URBAN TRANSFORMATION AS AN ALTERNATIVE URBAN SUSTAINABILITY: RETHINKING URBAN DEVELOPMENT IN ISTANBUL AFTER 2000

A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES OF MIDDLE EAST TECHNICAL UNIVERSITY

 $\mathbf{B}\mathbf{Y}$

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ARCHITECTURE

SEPTEMBER 2024

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URBAN TRANSFORMATION AS AN ALTERNATIVE URBAN SUSTAINABILITY: RETHINKING URBAN DEVELOPMENT IN ISTANBUL AFTER 2000

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ABSTRACT

URBAN TRANSFORMATION AS AN ALTERNATIVE URBAN SUSTAINABILITY: RETHINKING URBAN DEVELOPMENT IN ISTANBUL AFTER 2000

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September 2024, 298 pages

After the 2000s, Turkey has undergone an increasingly accelerating phenomenon of urban transformation driven by earthquake risk, migration, and the promotion of the construction sector enforced by pressures for economic growth, and facilitated by new legal regulations. However, this transformation has predominantly manifested as a fragmented and inconsistent process, shaped by efforts of physical restructuring that focus narrowly on economic growth objectives. It lacked a comprehensive planning approach, inclusivity, and consideration of physical, social, cultural contexts. This situation has resulted in the neglect of priorities for improving existing urban fabric and addressing the sustainability goals that are prominent in contemporary urban approach.

This study evaluates various urban transformation examples implemented in Istanbul since 2000, which differ in terms of scale, context, and methodology, and explores alternative transformation models that prioritize multi-dimensional sustainability. In this context, different urban transformation examples are comparatively assessed using a multi-input sustainability framework, offering insights into how future urban

development can balance economic, environmental, and social priorities more effectively.

Assuming that the urban transformation examples observed in Istanbul can serve as a model for other geographies undergoing rapid urbanization, the data and assessments from this study are anticipated to provide a foundation for an integrated transformation approach centered on a broad concept of urban sustainability.

Keywords: Urban Sustainability, Sustainable Urban Development, Sustainable Urban Transformation, Spatial Sustainability, Urban Transformation in Istanbul

ALTERNATİF BİR SÜRDÜRÜLEBİLİRLİK YAKLAŞIMI OLARAK KENTSEL DÖNÜŞÜM: 2000 SONRASI İSTANBUL'DA KENTSEL GELİŞİMİN YENİDEN DEĞERLENDİRİLMESİ

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Eylül 2024, 298 sayfa

Turkiye 2000'li yıllar sonrasında, deprem riski, göç, ekonomik büyüme baskısı sonucu inşaat sektörünün teşvik edilmesi sürecinin ve buna hizmet edecek yeni yasal düzenlemelerin etkisi ile, giderek ivmelenen bir kentsel dönüşüm olgusu ile karşı karşıya kalmıştır. Ancak, bu dönüşüm ağırlıklı olarak dar çerçeveli ekonomik büyüme hedeflerine odaklanan, fiziksel yeniden yapılandırma çabalarıyla şekillenen, bütüncül plan anlayışlarından, kapsayıcılıktan, fiziksel ve sosyal-kültürel bağlamdan uzak, parçacıl ve tutarsız bir dönüşüm süreci olarak gelişmiştir. Bu durum gerek mevcut kentsel dokunun iyileştirilmesini gerekse de bugünün dünyasında öne çıkan çağdaş sürdürülebilirlik hedeflerine yönelik bazı önceliklerin göz ardı edilmesini beraberinde getirmiştir.

Bu çalışma, İstanbul'da 2000 sonrası gerçekleştirilen ve gerek ölçek gerekse bağlam ve yöntem olarak farklılaşan kentsel dönüşüm modellerinden yola çıkarak gerçekleşmiş bazı örnekleri değerlendirmekte ve çok girdili sürdürülebilir alternatif dönüşüm modellerini araştırmaktadır. Bu kapsamda farklı kentsel dönüşüm örnekleri çok girdili bir alternatif sürdürülebilirlik kavramının öncelikleri doğrultusunda karşılaştırmalı olarak değerlendirilmektedir.

İstanbul'da gözlenen kentsel dönüşüm örneklerinin benzeri hızlı kentleşme süreci yaşayan coğrafyalar için bir model oluşturduğu varsayımından hareketle bu çalışma çerçevesinde elde edilen veri ve değerlendirmelerin geniş kapsamlı bir kentsel sürdürülebilirlik kavramını öncelikleyen, bütünleşik bir dönüşüm yaklaşımı için zemin oluşturacağı öngörülmektedir.

Anahtar Kelimeler: Kentsel Sürdürülebilirlik, Sürdürülebilir Kentsel Gelişme, Sürdürülebilir Kentsel Dönüşüm, Mekânsal Sürdürülebilirlik, İstanbul'da Kentsel Dönüşüm

To my loved ones, for their endless care and patience...

ACKNOWLEDGMENTS

I could not have undertaken this journey with such enthusiasm and success without the unwavering support and encouragement from my supervisor, Prof. Dr. Celal Abdi Güzer. His invaluable guidance, constant direction, and belief in my passion and potential have been a cornerstone of this work.

I would also like to express my deepest gratitude to Prof. Dr. Tansel Korkmaz and Prof. Dr. Lale Özgenel, whose positive support, generous guidance, and supervision have been with me throughout this study. Without their involvement, the research would not have endured to completion. I am equally thankful to the other jury members, Prof. Dr. Nuray Bayraktar and Assoc. Prof. Dr. Ela Alanyalı Aral, whose expertise and contributions turned the final stage into an enriching discussion. It has been an honor to defend my dissertation in the presence of such esteemed academics.

Additionally, I am deeply grateful to Dr. M. Güven Erten for his immense contributions. His expertise and kindness greatly enhanced this study. I would also like to extend my heartfelt gratitude to Murat Germen for generously providing his exceptional photographs, which offered a unique complement to my own work. I also extend heartfelt thanks to Ayça Akay for her meticulous assistance, which added immeasurable value and greatly eased the process.

I would like to thank Marmara Belediyeler Birliği (MBB) for recognizing my study and offering support as one of the three PhD theses in architecture on urban studies in 2024.

Finally, my deepest thanks go to my family.

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CHAPTER 1

INTRODUCTION

Urban environments are in a continuous state of flux, with transformation processes particularly pronounced and accelerated in regions like Turkey, where earthquake risk, migration pressures, and the prevalence of informal and substandard building structures present significant challenges. Since the early 2000s, Turkey has witnessed an intensification of urban transformation, largely driven by constructionbased economic growth. This transformation has not only reshaped Istanbul, the nation's largest city, but has also reverberated across the country.

While the primary goal of this transformation is to improve the quality of built structures and urban environments, it has also given rise to new challenges. These include increased population density, gentrification, unregulated and haphazard urban expansion, and the creation of fragmented, disconnected spatial systems on a larger scale. A process focused primarily on the physical renewal of the urban fabric often neglects the growing importance of sustainability in the urban context—particularly in light of the global climate crisis, energy efficiency imperatives, and evolving social sensitivities.

However, urban transformation presents a critical opportunity to engage with a more comprehensive concept of sustainability that transcends simple physical improvements at the building level. Contemporary urbanization approaches require a holistic sustainability framework that address environmental, economic, and social dimensions. This study seeks to analyze and evaluate urban transformation processes through the lens of this expanded sustainability framework. For this purpose, Istanbul, where urban transformation is highly concentrated and exhibits a variety of models, has been chosen as the primary case study.

The urbanization landscape in Istanbul has undergone profound changes in the early 21st century, reflecting significant deviations in its urban development trajectory compared to pre-2000s patterns. This transformation has been shaped by a combination of legislative, economic, social, cultural, and political factors, all of which have played a pivotal role in guiding urban transformations in Turkey. These forces have emerged as key determinants in reshaping the city's urban fabric, resulting in substantial modifications to urbanization practices. As with other regions undergoing comparable urban transformations, these processes have addressed various challenges, introducing new and often controversial issues to the urbanization discourse.

Keyder (2009) relates the political ascendancy of the AKP (Justice and Development Party) to its consolidation of power and the subsequent positioning of Istanbul on the global stage. The AKP's governmental strategy encouraged and accelerated the transition of urban land into a commodity. Since 2002, political trends have aimed to enhance the city's image and its marketing potential to meet global investment demands. As Aksoy (2012) highlights, the globalization of Istanbul has been primarily driven by real estate. The challenge of large-scale urban transformations and the prioritization of eliminating earthquake risks, particularly after the 1999 earthquake, was recognized, but early implementation efforts were hindered by economic and political instability. Nevertheless, within a few years, legal modifications and the instrumentalization of TOKI (Mass Housing Administration) enabled wide-scale urban transformation processes. These initiatives, which focused on transforming urban landscapes rather than solely producing public housing, laid the groundwork for Istanbul's emergence as a leading global city.

After 2000, the city was promoted as a center for tourism, finance, and historical and cultural heritage (Şentürk, 2015). Attracting global capital through urban transformation became the central driver of Istanbul's urbanization policies, positioning the city within a globalized economic framework. Neoliberal economic strategies were embraced, particularly in the post-2000 period (Ergun, 2011). However, alongside these strategies, a fragmented approach to problem-solving

emerged, characterized by inconsistent regulatory frameworks, poorly coordinated processes, contradictory objectives regarding public welfare, and a mishandling of contextual dynamics. These factors came to define the urban transformation processes during this period, often resulting in negative impacts on urban projects.

While the physical and environmental transformation of Istanbul, driven by demographic and social changes, earthquake disaster risk factors, assertive globalization policies, and economic growth, dominated the city's development agenda, socio-cultural transformation requirements—critical to sustainable urban development—were often overlooked. These socio-cultural factors were not treated as integral components of the urban transformation processes, which primarily focused on physical and economic objectives.

Consequently, the expected positive progression in urban environmental conditions has not been fully realized. The impacts of these transformations have neither consistently achieved multi-dimensional satisfaction, nor ensured the durability of positive outcomes in the urban context over time. These negative and problematic situations can largely be attributed to the strategic approaches employed in the understanding and execution of urban transformation processes. Given the expected continuity of Istanbul's urbanization through similar implementations in the coming years (Balamir, 2004), it is evident that urban transformation processes will continue to play crucial roles in shaping the quality of urban development in Istanbul.

The reflections of urban developments have multi-disciplinary interpretations within the urban context. In diverse urban canvases related to transformations in built environments, the multi-dimensional and multi-disciplinary efficiency, quality, and inclusive performance of urban developments are recognized through their urban sustainability appraisal in these contexts. However, urban transformation processes, which require a comprehensive and holistic approach, and Istanbul's urban environmental context, with its significant diversity, have not been adequately exploited through the implementations. Despite a wide range of urban transformation initiatives in the city with distinct objectives, their physical-environmental, socio-economic, and cultural contexts have not been correlated to achieve sustainable developments throughout the processes. This study posits that the key to achieving sustainable urban development in such environments lies in adopting an alternative urban sustainability approach within the context of urban transformation. Therefore, integrating transformation processes with this alternative urban sustainability would significantly contribute to the city's urbanization strategy. Moreover, future urban transformation processes should be evaluated as opportunities to facilitate sustainable urban development in Istanbul. Considering Istanbul as a principal example and representative of urbanization patterns in Turkey, as well as in many other developing countries, the discussion of integrating alternative urban sustainability into urban transformation contexts would resonate across various geographies.

Some research on the urban transformation processes in Turkey has focused on the chronological evolution of urban transformation interventions, often referring to established legislation (Büyük, 2019; Şengül, 2012), as well as the urbanization policy tendencies of the governance authorities (Keleş, 2008; Özdemir, 2010). The socio-cultural outcomes of certain transformation processes creating gentrification problems have been discussed (Çeker & Belge, 2015), as well as the socio-economic problematics of the urban transformation setting (Duman & Zaman, 2021; Doğan & Bostan, 2019; Koçancı & Ergun, 2018; Akalın, 2016). Studies have also examined the morphological aspects of the transformation outcomes (Duman & Zaman, 2021), and socio-spatial reflections (Kılıç & Hardal, 2019).

Unlike the prevalent discussions on urban transformation in Istanbul and other cities in Turkey post-2000, which have predominantly followed established legal frameworks, this study offers a distinct perspective. This thesis examines the concept of urban transformation through the lens of alternative urban sustainability, focusing on the urban contextual dynamics of Istanbul. It explores both the commonalities and divergences across various contexts. The study encompasses a range of diverse urban transformation examples implemented in Istanbul since 2000, incorporating on-site observations and visual and verbal documentation. Conceptual frameworks specific to the study are developed to understand the dynamics of urban transformation in Istanbul through selected case studies. These frameworks establish guiding principles for better urban futures by promoting an alternative urban sustainability approach, thereby directing the transformation landscape towards sustainable urban development.

1.1 Aim and Objectives

The primary and most pressing issue within the urbanization context of Istanbul, which serves as a representative case study for many similarly conditioned Turkish cities and urban areas in developing countries, is the detrimental strategic constitution of urban transformation processes. The irreversible and complex consequences of these processes are significantly damaging the spatial, environmental, and social structures. Conversely, these processes present opportunities for forming sustainable and healthy urban developments, which should be seized, provided they are pursued under the appropriate conditions.

This study is premised on the notion that the primary objective of any changes initiated in urban environments should be to enhance complex living conditions within the built environment. Improvement is defined as achieving balance, unity, cohesiveness, identity, and conformity across all levels of urban contexts. This aligns with the welfare of both individuals and the community, for current and future generations. Furthermore, the dynamic nature of urban contexts necessitates a capacity for continuous change to facilitate updated improvements.

Therefore, flexibility and relentless adaptation to evolving dynamics are crucial in maintaining long-term viability. These factors are integral to an alternative understanding of urban sustainability in this study. The primary objective of the study is to configure the framework for the engagement of an alternative urban sustainability approach, with the process of urban transformation to achieve sustainable urban development. Therefore, the main aim is to establish a specific sustainability perspective as the main foundational notion for diagnosing and readjusting the transformation mechanism.

Nevertheless, to achieve cultural clarity, it is necessary to distinguish such an alternative sustainability approach from the traditional understanding of sustainability. While the architectural and urban design discourse typically emphasizes ecological aspects and efficient resource use within the sustainability framework, this dissertation proposes a novel and alternative perspective on urban sustainability. This study supports a human-centered approach that prioritizes environmental life quality across multiple dimensions and for future generations. Since the 2000s, urban transformations have been the primary drivers of change and improvement in Istanbul's urban context. Consequently, developing a sustainable urban transformation policy aims to steer urban development towards a more sustainable urbanization environment.

Over the past two decades of intensified urban transformation projects, Istanbul has accumulated a significant range of transformation experiences. Socio-cultural and economic impacts, alongside physical changes within these urban contexts, now provide valuable referential clues about the process. While the direct reflections of the projects confined within site boundaries are evident, their indirect reflections on broader scales and post-intervention stages are also perceptible. These impacts of urban transformation projects are significant for discussions of urban sustainability parameters. Therefore, establishing a conceptual framework for sustainable urban transformation, through both conceptual discussions and case study analysis with real-case feedback, becomes feasible. Additionally, the dissertation also aims to analyze and understand the contextual and implementation dynamics of urban transformation processes through various typological case studies.

Following a general contextual evaluation of urban transformation in Istanbul after 2000, the study provides a more detailed understanding of the dynamics of urban transformation and the interrelationships among key actors within the system. To

achieve this, six different urban transformation projects—implemented during similar periods but characterized by unique contextual dynamics—and diverse typologies, are selected as case studies. These projects are intended to represent the significant parameters of the urban transformation landscape in Istanbul since the 2000s Istanbul. As a set, they illustrate the complexity of Istanbul's urban landscape, the multitude of related factors, and the need for site-specific interpretation in process design and project formation.

The selected cases present a range of scenarios: a mega-project development, the renewal and conservation of a heritage site, the redevelopment of two distinct informal settlement areas with varied settings and typologies, individual building renewals within the existing spatial district structure, and a mixed-use development project implemented despite previous conflicting plan decisions. All are in inner-city areas with increased land values and diverse demographic characteristics. Their common trait is the prevalence of economic and political strategies in the modification processes, as seen in most urban transformation projects of the last two decades.

The study also aims to document these selected case-study transformation projects through visual and written materials, as well as on-site observation and photography. These materials are complemented by detailed analysis and discussions based on the criteria and parameters outlined in earlier chapters. Observing the projects within the present context from a citizen's perspective aims to provide experiential evaluation and valuable insights for future considerations. Beyond discussing the projects across various parameters, a more challenging objective is to understand these cases as processes. The conceptual framework highlights the critical relevance of process design in urban transformation implementations, which are essential for guiding the evolutionary trajectory of urban sustainability principles.

Although a comprehensive analysis and understanding of the urban transformation projects are developed through case-study discussions, the assessment of each intervention from an alternative urban sustainability perspective is deliberately deferred to a later section. The values of relativity, interconnectivity, and a comprehensive and holistic view are emphasized across all platforms, including in discussions, conceptual approaches, and case evaluations. Consequently, the substantial objective of the study is achieved through a comparative discussion framework presented after the case-study analyses are concluded. At this stage, the goal is to integrate discoveries with facts, parameters, and evaluations into the argumentation. The comparative discussion aims to illuminate the core rationale behind the alternative urban sustainability framework proposed by the study, which is essential for the success of future urban transformations and sustainable urban development.

1.2 Methodology

For at least the last two decades, urban transformation has been one of the most debated issues in Turkey, particularly in Istanbul, alongside economic and political matters. It has consistently been a major topic in the media and has been followed and discussed extensively by the public. This intense focus stems from the significant physical and environmental changes the city have undergone since the 2000s. Shifts in governmental strategies and the implementation of a political vision geared towards economic growth and development have directed surplus capital into the construction sector. Consequently, urban transformations increasingly have served economic purposes facilitated by new laws, regulatory changes, and financial incentives.

Istanbul, with its unique history, geography, topography, and demographic diversity, has long been a hub for various groups of people with diverse socio-economic statuses. Amid this broad spectrum of urban changes and inhabitants, every scenario has found its place. Informal settlement areas, increasingly encroached upon by inner-city boundaries, have become prime targets for redevelopment, while their residents have sought to profit from their properties. The threat of earthquakes poses risks to numerous buildings and areas with poor physical condition, prompting construction companies, investors, developers, and government authorities to devise redevelopment, renewal, and revitalization solutions aimed at profit gain for all stakeholders. Meanwhile, mega-projects designed to secure Istanbul's status as a global city and drive economic growth have been integrated into the transformed areas. In essence, urban transformation is a recurring theme in public discourse.

Despite the frequent implementation of urban transformation projects, there has been an equally significant amount of dissatisfaction with their outcomes and postimplementation impacts, voiced by both citizens and stakeholders. The issue has also been a persistent topic of discussion within urban and architectural discourse, professional circles, and related literature. The primary research for this study commenced with these inputs, aiming to understand the foundations of urban transformations and the reasons behind their doomed occasional failures in Istanbul.

The study initiates and expands discussion upon key concepts related to urbanization discourse, approached through a distinctive lens of relationality, cohesion, endurance, contextuality, and uniqueness. The literature review on urbanization, urban transformation, urban development, and alternative urban sustainability was conducted with these principles in mind. As part of this review, a wide range of documents including official reports, books, articles, academic studies and research reports, were analyzed.

In parallel with this research, sustainability assessment frameworks were explored and discussed to support the analysis and evaluation of urban transformation processes from an urban sustainability perspective. However, rather than adhering to preconceived and often limited interpretations of sustainability, and their conventional assessment methodologies, the study developed specific criteria and parameters for alternative urban sustainability. These principles were designed to address urban transformation and urban development processes with a holistic, comprehensive, and multidimensional approach.

A key aspect of this dissertation is the application of the case study method, which serves as a complementary foundation to the conceptual framework. The selected urban transformation processes demonstrate representative characteristics within the wide array of implementations in Istanbul during the studied period. These processes reflect the city's unique contextual dynamics, alongside global influences, and provide a significant basis for comparative and evaluative discussion. Initially, prior to the case study selection, a broad range of urban transformation examples in Istanbul were explored to gain a general overview. However, given the dissertation's focus on urban sustainability in the context of urban transformation, only those examples that were meaningful to this discussion point were selected for in-depth case study analysis. Notably the chosen cases are analyzed by their approaches in integrating the project and site with the other scales in the city, as an aspect deemed essential for evaluating urban transformation.

Before conducting the detailed analysis and evaluation of the selected examples, field research was carried out on the sites. During this phase, interviews were held from Istanbul Metropolitan Municipality's (IBB) Urban with officials Transformation Department (https://ibb.istanbul/), the Ministry of Environment, Urban Planning and Climate's Urban Transformation Department in Istanbul (http://istanbul.csb.gov.tr), and representatives from Emlak Konut GYO (Real Estate Housing - https://www.emlakkonut.com.tr/tr-TR) at the Ataşehir- Finance Center construction site, as well as other private architectural, construction and investment companies involved in the projects. These consultations provided access to essential materials and documents, such as project plans, operational plans (Meri plans), plan notes, pre-and post-transformation satellite imagery, and detailed process information obtained from IBB. The collected data was processed and adapted during the research to serve the dissertation's objectives. Since the visual materials primarily consisted of plans at various scales, sections, and elevations were generated for the analysis and evaluation of the projects.

Another key data source was the author's observations from site visits to the urban transformation areas studied in the case examples. These visits were conducted based on the urban sustainability parameters developed in Chapters 2 and 3. The experiential perception of the case studies, viewed from a multidimensional

perspective as projects, processes, and land use designs provided valuable qualitative data. This feedback was further supported by photographic documentation of the transformed urban environments.

Official and private documentation, including visual and written materials obtained from the institutions and architectural firms, revealed inconsistencies in legislative frameworks, lack of coordination, poor institutional collaboration, and variations in the implementation processes over time. These insights informed the development of the thesis methodology.

The most valuable insights from this research were the undeniable significance of process design and management in urban transformations, which outweighs the impact of the project designs themselves:

i. Implementation strategies and liability principles:

Process design involves selecting appropriate implementation strategies that appreciate liability principles with related institutions. These institutions include the urban design and planning departments of municipalities, civic organizations, and legislative and governance mechanisms. Orienting transformation strategies toward public benefit and long-term sustainability is paramount, emphasizing the importance of maintaining the continuity of the transformation process over time.

ii. Relational strategies across urban contexts:

Effective process management depends on relational strategies across various levels of the urban context. Consideration of the interaction between multiple scales and surrounding neighborhoods, or prioritizing objectives at the city level, should guide project design and management accordingly.

iii. Multi-disciplinary contextual dimensions:

Embracing the interaction of multi-disciplinary contextual dimensions is imperative for evaluating the process. This approach

ensures that diverse aspects are considered, leading to more comprehensive and effective transformations.

iv. Continuity, stability, and transparency:

Upholding the continuity and stability of strategies and decisions from the outset, avoiding deviations from the regulations, maintaining transparency in all actions, and involving inhabitants and citizens throughout the process are crucial. These factors ensure a democratic and inclusive approach to urban transformation.

Each transformation process includes unique conditions, with temporal and human factors at every stage adding complexity to the situation. However, case-specific contextual dynamics and relevant content modifications require a flexible system framework operating with clarity, transparency, just and fair rules, and a democratic and holistic stance for the public benefit. Given the complexity and dynamism of contextual circumstances, a set of principles permitting necessary adaptations within rigid guidelines would serve the purpose. The core of sustainability aligns with such principles, informing the research methodology. This resolution necessitated a a new conceptual framework of urban sustainability to establish principles for urban transformation process design and management.

The research involved exploring urban sustainability through foundational reviews of sub-concepts related to urbanization. It involved a top-down analysis of urbanization, urban transformation, and urban sustainability, separately and in dialogue with each other, to develop a sustainable urbanization agenda. The concept of sustainability has been previously associated with urban development literature as healthy improvements in economic, ecological, and social contexts (Gray & Milne, 2004; Mensah & Enu-Kwesi, 2019; Thomas, 2023), efficient use of resources inter and intra-generationally (Stoddart, 2011), a balance between the physical environment and population (Ben-Eli, 2018), and maintaining ecosystem regeneration through equilibrium between society, economy, and the environment (DESA-UN, 2018). Different approaches engaging in economic, environmental, and social systems have shared the consensus that urban sustainability values continuous

human well-being (Acemoğlu & Robinson, 2012; Evers, 2024). The emphasis on a human-centered perspective aligns with this study, whereas other approaches are criticized for externalizing various aspects of urban contexts.

The conceptual framework outlined in Chapters 2 and 3 establishes the foundation for discussing urban transformation processes and projects in Istanbul through the critical perspective of alternative urban sustainability. Chapter 4 documents and evaluates the urban sustainability performance of individual transformation cases, providing inputs for the development of an alternative urban sustainability understanding. Consequently, accomplished case studies, along with their multidisciplinary and multidimensional impacts, and implementation histories, inform the comparative discussion on alternative urban sustainability principles. Chapter 5 serves as the concluding section by offering a comparative analysis of contextual dynamics and outcomes across various cases, evaluating them based on sustainable performance criteria. This iterative analysis epitomizes the principles of alternative sustainability. Ultimately, the study establishes guidelines and principles to inform future urban transformations in Istanbul and other developing cities with similar urban dynamics, guiding them toward achieving sustainable urban development.

1.3 Limits of the Study

The primary focus of this dissertation is to explore urban transformation and its negative impacts on urban environmental quality, leading to problematic situations. It also examines alternative urban sustainability as a countermeasure for addressing these challenges. Given the increasing global emphasis on human-centered satisfaction in urban environments, the substantial rise in urban populations, and the continuous change and related issues in urban development, the need for effective improvement responses becomes imperative.

With the expansion of economic and technological networks and the effects of globalization, many regions experience comparable deviations in urban contexts, elevating these reflections to an international level. Istanbul, where urbanization is intensely driven by urban transformations, is a prime example of many urban centers with comparable dynamics and complexities of rapid urban development. Consequently, while this study focuses on Istanbul's urban transformation context to examine the various dimensions of the problematic situation within its significant contextual dynamics, the findings and conclusions are anticipated to apply to other Turkish cities and developing urban areas with similar characteristics. Therefore, examining how urban transformation processes contribute to unsustainability in urban development trajectories begins with a generalized perspective. However, to introduce and incorporate contextual dynamics into the debate, the inclusion of urban transformation and urban sustainability cooperation considerations are limited to experiences specific to Istanbul.

In addition to the limitations of the studied urban region, a specific period has also been designated for analysis. The expansion of transformation processes in Istanbul's urban landscape began to peak at the start of the 21st century, driven by socio-economic trends, legislative changes, and policy regulations. These transformation activities continued to evolve through strategic phases in the following years. Therefore, the study focuses on initiatives from 2000 onwards.

Throughout the dissertation, all forms of urban change in built urban environments are referred to as "transformation," encompassing various human-induced alterations. While the related discourse typically categorizes these urban actions with different names based on commonly recognized intervention typologies, this thesis conceptually includes any interference into the physical urban context that involves multi-dimensional modifications under the umbrella of urban transformation. On the other hand, alternative urban sustainability is introduced as a new and assertive framework, employing a critical conceptualization of sustainability within the urban context. The scope of this concept within the study is defined through the analysis of implementation practices and the discussion of objectives about the issues inherent in urban transformation.

In addition to discussing the conceptual framework, this dissertation examines a series of case study projects for various reasons relevant to the study's scope. The selection of six urban transformation projects initiated and conducted in Istanbul during the 2000s was based on their contextual and content dynamics. Each project has unique circumstantial characteristics, representing Istanbul's urban transformation landscape individually and collectively. The implementation sites are primarily at the neighborhood scale, except for the single-building transformations in the Bagdat Street District. The analysis of these projects centers on their relationships with the broader urban spatial structural system rather than their private spatial configurations. However, this study does not cover infrastructural and cityregional transformation projects. Instead, it emphasizes the direct interactions and implications for the inhabitants within their transformed environments at multiple levels. This focus highlights the everyday experiences of residents, rather than largescale infrastructural changes, which fall outside the scope of the case study discussions.

CHAPTER 2

THE INTERACTION BETWEEN URBAN TRANSFORMATION AND SUSTAINABLE URBAN DEVELOPMENT

In urban discourse, concepts are defined in a variety of ways. Urbanization, urban change, urban development, urban transformation, urban environmental quality, urban sustainability, and sustainable urban development are used interchangeably since precise definitions for each are difficult to establish.

Within this dissertation, *urban transformation* is the central concept explored through its relationship with *urban sustainability*. Urban transformation is treated as an umbrella term encompassing all forms of urban change referenced in urban literature. Despite being driven by different factors and occurring in diverse geographies with varied physical, economic and socio-cultural contexts, urban transformations are considered to share the common goal of improving urban environmental quality.

Urban environmental quality is considered a crucial goal for all current urbanization processes. Consequently, this chapter will explore general approaches to these concepts and present the study's perspective on them, to develop a nuanced understanding of urban transformation, while focusing on its relation to urban sustainability.

Urban sustainability, regarded as essential for achieving sustainable urban development across various kinds of urbanization processes, will help in reevaluating *urban transformation* processes. Consequently, this chapter will provide brief evaluations of these key concepts, with *urbanization* positioned as the foundational element of other urban processes. It will then examine the relationship between *urban transformation* and *sustainable urban development* in the context of Istanbul, to be detailed in Chapters 3 and 5.

2.1 Urbanization

Urbanization has profoundly transformed the world, making irreversible changes in urban environments in physical, environmental, and social contexts. In the 20th century, industrialization was the primary driver of urbanization. In the 21st century, the information revolution, spurred by economic change and global networking, has become the key factor. This shift has led to problematic conditions, particularly in developing countries. Income and wealth disparities have increased while environmental quality has decreased, and natural resource conservation has declined in these regions. Although generalizations about urbanizing or urbanized areas can oversimplify the subject, given the significant differences between cities, it is still possible to distinguish between developed and developing countries based on their economic, social, and political structures (Hall & Pfeiffer, 2000). Consequently, examining urban transformation and urban sustainability in Istanbul since the 2000s within this dissertation requires an understanding of the urbanization characteristics and issues of developing countries.

Urbanization describes the transformation of human settlements, through a range of concepts, processes, and definitions involves a continuous and dynamic nature interplay of mechanisms that drive multiple urban changes. Throughout the urbanization processes, cities have emerged as engines of economic growth, gaining unprecedented power. They offer numerous opportunities and risks, inequalities, and extraordinary possibilities. As Ebenezer Howard noted a century ago, employment and social opportunities are the bright side of urban environments, while environmental degradation and poverty for certain segments form the downside. Cities might have the potential for sustainable settlement, yet they can be severely unsustainable under certain parameters (Hall& Pfeiffer, 2000).

The crucial question is how urbanization in such urban environments can make the transition to sustainable development. Urbanization processes have negatively affected the quality of life in urban environments, led to the artificialization of land, and driven excessive resource consumption. While infrastructure and transportation
systems in urban areas have largely succeeded in providing essential services, other spatial and urban design consequences of urbanization have remained problematic in terms of human well-being, urban environmental quality, and excessive use of resources within the urban context for future generations (Gonzalez, Gomez, Gonzales-Perez, 2024).

Aligning urbanization agents like governance, regulations, planning and design policies and implementation strategies with urban environmental quality can mitigate or reverse these problems. This alignment could direct the impacts of urbanization towards public benefit, enhanced urban environmental quality, longterm satisfaction of urban contextual needs, and intergenerational resource use. Thus, "sustainability in urban context" emerges as a critical tool for achieving this trajectory alongside urbanization.

According to Seto et al. (2010), urbanization is not a homogeneous process; it involves a range of differences and commonalities in urban environments. Different forms of urbanization have different impacts on local and global urban contexts. "The spatial configuration of urban land use, urban processes implementation, form of the urban area, and the pace and scale of urbanization determine most interactions between urban areas and the environment" (Seto et al., 2010).

With more than half the world's population living in cities, urban areas have become the predominant form of human settlement. Years ago, the United Nations referred to this condition as the "urban age" by the United Nations (UN-Habitat, 2012). Cities in this urban age act as places of new positive transformations and create new problems for humanity, in terms of social, environmental, ecologic, and economic impacts. The constant cycle of evolution and transformation in urban areas redefines cities and urban areas, bringing the concept of *urban sustainability* into focus in the discourse of urbanization. The need for sustainability discussions in urbanization relies on the presence of uneven spatial development, neoliberalism, and lack of environmental justice in urban areas (Rees & Wackernagel, 1996; Atkinson, 2007; Elmqvist, 2013). When the production and evolution of urbanization are favored as the perspective for understanding the process, agglomeration, or urban region itself as is, it must be accepted as the focal point (Castells, 1977.) Then, the power of agglomeration and industrialization shaping the spatial concentration of population, production and infrastructure emerges as the means of reshaping spaces at multiple scales (Soja, 2000; Kratke, 2014; Scott and Storper, 2014). At this juncture, in addition to the challenge of defining what constitutes a city, the expanding and blurred distinction division of urban and non-urban territories in urbanization areas has emerged as a contemporary urban phenomenon, questioning the former definition of city limits (Schmid, 2006; Brenner & Schmid, 2014).

James and Bound (2009) argue that ecology, technology, and social organization are the key factors affecting the growth of the urbanization process continually shaping cities. According to this perspective, the development of a city is very much related to the sociocultural characteristics of the area including its early history and projected future. By characterizing the urban system as a dynamic, historically developing, and diverse process rather than as a fixed form, Brenner and Schmid (2015) significantly shift the perspective on urbanization. As Harvey (1985) declares, urbanization is realized through built environments and multi-scaled socio-spatial arrangements. However, it is also characterized by continuous transformation, where existing structures are frequently dismantled to produce new patterns of socio-spatial organization. Consequently, rather than a singular form of urban settlement, it is more accurate to describe a continuous process of urbanization that brings changes in various contexts.

Lefebvre's theory of urbanization emphasizes the social production of space within urban environments. It explores how society and space are interconnected, highlighting the role of everyday life and social practices in shaping the urban landscape. He asserts that urbanization is not just a physical process but also a social and cultural one, influenced by power dynamics and how people experience and use space. According to Lefebvre, urbanism is a social practice rather than just a structural approach to spatial forms, emphasizing the management and organization of space (Lefebvre, 2016).

THEORY	WHAT IS URBAN	WHY AND HOW URBANIZATION OCCURS	CONSEQUENCES OF URBANIZATION	LIMITATIONS
1920s-: Human Ecology	A natural environment	An organic process driven by industrialization, technological progress, information penetration, and diffusion	Human interactions in the urban environment	Focusing narrowly on the rural-urban differences. No subject matter like culture or politics. Overlooking class and power hierarchies. Presumed that cities were nested within national territories.
1960s-: Political Economy	A political economy	A result of accumulation and class struggle in operation of capitalist economy. The elite classes, the state, and structural forces	Economic and spatial inequalities	Overlooking local historical and cultural conditions; little reference to the physical environment of the urban. Presumed that national economy was the basic container for socio- spatial polarization within and between cities
1980s-: World- System and Global Theory	A product of global forces but also local historical conditions	A response to the operation of global capitalist markets and its interactions with local sociopolitical and cultural processes. Globalization and colonial history	Global inequalities and varying patterns of urbanization. Hierarchical and horizontal ties among world cities	Downplaying the role of state; overlooking human agency in the urban environment
1990s-: Cultural Analysis	A place of consumption	A response to the rise of the cultural economy. Creativity, arts and cultural activities, technology, talent, and tolerance. Urban amenities	Innovation and creativity, urban regeneration. Culturally distinct cities and neighbourhoods variously linked to income inequalities	Normative debates over inequality, class conflicts, power hierarchy

Figure 2.1 Perspectives on Urbanization (Wu, 2021, 424)

Figure 2.1 provides an overview of how the definitions, reasons, consequences and domains/limitations of urbanization have evolved historically. This summary also recalls the complex nature of urbanization and its interrelationship with economic, social, and political strategies in global terms. How the concept of *urban* is perceived can significantly influence one's view of urbanization. Wu's (2021) evaluation also reflects how urbanization can also change in meaning, content, and created impacts

over time. Nevertheless, the need for holistic understanding and a multi-disciplinary approach to the process will remain crucial for keeping up with these changes.

2.1.1 Conceptual Approaches to Urbanization

The main theories on urbanization can be categorized into four distinct approaches: classical urban sociology, dependency structuralism, Marxist urbanization, and multilevel networks theory:

- Classical Urban Sociology: Focuses on the social aspects of urbanization and how cities shape society. Key contributors to this approach are Emile Durkheim, Max Weber, Georg Simmel, and Louis Wirth.
- Dependency Structuralism: Examines the relationship between urbanization and economic dependency, especially in Latin America.
 Fernando Henrique Cardoso, Enzo Faletto, and Andre Gunder Frank are key proponents of this theory.
- iii. Marxist Urbanization: Applies Marxist theory to urbanization, views it as the product of capitalist processes, and emphasizes the role of capital accumulation and class struggle, collective consumption, and social movements forming urban spaces. Karl Marx, David Harvey, and Manuel Castells are the pioneers of this approach.
- iv. Multilevel Networks Theory: Explores cities and systems as interconnected global and local networks and the economic and social implications of the global urban hierarchy. John Friedmann, Saskia Sassen, and Peter Taylor represent this typical approach to urbanization (Clark, Wu, 2021; Farzaneh, 2021).

Urban studies history goes back to the last years of the 19th century. Engels, a pioneer in urban studies, highlighted the direct interaction of class differentiation with the physical formation of cities, stating that urbanization reproduces inequality (Engels,

1996). Simmel focused on how modern urbanization outcomes have produced negative formal and rational social relationships (Simmel, 2004-original, 1903). The Chicago School, led by Robert Park and influenced by Simmel, viewed the city as an independent entity, free from social constructions. Louis Wirth defined *city* based on population size, density, and social heterogeneity, arguing that metropolitan urbanization led to alienation and psychologically unhealthy societies (Wirth, 1996, original, 1938). Gans (1962), on the other hand, suggested that societies could find a peaceful existence in cities.

The Chicago School, redeemed by Robert Park, Ernest Burgess, and Roderick McKenzie, developed the human ecology paradigm, viewing urbanization as a natural phenomenon, supporting the competitive existence of different social groups and classes in physical urban contexts, and accepting urban structure-generated inequalities as normal. This view, termed social Darwinism, formed the basis of urban growth models that were influential until the 1960s. Theories like the concentric zone model and social ecology emerged to explain city dynamics.

In the 1960s, anarchist movements led to a critique of capitalist economic systems and a re-evaluation of cities around the urban political economy paradigm. David Harvey and Manuel Castells, Marxist urban ideologists, related urbanization to surplus value and collective consumption trends, viewing cities as contexts for emerging social movements. They explored the intersection of politics and economics in urban areas to learn how power dynamics, policies, and economic forces shaped cities. Around 1983, Manuel Castells proposed a perspective that promotes the power of human beings rather than that of urban structures influencing urban social movements. He defined urban transformations as the natural results of social movements towards a better urban future.

In the 1980s, urbanization paradigms shifted from Marxist spatial formation theories to urban formations dependent on city identity and image, driven by consumption, globalization, and economic liberalization. The city was no longer the place where industry had settled. Post-modern urbanization prefers to define the city as a text to be read rather than a physical entity (King, 1996). Despite socio-cultural differentiation and increased inequality due to neo-liberal dynamics, these paradigms have not fully explained the transformation of urban environments. Consequently, there are various perspectives for interpreting the concept of *urban*, and depending on the specific perspective adopted, different interpretations of urbanization emerge.

For the Chicago School, which viewed the city as an ecological complex, urbanization is associated with population, organization, environment and technology. Conversely, when urbanization is examined through the lens of political economy (Marxist urbanization), it is connected to capitalist profit-making and class struggle. If the primary definer of the city is the influence of globalization (Global city theorists), urbanization is linked to global economic factors. When the city is regarded as a site for consumption (by urban cultural analysts), driven by cultural dynamics, urbanization is consequently triggered by the cultural economy (Clark and Wu, 2022).

Urbanization encompasses multiple dimensions and processes, each possessing distinct value and efficacy within urban areas, coexisting and interacting with one another. The perception of geographical scale in analyzing the concept of *urban* varies among these approaches, contributing to their diversified understandings of the city. Wu et al. (2018:2) succinctly comment that urban areas must be viewed from three perspectives: scale, level, and relations. Additionally, it is important to recognize that scholars working in North America and Europe have conducted dominant urban studies that engage with the specific urban conditions of these geographies.

2.1.2 Urban Change

Rapid urbanization sparked planetary changes in the context of global urban development, resulting in major deviations in ecological (Alberti, 2017), and socioeconomic systems (Bettencourt et al., 2007; Bloom et al., 2008; Angel, 2012) throughout the 20th century. This global influence has affected the spatial scales of urban environments, leading to significant expansions (Young et al., 2006). Developments in communication technologies and infrastructure services have increased networking and global interdependence among people, integrating urban regions and nearly eliminating the distinction between urban and rural areas. However, this integration has also led to significant diversifications in physical environmental qualities and socio-political contexts. Despite many similarities in urban conditions, extreme diversities have also emerged (Alberti, 2017). Population growth, economic and ecological problems, excessive use of natural resources, extreme climate change issues, health threats, and pollution have dominated the urbanization agenda for years (UN-Habitat, 2016). This study focuses on structural changes developing in built urban environments through transformation processes, alongside the ecological outcomes of these global urbanization changes.

Urban change in the built environments of cities and other urban areas is inevitable, occurring continuously for numerous reasons and under different conditions. Regardless of the disciplinary perspective from which urbanization is perceived, urban areas, as living organisms, are subject over time to economic, social, cultural, technological, political and environmental pressures to meet the new demands. As summarized by Roberts (2017), the six major themes that create change in urban environments are the relationships between physical conditions and socio-political atmosphere, the current need for addressing housing, health, and well-being conditions, the desire to align social improvements with economic development, the necessary control interventions in physical growth environmental issues, and the political issues in urban decision making.

These themes highlight the crucial interdependency of urban factors and the variations they may display in developed and developing countries. A significant proportion of the world's population increasingly resides in urban areas. Although there has been a minor shift in this trend in Western and developed countries, accelerated urbanization continues robustly in underdeveloped and developing countries. Despite the emergence of "shrinkage" and "decentralization" paradigms in

urbanization discussions in developed countries in recent years, the opposite trend persists elsewhere.

According to data released by the UN in 2018, the world urban population rate, which was 55% in 2018, is expected to reach 68% by 2050 (UN, 2018). Regardless of the development rate of urban regions, political, social, and economic systems generate new demands. The positive aspect of this condition is the introduction of "fresh opportunities" for improving human settlement conditions (Roberts, 2017). This study adopts the same perspective on urban change that will occur through intentional efforts (to be called urban transformation) in Istanbul and evaluates this as a beneficial opportunity for steering the urban transformation process towards sustainable urban development.

Intentional urban change is a significant issue that must be discussed with its multiple parameters and dynamics, considering the potential for transitioning to opportunities that benefit the public. Given the complexity of urban contexts—encompassing physical, social, economic, historical, cultural, and political dimensions—the scale and causes of change and operational strategies employed necessitate close analysis and a comprehensive, integrative understanding. This approach is also essential for effectively resolving the problems associated with urban change. Within the framework of this study, intentionally processed urban changes must aim to improve the conditions of their urban contexts while aligning with local and global urban concerns. Such changes should be guided by strategic frameworks designed to eliminate negative outcomes such as short-term effectiveness, fragmented character, and scale-wise limitations, as noted by Hausner (1993). Roberts (2017), emphasizes the importance of targeting long-term solutions and being aware of contextual particularities in strategic actions for consciously initiated urban changes.

2.1.3 Urban Development

The relationship between urbanization, urban growth, and urban development encompasses a complex interplay of processes, actions, drives, and interdependencies from various perspectives. Understanding the interaction between urbanization and urban development over recent decades is crucial for evaluating and projecting efforts towards sustainable urban development, particularly within the specific configuration of spatial sustainability addressed in this dissertation.

In the age of global economization and networking, the concept of the global city has garnered significant attention and support. Economic globalization has drawn both poor and rich countries into a common framework, often at the expense of cultural and geographical identities, thereby unifying them under the forces exerted by global dynamics. The elevated prominence of global cities has, however, brought risks of social and physical contextual destruction, creating anonymous urban areas.

Urbanization, viewed as a primary instrument of development, employment, and capital accumulation, has paved the way for significant characteristics of urban development in the 21st century (Davis, 2016). As Harvey (1973) points out, during the neo-liberal era, urbanization acquired a more vulgar positioning. Morphological agglomeration increased informal settlements resulting from rural-to-urban migration, uncontrolled expansion of physical boundaries, massive urban transformations driven by excessive real estate developments, spatial fragmentation in land use, and the displacement of the poor to urban peripheries have marked the urban landscape. These developments have significantly escalated inequalities in social, economic, and physical rights within cities.

Brenner and Schmid's (2011) conceptualization of "planetary urbanization" is a different way of understanding contemporary urbanization as the integration of various scales, socio-political and economic identities into a singular entity. This process, as noted by Lefebvre (1967), represents "the death of the city," wherein urban areas are primarily valued for their role in capital accumulation. This

commodification of urban spaces results in a detachment of inhabitants from their urban environment. Consequently, the diminished sense of belonging and identity among urban residents, driven by urban developments that focus on primarily economic and political strategies at both global and national levels, necessitates a reevaluation of urbanization.

Considering that urban development is a complex and multifaceted process that aims to continuously improve the use of urban environments for all inhabitants with equal rights over the long term and in an inclusive manner, urbanization objectives must align with these impacts. Beyond economic and political considerations, physical, environmental and socio-cultural aspects must also be incorporated into the goals. Planning and designing urban development require coordination, cooperation, and the involvement of multiple stakeholders, including urban planners, architects, policymakers, civic institutions, and residents. Therefore, a multidisciplinary approach to urban development is essential for implementing the process and understanding its outcomes. As a distinct facet of urban change, urban development is not a natural evolution of urbanization but a deliberate, planned process designed to enhance private and public living conditions, infrastructure and transportation services while managing the growth to ensure long-term quality of life. Therefore, urban development must be underpinned by a sustainability perspective within the urban context.

2.2 Urban Transformation

Urban transformation research aims to generate knowledge and support change in urban transformation processes, promoting sustainability, and resilience of urban systems (Wittmayer and Hölscher, 2017). In the 21st century, the global increase in urban populations, along with changing socio-economic activities, technological advancements, and environmental pressures, has significantly impacted urban areas. Consequently, urban transformation has become a pervasive issue in developing and developed countries. These transformations occur at varying scales and speeds,

influenced by diverse pre-conditions and circumstances. In some urban areas, changes are systematically directed through long-term planning and design processes managed by public and private sector authorities. In contrast, cities like Istanbul may experience spontaneous, unplanned transformations lacking organized decision-making and multi-disciplinary research foundations.

Regardless of the context, urban transformation processes must be analyzed through a set of basic aspects to facilitate comparison and evaluation. Thus, definition and re-evaluation of the terms related to the theoretical framework of this study are essential. An overview of these terms as used in recent literature will be presented, followed by new interpretations, to clarify the conceptual framework for the research.

Urban transformation plays a critical role not only in shaping the environments where the majority of the global population will reside but also in advancing political and economic agendas across developing, underdeveloped, and developed nations to varying degrees. When these processes prioritize political and economic ambitions over the social, cultural, environmental, and economic public good, they have the potential to generate significant adverse outcomes in urban development. Conversely, if urban transformation strategies are ethically guided and aimed at improving the quality of urban life for all inhabitants—ensuring fairness, equity, and transparency—such efforts can contribute positively to the multidimensional enhancement of urban environments.

However, if urban transformation is driven primarily by the pursuit of neoliberal economic growth, global competitiveness, and political authority, rather than fostering socio-cultural and economic balance within communities or preserving urban identity and character, it risks becoming a catalyst for unsustainable urban development. Thus, the objectives and implementation of these strategies are pivotal in determining whether urban transformation leads to long-term sustainability or exacerbates urban challenges.

2.2.1 Urban Transformation in Urban Discourse

In this thesis, *urban transformation* refers to a specific form of intentional and interventional urban change in physical environments. This type of change, often state-led, arises from diverse causes and involves complex processes and outcomes, occurring at various scales. No single theory addresses all issues related to urban transformation, and the ambiguity of terms in urban discourse applies to urban transformation as well. *Transformation* is described as an extreme, radical change or a significant alteration in form, nature, or appearance. Elmqvist et al. (2019), define it in policy documents as large-scale changes in system properties, infrastructures, and overall systems. Recent academic literature views urban transformation as shifts from one urban state to another, entailing radical changes in technology, society, economy, and ecosystems.

Within scholarly inquiry, *adaptation* and *transformation* are pivotal frames of reference in urban change debates as considered in Figure 2.2. Adaptation involves incremental adjustments and reorganisation, while transformation corresponds to deep, radical, potentially disruptive changes. The conceptual distinction between these terms remains under-theorized and ambiguous, in the existing literature (Elmqvist et al., 2019; Wolfram et al., 2019; Matyas and Pelling, 2015).

For clarity, *adaptability* and *resilience* should be considered alongside *transformation* as parts of a single whole within the context of urban change. Urban transformations related to sustainability and resilience are integral to the 2030 United Nations Sustainable Development Goals (SDGs) (UN, 2016), and the New Urban Agenda (UN-Habitat, 2016). Leixnering and Höllerer (2022), describe urban transformation as "a change in city identity," differentiating between *transformation* as structural change with socio-political shifts, and *adaptation* as structural change without identity shifts.

Adaptation is associated with flexible adjustments and reorganisation, while transformation is associated with a deeper and more radical scope of change. This

approach aligns with urban resilience discourse, which views resilience as the capacity of a system to retain its identity despite shocks (Walker et al., 2004, 2006). Zeng et al. (2022) emphasize the interrelatedness of sustainability and resilience paradigms, highlighting their roles in guiding cities towards desirable development paths and in preventing unrestorable damages in the rapidly urbanizing world, along with the continuous process of urban transformation.

From a mathematical or logical perspective, transformation is a process by which one figure, expression, or function is converted into another of similar value. This dissertation adopts the view that urban transformation involves continuously transferring aspects from an area's original state of existence to its subsequent state. This process helps the urban area acquire a new identity, interweaving past and present dynamics at each stage of change, where past and present qualifications are praised. Therefore, it is essential to approach urban transformation differently from other forms of urban change, considering temporal interrelations. Any intentionally pursued urban change in this study is deemed an example of urban transformation, regardless of the numerous other definitions in the literature.

Understanding urban transformations requires a multidisciplinary analysis of contextual dynamics. The physical, social, cultural, economic, and political contexts of the country, region, and specific site being transformed are crucial in determining the nature and limits of urban transformation. Additionally, before approaching any urban transformation, the city must be interpreted as a configuration of social, ecological, and technical systems, a natural and physical phenomenon, and manmade surroundings (McPhearson, 2020; Alberti, 2018; Bai et al., 2017).

VIEWS ON URBAN SUSTAINABILITY, URBAN RESILIENCE AND URBAN TRANSFORMATIONS GIVEN IN POLICY AND RESEARCH						
	Common views in policy documents	Recent views in academic literature	Our proposed views			
Urban sustainability	Increase in efficiency of resource use, optimization, important dimensions of equity and social justice sometimes not included.	The synergistic integration and co-evolution of a city's subsystems promotes sustainable development, minimizing environmental harm while preserving growth opportunities in surrounding areas.	Manage urban resources and integrate subsystems to ensure well-being and equity for present and future generations. Sustainability embodies society's vision.			
Urban resilience	Recovery from disaster events.	An urban system's ability to maintain or quickly restore desired functions amid disturbances, adapt to change, and transform limiting systems reflects its adaptive capacity across socio-ecological and socio-technological networks.	An urban system's resilience is its capacity to absorb disturbances, reorganize, and maintain core functions while continuing to develop. This resilience arises from the system's diversity, redundancies, and component interactions, and is a non- normative attribute applicable to various subsystems.			
Urban transformation	Large-scale changes in system properties, infrastructures and system structure overall.	Urban systems can undergo radical transitions, involving significant changes in technology, society, economy, and ecosystems. Urban transitions focus on the role of multiple actors in driving and embedding transformative processes within local practices and institutions, scaling solutions that address urban sustainability.	A systemic change of the urban system. It is a process of fundamental irreversible changes in infrastructures, ecosystems, agency configurations, lifestyles, systems of service provision, urban innovation, institutions and governance.			

Figure 2.2 Urban Transformation, Urban Sustainability, Urban Resilience (Elmqvist et al., 2019: 268)

2.2.2 **Urban Transformation Tools**

The choice of methodological tools for urban transformation primarily depends on the contextual conditions and the objectives of the process. Although certain periods in the past saw the preference for specific methods, the tendency has been influenced by the state and conditions of urbanization in addition to the priorities of urban life in modern societies. The main common objectives of all methods have been providing renewed, improved, and healthier urban environments while serving economic revitalization of the region or country (Hardal, 2014). Industrialization and the rapid population growth of cities, driven by migration from rural areas to urban centers, initiated the first modern urban transformation movements in Europe and North America.

The need for proper housing, reconstruction, revitalization, and adequate infrastructure spurred urban transformation and urban master planning activities. As technology advanced and economies improved, large-scale urban renewal, rehabilitation, and redevelopment projects were undertaken in deteriorated inner-city areas. With the rise of environmental awareness, issues such as order, efficiency, and well-being became highly prioritized in urbanization. The integration of urban and rural lands extended to achieve urbanization, while the de-industrialization of cities necessitated the regeneration and conservation of industrial zones. The late 20th century witnessed the rise of globalization, neo-liberal economic pressures, and information networking, which had a significant impact on urban transformation trends. Concurrently, growing environmental awareness, driven by the excessive consumption of natural resources and the impacts of civilization, has brought sustainability concerns to the forefront of the urban transformation agenda. This convergence of factors has aligned developed and developing countries around the objectives of sustainable urban development to a significant extent.

Roberts (2017) uses the term *urban regeneration* as a comprehensive concept for urban change, implying integrated vision and action aimed at resolving urban problems while considering future projections in addition to current solutions, in economic, physical, social, and environmental terms. Figure 2.3 summarizes the evolution of the regeneration process within this approach. However, within this study, urban regeneration is accepted as a substitute for the urban transformation process, alongside other tools or means such as reconstruction, revitalization, renewal, redevelopment, and regeneration. Therefore, urban regeneration must be viewed as a variant implementation of urban transformation, influenced by

contextual conditions and dominant themes in urbanization throughout history. It is important to consider that in 2024, these variations may apply to different cases of urban transformation as well.

PERIOD	1950s	1960s	1970s
POLICY TYPE	RECONSTRUCTION	REVITALISATION	RENEWAL
Major strategy and orientation	Reconstruction and extension of older areas of towns and cities often based on a "masterplan"; suburban growth.	Continuation of 1950s theme; suburban and peripheral growth; some early attempts at rehabilitation.	Focus on <i>situ</i> renewal and neighbourhood schemes: still development at periphery
Key actors and stakeholders	National and local government; private sector developers and contractors	Move towards a greater balance between public and private sectors	Growing role of private sector and decentralisation in local government
Spatial level of activity	Emphasis on local and site levels	Regional level of activity emerged	Regional and local levels initially; later more local emphasis
Economic focus	Public sector investment with some private sector involvement	Continuing from 1950s with growing influence of private investment	Resource constraints in public sector and growth of private investment
Social content	Improvement of housing and living standards	Social and welfare improvement	Community-based action and greater empowerment
Physical emphasis	Replacement of inner areas and peripheral development	Some continuation from 1950s with parallel rehabilitation of existing areas	More extensive renewal of older urban areas
Environmental approach	Landscaping and some greening	Selective improvements	Environmental improvement with some in-innovations

Figure 2.3 Evolution of Urban Transformation and Urban Regeneration Tools (Roberts, 2017:19-20)

PERIOD	1980s	1990s	2000s
POLICY TYPE	REDEVELOPMENT	REGENERATION	REGENERATION IN RECESSION
Major strategy and orientation	Many major schemes of development and redevelopment; flagship projects; out of town projects	A more comprehensive form of policy and practice; emphasis on integrated policy and interventions	Restrictions on all activities with some easing in areas of growth
Key actors and stakeholders	Emphasis on private sector and special agencies; growth of partnerships	Partnership the dominant approach with a growing number of government agencies	More emphasis on private sector funding and voluntary efforts
Spatial level of activity	In early 1980s focus on site; later emphasis on local level	Reintroduction of strategic perspective; growth of regional activity and interventions	More localist initially with developing sub- regional activity
Economic focus	Private sector dominant with selective public funds	Greater balance between public, private and voluntary funding	Private sector dominant with selective government funding
Social content	Community self-help with very selective state support	Emphasis on the role of community	Emphasis on local initiatives and encouragement of third sector
Physical emphasis	Major schemes of replacement and new development; 'flagship schemes'	Initially more modest than 1980s and then increasing scale; heritage emphasised	Generally smaller scaler schemes, but larger projects returning
Environmental approach	Growth of concern for wider approach to environment	Introduction of broader idea of environment in context of sustainable development	General acceptance of sustainable development model

Figure 2.4 Continued: Evolution of Urban Transformation and Urban Regeneration Tools (Roberts, 2017:19-20)

In recent years, 20th century theories about urban transformation, based primarily on the urbanization experiences and contexts of North American and European countries, have begun to include the issues faced by developing countries and regions in Asia. This shift has introduced a new dimension to discussions, characterized by the distinct cultural, social, physical, demographic, economic, ecologic, and environmental contexts of these geographies.

By the 21st century, the perception of urbanization, which was previously limited to city-based population expansion in quantitative terms, has evolved to incorporate a qualitative analysis based on the socio-spatial relations of urban problems (Sharifzade & Farzaneh, 2021). This approach should not be seen as diverging from the highly influential global patterns of urban transformation but considered a necessity for a comprehensive attitude and expanded vision for understanding urban problems and discovering potential solutions in every individual site.

With the rise of environmental awareness, issues such as order, efficiency and wellbeing have become highly prioritized in urbanization. The infusion of urban and rural areas has expanded urbanization lands, while the de-industrialization of cities has necessitated the regeneration of industrial zones. The late 20th century saw the rise of globalization, neo-liberal economic pressures, and information networking, which significantly influenced urban transformation trends. Concurrently, growing environmental awareness, driven by the excessive consumption of natural resources and the impacts of civilization, has brought sustainability concerns to the forefront of the urban transformation agenda. This convergence of factors has aligned developed and developing countries around the objectives of sustainable urban development to a significant extent.

2.2.3 The Urban Transformation Process: Principles and Parameters

Understanding urban transformation processes for analysing experienced situations and developing new strategies for improved implementations requires adherence to certain principles. Robert (2017) proposes several key channels for understanding urban transformation processes:

- i. Analyzing the contextual conditions: Thoroughly examining the specific conditions surrounding each transformation project.
- Valuing adaptation and radical change in the physical, social, economic, and environmental conditions of the transformation site: Recognizing the importance of both incremental adaptations and significant changes in the physical, social, economic, and environmental aspects of the transformation site.
- iii. Considering intergenerational, balanced, comprehensive, and integrative approaches: Ensuring that strategies are inclusive, balanced, and take into consideration the needs of both current and future generations.
- Prioritizing the alignment of process impacts with clearly defined objectives: Ensuring that the impacts of the transformation process align with the project's aims.
- v. Managing the balanced and optimal use of urban contextual resources: Optimally using available resources in a balanced manner.
- vi. Ensuring cooperation and participation of all stakeholders: Fostering collaboration and active participation among all stakeholders involved in the transformation process.
- vii. Comprehending the urban transformation process as thoroughly as the project itself: Understanding the process rather than just focusing on the end project.

- viii. Recognizing the potential need for continuous adaptation of initial transformation strategies: Being prepared to adapt initial strategies as necessary throughout the transformation process.
 - ix. Understanding urban transformation processes with their future projections: Considering future implications and sustainability of the transformation strategies and their long-term impacts (Roberts, 2017).

In addition to these principles proposed by Roberts (2017), it is imperative to consider scale and context perspectives when understanding and analyzing urban transformation cases, whether they have already been implemented or are planned for future projects, both as a process and as a project. The multi-dimensional outcomes of urban transformation projects are the sources for evaluation. Additionally, the physical scale of the urban transformation process must be critically determined to avoid interventions that result in isolation or alienation within the context. This involves considering the spatial interrelations between different dimensional scales of the urban fabric.

The contextual characteristics of the site, as part of the district and the city, are essential in determining the appropriate physical scale for intervention in urban transformation. Another crucial factor to consider is the uniqueness of the "urban site" in relation to the city, region or country, across multiple dimensions. This uniqueness must be carefully examined alongside the implementation scale when interpreting the parameters of urban transformation to decide on the appropriate methodologies and tools.

The conditions of the urban context, encompassing physical, social, cultural, and environmental aspects, as well as the prevailing political climate, significantly influence urban transformation strategies, tendencies, and implementation rules, including project design. At this juncture, the relativity of the urban transformation tools to the urban problems and the alignment of the established objectives with the urban context will define the effectiveness of the transformation process. The evaluation of an urban transformation case depends on the outcomes achieved in physical-environmental, socio-cultural, and economic platforms over multiple timeframes. Given the continuous nature of urban transformation driven by ongoing urbanization, each transformation process should not be viewed as completed, but rather as designed with the capability for re-transformation.

Conceptual discussions will be expanded in Chapter 4, focusing on the selected six case studies of urban transformation projects in Istanbul. The analyses and evaluations of the case studies will inform the urban sustainability discussions that will be presented in Chapter 5. This will contribute to developing a framework for evaluating urban transformation processes from an alternative urban sustainability perspective. In Chapter 4, understanding urban transformation examples will involve two analytical steps: first, comprehending the urban transformation processes through their contextual dimensions with a comprehensive perspective that encompasses the entire formation; and second, understanding the impacts of these projects by examining multiple specific perspectives and their interactions. The following parameters will structure the case study discussions.

2.2.3.1 Contextual Dimensions of Urban Transformation Process

- i. Decision-making process, rules, and regulations of the urban transformation process.
- Contextual conditions such as location, physical, social, economic, and environmental dimensions that necessitate urban transformation, drives and motivations for intervention.
- Urban transformation tools such as reconstruction, revitalization, renewal, redevelopment, regeneration, conservation, and development and their conformity with the project.
- iv. Potential benefits and disadvantages of urban transformation projects and their alliance with the rights of the residents, neighborhood people, citizens, and the stakeholders.

- v. Urban transformation scale corresponds with the project planning, and implementation scale, as well as the reflections over time.
- vi. Circumstances of the site involve the use of contextual resources through design and implementation.
- vii. Adaptability, resilience, flexibility and sustainability of the context.

2.2.3.2 Impacts of Urban Transformation Process

- i. Urban Fabric: The physical and environmental impacts at multiple scales are integral for urban sustainability. These encompass various factors such as land use patterns, physical connectivity, parcel sizing, architectonic expression, flexibility, adaptability, cohesiveness, and human scale in the built environment. The arrangement of different land uses, visual coherence enabling integration, adequate dimensioning and organization of parcels, functional design and aesthetic aspects of structures in the urban fabric are crucial. The ability of the project and the site to accommodate changes over time, as well as harmony and integration of different elements within the urban landscape are essential. Finally, the degree to which the transformation projects incorporate elements ensuring humancentered approach, and the others collectively contribute to the overall sustainability and effectiveness of urban transformation processes, shaping the physical and environmental outcomes.
- ii. Social impact: The social impacts of urban transformation at various scales are significant considerations for urban sustainability. These impacts, which result from changes in the built environment, affect urban environmental life quality and equity in relation to social factors. In an urban transformation process, fostering sustainability involves addressing the evolving concept of identity, which can build upon the existing character of the area, transform gradually, or be

established through institutionalization. The interaction between the place and its inhabitants, as well as with the broader community, plays a pivotal role in shaping and assigning identity to the place. This cultivated interaction enhances the sense of belonging and identity within a space. A strong sense of belonging and identity is crucial for achieving sustainable urban development. Therefore, urban transformations should be carefully managed to promote inclusivity, equity, and a strong sense of community identity, which are essential for sustainable urban development.

- iii. Economic impact: The economic impacts of an urban transformation project are multifaceted and manifest across various contextual and temporal scales, influencing both the specific site and the broader physical context extending to the city level. The changes to the built environment brought about by urban transformations can have direct economic implications, such as altering functional utilization patterns that directly relate to the economic context. Additionally, indirect effects, such as changes in land values and population density, may drive further economic activities. Moreover, derivative economic impacts can occur as a result of urban transformations, further shaping the economic landscape. These complex economic effects underscore the need for careful planning and consideration to ensure that urban transformation projects contribute positively to the broader economic sustainability of the area.
- Realization of Project Objectives: The consistency between the drives
 of an urban transformation project and its outcomes is paramount for
 its success in terms of sustainable urban development. It is essential
 to ensure that the project objectives and the resulting changes align
 with long-term sustainability goals. This involves maintaining
 coherence between the initial vision, the implemented interventions,
 and the outcomes achieved. Consistency also requires periodically

reassessing and adjusting the project to address evolving needs and challenges, recognizing that urbanization is a continuous phenomenon. This ongoing evaluation helps ensure the project's continued relevance and effectiveness in promoting sustainability. Transparency and social inclusion in the transformation process, as well as the balanced distribution of benefits among the related stakeholders, are crucial factors that contribute to the project's sustainability objectives.

Spatial transformations in urban areas, driven by interactions between physical, economic, political, social, functional, and institutional norms based on local and country-specific conditions, as well as economic and cultural global dynamics, are examined through the concepts of urban environmental quality and sustainability in the urban context below. This perspective positions urban transformation within the spatial urban fabric and in relation to physical, socio-cultural, economic, and political contexts.

2.3 Urban Sustainability

The sustainability of any urban transformation process, encompassing physical, socio-cultural, economic, environmental, and institutional dimensions, hinges on the coherence of strategic decisions made through the process, aligning with the demands and potentials of the affected urban areas. Factors such as the choice of the location within the city and district, the interpretation of site characteristics, the determination of spatial scale, and the establishment of implementation typologies in line with the objectives of urban transformation profoundly influence the sustainability of the endeavour.

Challenges inherent in urban transformations vary from one location to another and evolve, underscoring the significance of local dynamics and the current circumstances in achieving fairness and equity as the outcomes of the processes. However, the concept of sustainability in the urban context needs to be considered on a broader urban scale, in relation to a broader range of activities, dimensions, and contents in reference to the impacts of urban transformation processes. Although the collection and accumulation of sustainable urban transformation project impacts contribute to the sustainability of the city context, alignment with sustainability parameters in planning and organizational contexts would play a major role in developing the intended urban sustainability.

The term *sustain*, derived from the Latin *sustinere*, meaning to hold upright, provide support, bear, undergo, or endure (Harper; Douglas, 1960) forms the foundation for this study's core notion of *sustainability*, understood as "the ability to continue over a long period." Sustainability is conceived as a comprehensive concept encompassing social, cultural, economic, physical, and environmental components. In urban transformation, a multidisciplinary re-definition of the concept of sustainability—drawing from fields such as social science, economics, architecture and urban design, psychology, cultural and historical science, aesthetics, and city planning—is essential. This approach enables a complex analysis and discussion of the challenges posed by urban transformation processes and their outcomes.

Sustainability is considered essential to urban approaches, including identity and sense of place, and socio-cultural, historical, morphological, environmental, and geographical characteristics in the urban context. The temporal dimension of sustainability is influential in both retaining the intergenerational use of urban qualities and in the achievement of urbanization and urban transformations as a continuous process over time. The definition of sustainability by WCED (1987) also emphasizes "the continuation of the quality of life for generations to come, including the proper distribution of quality of life between groups and other parts of the world" (EEA Report, 2009:11). Achieving quality of life and sustainable urban development as common goals in urban areas worldwide depends on the successful management of urban growth. To this end, *sustainable development* is addressed by the United Nations in their 2030 Agenda for Sustainable Development, which includes 17

Sustainable Development Goals for economic, social, environmental and ecological improvements (Sapena et al., 2021).

The themes in initial definitions of sustainability in the urban context or sustainable urban development can be listed as: meeting the needs of future generations (Brundtland Commission, 1987), respecting the carrying capacity of ecosystems (World Conservation, 1991), maintaining natural capital (Pearce, 1988), improving present systems (Norgaard, 1988), not making things worse (Rees, 1998), meeting both human and ecological needs equally (International Union for the Conservation of Nature, 1986), endorsing human livelihood (Soemarwoto, 1991), opposing exponential growth through urbanization (Callenbach, 1992), and protecting and restoring the environment (Ryn, 1994; Wheeler, 1996). The general approach to sustainability in the 1990s emphasized making things better rather than worsening them (Pearce et al., 1990). The World Conservation Union's 1991 report introduced an influential perspective: improving the quality of human life while living within the carrying capacity of supporting ecosystems (Wheeler, 1996). This approach marked a new stance by emphasizing the quality of life in the context of environmental sustainability.

The first Earth Summit in Rio in 1992 was a pivotal moment in the sustainability discourse from an environmental point of view, establishing a universal acceptance of the sustainability concept in urban transformations (Tekeli, 2001). Throughout the discourse, sustainability has been primarily evaluated in terms of ecological problems, excessive use of environmental resources, global climate change, carbon emissions, and the degenerative use of nature. The UN Brundtland Commission Report in 1987, also known as *Our Common Future*, was a significant contribution to addressing climate change and global warming from an ecological perspective, setting the main principles for satisfying the needs of today and tomorrow in a righteous manner (Tekeli, 2001). Tekeli's discussion focuses on the interactive relationship between sustainability in the socio-economic system and sustainability in the environmental system as feedback for sustainable urban development.

Sustainability has been approached from various perspectives, including economics, planning, health, sociology, and geography, alongside environmentalism. Biologists, economists, sociologists, urban planners, and environmental ethicists, have all discussed sustainability without arriving at a precise common definition. While these perspectives do not prescribe a specific social end-state, they all relate to the vitality of natural and human systems. Foundational principles in earlier discussions primarily related to environmental/ecological sustainability, including futurity, equity, global environmentalism, and biodiversity, critical for the integrity of environmental processes and systems (Basiago, 1995:10).

Since the inception of sustainability discussions, most interpretations have focused on human needs and values, emphasizing the future, as highlighted in the Brundtland Report. This seminal report identified several key sustainability challenges: The environmental challenge of the degradation of the natural basis of human life; the first social challenge concerning the increasingly unequal distribution of income and assets; the second social challenge related to the high number of people living in poverty; and the institutional challenge involving resulting threats to peace and security (WCED, 1987).

Agenda 21(1992) aimed to integrate sustainability in socio-economic realms by advocating for principles of equity, entrepreneurship, and technology transfer, in tandem with its focus on environmental domains. Since then, the discourse on sustainability in urban contexts has focused on three primary pillars: economic sustainability, social sustainability, and environmental sustainability, according to Spangenberg (2004). adding institutional sustainability to this framework. Through these pillars, sustainability in the urban context involves discussing short-term and long-term gains, efficient resource use, environmental stability, interlinking social and environmental objectives, and addressing economic growth with or without equity and social inequality in urban change processes (Kahn, 1995). This study's conceptual framework for sustainability at the urban scale will acknowledge these four pillars in the context of urban transformation.

Sustainability in the urban context is closely tied to spatial policies that emphasize efficiency, quality, and equality as fundamental approaches. Its multidimensional nature requires the consideration of ecological, economic, spatial, and social aspects. While early perspectives of sustainability concepts were grounded in rational resource management, they did not have the sufficiency to address the complexities of urban development over time. In the urban context, sustainability must be linked to space, resources, energy, people, and time (Stangel, 2013).

The decline of modernism in urban design in the 1960s and 1070s, accompanied by crises in cities and the emergence of post-modernism (Mazur-Belzyt, 2018), marked the beginning of discussions on green cities, compact cities, intelligent cities, and sustainable development. Pioneering urban thinkers such as Jacobs (1961) and Lynch (1960) criticized modernist approaches to urban renewal, advocating for mixed-use development, appropriate building densities, balanced transportation systems, and the preservation of traditional streets, instead of unnatural, isolated, inhumane, antisocial urban spaces with separated functions. Kevin Lynch's view of urbanism and architecture in the 1960s was another milestone in urban sustainability. Prioritizing the perception of the city by its inhabitants and considering it as an integrated system characterized by "vitality, senses, fitting, access, efficiency, control and justice" (Lynch, 1981) was a way of defining sustainability in 1978 by proposing the reconstruction of traditional spatial compositions of cities in his criticisms of urban spaces.

The experimental projects in Figure 2.5 Sun City in Arizona (1960), designed as a retirement community; in Figure 2.6 Milton Keynes in the UK (1970), based on the garden city concept with rectangular grids, green belts and buildings of optimum height; Figure 2.5 Almere in the Netherlands (1970), as an urban-social experiment; and in Figure 2.7 the Brazilian city of Curitiba (1971) as an example of compact, sustainable and ecological city with an integrated public transport system— contributed to the discourse on sustainability in urban development (Mazur-Belzyt, 2019).

In the 1980s, the New Urbanism movement emerged, promoting traditional city layouts characterized by diverse functions, well-connected public spaces, local identity, and balanced transportation systems in the American city planning context (Stangel, 2013). The next milestone for sustainability in urban context was the report of the World Commission on Environment and Development in 1987. The Brundtland Report prioritized environmental conservation and social, gender, and economic equity as key goals for sustainable development, within the constraints of environmental conditions.

In 1996, the New Urban Planning Charter formalized the principles of New Urbanism, emphasizing the integration of the social, environmental, spatial, and functional aspects of urban development.



Figure 2.5 Experimental Sustainable City Examples: Almere (Janwillemvanaalst, 2014), Sun City (NASA Operational Land Imager [OLI] on Landsat 8, 2016)



Figure 2.6 Experimental Sustainable City Examples: Milton Keynes Plan, Milton Keynes (AJ Archive: Milton Keynes Planning Study [1969], 2024)



Figure 2.7 Experimental Sustainable City Examples: Curitiba Bargui Park (Hosey M, 2018)

In the 21st century, sustainability concepts in the urban context have evolved, as evidenced by the New Athens Charter (2003) and the concept of Green Urbanism (Lehmann, 2010). The New Athens Charter emphasized urban design principles that promote cultural diversity, creativity, and cooperation with a focus on the well-being of inhabitants and the integration of social, economic, and environmental issues at the neighborhood level (Stouten, 2012). Lehmann (2010) emphasizes the main issues of Green Urbanism as planning, communication, biodiversity, water management, materials, and energy, necessitating interdisciplinary collaboration among various stakeholders. The Smart City concept advocated for the efficient use of local resources to enhance sustainability and quality of life, leveraging technology for balanced urban development. Vienna, Amsterdam, and Singapore are regarded as the pioneers of smart cities (Belzyt, 2019).

2.3.1 Urban Sustainability and Urban Environmental Life Quality

The dissertation critically examines urban transformation as a strategic approach, suggesting it as an opportunity to provide a lasting response to urban problems while upgrading the urban conditions for all. Urban transformation processes are the most influential tools in today's urbanization arena for improving the quality of life in urban environments. Roberts, Sykes, and Granger (2017: 320) support this thesis by noting several ways in which urban transformation processes contribute to mitigating the negative impacts of urbanization on environmental quality:

- i. Provision of a framework for analyzing urban problems to reveal the potential for improvement.
- ii. Generation of a strategy that combines actions to be taken before, during, and after urban transformation implementation processes.
- iii. Awareness of the limits, opportunities, and resource requirements of an urban transformation proposal.
- iv. Consideration of the collaborations and cooperation necessary among stakeholders in the action process.
- v. Retention of a control mechanism at every stage of the urban transformation project design, implementation, and post-completion process.

The primary objectives of urban changes can be viewed as the pursuit of urban environmental life quality, embracing a concept that enhances social, cultural, economic, environmental, and physical conditions for all inhabitants. Although urban changes are driven by various reasons, the common underlying intention must be to achieve a better urban environmental life quality. This can be realized by rehabilitating degraded areas, transforming unused industrial regions, regenerating specific areas according to contemporary urban planning decisions, improving poor physical and infra-structural conditions, providing economic benefits to multiple stakeholders, enhancing citizenship or neighborhood identity, increasing physical and social connectivity, and balancing equity and urban resource use. Consequently, the shared intention underlying all urban changes must primarily be the achievement of a better urban environmental life quality. Rapoport (1983) argues that maintaining the complexity and diversity of the concept of urban environmental life quality, with respect to the scale, socio-cultural, physical, and locational differences of urban contexts, underscores that environmental quality has been central to planning and design processes aimed at creating better environments for safety, health, aesthetics, comfort, and general welfare. This study acknowledges the centrality of environmental quality in the urban context, aligning with Rapoport's premise.

Urbanization, globally, characterized by rapid population growth, competitive economies driven by globalization, rising demand for urban layout and infrastructure, unchecked resource consumption, and excessive pollution— particularly in developing countries like Turkey—intensifies the need to maintain urban environmental life quality as a counterbalance to these changes. Given that most people currently reside in cities and urban environments, the crucial roles these areas play as both the originators of the challenges and the seekers of solutions for environmental life quality become apparent. Since 2015, with 85% of the global population concentrated in urban areas and further increases anticipated by 2050 (Melchiorri et al., 2018; UN DESA, 2015), the significance of urban environmental life quality has grown for the expanding number of people experiencing urbanization.

The major determinant of urban environmental life quality is recognized in this study as the man-made physical environment, resulting from architectural planning and urban design issues. Rather than focusing on natural and ecological environmental formations, social and cultural issues or economic aspects assertive in urban environmental life quality satisfaction, the direct and indirect consequences of built environments, which might also be referred to as man-made environments, will be the focus of discussion. Generally, as stated in the EEA Report in 2009, quality of life has often been associated with income, housing, or local environment without taking a broader perspective into account. Such an approach does not effectively address the relationship between the built environment and quality of life; instead, it may have detrimental effects by prioritizing economic aspects over environmental impacts (EEA Report, 5, 2009).

Political contributions to the valuation of quality of life include the Treaty on European Union (2008), the Renewed EU Sustainable Development Strategy (SDS) (2006), the Leipzig Charter on Sustainable European Cities, the Bristol Accord, the EU Thematic Strategy on the Urban Environment, and the Aalborg Charter of European Cities and Towns Towards Sustainability. These contributions can be summarized as emphasizing the value of the well-being of the people; continuous improvement of quality of life for current and future generations through a sustainability approach; quality in urban design, architecture, and environment; and integrated social, economic, and environmental developments (EEA Report 5, 2009:9).

The concept of *quality of life*, fundamentally related to the well-being or decline of people, is connected to evaluating the quality of life in urban environments and the capacity of satisfaction provided by the urban environments in terms of social, physical, and economic needs. Another way to enhance urban environmental life quality in various urbanization development contexts might be associating it with *liveable environments*, which are important for community well-being (Caron et al., 2019), human development (Jacobs, 1961), socio-economic equity (Kashef, 2016), and the emergence of inclusive social systems (Wyatt, 2009). Thus, regardless of the locality, socio-cultural and economic conditions of the urban areas or generational differences, kinds of urban change should prioritize the liveability of built environments.

In assessing the urban environmental quality of life, both the subjective and objective aspects of urban environments are significant for defining the well-being of users and the liveability of the environments. Objective measures of the material aspects and satisfaction achieved by non-material conditions in built environments should not be mismatched (Campbell et al., 1976; Andrews & Withey, 1976). Given their

different essences and the fulfilment of varying necessities in urban life, both perspectives must be considered simultaneously (EEA Report 5, 2006:13).

Through this viewpoint, equal consideration of the subjective and objective qualities of the environment and the unified apprehension of physical, economic, and social aspects of the built environment, as shown in Figure 2.4 (Das, 2008) will be part of the comprehensive perspective in relating Urban Environmental Quality with Urban Transformation Processes throughout this thesis. Since urban transformation is directly related to the built environments and their outcomes, this approach will help to conceptualize the relationship between built urban environments and the quality of life in these environments. As Das (2008:300-301) states, "External condition of physical, economic and social environment comprises objective quality of life, and satisfaction from such condition comprises subjective quality of life "



Figure 2.8 Urban Life Quality Framework (Das, 2007:301)

Several studies explore the significance of built environments on the quality of life from various perspectives. These discussions encompass the challenges of measuring and evaluating urban environmental life qualities (Marans and Stimson, 2011), the relationship between built environments and the health of inhabitants (Kent and Thompson, 2014), the effects of urban design solutions on social interaction and safety in relation to happiness in neighborhoods (Pfeiffer and Cloutier, 2016), and the connection between environmental life quality and geographical context characteristics (Wang and Wang, 2016). Additional contributions to the discourse on urban environmental quality and built urban environment interactions emphasize the value of social and cultural factors such as participation, engagement, access, identity, and safety (Shekhar et al., 2019). Cicerhia highlighted the correlation between the scale of urban areas and urban quality satisfaction (Cicerhia, 1999). Schiwirian et al. underscored the connection between urban population size and density and the economic, social, and environmental aspects of urban life quality (Schiwirian et al., 1995).

Some researchers have focused on ecological factors, often overlooked in the socioeconomic and socio-cultural characteristics of urban environments. Fragmentary attitudes in urban design have resulted in environments lacking vitality, a sense of place, and conceptual integrity (Kashef, 2016). Despite these contributions, a comprehensive understanding of the interaction between built environments and environmental life quality remains lacking. There is a need for a holistic conceptualization that includes major pathways between built environments and the environmental quality of life (Mouratidis, 2021).

This study addresses this gap by emphasizing the coexistence of multiple factors, scales, and disciplines, thereby contributing to a more inclusive understanding of the urban environmental quality and built environment dialogue. Improving the quality of the urban environment while maintaining balance and equality requirements in the urban arena —without sacrificing the resources of the urban environment including geographical, natural, man-made, social, cultural, historical and phenomenological commons—for short-term benefits, or to the advantage of a

specific section of society, leads the way toward the sustainability concept in the urban context.

2.3.2 The Role of Built Environments in Urban Sustainability: A Spatial and Holistic Approach

The limits of the study focus on the enhancement of urban environmental quality as the common objective of any organized change mechanism operating in urban areas. With the changes occurring through urban transformations, the influence of built environments on the well-being of the residents is increased. However, despite the achievements in economic or structural means, the degradation and devaluation of the well-being of citizens, and disruption of environmental life quality in urban contexts are encountered through urban transformations.

Meanwhile, sustainability in the urban context retains the potential for maintaining improved environmental quality, in current and future urban developments, through urban transformation processes. Thus, integrating sustainability principles into urban transformation interpretations as the strategy would ensure long-term physical, environmental, social, and economic well-being in urban areas. Consequently, urban sustainability, would improve both the process and impacts of urban transformations, and lead to sustainable urban developments in the long run. At the same time, a multi-contextual and holistic approach that considers global and local dynamics in equal terms is essential for understanding, assessing, and discussing urban sustainability in the context of urban transformation.

In the framework of this dissertation, the perspective of urban sustainability focuses on spatial and morphological sustainability, augmented by socio-cultural, and economic dimensions. It addresses the process and impacts in addition to encompassing a holistic approach. Stouten (2002) articulates the concept of a holistic view of urban sustainability, considering both physical and social aspects by referencing the Athens Charter under various headings. The physical aspect was
termed the "urban fabric," while the social and economic aspects were labelled as the "social fabric" and "economic fabric," respectively. The sustainability aspect of the urban transformation process was regarded as "governance," with morphological and urban scale sustainability termed as "urban planning." In parallel with this attitude, the parameters of urban sustainability will be related to spatial, morphological, socio-cultural and economic aspects, and subsequently with those of process and impacts.

Rapoport (2007) explains this perspective through the definition of sustainability as "the field that seeks symbiosis between human activity and the environment." Instead of viewing sustainability merely as a product, this research appreciates it as a continuous process experienced in urbanizing and urbanized areas as in the urban transformation process. This study argues that sustainability in urban contexts does not reach an ultimate state. Rees & Wackernagel (1996) echo this perspective, framing sustainability as a multi-faceted goal with a constantly shifting target. Childers et al. (2014) and Zeng et al. (2022) underscore the relevance of urban resilience and sustainability in facing hazards in rapidly urbanizing environments, highlighting their symbiotic relationship in preserving societal health and well-being.

Existing concepts of sustainability in urban contexts often stem from the premise that urban transformation is primarily driven by economic growth, leading to urban environmental challenges. To achieve sustainable development, a combination of economic, technological, governmental, political, ecological and innovation approaches is deemed necessary. While urbanization has historically improved living standards and well-being, environmental degradation has necessitated a shift from self-interest to social interest, balancing built and natural environments. The new human ecology approach supported societal and ecological limitations on development, emphasizing resource usage within environmental capacity.

Wheeler (1996) provides another approach to the concept of urban sustainability. He considers key parameters such as land use planning and development, urban design, housing, transportation, urban conservation and restoration, energy and material use,

green architecture, economic development, population, and justice. According to this perspective, the outcomes of urban sustainability are seen as generators of urban environments favourable for living and working during and after development. Although a well-defined framework for sustainable urban conditions is not explicitly provided, qualities such as inclusiveness, safety, connectivity, environmental sensitivity, and fairness in well-designed, well-run, well-built, and prosperous environments are recognized as correlating with urban sustainability (Wheeler, 1966). In other words, urban environmental quality and well-being are highly regarded as the primary objectives of urbanization. Additionally, a multi-disciplinary understanding of urban sustainability through social, cultural, planning, and design systems is recognized as effective in addressing complex challenges and opportunities of urban transformation.

The discussion framework for urban sustainability, or sustainable urban development, which has the opportunity to positively influence and shape urban transformation processes, is maintained through the esteemed sustainability parameters. These parameters require multiple considerations in terms of guiding "criteria" for the assessment of urban sustainability. At this point, it is crucial to keep in mind the significant preference of the study in acquiring the built environment as the major urban context and relating the arguments, reservations, and interpretations with that contextual dimension.

2.4 Towards an Alternative Urban Sustainability

Urban sustainability must not be conceived as an end-state within the urbanization process. Rather, it must be viewed as a set of guiding principles consistently recognized and integrated throughout every aspect of the urbanization process. As Basiago (1995) asserts, it must be perceived as a methodology or philosophy that directs actions towards achieving social equity, rather than adhering to a singular, optimum solution across varying contexts. In essence, it is an attitude that will enhance the resilience and vitality of social and environmental systems. An

alternative urban sustainability understanding, based on the following specific criteria, is proposed to complement urban transformation strategies, contributing to the broader goal of sustainable urban development.

- i. Uniqueness: This criterion considers the distinctive characteristics and local dynamics of each society in terms of its social, economic, environmental, and institutional realms in addition to its physical and historical urban resource heritage. It highlights the differentiation of sub-systems within an environment, clarifying what is "local" or what is particularly related to the urban context of the environment, and at what scale or territory uniqueness matters. Factors such as the identity reflected in the elements and composition of the urban fabric, preservation of historical urban heritage, and behavioural patterns influenced by the physical structures play pivotal roles in determining the uniqueness of an environment. Additionally, the interrelationship of different disciplinary patterns that contribute to the distinctiveness of the urban environment are important factors to consider.
- ii. Symbiosis: Successful interrelationship between human activities, social, economic, functional, cultural, and psychological needs and the urban environments is vital in any urban project for urban sustainability. Symbiosis emphasizes harmonious interaction and integration of functional programming with the nature of urban life, demographic considerations, and the physical context, where both parties contribute to and benefit from each other's well-being. The alignment of the contextual circumstances in a broader sense with the urban content provided through built environments has a crucial role in the symbiotic processing of sustainability.
- iii. Continuity: Sustainability within urban development theory relies on the ongoing maintenance of positive intrinsic values in the urban environmental context despite ongoing urbanization and change processes. Ensuring the continuity of sustainability-related efforts over time, across different stages, and within diverse layers of urban transformation is imperative. Additionally, in spatial terms, at the neighborhood and city scale, the continuity of city

spaces or voids throughout the urban fabric is crucial. This continuity maintains connectivity, a sense of belonging, identity, orientation, and unity, all of which foster the overall urban character. However, it should not be regarded as monotonous or irrelevant preservation or rejection of positive change, but opposition to total disruptive change with a wide range of impacts.

- Adaptation and flexibility: The criteria of adaptation and flexibility enable iv. urban environments to respond effectively to changing conditions and unforeseen challenges. Throughout urban development and continually shifting urban transformation, there is dynamism and constant evolution in technological, economic, social, and physical contexts. Adaptation strengthens the ability of adjustment in these environments to respond promptly and efficiently to emerging issues and opportunities. During sustainable urban development, both adaptation and flexibility are crucial for the accommodation of new spatial, social, economic, and environmental conditions over time for a long-term vision. Additionally, adaptation is relevant with continuity for retaining the values, providing the atmosphere for improvement and controlled change, and therefore with sustainability. Flexibility is another highly significant concept, playing a role in the tactile and sensory processes of urban contexts. The physical characteristics of urban context, the structures and spaces within the urban transformation mechanism, usually benefit from the flexibility of the spatial infrastructure, when confronted with change. The social and economic aspects also take on advantageous conditions when the social and cultural interaction possibilities are revised within flexible networks. Both adaptability and flexibility perform as the warriors of rigidity in an urban context. They also play a crucial role in the temporal dimension of urban sustainability, helping the preservation of the values despite changes over time.
- v. Resilience: This criterion helps maintain and preserve the authentic and esteemed values of the urban context throughout urban transformation,

responding to shocks and stresses by proper absorption. It ensures that the various parameters of urban sustainability maintain their core issues and recover quickly from disruptions.

- vi. Connectivity: Connectivity between exertions in different layers of urban environmental configuration within the urban transformation process is crucial for sustainable urban development. The connectivity of the diverse mediums, different scaled contexts, and parameters of urban development is part of the sustainability of the process. The continuity criterion also emphasizes the connectivity of urban contextual characteristics and practices over time.
- vii. Justness: This criterion is intrinsic to all parameters related to sustainability in urban developments. It underscores the importance of fairness, equity, and justice in the strategies chosen for project design, implementation trajectories, and the impacts achieved through the urban transformation process. Justness serves as a guiding principle to ensure that sustainability in urban development is achieved through the equitable distribution of benefits, opportunities, and resources, thus fostering inclusive and socially responsible urban environments.
- viii. Inclusiveness: Urban transformation projects should include all sectors of the population, problems, solution alternatives, urban environmental factors, or needs from urban developmental change, playing a significant role in sustainability. The sustainability of a physical change evolved through the physical context relies heavily on the inclusivity of the users of any neighborhood in the urban spaces designed and integrated with the environments. Additionally, the inclusiveness criterion considers the involvement of the users in the strategic formulation of development, ensuring their perspectives and needs are integrated into the planning and decision-making processes.
 - ix. Environmental sensitivity: This criterion encompasses spatial, social, and economic environmental factors within the transformed urban contexts,

through the scope of this study. It focuses on spatial sustainability challenges at the urban design scale, including considerations of urban design elements, topography, public open spaces, street spaces, and the natural environment within the urban fabric. Recognizing the importance of a holistic view of urban environmental development for sustainability, this criterion determines the range of responsibility for fragmented or complex urban transformation implementations. It broadens the perspective of individuals and groups, encouraging increased sensitivity towards the context and a stronger association with the environment.

- x. Ethical use of urban resources: For all kinds of sustainability, having proper resource management strategies is crucial so that the resources remain fruitful over the long term, serving the needs and rights of future generations as well.
- xi. Throughout urban transformations, various resources—including cultural and social values, topographical features, public urban open spaces, and cityscape views—are integral to the urban context and must be ethically utilized. Elevating the public good above individual benefits and ensuring that resources are used in a manner that benefits both present and future generations can be considered ethical in this context. It is essential to uphold sustainability principles by keeping consumption within such ethical boundaries in any sustainable urban development scheme.
- xii. Consistency: Urban transformation objectives and results should prioritize the benefits of the public over individual interests. In this context, it is essential for sustainability that decisions made at different planning stages are consistent with each other and with the experiences during the implementation stage. A fair and balanced integration of the objectives and priorities of authorities with those of the community is crucial for ensuring consistency in decision-making and implementation.
- xiii. Clarity and transparency: These criteria are crucial for sustainable urban development through decision-making, planning, and implementation stages,

especially during constant change is inherent at all levels and layers of urban transformation. Ensuring clarity and transparency helps in effectively passing down values to future generations. Clear and transparent processes enable effective communication, understanding, and accountability among the stakeholders involved in urban development initiatives. In this way promoting trust and public participation is possible, while decisions made openly, honestly, and with integrity receive full support. Additionally, clarity and transparency facilitate the dissemination of information, knowledge sharing, and learning, thus contributing to the continuity and improvement of sustainable urban development practices over time.

xiv. Integrative approach: The integrative approach is fundamental when aiming for sustainable urban development within urban transformation processes. It involves the integration of various disciplines that play roles in transformation and development. These include urban planning, architecture, environmental science, social sciences, and economics, among others. By bringing together expertise from these diverse fields, a comprehensive understanding of the complex changes and opportunities within urban contexts can be achieved. Additionally, the integrative approach requires the alignment of objectives between different stakeholders involved in transformation processes. These stakeholders may include government agencies, community organizations, private developers, and residents. Each stakeholder often has distinct interests and priorities. Effective integration involves identifying common ground and shared individual ones.

Moreover, the integrative approach recognizes the importance of employing multiple methodologies that are tailored to the specific dynamics and context of each case. This may include participatory planning processes, data-driven analysis, scenario modelling, and collaborative decision-making methods. By combining various approaches, a more holistic and robust framework for sustainable urban development can be established. Overall, the integrative approach emphasizes the interconnectedness of various aspects of transformation and development. By integrating disciplines, objectives, and methodologies, sustainable solutions that address social, physical, environmental, and economic challenges can be effectively pursued. Integrating different disciplines involved in urban transformation and urban development, and employing multiple methodologies based on local and case-specific dynamics are fundamental when targeting sustainable urban development.

The sustainability of any urban transformation project, encompassing physical, socio-cultural, economic, environmental, and institutional dimensions, hinges on the coherence of strategic decisions made through the process, aligning with the demands and potentials of the affected urban areas. Factors such as the choice of the location within the city and district, interpretation of site characteristics, determination of spatial scale, and establishment of implementation typologies in line with the objectives of urban transformation profoundly influence the sustainability of the endeavour. Challenges inherent in urban transformations vary from one location to another and evolve over time, underscoring the significance of local dynamics and the current circumstances in achieving fairness and equity in the outcomes of the processes.

Relying on the set of criteria disclosed above, the significant approach to understanding urban sustainability will be determined by the conceptual framework consisting of four parameters in the context of urban transformation in this section. Evaluative and comparative discussion of urban transformation case study examples in Istanbul will contribute to the understanding of urban sustainability in this context. The discussion of impacts in relation to the parameters of urban sustainability in Chapter 5 is aimed at generating new perspectives for sustainable urban development in Istanbul and other developing cities through transformative urban changes. The discussion for analyzing urban sustainability will address several key parameters. These include:

Urban Fabric

- Socio-cultural Fabric
- Process
- Impact

2.4.1 Urban Fabric

Spatial sustainability is a key cornerstone parameter within this study. It places significant emphasis on the physical layout of urban areas, conceptualized in three dimensions, focusing on the spatial relationships among structures, spaces, and people. The context for such an analysis necessitates a flexible approach that spans various scales, including examinations at the human, building, plot, neighborhood, and city levels. Streets, spaces, squares, highways, and topographical formations all influence the spatial characteristics of urban areas. Their sustainability quality is assessed based on the "re-evaluated criteria" outlined above. Given that interventions made by urban transformation projects are influential in the spatial structuring of urban environments, spatial sustainability conditions and characteristics within the urban fabric must be clarified:

i. Proportionality of Urban Segments, Hierarchical Structure in the Urban Fabric: The configuration of spatial systems in urban sites should encourage interactivity across various dimensional scales through interventions. This involves scales ranging from the smallest human scale to buildings, blocks, neighborhoods, and the entire city. Each scale plays a specific role and interacts with others to form a comprehensive spatial network. Such hierarchical organization among different urban segments enables cohesive interaction. and the effective functioning of each area individually. This approach facilitates the optimization of land use and the successful realization of functional integration in the urban fabric. The spatial arrangement emphasizing connectivity between different segments, ensuring easy access and efficient movement of people and goods, is accomplished with such an approach. Proportionality of urban segments ensures that open spaces and masses as well as public and private spatial distributions within a neighborhood adhere to certain architectural and urban design standards. This adherence is crucial for achieving proper functionality in all aspects. Proportionality extends beyond merely dimensional parameters. It encompasses the relativity of spatial, functional, social, and economic contexts within the site and its surrounding areas. Proportionality involves several key factors. First, the percentage of demographic, socio-cultural, and economic characteristics in the area must be considered. Next, the adequacy of the infrastructural network and services relative to the population density and physical structure is critical. These factors collectively influence the proportionality of the area, ensuring that it can sustain the urban context effectively. In essence, proportional urban segments represent a holistic approach to urban design in which physical dimensions are balanced with socio-cultural and economic contexts. This balance is essential for achieving sustainability and enhancing the quality of life for urban residents.

Visual connectivity within the spatial layout: Visual connectivity maintained ii. between different dimensional and characteristic parts of urban environments is crucial for spatial sustainability by enhancing urban life quality and cultivating vibrant, mixed-use areas. Enhanced by referential architectural and natural actors as well as social dynamics taking place in the context of spatial layout, visual connectivity fosters a sense of unity between private and public open spaces. This unity, which contributes to the holistic experience of environmental characteristics, is often overlooked in urban design and planning activities. A comprehensive understanding of neighborhood characteristics, including the social, economic, and physical aspects of the urban context, helps construct adequate visual connectivity in spatial layout. Visual interactions between buildings, open spaces, and natural features, play a vital role in creating a sense of belonging, location, placeness, and identity for urban environments. Visual connectivity in urban districts instils the understanding of spatial in addition to temporal scales.

Interventions that promote visual connectivity within the spatial layout can positively contribute to urban sustainability. However, the success of such interventions depends on their ability to adapt to changing needs and enhance resilience over time. Maintaining and expanding visual connectivity should be a key consideration in urban planning and design processes to ensure the long-term viability and vibrancy of urban environments.

- iii. Physical connectivity within the spatial layout: In both fragmentary and holistic urban transformations, physical connectivity acts as a strengthening factor for spatial sustainability by linking different parts of the intervened urban areas with each other, the larger neighborhood, and the city. The degree and nature of connectivity may vary depending on urban design conditions, site peculiarities, dimensional scales, and non-physical parameters of socioeconomic characteristics. The spatial urban structure serves as a network for multidisciplinary facility interaction, fostering connectivity, continuity, urban identity, uniqueness, and flexibility in urban areas through physical connections.
- iv. The matter of scale: Urban interventions involve multiple scales, with each scale's configuration being significant and requiring balanced interrelation with others. Urban environmental quality, which is the essential goal of urban transformation processes, is greatly influenced by the spatial identity of the spaces and how inhabitants and outsiders experience these environments by feeling connected to or understanding their distinctive values. Consequently, the sustainability of urban developments is intertwined with the spatial identity and sense of belonging these spatial layouts convey to the various stakeholders. Understanding the referential and identity-setting components of urban environments and recognizing their significance as pivotal actors in urban transformation projects lays the foundation for the sustainability of urban developments in this regard. The appropriate approach to leverage these components involves valuing them as precious resources and integrating them in the context of urban development through the

transformation process. This strategic integration can lead to significant advancements in the aspect of urban for urban transformation projects.

Urban morphological characteristics: Urban morphological characteristics v. are intricately related to the sustainability of the urban context in various aspects. Spatial interactions triggered between natural and built forms, social interactions taking place within the spatial network, and the interaction of these structures with other aspects of the urban environment evolving in time mark the role of morphological characteristics in urban sustainability. Elements such as street networks, green spaces, built forms, infrastructures, and land constitute the morphological structure of a site. It is effective in developing a sense of identity and belonging for the inhabitants while setting spatial unity, continuity, orientation, homogeneity or heterogeneity in the urban fabric. Morphological implementations have the power to define mass and population densities at different spatial scales. Meanwhile, sociocultural, economic, political, and governance aspects, as well as the temporal scale, impact both the morphological qualities and utilization manners of these elements. Consequently, the morphology aspect of urban environments is a crucial parameter in the designation of urban sustainability.

The perspective of Moudon (1977) and Kropf (2014) towards urban sustainability from the morphological point of view emphasizes the significance of spatial elements, their hierarchical composition, and their historical perspective on the urban fabric. The criteria recommended by Kropf (2009) for the evaluation of morphological sustainability are consistency, specificity, generality, comprehension, and coherence. Whitehand (2001) highlights the potential contributions of urban morphology to urban sustainability through the foundational framework provided for further implementations of urban spatial planning and design through the analysis of past experiences of the environments in morphological terms.

2.4.2 Socio-cultural Fabric

i. Compatibility of socio-cultural and economic interactions within the spatial layout:

The quality of life in urban settings is profoundly influenced by the compatibility of social, cultural, and economic activities with the spatial arrangement. Social interactions in urban areas are intricately related to cultural, economic, and environmental circumstances. In developing countries with unbalanced and chaotic urbanization, demographic factors such as socio-economic status, gender, age, education, and profession interact complexly with urban environments. Despite these variations, the social atmosphere provided by the urban context and its spatial structure plays a crucial role in sustainability, affecting economic, architectural, and urban design characteristics over time.

ii. Functional constitution within the urban context:

The functional constitution of urban environments under transformation is critical to sustainability. Public and private activities, the range of functions, and their integration with urban infrastructure, economic valuation, neighbouring areas, and historical background can either positively or negatively impact urban sustainability. Rigid, top-down approaches to functional organization often become problematic over time. A positive approach involves integrating public activities with the spatial fabric through open and closed spaces that align with social, economic, and physical structures. Private functions require specific infrastructural services and spatial expansion opportunities, necessitating continuous interaction with the other parts of the district and city.

Sense of belonging, placeness and identity in the urban context:
Referential actors and their interactions with the spatial urban layout determine the experiential characteristics of transformed environments, contributing to the preservation of a sense of belonging, place, and identity.

This sense of identity and belonging within neighborhoods, districts, and cities is cultivated over time with the accumulation of social, cultural, physical, and environmental experiences. Urban environments, from urban planning to architectural scales, address people's needs through various articulations. Long-term solutions that consider the social network system in relation to the built environment contribute building lasting identities for transformed spaces. Urban environmental quality, a primary goal of urban transformation processes, is greatly influenced by the spatial identity of spaces and how inhabitants and outsiders experience these environments.

- iv. Equal socio-cultural and citizenship rights within the urban context:
 - For social balance, individual and social well-being, cultural and environmental awareness, and satisfaction with urban environmental life quality, equal socio-cultural and citizenship rights in addition to those of ownership must be provided within the urban context. Political, economic, social, urban and architectural design, and urban planning strategies, along with global and local economic dynamics, shape the transformed urban context in socio-cultural and economic terms. Although economic and political dimensions often drive urban transformation, sustainability suffers when these aspects dominate. Issues like gentrification, replacement, and displacement create new urban problems both in socio-economic and physical-spatial terms. Conversely, a perspective of equity and public good enhances urban sustainability efforts.
- v. Mixed community structuring in the urban context:

The natural development of social and cultural compositions in urban areas creates healthy and relational structures. However, top-down urban transformations driven by economic and construction interests can seriously disrupt community structures. Replacing original demographic characteristics with entirely different ones can disconnect the social and spatial structures of the urban area. On the other hand, delivering sociocultural urban resources to next generations by transforming them with adaptations over time emphasizes unification. Urban sustainability benefits from social and cultural diversity and co-existence, supported by appropriate spatial, infrastructural, and economic solutions.

vi. Economic sustainability of the socio-cultural urban life:

Urban transformation aims for economic improvement through the transformation process and increased land values. These changes generated through the continuing urbanization dynamics, can alter the balance between economic, socio-cultural, and spatial aspects of urban environments. Projects that increase population and spatial density trigger further transformative changes in the area's socio-economic characteristics. At this point, Adil Khan's (1995) definition of economic sustainability which recognizes the basic sustainability principle of satisfying the economic production process needed by the present context while securing the future needs clarifies the argument partially. The full achievement of economic sustainability is retained when the socio-cultural and economic contexts can concurrently adapt to the new circumstances. However, if the economic social structure fails to align with the rise in urban land and property values, economic sustainability is compromised. Cao (2017) stresses that prioritized economic activity in terms of production, distribution and consumption, in the urban transformation context, has a damaging effect on the social and environmental values. Retchless and Brewer (2016) point out about the destructive impacts of the domination of economic growth as the main drive in environmental aspects. Therefore, social, economic, cultural equitability and fairness are necessary to avoid these destructions and to retain economic sustainability (Zhai & Chang, 2019). By focusing on socio-cultural and economic parameters, urban transformation processes can ensure a more sustainable and balanced development, addressing the needs and interests of all stakeholders.

2.4.3 Process

The sustainability of any urban transformation project—encompassing physical, socio-cultural, economic, environmental, and institutional dimensions—depends on the coherence of strategic decisions made throughout the process. These decisions must align with the demands and potentials of the affected urban areas and the objectives of the project. Factors such as the choice of the location within the city and district, interpretation of site characteristics, determination of spatial scale, and establishment of implementation typologies in line with the objectives of urban transformation, collaborative involvement of the stakeholders, and the financing of the process profoundly influence the sustainability of the endeavour.

Challenges inherent in urban transformations vary from one location to another and evolve, underscoring the significance of local dynamics and current circumstances in achieving fairness and equity in the outcomes of the processes. The processes of urban transformation implementations, which differ in many aspects, require casespecific analysis, under common sustainability parameters. The urban sustainability measures of urban transformation processes depend on the decision-making strategy, organizational structuring, financial structuring, and adaptability in the physical and temporal dimensions of the processes

i. Decision-making strategy for urban transformation and urban sustainability: Urban transformation processes are realized in multiple stages at the decision-making level. Multi-disciplinary research and study in legislative, governmental, planning and design, social, cultural, historical, psychological, economic and political platforms contribute to the sustainability aspect of the process. Although each project is unique in terms of its physical and temporal urban context and the background of reasons, aims, and expectations related to urban transformations, it is crucial to develop projects and ensure the consistent involvement of authorities throughout the process. The consistency of legislative procedures, interrelationship among authoritative powers, prioritized benefit of public good, clarity and transparency in the financial and operational structure, and involvement of the public in the decision-making stages must be common principles for all urban transformation processes for the sustainability of the processes. This structured approach significantly reduces incidental challenges in implementing urban transformation projects.

Consequently, it becomes possible to project future developments and retransformations triggered by other levels of the urban context. Effective communication between different decision-making authorities and their commitment to the public good and temporal dimension is essential for maintaining a sustainable process. Apart from the design and implementation stages, the sustainability of the process also relies on its ability to continue to evolve in relation to the urban context.

ii. Consistency of the objectives, the urban context and the interest of different stakeholders:

Urban transformation processes may take several years to be completed structurally. However, the real transformation is accomplished only when the multi-dimensional influences are experienced in social, economic, cultural, and spatial levels of the urban context at various spatial scales in the years following the structural completion of the project. The consistency of these objectives with the outcomes and the urban context becomes apparent over time. Maintaining this consistency relates to effective process management and governance.

Ensuring the alignment of the objectives with the interests of different stakeholders is crucial for the success of the urban transformation process. This requires ongoing communication, collaboration, and adjustments to address emerging challenges and opportunities, thus ensuring that the transformation remains sustainable and beneficial for all involved parties. However, the ethical principles to keep and follow the factual context of the urban transformation projects as the main criterion in setting the objectives, and prioritizing the eventual aim as sustainable urban development, must dominate the process at all stages.

iii. Urban Transformation Process and Future Projections:

If the management of the operational stage is handled with care and the principles of the planning and urban design authorities are followed precisely in accordance with the temporal scheduling, unforeseen diversions can be significantly minimized. However, urban environments and urban transformations are dynamic systems, susceptible to the effects of multi-disciplinary circumstances, and are prone to continuous interruptions that demand changes in the project's objectives. Evaluating these circumstances and allowing necessary diversions within the process requires a flexible perspective to keep the urban transformation process on the sustainability track.

Having the ability to project future developments is essential in urban transformation processes. This foresight ensures that the project can adapt to new challenges and opportunities, maintaining its relevance and effectiveness over time. Transparency in the process enhances the involvement and support of citizens in the project, as well as building trust among stakeholders. By being open to public observation and participation, the process can benefit from constructive criticism and updated inputs about urban contextual conditions. Re-organizing and re-programming the implementation and post-implementation stages in a transformative manner will keep the process updated and sustainable.

In summary, the ability to project future developments and adapt accordingly is crucial for the long-term success of urban transformation processes. This adaptability, coupled with transparency and public good engagement, ensures that urban transformation remains effective, relevant, and sustainable.

2.4.4 Impact

i. Sustainability of Current and Future Impacts:

Urban transformation processes have both immediate and long-term implications. In the short term, these projects can revitalize neglected urban areas, improve infrastructure, and stimulate economic growth. They address issues like housing needs, socio-economic degeneration of certain areas, the transformation of industrial areas in the city center, informal settlements, infrastructural necessities and conceptual mega projects. These impacts must be the products of urban transformation processes with fair, right and publicly approved objectives. However, the long-term sustainability of these transformations hinges on their ability to adapt to future challenges and opportunities.

Future impacts include the need for continuous maintenance and upgrades to urban contextual changes, including spatial, morphological, socio-cultural and economic trends, and adapting to technological advancements. Sustainable urban transformation should incorporate flexible and adaptive planning strategies that allow for ongoing modifications and improvements. This forward-looking approach ensures that urban areas can evolve in response to shifting environmental conditions, economic fluctuations, and social dynamics, thereby maintaining their vitality and functionality over time.

ii. Sustainability of the Impacts in Terms of Public Well-being and Environmental Quality:

Urban transformation has the potential to significantly enhance public wellbeing and urban environmental life quality through both spatial and social interventions. Successful transformations, encompassing both project execution and process management, can achieve these improvements by addressing spatial-morphological as well as socio-cultural and economic aspects holistically. Urban fabric qualities endorsed by adequate design, relativity, connectivity, coherence and union criteria, besides improved infrastructural network and sustainable social, cultural, economic improvements can support well-being. Through such an effect an urban transformation can endure its sustainability.

The aspects of balance, coherence, and consistency respected in the multidimensional contexts of urban transformations create satisfactory experiences for the residents, increasing their sense of belonging and identification in the urban environment. The engagement of the community in the transformation process fosters a sense of ownership, belonging and social cohesion. The transformation cases that handle cultural and demographic values with care within the urban transformation processes, avoiding radical changes and shifts, maintain positive impacts on the wellbeing of the users. The balanced and fair distribution of economic improvement impacts of urban transformations among the stakeholders also adds to the well-being and environmental quality.

iii. Sustainability of the Impacts in Urban Fabric, Socio-cultural, and Economic Contexts:

The characteristic and system dynamics of urban fabric at the city scale, transforms through every small or large-scale change accomplished by urban transformation processes. Given that each transformation affects the spatial and morphological configuration of the whole, as well as the parts subjected to direct impacts, the sustainability of the impacts must be evaluated from a broader perspective. Along with the upgrading of physical structural conditions of buildings, spatial system dominant in the character, identity, connectivity, and public spatial network in urban transformation areas are significantly influenced by the transformation processes. The changes in these aspects may cause questionable, unplanned, and unprepared other chain transformations within the context of the urban transformation process. Increase in land values of the surrounding areas, displacement of the original residents from their neighbourhoods because of the economic upgrading of the land and properties, radical demographic changes irrelevant to the rest of the district, increase in density in urban fabric and population, mismatched with the infrastructural networks, are some of these impacts created as the urban transformation impacts. Sustainability of these impacts depends on the consistency achieved between the main objectives and results for current and future developments.

Socio-cultural and economic impacts are all derivatives of the spatialmorphological changes attributed through urban transformations. However, in certain implementations, the derivatives of socio-cultural or economic impacts, re-generate new compulsory spatial transformations. These circumstances may lead to unplanned developments, in a negative manner. Therefore, the sustainability of all impacts, is closely related to thorough multi-disciplinary and holistic research and study conducted before the decision-making stage of urban transformations. Additionally, the postresearch and post-management of the urban transformation projects after the implementation processes gain value in the sustainability of the impacts.

CHAPTER 3

URBAN TRANSFORMATION IN ISTANBUL AFTER 2000

This chapter provides an overview of Istanbul's urban transformation processes from an alternative sustainability perspective. The focus will be on the period from 2000 onward, when urban interventions intensified in Turkey and particularly Istanbul, its largest city. A research paper by Koch et al. (2017) reveals that up until 2016 Turkey was among the top five countries in the number of articles written on "urban transformation." However, it also points out that the differentiation of general approach to the subject from that of other countries. Kuyucu & Ünsal (2010) argue that the dominance of urban transformation projects in Turkey have been driven by the aim of physical and demographical upgrading of urban lands in inner-city quarters as a result of national urban policies and practices.

This chapter will emphasize the essentiality of targeting sustainable urban development and the operative role of urban transformation process in constituting the urbanization context of Istanbul. It will examine the economic-political, physical-environmental, and socio-cultural factors that challenge urban sustainability. Before the case study in Chapter 4, this chapter will also outline a framework for understanding urban transformation typologies and their subcategories.

3.1 Istanbul's Urban Context After 2000

Since 2000, the urban context of Istanbul has been shaped predominantly by the influences of globalization and neoliberal policies, the economic and political strategies of the governance authority, trends in urbanization and urban development, and the earthquake risk in the Marmara region. These factors have collectively shaped the urban context, evolving within a complex framework.

The influence of globally influential neoliberal policies has significantly shaped Turkey's economic policies since 2000, leading to increased deregulation, decentralization, and localization across various sectors. Istanbul's urban context has been notably impacted by this policy shift, transitioning from comprehensive planning to strategic, short-term, and partial planning. Consequently, urban planning has increasingly been used as a tool for generating profit from urban lands rather than solving urban problems (Sert, 2018). Neoliberal capitalist policies have facilitated the commodification of urban land, converting it into a market for real estate. The Turkish urban transformation scene displays a chaotic and uncertain situation, marked by ambiguous authorities, responsibilities, and legislation (Bıçakçı & Aysev, 2024).

The literature on the impacts of neoliberal and global economic policies on urbanization and the role of the state in society distinguishes between developed and developing countries. Most studies have focused on urbanization cases in the Northern Hemisphere, where developing countries such as Turkey are often viewed as immature and unstable urbanization environments, lacking robust legal and democratic mechanisms. This perspective suggests that in underdeveloped or developing countries, the governing authority exerts a dominant influence on the urbanization of capital, operating from top down in contexts that supposedly lack established legal, institutional, and physical infrastructure. However, the situation in Turkey, and specifically in Istanbul, presents a different case. Legal and institutional systems have long been established, but over the past 20 years, the dominance of governing authority has illegally undermined these systems, surpassing traditional authorities with aggressive economic and political strategies.

The significance in the case of Istanbul lies in the recent prevalent centralization of the state in the production and distribution of welfare and the high societal expectations that has altered the conditions (Ay & Penpecioğlu, 2022). Therefore, when considering the influence of neoliberalization on the urbanization and urban transformation landscape in Istanbul, a more nuanced approach is necessary. To fully understand the actual influential parameters, it is essential to scrutinize the recent political policies, institutional management, and ethical utilization of authoritative power in Turkey in relation to economic tendencies, urban planning, and urban transformation. This specific conditioning in Istanbul's urban transformation must be examined in relation to its impacts on the sustainability of the urban context.

Since the beginning of the new century, Istanbul has faced increasing housing demand fuelled by population growth, ongoing migration from rural areas and other cities, and economic growth stimulation. Informal settlements, formed over many years, were in poor physical and socio-cultural conditions, necessitating multi-dimensional improvements. These settlements, once located on the city's outskirts, have become part of the inner-city areas due to rising land values and high demand for upper-income housing and mixed-use developments. However, efforts to holistically improve these areas have conflicted with their appeal as investment opportunities for quick and expanded profit gains.

The government's housing-oriented construction policies, as highlighted by Balaban (2012), have accelerated the urban transformation process. Until Law No. 6306 came into force in 2012, the urban transformation experiences were mostly in inner city areas and informal settlement zones close to the center with complicated ownership structures, where inhabitants often lacked property rights (Türkün, 2014; Kuyucu & Ünsal, 2010). Key actors in these projects included TOKI (the Public Housing Administration), local authorities, and large construction companies (Eraydın and Taşan-Kok, 2013; Kuyucu, 2018; Tarakçı and Şence Türk, 2020). Public authorities facilitated land assembly and evacuation of the land to prepare for urban transformations, forming public-private partnerships to implement these projects (Ozkan and Sence Turk, 2016). Most of the urban transformation projects prioritized physical and demographic upgrades over improving the environmental life quality of these urban areas, leading to property transfers and resident displacement (Kuyucu and Ünsal, 2010). In some cases, landowners were initially involved in the process but eventually sold their new housing units and relocated to more affordable areas, exemplifying indirect displacement.

Many historical and cultural heritage districts, having lost their original identity, were inhabited by poor communities and migrants in substandard conditions. These areas became alienated from the surrounding neighborhoods in demographic and social terms and were regarded as requiring interventions for socio-cultural and physical improvements. However, with globalization and the concept of historical, cultural urban tourism in relation to global city-making policies, these deteriorated heritage environments gained attraction in the urban context. Unfortunately, the resulting implementations have been far from being satisfactory in the sense of revitalizing the authentic values and characteristics of the areas. Most of the urban transformation processes requiring multi-disciplinary and comprehensive conservation, renovation and revitalization approaches, were conducted with the dominance of redevelopment. Displacement of the existing inhabitants and a thorough gentrification enforcement were mutual partners of such urban transformations.

The 1999 Marmara earthquake and the one that took place in 2011 in Van have significantly influenced Istanbul's urban context. Istanbul, filled with buildings lacking earthquake resilience, faces major challenges. This condition has legitimized and influenced urban transformation projects, integrating seismic risk mitigation into urban planning. Although earthquake risk management should have been the major guiding parameter, that determines where and how to execute urban transformation, other parameters like economic and political power gain prevailed urban transformation strategy decisions. In the transformation processes, TOKİ, as the representative of the central governance, has been the main actor within the rules of Law No. 5162 enacted in 2004. This law was issued to enlarge the areas of authorization of the Metropolitan Municipalities, such as the preparation of upper-scale plans.

In addition, the establishment of the Istanbul Metropolitan Planning and Urban Design Center (IMP) in 2005 has been crucial for the urban development of the city. The Center is responsible for the preparation of strategic development plans focusing on the environmental, social, economic, and physical components of urbanization.

Consequently, the 1/100.000-scaled Istanbul Environmental Plan, which commenced in 2009, was produced with the objective of conserving the cultural and natural heritage assets of Istanbul. The plan has greatly impacted the sustainable urban development trajectory of Istanbul. Monitoring and controlling the city's expansion towards the northern ecological life sources and managing the population of an estimated 16 million were major outlines provided by the plan. However, the plan has been somewhat neglected and transformation projects like Cendere Valley-Vadi Istanbul, among others, have been implemented. This neglect has significantly compromised Istanbul's environmental and ecological urban sustainability opportunities.

The power of the central authority increased significantly with the establishment of the Ministry of Environment, Urbanization and Climate Change along with Law No. 6306, in 2012. The main aim to transform protected sites and areas with high earthquake disaster risk. After that date, urban transformations began at single-building and urban area scales. This law has encouraged these transformations in the name of earthquake risk management (Gür & Türk, 2014).

Building scale transformations have been extensively implemented in Istanbul, with these varying scales having positive and negative influences. Positively, they have contributed to the fluency and efficiency of implementation processes. However, negatively, they have hindered the adoption of a comprehensive and holistic approach to urban planning and design (Tarakçı & Türk, 2020), as discussed in Chapter 2, as one of the crucial aspects of urban sustainability through urban transformations in Turkey. An indisputable deficiency in coordination among the professional and public institutions, the involvement of unqualified people in project and process design were highlighted in this era.

With the incorporation of TOKI into the Ministry of Environment, Urbanization and Climate Change in 2018 through Decree Law. No. 703, consolidation of the Ministry's power further, property owners have effectively been excluded from the process. Although this cooperation addressed some implementation issues and conflicts among landowners, investors, and contractors during the transformation stages, it also has compromised the transparency, reliability, and inclusivity of the processes. None of the user groups, representatives of citizens or related professionals were allowed to participate in decision-making discussions. Participation, inclusion, fairness, democratic principles and transparency were totally rejected. Therefore, while resolving certain disputes, the system inadvertently undermined the potential for sustainable urban development.

Urbanization in Turkey can be understood in three major stages: urbanization driven by the nation-state between 1923 and 1950, urbanization of labour between 1950 and 1980, and urbanization of capital from 1980 onwards (Şengül, 2009:97-105). In the last period, legal frameworks have been constituted to support targeted urban transformation projects. Law No. 5366 on "Renewal and Utilization of Worn Historical and Immovable Assets" and Law No. 5393 on "Municipalities" facilitated administrative and legal interventions in the historical city center and informal settlement areas in 2005 (Kuyucu & Ünsal, 2010:90). This last period is described by Penpecioğlu (2011) as the reproduction of capital rather than planned urbanization. Consequently, incomplete, non-transparent, and ambiguous transformations in an unjust urban atmosphere, alongside gentrification, are evident (Ay & Penpecioğlu, 2022). Social inequality was boosted instead of encouraging rich demographic and cultural characteristics of the society, transforming it towards an alienated identity.

Public-private partnerships have transformed valuable heritage and neglected areas or informal settlement regions into investment zones, leading to profit gains for governments and investors, but resulting in gentrification, dispossession and displacement for inhabitants, characterized by destruction-based construction processes (Lehrer & Laidley, 2008). These partnerships have facilitated the implementation stages of urban transformation projects but planning organizations and urban design stages have remained flexible and inconsistent. The enhanced decentralization has led to a relaxation of rules that vary on a case-by-case basis. Consequently, fragmentary approaches in urban transformations have led to a withdrawal from urban sustainability criteria such as unity, relationality, cohesiveness, sense of identity, and sense of belonging.

3.2 The Dynamics of Urban Transformation in Istanbul

The dynamics of urban transformation in Istanbul post-2000 have been shaped by economic-political, physical-environmental, and socio-cultural factors each influencing and triggering various others. The dynamic urbanization character of Istanbul, exhibiting a continuous evolution, driven by unbalanced urban and socio-cultural policies, compounded by the complexities in institutional and governance mechanisms over the last two decades has been steering the urban context towards unsustainable urban development.

On the other hand, Istanbul's cosmopolitan character traditionally has embraced a significant union of diversified socio-economic and multi-cultural communities. This characteristic of social dynamics could be leveraged to create an alternative trajectory in the urban transformation context, steering towards sustainable urban development. However, the dominant forces of globalization and the competitiveness of the neoliberal economy have led to erosions and unbalanced situations in the city's social and demographic structure. Economic pressures on lower-income communities, marked by increased living expenses and a significant rise in land values in inner-city neighbourhoods, have been substantial. Consequently, the residents of these transforming areas, primarily those with lower socio-cultural and economic profiles, have developed predominantly economic expectations rather than focusing on spatial and socio-cultural quality.

As Aksoy (2012) argues, Istanbul's urban transformation dynamics have placed the city in a dilemma of either globalizing and growing the city economically as a realestate proposition, or developing the city with the principles of inclusiveness, common good, historic-cultural identity, and rights to the city. Although these objectives may appear irreconcilable under the current urban transformation conditions, the significant complexity of the dynamics, when managed appropriately in a city-specific, holistic, and comprehensive approach, retains the potential for challenging urban sustainability.

3.2.1 The Economic-political Dynamics:

Urbanization in Turkey can be distinctly characterized as "urbanization without industrialization," diverging from typical Western cases. Since the 2000s, the government and specific capital groups have collaborated with private partners to plan, finance, and manage urban transformation processes (Erman, 2009). As Keleş (2010) contends, Turkey's development policy has not prioritized industrialization but has instead relied on financial manipulations to stimulate economic growth. Neoliberal policies have largely dictated urban development and transformation strategies in Turkey, particularly in Istanbul (Koramaz; Koramaz; & Özer, 2018). This trajectory has resulted in a radical spatial transformation of urban land, affecting both social and economic dimensions (Kayasü & Yetişkul, 2014).

Urban transformation has been primarily driven by the pursuit of globalization and competitive growth. With a vision of becoming a global city, economically significant Turkish cities, particularly Istanbul, were at the forefront of this change. In Istanbul's case, the transformation involved attracting international service sectors and capital while redeveloping various urban areas. This included the demolition of pre-industrial zones such as Haliç, the redevelopment of informal settlement districts like Fikirtepe, and the transformation of historical neighborhoods like Tarlabaşı, alongside earthquake-prone regions and buildings.

Neoliberal economic policies prioritized the construction sector as the main instrument for channeling capital into urban transformation and development, often justified by the widespread earthquake risk. After 2000, the government sought to address the capital accumulation crisis through urban land rent. To support this policy, they reinforced the legal and institutional frameworks, facilitating the replacement of old structures with new ones. However, these actions have led to highly contentious outcomes concerning economic, social, and spatial sustainability. The reliance on real estate production as a primary driver of economic growth, despite its limited potential for economic transformation, proved to be an unsustainable strategy (Töre, 2015).

The economic and political strategy of the AKP government was reinforced by reforms to the Housing Development Administration of Turkey (TOKI), which granted it increased authority, alongside the establishment of mortgage legislation. This set the stage for the initiation of numerous infrastructure and urban transformation projects. However, ambiguities and inconsistencies within both the institutional and legal frameworks hindered the successful completion of these projects. Following these shortcomings, a new urban transformation policy was implemented. In 2010, decision-making authority for urban transformation was centralized, and the scale of transformation projects was reduced. This shift led to demolition and rebuilding activities being conducted on smaller scales, often without a comprehensive strategy. The enactment of the Disaster Law in 2012, along with the establishment of the Ministry of Environment, Urbanization, and Climate Change, further accelerated the redevelopment process, prioritizing rapid economic gains (Kuyucu, 2018). Nevertheless, the transformation projects, lacking appropriate physical and temporal scales, and implemented without macro-level urban planning, population growth management, or infrastructural integration, generated additional urban problems and yielded unsatisfactory outcomes.

Mega projects, particularly driven by economic policy imperatives, have been part of the implementations favoured within this period. The manipulation of each transformation case by the policy makers prioritized high profit returns for the stakeholders and the enhancement of economic growth throughout the processes. Despite the relevance of socio-economic and historical factors, the primary strategy behind many urban transformation projects were conducted by economic policies and the associated political dynamics. These policies shape the urban landscape by prioritizing certain areas and projects in line with broader economic objectives.

3.2.2 The Physical-environmental Dynamics

One significant condition justifying certain urban transformation processes in Istanbul has been the city's vulnerability to earthquakes. The standardization of buildings and infrastructures to meet seismic qualifications has been integrated into broader urban transformation initiatives and new urban planning regulations.

The physical environmental circumstances related to density requirements and spatial efficiency optimizations have also influenced urban transformation dynamics. These aspects related to architectural and urban image congruencies and cityscape formations in some projects have been part of the physical dynamics on a broader scale.

Environmental improvement obligations encompassing urban infrastructure, public environmental quality standards, facility enrichment, transportation and accessibility network systems constitute other components of the physical and environmental dynamics of urban transformation in Istanbul. In many transformation projects, these dynamics are configured as complementary parts of the processes due to fragmented interventions occurring at different times and the lack of coordination within urban planning problem-solving mechanisms.

3.2.3 The Social-cultural Dynamics

The urgent need to enhance the socio-cultural conditions in certain built environments has often been the official justification for initiating some urban transformation projects. These socio-cultural dynamics have frequently coincided with the physical deterioration of buildings, infrastructures, and urban facilities in those areas. However, transformations triggered by social dynamics rarely have achieved their original socio-cultural objectives, as economic motives have tended to dominate the processes. The major parameters of sustainable urban transformation and urban development, which should ideally incorporate socio-cultural diversity as well as mixed-use developments, were sidelined. Nevertheless, these processes declared as aiming socio-cultural and economic upgrading, have led to displacement, gentrification, and the creation of alienated, homogenous environments.

Accelerated urban tourism strategies, closely linked to economic profit motives and the ambition to position Istanbul as a global city, have leveraged the city's historical and cultural assets. This has constituted a significant aspect of the cultural dynamics driving urban transformations. Conservation, regeneration, and redevelopment strategies in historical and cultural heritage areas have been approached as target zones for urban transformations with the same economic drive. Although these transformation sites need a balanced approach of preservation of cultural heritage and satisfying the demands of modern development, economic imperatives frequently have overshadowed socio-cultural goals.

Penpecioğlu (2011) describes the urbanization dynamics in Istanbul, the leading arena of urban transformations in Turkey, emphasizing that they are characterized by unplanned development frameworks, short-term strategies, and fragmented interventions. The predominant policy revolves around the reproduction of capital through rent-oriented urban projects aimed at urban expansion. The neoliberal urbanization context has promoted competitiveness, attracting investments, city branding, and marketing through urban figures. As urban transformation processes have been guided by these strategies, there have been serious gentrification, displacement and social exclusion issues confronted in Istanbul.

David Harvey's (1985; 1989) theory of surplus capital being absorbed into urban spatial configurations is evident in Istanbul's post-2000 urbanization. The state plays a key regulatory role, facilitating the transfer of surplus capital to the urban sector for profit maximization. Since 2002, there has been a significant increase in construction activities, including a rise in building permits (Penpecioğlu, 2011). The crucial difference in the conceptual framework of urbanization in Turkish cities, compared to Western capitalist economies, lies in Turkey's lack of a de-industrialization process, where consumption within urbanization dominates in the economic context. The construction and transformation processes have been

accelerated by numerous laws and regulations, enabling local governance authorities to expand built environments by granting them the necessary responsibilities (Balaban, 2008). The period following the economic crisis of 2008 has been characterized by the dominance of private construction companies and public partnerships in the urbanization context. Public lands have been allocated for private construction projects, authoritative power mechanisms restructured to facilitate this process, metropolitan municipalities institutionalized with public-private partnerships, and large-scale urban projects supported to increase land-values. These developments have been achieved through governmental power, resulting in scattered, incoherent urban transformation approaches (Penpecioğlu, 2011).

Government actions have further centralized urban transformation authority within metropolitan municipalities, often bypassing established metropolitan plans. This has led to fragmented mega-projects that erode socio-spatial cohesion, equity, and justice. Economic profit-driven interventions have exacerbated environmental quality disparities, socio-cultural dislocation, gentrification, loss of urban identity, and socio-spatial inequalities. These dynamics have enabled the government to consolidate power, aggressively pursuing its urban transformation agenda.

In summary, urban transformation in Istanbul has been driven by neoliberal economic policies and government-led initiatives, resulting in fragmented urban development that prioritizes economic gains at the expense of socio-spatial cohesion and justice.

3.3 Typologies of Urban Transformation in Istanbul

Categorizing urban transformation in Istanbul into typologies is particularly useful for understanding the complex and diverse processes of urban change. However, multiple layers and perspectives must be considered to avoid oversimplification that could potentially disrupt the transformation process. A systematic analysis of different urban conditions and patterns, addressing diverse objectives—ranging from

economic-political, socio-cultural, to physical-environmental—is necessary to understand how these goals have been realized and how they have impacted various parts of the city. The variations in scope and scale among urban transformations in the Turkish context often do not align with standardized categorical definitions. Instead, each transformation process operates in a case-specific manner rather than as a planned and designed alternative. In addition to the site scale, the characteristics and interactions within project design are essential considerations for typology.

The distribution of economic and socio-cultural benefits, the rate of implementation, the protection of ownership and citizenship rights, and the encouragement of user participation are heavily influenced by the actors, stakeholders, and partnerships involved in the interventions. These partnership models have multiple implications for process outcomes. Furthermore, the organization, design, management, and implementation of transformation processes play a critical role in achieving the project objectives and shaping future prospects, thus representing another crucial aspect of typological categorization. The conventional categorization of urban transformation tools and their relationship to contextual dynamics ultimately determines the operational implementation strategies.

Upoun completion of the individual analysis and evaluation of case studies in Chapter 4, a typological analysis of the urban transformation landscape in Istanbul, from the perspective of urban sustainability will be presented in Table (X?). This table will compare the projects based on the categorization criteria outlined in this section. It will highlight representative characteristics of the processes, facilitating further comparative and evaluative discussions.

The typological variations of urban transformations must be considered within the following aspects:

- i. Scale and scope of urban transformation projects
 - a. Building Scale Projects: In building scale transformations, focus is given to individual buildings, single plots, or fragmented units, usually within their ownership boundaries. They may be a part of a

larger spatial structuring system that sustains and contributes to spatial identity and a sense of belonging. In other cases, the scale may disrupt the unity of the environment, affecting the relationship between the broader scale and the small segment. Social, economic, and functional transformations are limited and may not align with future projections, resulting in changes that are primarily physical.

- b. Neighborhood Scale Projects: These transformations involve the entire neighbourhoods or districts, or parts and stages of larger projects to be completed eventually. In these cases, it is possible to pursue relationality and cohesiveness within the district, as multidisciplinary approach to the transformation process is enabled in the area.
- c. City Scale Projects: In this scale, while projects are potentially limited in physical boundaries, they can have functional impacts capable of influencing the city. Transportation networks, mega-projects, and mixed-use transformations are parts of this category, requiring intricate analytic studies, strategic policies and physical commitments to serve all citizens.
- ii. Objectives of Urban Transformation Projects

While urban environments undergo transformation to address specific issues, the objectives can deviate from the actual needs due to political, economic, socio-cultural, or environmental tendencies. The general objective categories are:

- a. Economic Development: Aims to boost economic activity through functional, physical, and socio-cultural interventions. This includes attempts to increase land and property values, using the construction process as an economic profit-making tool, or configuring projects as economic value production centres.
- b. Socio-cultural Wellbeing and Equitable Rights: Seeks to improve living conditions and provide equitable opportunities for all
inhabitants. However, these priorities can be weakened by other dominant objectives in some examples.

- c. Physical and Environmental Objectives: Focuses on morphological, and spatial structural dimensions, density optimization, urban resource management, earthquake risk factors, and poor building and infrastructure conditions in transformation areas.
- d. Historical-cultural Heritage Preservation: In a city with a rich historical heritage like Istanbul, this is a crucial objective requiring careful management and multidimensional approach, not only for historical areas but for all parts of the city. This involves considering social, cultural, economic, demographic, and physical aspects simultaneously.
- iii. Actors, stakeholders, and partnership models in transformation processes
 - a. Public-private partnerships: Involve local and central governance agencies, such as TOKİ, and the Ministry of Urbanization and Environment, municipalities, and private construction companies.
 - b. Private investment and implementation in partnership with owners: Generally applied to building scale or small neighbourhood scale interventions.
 - c. Governmental funding and governance institutions in partnerships with TOKİ and/or private sector: Typically involve mega projects, infrastructural transformations, and city-scale interventions.

Management and Design of Urban Transformation Process: The formation of sustainability in the urban context through transformation implementations is very much related to the process itself.

iv.

 Regulatory framework: In the urban transformation atmosphere post-2000 in Istanbul, rules and regulations related to urban transformation have been changing with the central governance authority. Governmental interventions can undermine the reliability and connectivity of the processes with city-based decisions.¹

- b. Standards in urban design implementation rules: The dominance of governmental authority influences these standards, which must be evaluated for each transformation case.
- c. Balancing socio-cultural, physical, and economic aspects: One of the fundamental principles of sustainable urban development is balancing these aspects in favour of the public good.
- Inclusion of the community: Community involvement in decisionmaking stages is crucial. Participation has not been successfully facilitated in many transformation processes.
- v. Urban transformation processes and strategies

The physical problem-solving methodologies in urban transformation are categorized in certain generic terms. While each title outlines the evolution of transforming environments, these interpretations rarely exist in isolation, on the contrary often combine multiple aspects.

- a. Redevelopment: This is the comprehensive demolition of existing structures in economically and physically deteriorated urban environments, followed by new construction with economic, physical and social upgrades. These implementations typically involve increased density and mixed-use developments, with economic priorities and investment objectives.
- b. Regeneration: This approach retains and improves existing structures, enhancing public spaces, amenities, and infrastructures with a mix of

¹ Laws concerning local authorities, entitling them with the right to designate transformation areas, for redevelopment, restoration, preservation and development were: Special Provincial Administration Act (2005, No.5197), Metropolitan Municipalities Act (2004, No.5216), Municipalities Act (2005, No. 5393), and the law that one enabled local authority to implement renewal in historical and cultural conservation areas was: The Law No.5366, in 2005, called 'Law of preservation by renovation and utilization by revitalizing deteriorated immovable historical and cultural properties'.

renovation, restoration, and new development. The social aspect and community involvement are significant for achieving sustainable development.

- c. Renewal: The methodology focuses on updating and modernizing existing buildings and infrastructure, emphasizing preservation of the built environment over major demolition. The degree of removal of existing structures applied in the methodology, varies according to the specific circumstances of each urban transformation project. Throughout this approach, demographic, functional and density changes are also expected within transformations (Couch & Fraser, 2003).
- d. Revitalization: This involves injecting vitality into an area through cultural, economic, and social initiatives, as well as physical improvements. This methodology addresses multi-dimensional deterioration in settlement areas, helping to retain historical identities for sustainable development. Meanwhile, since the origins of failure in the liveability of the environments are not uniform in all examples responsive approach requires case-specific trajectories (Tiesdell, et al., 1996).
- e. Adaptive Reuse: This approach is basically converts old, unsettled, unused, yet culturally or historically meaningful buildings to new uses while preserving their heritage aspects.
- f. Development: This is new construction on undeveloped land or the expansion of existing urban areas, driven by economic policies and urbanization needs. This category includes residential, commercial, and industrial developments guided by urban planning policies and regulations. The main drives are population growth and economic gain.
- g. Preservation-Conservation: This methodology aims to protect and maintain buildings or areas of historical or cultural significance,

ensuring long-term protection through careful management. However, they are usually accompanied by aggressively conducted gentrification in the area.

3.4 Critical Evaluation of Istanbul's Urban Transformation

Turkey has experienced a significant shift in its urban policies, largely reflecting the influence of neoliberal economic policies particularly post-2000. These processes have often been facilitated by changes in laws and regulations aimed at promoting rapid urbanization and urban transformation as the main actor of urban development. What is more, urban transformation has not been implemented as a joint issue within urban planning and design system, but accomplished by the commitment of governmental authority, at the expense of the community's benefits. As Gürler (2009) points out, physical urban transformation was structured by economic development drives throughout the economic and political framework. These approaches were notably questioned from the aspects of their contexts and contents, as well as their debatable process designs and managements. Future possibilities were not envisioned, interdisciplinary and dynamic thinking was not promoted. Encouragement of research, innovation, and collaboration among institutions and professionals were not considered. Different cultural and conceptual perspectives were not involved within the projects. As Güzey (2009) points out, urban transformation processes in Turkey were implemented without adequately considering the unique characteristics of each case. As a result, numerous contextual urban dynamics, which hold significant influence over these transformation processes, were overlooked. In addition to this flawed approach, Balaban (2010) highlights the homogeneous nature of urban transformation strategies, particularly from the perspective of insufficient urban sustainability. Consequently, as Leary and McCarthy (2013) suggest for similar urban contexts, addressing these issues necessitates the development of an alternative, multi-disciplinary urban transformation model. This model should inform both policy making and

implementation, integrating urban planning, design, transportation, economic and urban development frameworks, with a focus on environmental and architectural sustainability.

While migration from other cities, rural areas, and from other countries continued, socio-cultural and economic problems of low-income groups expanded, however, their social well-being and equitable rights were not considered as the main objectives in transformation projects. Inclusivity of the residents within the decision-making processes at various levels of participation was not a part of the policies. The projects were generally implemented in neighborhood scale, without a spatial continuity intention.

CHAPTER 4

CASE STUDY ON URBAN TRANSFORMATION

Studying urban transformation projects in Istanbul offers significant value by providing the city as a comprehensive case study. This approach not only highlights the contextual dynamics and transformation processes within Istanbul but also allows for an understanding of the city's broader urban landscape and its implications for urban development through urban transformation processes. By examining these projects, the study aims to gain insights into the complexities and multifaceted nature of urban development in Istanbul, recognizing the city as a valuable case study.

In the previous chapters, urban transformation and urban sustainability were discussed thoroughly as the constituents of the conceptual framework of the dissertation. Urban transformation, encompassing all types of human-initiated urban change within the perspective of the study, plays a dominant role in Istanbul's urbanization context. As the main agent determining the nature of urban development in Istanbul, with an enhanced strength since the 2000s, the urban transformation process was critically examined due to its unsatisfactory performance in building sustainable urban development. However, if approached with a thorough understanding and recognition of the value of sustainability in the urban context, the entire course of urban transformation could serve as an opportunity for Istanbul's urban development.

Therefore, according to the conceptual framework outlined in Chapter 2, six urban areas subjected to urban transformations of varying types will be analyzed in this chapter to facilitate a comparative discussion on the crucial relationship between urban sustainability and urban transformation strategies. These analyses allow for a comparative discussion, to be elaborated in Chapter 5, using the outputs of the case studies and to challenge future urban transformation projects in Istanbul to evolve into agents of an alternative urban sustainability paradigm for sustainable urban development as discussed in the section on parameters in Chapter 2.

Multiple typological urban transformation processes have been implemented in Istanbul. This study, as previously stated, focuses on the period starting from the 2000s, specifically examining the city's urban transformation landscape since the turn of the century. The rationale behind this focus is that in Turkey since the 2000s, the transformation process has accelerated, driven by newly introduced laws and policies as well as global and local dynamics, including economic, social, cultural and physical factors. Consequently, this period provides a rich array of divergent transformation implementations, offering a comprehensive view of the urban transformation and sustainability challenges in Istanbul through various conditions and influential parameters.

The selected urban transformation examples reveal the characteristics of urban transformation practices in 21st-century Istanbul. Each example encompasses specific frameworks of scale, varied implementation methodologies, a combination of actors and roles, different regulations and motives, and unique potentials and positions within the urban context. Therefore, the intention is to discuss and evaluate these diverse implementations from the common perspective of achieving sustainability in the urban context, through multiple parameters, to compare the results for future sustainable urban development strategies. Critically examining the experienced processes and the outcomes and disentangling their formation history to understand the reasons behind the obstacles to sustainable urban development, is crucial to the methodology of this study.



Figure 4.1 Istanbul's Urban Fabric (Murat Germen)



Figure 4.2 Case Study Site Locations



Figure 4.3 Scale of Urban Transformation Projects in Istanbul: (1) Kadikoy-Fikirtepe, (2) Kadikoy-Bagdat Street District, (3) Atasehir-Finance Center, (4) Beyoglu-Tarlabasi, (5) Cendere Valley-Vadi Istanbul, (6) Beyoglu-Piyalepasa

4.1 Case Study: Kadıköy-Fikirtepe

Fikirtepe, in the Kadıköy district on Istanbul's Anatolian side, has been one of Turkey's most expansive urban transformation projects of its type. In 1999, after the devastating Marmara earthquake, the unlicensed, dilapidated buildings of the neighborhood triggered the need for urban transformation, and the process was initiated. However, the project faced numerous interruptions due to disputes among property owners and contractors as well as financial difficulties resulting from prolonged controversial resolution processes. Ultimately, the Ministry intervened, utilizing its authority to implement the transformation processes.

The plan decisions for the Fikirtepe Renewal Project promoted densification to facilitate land assembly and to eliminate the co-existence of the commons and anticommons (Tarakçı, 2020). Despite the lack of studies in the literature regarding the use of this method for large-scale and holistic redevelopment projects, this approach has been implemented in the Fikirtepe urban transformation process. Before the 1985 Reconstruction Law No. 3194, rapid population growth through migration, self-built housing and affordability, inheritance and illegal subdivisions influenced the shaping of parcel sizes (Koktürk, 2003). Turk and Demircioğlu (2013) write that plan decisions were used to stimulate densification for land assembly in various other areas.

The Fikirtepe site, located in Kadıköy between the neighborhoods of Fikirtepe, Dumlupınar, and Merdivenköy covers an area of 131 hectares. In the Fikirtepe Urban Transformation Project, the key actors included the Ministry of Environment and Urbanization (central government), the Istanbul Metropolitan Municipality (IMM) (local government), the Kadıköy Municipality (local government), construction companies, real estate valuation firms, urban planners and the Fikirtepe Association (Turk, Tarakçi, Gürsoy, 2020). The site's advantageous location provides accessibility to a main artery opened in 1973 that connects the two sides of the city via the first Bosphorus bridge, and proximity to business centers on the Anatolian side.



Figure 4.4 Kadikoy-Fikirtepe Project (Author)



Figure 4.5 Kadikoy-Fikirtepe Project Site (Author)

4.1.1 Contextual Dimensions

4.1.1.1 The Decision Making Processs

The Fikirtepe district encompasses one of Istanbul's most significant archaeological sites, dating to the Neolithic Age, to around 4000-3000 BC. Excavations have revealed the Fikirtepe Tumulus, covering approximately 18,000 square meters in the southern part of the area. In 2020, Act No. 2991 declared the Fikirtepe Tumulus a third-degree archaeological site, as recognized by the Istanbul No. 5 Cultural and Natural Assets Protection Board. In modern times, Fikirtepe was one of the first informal settlements on the Anatolian side, emerging mainly after accelerated migrations from rural areas to Istanbul after the 1950s. With the enactment of Law No. 2981 in 1984, all informal settlements in Fikirtepe were legalized.

The urban transformation history of Fikirtepe began in 2005, but project implementation has been hindered by multiple complications. The Rehabilitation Development Plan of 1991 facilitated the registration of all building sites, allowing them to gain additional storey rights over time. In 2005, under Municipality Law No. 5393/73, municipalities were granted the authority to designate areas larger than 50,000 square meters of "urban transformation and development" sites.

The Fikirtepe Site was thus declared a "Special Project Site" by the Istanbul Municipality. The objectives were to preserve the existing population and building density, maximize the necessary infrastructural network, and improve physical and social environmental conditions. The initiative began with a decision to increase the floor area ratio for each building without proper planning. In 2007, a revision in the 1/5000 Master Development Plan designated the site an "Urban Transformation Area." In 2008, the Ministry of Development and Housing approved the initiation of the 1/1000 Implementation and Zoning Plan. Initially planned for 14,629 housing units, the number was later increased to 35,000.

By 2011, the 1/5000 Master Development Plan had undergone three revisions, resulting in an approximate 80% zoning increase. The new implementation plan organized the 1,340,000 square meters site into building blocks of 20 acres each, composed of single parcels, with each block intended to accommodate around 200-300 dwellings. Another decision was to transform the site functions, combining trade, residential, and service. In 2011, the Ministry of Development and Housing was abolished, and the Ministry of Environment and Urban Planning was established to assume control over urban transformation processes. Efforts by governmental organizations to promote increases in rental values led property owners to prioritize rental opportunities over mitigating earthquake risks.

On February 22, 2011, the İstanbul Metropolitan Municipality approved the 1/1000 scale Fikirtepe and Surroundings Implementation Zoning Plan, increasing the floor area ratio to 4.14. Following the acceptance of the Transformation Law in 2012, the area was declared an area of risk by the Ministry of Environment and Urbanization. The following year, another revision of the Master Development Plan attempted to restrict the floor area ratio and set a maximum building height of 80 meters. That same year, Law No.6306, concerning the Transformation of Areas Under Disaster Risk, was introduced. This law aimed to expedite transformation processes by requiring only a two-thirds majority for approvals and imposed limitations on ownership, housing, development, and inheritance rights. In 2014, a revised plan was approved (Gök & Çıtak, 2021). Consequently, conflicting interests proliferated, and the challenges surrounding the Fikirtepe transformation process became more complex and unresolved.

The requirement for decisions to be acquired by majority confirmations troubled the mechanism of transformation processes. Consequently, the governmental authorities altered rules and legislation to achieve more fluid operational procedures. Meanwhile, contractors, investors, and owners encountered various problems and setbacks, resulting in financial losses and wasted time.

After the Fikirtepe neighborhood was declared a risky area by the Board of Ministries, resistance from property owners against the transformation processes declined. Since 2014, the new development plan for the area, prepared by the Ministry of Environment and Urban Planning, has allowed various construction firms to work in the area, demolishing old squatter houses and building new ones (Kuyucu, 2018).

This complex, legislatively inconsistent, and unscientific transformation process has been ongoing for over 20 years without being finalized or completely resolved. Decisions regarding the implementation of the zoning plan for the urban transformation of the Fikirtepe area have further complicated the process (Keleş, 2010).

	Building	Building Height
Date of Plan	Rights	(M)
20.03.1991	B-2	8.5
22.02.2011	E-4, 14	Free
02.08.2013	E-4, 15	80

Figure 4.6 Kadikoy-Fikirtepe Building Permits

4.1.1.2 Contextual Reflections

Fikirtepe, strategically located between the E5 and TEM Highways, near the Bosphorus Bridge, within the Kadıköy district on the Anatolian side of İstanbul. This location provides strong connectivity to various sub-centers and infrastructures, including a convenient transportation network The western boundary of the area is marked by Kurbağalıdere, which serves as a natural physical threshold.

In the 2009 1/100.000 Environmental Development Plan, the site was designated as part of a larger "residential area" adjacent to Kadiköy and Ataşehir districts. The

southern part of the transformed area is bordered by Mandıra Street. The surrounding neighborhoods include residential and commercial facilities catering to high-income social groups. Due to its proximity to major trade centers in these two districts, Fikirtepe faced significant pressures for functional, and spatial transformation, making it a prime candidate for increased real estate value due to its strategic location.

As mentioned above, in the 1950s, Fikirtepe became one of the first informal settlements on the Anatolian side, populated by migrants from rural areas of Turkey. These early settlements were characterized by substandard building conditions, high population densities, and predominantly low-rise buildings. The passing of Informal Housing Law No.775 in 1966 facilitated the legalization of these settlements. By 1975, this legalization led to increased density and apartment-style housing. The 1980s saw further construction density with new highway developments. The Amnesty Law No.2981 in 1984 marked another transformation step by granting land deeds to squatter owners. The physical transformation of Fikirtepe began in earnest after the 1999 earthquake.²

Before the transformation, Fikirtepe encompassed approximately 4,500 parcels over 1.3 million square meters, including 6,400 buildings, housing a population of 48,665 people and an estimated 14,629 households, along with various office spaces. Sixty percent of the parcels were smaller than 200 square meters. Ownership was predominantly private (95%), with the remaining 5% belonging to the İstanbul Metropolitan Municipality and the public. The small sizes and high number of parcels presented significant obstacles during the transformation projects.

Fikirtepe required improvement in its social, economic, and cultural aspects due to its demographic conditions, in contrast to the dynamic development processes in the nearby districts. The 1/1000 Fikirtepe Implementation Plan highlighted the need for

² İstanbul İli, Kadıköy İlçesi, Fikirtepe Rezerv Yapı Alanı ve Çevresine İlişkin 1/5000 Ölçekli Nazım İmar Planı Açıklama Raporu.

enhancements in this site to align with the physical and socio-cultural development of neighbouring districts.

The demographic profile of Fikirtepe primarily consisted of middle- and low-income worker families, resulting in a high population density. The area contained 6,341 buildings, with 17,728 independent units, of which 14,663 were residential. The population density was notably high, with approximately 613 people per hectare (Eyidoğan, 2021. T24).

Before the transformation, the Fikirtepe neighbourhood exhibited poor physical and social environmental qualities. The spatial and morphological balance in an urban environment, provision of public open spaces, and architectural and urban design were in low standards. The built environment, evolving from squatter housing to apartment blocks without any planning, was a collision of condensed masses with streets in between. Therefore, Fikirtepe had some of the poorest spatial environmental quality in urgent need of recovery. The poor building conditions and high earthquake risk factors necessitated the reconstruction of buildings to improve physical conditions.

4.1.1.3 Urban Transformation Tools

The Fikirtepe Project employed radical demolition and total redevelopment as its primary urban transformation tools. Initially, the Fikirtepe neighborhood faced severe environmental degradation, marked by inadequate physical infrastructure and poor urban quality of life. The transformation process has been characterized by inconsistency and irregularity, evolving continuously to changing implementation conditions.

As detailed above, the process has unfolded in a largely unplanned manner. Despite ongoing planning and decision-making by municipal and governmental authorities, the interplay between these actions, contextual conditions, and stakeholder motivations has failed to address urban sustainability concerns, including justice, fairness, and the enhancement of urban qualities for public benefit.

The decision-making and implementation processes have involved a coalition of investor firms, contractors, property owners, and various governmental bodies. However, the state has emerged as the primary actor, assuming full responsibility. This distinguishes the project from the other transformation cases discussed in this study. Economic agendas have predominantly driven the transformation, focusing on capital management, site resource utilization, strategic demographic and economic changes, and improvements in the built environment.

Property owners were incentivized to form partnerships to maximize capital gains from the urban transformation. The key strategic tool was "unite and increase land value," which involved aggregating plots to create highly dense areas.

The primary tools in Fikirtepe's urban transformation have been encouraging land assembly and increasing development rights, as promoted by the state. These strategies have reduced costs of the private sector and attracted investors by promising future increases in land values. However, the resulting parcels in Fikirtepe are not ideal for successful urban design when assessed from spatial, physical, and social perspectives, despite the theoretical benefits of land assembly (Turk, 2021).

4.1.1.4 Benefits and Disadvantages

The Fikirtepe urban transformation site, given its location, had the potential to contribute to sustainable development within the urban context. Its physical, visual, and social connectivity with surrounding areas positioned Fikirtepe as a promising leader in urban transformation efforts in İstanbul. Before the intervention, Fikirtepe held promise for substantial improvements in socio-cultural and physical aspects of the built environment. However, the realized socio-cultural, morphological, and environmental developments did not meet these expectations. The transformation, marred by physical, environmental, economic and social shortcomings, failed to

achieve its potential for sustainable development. The project, predominantly driven by economic interests, did not address the comprehensive need for a multidisciplinary urban transformation.

The site was burdened by previously legalized squatter housing conditions, resulting in high building density. A fair urban transformation would have required a careful and balanced approach that respected ownership rights while considering neighborhood, district, and city-wide needs. However, the process employed did not fulfil these requirements, representing a major disadvantage of the project.

4.1.1.5 Planning, Implementation and Temporal Scale

The site extends approximately 1,470 meters in the shortest southeast-to-northwest direction and about 530 meters in the northeast-to-southwest direction. Managed as a unified urban transformation project, the process involves the entire area, defining plot sizes, planning transportation networks, redesigning functionalities, and adapting to topographical challenges. Various contractor firms have executed architectural and morphological interventions within plot boundaries, following governmental regulations. This large-scale operational method enhances coordination and cooperation among property owners, investors, and implementation actors. However, the sacrifices made during the planning and decision-making stages, aimed at expediting the transformation, magnified the impacts associated with the site's scale.

4.1.1.6 Adaptability, Resilience, Flexibility and Sustainability

The key discussion in the Fikirtepe district's urban transformation should focus on managing transformation in a dense, crowded, and chaotic area. Rather than addressing problems, the transformation was seen as an economic opportunity for the broader context and İstanbul. The process was marked by mismanaged urban planning and transformation procedures driven by the pursuit of financial gain. The Fikirtepe transformation process lacked consideration for adaptability aspects both in physical and social contexts. The transformed plan layout emphasized an increase in the total built area, and a balance between open and closed spaces, incorporating trade and office facilities alongside residential units. However, the adaptability to the site's physical characteristics was poorly executed. The landscape's morphological characteristics were not integrated into the urban design, building density was not efficiently considered, and the spatial and transportation infrastructure lacked sufficient coordination with the neighboring areas. The project's interaction with the urban fabric was not a primary objective. The urban design and spatial structural system lacked flexibility for future developments and connections.

The Sustainability of the Fikirtepe urban transformation process should be assessed in terms of public good, resident benefits, and city impact. The project's impact on the site and surrounding morphology disrupted the cityscape and public open space network. Environmental resources were misused, and improvements in place identity, sense of belonging, and future opportunities were restricted. The gentrification and displacement caused by the project undermined social and cultural sustainability.

4.1.2 Understanding the Impact of the Urban Transformation

4.1.2.1 Urban Fabric

The Fikirtepe urban transformation project addressed poor building conditions and earthquake risk factors by demolishing old structures and building new ones. The project aimed to enlarge parcel sizes and increase floor area ratio rights, driven by the desire of contractors and residents to capitalize on high rental values. However, this approach led to a period lacking effective solutions. While the physical implementation was confined within the site boundaries, the impacts extend beyond influencing spatial, economic and social transformations in surrounding areas, potentially triggering gentrification.

The population density was increased by 40%. The building consolidation and parcel-based urban design disrupted the spatial interaction and continuity between private and public, open and closed spaces. The hierarchical organization of public spaces was neglected.

Radical topographical interventions, including 80-meter-high buildings and extensive use of underground parking, created significant topographical transitions and large retaining walls, altering the urban environment physically and visually.

The urban skyline and morphological balance deteriorated, compromising spatial continuity and morphological unity. This has negatively impacted city rights and public good, contrary to the expectations of an urban transformation process as emphasized in the Rio Declaration (1992).

- The freeway connecting the Bosphorus Bridge to Bağdat Street area and to Ataşehir, already congested during peak hours, faces additional burdens. Despite transportation infrastructure improvements, the freeway is insufficient given the increased population and traffic density.
- The Fikirtepe project, typical of urban transformation projects declared as "private project areas," displays several issues: lack of comprehensive planning, undefined functions, and creation of privileged rights and uncertain urban areas (Özden, 2010)



Figure 4.7 Kadikoy-Fikirtepe Urban Fabric 1 (Author)



Figure 4.8 Kadikoy-Fikirtepe Urban Fabric 2 (Author)



Figure 4.9 Kadikoy-Fikirtepe Construction Area in 2019 (Murat Germen)

4.1.2.2 Social Outcome

The transformation of Fikirtepe for middle- and high-income users initiated severe gentrification. The primary objective of Fikirtepe residents was to maximize material profit from rent, driven by the effects of urbanization and capitalism in Turkey. This pursuit led property owners to detach from their urban environment (Keleş, 2005). Consequently, the transformation resulted in the social detachment of the area from the city. The Fikirtepe urban transformation process, which prioritized private interests over public good, is described by Keleş (1994) as a crime against the city. The social structure impacted by the transformation is neither resilient nor adaptable to the social, economic, and cultural needs of the Fikirtepe landowners, leading to disruptions in social justice and equity.

4.1.2.3 Economic Outcome

The Fikirtepe urban transformation process led to a significant increase in land values, economically upgrading both the transformation site and its surroundings. Keleş (2005) notes that this economic upgrade came at the cost of cultural loss. While the state is crucial in preserving urban culture, and local governments bear financial responsibility, the public failed to meet its duties effectively.

The introduction of mixed-use facilities, business centers, and commercial areas revitalized the residential area, enhancing economic activity and interaction with the neighboring districts. Meanwhile, the increased land values in Fikirtepe raised living costs in the new residential areas. While shareholders of the transformation projects benefited economically, many residents relocated to more affordable areas.

4.1.2.4 Realization of Project Objectives

The transformation aimed to address the high population density and poor building conditions by controlling population increase, improving infrastructure, and enhancing physical and social environmental qualities. However, the new rules allowing for parcel unification and increased floor area ratio led to a doubling of the population, incentivizing construction actors and property owners for rapid cooperation. Consequently, many public spaces were converted to private ownership.

Hierarchical operational procedures from planning to implementation changed and operated outside the regulatory system. This led to inadequate realization of social public open spaces, often reduced to streets or leftover areas between buildings.

From the start, the transformation process was marked by ambiguities and uncertainties. Construction companies prioritized economic gain, diverging from the initial objectives, and directly engaged with property owners, eroding the original goal of benefiting inhabitants and the public. The availability of affordable housing failed to meet the initial objectives, leading to conflicts of interest and failing to recognize the real owners' rights in economic and environmental improvements.

The absence of standardized rules, regulations or planning based on urban design principles exacerbated the situation, leading to ineffective address of the area's challenges. Inhabitants struggled with high temporary living costs, and contractors encountered difficulties coping with the prolonged urban transformation process.





Figure 4.10 Kadikoy-Fikirtepe Project Area Sections, Prior and Post Transformation (IBB Activity Report 2023, Author)



Figure 4.11 Kadikoy-Fikirtepe Google Earth View 2006, 2023



Figure 4.12 Kadikoy-Fikirtepe Urban Transformation Concept Plan (IBB Activity Report 2023)



Figure 4.13 Kadikoy-Fikirtepe Urban Transformation MERI Plan 1000 (IBB Activity Report 2023)



Figure 4.14 Kadikoy-Fikirtepe Urban Transformation





Figure 4.15 Kadikoy-Fikirtepe Area Cross Section, Section (Author)



Figure 4.16 Kadikoy-Fikirtepe Urban Transformation Layout Plans (IBB Activity Report 2023)

4.2 Case Study: Kadikoy-Bagdat Street District: Plaj Yolu (A), Bağdat Street (B), Agah Efendi Street (C)

The selected examples (A, B, and C) from the Bağdat Street district include three locations transformed within the last five years. Example B is located on a plot between Bağdat Street and a parallel street, encompassing residential, office, and commercial facilities. Examples A and C are located on streets south of Bağdat Street and consist of residential buildings.

These three plots have undergone a plot-based typological transformation. Among hundreds of similar changes, these examples were chosen as case studies. Plot-based transformations generally offer limited opportunities to enhance environmental quality and spatial creativity in urban design. However, these examples have positively contributed to these aspects through their transformation processes. The analysis of these three cases will provide a general overview of the transformations occurring in the Bağdat Street District. Each project will be evaluated based on its specific characteristics and outcomes.





Figure 4.17 Kadikoy-Bagdat Street District Selected Residential Transformations (Author, Arolat Archives), Transformation Site Locations

4.2.1 Contextual Dimensions

4.2.1.1 The Decision-Making Process

Urban transformation projects in Kadıköy district, primarily concentrated between 2014-2016 (68.74%), were driven by Law No. 6306 enacted by state authorities. This law incentivized transformation projects by increasing construction rights, reducing taxes, and subsidizing rent, leading to higher profit margins for the involved actors. Consequently, areas attracting upper-income groups for investment were deemed "risky," and parcel-based urban transformations clustered in locations with favorable conditions. These transformations, justified by earthquake risk mitigation, overlooked genuinely hazardous areas due to their low land potential (Akın, 2021).

As noted by Akın (2021), urban transformations in Kadıköy, particularly along Bağdat Street, serve as a case study for examining parcel-scale urban transformations in high-profit areas. The government facilitated capital accumulation by removing legal obstacles and creating favourable conditions for increased capital circulation, reflecting Harvey's (2005) notion of urban system reproduction and capitalist perpetuation.

Inconsistencies in urban transformation regulations, particularly the labeling of buildings as "risky," are evident in Bağdat Street district. Law No. 6306, enacted in 2012, delegated authority to the Ministry of Environment and Urbanization, defining risky areas and structures. Risky areas were those deemed to pose life and property risks due to ground structure or construction, while risky structures were those at risk of collapse or having completed their economic life (Koylan, 2018). However, Özlüer (2016) highlights that buildings transformed under this law were not limited to those with disaster risk but also those with ambiguous economic life spans.

Bağdat Street District has benefited significantly from urban transformation facilitated by Law. No 6306.³ Legal modifications reduced the 3/3 majority requirement to 2/3 for property owner approval, attracting both owners and contractors (Koylan, 2018).

The procedural stages for implementing urban transformation in the Bağdat Street area are:

- Request for risk assessment: Owners initiate the process.
- Risk Assessment: Conducted by licensed institutions authorized by the Ministry.
- Reporting to authorities: The results are reported to the Ministry or to the Municipalities.
- Notification to land registry: Case notified to the land registry directorate.
- Opposition period: Owners have 15 days to object to the risk assessment findings.
- Demolition Request: If deemed risky, owners must demolish the building within a minimum of 60 days.
- Authority's intervention: If owners fail to demolish, the authorities have the right to proceed with demolition.
- Ministry intervention: The Ministry may intervene if demolition by authorities is not feasible.
- Decision making: Post-demolition decisions made by at least a 2/3 majority vote among stakeholders.
- Resolution in the absence of consensus: Urgent expropriation or acquisition by the administration may occur if consensus is not reached (Tarakçı & Turk, 2015:1560).

³ Official Gazette, available at http://www.resmigazete.gov.tr/eskiler/2016/10/20161027-2.htm.

Before this urban transformation process, the 1985 development plan for the Bağdat Street District increased the land area ratio from 1.8 to 2.07, leading to the demolition and replacement of numerous 15-year-old apartments. A new wave of parcel-based urban transformation began in the 2010s, accelerating with the 2012 Law. In 2017, the 1/1000 development plan for the area within E-5 Motorway and Kadıköy was revised, increasing the land area ratio by 5%. Thousands of buildings have since been transformed in this district (Koylan, 2018).

4.2.1.2 Contextual Reflections

Bağdat Street and its surrounding areas, where the three case studies are located, are situated within Kadıköy, on the Anatolian side of İstanbul. It is a geographically well-connected district, featuring excellent access to transportation networks. The area extends from Bostancı Train Station to Fenerbahçe Stadium, spanning approximately 5.5. kilometres. Kadıköy, bordered by Üsküdar, Ümraniye, Ataşehir, Maltepe, and the Marmara Sea, ranks as the 14th most populous district in İstanbul with a population of approximately 467,919 as of 2023.⁴

The district features a diverse range of amenities, including parks, pedestrian zones, seaside promenades, upscale leisure, and commercial establishments, along with historic residential buildings and mosques.

Residential and commercial settlements emerged around Bağdat Street in the late 19th century, initially concentrated near the railway line. Over time, the area evolved significantly, particularly after the 1950s urbanization advancements and coastal filling after 1985. The street gradually evolved into its present-day character (Yücel, 2009).

⁴ Istanbul ilçeleri Nüfusu, 2023.

Bağdat Street District demonstrates a remarkable homogeneity in social, cultural, economic, physical and urban design dimensions, standing out not only in İstanbul but also globally. This coherence is due to the district's distinct historical development, which has respected its inherent physical and social values, and a gradual transformation over the past century.

The district features a functional mix of residential and commercial areas that coexist harmoniously, contributing to its unique identity. Despite significant urban transformation projects over the past decade, managed in a fragmentary typology, the district has largely preserved its socio-cultural identity. These transformations have changed physical and population density but have not fundamentally altered the district's identity. Preserving and utilizing this identity as a valuable contextual resource is crucial. Additionally, the spatial and physical urban contextual identity, evident in street sizes, pedestrian areas, and vehicular traffic engagement within the urban network, is a notable aspect of the district that should be maintained.

The Social Context of the Bağdat Street district is characterized by uniform demographic and cultural disparities among residents. economy, and social status. Unlike other districts, the ratio of male to female population leans slightly towards females, indicating a balanced demographic composition. According to statistics from the Ministry of Kadıköy, the region boasts a high ratio of educated people. Official data confirms that a considerable segment of the population belongs to middle-high-income brackets. The cultural and educational levels of residents are notably high, leading to a heightened appreciation for environmental awareness (Tüik - veri portal, 2023).

4.2.1.3 Urban Transformation Tools

The methodological approach for urban transformation in Bağdat Street District primarily involves the dismantling and reconstruction of individual sites. This process entails complete demolition, followed by rebuilding with an increased floor
area ratio. Property owners engage independently with contractor firms and adhere to the regulations without a new development plan for the area, leading to unchanged land divisions unless alterations are requested by plot owners. The transformation results in structural and technical upgrades, an approximate 25% increase in density, and morphological changes, particularly in the number of floors while plot sizes and boundaries remain constant.

The tools for urban transformation are limited and do not promote creative architectural solutions. Nevertheless, architectural design remains crucial for optimizing plot specifications and addressing the project in a three-dimensional urban context. Technological and structural improvements in new buildings enhance living standards, particularly regarding interior residential spaces.

Gök and Çıtak (2021), highlight the advantageous aspects of urban transformation in Bağdat Street District, including profit created for the contractors by the existing physical and social structure, the central transportation route within the district, the current parcelization of the neighborhood with large and long facades dating from older mansions, demographic characteristics of the residents, and finally the high floor area ratio in the zoning plan.

4.2.1.4 Benefits and Disadvantages

According to Duman (2015), residents in the Bağdat Street district pursue urban transformation for earthquake risk management and demographic factors. Educated residents with cultural awareness desire modern, technologically advanced, and safer buildings. Laws that increase floor area ratios and offer economic benefits to contractors and property owners further motivate these transformations.

From an earthquake risk perspective, new constructions are significantly safer due to modern materials and technology, enhancing the financial value of properties. The process is economically beneficial for both contractors and owners. However, the urban planning layout limits transformational changes, focusing primarily on maximizing the floor area. This results in deficiencies in open spaces, green spaces, and spatial connectivity. Despite regulations to protect natural assets, ancient trees are often removed during construction, leading to increasingly arid surroundings over time.

Transformations occur without a new development plan, leading to changes in building size and structure, but not in the overall urban layout. This causes detrimental outcomes for the public, neighborhood users, and citizens, resulting in urban design disfigurements.

4.2.1.5 Planning, Implementation and Temporal Scale

Project A and Project C were initially on two adjacent but independent parcels, each with access to different parallel streets. During the transformation project design, adjacent parcels in Project B and C were combined into a single parcel. This design strategy-maintained consistency with the urban transformation scale seen throughout Bağdat Street District. Project A occupies a single plot of 1,365 square meters. Project B occupies around 2,760 square meters. Project C occupies 2,425 square meters.

The transformations were regulated by minimum setback dimensions blocks and height restrictions, limiting the extent of interventions. Despite these constraints, the scale of the urban transformation was guided by the blocks and their limited freedom within the area.

The transformation process, including demolition and new construction, was completed within a few years with no further foreseeable interference. In Case B, one block is for office and commercial use and the other is residential. In the other two cases, the blocks are designated for residential purposes. The spatial configurations of the masses and voids generated in the site plans are intended to be enduring, although changes in utilization may occur in the future.

4.2.1.6 Adaptability, Resilience, Flexibility and Sustainability

The Bağdat Street District evolves through a planned layout organization that has adapted over time with changes and additions to the initial urban network. The urban transformation after the 2000s brought fragmentary and asynchronous interventions due to regulatory transformation typologies. While the urban network around Bağdat Street has potential adaptability for plot-based changes, it may not fully address increased vehicular traffic density and parking demand.

The district's resilience in the context of urban transformation is strong across multiple dimensions. Physically, plot-based interventions have limited variability, which may constrain positive contributions to urban design and public goods but enhance overall site resilience. The district's socio-cultural and morphological identity also supports resilience, although contradictory interventions could undermine the flexibility and resilience of the urban fabric. Maintaining spatial proportions of masses and voids is crucial for preserving air flow, continuous visual corridors, sunlight effects, morphological balance, and neighborhood aesthetics.

The sustainability of the Bağdat Street District in urban transformation should focus on morphological changes and the temporal trajectory of these changes. The rate of transformation processes, whether rapid or extended, interacts differently with contextual resources, impacting sustainability positively or negatively.

4.2.2 Understanding the Impact of the Urban Transformation Process

4.2.2.1 Urban Fabric

The urban transformation trend in Bağdat Street District over the past decade has had manageable impacts on individual plots, but the broader physical context reveals serious threats. Transformations in one or two plots may adapt well to the spatial framework of the street; however widespread transformations with increased height and floor area ratio significantly alter the spatial atmosphere, identity, and character. This disrupts urban corridors and spatial continuity and connectivity within the district.

The underground levels of transformed buildings, predominantly used for car parking, disrupt the natural gardens of the pre-transformation properties (Gök & Çıtak, 2021).

Despite these challenges, the three case studies demonstrate awareness of the interaction between building mass, inner spaces, usage, and surrounding open spaces. Within floor area ratio and dimensional restrictions, architectural and urban design efforts have made exemplary contributions to building-environment interactions.

Case B and Case C have implemented changes in land use by merging two separate plots, aiming to create efficient private open courtyards by expanding the potential open spaces. In Case C, the transformation project mass height has been kept lower than the allowance, with paired blocks and a convenient open space between them maximizing private open volume for residential use.

Case B differentiated land use, with office and commercial usage in one block on Bağdat Street and residential facilities in the second block on a minor residential street. While this configuration of a commercial-office block with a wide mass and a public open space in the front is aligned with the character and dynamism of Bağdat Street, it also allows pedestrian intrusion and visual connectivity with the public open courtyard created between the blocks. The site is evaluated as a combination of a potential breathing space amidst its two blocks, with trees and plants in the courtyard that receive a good amount of sunlight. This amenity contributes to the undistracted open space volume network in the neighborhood. One of the crucial outcomes of this urban transformation case is connecting the parallel streets by pedestrian walkways on two sides of the blocks, intersecting the open space shared by the public. Case A is an atypical example of single-plot-based urban transformations in Bağdat Street District. The land usage strategy in Case A, like the other two examples, distinguishes itself in terms of physical and environmental impact pursued throughout the project in the urban context. The project utilizes an increased floor area ratio like other transformation examples in the district but maximizes the open space provision by positioning the building away from the vehicular street. This creates a breathing space in the urban spatial network, despite the dense surrounding environment. Conversely, the open space left on the other end of the site is left to share the constricted backspaces of the surrounding buildings.

While individual plot transformations in Bağdat Street District show physical and environmental awareness, the broader cumulative impact poses significant challenges to the neighborhood's spatial and ecological integrity.



Figure 4.18 Kadikoy-Bagdat Street District Case A, B, C Urban Fabric (Author, Arolat Archives)

4.2.2.2 Social Impact

The urban transformation typology in Bağdat Street District generally harmonizes with the area's previous socio-cultural identity. Although there have been slight social, cultural, and economic shifts among the inhabitants, a balanced unity has been maintained through mutual consensus and common social grounds. The physical transformation has led to evident improvements in building quality, increased land values, and real estate upgrades across the district, contributing to socio-economic enhancements.

Particularly in cases involving commercial facilities, such as Case B on Bağdat Street, there is a notable social upgrading. The physical transformations of the sites have positively impacted the common urban spatial patterns, enhancing the quality of urban life at the neighborhood level through single plot modifications. Urban transformation examples in Bağdat Street District, whether through parcel unification or architectural design challenges, tend to benefit small groups of property owners rather than serving the public good.

4.2.2.3 Economic Impact

Singular transformations in Bağdat Street District have had economic impacts in two contexts. Firstly, there has been an increase in financial value brought by the rebuilding process itself. Through appropriate structural engineering and design work applied during construction, earthquake risk is diminished, and the life spans of the buildings have been extended. Additionally, the use of contemporary materials and technological improvements in the construction processes has further contributed to the increase in the financial values of the real estate through urban transformation. However, the improvement in land value does not always correspond with positive impacts in terms of the economic context. The original owners and potential new users often face difficulties in cooperation, impacting the overall

economic dynamics of the area. Some owners have had to move to more affordable areas of the city.

Affording the augmented living expenses has become a difficult task as a consequence of the transformed buildings and neighborhoods. It has proved impossible for a certain group of residents to survive with the new economic reflections of such transformations. For this kind of people, urban transformation has developed into a displacement factor, which has meant lost homes, disruption of social networks, and decreased access to essential services and amenities.

4.2.2.4 Realization of Project Objectives

The parcel-based urban transformation in Bağdat Street District has been governed by Law 6306 since 2012, focusing primarily on disaster risk management. This involves demolishing earthquake-prone buildings and reconstructing them with new floor area ratios, utilizing resilient structures and contemporary technology. However, Gök & Çıtak (2021) note that Kadıköy, particularly Bağdat Street District, has identified more risky buildings compared to other Istanbul districts, raising questions about the accuracy of these identifications given the district's relatively higher building quality and income levels. Nearly one-third of the district is targeted for restructuring, aiming not merely at improving buildings and surroundings but also at increasing rental values.

According to Korkmaz et al. (2018), the major trigger for urban transformation in Bağdat Street District has been economic development. As property sales and rental prices have risen in renewed buildings, economic considerations fuel the desire for renewal in other buildings. Consequently, the initial goal of Law No. 6306 to address earthquake risk has been overshadowed by its role in stimulating the construction sector. Municipalities and ministries are actively involved in the transformation process to stimulate the real estate market and construction sector (Kurban, 2019). The outcomes of these transformations impact the social fabric and economic property values in the district and its surroundings, in addition to physical changes and urban environmental quality.



Figure 4.19 Kadikoy-Bagdat Street District (Murat Germen)



Figure 4.20 Kadikoy-Bagdat Street District Google Earth View 2011, 2023





Figure 4.21 Case A Site Plan (Author)



Figure 4.22 Case A Plan and Section (Birgen Archives, Author)



Figure 4.23 Kadikoy Bagdat Street District Case A (Author)



Figure 4.24 Case B Site Plan (Serbetci-Suveydan Archives)



Figure 4.25 Case B Plan, Section (Serbetci-Suveydan Archives, Author)



Figure 4.26 Case B (Author)



Figure 4.27 Case C Site Plan (Arolat Archives, Author)



Figure 4.28 Case C Ground Floor Plan, Section Perspective (Arolat Archives, Author)



Figure 4.29 Case C (Arolat Archives)

4.3 Case Study: Kadikoy-Atasehir Finance Center

The urban transformation landscape of Istanbul since 2000 has been characterized by scholars as "unleashed neoliberalism," where an "urban-rent coalition" has taken center stage. Triggered by the 1999 earthquake and the ambition to establish Istanbul as a global city, this operational model has gained significant traction. Turkish and Middle Eastern upper-class capital owners have fuelled the appetite for capital valorization in Istanbul, leading to increased land values, rising sale prices, and inflated rentals. The pinnacle of this urban-rent coalition materialized in three mega projects in Istanbul: the Istanbul Finance Center, inaugurated in 2009 on the Anatolian side of the city; the North Marmara Highway and the Third Bridge; and the Third Airport. These projects have undeniably led to escalating land values near their sites and ongoing urban transformation in the surrounding areas, underscoring their significance (Güven, 2016).



Figure 4.30 Kadikoy-Atasehir Finance Center (Author)





Figure 4.31 Kadikoy-Atasehir Finance Center, Project Site (Author)

4.3.1 Contextual Dimensions

Located on the Anatolian side of Istanbul, in the West-Ataşehir region, the International Finance Center Project occupies an 800,000 square meter construction site, with a planned construction area of 2.5 million square meters. Designed as a bustling sub-city operating around the clock, the Finance Center encompasses various headquarters and regulatory bodies. Specifically, designated areas include 18,457 square meters for the Vakıf Bank Headquarters, 57,561 square meters for the Halk Bank Headquarters, over 54,390 square meters for the Ziraat Bank Headquarters, and more than 43,434 square meters for the Capital Markets Board. The Finance Center is structured into four parts, with the Ministry of Environment and Urban Planning responsible for the coordination and oversight of all transformation processes.

4.3.1.1 The Decision-Making Process

The Istanbul Finance Center distinguishes itself with a unique narrative among all urban transformation projects in Istanbul. Despite adherence to the legal procedures of city planning and environmental design acts, the decision to assign a specific function to the site was made by a dissenting central authority, initiated and controlled amidst controversy, defying prior reservations. The Istanbul Finance Center was officially declared by the Ministerial Cabinet with decree number 2163, situated within the borders of Ataşehir and Ümraniye districts.

The area, part of the larger East and West Ataşehir region, was initially designated for "mass housing." The Finance Center Strategy and Action Plan were enacted in 2009 under the government's argument that such a project would positively impact the Turkish economy. This decision aligned with the political strategy of promoting Istanbul as the financial hub of Türkiye and one of the key international finance centers globally. As part of the plan to establish five pilot financial centers in the city, the necessary revisions were made to the existing plans. The Ataşehir Business District was designed to complement the three financial centers on the European side, with the next co-center planned for the Anatolian side, in the Kartal region. This distribution aimed to ensure a balanced locational spread for financial institutionalization.

Following the plan revisions, the Ataşehir Mass Housing area was divided into three subsections: Ataşehir Mass Housing East Region, West Region, and the Central Business Region. The primary goal driving this urban transformation was to promote Istanbul as a global city, both economically and in terms of urbanization. Consequently, a comprehensive transformation was implemented. Ataşehir, initially a satellite town of Kadıköy, gained status as a county in 2008 and then became a new center of Istanbul.

Although it was a satellite town in the 1990s, it became a focus of attention for investors and urban transformation projects, especially after 2012 with the promulgation of Law No. 6306 (Okumuş & Eyüboğlu, 2017). The earthquake-resistant geographical structure of Ataşehir made the area a favorable development region, especially after the 1999 earthquake (Erna, 2009). After the announcement of the International Finance Center in Ataşehir, the rate of the transformation and development projects accelerated. These initiatives were all executed in partnership with TOKİ. Real estate prices continued to rise, leading to the emergence of West Ataşehir, while urbanization efforts were managed in accordance to the above urban regeneration law in areas deemed non-risky for construction (Okumuş & Eyüboğlu, 2017).

The Environmental Landscape Planning ÇDP 1/100,000, for Istanbul on August 22, 2006, aimed to guide the city toward becoming a globally competitive urban center. A primary emphasis of the plan was he decentralization of industrial services along with the strategic balance of economic activities throughout Istanbul's two sides and the creation of the multi-centered configuration for service sectors. Notably, the plan emphasized the significant role of the International Finance Center Development in West-Ataşehir, on the Anatolian side. In the 9th Development Plan (2007-2013),

ratified by the National Assembly on July 1, 2006, in the 546th item, Istanbul was designated as the future international finance center of Turkey. The plan envisioned central financial activities being distributed across five different locations (Levent-Maslak, Topkapı-Maltepe, Bayrampaşa-Yenibosna Basın Ekspres Yolu, Ataşehir-Kozyatağı, and Kartal), strategically interconnected and integrated with the main transportation networks over time.

In 2009, this transformation project was formally initiated. The strategic development plan had already identified Istanbul as the future financial center. On March 14, 2009, a regulation was enacted to transform the area designated for residential purposes, located on the northern side of the Anatolian Highway, into the financial center. Months later, the Strategy and Implementation Plan, approved by the High Planning Commission on September 29 outlined the creation of the Istanbul International Finance Center. This decision was officially published in the *Official Gazette* 27364 on October 2, 2009. The process faced obstacles when efforts by the Istanbul City Planners Board halted progress in May 2010. The area was granted first-degree central location status, leading to a change in labelling from a housing area to a central business area (Istanbul Finance Center; 1/1000 Implementation Report, June 2012).

4.3.1.2 Contextual Reflections

The Ataşehir Mass Housing (residential) area is divided into three regions, delineated by the Çamlıca Anatolian and TEM freeways and their junction at the east-southern corner. Its strategic location near the TEM highway offers optimal transportation accessibility. The financial center stands a mere 400 meters from the freeway, 7.5 km from the First Bosphorus Bridge, 10.5 km from the Fatih Sultan Mehmet Bridge, and 2.5 km from the D100 freeway. The transformation of the land has been executed from multiple ways, including construction, transportation, and technological infrastructure development, aligned with the action plan. Significant economic and environmental changes, alongside shifts in demographic character and population growth, are anticipated with the operation of the center's functions. Moreover, there is a pronounced anticipation for diverse service function demands within the broader context. The business area is situated at an elevation ranging from approximately 36 to 80 meters above sea level, with the lowest section along the northern and western borders and the highest point along the southern border. Geological-technical reports assessing the site have deemed it unsuitable for settlement due to past landfill and stone mining activities. The filled areas exhibit significant height discrepancies, with some sections differing by 30 and 20 meters compared to adjacent areas. While the overall slope of the site is around 20%, it reaches nearly 100% in the filled sections.

In addition to the urban transformation undertaken within the project's borders, the surrounding areas were also slated for transformation. The investor behind the project is the Republic of Turkey, facilitated by Emlak GYO (Real Estate Investment Partnership). This represents a distinctive form of urban transformation in Istanbul, characterized by the unique combination of investor and implementor authority.

The project is overseen by the Türkiye Wealth Fund and has been developed in collaboration with the Ministry of Environment, Urban Planning, and Climate Change. The affiliated financial institutions include the Central Bank of Turkey, Ziraat Bank, Halk Bank, Vakıflar Bank, the Capital Markets Board of Turkey, and the Banking Regulation and Supervision Agency. While often described as a mixed-use project encompassing auditing institutions, congress, and cultural centers, public support and service centers, alongside the headquarters of banks and financial institutions, the predominant visual and functional aspect defines it as a financial center. The plan incorporates pedestrian pathways and open spaces among the towering headquarters blocks.

4.3.1.3 Urban Transformation Tools

The Istanbul Finance Center is a development project aimed at positioning Istanbul as a prominent global financial hub by creating a modern, integrated business district tailored to the needs of financial institutions, businesses, and investors. Unlike efforts to revitalize existing urban areas, this urban transformation initiative focuses on fostering economic growth and establishing Istanbul as a leading financial center in the region. While the political and economic motivations behind this endeavor may raise questions, they fall beyond the scope of this study for analysis. Nonetheless, these economic and political objectives have influenced urban design and planning, shaping the development of the financial hub envisaged upon completion. Initially designated for residential use, the transformation of the land involved legal reclassification followed by the construction of buildings and transportation infrastructure.

4.3.1.4 Benefits and Disadvantages

The project promises economic, environmental, and social enhancements, aiming to safeguard the rights of residents, neighborhood users, and citizens, while potentially exacerbating demographic inequalities. Economic growth across various scales and an upsurge in employment opportunities are significant potential benefits of this transformation. However, the introduction of financial central facilities within the confined project site has reshaped both the physical and functional connectivity of the area. As demand intensifies for office spaces, residential units, and trading facilities, property values in the vicinity surge, leading to a growing disparity between the economic conditions of residents and the evolving dynamics.

The urban identity and character have undergone a profound transformation, marked by imposing architectural structures and altered scales. Aggressive interventions at the urban planning level, including significant modifications to the site's topography, have resulted in physical separations from the neighboring urban areas, accentuated by towering retaining walls that delineate boundaries, often at the expense of pedestrian networks. Furthermore, the demographic distribution and equilibrium dynamics have shifted, the repercussions of which will depend on how these processes are managed by public and private institutions moving forward. The escalation in real estate prices may precipitate the displacement of existing residents, leading to alterations in the social fabric of the community.

When considering the multitude of impacts it may have on the urban area, a preference emerges for either a fragmented or holistic approach. This urban transformation endeavor exemplifies the latter. The intention was to plan, organize, and construct it as a unified entity, embodying a cohesive urban transformation approach. Urban design and architectural solutions, encompassing both open and enclosed spaces, are coordinated within the urban plan layout. The scale of transformation transcends individual buildings or blocks, operating at a regional level. Such an approach has the advantage of forming coherent spatial design and problem-solving capabilities through its architectural elements.

Nevertheless, the project's impact extends far beyond its physical transformation scale. Over time, as functional developments evolve, the project is poised to exert a sprawling influence across economic, social, physical, and environmental dimensions. Therefore, the temporal scale of the project's impact has yet to be seen.

4.3.1.5 Planning, Implementation and Temporal Scale

From a location standpoint, the project site boasts numerous advantages in terms of its connectivity to various parts of Istanbul via transportation infrastructure. Its proximity to the airports and highways is advantageous. However, the freeways bordering two sides of the site serve as significant barriers or "city walls," hindering pedestrian and direct vehicular connections. Moreover, the already developed or developing urban land in the neighboring regions of Ataşehir has limited capacity to accommodate the demands of the Financial Center. Service and residential functions to support the main project area face constraints regarding realization within the nearby environment.

The Finance Center Project has two distinct planning and design stages. In the first stage, a cohesive and united urban design was implemented in the configuration of the site plan, while varied architectural designs were maintained in the second stage. The International Finance Center was planned to be developed in a specific area in Ataşehir, with transportation and technological infrastructure plans realized accordingly. Buildings and open spaces configured in the site plan followed a uniform approach.

During the architectural design stage, decisions were regulated by the site plan, oriented and guided by common rules and restrictions in accordance with the Finance Center layout. However, each building within the site has its own architectural formulation and designer. The site plan connects and controls the interaction of the parts with each other and the whole.

4.3.1.6 Adaptability, Resilience, Flexibility and Sustainability

The physical context of the Istanbul Finance Center has been limited dimensionally and conceptually in the transformation project. The scale of implementation at both the regional and neighborhood levels leaves no room for further changes and transformations. The future needs for growth and change, due to the project's functional narrative, are theoretically resolved with other planned financial hubs in Istanbul. Consequently, the adaptability and flexibility of the land are no longer possible. The urban and architectural design has produced an undebatable outcome. However, the resilience of the physical and social context is questionable. For an urban area to display resilience towards dictated change, it must retain its urban identity in terms of physical and socio-cultural aspects. This is not the case for the urban context in this instance. The evolution of the specific region in Ataşehir does not have a consistent and characteristic development history, and thus, it lacks resilient capacity.

4.3.2 Understanding the Impact of the Urban Transformation Process

4.3.2.1 Urban Fabric

The physical and environmental transformation of the International Financial Center Project hinges on a substantial alteration in land use, influenced by various factors such as topography, physical infrastructure connecting the area with its surroundings, architectural configurations defining masses and voids, and their interplay with human-scale interactions. When assessing the sustainability of the entire project, particularly from a physical standpoint, it is imperative to consider how these elements contribute to resource management, environmental impact, and the resilience of the built environment. The land use pattern applied in the project disrupts physical connectivity with the inhabitants and other land use patterns in the region. As seen in Fig. no. 36 and 37, the 1/1000 plans show aggrandized parcel sizes and an introverted functional organization.

The connectivity of the transformed environment with its neighboring areas, in terms of mobility, is disrupted by the surrounding belt of highways and the spatial buffer zone created around the site. Consequently, the Financial Center has become somewhat secluded and separated from its surrounding areas, as depicted in Fig. no. 37. The architectonic expression of each headquarters building, created by different architectural firms, presents a challenge in assessing their power dynamics. This situation brings a distinct environmental character within the broader context, potentially enhancing or detracting from its morphological presence. While opinions on this condition may differ, one certainty regarding the sustainability of the urban context due to the architectural configuration is the absence of dialogue among the spatial elements of the Center.

The lack of flexibility and adaptability in the transformation outcome could render the entire campus inadequate for accommodating future necessities, functional requirements, or evolving urban needs. The site plan of the Financial Center is finite, as the area's capacity is fully utilized, leaving no room for further enhancement or change. Additionally, the surrounding areas can't evolve as part of the Finance Center in the future. The cohesiveness of the neighborhood is not positively impacted by the implementation of the Finance Center. Fragmented areas within the larger context where the site is situated are delineated and separated by roads, highways, and junctions. The historical development pattern of Ataşehir, like International Finance Center, has left parcels of land with varying spatial and urban formations. The project's outcome faces a significant challenge in terms of human scale. A sectional view depicted in Fig. no. 37 highlights the considerable disparity between the human scale and the buildings and open spaces within the Finance Center.

The cityscape of the area changed radically due to individualistic architectural approaches, displaying a series of expressively challenging buildings. The site plan configuration pays tribute to open-closed space balancing with care but remains irrelevant in providing spatial connection potentials in the larger contextual plan layout. The Financial Center, as a campus, introduced its own economic conditions due to its functional mechanism at different levels: at the level of the institutions' human population and their financial needs, at the level of reverberated economic interactions, and at the level of physical urban properties. The Ataşehir region, the Anatolian side of Istanbul, and the city itself have been influenced by the economic conditions.

The social character of the region has been triggered by the specific demographic injection operated through the occupants and indirect users of the Finance Center. The directly transformed area has introduced a significant number of users as well as new residents to Ataşehir.



Figure 4.32 Kadikoy-Atasehir Finance Center Urban Fabric 1 (Author)



Figure 4.33 Kadikoy-Atasehir Finance Center Urban Fabric 2 (Author)



Figure 4.34 Kadikoy-Atasehir Finance Center Urban Fabric 3 (Author)

4.3.2.2 Social Impact

In an urban transformation process, the identity of space or place and a sense of belonging are crucial for urban sustainability. The concept of identity evolves with time, either building upon the existing character of the area, transforming gradually, or being established through institutionalization. However, the cultivated interaction between the place and its inhabitants, as well as with the broader community, plays a pivotal role in shaping and assigning identity to the place and improving the sense of belonging.

The Financial Center Project has established a unique identity through its functional institutionalization within the urban site where the transformation occurred. However, the deliberate estrangement imposed on the site, ignoring the contrast facilitated by the physical characteristics in planning and architectural design preferences, in addition to the classification of users, has resulted in an inconsistent identity for the area. The transformation of the area into a financial center has drastically altered the functional distribution within the broader physical context of Ataşehir. While the general context lacks balanced and well-designed public spaces,

which are crucial in mixed-use urban areas that integrate both residential and commercial or business activities.

The introduction of the Finance Center, which attracts a substantial user base with complex needs, has underscored the urgent need for public common spaces in that region more than at any other time. Alongside the physical implementation of the transformation project, a noticeable morphological contrast exists between the surrounding environments and the Finance Center, potentially leading to a failure to foster a sense of belonging from the residents' perspective. However, the concentrated nature of business activities within the center may cultivate a sense of belonging among its direct users, albeit distinct from that felt by the neighborhood inhabitants.

Regarding social sustainability, a balanced demographic mixture in the context over time is crucial for adaptability. Because neighboring areas exhibit flexible sociocultural characteristics that have yet to solidify, the absorption of the assertive societal aspects of the financial business sector may interact successfully with the broader context. However, sustaining a socio-cultural identity crucial to long-term sustainability requires conscious urban planning and further urban transformations to address gaps in the area's sustainable social development. On the other hand, equity remains a concern for sustainability within the Financial Center and its surrounding areas. The significant socio-economic disparities generated by the Center within its context do not promote equal rights or conditions for social life. On the contrary, with its imposing architectural expression and exclusive nature, it encourages segregation, which negatively impacts social inclusion and equity, key factors for sustainability.

4.3.2.3 Economic Impact

The Financial Center has taken a leadership role in the economic landscape, exerting influence through its functional, operational, and physical presence. Positioned

within Ataşehir, it aspires to catalyze economic growth as one of Istanbul's five key centers. However, the criticisms regarding its location argue that it is disconnected from the necessary physical context. Alternative locations, such as the southeastern part of İstanbul, which offers proximity to the technological production center and the airport, as well as a more adaptable physical environment, were not considered during the decision-making phase of the transformation process. From this perspective, the economic sustainability impact appears compromised by the choice of the current location. Consequently, the built environment falls short of delivering the anticipated positive outcomes.

The enactment of the Financial Center has primarily led to a rise in surrounding land values, driven by the anticipated expansion in residential and office space demands. However, this economic outcome has resulted in a ripple effect, including a rise in residential rents and living expenses. These unnatural changes in the financial atmosphere of the region disrupt economic stability and, therefore, economic sustainability, at least temporarily. Future conditions will hinge on the transformative decisions made, which ideally should have been integrated into the transformation process from its inception stages.

4.3.2.4 Realization of Project Objectives

The alignment of urban transformation goals with the outcomes of the project implemented in Ataşehir for establishing the International Financial Center sheds light on the sustainability of the transformation process itself. Moreover, the sustainability of these goals and initiatives warrants revision from an urban sustainability perspective. Some of the evaluation criteria to be considered for the sustainability of goals, as discussed in earlier chapters, include justness, inclusivity, social equity, environmental, and temporal continuity.

In the case of the Financial Center Project in Ataşehir, the primary impetus was to establish the institution in alignment with political and economic strategic decisions aimed at stimulating economic growth for both Istanbul and the country. However, setting aside the reasoning behind the institutionalization process, this study focuses on the urban transformation realized for that purpose, examining the choices made and how and where this transformation has been implemented.

The location and specific area, with their physical and socio-cultural contextual characteristics, reveal a one-sided decision-making process in that regard. Such a significant urban intervention should have prioritized the rights of citizens and neighborhood inhabitants more than it did. Economic growth, socio-cultural improvement, and environmental quality development goals should have been balanced before any actions. The locational decision favoured economic success over comprehensive sustainable development, despite alternative locations such as the southeastern parts of Istanbul.



Figure 4.35 Kadikoy-Atasehir Finance Center Google Earth View 2011, 2023

200 m 🖬




Figure 4.36 Kadikoy-Atasehir Finance Center Project Catalogue Image, Finance Center MERI Plan 1000 (Emlak Konut Archives)



Figure 4.37 Kadikoy-Atasehir Finance Center Site Plan, Northeast Section-Elevation (Emlak Konut Archives, Author)





Figure 4.38 Kadikoy-Atasehir Finance Center view from Ümraniye (AA Photo, 2023), Finance Center (AA Photo, 2023)

4.4 Case Study: Beyoglu-Tarlabasi

The transformation project stands out as the first among urban renewal processes in Turkey, being implemented through a public-private sector partnership leading a restoration and renewal initiative. The Beyoğlu Municipality, in collaboration with its partner GAP Construction company, started the transformation process of 21 blocks in a 20,000 square-meter neighborhood area. The initial phase involved the renovation of 210 buildings across nine blocks. The facades were partially retained and modified, while the main structures were demolished and rebuilt with five to six times the volume of the original buildings (Uysal and Korostoff, 2015).

Tarlabaşı is surrounded by the Talimhane and Dolapdere neighborhoods, as well as Tarlabaşı Boulevard. Since the mid-19th century, Tarlabaşı has stood out as one of Istanbul's most distinctive districts. Tarlabaşı has been a pioneer in urban settlements, implementing some of the first western conceptualized urban planning initiatives in the region. With its rich architectural and urban historical heritage, it serves as an asset to and an archive for the city.



Figure 4.39 Beyoglu-Tarlabasi Construction Site (Murat Germen)



Figure 4.40 Beyoglu-Tarlabasi Project (Author)



Figure 4.41 Beyoglu-Tarlabasi Project Site

4.4.1 Contextual Dimensions

4.4.1.1 The Decision Making Process

On July 7, 1993, with decision No. 4720 of Natural Assets Protection Board No. 1, the area was declared a part of Beyoğlu Urban Protection Area. The new Municipality Law No. 5393 was passed in 2005, authorizing district municipalities to implement "transformation projects" in neglected, outdated, and unsafe parts of the city. The proposed coalition for these projects was a partnership between the Mass Housing Administration and private contractor firms.

The Beyoğlu "Tarlabaşı First Stage Urban Renewal Project Area" was declared a Renewal Area with Council of Ministers Decisions No. 5366, dated June 16, 2005, and No. 10172, dated February 20, 2006. The Municipal Council Decision Number 63 dated November 10, 2006, determined the implementation procedures and principles of the tender, held on March 16, 2007. The contract was signed on April 4, 2007, with the winning firm providing the most advantageous offer (Alper, 2022: 46).

Law No. 5366, along with Law No. 2863, the Council of Ministers Decision No. 660, the Beyoğlu Conservation-Oriented Zoning Plan, and the Istanbul Zoning Regulation, Law No. 5366, was enacted in the context of urban transformation efforts. The legislation focuses on the restoration of dilapidated historical and cultural immovable properties for preservation and utilization, conservation, restoration, and rebuilding of areas.

The concept of urban transformation applied to Tarlabaşı perfectly aligns with the essence of urban transformation described by Yasin (2005), which includes the preservation, revitalization, and conservation of the cultural and historical identities of cities, as well as the preservation of natural environmental resources for future generations. In this context, Law No. 5366 aims to prevent further deterioration of the subjected areas and facilitate their revitalization (Özden, 2016). Additionally, the

law grants district municipalities the power to implement regeneration projects in neglected and outdated areas within the protection zones (Kuyucu and Ünsal, 2009).

In the 2000s, the government designated Tarlabaşı an unsafe and disrupted area. In 2006, the Beyoğlu municipality launched a district renewal project, emphasizing a positive stance towards the restoration project. The municipality committed to protecting the original facades of historical buildings while updating them with contemporary and modern enhancements (Merdim, 2019).

The contracting firm established the goals and design principles of the Tarlabaşı Urban Transformation Project which include the integration of Tarlabaşı with Istanbul through the preservation of the architectural, cultural, environmental, and historical assets as well as the enhancement of transportation and infrastructure in the area. Additionally, the project aimed to transform the neighborhood into a safer and healthier environment while also promoting the social well-being and overall quality of life in the city. These goals would be met by securing financial support from the private sector in this public-private partnership (Uysal and Korostoff, 2015: 423-424).

4.4.1.2 Contextual Reflections

Tarlabaşı is situated on the western side of Istanbul, on the northeastern edge of the Golden Horn, within the Beyoğlu District, near Taksim. It is bordered by Dolapdere to the north, Tarlabaşı Boulevard to the south, Talimhane to the east, and Kasımpaşa to the west (Yapı Dergisi, 2019). Tarlabaşı Boulevard, linking Taksim with Tepebaşı, was built between 1986 and 1990 (Balcan, 2012; Ekinci, 1994). Despite the opening of the Boulevard and its proximity to Taksim and İstiklal Avenue, the neighborhood has remained disconnected from the vibrant economic and cultural atmosphere of these areas, failing to experience positive impacts in these regards. Moreover, this radical intervention disrupted the urban fabric's natural flow, leading

to a separation between the historically interconnected areas of Beyoğlu and Tarlabaşı.

Tarlabaşı, despite its architectural, spatial, historical, cultural, and social potential, has developed an unattractive reputation due to elevated crime rates and deterioration in both physical and social fabric (Başeğmez, 2017). The neighborhood has experienced a profound socio-economic and physical decline despite its significant location in Istanbul and its heritage protection status established by several regulations since 1993 to retain the 19th-century housing stock. The abandonment of the neighborhood to "ghettoization" began early with the deportation of non-Muslim residents in 1964. The extensive demolition of approximately 300 Levantine buildings to make way for the Boulevard exacerbated this trend (Ekinci, 1994; Çeçener, 1995). The final transformation project discussed in this study aimed to renew a total of buildings, 210 of which are registered as historically significant civil structures (Arkitera, 2013, April 30).

In the 17th century, Tarlabaşı was the site of a Muslim cemetery. As the city's population expanded, it evolved into a bustling trade center and eventually became home to non-Muslim communities outside Istanbul's historic core. By the mid-19th century, it emerged as a significant neighborhood in the city.

Following the big fire in 1870, planning efforts transformed Tarlabaşı into a vibrant urban center inhabited by Armenian, Jewish, and Greek communities, with a mix of residential and commercial activities. However, the implementation of a wealth tax in the 1940s targeted at non-Muslims compelled many residents to leave the area and sell their properties. Migrants from Anatolia to Istanbul after the 1950s moved into the district, and gradually Tarlabaşı became poorer, more marginalized, and less safe over time. Nevertheless, Tarlabaşı has always retained its identity as a historic settlement of minorities, characterized by its diverse culture and numerous registered historical properties with unique architectural styles. Since the area was designated as a protected site, maintenance, improvement, or repairs were limited for many years prior to any intervention (Akalın, 2016).

The Tarlabaşı transformation site and its broader context involve numerous layers of contextual formations that must be considered throughout the transformation process. The historical, social, cultural, and architectural dimensions are intricately woven into the urban identity of the neighborhood, developed over an extensive period with various overlaps and mutations. The urban pattern extends beyond mere physical and spatial aspects, revealing complexities across all dimensions, including architectural and urban design. Nevertheless, a notable spatial network connects the different parts and with larger Beyoğlu, facilitated by narrow streets and small courtyards, in consistency with the area's topographical structure. These characteristics, enriched by the diverse social layers, form the distinct components of the urban transformation process in Tarlabaşı, setting it apart from other case study examples.

As the area experienced social and physical decline, the economic deterioration also affected its residents. Given the comprehensive nature of the decay, an urgent necessity arose for a multidimensional reassessment of the social, economic, cultural, and physical challenges facing the area. Such an endeavor would entail the engagement of diverse stakeholders working in coordination to achieve an inclusive urban transformation in Tarlabaşı.

The initial phase of the urban transformation project in the Tarlabaşı neighborhood is seen as the first step towards integrating the area with the rest of the district. The project's goal is to act as a catalyst for change throughout the neighborhood, primarily through the introduction of commercial activities based on the service sector. The proposed functional mixed-use concept aims to incorporate tourism and organized service facilities, creating an opportunity to develop the entire neighborhood.

Historically, the topographical layout has acted as a dividing line among different neighborhoods such as Galata, Pera, and Tarlabaşı. Various social and ethnic groups settled in areas of the district. Even before the expansion of today's Tarlabaşı Boulevard, it served as a boundary between Pera and Tarlabaşı neighborhoods (Çetin, 2008). During the establishment of Galata and Pera, Tarlabaşı occupied a central position in Beyoğlu, with a clear distinction marked by the narrow Tarlabaşı Street (Balcan, 2012). The discontinuity in both physical and social aspects between these parts of the Beyoğlu district has persisted over time. As noted by Dinçer (2018), the interruption of social continuity in the region is closely related to the disruption of physical continuity. It is worth reconsidering both the social conditions, topographic features, and the present-day Tarlabaşı Boulevard in terms of their roles in the fragmentation of these parts.

4.4.1.3 Urban Transformation Tools

Law No. 5366 designated Tarlabaşı a site with archaeological heritage to be reconstructed and restored. To develop the region, residential, commercial, cultural, tourism, and social infrastructural developments were approved, with precautions against natural disaster risks and the renewal and preservation of historical and cultural assets (Beyoğlu Strateji Planı, 2022). The contractor firm emphasized creating residential, commercial, cultural, tourism, and social reinforcement areas alongside disaster risk mitigation measures. However, Atasöy and Osmay (2007) criticize this approach, arguing it contradicts Article 1 of Law No. 5366, which focuses on renewal, conservation, and use of worn city textures. They suggest the urban transformation typology does not adequately address renewal and conservation, arguing that the cultural and historical heritage should have been revitalized and maintained.

The transformation project aims to halt deterioration, integrate the area into the city, and establish a new focal point in Tarlabaşı by adjusting the layout and structural configuration to current needs. This includes addressing small plot sizes, narrow streets, and parking problems through appropriate interventions. The project is expected to resolve socio-economic and physical challenges, benefiting residents and the surrounding environment (Alper, 2022).

Following the enactment of Law No. 5366 and its regulations, 21 building blocks in Tarlabaşı were included in the renewal area, with nine designated for the first stage of the renovation project. The first phase of the Renovation Area, comprising nine building blocks north of Tarlabaşı Boulevard, officially commenced in 2006.

The Tarlabaşı Urban Conservation and Renewal Project Area encompassed 52 residential areas, 12 commercial buildings, 17 tourism structures, and 14 offices. The transformation emphasized preserving street morphology and names, respecting the region's unique architectural character, social profile, and inhabitants' needs. The principles adhered to during the transformation process included:

- Restoring registered buildings while maintaining their original plan layout and facade design.
- Aligning buildings with structural issues to the overall plan and new functional requirements while preserving facade design as an element of urban identity.
- Rebuilding poorly conditioned or derelict buildings in accordance with their original facade designs or with free-plan layouts (Alper, 2022).

4.4.1.4 Benefits and Disadvantages

The Tarlabaşı urban transformation project is significant from multiple perspectives. It revitalizes a historical and cultural heritage area, benefiting both the Beyoğlu district and the city of Istanbul. It initiates regional improvements in the social and economic context of the area, along with architectural and urban morphological enhancements.

The project is commendable for its historical heritage approach through renewal and conservation. However, as a case study example within the scope of this study, it is primarily discussed from the aspect of spatial urban contextual confirmation. The project holds considerable potential influence on both immediate and broader surroundings, serving as an exemplary process and physical entity. Given its unique location in the heart of the Beyoğlu area, it has the potential to restore connectivity between major parts such as İstiklal Street and Tarlabaşı Boulevard.

Considering that this is the first stage of a broader urban transformation project, with the continuation of the process yet to come, it is fair to say that Tarlabaşı, as part of an extended physical context, might play a significant role in Istanbul's future urbanization. However, residents have been almost completely excluded from the decision-making process. Consequently, neither their expectations nor opinions have been considered from the beginning, leading to a disregard for social cohesion. From the perspective of social inclusion and participatory urban transformation, such an approach yields disadvantageous results.

In areas with historical architectural and urban heritage, preserving the original physical characteristics and identity may not always align with present-day functionalities and concepts. Transforming these aspects of heritage for future generations requires careful consideration and complexity. Otherwise, transformation processes may be limited to superficial aesthetic renovations.

4.4.1.5 Planning, Implementation and Temporal Scale

The Tarlabaşı transformation area deviates significantly from the conventional urban district archetype, characterized by standard buildings with typical architectural and structural features, uniform urban and social traits, and a clear delineation between public and private spaces. Instead, Tarlabaşı represents a complex array of scaling contexts, featuring diverse urban spatial patterns that defy standard categorization. This complexity necessitates design and implementation studies at different scales.

The transformation project, initially announced to consist of multiple phases, should be perceived as a long-term, ongoing endeavor set to unfold over the years. It should be viewed as a dynamic process akin to a living organism, evolving gradually through social interactions and feedback. The completed phases of the project will inevitably influence the remaining parts of the urban environment. Subsequent phases may introduce further modifications to the existing ones, creating a continuous cycle of adaptation and change.

4.4.1.6 Adaptability, Resilience, Flexibility and Sustainability

The historical and cultural layers of Tarlabaşı, along with the urban plan layout, contribute to both its fragility and resilience. The interconnected street network that binds the blocks and their surroundings, along with the respectful massing and organization of the neighborhood, enhances its resilience. Interventions within the buildings or groups of buildings, while maintaining connection with the overall urban design framework, provide the necessary flexibility for accommodating new and diverse transformations.

Considering the topographical complexities of the broader physical context, including Taksim, Galata, Beyoğlu, and Tarlabaşı, pedestrian and vehicular access fosters visual connection, integration, and adaptation to the holistic urban identity. The sustainability of transformational changes in the area depends on harmonizing architectural, urban design, social, economic, and governmental strategies to ensure sustainable urban development in the district. Despite previous damage, the intricate physical connections in the area can be revitalized with small interventions. However, sustaining the complex and diverse economic and cultural coexistence of various social groups and facilities requires careful planning and organization for long-term sustainability. Infrastructural adaptation and restructuring are other crucial factors.

Ensuring the inclusivity of citizens, not just neighborhood users, in reshaping identities, images, usages, interrelatedness, sharing, and a sense of belonging within the transformed environment of Tarlabaşı, through multi-layered thinking and implementation networks, would aid in sustaining the process. However, this effort

prove insufficient without addressing the negative socio-cultural impacts on the social context.

4.4.2 Understanding the Impact of the Urban Transformation

4.4.2.1 Urban Fabric

Following the Tarlabaşı 360 Project transformation, the spatial configurations of 210 of 280 historically registered buildings dating back to the 16th century have changed. Many two- and three-story buildings have been extended with additional floors to increase density and economic value. The architectural design now often features materials such as gleaming glass and steel (Uysal and Korostoff, 2015).

Although the residential fabric of the area is a cultural heritage necessitating preservation spatially and as an integral part of the urban identity, the nature of the transformation project has led to a loss of significance in the urban context. The original independent housing units have been compromised through new floor plans designed for new functional programs (Eryazıcıoğlu; Markoç, 2014). The original size of the apartments built ranged from 35 to 75 square meters, which is considered too small for conventional living standards. Aligning the spatial configuration inside the buildings with contemporary residential needs has been challenging. Despite modifications and interventions in the facades, mass heights, and inner structures of the buildings, the project has improved spatial continuity within the urban network, both in terms of physical and visual corridors.

The facades and overall massing of the blocks along Tarlabaşı Boulevard have undergone a significant transformation, acquiring a new identity. Despite criticisms from the standpoint of architectural history and restoration principles regarding the facade designs and morphological changes of the units in these blocks, the proportional rhythm, harmonious integration of new materials and architectural design, and detailed continuous facades successfully preserve Tarlabaşı's morphological identity. The streets and courtyards interconnected with these streets, running parallel and perpendicular to Tarlabaşı Street and following the traces of the original urban pattern, enhance the visibility and urban character of the area with their inviting spatial arrangements.



Figure 4.42 Beyoglu-Tarlabasi Urban Fabric 1 (Author)



Figure 4.43 Beyoglu-Tarlabasi Urban Fabric 2 (Author)

4.4.2.2 Social Impact

Although the Tarlabaşı transformation project has achieved physical sustainability, social sustainability remains elusive due to the rapid turnover of users rather than gradual change. In the non-conservation areas of the project, a significant increase in density has maximized the utilization of structures and spatial opportunities. This outcome results in uneven density zones and undesirable alterations to the area's distinctive identity and scale. The significant diversity in the social character of Tarlabaşı before the transformation has been replaced by a group of newly wealthy individuals. Mixed-use facilities, consisting of commercial and business functions on the ground floors and short-term residences and tourism facilities on the upper floors, dominate the transformed usage identity. The main social outcome of the project has been the dispossession and displacement of the urban poor, leading to spatial and socio-economic segregation due to the absence of social policies enforced by the state (Kuyucu and Ünsal, 2009).

The social outcomes of the recent urban transformation in Tarlabaşı can only be examined through a narrow social lens. The social and cultural framework of this area has developed over time through the accumulation and blending of numerous layers. In the context of the Tarlabaşı transformation process, displacement and gentrification are intentionally generated social outcomes. Advancements have been made in the realm of public safety alongside the improvement of public spaces with varied sizes and characters, increasing accessibility and vibrancy in the neighborhood.

With promising advancements in commercial and touristic functions, the area is poised to establish its urban identity further. While the urban identity may have shifted and residents have lost a sense of belonging, the transformative improvements have the potential to yield positive outcomes overall. Although the initiation motives of the project overlooked the balance of citizen rights and social equity factors, leading to displacement, the district's multi-layered social characteristics still hold healing potential.

4.4.2.3 Economic Impact

The prevailing neoliberal economic climate in Turkish cities since the 1990s has significantly influence Tarlabaşı's urban transformation. This trend has led to large-scale transformation projects in urban areas, enabling radical interventions in the economic and social landscapes of cities. These projects have effectively spread neoliberalism to urban areas by shaping market dynamics, property relations, and urban decision-making processes in line with neoliberal principles (Kuyucu; Ünsal, 2011).

Previous transformations in Tarlabaşı, such as the extensive demolition of historical buildings to construct Tarlabaşı Boulevard, reflect this strategic thinking. However, these interventions have often resulted in physical, social, and economic decline. The dissociation of Tarlabaşı from Beyoğlu is a concrete consequence of this process. Göker (2014) evaluates the government's intentions for the Tarlabaşı transformation project in parallel with the neoliberal ideology driving Istanbul's urbanization. The project aims to transform the area into a tourism and commercial center for economic development. By labeling the area as "depressed," promising residents of historical buildings a better standard of living, and using factors such as poverty, crime rates, and area deterioration as justifications, the transformation has primarily served larger economic interests.

The Tarlabaşı transformation project demonstrates highly unequal economic outcomes for the groups involved. The dominance of legally and politically advantageous parties, along with regulated market dynamics within the neoliberal economic environment, heavily impacts socio-economically disadvantaged populations through urban transformation processes, as observed in the Tarlabaşı transformation project (Kuyucu; Ünsal, 2009).

4.4.2.4 Realization of Project Objectives

The Tarlabaşı urban transformation process was announced as a Renewal Project, implemented through public-private sector cooperation as the first example of its kind. The goal was to restore historical buildings while renovating others, with expectations of social and economic improvements. The project aimed to raise urban living standards for residents and safeguard their property and citizenship rights.

Contrary to the original objectives, the original citizens have not benefited from the ecological, social, cultural, and economic outcomes of an improved urban environment. Instead of fostering social interaction within the community, the project has resulted in the displacement of locals and the introduction of a new community of users, driven by significant increases in property values (Uysal and Korostoff, 2015).

A broader and multidisciplinary approach to the transformation process, involving other public and civil authorities for social balance and safeguarding individual and public rights and well-being, is urgently needed to address unresolved issues.

When assessing the results, particularly in terms of morphological and spatial changes, it is crucial to consider the functional transformation and altered identity of the area, alongside the user identity. Positive outcomes have been observed regarding the spatial urban networking and interaction with the surrounding environments, as well as the district of Beyoğlu, the Tarlabaşı project has brought about a significant shift in user identity. The previous residents have been compelled to relocate, leading to the targeting of a different economic and socio-cultural user group. Therefore, the experiential aspects of the public and private spaces, as well as the perceptions of citizens, facades, images, and identifications conveyed to society, must be considered in the evaluation process.

Interconnections are crucial, bridging motives and outcomes, implementations and local realities, spatial frameworks and users, local identities, and the broader context,

as well as the local and global scales. It is essential to discern what needs to change and what should be sustained.



Figure 4.44 Beyoglu-Tarlabasi Project Site Plan (Taksim 360 Archives)





Figure 4.45 Beyoglu-Tarlabasi Floor Plans (Taksim 360 Archives)



Figure 4.46 Beyoglu-Tarlabasi Floor Plan, Section 1 (Taksim 360 Archives, Author)



Figure 4.47 Beyoglu-Tarlabasi Floor Plans, Section 2 (Taksim 360 Archives, Author)





Figure 4.48 Beyoglu-Tarlabasi Project Essential Structures (Author, Taksim 360 Archives)





Figure 4.49 Beyoglu-Tarlabasi Google Earth View 2011, 2023



Figure 4.50 Views from inner streets of Tarlabasi Site, Floor Plans (Author, Taksim 360 Archives)



Figure 4.51 Beyoglu-Tarlabasi Project: A1, A2 before the construction completion (Murat Germen), B a recent view of the project area (Author)



Figure 4.52 Beyoglu-Tarlabasi Section, Silhouette Studies (Taksim 360 Archives)

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Figure 4.53 Beyoglu-Tarlabasi Street Facade Studies (Taksim 360 Archives)



Figure 4.54 Beyoglu-Tarlabasi Facade Studies (Taksim 360 Archives)



Figure 4.55 Beyoglu-Tarlabasi Street Facade Studies: Cukur and Halepli Bekir Street (Taksim 360 Archives)

4.5 Case Study: Sariyer, Ayazaga, Cendere Valley-Vadi Istanbul

The Vadi Istanbul Urban Transformation Project is part of a broader planning initiative for Cendere Valley, located in the northern part of the European side of Istanbul. Situated within the boundaries of the Sarıyer-Ayazağa and Kağıthane districts, Cendere Valley lies along the valley formed by the Kağıthane and Cendere Creeks, which are part of the Golden Horn inlet. To the north is the forested region of Sarıyer, while to the west are the districts of Eyüp and Kağıthane. Sarıyer-Ayazağa borders the valley to the east, and residential areas of Kağıthane lie to the south. The Cendere Valley spans a total area of 206 hectares, with a length extending up to eight kilometers (İBB report, 2011).



Figure 4.56 Cendere Valley-Vadi Istanbul (Murat Germen)





Figure 4.57 Cendere Valley-Vadi Istanbul (Author), Project Site

4.5.1 Contextual Dimensions

4.5.1.1 The Decision Making Process

The decisions regarding the urban transformation in Cendere Valley, referred to in this study as the "Vadi İstanbul Urban Transformation," have been made in two stages. The first stage involved the broader context of Cendere Valley, and the initial principles outlined for the valley in the 1/100,000 environmental development plan of Istanbul, signed in 2009 by the Istanbul Metropolitan Municipality Presidency. Contrary to the decisions recorded in the 1/100,000 plan, a few years later, in 2012, the 1/1000 plan for Cendere Valley, which served as the basis for implementing the Vadi İstanbul Project, was announced.

The first stage of related decisions as outlined in the 1/100,000 plan approved in 2009 aimed to steer urban growth in Istanbul along the east-west axis in a multicentered manner, while preventing any sprawl towards the ciy's north. Development regions were strictly defined to protect Istanbul's northern forests and water basins.

The Cendere Valley historically was characterized by the presence of industrial facilities and storage zones, which produced dangerous levels of pollution. In response, the 1/100,000 scaled Istanbul Environmental Design Plan identified this region as one of eight pilot areas in Istanbul slated for rehabilitation and preservation. Recognizing its significance as a major natural ecological corridor, the plan aimed to decentralize industrial and storage activities, restore the creek, and create open spaces for public recreation. It also proposed integrating research and education facilities with residential, recreational, sports, and commercial ones, all under strict density controls emphasizing ecological sustainability.

Key goals included integrating the valley into Istanbul's natural landscape, establishing it as an informative and innovative technological hub, connecting it with the urban environment, and developing environmentally conscious transportation systems. The 1/100,000 Environmental Plan of Istanbul outlined principles such as

respecting environmental resources, rehabilitating the creek, utilizing stream beds and natural thresholds as public open spaces, and aligning development with the area's natural and ecological assets.

As Baysal (2017) explains, the 2009 plan, originally approved in 2006, was canceled for administrative reasons and the new institutional arrangements invalidated its core principles. The revised plan, accepted in 2009, aimed to stimulate the economy through the construction sector and capitalize on the speculative land and vibrant real estate market. It also sought to address Istanbul's population growth and limit expansion to the north.

Development Law No. 3194, Article 18, was designated to implement these goals. This law mandated state-led and financed urban development projects for rehabilitating Cendere Creek and its environmental extensions, as well as establishing regional transportation networks, with eventual transfer to public ownership.

The second stage of decisions regarding the Vadi İstanbul Project was carried out by local municipalities, without considering the 2009 Istanbul Environmental Plan. This stage involved high-rent expectations and cooperation with private stakeholders, marking the beginning of urban expansion towards northern Istanbul, with Vadi İstanbul being one of these projects (Sürücü and Kiasif, 2022). In the 1/100,000 Istanbul Environmental Development Plan, the area was designated as an "education, information, and technology" area; however, in the 1/5000 and 1/1000 plans, a significant shift towards "residential and commercial" mixed-use zoning emerged.

Since 2012, the governance of the Cendere Valley has been shared between Sarıyer Municipality and Şişli Municipality. The transformation envisaged for the Şişli-Ayazağa industrial zone is evaluated in a fragmentary approach by private actors, contrary to the 1/100,000 environmental development planning decisions (Onur & Alp, 2018). The 1/5000 master development plan for the Vadi İstanbul area was approved by the metropolitan municipality on March 30, 2011, and the 1/1000

implementation development plan was approved by Sarıyer Municipality on September 30, 2011.

The Vadi İstanbul project was implemented between 2012 and 2018. On a total area of 420,000 square meters, the project features 1,900 residences, a 103,000-squaremeter shopping center, a 760-meter-long shopping street, 300,000 square meters of office space, 20,000 square meters of home office space, and a five-star hotel with an area of 25,000 square meters. The total construction area adds up to nearly 1,350,000 square meters. Vadi İstanbul is connected to the main metro line via the Havaray project, implemented by private investment.⁵

4.5.1.2 Contextual Reflections

In the second half of the 20th century, Istanbul's urbanization faced irregular and unhealthy developments, exacerbated by significant migration from rural Anatolian areas. Squatter settlements expanded throughout the city, including the Kağıthane area surrounding Cendere Valley with its industrial facilities and stone mines in neighboring areas.

Cendere Valley, one of Istanbul's ecological corridors, was a primary source of natural ventilation and a passage to the northern forests. Rehabilitating Cendere Creek would contribute to the environmental resources of the area's water basin system. Therefore, any construction activity disrupting the natural topography with irrelevant built environments would contradict public benefits.

Educational and cultural institutions, such as Bilgi University, Istanbul Ticaret University, Kadir Has University, MEF University, Istanbul Technical University, Yıldız Technical University, Işık University, Miniatürk, Sütlüce Congress Center, and Koç Museum, were located near Cendere Valley. Additionally, historical

⁵ Arkiv.com. Available at https://www.arkiv.com.tr/proje/vadistanbul/9822.

heritage buildings and public sports and service structures like Galatasaray Stadium and Şişli Eftal Hospital (Kentsel Strateji Ltd/ Kayader, 2009) were in proximity. As recommended by the 1/100,000 plan, these facilities supported the concept of a science, technology, education, and innovation hub in Cendere Valley.

The site is also near Maslak, the central business district on the European side of Istanbul, which proved inadequate for the growing economy and businesses. Consequently, Cendere Valley was identified as a promising opportunity for a secondary central business area. From the perspective of real estate investment, construction, and development for economic growth and global city image formation, the area had the potential for competitive business development against the Ayazağa-Maslak Business district. The realization of the second stage development, known as Vadi İstanbul, corresponds with this scenario, enhancing the already increased density, a diverse built environment, and the introduction of high-end residential real estate projects.

The site and the individual projects within it are integral parts of a larger topographical network, characterized by physical and morphological constraints that dictate their existence. The steep section of the site along the Maslak-Cendere axis underscores the need for multidisciplinary involvement in urban planning and design. This need extends not only to the immediate vicinity of the creek and the valley but also to neighboring districts such as Maslak, Kağıthane, and Ayazağa, which are interconnected through complex relationships. For instance, while Galatasaray Stadium and its nearby environment serve as important public gathering spaces, their connection to Cendere Valley is primarily visual and lacks meaningful integration, despite their proximity. The issue at hand is the fragmented approach to urban planning and design on an urban scale, resulting in disconnections and a loss of potential in terms of urban life quality and social richness.

The ecological value of the site in the broader context can provide beneficial contributions to the district and the city if handled wisely. The balance between built structures and the use of natural resource elements in the urban design strategy is
crucial in determining the success of the urban transformation of Vadi İstanbul and Cendere Valley.

4.5.1.3 Urban Transformation Tools

Private investing and construction companies became the key players in the commercial and residential developments of the site. Fifty percent of the plots in the commercial and residential development project sites were allocated for social and public recreation facilities, and for compensating the rehabilitation of Cendere Creek. The development process has involved fragmentary urban transformations (Arkiv, 2020).

This case study, founded on the concept of revitalizing industrial areas within Cendere Valley, stemmed from the 1/100,000 environmental development plan for Istanbul, first announced in 2006 and later revised in 2009. The primary aim was to decentralize the industrial facilities in the area, a goal that remained consistent throughout the planning and implementation stages. However, despite initial intentions to create a hub for education, science, innovation, and technology, rather than a center for commerce and luxurious residences, the current transformation of Cendere Valley tells a different story.

Preserving the environmental benefits of the area for Istanbul through the rehabilitation of Cendere Creek required ample open spaces and natural landscaping accessible to the public. It was also crucial to adhere to the configuration of mass volumes and heights outlined in the environmental development plan to maintain the ventilation corridor. This aspect unfortunately has not been addressed comprehensively in the implemented projects. While energy efficiency and material choices for buildings have been emphasized, the broader approach to sustainable urban development, a crucial issue in Cendere Valley, has not been properly considered.

4.5.1.4 Benefits and Disadvantages

The site displays significant environmental characteristics that hold immense value for the city. Its topographical layout provides a vital source of ventilation for Istanbul, provided it is managed and utilized effectively to harness its potential benefits for the public good. This requires the successful removal of previous disruptive elements, such as industrial facilities, to the outskirts of the city. Moreover, it necessitates the proper execution of new developments through appropriate functional choices and harmonious morphological realizations connected with the topography. Implementing planning principles that prioritize citizen and city rights over individual benefits is essential to the responsible and sustainable development of the area.

Given the proximity of Cendere Valley to the central business, commercial, and cultural centers of the European side of Istanbul, any development in this area could profoundly influence the city. The fragmented approach to design and development in the area risks overlooking the potential benefits of a comprehensive, holistic strategy for the valley.

4.5.1.5 Planning, Implementation and Temporal Scale

Vadi İstanbul is the initial stage of the transformation planned for Cendere Valley. The transformation process involves decentralizing industrial facilities, developing new structures, rehabilitating and restoring Cendere Creek and its surroundings as open public spaces, and designing and implementing an infrastructural network.

The process must be considered on two physical scales: the entire valley, including the creek, and the fragmented projects implemented independently. Since private companies implement the projects, each project area follows its own timeline. The Cendere Valley transformation requires a complex and multitasking approach in both the planning and design and implementation stages.

4.5.1.6 Adaptability, Resilience, Flexibility and Sustainability

This case study represents another unique example of urban transformation in Istanbul in recent years for several reasons. Firstly, the ongoing nature of the process suggests that the full impact of future developments is difficult to predict due to uncertainties in decision-making and strategy formulation. The actors involved in the planning and implementation stages remain fluid and subject to change. Secondly, there are multi-tasking problems to be resolved initially from the perspective of public good and city benefits, prior to any fragmented interventions. This requires a cohesive transformation strategy, consistency of decisions, and collaborative implementation efforts. Thirdly, there is a need for a conscious approach that recognizes the importance of interactive dialogue between the physical and environmental characteristics of the site and the economic, political, and social challenges associated with its urban transformation. The adaptability of the urban transformation and the site depends on these key aspects.

The nature and impact of urban transformation projects applied in Cendere Valley, along with the interaction between the site's context and project identity, define the site's level of flexibility. Both fixed parameters and negotiable aspects are present. Consequently, the site's flexibility and resilience are closely tied to the goals of the urban transformations and their implementation.

4.5.2 Understanding the Impact of the Urban Transformation

4.5.2.1 Urban Fabric

One significant outcome of the Vadi İstanbul project is the foundation of another commercial and business hub within a portion of the Cendere Valley, positioned as an alternative and competitor to the Maslak business district. Unlike Maslak, Vadi İstanbul is a mixed-use facility with high-end shopping and recreational spaces. In addition to these amenities, individual residential developments are scattered along the valley in a fragmented manner.

Residential developments were excluded from in the 1/100,000 Environmental Plan. However, following the approval of the 1/5000 and 1/1000 plans, which had conflicting goals, residential projects emerged in the valley transformation. These residential projects leverage economic potential and aim to create an environmental identity through land development. Each residential project presents itself as part of an ecologically valuable environment. Thus, while the initial objectives of establishing a "green and blue corridor" in Cendere Valley have not been fully realized, its conceptual imagery is marketed to potential buyers.

The interplay between individual commercial and residential structures is confined to a narrow scope. Spatial exchanges primarily rely on visual interactions with the modified and partially rehabilitated creek bed, which serves as a public open space area with landscape design. Morphological decisions appear to be dictated by building heights only.

Considering the anticipated future trajectory of land transformation in Cendere Valley, it is more than conjecture to suggest that the area will deviate significantly from its envisioned role as an innovation, science, and technology hub. The major contribution achieved through urban transformation is an increase in land values. However, the opportunity to enhance Istanbul's value through activating and rehabilitating the ecological corridor has already been missed.



Figure 4.58 Cendere Valley-Vadi Istanbul Urban Fabric (Author)

4.5.2.2 Social Impact

The transformed land in Cendere Valley lacks a unified urban spatial identity. Although certain areas are defined by the framing topography, it is challenging to discern a distinct character within the structural implementations. Vadi İstanbul benefits from its location, with features like the transportation network on the other side of the valley and the steep terrain in the background. However, urban landscaping elements fail to establish a distinctive identity for the environment. Despite modifications to the creek and its surroundings, it remains a two-dimensional element. Consequently, residents and users of office or commercial spaces are prone to have a diminished sense of belonging, leading to an unfulfilled concept of neighborhood.

If transformed appropriately, the area has the potential to serve citizens indirectly as a natural and ecological ventilation corridor for the city. However, the current situation undermines citizenship rights. The valley could function as a ventilation channel, a center for science and technology innovation, and a publicly accessible space. However, the current urban transformation primarily benefits the owners and users, neglecting the broader population.

4.5.2.3 Economic Impact

The increase in real estate values in Cendere Valley, a strategically valuable part of Istanbul's urban landscape, reflects the economic benefits derived from its transformation. Situated near Maslak, the airport, and the main districts on the European side of Istanbul, Cendere Valley's mixed-use central service and leisure configuration, exemplified by the Vadi İstanbul project, attracts people to the area. However, the areas vibrancy is mainly centered around office and commercial facilities, primarily during the day. The large structures, with scattered open spaces but few smaller, independent amenities, creates challenges for residential life in the same area.

In addition to the increase in land value, the attraction of citizens to the area due to mixed facilities will stimulate growth in the service sector. However, the resulting revenue will primarily benefit a limited group, including property and business owners or transient users of the facilities. If the urban transformation recommended in the 1/100,000 plan had been realized, a broader range of economic and intellectual beneficiaries would have been experienced. The foundation of a science, technology, and innovation hub in Cendere Valley would have resulted in significantly higher economic gains for the city and Turkey than the current situation.

4.5.2.4 Realization of Project Objectives

Before evaluating the outcomes of the ongoing urban transformation process in Cendere Valley, it is important to reiterate the original objectives for the region and those of the Vadi İstanbul project. When considering the original objectives focused on public good from a broader perspective, free from the constraints of neoliberal thinking, the outcomes reveal a conflicting situation:

- Private economic interests take precedence over public benefits.
- The ecological potential of Cendere Valley as a natural ventilation channel for the city has been haphazardly exploited, leaving future generations with a permanent deficiency.
- The natural resources such as the water basins and the northern forests of Istanbul in and around the region have been adversely affected by the dense construction initiated by the Vadi İstanbul transformation.
- The use of the land for a limited group of people through privately owned properties like offices, residences, and commercial spaces has resulted in the displacement of scientific and cultural institutions, to the detriment of the public good.

Regarding the objectives of the Vadi Istanbul urban transformation project, the outcomes generally align with these objectives. However, the conceptual identity claimed for the residential projects contradicts the true meanings of the concepts as they were represented. In a completely altered urban morphology and silhouette of the region, the spatial experience should not rely solely on two-dimensional landscaping elements like the creek or fragmented green spaces. Meanwhile, the transformation and other urban infrastructural services are aligned with the project's objectives.

The Vadi İstanbul Urban Transformation Project is part of a larger planning process for Cendere Valley, located in the northern part of the European side of Istanbul. Cendere Valley lies within the boundaries of Sarıyer-Ayazağa and Kağıthane districts. It is part of the Golden Horn, situated along the valley formed by Kağıthane and Cendere Creek. To the north is the forested area of Sarıyer, to the west are Eyüp and Kağıthane districts, to the east is Sarıyer-Ayazağa, and to the south is Kağıthane district housing areas. The total area of Cendere Valley covers 206 hectares, while its total length extends up to eight kilometers.



Figure 4.59 Cendere Valley-Vadi Istanbul Google Earth View 2022 (IBB Activity Reports 2023)



Figure 4.60 Cendere Valley-Vadi Istanbul MERI Plan 1000 (IBB Activity Reports 2023)



Figure 4.61 Cendere Valley-Vadi Istanbul Transformation Concept (Vadi Istanbul Archives)





Figure 4.62 Cendere Valley-Vadi Istanbul Project Renders (Vadi Istanbul Archives)



Figure 4.63 Cendere Valley-Vadi Istanbul Post Transformation (Vadi Istanbul Archives)





Figure 4.64 Cendere Valley-Vadi Istanbul Residential and Mixed-use Project (Vadi Istanbul Archives)



Figure 4.65 Cendere Valley-Vadi Istanbul Transformation (Author)



Figure 4.66 Cendere Valley-Vadi Istanbul Transformed Environments (Author)

4.6 Case Study: Beyoglu-Piyalepasa

Piyalepaşa İstanbul is the first urban transformation project realized by the private sector in Turkey. The Piyalepaşa neighborhood in Istanbul's Beyoğlu district is one of the city's oldest, established in the 16th century by the Ottoman dignitary Piyale Paşa under the order of Kanuni Sultan Süleyman in 1570. Piyale Paşa's influence extended to improvements to the Golden Horn for improved sea access, contributing to the prosperity of the shores and the Kasımpaşa area. The neighborhood developed around Piyalepaşa Mosque and its social complex (*külliye*) designed by the renowned architect Sinan. The neighborhood solidified its identity in the 20th century, evolving into a thriving trade center and earning the moniker "garden of flowers" and is home to approximately 24,000 residents.



Figure 4.67 Beyoglu-Piyalepasa Transformation (Author)





Figure 4.68 Beyoglu-Piyalepasa Transformation (Author), Project Site

4.6.1 Contextual Dimensions

4.6.1.1 Decision Making Process

The urban transformation process in Piyalepaşa began in 2012 following its designation as a risky area under Law No. 6306. The 1/1000 Plan was detailed by the "Dolapdere-Piyalepaşa Boulevard and its Environment, 1st Stage Implementation Plan Report" in 2002. Located within the Beyoğlu district, approximately one kilometer north of the district center, the planning area covered 173 hectares. Dolapdere and Piyalepaşa Streets divided the area into two parts, with Şişli to the north and Beşiktaş to the northeast, a preserved area to the south, and Kasımpaşa Street to the west.

After the area was designated as the first site for transformation under Law No. 6306 in Istanbul, labelled as an "earthquake risky area," Polat Construction Company began the urban transformation process. Notably, this is the only area among these designated areas to have completed its transformation. It was also the first urban transformation project in Istanbul to be realized solely by the private sector.

4.6.1.2 Contextual Reflections

Piyalepaşa neighborhood sits on the north-western part of Taksim within Beyoğlu district. To the south lies Kaptanpaşa neighborhood (also part of Beyoğlu), and to the west, Fetihtepe. To the east are Paşa and Şevket Paşa neighborhoods (part of Şişli), and to the north is the Mehmet Akif Ersoy neighborhood (part of Kağıthane). The main transportation artery is Piyalepaşa Boulevard, which extends from the İstanbul-Çağlayan junction to Dolapdere. The area undergoing urban transformation was adjacent to Hacı-Hüsrev, one of the socially corrupt neighborhoods of İstanbul.

"The Beyoğlu Urban Strategy Plan," a research and documentation study conducted by the İstanbul Metropolitan Municipality, Department of Urban Planning and Urbanization Presidency, identifies common issues across most neighborhoods in Beyoğlu, including Piyalepaşa. Beyoğlu is transforming due to global, national, economic, social, and political influences. The shared issues include the loss of cultural heritage sites, decline in cultural quality, loss of economic vitality, and commercialization and restriction of public spaces. Additionally, uncontrolled urbanization has led to inadequate infrastructure and high demand for services and amenities in residential areas. However, the projects implemented tend to be fragmented, intensifying rather than solving these problems.

4.6.1.3 Urban Transformation Tools

Piyalepaşa was designated an "Urban Regional Infrastructure Area" to accommodate various social infrastructure facilities, including education, healthcare, social and cultural institutions, and technical infrastructure areas, serving both the established fabric of the city and development areas (Beyoğlu Kentsel Strateji Planı, 2022).

The involvement of a private company as the primary actor in this urban transformation significantly accelerated the process. The project owner, aiming for maximum economic gain, promoted mixed-use facilities and strategically allocated functions to benefit investors. Through a comprehensive rearrangement of facilities in the area, including hotels, offices, shops, public spaces, and residential areas, a new urban center with its own dynamics emerged.

The primary tool employed for transformation ultimately led to gentrification and the displacement of residents in the area. The social makeup and physical landscape underwent radical changes, resulting in a different character. The cultural and historical heritage associated with the neighborhood, as part of Beyoğlu district, was not preserved for future generations through this urban transformation process. Instead, a new urban identity, lacking any intrinsic relationship with the previous social, cultural, and historical values of the region, was promoted. The name "Piyalepaşa," originally linked to the renowned Piyalepaşa Mosque, was adopted purely as a marketing tool for the development, lacking any meaningful connection to its historical roots.

4.6.1.4 Benefits and Disadvantages

The independent implementation demonstrated several advantages in the Piyalepaşa urban transformation project. Exemption from conservation requirements due to the absence of historical assets on the site allowed the project to operate autonomously from decisions and projects in neighboring areas. The site's location offered physical benefits such as accessibility and its position on the boulevard provided advantages in terms of visibility, establishing identity, and practical interaction with the surrounding area. Similar areas nearby also require transformation. Future transformation projects in those areas will face similar issues of isolation and disconnectedness unless intervention strategies are developed with interactive dialogue between different scales of planning, involving multiple stakeholders, encouraging active participation and treating neighborhoods as interconnected parts of a larger whole.

4.6.1.5 Planning, Implementation and Temporal Scale

The Piyalepaşa urban transformation project covers an area of 8.2 hectares. The area is uniformly designed within a systematic zoning plan, with various facilities arranged around courtyards connected to the main pedestrian walkway, resembling the backbone of the development. Consequently, the project's scope encompasses a segment of the Piyalepaşa neighborhood large enough to impose a physical formation that challenges the area's morphology through topographical interventions and architectural expression. Meanwhile, the long boulevard facade utilizes the advantages of being a main transportation artery, integrating urban design elements from the artery into the project's backbone, while its imposing masses facing the boulevard enhance its urban presence. This physical scope establishes a form of dominance in the environment, suggesting that potential future transformations in surrounding areas are likely to adopt similar-scaled implementation strategies rather than downsizing the physical scope of interference.

Comparatively, the scale of architectural design in the project holds an empowering proportion when contrasted with the uninterrupted units in the region. Piyalepaşa and surrounding neighborhoods struggle to compete with the development in terms of proportional architectural scale. The transformation discussed here has a completed layout with no further projected development argument. It operates within a specific time frame, locked in with the finalization of the project. However, the temporal scope may evoke social, cultural, and economic transformations within the physically changed environment.

Plans of different scales concerning this area and the Beyoğlu district exhibit both overlapping and distinct decisions in terms of planning and urban design. The degree of interconnectedness or coherence among the plan decisions, applied asynchronously, influences the outcomes of individual implementations on both broader and neighborhood scales, as demonstrated in this case.

4.6.1.6 Adaptability, Resilience, Flexibility and Sustainability

Piyalepaşa and its surrounding neighborhoods have the topographical potential to bridge segments of the Beyoğlu district, fostering a more unified, authentic, and complementary settlement. Spatial continuities, currently disrupted by fragmented intervention approaches, could have preserved spatial and cultural identities, strengthening bonds through comprehensive strategic planning, rules, and regulations.

Piyalepaşa's contextual resources include historical buildings, multicultural richness, traditional fertile gardening, artisanal production, art and retail activities, and its role as a connection area between the inner land and the Golden Horn. These elements hold significant value within the broader context. However, excessive land use for

construction not only destroys fertile vegetable gardening areas but also leads to complete gentrification and displacement, erasing the socio-cultural identity.

The Piyalepaşa and Roman vegetable gardens have the potential to establish an urban gardening mechanism through urban transformations. Socio-cultural diversity, if managed properly, can contribute to social richness. It's essential to recognize that all contextual resources have the potential for transformative possibilities rather than depletion.

4.6.2 Understanding the Impact of the Urban Transformation

4.6.2.1 Urban Fabric

The Piyalepaşa urban transformation project illustrates deficiencies in adapting to the physical and environmental context, particularly in architectural, urban design, and planning outcomes. The project covers land with a series of closed and open public spaces shared by users of the designed complex, including hotels, shops, offices, and residences. However, the spatial operation functions more like a "gated community" on a broader scale, sharply defining environmental experiences and user interactions. The public spaces primarily serve as spatial extensions of the facilities involved, repelling outsiders. There is minimal potential for dialogue between the people of Piyalepaşa and the project community through spatial interactions.

Additionally, the architectural configuration of the Polat complex hinders interaction with the surrounding environment. While the project features assertive and high standardization of building and spatial design, it challenges future project developments in the region. The lack of spatial morphological urban identity in the built environment further complicates future interventions.



Figure 4.69 Beyoglu-Piyalepasa Urban Fabric 1 (Author)



Figure 4.70 Beyoglu-Piyalepasa Urban Fabric 2 (Author)

4.6.2.2 Social Impact

The displacement of most of the community residing in Piyalepaşa, along with the gentrification resulting from the radical change in social, cultural, and economic parameters due to the new development, raises ambiguities regarding the concepts of belonging and identity in the region. While the social context of Beyoğlu district and Piyalepaşa as one of its neighborhoods exemplify positive multicultural communities welcoming exceptional intrusions, the forceful change in the social context threatens the sustainability of social existence. The unbalanced progression

in the social and economic context, implemented through the transformation with a completely different content, undermines the sense of justice, citizenship rights, and consciousness in the neighborhood.

4.6.2.3 Economic Impact

Urban transformations aim to achieve economic gains for all stakeholders, including residents and citizens at various levels. Economic priorities in these projects are set for both the present and future. The balanced design and distribution of economic gains in an urban transformation process depend on multiple aspects such as the operational, contextual, and strategic configuration of transformation processes. In the case of Piyalepaşa, public authorities have been inactive in the major stages of resolving the project, leaving responsibility and initiative to private sector actors. Consequently, the outcome in terms of economic acquisitions has primarily favored developers and new owners, resulting in a significant increase in land and property values. While structural and spatial qualitative and quantitative upgrading can be associated with beneficial outcomes, the problematic situation lies in the indirect negative economic effects experienced by neighborhood residents and the erosion of the sense of justice within the community.

4.6.2.4 Realization of Project Objectives

The objectives of the transformation were outlined as follows: improve the urban environmental life quality; upgrade urban infrastructures such as parking facilities, green spaces, and social areas; restore the sense of neighborhood identity in Piyalepaşa; preserve the historical urban and architectural heritage of the area through contemporary design approaches incorporating inner courtyards, cascaded facades, canopies, and water features; and create a mixed-use development with shopping and recreation facilities in addition to residential units .

The reasons underlying the necessity for urban transformation in the area, as articulated by the private owner and project implementer, included addressing informal settlements and mitigating unplanned urbanization, demolishing structures that had exceeded their economic lifespan and were vulnerable to earthquake risks and other natural disasters.

The physical outcomes of the transformation have maintained consistency with the objectives of building contemporary architecture with adequate infrastructural facilities and eliminating all forms of natural disaster risks in the rebuilt urban area. However, the meaningful discussion lies not in whether the project owners' objectives have been achieved, but rather in the discrepancies between the project objectives and the social, physical, economic, and historical realities of the urban context in Piyalepaşa.

The transformation outcomes largely overlook the area's characteristics and public needs beyond those of the residents in a broader urban context. The site has undergone a radical clearance in terms of both buildings and social fabric during the transformation process. The project does not transform any of the urban identity values accumulated over the years; on the contrary, it repels them all and replaces them with new ones and outsiders.



200 m 💶



Figure 4.71 Beyoglu-Piyalepasa Google Earth View 2006, 2023



200 m 💶



Figure 4.72 Beyoglu-Piyalepasa Project Area MERI Plan 1000, Project Site (Polat Archives



Figure 4.73 Beyoglu-Piyalepasa Project Plan, Section (IBB Activity Report 2023, Author)

4.7 Conclusive Remarks on Case Studies on Urban Transformation

This case study aims to assess the impacts of urban transformation and provide methodological guidance for an alternative urban sustainability. Rather than critiquing the outcomes of architectural, urban design, and urban planning professions, the study focuses on identifying strategies to prevent undesirable developments and improve urban sustainability.

The case studies examined, which represent various typological interventions since 2000, signify distinctive aspects of urban transformation in İstanbul and reveal common parameters with other cities in developing or urbanizing countries. Promoting land and property values, and engaging private investors and stakeholders, are key instruments in urban transformation and are widely recognized and employed globally.

However, while liberalization of urban economy and culture is prevalent across various geographies, the Turkish urban context is particularly affected due to an inconsistent institutional framework, incompatible process design and management, and governance that prioritizes economic and political strategies on urbanization.

Istanbul exemplifies the typical features of urban transformation in Turkey. However, as a representative city undergoing significant change, it possesses unique socio-cultural, economic, and spatial contexts that require thorough analysis and understanding. Analyzing urban transformation involves considering political and strategical concerns, avoiding a reductive focus solely on economic dimensions and accounting for national, cultural and governance characteristics, to prevent divergence from the real conditions. Thus, the analysis of Istanbul's urban transformation since 2000 is conducted through site-specific and general discussion frameworks.

The analysis of urban transformation examples as both processes and projects reveals significant shortcomings. Key areas include poor connectivity, relationality, consistency and compatibility. Inclusivity, fairness, justness, transparency, and

multi-disciplinary attitudes were not part of the processes, which affected public well-being, enhanced urban environmental life quality, and provided long-term efficiency of the implementations.

From a process perspective, these parameters highlight failures in addressing contextual dimensions and established impacts and achieving urban sustainability. Project-wise, the spatial interaction between the sites and their larger and smaller-scale environments, neighborhoods, infrastructure, and the city were ineffective. Additionally, the transformation processes did not incorporate various other disciplinary approaches—such as environmental, sociological, psychological, economical, technological, aesthetical and political factors—into the design or implementation.

Overall, the analysis of urban transformation in İstanbul provides significant value as a detailed assessment of changes since 2000 and as a foundation for understanding how alternative approaches to urban sustainability could complement the urbanization process. This study contributes to urban sustainability by demonstrating how these approaches can be integrated with urban transformation efforts. The detailed analysis in this chapter will lay the groundwork for discussing alternative sustainability parameters in Chapter 5.

Each case study project examined in this chapter is characterized by distinctive features that contribute to the broader understanding of Istanbul's urban transformation typology, as configured in the Figure No 4.74 prepared with reference to the discussions made about transformation typologies in Chapter 3. Beyond their unique circumstances, each process has the particularity to represent analogous transformation examples of the transformation landscape of Istanbul, displaying a cohesive whole, through the lens of urban sustainability.

The Kadıköy-Fikirtepe case illustrates the maximization of urban land development rights facilitated by development plans. However, the unsubstantiated increase in land rights, coupled with significant flaws in process design and management strategies, led to a disconnect between the local community and the investors. The large scale of the transformation, along with the substantial number of residents involved, required robust legal, administrative, and environmental oversight from public authorities—support that was not adequately provided. Consequently, the process evolved into a mere commodification of urban land, primarily orchestrated by public entities such as Kiptaş and Emlak Konut.

The urban transformation projects along Bağdat Street stand out as key examples of significant urban change in Istanbul facilitated by the instrumentalization of modified legal procedures without the production of a comprehensive zoning plan. In these cases, Law No. 6306 was employed to rationalize individual building transformations, resulting in increased floor area. What is more, as the continuation of the negative effect, this implementation strategy encouraged similar interventions in neighboring districts such as Koşuyolu, Altunizade, and Acıbadem that have comparable spatial structuring.

The Ataşehir-Finance Center exemplifies the negative outcomes of flawed development programming and poor decision-making strategies by governmental authorities. Before the project's physical and environmental design phases, the relocation of central finance institutions from Ankara to Istanbul was met with opposition, particularly from urban design and planning perspectives. The operational requirements of such an entity necessitate a high degree of physical security, which is severely compromised by Istanbul's significant earthquake risk. Furthermore, the site's safety, connectivity, and capacity for future expansion fail to meet the recommendations for an international finance center. In addition, the project's physical and social dimensions have negatively impacted the interaction with the surrounding environment, affecting both the financial center and adjacent neighborhoods.

The Beyoğlu-Tarlabaşı project, implemented during this period, represents the second phase of urban transformation in Tarlabaşı, building upon earlier efforts that began in the 1980s. In addition to physical regeneration and conservation outcomes, these processes signify radical social and ethnic transformations within the area.

Through the application of Law No. 5216, property ownership rights of the original residents were transferred to new owners over the course of several decades as part of the urban transformation efforts. The Tarlabaşı project stands as a representative example of the complex dilemma between physical regeneration and social heritage conservation.

The Cendere Valley-Vadi İstanbul project highlights two key aspects of urban transformation in Istanbul. First, it exemplifies a procedural system where urban design and planning mechanisms have been compromised by politically and economically driven strategies. Second, it illustrates how such interventions disrupt the city's natural resource management, resulting in the destruction of ecological reserves due to conflicting transformation efforts. The execution of projects that directly contradict urban development plans and cause irreversible damage to ecological and environmental values on a city-wide scale is a defining characteristic of this process, mirroring similar interventions in the Beykoz forest and other natural areas.

The Beyoğlu-Piyalepaşa project is notable for being the first urban transformation site declared "risky" under Law No. 6306, and the entirely accomplished one. Although the initial goal was to improve the physical and social conditions for residents, the project was ultimately transferred to a private real estate investment company. This shift resulted in the displacement of the original community, while the commodification of the urban land was legitimized to serve the housing market. The site's strategic location, adjacent to the main boulevard, positioned it as a pioneering project meant to drive transformation in the area and physically and socially connect the districts of Şişli and Beyoğlu. However, the realized residential and mixed-use developments featured an introverted design that hindered such connections. By targeting high-income groups, the project contributed to social dissociation, while its architectural and urban design strategy produced alienated urban spaces lacking a distinct identity.

URBAN TRANSFORMATION CASE-STUDY PROJECTS	Fikirtepe Project	Ataşehir- Internatio nal Finance Centre Project	Cendere Valley- Vadi İstanbul Project	Tarlabaşı- Taksim 360 Project	Piyalepaşa Polat Project	Bağdat Street District Projects
SCALE AND SCOPE OF URBAN TRANSFORMATION PROJECT						
Building Scale						
Neighbourhood Scale						
City Scale						
OBJECTIVES OF URBAN TRANSFORMATION PROJECT						
Economic Development						
Socio-cultural Wellbeing & Equitable Rights						
Physical & Environmental Objectives						
Historical-Heritage Preservation						
ACTORS, STAKEHOLDERS, PARTNERSHIP MODELS OF URBAN TRANSFORMATION						
Public-private Partnerships						
Private Partnerships						
Governmental and Institutional Partnerships						
MANAGEMENT & DESIGN OF URBAN TRANSFORMATION PROCESS						
Regulatory Framework						
Standards in Urban Design and Implementation Rules						
Balanced Socio-Cultural, Physical, Economic Aspects						
Inclusion-Participation of Community						
URBAN TRANSFORMATION PROCESS & STRATEGIES						
Redevelopment						
Regeneration						
Renewal						
Revitalization						
Adaptive Reuse						
Development						
Preservation-Conservation						
PERFORMANCE LEGEND:	HIGH MEDIUM LOW					

Figure 4.74 Urban Transformation Typologies

CHAPTER 5

A DISCUSSION ON ALTERNATIVE URBAN SUSTAINABILITY

Achieving sustainable urban development amidst ongoing urbanization processes across all geographies worldwide remains one of the most challenging commitments in urban planning. The transformation of settlement landscapes into urban environments, resulting in a significant increase in urbanized areas, is accelerated by global economic, social, and technological advancements and networking. While these advancements generate improvements in the daily lives of people in numerous ways and contexts, urbanization simultaneously creates new problems with more intensive and broader ramifications on prospects due to escalating urban population. In addition to the well-known global environmental and climate crisis, there are other urban problems confronted in relation to the configuration of the urban areas.

These problems manifest in physical, socio-cultural, economic, and institutional urban contexts, profoundly influencing the overall quality of urban life. This includes well-being, satisfaction, and a sense of connection to the environment for residents and citizens. To address these challenges effectively, it is essential to internalize a significant and comprehensive "alternative urban sustainability approach" within contemporary urbanization processes. This approach will help relieve urban areas of additional problematic situations and enable the provision of sustainable urban developments.

The evolution of urbanization through urban transformation processes in many countries introduces a different aspect into urban development issues. The successful and conscious integration of significant sustainability factors to urban transformation processes can shift the direction and nature of urban transformations towards a sustainable urban transformation framework. This understanding of the urban context ultimately leads to the formulation of sustainable urban developments in similar urban environments. Urban transformations, therefore, act as opportunities on the path to sustainable urbanization.



Figure 5.1 Towards a Sustainable Urbanization (Author)

Turkey and specifically Istanbul, serves as an exemplary region, where urban transformation determines the characteristics of urban development. This dissertation considers the period since 2000, focusing on six case study transformation processes. The discussion in this chapter provides a comparative analysis of the main parameters of urban sustainability, utilizing the evaluations and evidence of the urban transformation case study conclusions presented in the fourth Chapter. The six case study examples, representing different transformation typologies in their urban contexts, will complement the conceptual evaluations outlined in the Chapter 2 regarding urban sustainability parameters.

This chapter presents a new perspective for future urban transformation processes, positioning them as contributory interventions for sustainable urbanization. A comparative analysis of six urban transformation case studies in Istanbul, which are in similar transformation phases, but differ in context, is conducted to evaluate their
sustainability performances. The chapter outlines the requirements for comprehensive and integrative performance parameters for achieving alternative urban sustainability. These parameters include balance, cohesiveness, equity, connectivity, consistency, relatedness, proportionality, transparency, resilience, flexibility, and adaptability. Additionally, the chapter will reveal the contextual circumstances influencing transformation in Istanbul, categorized as follows:

- i. The Urban Fabric: Sustainability of spatial and morphological parameters in an urban context.
- ii. The Socio-cultural Fabric: Sustainability of socio-cultural and economic parameters in an urban context.
- iii. The Process: Sustainability of the urban transformation processes in an urban context.
- iv. The Impacts: Sustainability of the urban transformation impacts in an urban context.

The primary forces driving urban transformation processes across the six case studies are economic, political (governance and institutional), socio-cultural (demographic), and physical (urban development requirements or strategic preferences). These forces vary in their levels of influence and shape the configuration of each case study, the execution methodology, and the specific contextual circumstances. This interplay determines the extent to which these transformations contribute to urban sustainability.

5.1 The Urban Fabric: Sustainability of Spatial and Morphological Parameters in an Urban Context

Urban Fabric is the most tangible medium where urban sustainability is experienced, observed, and confronted in daily life. As discussed in Chapter 2, the evaluation of Urban Fabric sustainability relies on several key factors:

- Hierarchical Spatial Structuring and Proportionality of the Urban Segments: This factor examines the organization and balance within the urban layout.
- ii. Visual and Physical Connectivity in the Spatial Layout: Connectivity enhances accessibility and cohesion within urban spaces.
- iii. The Matter of Scale: Consideration of dimensional and temporal scales is essential for sustainable development.
- iv. Morphological Characteristics: The physical form and structure of the urban area influencing urban sustainability.

Poor physical conditions and earthquake risks in informal settlement areas initially drove urban transformation, as in the cases of Fikirtepe and Piyalepaşa. However, increasing land values in these central areas due to intense urbanization introduced economic factors as significant drivers. Additionally, the socio-cultural and economic deprivation of these sites motivate policy makers to pursue transformations. The re-development typology was established for both Fikirtepe and Piyalepaşa, but the processes differed substantially for each one. Divergences in dimensional scales, hierarchical positions within broader spatial systems, and the number of inhabitants required different approaches to urban transformation.

The Fikirtepe project encompasses an extensive area, multiple and divergent juxtapositions with neighboring districts, and proximity to transportation networks. Therefore, it was a challenging case to be configured as a cohesive, integrated entity. Despite this fact, the transformation project established its design principles on agglomerated blocks 80 meters in height and magnified parcels in a repetitive pattern. Numerous small plots were unified and then re-organized into fewer blocks over a rectangular grid plan through the transformation project.

This approach caused discrepancies with human scale and spatial proportionality. The prioritization of economic benefits for all stakeholders resulted in increased density through a spatial configuration that maximized land use. Although service areas and the ratio of open spaces were increased, and building standards and unit plan solutions were improved, connectivity, cohesiveness, and continuity within the site and with the surrounding neighborhoods were neglected. The rigidity of urban design, the detachment of the parts from the whole and the broader environment, the unproportionate aggregation of the land, and the insufficient environmental quality rendered through the spatial system devalued the sustainability of the urban fabric in Fikirtepe urban transformation project.

In contrast, Piyalepaşa had more proportionate dimensions, allowing for a compact intervention and the possibility of an interactive relationship with the surrounding area and the main boulevard. This dimensional scale brought advantages for maintaining a unified spatial structure with a core of public open space that connected morphological elements. However, while generating cohesiveness within the site, this spatial structuring implemented a physically rigid attitude towards the surrounding environment. Both this rigidity and the introverted design approach prevent the generated yet unresolved socio-cultural and economic conflicts with the broader environment.

Instead of being a part and the initial stage of broader urban planning, the project individually sets its own morphological, functional, and socio-economic context through urban transformation, generating questionable results in terms of urban sustainability. However, true sustainability of an urban fabric requires balanced relations with other scales of the spatial system in addition to the socio-cultural and economic fabric. The temporal scale is also crucial for maintaining sustainability in an urban context. The prudence about the continuation of change in the transformed site and around the site in future strengthens the intervention in terms of urban sustainability.

In the Tarlabaşı urban transformation case study, the initial drivers for the intervention were socio-cultural deterioration and poor physical conditions in the district. Given the historical and cultural heritage value of the site, the urban transformation typology focused on the conservation and re-generation of the urban fabric. However, during the operational design and management of the

transformation process, economic drivers gained significance, promoting redevelopment for increased floor levels and altered floor plans.

The heightened façade facing the main boulevard, serving as the public display of the project, was re-developed, raising controversial views on the principles of conserving architectural and cultural heritage. Plan revisions of blocks were adopted to fulfil the demands of new inhabitants, revealing the intentional displacement of cultural heritage and the residents. Despite this, the existing and originally conserved spatial structure of the area, as a segment of the hierarchical whole within Tarlabaşı, provides spatial connectivity and integration with the rest of the district. The inner courtyards adapted to the new architectural plan also support continuity. Consequently, the spatial urban sustainability within the site is effective despite the damages to social, cultural and functional sustainability factors.

In the transformation case studies of Ataşehir Finance Center, Cendere Valley-Vadi Istanbul, and Bağdat Street District, economic factors were the primary driving forces. The first two were further triggered by global economic growth ideals through the foundation of a financial activity center within the city. The Ataşehir Finance Center, as a mega project, was initiated to confirm Istanbul as a global city. Cendere Valley, on the other hand, was considered a potential finance activity zone as a continuation of the Maslak financial district.

The spatial and morphological formation of the Ataşehir project was consistent with its drive, exhibiting power, strength, and dominance through architectural expressions, fulfilling an aspect of urban sustainability. However, in terms of efficiency for the contextual needs of public good in a residential and mixed-use environment on a broader scale, the transformation lacks urban sustainability factors. The site's spatial configuration necessitates cohesion and integration with other parts of the whole, whereas the functional programming of the Finance Center refuses such connectivity.

The alienation of the project site does not contribute to the vitality and spatial improvement of the region. The future growth and transformation prospects of the

Finance Center are limited by the physical context. The need for the flexibility and adaptation capacity of the physical setting for a global finance center contradicts existing environmental conditions; thus, the Finance Center transformation case study falls short in urban sustainability terms. An improved approach to site selection, positioned not at the core but in the vicinity of the city center, would facilitate better transportation network connections and provide opportunities for future expansion capacity for future development. This strategy would mark the case as an example of a sustainable urban fabric. Additionally, the uncoordinated and unsustainable planning and implementation stages across institutions and governance hinder the ideal development of such a transformation project at its own pace.

The Cendere Vally-Vadi Istanbul urban transformation project exemplifies drives that contradict the public good. Whenever natural and ecological resources are misused for a transformation project, the process is considered disadvantageous for urban sustainability. This is the case for the Vadi Istanbul urban transformation project. Urban sustainability is only possible when a vital public good is cared for, respected, and preserved.

The environmental categorization for Cendere Valley underwent a radical transformation, shifting the typology from conservation of natural resources and revitalization of industrial structures to mixed-use development in a natural resource heritage area. The Vadi Istanbul project, representative of similar transformations within the Cendere Valley, fails to achieve sustainability in multiple aspects beyond ecological destruction. The physical context of the site and the proposed urban fabric, encompassing masses and transportation structures, do not integrate cohesively. The topographic and natural formations of the area introduce inherent contradictions and unrelatedness, which persist through random masterplan revisions.

Despite these spatial controversies, the forceful drive for development and escalating land values remains dominant and unavoidable. The unethical exploitation of both

ecological and built urban resources fails to ensure their equitable transmission to future generations, undermining sustainable urban development.

The solitary urban transformations implemented in this district were driven legally by earthquake disaster risk factors for buildings with poor physical standards. However, economic incentives for both property owners and private construction companies as stakeholders became the primary driving force of transformation, fuelled by the profitable construction conditions attributed to the site.

The Bagdat Street District case study examples demonstrate the importance of maintaining resilience and continuity of spatial identity in the environment despite urban transformations. The precedence of the existing spatial structural system within the larger context of the transformation sites has been crucial in determining the urban sustainability of the transformed urban fabric in each case. Despite the numerous transformed sites and heightened buildings, the area's morphological characteristics, which pose sufficient resilience, have helped retain the urban environmental identity without radical shifts.

New construction rules and rights in the area led to increasing density, with revised floor area ratios, negatively impacting street spaces, the cityscape, and infrastructural load. Nevertheless, some projects addressed these challenges by generating spatial sustainability through modifications to building, plot, and public spatial structure relationships. These three case studies serve as positive examples in this regard.

Had the current urban transformation process strategy been re-evaluated and redesigned at the planning level, allowing for lot-based structural transformations, infrastructural reorganizations, and population density optimization, the area's environmental life quality, and urban fabric sustainability would have significantly improved. A broader, holistic transformation of the district would have brought a positive shift in the scale of intervention while maintaining the collaborative implementation model between property owners and private construction companies. The case study transformations modified their interactions with the neighborhood's current spatial structure system, including streets, avenues, green spaces, trees, and public open spaces, to enhance visual and functional connectivity and maximize the distances between masses for a sense of relief.

The existing spatial configuration's resilience supported urban fabric sustainability. However, the population increase will generate further problems in transportation infrastructure, air pollution, and the sufficiency of amenities over time, negatively affecting the urban sustainability of the transformed urban fabric.

5.2 The Socio-cultural Fabric: Sustainability of Socio-cultural and Economic Parameters in an Urban Context

The spatial and morphological parameters of urban sustainability retain their essence when integrated with the socio-cultural parameters of the urban fabric. All urban transformation typologies establish certain changes in social, cultural, and economic aspects in the built environments they operate on. The spatial structure ("urban fabric"), as the visible material part of the urban transformation process, performs in relation and conjunction with the "socio-cultural fabric" in terms of urban sustainability. How transformation processes consider the current socio-cultural context of the site, and at what extent the project plans to implement changes in that context in terms of functional, demographic, and economic means, figure out the sustainability of the socio-cultural fabric. The following parameters are key factors for discussing the sustainability of urban transformation cases in terms of sociocultural fabric:

- i. Compatibility of socio-cultural and economic interactions with the spatial layout.
- ii. Functional constitutions within the urban context.
- iii. Sense of belonging, placeness, and identity in the urban context.
- iv. Equal socio-cultural and citizenship rights.
- v. Mixed-community structuring.
- vi. Economic sustainability of the socio-cultural urban life.

The case study projects in Cendere Valley-Vadi Istanbul, Ataşehir Finance Center, and Piyalepaşa exhibit common approaches to and impacts on socio-cultural sustainability. They treat the transforming environments as blank socio-cultural canvases for new developments. Developments in Cendere Valley and Ataşehir Finance Center define socio-cultural and economic contents alongside their spatial and morphological structuring. The projects are characterized by high land and property values, aimed at attracting a specific demographic. While the urban and socio-cultural fabrics within the projects complement each other, the broader sociocultural contexts, including the inhabitants of neighboring areas and the general fabric, often contradicts the project's strategies. This disjunction raises concerns about the sustainability of the socio-cultural fabric, as the project may fail to integrate seamlessly with the surrounding community.

The Finance Center's locational decisions and distinct functional specifications exacerbate socio-cultural alienation. The project's emphasis on economic development and spatial structuring often neglects the broader socio-cultural context, leading to a paradox where the intended users within the Finance Center are disconnected from the surrounding socio-cultural environment. Thus, establishing a sense of placeness, and transmitting a sense of belonging within the neighborhoods are hard to achieve in both Ataşehir Finance Center, and Vadi-Istanbul projects This disconnection poses significant challenges to the sustainability of the socio-cultural fabric.

The Piyalepaşa project, while similar in its initial approach to treating the environment as a blank socio-cultural canvas, offers a different perspective on sociocultural sustainability. The project aims to integrate socio-cultural and economic contents with spatial and morphological structuring more effectively. Despite this effort, contradictions arise between the project's strategies and the broader sociocultural context of the neighboring areas. The challenge remains in balancing the project's internal coherence with the external socio-cultural dynamics to achieve sustainable outcomes. The urban fabric has been transformed for upper-income groups parallel with the upgraded socio-cultural fabric, causing displacement and gentrification as a problematic outcome. In these conflicting contextual circumstances, neither the public spatial core, nor the mixed-use functional organization, and seemingly positive shifting in economic identification of the area work for maintaining sustainability in the socio-cultural and economic fabric. The sense of belonging and identity cannot be attained in a transformed environment, without the resilient continuity of basic cultural values, transmitted through generations with interventional improvements.

Comparatively, all three projects share the challenge of integrating their sociocultural fabric with the broader context. The Cendere Valley and Ataşehir Finance Center case studies processes resulted in socio-cultural alienation due to their focus on economic and spatial structuring aimed at high-value demographics. The Piyalepaşa project, although slightly more attentive to socio-cultural integration, still faces contradictions with the surrounding community.

The sustainability of socio-cultural structures in urban transformation processes is often compromised when economic growth and development drive these changes, as observed in the Tarlabaşı and Fifirtepe case studies. Both examples reveal the significant challenges faced when economic benefits overshadow socio-cultural considerations. In Fikirtepe, the transformation has led to the destruction and gentrification of the socio-cultural profile, driven by community expectations for financial benefit. The mismanagement of the transformation process has exacerbated these issues, leading to the residents to the city fringes. This displacement is likely to create new social, economic, and physical urban problems in the near future. The transformed socio-cultural context in Fikirtepe is now tasked with developing its own identity qualifications over time, lacking foundational and shared references. Furthermore, the rigidity of the spatial urban fabric restricts such evolvements, potentially resulting in an environment characterized by increased land value but populated by temporary user groups. The Tarlabaşı urban transformation followed a similar trajectory, aiming to change the demographic structure to align with targeted economic structuring. This approach has left crucial aspects of urban sustainability in terms of improving urban life quality under fair, equitable, and transparent conditions for all citizens, particularly in mixed-community structures, unresolved in both Tarlabaşı and Fikirtepe. Despite being a valuable cultural and urban heritage environment subject to conservation, Tarlabaşı's urban transformation was intended to integrate socio-cultural elements with its historical background. However, the prioritization of economic benefits by policymakers and short-term gains guided the transformation towards a typological approach that favored substantial changes in the socio-cultural fabric. Conservation in Tarlabaşı was thus used as a tool to promote the area as an economically valuable historical asset rather than preserving its socio-cultural essence.

Just like the Piyalepaşa example, the Tarlabaşı and Fikirtepe case studies also highlight the detrimental impact of prioritizing economic growth over socio-cultural sustainability. In Fikirtepe, the aggressive gentrification and displacement of residents have resulted in a socio-cultural fabric that lacks continuity and foundational identity. The rigid spatial urban fabric further restricts the development of a cohesive community. In Tarlabaşı, the focus on economic restructuring and the superficial application of conservation principles have similarly disrupted the sociocultural fabric. The transformations in both areas fail to address the broader goal of enhancing urban life quality equitably and transparently for all citizens.

For socio-cultural sustainability to be achieved in urban transformation projects, a balanced approach that integrates economic development with genuine sociocultural considerations is essential. This involves ensuring that transformations improve urban life quality in a fairly and inclusively, preserving and enhancing the unique socio-cultural identity of each area. Without such an approach, the sustainability of the socio-cultural fabric remains compromised, leading to fragmented and transient urban environments. Among the six-case study urban transformation processes, the Bağdat Street District examples emerge with certain positive resolutions in terms of sustainability of the urban fabric. The rather steady and shared socio-cultural, and economic demographic structure of the area and the broad spatial structural system of the district connecting the parts have been influential in this achievement. The resilient responsiveness of the urban and socio-cultural fabric to change in that respect has been supportive. Although more challenging transformations would necessitate flexibility rather than rigidity in the context, the current circumstances in Bağdat Street District promoted the retention of the unity and identity in the sustainability of the urban and sociocultural fabric.

The standardization of the spatial system, the limits of transformative factors, and the uniform social, cultural, economic, and even political stance of the community contributed to the sustainability of the socio-cultural fabric. However, the economic drive for urban transformation in Bağdat Street prevailed the other motives and resulted in the escalation of land and property values in that example. Subsequently, a significant portion of the community, specifically the elderly and retired groups with limited capital, had to leave the neighborhood for more economically convenient areas, as a consequence of escalated living expenses.

5.3 The Process: Sustainability of the Urban Transformation Processes in an Urban Context

The sustainability of urban transformation processes hinges on the evolution of developments from the initiation of transformation ideas to the end of implementations. The comprehension, integration, and coordination of the process are as important as the transformation projects themselves. Developing a sustainable urban transformation requires a multi-dimensional approach that considers, inclusivity, transparency, accountability, contextual relevance, long-term vision, adaptability, and flexibility. The foundational aspects of sustainability of an urban transformation process are determined by the nature of relationships among the

reliability of drives, efficient evaluation of the contextual conditions, achievement of effective decision-making, planning and design strategies, and implementation trajectories, and successful final execution and post-realization stages. The following are the parameters for a comparative discussion of the sustainability of transformation processes:

- i. Decision-making strategy for urban transformation and urban sustainability.
- ii. Consistency of the objectives, the urban context, and the interests of different stakeholders.
- iii. Urban transformation process and future projections.

The post-2000 urban transformation in Istanbul has been driven by political dynamics, following a trajectory rarely based on stable rules. The political authorities have led the process through the promulgation of laws, utilizing them to address earthquake disaster risks and improve unhealthy environments, though the primary motivations were often economic. Central governance often overrides urban development plans and strategies of Istanbul based on institutionalized research, by prioritizing political interventions in land use and property. Decision-making strategies largely are concerned with economic growth, sidelining the welfare of the majority and excluding public participation and institutional inputs.

In all the case studies discussed in this dissertation, economic motivations are paramount despite divergent urban contexts. Dominant economic expectations overshadow essential social and cultural needs, affecting decision-making strategies. Although objectives are generally framed around socio-cultural and environmental improvements and earthquake risk management, the true drivers are economic.

In the Cendere Valley-Vadi Istanbul and Ataşehir Finance Center examples, the drives were explicit. Although the initial strategies for Cendere Valley were focused on preserving and enhancing the area as Istanbul's ecological corridor, the project was later designated as a second financial zone on the European side of the city due to the Maslak region's inadequacies. As transformation projects have progressed,

residential facilities have been added to capitalize on land value, driven by neoliberal policy. Ataşehir Finance Center has had a similar trajectory, with political decisions disregarding the global city concept and planning recommendations, resulting in a project that lacks flexibility and infrastructure for urban design needs. In both cases, the outcomes deviated from initial objectives, leading to socio-cultural deficiencies and a sense of placelessness. Therefore, they have primarily drifted towards unsustainable urban parameters, by the initial stages of the transformation.

The Tarlabaşı, Piyalepaşa, and Fikirtepe case studies were managed by private companies, while Fikirtepe required governance intervention after eextended periods of disorganization. Despite efforts to secure property owners' rights and mediate negotiations, economic conflicts were prioritized, leaving process sustainability debatable. The nearly finalized urban fabric transformation in Fikirtepe faces uncertainties regarding future formations and sustainability in decision-making, consistency of drives and outcomes, and future projections.

Urban transformations involving socio-cultural and urban fabric changes necessitate further planning, design, and countermeasures for potential future developments from a multi-dimensional perspective. Particularly in cases of gentrification, displacement, and radical morphological and spatial structural shifts new and diverse urban problems may arise in different parts of the city. Thus, transformation processes must be evaluated over time for urban sustainability. The Piyalepaşa, Tarlabaşı, and Fikirtepe case studies present negative prospects in that respect.

Evaluating the sustainability of urban transformation processes beyond the previously discussed strategic and implementation consistencies requires considering the specific context of the Bağdat Street transformations. The accumulation of the fragmented interventions within the Bağdat Street District, when viewed on a broader scale, reveals the distinct value of these transformations. As the proportion significance of transformed fragments increases, accompanied by a parallel rise in population and traffic density, the common spatial system remains unchanged. The importance of the overall urban transformation becomes evident.

The Bağdat Street case studies highlight the necessity of examining transformation processes from a comprehensive, multi-dimensional perspective for sustainability appraisal.

This approach underscores the importance of not only evaluating individual interventions but also understanding their collective impact on the broader urban fabric. The interplay between increased urban density and the unchanged spatial system poses unique challenges and opportunities for achieving sustainable urban development. Thus, the sustainability of urban transformation processes in contexts like Bağdat Street requires a holistic evaluation that includes the cumulative effects of fragmented interventions, the evolving demographic and infrastructural dynamics, and the broader spatial and morphological coherence. This broader dimensional analysis is essential for formulating effective and sustainable urban transformation strategies that address the immediate and long-term needs of the urban environment and its inhabitants.

The coordination and integration of governmental and non-governmental agencies, characterized by clear communication, shared responsibilities, and unified planning approaches, are pivotal in the decision-making stage of urban transformation processes. The inclusivity of all stakeholders, such as local governance authorities, urban designers and planners, private sector participants, and the community alongside central governance, is crucial for the sustainability parameters of the transformation process.

Balancing socio-cultural, physical, and economic considerations in determining the drivers and objectives of the transformations, with a concern for equity and justice, contributes significantly to reliability. Initiating interventions and managing further processes by focusing on the authenticity of goals ensure consistency between results and objectives. Additionally, considering urban contextual circumstances, along with the adaptability and flexibility potentials, under a long-term vision and forward-thinking strategies, further ensures the sustainability of urban transformation processes.

5.4 The Impact: Urban Sustainability Through the Impacts of Urban Transformation Projects

The success of urban transformation implementations is evaluated based on the achievement of the desired impacts across multiple contexts. Due to the uniqueness of each transformation case, the evolution of processes and the circumstances generating their impacts vary widely. However, there are common parameters crucial in determining the sustainability of these results. As with the sustainability of the transformation process, the sustainability of impacts depends on successful coordination, reliability, and management quality. Additionally, other factors such as the recognition of temporal dimensions, a multifaceted understanding of public welfare, and a broadened contextual perspective must be prioritized in a balanced and comprehensive manner. Utilizing evidence gathered from case study examples, the sustainability issue of urban transformations, in terms of their impacts, will be analyzed through the following parameters:

- i. Sustainability of current and future impacts.
- ii. Sustainability of the results in terms of public well-being and environmental quality.
- Sustainability of the results in urban fabric, socio-cultural, and economic contexts within a balance.

Given that time is a crucial agent in experiencing the multidimensional impacts of urban transformations, the six case study implementations in Chapter 5 display only a certain portion of this dimension, since they are either recently completed or almost completed projects. However, future projections for possible developments related to these transformations will still be recognized through discussion. All examples, in line with their objectives established significant impacts on the sites, realized through urban fabric, socio-cultural fabric, and process. These impacts were easily observed and criticized, but not sufficiently evaluated through experience. The sustainability of the results of urban transformation projects depends on the continuity of the positive results over generations. Due to the significant number of displacements constituted in these processes in Piyalepaşa, Fikirtepe, and Tarlabaşı, the new urban environmental life has has been populated mostly by new inhabitants. The evaluation of transformed urban contextual dimensions and their relationship with the residents has significant value.

Especially the socio-cultural and economic impacts are observable over time. However, even the impacts encountered on the urban fabric cannot be thoroughly evaluated before the urban spatial system on a broader scale responds. How the surrounding areas of Ataşehir Finance Center will develop in terms of facility evolvement, land value increase, economic leverage, demographic profile, and density, as the reflections of the transformation project applied in the specific site, will maintain the nature and specifications of impacts.

Whether the transformed environmental qualities in Tarlabaşı and Piyalepaşa are welcomed by the inhabitants, or the objectives of projects are aligned with the outcomes will be understood more easily than the impacts of the applied changes in the broader spatial and socio-cultural contexts. For the Cendere Valley-Vadi Istanbul and Bağdat Street District transformations, the same uncertainty remains awaiting the evolution of the contextual conditions over time. This uncertainty is based on urban transformation strategies without inter-scaled planning, long-term visionary outlook towards the urban problems, with well-coordinated, communicated, collaborated project making and implementation stages. Neither the Vadi-Istanbul project, nor Tarlabaşı-360, nor the others can accomplish the objectives of projects, or evaluate the contextual conditions thoroughly for the desired sustainable impacts, unless the transformation is handled in a comprehensive and multi-dimensional approach.

The sustainability of impacts necessitates the adaptability of the changes primarily within the socio-cultural context and retainment of a shared sense of belonging in urban environments. Therefore, the positive responses of the public and their integration with the transformation processes leading to public well-being, while long-term achievements of urban changes related to environmental quality are crucial in sustainability of impacts.



Figure 5.2 Urban Transformation Interventions Across Case Studies 1-2-3 (Author)



Figure 5.3 Urban Transformation Interventions Across Case Studies 4-5-6 (Author)

CHAPTER 6

CONCLUSION

Urban transformation as the inevitable process navigating the urbanization landscape in cities, has been equally influential in İstanbul in the 21st century. The aggressive domination of the transformation process, particularly since the early 2000s, has led to advancements in many facets of urban contexts. However, the missing sustainability aspect in urban development within these transformations has eradicated all interventions and came forward as the vital link necessary for sustainable urban environments. In an era where urban transformation is accelerating due to earthquake risk, migration, and economic growth strategies that prioritize the construction sector, transformation must not be viewed as an opportunity to improve the quality of built environments merely in single building scale. Instead, transformation processes should serve as a foundation for enhancing the urban fabric and infrastructure, leading to more sustainable environments.

The broad concept of sustainability, as explored in this study, should extend beyond energy efficiency and environmental awareness. It must also compass the retainment and endurance of urban memory, urban identity, and sense of belonging and place through planning and design approaches to spatial structuring, besides fairness and justness in income distribution, in socio-cultural as well as economic dynamics, and sensitivity towards multiple heritage and urban resource protection. Therefore, this study is expected to provide a basis for a multi-dimensional transformation critique and evaluation of urban transformation processes. While Istanbul serves as the primary case study, with its diverse and widespread transformation models, the findings here are applicable to similar processes in other rapidly urbanizing regions in Turkey. The representative models discussed offer valuable insights that can be adapted to other contexts undergoing rapid urbanization. As a result of this research, it is possible to develop some concrete suggestions: The alternative urban sustainability approach proposed within the dissertation must be integrated with urban transformation processes and implemented as an inseparable strategy to prevent the widespread, long-term damage often resulting from conventional urban transformations.

A comprehensive re-evaluation of urban transformation, from multiple perspectives, is essential for meaningful urban development that positively impacts citizens' daily lives. Istanbul, exemplifying cities undergoing extensive and diverse urban transformations and driven by various factors, showcases diverse urban transformation typologies, ranging from single-structure interventions to large-scale regional developments, and from historic core areas to newly planned peripheries. However, this study reveals that many of these processes prioritize structural reinforcement and economic development as the main objectives of transformation, with a narrow and conventional view of urban progress. This approach often undermines broader sustainability objectives, restricting the success of achieving sustainable urban development. Furthermore, new urban challenges frequently emerge at various scales of planning and design as unintended consequences of these transformation efforts.

A holistic understanding across all segments and levels of urban transformation must be the essential attitude to ensure continuity within the existing urban and social fabric. This includes managing density increases with corresponding improvements in infrastructure and transportation systems, as well as addressing potential social and economic re-transformations, to mitigate persistent urban pressures. Transformation initiatives that conflict with public well-being and equitable principles in the favor of quantitative growth damages the sustainability of urban development.

Therefore, urban transformation should not be viewed merely as a process of physical and economic growth aimed at reinforcing and reproducing problematic urban fabrics. Rather, it must be conceived as a multi-dimensional planning process. This approach should focus on spatial process for improving the quality of urban

fabric including infrastructure improvement, balancing and optimizing density issues, integrating fragmented urban fabrics within a multi-scalar framework, and preserving urban memory, identity and resources. In this regard, the singular interventions on Bağdat Street District represent a missed opportunity. While Cendere Valley and Piyalepaşa projects establish internally cohesive urban fabrics, they remain isolated and disconnected from the broader urban context. Similarly, the Istanbul Finance Center, exacerbates the city's infrastructure and transportation challenges due to its functional and structural density. A series of eclectic, building scale transformations make it impossible to create urban environments that align with the contemporary sustainability principles

To address these issues, special planning regulations that consider the unique contextual differences of transformation areas must be developed and integrated into implementations. The design and management of urban transformation processes must adhere to a well-defined workflow, institutional principles and alternative sustainability parameters at every stage. Typological solutions should not be driven by real estate interests or multiple political tendencies, but rather by broader-scale regulatory and planning decisions. The case of Fikirtepe exemplifies another missed opportunity, where independent projects in sub-areas result in dense, repetitive developments far from urban coherence. The fragmented transformations seen in Bağdat Street District should be re-evaluated as opportunities to implement comprehensive, holistic spatial and socio-cultural interventions. Ensuring proper sequencing in urban planning, design, and implementation, with an emphasis on sustainability parameters for the public good and long-term success, is essential. This approach, if applied before plot- based projects, has the potential to guide urban transformations in Bagdat Street District towards contributing to sustainable urbanization.

Prioritizing the strengthening and repurposing of structures, rather than their demolition, should be a fundamental consideration at the building scale. Opportunities for re-functioning and improvement must be viewed as significant alternatives. In the case of Bağdat Street District, for example, many buildings that

could be easily reinforced and upgraded are instead demolished due to market pressures. Such cases should be evaluated from a multi-dimensional perspective, particularly in terms of their structural qualities. Before implementing projects at the individiual building scale in urban transformation areas, intermediate alternatives must be developed in the urban design scale. Independent structures should be considered as integral components of a larger urban plan that encompasses common shared public areas, parking areas, and social facilities. Parcel-based, ad-hoc developments, such as those observed in Bagdat Street District, hinder potential improvements at the broader neighbourhood scale.

Urban transformation and sustainability must be integrated and implemented as inseparable attitudes to prevent long-term and wide-ranging damages associated with urban transformations. With the acquirement of such a particular predisposition, the transformation mechanism will be promoted as an opportunity for sustainable urbanization. However, this stance requires a distinct framework, marked by new priorities and sensitivities compared to traditional transformation models.

In pursuit of this objective, this dissertation endeavors to intertwine the parallel and interrelated concepts of urban transformation and sustainability, positioning them as central components within the urban context. Sustainability, in this regard, should function as the guiding principle in the inevitable processes of urban transformation. Nevertheless, introducing a more comprehensive and alternative approach to sustainability poses a challenge to conventional models, which often emphasize environmental sensitivity and energy efficiency alone. By advocating for a holistic concept of sustainability, that integrates spatial, social and economic dimensions, and prioritizes comprehensive design approach at the urban scale, this study underscores the importance of contextualization in coordination with urban transformation processes to ensure substantial and long-lasting urban improvement.

The research and analysis conducted on urban transformation case studies in İstanbul's related context, using the principles accomplished through the conceptual framework, revealed that generic and conventional strategies of transformation have weaknesses in two major aspects. This urban environment displays multidimensional diversities, and inconsistent, poorly coordinated understanding of transformation processes. Factors such as the prevailing earthquake risk in the general geography, variations of settlement types in the urban fabric ranging from informal housing in the fringes and inner-city zones to numerous structures with poor physical standards, complexity of contradictory demographic and economic circumstances, challenging topographical conditions, and unstoppable migrationbased population growth add to the complexity. The overpowering pressure of economic factors is one of the most significant issues in the urban transformation context. Within this complicated background, which is rarely the case in other geographies, a generic and conflicting approach to designing and managing both the process and project aspects of urban transformation proves irrelative in terms of accomplishing sustainable urban development.

What the urban transformation scene urgently needs at this point is not a series of well-defined and strictly applied transformation regulations, but a radical shift in the attitude. This shift must involve understanding the current context of urban transformation from a multi-disciplinary perspective and embracing the principles of a comprehensive alternative sustainability approach in the implementation process. When urban transformation is approached through the alternative sustainability lens as proposed in this dissertation, several key reinforcements emerge that are crucial for guiding future developments. These include quantitative and qualitative improvement strategies designed to endure in the long term, with a dynamic transformation potential and conscious use of urban resources. This encompasses the identity, socio-cultural, and physical characteristics of the context, alongside conventional material, energy, and nature-based resources, in a comprehensive manner.

Central to this re-envisioned approach is the prioritization of the public good in the configuration of the urban fabric. Urban transformation efforts should focus on enhancing public spaces over individual structures, ensuring infrastructural coherence across all scales. Preserving and revitalizing existing structures, rather

than resorting to wholesale demolition, is essential for maintaining urban identity and heritage. Additionally, contextual sensitivity should guide transformation efforts to foster socio-cultural continuity and mitigate the displacement typically associated with large-scale urban renewal projects. By aligning urban transformation objectives with the social and economic needs of residents, while balancing general economic growth and profit-driven motivations, this approach can help prevent the displacement and gentrification that have plagued past interventions. Furthermore, preserving the historical traces of urban areas ensures that radical transformation projects do not erase urban memory, allowing cities to retain their unique character and cultural significance.

Sustainability must be understood as a multi-faceted concept that encompasses not only environmental concerns at the building scale, but also social and economic dimensions at the urban scale. To prevent the negative effects of gentrification and displacement caused by urban transformation, on-site transformation should be a priority. Case studies such as Fikirtepe, Tarlabaşı, Piyalepaşa, and Bağdat Street highlight the intense population shifts resulting from increased property values, illustrating the need for context-sensitive solutions.

Institutional, regulatory, and professional actors involved in urban transformation have critical responsibilities in ensuring the success of the process. To promote comprehensive sustainability, these stakeholders must adopt transparent, just, and participatory strategies. The alternative sustainability framework proposed in this research advocates for a human-centered approach that integrates diverse perspectives, fostering collaboration among all parties involved. This participatory process is crucial for ensuring that urban transformation is responsive to the sociocultural fabric of the city. Particularly in projects with significant city-wide impacts, such as Fikirtepe and Tarlabaşı, participatory planning is essential.

Adopting a comprehensive sustainability perspective in urban transformation is necessary for creating resilient, inclusive, and vibrant cities. By focusing on balanced improvements to the urban and social fabric, as well as efficiency and performance in project design and implementation, cities like Istanbul can better navigate the complexities of urban development. Flexible and equitable regulations, economic and social integration, financial support, and participatory processes further strengthen this approach, ensuring that urban transformation contributes positively to the environment and the well-being of its residents.

Urban transformation also offers fertile ground for the development of new and alternative planning typologies. Housing models featuring gardens, open terraces, affordable and functional unit plans, and public functions on ground floors can enhance the quality of the built environment and urban experience. Unfortunately, many case studies show typological similarities despite their formal differences, with limited exploration of alternative building typologies. Moreover, the benefits of mass production are often reduced to typological repetition and ease of production, rather than leveraging advances in construction technology, material selection, or energy efficiency.

In the case of large-scale projects like the Finance Center, investment priorities tend to focus on material and detail quality rather than on urban environment and energy efficiency, thereby missing out on opportunities for pioneering research. The financing, legal, and administrative structures of urban transformation are intricately linked to political and urban priorities, underscoring the need for sustainability to be integrated across all levels of planning, from the national to the local scale. Urban transformation projects have reached a level of influence that has the potential to reshape the construction habits and traditions of cities, yet the opportunities for innovation in design and production models remain underutilized. Many of the urban areas undergoing transformation today are at risk of becoming the problematic urban zones of tomorrow.

Given the breadth of the issues covered in this study, it is clear that urban transformation is a dynamic and evolving field, open to ongoing discussion and future research. This dissertation, therefore, serves as a foundation for further exploration and new contributions, offering a starting point for continued research on sustainable urban transformation.

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EDUCATION

Degree	Institution	Year of Graduation
PhD. ARCH	METU Architecture	2024
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TEACHING EXPERIENCE

Year	Experience
2024 - 2019	Yeditepe University, Faculty of Architecture, Arch 453 Architectural Design Studio, Adjunct Faculty
2022 - 2019	Bilgi University, Faculty of Architecture, IND 302 Interior Design Studio, IND 301+401 Interior Design Vertical Studio IV+VI, Adjunct Faculty
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2018 - 2017	MEF University, Faculty of Architecture, INT 201-301 Interior Design Vertical Studio II& IV, INT 202 Interior Design Studio III, INT 344 Atmosphere Design, Faculty
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2010 - 2006	Yıldız Technical University, Faculty of Architecture, ARCH 101 Architectural Design Studio I, Adjunct Faculty
1991 - 1984	METU, Faculty of Architecture,
	ARCH 301 Architectural Design Studio III,
	ARCH 302 Architectural Design Studio IV,
	ARCH 501 Environmental Research and Design Studio I,
	ARCH 502 Architectural Research and Design Studio II,
	ARCH 101 Basic Design Studio,
	ARCH 102 Introduction to Architectural Design,
	ARCH 111 Introduction to Architectural Concepts,
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PROFESSIONAL PRACTICE

Year	Experience
2022 - 2017	Interior Architectural Project Design and Application, Apartments and Offices, İstanbul
2016 - 2017	Renovation, Landscaping and Reconstruction Project and Application, A Private Resident, Çeşme, İzmir
2015	Architectural Project for 4 Houses in a Vineyard, Çeşme, İzmir
2014	Interior Architectural Project and Application, Studio Apartment 72m2, Amsterdam
2013	Interior Architectural Project and Application, Guran Ltd. Office, 600 m2, İstanbul
2012	Architectural Project and Interior Architectural Design, Bozer Country House, 700 m2, Çeşme, İzmir
2011	Interior Architectural Project and Application, Özsoy Apartment, 250 m2, İstanbul
2009 - 2010	Concept Development, Project Design and Application, Serotonin, A Centre for Body and Mind, 900m2, İstanbul

2008 – 2009	Interior Architectural Project and Application, Apartment, 150m2, İstanbul
2006 - 2007	Interior Architectural Project and Application, Apartment, 250 m2, İstanbul
2003 - 2004	Interior Architectural Project and Application, Serpen House, 450 m2, İstanbul
2002	Interior Architectural Project, Apartment, 120 m2, Brussels, Belgium
2002	Concept Development and Interior Architectural Proposal for a Retail Shop, 300 m2, İstanbul
2001	Interior Architectural Project and Application, Apartment, 200 m2, İstanbul
2000	Interior Architectural Project and Application, Cerit House, 230 m2, İstanbul
2000	Interior Architectural Project and Application, İnanç House, 300 m2, İstanbul
1999	Interior Architectural Project and Application, Apartment, 90 m2, İstanbul
1998	Interior Architectural Project and Application, Café and Bar, 300 m2, Galleria, İstanbul
1997	Interior Architectural Project and Application, Café, 35 m2, Galleria, İstanbul
1997	Interior Architectural Project and Application, Clara Jewelry, 35 m2, Karum, Ankara
1994 - 1995	Interior Architectural Project and Application, Country House, 450m2, Sapanca
1993 - 1994	Behruz Çinici Architectural Design Office, Architect.
1991	Interior Architectural Project and Application, Apartment, 245 m2, İstanbul

1990 Architectural Project Team Member, "Ankara-Ulus-Hacıbayram-ı Veli Mosque Environmental Design Project", METU Architectural Project Group

FOREIGN LANGUAGES

Advanced English, Intermediate Italian