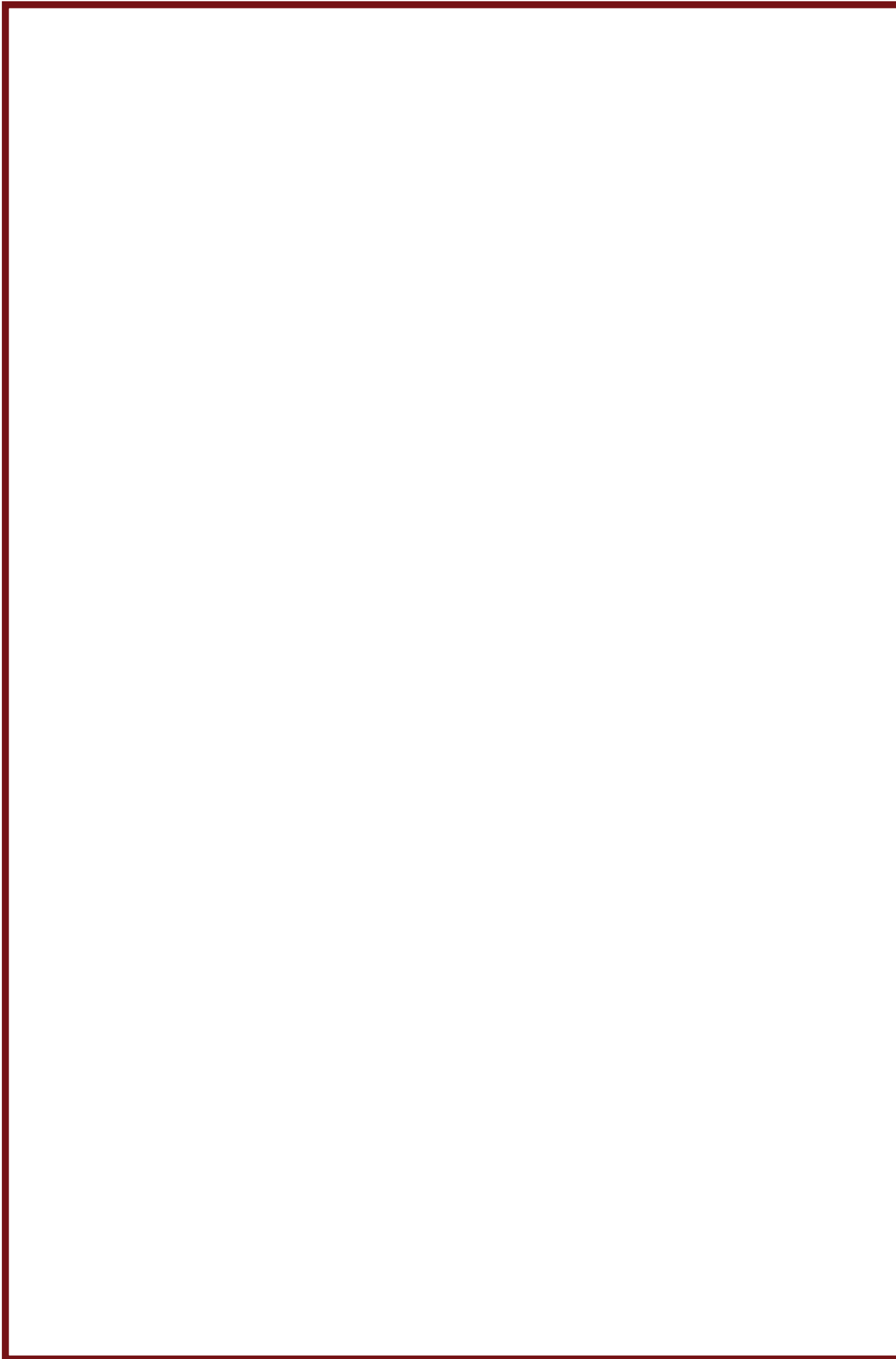


Figure38: Map of Ulus showing the zones of heritage. *Produced by author*

Within the historic core of Ulus, the concentration of registered heritage buildings co-exists with a large stock of underused, vacant, or functionally obsolete structures. These buildings, while physically embedded within the heritage fabric, are increasingly exposed to processes of neglect, functional abandonment, and redevelopment pressure. Studies on heritage conservation in Turkey emphasize that unused historic buildings are among the most vulnerable elements of urban heritage, as functional loss accelerates physical deterioration and increases the likelihood of demolition or inappropriate transformation (Madran & Özgönül, 2005). In Ulus, this condition is further intensified by socio-economic decline, decreasing residential population, and the shift of commercial and administrative activities toward other urban centers.

Accordingly, the heritage structure of Ulus can be understood as a layered but disconnected system, in which the historic core and the Republican modern heritage axis coexist without strong spatial or functional integration. The presence of underused and at-risk buildings within both layers reveals the fragility of heritage continuity in the face of ongoing urban transformation. This reading highlights that heritage in Ulus is not only a matter of preserving individual monuments but of addressing the systemic conditions that weaken the everyday integration of heritage into urban life. The interpretation of heritage layers and risk areas thus provides a critical foundation for subsequent design strategies, particularly in relation to adaptive reuse, spatial reconnection between heritage zones, and the activation of underused historic structures within the broader urban fabric.





# 05

## Urban Resilience Assessment of Ulus and Case Studies

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This chapter moves from contextual description to analytical evaluation. The six pillars of urban resilience are applied as an assessment framework to interpret the layered analyses of Ulus. The chapter identifies spatial vulnerabilities and potentials and extracts design criteria through comparative case studies.

## 5.1 Methodological Framework

This chapter presents the methodological framework used to evaluate the urban resilience of Ulus and to guide the development of design strategies. The methodology is grounded in the six pillars of urban resilience discussed in Chapter 3. These pillars are not used as abstract concepts, but as operational tools that allow the urban condition of Ulus to be read, interpreted, and translated into spatial strategies. In this study, resilience is understood as a dynamic quality of the urban system. It is shaped by social practices, spatial relations, environmental conditions, and historical continuity, and it evolves over time.

The methodological approach is based on a multi-layered and multi-scalar reading of the historic center. Ulus is approached as a complex urban system in which ecological conditions, public life, mobility patterns, economic activities, and heritage structures interact with each other. Rather than isolating these components, the framework emphasizes their interdependence. Urban problems in Ulus are often the result of overlapping conditions, such as fragmented mobility networks affecting public life, or functional decline of heritage buildings influencing economic vitality. Therefore, the methodology is designed to capture relations between different urban components instead of evaluating them separately.

The six pillars of urban resilience function as analytical lenses that structure the interpretation of the findings. Each pillar highlights a specific dimension of resilience, such as social cohesion, ecological integration, economic adaptability, spatial and infrastructural flexibility, governance processes, and identity continuity. The framework allows the identification of areas where certain resilience dimensions appear relatively strong, as well as areas where vulnerabilities and weaknesses are concentrated. In this sense, resilience is not treated as a general quality of Ulus as a whole, but as an uneven and spatially differentiated condition across the historic center.

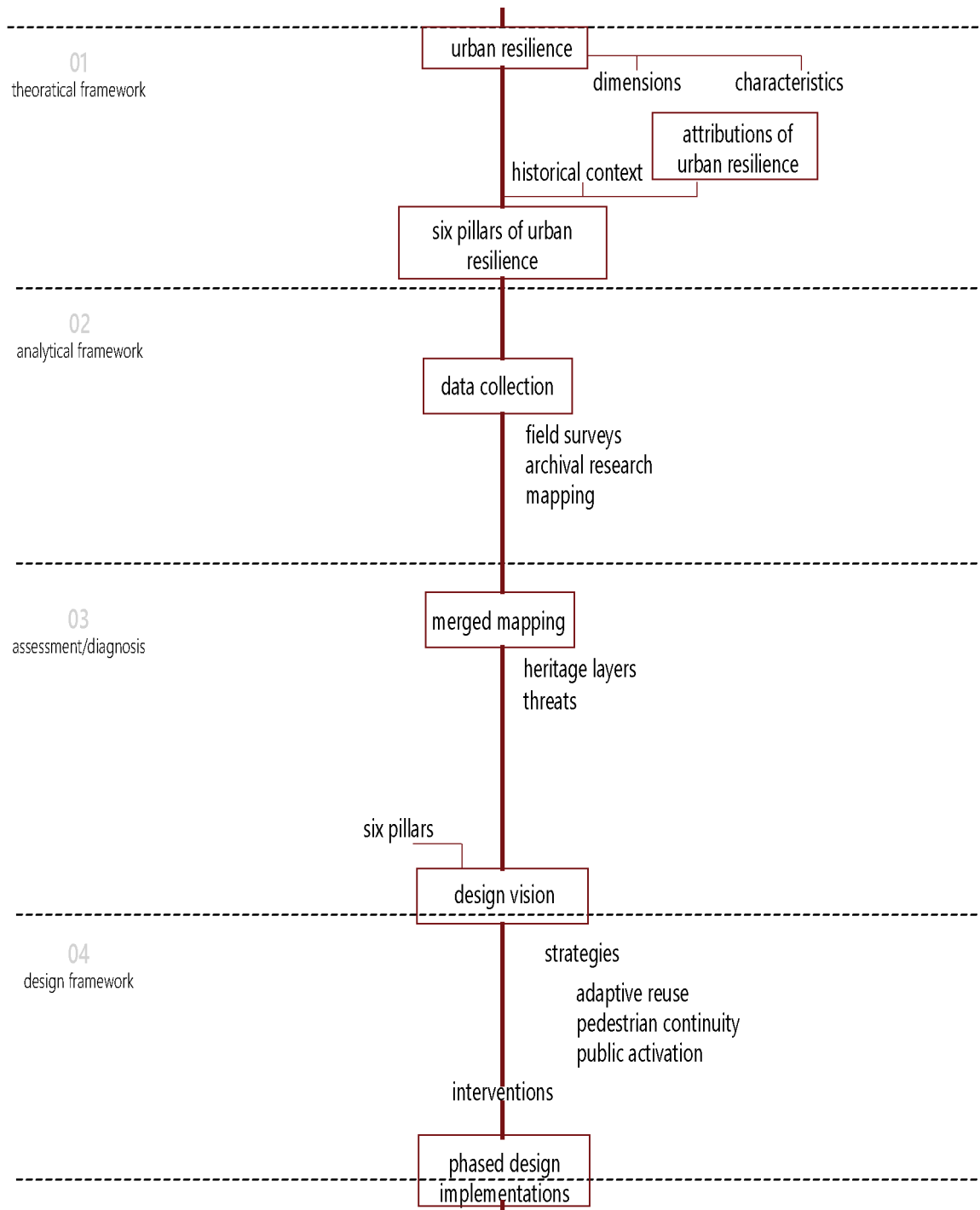


Figure39: Methodological diagram of thesis. *Produced by author*

Another key aspect of the methodology is its problem-oriented character. The framework does not start with predefined solutions or design proposals. Instead, it begins with the identification of existing urban problems and potential. These problems are then interpreted through the six pillars in order to understand their structural causes and their implications for long-term resilience. This approach allows design strategies to emerge from the specific conditions of Ulus rather than from generic urban design models.

Time is considered an integral part of the methodological framework. Urban resilience is understood as a process that develops gradually and requires continuous adaptation. Many of the problems observed in Ulus are interconnected and cannot be solved through single and immediate interventions. For this reason, the methodology supports a phased approach that considers short-term, medium-term, and long-term transformations. The six pillars are therefore not only used to assess the present condition of Ulus, but also to guide the formulation of strategies that can evolve over time and respond to changing urban dynamics.

The methodological framework established in this section provides the basis for the analytical chapters that follow. The identification of problems and potential, the interpretation of resilience dimensions, and the spatial synthesis of findings are all structured according to this framework. In later stages, this approach enables the translation of system-scale observations into area-based strategies and, finally, into a design framework that aims to strengthen the overall resilience of Ulus as an integrated urban system.

## 5.2 Layered Spatial Analysis of Ulus

This section presents the main urban problems and potentials identified in Ulus based on the analytical readings developed. The aim of this section is to move from descriptive urban context toward a more critical understanding of the structural challenges affecting the historic center. Ulus is approached as a layered and complex urban environment in which physical form, social life, economic activity, mobility patterns, and heritage structures interact with each other. The problems discussed in this section do not emerge in isolation but are often interconnected and mutually reinforcing.

One of the major problems observed in Ulus is the fragmentation of pedestrian continuity. Wide roads, traffic-dominated spaces, and weak pedestrian links interrupt the spatial coherence of the historic center. This condition limits the accessibility between different parts of Ulus and weakens everyday urban movement. As a result, public spaces function as isolated points rather than as parts of a continuous public realm. This fragmentation affects not only mobility, but also social interaction, visibility of heritage areas, and the overall perception of the historic center as a connected urban environment.

Another important issue is the decline in the quality and continuity of public life. Although Ulus still contains active nodes and areas of concentration related to commerce, religious functions, and traditional markets, everyday public use remains unevenly distributed. Many spaces are active only during certain hours of the day and remain underused at other times. The lack of diverse functions and the dominance of single-purpose uses reduce the intensity of daily urban life. This situation weakens the social resilience of the historic center and contributes to the gradual loss of its role as a living urban environment.

Ecological fragmentation represents another structural problem in Ulus. Open and green spaces are limited in number and are not well connected to each other. Hard surfaces dominate the public realm, and opportunities for environmental continuity are weak. This condition reduces the ecological capacity of the historic center and limits the comfort of public spaces, especially in relation to climate conditions. Also, the presence of small open areas, residual spaces, and underused plots indicates potential for creating a more continuous ecological network if these elements are reconnected through spatial strategies.



Figure40: Map of Ulus with the problematic areas to be highlighted. *Produced by author*



Figure41: Map of Ulus showing the separated greenery spaces. *Produced by author*

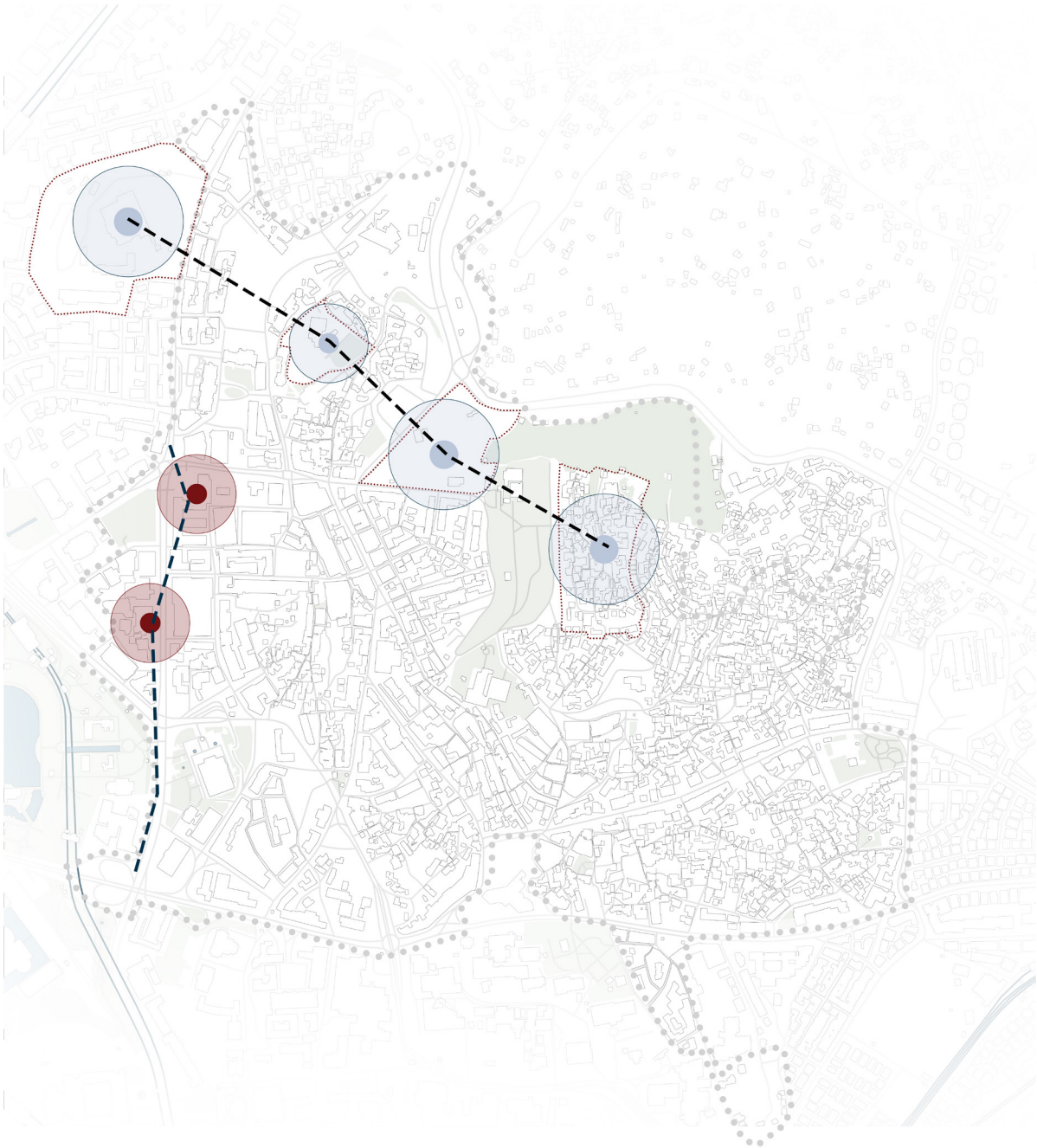


Figure42: Map of Ulus of connected heritage routes of the area. *Produced by author*

The functional decline of heritage structures constitutes a further challenge. Ulus contains a dense and multi-layered historical fabric, yet many historic buildings are underused, abandoned, or functionally disconnected from contemporary urban life. In several cases, heritage structures remain physically present but socially detached from everyday practices. This weakens the continuity between the historical identity of Ulus and its present-day use. The lack of adaptive reuse strategies limits the contribution of heritage to economic vitality and to the activation of public space.

In addition to these spatial and functional problems, Ulus is affected by broader urban pressures related to car-oriented development and renewal dynamics. The dominance of vehicular infrastructure reduces the quality of public space and weakens pedestrian-oriented urban life. At the same time, renewal pressures risk transforming the historic fabric through interventions that may not adequately respond to local social and cultural conditions. These pressures create uncertainty regarding the future role of Ulus within the larger urban structure of Ankara.

Despite these challenges, Ulus also contains significant potential. The concentration of heritage assets provides a strong base for identity-oriented regeneration. The presence of active urban nodes offers opportunities for strengthening public life through spatial continuity. The existing street network, although fragmented, provides a structural framework that can be reactivated through pedestrian-oriented strategies. Similarly, underused spaces and buildings present opportunities for adaptive reuse and functional diversification. This potential indicates that Ulus retains the capacity to be reactivated as a living historic center rather than functioning only as a symbolic or touristic area.

## 5.3 Urban Resilience Assessment of Ulus Based on the Six Pillars

This section interprets the urban problems and potentials identified in Ulus through the six pillars of urban resilience: Identity and Heritage Continuity, Inclusive Governance and Community Participation, Infrastructure and Spatial Adaptability, Social Cohesion and Cultural Capacity, Ecological–Heritage Integration, and Economic Vitality and Adaptive Reuse. The aim is to understand how different resilience dimensions operate within the historic center and how they interact with each other. Rather than presenting Ulus as either resilient or vulnerable, this section highlights the uneven and layered nature of resilience across the area.

### 5.3.1 Identity and Heritage Continuity

Ulus represents a multi-layered historic environment shaped by different periods of urban development. The presence of heritage buildings, historic routes, and symbolic spaces provides a strong base for identity formation and collective memory. However, the continuity between past and present is weakened by spatial fragmentation and functional decline. Many heritage structures remain physically present but are not fully integrated into everyday urban life. Historical layers are often not legible within daily movement patterns, and connections between heritage sites are interrupted by traffic-dominated spaces.

This condition affects how users experience Ulus as a historic environment. When heritage is not part of daily routines, it risks becoming a background element rather than an active component of urban life. Identity and heritage continuity are therefore challenged by both spatial and functional disconnections. Strengthening this pillar requires not only the preservation of buildings, but also the reintegration of heritage into everyday public life through spatial continuity, accessibility, and active use. This pillar is closely linked to Infrastructure and Spatial Adaptability, as pedestrian continuity plays a key role in making heritage visible and accessible, and to Economic Vitality and Adaptive Reuse, as functional activation supports the lived presence of heritage.

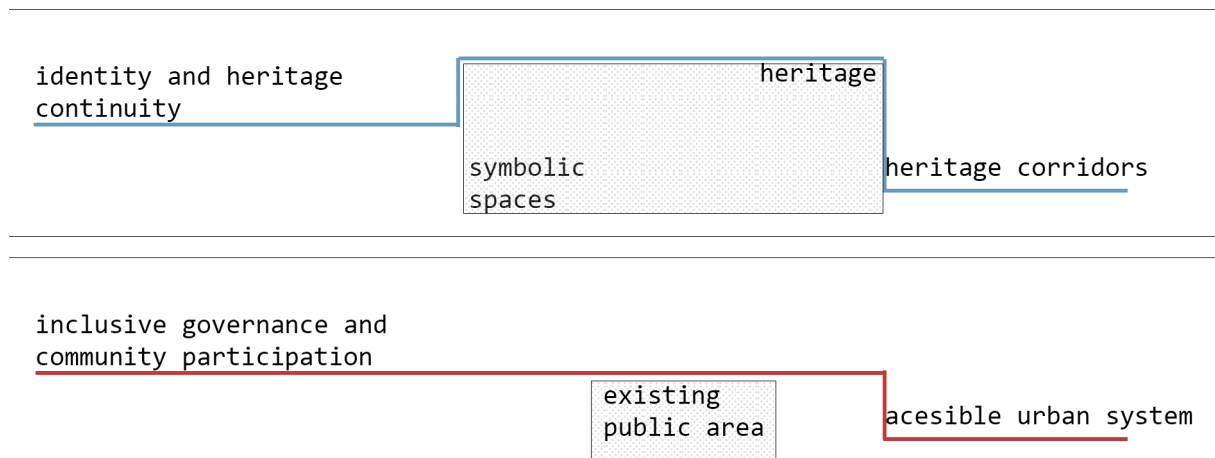


Figure43: Diagram of system on the six pillars of identity and heritage continuity. *Produced by author*

Figure44: Diagram of system on the six pillars of inclusive governance and community participation. *Produced by author*

### 5.3.2 Inclusive Governance and Community Participation

The governance dimension of resilience relates to how urban change is managed and who participates in decision-making processes. In the context of Ulus, renewal dynamics and planning approaches often follow top-down models. This limits the involvement of local users and small-scale actors in shaping the future of their environment. The lack of inclusive participation weakens social attachment and reduces the capacity of interventions to respond to everyday needs.

When communities are not part of the transformation process, spatial interventions risk becoming disconnected from local practices. This condition can lead to the loss of social diversity and the weakening of cultural continuity. Inclusive governance is therefore essential for supporting long-term resilience. It influences how adaptive reuse strategies are implemented, how public spaces are programmed, and how heritage values are interpreted. This pillar is closely related to Social Cohesion and Cultural Capacity, as participation supports social ownership of space, and to Economic Vitality and Adaptive Reuse, as local actors play an important role in sustaining everyday economic activity within the historic center.

### **5.3.3 Infrastructure and Spatial Adaptability**

Infrastructure and spatial adaptability refer to the capacity of the urban structure to support flexible movement, access, and changing patterns of use. In Ulus, car-oriented infrastructure creates strong spatial barriers that fragment pedestrian continuity. Wide roads and traffic-dominated spaces interrupt the historic street network and weaken the legibility of spatial relations within the historic center. This condition limits the ability of Ulus to function as a connected and walkable environment.

The fragmentation of pedestrian routes affects several resilience dimensions at once. It reduces access to public spaces, weakens social interaction, limits the visibility of heritage areas, and constrains local economic activity. In this sense, infrastructural rigidity represents one of the key structural weaknesses of Ulus. However, the existing urban fabric retains strong potential for spatial adaptability. The historic scale of streets and blocks supports walkability, and the street network provides a base for re-establishing continuity. Rebalancing the relationship between vehicular movement and pedestrian use is therefore a critical step toward strengthening multiple resilience pillars simultaneously.

### **5.3.4 Social Cohesion and Cultural Capacity**

Social cohesion and cultural capacity refer to the ability of urban space to support everyday social interaction, cultural practices, and shared use. In Ulus, social life remains present but unevenly distributed. Certain nodes related to commerce, religious functions, and traditional markets continue to attract daily users. These areas function as social anchors within the historic center. However, many public spaces remain underused and function mainly as transition areas rather than places of gathering and staying.

The lack of continuous and diverse public spaces weakens the everyday social role of Ulus. Limited functional diversity and temporal variation reduce the presence of different user groups throughout the day. This condition affects the cultural capacity of the historic center and weakens its role as a living urban environment. Social cohesion is strongly linked to Infrastructure and Spatial Adaptability, as spatial continuity supports access and interaction. It is also related to Identity and Heritage Continuity, as shared use of heritage spaces strengthens collective memory and attachment to place.

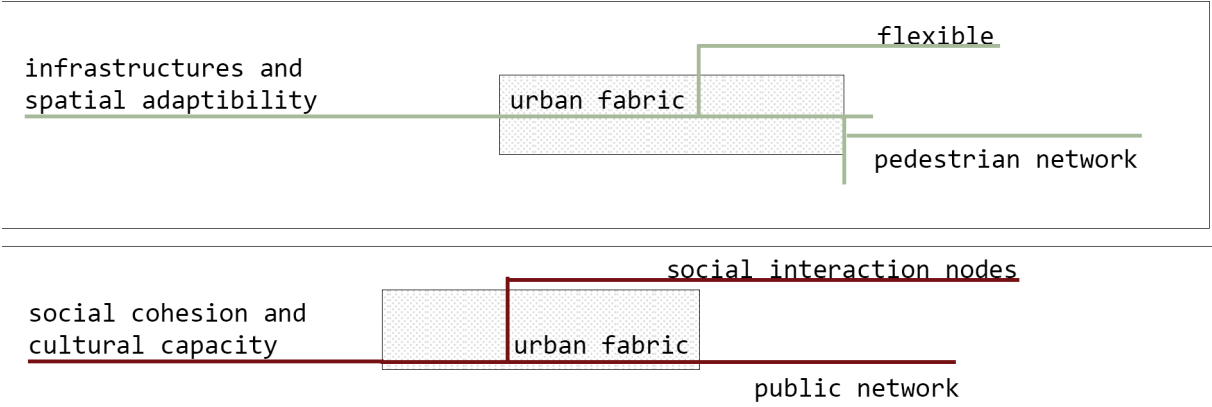


Figure45: Diagram of system on the six pillars of infrastructure and spatial adaptability. *Produced by author*  
 Figure46: Diagram of system on the six pillars of social cohesion and cultural capacity. *Produced by author*

### 5.3.5 Ecological–Heritage Integration

The ecological–heritage integration pillar refers to the relationship between natural elements, open spaces, and the historic urban fabric. In Ulus, ecological structures are fragmented and weakly connected. Green areas are limited and often isolated from pedestrian routes and public spaces. Hard surfaces dominate the public realm, reducing environmental comfort and limiting the use of outdoor spaces. This condition weakens both ecological resilience and the everyday usability of public space.

The separation between ecological elements and heritage spaces also reduces the experiential quality of the historic environment. Historic courtyards, small open spaces, and residual areas have lost their connection to broader ecological systems. However, these spaces provide a latent potential for reintegration. Strengthening ecological–heritage integration can improve microclimatic comfort; support longer stays in public spaces and enhance the experiential continuity of heritage areas. This pillar is closely linked to Social Cohesion and Cultural Capacity, as comfortable public spaces support social life, and to Infrastructure and Spatial Adaptability, as streets and open spaces can function as ecological connectors.

### 5.3.6. Economic Vitality and Adaptive Reuse

Economic vitality and adaptive reuse relate to the ability of the historic center to sustain local economic activity and to adapt existing building stock to changing needs. In Ulus, economic activity remains present but is concentrated in specific areas and often limited to traditional commercial functions. Many heritage buildings remain underused or mono-functional, limiting their contribution to everyday urban life. This condition weakens both economic resilience and the activation of public spaces.

Adaptive reuse represents a key opportunity to strengthen economic vitality while maintaining heritage continuity. By introducing mixed uses and new functions into historic structures, underused buildings can become active components of daily life. Economic vitality is closely related to Infrastructure and Spatial Adaptability, as accessible and walkable environments support local businesses, and to Inclusive Governance and Community Participation, as local actors play a central role in sustaining small-scale economic activity. Strengthening this pillar therefore requires both spatial strategies and supportive governance frameworks.

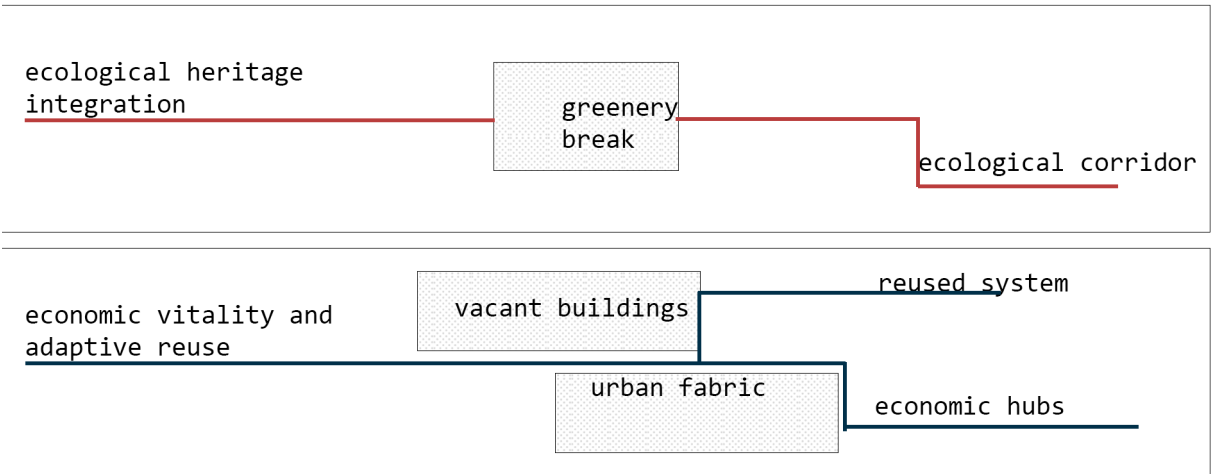


Figure47: Diagram of system on the six pillars of ecological-heritage integration. *Produced by author*  
 Figure48: Diagram of system on the six pillars of economic vitality and adaptive reuse. *Produced by author*

Six Pillars	Design Vision Objective	Spatial Strategy
<b>Identity &amp; Heritage Continuity</b>	Strengthen visibility, legibility, and continuity of historic urban identity	Establish heritage visibility corridors and interpretive spatial framework
<b>Ecological–Spatial Integration</b>	Improve environmental comfort and ecological continuity within dense historic fabric	Establish ecological corridors and microclimate regulation systems
<b>Social Cohesion &amp; Cultural Capacity</b>	Strengthen public life and social interaction in historic urban spaces	Create continuous public space network and social interaction nodes
<b>Economic Vitality &amp; Adaptive Reuse</b>	Revitalize local economy and support economic adaptability	Establish local economic activation corridors and productive urban spaces
<b>Infrastructure &amp; Spatial Adaptability</b>	Improve spatial continuity, accessibility, and adaptability of urban fabric	Establish pedestrian priority network and flexible urban spaces
<b>Inclusive Governance &amp; Participation</b>	Promote inclusive and accessible urban environments	Create accessible and inclusive public space systems

Table5: Six pillars to design strategies. *Produced by author*

## 5.4 Area-Based Assessment: Selected Focus Areas in Ulus

This section presents a spatial synthesis of the findings derived from the resilience-based interpretation of Ulus. The aim is to move from a system-scale understanding toward the identification of strategic areas where multiple resilience challenges and potentials overlap. Rather than selecting intervention areas based on isolated problems, the synthesis focuses on zones where different resilience dimensions intersect and where spatial interventions can generate broader systemic effects.

The merged analytical map brings together key findings related to pedestrian continuity, public space distribution, ecological fragmentation, heritage concentration, and functional decline. This synthesis reveals patterns of spatial disconnection, areas of concentrated vulnerability, and zones of latent potential. Certain parts of Ulus emerge as critical nodes where weaknesses in infrastructure, social life, ecological continuity, and heritage integration overlap. These nodes also coincide with areas of high symbolic value and everyday urban use, indicating their strategic importance for the overall functioning of the historic center.

The selection of strategic focus areas is therefore based on three main criteria. First, areas are selected where multiple resilience dimensions appear weak and where interventions could address more than one problem at the same time. Second, areas with strong heritage value and public visibility are prioritized, as interventions in these locations can have a broader impact on the perception and use of Ulus. Third, areas that function as spatial connectors within the historic center are emphasized, as strengthening these connections can support the formation of an integrated urban system.

The merged map allows the identification of spatial relations between problem zones and potential corridors. This step is critical for shifting from isolated intervention points toward a network-based approach. By understanding how different areas relate to each other within the urban structure of Ulus, it becomes possible to frame design strategies that operate at the level of systems rather than individual sites. The selected focus areas, introduced in detail in the following section, serve as strategic anchors for testing resilience-oriented design strategies within the historic center.



Figure49: Integrated analysis map of Ulus showing the aimed areas to be selected as design areas. *Produced by author*

The merged analysis map synthesizes the findings of the spatial problem analysis and the pillar-based evaluation in order to identify areas where multiple resilience challenges overlap. The selected areas are characterized by the concentration of spatial, social, ecological, and heritage-related problems, while also possessing strategic potential within the urban structure of Ulus. The area-based diagrams further illustrate how each location presents a distinct resilience profile, with specific pillars under pressure. These areas are therefore selected as strategic nodes for testing the resilience-based design framework in the following chapter.

Area	Main Problems	Weak Pillars	Key Potentials
Area A	fragmented access underused courtyards	infrastructure economic vitality	central location transport access
Area B	pedestrian cuts weak social life	social cohesion spatial adaptability	local commerce walkable scale
Area C	heritage pressure limited connections	identity continuity ecological integration	strong symbolic value tourism

Table6: Problems and weaknesses of the selected areas. *Produced by author*

## 5.5 Comparative Case Studies

### 5.5.1 Bilbao Regeneration Masterplan (Abandoibarra & Riverfront), Spain

The regeneration of Bilbao's Abandoibarra waterfront represents a strategic shift from post-industrial decline toward a resilience-oriented urban transformation model based on economic diversification, cultural infrastructure, and environmental remediation. Former port and industrial lands along the Nervión River were restructured through a comprehensive masterplan that combined cultural facilities, mixed-use developments, pedestrian-oriented public spaces, and continuous riverfront promenades. Rather than treating regeneration as a single architectural intervention, the project reframed the waterfront as an integrated urban system that reconnects the river to everyday urban life.

From an urban resilience perspective, Bilbao demonstrates how economic vitality and adaptive reuse can function as core drivers of long-term urban recovery. The reuse of industrial land and the strategic activation of public spaces supported new economic activities while strengthening the symbolic and experiential relationship between the city and its riverfront. At the same time, infrastructure and spatial adaptability were addressed through improved pedestrian continuity, public transport accessibility, and the reconfiguration of formerly mono-functional zones into flexible, mixed-use urban fabrics. The river corridor also operates as an ecological-heritage integration element, where environmental rehabilitation supports urban identity reconstruction.

For the Ulus context, Bilbao offers a relevant reference for how underused or fragmented central areas can be reconnected to the broader urban system through public space continuity, adaptive reuse of existing structures, and economic activation beyond tourism-oriented development. The case illustrates how heritage and contemporary urban life can coexist when regeneration strategies focus on creating legible, accessible, and multifunctional public environments rather than isolated landmark projects.

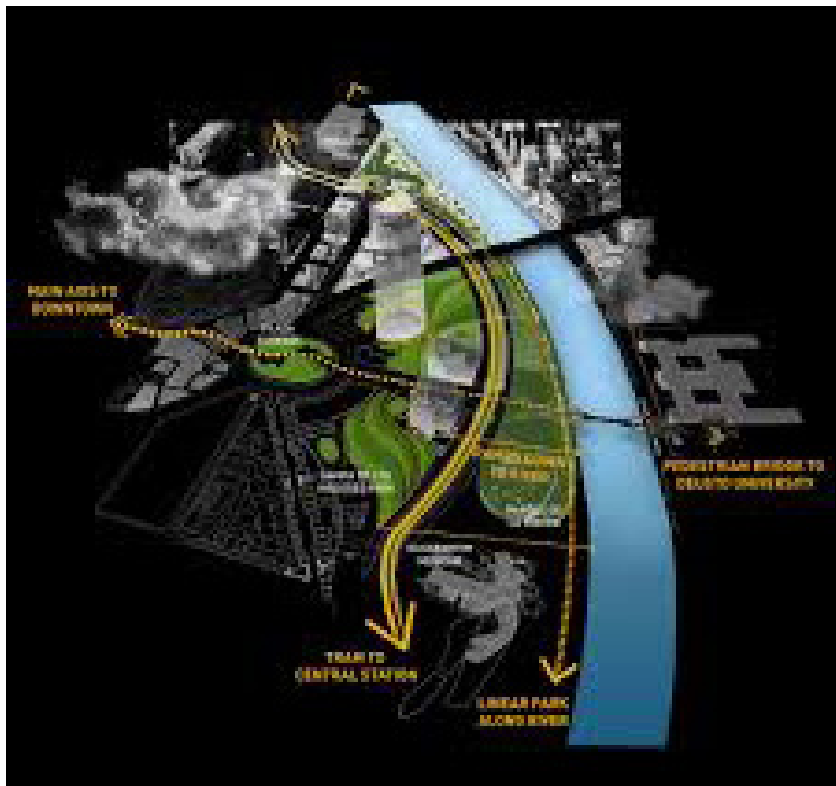


Figure50: Abandoibarra Masterplan photo, Bilbao. *Balmori Associates* (E. Méndez, 2000)  
Figure51: Abandoibarra Masterplan diagram, Bilbao. *Balmori Associates* (E. Méndez, 2000)

### 5.5.2. Medellín Urban Transformation Masterplan, Colombia

Medellín's urban transformation represents a resilience-driven approach in which spatial interventions are closely linked to social policies, governance reform, and infrastructural integration. The masterplan focused on reconnecting marginalized neighborhoods to the metropolitan core through a network of mobility infrastructures, public spaces, and social facilities such as libraries, cultural centers, and community hubs. This approach positioned urban design as a tool for reducing spatial and social inequality, rather than merely upgrading physical environments.

In terms of the six pillars of urban resilience, Medellín strongly reflects inclusive governance and community participation and social cohesion and cultural capacity. Spatial projects were implemented alongside participatory frameworks that aimed to strengthen local ownership and community involvement in the transformation process. Infrastructure investments, particularly in mobility systems, functioned not only as technical upgrades but also as social connectors that re-integrated previously isolated areas into the everyday life of the city. This highlights the role of infrastructure and spatial adaptability as a means of supporting social resilience and cultural continuity.

The relevance of Medellín for Ulus lies in its demonstration that regeneration processes in historically and socially complex urban areas require more than physical renewal. In contexts where renewal has often been driven by top-down planning approaches, Medellín offers an important reference for embedding participatory mechanisms within spatial strategies. The case supports the Ulus framework's emphasis on strengthening everyday urban life, reinforcing community presence within heritage environments, and ensuring that spatial interventions support long-term social attachment rather than displacement.

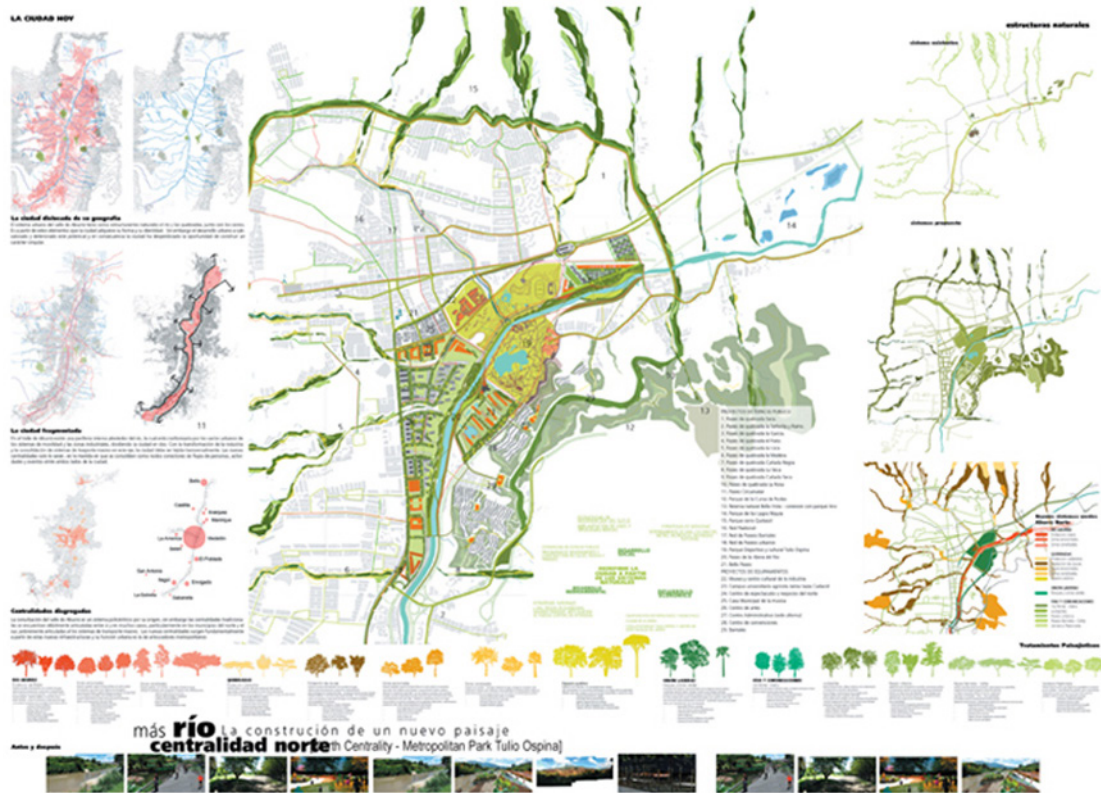


Figure52: Urban transformation projects in Medellín, Colombia. Design panels. *The Urban Transformation of Medellín* (2012)

Figure53: Urban transformation projects in Medellín, Colombia. Photos from design. *The Urban Transformation of Medellín* (2012)

### 5.5.3. HafenCity Masterplan, Hamburg, Germany

The HafenCity Masterplan represents a long-term, climate-responsive urban regeneration project developed on former port lands adjacent to Hamburg's historic center. The transformation integrates mixed-use development, public waterfront spaces, heritage-sensitive interventions, and flood-resilient urban design strategies within a comprehensive, phased masterplan. By embedding climate adaptation directly into urban form, such as elevated public realms and adaptable building typologies, the project reframes resilience as a spatial and temporal design principle rather than a technical add-on.

Within the resilience framework, HafenCity provides a strong reference for ecological-heritage integration and infrastructure and spatial adaptability. The masterplan addresses flood risk through spatial design while maintaining continuity with the city's port-related identity by preserving and reinterpreting historic warehouse structures. Public spaces along the waterfront function as social, ecological, and symbolic connectors, reinforcing the relationship between environmental systems and urban identity. The long-term phasing strategy also highlights the importance of temporal resilience, where urban transformation is understood as an adaptive process that evolves in response to environmental, social, and economic change.

For Ulus, HafenCity offers insights into how ecological strategies and heritage-sensitive design can be combined within dense historic contexts. The integration of green-blue infrastructure, climate adaptation measures, and flexible public spaces provides a reference for embedding environmental resilience into heritage areas without undermining their symbolic value. Moreover, the project's phased implementation logic aligns with the proposed time-based transformation framework for Ulus, supporting the idea of resilience as a gradual, cumulative process rather than a fixed final condition.

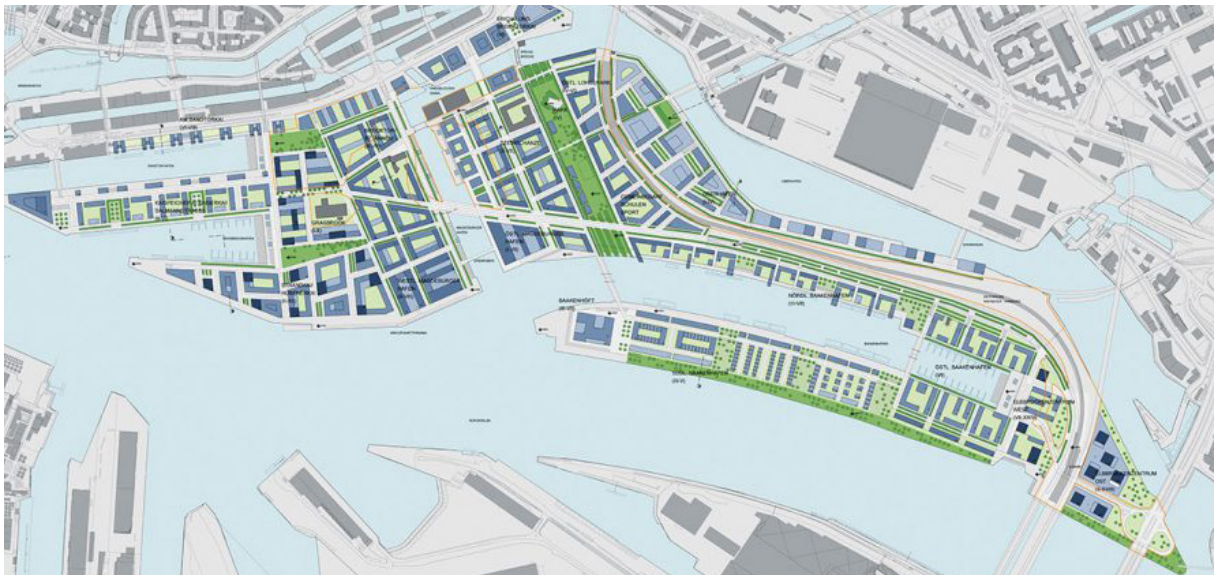
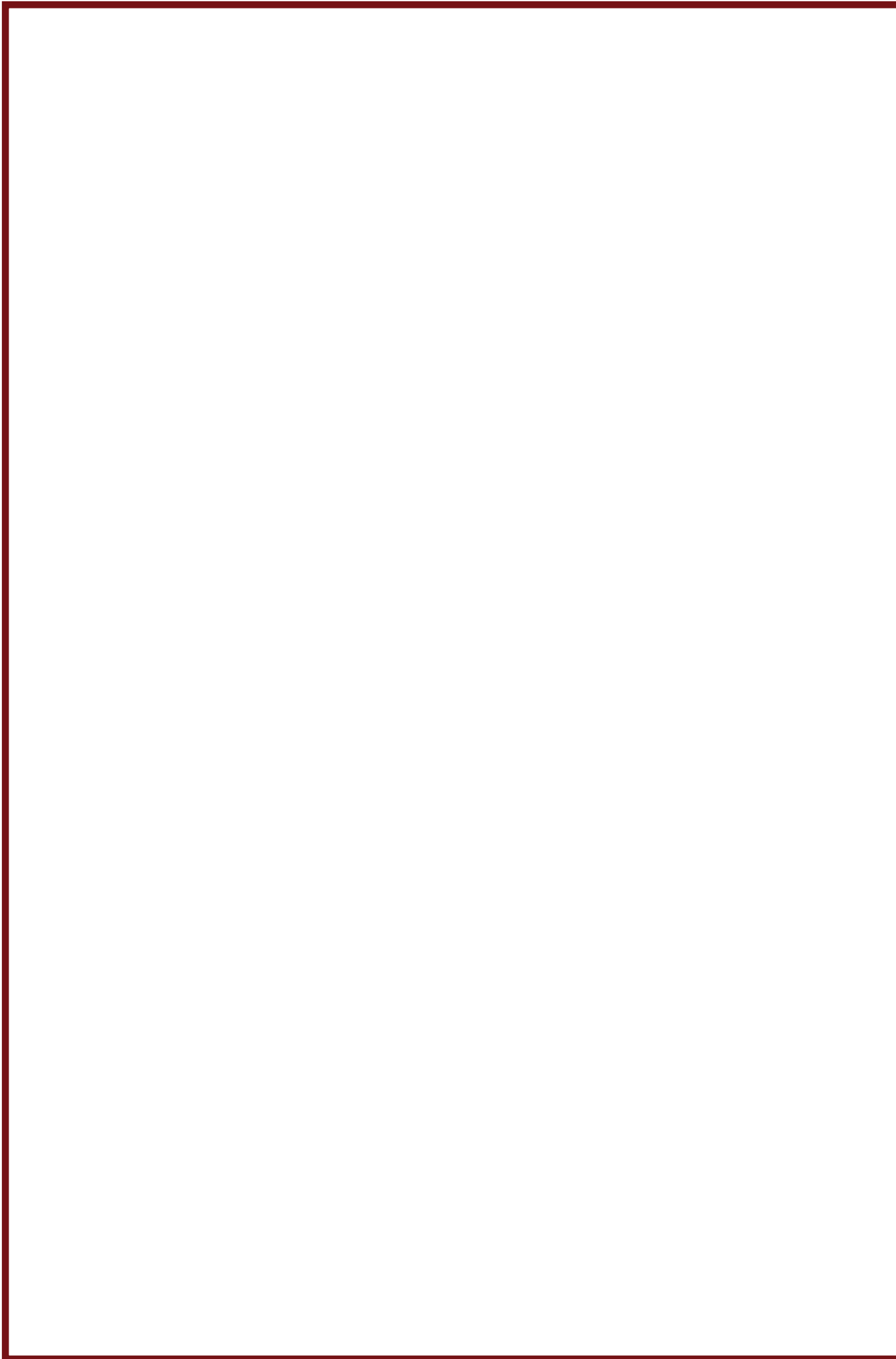


Figure54: HafenCity Masterplan, Hamburg, Germany. *HafenCity Hamburg GmbH* (2000)  
Figure55: HafenCity urban regeneration strategy diagram. *HafenCity Hamburg GmbH* (2000)



# 06

## Proposed Design Framework

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The design chapter translates the analytical findings into spatial and strategic proposals for the Ulus district. Building on the urban, social, and environmental analyses, this chapter develops a resilient masterplan that addresses mobility, public space continuity, heritage preservation, and adaptive reuse. It presents the overall design vision, key intervention areas, and the proposed urban system that reconnects fragmented urban structures while strengthening Ulus as an inclusive and active city core. The chapter demonstrates how theoretical concepts and research outcomes are transformed into practical design strategies and spatial solutions.

## 6.1. Design Framework

### 6.1.1. Node-Based Resilience Framework

The design framework of this thesis is based on a node-based resilience approach, which focuses on activating key spatial nodes as catalysts for broader urban transformation. This approach recognizes that resilience in historic urban environments cannot be achieved through uniform interventions across the entire district. Instead, resilience emerges through targeted spatial strategies applied to critical areas where social, economic, cultural, and spatial systems intersect. These areas, defined as urban nodes, function as strategic points where localized interventions can initiate broader system-level improvements.

In the context of Ulus, the existing urban structure is characterized by fragmented spatial relationships, disconnected heritage areas, and uneven distribution of economic and social activity. While the district contains significant historical assets and spatial potential, these assets currently operate in isolation rather than as part of an integrated urban system. Therefore, the node-based resilience framework aims to strengthen specific areas that have the capacity to influence surrounding urban systems and support the formation of interconnected resilience networks.

The selection of nodes is directly informed by the resilience assessment conducted in Chapter 5, particularly the analysis based on the six resilience pillars: identity and heritage continuity, social cohesion and community participation, infrastructure and spatial adaptability, environmental and ecological integration, economic vitality and adaptive capacity, and governance and implementation capacity. Based on this analysis, three nodes, Suluhan, Hacıbayram Mosque and its surroundings, and Ulus Çarşısı, are identified as strategic intervention areas due to their spatial significance, functional diversity, and potential to support resilience systems.

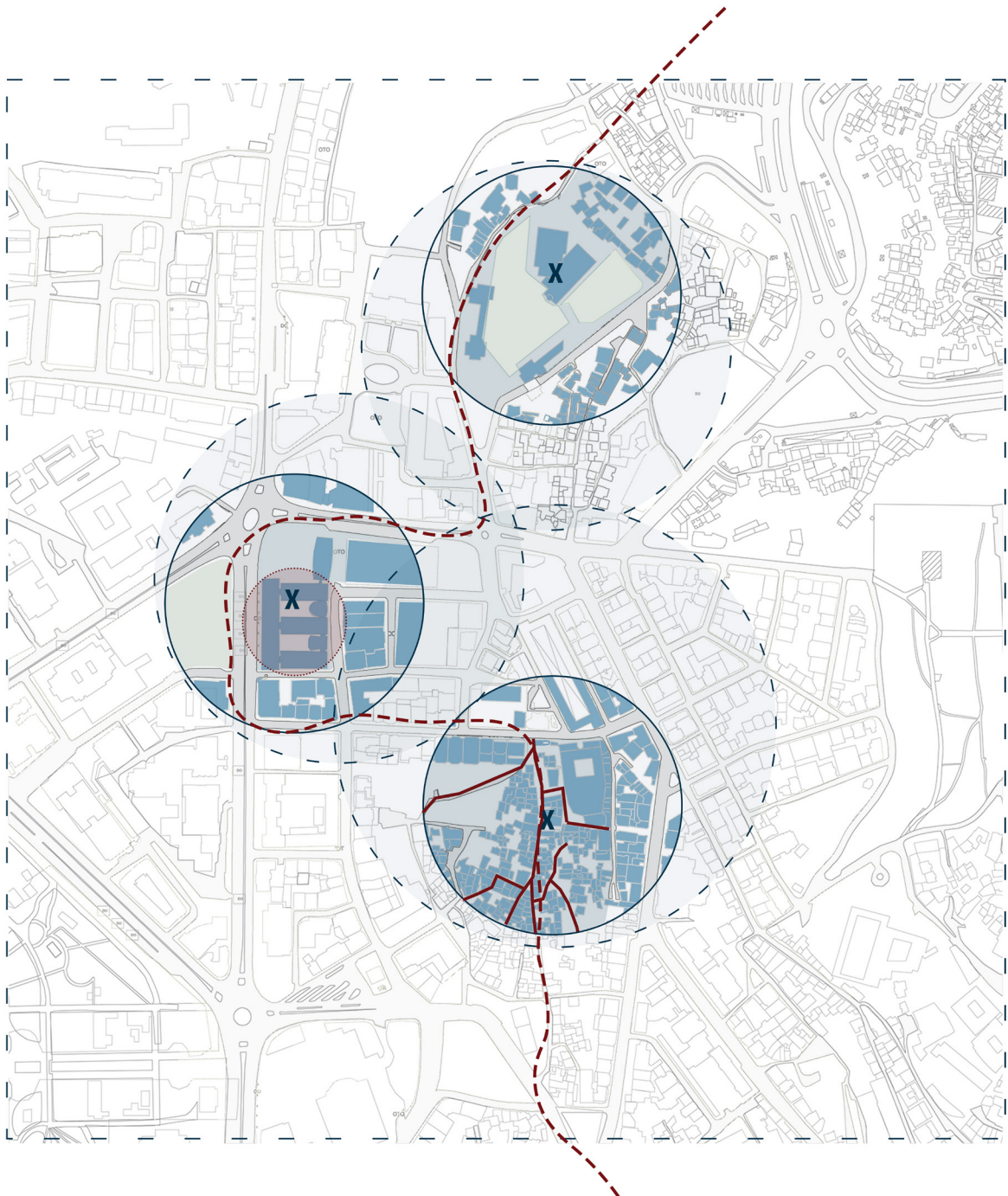


Figure56: Chosen three nodes of design with the analysis of Ulus. Produced by author.

Each node represents a different resilience function while also supporting overlapping systems. Suluhan functions primarily as an economic resilience node due to its historical commercial role and its potential to support adaptive reuse and economic activation. Hacıbayram Mosque and its surrounding area function as an identity and heritage resilience node due to the concentration of historical layers and its strong symbolic and cultural importance. Ulus Çarşısı functions as a spatial connectivity and adaptive reuse node due to its central location and its potential to strengthen pedestrian connectivity and functional adaptability.

These nodes are not treated as isolated design sites but as spatial anchors within a broader resilience network. The design interventions applied within these nodes aim to activate urban systems that extend beyond node boundaries and contribute to district-scale resilience. The connections between these nodes are strengthened through pedestrian corridors, ecological integration, and public space continuity, allowing the nodes to operate collectively as part of an integrated resilience framework.

The SWOT analysis demonstrates that each node possesses specific strengths that support resilience while also presenting weaknesses that can be addressed through spatial design strategies. More importantly, each node provides opportunities to activate urban systems that contribute to resilience at a broader scale. Suluhan supports economic activation, Hacıbayram supports identity continuity, and Ulus Çarşısı supports spatial connectivity and adaptive reuse. Together, these nodes form a spatial structure capable of supporting interconnected resilience systems.

The node-based resilience framework therefore establishes a spatial strategy in which localized interventions activate broader urban systems, allowing resilience to emerge through spatial connectivity, functional adaptability, and system integration. The following sections present the temporal framework that guides the phased implementation and long-term evolution of these resilience systems.

<b>suluhan</b>	<b>S</b> trengths	<b>W</b> eaknesses	<b>O</b> pportunities	<b>T</b> hreats
	Strong historical commercial identity Existing economic activity Central location within historic commercial district	Economic activity concentrated internally Weak spatial connection to surrounding streets Limited public space infrastructure Lack of ecological elements	Potential for adaptive reuse and economic expansion Ability to activate surrounding public spaces Potential to function as economic anchor node	Continued economic decline due to competition from modern commercial areas Risk of functional stagnation
<b>hacıbayram</b>	<b>S</b> trengths	<b>W</b> eaknesses	<b>O</b> pportunities	<b>T</b> hreats
	Strong heritage identity Significant historical and symbolic value Existing public gathering space High visitor presence	Spatial isolation from surrounding urban fabric Lack of ecological infrastructure Limited spatial integration with adjacent areas	Potential to strengthen heritage continuity system Ability to function as cultural and identity anchor Opportunity to improve ecological and social infrastructure	Risk of becoming isolated tourist destination without integration into everyday urban life
<b>ulus çarşı</b>	<b>S</b> trengths	<b>W</b> eaknesses	<b>O</b> pportunities	<b>T</b> hreats
	Strategic central location Strong accessibility Large spatial capacity Potential for adaptive reuse	Underutilized spaces Weak pedestrian integration Lack of public space infrastructure Limited ecological integration	Potential to function as mobility and connectivity anchor Opportunity for adaptive reuse Ability to strengthen spatial integration between nodes	Continued functional decline and underutilization Risk of spatial and economic isolation

Figure57: Swot analysis of the areas separately. Produced by author.

The design vision of this thesis is to transform Ulus into an integrated and resilient historic urban system by translating the six resilience pillars into spatial strategies, urban systems, and physical interventions. Rather than treating resilience as an abstract concept, the design vision focuses on embedding resilience directly into the spatial structure of the district. This is achieved by establishing interconnected pedestrian, ecological, economic, social, and heritage systems that operate across multiple scales and are anchored within key urban nodes.

The six resilience pillars provide the conceptual foundation for the design vision. Each pillar is translated into a spatial strategy that strengthens the adaptive capacity of the district while maintaining its historical identity. These strategies are not applied independently but operate as interconnected systems that reinforce each other spatially and functionally.

One of the primary strategies focuses on strengthening pedestrian connectivity as a fundamental component of urban resilience. The existing pedestrian network within Ulus is fragmented, limiting spatial integration between important heritage, commercial, and public spaces. By establishing continuous pedestrian corridors, the design vision aims to reconnect key urban areas and improve accessibility between Suluhan, Hacıbayram Mosque, and Ulus Çarşısı. This pedestrian connectivity system improves spatial adaptability and accessibility while also supporting social interaction and economic activity. Improved pedestrian infrastructure allows urban spaces to function as part of an integrated network rather than isolated areas.

The ecological integration strategy focuses on strengthening environmental resilience through the establishment of ecological corridors and shaded pedestrian routes. The current lack of vegetation and ecological continuity reduces environmental comfort and weakens the ecological performance of the district. Introducing tree corridors, permeable surfaces, and shaded walkways improves microclimatic conditions and establishes ecological continuity between nodes. These ecological systems operate in direct relationship with pedestrian corridors, ensuring that mobility and environmental performance function together as part of a unified spatial system.

The economic vitality and adaptive capacity pillar is translated into an economic activation strategy that focuses on adaptive reuse and expansion of economic activity beyond existing building boundaries. By introducing adaptive reuse interventions, flexible commercial infrastructure, and publicly accessible economic spaces, the design vision supports the formation of an economic activation system that extends into surrounding streets and public areas. This system strengthens economic resilience while also supporting social activity and spatial integration.

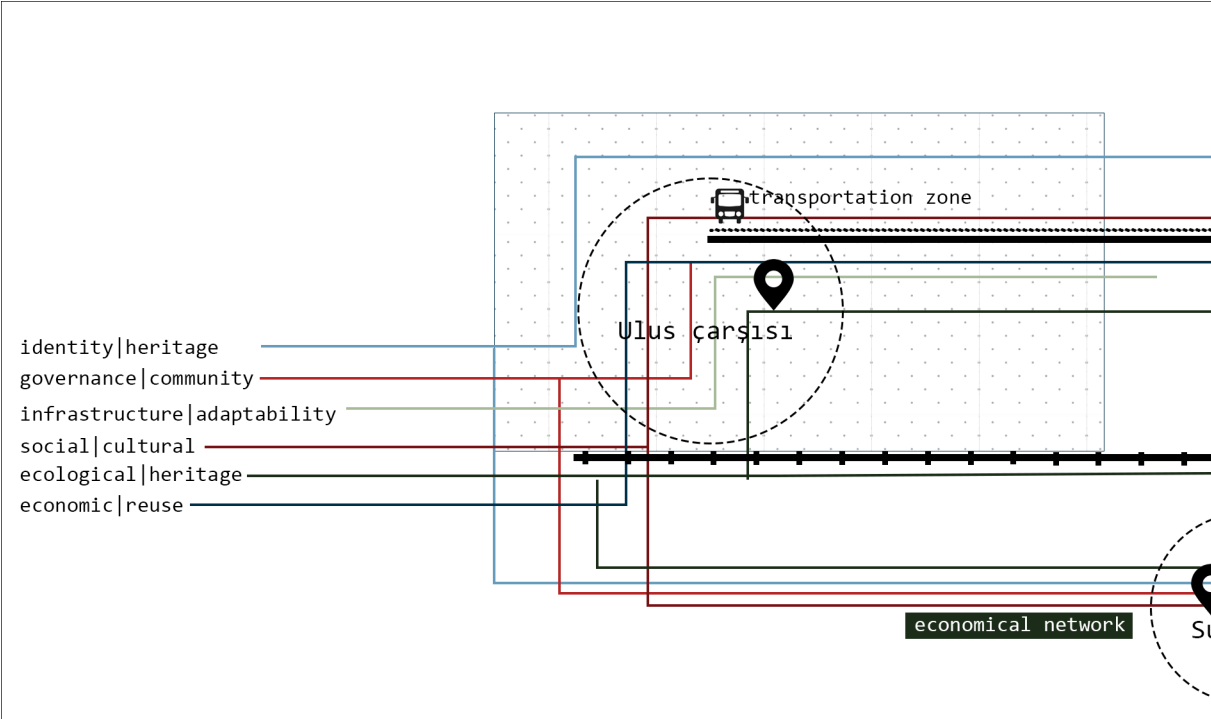
The identity and heritage continuity pillar is translated into a heritage continuity strategy that strengthens the visibility and accessibility of heritage assets within the urban environment. Heritage structures such as Hacibayram Mosque and Suluhan currently function as isolated landmarks rather than as components of an integrated heritage system. By establishing heritage routes, interpretive infrastructure, and visual connections between historic structures, the design vision integrates heritage into the everyday spatial experience of the district. This strengthens cultural continuity while also supporting tourism, social interaction, and economic activity.

The social cohesion and community participation pillar is translated into a public space activation strategy that strengthens the usability and accessibility of public spaces. Public spaces function as critical components of resilient urban environments by supporting social interaction, cultural activities, and community engagement. By introducing gathering spaces, seating infrastructure, and flexible public areas, the design vision strengthens the public space network and ensures that urban spaces remain adaptable and accessible over time.

The governance and implementation capacity pillar is translated into an adaptive implementation strategy that supports gradual and flexible spatial transformation. Rather than relying on large-scale, static interventions, the design vision introduces adaptable spatial elements and phased implementation strategies that allow urban systems to evolve over time. This ensures that the district remains capable of responding to future social, economic, and environmental changes.

These strategies are spatially integrated within the three selected nodes. Suluhan functions as the primary economic activation node, where adaptive reuse and economic infrastructure strengthen economic resilience while supporting public space activation and pedestrian connectivity. Hacıbayram Mosque functions as the primary heritage and identity node, where heritage continuity strategies are integrated with public space and ecological systems to strengthen cultural and environmental resilience. Ulus Çarşısı functions as the primary connectivity and adaptive reuse node, where pedestrian infrastructure and adaptive reuse strategies strengthen spatial integration and functional adaptability.

The pedestrian connectivity system functions as the primary structuring system that links all three nodes. Ecological corridors operate alongside pedestrian routes, ensuring environmental integration. Economic activation systems extend from Suluhan and Ulus Çarşısı, strengthening economic continuity. Heritage continuity systems extend from Hacıbayram Mosque and Suluhan, reinforcing cultural identity. Public space networks operate across all nodes, supporting social interaction and spatial adaptability.



Together, these interconnected systems establish an integrated urban resilience framework. The nodes function as spatial anchors where resilience systems intersect, allowing localized spatial interventions to contribute to broader district-scale transformation. This integrated approach ensures that resilience is embedded within the spatial structure of Ulus, allowing the district to maintain its historical identity while adapting to contemporary urban challenges.

The design vision therefore establishes a multi-layered resilience framework in which pedestrian connectivity, ecological integration, economic activation, heritage continuity, and public space activation operate as interconnected spatial systems. These systems support each other and operate collectively to strengthen the adaptive capacity, spatial continuity, and long-term resilience of the Ulus district.

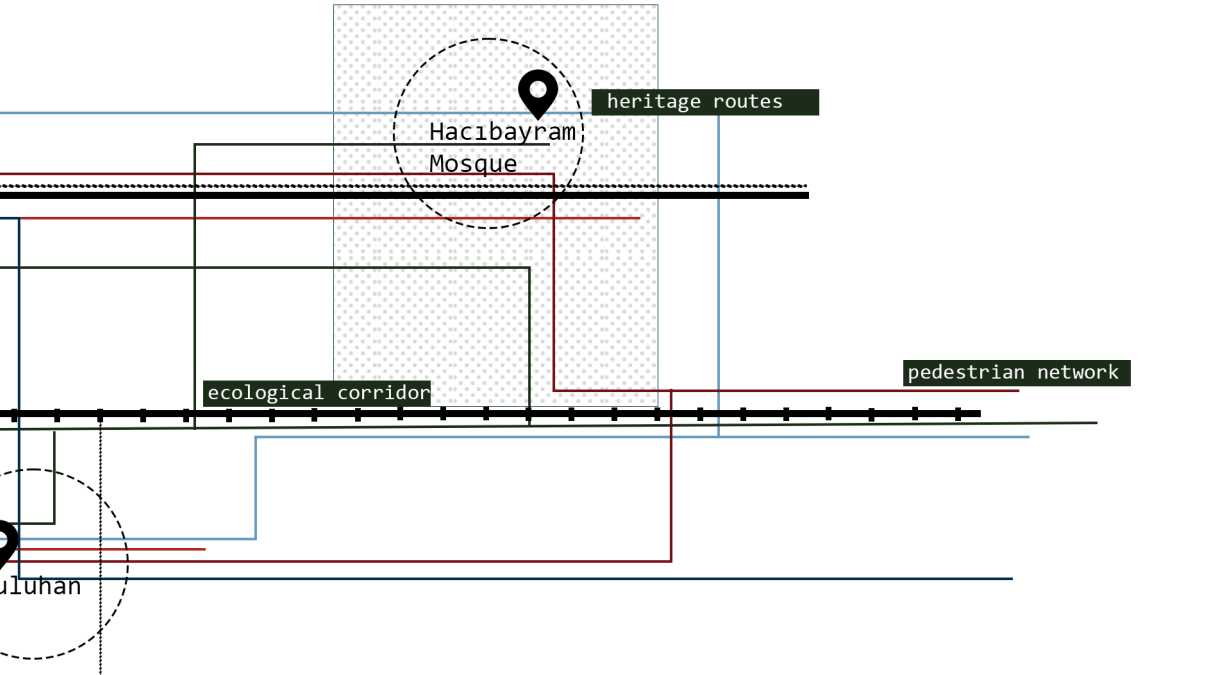


Figure58: System diagrams working with the six pillars that have decided previous chapters. Produced by author.

### 6.1.2. Temporal Framework

Resilience is not a static condition but a dynamic process that develops over time through gradual spatial, social, and economic adaptation. In historic urban environments such as Ulus, resilience requires strategies that support long-term transformation while preserving historical continuity and spatial identity. Therefore, this thesis adopts a temporal framework that integrates time as a fundamental component of the design strategy.

The temporal framework recognizes that urban transformation occurs progressively rather than instantaneously. Large-scale interventions applied simultaneously across the entire district may disrupt existing social and economic systems and may not be feasible within real implementation conditions. Instead, resilience can be strengthened through phased spatial interventions that begin at key nodes and gradually expand to form interconnected urban systems.

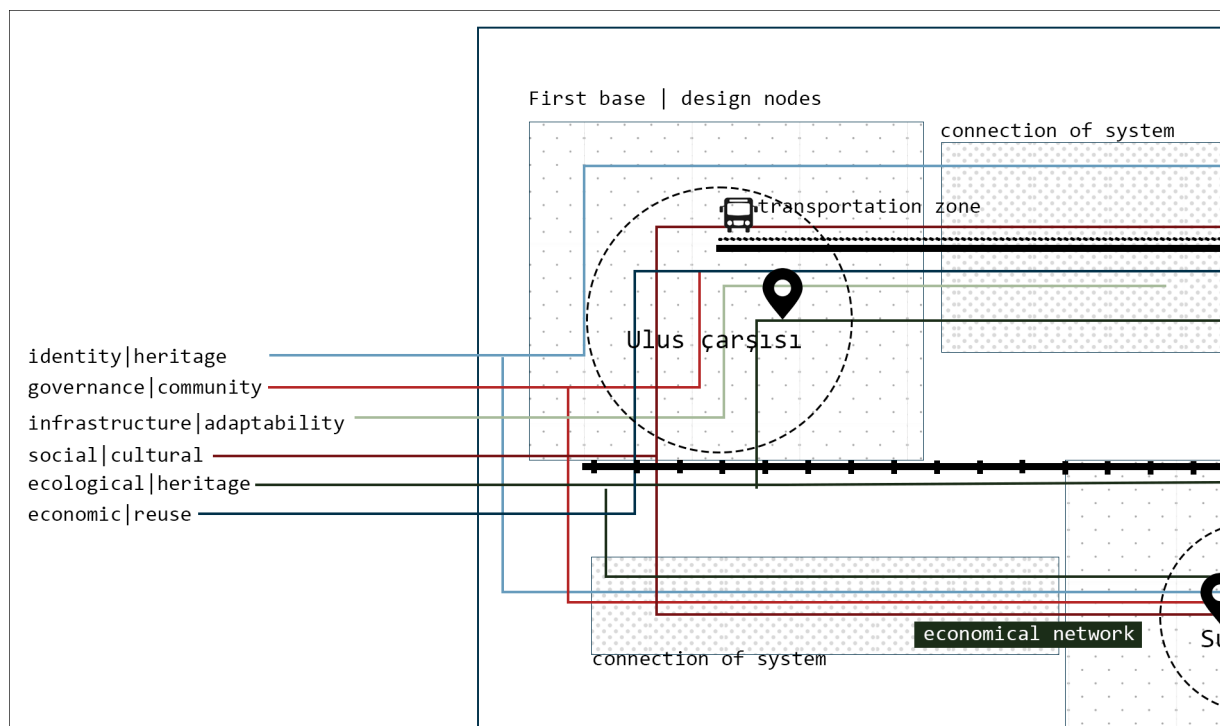
In this framework, the selected nodes function as initial activation points where resilience systems are first established. Early interventions focus on improving spatial connectivity, activating public space, strengthening economic activity, and improving ecological conditions within these nodes. These initial interventions improve local spatial conditions while also establishing the foundation for broader system formation.

As time progresses, the spatial systems activated at each node begin to expand beyond node boundaries. Pedestrian corridors extend connectivity between nodes, ecological infrastructure establishes environmental continuity, and economic and social activities begin to expand into adjacent urban areas. These gradual spatial transformations allow resilience systems to develop incrementally while maintaining the existing urban structure and identity.

The temporal framework also supports adaptability by allowing spatial systems to evolve in response to changing urban conditions. Flexible spatial elements, adaptive reuse strategies, and modular interventions enable the urban environment to respond to social, economic, and environmental changes over time. This approach aligns with resilience theory, which emphasizes adaptability, flexibility, and incremental transformation as key components of resilient urban systems.

The temporal framework can be understood in three primary phases. The first phase focuses on node activation, where initial interventions strengthen resilience capacity within the selected nodes. The second phase focuses on system expansion, where spatial systems extend between nodes and begin to form continuous urban networks. The third phase focuses on system integration, where the expanded systems operate collectively as an integrated resilience framework across the district.

Through this phased approach, the temporal framework ensures that resilience emerges through gradual spatial transformation rather than abrupt change. This allows Ulus to maintain its historical continuity while adapting to contemporary urban challenges. The integration of temporal and spatial strategies ensures that resilience is embedded within the urban structure, allowing the district to evolve sustainably over time.



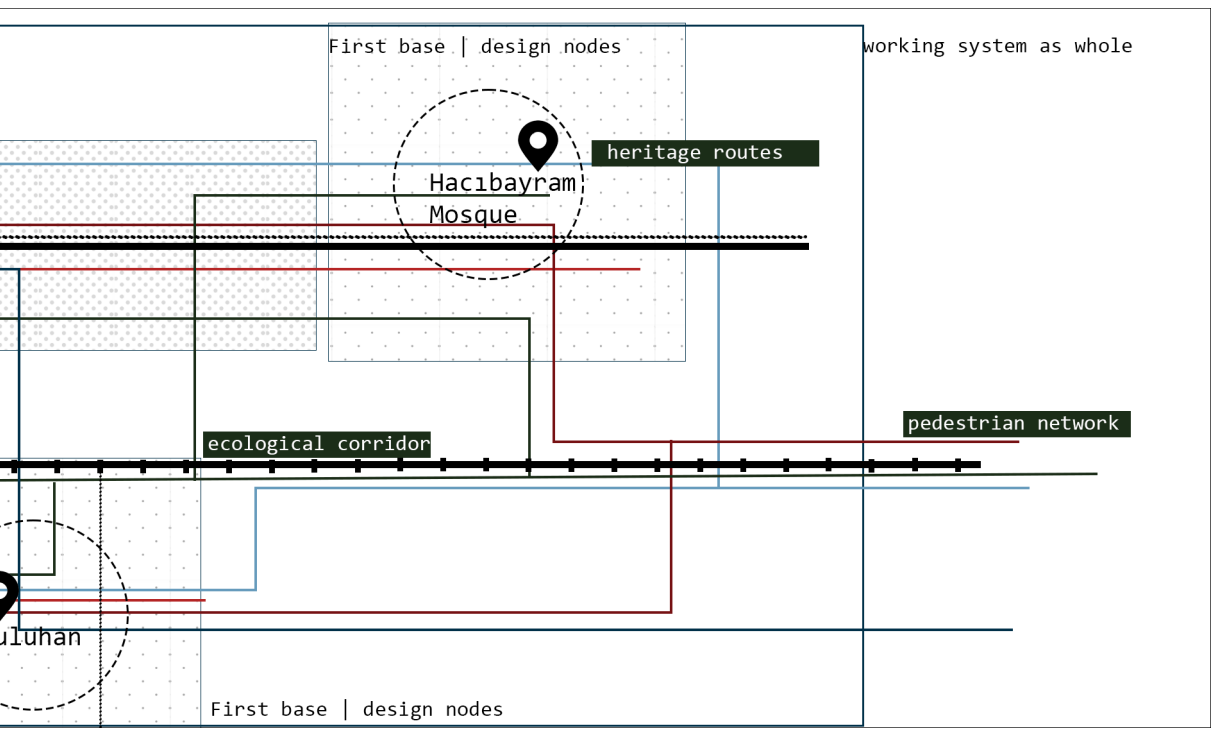


Figure59: System diagrams working with the six pillars and the time affect as the systems developing. Produced by author.

## 6.2 Node 01 - Suluhan

### 6.2.1 Analysis of the Node

Suluhan and its surrounding urban environment represent one of the most significant historic commercial nodes within the Ulus district. Constructed during the Ottoman period, Suluhan historically functioned as a commercial inn that supported trade, accommodation, and economic exchange. Its spatial organization, characterized by a central courtyard surrounded by commercial units, reflects traditional commercial typologies that supported both economic activity and social interaction. This spatial configuration continues to contribute to the identity and economic character of the area. As emphasized in resilience theory, historic commercial environments play a critical role in maintaining economic continuity and supporting urban adaptability by enabling diverse economic activities over time (Sharifi and Yamagata, 2018).

Despite its historical and spatial significance, the Suluhan area currently functions as a relatively isolated commercial node rather than an integrated component of the broader urban system. The internal courtyard remains active and supports commercial use; however, the spatial relationship between Suluhan and surrounding streets is weak. The entrances to the courtyard lack strong spatial definition, and pedestrian flows remain concentrated within the building rather than extending into the surrounding urban fabric. This condition limits the spatial influence of Suluhan and reduces its potential role as a generator of economic and social activity at the urban scale.

The surrounding streets are primarily defined by vehicle-oriented infrastructure, narrow sidewalks, and fragmented pedestrian spaces. This reduces pedestrian accessibility and limits the continuity of commercial activity beyond the immediate building footprint. The lack of defined public space infrastructure, such as seating areas, gathering spaces, and shaded pedestrian routes, reduces the usability of the surrounding environment and limits opportunities for prolonged public interaction.

From an ecological perspective, the area lacks vegetation and environmental infrastructure. The dominance of hard surfaces contributes to poor microclimatic conditions, reducing thermal comfort and limiting the environmental performance of public spaces. The absence of ecological infrastructure also prevents the formation of ecological connections between Suluhan and other nodes within Ulus.

Socially, while Suluhan supports commercial activity, opportunities for social interaction are limited by the absence of supporting public space infrastructure. Economic activity remains primarily transactional rather than socially interactive, reducing the node's capacity to support social resilience. These conditions indicate that, although Suluhan retains strong economic and historical significance, its spatial, ecological, and social integration within the broader urban system remains limited.



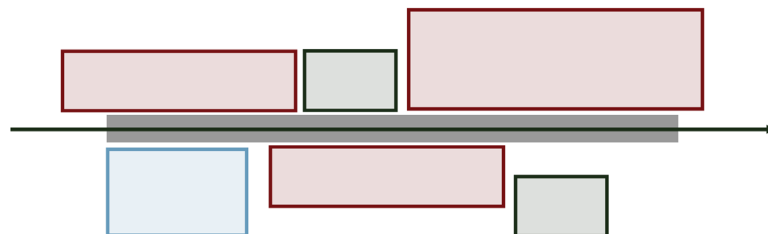
Figure60: Analysis of the design node Suluhan. Produced by author.

**identity of the place**



car-oriented roads  
cutting the  
pedestrian moves

social areas surrounding  
the pedestrian movement



### 6.2.2. Weaknesses Based on the Six Resilience Pillars

In terms of economic vitality and adaptive reuse, although Suluhan continues to support commercial activity, its economic influence remains limited to its internal courtyard. The surrounding streets lack supporting commercial infrastructure, reducing opportunities for economic expansion and limiting the node's contribution to district-scale economic resilience.

Social cohesion within the node is also limited. The absence of public gathering spaces, seating infrastructure, and flexible public areas reduces opportunities for social interaction and limits the ability of public space to support community engagement. As noted in the City Resilience Framework (ARUP, 2014), public spaces that support social interaction contribute significantly to social resilience.

Spatial connectivity within the node is weak. Pedestrian infrastructure connecting Suluhan to adjacent areas remains fragmented and poorly defined, limiting pedestrian accessibility and reducing spatial integration within the broader urban network.

Ecological integration is minimal. The absence of vegetation, shaded infrastructure, and ecological surfaces reduces environmental performance and limits ecological resilience. Identity continuity, while present within the Suluhan structure itself, does not extend into the surrounding urban environment. The lack of spatial elements that reinforce heritage identity reduces the visibility and influence of historic structures.

These weaknesses limit the ability of Suluhan to function as an integrated resilience node and highlight the need for spatial interventions that strengthen economic activity, social interaction, ecological integration, and spatial connectivity.

### 6.2.3. Spatial Resilience Strategy

The spatial resilience strategy for the Suluhan node focuses on strengthening its role as an economic and social resilience anchor within the Ulus district. This strategy aims to extend the influence of Suluhan beyond its internal courtyard and integrate it into the broader urban system through spatial, ecological, and functional interventions.

The first strategic objective focuses on expanding economic activity beyond the building footprint. This is achieved by introducing commercial-supportive public space infrastructure that allows economic activity to extend into surrounding streets and public spaces. These interventions strengthen economic resilience by increasing commercial visibility and supporting diverse economic activities.

The second strategic objective focuses on strengthening social interaction. Introducing gathering spaces, seating infrastructure, and flexible public spaces supports prolonged public use and strengthens social resilience. The third strategic objective focuses on improving spatial connectivity. Establishing pedestrian-priority routes connecting Suluhan with surrounding nodes strengthens spatial integration and supports the formation of a resilient mobility network.

The fourth strategic objective focuses on ecological integration. Introducing vegetation, shaded pedestrian routes, and ecological infrastructure improves environmental performance and establishes ecological connections with adjacent nodes. Together, these strategies transform Suluhan into an integrated economic and social resilience node that contributes to the broader resilience system of Ulus.

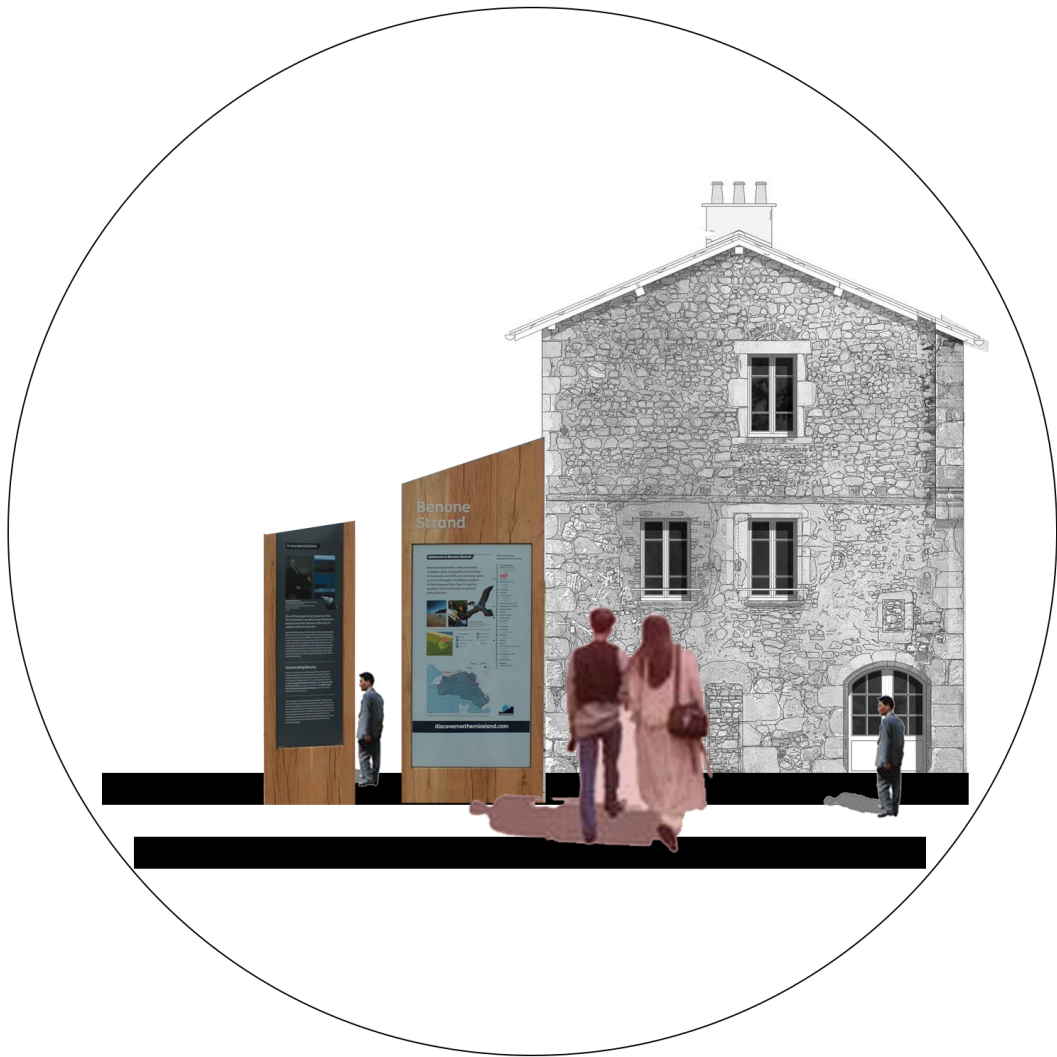
#### 6.2.4. Spatial Design Interventions

The spatial resilience strategy is implemented through a series of design interventions that operate at both the node and urban scale. Commercial spillover infrastructure is introduced around the Suluhan courtyard entrances. Modular kiosks, flexible commercial platforms, and open commercial zones allow economic activity to extend into public space. These interventions strengthen economic resilience by supporting diverse and adaptable commercial activities.

Public gathering infrastructure is introduced to support social interaction. Seating platforms, gathering areas, and flexible public spaces create opportunities for social interaction and increase the usability of public space.

Pedestrian-priority street design is introduced to improve spatial connectivity. Expanded sidewalks, reduced vehicle dominance, and continuous pedestrian routes strengthen spatial integration and support pedestrian mobility. Ecological infrastructure is introduced to improve environmental performance. Tree corridors, shaded pedestrian routes, and vegetated areas improve microclimatic conditions and establish ecological continuity.

Through these interventions, Suluhan is transformed from an isolated commercial structure into an integrated economic and social resilience node that contributes to the broader resilience network of Ulus.



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Figure61: Design elements that is emphasizing the panel installments in the heritage areas. Produced by author.



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Figure62: Design elements of artistry display counters for the Suluhan bazaar. Produced by author.



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Figure63: Pedestrian movements areas used for increasing greenery elements . Produced by author.



Figure64: Design map of Suluhan area increasing greenery and the mobility. Produced by author.



Figure65: Collage of human scale design idea for the area. Produced by author.

## 6.3. Node 02 - Hacıbayram Mosque

### 6.3.1. Analysis of the Node

Hacıbayram Mosque and its surrounding urban environment represent one of the most significant heritage areas within Ulus and play a critical role in preserving the historical continuity of Ankara. The spatial relationship between the Hacıbayram Mosque and the Temple of Augustus reflects multiple historical layers, including Roman, Ottoman, and Republican periods. This coexistence creates a unique heritage landscape that embodies the cultural identity of the city and provides strong symbolic value at both the local and national scale. As emphasized in urban resilience literature, historic environments contribute significantly to resilience by maintaining identity continuity and reinforcing collective memory, which strengthens the long-term adaptive capacity of cities (Sharifi, 2018; ARUP, 2014).

The spatial structure of the Hacıbayram area is primarily defined by a large open plaza that functions as a central gathering space. This plaza provides strong visual accessibility to heritage structures and supports visitor-oriented activities. However, despite its spatial openness, the plaza remains functionally and spatially disconnected from surrounding urban fabric. The edges of the plaza form clear physical and perceptual boundaries that limit the spatial continuity between the heritage core and adjacent streets. As a result, pedestrian movement tends to concentrate within the plaza itself rather than extending into the surrounding urban network. This condition reduces the node's capacity to influence surrounding areas and limits its role within the broader urban system.

From an ecological perspective, the Hacıbayram area lacks sufficient vegetation and environmental infrastructure to support thermal comfort and ecological performance. The predominance of hard surface materials increases solar exposure and contributes to urban heat island effects. The absence of shaded pedestrian routes and ecological buffers reduces environmental comfort, particularly during warmer periods, and limits the usability of public space throughout the day. According to urban resilience studies, the integration of green infrastructure and ecological systems within urban environments improves environmental performance, enhances microclimatic regulation, and supports long-term resilience (Dincer and Ercoşkun, 2024; UN-Habitat, 2020).

In terms of mobility, Hacibayram functions as a destination point with high pedestrian inflow due to its cultural and religious importance. However, pedestrian connectivity between Hacibayram and adjacent nodes such as Suluhan and Ulus Çarşısı remains fragmented. The surrounding street network lacks continuous pedestrian infrastructure, and spatial transitions between the plaza and adjacent streets remain poorly defined. This fragmentation reduces spatial integration and limits the node's contribution to the overall connectivity of the district.

Functionally, the area supports cultural, religious, and touristic activities. However, the concentration of these activities within the plaza limits their spatial distribution and reduces their impact on surrounding areas. The lack of supporting public space infrastructure, such as seating, shaded areas, and flexible activity zones, reduces the diversity and duration of public use. These spatial, ecological, and functional limitations indicate that, despite its strong identity and cultural significance, Hacibayram currently functions as an isolated heritage destination rather than an integrated resilience node contributing to the broader urban system.

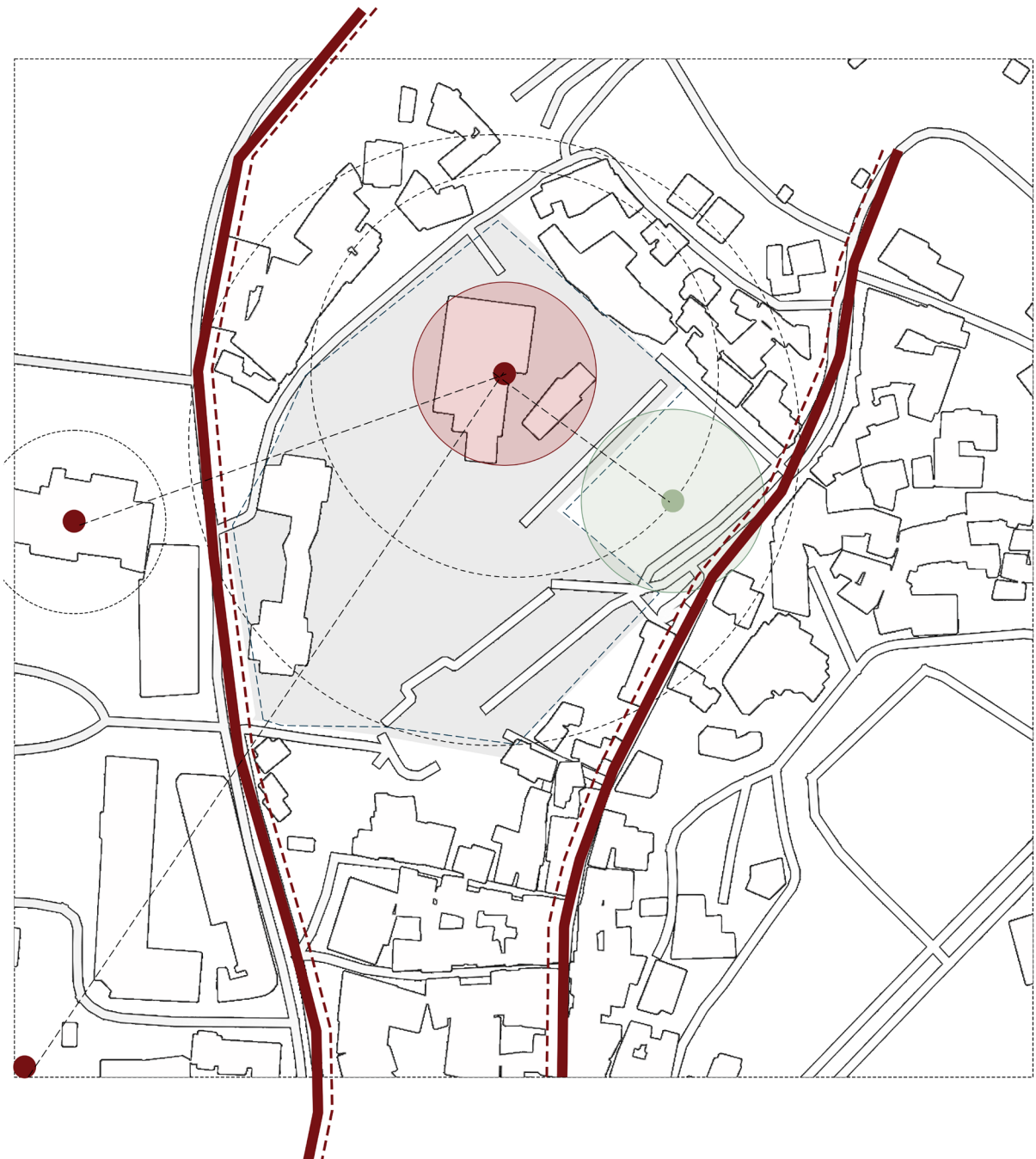
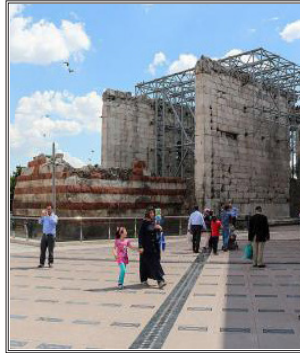


Figure66: Analysis of the design node Hacibayram. Produced by author.

**identity of the place**



**public space  
surrounded by the  
car-oriented roads**

### 6.3.2. Weaknesses Based on the Six Resilience Pillars

In terms of economic vitality and adaptive reuse, although Suluhan continues to support commercial activity, its economic influence remains limited to its internal courtyard. The surrounding streets lack supporting commercial infrastructure, reducing opportunities for economic expansion and limiting the node's contribution to district-scale economic resilience.

Social cohesion within the node is also limited. The absence of public gathering spaces, seating infrastructure, and flexible public areas reduces opportunities for social interaction and limits the ability of public space to support community engagement. As noted in the City Resilience Framework (ARUP, 2014), public spaces that support social interaction contribute significantly to social resilience.

Spatial connectivity within the node is weak. Pedestrian infrastructure connecting Suluhan to adjacent areas remains fragmented and poorly defined, limiting pedestrian accessibility and reducing spatial integration within the broader urban network.

Ecological integration is minimal. The absence of vegetation, shaded infrastructure, and ecological surfaces reduces environmental performance and limits ecological resilience. Identity continuity, while present within the Suluhan structure itself, does not extend into the surrounding urban environment. The lack of spatial elements that reinforce heritage identity reduces the visibility and influence of historic structures.

These weaknesses limit the ability of Suluhan to function as an integrated resilience node and highlight the need for spatial interventions that strengthen economic activity, social interaction, ecological integration, and spatial connectivity.

### 6.3.3. Spatial Resilience Strategy

The spatial resilience strategy for the Hacibayram node aims to transform the area from an isolated heritage destination into an identity and ecological anchor integrated within the broader resilience network of Ulus. This strategy is grounded in resilience theory, which emphasizes the importance of spatial connectivity, ecological integration, and functional diversity in strengthening urban resilience (Sharifi and Yamagata, 2018; ARUP, 2014).

The first strategic objective focuses on strengthening identity continuity by extending the spatial influence of heritage structures beyond the monument boundaries. This is achieved by establishing visual corridors, interpretive infrastructure, and spatial elements that enhance the visibility and legibility of heritage within the broader urban environment. These interventions allow heritage to function as an organizing element within the urban structure rather than remaining isolated.

The second strategic objective focuses on ecological integration. Introducing vegetation, shaded pedestrian routes, and ecological buffers improves environmental comfort and establishes ecological continuity. These interventions also initiate ecological corridors that connect Hacibayram with adjacent nodes such as Suluhan, forming the foundation of a broader ecological network. The third strategic objective focuses on strengthening public space usability and social interaction. Introducing flexible public space infrastructure supports diverse activities and increases the duration and intensity of public use. This strengthens social resilience by supporting interaction, cultural activities, and community engagement.

The fourth strategic objective focuses on improving pedestrian connectivity. Establishing continuous pedestrian routes connecting Hacibayram with surrounding nodes strengthens spatial integration and supports the formation of a resilient mobility network. Together, these strategies transform Hacibayram into a key identity and ecological anchor that contributes to the broader resilience of Ulus.

### 6.3.4. Spatial Design Interventions

The spatial resilience strategies are implemented through a series of design interventions that operate at both the node and urban scale. Heritage interpretation infrastructure is introduced to strengthen identity continuity. Viewing platforms, interpretive panels, and visual framing elements enhance the visibility of heritage structures and improve public understanding of historical layers. These interventions allow heritage to function as an active component of the urban environment.

Ecological infrastructure is introduced to improve environmental performance. Tree corridors, shaded pedestrian routes, and vegetated areas improve microclimatic comfort and support ecological resilience. These interventions also contribute to the formation of ecological corridors connecting adjacent nodes.

Public space infrastructure is introduced to support social interaction and public use. Seating platforms, gathering areas, and flexible public spaces provide opportunities for social interaction and cultural activities. These interventions increase the usability and adaptability of public space.

Pedestrian infrastructure improvements strengthen spatial connectivity. Continuous pedestrian routes and improved spatial transitions connect Hacıbayram with adjacent nodes, supporting the formation of a resilient pedestrian network. Through these interventions, Hacıbayram is transformed from an isolated heritage destination into an integrated resilience node that supports identity continuity, ecological integration, social interaction, and spatial connectivity.

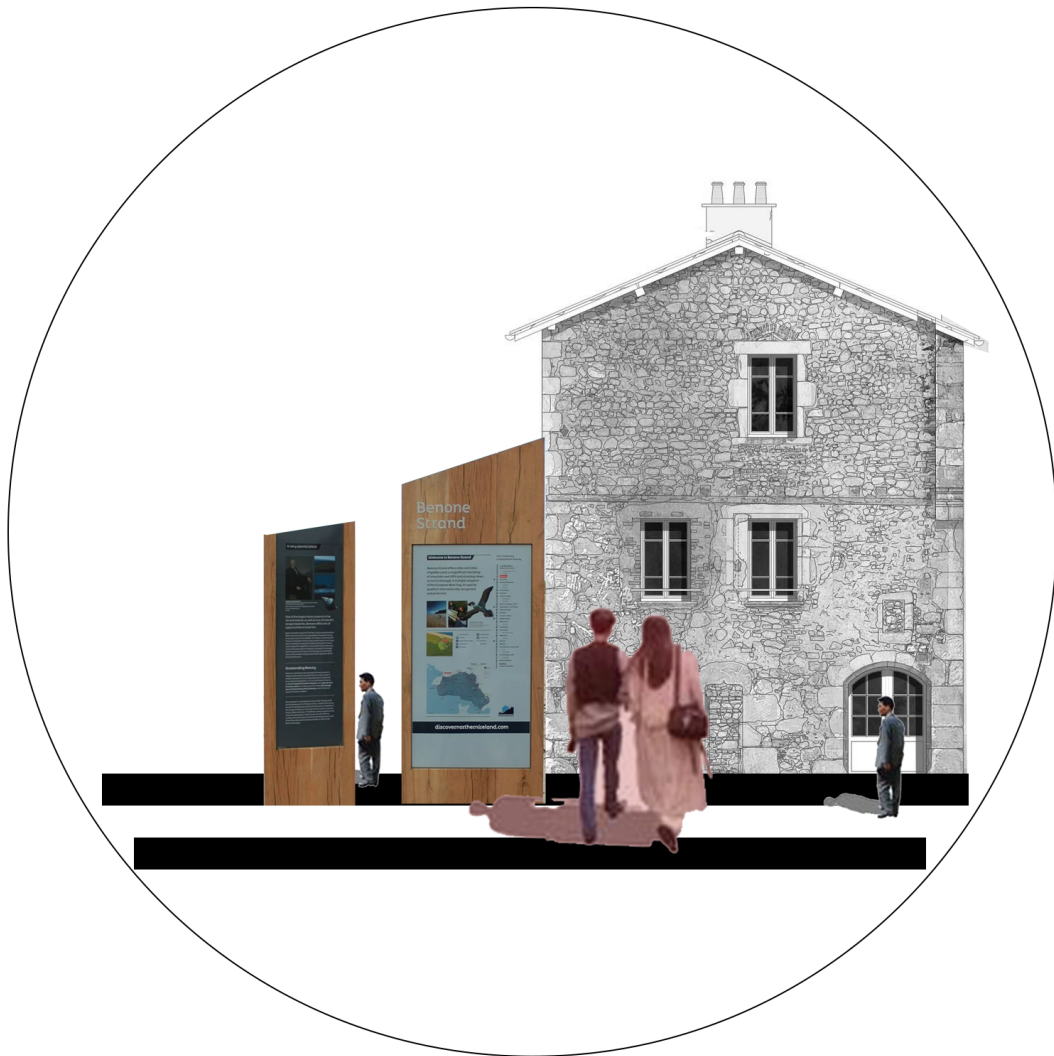


Figure67: Design elements that is emphasizing the panel installments in the heritage areas. Produced by author.



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Figure68: Design elements for the public seating for the increasing public era quality. Produced by author.



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Figure69: Design elements using greenery as the shading elements. Produced by author.



Figure70: Design map of Hacıbayram area increasing heritage areas' quality. Produced by author.

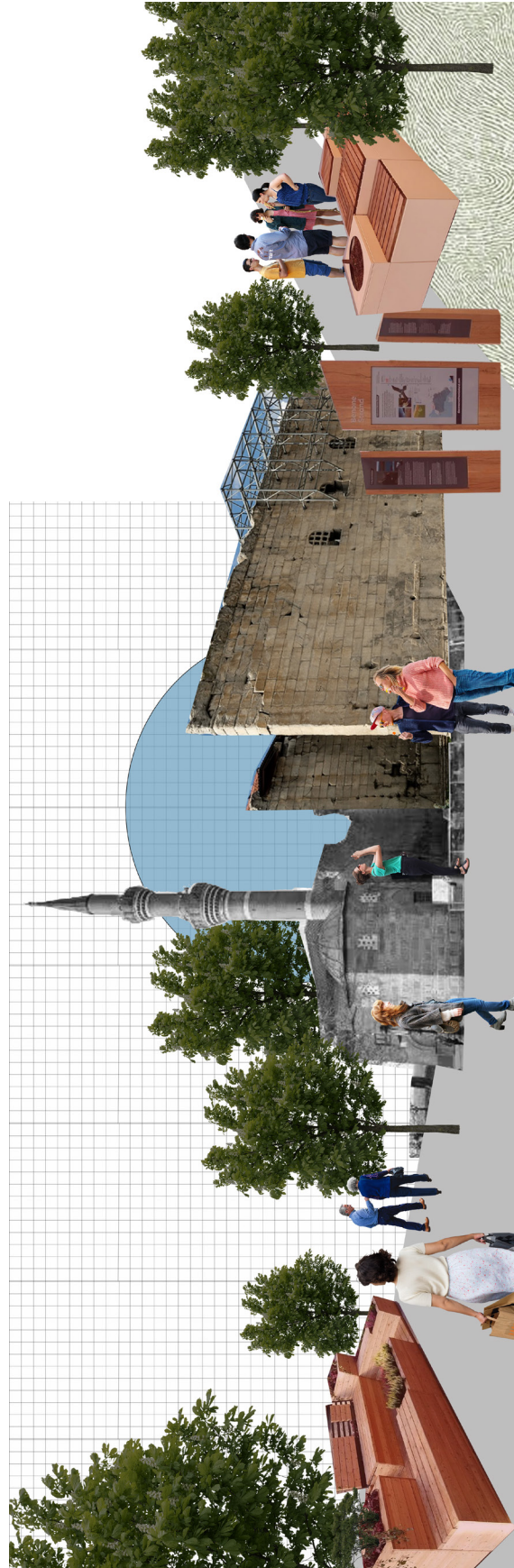


Figure71: Collage of human scale design idea for the area. Produced by author.

## 6.4. Node 03 - Ulus Çarşısı

### 6.4.1. Analysis of the Node

Ulus Çarşısı represents one of the key commercial structures reflecting the modernization period of Ankara during the Republican era. Located at a central and highly accessible point within the Ulus district, the structure historically functioned as a major commercial hub supporting retail activity and contributing significantly to the economic vitality of the city center. Its position within the urban network places it in proximity to major transportation routes, public institutions, and pedestrian corridors, giving it strong potential to function as a connector between different parts of Ulus. As emphasized in resilience literature, centrally located commercial structures contribute to urban resilience by supporting economic continuity, spatial integration, and functional diversity (Sharifi and Yamagata, 2018).

Despite its strategic location, Ulus Çarşısı currently operates below its spatial and functional capacity. Changes in commercial patterns, shifting economic centers, and the emergence of alternative retail areas have reduced the intensity of use within the structure. As a result, many interior and surrounding commercial spaces remain underutilized or function with limited economic activity. This condition weakens the economic contribution of the node and reduces its ability to support economic resilience within the district.

The spatial relationship between Ulus Çarşısı and the surrounding urban environment is also limited. Although the structure is centrally located, its ground-level interfaces lack permeability and active spatial transitions. The building edges do not sufficiently support pedestrian engagement, and the surrounding public spaces lack spatial elements that encourage movement, gathering, or interaction. This creates a condition in which the building functions more as an isolated object rather than an integrated component of the urban system.

Mobility conditions within the surrounding environment present additional challenges. The area is characterized by vehicle-dominated streets, fragmented pedestrian pathways, and limited pedestrian-priority infrastructure. Although pedestrian movement exists due to the central location, the lack of continuous and comfortable pedestrian routes reduces spatial connectivity between Ulus Çarşısı and adjacent nodes such as Suluhan and Hacıbayram. This limits the node's ability to function as part of an integrated mobility network.

Ecologically, the area lacks vegetation and environmental infrastructure. The predominance of hard surfaces contributes to poor microclimatic conditions, including increased heat exposure and reduced environmental comfort. The absence of ecological infrastructure also prevents the formation of ecological continuity between this node and surrounding areas.

From a social perspective, the lack of defined public space infrastructure limits opportunities for social interaction. The absence of gathering areas, seating infrastructure, and flexible public spaces reduces the ability of the node to support diverse social activities.

These spatial, functional, ecological, and social limitations indicate that Ulus Çarşısı currently functions as a partially disconnected and underperforming node, despite its strong spatial potential. However, its central location and existing structural capacity provide significant opportunities for transformation into a key mobility and adaptive reuse resilience node.

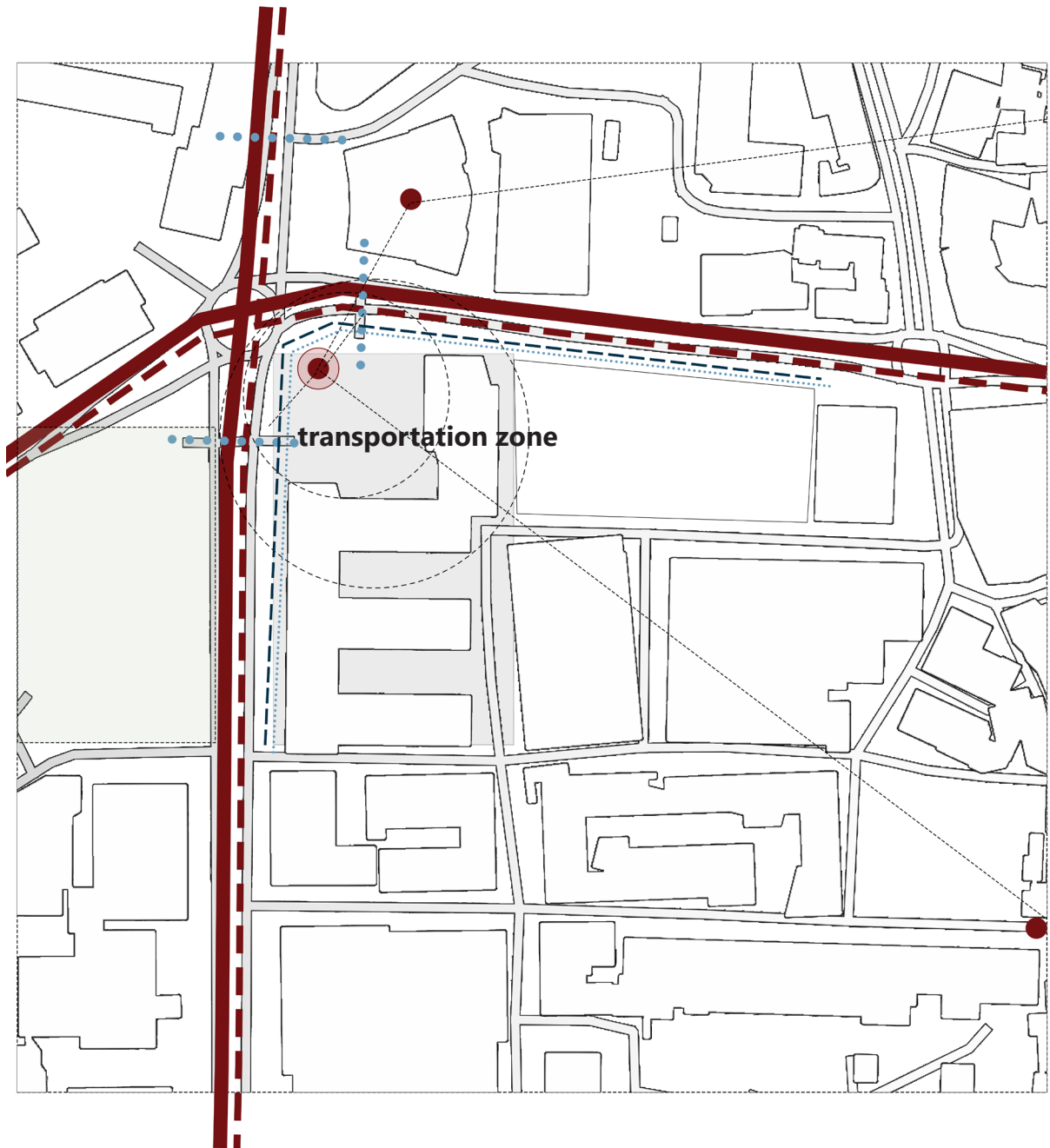
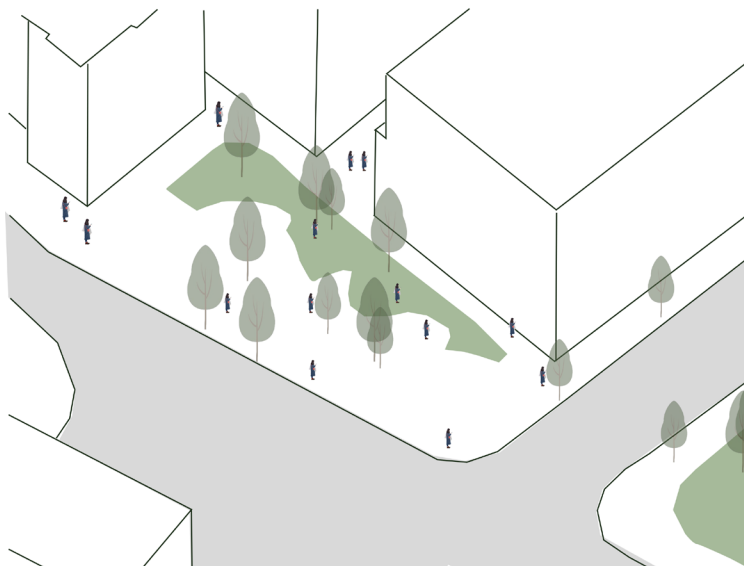
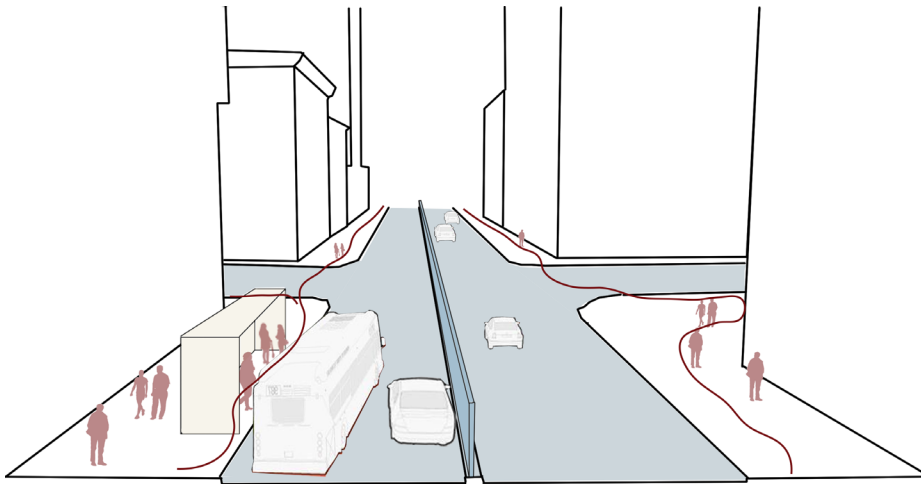


Figure72: Analysis of the design node Ulus bazaar. Produced by author.



**courtyard with transportation zone emphasized**

#### 6.4.2. Weaknesses Based on the Six Resilience Pillars

In terms of economic vitality and adaptive reuse, the underutilization of commercial spaces reduces the economic productivity of the node and limits its contribution to the local economy. The lack of functional diversity within the building reduces its adaptability and limits its ability to respond to changing economic conditions. As emphasized by the City Resilience Framework (ARUP, 2014), economically adaptable spaces contribute significantly to urban resilience by supporting functional flexibility.

Spatial connectivity within the node remains limited due to fragmented pedestrian infrastructure and weak spatial transitions between the building and surrounding public spaces. This condition reduces spatial integration and limits the ability of the node to function as part of a continuous urban network.

Ecological integration is also weak. The absence of vegetation, shaded infrastructure, and ecological surfaces reduces environmental performance and limits the node's contribution to ecological resilience. Identity continuity is partially weakened due to reduced functional activity and limited spatial integration. Although the structure retains historical and architectural significance, its reduced functional intensity limits its role in maintaining urban identity.

Social cohesion is limited due to the absence of public space infrastructure that supports gathering and interaction. The lack of flexible public spaces reduces opportunities for social engagement and limits the social resilience capacity of the node. These weaknesses highlight the need for spatial strategies that improve economic adaptability, strengthen spatial connectivity, enhance ecological integration, and support social interaction.

### 6.4.3. Spatial Resilience Strategy

The spatial resilience strategy for the Ulus Çarşısı node focuses on transforming the area into a mobility and adaptive reuse anchor that supports spatial connectivity, economic vitality, and functional adaptability. This strategy is grounded in resilience theory, which emphasizes adaptability, connectivity, and functional diversity as key components of resilient urban systems (Sharifi and Yamagata, 2018; ARUP, 2014).

The first strategic objective focuses on adaptive reuse and economic revitalization. Introducing flexible and adaptable functions within underutilized spaces allows the structure to respond to changing economic and social needs. This improves economic resilience by supporting diverse activities and increasing functional adaptability.

The second strategic objective focuses on strengthening mobility and spatial connectivity. Establishing continuous pedestrian routes connecting Ulus Çarşısı with adjacent nodes improves spatial integration and supports the formation of a connected urban network. Improving pedestrian accessibility strengthens the node's role as a connector within the district.

The third strategic objective focuses on ecological integration. Introducing vegetation, shaded pedestrian routes, and ecological infrastructure improves environmental performance and contributes to the formation of ecological continuity between nodes. The fourth strategic objective focuses on strengthening social interaction. Introducing public space infrastructure and gathering areas increases opportunities for social interaction and supports social resilience.

Together, these strategies transform Ulus Çarşısı into a mobility and adaptive reuse anchor that contributes to the broader resilience system of Ulus.

#### 6.4.4. Spatial Design Interventions

The spatial resilience strategy is implemented through design interventions that improve adaptability, connectivity, ecological performance, and social usability. Adaptive reuse interventions introduce flexible commercial, cultural, and public functions within underutilized areas of the structure. These interventions increase functional diversity and improve economic resilience by allowing the structure to adapt to changing needs.

Pedestrian infrastructure improvements strengthen spatial connectivity between Ulus Çarşısı and adjacent nodes. Expanded sidewalks, pedestrian-priority streets, and improved spatial transitions create continuous pedestrian routes and improve mobility conditions.

Ecological infrastructure interventions introduce vegetation, shaded pedestrian routes, and ecological surfaces. These interventions improve environmental performance, enhance thermal comfort, and contribute to ecological continuity. Public space infrastructure interventions introduce seating areas, gathering spaces, and flexible public use zones. These interventions support social interaction and increase the usability of public space.

Through these interventions, Ulus Çarşısı is transformed from an underutilized and disconnected structure into an integrated mobility and adaptive reuse resilience node that strengthens economic vitality, spatial connectivity, ecological integration, and social interaction.



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Figure73: Design elements using greenery as the shading elements. Produced by author.



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Figure74: Design elements of greenery hubs around the main roads for the green belt creation. Produced by author.



Figure75: Design elements of flexible market areas for the usage and increasing public life. Produced by author.



Figure76: Design map of Ulus bazaar area increasing public life quality. Produced by author.



Figure77: Collage of human scale design idea for the area. Produced by author.

## 6.5. Phase-Based Transformation

Urban resilience is a temporal process rather than a static goal. In the context of a historic core like Ulus, the urban fabric cannot be transformed overnight; it requires a gradual evolution where each spatial intervention allows the system to learn, adapt, and build capacity for future challenges. This chapter outlines a strategic, phase-based transformation for the Ulus district, organized into three distinct time horizons: the short-term (0-5 years), the medium-term (5-10 years), and the long-term (10-15 years). By structuring the design framework in this way, the research ensures that immediate risks are mitigated while a foundation is laid for a self-sustaining urban resilience network

### The Short-Term Phase: Pointal Effects

The first phase of the transformation focuses on “Pointal Effects,” where specific, high-impact design decisions are implemented within the three identified strategic nodes: Suluhan, Hacibayram, and Ulus Çarşısı. During this period, the primary objective is to enhance the robustness of these locations their ability to withstand immediate shocks and stresses.

At this stage, interventions are localized and tactile. For the Suluhan node, this involves the initial restoration and adaptive reuse of historic courtyards to revitalize economic vitality at a micro-scale. In the Hacibayram node, the focus is on clarifying heritage interpretation and improving the safety and accessibility of the public realm for residents and pilgrims. For Ulus Çarşısı, the short-term phase introduces flexible use zones and minor infrastructure upgrades to support the existing commercial life while preparing for larger structural changes. These “quick wins” are essential for building community trust and demonstrating the benefits of the resilience framework. They serve as a “learning phase” for the city, where small-scale spatial actions such as adding modular green surfaces or improving pedestrian lighting begin to change the perception of the district without requiring massive capital investment.

## **The Medium-Term Phase: Strengthening Relations and Network Connectivity**

As the initial node-based interventions stabilize, the second phase shifts the focus from individual points to the “Relationships between Design Decisions”. This period is characterized by the strengthening of spatial connectivity and adaptability across the district. The goal is to move beyond the boundaries of the three nodes and begin weaving them into a cohesive urban system.

A key priority in this phase is the development of the “Resilience Corridors” pedestrian-priority streets and ecological paths that link Suluhan, Hacıbayram, and Ulus Çarşısı. By improving these physical connections, the district enhances its redundancy; if one path or public space is disrupted, the network provides alternative routes and gathering points. Socio-economically, this phase sees the maturation of adaptive reuse projects. The economic vitality stimulated in the first phase begins to spread, attracting a more diverse range of services and users. From an ecological standpoint, the pointal green elements from the first phase are expanded into continuous ecological infrastructure, improving the thermal comfort of the district and managing rainwater more effectively. This phase is critical because it transforms isolated “islands” of resilience into a functional, albeit developing, network.



Figure78: Map of system growth showing the development of green belt around the whole city center. Produced by author.



Figure79: Map of system growth showing the development of pedestrian movement around the whole city center. Produced by author.



Figure80: Map of system growth showing the development of economic network around the whole city center. Produced by author.

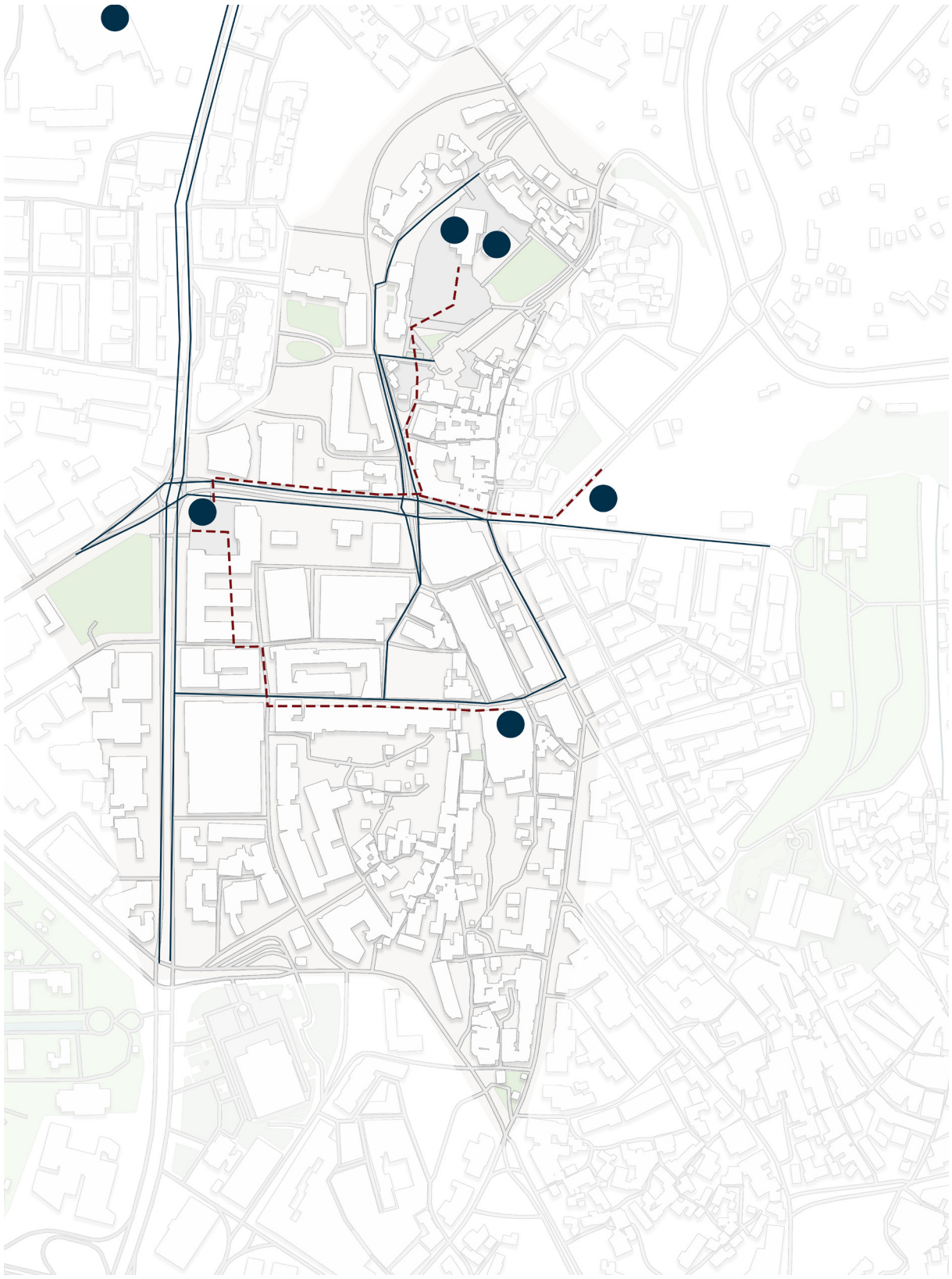


Figure81: Map of system growth showing the development of heritage routes around the whole city center. Produced by author.

## The Long-Term Phase: Creating a Livable and Self-Sustaining System

The final phase of the transformation marks the transition from localized interventions to the creation of a “Livable System”. In this long-term horizon, the cumulative effect of the previous phases results in a full urban regeneration where resilience is no longer a set of projects but a self-sustaining characteristic of the Ulus district.

In this stage, social cohesion and governance capacity are fully integrated into the spatial fabric. The public spaces and community hubs established in the earlier phases now host a vibrant, inclusive public life where diverse social groups—residents, shopkeepers, and visitors—actively participate in the maintenance and evolution of their environment. The district achieves a state of “evolutionary resilience,” meaning it has the capacity not just to “bounce back” from disturbances but to “bounce forward” by continuously learning from its experiences.

The heritage of Ulus is now fully protected through its active use, ensuring identity and heritage continuity for future generations. The final masterplan is realized as a dynamic system of interconnected heritage sites, green corridors, and economically vibrant streets. By the end of this 15-year period, the spatial design framework has successfully transformed Ulus into a robust, flexible, and adaptive historical core that can navigate the uncertainties of the future while remaining deeply rooted in its unique cultural past.

## 6.6. Final Masterplan

The final masterplan establishes a resilient heritage network by physically and conceptually linking the district's key historical assets. This system moves beyond the traditional preservation of isolated monuments to create a continuous "heritage trail" that connects the Suluhan, Hacibayram, and Ulus Çarşısı nodes. By fostering "identity and heritage continuity," the plan ensures that historical sites are not merely museum pieces but active, functional parts of the modern city. This is achieved through strategic adaptive reuse projects that allow old structures to host contemporary functions, thereby strengthening the cultural identity of the district while providing it with the flexibility to adapt to changing social needs over time.

A central component of the masterplan is the creation of a "Green-Blue Network" designed to manage the environmental performance of Ulus. This system addresses environmental stresses, such as the urban heat island effect, by introducing continuous ecological corridors and shaded pedestrian routes that link the localized green interventions within each node. The plan emphasizes "ecological integration" by maximizing permeable surfaces and integrating vegetation into the urban fabric. This ecological continuity not only improves thermal comfort and air quality for residents and visitors but also provides the district with natural "redundancy" in managing climate-related shocks, such as extreme heat or sudden rainfall.

The masterplan prioritizes "spatial connectivity" and "social cohesion" by establishing a hierarchy of pedestrian-priority streets and improved public transportation links. By transforming fragmented streets into a cohesive pedestrian network, the plan facilitates safe and accessible movement between major landmarks and everyday urban spaces. This infrastructure is designed to support a vibrant public life, creating flexible gathering zones and "public space infrastructure" where different social groups can interact. These interventions strengthen the district's social resilience by fostering community trust and collective identity, ensuring that Ulus remains an inclusive and equitable environment for all its users.

The final pillar of the masterplan is the creation of an “Adaptive Economic Framework” that supports long-term “economic vitality” and “governance capacity”. By revitalizing commercial centers like Ulus Çarşısı and Suluhan, the plan encourages a diverse mix of traditional crafts and modern services, making the local economy more robust against financial fluctuations. This economic diversity is supported by a governance model that emphasizes community participation and multi-stakeholder collaboration. The masterplan provides the spatial platform for these economic and social activities to evolve, ensuring that the regeneration of Ulus is a self-sustaining process that “bounces forward” toward a more resilient future.

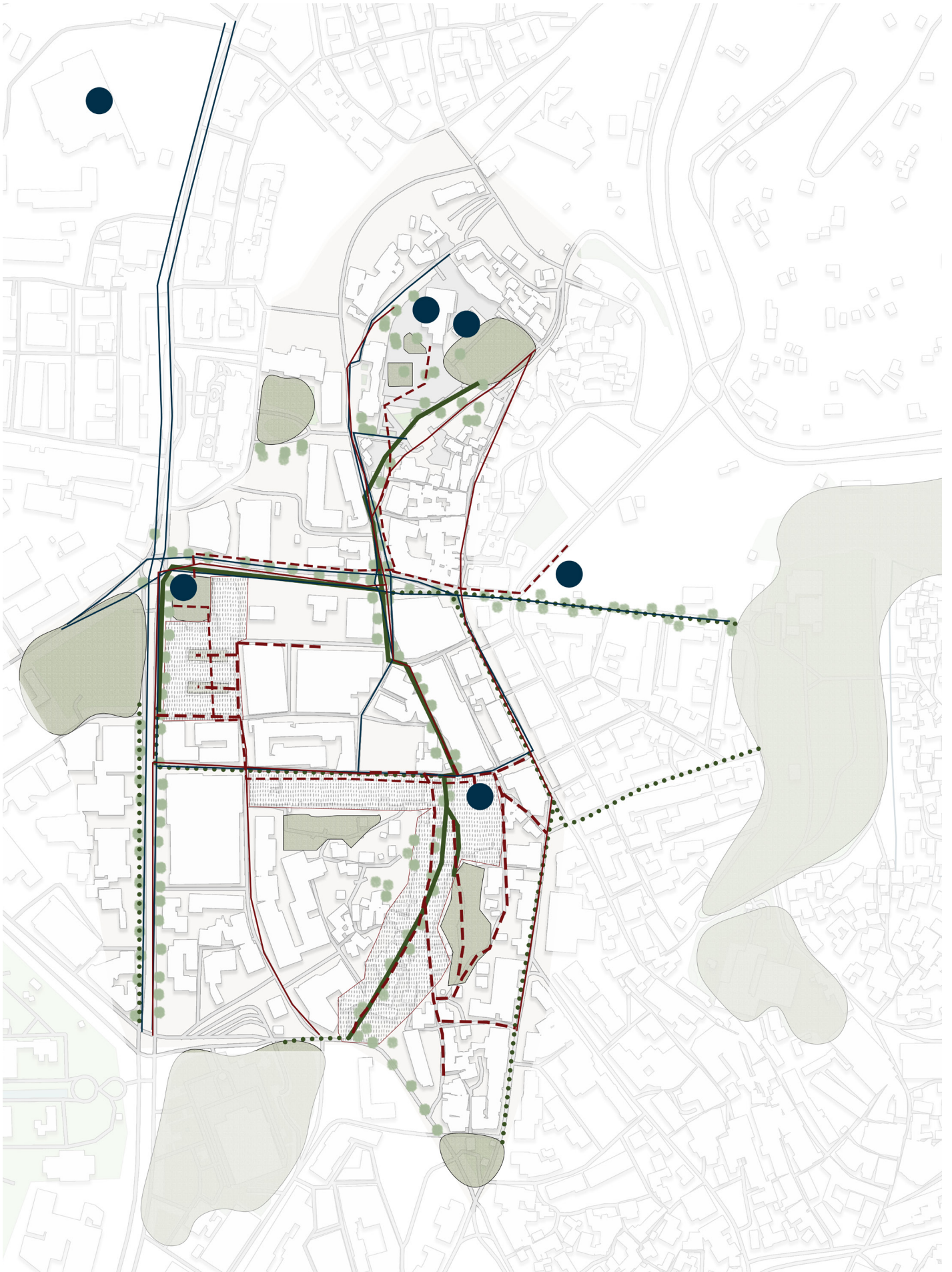
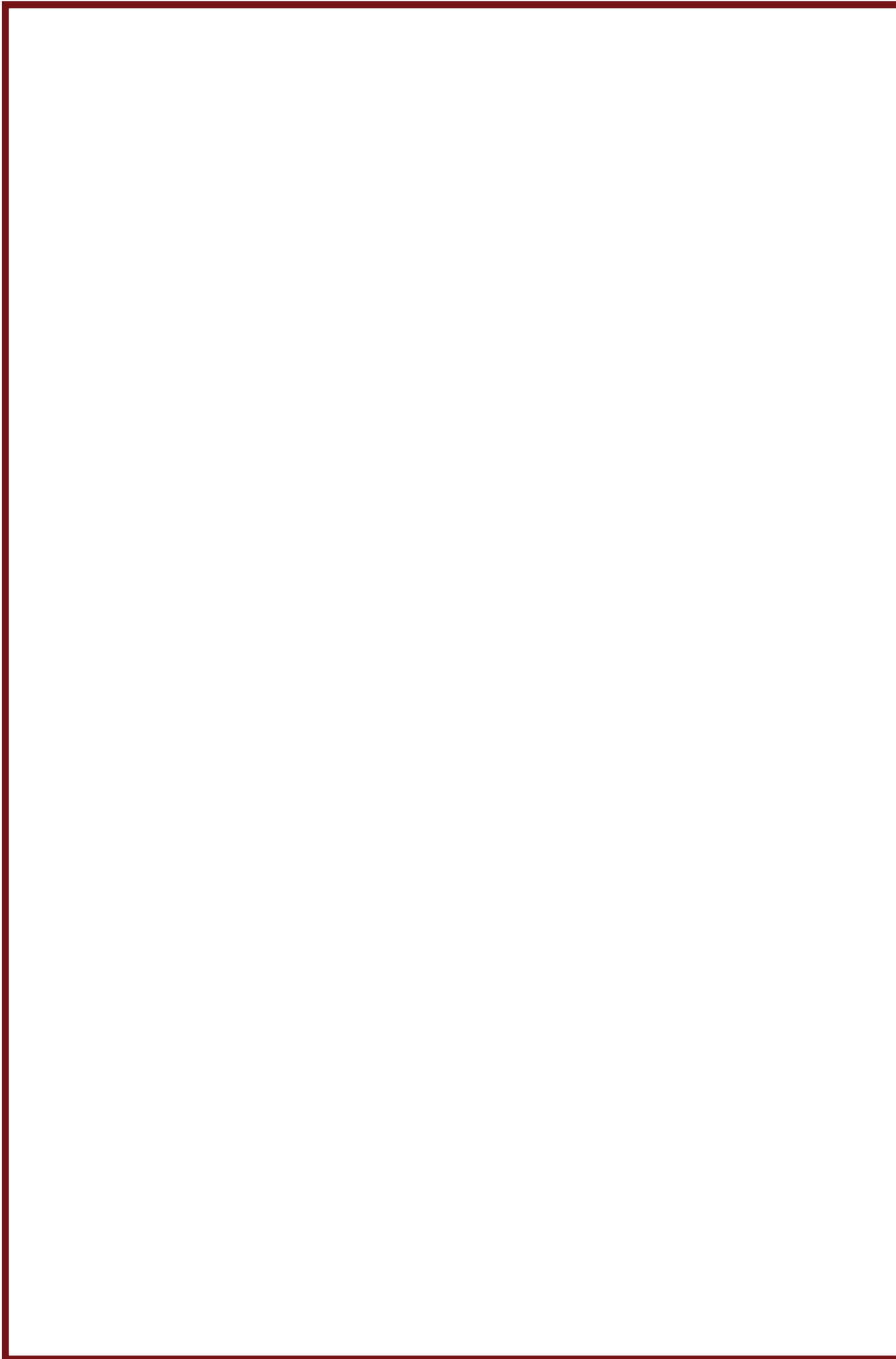


Figure82: Map of system growth as whole to create the system all together for increasing urban resilience over time.  
Produced by author.



# 07

## Conclusion

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This concluding chapter synthesizes the research findings, evaluating how the “Six Pillars of Resilience” were successfully applied through the proposed spatial design framework in Ulus. It reflects on the achievement of the research objectives, discusses the broader implications for historical urban planning, and outlines recommendations for future adaptive strategies in similar heritage contexts.

Historic urban centers such as Ulus face complex challenges resulting from rapid urban transformation, functional changes, and spatial fragmentation. While these areas continue to hold significant cultural, social, and economic value, their ability to adapt to contemporary urban conditions is often limited by disconnected spatial systems, underutilized public spaces, and isolated heritage assets. This thesis explored how urban resilience principles can be translated into spatial design strategies to support the adaptive capacity and long-term sustainability of historic urban environments.

Using the six resilience pillars as a theoretical and analytical foundation, the study evaluated the spatial conditions of Ulus and identified key weaknesses related to pedestrian connectivity, ecological integration, economic continuity, public space usability, and heritage visibility. These weaknesses demonstrated that resilience in historic districts cannot be achieved through isolated interventions but requires a systemic spatial approach that integrates mobility, ecology, economy, and cultural continuity.

The node-based design approach adopted in this thesis provided a spatially focused framework for translating resilience theory into practice. By concentrating on three strategic nodes, Suluhan, Hacıbayram Mosque, and Ulus Çarşısı, the research demonstrated how localized spatial interventions can function as catalysts for broader urban transformation. Each node introduced targeted interventions such as pedestrian infrastructure improvements, ecological elements, adaptive reuse strategies, public space activation, and heritage interpretation infrastructure. These interventions strengthened the functionality and adaptability of individual nodes while also contributing to larger urban systems.

The temporal framework further illustrated how resilience develops progressively over time. Rather than relying on large-scale, immediate transformation, the proposed design allows urban systems to emerge gradually through the expansion and connection of node-based interventions. As pedestrian corridors, ecological infrastructure, economic activation areas, and heritage routes extend and connect, they form an integrated district-scale resilience network. The final masterplan demonstrates how these interconnected systems support spatial continuity, improve accessibility, strengthen economic adaptability, and reinforce historic identity.

The findings of this thesis highlight that resilience in historic urban contexts is not only a theoretical concept but a spatial condition that can be actively supported through design. Urban resilience emerges through the integration of mobility systems, ecological infrastructure, economic activity, public space networks, and heritage continuity. By strengthening these systems, historic districts can maintain their identity while adapting to changing urban conditions.

This research contributes to urban design practice by proposing a resilience-based spatial framework that connects theoretical resilience principles with physical design interventions. The node-based and system-oriented approach presented in this thesis demonstrates how strategic spatial design can enhance the adaptive capacity of historic urban environments. The proposed framework offers a transferable methodology that can be applied to other historic urban centers facing similar challenges, supporting the long-term sustainability and resilience of culturally significant urban areas.

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