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livable environments & architecture



PRIORITIES IN / OF ARCHITECTURE

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September 25-27 2025 Trabzon TÜRKİYE

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KARADENİZ TECHNICAL UNIVERSITY
FACULTY OF ARCHITECTURE
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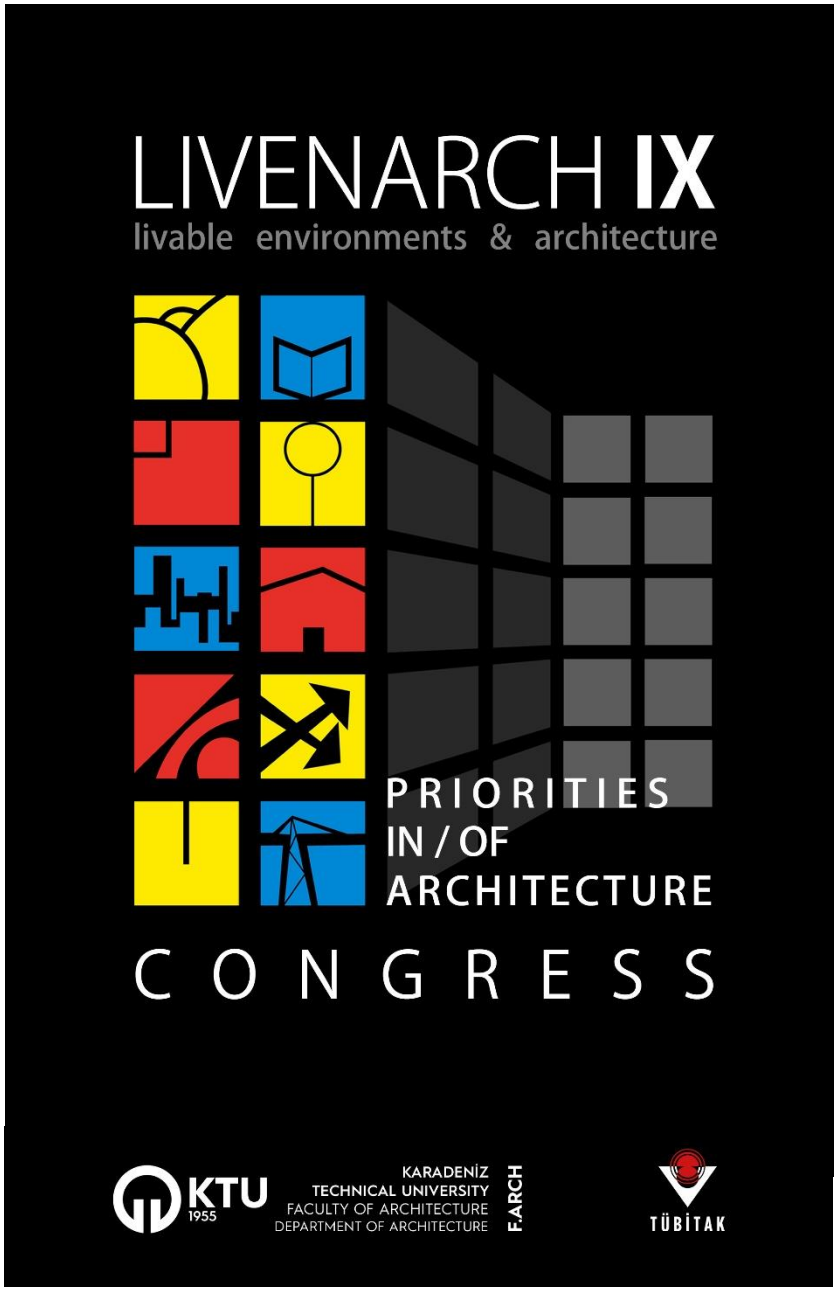
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REVISITING ARCHITECTURAL PRIORITIES IN MASS HOUSING SETTLEMENTS THROUGH THE LENS OF HOUSEHOLD SATISFACTION CASE OF ATAKÖY NEIGHBORHOOD

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ABSTRACT

Being satisfied with the housing and its environment plays a crucial role in determining one's well-being throughout the periods of an inhabitant's life cycle. Understanding the determinants and influencing factors that affect residential and neighborhood satisfaction is critical while developing housing environments to enhance the quality of residential environments and inhabitants' quality of life. This research is a study derived from the doctoral thesis within certain limits, which is being conducted at Eastern Mediterranean University. The primary aim of this study is to evaluate residential and neighbourhood satisfaction by examining the interior design and spatial layout of the residential units while reviewing the architectural priorities in the built environment. The study identifies a multitude of factors that contribute to the level of residential and neighbourhood satisfaction by establishing a diverse set of criteria to assess the character of the physical environment and social life in the Ataköy neighborhood. The qualitative-oriented research incorporates fieldwork methods including site observation, field notes, surveys and in-depth interviews by using closed and open-ended questionnaires. By making use of the data obtained from the research, the study aims to determine the qualitative and quantitative deficiencies in the applications of mass housing developments and to propose solutions to eliminate problems related to them. Survey findings and comprehensive interviews undertaken for this study reveal a significant level of residential satisfaction among housing units in the Ataköy neighbourhood. Due to changing needs and aspirations, several interventions have been implemented in the plan layout of several dwellings based on structural possibilities in the neighborhood.

Keywords: Residential Satisfaction, Sustainable Communities, Flexibility, Post Occupancy Evaluation, Mass Housing.

INTRODUCTION

Architecture is the intentional design of the physical environment to satisfy human needs, where housing is the minor component of a complex system that extends beyond its physical boundaries. This multidimensional phenomenon, which is interconnected with various aspects of life, significantly influences community and quality of life. It is also sustained socially and culturally in conjunction with the fundamental need for shelter.

Residential satisfaction (RS) is a prominent issue within the broad research area of housing and the built environment. It is utilised to assess the disparities between households' expectations and their actual dwelling conditions, particularly with the surrounding neighbourhood. According to Lawrence (1987), the house fulfils aesthetic requirements for comfort, security, and shelter, in addition to allowing socialisation and self-expression. Home is a space where an individual may reflect and develop a connection with their social and physical surroundings. This phenomenon may vary based on the spatial, social, and cultural norms of each individual (Özsoy, 1994). In this context, assessing the influence of housing on its inhabitants has become an important issue. Satisfaction with the dwelling unit and its neighborhood plays an important role in determining overall well-being and quality of life. RS is an evaluative process that stems from individuals' perceptions, desires, expectations, and experiences concerning their housing and its neighborhood. This concept is examined within a comprehensive framework that encompasses physical and spatial characteristics of the neighborhood, the dwelling unit, social ties and conditions, economic factors, and it is also intricately linked to urbanisation as well as the housing policies. Braubach discusses the interplay of physical and psycho-social environmental elements which influence an individual's perception and experience of their neighbourhood. Therefore, it is affecting one's well-being and happiness, including both objective and subjective dimensions (Braubach, 2007). Understanding the determinants and influencing factors that affect residential and neighborhood satisfaction is critical while developing housing environments to enhance the quality of residential environments and inhabitants' quality of life. Furthermore, achieving livable housing environments and sustainable communities depends on addressing these factors effectively in the design stage. The views of residents on their neighbourhood and housing are essential since RS serves as an important indicator. Therefore, it is aimed to achieve meaningful results in re-evaluating the architectural priorities in mass housing settlements through concepts such as layout flexibility,

functionality, aesthetics, privacy and security based on user satisfaction experiences

A major concern with mass housing developments in metropolitan cities is the disregard for individual characteristics and household preferences resulting from profit-oriented architectural standardisation. In communities where individuals from varied socio-economic origins and lifestyles coexist, providing diverse dwelling typologies is crucial. Adaptive planning solutions that address diverse spatial requirements can enhance individual fulfilment and promote social cohesion. In this regard, flexible interior layouts must be provided to promote customisable areas and allow homeowners to adapt their dwellings to their living patterns. During the Republican period in Turkey, housing policy and approaches were focused more on the environment, human needs and prioritising living conditions. In contrast, contemporary practices appear to neglect the utilisation of open green spaces, facilities, communal public areas, interior plan layout of dwelling units, typological diversity, and contextual strategies, which are necessary for establishing a sustainable community. The present state of governmental approaches to mass housing developments in İstanbul has become a significant issue that necessitates thorough analysis from both housing policy perspectives and the provision of adequate housing for all segments of society. High-density mass housing approaches, now being developed through partnerships with the private sector, exhibit uniform architectural characteristics, resulting in the creation of standardised neighbourhoods without regard for the spatial, urban or social context, thereby impacting residential and neighbourhood satisfaction concurrently. The most recent example can be seen on the coast of Ataköy in İstanbul, which directly affected the satisfaction level of the neighborhood at large. Ataköy neighborhood has begun to deteriorate in terms of both social and physical environment, where they have undergone inevitable change and transformation. Deterioration occurred in the neighborhood, together with its urban interiors, with newly developing housing projects where policy allows. Moreover, the increasing urban population also affects the RS of the neighborhood, which affects the socio-demographic structure at large.

This research is a study derived from the doctoral thesis within certain limits, which is being conducted with the approval obtained from the Research and Publication Ethics Board at Eastern Mediterranean University. The primary aim of this study is to evaluate residential and neighbourhood satisfaction by examining the interior design and spatial layout of the residential units while reviewing the architectural priorities in the built environment. The study identifies a multitude of factors that contribute to the level of residential and neighbourhood satisfaction by

establishing a diverse set of criteria to assess the character of the physical environment and social life in the Ataköy neighborhood. Each construction phase of the neighborhood (starting from 1957) reflects a specific period holding significant information due to housing approaches, which allows evaluating differences between the design characteristics and spatial plan organisations of each period through household experiences. In order to understand these differences, building orientations, facade organisations, floor heights, plan typologies, number of rooms, and design decisions were examined. The differences from the first stage to the last stage were discussed by comparing user satisfaction experiences depending on their current dwelling units. Upon entering various dwelling units and reaching architectural plan drawings, the assessments of the interventions made on plan layouts will be done. The study aims to determine the qualitative and quantitative deficiencies in the applications of mass housing developments and to propose solutions to eliminate problems related to them. In this context, ''Which architectural priorities stand out the most concerning the residential satisfaction in mass housing settlements, and to what extent do these priorities ensure household satisfaction?'' is the main research question regarding the research study.

RESIDENTIAL SATISFACTION

Residential satisfaction (RS) is an important term in housing research, including the subjective assessment of inhabitants about their living conditions. It is an interdisciplinary field, integrates urban studies, environmental psychology, and social sciences to elucidate the interaction of physical, social, and psychological aspects that shape people's perceptions of their home and neighbourhood. Throughout the decades, scientists developed several theoretical frameworks and models to evaluate RS, including classical theories of housing choice and needs-based methods, as well as current models that include quality of life and sustainability views. RS constitutes a subjective reaction to an objective living environment (Potter & Cantarero, 2006). Parker and Mathews (2002) assert that RS is an evaluative process comparing received outcomes to anticipated expectations. This issue is extensively examined to assess the discrepancies between families preferred/desired housing and their actual dwelling units, taking into account the expectations of the neighborhood area (Galster, 1987). It can also be precisely defined as the perceived differences between what is desired and what is achieved, ranging from perceptions of satisfaction to perceptions of deprivation (Campbell et al., 1976). Williamson (1981) emphasised the importance of social relations and the capacity to establish social networks in the neighborhood area, which is another factor that directly influences the degree of RS. According to

Kellekci and Berköz, RS should be assessed across three dimensions: the residential environment, individual qualities, and the social environment (Kellekci & Berköz, 2006). When these three factors are in complete harmony, it is possible to discuss individual RS. The quality of one's environment, whether positively or adversely, is significantly influenced by the duration of exposure to it. Personal attachment, psychological comfort, sense of belonging, and social connections are crucial for sustaining a healthy environment (Bodamyalı & Özsoy, 2018).

Numerous empirical and theoretical models demonstrate the real correlations among the various concepts. Theoretical frameworks facilitate the development and empirical evaluation of conceptual models, hence allowing for mutual enhancement. Models can illustrate the operation of a certain subject of study without elucidating the underlying causes for its functionality. Numerous models have been created regarding mobility in connection with RS; nonetheless, the majority emphasise stress. Stress arises as housing needs and requirements change during the life cycle. The desire to relocate arises when the existing dwelling unit falls short of satisfying these requirements. Speare's Satisfaction Approach Model delineates five distinct factors for the examination of RS, as listed below: individual or household characteristics, location characteristics, social bonds - relative satisfaction with residential location and consideration of moving (Speare, 1974). The model is shaped by the stress threshold model and incorporates housing satisfaction as a moderating component affecting the choice to relocate. Nonetheless, not every relocation choice is motivated by discontent. For instance, individuals may contemplate relocation due to divorce, disasters, shifts in employment or eviction. They subsequently examine the various alternatives and select the one that most effectively meets their needs. Alterations in housing needs or the availability of social and physical facilities in the vicinity may result in discontent. The author argued that dissatisfaction is an inevitable aspect of mobility, but can be mitigated by adapting to local conditions. Francescato et al. (1987) introduced a path model of RS that delineates the intricate interactions among personal, social, and physical aspects affecting residents' assessments of their home settings. In this model, RS is a dependable variable affected by various factors such as amenities, convenience, satisfaction with management, pleasant appearance, maintenance, similar neighbours, satisfaction among other neighbours, and perceived economic value. The model proposed by Marans and Spreckelmeyer suggests that an individual's satisfaction with their living conditions depends on their evaluation of several environmental factors (Ajzen & Fishbein, 1981). This concept posits that residents' perceptions and assessments of objective environmental characteristics, which predict behaviour, influence their satisfaction levels. The concept is

fundamentally defined by direct and indirect relationships among objective environmental characteristics, an individual's subjective responses to these traits, overall satisfaction with the environment, and certain behaviours. Amerigo (1990) formulates a conceptual model which transcends a mere framework for dwelling contentment. It analyses the dynamic relationship between the individual and their living environment while also examining the different cognitive, emotional, and behavioural processes that occur throughout this connection. This paradigm posits that when an individual assesses the objective characteristics of their home environment, these aspects become subjective, leading to a certain level of contentment. Consequently, personal traits refer to the influence of subjective features. It contains the individual's socio-demographic and personal attributes, their residential quality pattern, through which the individual assesses their real/ideal living environment and dwelling unit. Most empirical research in the literature is founded on three principal ideas. The theories are housing needs theory (Rossi, 1955), housing deficit theory (Morris and Winter, 1975), and psychological construct theory (Galster, 1987). Rossi (1955) posits that as families progress through various stages of their life cycle, their housing needs and ambitions evolve, leading to residential dissatisfaction at times owing to a lack of fit, prompting them to migrate in response to this discontent. Consequently, migration is regarded as an adjustment process aimed at enhancing one's place utility or level of home satisfaction (Wolpert, 1966). Morris and Winter (1975) proposed the housing deficit theory to frame residential contentment and discontent as a conceptual method. In their housing adjustment model of residential mobility, they propose that families evaluate their housing circumstances based on two categories of norms: personal and cultural, which may not align. A disparity between actual housing satisfaction and housing standards leads to a housing deficit, resulting in residential dissatisfaction. This prompts people to make housing adjustments, either in situ (reassessing their housing needs and aspirations to address the disparity or remodelling their living conditions) or relocating to meet their needs. Both migration and in situ modifications require that families possess sufficient knowledge regarding alternative adaptation options and financial resources. Empirical investigations have shown that housing deficiency effectively elucidates RS and mobility behaviour (Mohit et al., 2010). Galster (1985) introduced the psychological construct theory, positing that individuals may cognitively formulate a reference condition for each facet of their housing circumstances. The amount or quality of the specified aspect indicated by the reference point will be contingent upon the individual's self-evaluated needs and ambitions. If the present circumstances are viewed as closely aligned with (or better than) the reference condition, a psychological feeling of 'satisfaction' should emerge.

In this regard, the theoretical framework based on housing satisfaction and mobility approaches has guided the methodological design of the field research. Specifically, the classification of architectural priorities that determine housing satisfaction allowed the survey questions to be shaped under six different categories, thus enabling the testing of theoretical findings through empirical data. The methodological approach built upon this theoretical foundation has created the necessary groundwork for the systematic conduct of the research.

METHODOLOGY OF THE STUDY

This study is based on qualitative research. It includes site observation, field notes, surveys, and in-depth interviews using closed and open-ended questionnaires. Tenants and homeowners in Ataköy have been surveyed. Attention is directed towards achieving an equitable distribution of women and men, while also considering the ratio of homeowners to renters during interviews, since this significantly influences RS. Architectural plan typologies have been assessed by means of flexibility, functionality, aesthetics, privacy and security based on user satisfaction experiences. Survey questions mainly categorized under six primary aspects; demographic characteristics of the household, information about former and current housing unit, the desired housing unit, characteristics of the neighborhood and social bonds, level of satisfaction with the dwelling and the neighborhood, sense of community, safety and security in the unit and the neighborhood lastly inhabitant's intention or willingness to move from the current unit. The data gathered from these approaches was analysed using ethnography and thematic content analysis. The data collected in the study were systematically analysed using the SPSS statistical software package, which is widely used in the social sciences. Thanks to the frequency analyses, percentage distributions, and visually supported bar graphs conducted in this context, the participants' satisfaction levels with their housing and environment were quantified, thus allowing for the data to be interpreted within a descriptive framework. The survey data were grouped significantly and evaluated conceptually.

STRUCTURE OF THE SURVEY AND IMPLEMENTATION PROCESS

The research analyses a survey study that measures the satisfaction of Ataköy households with their dwelling units and their residential environment, including the mobility behaviours, alongside the user-related factors. A pilot survey was performed to assess the clarity of the

prepared questions. The concepts derived from the pilot surveys were reassessed and refined to constitute the theoretical framework of the study and then finalised. Significant data have been acquired concerning the socio-demographic, socio-economic, and socio-cultural frameworks of the participants. The field research remains in progress, with a total of 67 participants (Figure 1). Within the scope of the LIVENARCH IX Congress, the analysis of data from 25 participants has been completed, and at this stage, it has been observed that the diversity of responses is decreasing, and the findings are becoming repetitive. This situation, defined as *data saturation* in research methodology, revealed that the current sample had reached a sufficient level to explain the research questions. Therefore, the data from the 25 participants were considered meaningful and representative for making preliminary assessments of satisfaction with housing and the residential environment. The survey questions are fundamentally categorised under four primary headings: demographic characteristics of the household, information on previous and current residences, satisfaction levels with the existing dwelling and its surroundings, and data on the residential mobility behaviours of the households. The demographic characteristics of households provide a significant framework for understanding the concepts of life cycle and life course. The second category was designed to collect information about the participants' old and new residences, identifying the differences, and inquire about the evolving desires and requirements that are influenced by their life cycles.



Figure 1: The map illustrates the households of a total of 67 participants, while the colour-coded buildings represent housing units

for which floor plans were obtained through archival research, including architectural drawings and catalogues.

The characteristics of the residences were evaluated through its size, the number of bedrooms, the adequacy level of living spaces, the orientation and the view from the windows, sunlight exposure, wind flow, sound insulation, satisfaction the facade characteristics, organization of the plan layout, the safety status of the housing and its surrounding, the parking facilities, the seismic resistance level of the structure, and lastly the desire to relocate due to

these factors have all been questioned. The inquiries included under the third topic seek to assess contentment with the sufficiency of green spaces, uniformity within the social milieu, neighbourly interactions, the maintenance of the physical environment, accessibility to the Ataköy coast, planning of the settlement, quality of life, and time spent in the Ataköy neighborhood. Furthermore, the impact of the ongoing high-density developments along the shoreline on RS is critically assessed to determine whether the resultant tension induces a relocation scenario. The fourth group of questions is designed to understand household mobility within Ataköy. These questions generally address the duration of residence in the current dwelling; whether the household is considering relocation and the reasons for it; other instances of homeownership; whether, if given the opportunity, they would consider moving from the current residence or neighborhood; as well as the characteristics of the neighborhood they would prefer to move to, if contemplating relocation.

RESEARCH AREA - ATAKÖY SETTLEMENT

The research area of the study, Ataköy settlement, first referred to as the Baruthane Project, is one of the earliest satellite cities, including 11 neighbourhoods, established by Emlak Kredi Bank from 1957 to 2007 on around 377 hectares along the western growth corridor of Istanbul's European side. It is a remarkable waterfront area in Istanbul. This mass housing complex, situated in the Bakırköy district, is flanked to the north by the E-5 highway, to the west by the inactive Atatürk Airport, and to the south by the Sirkeci-Florya coastline road. Ataköy is one of the first examples of modern housing projects implemented by Emlak Kredi Bank across the country. This implementation was built in alignment with the modernist urban planning principles of the era, conforming to the settlement plan developed by well-known architect Luigi Piccinato.

ARCHITECTURAL FEATURES OF ATAKÖY SETTLEMENT

The architectural and planning methods of the Ataköy mass housing project have significantly influenced Turkey's social housing history. A comprehensive planning strategy prioritises housing development and incorporates the social life values of its time into its spatial design. According to Yöney (2018), Ataköy offers a balanced living environment with a focus on landscape and rational modernist principles. The satellite city, now part of the metropolis, has grown in importance due to its strategic location. Green spaces, housing quality and comfort, outdoor arrangements, parking facilities, pedestrian-vehicle interactions, playgrounds, communal areas, and phased construction have regulated housing typologies based on household sizes and needs, rather than class-based uniformity (Tapan, 1996). The site's urban planning, dwelling quality, sunlight, wind exposure, and infrastructure are also noteworthy. Strategically placed buildings maximise natural light and airflow. This method ensures residential comfort and promotes social interaction with open spaces (Figure 2). Strategic building placement to avoid overshadowing has created a residential setting with landscape features providing privacy. Ataköy planning prioritises architecture and urban amenities. Adaptive re-use and restoration projects on historical buildings (Ottoman Gunpowder Factory, Distillery), educational institutions, healthcare facilities and commercial centres like market areas have been strategically planned for a cohesive living environment.

The 1st neighbourhood, built between 1957 and 1962, comprises 52 blocks and 662 residential units, with building heights ranging from 3 to 13 stories (Table 1). The company Timlo has undertaken the construction of the first four phases. Type A blocks are 13 stories high, comprising a total of 24 units, with two flats on each level. The flats are approximately 155 m^2 and comprise five rooms. The communal areas feature a staircase and two lifts, with each unit equipped with a heating system. The integration of such amenities in residential buildings during the early 1960s is regarded as a significant and pioneering practice for that era. The Ataköy 1st and 2nd neighborhood exemplify a modern architecture, some influenced by Le Corbusier's elevated structures on pilotis. These housing types, distinguished by their ample square footage and allocated spaces even for the resident staff.



Figure 2: The various neighbourhoods of Ataköy and their diverse housing blocks (Photograph by the author, 2025).

Ataköy II. neighborhood, constructed between 1959 and 1964, has 38 buildings and 852 residential units, with heights varying from 2 to 12 stories. The settlement has 16 distinct flat typologies, varying in size and layout, from 2+1 to 4+1. The apartment sizes vary from 85 m² to 248 m². For instance, type B blocks are constructed as four-story blocks with 8 units in each block. These flats are available in two distinct configurations: B1 (234 m²) and B2 (244 m²). The D-type units include D1 (242 m²), D2 (230 m²).

Table 1: The construction year, housing typologies and architectural features of Ataköy settlement.

Neighborhood	Construction Period	Housing Typologies	Architectural Features
I-II	1957-1962	A-B-C-D-E R-F	2+1 3+1 4+1 5+1(including maid's room) Post-beam structure Modern architectural language
	1959-1964	K-L-M-H-J	
III-IV	1963-1974	O-TO-S-N	2+1 3+1 Compact row blocks Social housing demand
V	1976-1983	A-B-C-D-E	2+1 3+1
IX-X	1985-1988	A-B-D-E-F-S	1+1 2+1 3+1 Tunnel formwork
VII-VIII-XI	1989-1991	A-B-C-D-L-I VILLAS	1+1 2+1 3+1 4+1 4+1duplex Low-density alternatives
VI	2003-2007	A-B-C-D Ataköy Konakları	2+1 3+1 4+1 Gated Community
Coastline	2013-2016 2014-2024	Yalı Ataköy Sea Pearl	1+1 2+1 3+1 4+1 5+1 5,5+1 Mix-use project Gated Community

Type C blocks consist of 24 flats, with 3 units in each level. Various block types, including E, F, G, H, M, İ, and R, have been incorporated within the settlement. In E-type buildings, the units have a usable area of up to

248 m², but in G-type blocks, the apartment sizes range from around 116 to 120 m². In the H and M type blocks, which have smaller housing units, the unit sizes diminish to 93 m². Owing to the region's proximity to the coastline and the presence of nearby Atatürk Airport, the R-type blocks situated near the sea were restricted to a maximum height of 10 stories. However, after the cessation of the active use of Atatürk Airport, it has been observed that the building heights and densities along the coastline in the newly constructed buildings in the vicinity have significantly increased. This situation reflects the new construction trends and patterns in the region, along with urban transformation and increased density.

Ataköy III. (1963–1966) and IV. (1965–1972) neighborhood, were designed with a simpler and more functional approach under social housing standards. The integrity of the structural system remains intact; nevertheless, reductions have been implemented in finishing materials and spatial dimensions. The quantity of high-rise buildings has been restricted.

Neighbourhood V., covering the years 1972 to 1984, coincided with the advent of prefabrication methods in construction technology. Following neighbourhood V, neighbourhoods IX and X, together with VII, VIII, and XI, were constructed using tunnel formwork technology. The 15-story A blocks have six residential units per floor; these flats include two bedrooms, a large and well-lit living room, a kitchen, and a bathroom. During this era, Emlak Bank ceased direct building activity and commenced the production of luxury and high-cost dwellings via the private sector, including MESA, SUTEK, and KUTLUTAŞ. The dwellings in neighbourhoods VII and VIII include five distinct plan typologies: 1+1, 2+1, 3+1, 4+1, and 4+1 duplex. The structures comprise 15, 8, 6, 5, 4, and 3-story blocks, totalling 3,942 housing units, in addition to both open and enclosed parking facilities.

The IX and X neighbourhoods, constructed between 1984 and 1987, have 14-story A blocks designed in a twin block typology, accommodating various user profiles through their 1+1, 2+1, and 3+1 floor plan alternatives. The B blocks provide only 2-bedroom apartment flats. Moreover, the settlement includes two-story attached single units (villas) as an example of low-density development. The basement level of these villa-type houses is designated for supplemental activities, including a hobby room, storage, a mechanical room, and a laundry room. The ground floor's plan, which includes a vehicle garage, guest toilet, kitchen, living area, and a terrace leading to the garden, is notable. The upper level consists of three bedrooms, a storage room, two bathrooms, and a balcony; on the attic floor, there is an extra attic

room and a tiny balcony. Besides that, the D, L, and I block, which differ in terms of the number of floors and massing, further deepen this diversity, allowing for different spatial experiences within the residential fabric. Following the Emlak Kredi bank's closure, the VI. neighborhood (2004–2006) carried out by TOKI, the Ataköy Konakları, both spatially and architecturally, differentiate from the previous phases by being a gated community; with the rapidly increasing land speculation and real estate prices after 2001, they have moved away from the function of mass housing and represent a luxury housing production. The project has 58 blocks, each six to seven stories high, including four distinct typologies: A, B, C, and D. Types A and B consist of four bedrooms and one living room (4+1). The total area ranges from 266.845 m² to 268.415 m². The blocks, including two flats per level with identical layouts, are situated on the facade next to the Coastal Road and provide a sea view. Unfortunately, the sea view has been blocked by the newly constructed residential buildings along the coastline (SeaPearl). The C blocks are oriented to the north, whilst the D blocks are positioned towards the Ayamama Stream. Significant emphasis has been placed on pools and landscaping together with the social facilities, open and closed swimming pools, Turkish bath, sauna, café, tennis courts and designated places for children's play and leisure activities. Two basement levels under the building site provide enclosed parking facilities and storage areas that facilitate movement between the units. Each unit is assigned a two-car parking spot and around 5 square meters of storage room.

FIELDWORK STUDY - ANALYSIS OF THE SURVEY RESULTS

Socio-Demographic Characteristics

The data analysis encompasses 25 participants. 10 were male and 15 were female. The 25 analysed participants are the first 25 respondents of the survey. Due to the ongoing research, the distribution across neighbourhoods is not yet equal. An examination of the age distribution reveals that the majority of participants are aged 40 and above. The youngest participant was 34 years old, while the oldest was 82. Most of the participants have attained a university degree or hold a postgraduate degree. The majority of respondents are either qualified professionals or retired and non-working individuals. With regard to family composition, most households have one or two children. When monthly household income is examined, it appears that the majority earn more than three times the minimum wage. The rate of homeownership among participants is quite high; 22 out of 25 participants are homeowners. Both participants and their spouses predominantly work on the European side of Istanbul, particularly in Bakırköy.

Characteristics of The Former and Current Dwelling Units

56% of the participants mostly reported relocating to Ataköy from Bakırköy, Florya, Yeşilköy, Bahçelievler, and from different phases of the Ataköy region. 12% previously resided in gated communities, while 8% lived in detached villas with gardens. However, the majority had formerly lived in apartment units within mass housing developments. The smallest reported dwelling size was 65 m² (2+1 apartment), while the largest was a 600 m² mansion. Regarding the former residences, participants had experienced a variety of housing typologies, including 2+1, 3+1, 4+1, and 8+2 units. The reasons for the participants moving to Ataköy can be grouped under various themes. Family reasons, the desire to establish an independent household after marriage, and the need to be close to family stand out after having a child, while the desire to live in a more planned and quality environment has been expressed. In addition, functional reasons such as housing needs (physical conditions like a larger house, an elevator), access to educational opportunities, and proximity to the workplace, as well as mandatory conditions like the sale or eviction of the property, have also influenced the decision to move. A notable majority of the participants 76% have resided in Ataköy for 25–30 years or more. Additionally, 20% of the respondents reported experiencing the neighborhood for 16–25 years. In light of these findings, the households residing in Ataköy predominantly consist of long-term residents. Prolonged residence in the same dwelling and neighborhood is associated with an increased sense of belonging and higher levels of RS over time. High housing expenses can strain household budgets, potentially leading to stress and negatively impacting housing satisfaction. 44% stated the maintenance charge is reasonable, while 56% stated it is slightly expensive yet manageable. It is understood that 84% of the participants want to continue living in Ataköy as much as possible, which indicates a high level of RS. The majority of the dwellings which participants currently occupy are about 85 m², 100 m², 120 m², 135 m², 3+1 and 2+1 typologies. The data related to block numbers (8/1, A-12, A-32, A-4, A-8, A4-B, B-14, B-20, B-33, B-5, B-6, D5-C, E-1/6C, G-56, H-1, H-4, H3, J-3, L-26, Leylak, O-33, R60, T.O-92) were illustrated on the mapping shown in Figure 1. This map enabled the implementation of a balanced survey distribution across all sections of the neighborhood throughout the ongoing research process.

Satisfaction with the Current Dwelling Unit and Residential Environment

The vast majority of participants (88%) do not consider moving from their current residences and show a strong attachment to their existing living spaces.

Overall, 88% of users were satisfied with the current floor plan, which is a notably high proportion. 56% reported being "Completely Satisfied" with the spatial layout of rooms in their homes, while 32% indicated they were "Mostly Satisfied." The remaining described themselves as "Partially Satisfied", expressing that the living space was insufficient and that they required at least one additional room. It appears that users are often compelled to repurpose existing areas for different functions as it is needed. Moreover, small guest toilets and kitchen balconies have typically been integrated into the living areas, thereby maximising the usable space (Figure 3). Furthermore, it was found that users increased the number of rooms by creating two separate areas using partition elements and also expanded their spaces by removing partition walls. Within the H-3 block, an architect participant who, in 1998, combined two apartment flats to create a larger living area. When participants were queried about potential modifications with increased opportunities, their comments predominantly emphasised spatial enhancements (e.g., additional rooms, wider balconies) and functional upgrades, such as the addition of bathrooms or walk-in closets. Nonetheless, several replies highlighted structural limitations imposed by the current tunnel construction technique, which restricted the range of modifications. Regarding the flexibility of spaces, it is understood that areas cannot be used for multiple purposes easily and/or adapted with movable partitions or modular furniture. The storage areas were limited, which made it difficult to reorganise according to their needs. The lack of adaptability contributes to a certain level of dissatisfaction with the dwelling unit. The majority, 80% of the participants, have a positive opinion on the aesthetic qualities of the building's exterior facade characteristics and its harmony with its surroundings. They appreciate the architectural design attributes of their dwelling units, such as well-illuminated interiors, optimal orientation for cross-ventilation, and enhancing thermal comfort. The majority characterise their residences as practical, functional, and cosy, emphasising that the spatial configuration adequately fulfils their daily requirements. Some highlight the simplicity of upkeep, observing that compact living environments enable fast cleaning and organisation. Satisfaction with landscaping and environmental arrangements is high, and the distances between blocks are considered sufficient for privacy. Facade materials, colours, and the use of green spaces have also been positively evaluated. It was noted that the neighborhood is not crowded and offers a peaceful living

environment. Additionally, the bicycle and walking paths are sufficient and in good condition. Parking areas are generally sufficient, but there are noticeable deficiencies in the guest parking. On the other hand, there is a need for improvement in design and accessibility for individuals with disabilities in the neighbourhood.

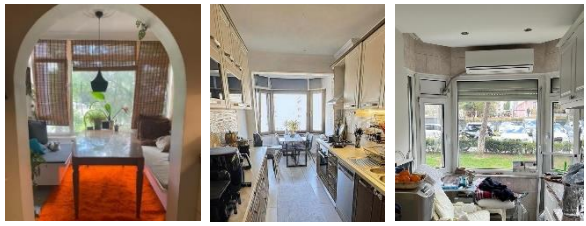


Figure 3: 9.10 neighbourhoods– Right: D5 Block, Olympic Housing Complex, 2+1, 90 m². Middle: A11-B Block, 3+1, 115 m². Left: A4-B Block, 3+1, 110 m². Spatial integration of balconies into the functional zone of the kitchen.



Figure 4: Window views from different parts of the Ataköy neighbourhoods

An analysis of the views from the residential units reveals that residents in neighbourhoods 1, 2, and 6 predominantly enjoy views of both the sea and wooded green spaces. However, complaints have been raised regarding the substantial obstruction of sea views and significant reduction of wind flow caused by the high-rise, high-density developments along the coastline (Sea Pearl, Yalı Ataköy, and Hyatt Hotel). Neighbourhoods 3, 4, 5, 7-8, 9-10, and 11 benefit from expansive wooded green areas, with their apartments overlooking both front and rear gardens (Figure 4). While examining the participants' views on the advantages of their current residential areas, the abundance of green spaces, a safe and peaceful environment, well-planned urban design, and a highly educated population profile stand out among the prominent elements. However, the ease of transportation, central location, low population density, and the presence of playgrounds and social facilities for children have also been expressed as advantages. These data indicate that the Ataköy residential settlement provides a high quality of life in terms of physical environmental quality and social

structure. Therefore, the planned urban fabric and social structure of Ataköy can be considered as key factors that enhance RS. Several key factors that negatively impact inhabitants' satisfaction levels can be listed as: the structural deterioration caused by ageing, decaying plumbing systems and window frames leading to maintenance challenges and water infiltration during intense rainfalls. The seismic danger associated with the building's age and soil instability is a considerable cause of concern for many, prompting some to seek relocation. Mosquito issues associated with the incomplete rehabilitation of Ayamama Creek and increased migration to the region have adversely impacted inhabitants' comfort. The most frequently expressed desire for changes in the Ataköy settlement is the opening of the Ataköy coastline to public access, the demolition of high-rise buildings along the coastline, and the restoration of coastal use for public enjoyment. These demands indicate that the current urban transformation policies and the construction in coastal areas negatively impact users. The weakening of the socio-cultural fabric, the privatisation or demolition of social facilities, the commercialisation of public spaces, and the destruction of local markets and parks are also factors that increase the spatial and social alienation experienced by users. Especially the demolition of the marketplace in Ataköy 1st neighborhood and its conversion into a parking lot has been considered one of the most concrete examples of environmental and social loss.

> "*1st neighborhood bazaar was demolished. … a beautiful park, a tea garden, a bakery, a grocery store, and a pharmacy. The bazaar should have been preserved. Trees were cut down, and a parking lot was constructed in their place. We deeply feel the loss of these amenities.*", " *I wish there were no further developments.*"

Neighbourhood Relations, Residential Value and Safety Perceptions

Significant findings were obtained regarding satisfaction with the social environment. Accordingly, 68% of the surveyed households have between 1 and 5 neighbours. When examining the frequency of interactions in neighbourly relationships, it is found that 16 participants meet with their neighbours every day or every week. The vast majority of participants, especially retired families, state that they meet with their neighbours as a family. It was noted in the interviews that the majority know their neighbours living on the same floor and, even if they do not meet often, they have good relationships. The findings suggest that emotional and social connections within neighbourhoods are strong, indicating that life satisfaction is influenced by social solidarity and neighbourhood identity. The responses regarding the estimated current monetary value of the property reveal that the houses in Ataköy have a

significantly high market value. Responses range between 8 to 50 million TL, indicating that the properties in Ataköy have high potential both in terms of prestige and investment. However, when looking at the impact of this high economic value on individuals, the results present an interesting picture. 80% of the participants stated that this value had a neutral effect on them; in other words, the material value was not a determining factor in the meaning they attributed to their homes. Although the economic value of housing is important for individuals' financial security, this value does not shape their emotional relationship with the housing. This also supports the idea that the residents of Ataköy see their homes not only as an investment tool but also as a place where they belong at the very centre of their lives. The perception of security is generally at a very high level. 92% of the participants stated that they feel extremely safe when they are alone at home, and the sense of security felt when walking alone outside at night is similarly high.

CONCLUSION

This study has identified the main architectural priorities influencing housing satisfaction in mass housing developments and assessed the impact of these priorities on household RS. The results demonstrate that factors including spatial adequacy, natural light and ventilation, noise control and privacy, access to green spaces, and social areas directly influence satisfaction levels. Design decisions, particularly those that enhance users' quality of life, improve physical comfort, reinforce social connections and a sense of belonging. The survey findings and comprehensive interviews undertaken for this study reveal a significant level of neighbourhood and RS among housing units in the mass housing settlement of Ataköy neighbourhood. The duration of residence significantly influences RS, as highlighted in the literature. In this context, it is evident that a strong sense of belonging has emerged, particularly in the 1st and 2nd neighbourhoods and the increased identity of being ''Ataköylü''. A conclusion further supported by their relocation to the newer phases of the Ataköy settlement, thanks to the various typologies it holds, prompted by changes in their life-cycle and improved financial circumstances. They are unwilling to leave, despite having the financial means to explore alternative options. It is understood that the spatial characteristics and relationships considered in the architectural design in the initial phases of the neighborhood gradually disappeared in the later phases; smaller units but taller apartments continued to be constructed with higher density in the neighborhood. The theoretical framework indicates that individuals' evolving needs throughout their life cycle alter their housing expectations. The capacity of housing to accommodate evolving needs is crucial. In this regard, flexibility becomes important. The restricted flexibility of the spaces in buildings,

particularly those that are holding tunnel form structure (neighborhood 7-8, 9-10,11), does not permit any kind of radical changes in the interior spaces due to changing demands and desires, which is considered to harm RS. Consequently, it was concluded that several interventions had been implemented in the plan layout of several dwellings based on structural possibilities. The coastal districts of Ataköy, specifically the 1st, 2nd, 5th, and 6th, experience spatial disadvantages due to the constructions along the shoreline. Long-time residents of Ataköy are involved in legal disputes to safeguard the coastal regions and exhibit robust solidarity. Participants indicated that the coastline and green spaces are the most significant elements that have deteriorated over time and require preservation. High-rise construction impedes access to the coastline and adversely affects the environment and public spaces. Furthermore, the intended urban fabric of Ataköy is deteriorating due to new constructions and escalating population pressure; it is underscored that this distinctive settlement structure must be preserved.

In mass housing projects, it is essential to reevaluate architectural goals to enhance housing and community satisfaction. Adaptable and varied housing types that prioritise user requirements, enhance social and public spaces at the community level, improve transportation and infrastructure options, and incorporate environmental and social sustainability standards will render mass housing developments more habitable and sustainable.

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SPATIAL CONTINUITY AND DISRUPTION THROUGH BODY-SPACE RELATION IN TRANSFORMED LIFE

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ABSTRACT

Space is subject to constant change, and the body's perception of the environment, emotions and daily rhythms are also affected by this transformation. A disconnection between the environment and living negatively affects the body's connection with space. In this sense, the aim of the study is to examine how spatial continuity and disruptions affect the body's relationship with space and lived experience. The subject of the study is the residential and recreational area between Kanlıkavak Park and Sümer Park axis in Eskişehir. The research method is comprised of two stages. Firstly, five sections were drawn, with the Porsuk River being at the center of each. Secondly, data was collected through the administration of surveys to residents of the regions surrounding the Porsuk River. Based on the pattern revealed by the responses, it was revealed that the ruptures have occurred both physically and cognitively way. In the context of survey data, physical continuity can be examined as mobility / accessibility and visibility / spatial perception; and cognitive continuity can be examined as sensory / emotional experience and memory / belonging. In conclusion, accessibility infrastructures, visual connections, and sensory atmospheres were found to play important roles in shaping belonging and establishing body-space relation.

Keywords: Body, Space, Spatial Continuity, Spatial Disruption.

INTRODUCTION

A body with a strong connection to space participates in daily life with mental, physical and social well-being. As Norberg-Schulz (1971, p.7) stated, as long as the body gives meaning to space, it can reach the 'state of being in the world', that is, belonging can occur. Belonging, a complex emotional state influenced by many factors, consists of mutually constitutive relationships such as attachment, solidarity and closeness (Pollini, 2005, p. 499). Kurzban and Leary (2001, p. 190) associate the sense of belonging with the feeling of intimacy, closeness and commitment. Easthope (2009, p. 63) defines belonging as feeling at home and safe. The aforementioned associations result in the relationship between body and space, and its degrees, being variable. The sense of belonging can be either temporary or permanent. The body's ability to adapt to its environment and to receive responses to its desires serves to strengthen this connection. Conversely, a lack of response can undermine belonging. Moreover, this sensation may be conceptualized as the body's perception of affiliation with a collective entity or the body's sense of integration within a specific spatial domain, or alternatively, the spatial domain's perception of its own identity within the body.

Sharing and producing experiences, thus creating a positive relationship between the physical environment and the body is an important value in building a sense of belonging. Although spatial planning is tried to be carried out by various planners ideally, it may not always manage to fully meet bodies' needs. A disconnection between the environment and living negatively affects the body's connection with space. In this sense, the aim of the study is, to examine how spatial continuity and disruptions affect the body's relationship with space and lived experience. The research questions are as follows: 1) How do spatial continuity and disruptions influence the body's movement, perception, and engagement with public space? 2) In what ways do disruptions in spatial continuity impact bodies' lived experiences? The subject of the study is the residential and recreational area texture located between Eskişehir Kanlıkavak Park and Sümer Park axis, at the intersection of spatial continuity and disruptions. The study method involves combining data from five sections related to the Porsuk river and surveys conducted with 105 participants.

RESEARCH DESIGN

Eskişehir Kanlıkavak Park and Sümer Park axis is one of the most active public areas on the Porsuk riverbank in Eskişehir and is a place where the residential texture and public space dynamics are still changing. The

area is characterised by a variety of architectural features, including traditional garden houses, newly constructed detached houses, and multi-storey buildings. It also features a range of commercial enterprises, such as cafés. This phenomenon gives rise to a rhythm in daily life that is both highly variable and contradictory.

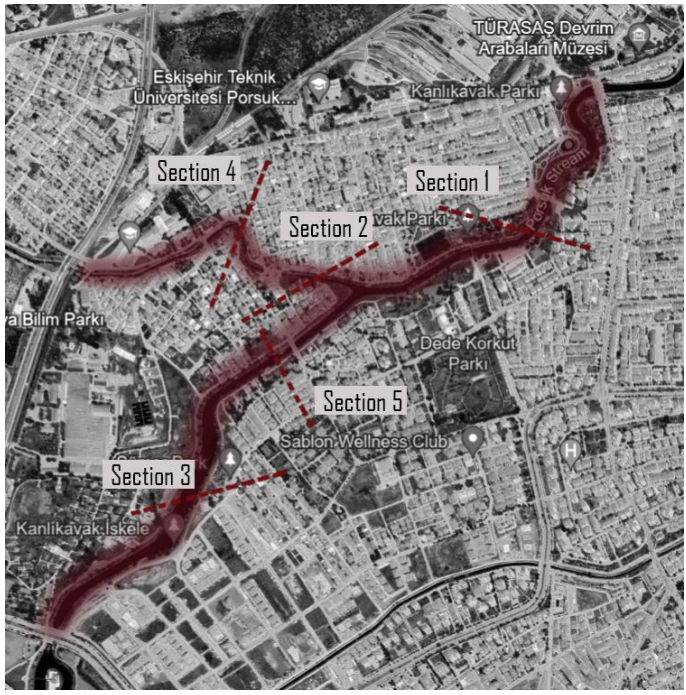


Figure 1. The axis located between Sümer Park and Kanlıkavak Park in Eskişehir

The user profile is quite variable in terms of both residents and temporary visitors. Green areas close to the Porsuk River are mostly used during spring and summer seasons. These uses continue actively, from people doing sports in the early hours of the day to people doing activities in groups until late hours. The number of people increases even more during holidays, creating a scenario that significantly intensifies traffic on the axis. The increasing diversity of housing activities and the rise in the dynamics of public activities, driven by the region becoming more attractive, make this situation worthy of research.



Figure 2. Sümer Park (on the left), Kanlıkavak Park (on the right)

New multi-storey buildings and new detached houses have been built in this residential area, which was previously dominated by single or two-storey garden houses, as well as perennial and multi-storey buildings. Houses with perennial gardens are being demolished and multi-storey buildings are being built. However, there are still users who have their own gardens and who feed poultry and small livestock, and cultivate crops within the garden. During the summer months, the profile is further diversified by the settlement of recreational vehicle (RV) users in an empty area near Kanlıkavak Park. It is observed that at least 20 RV's are positioned side by side throughout the season, and users spend their daily activities in front of the RV's or in the area close to the Porsuk River. It is important to note that housing is not the sole function of the axis. In the area situated on the opposite bank of the Porsuk River, there has been a notable conversion of older detached houses into cafeterias.

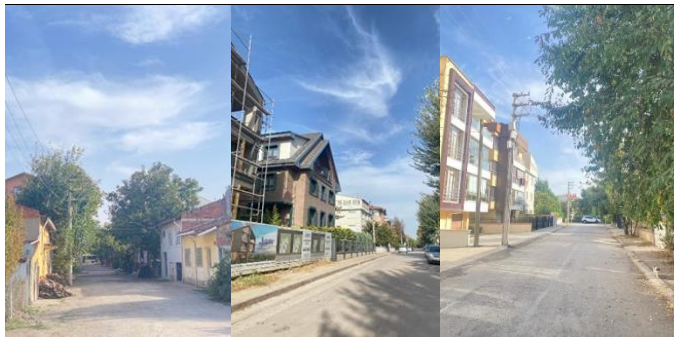


Figure 3. Different typologies of residences in the region

Despite the transformation of the housing types around the Porsuk River on the Kanlıkavak Park side into multi-storey housing, the axis opposite of the park is characterised by the predominance of new detached houses. Therefore, the two opposite sides along the axis exhibit different

characters. The focus of the study is to investigate the extent to which spatial continuity can be achieved in a region where the old and new are so intertwined and diverse. The original value of the study consists of considering this axis in the context of continuity and ruptures and analyzing this through body-space relationship.

METHODOLOGY

The research method is comprised of two stages. To analyze spatial continuity in the physical sense five sections were drawn. The sections were taken from the region limited by the determined axis, taking the Porsuk River as the center and including both banks of the river. The sections were produced based on visualizing the changing relationship between the housing, garden, street, walking area and Porsuk surroundings. By identifying the transforming spatial relationships through these cross-sections, survey questions were developed. The survey was conducted with 105 participants. Data on demographics, frequency/purpose of park use, perceptions of space, feelings of safety, accessibility, density, social ties, and satisfaction was collected by the surveys. The data pertaining to the rating scale were processed in the Jamovi software. The responses were entered on a scale from strongly agree (5), agree (4), neutral (3), disagree (2), to strongly disagree (1). Afterwards, the sections and survey results were overlaid to analyze the relationship between physical space and the body's sensory states.

FINDINGS

Sections taken from 5 different places where the river axis exhibits different characteristics and the opinions of those living in those areas are as follows:

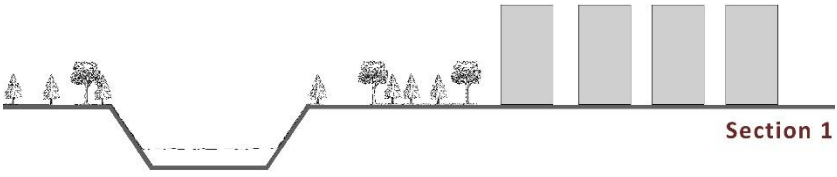


Figure 4. Section 1

Table 1. Opinions of those living in the area where Section 1 is located

Opinion	Value
I find it peaceful and calm here	4.2
I think this place has lost its former quality	2.0
I think the sense of neighborhood and neighborly relations still exist	4.3
I feel uncomfortable with the density of people	2.2
I am uncomfortable with the density of vehicles	3.8
I like newly opened businesses such as cafeterias etc.	3.7
My sense of belonging to the region is stronger than before	3.9
I think the relationship between the Porsuk River and the residences is weakening	2.7
I think the user profile has changed	4.4
I can keep up with my old habits	4.3
It makes me happy to be here	4.7
I think pedestrian and bicycle paths are sufficient	2.7
I support various social events being held in this region	4.2
I think I live in a safe environment	4.6
I think green areas are increasing	3.9

The area in which Section 1 was obtained is notable for its strong relationship with the Porsuk River which features old multi-storey apartment buildings. Consequently, the subjects surveyed were predominantly those who had resided in this region for a minimum of 20 years. The prevailing opinion is that the sense of belonging to the region remains strong, traditional practices are sustained, and the region has undergone a positive transformation. Nevertheless, concerns have been raised regarding the density of vehicles, and the sufficiency of pedestrian and bicycle infrastructure.

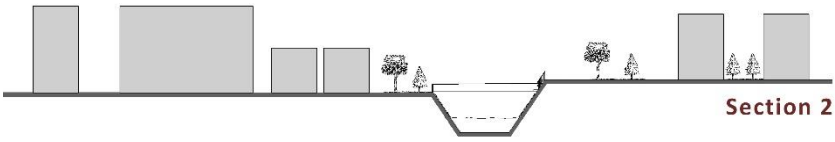


Figure 5. Section 2

Table 2. Opinions of those living in the area where Section 2 is located

Opinion	Value
I find it peaceful and calm here	3
I think this place has lost its former quality	3.5
I think the sense of neighborhood and neighborly relations still exist	2
I feel uncomfortable with the density of people	3.5
I am uncomfortable with the density of vehicles	4.5
I like newly opened businesses such as cafeterias etc.	1.5
My sense of belonging to the region is stronger than before	2.5
I think the relationship between the Porsuk River and the residences is weakening	4
I think the user profile has changed	4.5
I can keep up with my old habits	2
It makes me happy to be here	3
I think pedestrian and bicycle paths are sufficient	2
I support various social events being held in this region	3.5
I think I live in a safe environment	3
I think green areas are increasing	2.5

Section 2 is located in an area where high-rise and low-rise buildings are intertwined and where new and old constructions coexist. The evidence presented in the table suggests that the region has undergone significant changes, resulting in a decline in its sense of community and a diminution of its identity. While the relationship between the Porsuk River and the local residences is quite strong, the factor that damages the quality of the region is the inclusion of new businesses.

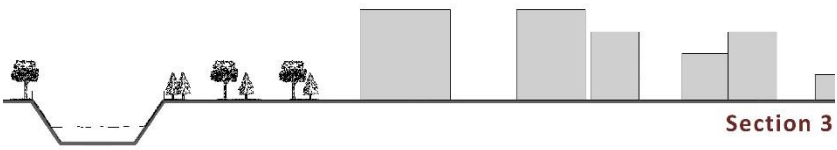


Figure 6. Section 3

Table 3. Opinions of those living in the area where Section 3 is located

Opinion	Value
I find it peaceful and calm here	4
I think this place has lost its former quality	2
I think the sense of neighborhood and neighborly relations still exist	4
I feel uncomfortable with the density of people	2
I am uncomfortable with the density of vehicles	2
I like newly opened businesses such as cafeterias etc.	5
My sense of belonging to the region is stronger than before	4
I think the relationship between the Porsuk River and the residences is weakening	2
I think the user profile has changed	2
I can keep up with my old habits	5
It makes me happy to be here	4
I think pedestrian and bicycle paths are sufficient	4
I support various social events being held in this region	5
I think I live in a safe environment	5
I think green areas are increasing	5

Section 3 is characterized by a coexistence of both low- and high-rise buildings, with the older structures remaining in close proximity to the recently constructed ones. Sumer Park, situated within the local area, is regarded as a peaceful location; however, there is a perception that the bonds of neighborly relations within the community have been lost. This phenomenon may be interpreted as a rapid change in the region affecting social relations.

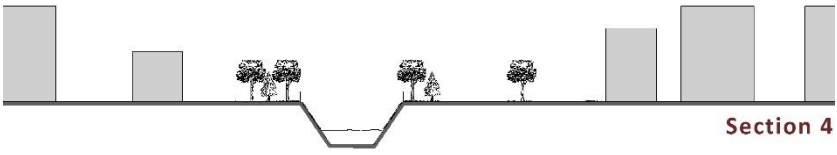


Figure 7. Section 4

Table 4. Opinions of those living in the area where Section 4 is located

Opinion	Value
I find it peaceful and calm here	4
I think this place has lost its former quality	3
I think the sense of neighborhood and neighborly relations still exist	3
I feel uncomfortable with the density of people	4
I am uncomfortable with the density of vehicles	4
I like newly opened businesses such as cafeterias etc.	5
My sense of belonging to the region is stronger than before	3
I think the relationship between the Porsuk River and the residences is weakening	3
I think the user profile has changed	3
I can keep up with my old habits	4
It makes me happy to be here	5
I think pedestrian and bicycle paths are sufficient	5
I support various social events being held in this region	5
I think I live in a safe environment	4
I think green areas are increasing	4

Section 4 is not directly associated with the Porsuk River; however, it is situated in close proximity, being one street away. There are buildings with a range of storey heights. While the developments in the region are supported and the sense of belonging is strong, the change in the user profile and the increase in the density of people and vehicles can be interpreted as issues that damage the quality of life.

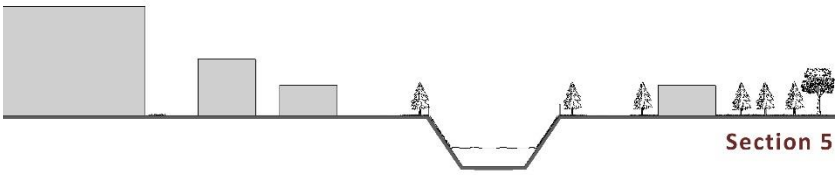


Figure 8. Section 5

Table 5. Opinions of those living in the area where Section 5 is located

Opinion	Value
I find it peaceful and calm here	4
I think this place has lost its former quality	2
I think the sense of neighborhood and neighborly relations still exist	3
I feel uncomfortable with the density of people	3
I am uncomfortable with the density of vehicles	4
I like newly opened businesses such as cafeterias etc.	4
My sense of belonging to the region is stronger than before	3
I think the relationship between the Porsuk River and the residences is weakening	2
I think the user profile has changed	2
I can keep up with my old habits	4
It makes me happy to be here	5
I think pedestrian and bicycle paths are sufficient	1
I support various social events being held in this region	5
I think I live in a safe environment	5
I think green areas are increasing	3

Newly constructed detached houses are to be found along the Porsuk banks, while multi-storey buildings line the back streets in Section 5. While the survey data reveals a decline in the region's former character and a diminution in the relationship between the Porsuk River and the residences, it is asserted that accessibility is the paramount factor.

DISCUSSION

Based on the pattern revealed by the responses, it was revealed that the ruptures in the case study area occurred both physically and cognitively. The necessity of ensuring both physical and cognitive continuity within a quality living environment is critical. In the context of survey data, physical continuity can be examined as mobility / accessibility and visibility / spatial perception, cognitive continuity can be examined as sensory / emotional experience and memory / belonging.

Mobility and Accessibility: Accessibility emerges as a critical dimension of the body-space relation. In Section 1, despite strong attachment and belonging, car traffic and insufficient pedestrian/bike paths reduce mobility freedom. Section 2 and Section 5 highlight even more strongly

how car dominance undermines accessibility and weakens the flow of the movement patterns. In contrast, Section 3 and Section 4 show more positive evaluations, with adequate pedestrian networks and stronger integration with nearby parks. These differences reveal how mobility infrastructures directly mediate bodily encounters with the river, shaping the rhythms of daily life.

The responses demonstrate how the body is physically influenced by its surroundings. Pedestrian paths, bicycle paths, street/river crossings, vehicle roads and barriers affect walkability. This effect may even lead to a sense of separation. Sections with accessible paths support bodily continuity and flow of movement. Green corridors and open spaces that connect housing to the river facilitate daily routines such as walking, sitting, playing.

Visibility and Spatial Perception: Interviews with participants revealed that living on an upper floor of a multi-storey building did not affect their relationship with the river, despite being quite isolated from the ground floor. It was clear that simply being able to see the river may strengthen the spatial connection. Although Section 1 and Section 2 are areas of similar character where low and high-rise, old and new buildings coexist, different answers were received in the context of the connection to the river. This is attributable to the fact that the subjects surveyed in Section 3 reside in areas that are more distant from the Porsuk River. The perception of the area is altered by its distance from the river and the absence of direct exposure to development. Similarly, Section 4, being one street away from the river, shows how indirectness reshapes perception. Inhabitants acknowledge development but sense a diminished direct river relation. Section 5, which consists predominantly of low-rise garden residences, is an area that has remained relatively unaffected by the surrounding development. Consequently, residents perceive no disconnection from the river.

Visual continuity reinforces spatial belonging. The fact that the body has inhabited a place for a long time and has become familiar with it may suggest that spatial perception is related to familiarity rather than physicality. Indeed, while those who have lived in areas with multi-storey buildings for a long time have a strong sense of belonging, those who live in low-rise buildings and feel the impact of new multi-storey buildings being constructed in their area more acutely have a weaker sense of belonging. Furthermore, the perception of the river decreases the further away one moves from it. Thus, the river becomes a background rather than lived space.

Sensory and Emotional Experience: Survey results reflect that Section 3 and Section 4 score high in happiness, safety, and enjoyment of social activities, indicating a strong affective bond between body and environment. The presence of greenery and reduced disturbance reinforces sensory comfort. In contrast, Section 2 registers dissatisfaction: noise, changing user profiles, and lack of quietness erode sensory quality. Section 5 reveals mixed feelings, positive emotions of happiness coexist with frustration over limited accessibility. Section 1 lies between: emotional belonging is strong, yet interruptions by cars undermine the bodily sense of flow.

Negative emotional states have been observed in areas where spatial change is perceived directly. The body becomes separated and alienated from what is familiar. This change could involve the construction of new buildings, or it could simply mean that different users are present in the area. Single houses with gardens allow more intimate and slower-paced bodily experiences. Seasonal uses, such as RV's and temporary gathering spaces, create a sense of shifting rhythms. The body perceives variability rather than stability.

Memory and Belonging: Section 1 preserves older habits and strong neighborhood identity, suggesting continuity of embodied memory despite infrastructural interruptions. Section 3 also sustains attachment through everyday practices, though social relations face transformation. Contrarily, Section 2 signals erosion of communal ties, loss of old qualities and reduced neighborhood relations weakening belonging. Section 4 and Section 5 show ambivalence: people feel happiness and safety, yet the rise of traffic and shifting profiles destabilize long-term memory bonds. This illustrates how bodily belonging is negotiated between continuity and rupture.

The body engages space socially through gatherings, encounters, rituals; belonging emerges from embodied participation. In the event of such habits being confronted with change, the spatial bond is disrupted.

CONCLUSION

The body-space relation is neither uniform nor linear. Accessibility infrastructures, visual connections, and sensory atmospheres play decisive roles in shaping belonging. Where spatial permeability and continuous experience are prioritized, memory and affective ties are strengthened; where mobility is interrupted and daily rhythms get more complex, both perception and belonging are weakened.

Spatial continuity enables smoother bodily flows, and supports the lived experience. Spatial ruptures fragment embodied experience and

reduce social satisfaction. These disruptions can occur both physically and cognitively. However, this relationship is not a direct, simple interaction. Factors such as the body's familiarity with the environment, the time spent, the relationship between proximity and distance to the space, and the direct experience of change are important variables in this interaction.

In future studies, the sections can be drawn more closely and the actions taking place in the region can be examined in detail. Thus, it can be discussed how physical and cognitive disruption affects actions.

ACKNOWLEDGEMENTS

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All figures and tables were created by the authors.

COMPARISON OF TRADITIONAL AND CONTEMPORARY CITY CENTER WITHIN SUSTAINABLE URBAN DESIGN CRITERIA

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ABSTRACT

Environmental issues and global warming have brought discussions about sustainability to the forefront. Cities are essential for achieving sustainable development. In a world where resources are rapidly depleting and environmental problems are increasing, regional and urban planning approaches will inevitably adapt to sustainable urban principles. However, sustainability principles must also be continued at the urban design scale alongside upper-scale plans. Sustainable urban design criteria are mixed-use, comfortable pedestrian paths, efficient public transportation, walkability, energy-efficient and climate-sensitive design. The aim of this study is to compare a Central Business District and a contemporary subcentre within sustainable urban design criteria in Konya (Türkiye). The existing maps obtained from the Municipality were updated and analyzed. Images were prepared using AutoCAD and Paint programs. According to the findings of the study, the case area in the Central Business District is ensuring mixed use, efficient public transport, and walkability, while the modern sub-centre is weak in terms of organization and criteria to support mixed use, efficient public transport, and walkability but strong in terms of energy-efficient and climate-sensitive design compared to other area. In the sub-centre, the distances between all buildings, road widths, and building blocks are quite spacious. This area has been identified as an automobile-oriented area with poor pedestrian access and priority.

Keywords: Sustainability, Urban Design, Central Business District, Sub-Centre, Climate-Sensitive Design

INTRODUCTION

Sustainability is a vital issue in this century because our health, welfare, and future depend on it. One of the most important issues for ensuring sustainability is the achievement of sustainable cities. Although cities cover only 2% of the Earth's surface, they consume 75% of the world's natural resources, use 65-70% of the energy produced, and account for 70% of carbon dioxide emissions (Uncu, 2019).

Diminishing resources, global warming, increasing inequalities, and environmental problems make the sustainable cities approach increasingly important. To achieve the objective of sustainable settlements, a series of decisions need to be taken at the urban design scale in addition to an integrated planning approach at the country, regional, and city levels. Architectural and technical solutions are of vital importance in the continuation of the sustainable planning approach, which can be subdivided into sustainable urban transportation, sustainable land use, and sustainable urban design. With a series of decisions starting from the upper scale, it is important to realize consistent principles at the city scale and urban design scale without deviating from the goal of sustainability. It is very clear that without sustainable urban design, which is the art of making places in an urban context, sustainable urbanization will not be possible (Urban design group, 2011). Because a built environment that people cannot walk and use comfortably will make it difficult to implement decisions taken at an upper scale. Egan (2004) stated that sustainable communities do not come by chance, and Bentivegna et. al. (2002) and Farr (2012) discuss that urban design and development are about creating sustainability in terms of socio-economic and environmental aspects.

Furthermore, urban design includes the design of transportation systems, platting and public realm (Larco, 2015). Urban design plays a key role in achieving the objective of sustainability. Sustainability has three dimensions -economic, social and environmental- that are called the 'triple bottom line'. Creating sustainable places and cities can be achieved with an integrated approach between the region, the city, the neighbourhood, the block, and the individual building, which is supported by sustainable urban design principles. Without urban design implementation and criteria, it is impossible to achieve walkable and sustainable places. Of course, first of all, walkability and effective public transport can be planned in the upper-scale plans with a series of decisions following and maintained with the design of the public realm and urban spaces design. For example, to achieve sustainable transport, the first goal is a reduction in the need for travel, and the second change the mode of travel. This means maintain walking or

cycling for short journeys, and using public transport for longer ones. To reduce travel, a mixed-use urban form that is less car-dependent should be implemented. Providing for many different basic needs within one area reduces the need for driving (Thorne and others, 2013). Contemporary city form has been blamed as a cause of environmental problems affecting habitats, ecosystems, and water quality through land consumption and impervious surfaces. In addition, urban form changes travel behavior, which, in turn, affects air quality, farmland, wetlands, and the global climate. A popular concept, 'sustainable development,' has revived discussion about the form of cities. The main aim is lower energy consumption and pollution levels. A sustainable city should be compact, dense, diverse, and highly integrated. Also, ensure walking, cycling, and efficient public transport (Jabareen, 2006).

There are criteria set out in the literature for sustainable urban design (Ritchie & Thomas, 2013). Mixed use is one of the most widely accepted criteria. Although mixed use is a decision that should be taken at the stage of urban planning, it is necessary to apply principles that will support it at the urban design scale. For this, first of all, the design of the buildings and their layout within the parcel should allow for mixed use. Supporting mixed-use areas with comfortable pedestrian paths is another design issue. Besides that, a vital criterion for sustainable settlements is an efficient public transportation system. It is important to design the surroundings of public transport stations and integrate them with pedestrian and bicycle routes in the urban design planning. In order to ensure walkability, which is one of the most important criteria, many principles gain importance at the urban design scale. There are a number of principles, such as creating vital and attractive pedestrian areas and routes, suitable building blocks, high residential density around the center and sub-centre, the placement of parking lots, and observable urban spaces. All of these can be realized through decisions to be taken in urban design. In addition to all these, energy-efficient and climate-sensitive design criteria also contain the necessary principles for sustainable environments. Building forms, orientations, and locations, distance between buildings, rainwater management, urban heat reduction, and natural corridors gain importance to ensure climate-sensitive design. These criteria can be seen as a summary of the principles to be adopted in schemes and urban design projects in order to achieve the objectives targeted in urban plans.

This study concentrates on the environmental sustainability of urban design. The scope of this paper is about the principles of sustainable urban design and evaluating these principles in the central business district (CBD) and a sub-centre in Konya (Türkiye).

METHOD

This study aims to compare a Central Business District and a contemporary sub-centre within sustainable urban design criteria in Konya (Türkiye). Commercial areas were chosen because they are more likely to meet the criteria of mixed use, public transportation and walkability compared to residential areas. The first area is situated in the Central Business District (CBD), which is where the city was initially established and has served as its core for many years. The second area is a sub-centre that has been developed in the last 20 years, located 15 kilometers north of the city center in a neighborhood predominantly featuring gated communities. Criteria identified within the scope of the study for sustainable urban design are 'allow mixed use', 'ensuring efficient public transportation', 'ensure walkability', 'energy-efficient and climate-sensitive design'. For the study, the existing maps obtained from the Municipality were updated and analyzed. Land use has been made in the area, public transportation stations and routes have been obtained from the Municipality. The buildings, open and green spaces, trees, water bodies, parking lots, and comfortable pedestrian areas were analyzed through observation in the field. Images were prepared using AutoCAD and Microsoft Paint programs. The shadow lengths of buildings have been prepared using the sun diagram and sun's orbit at 37.87° latitude.

Sustainable urban design criteria

Williams et al. (2001) conclude that sustainable urban forms are characterized by compactness, mixed-use and interconnected street layouts, supported by strong public transport networks. Dempsey et al. (2010) examined the relative influence that different elements of urban form, like land use, density, urban layout, accessibility, building characteristics, and layout, have on economic, environmental, and social sustainability. When city planning adopts sustainable urban forms, a sustainable city could become a reality. The process should meet people's needs and, at the same time, not aggravate the natural environment. Mixed-use is an effective design principle for sustainability. A combination of housing, working spaces, commercial activities, public facilities, services, etc. creates 24/7 urban environments (Oikonomou, 2015).

In urban areas, besides global warming, the 'heat-island' effect makes cities several degrees warmer than their surroundings. We should design our cities to reduce the emission of CO^2 and the 'heat-island' effect (Ritchie & Thomas, 2013). Urban green spaces play a crucial role for this reason. Nature and landscape design is not only trees, lawn, and shrubs.

Rather, landscape combines landform and ecosystems, which helps sustain all life forms and improves the local microclimate. Open-space networks increase biodiversity more than isolated pockets of open space. These corridors and networks may consist of parks, back gardens, trees and hedges, tree-lined streets, leftover land, riverbanks, lakes, green roofs, and buffer planting. Furthermore, rainwater harvesting is another dimension of sustainability. The slowed release of rainwater into the ground and sewage system helps the natural water cycle and replenishes the aquifers. Natural drainage systems improve water quality and reduce the risk of flooding. Here, the amount of permeable and impermeable ground also affects the natural water cycle. It is important to allow enough land as a natural drainage system that can absorb all the rainwater falling on permeable and impermeable ground (Borcke, 2013).



Figure 1: Open-space networks as wildlife corridors in urban areas and a tree-lined street (Borcke, 2013)

Landscape is playing a vital role in making sustainable settlements. Due to 'Urban Heat Island' effect, cities are hotter than their surroundings, but open spaces, planting, and water will work to make it more bearable. Water in ponds and fountains can have a physical cooling effect (Ritchie, 2013).

Sustainability decisions taken at the upper scale cannot be realized unless they are supported at the urban design scale. A broader range of sustainability-related criteria is needed to include the planning process of the physical environment. The Sustainable Urban Design Principle have been determined as follows (Larco, 2015, Ritchie & Thomas, 2013):

1.Design to allow mixed use

1.1. Design that allows mixed use in buildings

-Mixed-use in the city center or sub-centre

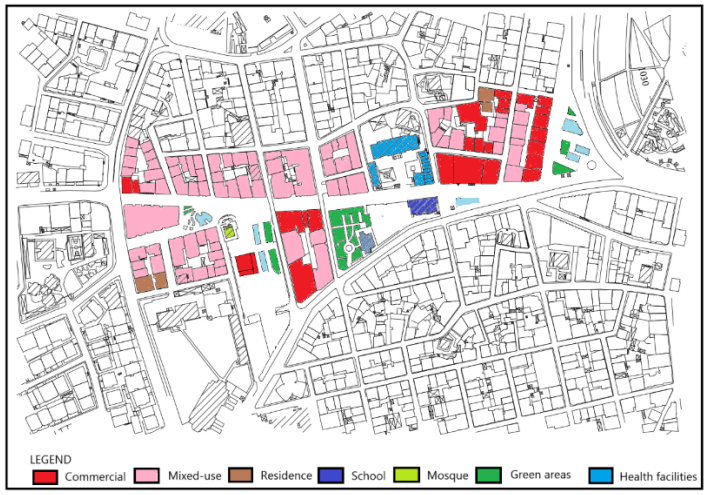


Figure 2: Mixed-use areas in CBD

It has been determined that the rate of mixed use is high in the CBD. In the sub-centre, buildings are either designated for commercial or residential use (Figure 2 and 3).



Figure 3: Land use in the sub-centre

- Design for different functions on the ground floor: It is desirable for ground floor uses to be varied. Both in the and in the sub-centre, ground floors are mostly used for commercial purposes (Figure 4).

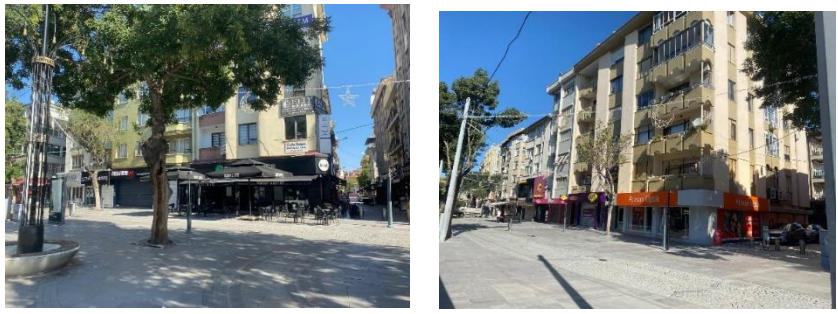


Figure 4: Different uses in CBD (cafes and commercial uses) (Personal archive)

- Front yard setback distance: The low setback distance in pedestrian ways and commercial centers strengthens the relationship between ground floor uses and pedestrian flows. The setback distance is 0 m on the main pedestrian walkway in the CBD, while it is 0.5 m on back streets. However, although the average setback distance at the sub-centre is 5

m, the ground floor usage and pedestrian relations are weakened due to vehicles parking between buildings and sidewalks.

- Adjacent building layout: While all buildings in the city center are built in an adjacent layout, in the sub-centre, it has been achieved with large building facades, but the large distances between buildings weaken the relationship.

- Parking lots between the building and the pedestrian path/ sidewalk: Parking areas located between buildings and pedestrian areas are a negative solution because they interrupt pedestrian flow. While there are a few parking spaces in the CBD that do not interrupt pedestrian flow, there are large parking lots in the sub-centre that separate pedestrian flow (Figure 5).



Figure 5: Parking lots (shown in red) in CBD and sub-centre (Personal archive)

1.2. Road layouts support mixed use

- Supporting mixed-use areas with pedestrian paths or wide sidewalks: Pedestrian ways in the CBD are supported by mixed use. However,

pedestrian circulation areas in the second area are not supported by mixed use.



Figure 6: Pedestrian areas in CBD and sub-centre (Source: Personal archive)

- Providing comfortable pedestrian areas (Noise pollution, climate comfort, etc.): 'Urban microclimate' is different from the countryside due to larger areas of exposed surfaces per unit area of ground cover. Built form, street widths, orientation, density influence airflow, view of sun and sky, and exposed surface area. Also, greening makes urban places appealing, pleasant and sustainable (Jabareen, 2006). Noise pollution is another critical issue for pedestrian comfort. It is a good way to design pedestrian way separately from vehicle road to ensure noise comfort.



Figure 7: Trees in pedestrian way in CBD. Images in order: Water bodies, tree seating area, artificial covered seating areas in park, water bodies in park, and tree-lined street in CBD (Source: Personal archive)

The trees lining the pedestrian way in the CBD increase climatic comfort in summer. Similarly, water bodies also increase both the cooling effects. However, since there are not enough trees in the park area designed above the underground parking lot, the reflective surface ratio is high. In the second area, there are large clusters of trees. Despite the large number of trees, it is completely unrelated to pedestrian areas. Furthermore, noise pollution is high due to the main roads in the middle of the sub-centre.



Figure 8: Trees in refuge in sub-centre (Personal archive)



Figure 9: Shadows of buildings (20 January-11.00 a.m.) and pedestrian areas (It was prepared by calculating the shadow lengths relative to the sun's orbit at 37.87° latitude)

In the first area, the shadows of buildings partially fall on the pedestrian way in winter. However, in the second area, areas heavily used by pedestrians are completely overshadowed by buildings. The CBD offers a more comfortable environment for pedestrians in winter.

2. Efficient public transportation

-Increasing population and building density around public transportation stations: There are three public transportation stations in the first area (Figure 10). The population density around the stops is 452 p/ha on average. In the second area, there is one bus station, and the building density around it is relatively low. Access to the bus stop is particularly difficult due to the shopping center's parking lot. The average population density in this area is 384 p/ha (Öncel, 2019).

-Integrating public transportation stations with bicycle parking areas and pedestrian paths: Public transportation stations in the CBD are closely connected to both pedestrian ways and bicycle parking areas. In the second area, although the bus stop is located at the intersection of pedestrian areas, it is not connected to the bicycle parking area (Figure 10).

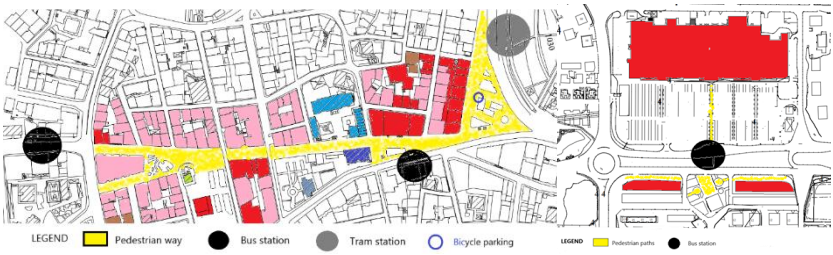


Figure 10: Public transportation stations and pedestrian areas in the CBD and sub-centre

-Parking lots as a lost space: Parking lots mustn't be positioned as a place that will cut off pedestrian movement or as a lost space. However, in the second area, pedestrians are forced to walk through the parking lot (Figure 11).

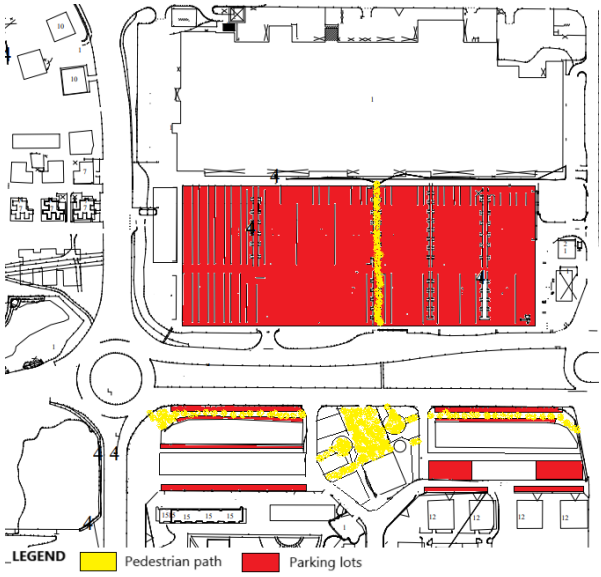


Figure 11: Parking lots and pedestrian areas in the sub-centre

3. Walkability

-Building blocks: They should be shaped to the minimum walking route and pedestrian ways should be designed according to the shortest route to access functions. On the other hand, the lengths of the building blocks should not be too long either to allow walking. While building blocks in the city center average 56 m, they are 200 m in the sub-centre (Figure 12).



Figure 12: Building blocks' length in the CBD and sub-centre

-Designing shared transportation routes for different modes (car, bus, bicycle, pedestrian): Roads in the CBD are not divided into different modes for shared use. Although there is a bicycle lane on the side of the main road in the sub-centre, it is used as a parking lot (Figure 13).



Figure 13: Bicycle lane in sub-centre (Source: Personal archive)

-Locating trade and services along a main street in the center of the neighborhood: In both centers, trade and services are located along the main street.

-Observable public space: Doors and windows of buildings should admit street for feeling safe while walking. In CBD, windows, doors, store windows, and outdoor areas on the ground floor provide a safe environment. However, the blind walls of the shopping center, in the sub-centre, detract from the concept of an observable public space. Also, security issues increase after 10:00 p.m. Since there are no residents in the areas where other shops are located, unsafe environments are created at night (Figure 15).



Figure 14: Examples of building facades in the CBD (Source: Personal archive)



Figure 15: Shopping mall and other shops in sub-centre (Source: Personal archive)

-Street corner: Corners where streets and avenues intersect must be carefully designed. The corners of building facades should also continue to passively observe the public space as the intersection point of two roads. The most practical way is apartment solutions that don't have a front yard. In CBD, except for 3-4 buildings, most corners contribute to observing street (Figure 16).

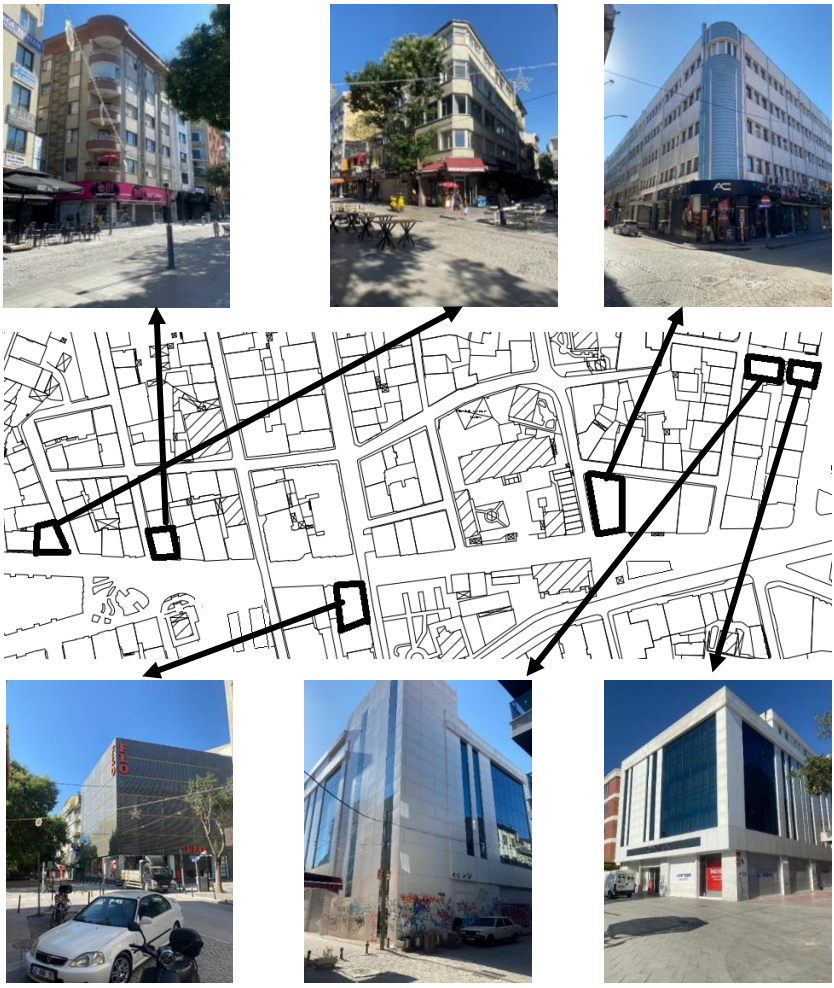


Figure 16: Corners in CBD (personal archive)

-Underground parking lot: Building the parking lot underground instead of at ground level increases the ground usage capacity by at least 50% (Ritchie & Thomas, 2013). There is an underground parking lot for 300 vehicles in the CBD, while there is no underground parking in the sub-centre.

4. Energy-efficient and climate-sensitive design

-Building orientations, locations and distance between buildings (Sun avoidance and utilization): Passive solar design is central to achieving a sustainable urban design. It helps to reduce the demand for energy and

provide the best use of passive energy. The orientation of buildings and urban densities gains importance (Jabareen, 2006). The east-west orientation of building blocks in northern latitudes maximizes sunlight exposure in winter and minimizes it in summer. At the same time, the distance between buildings must be sufficient to allow sunlight to pass through. Only 26% of buildings in the CBD can take advantage of winter sunlight. In the second area, approximately half of the buildings, excluding the shopping mall, take advantage of sunlight in winter (Figure 17).

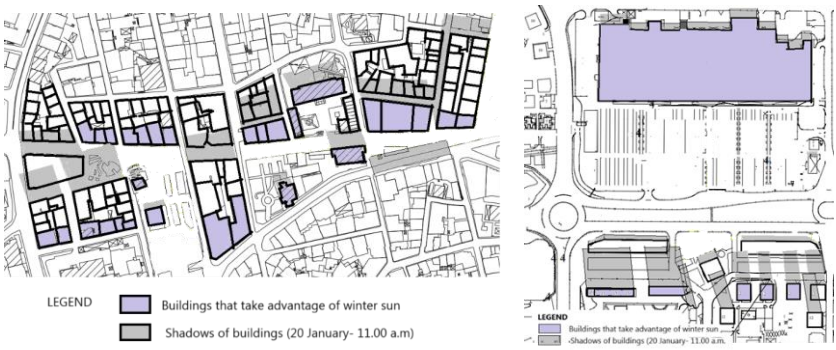


Figure 17: Sun utilization in winter for buildings (It was prepared by calculating the shadow lengths relative to the sun's orbit at 37.87° latitude)

-Building forms: Designing building forms to be climate-appropriate is one of the key factors for heating and cooling energy. Konya is located in the temperate climate zone according to the Köppen climate classification. In this climate zone, building forms with wider south facades are suitable for energy-efficient design. Most buildings in the CBD were designed without regard for this principle. In the second area, building forms are mostly intended to be climate-adaptive (Figure 18).

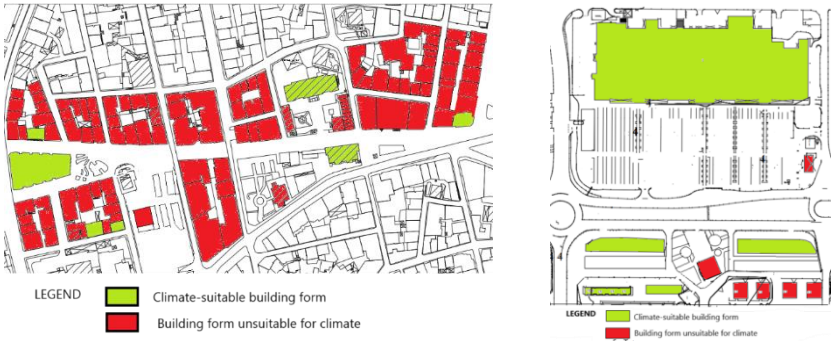


Figure 18: Building forms for climate-adaptive design

-Dense/energy efficient building typologies: The building density in the CBD is high. The building coverage ratio is 70%, and the adjacent building layout ensures energy-efficient building typologies. In the second area, building density is low with detached buildings. The average building coverage ratio in this area is 40%.

-Wind effect: The dominant wind direction in Konya is north and northeast (URL 1). According to the wind rose, east and west are the directions with the least wind (Figure 19). In this case, the city center has a wind-protected structure. This is positive because it is protected from the cooling effect of the wind in winter, but it can be considered negative because it cannot benefit from the cooling effect of the wind in summer. The second area is exposed to wind due to the wide distances between buildings. This situation can be considered positive in summer and negative in winter.

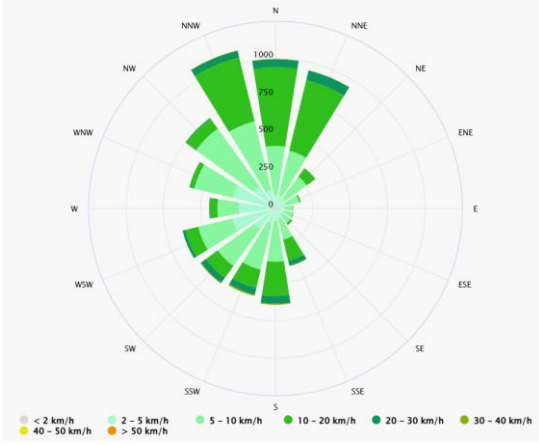


Figure 19: Wind rose of Konya (Source: URL 2)

-Rainwater management: Growth of terrain coverage for building construction in cities leads to a widening of the area of built surface and a lack of natural terrain with the capability of natural rainfall water infiltration. This causes serious damage to the natural water cycle. When the rainfall water reaches the roofs of buildings, road networks, or car parks mostly flows to the wastewater disposal system (Markovi et. al., 2014). It is necessary to build an artificial regulation of water circulation with high surface permeability, green roofs, rainwater gardens, and an extensive urban forest canopy. It has been determined that most surfaces in CBD are impermeable, and very few surfaces are semi-permeable and permeable. Furthermore, no green roofs or rainwater gardens were observed. Although the proportion of permeable surfaces is slightly higher in the second area, most of the area consists of impermeable surfaces (Figure 20).



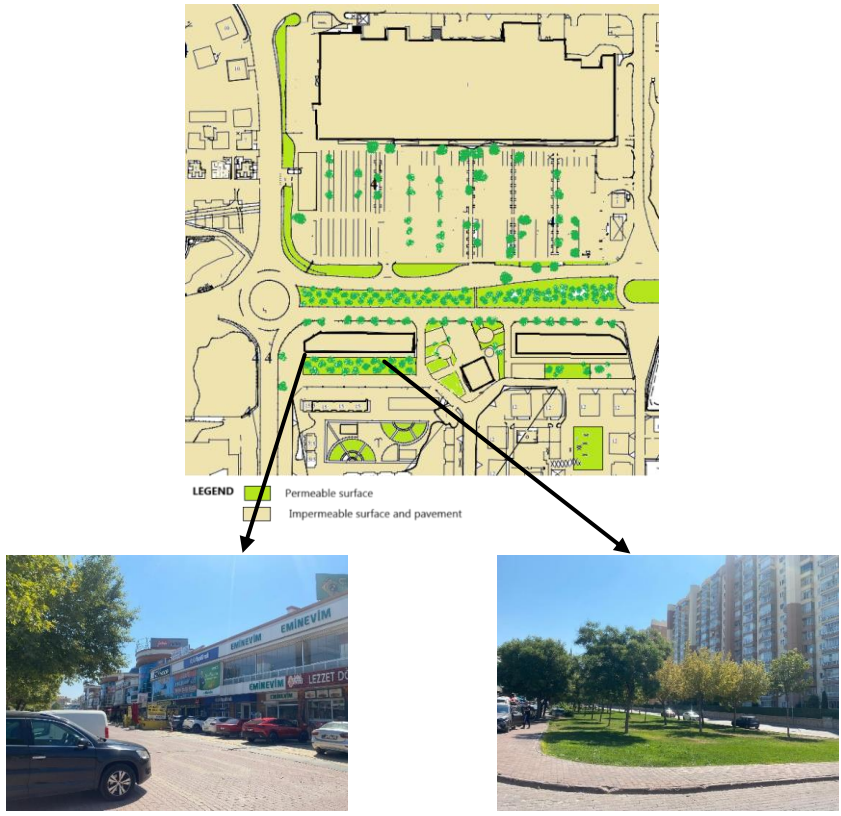


Figure 20: Surface permeability in CBD and sub-centre (Source: Personal archive)

--Urban heat reduction: Urban materials and surfaces influence absorption, heat storage, and emissivity. Vegetation and bodies of water help evaporative cooling processes on building surfaces and in open spaces (Jabareen, 2006). Ecological corridors/pockets, high urban forest continuity/diversity, and low albedo surface materials are important elements for reducing urban heat. However, there is no conscious effort to reduce urban heat in either area.

-Continuity of natural corridors (tree groups, tree-lined streets or parks): Greening and natural corridors preserve and enhance the ecological diversity of the environment of urban places (Jabareen, 2006). The wide median strip in the sub-centre exhibits a natural corridor feature with a certain degree of continuity (Figure 20).

-Re-using old buildings: Buildings have an enormous impact on the economy and the environment. Also, they play a critical role in

developing the vitality and character of a community. Reusing existing buildings makes a significant contribution to the fight against climate change, as our buildings consume vast amounts of energy and materials, both during construction and in operation (Merlino, 2018). All buildings in the sub-centre are new, but old buildings are still in use in the city center (Figure 21).



a b c d

Figure 21: Reuse of old buildings in CBD a-The building, which was constructed as a twin house in 1910 and is currently used as a school. b-The building, which was constructed as a residence in 1912 and is now used as a museum. c-The mosque was built in the 12th century. d-Buildings used for commercial purposes (Source: Personal archive)

CONCLUSION

In this study, a CBD and a modern sub-centre were analyzed according to sustainable urban design criteria in Konya (Türkiye). The criteria are grouped under four headings. In terms of design for mixed use, the city center is more effective because the integration of mixed-use spaces, pedestrian pathways, and the positioning of trees and buildings create more comfortable areas for pedestrian circulation. However, in the sub-centre, the distances between buildings and parking lots interrupt pedestrian circulation. Long walking distances, noise pollution, and a lack of greenery in pedestrian areas also reduce pedestrian comfort. According to the criterion of effective public transportation, the CBD is stronger because it features pedestrian paths and bicycle parking spaces connected to three public transportation stops. According to walkability criteria, the CBD provides a more comfortable environment with short building blocks, observable streets, and underground parking. However, it is becoming difficult to provide an observable public space

in the sub-centre. In particular, the shopping center and large parking areas are weakening, especially at nighttime security. In terms of energy-efficient and climate-sensitive design criteria, building locations and forms in the CBD, as well as rainwater management, are not climate-sensitive, while the use of old buildings can be considered positive. In the second area, while building locations and forms are suitable for the climate, rainwater management is weak. As a result, the city center offers a more favorable environment in terms of sustainable urban design principles in many respects.

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URL2:https://www.meteoblue.com/tr/hava/historyclimate/climatemodelled/konya_t%C3%BCrkiye-cumhuriyeti_306571

PARADIGMS OF THE METROPOLIS: LARGE-SCALE PROJECTS AND URBAN CONTEXT

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ABSTRACT

Urban transformation has become one of the most contested issues of contemporary architecture and planning, particularly under the influence of neoliberal policies after the 1980s. This study examines how different architectural paradigms interpret large-scale housing and urban development, and how these paradigms resonate within the Turkish context. Three global approaches are discussed: Rem Koolhaas's Bigness, which treats density and metropolitan scale as a design input; Bjarke Ingels's concept of hedonistic sustainability, which links environmental sensitivity to lifestyle and user experience; and Alejandro Aravena's incremental housing model, which prioritizes affordability, participation, and social equity. To situate these global frameworks within the local context, the paper also analyzes the Narcity Housing Complex (Maltepe, Istanbul, 2005–2007), a large-scale gated community designed by Nevzat Sayın and Mert Eyiler for Tepe Construction.The comparative analysis is structured around five criteria: typology and spatial organization, user experience, social dimension, sustainability, and urban context. Findings suggest that Koolhaas and Ingels expand architectural experimentation at the scale of the city, yet remain limited in terms of inclusivity. In contrast, Aravena's incremental model introduces a socially equitable and adaptable paradigm. Narcity, however, demonstrates how neoliberal urban policies in Turkey reproduce spatial homogeneity and socio-economic segregation through gated typologies, prioritizing lifestyle branding over collective memory or social cohesion.The study concludes that global paradigms, when transferred into Turkey, are often adopted as "ready-made formulas" without adequate contextualization. This leads to significant challenges regarding spatial justice, participation, and sustainability. Future urban transformation strategies should therefore seek to reconcile global theoretical insights with Turkey's socio-economic realities by promoting participatory, inclusive, and context-sensitive approaches.

Keywords: Urban Transformation, Architectural Paradigms, Neoliberal Urbanization, Contextual Analysis, Incremental Housing

INTRODUCTION

Although the origins of urbanization can be traced back to antiquity, the twentieth century marked a radical transformation in its trajectory. Following the Industrial Revolution, rapid population growth, the acceleration of globalization, and the expansion of neoliberal policies reshaped urban space both physically and socially (Keleş, 2002). In this period, capital-driven investments and economic growth targets placed immense pressure on cities; such pressures not only altered modes of construction but also reconfigured social relations and cultural structures (Keyder, 1989; Çelik, 1986). Within this context, architecture ceased to be understood merely as an aesthetic or functional endeavor and instead emerged as a discipline directly tied to collective memory, identity production, and spatial justice (Madran, 2001). Therefore, discussing the impact of different architectural paradigms on the urban context is crucial for interpreting contemporary urbanization processes.

The aim of this study is to comparatively examine Rem Koolhaas's Bigness approach, which treats metropolitan density as a design input; Bjarke Ingels's strategies that emphasize flexibility and sustainability in mass housing; and Alejandro Aravena's incremental housing model, which is built upon participatory frameworks. These three perspectives are evaluated within the context of Turkey's post-1980 urban transformation shaped by neoliberal policies, in order to reveal how global paradigms find resonance—or fail to do so—at the local scale.

2. METHODOLOGY

Kelbaugh (2006) argues that the relationship between architecture and the city often produces contradictory outcomes. According to him, successful buildings may persist within unsuccessful urban designs, just as robust urban fabrics may coexist with inadequate architectural interventions. This phenomenon can be explained through several factors: the constant transformation of urban systems under technological and social change; the failure of architectural solutions to translate effectively into the urban scale; and the long-term unsustainability of rigidly formal or entirely unregulated growth models.

These discussions indicate that the transformation of urban space through large-scale projects is not limited to aesthetic or functional qualities, but is deeply intertwined with political and economic contexts (Rosenthal, 1980; Yönet & Yirmibeşoğlu, 2018). Koolhaas's concept of Bigness interprets urban density and chaotic expansion as design inputs (Koolhaas, 1995), whereas Ingels's notion of hedonistic sustainability foregrounds user experience and ecological sensitivity (Ingels, 2010).

Together, these frameworks provide a critical lens for examining how global paradigms resonate within contemporary practices of urban transformation.

This study employs a qualitative, comparative analysis, focusing on four case studies: Rem Koolhaas's Nexus Housing (1991), Bjarke Ingels's Mountain Dwellings (2008), Alejandro Aravena's Incremental Housing (2003), and, in the Turkish context, the Narcity Housing Complex (2005–2007). The first three represent diverse socio-economic conditions and distinct approaches to mass housing at the global scale, while Narcity exemplifies the neoliberal, large-scale housing model that has emerged in Turkey.

The analysis is structured around five criteria: typology and spatial organization; user experience; social dimension; sustainability; and urban context. The study draws upon architects' theoretical texts, project documentation, and both primary and secondary academic sources. Findings are then situated within the framework of Turkey's neoliberal urban transformation, exemplified by projects such as large-scale TOKİ settlements, the renewal of Sulukule and Tarlabaşı, and mega-developments like Zorlu Center. This approach allows for a critical discussion of the extent to which globally developed architectural paradigms are applicable in local contexts and what contradictions they generate.

Urban transformation literature further underscores that the relationship between architecture and planning often unfolds on a contested terrain. Space is not only the outcome of economic and political dynamics but also a reflection of collective memory, identity formation, and cultural belonging (Harvey, 1989; Lefebvre, 1991). Accordingly, when examining architectural paradigms, one must consider not only aesthetic and functional dimensions but also questions of spatial justice, social participation, and sustainability.

Koolhaas's Bigness defines large-scale buildings not merely as parts of the city but as autonomous organisms capable of functioning as cities in themselves (Koolhaas, 1995). In this way, chaotic growth and density are reframed as productive design strategies. Bjarke Ingels, by contrast, redefines sustainability through the notion of hedonistic sustainability, conceptualizing environmental sensitivity as an element that enhances user experience and the quality of public life (Ingels, 2010; Lehmann, 2012). His projects emphasize flexible typologies, collective experiences, and public accessibility. Meanwhile, Alejandro Aravena and the Elemental office propose the incremental housing model as a new paradigm for low-income housing. This approach is based on the

provision of basic infrastructure, with the remainder of the dwelling completed by users over time (Aravena, 2011). In this way, cost-efficiency is combined with participation and social equity. In Turkey, however, neoliberal policies since the 1980s have reoriented urban transformation toward capital-centered trajectories. The mass housing model advanced by TOKİ, while addressing housing needs, has also contributed to spatial homogenization and social segregation (Yönet & Yirmibeşoğlu, 2018). The case of Sulukule exemplifies the loss of urban memory and displacement of communities (Keyder, 1989). As a result, global paradigms in Turkey are often translated into local practices not through social sensitivity but rather through political interventions and capital-driven strategies.

3. CASE STUDY

In light of this theoretical framework, the following section analyzes the four selected projects to assess how architectural paradigms manifest within their respective urban contexts. The first example, Rem Koolhaas's Nexus Housing in Japan, is notable not only as a typological experiment but also as a project that reveals the tension between global architectural practices and local cultural conditions. Developed by OMA in 1991 in Fukuoka, the project consists of 24 three-storey dwellings organized into two blocks. Each unit is centered around a vertical courtyard, ensuring light and spatial openness. The project embodied the dilemmas faced by a Western architect working in Japan, where the debate centered on whether the design should be perceived as a "Western export" or as a contextual response to local specificities (URL 1). The master plan, initiated by Arata Isozaki, envisioned a superblock of buildings limited to five storeys (Figure 1).



Figure 1: Nexus Housing Project Source: URL 1.

From a spatial perspective, Nexus Housing recalls the continuous urban fabrics of Pompeii and other Roman cities, as well as the patterns known from Mesopotamian settlements, while also integrating Mies van der Rohe's experiments with courtyard typologies. At ground level, a passageway provided access to individual entrances and courtyards, while the upper floors organized the living spaces through stair connections (Figure 2). Panels and movable partitions generated spatial variety; the massive exterior walls ensured a unified façade and simultaneously functioned as a plinth for the towers envisioned in the future. The grass-covered domes and the overhanging eaves of the living floors established a visual dialogue with the surrounding mountains, reflecting the project's attempt to merge architecture with the landscape.

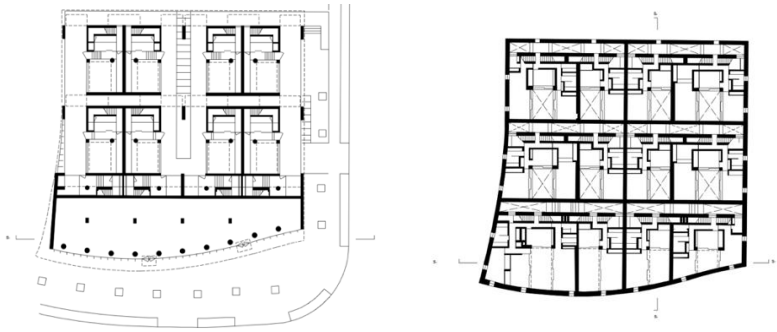


Figure 2: Ground Floor ve First floor plan Source: URL 1.

The project constructed spatial experience through a series of dialectical oppositions: inward and outward, private and open, individual and collective, heavy and light, tangible and abstract. In this sense, Nexus Housing functioned primarily as a typological experiment, while simultaneously reopening debates about the ways in which modern architecture engages with the city. Although it was not directly connected to social housing policies, its production at the intersection of diverse contexts renders it a distinctive example both theoretically and architecturally, making it a valuable case for understanding the relationship between the local and the global. As a typological exercise of Western architectural practice within the Japanese urban fabric, Koolhaas's Nexus Housing provides a meaningful ground of comparison for the Turkish context discussed in subsequent sections.

Rem Koolhaas's concept of Bigness, developed in the 1990s, argues that large-scale buildings are not merely components of the city but autonomous organisms capable of functioning as cities in themselves

(Koolhaas, 1995). In this framework, metropolitan density and chaotic growth are reconceived as productive design inputs. The CCTV Headquarters in Beijing (2012) exemplifies this concept: the merging of dual tower forms into a continuous three-dimensional loop produces both an iconic silhouette and a reconfiguration of programmatic organization (de Sola-Morale, 2010). The building stands as a monument symbolizing the power of the city, while also revealing how global architecture operates at the scale of the megastructure. Bjarke Ingels, in contrast, foregrounds flexible typologies and social interaction in large-scale projects, rejecting rigid formal rules. One of the most representative examples is the 8 House in Copenhagen, completed in 2010. Through a system of inclined ramps, the project integrates residential, office, and commercial functions, while its publicly accessible circulation areas recreate the dynamics of neighborhood life within a single building (Minner, 2010). Although Ingels shares certain affinities with Koolhaas, his former mentor, he diverges by advancing the concept of hedonistic sustainability. This approach redefines sustainability not only as an ecological necessity but also as a driver of user experience and public life quality (Ingels, 2010; Lehmann, 2012).

Within this framework, the Mountain Dwellings project emerges as a closer focus of this research. Completed by BIG in Copenhagen in 2008, the building introduced an innovative interpretation of mass housing typology by integrating 80 apartments with 480 parking spaces within a single volume. Its most distinctive feature lies in the terraced arrangement of units in a "mountain slope" configuration (Figure 3), enabling each dwelling to benefit from natural light, views, and private outdoor space.



Figure 3: Mountain Dwellings – Source: BIG Architects (URL 2).

Through this design, all apartments benefit from views, natural light, and private garden spaces. Mountain Dwellings exemplifies Ingels's concept of hedonistic sustainability, where sustainability is conceived not merely

as an environmental necessity but also as a design instrument that enhances quality of life for its residents. The project further materializes principles of sustainable design through its roof plan (Figure 4). By transcending standardized housing typologies, it foregrounds both living quality and spatial diversity, while simultaneously integrating residential and infrastructural functions within a single architectural experiment that has secured its place in global architectural discourse. Nevertheless, the targeted user group was primarily composed of middle- and upper-middle-class households, limiting its degree of social inclusivity. Even so, the project succeeds in breaking away from the standardized typologies of mass housing, advancing a paradigm that prioritizes diversity and quality of everyday life.

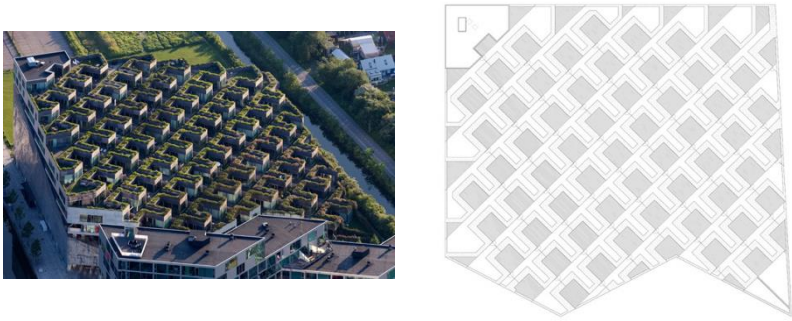


Figure 4: Roof plan Source: URL 2.

Although Bjarke Ingels and BIG emphasize sustainability and quality of life in large-scale housing projects, their approaches often evolve into commercially oriented ventures. Ingels's discourse of hedonistic sustainability presents an innovative vision that merges environmental awareness with enhanced living standards, yet simultaneously functions as a strategy to increase the marketability of housing (Lehmann, 2012). In this regard, BIG's emphasis on "livability" has frequently been limited to prestigious projects targeting middle- and upper-income groups. By contrast, genuinely low-budget, participatory housing models that prioritize social benefit have been developed by Alejandro Aravena and Elemental.

Aravena's incremental housing approach transforms economic constraints in social housing production into an opportunity to deliver long-term, flexible, and livable solutions for low-income groups (Aravena, 2011; López & Gualdieri, 2016). Implemented in Iquique, Chile, in 2003, the Quinta Monroy Incremental Housing project is widely recognized as a milestone in social housing discourse, introducing a new paradigm. While the state's limited budget for 100 families could only have produced temporary shelters of 30 m² each, Elemental pursued an

alternative strategy. The firm provided families with "half a good house": the structural frame, essential infrastructure, kitchen, and bathroom were completed, while the remaining space was intentionally left for users to build over time (Aravena, 2011). Architecturally, each unit began with a floor area of approximately 36 m², organized as a two-story skeleton. The ground floor accommodated the kitchen, living area, and bathroom, while the upper floor contained two bedrooms, thus meeting the minimum requirements for a family of four at the initial stage.

The housing typology was designed as row houses aligned side by side, each incorporating a structurally reserved "expansion zone." This design enabled families to enlarge their dwellings incrementally to 70–80 m², usually by extending the living space on the ground floor and adding new rooms on the upper floor (López & Gualdieri, 2016). Over time, these extensions generated a heterogeneous urban fabric that contrasted with the uniformity of conventional social housing schemes (Figure 5).



Figure 5: Quinta monroy Source: URL 3.

The spatial organization supported not only interior domesticity but also communal life. The dwellings opened onto shared courtyards and streets, thereby producing semi-public spaces that enabled everyday encounters among residents. In terms of construction techniques, local materials and simple building methods were prioritized: reinforced concrete structural systems, brick infill, and easily accessible construction components allowed users to complete their homes

through self-built processes. In contrast to the anonymity and homogeneity of conventional social housing layouts, this plan and typology facilitated the gradual emergence of a heterogeneous urban fabric that reflected the identity of each family. In this way, Incremental Housing became not merely an economic solution but also a powerful demonstration that architecture can enable social justice and participatory processes (López, 2019).

Alongside these three global approaches, the Narcity Housing Complex in Istanbul has been included in the analysis as a case exemplifying the spatial manifestations of neoliberal urban policies in Turkey. Emerging in the 2000s, Narcity (Maltepe, 2005–2007) illustrates how large-scale residential developments embody the dynamics of neoliberal transformation. Commissioned by Tepe İnşaat and designed by Nevzat Sayın and Mert Eyiler, the project was constructed on an area of approximately 143,000 m², accommodating more than 1,300 housing units together with social facilities, recreational areas, and landscaped open spaces. The site plan adopted a parallel block arrangement, while the inclusion of green spaces and courtyards between blocks sought to ensure access to daylight, natural ventilation, and views despite the high-density development (Figure 6).



Figure 6: Narcity Project Source: URL 4.

Semi-public spaces—such as walking paths, playgrounds, and social facilities—were clearly demarcated from private living areas. While this spatial separation reinforced feelings of security and belonging for residents, it simultaneously restricted opportunities for social interaction. İlhan Tekeli (1994) argues that in Turkey, the planning discipline has increasingly fallen behind market-oriented mechanisms, transforming space from a medium of social production into an instrument of capital accumulation. Narcity exemplifies this observation in a contemporary

form: it produced a socially homogeneous middle- to upper-middle-class enclave, transplanted socio-spatial segregation to the urban periphery, and accelerated what Lefebvre (1991) conceptualizes as the "commodification of space." For this reason, although the project aligns with Koolhaas's notion of Bigness in terms of scale and density, it stands in stark contrast to Aravena's incremental housing model by lacking social inclusivity and participatory processes. In this sense, Narcity emerges as a quintessential case of the capital-driven urban strategies characteristic of the neoliberal era. when evaluated alongside the other three paradigms, Narcity demonstrates both parallels and contrasts. Similar to Koolhaas's notion of Bigness, it embraces scale, density, and a self-contained urban character; yet unlike Nexus Housing, it lacks a typological experimental agenda and instead follows a standardized gated-community model. In relation to Ingels's hedonistic sustainability, Narcity incorporates landscaped courtyards and green zones, which superficially resonate with ecological and livability discourses, but these elements function primarily as lifestyle branding rather than inclusive sustainability strategies. In stark contrast to Aravena's incremental housing, Narcity epitomizes a top-down, market-driven development: it excludes participatory processes, produces social homogeneity, and amplifies spatial segregation. Thus, Narcity situates itself as a local manifestation of neoliberal urbanism, showing how global paradigms are selectively appropriated—emphasizing scale, density, and market value—while ignoring inclusivity, adaptability, and social equity.

4. COMPARATIVE DISCUSSION

Table 1: Comparative Analyses

CRITERIA	REM KOOLHAAS – NEXUS HOUSING (FUKUOKA, 1991)	BJARKE INGELS – MOUNTAIN DWELLINGS (COPENHAGEN, 2008)	ALEJANDRO ARAVENA – INCREMENTAL HOUSING (QUINTA MONROY, 2003)	NARCITY – HOUSING COMPLEX (MALTEPE, ISTANBUL, 2005–2007)
Typology and Spatial Organization	24 three-storey houses in two blocks with vertical courtyards; inspired by Roman urban continuity and Mies's courtyard typologies.	80 apartments + 480 parking spaces; terraced structure with private gardens, forming a "mountain slope" configuration.	"Half-house" model: basic structure + infrastructure, expandable by users over time; modular and incremental typology.	Large-scale gated community on approx. 143,000 m²; parallel blocks with courtyards and green spaces; modular apartments from 1+1 to 4+1; balconies and terraces emphasized.
User Experience	Compact housing for middle-class Japanese families; courtyards provide privacy and natural light.	For middle- to upper-class residents; terraces integrate nature with semi-public neighborhood experiences.	For low-income families; adaptability and personalization through user participation.	Aimed at middle- and upper-middle-class families; secure, exclusive lifestyle; semi-public amenities (paths, playgrounds, social facilities) clearly separated from private areas.
Social Dimension	Weak link to social policy; primarily a typological experiment.	Mixes housing with lifestyle branding; limited inclusivity.	Directly addresses social equity and participation; conceived as a social policy tool.	Produces a socially homogeneous community; reinforces socio-spatial segregation; limited opportunities for collective interaction.
Sustainability	Typological sustainability through light and air in dense urban fabric.	Passive strategies (natural light, views, climate benefits); lifestyle integrated with environmental concerns.	Economic and social sustainability: affordability, durability, community resilience.	Light and ventilation provided by courtyards and green areas; broader ecological and social sustainability secondary to prestige and market value.
Urban Context	Integrated into Japanese urban fabric; designed as a plinth for Isozaki's future towers.	Located on the city's edge; proposes a new residential lifestyle engaging with landscape.	Protects the urban poor from displacement; keeps communities within the city.	Peripheral Istanbul; reinforces center–periphery divide; inward-looking gated community detached from the wider city.

This comparison demonstrates that while Koolhaas and Ingels have developed large-scale typologies and lifestyle-oriented models, both remain limited in terms of social inclusivity. In contrast, Aravena places participation and incremental growth at the center of his approach, prioritizing social justice in the face of rising costs and limited resources. As a Turkish example, Narcity illustrates the spatial homogenization and socio-economic segregation produced by neoliberal urban policies, constructing a spatial order that restricts social interaction through the typology of the gated community.

In this context, it can be argued that Turkey's urban transformation policies have drawn inspiration from Koolhaas's logic of scale and density in Bigness and from Ingels's marketing strategies of hedonistic sustainability, while diverging from Aravena's participatory and equity-oriented paradigm. The case of Narcity serves as a critical example of how global paradigms generate contradictions when translated into the local neoliberal context. The comparative analysis presented here shows that large-scale architectural paradigms resonate in Turkey in divergent ways. Koolhaas's concept of Bigness finds its reflection in mega-projects such as Narcity, Zorlu Center, and the Kayabaşı TOKİ settlements, where symbolic power and programmatic density dominate, yet contextual sensitivity and inclusivity remain absent. Ingels's discourse of hedonistic sustainability has been transformed into a marketing tool in Istanbul's luxury housing projects, emphasizing green roofs and promises of lifestyle quality but failing to ensure accessibility for lower-income groups. By contrast, while Aravena's incremental housing model has not been implemented in Turkey, it highlights an alternative paradigm that could have addressed issues of displacement and memory loss in cases such as Sulukule and Tarlabaşı. All three approaches thus encounter distinct limitations under the conditions of neoliberal policies that reduce space to a vehicle for capital accumulation.

5. CONCLUSION

Since the 1980s, urban transformation in Turkey has followed a capital-oriented trajectory under the influence of neoliberal policies, producing long-lasting consequences at both spatial and social levels. With economic liberalization, urbanization policies have increasingly been shaped by market mechanisms and strategies of capital accumulation; the state's role in spatial production has shifted, and traditional tools of planning have weakened (Tekeli, 1994). During this process, the quantitative increase in housing supply was prioritized, while spatial justice, inclusivity, and sensitivity to local context were often neglected. Especially after the 2000s, TOKİ ceased to function solely as an institution

responding to housing needs and instead became the economic engine of urban growth (Balaban, 2012). Projects such as Kayabaşı produced typological uniformity and intensified socio-spatial segregation at the city's periphery (Kuyucu & Ünsal, 2010).

This transformation must be understood not only as a physical restructuring but also as a reconfiguration of social relations and the construction of new urban identities (Güzey, 2016). Istanbul represents the most striking laboratory of this process. Mega-projects like Zorlu Center and gated communities such as Narcity (Maltepe, 2005–2007) embody the scale and density logic of Koolhaas's Bigness in the Turkish context. Narcity, with its parallel block layout, courtyards, and landscaped areas, provided a closed and homogeneous lifestyle for middle- to upper-income groups, reinforcing the division between urban center and periphery. In doing so, it privileged marketable lifestyles over collective memory and inclusive spaces.

Similarly, in Istanbul's luxury housing developments, strategies akin to Ingels's hedonistic sustainability (such as green roofs, views, and promises of enhanced quality of life) have been employed as marketing devices, yet have failed to ensure accessibility for lower-income groups (Lehmann, 2012). By contrast, Aravena's incremental housing model was never applied in Turkey; instead, policies in Sulukule and Tarlabaşı relied on displacement and the erasure of cultural memory rather than participatory, incremental housing strategies (Şenyapılı, 2004; Kuyucu & Ünsal, 2010).At the same time, Istanbul's character as a "divided city" aligns with its historical trajectory. Rosenthal (1980) described Istanbul as a site where nationalist ideologies and diverse ethnic groups intersected, with these differences inscribed in the urban fabric through the notion of a divided city. Similarly, Pamuk (1999) emphasized the fragile foundations of Turkey's economic growth and its effects on urban development, noting how cyclical crises frequently disrupted spatial production. This fragility continues to shape urban transformation projects today, driven by economic instability and shifting political agendas.

Taken together, these findings reveal that global paradigms in Turkey are frequently adopted as "ready-made" models without adequate contextual analysis. Projects that generate value through scale and iconicity often reduce public space to semi-public enclaves within gated communities, weakening the democratic function of the urban realm. Thus, the reflections of global paradigms in Turkey's urban transformation are largely limited to uncritical transfers, resulting in significant problems regarding spatial justice, social participation, and sustainability. Moving forward, urban transformation policies should

prioritize architecture not merely as an aesthetic or investment tool but as a transformative instrument for collective memory, identity formation, and social equity. The theoretical frameworks offered by Koolhaas, Ingels, and Aravena, when synthesized with Turkey's unique socio-economic conditions, provide crucial insights for developing participatory, sustainable, and context-sensitive approaches rather than capital-driven strategies.

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MIND THE GAP: THE RAILWAY AS A BORDER OF ACCESS AND ENCLOSURE OF URBAN COMMONS IN İZMİR

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ABSTRACT

Focusing on the İzmir Banlieue Railway (İZBAN) line between Şemikler and Yalı neighborhoods since 2010, this research examines how railway infrastructure functions as an imperative to control urban resources in Karşıyaka, İzmir. The research poses the following question: Does urban transportation infrastructure, rather than simply enabling mobility, act as a boundary that exerts a profound influence on social, spatial, and material priorities, as well as existing disparities? Drawing on theories of commons and urban commons, the research employs a methodology that integrates historical analysis, spatial mapping, and site observations to highlight the stark contrast in land distribution, environmental quality, and patterns of access and exclusion in these neighborhoods. It investigates how the railway's spatial configuration mediates property relations and urban rent in reshaping the material and social landscape. Thus, the study argues that, by enclosing and fragmenting urban commons, the railway does not merely function as a transportation system but operates as an infrastructural boundary that reinforces spatial inequalities.

Keywords: Commons, Railway Infrastructure, Access and Enclosure, Urban Transformation, Spatial Inequality.

INTRODUCTION

This paper explores how the enclosure created by the construction and inauguration of İZBAN —respectively in 2006 and 2010— has shaped the spatial priorities and disparities of the urban commons between the Şemikler and Yalı neighborhoods in İzmir. While this study interrogates the role of railway infrastructure as not only an instrument of mobility but also as an agent that mediates access and enclosure, its main objective is to uncover the spatial, material, and social conditions produced by this infrastructure-led transformation.

Architectural design and urban planning decisions dictate which needs and values are prioritized in the built environment, structuring the distribution and control of urban commons. Although the term commons and the literature on the commons inherently contain conceptual ambiguities, at its simplest, the word common signifies that which is shared, collective, and communal. Sevilla-Buitrago (2022), whose recent study builds on previous literature to offer a comprehensive understanding of commons, defines them as encompassing both material and immaterial resources-such as land and water, to knowledge and urban infrastructure-that are sustained through collective management and commoning practices. In urban studies, the concept emphasizes non-privatized, accessible resources that support collective well-being while challenging capitalist models of ownership and commodification (Stavrides, 2016; Harvey, 2012; Nonini, 2006).

In each case, the commons are deeply tied to property relations and the legal, economic, and social contracts that define them. Property is not simply a physical possession, but a political construct that is intertwined with historical transformations and institutional frameworks (MacPherson, 1978). As Dardot and Laval (2019) argue, property regimes regulate access, control, and exclusion, and define the boundaries between commons and enclosures. For example, the notion of res communes in Roman law-resources such as air, water, and light that were considered inalienable-contrasts with modern privatization, which increasingly commodifies common resources (Wall, 2014). The tension between commons and enclosure remains central to urban environments, where infrastructure, land tenure, and governance play a critical role in shaping socio-spatial dynamics. When urban development prioritizes profit over collective benefit, it commodifies public resources, whereas inclusive and accessible approaches support shared urban life. (Figure 1).

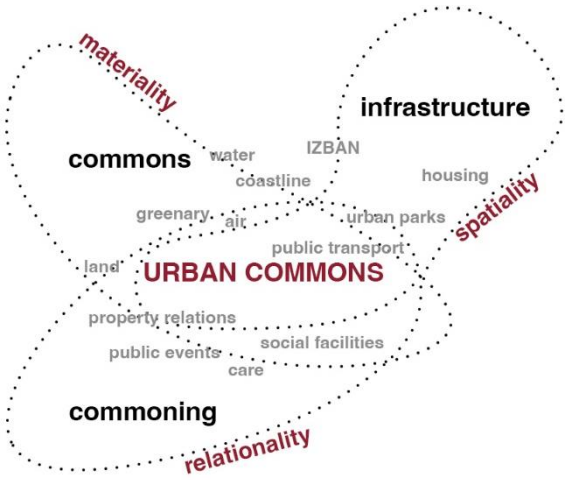


Figure 1. Diagram showing urban commons and its relations. Source: Drawn by authors.

Thus, focusing on Şemikler and Yalı neighborhoods, this paper investigates urban decision-making around a railway line and its impact on the redistribution of commons, particularly in relation to property relations and access to urban resources. Located in the northern part of İzmir within the Karşıyaka district, Şemikler (1.083 km²) and Yalı (1.834 km²) are two adjacent neighborhoods separated by the İZBAN commuter rail line, which passes through the area via the Demirköprü, Şemikler, and Mavişehir stations. Once a village organized around a square and marketplace with single-story houses and gardens, the area underwent rapid urbanization from the late 1960s onward and, following the construction of the modern railway in 2006, was physically divided into the seaside Yalı and inland Şemikler neighborhoods (Sevinçli, 2011; Karadağ, 1998; Atilla, 2014). On the one hand, in the present condition, the two sides of the railway line differ in both built environment and density. To the north, the residential fabric in Şemikler is fairly dense and largely unplanned, whereas to the south the built environment in Yalı is more orderly and less dense, though density increases again towards the coast beyond the line. On the other hand, connectivity across the railway is highly limited: along the stretch covering Demirköprü, Şemikler, and Mavişehir, there are only two pedestrian passageways apart from the train stations themselves —one an underpass and the other an overpass— and a single vehicular passageway located in Demirköprü at the end of the two neighborhoods. Although another vehicular passageway is planned between Şemikler and Mavişehir stations, its realization remains uncertain (Figure 2). The emerging body of literature

examining the railway line and the surrounding neighborhoods in the Karşıyaka district also problematizes uneven development and issues of accessibility.

The literature that examines the İZBAN railway line, the Yalı and Şemikler neighborhoods and their surroundings in the Karşıyaka district contains mainly empirical studies that focus on urban transformation, the evaluation of existing conditions, and the physical boundaries created by transit transportation routes (Atay Kaya, 2021; İncedere, 2022; Engin, Gürman & Bakan, 2022; Zamanis, Selçuk & Karataş, 2024). Drawing from existing literature, this study offers a distinct contribution by addressing the infrastructural mediation of commons in the area, highlighting how transportation networks function as instruments of governance that shape socio-spatial inequalities and access to shared urban resources. In doing so, it adopts a methodological approach to examine the spatial and material conditions and relationalities of Şemikler and Yalı, with the aim of untangling the visible and invisible effects of the railway infrastructure on the urban commons and their uneven channeling. This approach combines archival research - incorporating photographs, historical aerial images and maps, and municipal documents with cartographic analysis and fieldwork, revealing the transformation and accelerated development that has taken place since the 2000s.

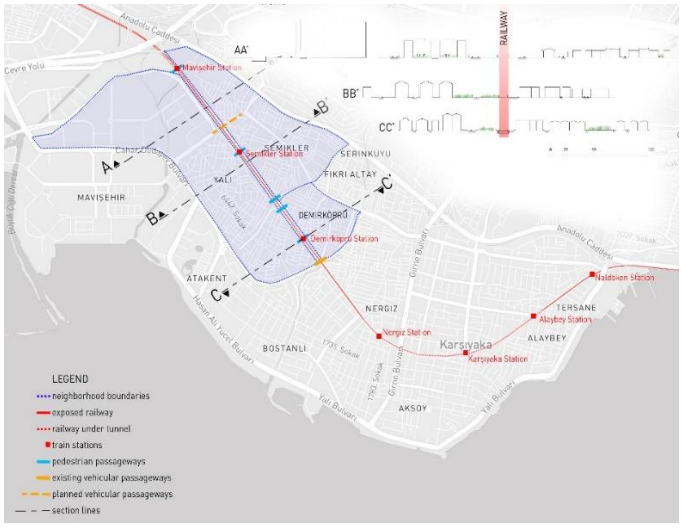


Figure 2. Neighborhoods' locations, their accessibility and site sections
Source: Drawn by authors

ACCESS AND ENCLOSURE

İzmir Banlieue Railway (İZBAN) is a 136-kilometer railway line that crosses the city and connects the northern end of the city with the southern end. The railroad was built on the İzmir-Aydın (1858) and İzmir-Qasaba (1865) railroads, the oldest railroads in Anatolia, which connected the international port of İzmir to the agricultural lands on the periphery for the export of agricultural goods (Bilsel, 2000; 2008). Until 2006, the line served as a banlieue train, connecting the banlieue to the central business district. Due to the low frequency of service, the railway was only crossed at level crossings on roads; otherwise, it was not enclosed by fences, allowing it to seamlessly integrate with the city. From 2006 to 2010, the railway was reconstructed with electrification in partnership with the government and the municipality and extended to the airport in Menderes and the industrial zone in Aliağa along the north-south axis on both sides (Atilla, 2014). The banlieue transportation, which was opened to the public service of İzmir in 2010, carries out about 250 services daily (DHA, 2022). Meanwhile, the railway was protected with high impassable fences. Only four stations out of 41, Nergiz, Karşıyaka, Alaybey and Şirinyer stations, were taken to underground tunnels because they are located in the middle of the city centers of Karşıyaka and Buca, where human density and movement were high. However, when the railway passes through the city on the surface instead of going underground, the fence creates a "boundary" between two sides of the city (Engin, Gürman & Bakan, 2022).

The banlieue of downtown Karşıyaka is a notable case of this duality in access to urban resources. Prior to the construction of the current railway structure, the banlieue was a conventional village settled around a square and marketplace with single-story houses with large fruit and vegetable gardens until the late 1960s. Although the banlieue railroad had already passed through the village, the railroad was exposed without any physical boundaries. It was part of the village with two stations, Şemikler and Yalı stations, which facilitated the locals to transport their crops to other cities by wagons (Sevinçli, 2011). Between 1965 and 1970, similar to other metropolitan cities in Turkey, the morphology of İzmir changed dramatically due to rapid urbanization under the influence of property ownership laws (Karadağ, 1998) (Figure 3). While in the center of Karşıyaka district one-story traditional buildings were replaced by five-story apartment blocks, land in the banlieue was divided into small plots and sold immediately. The subdivision of the periphery was followed by the rapid emergence of dense squatter settlements in the banlieue, also with the contribution of domestic and Balkan migrants in the meantime (Sevinçli, 2011) (Figure 4).

The construction of the railway line in 2006 and its opening in 2010 marked the beginning of a new phase of urban renewal in the region, this time distinctly shaped by the boundaries imposed by the line. With the start of the construction of the modern railway line in 2006, the banlieue was strictly divided into two sides as Yalı neighborhood on the seaside and Şemikler neighborhood on the land side by impassable level differences, buffer zones and high iron fences protecting the rails. (Figure 5) Since then, the İZBAN railway line has been instrumental in enhancing the accessibility of both neighborhoods to other parts of the city, in conjunction with bus and minibus routes, and tram lines. However, it has also emerged as a significant boundary in Karşıyaka, influencing also the disparities in access to urban commons. While Anadolu Road had previously functioned as a socio-economic boundary separating low-income groups in the squatter housing region from the city center (Kıldiş, 2006, p. 16), the railway emerged as a second border of socio-economic status, differentiating the high-income group in Yalı Neighborhood from the middle-income group in Şemikler Neighborhood (Zamanis,Selçuk & Karataş, 2024).



Figure 3. Aerial photographs of Şemikler and Yalı in 1951 (left) and 1973 (right) Source: General Directorate of Mapping



Figure 4. Şemikler Square before 2010. Source: 'Eski Şemikler ve Yalı Şemikler Fotoğrafları' Group [Facebook].



Figure 5. The railway dividing Şemikler and Yalı Neighborhoods Source: Bilge Karakaş

Following the argument of Dardot and Laval (2019), the fences and level differences along the İZBAN line can be interpreted as material manifestations of enclosure, transforming shared urban resources into domains with regulated access. The urban development triggered by the 2006 construction and the 2010 inauguration highlights the mediating role of infrastructure in enclosing urban commons. The Yalı Neighborhood, with its coastal location, enjoys direct access to the waterfront, public spaces, and well-integrated green areas. Conversely, the Şemikler neighborhood is characterized by spatial constraints, resulting in an isolation from coastal amenities and a limitation in urban resources. The division of neighborhoods created spatial inequalities, which were manifested in the unequal distribution of land and the disparity in the quality of the built environment. Proximity to the sea became a critical factor in determining the value of real estate, access to urban resources, the quality of infrastructure, and the architectural design and planning. In this sense, access extends beyond physical passage to include the distribution of collective resources. The railway restricts movement and mediates who benefits from green spaces, cultural facilities, and urban amenities.

One of the key factors driving the uneven development dynamics between Şemikler and Yalı is rooted in the uneven presence —or outright absence— of urban planning and design, which functions simultaneously as a driver and an outcome of the division. The Yalı district, which benefited from its coastal location, attracted higher investment in the built environment, resulting in increased property values. Former one-story squatter houses and organic street patterns were replaced by 15-20 story luxury high-rises surrounded by gardens within gated communities (Figure 6). In the Şemikler neighborhood, a 5-story building was permitted within the boundaries of the same plot of squatter houses. If the parcel was too small to build an apartment building on, which was usually the case, the adjacent landowners were made partners with a special law (*şuyulandırmak* in Turkish). Limited investment and inadequate planning resulted in a dense urban environment in which the footprint of the original squatter houses was essentially preserved, and in order to open up the streets between the

squatter houses, orchards and some plots of land were also expropriated by the municipality through the filing of a lawsuit. In later planned developments such as Ordu Boulevard, plot shares were allocated along the road; and in a few areas, land readjustments produced relatively detached high-rise blocks (Figure 7). The neighborhood was redeveloped primarily for the middle class, characterized by 4-5 story attached apartment blocks arranged around light wells. With lower property values, inadequate ventilation and lighting in the buildings, and a profit-driven approach by both developers (yapsatçı) and landowners, the neighborhood suffered from poor social spaces, poor urban amenities, and underdeveloped infrastructure (Figure 8).

The inequality associated with planned development is further reflected in the distribution of urban parks and facilities. Yalı area was provided with extensive and well-designed green spaces, a greater number of social and urban facilities, and bicycle and pedestrian paths connecting parks and residential areas - a stark contrast to the inland parts of the banlieue. Quantitatively, Yalı possesses more urban parks than Şemikler, while the northern part of Şemikler —marked by deepening socio-economic disparities and visible poverty— lacks any planned parks. The Yalı Neighborhood has been identified as the third most green space-rich area in Karşıyaka, with an average of 2.83 square meters of open green space per person, whereas the Şemikler Neighborhood has been identified as one of the least green space-rich areas, with only 0.72 square meters per person (Zamanis, Selçuk & Karataş, 2024, p. 97). Consequently, in Karşıyaka district, exposure to extreme temperatures is unevenly distributed, influenced by factors such as wind, street width, and street texture. Şemikler, along with Örnekköy and Zübeyde Hanım neighborhoods, exhibits the highest recorded temperature levels (Tikik, 2024, p.90). The author of the analysis, urban planner Tikik, notes that the low income level and the small amount of green space in Şemikler cause the urban climate injustice to deepen (Tikik, 2024).



Figure 6. Views from Yalı Neighborhood. Source: Google Street Views.



Figure 7. Plots of former squatter housing overlapped with current aerial photographs. Source: Drawn by authors.



Figure 8. Views from Şemikler Neighborhood. Source: Google Street Views.

In qualitative terms, Yalı Mahallesi offers better-designed parks: in contrast to Şemikler's parks, which typically consist of standard tree planting and children's play areas made of mass-produced petroleum-based materials, Yalı's parks feature landscape-oriented design, walking paths, urban furniture, and in some cases specialized spaces such as topographical modifications like artificial hills and skateboard parks. The fact that some parks are designed for specific age groups or uses may suggest that user profile studies have been conducted in these areas. Located in Yalı Mahallesi, between Mavişehir station and the seafront, the green corridor —which contains the only bicycle path in the area— constitutes the largest green space in the region. Considering these green spaces are used as meeting and socializing areas, providing us with clues about the broader socio-cultural facility situation. For example, when it comes to cultural and artistic facilities, Şemikler hosts only two institutions: the Ahmet Piriştina Cultural Center and the Ali Rıza Bodur Public Education Center. By contrast, Yalı Mahallesi accommodates a wider range of facilities, including a photography museum, a children's center and educational campus, a children's adventure park, and an art center that houses a chamber orchestra and theaters. (Figure 9)

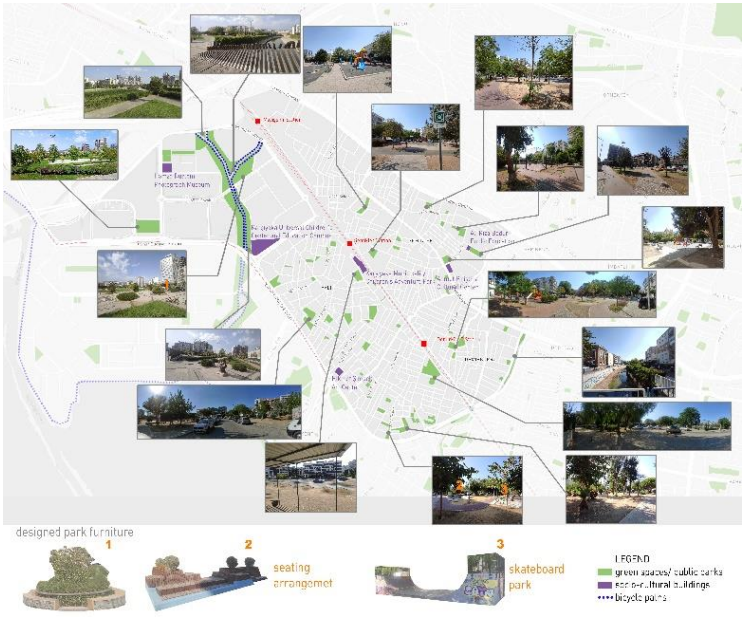


Figure 9. Green spaces and social-cultural buildings in both neighbourhoods. Source: Drawn by authors.

Architecture and the built environment further exacerbates these inequalities. Yalı's high-rise developments incorporate wider setbacks and landscaped areas, allowing for better ventilation and natural light. In contrast, Şemikler's dense, low-rise apartment blocks feature narrow streets and poorly ventilated interiors. In Şemikler, adjacent building blocks clustered around light wells were laid out according to plot locations rather than in response to prevailing wind direction, temperature, or sunlight. Consequently, the area —isolated from the coast— experiences high heat, and the resulting built fabric generates irregular, unhealthy interior spaces with limited access to daylight and natural ventilation (Figure 10).

As both a consequence and a driving force in the vicious cycle of spatial inequalities, urban rent and property relations play a decisive role. In this regard, real estate values reveal striking differences. To illustrate, when we look at mid-floor 3+1 rental and for-sale apartments, the contrast becomes clear. In Şemikler, rental prices generally range between 30,000 and 50,000 TL, whereas in Yalı Mahallesi, they are observed across several brackets: 30,000-50,000 TL, 50,000-70,000 TL, and even above 90,000 TL. The gap is even more dramatic in the case of for-sale apartments: in Şemikler, prices typically fall within the 4-8 million TL and 8-12 million TL ranges, while in Yalı Mahallesi, they are concentrated

mostly in the 12-16 million TL range, with certain areas reaching as high as 16-20 million TL (Figure 11).

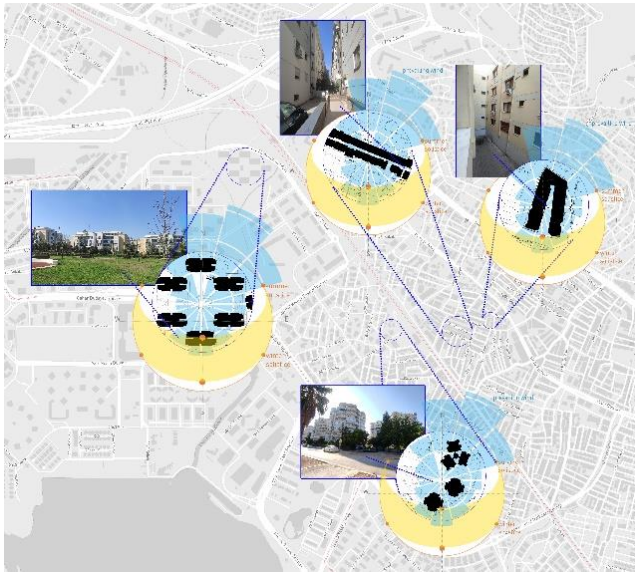


Figure 10. Block types from both neighborhoods and their sun and wind analysis. Source: Drawn by authors.

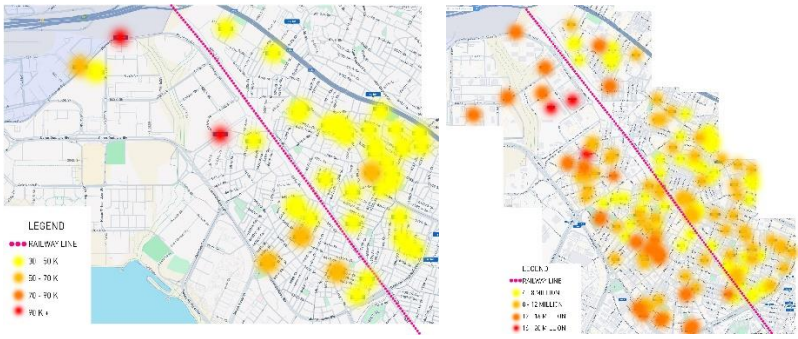


Figure 11. Buildings for rent (left) and sale (right) in both neighborhoods. Source: Drawn by authors.

In essence, the İZBAN railway functions as a catalyst for both mobility and enclosure. As Harvey (2012) and Stavrides (2016) remind us, infrastructure is not a neutral mechanism but a political instrument that determines who gains access to, and who is excluded from, common

resources, as well as the conditions under which those resources are enclosed. While enhancing connectivity, the railway's fences, level differences, and spatial configuration fragment the urban fabric, intensifying disparities in access to urban commons —including social and material infrastructures such as good-quality housing, urban parks, and socio-cultural amenities— as well as elemental resources such as land, water, air, and light. In Karşıyaka, the railway serves as a telling case, showing how infrastructural boundaries can simultaneously enable connectivity and reproduce inequalities, generating geographically uneven patterns of access and enclosure.

COMMONING PRACTICES

In contrast to the privatized logic of gated communities, where access and interaction are tightly controlled, neighborhood life in Şemikler demonstrates alternative forms of commoning. Despite these spatial inequalities, everyday life in Şemikler reveals ongoing commoning practices that challenge the rigid boundaries imposed by infrastructure. Lightwells, originally designed for ventilation and daylight, often double as informal gathering spaces where neighbors interact, share meals, and cultivate small gardens. Streets, despite their constrained layouts, become sites of communal life, hosting street weddings, mevlids, celebrations, and collective rituals that strengthen social bonds. Even stray and farm animals, which residents collectively care for, are integral to these shared urban practices, embodying forms of care that transcend enclosure. These practices demonstrate how commons are not solely determined by spatial conditions, but are actively shaped, negotiated, and sustained through everyday acts of commoning (Figure 12).



Figure 10. Urban communing examples in Şemikler Neighborhood. Source: Bilge Karakaş.

CONCLUSION

Whether priorities serve communities or align with profit-driven motives is debated through commons. Access to a livable environment depends on the equitable distribution of urban resources, infrastructure and community benefits. The İZBAN railway, instead of merely facilitating

mobility, has become a determinant in shaping spatial inequalities, reinforcing the divisions between the coastal and inland neighborhoods of Karşıyaka. As an infrastructural boundary, it dictates access to power, resources, and opportunities, influencing land values, the built environment, and environmental quality. This study highlights how the railway's role extends beyond transportation, actively shaping urban commons and determining which communities benefit from the city's resources. While infrastructure and urban redevelopment prioritize certain communities and lands —such as Yalı— they simultaneously relegate others, like Şemikler, to the periphery. This dual process of inclusion and exclusion operates as a double-edged force, shaping access to urban resources while deepening spatial inequalities. Yet, despite these imposed boundaries, the city remains a socially and ecologically entangled landscape where divisions are never absolute. Water, air, and land move beyond infrastructural enclosures, just as the lives, struggles, and negotiations of those who inhabit them continue to unfold. Even where barriers are drawn, connections persist, revealing the commons not as a fixed entity but as a lived and contested practice- one of reclaiming, resisting, and reconfiguring shared urban life.

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A SUSTAINABLE AND INNOVATIVE APPROACH FOR ANIMAL ANDCOMMUNITY WELFARE

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ABSTRACT

Sustainability is crucial in architecture, living spaces, and urban planning, addressing climate change, resource depletion, and social equity. Following the millennium development goals, the 17 sustainable development goals (SDGS) promote global action against poverty, environmental degradation, and inequality. Sustainable urbanism extends beyond reducing ecological impacts to strengthening social life, promoting accessibility, and involving communities in decision-making for livable cities. In Türkiye, protecting stray animals has become an urgent issue linking ethical responsibility with ecological balance. Animal-friendly designs should extend beyond shelters to urban furniture, landscape planning, and green spaces that support biodiversity and healthy human-animal interactions. Yaşatan ve Yeşerten Barınaklar project exemplifies sustainable development by integrating animal welfare, women's employment, and institutional sustainability. Designed with minimal carbon footprint and self-sufficient operations, the shelter combines renewable energy, green roofs, and natural landscapes for climate resilience. The project supports local women in both animal care and agricultural production, promoting social equality aligned with SDG 5 on gender equality.

This project raises public awareness about animal rights and environmental consciousness through educational programs and fosters a sustainable urban model emphasizing social justice, ecological responsibility, and economic viability. Via harmonizing with nature and the urban ecosystem, the project offers a replicable example of sustainable urban design that benefits animals, people, and the environment alike. The project, ultimately contributes to building resilient, inclusive, and livable cities for the future.

Keywords: Sustainability, Animal Sheltering, Community Welfare, Development Project, Gender Equality

The urbanization process, the reduction of green spaces results in multifaceted consequences that extend beyond environmental concerns to include social and health dimensions. Considering the ecological, psychological, and sociological functions that green spaces serve within the urban ecosystem, their loss directly and negatively impacts human quality of life. Primarily, the decrease in green areas leads to a decline in air quality, an increase in the urban heat island effect, and a weakening of ecosystem services within cities. This situation, especially observed in large metropolitan areas, has become a significant factor in the rise of respiratory diseases, cardiovascular conditions, and heat-related health problems. Furthermore, the reduction of daily contact with nature among individuals elevates stress levels, adversely affects psychological well-being, and contributes to a decline in social welfare.

Alongside intensified urbanization, the loss of green areas and habitat fragmentation cause a decrease in biodiversity and disruption of interspecies ecological balances. The shrinking of natural habitats alters migration routes for many animal species, disrupts food chains, and leads to conflicts in human-animal interactions. The reduction of green spaces in cities should not be considered merely as an aesthetic or recreational loss; rather, it represents a critical environmental issue that directly and indirectly affects human health, social welfare, and biodiversity. The uncontrolled proliferation and growth not only among humans but also in stray animal populations pose a pressing issue that must be managed, especially given some adverse incidents. This situation, which triggers diverse public opinions, necessitates humane and careful control of stray animals without causing them harm.

One of the increasingly pressing issues in urban life is the uncontrolled proliferation of stray animals and the social consequences arising from this process. Influenced by consumer culture and fashion trends, many people acquire pets but quickly abandon their care responsibilities, often abandoning these animals on the streets, which is a primary factor contributing to the rapid growth of the stray animal population. The struggle for survival faced by animals living on the streets, combined with inadequate access to food, insufficient shelter, and environmental factors, leads to increased aggression tendencies among these animals. This situation not only diminishes the quality of life for the animals but also creates safety risks in encounters between humans and stray animals. Such interactions can pose serious dangers, especially for children, the elderly, and individuals unprepared for animal encounters. Thus, uncontrolled population growth and abandonment have become a complex societal issue threatening both animal welfare and public safety simultaneously. According to 2024 data from Turkey's three largest

cities, there are approximately 668,900 stray dogs, excluding street cats. Ankara has around 90,000, Istanbul 128,900, and İzmir 450,000 street dogs. Over the past five years, 1,310,108 dogs have been neutered, 2,704,768 vaccinated and rehabilitated, and 274,940 adopted. Turkey has 326 animal shelters and 33 animal hospitals, whereas Germany and the UK have over 700 and 1,000 respectively, reflecting an insufficiency of qualified animal care facilities in Turkey despite its larger geographical and population size.

Yaşatan ve Yeşerten Barınaklar Project is a sustainably managed initiative focused on supporting local women's workforce, prioritizing animal welfare, institutional sustainability, and addressing social, environmental, ethical, cultural, and economic dimensions. Designed to meet facility needs with minimal carbon footprint, it aims for self-sufficiency while conducting commercial activities to ensure long-term continuity. This project, rich in scope and impact, serves as a replicable model not only locally but also in other regions, promoting sustainable, eco-friendly, and animal-centered shelters established by women. Its potential contribution to spreading sustainable shelter models nationally and internationally is a significant aspect.

Grouping the project components under key themes will facilitate a deeper exploration of the subject.If you have more paragraphs, please send the next part for translation. The project components form a sustainable design model supported by circular economy principles, education, awareness-raising, integration of women's labor, and social participation. Within this framework, the project aims to address numerous contemporary issues in the country by enabling the functioning of a circular economic cycle.

Primarily, the project focuses on:

1. Empowering Women Farmers through Education, Employment, and Cooperative Development:

Women will be actively employed in the daily operations of the shelter under a model structured around two main components. The first group will be responsible for the care and management of the animals, while the second will be engaged in agricultural production activities designed to contribute to the shelter's sustainable economy. Training programs on animal care and agricultural practices will be delivered by qualified agricultural engineers and veterinarians, ensuring participants receive the necessary technical knowledge to perform their duties effectively.

The key objective of the model is to promote the empowerment of nearby women farmers by fostering local collaboration. Through partnerships with these farmers, the shelter aims to meet its animal feed needs locally, thereby supporting regional agricultural activity. In addition to cultivating agricultural products within the shelter grounds for use in pet food production, supplementary materials will be sourced from local producers. The surplus of the pet food produced is intended to be sold, generating additional income for the shelter and contributing to a circular economic model. This initiative not only aims to strengthen the role of local women in economic life, but also supports environmental sustainability through the promotion of sustainable agricultural practices. Ultimately, the model is expected to enhance women's economic independence while reinforcing the long-term financial and operational sustainability of the shelter.

2. Veterinary Services, Rehabilitation, Training Areas and Animal Hotel:

As part of the proposed model, veterinary services will not be limited to the animals housed within the shelter; they will also be extended to domestic animals in nearby communities and, depending on the shelter's rural location, to livestock owned by local residents engaged in animal husbandry. By offering veterinary care to the surrounding population, the shelter will generate an additional source of income, thereby contributing to the reinforcement of its own financial resources and sustainability. Within the shelter, a structured rehabilitation and adaptation process will be initiated with the transfer of stray animals. This process will include regular veterinary check-ups, microchipping, and the involvement of professionals specialized in addressing the physical and psychological needs of animals. Such measures are expected to facilitate the socialization and adaptation of animals, promoting their recovery and reintegration. Moreover, the shelter is designed not only to serve stray and domestic animals but also to support local wildlife populations. Around-the-clock veterinary services will be available, and dedicated infection control and orthopedic units will be established. The implementation of strict hygiene protocols will be mandatory to ensure both animal and staff safety. For instance, personnel working in the infection unit will be required to wear impermeable disposable protective equipment, including hooded overalls, gloves, face shields, and masks, to minimize the risk of spreading highly contagious diseases.

A digital animal tracking system will be integrated into the shelter's operations, allowing for real-time monitoring of both animal health and inventory levels. This system will provide up-to-date information on vaccination schedules, ongoing treatments for animals requiring special

care, and the status of medications in the shelter's pharmacy, thereby ensuring operational transparency and accountability.

Another key component of the project involves the establishment of specialized rehabilitation areas for injured or traumatized animals. These spaces will be equipped to support the animals' physical and emotional recovery and are considered essential to the shelter's mission. Animals that complete the rehabilitation process, including microchipping and necessary medical care, will be prepared for reintegration into safe environments. Some may be trained as guide animals, search-and-rescue companions, or therapy animals for public or individual benefit. Furthermore, animals retired from such roles will also be accommodated at the shelter. In addition to serving stray and rescued animals, the shelter will offer services to owned animals as well. Pet owners will be able to access professional dog training services, and during the training process, they may also benefit from boarding and extended care services. These offerings will provide assurance to pet owners regarding the quality and reliability of the care provided, while simultaneously increasing the shelter's visibility and contributing to its financial sustainability through a revolving fund.

The shelter facility will also include an animal hotel designed to accommodate owned pets during their owners' temporary absence. Given the growing demand for trustworthy facilities offering both veterinary care and full-time supervision, this service is expected to attract a significant number of pet owners. The hotel will monitor the dietary and medical needs of the animals, including those requiring medication or special nutrition, and this information will be shared regularly with the owners. Physical care services such as grooming, nail trimming, dental hygiene, and bathing will also be available. Overall, this service model aims to generate additional income for the shelter while addressing a pressing community need.

3. Training and Awareness Raising Activities:

Instructor Training Program and Trainer Transfer: The training of resident or guest animals at the shelter will initially be supported by external professional trainers. Concurrently, an "Instructor Training Program" will be established to provide hands-on training for trainee instructors within the shelter environment. Those who successfully complete the program will either be employed as professional trainers at the shelter or will gain the qualifications necessary to pursue careers independently within the private sector.

Community Education Programs: The shelter aims to organize educational programs for the local community, particularly targeting

children. These programs are designed to raise awareness about animal rights, foster a love for nature, and promote principles of sustainable living.

Advanced Training Seminars: Advanced training seminars focused on sustainable agriculture and animal husbandry may be offered specifically for women. These initiatives seek to empower women by equipping them with new skills, thereby promoting equal opportunities in the labor market and enhancing their competitiveness.

4. Social Participation and Community Support:

The Shelter's Role in Raising Awareness on Animal Rights, Sustainable Living, and Environmental Consciousness: The shelter will create widespread awareness in the community regarding animal rights, sustainable living, and environmental consciousness. Educational programs, especially designed for children and youth, will contribute to fostering an informed generation with increased sensitivity towards nature and animals. This, in turn, is expected to enhance social responsibility and promote environmentally friendly behaviors in the long term. Additionally, shelter volunteers and staff will conduct weekly visits to elderly and disabled care homes, organizing recreational activities with animals to alleviate feelings of loneliness and partial isolation. This program can also be adapted for kindergartens and daycare centers.

Volunteer Programs: The shelter is expected to encourage local community members to participate in volunteer activities. Volunteers may be engaged in various tasks such as animal care, cleaning, and social events. Furthermore, the shelter plans to organize local festivals, concerts, and fundraising events to strengthen its interaction with the community.

Social Media: Social media accounts created for the shelter will feature animals awaiting adoption as well as daily engaging and heartwarming content from the shelter. These posts will maintain the shelter's constant visibility and keep it prominent in public memory. Additionally, ornamental plants and seedlings cultivated within the shelter will be marketed through a website linked to the social media accounts.

5. Sustainable Design, Use of Natural Resources and Agriculture in Harmony with Nature:

The Shelter's Operation in Harmony with Nature: The shelter will operate in harmony with nature. Considering the variable climatic conditions, it is recommended that the shelter additionally utilize the infrastructure provided by the municipality; however, the primary goal is to be fully

independent and meet its own needs through sustainable energy sources. Environmentally friendly solutions such as rainwater harvesting systems, solar panels, sustainable agricultural practices, and composting areas will contribute to environmental conservation. Organic waste from animals will be converted into fertilizer, aiming to reduce environmentally harmful waste. These practices will minimize the shelter's ecological footprint and enhance its sustainability.

Building Construction and Architecture: The shelter will be constructed using natural and locally sourced materials such as stone, recycled, or industrial symbiosis materials. Solar panels will be installed on green roofs, and where geographically feasible, wind turbines will be placed in outdoor areas to enable the shelter to generate its own energy.

Collective Green Roof System: A water collection system on green roofs is proposed to store rainwater for use in cleaning and irrigation within the shelter. The combination of two key elements of eco-friendly roofing photovoltaic systems and green roofs provides mutual benefits by enhancing each other's efficiency. Collective green roof applications offer a significant solution to increase sustainability and reduce environmental impact. These benefits include mitigating urban heat island effects, improving stormwater management, enhancing thermal efficiency and insulation, supporting biodiversity, reducing environmental footprint, and increasing social and aesthetic value.

Across Europe, sustainable shelters are increasingly taking a central role due to growing public awareness of animal welfare, the development of environmentally focused public policies, and the widespread adoption of corporate responsibility practices. These shelters not only provide temporary housing and healthcare for abandoned or needy animals but also support local employment, encourage civic volunteering, and utilize resources efficiently in line with circular economy principles. Institutions operating with a sustainability perspective have a multidimensional impact, spanning adoption processes, education programs, veterinary services, and community awareness campaigns. In this context, four exemplary shelters operating in different European countries Tierschutz Austria (Austria), Tierschutzverein für Berlin und Umgebung e.v. (Germany), Stichting Dierenopvang Amsterdam DOA (Netherlands), and Battersea Dogs & Cats Home (United Kingdom) will be examined in terms of their organizational structure, financial sustainability strategies, and societal impacts to analyze how animal welfare based organizations contribute socially and economically.

Tierschutz Austria (Austrian Animal Protection Association) was founded in 1846 as a societal response to the prevalent animal cruelty practices of the time. Its core mission is to defend the right to life of domestic, farm, and wild animals, protect natural habitats, and ensure animals are recognized as sentient beings. The organization actively engages in preventing abuse, maintaining transparency in adoption processes, raising public awareness, and environmental protection. Its headquarters in Vösendorf near Vienna is one of Europe's largest and best-equipped animal protection facilities. The organization largely depends on individual and corporate donations, with limited public funding.

Tierschutzverein für Berlin und Umgebung (Berlin Animal Protection Association), established in 1841, is one of Germany's oldest animal welfare organizations. Beyond providing temporary shelter, it aims to raise awareness about animal rights and oppose practices such as industrial farming, animal testing, and fur production. Situated on a 16-hectare site, Tierheim Berlin is among Europe's largest shelters, caring for approximately 1,300 animals daily. The association receives limited public funding and operates mainly through donations, membership fees, and bequests.

Stichting Dierenopvang Amsterdam (DOA Amsterdam Animal Shelter), founded in 1901, is one of the Netherlands' largest and oldest animal shelters. It provides shelter, treatment, and adoption services to abandoned, sick, and lost pets alongside education, behavioral counseling, and emergency support to enhance the quality of life for both animals and owners. The facility relocated to a modern center in Amsterdam's Osdorp district in 2007, covering 6,200 m² indoors and 2,700 m² outdoors, with capacity for 185 dogs and 480 cats, a veterinary clinic, play areas, and training rooms. DOA's mission focuses on giving animals a second chance through careful matching in adoption processes, annually accepting about 2,000 animals and providing three months of free post-adoption counseling. Its financial structure relies heavily on donations, volunteer contributions, and service revenues.

Battersea Dogs & Cats Home (UK), founded in 1860 in London, is one of the UK's oldest animal shelters. It offers shelter, rehabilitation, and adoption services to abandoned, needy, or lost pets. Beyond shelter functions, it provides animal owners with education, behavioral advice, and emergency support to enhance the quality of life for animals and their owners alike.

SWOT Analysis Comparison of Shelters:

Each shelter faces different strengths and challenges locally and internationally. However, common themes such as social responsibility, animal welfare, and sustainability present opportunities for all. Challenges related to financial sustainability and community relations may impact future development. A SWOT-based comparative evaluation table has been created for Wiener Tierschutzhaus, Tierschutzverein, DOA (Dutch Animal Protection), Battersea Dogs & Cats Home, and Yaşatan ve Yeşerten Barınaklar (Table 1), summarizing each shelter's strengths, weaknesses, opportunities, and threats.

Table 1

Shelter / Organization	Strengths	Weaknesses	Opportunities	Threats
Wiener Tierschutzhaus (Austria)	- Long history and strong brand value. - Comprehensive services (care, rehabilitation, adoption). - Social responsibility projects and volunteer support.	- High operating costs. - Limited physical capacity. - Lack of independent financial resources.	- International collaborations. - Innovative sustainable projects. - Education and awareness programs.	- Political and economic uncertainties. - Increase in stray animals. - Competition.
Tierschutzverein (Germany)	- Long-established history, broad volunteer network. - Diverse services (education, rehabilitation). - Advocacy for animal rights.	- Lack of financial independence (dependency on donations). - Weak media visibility.	- Digital marketing and fundraising. - Local partnerships.	- Legal regulations and bureaucratic barriers. - Financial uncertainties.
DOA (Dutch Animal Protection) (Netherlands)	- Modern facilities, advanced infrastructure. - Strong recognition in the Netherlands. - Active advocacy and education.	- Bureaucratic obstacles. - High maintenance and operating costs.	- Raising awareness through digital media. - International collaborations.	- Social media attacks and digital threats. - Economic crises.
Battersea Dogs & Cats Home (UK)	- Long-standing history, broad support base (volunteers, donors). - Leadership in education and adoption.	- Limited physical capacity. - High care costs.	- International projects and expansion. - Education programs and awareness campaigns.	- Economic downturns. - Increase in the number of animals.
"Yaşatan ve Yeşerten Barınaklar" (Turkey)	- Sustainability-oriented design. - Focus on animal welfare. - Women's employment and empowerment. - Contribution to the local economy. - Social responsibility focus, empowering women. - Eco-friendly policies. - Diverse services (education, rehabilitation). - Social responsibility projects and volunteer support.	- Financial resource limitations, lack of initial capital. - Low public awareness and engagement. - Bureaucratic challenges.	- Partnerships with national and international organizations. - Education and awareness programs. - Social media and digital marketing. - Government and NGO support. - Local collaborations.	- Political and economic uncertainties. - Lack of social awareness.

Analysis of the Project in the Context of Sustainable Development Goals (SDGs):

The Yaşatan ve Yeşerten Barınaklar project is more than a mere animal shelter; it is a sustainable living model designed to create significant social, economic, and environmental impact. The United Nations Millennium Development Goals, established in 2000 to address poverty, environmental sustainability, access to education and healthcare, gender equality, and global partnerships, expired in 2015. They were succeeded by 17 universal Sustainable Development Goals (SDGs).

These SDGs call for a global action plan to eradicate poverty, protect the environment, take necessary measures against the climate crisis, and combat all forms of inequality and injustice. The Yaşatan ve Yeşerten Barınaklar project should be considered a key social responsibility initiative aligned with the SDGs. Especially its environmentally friendly and socially developmental components hold potential to contribute to the 2030 sustainable development targets.



Image 1

SDG 1 - No Poverty: The project offers an effective approach to poverty reduction by economically empowering local women through sustainable production activities. Employment of local women aims to increase their economic independence. Agricultural production will be developed to support women's entrepreneurship and indirectly benefit the environment. Cooperatives will be established, and sustainable business models will be developed to contribute to local economic growth.

SDG 5 - Gender Equality: The project aims to take significant steps toward gender equality by increasing women's participation in the labor force and offering robust support mechanisms. Women are targeted to play active roles in social, economic, and environmental development processes. Employment opportunities in shelter management, agricultural production, and animal care will empower women economically. Cooperatives for women farmers will increase women's participation in the local economy. Education and skills development programs aim to ensure women's social and economic equality.

SDG 6 - Clean Water and Sanitation: This strategy targets environmental sustainability by promoting efficient use of water resources and improving access to clean water. Rainwater harvesting systems will be installed to ensure water efficiency. Water will be used for cleaning and irrigation inside the shelter, with measures in place to prevent waste.

SDG 7 - Affordable and Clean Energy: The project targets sustainable energy supply by utilizing clean and renewable energy solutions, significantly contributing to SDG 7. The shelter will meet its energy needs through solar panels and other renewable energy sources. Clean energy solutions such as solar power and wind turbines aim to increase energy efficiency.

SDG 8 - Decent Work and Economic Growth: By contributing to the local economy and creating sustainable business models, the project strives to provide equal opportunities in the labor market. It supports decent work to promote economic growth. Employment of local women, establishment of women's cooperatives, and sustainable production models will foster economic development. Job creation in animal care, agriculture, and education sectors aligns with SDG 8 objectives.

SDG 9 - Industry, Innovation, and Infrastructure: The project will contribute to SDG 9 with sustainable infrastructure solutions and innovative design approaches. The shelter will support sustainable development by implementing eco-friendly infrastructures such as green roofs, solar panels, and compost production. Using environmentally friendly materials in construction will serve as an example of green building practices in the sector.

SDG 11 - Sustainable Cities and Communities: Through infrastructure and social development strategies enhancing urban sustainability, the project supports SDG 11. Environmentally conscious designs and community participation will facilitate achieving this goal. The shelter aims to improve urban life quality with sustainable, eco-friendly design

creating green spaces and raising environmental awareness among local communities. Its social events and volunteer programs will foster community engagement, promoting broad acceptance of sustainability, representing a sustainable solution for SDG 11.

SDG 12 - Responsible Consumption and Production: The shelter intends to contribute to responsible consumption and production through waste management and circular economy practices. Its waste management, compost production, rainwater harvesting, and cooperation with local producers form part of the circular economy model. Recycling waste, environmentally sensitive production processes, and support to local farmers will be ensured.

SDG 13 - Climate Action: The project includes eco-friendly practices directly contributing to combating climate change. Carbon emission reduction and climate-friendly solutions support SDG 13. Using solar energy, rainwater harvesting, and green roofing systems aim at reducing the carbon footprint. Composting and organic waste management target minimizing environmentally harmful waste.

SDG 15 - Life on Land: Prioritizing animal welfare, protecting biodiversity, and supporting natural habitats contribute significantly to land-based ecosystem sustainability. The shelter aims to contribute to the conservation of terrestrial life by supporting ecosystem health and animal rehabilitation. Activities include protecting natural habitats and fostering biodiversity.

CONCLUSION

Yaşatan ve Yeşerten Barınaklar Project stands out as a holistic sustainability model integrating social, economic, and environmental dimensions. By employing and empowering local women through education, the project enhances their economic independence and makes significant contributions to gender equality. Actively involving women in the project process also promotes social awareness and a sense of social responsibility.

The shelter supports the local economy through collaborations with local producers and farmers, the shelter supports the local economy while creating a sustainable economic cycle via organic agriculture and product development. The project's financial model is based on generating income for women and ensures the shelter's independence and continuity through support from volunteers and donations. This model serves as an exemplary approach with applicability at both national and international levels, easing access to sustainable funding sources.

Environmentally, the project adopts a nature-aligned approach, targeting efficient resource use without harming ecosystems through rainwater harvesting systems, solar panels, composting areas, and agricultural practices. Constructed with natural and local materials, the shelter increases energy efficiency with green roofs and collective roofing systems. Composting minimizes carbon emissions and supports a "zero waste" approach. Natural lighting and ventilation strategies enhance indoor comfort and health while reducing energy consumption. Animal welfare is a core priority of the project. Rehabilitation areas for injured and stray animals support their physical and psychological health, while socialization and play areas ensure they live in peaceful and safe environments. Rehabilitated animals are placed in suitable living spaces or trained for public service roles.

The project's long-term sustainability is secured socially, economically, and environmentally. Women's empowerment, enhanced animal welfare, and environmental resource protection will create lasting impacts across all social levels. A socially sustainable, equitable, and inclusive work environment boosts employee motivation and productivity, while the sustainable business model improves financial performance and facilitates capital access.

In conclusion, the Yaşatan ve Yeşerten Barınaklar Project is a model offering strong contributions toward achieving sustainable development goals. Its implementation will raise social responsibility awareness, ensure environmental resource protection, and guide society toward a more just, healthy, and environmentally friendly future.

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URBAN TRANSFORMATION AND ARCHITECTURAL PRIORITIES: A CRITICAL EVALUATION OF ESKIŞEHIR ROAD DEVELOPMENT IN ANKARA

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ABSTRACT

This paper explores the transformation of architectural priorities in contemporary Turkey through the case of Eskişehir Road in Ankara. As urban development increasingly unfolds through urban-scale, parcel-based interventions, architectural production along this corridor reveals a shift from contextual and city-oriented values toward market-driven, introverted, and self-referential typologies. Taking Eskişehir Road in Ankara as a representative case study, this research investigates how new development patterns and urban policies affect architectural priorities. Similar to new developments as an annex to city centers are demonstrated in many Turkish cities. Therefore, this case study addresses a repetitive pattern not limited with Ankara but adaptable to many urban transformations all through Turkish context. Framed within the theme of LivenARCH IX-2025: Priorities in/of Architecture, this paper argues that this evolving set of priorities results in placelessness, disconnection from urban life, and a weakening of architecture's performative role in the city. The study emphasizes to redefine architectural priorities in response to social, spatial, and contextual situations to foster more inclusive and integrated urban contexts.

Keywords: Architectural Typology, Urbanisation in Turkey, Urban-scale Building, Urban and Architecture, Urban Transformation, Urban Scale, Eskişehir Road in Ankara

INTRODUCTION

In recent years, the urban situation of Turkey has experienced rapid transformation, particularly in metropolitan cities like Ankara. Eskişehir Road, once a peripheral area, has now become a primary urban corridor, embodying the consequences of neoliberal urbanization and fragmented architectural planning. As architectural typologies along this artery coexist, they raise fundamental questions about the role and priorities of architecture in contemporary urban situation. This shift challenges the traditional understanding of architecture as a mediator between the built environment and social life.

In light of the *LivenARCH IX-2025* conference theme, *Priorities in/of Architecture*, this paper examines the case of Eskişehir Road as a significant urban part for discussing the shifting priorities of architecture. This analysis focuses on the relationship between architecture and urban context, investigating how urban-scale building typologies are increasingly detached from the urban fabric, leading to spatial fragmentation and placelessness.

Within the frame of this research, the situations derived from the transformative relationship between urban and architectural scale will be analysed within a critical frame. The missing and lost components will be revealed as an inference through some architectural productions. Therefore, this research is a critical view within both urban and architectural scales. This view as the main focal area actually underlines the problems arising from their own dynamics and characteristics, and their relationship with each other.

Problem

The contemporary scene of architecture in Turkey has become increasingly shaped by fragmented planning approach. In this context, Eskişehir Road serves as a paradigmatic urban part where the architectural production is instrumentalized as a tool of visibility and institutional power rather than a contribution to the urban context. The disjunction between urban and architecture, fostered by parcel-based interventions and a lack of integrated planning, raises fundamental questions about what architecture prioritizes today. Rather than engaging with place, memory, or publicity, architectural production increasingly manifests as self-referential and placeless, undermining its potential as a medium of urban coherence and urban life. Therefore, architecture does not contribute enough to the city, and it is not sufficiently fed from urban data, urban dynamics, and context. From this point of view, "the time has come to conceive of architecture

urbanistically and urbanism architecturally" as Aldo Van Eyck states. (as cited in Ellin, 2006, p. 17)

In this sense, it is tried to re-map is the contemporary architecture in Turkey based on the relationship between urbanisation and architecture. In light of many factors and changes, contemporary architecture has undergone some certain transformations all around the world and Turkey; and a new state has inevitably emerged which is effective on all scales. The fundamental problems observed among these emerged situations are evaluated as the understanding of planning approach in urban scale, the understanding of design with values in architectural scale, the continuity between values is no longer a necessity, the introversion of architectural productions, and many of the projects try and attempt to maintain their own existence as an "entity" in urban scale.

Aim

It is aimed to understand the relationship between architecture and urbanisation through some examples and examine the transformative impacts on each other and the problems of contemporary situation. Through this relationship, it is intended to evaluate and demonstrate the transformation of architectural typologies and productions. In this sense, exemplifying and mapping the emerging typologies, the changes in the use of existing typologies, the reflections of typological multiplicity on urban scale, and the determinative relationship between architecture and city are the significant aims in this study.

This paper examines the shifting priority buildings that shape contemporary architectural production in Turkey, taking Eskişehir Road development corridor in Ankara as a case study. The architectural production is often disengaged from its surroundings, privileging self-referentiality over collective spatial meaning. Through a series of spatial observations and architectural case studies, this research traces how these shifts correspond with broader socio-political and economic transformations particularly those driven by neoliberal urban policies and the decentralization of state institutions. Eskişehir Road represents the tension between architectural isolation and urban integration. A wider meaning of context will be carried out through the research including not only the physical environment but also political, social, ideological, economic, physical, urban development and planning. The gap between urban scale and building scale is examined to present an alternative ground to new models through the theoretical background, concepts, some certain architectural productions and the case study that represents the contemporary situation of Turkey.

Methodology and the Limits of the Study

The method of this research is based on the examination of an area as the case study which has great representative potential. The case study area consists of new building typologies which come together and form an urban fabric through their coexistence. It will be analysed through the observed problems which continuously occur in architectural and urban scales. Therefore, the repetitive patterns and determinative situation of architecture in Turkey will be discussed.

It is aimed to examine and evaluate a specific area of Eskişehir Road in Ankara as an urban part of the city, while architectural concepts and building typologies are used as important discussion topics to investigate and test the urban scale of contemporary Turkish architecture and to understand the relationship of architecture with urbanisation, context, and city. In addition, the coexistence of the buildings on this corridor lead to form integrity in terms of urban fabric. Thereupon, it is aimed to examine whether these typologically large-scale urban buildings really contribute to the city or not. Accordingly, the main concern is to evaluate the new understanding of urbanization in Turkey through this case study. For this reason, some changes and transformations of the contemporary architecture in Turkey will be discussed through the analysis of Eskişehir Road.

This area will be analysed through its impacts on urbanisation, urban scale, architecture and Ankara, focusing on building typologies, relationship of buildings with each other, site plan characteristics and complex-wise architectural organization, their contributions to city, integration with infrastructure, traffic, pedestrian, public transportation, car parking, forms of representation of some architectural concepts.

Selected area (Figure 1) can be considered as an appropriate corridor where lots of new buildings come together rapidly in Ankara. The public buildings along this area are selected and evaluated. Selected contemporary buildings were built after 2000, representing the transformation and new developments in Turkey. They will be scrutinized and discussed to support and embody the main discussion framework. In addition, there are three important focal points having significant impacts on the case study area with regards to developments and densities coming from these points (Figure 2).

It is not intended to criticise the buildings mentioned in the main discussion but rather to discuss with concepts through urban and architecture relationship. Thus, there is no tendency to evaluate the buildings on single scale and to create an area that transcends stated limits.

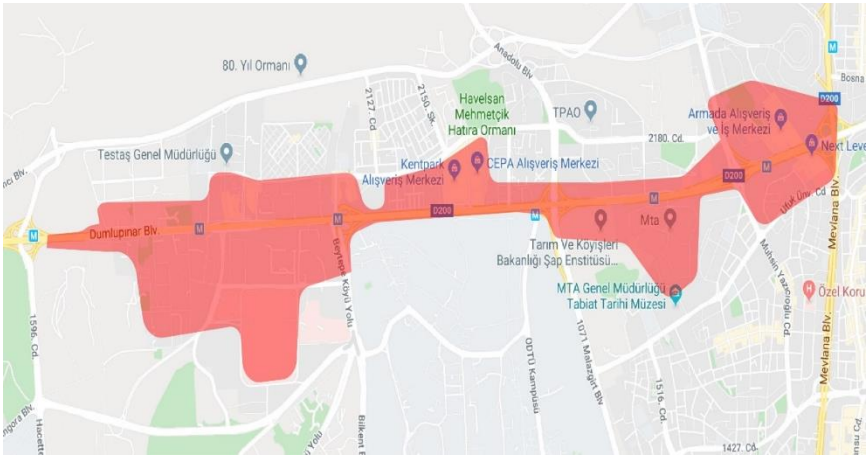


Figure **Hata! Belgede belirtilen stilde metne rastlanmadı.**. The case study area along Eskişehir Road, Ankara [Source: Google Maps, https://www.google.com/maps (accessed on 26.12.2018) The image is edited and drawn by the author]

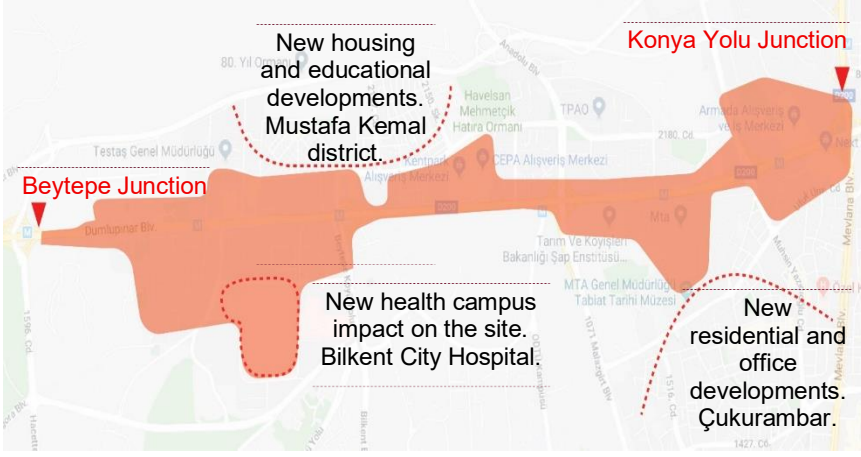


Figure 2. Developments and impacts on the case study area [Source: Google Maps, https://www.google.com/maps (accessed on 26.12.2018) The image is edited and drawn by the author]

FINDINGS

As Rossi points out, "destruction and demolition, expropriation and rapid changes in use as a result of speculation and obsolescence, are the most recognizable signs of urban dynamics" (Rossi, 1984, p.22). In Turkey, the rapid transformation of production, urban form, and urbanisation has become increasingly visible, particularly with the rise of large-scale, introverted buildings that reflect as new urban dynamics. Since urban dynamics can be defined as "any process capable of transforming the urban or social morphology of a certain space" (Mahmoud, 2017, p.434), this study examines the fifteen-year transformation of Eskişehir Road to explore how new building typologies have shaped the urban fabric (see Figure 3).

Along this corridor, large-scale buildings emerge in an eclectic and often disconnected manner. Despite their lack of relationship with each other, these buildings collectively create a new kind of urban fabric. Since many of them take on roles in city centers, their presence has led to increasing density and traffic. Another key factor driving this density is the decentralisation of public institutions that began with the 1990 Master Plan.

Today, Eskişehir Road has evolved into a major urban artery, hosting government ministries, public institutions, shopping centers, residential complexes, and office towers. At the same time, a more spontaneous, radial growth has taken shape along the corridor that this development can be seen as a kind of metamorphosis. This pattern of growth, visible at various scales and in different urban contexts, makes Eskişehir Road a significant representative case for understanding contemporary urbanisation in Turkey.

Within this case study area, seven different building typologies have been examined. Figure 4 illustrates their locations, scales, densities, and spatial relationships. This mapping is important for highlighting how their coexistence through multifunctionality produces a repetitive pattern in the case study area. The corridor thus becomes an area where architectural priorities are reordered; from responsiveness to detachment, from collective inhabitation to individualized consumption through performing in isolated fragments.

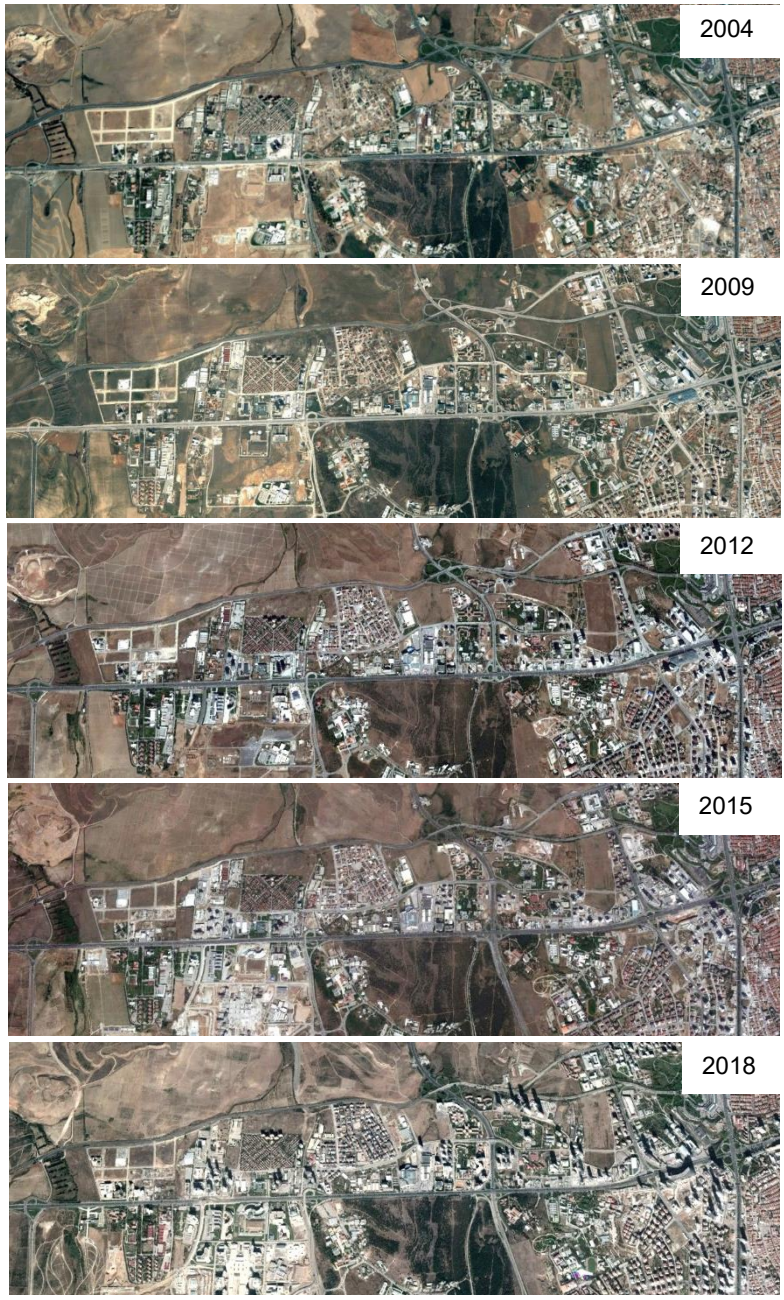


Figure 3. Urban transformation in Eskişehir Road within 15 years [Source: Google Maps, https://www.google.com/maps (accessed on 26.12.2018)]

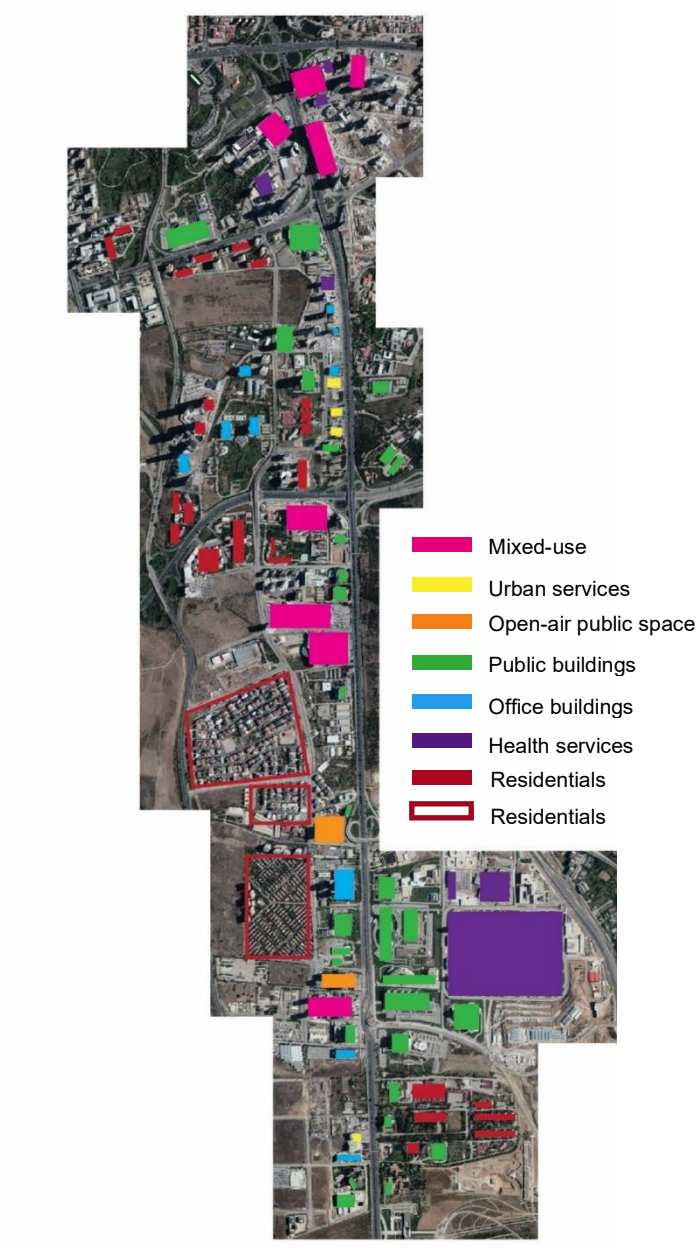


Figure 4. Typologies along Eskişehir Road [Source: Google Earth, (accessed on 26.12.2018) (The image is edited and drawn by the author)]

The case study area reveals several defining characteristics, such as restricted urban accessibility, a tendency to generate its own self-contained urbanity, introversion, and a distinct sense of scale (Figures 5-6). Additionally, the area reflects a pattern of eclectic and fragmented planning approaches, the discontinuity between local zoning plan and main plan alongside functional multiplicity (Figures 7–8).

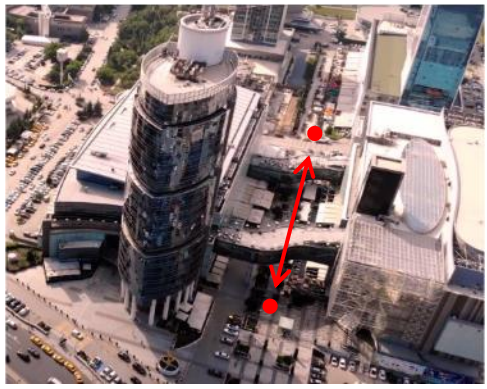


Figure 5. Restricted urban accessibility: The transition between two points with security check in Armada [Source: Youtube, https://www.youtube.com/watch?v=w5dIJeHOAm8 (accessed on 6.12.2019) The image is edited and drawn by the author]



Figure 6. Scale: YDA Center, Ulusoy bus terminal and Vatan computer center [Source: Youtube, https://www.youtube.com/watch?v=ZJix7TOtTn4 (accessed on 6.12.2019) The image is edited and drawn by the author]



Figure 7. Eclectic and partial planning: The eclectic coexistence of buildings with different densities, heights, scales, and functions along the same axis [Source: Twitter, https://twitter.com/vedat1910/status/1053251907903459329 (accessed on 10.10.2019) The image is edited by the author]

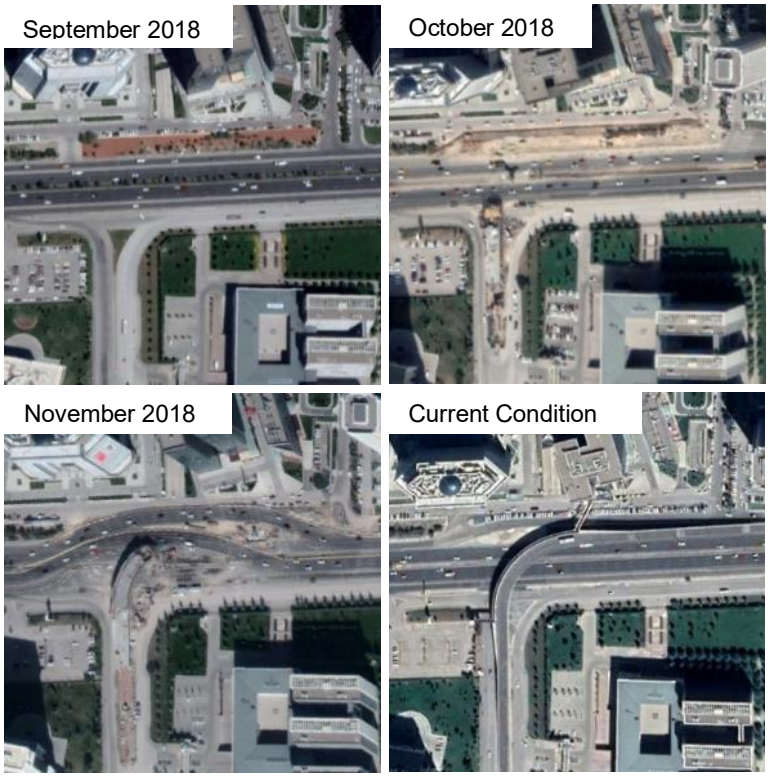


Figure 8. Eclectic and partial planning: Transformation process of Eskişehir Road due to city hospital [Source: Google Earth, (accessed on 3.11.2019) The image is edited by the author]

CONCLUSION

Introverted large-scale urban buildings exclude relationship with context and isolate themselves. Due to this disconnection, such buildings can be placed virtually anywhere, functioning as generic prototypes devoid of local reference. This condition contributes to the production of urban environments shaped by car-oriented infrastructure, where public life is diminished, social interactions are spatially limited, and public spaces are increasingly privatised and commercialised.

These developments create isolated clusters that operate as self-sufficient, defined by their scale and introverted nature. Urban-scale buildings, in this context, not only alter the city's spatial structure but also replace its core functions. Without needing the built environment, these self-sufficient entities simulate urban life internally offering all urban functions within enclosed boundaries; thus, competing with and even substituting the public and collective qualities of urban context. As a result, architecture under such conditions becomes commodified It becomes a product of consumer society and designed for consumption and reproduction. Some of the increasing results of such urban-scale buildings are as: 1- They are introverted, enclosed, and tautological. They neither contribute to city, nor take advantage from the city. This weakens their relationship with context pointing out placelessness. Consequently, the concept of belongingness becomes insignificant. 2- Their lack of having a relationship with the concepts of memory, belonging, and identity results in weak contributions to the city in terms of urban identity.3- They eventually exist as objects of consumer society. 4- Their planning approach is not based on local and contextual problems, but rather on the priorities of the marketing strategies. Therefore, the main aim is not to improve architecture or provide alternative solutions. 5- Instead of integrating with urban life, they form gated entities that simulate urbanity. The repetitive patterns of these facilities are continuously increasing. 6-Their independence from their contexts makes architecture be reproduced in anywhere regardless of context, surrounding, built environment and city.

As an urban impact, the concept of city-center has been transformed when Eskişehir Road is taken into consideration. It took on a central function suddenly and in an unplanned way. Although it does not have a central feature and is not appropriate to be a center; lots of state buildings, shopping malls, business centers have been built which create huge density. There is a common tendency towards creating isolated and gated entities rather than urban space, which represents disconnection of architecture from city because each entity creates its own urbanity within itself whereas "architecture takes its function and

program from the city" (Mutlu, 2006). Many of the buildings as closed-boxes become a city-center and simulate the city with functional multiplicity by fulfilling urban facilities, which causes the relationship between city and architecture to diminish and isolation from urban life.

These make architectural productions be forced to a typology which is isolated. Introversion of privileged architectural productions demonstrates their lack of reference to the built environment. This problem is directly related to the understanding of eclectic and partial planning since the formation of urban fabric is based on parcels rather than a main plan, which lead to the following observations in the case study area: multiple shopping malls next to each other, large-scale city hospital without planning, understanding of city-center is changed, typological differences of open-air designs, buildings are surrounded by vehicle traffic around parcels and have weak relationships with each other, transportation-oriented, car-dependent, introverted urban habitat developments and exclusion of open-public spaces and greenery.

To conclude, the emergence of large-scale, introverted urban buildings raises critical questions about what architecture prioritises today. They often detached from their urban, historical, and cultural contexts, demonstrate a tendency toward self-sufficiency, where functional multiplicity replaces the traditional relationship between architecture and city. While they simulate urban life internally, they paradoxically erode the public, accessible, and connective qualities that once defined the urban condition. This phenomenon prompts a deeper reflection on the evolving priorities of architecture. Are these architectural products prioritising functionality, adaptability, or socio-cultural context? Or do they reflect a shift toward market-driven agendas where aesthetic coherence, cultural relevance, and social inclusivity are overlooked? The proliferation of such developments like isolated, car-oriented, and formed through parcel-based and fragmented planning suggests a disconnection not only from urban fabric but also from architecture's broader responsibilities.

By examining Eskişehir Road case, this study explores how contemporary architectural production in Turkey responds to or resists priorities including contextual integration, spatial continuity, and urbanity. In this sense, it discusses how the absence or transformation of priorities affects both urban life and the built environment. Ultimately, this paper contributes to the broader inquiry by situating the discussion of architectural priorities within the dynamics of contemporary urbanisation.

ACKNOWLEDGEMENTS

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SHIFTING URBAN RESEARCH PRIORITIES: AN ALTERNATIVE READING FOR THE CITY OF ISTANBUL THROUGH INFORMAL URBAN VIDEOS

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ABSTRACT

In contemporary urban studies, the priorities of urban engagement are shifting. Traditional approaches often emphasize generalized and distilled perspectives on urban space, privileging dominant and stereotypical narratives. However, these perspectives are far from reflecting the struggles of everyday urban life and have risks of overlooking cities fragmented, emotional, and conflictual dimensions. In response, new priorities are emerging that value multi-voiced, rapidly produced, personal, and critical approaches capable of understanding the city through lived experiences and informal practices. This paper argues that autonomous urban videos offer such a perspective. Informal videos produced outside institutional frameworks function as spontaneous and participatory narratives that reveal overlooked aspects of urban conditions. To ground this argument, the paper presents an exploratory analysis of videos from selected Instagram accounts in 2020s Istanbul, focusing on how their content and visual strategies articulate informal urban critiques. Against perspectives that reduce video to a merely representational tool and marginalize its presence in new media, this paper emphasizes how these informal narratives contribute to alternative forms of urban knowledge and point to the potential of shifting priorities in understanding contemporary urban space.

Keywords: Urban Research Priorities, Alternative Reading of the City, Informal City Narratives, Autonomous Urban Videos, Everyday Urban Life, Istanbul, Instagram Reels

INTRODUCTION

Understanding a city, requires an in-depth engagement with the everyday flows of conflict, negotiation, and lived struggle that shapes its urban reality. A city cannot be fully grasped without considering the conceptual frameworks that animate it, the anxieties experienced by its inhabitants, and the forms of knowledge and expression that emerge from their daily lives.

Yet dominant narratives tend to present the city through sanitized or stereotypical portrayals, sidelining the informal, emotional, and situated experiences of urban dwellers. These formalized modes of knowing tend to obscure the fragmented, affective, and contested dimensions of urban life that are central to how cities are really lived (Türeli, 2017; Colomina, 2011).

This paper suggests highlighting subjective, informal, and micro-scale narratives that bring overlooked slices of urban life into academic discussions. In a context where the priorities of urban research are shifting from large-scale, generalized representations toward more situated, plural, and experiential approaches, informal video narratives gain particular significance. Drawing attention to the presence of video narrative tools in informal representational channels as a way to document, interpret, and question dominant spatial imaginaries, the paper proposes a shift in focus toward the spatial and critical potential of autonomous urban videos produced by citizens.

This paper grounds its central argument within the broader framework of urban media studies. In this context, media is no longer understood as a representational layer merely superimposed on the city; rather, it functions as a pervasive and generative infrastructure that shapes, circulates, and mediates urban experience (Tosoni & Ridell, 2016; McQuire, 2008). Within this field of inquiry, video has emerged as an accessible and autonomous medium for engaging with the contemporary city, particularly due to its capacity to operate beyond institutional frameworks, to inhabit the street, and to produce autonomous representations and counter-narratives of urban life (Baker, 2017; Berensel, 2018; Uslu, 2020). Accordingly, this paper explores how informal video fragments, emerging directly from street-level experience, enable alternative readings of the city. These videos document and express the urban conditions and also construct counter-narratives that resist formalized and monolithic understandings of the cities. Unlike professional or curated content, autonomous video narratives are produced with mobile tools embedded in everyday life and reflect visual practices that are emotional and improvisational.

This study asks: How can informal narratives produced by urban dwellers be meaningfully integrated into the priorities of architectural and urban research? What forms of spatial knowledge do these informal videos narratives offer? As this growing body of autonomous urban video circulates outside institutional frameworks, can it be considered a potential field of research of urban life?

To address these questions, the paper situates itself within the framework of urban media studies and examines informal video narratives as critical articulations of contemporary urban conditions. The discussion is grounded in an exploratory case study of selected Instagram accounts from 2020s Istanbul, analyzed through content, visual, and discourse-based readings. In this way, the study treats these informal narratives as legitimate objects of inquiry, and the paper proposes to incorporate urban productions in digital media into the priorities of architectural and urban studies.

THEORETICAL CONTEXT

Rethinking the City Through Media Infrastructure

Recent shifts in urban research priorities have increasingly emphasized media-based methodologies, particularly in examining lived experiences and everyday struggles that are often overlooked in formal urban discourse. Within this broader shift, urban media studies have emerged as a research field that explores the reciprocal relationship between media and the spatial and experiential dimensions of the city. Media, in this context, is not merely a surface of representation but a constructive agent of reality itself (Manovich, 2001). This idea is echoed in non-media-centric media studies, where the analytical focus moves from media objects themselves to the spatial and cultural conditions they mediate (Krajina et al., 2014). Similarly, Tosoni and Ridell (2016) describe media as a component of contemporary urban living and argue that media-related practices are inseparable from the urban contexts in which they unfold. In their extended formulation: Both media studies and urban studies are increasingly interested in the relationships between media and cities (Tosoni et al., 2019).

McQuire (2008) suggests that spatial experience itself emerges through the co-constitution of media feedback, social practices, and architectural environments. In this framing, urban space and media are not separate layers, but mutually entangled processes that shape each other. Each media-based narrative about the city should therefore be seen not merely as a reflection of the past, but as a reconstruction of the city through its relationship with the mediating form (Akçay Kavakoğlu et al., 2020). Cultural platforms such as cinema or everyday media like

television do not simply represent the city; they operate as critical interfaces for engaging with metropolitan experience. This entanglement is particularly visible in the role of visual imaginaries. Colomina (2011) notes that moving images and photographic representations not only reflect urban life but also construct new imaginaries through mediated presence. Similarly, Türeli (2021) emphasizes that the modern city, in its complexity and scale, often resists direct perception. She notes: "Most of the time, we know cities through their mediated images, even our own cities." These media layers offer alternative ways to confront the overlooked, the excluded, and the informal dimensions of the city, elements often absent in formal architectural production.

Video as Urban-Media Practice

Building on this tradition of mediated urban inquiry, this paper turns to video as a distinct, autonomous, and increasingly accessible mode of engaging with the everyday realities of contemporary urban life. Historically, this relationship begins with the relationship between cinema and the city: cinema has played a significant role in shaping urban imaginaries and provided a platform for exploring spatial narratives and symbolic urban structures (see also: Besnard, 2008; Deleuze, 2001). Since the invention of the moving image in the late 19th century, cities have become a central subject of cinematic representation (Erdoğan, 2017). As Bull (2021) writes, "The city gave birth to moving images, and moving images continue to rediscover the city."

However, the recent shift toward mobile visual production and digital media has radically altered the logic of this relationality. Today, video production is no longer confined to formal or curated forms of production like the Sienama; it develops within informal, temporary, and often anonymous practices deeply embedded in everyday urban life.

The epistemological position of video is key to understanding this shift. As Aylan (2020) observes, "Human ways of seeing, and inevitably thinking, are closely related to the presence of mass communication tools and audiovisual environments within a given culture." Modern technologies such as cinema, television, and video have significantly reshaped how individuals perceive and interpret reality. In this context, video becomes a medium that informs thought as much as vision.

Baker (2017) frames video as a direct form of seeing, not merely a mode of observation, but a platform for urban critique and subjective reflection: "Video simply means I see, I record what I see." In this sense, video is not a secondary representation of the city but a mode of spatial inquiry; a way of transforming the act of seeing into a knowledge

practice. Baker refers to this shift as the de-institutionalization of the moving image, whereby video emancipates itself from cinema's narrative and aesthetic conventions.

Lazzarato (2016) extends this view by describing video as a "response-based" medium, more aligned with the interactivity of mobile devices than the linearity of cinema. As he writes, "Video de-territorializes the image stream, offering a way of thinking directly through reality." From this perspective, video enables alternative readings of the metropolis, particularly suited to capturing micro-politics, informal practices, and marginal voices that often escape formal representation.

Therefore, this paper situates video at the intersection of urban representation, digital media productions, and media-driven urban epistemology. It considers video not merely as a product of digital media but also as a methodological and conceptual lens through which to address the urgencies and contradictions of the contemporary city. Urban videos produced by non-institutional sources are represent fragments of an alternative urban archive, a kind of visual urban archaeology that both documents and critiques the urban condition.

The Epistemic Potential of Video

As an informal, anonymous, and rapidly produced form of visual narrative, video as a methodological lens and critical language uniquely suited to engaging with the urgencies of contemporary urban life. The relationship between video and urban research has evolved beyond representation; it now marks a space where knowledge and transformation become interwoven (Brayer & Bonnet, 2015). Within the scope of media-based urban studies, this paper highlights the potential of video as a tool for seeing, thinking, and critiquing the city.

Short-form, user-generated videos hold significant potential to become direct instruments of communication between cities and their inhabitants. Unlike professionally curated or edited visual content, autonomous videos emerge from everyday life, produced through gestures, improvisations, and bodily embedded tools like mobile phones. Their low threshold for production, lack of editorial mediation, and emotional immediacy give rise to visual narratives that are raw, unstable, and deeply situated. This study does not dismiss these qualities as epistemic limitations. On the contrary, it positions them as indicators of an alternative logic of knowledge and one that prioritizes accessibility, subjectivity, and the right to narrate urban life from within.

Video has thus become not only a representation of urban space, but a mode of inhabiting and responding to it. As cameras move into the

streets and technologies expand to more accessible and portable scales, video becomes embedded in the rhythms of daily urban life. It serves as a subjective archive that captures fleeting urban tensions, affective atmospheres, and political discomforts without filtering them through institutional discourse. Its informality is not a limitation, but a critical potential: video invites embodied, situated, and personal knowledge practices into architectural and spatial discourse.

As Aylan (2020) states, "Video images outside of video art always serve as records of reality… They not only document social phenomena but also produce new data for urban knowledge". In this sense, video not only observes but generates insight, precisely through its alignment with lived experience.

The ability of video to embed subjectivity is one of the key sources of its epistemic power. Because it aligns so closely with the temporalities and affective conditions of everyday life, video records the gaze as much as the scene. As Aylan further argues, the persistence of video-based seeing, unlike the codified and stylized grammar of cinema reinforces its potential to represent personal perspectives, everyday concerns, and locally grounded forms of resistance. This potential is especially relevant in contexts where formal urban representations fail to capture the informal, emotional, or contingent aspects of city life. Video, in this light, offers an alternative mode of accessing and narrating the realities of contemporary city.

The conceptualization of video as a critical and participatory tool also resonates with work in urban video ethnography and digital storytelling. Pink (2011) emphasizes that video ethnography enables applied action research, supporting collaborative forms of knowledge-making. Similarly, Bektaş Ata (2023) highlights that video recording practices allow urban subjects to tell their own stories, often through accessible and personally generated content. These practices enhance the granularity of spatial data, contributing layers of interpretation beyond the researcher's voice.

From this perspective, user-generated video content can be seen as an alternative visual archive, one that is fragile, dynamic, and participatory. These fragments actively intervene in its narratives, reframe its meanings, and construct parallel forms of urban memory. While earlier research often aligned video with ethnography or media theory, few studies have explored autonomous digital video as an urban reading practice relevant to urban studies.

Taken together, through its immediacy, autonomy, and openness to everyday participation, video offers new ways of thinking about urban space and new priorities for how architectural knowledge is constructed.

The Need for Informal Narratives: From Theoretical Framework to Autonomous Video Narratives

The everyday experience of the contemporary city is marked by fragmentation, symbolic instability, and representational crises. Traditional approaches often fail to convey the micro-level tensions, emotional textures, and subjective dimensions of urban life. As theorists such as Michel de Certeau (1984), Henri Lefebvre (1991), and Jane Jacobs (1961) have long argued as a premise, the city is not only a product of top-down planning or spatial design, but is also continuously reconstituted through everyday practices, minor gestures, and informal narratives.

In this context, as urban environments become increasingly complex, the need for understanding the informal, everyday narratives, and the practices of urban dwellers becomes increasingly urgent. Giorgio Agamben (1993) reminds us that the marginal, the precarious, and the unspeakable occupy critical spaces within the urban social fabric, often rendered invisible by formal discourse. This is not simply a call for alternative representations, but for alternative ways of seeing and articulating the urban condition.

In contrast to dominant urban narratives that are shaped largely through institutional frameworks and large-scale discourse, urban ethnographers such as Pink (2011) and Degen (2008) emphasize the need to engage with the sensory and emotional textures of everyday urban life, advocating for methodological innovations that can capture these fleeting and embedded registers of meaning. As Tonkiss (2005) notes, the everyday city is marked by ambiguity and negotiation, and this is a kind of reality that frequently evades formal tools of representation.

This disconnects between the lived city and its institutional narratives, especially in the context of accelerating complexity, produces what scholars such as Walter Benjamin (1999) and Guy Debord (1967) have described as the "crisis of urban legibility." Uz (2007: 32) captures this dilemma succinctly: "While the dynamic and mutable structure of the city makes it impossible to define even the present, how can this palimpsest be read?"

While the city has long been represented through film, television, and other visual media, such representations often prioritize iconic imagery

and aestheticized urban forms. The urban imaginary, particularly in cinematic studies, has become a well-trodden field of inquiry. Yet this paper argues for a shift in focus from iconic depictions to the informal, fragile, and everyday expressions of the city. The challenge, then, is to find tools capable of engaging with the minor, peripheral, and transitory narratives that shape urban experience from below.

This epistemological gap necessitates new methodologies that do not merely describe the city from above but intervene in how it is lived and sensed. In this context, informal and user-generated narratives offer a critical perspective. These narratives emerge not from institutional planning offices or cultural elites, but from the lived experience of urban dwellers themselves. Their subjectivities, frustrations, and micro-political expressions are not noise, but signals of a different way of seeing the city.

Video, in particular, offers a unique platform for accessing and expressing these informal urban realities. Its production apparatus, cheap, mobile, and body-embedded, makes it an ideal medium for capturing spontaneous urban experiences. Baker (2017) describes video as a medium of "seeing" rather than simply "showing": "Video simply means I see, I record what I see." Unlike traditional cinema or documentary films, video is not dependent on narration or aesthetic coherence. It operates through immediacy, fragmentation, and subjectivity. In this sense, it is not merely a tool for representation, but a spatial practice that engages directly with the material and emotional textures of urban life.

Moreover, video reconfigures the relationship between image and action. As Lazzarato (2016) argues, video functions as a machinic arrangement that connects unseen realities with image flows. It does not simply document events, and it prompts a response. Berensel (2017) and Metin (2017) both situate video within a field of urban activism, where visual documentation becomes a form of urban critique, revealing what dominant media outlets conceal. They emphasize how video operates not only as a witness but as an actor in public space, making visible the demands and resistances of urban subjects in real time.

From this perspective, video is not only an instrument of observation but a conceptual and political lens. It contributes to situated critique and offers embodied knowledge practices that traditional architectural representations cannot. As Baker (2016: 17) summarizes, "Video is the art of returning images to those who produced them." In the current urban moment, defined by accelerated transformation, erasure of memory, and growing visual saturation, video offers not just counter-representation, but counter-presence. As illustrated in Figure 1, the study

brings together the theoretical context, key concepts, methods, and materials around the idea of shifting priorities in urban research.

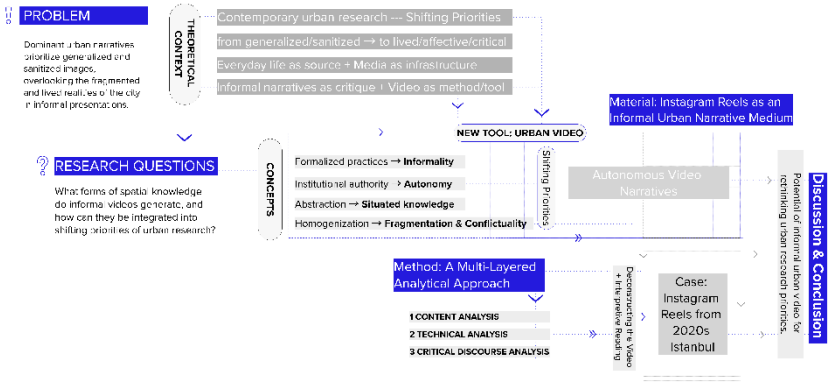


Figure 1. Theoretical–Methodological Framework of the Study

This paper argues that informal video narratives autonomy from institutional aesthetics, editorial filtering, and artistic formalism puts them in a unique position to speak about the city as encountered by its inhabitants. In the next chapters, the paper explores how such autonomous video-narratives can critically reframe the contemporary experience of the city and discuss their potential.

MATERIAL AND METHOD

To explore the potential described above, this paper proposes to examine autonomous short videos (Reels) on Instagram as an empirical platform for the production of autonomous urban video narratives. Instagram Reels offer a widespread and accessible medium that can directly document everyday spatial experiences, and this study aims to examine these videos' alternative narratives through this informal platform.

Material: Instagram Reels as an Informal Urban Narrative Medium

Instagram Reels has recently emerged as a platform for short-form, user-generated video content that reflects daily life. In terms of everyday urban experience, unlike conventional media productions shaped by editorial curation and professional aesthetics, these videos are produced by ordinary individuals using handheld mobile devices, making them immediate and subjective.

The study of Instagram as a digital ethnographic space has grown in tandem with this interest. Scholars have increasingly begun to recognize

Instagram as a fertile digital ethnographic space. Works such as "How to Study the City on Instagram" (Hochman & Manovich, 2016) and "Seeing the Street Through Instagram" (Mattern, 2021) reveal how social media platforms contribute to the shaping of urban imaginaries, while simultaneously participating in the amplification of spatial politics. These studies demonstrate that Instagram is not just a space of self-representation, but also a dynamic field for documenting and interpreting urban life.

In the context of architectural critique, Davidge's (2021) "Insta-Critique" examines how social media platforms have begun to influence architectural discourse by enabling bottom-up, visually driven critical practices. Her analysis underscores the importance of ephemeral, spontaneous, and informal visual narratives in shaping contemporary spatial awareness. While such studies reflect a growing interest in the informality of platforms as a valuable perspective in architectural and urban studies, direct research that specifically focuses on video content as a practice of reading and interpreting the city remains limited. However, it is precisely this quality that makes them valuable for this article's consideration: their potential to create a dispersed visual archive of contemporary urban experiences. New media can no longer be considered outside of urban culture; rather, they exist as a new way of communicating with the city.

With its large user base and rapid content turnover, Instagram Reels can fit into the multilayered narrative production practices of the contemporary city, particularly when viewed from the perspective of visual culture and spatial theory; video narratives are not only products of digital culture anymore but also informal visual expressions of urban consciousness. The next section of this study critically examines Instagram Reels, situating them as valid objects of architectural and urban research, and offers a methodological framework for considering them as autonomous informal narratives related to the urban context of 2020s Istanbul.

Method: A Multi-Layered Analytical Approach

Recent years have witnessed a growing interest in incorporating visual and media-based methods into urban studies, particularly to account for the affective, experiential, and symbolic dimensions of urban life that often elude conventional spatial representation (Degen, 2008; Rose, 2016). Research that treats video as an object of inquiry draws on several methodological traditions, including content analysis (Krippendorff, 2004), visual ethnography (Pink, 2011), multimodal visual methodologies (Jewitt, 2009), and critical discourse analysis (Fairclough, 1995; Van Dijk,

1993). These approaches offer conceptual and analytical tools to not only understand what is seen and heard, but also to interrogate how visual narratives encode cultural meaning.

Building on this methodological groundwork, this paper adopts a multi-modal interpretive framework to analyze short-form video content produced in Istanbul in the 2020s. Three Instagram accounts were selected based on their consistent production of urban-themed videos in Istanbul. Each account exhibits an autonomous and informal visual language, shaped by personal engagement with urban rhythms, transformations, and conflicts.

The analysis follows a three-step interpretive model (see Figure 2): (I) Content Analysis (Tesch, 1990; Krippendorff, 2004) is applied to identify recurring urban themes, represented spaces, temporal references, and the affective tone embedded in the videos. (II) Technical Analysis focuses on the formal elements of video-making, such as camera movement, editing rhythm, audio-visual composition, and overlay text, to assess how meaning is visually constructed. (III) Critical Discourse Analysis (Fairclough, 1995; Van Dijk, 1993) is employed to interpret the implicit narratives and representational politics present in these videos. This includes examining the videos' role in critiquing dominant urban processes, articulating alternative spatial imaginaries, and visualizing everyday resistance.

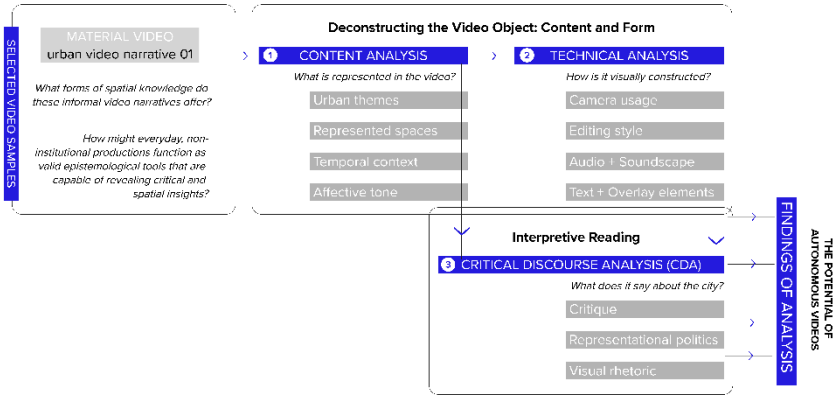


Figure 2. The structure of the case study

The proposed research design is expected to reveal the urban narrative potential of videos and to reveal that they exhibit a production practice behind their informality. In this context, the study will position autonomous video narratives as epistemologically significant forms of informal representation. From this perspective, these videos not only

offer fragments of the city but also autonomous urban narratives, practices of critique, and urban records.

A Case Study of Informal Video Narratives in Istanbul

This study examines video content from three Istanbul-based Instagram accounts @thatdreamview (Url-1), @cirkinistanbul (Url-2), and @dincerisgel (Url-3), all of which actively produce informal urban narratives through short-form videos. Emerging in the post-2020 period and publicly accessible, these accounts differ in style but share a sustained focus on Istanbul's spatial, visual, and lived conditions.

@dincerisgel takes a more poetic approach, assembling fragments from marginalized and neglected spaces. Through careful editing and affective layering, the account highlights textures of backstreets, informal settlements, and overlooked geographies, framing them as sites of emotional and spatial depth. @cirkinistanbul documents visual pollution, infrastructural failures, and disruptive elements encountered in daily life. Through unedited, spontaneous recordings, it creates an informal archive of the city's contradictions, those aspects that slip through formal planning or aesthetic regulation. @thatdreamview produces stylized digital edits of everyday architectural and urban scenes. By digitally erasing signage, "cleaning" façades, or reordering streetscapes, the account transforms visual disorder into hyper-aestheticized compositions. In doing so, it indirectly critiques the poor visual quality of ordinary urban environments and provokes reflection on what counts as beauty, order, or architectural value.

From each account, videos were selected according to thematic relevance, narrative clarity, and temporal proximity (2022–2025). Rather than isolated productions, these works belong to broader and consistent visual languages of urban documentation. The three accounts share several common features. All emerged in the 2020s and remain active on Instagram, producing informal yet consistent content focused on Istanbul's urban condition. Their approach is distinctly extra-disciplinary, operating outside conventional academic or professional frameworks, and two of the accounts even maintain anonymous identities. While other similar accounts exist, this study concentrates on these three because of their sustained output and distinctive critical perspectives. The selected videos are not isolated productions but representative examples that convey the broader themes, aesthetics, and urban concerns that define each account's narrative practice. The following analysis situates the selected videos within a comparative framework that links their content, technical features, and discursive implications.

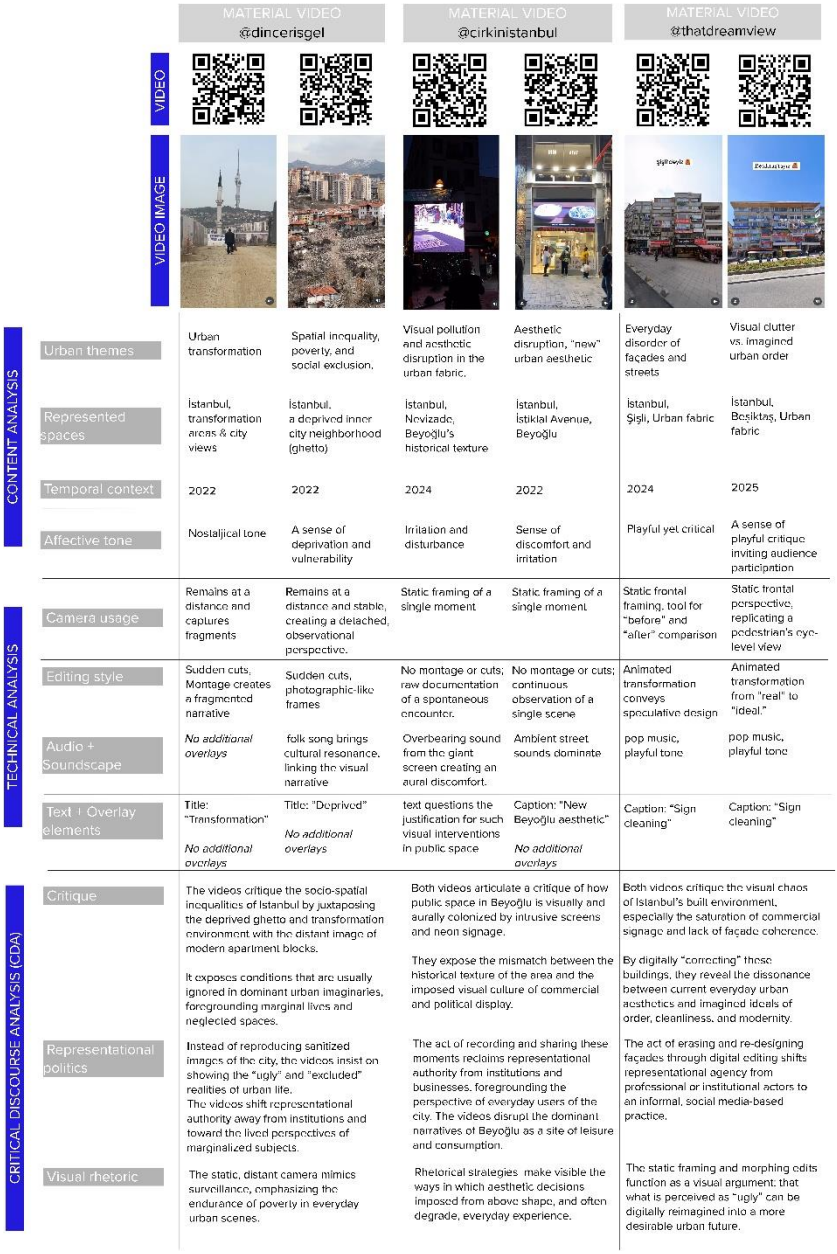


Figure 3. Content, Technical, and Critical Analysis of Selected Videos

As summarized in Figure 3, they were analyzed using the three-step interpretive framework introduced in the previous section: content analysis (to identify urban themes and spatial motifs), technical analysis (to examine form, rhythm, and composition), and critical discourse analysis (to interpret implicit spatial critiques and aesthetic-political narratives). This multi-layered approach makes it possible to trace how each account contributes to the critical understanding of Istanbul's urban condition. @dincerisgel emphasizes socio-spatial exclusion and the emotional weight of marginalization. @cirkinistanbul foregrounds the discomfort created by visual pollution and imposed aesthetics in historic areas. @thatdreamview reimagines the city through speculative digital "cleaning," pointing to the tension between everyday disorder and utopian desires for order. Together, these informal narratives not only document the city but also perform different modes of critique, highlighting how informal, user-generated media practices can reframe the priorities of urban research.

Discussion: Towards an Expanded Understanding of autonomous urban narratives

By studying these three distinct yet overlapping video practices, the case study reveals how autonomous video narratives operate as informal articulations of Istanbul's urban condition. These videos are not produced within academic or institutional frameworks. They directly engage with the city, exposing its contradictions and reframing how urban criticism can emerge from everyday media practices.

The analysis shows that each account achieves a specific critical intervention: @dincerisgel makes socio-spatial exclusion visible by recording deprived neighborhoods and marginalized lives. Everyday gestures such as a mother with her child or a child watching from a window become powerful commentaries on urban inequality. Its informal style emphasizes vulnerability and deprivation without aesthetic mediation and turns marginal streets into sites of critical attention. @cirkinistanbul documents visual pollution and disruptive interventions in historic public spaces such as Nevizade and İstiklal. By focusing on intrusive LED screens, neon signage, and political or commercial impositions, the account foregrounds how aesthetic decisions are imposed from above degrade everyday urban experience. Its informality lies in capturing spontaneous encounters and converting urban irritation into a counter-archive of "ugliness." @thatdreamview digitally reworks the façades of ordinary buildings in Istanbul by erasing signage and smoothing irregularities to create speculative "before and after" transformations. In doing so, it critiques the current disorder of the built environment while simultaneously projecting alternative urban

futures. Its informal contribution is the use of social media editing tools to democratize aesthetic speculation and invite collective reflection on what Istanbul might look like.

Together, these practices demonstrate that informal video narratives offer more than documentation. They engage in layered spatial critique by exposing neglected conditions, critiquing visual and political intrusions, and imagining alternative possibilities for the city. Their informality and immediacy allow hidden tensions to surface, including inequality in marginalized districts, the dissonance between heritage and imposed aesthetics, and the longing for order within urban chaos.

The contribution of these videos to urban studies can be summarized in three aspects (I) Visibility: making perceptible what formal accounts routinely ignore, from socio-spatial deprivation to disruptive interventions and façade disorder. (II) Alternative Urban Knowledge: producing informal archives and speculative imaginaries that enrich how the city is understood. (III) New Representational Grammars: developing distinct visual languages such as poetic layering, raw documentation, and digital "cleaning," which expand the repertoire of spatial critique.

Taken together, it is suggested that autonomous video narratives in their informal, user-generated forms can function as valid epistemic tools for interpreting the city. Rather than viewing such content as peripheral, the field must begin to address how these visual artifacts are shaping collective imaginaries, influencing spatial discourses, and documenting the contemporary urban condition in ways that traditional methods may overlook.

CONCLUSION

This paper examined how autonomous videos from Istanbul articulate critiques of the contemporary city. The analysis revealed distinct yet complementary contributions from the three accounts studied. @dincerisgel highlights socio-spatial exclusion by turning ordinary scenes in deprived neighborhoods into commentaries on inequality. @cirkinistanbul critiques visual pollution and intrusive interventions in historic districts, exposing how aesthetic impositions disrupt everyday experience. @thatdreamview reimagines the built environment by digitally "cleaning" façades, offering speculative alternatives to urban disorder. Each practice demonstrates how informal video narratives move beyond documentation to produce situated critiques of urban life. As argued throughout, informal video narratives may offer a more immediate and embodied lens through which to access the affective and fragmented realities of urban life.

Approaching video narratives as an alternative form of communication with urban space makes it possible to engage with the complexities of urban life not through fixed representations but through lived, fragmented, and constantly evolving visual expressions. These informal media outputs offer new ways of accessing the sensory, emotional, and political dimensions of the contemporary city. Just as printed publications once played a foundational role in shaping modern urban memory (Hiz, 2020), today's media must be understood as active agents in constructing the memory and meaning of the contemporary city. This raises critical questions for urban studies: Who gets to represent urban space today? As the possibilities of informal production expand, how do these count as legitimate contributions to urban knowledge? Addressing these questions reveals a shift in research priorities, one that moves away from sanitized and institutional perspectives and embraces the informal, the affective, and the participatory as valid ways of engaging with the city.

As this paper has shown, informal video narratives provide an expanded framework for understanding the city not as a static object to be described from above but as a living condition to be read from within. By engaging with these decentralized and autonomous urban media practices, the study points to emerging priorities for urban research: to make visible neglected conditions, to mobilize affective registers, and to recognize everyday critique as a legitimate dimension of architectural and urban inquiry.

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CITYSCAPE AS COMMODITY: TOURISM AND RECONFIGURATION OF HISTORIC MARDIN

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ABSTRACT

For tourism-driven economic models, the "urban silhouette" functions not merely as an aesthetic element but as a commodifiable asset. Neoliberal urban policies and the culture industry commodify historic cities with tourism potential through this silhouette. This study examines, through the case of Mardin, how the silhouette becomes a marketable commodity rather than a purely aesthetic image.

The study proposes a threefold theoretical framework: First, Kevin Lynch's concept of the "urban image" provides a basis for understanding how the silhouette becomes a marketing tool. Second, Maurice Halbwachs' theory of "collective memory" explains how shared memory embodied in the silhouette is eroded by tourism policies. Finally, David Harvey's notion of "creative destruction" reveals the socio-spatial inequalities and displacement dynamics underlying tourism's economic opportunities.This analysis of Mardin shows how tourism's benefits, such as job creation and cultural heritage visibility, are overshadowed by "creative destruction." The speculative transformations it triggers—rising rents, historic spaces absorbed into entertainment, traditional crafts reduced to shallow souvenirs, and everyday local spaces (markets, streets, squares) reshaped for tourists—constitute concrete manifestations of this destructive process.

This study argues that the commodification of Mardin's historical silhouette targets not only its physical fabric but also the social and mnemonic layers that give it meaning. A deep gap has emerged between the city's marketed image and its local reality. It contends that policies and planning on the urban silhouette must adopt a critical approach centered on accumulated memory and social ecology, beyond aesthetic or economic concerns.

Keywords: Urban Silhouette, Culture Industry, Creative Destruction, Tourism, Mardin

INTRODUCTION

Neoliberal urbanization practices transform historic cities into global objects of consumption, and one of the most visible strategies in this process is the marketing of the urban silhouette. The urban silhouette is no longer regarded merely as an aesthetic image or a value to be preserved; rather, it becomes part of the culture industry, commodified and detached from the city's layers of identity and memory. This transformation generates a profound tension between the economic opportunities and promises of cultural visibility offered by tourism, and the socio-spatial inequalities, transformations of local life, and erosion of collective memory it simultaneously produces. With its rich cultural heritage and iconic silhouette, Mardin stands as one of the most striking examples of this tension in the Turkish context.

This study aims to critically analyze, with a particular focus on Mardin, how the urban silhouette is transformed into a commodity through tourism-oriented neoliberal policies and how this process produces destructive effects on the city's social fabric and spatial practices. The research is grounded in a tripartite conceptual framework: Kevin Lynch's (1960) notion of the "urban image" provides a basis for examining how the silhouette is constructed as a marketing tool; Maurice Halbwachs's (1992) theory of "collective memory" explains how shared memory is reshaped through tourism strategies; and David Harvey's (2012) concept of "creative destruction" serves as a key reference for understanding how the economic activities generated by tourism transform space, social networks, and the local economy.

The study is based on qualitative research methods. Data were collected during fieldwork conducted in Mardin between 2024 and 2025. The methodological framework of the study consists of three main components: In-depth Interviews with local residents, shopkeepers, guides, and representatives of civil society; Participant Observation of spatial practices, everyday transformations, and points of conflict between tourists and locals in the historic city center; and Spatial and Visual Analysis of the representations of Mardin in tourism brochures, promotional videos, and social media posts, alongside the material transformations of space (such as parking facilities and converted buildings). The research data are thematically analyzed and systematically linked to the proposed conceptual framework.

The commodification of Mardin's historical silhouette is shown to target not only the city's physical fabric but also the social and mnemonic layers that render it meaningful. The profound gap between the city's marketed image and the local realities on which this image is

constructed constitutes the central point of discussion in this study. Within this framework, the construction of Mardin's commodified image is critically examined through the lens of spatial destruction, the marginalization of everyday life, and the erosion of urban identity. The principal aim of the study is to emphasize the necessity of reconsidering policies and planning decisions regarding the urban silhouette, not merely on the basis of aesthetic or economic concerns, but through an approach that foregrounds the accumulated memory and social ecology of space.

THE URBAN SILHOUETTE AS A COMMODITY: CULTURE INDUSTRY AND "STAGED AUTHENTICITY"

Theodor Adorno and Max Horkheimer's concept of the "culture industry" explains how culture, within the capitalist system, becomes standardized, packaged, and offered as a commodity (Adorno & Horkheimer, 1947/2002). In the case of Mardin, this commodity is the city's iconic silhouette. Kevin Lynch's (1960) notion of the "urban image" and Sharon Zukin's (1995) concept of the "symbolic economy" provide key conceptual frameworks for understanding the reduction of this silhouette into a marketing tool.

As an extension of the culture industry, the tourism industry in Mardin employs the city's historical and cultural assets (stone houses, landscapes, handicrafts, etc.) as raw materials. These values are transformed into marketable images in the tourist's imagination. Metaphors such as "mosaic" (city of religions and languages), "necklace" (illuminated night silhouette), or "pearl of the East" merge with Lynch's (1960) notion of the urban image to become symbols consumed through tourism. Zukin's (1995) concept of the symbolic economy provides a critical framework for analyzing how these images gain market value and evolve into brands.

These commodified images are presented to tourists as "real" and "authentic" experiences. Dean MacCannell's (1973, 1976) concept of "staged authenticity" is among the most effective in explaining this process. According to MacCannell (1976), the root of modern tourists' search lies in the loss of meaning and originality produced by industrial society. The tourist, fleeing the fragmented and alienating structure of modern life, seeks wholeness and meaning in the existence of the "other," presumed to be "more authentic." For instance, the desire of a tourist visiting Mardin to escape the artificiality of modern urban life and drink coffee in an "authentic" stone house while feeling like a "real" local reflects this existential quest.



Figure 1 In Mardin Square: the "decorated horse" and the "Mardin sign"

The tourist seeks authenticity; yet what they encounter is the "frontstage." Decorated horses, painted streets, or cafés marketing the view are kitsch performances of this desire for authenticity (Urry, 1990). As illustrated in Figure 1, the "decorated horse and the Mardin sign" exemplify what Urry (1990) identifies as a kitsch staging of authenticity, serving the tourist's aspiration to capture the "perfect shot." Similarly, traditional items such as dibek coffee and Mardin stone amulets (Figure 2) demonstrate how cultural elements are detached from their original meanings and everyday contexts, repackaged as standardized "experiences".



Figure 2 Mardin dibek coffee and jewelry with Mardin stone amulets

Tourism brochures, posters, and advertisements guide this desire by dictating what visitors should see. The silhouette of Mardin ceases to function as a cultural value and is reduced instead to a visual experience packaged for touristic consumption. The city's cultural heritage buildings are incorporated into marketing strategies. This situation calls into question the methods of architecture and conservation: the aim is not to preserve a living culture but to commodify a visually constructed identity. At this point, urban identity is reduced to a "visual object of consumption" and highlighted, while everyday life is disregarded and, in some cases, rendered invisible.

The tourist's search for an "authentic" experience is met only superficially by the tourism industry. Instead of revealing the "backstage"—the real, disorderly, and ordinary life of Mardin residents—the industry presents the "frontstage," a curated, clean, and appealing version. Through staged representations such as the "decorated horse" in Figure 1 or a café marketing a scenic view, the tourist encounters not the genuine daily practices of a Mardin resident but a carefully crafted imitation prepared for them.

This process creates a paradox: the packaged ideal of "living like a Mardinite" no longer exists within Mardin's current sociological reality. Whether in the historic fabric of old Mardin or in the modern urban life of new Mardin, residents experience different ways of living. Thus, the tourist purchases a representation of an idealized and frozen past that never fully existed. MacCannell's (1976) analysis therefore offers not only a critique of the tourism industry but also a broader critique of modern society's search for meaning and the ways in which this search becomes commodified.

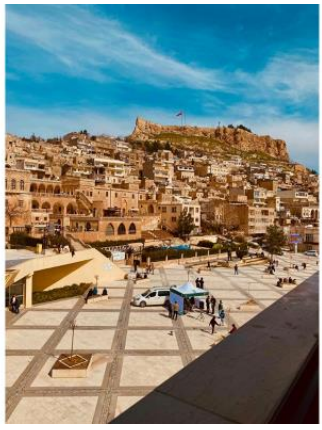
This commodification and staging process finds its sharpest expression in the visual nature of tourism. John Urry's concept of the "tourist gaze" highlights how tourism becomes a site where consumer culture presents itself through visuality (Urry, 1990; Urry & Larsen, 2011). Media, promotional materials, and advertisements dictate what tourists "should" see and experience, a process reinforced by the visual power of commercial photography. As Urry and Larsen (2011, p. 173) note, this craft relies on carefully processed images designed to spark the desire to "insert one's body into the photographed place." As seen in Figure 3, tour operators strategically use iconic landmarks in advertisements to stimulate this desire and foster the sense that "there is much to see and do." Cafes and restaurants overlooking Mardin's historic panorama (Figure 4) embody this marketed image in physical space, allowing tourists to experience the silhouette directly and reconsume it through

photographs. In this cycle, everyday life and collective memory are pushed aside, while urban identity is reduced to a stage reconfigured to meet the demands of the tourism industry.



Figure 3 Posters belonging to certain tour companies (URL-1)





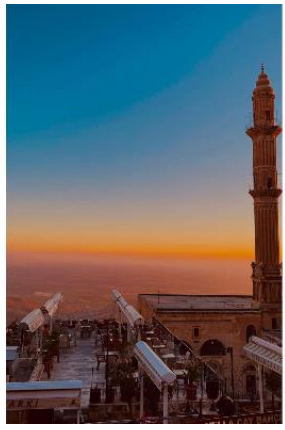


Figure 4 Views from some cafés and restaurants in the area

CREATIVE DESTRUCTION, HYBRIDIZATION: THE SPATIAL AND SOCIAL DEVASTATION OF TOURISM

David Harvey's concept of "creative destruction" explains how neoliberal urban transformation systematically dismantles the old—historical fabric, local economy, and social networks—to build the new and profitable (Harvey, 2012). In Mardin, tourism-driven policies act as a laboratory where this process of destruction and reconstruction becomes highly visible. The result is spatial hybridization. While hybridization carries the potential for creative new formations, its market-oriented character ultimately erodes everyday life, collective memory, and urban identity.

With tourism comes speculation driven by rising property prices, making local everyday life increasingly difficult and reshaping it. Mardin, with its cultural heritage, historic fabric, and layered socio-cultural structure, is simultaneously celebrated and destroyed. The clearest manifestation of this destruction is the transformation of the city's functional fabric: historic houses turned into boutique hotels, traditional shops into souvenir stores—an instance of Harvey's "creative destruction." Tourism spaces are no longer confined to main arteries but spread into neighborhoods (Figure 5). This functional hybridity allows tourism to infiltrate local quarters, where late-night activity generates noise, crowds, and traffic, disrupting residents' daily lives. As Henri Lefebvre (1991) emphasizes, this signifies the erosion of the rhythms and privacy of "everyday life."



Figure 5 Some boutique hotels located within the neighborhoods

The spatial impacts of tourism are accompanied by temporal conflicts. The continuous operation of entertainment venues throughout the night clashes with the resting rhythms of residences, diminishing quality of life. This represents not only a spatial but also a temporal form of destruction (Figure 6).

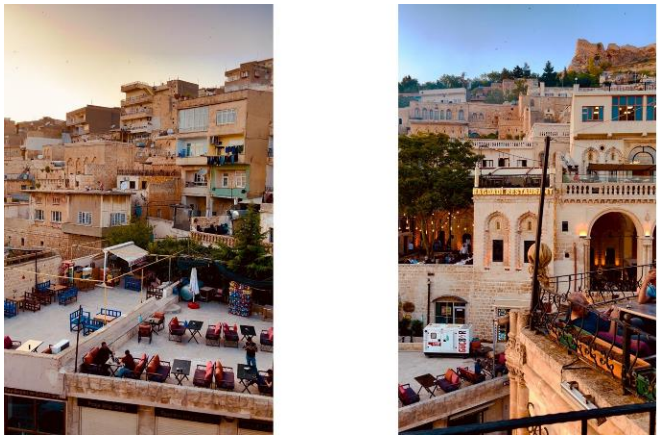


Figure 6 Residential and entertainment venues in the surrounding area

These spatial and temporal transformations inevitably give rise to overtourism. As defined by UNWTO (2018), overtourism occurs when tourism activity in a destination reduces the perceived quality of life for local residents (Figure 7). In Mardin, the infiltration of tourist groups into not only main tourist routes but also neighborhood streets exemplifies this phenomenon. The "tourist gaze" (Urry, 1990), manifested in unfamiliar circulation within residential areas, heightens security concerns, limits children's freedom to play outdoors, and transforms locals into strangers within their own living spaces.



Figure 7 Tourists densely gathered in the city square

This situation created by tourism ultimately triggers Harvey's (2012) processes of "accumulation by dispossession" and displacement. Speculation driven by rising property prices makes it difficult for traditional tradespeople and local residents to remain in these areas, while income from property sales can be tempting. This dynamic underlies why tourism is perceived as beneficial in the short term (Avcıkurt, 2003) but harmful in the long term (Pizam, 1978; cited in Ataman & Özer, 2020): the area is gradually commodified and sold to tourism, with residents' everyday needs (markets, pharmacies, tranquility, security) deprioritized, systematically transforming Mardin's historic fabric from a lived space into a commercial one. The construction of concrete parking lots exemplifies this process symbolically; incongruous and functionally disruptive, it demonstrates how space is reshaped through the tourist gaze while local needs are ignored.

In conclusion, the positive aspects of tourism, such as job creation and the visibility of cultural heritage, are overshadowed by the accompanying "creative destruction." The process unfolding in Mardin is not merely a physical transformation; it represents a systematic restructuring that targets the city's social fabric, everyday life, and the very right of local residents to inhabit their environment.

CONCLUSION

This study critically examined, through the case of Mardin, how neoliberal urban policies and the culture industry transform historic cities and their symbols into touristic commodities. The findings reveal that the "urban silhouette" now functions not merely as an aesthetic element but also as a marketable asset within tourism-driven economic models. This process progressively devalues and transforms the city's authentic identity, collective memory, and everyday practices.

The study's theoretical framework explains this transformation from multiple dimensions. Adorno and Horkheimer's concept of the "culture industry" illustrates how Mardin's authentic values are packaged, standardized, and offered for consumption; Harvey's notions of "creative destruction" and "accumulation by dispossession" reveal how spatial interventions for tourism (parking lots, hotels, entertainment venues) damage the historic fabric and local economy. MacCannell's "staged authenticity" approach demonstrates how the tourism industry meets the demand for "authentic experiences" through kitsch and superficial performances (decorated horses, painted streets, cafés marketing the view). Lynch's "urban image" and Zukin's "symbolic economy" provide a functional basis for analyzing the reduction of the

silhouette into a marketing object, while Lefebvre's concepts of "everyday life" and "lived space" help understand the practices of local residents most affected and their search for alternative forms of publicness.

The findings indicate that the economic benefits generated by tourism come at the cost of spatial degradation and social inequalities. Under these conditions, urban identity and collective memory erode irreversibly. Mardin's historic fabric, emptied into mere decoration, changes hands through tourism-driven price increases and speculation; for new actors unfamiliar with everyday and traditional practices, cultural heritage remains little more than a commercial object. This shift in use and meaning erases and transforms the long-standing, embedded knowledge inherent in these structures, posing the risk that marketed authenticity ultimately destroys existing authenticity.

Therefore, planning and preservation policies must go beyond aesthetic and economic concerns and adopt a critical approach that prioritizes the city's accumulated memory, social ecology, and the continuity of everyday life. Mardin's commodified silhouette serves as an important warning for the fields of architecture and planning. A sustainable urban future can only be built through participatory, locally grounded policies that value the life of space over its commodity value.

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A STUDY ON THE "15-MINUTE CITY" MODEL AS A HUMAN-CENTERED PLANNING APPROACH

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ABSTRACT

Under the influence of modernization processes and contemporary The 15-minute city model aims to create dense and mixed-use settlements where individuals can meet their daily basic needs within a 15-minute access distance by using sustainable modes of transportation, such as walking, cycling, or public transport. It advocates that urban planning should place people, rather than motor vehicles, at its centre. The primary objective of this approach is to enhance people's quality of life and mitigate environmental degradation. Considered a continuation of Howard's (1898) "Garden City" and Perry's (1929) "Neighbourhood Units" approaches, this model emerged as a key component of contemporary planning approaches during the pandemic period, when mobility within cities was restricted. This study comparatively analyses the planning, policies, and practices implemented within the scope of the 15-minute city model in Paris, Melbourne, and Bogotá, which have pioneered its application. The analysis reveals that, in all three cities examined, practices have focused on strengthening pedestrian and cycling infrastructure, increasing green areas, enhancing the quality of public spaces, improving public transport connections, promoting community participation in design processes, and supporting the local economy. Additionally, the examinations conducted in Paris, Melbourne, and Bogotá demonstrate that the sustainability of this approach contributes to its environmental, economic, and social benefits. The results of the study show that the 15-minute city model can be addressed flexibly at different scales and contexts and should be evaluated through varying strategies depending on local conditions.

Keywords: 15-Minute City, Walkability, Sustainability, Human-Centered Design

INTRODUCTION

Since the earliest cities, meeting basic human needs has been a primary concern in urban development. At the beginning of the 20th century, with the advent of modernism, functionality became the primary focus in urban design. The rise in industrial production and standardization, however, rendered cities monotonous and uniform. Within this approach, cities were designed around the movement of motor vehicles, and pedestrian mobility was relegated to a secondary position. As cities were shaped according to the scale of motor vehicles, they moved away from the human scale and human needs. From the 1970s onwards, with the increase in environmental problems, issues concerning environmental sustainability and the relationship between the environment and its users regained significance in urban planning processes. In 2019, with the problems brought by the COVID-19 pandemic, human-centred approaches in urban planning once again became a priority. The pandemic compelled people to work from home and to move only within short distances in their residential areas, within limited periods of time. Consequently, people began to walk and cycle in their neighbourhoods, carrying out various activities within them and utilizing public open spaces. During the pandemic, the changes experienced in the use of public open spaces and the emergence of new needs brought the "15-minute city" model to the fore.

In response to the problems of modern urbanism, this concept, which emerged as an alternative to the smart city approach and has been addressed within the framework of sustainability and environmental issues, was regarded by the C40 Cities (C40 Cities Climate Leadership Group) network as a key solution proposal during the pandemic period. This approach was adopted and implemented in various ways in cities such as Paris (France), Melbourne (Australia), Bogotá (Colombia), and Milan (Italy) (C40 Cities Climate Leadership Group, 2021; Atasever & Özkılıç, n.d.).

This study aims to explore the "15-minute city" approach within a theoretical framework and to examine how the model has been implemented in various geographical, social, and administrative contexts. The opportunities offered by the 15-minute city model in diverse urban contexts will be discussed along the axes of sustainability, local development, and social interaction. Within the scope of the study, the theoretical and conceptual framework of the "15-minute city" model is first presented. Subsequently, in the case study section, the planning, policies, and practices implemented in line with the 15-minute city model in Paris (France), Melbourne (Australia), and Bogotá

(Colombia) are comparatively analysed, and the findings obtained from the research are presented.

The 15-Minute City Approach: Conceptual and Theoretical Background

The 15-minute city approach is an urban planning model that aims to enable people to access basic services and meet their daily needs within a 15-minute distance from their homes by walking, cycling, or using public transport, such as food and beverage, health, education, and work (Moreno et al., 2021). It advocates that fundamental functions such as housing, work, education, commerce, and health should be more centralised, and that each neighbourhood should have a self-sufficient, compact, and mixed-use urban design (Bocca, 2021) (Figure 1).

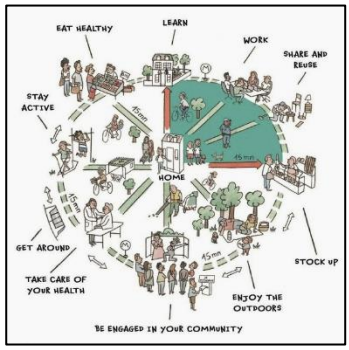


Figure 1. Conceptual Diagram of the 15-Minute City (Prepared by: Micaël Dessin for Paris en Commun) (Ravenscroft, 2023)

The concept was first introduced by Carlos Moreno in 2016, following the 2015 Paris Climate Change Conference, as a proposal for reducing urban carbon emissions. The model advocates a human-centred rather than a vehicle-centred urban approach, in response to the growing population and the degradation of natural resources. Subsequently, the model was incorporated into the planning programme of the city of Paris through the policies of Mayor Anne Hidalgo on the 'Living Smart City' and the 'Ville du quart d'heure' (Quarter-Hour City), and with the restrictions experienced during the pandemic period, the model became a prominent and popular concept within planning approaches (Moreno et al., 2021). The 15-minute city model is also recognised as an essential approach for healthy and socio-economic restructuring in the latest report of UN-Habitat (The United Nations Human Settlements Programme, 2022), by the IPCC Working Group III (The Intergovernmental Panel on Climate Change, 2022), and by the WHO (World Health Organization, 2020) (Moreno et al., 2024).

Rather than being a new urban planning approach, the 15-minute city concept is regarded as a continuation of Howard's (1898) "Garden City" and Perry's (1929) "Neighbourhood Unit" approaches (University of the Built Environment, 2024). Perry's "Neighbourhood Unit" employed a mixed-use and walkability-oriented approach, characterized by a specific density, a diameter of 400 metres, and a capacity to accommodate 6,000 residents (Pinto & Akhavan, 2022). Within the framework of density, mixed use, and walkability, the 15-minute city approach also shows similarities with movements such as "New Urbanism" (Khavarian-Garmsir et al., 2023a).

For the 15-minute city approach, walkability and accessibility are two crucial concepts. It adopts an urban planning perspective that prioritizes a human-centered approach, enabling individuals from all segments of society, regardless of age, gender, or disability, to access services easily. In this context, it encompasses practices such as strengthening the infrastructure of pedestrian and cycling paths, creating safe and sustainable transport routes, and increasing green corridors. Furthermore, it adopts a more inclusive planning approach, valuing community participation through the involvement of the public, non-governmental organisations, local businesses, and public institutions in the planning process. It aims to meet the expectations and needs of the community at the local scale (Moreno et al., 2021).

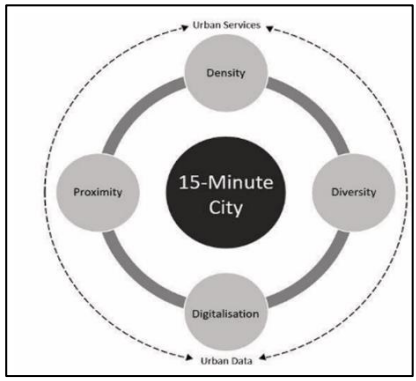


Figure 2. Dimensions of the 15-Minute City Concept (Moreno vd., 2024).

According to Moreno et al. (2021), the 15-minute city approach has four fundamental dimensions: density, diversity, proximity, and digitalisation (Figure 2). Density aims for urban units to be self-sufficient, eliminating the need to travel to different places. According to Moreno et al. (2021), a city comprises six basic functions: living, working, commerce, health, education, and entertainment (Figure 3). These functions should be achievable within every neighbourhood. The model adopts a high-

density and compact approach. The dimension of proximity aims to ensure that individuals can easily access essential services within 15 minutes, without incurring costs or consuming resources. In this way, the model also contributes to environmental and economic sustainability. In addition to creating multifunctional neighbourhoods that include housing, commerce, and recreational spaces, the 15-minute city model acknowledges and values the coexistence of different socio-economic and socio-cultural groups within society as a form of diversity (Moreno et al., 2021). Diversity not only emphasises the need for urban functions to be mixed-use but also aims to foster social cohesion and participation, thereby contributing to social sustainability. Digitalisation, although not initially a key component of the concept, became an important aspect of this planning approach during the pandemic period (Allam et al., 2022; Liu et al., 2020). The 15-minute city model leverages the opportunities afforded by technology, including the ability to work remotely without commuting, enhanced shopping options, and access to various public services. The increase in remote working and digital services reduces urban traffic, thereby supporting local economies (Moreno et al., 2021).

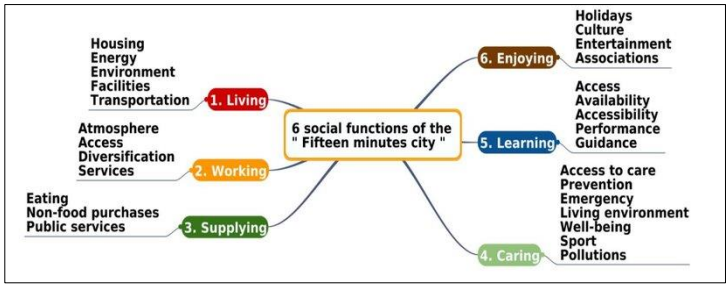


Figure 3. The 6 Social Functions of the 15-Minute City (Moreno vd., 2024).

By reviewing the studies in the literature on the 15-minute city concept, Khavarian-Garmsir (2023b) emphasised, in addition to the principles of density, diversity, proximity, and digitalisation, the dimensions of human-scale design, connectivity, and flexibility. The 15-minute city model established the relationship between scale and the planning approach by focusing on people and the distances accessible to them, rather than vehicles. The connection between neighbourhoods through public transport is crucial for preventing ghettoisation, and the linkage of neighbourhoods with urban infrastructure is essential for the model's functioning. Furthermore, to increase the use of walking and cycling, these modes of transport also need to be integrated with other forms of public transportation. Flexibility, on the other hand, refers to the

adaptability of public buildings and public spaces to various functions, enabling them to serve multiple purposes. In Paris, some examples of such practices include assigning different programmes to schools during periods when they are closed and transforming schoolyards into parks (Duany & Steuteville, 2021; Weng et al., 2019).

There are also many criticisms of the 15-minute city approach. It is suggested that the 15-minute city approach may perpetuate social injustice based on age and economic status (Weng et al., 2019). It should also be anticipated that the basic services of interest to children and young people may differ, and that these groups may have different walking behaviours and walking speeds (Moreno et al., 2021). Khavarian-Garmsir et al. (2023a) have highlighted the possibility that individuals may struggle to find employment within a 15-minute walking distance. Additionally, there are concerns that this approach may increase property values in certain parts of the city, which could be perceived as social injustice by society. Along with the increase in property values in certain parts of the city, it is considered that low-income individuals may be displaced from these settlements, leading to a gentrification problem (Alberti & Radicchi, 2022; Marchigiani & Bonfantini, 2022). Another criticism is that low-income groups may be confined to specific neighbourhoods, which would make class divisions more pronounced and hinder social cohesion within society (University of the Built Environment, 2024). Furthermore, the concept of the 15-minute city overlooks specific critical issues such as environmental protection, biodiversity, energy efficiency, green and clean energies, as well as the dialect, culture, heritage, and identity of local communities (Khavarian-Garmsir et al., 2023b)

It is also observed that, while the 15-minute city concept theoretically proposes a framework, there remains ambiguity regarding the practices and applications for transforming existing cities. This situation makes it challenging to implement the 15-minute planning approach in car-dependent cities with fragmented and functionally segregated plans (Alberti & Radicchi, 2022; Marquet et al., 2024; Sharifi et al., 2023). Moreover, since not every city faces the same universal problems and each has its own unique dynamic structure, every city must develop a neighbourhood planning approach tailored to its own context (Pozoukidou & Chatziyiannaki, 2021). In this regard, the subsequent part of the study will address the planning, policies, and practices implemented in line with the 15-minute city approach in Paris (France), Melbourne (Australia), and Bogotá (Colombia).

Case Studies: The 15-Minute City Approach in Paris, Melbourne, and Bogotá

Case Studies 1: Paris/France

The city of Paris became one of the pioneers in implementing the 15-minute city approach, developed by Carlos Moreno, when it was incorporated into Mayor Anne Hidalgo's election platform in 2020. Paris aims to become a carbon-neutral city by 2050 (C40, 2021). In this regard, the 15-minute city approach has been adopted as a key concept to support this goal. Concrete steps towards its implementation were taken with the adoption of the "15-Minute City Roadmap" on June 1, 2021, and the "Proximity Pact" on November 15, 2021, by the Paris City Council (Moreno et al., 2024). Through the 15-minute city approach, it aims to identify neighbourhoods requiring urgent intervention, establish cooperation with municipal units, conduct a comprehensive analysis of infrastructure and existing local services, ensure public participation, and monitor the establishment of necessary services in the area. Accordingly, policies have been planned for walkable and bicycle-oriented neighbourhood development, reduction of resource consumption, improvement of the public transport system, increase in green spaces, expansion of social housing, and strengthening of the local economy. Additionally, initiatives have been planned to increase mixed-use areas and enhance the city's ecology (C40 Cities, 2022).



Figure 4. Bicycle Lanes Implemented in Paris within the Framework of the 15-Minute City Approach (Freudendal-Pedersen et al., 2022).

As part of the post-COVID-19 recovery process, various practices have been implemented in the city within the framework of this approach. For instance, car parking spaces were reduced and converted into bicycle and pedestrian lanes, while bike-sharing schemes and green corridors were among the initiatives carried out during this period (Freudendal-Pedersen et al., 2022; C40 Cities, 2022) (Figure 4). In addition, remote working offices were established for citizens working from home (Freudendal-Pedersen et al., 2022).

Various initiatives have also been undertaken to strengthen the local economy. Abandoned businesses in neighbourhoods lacking certain functions are rented to local entrepreneurs at prices significantly below market value by "Semaest", a semi-public, semi-private company, to support the establishment of local shops serving the identified functions. In addition, local production is promoted under the slogan "Made in Paris" (Freudendal-Pedersen et al., 2022).

Another initiative implemented in Paris is the "Les Cours Oasis" project, which focuses on transforming existing buildings into multifunctional spaces. For example, schools are designated as the social centres of neighbourhoods, and outside school hours, school buildings and courtyards are opened to the public to serve as centres for leisure, sports, and cultural activities. In addition, efforts have been made to strengthen the infrastructure of pedestrian and cycling routes around schools and to ensure that these areas are made safe against traffic. Furthermore, to reinforce social ties within the community, gathering spaces for elderly people have also been planned (Freudendal-Pedersen et al., 2022; C40 Cities, 2022) (Figure 5).



Figure 5. Images Related to the Project Entitled "Les Cours Oasis" (Freudendal-Pedersen et al., 2022; by Laurent Bourgogne).

In the 15-minute city model, Paris places importance on public participation and on strengthening communication with citizens. In this respect, neighbourhood kiosks have been established. Moreover, through the collection of various projects proposed by citizens via an open call, and by enabling residents of the respective neighborhoods to decide which of these projects will be implemented through an online survey, citizens are allowed to have a say in the practices to be implemented in their neighborhoods. Five per cent of the city's annual investments are determined in this way (Freudendal-Pedersen et al., 2022).

Paris is a city with a population of 2.27 million and an area of 105 km² (C40 Cities, 2022). Through the 15-minute city approach, it is observed

that the objectives are to reduce commuting time, improve air quality by decreasing the use of motor vehicles, and enhance the quality of life of Parisians through the projects developed.

Case Studies 2: Melbourne/ Australia

Melbourne is a city with a population of 5.3 million and an area of approximately 10,000 km². Within the framework of its 2017–2050 planning strategy, Melbourne is developing various policies to address climate change. One of these policies, the 20-minute city approach, similar to the 15-minute city approach, aims to enable people to access basic needs by walking, public transport, or cycling. In this model, it is planned that 17 urban and social functions can be reached within 20 minutes, corresponding to a total round-trip distance of 800 metres (Freudendal-Pedersen et al., 2022) (Figure 6).

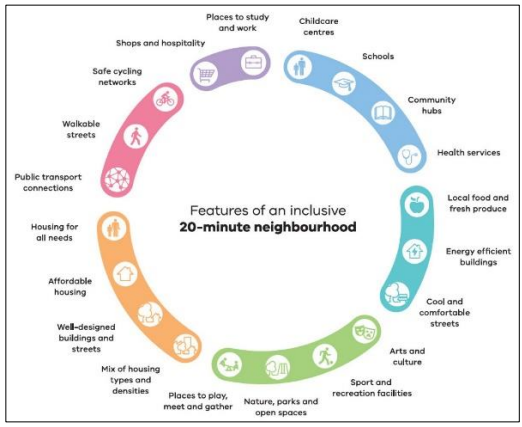


Figure 6. Characteristics of a 20-Minute Neighbourhood (Victoria State Government, 2025).

The primary objective of the 20-minute city approach is to encourage individuals to lead a healthy life through active modes of transportation, reduce vehicle traffic, and improve quality of life by decreasing vehicle-related carbon emissions (Pozoukidou & Chatziyiannaki, 2021). The primary strategies of this plan include density, land use diversity, design, accessibility, and public transportation distance (Stanley et. al, 2015).

For the 20-minute neighbourhood plan, work has been carried out on six fundamental applications. These are: creating safe, accessible, and well-connected settlements; supporting local economies; ensuring easy access to services; developing climate-resilient cities; providing high-quality public spaces; and increasing housing density (Victoria Stata Government, 2025; C40 Cities, 2022; Freudendal-Pedersen et al., 2022).

At this point, some of the practices include providing affordable and accessible housing, increasing dense and mixed-use land use, and enhancing green corridors and community gardens (Figure 7). In addition, neighbourhood activity centres have been established to promote social interaction and community participation. Neighbourhood activity centres provide essential services and education, serving as focal points within their respective neighbourhoods. Converting former municipal buildings into libraries and using temporary spaces and buildings for local events are further practices aimed at enhancing public spaces and fostering social interaction within the community.



Figure 7. An Example of Local Community Gardens (Freudendal-Pedersen et al., 2022).

In Melbourne, streets have been considered as living spaces for people. Therefore, certain restrictions have been introduced on vehicle mobility, street landscaping has been enhanced, street art initiatives have been undertaken, façade improvements have been carried out, bicycle repair facilities have been established, and support has been provided to local businesses (C40 Cities, 2022).

While the inner areas of Melbourne are well-suited for the 20-minute city model, the outer edges of the city lack the necessary qualities to achieve this model. The middle and outer areas of Melbourne are characterised by low density and a greater dependence on cars (Stanley & Stanley, 2014).

Case Studies 3: Bogotá/ Colombia

Bogotá has incorporated the 15-minute city approach into its agenda through the Vision of Vital Neighbourhoods (Barrios Vitales), based on the criterion of "30 minutes". The Vision of Vital Neighbourhoods project aims to enhance the quality of life in the community by improving local neighbourhoods and streets. According to this plan, the objectives are to improve the quality of pedestrian routes, create cycling paths, establish green corridors, introduce traffic restrictions, widen streets, implement tactical urban interventions, and revitalise street life by

increasing commercial functions such as cafés along streets (Figure 8, Figure 9). Additionally, regulations governing housing areas have been established to meet housing demand, alongside policies aimed at protecting green spaces and wetlands. Furthermore, projects have been planned for the development of public transportation modes, such as metro, cable car, and tram, to enable longer journeys (C40 Cities, 2021).



Figure 8. The 26 Green Corridors Planned in Bogotá (Alcaldía Mayor de Bogotá, 2021).

Bogotá is a city with a population of 7.9 million and an area of 350 km². The presence of mountainous areas has necessitated the city's expansion, which in turn has made car travel essential. In Bogotá, due to the fragmented and sprawling urban plan, a significant proportion of citizens commute between home and work for up to two hours and spend 30% of their income on transport (Freudendal-Pedersen et al., 2022). Due to the high level of car use, Bogotá is exposed to air and noise pollution. During the pandemic period, a temporary cycle lane measuring 76 km in length was created to reduce the burden on public transport. In addition, the "Séptima Verde Boulevard", an important axis connecting the city's poor and wealthy neighbourhoods, was redesigned through public participation in the design process using the "Streetmix" application. Through "Streetmix", an online platform, citizens were able to visualise the changes they wished to see at street scale and convey their ideas (Freudendal-Pedersen et al., 2022; C40 Cities, 2022).

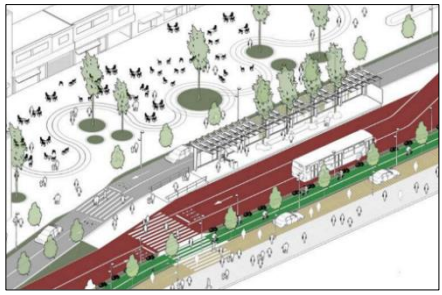


Figure 9. Schematic Representation of the Planning Proposal for Vehicle, Pedestrian, and Bicycle Routes (Alcaldía Mayor de Bogotá, 2021).

Another initiative implemented in Bogotá is the creation of a child-friendly area on the "Ciudad Bolivar" boulevard, where child centres are concentrated, within the scope of a pilot project. This was achieved through reducing vehicle traffic speed, introducing play streets, and improving urban furniture and landscaping (C40 Cities, 2022). In addition, between 6:00 and 8:30 a.m., bicycle lanes were prioritised and cycling training and traffic safety education were provided to include children and young people in active green mobility (Freudendal-Pedersen et al., 2022).

Guzman et al. (2024) found that 80% of the population living in Bogotá can access basic opportunities, such as education, employment, leisure, and local shops, within a 15-minute walking distance. However, there are exceptions regarding access to higher education institutions, hospitals, sports facilities, and cultural activities. This situation is valid only in certain parts of the city, and it is also stated that inequalities exist among different socio-economic groups located on the urban periphery.

Comparative Analysis of Case Studies

When the planning, policies, and practices implemented in Paris, Melbourne, and Bogotá within the framework of the 15-minute city approach are examined, it is observed that all three cities have adopted similar practices at specific points. Efforts to enhance walkability and cycling infrastructure are notable in each of the three cities. In addition, measures such as improving public transport connections and encouraging individuals to adopt active green modes of transport instead of using motor vehicles—and thereby promoting healthy living—are among the practices implemented in all three cities.

Policies aimed at strengthening the local economy also stand out as another common theme. Examples of this include supporting local businesses and local production, as well as establishing neighbourhood activity centres. In parallel with this, ensuring community participation in design processes is also considered an important approach in the cities examined.

Table 1. An Examination of Paris, Melbourne, and Bogotá within the Framework of the 15-Minute City Approach

Dimensions of the 15-Minute City	Cities		
	Paris	Melbourne	Bogotá
Density	Increasing High-Density and Mixed-Use Land Use	Increasing High-Density and Mixed-Use Land Use	Increasing High-Density and Mixed-Use Land Use
Diversity	Increasing High-Density and Mixed-Use Land Use	Increasing High-Density and Mixed-Use Land Use	Increasing High-Density and Mixed-Use Land Use Revitalisation of Street Life
Proximity	Improvement of Public Transport Connections	Improvement of Public Transport Connections	Improvement of Public Transport Connections
Digitalisation	Establishment of Remote Working Offices Neighbourhood Kiosks Community Participation in the Design Process		Community Participation in the Design Process (Streetmix)
Human-Scale Design	The 15-Minute City Approach Public Spaces for the Elderly	The 20-Minute City Approach	The 30-Minute City Approach Public Spaces for the Children
Connectivity	Walkability and Cycling-Oriented Neighbourhood Improvement of Public Transport Connections	Walkability and Cycling-Oriented Neighbourhood Improvement of Public Transport Connections	Walkability and Cycling-Oriented Neighbourhood Improvement of Public Transport Connections
Flexibility	Transforming Existing Buildings into Multifunctional Spaces	Transforming Existing Buildings into Multifunctional Spaces	

When the policies and practices implemented in Paris, Melbourne, and Bogotá are examined through the fundamental dimensions of the 15-

minute city approach, it is observed that, in line with the primary objective of the approach, all three cities plan to increase mixed-use and high-density land use. Efforts to provide missing functions in neighbourhoods and to revitalise street life correspond to the principle of diversity within the model. Strengthening public transport connections, as well as walkability- and cycling-oriented neighbourhood development, are prominent practices in all three cities and are important in relation to the dimensions of proximity and connectivity. The restrictions experienced during the pandemic, however, made it necessary for some basic services, such as working from home and shopping, to be carried out through digital means. In this context, digitalisation processes, which constitute an important dimension of the 15-minute city approach, have also emerged as another common aspect in the cities. For example, the use of digital tools in processes concerning community participation and the establishment of remote working offices in Paris can be cited as examples. Transforming existing buildings into multifunctional spaces requires a flexible planning approach. In addition, although the 15-minute city model has been expressed in different time frames in each of the three cities, it has been shaped around a human-centred perspective that prioritises human needs and takes into account people and their accessible distances (Table 1).

The practices and policies implemented in Paris, Melbourne, and Bogotá within the framework of the 15-minute city approach also contribute to the environmental, economic, and social dimensions of urban sustainability. For example, promoting active transport modes such as walking and cycling will reduce car dependency and lower carbon emissions. The creation of green corridors, the increase of green areas, and the protection of wetlands contribute ecologically to the preservation of the environment. Moreover, the multifunctional use of existing buildings reduces the carbon footprint of structures and ensures efficient use of resources, thereby contributing to the environmental and economic dimensions of sustainability. Policies aimed at strengthening the local economy are important for the economic dimension of sustainability. The fact that the examined cities prioritise community participation in the design process, improve the quality of public spaces, establish community gardens, and revitalise street life to enhance social interaction contributes to the development of social sustainability (Table 2).

In all three cities examined, it is generally observed that the aim is to enhance the quality of life of users. At this point, efforts have also been made to improve environmental aesthetics to increase the psychological comfort of urban residents. For example, some of these

practices include expanding green corridors, enlarging green areas, improving the quality of public spaces, and enhancing urban furnishings. In addition, initiatives such as the creation of child-friendly areas, practices aimed at the elderly, and improvements in traffic safety contribute to increasing users' psychological comfort and thereby enhancing the quality of life.

Table 2. An Examination of the Practices Implemented within the Framework of the 15-Minute City Approach in Paris, Melbourne, and Bogotá through the Dimensions of Sustainability

Dimensions of Sustainability	Cities		
	Paris	Melbourne	Bogotá
Environmental Sustainability	Walkability and Cycling-Oriented Neighbourhood Reduction of Resource Consumption Improvement of Public Transport Connections Increase of Green Spaces Transforming Existing Buildings into Multifunctional Spaces	Walkability and Cycling-Oriented Neighbourhood High-Quality Public Spaces Increasing High-Density and Mixed-Use Land Use Improvement of Public Transport Connections Greenway Community Gardens Transforming Existing Buildings into Multifunctional Spaces	Walkability and Cycling-Oriented Neighbourhood Greenway Protection of Green Areas and Wetlands Improvement of Public Transport Connections
Social Sustainability	Increasing the Number of Social Housing Units Establishment of Remote Working Offices Public Spaces for the Elderly Neighbourhood Kiosks Community Participation in the Design Process	Increasing Housing Density Community Gardens Neighbourhood Activity Centres	Revitalisation of Street Life Community Participation in the Design Process Public Spaces for the Children Increasing the Number of Social Housing Units
Economic Sustainability	Policies Aimed at Strengthening the Local Economy	Policies Aimed at Strengthening the Local Economy	

CONCLUSION

In this study, the theoretical framework of the 15-minute city model was examined, and the planning, policies, and practices implemented in Paris, Melbourne, and Bogotá were addressed. The research revealed that while the 15-minute city model emerged as a concept within the axis of environmental issues and sustainability, it gained prominence in contemporary urban planning approaches during the pandemic period, when mobility within cities was restricted. Regarded as a continuation of Howard's (1898) "Garden City" and Perry's (1929) "Neighbourhood Units" approaches, the 15-minute city model prioritises people and their accessible distances over motor vehicles. This model promotes mixed-use and high-density land use, advocating that each neighbourhood should be self-sufficient and include basic amenities. Planning policies are implemented to enable individuals to meet their daily needs within a 15-minute travel time by choosing sustainable modes of transport such as walking, cycling, or public transport. However, when the model is evaluated from a methodological perspective, uncertainties remain regarding how the 20- or 15-minute radius will be measured or how existing cities will be transformed. It is also observed that topographic conditions, such as slope, are disregarded in the model. Furthermore, another criticism is that the model reduces current urban problems, such as traffic congestion, stressful living conditions, and environmental issues, to a matter of transportation/access.

The examinations conducted in Paris, Melbourne, and Bogotá demonstrate that walkability and accessibility are two highly significant issues for the model. In all three cities, efforts are being made to improve the quality of pedestrian routes, to develop cycling infrastructure, and to strengthen public transport connections. Furthermore, the protection of green and wetland areas, together with the increase of green and public spaces, is another important issue addressed in these cities. Strengthening the local economy and ensuring community participation in design processes have also been identified as important objectives of the 15-minute city approach in the cases examined. Furthermore, studies conducted in Paris, Melbourne, and Bogotá demonstrate that this approach positively impacts the environmental, economic, and social dimensions of sustainability. When the practices in all three cities are evaluated as a whole, it is observed that the model adopts a human-centred approach aimed at improving the quality of life. At the same time, it is understood that the approach is shaped at different scales and in different forms depending on the spatial, administrative, and social conditions of each city. The examples examined reveal that the 15-minute city model can be applied flexibly

in different contexts and supported with strategies that vary according to local conditions.

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EXPERIENCING URBAN ATMOSPHERE: SENSORY DYNAMICS ON İKI EYLÜL STREET

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ABSTRACT

This study investigates urban atmosphere as a multi-layered phenomenon, shaped not only by the built environment but also by bodily responses, social interactions, and sensory perceptions. Using an interactive "Atmospheric Walk" methodology, 15 participants mapped sensory experiences along İki Eylül Street on two different days: a regular Sunday (25 August) and Victory Day (30 August). Participants documented their bodily reactions, sensory attention, and social encounters through sketches and annotations, revealing the interplay between physical space and experiential dimensions of urban life. The analysis applies Jean-Paul Thibaud's triadic framework of ambience—tuned, modulated, and framed—to interpret the observations. Tuned ambience emerged as participants attuned to scents, sights, and bodily resonances; modulated ambience reflected temporary fluctuations in sound, smell, and crowd dynamics; and framed ambience highlighted the social and cultural reframing of space through micro-events and collective behaviors. Findings show that urban atmosphere is not a static backdrop but a dynamic layer constituted through bodily attunement, sensory fluctuations, and social interactions. The study emphasizes the importance of integrating sensory and social dimensions into urban design, suggesting that considering user experience alongside physical planning can enrich city atmospheres and create more engaging, emotionally resonant urban environments.

Keywords: Urban atmosphere, affect, emotion, body-space interaction, Eskişehir İki Eylül Street

INTRODUCTION

Urban atmosphere can be regarded as an intricate construct built through sensory patterns of everyday life. The construction of urban atmosphere involves acts such as establishing a field of action through sensibilities and producing social and cultural codes through affective tonalities. The blending of the city perceived through one's senses with the images formed in memory, in their natural flow, gives rise to affect. However, in current urban studies and in the literature devoted to urban memory, inputs that reflect affects, body–space interactions, and the networked structure of urban atmosphere are not sufficiently included (Anderson, 2009). Publications addressing spatial experience have often been interpreted from a subject-centered position, privileging the subject, which neglects the user's resonance with space. Yet approaches that objectify space and fail to recognize the presence of humans or living beings as constitutive components of atmosphere remain limited, despite their potential to enrich architectural and urban atmospheres. Urban atmosphere is an intermediate form that persists between subject and object (Böhme, 2017).

Atmosphere is not a phenomenon that gains clarity through the mere sequencing of senses or simple emotions that might first come to mind (Thibaud, 2011). The approach offered by this study goes beyond traditional methods that analyze only the physical environment, enabling an interpretation of the city through individuals' senses and affects, the constant mobility of their bodies, and the sensory responses and affects generated by this vibrancy. Senses are not merely features that perceive the physical environment; they are also forms of perception that transform into a synergy within the city (Thibaud, 2011). A smell drifting through the city can prompt bodily changes—for instance, the urge to escape, unease, or curiosity—and its transformation into collective movement also conveys atmosphere, its variability, and at the same time the situated knowledge of place (Böhme, 2017). Encounters between bodies and their mutual influences are also among the inputs of atmosphere (Anderson, 2009). The body of the city, along with those who inhabit it and the various elements that constitute and are constituted with it, is subject to constant transformation due to perpetual movement and change (Thibaud, 2011).

This study aims to make this change and the dynamism of atmosphere visible on different but comparable days in a public part of the city. It is not subject to fixed definition, since future studies—whether a month, a year, or decades later—will reveal other facets, transformations, and vibrations of the urban atmosphere. The city itself is already a

representation of this inclusivity of change. In the global literature on urban atmosphere, resources remain scarce in terms of case studies in Turkey. In the selected sample area, ambiance plays a crucial role in being pre-reflective—felt sensorially and affectively before being analyzed. Furthermore, studies tend either to reduce situations to quantitative methods or remain purely at a theoretical level. This study, while examining the concept of urban atmosphere through its sample area, takes as its basis Thibaud's work on the three dynamics of urban atmosphere—tuned, modulated, and framed—and adheres to the principle of not reducing atmosphere to measurable quantities or to a sequential chain of phenomena.

In this context, Eskişehir's İki Eylül Street was chosen as the study area for its multi-layered structure, which embodies both historical texture and modern urbanization processes. Such areas of the city make atmosphere more intensely perceptible through their everyday rhythms and ambiances (Abusaada & Elshater, 2020). In the study, the "Atmospheric Walking Journal" method was applied with 15 participants on different days; participants were asked to record their sensory and affective experiences during the walk and to visualize them through sketches. In this way, atmospheric differences of the street in daily flow and on special days were comparatively documented. Details of the method and findings will be discussed in the following sections of the paper.

This study demonstrates that the priorities of architecture should not be limited to the organization of physical space alone, but should also be sensitive to the affects of bodies experiencing space, their everyday rhythms, and their reciprocal relations with space. Analyses carried out through workshop outputs, in relation to the situational character of urban space and the dynamics of ambiance (tuned, modulated, framed), reveal that architectural production processes cannot be confined to formal, functional, or technical grounds; spatial atmosphere, collective rhythms, and bodily experiences must also be counted among the essential priorities. Thus, the priorities of architecture should be redefined to encompass "invisible" components such as intercorporeal encounters in the city, the fluidity of everyday life, and the shifting needs of users (Thibaud, 2011; Griffero, 2013). This approach requires considering architecture not only as the practice of constructing space, but also as one that organizes atmosphere and relations. It is anticipated that such an approach will serve as a guiding reference for future research in urban studies, architecture, and urban planning.

Urban Atmospheres and the Interaction of the Senses

The city is not merely composed of physical structures and functional arrangements; it is a multilayered environment experienced through the senses, bodily orientations, and social relations. In this context, atmosphere can be defined as an intermediate layer that emerges at the intersection of sensory inputs and both subjective and collective experiences, beyond the material components of space. In architectural and urban design literature, atmosphere was long regarded as a "background quality" or a by-product of spatial form. However, with Gernot Böhme's (1993) definition of atmosphere as an aesthetic category, it began to be discussed as something actively produced through perception and affect. Ben Anderson's (2009) notion of *affective atmospheres* also demonstrates that atmospheres operate beyond the subject–object divide, working between sensory tones and collective experiences. Jean-Paul Thibaud's (2015) conceptual framework further situates this debate within the urban context, showing that atmosphere arises not only from the material environment but also from bodily attunements and social interactions through which sensoriality builds connections.

In the construction of urban atmospheres, the senses of sight, hearing, smell, touch, and even taste are activated at varying levels. What is sensed is recorded in the body (Löfgren, 2015). Visual cues, such as the perspective extending along a street or the contrast of colors and materials, orient spatial perception. Yet it is evident that atmosphere is not constructed solely through visual codes. As Gernot Böhme (1993) emphasizes, atmosphere should be understood as an aesthetic category that arises from the simultaneous interplay of all the senses, going beyond the purely visual properties of space. The city's sounds—tram noise, the murmur of crowds, the scraping of café chairs—form an auditory texture that modulates the individual's relationship with place (Augoyard & Torgue, 2005). Likewise, smells trigger memory and a sense of belonging; the strong scent outside a flower shop or the aroma of bread from a bakery can instantaneously transform spatial experience (Classen, Howes, & Synnott, 2002b).

The sense of touch is also a crucial component of atmosphere. The warmth of sunlight on the skin, the contact of wind against the face, or the texture of the ground underfoot enable perceiving space not only visually but through the whole bodily surface. Such bodily perceptions orient urban experience at a pre-reflective level; as Jean-Paul Thibaud (2011) points out, atmosphere should be understood not as a merely cognitive process, but as a product of bodily resonance between

subject and environment. The sense of taste, in turn, is tied to site-specific practices of consumption; the flavor of coffee or street food contributes to the sensory integrity of place and merges with its social dimension.

Thus, urban atmospheres emerge not only from spatial arrangements envisioned by designers but also from the simultaneous functioning of the senses, bodily orientations, and social interactions. As Anderson's (2009) concept of *affective atmospheres* indicates, atmosphere is not a passive background but a dynamic intermediate layer constantly reproduced through the practices of individuals and collectives. In this regard, from the perspective of architecture and urban studies, sensory experience must be treated as a priority that cannot be overlooked in design processes.

Thibaud's Elaboration of Atmospheric Dynamics

Urban atmosphere is not merely the product of a cognitive apprehension; it is a multilayered, simultaneous, and pre-reflective experience that the body establishes with its surroundings through the senses. The interaction of these senses shows that atmosphere does not arise from a single source but from the convergence of multiple inputs. Thibaud's definition of atmosphere as a threefold dynamic—*tuned, modulated,* and *framed ambience*—is important for conceptualizing this multilayered character. *Tuned ambience* refers to moments of bodily resonance in which the sensory tone of space and the subject attune to one another. *Modulated ambience* describes situations in which the urban environment fluctuates temporarily through elements such as sound, smell, or density. *Framed ambience*, on the other hand, points to moments in which space is reframed and its meaning transformed through social interactions. Yet these dynamics do not necessarily occur as separate sequences; in most cases, they intersect and coexist, producing the multidimensional character of atmosphere. In explaining urban atmosphere, Jean-Paul Thibaud refers to different modes of intensification. His conceptual distinctions provide fruitful tools for understanding atmosphere as arising not only from the material environment but also from sensory thresholds, bodily attunements, and social interactions.

Tuned ambience expresses situations in which a sensory alignment is established between the individual and the environment. What stands out here are not individual objects or subjects, but the emotional tone they jointly generate. For example, sunlight falling on a street, combined with the scent of flowers and the coolness of the wind, can evoke a feeling of "freshness." The gloomy mood of a street is felt by all passersby and collectively attuned to. The somberness of the street passes into the

city-dweller, and that of the city-dweller into the street. In this case, one does not merely perceive the light or the scent; rather, one senses an atmosphere that emerges from their convergence and affects the whole body.

Modulated ambience reveals the ever-fluctuating nature of atmosphere and its production of temporary intensities. Situations resembling a "cloud" formed by the mingling of sounds, smells, and movements in the city are examples of this. The murmur of conversations blending with the sound of a tram in a crowded square, or the sudden spread of food smells along a street, transform the sensory structure of space. What is striking here is that atmosphere does not carry a fixed quality; it constantly shifts depending on the distribution of crowds, weather conditions, or the bodily movements of users. For this reason, *modulated ambience* makes visible the rhythmic reorganization of public life.

Framed ambience refers to situations in which space is redefined through social interactions. Examples include a group of students starting to sketch on the pavement and attracting curious gazes, a shopkeeper joining the conversation, or a child suddenly running through and changing the emotional tone of the environment. Or, to take another example from a crowded street: a person absorbed in the collective movement of bodies may become unable to perceive the experience of other dynamics. Here, atmosphere is not reproduced solely through the senses but also through social practices and collective attention. In other words, people do not merely adapt to the conditions offered by space; through their own actions, they transform the perceptual framework of that space.

METHOD / APPROACH

The mixed inputs that trigger different senses (and thus affective states) in the area point to an ambience of perceptible saturation and a perceptual density capable of activating multiple senses. A range of variables—from weather conditions to the time of day or night, from weekdays versus weekends to festive occasions—open different layers for understanding the atmosphere of İki Eylül Street, one of the city's main spines. In this study, in order to compare the festive state of the street during national celebrations with other holidays, two separate walking and mapping programs were conducted under the title "*Atmospheric Walking Diary*" on two different days, August 25 (Sunday) and August 30 (Victory Day), with the same 15 participants. The aim of these walks was to document the sensory and affective tones produced by the street (which constitute the building blocks of urban atmosphere)

in participants of different ages and professional backgrounds. Through the participants' sensory perceptions and mapping productions on two different days, practice-based research was carried out. Using sketch booklets prepared by the researchers based on the literature review on urban atmosphere and the senses, participants walked along the street, marked the points where they stopped, responded to questions about the senses they felt active at those points, and made sketches. Walking has central importance for the workshops, since walking is far more effective than moving by vehicle or other means of transport for grasping space. In areas where sensoriality intensifies, walking is frequently interrupted (Middleton, 2010). For instance, encountering an intense smell while walking down the street or noticing people's genuine use of their gardens may cause the walking experience to pause and draw the person into the moment. This situation leads unconsciously to a slowing of pace during the walk and a deepening of spatial perception. In other words, in areas where certain sensory stimuli are concentrated, walking becomes not only a physical movement but also a sensory interaction with space.

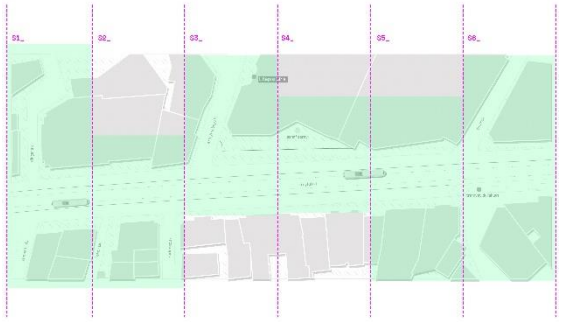


Figure 1. Plan and evaluation sequences for İki Eylül Street sample site.

The plan surface shown in Figure 1 includes the routes drawn by the participants, the points along these routes where they produced particular forms of sensoriality, and the elements that influenced these sensory experiences. The sequences were not structured in order to separate designated areas but rather to stage the evaluation process. When a participant became aware of their dominant sense during the walk, they added sensory markings to their route by using stickers selected from the sticker set attached to the corner of the plan. In this way, the plan offered as a canvas to the participant was transformed into a personal cartography in which senses, affective states, and the participant's chosen walking route were inscribed.

At the final stage, participants were asked to write a short note about their last impressions of the day after completing the guide. The dimensional experience provided by this interactive guide on the plan surface and its approach that enhances atmospheric awareness are expected to contribute to developing a creative perspective for different user groups—such as students conducting urban studies, city-dwellers, and tourists—in various cities and spaces. The walking routes drawn by the participants not only provided the spatial delimitations of the physical environment but also revealed their orientations resulting from encounters with other bodies. Beyond the objectivity and physical state of the city, the semi-objective conditions and the urban body formed through bodily interactions became interpretable through the outputs in which participants recorded their written and drawn experiences during the walk (Griffero, 2013). The workshop process demonstrated that even within the same urban location, and even at intersecting points, two different areas (the street and the side alleys) could generate very different atmospheric responses. This difference is related not merely to spatial design but to the sensory and affective vibrations produced by the bodies circulating in those areas, the collective rhythm, and the social interactions.

Thibaud's elaboration of different ambience dynamics offers a valuable framework for discussing the findings of this case study. For ease of evaluating the overall ambience of the street, it was divided into overlapping sequences, and the situational qualities of these sequences were examined in relation to ambience dynamics. It should be remembered that ambience does not consist of surfaces and boundaries; rather, it is an organism that continually reproduces itself. The simultaneous visibility of different dynamics is itself the character of the ambience notion. To reiterate, dividing the area into sequences and sensorialities is not intended to draw the sensory or spatial boundaries of ambience or reduce it merely to these primary qualities. On the contrary, what is meant to be seen and shown is the coexistence of multiple senses, the intermingling of participants' experiences, and their expressions within the environment.

Spatial mapping and assessment of August 25 & 30 workshops by atmospheric dynamics

The methods employed during the workshop process were designed to encompass not only spatial observations but also participants' bodily orientations, drawing preferences, and sensory markings. This approach renders visible the multilayered nature of urban atmosphere—an experiential phenomenon that cannot be reduced to its material environment. The drawings and notes produced by participants offer

data that reveal not how atmosphere is experienced, but how it is constructed. Accordingly, the findings are significant in demonstrating that sensory precedence in architecture is shaped not solely by the designer's intent, but also through everyday user practices. Below, the observations conducted on August 25 and 30 are evaluated in detail through the conceptual lens of tuned, modulated, and framed ambience.

August 25

Participants' drawings, orientations, and sensory markings revealed that urban atmosphere is shaped not only by physical space but also by body, attention, social interaction, and sensory thresholds. Read through Thibaud's triadic dynamics—*tuned, modulated, framed ambience*—the multilayered structure of the street becomes visible. Expressions such as "like the wind in my hair" or the dominance of coffee scents signaled *tuned ambience*, where bodily resonance and sensory integration with space emerged.

By contrast, the blending of sounds, indistinguishable smells, and references to "sound cloud" or "sensory chaos" exemplified *modulated ambience*, showing how atmosphere fluctuates with use and produces temporary intensities. The tram passage, appetizing food scents, or garbage odor highlighted moments when sensory thresholds spiked.

When sketching attracted passersby and reshaped collective attention, the space was *framed* socially. Shopkeepers' questions, a child's cry, or the clinking of a teaspoon revealed how social practices redefined perception. These observations show ambience as more than background: it is constituted at the intersection of bodily attunement, sensory fluctuation, and social reframing, with architecture shaped as much by user practice as by design intention.

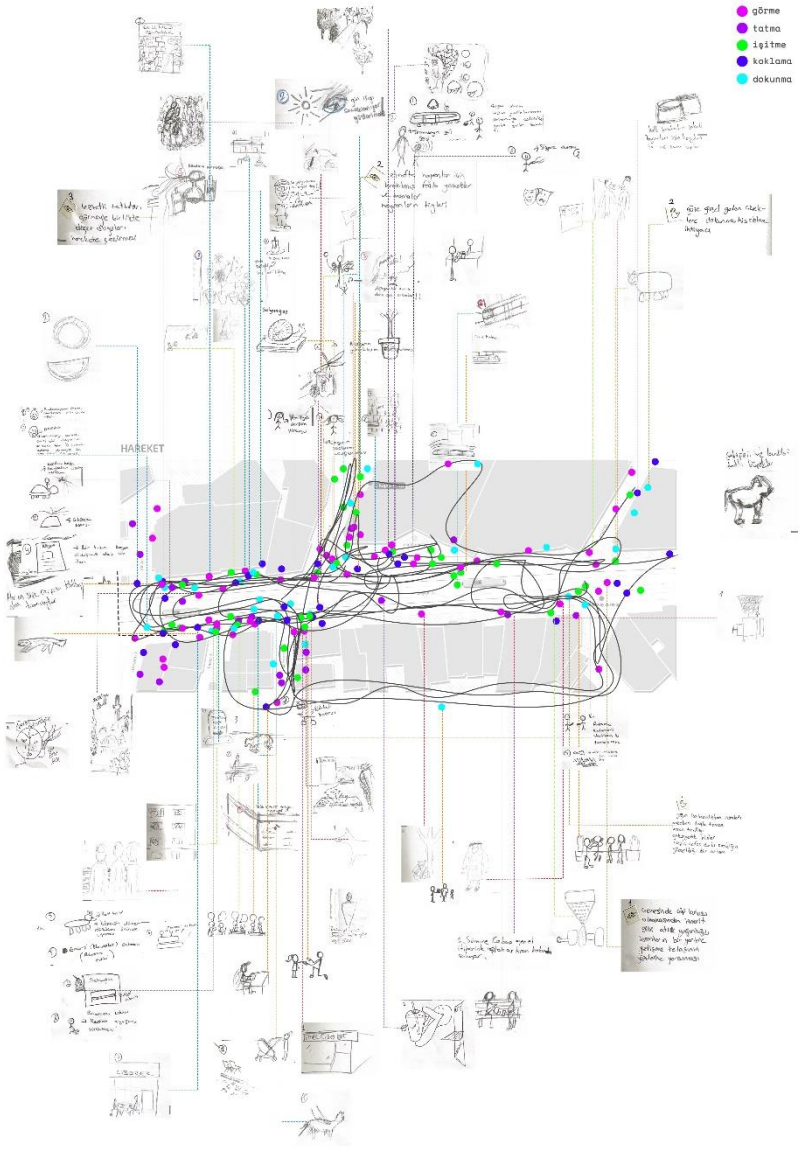


Figure 2. Layered visual synthesis of August 25 workshop outputs

Table 1. Interpretation of August 25 outputs via Thibaud's dynamics of ambience

	Tuned Ambience		Modulated Ambience			Framed Ambience	
	feelings	**intercorporeality**	**territory**	**details**	**mark**	**field**	**discenment**
s1	Marked by distraction and a sense of complexity; this time of day saw a high density of shoppers and people leaving work.	The tram route led participants to cross the street, revealing a collective drift toward Taşbaşı Bazaar's historical corridor.	Toköz Street was bypassed; spatial openness may have sustained the main street experience.	Perfume and food scents intensify near side streets; sound diffuses into a sensory cloud.	A child crying near a sculpture; anxious voice and low-quality loud music amplify discomfort.	Side-street entry amplifies sensory cues, with smell and taste becoming prominent.	Sight and sound shaped the space; Reşadiye Mosque, often unnoticed, was sketched
s2	Cafés and seating drawn into side streets; softened lines evoke a calmer spatial tone	Most participants gravitated toward Korkmaz Street, likely drawn by its cafés and nostalgic ambiance.	Glass storefronts sketched in—hinting at sound and scent—despite presence of phone and clothing shops.	Not a bodily awareness, yet the florist across the historic façade drew collective attention.	A bicycle accident occurred; sensory markers intensified, and participant density likely altered the ambient atmosphere.	Scents—perfume, smoke, food—blur into one another; sources and intensities unclear, yet smell claims its own spatial presence.	Overlapping sounds obscure distinct auditory cues; acoustic comfort remains vital to urban space.
s3	Sensory cues in side streets evoke tactile imagery—sun on skin, wind in hair—while the main avenue is marked by chaos.	The sketching team with notebooks drew attention; a few onlookers soon became a growing audience.	Trees planted in roadside pots are sketched, subtly marking the edge of the pedestrian flow	Though not focused on built form, the process begins with sunlight and wind reflected on bodies	Shopkeepers engaged as the workshop began—leaving a brief but memorable trace.	Pet shelters signal a nonhuman pocket despite human setup; the opposite sidewalk remained untouched and unsensed.	Perfume dominates the street's layered scents, claiming spatial presence.
s4	A plaintive child's cry entered two sketchbooks—brief, affective, and quietly resonant.	Participants' presence shaped a distinct workshop atmosphere; most sketched the same route, avoiding the historic side of the street.	People standing in front of the tram triggered its horn—momentarily disrupting the urban rhythm.	sound of a tea spoon in a side street was marked—subtle, ambient, and locally resonant.	One participant claimed to taste the wall—likely emboldened by the workshop's sense of freedom.	sound cloud	Cigarette smoke was visually marked, yet its scent caused discomfort—an instance of multisensory tension.
s5	Appetizing scents brushed past noses—hunger itself becoming an affective state	-	The tram's passage recurs in this sequence—enabling shared experience across different locations	-	Trash bins beneath the tree—though scent-focused, the scene was visually marked.	-	The ability to distinguish mentioned scents was noted—each carrying its own affective trace

s6	In a side street, encountering the florist stirred a tactile urge—touching the flowers felt like a need	-	-	-	The scent of coffee emerged dominant—briefly shaping the sensory landscape	In this sequence, participants observed only their bodily surroundings—leaving the full view of the street unwritten.	Horn and whistle sounds occasionally stood out—piercing through the ambient noise layers.

August 30

Tuned ambience appeared in participants' recognition of scents, food aromas, and the mosque, showing sensory orientation and bodily attunement. Modulated ambience emerged through crowd tension, tram passages, body odors, or the call to prayer, marking rhythmic shifts and temporary intensities. Framed ambience was visible in micro-events: noticing others, shopkeepers and vendors altering spatial flow, or shared amusement at signs and bayram decorations. On 30 August, the bayram context and anticipation of the torchlight procession amplified collective rhythms and emotional tone, revealing not only how atmosphere was experienced but also how it was constituted and transformed.

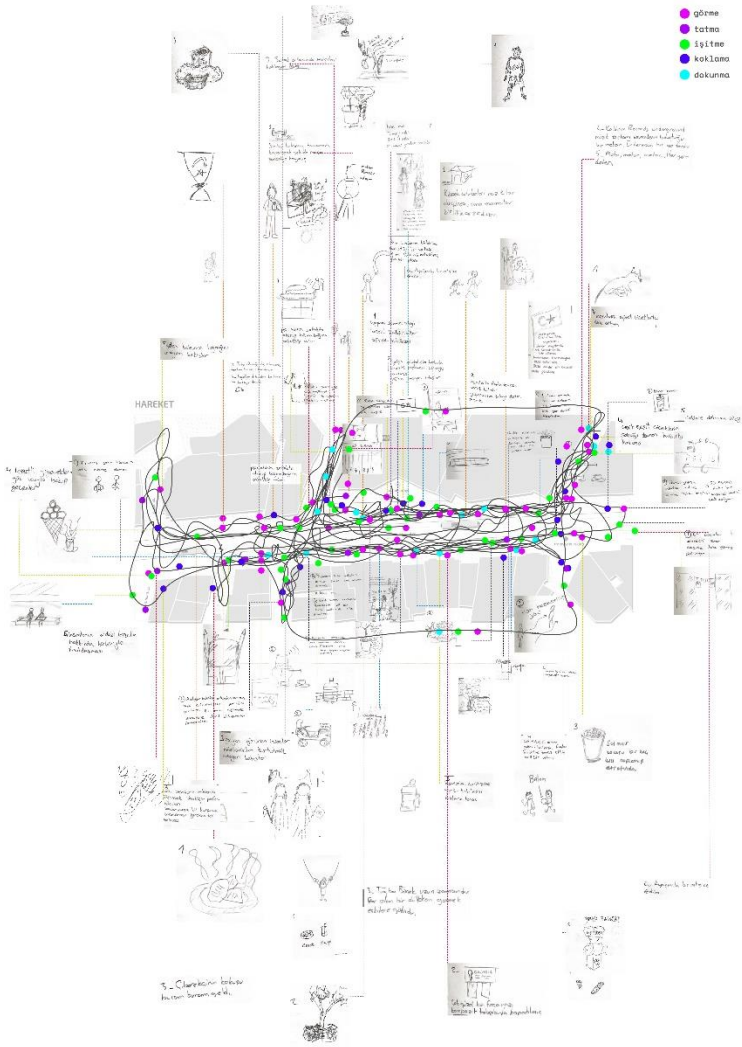


Figure 3. Layered visual synthesis of August 25 workshop outputs

Table 2. Interpretation of August 30 outputs via Thibaud's dynamics of ambience

	Tuned Ambience		Modulated Ambience			Framed Ambience	
	feelings	intercorporeality	territory	details	mark	field	discernment
s1	-	Passing glances at delicious food were noted—desire flickering without pause	People seated on the bench and standing nearby were sketched—its placement inviting pause and anticipation.	-	Perfume and sweat scents mingled—an olfactory contrast shaping the ambient texture.	Though the mosque was visible in the previous workshop, here it entered the perceptual field—noticed and sketched.	One participant captured scent-seeking gazes; as in the previous day, only the mosque was sketched.
s2	Glances seeking escape from the crowd were captured—quiet gestures of spatial resistance.	While seated together, one aunt noted the late hour—prompting the group to rise in quiet urgency.	Simit vendors placed tables across the sidewalk—redirecting pedestrian flow through informal spatial cues.	-	"All You Need Is Baklava"—perceived as humorous signage.	Memories were loudly recounted in the street—passersby inadvertently drawn into the narrative.	The call to prayer now stands out from urban noise—marked through hearing, not sight; the mosque remained unsketched.
s3	A participant noted the aunt's scent and independently expressed boredom	Noticing others working fostered a sense of bodily togetherness.	The taxi blocked the road—causing crowd frustration.	A critique was made of the artificial look of potted trees.	A person walked around with an ad board strapped to their back—turning the body into moving signage.	Seeing fellow-participants brought a sense of shared atmosphere.	-
s4	The crowd's mutual scrutiny stirred a sense of urgency and unease	The next move was being discussed—anticipation shaping the moment.	People passed by the dog kennels—brief encounters with sheltered stillness.	A participant was saddened by a sign covering brush lettering.	Turkish flag drawings begin here—marking a shift in symbolic expression	Elderly people often sit and read on the benches in front of the Esnaf Sarayı—making the space feel group-specific.	The coffee vendor's voice and look were noted, but his scent was indistinct.
s5	The excitement for the torchlight procession, set to begin in an hour, hasn't	Human movement was directed from the side street toward the main avenue	After the potted plants, encountering a real tree felt striking—despite its	A crying child in a stroller drew attention—echoed by the clatter	The scent of pastries and boiled corn was noted—marking the space with	Children performed risky moves with their bikes in front of and	A participant comforted a crying woman in a side street—saying streets invite emotional connection

	fully taken hold yet.		everyday presence.	of wheels on the stone road.	warm, familiar aromas.	behind the tram.	more than avenues.
s6	A spirited child insisted on staying for the torchlight walk— prompting a participant to express shared excitement.	A dense space where bodies touched— sweaty, heated, and fast-paced.	Near Kaldırım-Records, side streets draw underground music lovers into a more intimate, subcultural scene than the avenue.		T-shirts with the Turkish flag and small flags held in hands.	The festive spirit and permissions are more pronounced in the Adalar area, where the torchlight procession will take place.	In the side street, flower scents became distinguishable —while on the avenue, their presence was mostly visual.

CONCLUSION

The findings emerging after the atmospheric walking workshop demonstrate that urban experience is not merely a passive result of the built environment; rather, the activities, bodily responses, and affective states of city dwellers actively constitute the atmosphere. Human movements and the structural environment continuously influence one another: for example, the atmosphere of the pedestrianized İki Eylül Street is characterized by a sense of dense crowds and urgency, whereas entering side streets brings about relaxation and the possibility of sensory orientation. A person caught in the crowd may fail to distinguish the positive aspects of the atmosphere and instead become attuned to the general mood of their surroundings. This situation makes it necessary in architecture and urban planning not only to arrange the built environment but also to design human activities and sensory interactions (Middleton, 2010; Catucci & De Matteis, 2021).

The workshop offers guiding insights for urban policies: the sources of atmospheric elements perceived positively by participants can be investigated and enhanced. For instance, the sound of a teaspoon stirring in a glass interacts with the city's acoustics to create a nostalgic ambiance; such micro-sensory events, when combined with the visible and discernible features of space, generate a rich atmospheric experience (Thibaud, 2011). Architectural imagination is nourished by impressions gained from experienced places, and therefore the design of walkable areas emerges as a critical priority in enriching urban atmosphere. In this respect, not only main streets but also side alleys and small squares should be examined, and design and policy decisions should be guided by the everyday life experiences of urban dwellers.

These results suggest a rethinking of priorities in architecture: the built environment alone is not sufficient; users' bodily responses, sensory interactions, and micro-experiences must also play a central role in the design process. Contemporary approaches emphasize a perspective that externalizes the nature of emotions, seeing the body as always in relation to an exterior (Middleton, 2010; Catucci & De Matteis, 2021). Thus, the priority in urban design and architecture lies not only in objective structures but also in the relationships these structures establish with living, feeling, and experiencing humans. This understanding has the potential to make cities more livable, meaningful, and emotionally enriched places.

ACKNOWLEDGEMENTS

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INVESTIGATION OF THE INNER CITY CAMPUS AREA IN THE CONTEXT OF URBAN HEAT ISLAND AND CARBON NEUTRALITY: NECATİBEY EDUCATION FACULTY CAMPUS

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ABSTRACT

Since the climate system contains all living things and has an interactive structure, it changes over time by being affected by both internal dynamics and external factors. Today, one of the results of the rapid climatic change is the continuous increase in the earth's temperature. Urban heat islands (UHI) are formed in urban areas due to population density, number of vehicles increasing building stock with urban growth, decrease in green areas, urban geometry, surface materials used, etc. Urbanisation triggers this phenomenon by reducing natural landscape areas such as green spaces and water bodies, and converting these areas into impervious surfaces and infrastructure areas. Narrow streets and impervious surfaces in cities increase the UHI effectIn cities with a moderate UHI effect, thermal stress occurs in city dwellers. Studies aimed at reducing the impact of the UHI effect draw attention to the use of green spaces and materials with high albedo values. This study was conducted to evaluate the impact of the buildings and landscaping at the Necatibey Faculty of Education campus in Balıkesir, which dates back to the early years of the Republic of Turkey, on the UHI effect. The buildings and landscaping design of the campus were analysed, the current situation was examined, and the interpretation of the UHI effect was discussed under specific headings. Regarding building design, the reflectivity of the materials used on the building's facade and roof, the ratio of Windows/wall surfaces that allow natural light into interior, and the orientation of the building were analysed.

Keywords: Climate Change, Urban Heat Island, Albedo Effect, Blue Green Infrastructure Systems.

INTRODUCTION

The climate system has a dynamic structure. The climate system, which is shaped by constant interactions with the atmosphere, biosphere, hydrosphere, and lithosphere, changes over time due to internal and external factors (Leal Filho et al., 2021). In our time, the best evidence of climate change on Earth is the global increase in temperature (Dai & Yu, 2018; Yılmaz & Öztürk, 2023). Temperature increases are particularly noticeable in urban areas. Factors such as population density in cities, transportation-related emissions, increases in building stock, the spread of impervious surfaces, and the reduction of green spaces alter microclimate conditions in cities, triggering the formation of UHI (Nuruzzaman, 2015; Baş & Partigöç, 2023).

The UHI effect negatively affects the thermal comfort of city dwellers, especially during the summer months. In addition, this situation not only causes a decline in the quality of life in the city but also increases energy demand. The UHI effect in cities affects not only the microclimate of the city but also the thermal comfort of buildings' interiors. Experimental measurements and simulation methods are used in the heat island identification process. In their study, which aimed to reveal the existence of the urban heat island phenomenon in the city of Padua and to examine the effects of possible mitigation strategies in a representative area such as Prato della Valle, Noro carried out the study with the support of measurements and simulations. In their study, supported by experimental measurements and simulation methods, the effects of different building surface coatings, green areas, and reflective materials on the UHI are compared. It has been determined that the urban heat island effect reaches 6-7 °C in medium-sized cities and causes thermal stress. It has been emphasised that narrow streets and impervious surfaces increase the urban heat island effect, that the intensity of the urban heat island is lower in city centres where the old urban fabric has been preserved, and that the effect can be reduced by adding green spaces and using materials with high albedo values (Noro et al., 2015). Narrow streets, impermeable surfaces, and building materials with low reflectivity in cities increase the UHI effect (Nuruzzaman, 2015). For this reason, studies in the literature aimed at reducing the UHI effect focus on the albedo effects of materials and blue-green infrastructure solutions (Dai et al., 2018; Yılmaz & Öztürk, 2023).

Oropeza-Perez addressed the impact of urban heat island effects on indoor thermal comfort, in addition to external environmental conditions. The study aims to analyse the thermal performance results of low-rise buildings under the influence of UHI effects and to develop a simplified numerical model for this analysis. Thus, the study will enable

analyses to be conducted without incurring high costs for UHI assessments. The study utilised the EnergyPlus programme in the simulation process. The study continued simulations in different scenarios to investigate the effect of different design parameters, such as reflective materials, shading elements, urban canyon geometry, vegetation cover, etc., on indoor temperatures. Simulation results indicate that UHI significantly increases indoor temperatures in low-rise buildings. Additionally, the study identified reflective roof and facade materials as the most effective parameters influencing UHI among the design parameters examined (Oropeza-Perez, 2020).

In Turkey, where urbanisation is rapidly increasing, studies on UHI mitigation strategies are also being conducted. The study by Yıldız aimed to determine the effect of land use types on the urban heat island in the city centre of Erzurum. Remote sensing and data analysis methods were used in their study. Analyses were performed using Landsat 8, Erdas Imagine and ArcGIS tools. As a result, it was found that green areas reduce urban temperature values, while building surfaces increase them; a negative relationship was found between Land Surface Temperature (LST) and the Normalised Difference Vegetation Index (NDVI), and a positive relationship was found with the Normalised Difference Built-up Areas Index (NDBI) (Yıldız et al., 2019). In their 2022 study, Ünal aimed to analyse the effects of urban land use on land surface temperatures in the city centre of Adana. Analyses were conducted using LANDSAT 8 OLI/TIRS satellite images using remote sensing and data analysis methods. It was concluded that temperatures were highest in the winter months in medium-density urban areas and in the summer in industrial and commercial units. The Surface Urban Heat Island (SUHI) intensity was found to be high on large impervious surfaces (Unal, 2022). Aksak aimed to investigate the urban heat island and climate parameters in Istanbul. In this context, time series analysis and remote sensing methods were used. Analyses were performed using Landsat 8 and Landsat TM 5 satellite images and the Mann-Kendall Method. Since the 1980s, a temperature increase trend has been observed in three different regions of Istanbul (urban, semi-urban, and rural), while regional differences have been detected in precipitation and wind speed. A general increase in LST values was recorded in 1990, 2009, and 2021 (Aksak et al., 2023).

Regarding landscape design, blue-green infrastructure and materials related to structural landscaping are discussed. Since blue-green infrastructure, which is defined as a strategic network of planned green areas, is considered one of the effective methods to reduce the urban heat island effect, it is an important element to investigate the issue in the landscape areas within the campus. In the study, the increase in

construction and vehicle density in the vicinity of Necatibey Faculty of Education in the last twenty years is among the parameters that negatively affect the urban microclimate. Necatibey Faculty of Education, which was built in the oldest settlement area of the city, has the characteristics of the architecture of the Republican period. The aesthetic and functional design of the landscape areas in the faculty campus creates an important value for the users and the urban climate. Reducing the energy load of the building with features such as orientation of the building, natural lighting and ventilation, and effective utilisation of daylight serves the purpose of carbon neutrality. In addition, the vegetation used in the landscape areas, the selected plant species, and the permeable soil structure are among the design parameters that positively reduce the urban heat island effect. The high albedo of the vegetation in the campus area, the cooling effect through evaporation and transpiration, the broad-leaved trees providing shade and preventing overheating of concrete and asphalt surfaces in the structural landscape areas, etc. draw attention as important factors in reducing the heat island effect. In addition, thanks to the rich vegetation cover of the landscape areas, it also improves the air quality of its immediate surroundings by contributing to the reduction of the amount of CO_2 generated by heavy vehicle traffic. In the study, the buildings and landscape method in the inner-city campus area are analysed in the context of urban heat island and carbon neutrality purposes.

MATERIAL AND METHOD

Case Building

Necatibey Faculty of Education began operating as a teacher training college in 1910 under the name 'Darü'l Muallimini'. In the early years of education, it was located in the Behçet Paşa Mansion on the street between the Balıkesir High School building and the Balıkesir Clock Tower. The foundations of the building, which currently serves as the faculty of education, were laid in 1927 by Mustafa Necatibey, the Minister of National Education. The building was constructed in 1932, and it has been in service since then (Necatibey Faculty of Education, History). Necatibey Faculty of Education is located in the Kasaplar Neighbourhood of Altıeylül District in Balıkesir. The campus is situated between Soma Street and Paşa Street. Figure 1 shows the location of the Necatibey Faculty of Education and its surroundings.



Figure 1. Satellite image of Necatibey Faculty of Education and its surroundings.

Table 1 shows the basement, ground floor, first and second floor plans of Necatibey Education Faculty. At its construction, the building consisted only of the ground floor and first floor, but an additional floor was later added. Figure 2 shows a photograph of the Necatibey Faculty of Education building during its construction period. Table 1 shows that the Necatibey Education Faculty has a courtyard-style layout. Figure 2 also shows the landscape areas surrounding the building.



Figure 2. Necatibey Faculty of Education at the time of its construction (URL – 1).

Table 1. Floor Plans of Necatibey Faculty of Education.

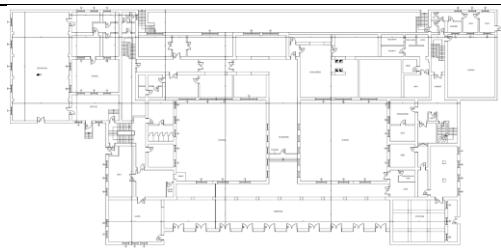
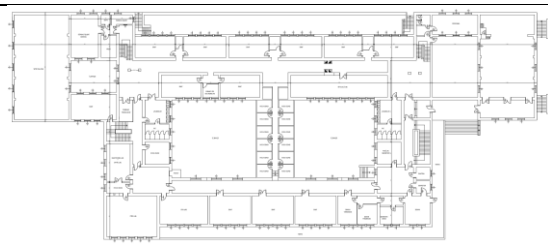
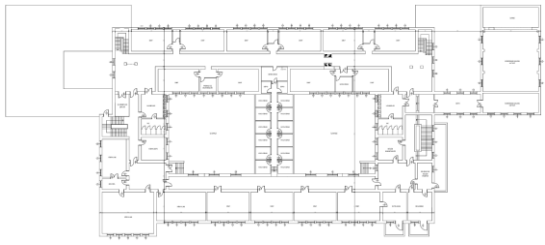
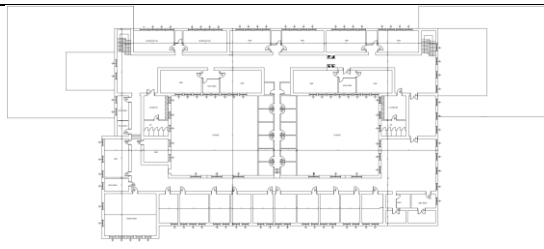
	Floor Plan
Basement Floor	
Ground Floor	
1st Floor	
2nd Floor	

Figure 3 shows the exterior appearance of Necatibey Faculty of Education from different angles. The figure shows that the window-to-wall ratio is high on the front façade and lower on the other façades. The landscape design of the faculty is shown in Figure 4.



Figure 3. Visuals of Necatibey Faculty of Education in nowadays.



Figure 4. Necatibey Faculty of Education's landscape areas.

METHOD

The study employed a systematic literature review and on-site investigation as its methodology. Between May and July 2025, a literature review was conducted using the keywords 'urban heat island, blue-green infrastructure, sustainability' in the Web of Science, Scopus, Elsevier, and Google Scholar databases. Articles obtained from the literature review were excluded if they were i) unrelated to urban heat islands, ii) specific to buildings, or iii) specific to landscaping. In the second phase of their study, the researchers evaluated the buildings and landscaping elements at the Necatibey Faculty of Education campus, which was the field study site, in the context of criteria affecting the urban heat island.

FINDINGS

This section separately assesses the effects of the Necatibey Faculty of Education building and its landscaping on the UHI.

Findings Related to the Building

This section evaluates the effects of the design parameters of the Necatibey Faculty of Education building on the UHI. The structure houses classrooms, faculty rooms, a canteen, an amphitheatre and a sports hall, consisting of three floors. The buildings in the surrounding area are generally five to six storeys high. The fact that the Necatibey Faculty of Education building has fewer storeys than the surrounding buildings indicates that its impact on the UHI is lower. The abundance of reflective surfaces increases the building's impact on the UHI. The entrance façade of the building has more windows than the other Facades (Figure 5).



Figure 5. Necatibey Faculty of Education building entrance facade

The exterior colour of the building is predominantly blue, and the ground floor is brown. The reflectivity of the blue wall is around 0.35, while the reflectivity of the brown wall is around 0.18. The roof of the building has red brick tiles. The reflectivity of these tiles is around 0.30. Table 2 shows the parameters affecting the UHI of the Necatibey Faculty of Education building.

Table 2. Parameters affecting the Necatibey Faculty of Education building at UHI.

Parameter	Values
Window/Wall	
Surface reflectivity (Wall/Blue)	0,35
Surface reflectivity (Wall/Brown)	0,18
Surface reflectivity (Roof)	0,30

Findings Related to the Landscape

Since its establishment, the Necatibey Faculty of Education has placed great emphasis on landscape design (Figure 6). The faculty garden provides users with both aesthetically pleasing and functionally comfortable areas, featuring wide walking paths, a rich variety of plants, and accessible fixtures made from wood. The surroundings of the buildings within the faculty have been designed with noise-reducing and shade-providing plants. In addition, through stage arrangements that facilitate educational activities in the outdoor space, learning and socialisation areas have been created that support both pedagogical and socio-cultural interaction for students. The landscape designs, conceived in an integrated manner with the structure that preserves its historical identity, exhibit a spatial unity that is consistent with the architectural design elements.



Figure 6. Necatibey Faculty of Education's landscape areas.

Species of plants used in the landscaping areas of Necatibey Faculty of Education are shown in Table 3.

Table 3. Examples of plant species used in the landscaping areas of Necatibey Faculty of Education

Coniferous Species	Angiosperms	Shrubs and Groundcovers
Pinus brutia	*Platanus orientalis*	*Nerium oleander*
Pinus pinea	*Tilia tomentosa*	*Pyracantha coccinea*
Cuprocyparis leylandii	*Aesculus hippocastanum*	*Laurus nobilis*
Thuja orientalis	*Magnolia grandiflora*	*Buxus sempervirens*
Platycladus orientalis	*Lagerstroemia indica*	*Thymus spp.*
Cupressus sempervirens	*Acer negundo*	*Primula vulgaris*
	Acer platanoides	*Hedera helix*
		Salvia officinalis
		Lavandula angustifolia

The coniferous trees in the faculty's landscaped areas provide shade throughout the year and regulate wind patterns to balance the microclimate. However, their relatively small leaf surface area offers lower cooling capacity compared to broad-leaved species. Broad-

leaved trees contribute to reducing surface temperatures through their dense shade and high evapotranspiration capacity, creating a feeling of coolness in the faculty and its immediate surroundings during the summer months. For example, species such as *Platanus orientalis* and *Tilia tomentosa* are commonly used in city squares and boulevards, and their broad crowns can reduce surface temperatures by up to 5–8 °C.

Shrub-like plants at the faculty play a more regulatory role in the microclimate at ground level. The existing shrub species reduce heat accumulation by preventing the concrete surfaces used in the faculty's structural landscaping from being directly exposed to sunlight. Although the evapotranspirative effect of shrubs is more limited than that of trees, they play an important role in breaking up heat islands in the faculty's landscape areas. The ground cover and climbing plants currently present preserve soil moisture and prevent excessive heating of bare surfaces, particularly due to their surface coverage effects.

CONCLUSION

This study aimed to investigate the effects of the Necatibey Faculty of Education building and its landscape features, one of Balıkesir's historic educational structures, on the Urban Heat Island (UHI) phenomenon. Within the scope of the study's objective, parameters affecting the UHI were identified from the literature. Field observations were conducted on campus to evaluate the parameters identified in research, specifically for the Necatibey Faculty of Education.

The field observations were conducted in two distinct phases—the first phase of the field observation involved examining the Necatibey Faculty of Education building. The observation process in the building assessed the number of storeys, its relationship with surrounding structures, the window-to-wall ratio, the reflectivity of the external walls, and the reflectivity of the roof covering. The building's fewer floors than surrounding buildings indicates that it increases the Urban Heat Island (UHI) effect less than neighbouring structures. The reflectivity of the building's facade colours, blue and brown, is 0.35 and 0.18, respectively. These reflectivity levels indicate that the colours do not reflect light very well. This suggests that the building increases the ambient temperature less. Red roof tiles with roof covering have a reflectivity of 0.30. Grey roof tiles can be used on the roof to reduce this value.

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A HUMAN CENTERED APPROACH TO URBANIZATION AND PUBLIC SPACES: THE CASE OF ATATÜRK CITY SQUARE IN AYDIN

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ABSTRACT

This study examines Aydın Atatürk City Square as a central element of the city's historical continuity and contemporary urban life. The square has played a pivotal role in shaping Aydın's urban identity, linking the city's multilayered historical fabric, from Ottoman and early Republican periods, to present-day social and spatial practices. The research evaluates the impacts of historical layers on public space use and urban life quality, focusing on human-centered urbanization principles such as accessibility, social inclusivity, climatic comfort, and collective memory. The study evaluates the square through human-centered urbanization principles. Findings reveal challenges such as limited accessibility and inadequate climatic comfort, but also highlight opportunities provided by the square's central location and heritage surroundings. Conversely, the square's central location, surrounding heritage structures, and open spaces provide opportunities to enhance social engagement, cultural visibility, and urban identity. Recommendations focus on participatory, climate-responsive, and heritage-sensitive design strategies to transform the square into an inclusive, multifunctional, and human-centered public space. The study underscores the necessity of balancing heritage conservation with contemporary urban needs and provides guidance for similar urban contexts aiming to strengthen social interaction and collective memory while fostering sustainable and accessible public environments.

Keywords: Human-Centered Design, Historic Fabric, Public Space, Social Inclusivity, Urban Identity

INTRODUCTION

Aydın Atatürk City Square occupies a central position in the spatial development and collective memory of Aydın. The city's multilayered structure, shaped by hosting various civilizations throughout history, was redefined around this square in the modern era. The urbanization movements that began in the late Ottoman period, accelerated by the modernization policies following the proclamation of the Republic of Türkiye, created a need for a new public center in Aydın, particularly focused on administrative, cultural, and commercial functions. In this context, Atatürk City Square emerged not merely as an open space arrangement, but as an urban focal point integrated with the city's administrative buildings, commercial axes, and monumental elements.

The square has become one of the most visible settings of urban identity and social continuity, accommodating a wide range of activities from official ceremonies to daily gatherings, cultural events, and commercial practices. Today, Atatürk City Square continues to serve as a symbolic place that brings together elements reflecting Aydın's historical past with the dynamics of contemporary urban life, standing as a key reference point for understanding the city's development.



Figure 1. Historical photographs of Aydın Atatürk City Square (Demir, 2023)

When examining the urban fabric of Aydın, it becomes evident that the historical core, particularly shaped since the Ottoman period, has been concentrated around Atatürk City Square. This center, composed of administrative buildings, religious structures, and commercial areas, formed the main backbone of the city; with the arrangement of the square during the Republican era, it transformed into a symbolic space of public life. (Figure 1) The railway connection encouraged development toward the west, while industrial and residential growth created new focal points to the north and east. Despite these processes

of spatial expansion, the square has continued to serve as a central marker of historical continuity and urban identity (Figure 2 & 3).

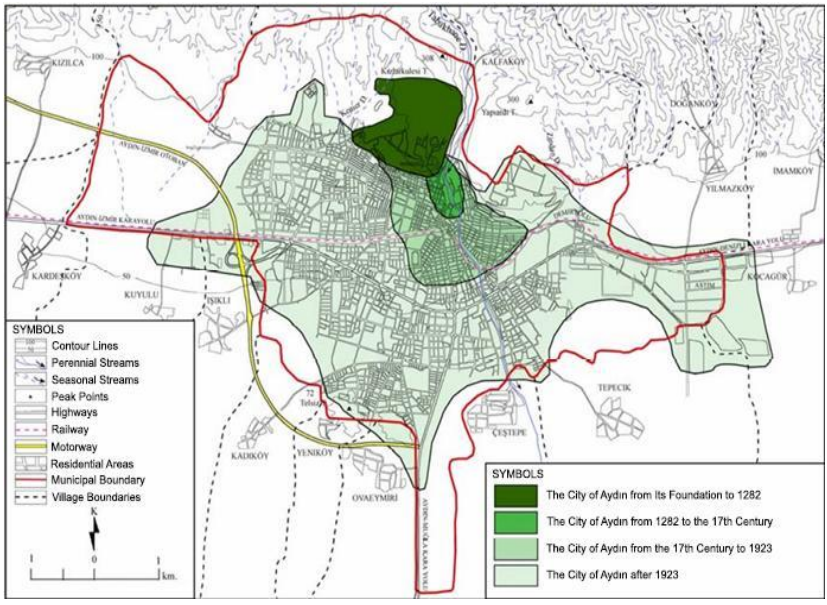


Figure 2. Urban development of Aydın from its establishment until 1923 (Uğur, 2003)

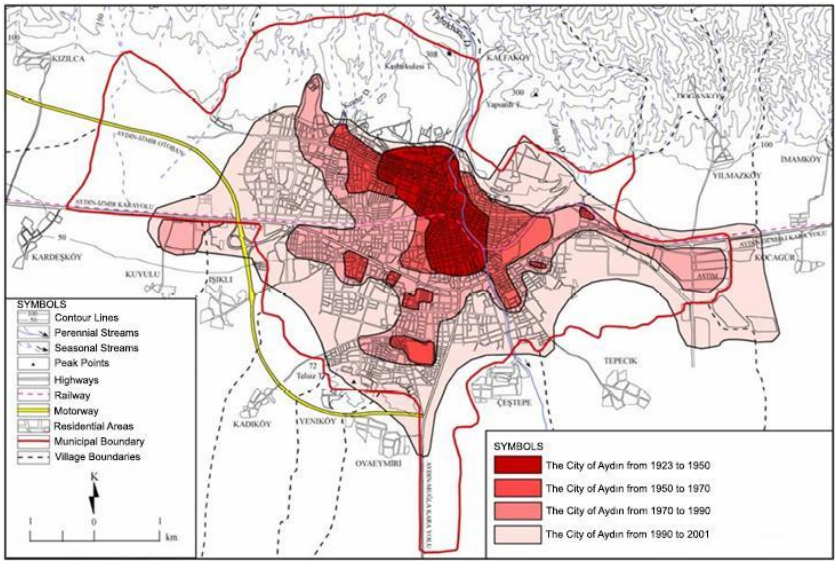


Figure 3. Urban expansion of Aydın up to 2001 (Uğur, 2003)

Located at the heart of the city, Atatürk City Square and its surroundings are not only a meeting place for users but also a spatial representation of historical continuity. Important registered heritage elements near the square, such as Aydın Train Station (1866), the Governor's Mansion, Eski Hükümet Konağı (Old Government Building) (1927), the Martyrs' Monument (1926) (Figure 1), Tekel Binası (the Monopoly Building), Cihanoğlu Complex (1756), Ramazan Pasha Mosque (1595), Nasuh Pasha Complex (1708), and Bey Mosque (1683) represent the city's historic and cultural identity. (Figure 4)



Figure 4. Aerial view showing the city square and the surrounding historical buildings (Prepared by the authors on Google Earth view, 2025)

Aydın Train Station, built in 1866, was one of the first modern transportation structures in the region, constructed as an extension of the İzmir–Aydın railway line. The Governer's Mansion, built in the late 19th century, served administrative functions during the late Ottoman and early Republican periods and was used by high-level officials. The Old Government Office, dated to 1927, stands out as one of the first public buildings of the Republic period and is a spatial reflection of the modernization process. The Martyrs' Monument (Figure 1), built in 1926, symbolizes Mustafa Kemal Atatürk's visit to Aydın and is a key element in the construction of national identity in that period. The Monopoly Building, constructed in the 1930s as part of the Republic's economic transformation policies, served for many years as a tobacco processing and storage facility.

Structures from earlier periods, on the other hand, further reinforce the sense of historical continuity around the square. The Cihanoğlu

Complex, built in 1756 by Cihanoğlu Mehmed Bey, includes a mosque, tomb, madrasa, and fountain, functioning not only as a religious site but also a social center. With its baroque influences, it is considered one of the unique examples of architectural style in the region. Also located nearby, the Ramazan Pasha Mosque, dated to 1595, carries the characteristics of classical Ottoman mosque architecture and has been one of the central elements of urban life for centuries.

This study aims to evaluate the effects of the historical layers in Aydın city center on today's urban life quality and public space use within the framework of the "human-centered urbanization" theme. The historical and cultural continuity of the historical buildings around Atatürk City Square is addressed together with human-scale concepts such as spatial use patterns, accessibility, social interaction, and a sense of belonging. Accordingly, the study aims, on the one hand, to make visible the historical fabric that shapes the identity of Aydın, and on the other hand to provide a basis for discussing new public space scenarios that preserve memory while also prioritizing the needs of users in the face of current urban transformation pressure.

Moreover, this study employs a mixed-method approach in order to examine the spatial and social dynamics of Atatürk City Square and its interaction with the surrounding historic fabric. Three complementary methods were applied:

- Field Observations – Systematic on-site observations were conducted to document patterns of spatial use, pedestrian circulation, microclimatic conditions, and user behavior across different times of day. Special attention was paid to accessibility for priority groups such as children, the elderly, and people with disabilities.
- Spatial Analyses – The physical configuration of the square was analyzed through mapping, photographic documentation, and comparative assessments of historical and contemporary layouts. This included evaluating relationships between built heritage elements and current urban interventions, as well as measuring the balance between shaded and hard-surfaced areas.
- User Surveys – Structured questionnaires were administered to a sample of users in order to capture perceptions of comfort, accessibility, inclusivity, and safety. The survey also explored participants' views on the relationship between the square and the city's historical and cultural identity.

The combination of these three methods provides a triangulated perspective. Field observations capture lived experiences and real-time usage patterns; spatial analyses offer objective evidence of physical transformations and design features; and user surveys reveal subjective perceptions and social expectations.

This triangulation ensures that both experiential (how users interact with the square) and analytical (how the space is physically structured and transformed) dimensions are integrated into the evaluation. By combining quantitative and qualitative insights, the methodology supports a comprehensive understanding of Atatürk City Square's shortcomings and potentials within the framework of human-centered urbanization.

These methods were used to evaluate both the shortcomings and potentials of Atatürk City Square within the framework of human-centered urbanization. This reflects Carmona's (2021) emphasis on accessibility as a core dimension of urban design, where equitable access is central to democratic public space. Accessibility and comfort are particularly low for priority groups such as children, the elderly, and users with disabilities. Factors that affect the comfort of these groups include the sloped topography of the area and the inadequacy of urban furniture, such as benches and shading structures (Figure 5 & 6). This situation contradicts the democratic function of public spaces, as well as the principle of universal accessibility (Gehl, 2013; Carmona, 2021).



Figure 5. Atatürk City Square in 2008 (Fırat, 2022) and in 2025 (Authors)

Another critical issue is the incompatibility of the design with the local climate, which negatively impacts the experience of its users. As Madanipour, Knierbein, & Degros (2013) underlines, the experiential quality of public space is inseparable from environmental comfort, making climate-sensitive interventions indispensable. The Mediterranean climate, dominant in the region, is characterized by high temperatures and intense solar radiation during the summer, which

significantly shortens the amount of time people spend in the square. The urban heat island effect is particularly strong in the area, further reducing its popularity. The main factors contributing to this issue include poorly designed water features, the lack of adequate shading structures, and the limited number of trees (Figure 6 & 7). In this context, the implementation of climate-sensitive design principles and the integration of sustainable green infrastructure elements become crucial (Madanipour et al, 2013).



Figure 6. Atatürk City Square in 2004 (Fırat, 2022) and in 2025 (Authors)

From a social perspective, analysis of user profiles indicates that the square is most frequently used by young people and adults. This observation resonates with Gehl's (2013) notion of the city at human scale, where design should foster lingering, interaction, and inclusivity for all age groups. Their primary purposes for using the space are social activities, meetings, and circulation. The relatively low presence of children, the elderly, and people with disabilities demonstrates a lack of social inclusivity and highlights the need for improvement in this regard. Through design interventions targeting these groups, the public space can be transformed into a more polyphonic, multilayered, and inclusive environment (Gehl, 2013).

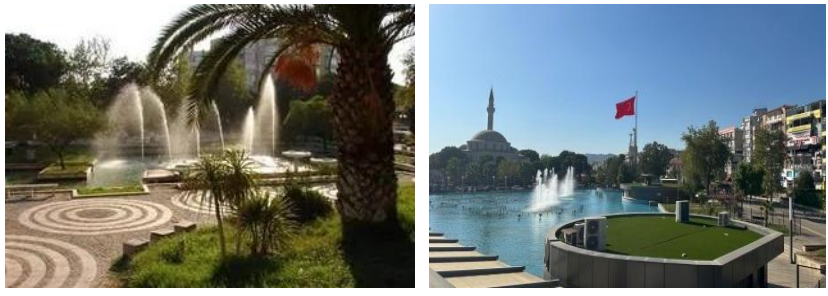


Figure 7. Atatürk City Square (Fırat, 2022) and in 2025 (Authors)

Nevertheless, the square also possesses significant potential. Its central location, its continued role as a focal point of social and economic life, its wide-open spaces, and the presence of surrounding buildings with historical and cultural value contribute to a strong sense of place and belonging. The historic fabric preserves cultural identity, while open areas enable encounters among diverse groups. These advantages, if supported with appropriate design strategies, could enable the transformation of the square into a socially interactive, accessible, and sustainable public space (Madanipour et al, 2013; Carmona, 2021).

The analyses of Atatürk City Square reveal both shortcomings in terms of social inclusivity and climate responsiveness, as well as the latent potentials of the site. These findings provide guidance for advancing human-centered urbanization and urban design.

THE TRANSFORMATION OF ATATÜRK CITY SQUARE AND ITS INTERACTION WİTH THE HISTORİC FABRIC

Atatürk City Square is not only an open space but also a public stage that integrates with the historical buildings and urban fabric surrounding it, holding a significant place in the city's collective memory. However, the transformations the square has undergone since the early 2000s have led to substantial ruptures, both physically and socio-culturally. Before the transformation, the square had a calm and shaded character with extensive tree cover, permeable natural surfaces, and spontaneous seating areas (Figure 8 & 9). In this form, it fulfilled the need for a "third place" outside of home and work, fostering social interaction and reinforcing the continuity of urban identity. With subsequent revisions, however, these qualities largely disappeared: green areas were replaced by hard surfaces, shaded areas gave way to sun-exposed open spaces, and the quantity and diversity of seating elements declined. As a result, the square has increasingly been reshaped into a "representational space" more suited for official ceremonies and mass events. In Harvey's (2012) terms, this shift reflects a move away from public spaces as arenas of everyday democracy toward spaces shaped by top-down, representational logics.



Figure 8. Atatürk City Square in 2004 (Fırat, 2022) and in 2025 (Authors)

This transformation has not been limited to the redesign of the physical environment; it has also directly affected the historical fabric surrounding the square. Commercial buildings, inns, and administrative structures from the Ottoman and early Republican periods stand as important elements carrying the city's historical layers into the present. Yet, during the revision process, the homogenization of hard surfaces and the perception of the square as a representational stage weakened the close ties these buildings once held with everyday urban life. Before 2000, historical facades were directly connected with shaded seating areas and micro-interactions centered around local tradespeople; today, however, the expansive voids create a sense of distance, pushing these facades into the "background." Consequently, these registered structures, carriers of the city's collective memory, now face the risk of losing their functional and perceptual visibility within the new configuration of the square (Figure 9).

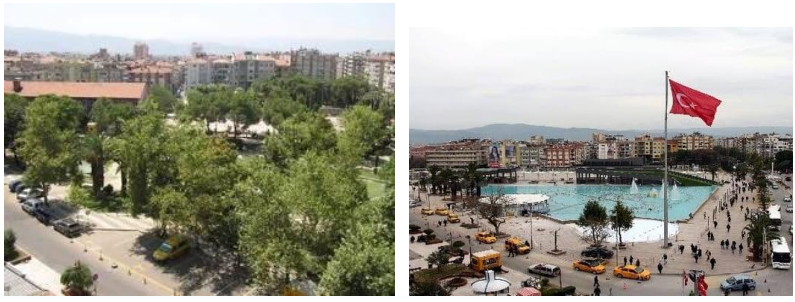


Figure 9. Atatürk City Square (Fırat, 2022) and in 2025 (Authors)

The transformation of the square has also necessitated a re-evaluation of maintenance and restoration processes. While traditional conservation practices, such as roof repairs, facade plaster and joint restorations, and carpentry works, have been carried out, the new infrastructural interventions in the square (rainwater drainage, level differences, paving) have, in some cases, negatively affected the foundations of surrounding buildings. The expansion of impermeable hard surfaces, in particular, has triggered moisture and capillarity problems, threatening the material integrity of the old structures.



Figure 10. The Martyrs' Monument in old photo (Demir, 2023) and in 2025 (Authors)

From a perceptual standpoint, the wide-open spaces and homogeneous paving weaken the scale and rhythm of the facades (Figure 10 & 11). Yet, as emphasized in international charters (UNESCO, 2011; ICOMOS, 2011), new interventions in historical environments should be "discernible yet compatible." The square's extensive hard surfaces have sharpened visual corridors, creating an "empty stage" in front of the facades, but this stage has limited engagement with everyday life. If small-scale, reversible interventions, such as shaded spines, semi-public thresholds, and micro-seating arrangements in front of facades, were implemented, both the close interaction between the old structures and the square could have been maintained, and the social functionality of the space preserved.



Figure 11. Railway side of Atatürk City Square in a historical photo (Demir, 2023) and in 2025 (Authors)

One of the most critical issues in the transformation of Atatürk City Square is the weakening of the connection between spatial design, collective memory, and social belonging. Public architecture and urban spaces function as more than material constructs; they act as repositories of cultural continuity and collective memory. The square's relationship with the historical buildings surrounding it plays a central role in sustaining this memory. Therefore, assessing the transformation of Atatürk City Square solely in terms of aesthetics and representation is insufficient; its social

needs, historical identity, and effects on urban memory must be addressed together.

In conclusion, the transformation of Atatürk City Square has simultaneously turned it into a more formal and representation-oriented public stage while weakening the ties between the historical fabric and everyday urban life. As global examples demonstrate, such as the human-centered transformation of Israel's Plads Square, small-scale, shading- and seating-oriented interventions can both preserve the historical environment and strengthen social interaction. In the case of Aydın, future arrangements of the square should adopt an approach that aligns with the historical fabric, ensures continuity of shade and seating, supports user behavior, and makes collective memory visible. Only then can the space function not merely as a representational stage but also as a vibrant part of everyday urban life.

SURVEY FINDINGS

The survey findings obtained within the scope of this research provide critical insights into the performance of Atatürk City Square in Aydın, based on direct feedback from 97 users. The survey, conducted between August 28 and September 1, 2025, was designed to evaluate the square's physical design, social functionality, cultural continuity, and accessibility. Using a structured questionnaire consisting of 20 statements grouped under six thematic areas, participants assessed the square through a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." Data were collected digitally, tabulated in Excel, and analyzed using frequency distributions. Each respondent answered the same set of questions, ensuring consistent and comparable results across the sample.

The results reveal that the current design of Atatürk City Square does not align with user expectations and is perceived as significantly inadequate in several respects. A majority of participants indicated that the square fails to fulfill its intended role as an urban focal point, and that its spatial and physical organization does not sufficiently meet the everyday needs of users.

Among the most emphasized issues was the lack of shaded and resting areas. Given the hot climatic conditions of Aydın, the dominance of hard surfaces and the scarcity of natural shading elements significantly limit the usability of the space, especially during the summer months. This deficiency discourages extended use and diminishes the square's role as a comfortable gathering space. The insufficiency of seating arrangements was also frequently mentioned, with participants noting a

lack of benches or comfortable resting points that would encourage social interaction and longer stays. Furthermore, many respondents described the square as dark and unsafe during evening and nighttime hours, pointing to a limited perception of security. This indicates that the space does not function equally well throughout the day, creating a temporal limitation in its usability.

Another key criticism concerns the square's weak connection to the city's historical and cultural identity. The majority of participants emphasized that the current spatial configuration does not harmonize with the registered historical buildings and cultural heritage elements surrounding the square. Consequently, it fails to evoke or reflect the city's collective memory. This finding suggests that the square, rather than serving as a medium for cultural continuity, has been reduced to a purely physical space lacking symbolic depth. The survey results support the notion that a square is not merely an urban void, but a place where social memory and cultural values are spatially articulated.

Additionally, a significant portion of participants stated that they were not involved in the design process and that decisions regarding the square were shaped by top-down approaches. This contradicts established principles in urban design theory, such as those presented by Carmona (2021), which emphasize the importance of inclusivity and public participation in creating sustainable and meaningful public spaces. The data underscore the consequences of excluding users from the design process, leading to a mismatch between spatial production and actual user needs.

Despite these critical evaluations, the survey also revealed a strong shared desire among participants for the square to be reimagined through a human-centered, inclusive, and participatory approach. While the square still holds symbolic potential in the city's collective consciousness, the prevailing perception is that its current design limits rather than supports this potential. The majority of respondents expressed that future interventions should be based on user feedback and should prioritize not only physical improvements but also social belonging, cultural continuity, and interactive public life.

In summary, the survey findings offer a robust empirical foundation for the design proposals to be developed in the next phase of this study. The critiques emerging from users' lived spatial experiences indicate that future design strategies must go beyond aesthetic or formal considerations. Instead, they should focus on multidimensional criteria such as human scale, integration with historical context, and participatory planning processes. Within this framework, Atatürk City

Square should be re-envisioned not merely as an open space, but as a dynamic public environment that sustains social identity, cultural heritage, and collective memory.

DESIGN RECOMMENDATIONS WITH INTEGRATED THEORETICAL FRAMEWORK

When physical and social design decisions are considered as a whole and shaped in harmony, a redesigned urban square transforms into more than just a spatial setting; it becomes a strong reflection of the city's public identity through a human-centered structure. The notion of human-centered design is not limited to the aesthetic or visual appeal of a space; it is directly related to addressing the needs of diverse user groups, ensuring accessibility, and adapting to environmental conditions. In this respect, Atatürk City Square should be reimagined through an integrated approach that both strengthens urban identity and prioritizes user experience.

FUNCTIONAL AND SOCIAL ROLE OF PUBLIC SPACES

Human-centered urban design is an approach that places people at the core of shared spaces and responds to individuals' physical, psychological, and social needs. In this framework, public spaces are envisioned not merely as transition areas, but as environments where users can socialize, engage in activities, and interact with urban life. The core values of this design process include sustainability, accessibility, experiential quality, safety, and cultural coherence.

Jan Gehl's concept of the city at human scale forms the foundation of this approach. According to Gehl, urban spaces should not be defined solely by movement and transportation but should also allow people to walk, sit, rest, and engage in social interaction (Gehl, 2013). In the case of Atatürk City Square, the comfort of pedestrian circulation routes, the diversity of seating arrangements, and spatial configurations that foster interaction should be planned in line with Gehl's principles.

The design of the square should provide typologies that enable users to spend different durations of time in the space. Short-term resting spots, long-term seating areas, terraces for group gatherings, and shaded rest zones can support a wide range of user behaviors. In doing so, the square will not only serve as a physical environment but will also gain a public identity that stimulates social interaction.

Public spaces provide equal opportunities for all members of society and bring together diverse socio-demographic groups. As David Harvey highlights, public spaces play a critical role in achieving spatial justice

and act as balancing mechanisms against capitalist urbanization processes (Harvey, 2012).

In the context of Atatürk City Square, arrangements should address the needs of diverse user groups. Pedestrian pathways, barrier-free ramps, low-gradient crossings, and orientation systems can ensure accessibility for everyone. Furthermore, seating arrangements, shaded structures, and areas that promote social interaction should be positioned in ways that reinforce diversity among users.

The multifunctionality of public spaces encourages both daytime and nighttime use. For evening hours, balanced lighting, clear sightlines, and visible safety features create a secure and inviting atmosphere, allowing users to establish an emotional connection with the place.

GREEN INFRASTRUCTURE AND CLIMATIC COMFORT

Natural landscape elements are indispensable in human-centered design. Florida (2002) argues that one of the most significant factors influencing quality of life is the relationship established with the natural environment. Trees, planted areas, and vegetated pergolas provide aesthetic value, thermal comfort, psychological relief, and mitigate negative microclimatic effects.

Considering the hot summers of Aydın's Mediterranean climate, shading strategies hold critical importance. Removable shade structures, vegetated pergolas, and strategically placed trees can enhance user comfort. In addition, the use of light-colored, reflective paving surfaces can reduce the heat island effect, while permeable ground coverings allow for rainwater absorption and support sustainable urban infrastructure.

SUSTAINABLE AND PARTICIPATORY PLANNING

Integrating historical buildings into the urban fabric ensures the preservation of cultural heritage while reinforcing collective memory. In this regard, Atatürk City Square and its surroundings, such as Cihanoğlu Complex, Ramazan Pasha Mosque, and the Monopoly Building, hold significant importance. Adapting these structures into accessible public spaces supports both cultural sustainability and the principles of human-centered design.

Flexible spatial arrangements within the square can accommodate cultural and social events. Open-air theaters, concert areas, workshops, film screenings, temporary installations, and craft markets not only enhance social interaction but also make cultural heritage more visible.

Thus, the square evolves into a multifunctional public realm in economic, cultural, and social dimensions (Jacobs, 1992).

The active involvement of the local community is vital for creating a truly user-centered square. Workshops, focus groups, surveys, and public meetings can be employed to gather perspectives from individuals of varying ages, professions, and social backgrounds. Such participatory processes ensure that the design is inclusive, democratic, and socially sustainable.

The strategies developed for Atatürk City Square can also serve as a reference for other cities with similar climatic and socio-cultural contexts. In Mediterranean urban settings, design solutions such as shading, tree planting, flexible event spaces, and permeable surfaces can promote both environmental sustainability and socio-cultural functionality. In this way, urban squares are transformed into dynamic public spaces that go beyond aesthetic or functional concerns, fostering social integration, strengthening community belonging, and enriching collective urban life.

CONCLUSION

Aydın is a city that, with its multilayered structure, strongly reflects spatial continuity and social memory. At the center of this layered structure is Atatürk City Square, a symbolic extension shaped from the late Ottoman period and redefined through Republican modernization. The aim of the study is to examine the relationship between the historical continuity of this square and contemporary urban transformation processes, to evaluate the space within the framework of human-centered urban design principles, and to develop guiding recommendations for the future. The research question of the study was formulated as: "To what extent is human-centeredness ensured in the current state of Atatürk City Square, and how can cultural heritage and contemporary urban needs be balanced?" Within this scope, observation, spatial analysis, and user surveys were used as methods, and the data obtained were interpreted in the context of findings and recommendations. Analyses have revealed that there are problems in the current use of the square. These problems confirm the critiques advanced by Gehl (2013), Harvey (2012), and Carmona (2021), who emphasize human scale, spatial justice, and accessibility as foundational criteria for successful public space. Survey findings support these observations. Despite the hot summer conditions of the Mediterranean climate, insufficient shading elements and the prevalence of impermeable hard surfaces shorten the duration of the use of the square. In terms of social inclusivity, different age and social groups are not adequately integrated into the space. Spatial observations show that the new arrangements in the square

have weakened the daily interaction with the historical fabric in the surroundings.

On the other hand, the square also has strong potential. Its central location, wide open areas, and surrounding historical buildings form an important public attraction that integrates with the city's cultural identity. With proper design strategies, this area can become a focus where collective memory is made visible and inclusive social interactions occur. Survey results also indicate that the common expectation of users is a square that is human-centered, inclusive, and respectful of cultural continuity.

Limitations of the study include the small sample size of user surveys and the restriction of observations to specific time periods. Nevertheless, these findings remain significant because they reveal structural challenges of accessibility, inclusivity, and climate-responsiveness, which are not limited to individual user preferences but point to systemic urban design issues. Thus, despite methodological constraints, the study provides transferable insights for other Mediterranean cities facing similar tensions between heritage conservation and contemporary urban needs. Therefore, new field studies conducted in different seasons and with larger participant groups can provide more comprehensive data on user behavior and spatial experience. Additionally, detailed research on economic sustainability, management models, and social participation processes represents important gaps to be addressed in future studies.

In conclusion, urban design principles prioritizing the human scale, climate-responsive applications, participatory planning processes, and spatial arrangements compatible with the historic fabric are critical for the future of city square in Aydın. When reconsidered within this scope, the square should function not only as a representational space but also as a vibrant and multilayered part of the city's everyday life. The case of Atatürk City Square highlights the tension between urban identity, collective memory, and contemporary spatial arrangements. The importance of human-centered, climate-sensitive and heritage-sensitive design approaches is becoming evident in squares, the primary public spaces of cities.

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REVERSE MIGRATION AND RURAL TRANSFORMATION IN TÜRKİYE: ARCHITECTURAL PRIORITIES AND SOCIO-SPATIAL SUSTAINABILITY

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ABSTRACT

This paper investigates the dynamics of urbanization and reverse migration in Türkiye, with a particular focus on their spatial, architectural, and socioeconomic implications. While the post-1950 rural-to-urban migration reshaped cities through rapid industrialization and informal settlement patterns, the 2000s introduced a reverse trend as economic crises, digitalization, and the COVID-19 pandemic encouraged a return to rural areas. The central research question guiding this study is: How does reverse migration influence spatial planning priorities and architectural identities in both rural and urban contexts? Methodologically, the paper is based on a critical review of existing literature, policy reports, and statistical data, complemented by field observations in selected rural settlements. This approach allows for identifying both the historical trajectories of migration and the contemporary challenges faced by rural and urban areas. Findings indicate that reverse migration has generated a dual impact. In urban areas, it has resulted in vacant housing stocks and the shrinkage of commercial centers, while in rural areas it has triggered new demands for housing, infrastructure, and public services. However, the influx of urban-oriented lifestyles into villages often leads to spatial and architectural incompatibilities, threatening traditional rural identities. Ecological pressures—particularly on agricultural land, water resources, and forests—further complicate the sustainability of this transformation. The study contributes to ongoing debates on urban–rural linkages by emphasizing the need for village design guides, sustainable housing models, and integrated planning strategies that balance ecological sensitivity with contemporary demands. It argues that reverse migration, if managed through conscious planning and strategic incentives, can become an opportunity for reducing regional inequalities and promoting rural development.

Keywords: Urbanization, Rural-Urban Migration, Reverse Migration, Architectural Identity, Rural Development

INTRODUCTION

Migration is a universal phenomenon that refers to the movement of people from one place to another for economic, social, political, and cultural reasons. The primary focus of this article is the impact of reverse migration, defined as "the return of individuals to the places they initially left after believing the migration process has ended," on the architecture of urban and rural spaces. In this context, the aim of this article is to examine the socioeconomic impacts of rural-to-urban and urban-to-rural migrations on individuals and society, as well as the demographic, ecological, sociological, and architectural impacts on the migrating location, and to propose solutions to these problems.

To understand the causes and effects of migration, it is necessary to examine the concept of migration in depth and from multiple dimensions, as migration leads to significant transformations in the social, economic, and political structures of society. At the heart of migration movements lies the desire for urbanization, modernization, and industrialization. "Small and large, but continuous waves of migration, both large and small, inward and outward," played a significant role in the establishment of Türkiye and its formation as a nation-state (Gürsoy, 1998, p. 61). International migration intensified in the final years of the Ottoman Empire and continued from the proclamation of the Republic until the 1950s. Internal migration accelerated and increased from the 1950s with the advent of mechanization and industrialization, and the historical trajectory of rural-to-urban migration played a critical role in urbanization. Rural-to-urban migration has changed not only the demographic profile of cities but also the architectural, infrastructural, social, and ecological priorities of urban development.

Reverse migration, on the other hand, can be defined as the return of individuals to their original city after spending at least one year in a location other than their city of birth (OECD, 2008). However, the economic crisis that intensified in cities from the 2000s onwards, and the resulting unemployment, incompatibility with urban life, digitalization, and pandemics, have led to a re-migration of individuals back to the rural areas they had previously migrated from (Yılmaz, 2009). For example, the 2008 economic crisis resulted in approximately 30,000 reverse migrations from major cities (Vatan Newspaper, June 11, 2009). Economic instability, digitalization, and the search for a more sustainable lifestyle among urban residents are the main drivers of these migrations. Reverse migration has reignited debates about spatial priorities in architecture and planning, particularly regarding the balance between rural and urban development. This process is not limited to population redistribution; it has also led to the redefinition of rural areas and the

rethinking of spatial planning in the context of the provinces. Reverse migration helps reduce imbalances within the country and can support rural development, alleviating pressures on agricultural production and the city.

In this context, this study examines the effects of reverse migration on rural and urban spaces from an architectural and planning perspective, aiming to determine how strategic incentives, conscious planning, architectural priorities, and agricultural production in the provinces are affected by reverse migration. In line with this aim and research problem, the first literature review was conducted. In the second phase, the existing situation was determined through a field study. In the third phase, the findings were analyzed and ideas for solving the problem were developed.

While numerous studies have been conducted in Türkiye, as in the rest of the world, on topics such as migration to cities to understand rural areas, the unique aspect of this research is that the process of urban-to-rural return—in other words, the impact of reverse migration on architecture and rural development—has not been studied equally, either qualitatively or quantitatively.

The findings of this research, which examines the increasing phenomenon of reverse migration in our country in recent years, along with its causes and consequences, will also serve as a guide for socioeconomic, demographic, ecological, sociological, and architectural policies to be developed nationwide to address these problems.

Rather than presenting new empirical fieldwork, this paper is structured as a review and discussion study. It synthesizes existing research, statistical reports, and policy documents on rural–urban migration and reverse migration in Türkiye, with a particular focus on their architectural and spatial planning dimensions. By consolidating dispersed debates and drawing connections between migration studies and design-oriented literature, the study aims to provide a critical framework for understanding the socio-spatial transformations triggered by reverse migration. This approach allows the paper to highlight conceptual gaps, identify planning and architectural challenges, and outline future directions for research and policy.

To guide the structure of this review and discussion paper, a conceptual framework has been developed that links the theoretical background, literature review, identified gaps, and the study's contribution (Figure 1). The framework clarifies how reverse migration is approached not only as

a demographic process but also as a spatial and architectural phenomenon with implications for planning and sustainability.

- **Theoretical Background** establishes the analytical lens of the study by outlining migration theories, the concept and typologies of reverse migration, and the spatial/architectural priorities associated with urban–rural transformations.
- **Literature Review** synthesizes existing studies on Türkiye's internal migration, urbanization, and the socio-spatial impacts of reverse migration, while also incorporating international perspectives on rural transformation.
- **Identified Gaps** highlight the underexplored dimensions of reverse migration, particularly its architectural, spatial identity, and ecological sustainability aspects, which remain fragmented in the literature.
- **Contribution & Discussion** present the paper's added value: integrating migration studies with architecture and planning scholarship, proposing design-oriented strategies such as village design guides, and positioning reverse migration as an opportunity for sustainable territorial development.

2. PROBLEM DEFINITION AND METHODOLOGY

2.1. Problem Definition

Reverse migration in Türkiye has gained visibility particularly after the 2000s and accelerated during the COVID-19 pandemic. While this movement responds to urban challenges such as high living costs, congestion, and environmental pressures, it simultaneously produces new challenges in rural contexts. Four interconnected issues stand out:

- **Unplanned rural return processes** that lack comprehensive settlement strategies and risk undermining spatial sustainability.
- **Architectural identity loss and spatial incompatibility**, as new urban-oriented typologies disrupt traditional rural morphology and cultural continuity.
- **Agricultural restructuring and economic constraints**, where limited land resources, insufficient support policies, and uncontrolled settlement expansion hinder production and development.
- **Ecological overspill and land-use pressure**, where the carrying capacity of rural environments is increasingly exceeded.

Although reverse migration has increased in recent years, rural areas often lack the planning capacity to manage this movement. Settlement strategies and regional development frameworks remain limited,

resulting in fragmented growth patterns. Conventional definitions view rural settlements as small-scale, agriculture-based, and socially homogeneous. Yet, the concept of *new ruralism* (Ellis, 1970s; Azadi et al., 2012) emphasizes that contemporary rural areas are dynamic spaces shaped by cultural, technological, and economic transformations. In Türkiye, however, reverse migration frequently occurs without comprehensive spatial strategies, threatening the sustainability of rural morphology. Ensuring balance between rural and urban areas requires robust development plans that integrate land use, infrastructure, and social needs (Davoudi & Stead, 2003).

The influx of new populations into rural areas also generates demand for housing and services, often resulting in the erosion of architectural identity. When rural contexts are reshaped by urban typologies and materials, traditional character is weakened, leading to spatial discontinuity and a loss of community belonging (Görgün & Yörür, 2018). Tools such as village design guides are essential to ensure that new construction aligns with local morphology, materials, and ecological patterns. Without such instruments, rural landscapes face uncontrolled expansion, encroaching upon agricultural land and natural ecosystems (Göçmen, 2024). Unless the current transformation process is guided by effective regulations, rural values risk being lost beyond recovery (Rice, 2003).

Reverse migration also has the potential to revive agricultural production, yet structural and policy barriers limit this potential. Small-scale producers face challenges such as insufficient land, high production costs, and restricted market access (Bayırbağ & Yıldırım, 2022). Although return-to-village programs exist, limited state support and the prioritization of medium- and large-scale enterprises constrain inclusive rural development (European Court of Auditors, 2019). As a result, the economic base of rural settlements remains fragile, making it difficult for reverse migration to translate into long-term sustainability.

Moreover, population influx, unregulated construction, and changing land-use practices put increasing stress on sensitive ecosystems such as water resources, agricultural land, pastures, and forests. This creates risks of *ecological overspill*, where the carrying capacity of rural environments is exceeded (Doğanay, 2021). Climate change further amplifies these risks, making biodiversity conservation and sustainable land management urgent priorities. To mitigate these pressures, rural planning must prioritize ecological sensitivity, establish buffer zones between settlements and farmland, and promote awareness among both local residents and return migrants regarding sustainable resource management.

In sum, reverse migration in Türkiye brings forth a complex set of spatial, architectural, economic, and ecological challenges. The absence of comprehensive rural planning leads to unregulated settlement patterns, while the influx of urban-oriented lifestyles threatens traditional architectural identities. At the same time, structural limitations in agricultural production and insufficient policy support undermine the economic resilience of rural communities. Moreover, uncontrolled population growth and construction place additional pressure on fragile ecosystems. These interrelated dynamics demonstrate that reverse migration cannot be understood solely as a demographic shift; it is a transformative process with deep implications for planning and design. Addressing these challenges requires a multidimensional approach that integrates architectural identity, ecological sensitivity, and sustainable development principles into rural and urban planning frameworks.

2.2. Methodology

This study adopts the format of a **review and discussion paper** rather than an empirical case study. Its purpose is to synthesize dispersed debates on reverse migration and to frame them within the fields of architecture and planning.

The methodological approach is structured in three steps:

1. **Tracing historical migration trajectories** by examining studies on industrialization, urbanization, and informal housing in Türkiye.
2. **Reviewing contemporary reverse migration literature**, with a focus on socio-economic, cultural, architectural, and ecological dimensions.
3. **Discussing these insights through a spatial lens**, highlighting architectural identity, ecological sustainability, and planning tools such as village design guides.

Rather than relying on a single case study, the analysis compares findings across national and international sources published since the mid-20th century. Policy documents, statistical reports, and academic research are critically synthesized to identify common themes, contradictions, and gaps.

Within this scope, migration theories, internal migration dynamics in Türkiye, and national discussions of reverse migration were evaluated through a comprehensive literature review. National and international documents were then utilized to concretize the transformations occurring in rural architecture and planning practices. A qualitative approach was adopted, analyzing spatial transformation processes through textual and visual data. Housing typologies, production-housing

integration, and public space organization were examined within the context of architectural priorities. Furthermore, the relationship between planning/design practices and principles of ecological sustainability, identity preservation, and urban–rural integration was discussed.

Finally, a conceptual bridge was established between literature findings and current spatial transformations in rural areas, paving the way for the comparative discussion section. Thus, the method aimed to holistically reveal the impact of reverse migration on rural sustainability dynamics through both a theoretical framework and concrete examples.

3. THEORETICAL BACKGROUND

3.1. Reverse Migration: Concepts, Typologies, and Transformations

Reverse migration refers to the return of individuals to their places of origin, or to alternative rural areas, after having previously migrated to urban centers (Bovenkerk, 1974). Unlike linear migration, which has historically been driven by industrialization and urban job opportunities, reverse migration arises in response to high living costs, unemployment, pollution, and social alienation in cities (Yılmaz, 2009). In Türkiye, while rural-to-urban migration dominated from the 1950s onward—particularly due to mechanization in agriculture and rapid industrialization—since the early 2000s new return movements have become increasingly visible. These flows accelerated during the COVID-19 pandemic, when remote working opportunities and the search for healthier, nature-oriented lifestyles encouraged many urban residents to relocate to rural areas.

Table 1. Country Population (1955-1960)

YEAR	COUNTRY POPULATION	URBAN POPULATION	RATIO (%)	RURAL POPULATION	RATIO (%)
1955	24.064.763	6.927.343	28,79	17.137.420	71,21
1960	27.754.820	8.859.731	31,92	18.895.089	68,08

The literature identifies several categories of reverse migration, each shaped by distinct motivations:

Socioeconomic reverse migration: Driven by financial constraints in cities, rising living costs, and unemployment. Retirees returning to their hometowns and remote workers relocating to rural areas exemplify this category (Yılmaz, 2009).

- **Sociocultural reverse migration**: Linked to education, family ties, inheritance, or attachment to one's homeland. Such

movements may initially be temporary but often evolve into permanent resettlement (Çeliktaş, 2025).

- **Environmental and climate-driven reverse migration**: Triggered by urban congestion, pollution, lack of access to clean resources, or disasters such as earthquakes and wildfires (Çelebi Zengin, 2018).
- **Voluntary simplicity**: A lifestyle choice characterized by rejecting consumer-oriented urban life and seeking authenticity in rural environments. This trend has recently gained visibility within broader cultural shifts (Makul, 2020; Başcı, 2019).

Reverse migration is not only a demographic phenomenon but also a spatial one. Migrants often carry urban lifestyles into rural settings, creating hybrid forms of living such as *multi-place living* or *dual life* (Öztürk & Hilton, 2018). This transformation reshapes villages through new housing typologies, infrastructural demands, and altered social practices. Yet, tensions arise when buildings reflect urban standards rather than local traditions, leading to the erosion of spatial identity and weakening community cohesion.

3.2. Planning Priorities and Rural Sustainability

The growth of reverse migration necessitates a reconsideration of planning and architectural priorities. Rural areas increasingly face the challenge of balancing the **housing–production–public life** triangle (Karaman, 2019). If left unmanaged, new developments risk fragmenting rural morphology and threatening ecological systems. To mitigate these risks, *village design guides* and similar planning tools have been proposed as instruments for integrating modern requirements with local identity (Kut Görgün & Yörür, 2018). These guides outline principles on plot layout, building materials, façade proportions, and roof typologies, ensuring that new construction respects traditional character while accommodating contemporary needs such as digital infrastructure, co-working spaces, and modern services (UN-Habitat, 2019).

From this perspective, the concept of *Rubanization* highlights that rural areas experiencing reverse migration should not be considered secondary spaces in the shadow of cities but attractive and livable alternatives. Strengthening housing, production, and social infrastructure during this process ensures that returning populations not only meet basic needs but also sustain productive and meaningful lives (Mieg & Töpfer, 2013).

Finally, reverse migration must be situated within the broader framework of rural sustainability. The inflow of populations creates pressure on land

use, water resources, and agricultural production, raising risks of *ecological overspill* (Kaymaz & Sancar, 2020). At the same time, it revitalizes rural economies, stimulates local production, and strengthens social solidarity networks (Eraydın, 2020). Managing this duality requires integrated rural–urban linkages, where ecological limits are respected while socio-economic opportunities are expanded. If supported by conscious planning, reverse migration can serve not as a threat to fragile ecosystems but as a driver of balanced territorial development.

4. LITERATURE REVIEW

4.1. Migration and Socio-Spatial Change

Migration has long been understood not only as a demographic movement but also as a driver of socio-spatial transformation. Early studies in Türkiye (e.g., Erder, 1997) demonstrated how post-1950 rural-to-urban migration waves generated informal housing, disrupted urban morphology, and weakened traditional rural production systems. Internationally, migration has been analyzed as a process that reshapes identity, social networks, and everyday practices (Castles & Miller, 2009). More recent scholarship emphasizes that reverse migration, by reintroducing urban populations into rural contexts, reshapes both physical landscapes and social dynamics, often producing new cultural tensions (Özcan & Peker, 2021).

Classical migration theories provide a useful lens for understanding Türkiye's experience. Ravenstein's "laws of migration" (1885) and Lee's push–pull model (1966) explained rural-to-urban movements primarily through economic and spatial opportunities. In Türkiye, agricultural mechanization and industrial growth in the 1950s accelerated this process (İçduygu & Sirkeci, 1999). Yet, scholars have argued that economic explanations alone are insufficient. Later theories emphasize the role of social capital, identity, and lifestyle preferences in shaping migration choices (Massey et al., 1993). Within this framework, reverse migration has been situated under categories such as *return migration* and *lifestyle migration* (Karaman, 2019). These perspectives illustrate how economic drivers intersect with cultural and ecological factors in Türkiye's shifting migration patterns.

4.2. Empirical Findings on Reverse Migration

Empirical studies highlight how reverse migration reshapes rural settlements and challenges spatial continuity. In architectural terms, the replacement of traditional housing with urban typologies threatens local identity and community cohesion (Kut Görgün & Yörür, 2018). Özcan and Peker (2021) demonstrate how lifestyle migrants in Urla have

transformed rural consumption and settlement patterns, generating both revitalization opportunities and sources of social tension. Similarly, research on ecological implications reveals increasing pressures on land, water, and agricultural systems (Kaymaz & Sancar, 2020; Eraydın, 2020). At the same time, reverse migration may strengthen local production networks, promote community solidarity, and diversify rural economies (Woods, 2011).

4.3. Gaps in the Literature

Despite growing scholarly attention, the architectural and planning dimensions of reverse migration in Türkiye remain underexplored. Much of the existing literature focuses on demographic or economic aspects, while spatial identity, ecological sustainability, and design-oriented strategies are only sporadically addressed. This gap underscores the need for studies that bridge migration research with architecture and planning scholarship, highlighting how reverse migration can inform sustainable rural–urban linkages.

5. COMPERATIVE DISCUSSION

This paper positions reverse migration not only as a demographic process but also as a transformative driver of architectural identity, ecological sustainability, and governance in Türkiye. By comparing findings from diverse strands of literature and policy debates, three interrelated dimensions emerge.

5.1. Architectural Priorities and Spatial Identity

A recurring theme in the literature is the tension between rural identity and urban-oriented building practices. Reverse migration generates new housing demand, often introducing typologies and materials that are incompatible with local morphology (Kut Görgün & Yörür, 2018). These interventions risk eroding traditional character and weakening social cohesion. However, they also create opportunities for architectural innovation. Tools such as *village design guides*illustrate how architectural priorities—plot layout, façade proportions, and material use—can align contemporary needs with rural identity. The comparative perspective suggests that without proactive design strategies, rural areas risk fragmentation, whereas context-sensitive architectural frameworks may enable reverse migration to revitalize rural spaces while preserving their heritage.

5.2. Ecological and Infrastructural Sustainability

Reverse migration increases pressure on rural land, water resources, and ecological systems (Doğanay, 2021). Simultaneously, many rural areas lack the infrastructure required to accommodate returning populations. Studies highlight how this dual burden creates risks of *ecological overspill*, especially where unregulated settlement overlaps with agricultural land and forests (Kaymaz & Sancar, 2020; Eraydın, 2020). Yet, comparative evidence also points to potential benefits: reverse migration can encourage investment in sustainable housing, renewable energy, and modernized agricultural facilities when addressed holistically. Ensuring socio-spatial sustainability therefore requires balancing ecological sensitivity with infrastructural expansion, integrating new demands such as digital access and co-working spaces without undermining rural environments.

5.3. Policy and Governance Gaps

The literature consistently identifies governance gaps that limit the sustainable management of reverse migration. While policy instruments exist, they remain fragmented and often fail to integrate architectural identity, ecological resilience, and socio-economic equity (European Court of Auditors, 2019). Comparative insights reveal that top-down interventions alone are insufficient. Instead, participatory planning mechanisms, locally adapted design guidelines, and context-specific incentives are required. Embedding architectural priorities within governance frameworks can transform reverse migration from an unregulated demographic trend into a strategic driver of balanced territorial development.

In summary, the comparative discussion shows that reverse migration is not merely a response to urban crises but a multidimensional process reshaping rural morphology, architectural identities, and ecological systems. Its outcomes depend on the extent to which architectural strategies, ecological limits, and governance frameworks are effectively integrated into planning practice. When addressed collectively, reverse migration has the potential to enhance rural resilience and contribute to socio-spatial sustainability in Türkiye.

6. CONCLUSION

This study demonstrates that reverse migration in Türkiye is not only a demographic shift but also a multidimensional process with significant architectural, spatial, and ecological implications. Comparative analysis of the literature reveals three interrelated challenges. First, unregulated return flows threaten traditional rural morphology, often leading to the

erosion of architectural identity and spatial continuity. Second, ecological and infrastructural pressures intensify as returning populations increase demands on land, water, and services. Third, governance frameworks remain fragmented, limiting the integration of architectural priorities, ecological resilience, and socio-economic equity.

At the same time, reverse migration offers important opportunities. If supported by design-oriented tools such as village design guides, sustainable housing strategies, and participatory planning mechanisms, it can revitalize rural economies, strengthen social cohesion, and preserve cultural identity. Furthermore, embedding ecological sensitivity and digital infrastructure into rural planning can create resilient settlements that respond both to contemporary needs and to long-term sustainability goals.

Overall, reverse migration should be reconsidered not as a temporary response to urban crises but as a transformative process that, if managed consciously, can contribute to balanced territorial development. By bridging migration research with architecture and planning scholarship, this paper emphasizes that architectural priorities, ecological sustainability, and governance reforms are central to shaping a livable and resilient future for rural Türkiye.

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SHIFTING PRIORITIES IN MASS HOUSING: PUBLIC, MUNICIPAL, AND PRIVATE PROJECTS IN ISTANBUL

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ABSTRACT

Mass housing projects in Türkiye have been financed by various stakeholders, including government institutions, municipalities, and private sector actors, each with distinct architectural priorities shaped by economic, social, and political factors. This paper analyzes the influence of three financing models, namely public (TOKİ), municipal (KİPTAŞ), and private, on architectural and spatial priorities in mass housing projects in Istanbul, and how these priorities correspond to user expectations. Addressing an absence in the literature that conflates social housing with mass housing, the study employs comparative case studies, a user survey, and spatial metrics to generate a comprehensive evaluation. The data sources consist of project catalogs and plans, spatial measurements (such as average unit size, green ratio, and transport distance), and analyzed survey responses. The results show consistent differences: private projects stand out in accessibility, municipal projects perform better in livability and green space provision, while public projects preserve cost advantages but remain limited in design diversity. The paper illustrates that financing models leave visible impressions on both space and experience by cross-referencing user perceptions with measurable spatial metrics. The study ends with suggestions for policy changes that would make it easier to use standardized housing quality metrics and subsequent evaluations in the design and production of mass housing. This would help make sure that

the results of mass housing projects are more in line with user-centered quality standards.

Keywords: Mass Housing, Housing Policy, Accessibility, Livability, Istanbul

INTRODUCTION

In Turkey, the massive housing production and urban transformation programs have been launched since the late 1990s in order to address unregulated settlements and reduce seismic vulnerability. Especially in the following years of the 1999 Marmara and Düzce earthquakes. Large-scale urban transformation was given priority in the additional Five-Year Development Plans (2001–2005, 2014) as a result of these earthquakes, which highlighted the urgent need for safe and regulated housing. According to this plan, regions with deteriorating, outdated, and functionally insufficient situations were to be transformed. 3,876 hectares were set aside as transformation zones, where social, economic, and environmental factors were supposed to direct revitalization (Bekir, 2022).

Since then, mass housing has been a central tool of urban transformation. Three financing models have shaped Istanbul: public projects by TOKİ, municipal schemes like KİPTAŞ, and large-scale private developments. While all aim at affordable housing, their architectural and spatial priorities differ strongly.

It is often claimed that research on mass housing mostly concentrates on affordability and state-led urban renewal (Kuyucu & Ünsal, 2010; Özdemir, 2011), while issues such as design quality, livability, and user experience are less explored. It has also been argued that similar tensions appear internationally, for example, in Chile and Colombia, where rapid and low-cost housing projects lacked social integration and design diversity (Gilbert, 2004). In the Turkish context, it is claimed that studies on these dimensions are still minimal.

In this case, state actors like TOKİ, municipal developers like KİPTAŞ, and many private sectors have built a lot of mass housing in Istanbul. Each actor has different things that are vital to them. State programs, for instance, often prioritize rapid delivery and low cost, which may have a negative impact on the quality of the architecture (Bican, 2019). On the other hand, municipal projects try to integrate design-oriented social goals. TOKİ has also worked as a centralized design tool, creating standardized housing forms that reduce local diversity (Isikkaya, 2014). At the same time, housing has become part of wider political coalitions, where economic growth and social needs are balanced through housing policy (POMEP, 2017). However, social housing practices

increased after the 2000s, especially under the direction of TOKİ (Bozdoğan, 2019). Existing studies often focus on issues of affordability and overlook architectural priorities and design quality (Özdemir, 2011). Meanwhile, municipal actors such as KİPTAŞ introduced alternative models, and private developers concurrently expanded their own large-scale housing projects, particularly in Istanbul, where slums and illegal construction were widespread (Özkan & Kozaman, 2009). Therefore, it is emphasized that financing models not only affect housing affordability but also directly shape spatial outcomes and design politics (Vale, 2013). It is argued that mass housing in Turkey has predominantly examined urban transformation as a state-led political and economic process. Also, it has less emphasis on architectural quality or user experience (Kuyucu & Ünsal, 2010). At the same time, international literature highlights that the tension between affordability and livability is a recurring theme in mass housing projects, a concern that remains highly pertinent in the Turkish context (Tsenkova, 2009). For instance, in countries such as Chile and Colombia, mass housing policies have emphasized affordability and rapid delivery. Therefore, they often face criticism for limited social integration and design diversity (Gilbert, 2004).

This study aims to investigate the research gaps by systematically comparing architectural priorities and user satisfaction across public (TOKİ), municipal (KİPTAŞ), and private mass housing projects in Istanbul. Through survey results and spatial metric analysis, the research evaluates how financing models shape affordability, livability, design quality, and social integration, and to what extent these priorities align with users' lived experiences.

The objective of this study is to examine the influence of various financing models on the architectural priorities of mass housing projects in Istanbul and to assess the extent to which these priorities align with user expectations. By addressing the research questions outlined below, this study aims to evaluate the efficacy of housing programs and offer recommendations for enhancing the congruence between the objectives of developers and the needs of residents. Based on these objectives, the research question guiding this study is: How do different financing models (public, municipal, and private) shape the architectural and spatial priorities of mass housing projects in Istanbul, and to what extent do these priorities align with user expectations regarding livability, affordability, and social integration?

METHODOLOGY

The main data of this study were obtained from a user satisfaction survey and the spatial metrics comparison of three case studies. A total of 79 residents participated in the survey, representing households from public (TOKİ), municipal (KİPTAŞ), and private housing projects in Istanbul. Respondents were relatively homogeneous in terms of income group (middle-income households), tenure status (owners rather than renters), and household size (predominantly nuclear families), which allowed for more comparable assessments across different financing models. The survey questions were divided into five main categories: affordability, livability, architectural quality, belonging and safety, and accessibility. Responses in each category were analyzed to identify similarities and differences between the three financing models.

A statistical analysis was conducted on the survey data. One-way ANOVA (see Table 1) was used to investigate mean differences among the financing models, while Pearson correlation analysis (see Table 2) was applied to examine relationships between thematic categories. The results of these analyses are presented in the following sections.

In addition to the survey, three representative case studies were selected—each corresponding to one financing model (TOKİ 2nd Phase Aydınlı Residences, KİPTAŞ Aydınlıkevler, and the privately developed Şehri-Aydınlı). The selection criteria were based on:

1. Representativeness of typical housing projects produced by each financing model,
2. Comparability in terms of project scale, typology, and time of construction, and
3. Data availability, as these projects provided accessible catalogs, plans, and documentation suitable for spatial analysis.

For each case, spatial metrics such as site area, floor area ratio (FAR), provision of green space, and accessibility were compiled from official reports, project catalogs, online sources, and academic literature. These metrics were then comparatively evaluated with reference to the survey categories, enabling a more comprehensive analysis of architectural, spatial, and social priorities.

This study has several limitations. First, the survey sample (n = 79) is modest in size and limited to Istanbul, which restricts the generalizability of the findings to other regions of Türkiye. Second, the relative homogeneity of the sample may mask variations in experience among different socio-economic groups, renters vs. owners, or age cohorts. Third, the case

studies reflect only a subset of the wide diversity of mass housing projects in Istanbul, and their selection was partly shaped by the availability of reliable documentation. Despite these limitations, the combination of survey data and spatial metrics provides valuable insights into how financing models shape both the design and lived experience of mass housing.

CASE ANALYSIS: LINKING SPATIAL METRICS TO USER PERCEPTIONS

Spatial Metrics

Constructed in 2008, TOKİ 2nd Phase Aydınlı comprises 18 blocks and 627 units with 56,469 m² of closed area and typical building heights of 5–7 storeys. The typical floor height ranges from five to seven storeys. Completed in 2023, KİPTAŞ Aydınlıkevler Residences spans 5,530 m² of land with a closed area of 49,142 m². There are 13 blocks with a total of 321 homes. Block heights vary from five to seven storeys. With three buildings and 114 units, Şehri-Aydınlı units were opened by the private sector in 2018. It is calculated that the average floor height is 10. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)

Density and Land Use

KİPTAŞ Aydınlıkevler's project area is 36,522 m², with a base area of 5,530 m². With a floor area of 1.35, the entire building area is 49,141 m². An estimated 963 persons per hectare is the population density. There is an estimated 11,000 m² of green space on the property, with an average of 7.6 to 9.5 m² of green space per person. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.)



Figure 1. Common areas in KİPTAŞ (left) and TOKI (right) projects.

Typology and Design Quality

The TOKİ and KİPTAŞ developments have a courtyard layout in their block type. However, aesthetic concerns in Şehri-Aydınlı place a strong emphasis on vertical density and the use of a variety of materials. While the KİPTAŞ project provides a range of façade colors, TOKİ's facades are straightforward and practical. Although there are 2+1 and 3+1 house types available in the TOKİ and KİPTAŞ developments, the typical size of the homes in TOKİ and KİPTAŞ is between 70 and 115 m² and 79 and 104 m², respectively. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)

The facades of the TOKİ project were designed using cream, white, and gray plaster and plain plaster. The Şehri-Aydınlı project prioritized aesthetic issues by integrating plaster, glass, and other materials, but the KİPTAŞ project achieved diversity through the use of various hues. Trees were used in Şehri-Aydınlı to offer peace and seclusion, but there was no landscape design or public art in the TOKİ and KİPTAŞ developments. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)

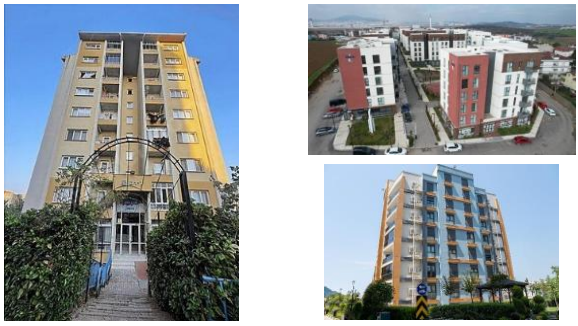


Figure 2. Exterior facades of TOKİ (left), KİPTAŞ (top right) and Şehri-Aydınlı projects.

Social and Common Areas

While the KİPTAŞ project created sports fields, walking trails, and children's playgrounds, the TOKİ project combined a nursery and playground. The Şehri-Aydınlı project showcases additional social facilities such as a fitness center, basketball court, and swimming pool. KİPTAŞ and private sector developments have ground-floor commercial space, whereas TOKİ does not. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)




Figure 3. Social playgrounds in the Şehri-Aydınlı project.

Accessibility and Transportation

The M4 metro line is around ten minute walk from the KİPTAŞ project, while bus stations leading to Kadıköy and Kartal are about three minute walk away. The metro line is ten minutes away from the Şehri-Aydınlı project, while the airport is three minutes away. While TOKİ's pedestrian network is limited to the property itself, the KİPTAŞ project has separate parking areas and covered pedestrian walkways. The Istanbul Metropolitan Municipality (IMM) Aydınlı City Park, Dede Korkut Middle School, and the complex's community clinic are all close to the TOKİ project. Şehri-Aydınlı has an introverted settlement style, whereas the TOKİ and KİPTAŞ projects have open site plans. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)

Safety and Security

In contrast to the open-construction TOKİ and KİPTAŞ developments, Şehri-Aydınlı is intended to be a gated community. Whereas the KİPTAŞ project incorporates surveillance cameras and card-based blocks, TOKİ has two controlled entrances and a video system. (KİPTAŞ Istanbul Housing Zoning Planning Industry and Trade Inc., n.d.; Kurcan Construction, n.d.; TOKİ, n.d.)

Economic Indicators

2+1 apartments in TOKİ 2nd Stage Aydınlı were listed for sale in 2021 for 383 thousand TL. According to reports, in 2018, Şehri-Aydınlı Residences' 3+1 flats were for sale for 556 thousand TL. (Kurcan Construction, n.d.; TOKİ, n.d.)

SURVEY FINDINGS

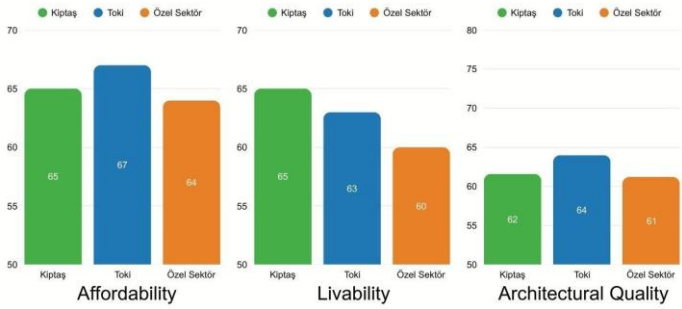


Figure 4. Mean Scores for Affordability, Livability and Architectural Quality by Financing Model

Affordability

As seen in Figure 4, TOKİ achieved the highest average housing cost (67.2/100). KİPTAŞ (65.2/100) achieved a result very close to this value, while private sector projects achieved a relatively lower average (64.2/100). The findings indicate that there is no significant difference in cost between financing models (consistent with ANOVA results in Table 1, $p = .760$).

Livability

According to the data in Figure 4, the highest average for livability and quality of social spaces was seen in KİPTAŞ projects (65.3/100). TOKİ projects showed a similar value (63.7/100). Private sector projects, on the other hand, fell behind the other two models with a relatively lower average (60.6/100). Taken together, municipal projects prioritize social spaces relatively more.

Architectural Quality

Examining Figure 4, TOKİ projects received the highest score in perceived architectural quality (64.1/100). KİPTAŞ (61.6/100) and private sector (61.2/100) projects exhibited very similar values. The results indicate that there is no significant difference in architectural quality among the three models.

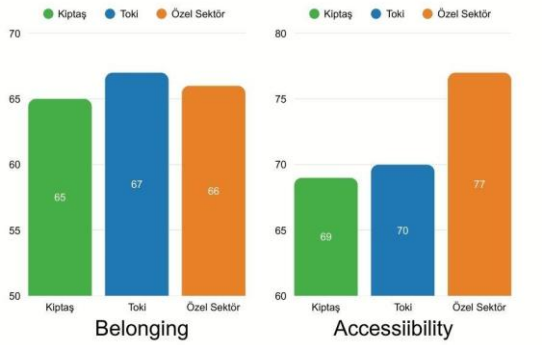


Figure 5. Mean Scores for Belonging and Accessibility by Financing Model

Belonging and Safety

The findings in Figure 5 reveal similar results regarding users' overall satisfaction and sense of belonging. The averages for TOKİ (66.9/100), private sector (65.8/100), and KİPTAŞ (65.3/100) projects are quite similar. This suggests that users' levels of security and sense of belonging are similar across different financing models.

Accessibility

As seen in Figure 5, private sector projects achieved the highest average in the accessibility and urban integration category (76.8/100). TOKİ (70.7/100) and KİPTAŞ (68.4/100) projects fell behind this figure. The findings indicate that private sector projects are perceived to be more favorable, particularly in terms of location and ease of access. ANOVA trended towards significance in accessibility ($F = 2.50$, $p = .090$; see Appendix A)

Individual Question Findings

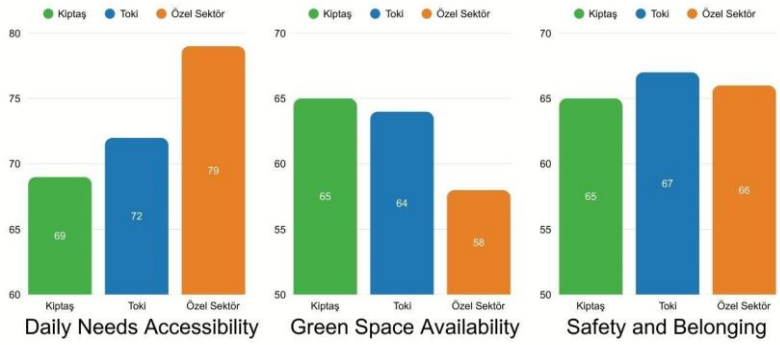


Figure 6. Comparison of "Daily Needs Accessibility", "Green Space Availability", and "Safety and Belonging" Scores Across Housing Models

In addition to the categories, some critical individual questions were also examined separately.
As seen in Figure 6, private sector projects achieved a significantly higher average (78.7/100) in the question "I can easily meet my daily needs (market, pharmacy, school, etc.) in the immediate vicinity." TOKİ (72.4/100) and KİPTAŞ (69.5/100) fell behind this value.

Figure 6 shows the responses to the question "Is there sufficient open and green space around the residence?" KİPTAŞ projects showed a higher average (65.3/100), TOKİ projects had a similar average of 64.1/100, and the private sector had the lowest average of 58.7/100.

As seen in Figure 6, the responses to the question "I feel safe and belong in this housing project" are quite similar across the three models. TOKİ showed similar results with an average of 66.9/100, the private sector with 65.8/100, and KİPTAŞ with 65.3/100.

ANOVA Test Results

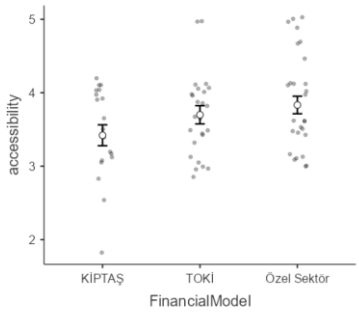


Figure 7. ANOVA Results for Accessibility Scores by Financing Model.

ANOVA tests revealed no statistically significant differences (see Table 1) between financing models in most categories covered in the study (architectural quality, livability, affordability, and satisfaction). However, in the accessibility dimension, the results trended towards significance ($F = 2.50$, $p = 0.090$). Post-hoc comparisons further indicated that private sector projects had a statistically higher mean value than KİPTAŞ ($p = 0.030$). No significant differences were found in all other pairwise comparisons. In practical terms, the general trend is similar across models, but as illustrated in Figure 7, private sector projects stand out when it comes to accessibility.

Correlation Analyses Test Results

Correlation analyses revealed strong relationships between some variables. The findings indicate a highly positive correlation between livability and overall satisfaction ($r = 0.735$, $p < .001$; see Table 2). This suggests that residents who perceive their living environment as more livable also rate their overall satisfaction as high. Similarly, a significant and positive correlation was found between accessibility and satisfaction. Furthermore, a moderately positive correlation was found between the architectural quality and satisfaction variables. The findings suggest that various dimensions of residents' housing experiences are closely linked to their overall perception of satisfaction.

DISCUSSION

The findings of this study indicate that the priorities of mass housing projects in Istanbul differ according to their financing models, yet in some dimensions they also converge in unexpected ways. When survey results, case study observations, and correlation analyses are considered together, a more layered picture emerges: while accessibility often comes to the forefront, in other instances the quality of social spaces becomes more decisive, and in certain aspects such as architectural design and safety, the different actors appear to produce remarkably similar outcomes. In this sense, the results are not limited to numerical comparisons alone; rather, they invite a deeper reflection on which values are genuinely prioritized in mass housing production, and which aspects tend to remain in the background.

Accessibility: "Key Variable"

The most striking finding of this research is that accessibility stands out among the categories that determine user satisfaction. The results suggest that accessibility to the city and daily necessities shape user perception rather than the spatial quality or social facilities offered by housing projects. Indeed, as seen in Figure 5 and Figure 6, private sector projects scored the highest in accessibility (76.8/100 and 78.7/100), while TOKİ (70.7/100; 72.4/100) and KİPTAŞ (68.4/100; 69.5/100) fell behind. ANOVA approached significance only in this dimension ($F = 2.50$, $p = .090$), and post-hoc showed Private > KİPTAŞ ($p = .030$)., and post-hoc analysis revealed that private sector projects received higher values than KİPTAŞ ($p=0.030$; Figure 7). This suggests that the private sector places site selection and transportation connections at the center of the sales promise, such as proximity to the metro line and the airport, as observed in the Şehri-Aydınlı case, and that the difference in perception between different financing models is produced in the form of articulation to the city rather than within the space. It reveals that positional advantages strengthen the perception of accessibility, meaning that the difference between different financing models is mostly due to the choice of location and the relationship established with the urban context.

Livability: Public Space Design as a Direct Source of Satisfaction

The results show that satisfaction in public housing is directly related not only to the location of the space, but also to the quality of the social spaces that make everyday life possible. As seen in Figure 4, the perception of livability and social space quality is highest in KİPTAŞ projects (65.3/100). The same trend was observed in the responses to the statement "there is sufficient open and green space around the

housing", with KİPTAŞ projects (65.3/100) leading the way by far, while TOKİ (64.1/100) and private sector projects (58.7/100) lagged behind (Figure 6). This finding, coupled with the design choices observed in the field study that support public space, such as permeable ground floors, walking paths, and sports areas, reveals that municipal projects play a role in strengthening social life. Moreover, the high correlation measured between livability and satisfaction ($r = 0.735$, $p < .001$) proves that this difference is reflected as a tangible element of satisfaction in the users' experience.

Standardization: Shared Standards in Architectural Quality and Security

Another striking result of the research is that the differences between the models in architectural quality and belonging-security dimensions are almost blurred. The architectural quality scores shown in Figure 4 (TOKİ 64.1/100, KİPTAŞ 61.6/100, private sector 61.2/100) are quite close to each other. Similarly, the responses to the statement "I feel belonging and safe in this housing project" were similar (in the range of 65-67) across the three models (Figure 5, Figure 6). This picture is consistent not only with the lack of significant differences in statistical tests, but also with the similar block typologies, standardized façade solutions, and prevalence of security protocols observed in our field data. Users encounter similar spatial layout and security measures even though they are produced under different financing models, which homogenizes perception. Therefore, this finding shows that even in areas where financial models are expected to differentiate, they are driven by common trends. The fact that a critical dimension of user experience, such as architectural quality, is not prioritized for development makes this convergence more visible.

The Balance Triangle: Compromises between Access, Livability, and Cost

Research findings show that while the three financing models stand out in different dimensions, they lag behind in other areas. This can be read as a mutual compromise between access, livability, and cost. For example, while private sector projects score significantly higher in accessibility (Figure 5-6), they lag behind in livability due to their more closed site layout and spatial constructions shaped by special facilities (Figure 4, Figure 6). While TOKİ projects offer the most affordable option in terms of cost (Figure 4), they are more limited in terms of access and social life. On the other hand, KİPTAŞ projects stand out in terms of livability with their emphasis on design and public space (Figure 4), but are not as strong as the private sector in terms of access to central locations. Thus, each model has a priority trace derived from its own financial logic, and these traces are reflected in different ways in user perceptions.

What the Correlations Say: "Livability" Makes Satisfaction Lasting

Findings from correlation analyses show that livability is the main factor explaining user satisfaction. The strong correlation between livability and overall satisfaction ($r = 0.735$, $p < .001$) reveals that the quality of social spaces, the presence of green areas, and neighborhood relations directly affect the user experience. In addition, accessibility also showed a significant relationship with satisfaction, but it was understood that this effect was mostly at the "first choice" level. The moderate correlation between architectural quality and satisfaction, on the other hand, suggests that aesthetic or typological diversity is not sufficient on its own but only makes sense in combination with quality of life. In short, access attracts users, but it is livability that determines long-term satisfaction.

CONCLUSION

The results of this research suggest that the various financing approaches in Istanbul's mass housing development highlight unique priorities, yet they also share similarities in certain areas. Projects undertaken by public, municipal, and private sectors do not differ in every respect; rather, they imprint distinct "priority marks" that influence the daily lives of residents. This indicates that mass housing is not merely a neutral technical endeavor but a profoundly social and political domain where economic and spatial decisions are closely linked.

The integration of survey results, case study observations, and statistical analyses provides a multi-dimensional understanding. Accessibility stands out as the most decisive factor influencing satisfaction: private sector projects, located near metro lines and airports, score significantly higher in this category (Figures 5-6-7). In contrast, municipal projects distinguish themselves through livability and social spaces, as reflected both in the survey averages (Figure 4) and the green space item (Figure 6). On the other hand, architectural quality and perceptions of safety appear strikingly similar across all three models (Figures 4-5-6), suggesting that standardized building types and common security measures function as equalizing elements, regardless of the financing actor.

The findings underscore the significance of evolving priorities in comprehending mass housing in Istanbul. Although affordability, livability, and accessibility are emphasized to varying extents by public, municipal, and private stakeholders, residents' satisfaction is most closely linked to their lived experiences of social and environmental quality. In this context, while location may initially attract households to a project, it is the everyday life opportunities, such as open spaces, social interaction, and a sense of belonging, that sustain long-term satisfaction. This highlights the necessity for housing policies and design strategies

that balance economic feasibility with social and spatial well-being, advocating for a shift from uniform solutions towards more nuanced, human-centered models of urban transformation.

APPENDIX

Table 1. One Way ANOVA Results by Financing Model (TOKİ, KİPTAŞ, Özel Sektör)

Category	F	df1	df2	p
Architectural Quality	0.86	2	45.1	0.538
Facade Quality	0.91	2	44.5	0.408
Open & Green Spaces	1.31	2	45.0	0.280
Social Interaction Spaces	1.62	2	45.1	0.209
Sense of Belonging & Safety	0.45	2	45.3	0.642
Common Area Accessibility	0.03	2	45.2	0.967
Urban Integration, Accessibility	1.58	2	43.3	0.218
Everyday Needs Accessibility	2.49	2	43.4	0.095
Overall Satisfaction	0.44	2	44.8	0.644

Table 2. Correlation Summary Table (Pearson r with Satisfaction, all themes)

Category	Overall (N=79)	TOKİ (N=27)	KİPTAŞ (N=26)	Özel (N=26)
Architectural Quality	r = .634***	r = .819***	r = –.177 (ns)	r = .641***
Livability	r = .735***	r = .886***	r = –.300 (ns)	r = .744***
Accessibility	r = .464***	r = .653***	r = .548*	r = .432*
Affordability	r = .652***	r = .774***	r = .366 (ns)	r = .618***
Grand Average	r = .895***	r = .969***	r = .248 (ns)	r = .898***

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TECHNOCRATS IN THE COAST: TRACING THE INTELLECTUAL LEGACY AND FRUSTRATIONS OF URBAN PLANNERS IN RIZE

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ABSTRACT

Urban planning has been profoundly influenced by visions projected into uncertain futures, shaped by shifting paradigms, political will, and professional values. However, the role of the planner as both a technocrat and a cultural actor in planning history remains studied to a limited extent. This paper examines the evolving role of planners through a case study of Rize, a city on Turkey's eastern Black Sea coast whose development has been guided by five major master plans between 1946 and 2021. The study contextualizes each plan within broader phases of planning history, spanning from early Republican modernism to contemporary resilience approaches. Additionally, it traces Turkey's distinctive trajectory shaped by national modernization policies, political upheavals, and the institutionalization of planning education. Methodologically, the research employs planner profile analysis in conjunction with content analysis of municipal planning documents, including research reports, plan notes, maps, and design codes. The findings reveal recurring tensions between visionary ideals and implementation realities: early modernist visions were realized only decades later, frequent revisions reflected shifting political priorities, and ecological or heritage concerns frequently clashed with urban growth. The Rize case underscores that plans should be interpreted as intellectual artifacts of their time, revealing how global trajectories are translated into national contexts and how planners' roles evolve across generations.

Keywords: Planning History, Urban Planner, Technocratic Model, Urban Development

INTRODUCTION

The role of the city planner has undergone a continuous evolution, adapting to changing political economies, societal requirements, and theoretical developments in planning theory. Over the past century, planning has progressed through distinct paradigmatic phases, each marked by its own priorities, methodologies, and interpretations of the planner's professional identity. From the early modernist belief that spatial order could catalyze social advancement, to the managerial emphasis on process and coordination, through the entrepreneurial adoption of urbanism, to the networked and participatory governance structures of the early 21st century, and finally to the current focus on resilience and risk assessment strategies, the discipline has consistently reimagined itself.

The history of urban planning theory is marked by recurring debates over the relationship between technical expertise, political power, and the lived complexity of cities. Early modernist approaches, rooted in the rational–comprehensive model, positioned the planner as a technocratic expert tasked with producing blueprint plans for orderly growth, efficiency, and improved urban health (Benevolo, 1967; Boyer, 1983). This tradition can be closely linked to post-war reconstruction and the building of modern cities. These cities were assumed to have rationally designed spatial outcomes, relying on centralized authority and objective technical knowledge.

By the mid-20th century, this confidence in technocratic control came under sustained critique. Jane Jacobs (1961) challenged the sterility and rigidity of modernist urbanism, portraying cities as complex, self-organizing systems that cannot be reduced to singular technical solutions. Paul Davidoff's (1965) advocacy planning reframed the planner as a political actor representing diverse and often conflicting publics, while Giancarlo De Carlo (1969/2005) advanced participatory design as both a democratic right and a political necessity. Reyner Banham, Peter Barker, Peter Hall, and Cedric Price's Non-plan manifesto (1969) questioned the very premise of comprehensive regulation, arguing for an experimental openness to urban form. Venturi's (1966) Complexity and Contradiction in Architecture echoed this ethos, urging a tolerance for ambiguity and multiplicity in urban design.

These critiques, both epistemological and political, challenged the notion that urban environments could be rationally controlled solely through technical knowledge. They advocated for a paradigm that acknowledges complexity, conflict, and uncertainty. As Jacobs observed, cities don't present a single problem in organized complexity

but rather numerous, interdependent, and evolving issues. From this perspective, planners must accept the limitations of knowledge and the impossibility of fully predicting urban outcomes (Pacchi, 2018; Moroni, 2018).

The 1970s and 1980s saw further transformation as economic restructuring and neoliberal governance reframed planning priorities. Harvey's (1989) description of the shift "from managerialism to entrepreneurialism" captured the reorientation toward place-marketing, interurban competition, and public and private partnerships. Planners increasingly acted as brokers of investment and facilitators of urban competitiveness, balancing growth imperatives with mounting social and environmental concerns (Peck & Tickell, 2002; Swyngedouw et al., 2002).

In the 1990s and 2000s, planning theory incorporated new priorities, notably sustainability, place-making, and resilience. Scholars such as Ahern (2011), Davoudi (2012), and Vale (2014) positioned resilience as both a guiding principle and a contested policy discourse. Palermo and Ponzini (2014) emphasized the role of place-making in embedding social and cultural value into spatial transformation, while heritage theorists like Choay (2001) and Pendlebury (2013) examined the interplay between urban regeneration and identity. These developments reframed the planner as a collaborative facilitator and cultural mediator—bridging technical, political, and community perspectives.

This paper builds upon these theoretical trajectories while seriously considering the critiques of the technocratic planning model articulated by Jacobs, Davidoff, De Carlo, and Banham. Each of these figures elucidated the tensions between planning ideals and urban realities, as well as the limitations of technical authority. The case examined in this study was not interpreted as a measure of success or failure, but rather as intellectual artifacts; it demonstrates how planners, across different periods, prioritized varying architectural and urban values: functionality, efficiency, identity, and resilience. Rarely did one priority dominate; instead, they coexisted in a state of tension. Hygienic order clashed with the preservation of memory; monumental visions clashed with cultural heritage; risk-aware strategies necessitated institutional mechanisms that were absent.

As Karen Martin cautions, when everything is declared as a priority, the city threats becoming overly scripted and under-executed. In this case, the planner should not be reduced to a mere bureaucrat or technician but rather reclaimed as a cultural actor, bridging the gap between

ideals and constraints. By doing so, they can shape urban futures while leaving behind a rich archive of urban imagination.

Turkish Perspective on the Changing Role of Planners

Turkish planning history closely mirrors global shifts in planning thought, yet it also follows a distinct trajectory influenced by political upheavals, state traditions, and the pivotal role of the Devlet Planlama Teşkilatı (DPT). In contrast to many Western contexts where the profession evolved from urban design and municipal administration, Turkish planners were closely associated with state-led modernization projects and later with political instability. They frequently embodied a dual identity as both bureaucrats and intellectuals, bearing the burden of national aspirations while navigating turbulent political environments.

The early Republican period defined planning as a central tool for modernization and building the nation identity. Planners were expected to rationalize space in line with ideals of order, hygiene, and social progress (Tekeli, 2011). At this stage, their professional identity was not yet institutionalized in dedicated schools of planning, which did not exist until the 1960s. Instead, the first generation of Turkish planners emerged from architecture, engineering, or economics backgrounds, often pursuing specialized training abroad in France, Germany, or later the United States. These planners entered state bureaucracies such as the Bayındırlık Bakanlığı (Ministry of Public Works), Belediyeler İmar Heyeti (Municipal Zoning Boards), and Şehircilik Fen Heyeti, where they acted as technocratic agents of state-led urban reform. Their work aligned closely with nationalist agendas, embedding spatial planning into the broader modernization project and framing it as a rational, top-down intervention rather than a participatory process (Tekeli, 2011; Aktüre, 1969).

The 1960s–1970s marked the institutional zenith of planning in Turkey. The establishment of the DPT in 1960 positioned planners at the core of national decision-making, elevating them from urban designers to macro-economic strategists who produced five-year development plans guiding state investment priorities. For the first time, a new generation of formally trained planners emerged, particularly through Middle East Technical University's (METU) City and Regional Planning Department (established in 1961) and later ITU's graduate programs. These "second-generation" planners acquired a stronger disciplinary identity, yet they still carried the imprint of political upheavals. Many had directly experienced the 1960 coup as students, an event that reinforced their commitment to public service but also instilled skepticism toward governments that neglected the public interest.

Planners of this period were deeply entangled in ideological struggles. As Batuman (2006) shows in his study of Ankara, architects and planners were not neutral experts; they became urban political actors. Through collaborations in the Chamber of Architects and institutions such as the İmar ve İskan Bakanlığı, they turned planning into an explicitly political field—*kentsel politika*—where the future of Turkish cities was contested between socialist, conservative, and technocratic visions. The DPT itself was often described as a "super-ministry," balancing technical rationality with political pressures and serving as a platform where many planners later launched political careers. While education abroad remained important, Turkish institutions such as METU, ITU, and the increasingly politicized Mimarlar Odası consolidated the profession's identity, functioning simultaneously as a guild and as a political actor.

The turbulence of the 1970s produced both expansion and fragmentation. On one hand, planners gained influence through managerialism and the bureaucratic enlargement of the DPT, supported by mechanisms like the Yüksek Planlama Kurulu (YPK), which institutionalized dialogue between politicians and technocrats. On the other hand, repeated political crises—the 1971 memorandum, unstable coalition governments, and economic breakdowns—meant that visionary plans were rarely implemented as designed. As Çıracı (1993) observed, planners were increasingly absorbed into sprawling state bureaucracies, reduced to "technicians" rather than independent professionals. Yet at the municipal level, planning intersected with the rise of "new municipalism," as gecekondu settlements once tolerated through patronage networks were reframed through socially oriented service provision and participatory experiments. Educationally, this era consolidated METU and ITU as key training hubs, while some planners also returned from foreign graduate programs in economics, geography, or urban design. Professional identity fractured: some remained bureaucratic technocrats aligned with the DPT, while others moved toward socially engaged reformism, producing tensions within the field (Çıracı, 1993; Batuman, 2006).

The 1980s–1990s marked a profound reorientation under neoliberal restructuring. The 1980 coup and subsequent Özal governments significantly weakened the institutional authority of planners, as political elites and private-sector actors gained primacy in shaping urban development. The era was characterized by mega-projects, liberalization, and the entrepreneurial city—particularly Istanbul's emergence as a "global city." Tezer (2014) emphasizes how globalization in Istanbul eroded planners' authority, reducing them to consultants for projects driven by political elites and international capital. At the same time, as Günal Kansu's memoirs reveal, many

planners themselves moved directly into political life, blurring the line between technocrat and politician. Education in this period expanded: while METU and ITU continued to produce graduates, OECD, EU, and Fulbright scholarships enabled a new cohort of planners to obtain advanced degrees abroad. Upon their return, many worked in international agencies such as the World Bank or UN, further globalizing the professional profile.

By the late 1980s, the planner's identity had splintered even further. Heritage conservation and urban design emerged as central domains, particularly as rapid transformation threatened cultural assets. Ahunbay (1996) highlighted the growing importance of heritage management in planning debates, even as regulatory planning lost ground to political and market pressures. Meanwhile, Ataöv (2007) reframed the planner as a social scientist who should adopt participatory and action-research roles, reflecting the influence of global discourses on governance and participation. The profession diversified: NGO professionals, academics with foreign PhDs, and independent consultants increasingly shaped the field, no longer confined to state bureaucracies.

From the 2000s onwards, contemporary urban planning exhibits both continuity and rupture. On the one hand, neoliberal urbanism and mega-projects, such as bridges, airports, and urban renewal schemes, have entrenched political dominance over planning, restricting professional autonomy. Conversely, new discourses on resilience, sustainability, and participatory governance have begun to reshape planning culture. Tekeli (2011) describes this as a "crisis of planning culture," highlighting the inadequacy of traditional state-led methods in addressing complex contemporary challenges. Planners now often assume the role of mediators rather than directors, navigating between state agendas, market forces, and civic actors while striving to balance ecological sustainability, heritage protection, and risk management. Ataöv (2007) further emphasizes this perspective, suggesting that planners should actively collaborate with communities to co-produce knowledge rather than imposing technical solutions. Ahunbay (1996) underscores the persistent conflict between urban transformation projects and the preservation of cultural memory.

In this fragmented contemporary era, the profile of the planner has become increasingly internationalized and hybrid. Many planners pursue graduate or doctoral studies abroad, returning to Turkey to work in academia, non-governmental organizations (NGOs), or consultancies rather than centralized bureaucracies. Disaster resilience and climate adaptation have emerged as dominant themes, particularly following devastating earthquakes and recurrent floods. Collaborative

governance, co-production, and social legitimacy have become key principles, echoing earlier participatory ideals while also representing a significant departure from the centralized authority that characterized the DPT era (Tekeli, 2006; Ataöv, 2007).

In essence, the Turkish planning trajectory demonstrates that planners have undergone significant transformations throughout history. Initially, they were state-embedded technocrats during the early Republic. Subsequently, they transitioned into ideological actors during the polarized 1960s and 1970s. Under neoliberal restructuring, they became sidelined bureaucrats. Finally, they have assumed the role of mediators in today's fragmented governance systems. These transformations parallel global trends but also reflect Turkey's unique combination of political instability, rapid urbanization, and contested visions of modernity.

Planners' educational and institutional pathways—starting with foreign education, followed by universities such as METU, ITU and now increasingly globalized—illustrate how their professional identities have evolved in tandem with these broader shifts. While planners are less central in formal state power, they remain essential as facilitators, negotiators, and interpreters of competing claims regarding Turkey's urban futures.

In summary, the Turkish planning trajectory not only encompasses shifts in institutional frameworks and planning paradigms but also reflects the evolving profiles of planners themselves. They have progressed from foreign-educated architects and engineers during the early Republican era to METU and ITÜ graduates of the 1960s and 1970s who became politicized technocrats. Subsequently, they transitioned into consultants, academics, and globally trained experts during the neoliberal and resilience-oriented periods. These evolving profiles have shaped how planners approach priorities such as modernization, social justice, entrepreneurship, heritage, and resilience, and have conditioned their ability/inability to implement these priorities effectively.

To contextualize the Turkish experience within the broader global trajectory, the two perspectives were juxtaposed (Table 1). While both contexts share broad phases—from modernist technocracy to participatory governance and subsequently neoliberal restructuring—Turkey's trajectory is characterized by distinctive institutional and political dynamics, particularly the prominence of the Devlet Planlama Teşkilatı (DPT), the influence of military interventions, and the late but decisive establishment of formal planning education. In contrast, the international trajectory was predominantly shaped by theoretical

debates and grassroots critiques of technocracy, whereas in Turkey, planners frequently assumed simultaneous roles as bureaucrats, intellectuals, and political actors embedded within state structures. The comparative table below elucidates these convergences and divergences, underscoring how Turkish planners simultaneously mirrored global shifts and responded to uniquely national circumstances.

Table 1. Timeline of the Changing Role of Planners in Turkey

Period / Phase	International Trajectory	Turkish Trajectory	Key References
1940s–1960s Modernist / Rational–Comprehensive Planning	Planning framed as rational, technocratic, state-led modernization. Strong belief in master plans, order, and technical control (Jacobs' critiques begin late in this period).	Early Republican era: Planning as state-led modernization; planners trained abroad (France, Germany, later US). First-generation planners (often architects/engineers) embedded in Bayındırlık Bakanlığı, Belediyeler İmar Heyeti; planning linked to nation-building.	Benevolo (1967); Jacobs (1961); Tekeli (2011); Aktüre (1969)
1960s–1970s Critiques of Technocracy & Participatory Turn	Rise of critiques (Jacobs, Davidoff, De Carlo, Banham) against technocracy. Shift toward advocacy planning, pluralism, and participatory models.	Establishment of DPT (1960) elevates planners to macro-economic strategists (five-year plans). Planners also actors in ideological conflicts (socialist vs. conservative). Chamber of Architects becomes site of urban politics (Batuman). METU (1961) introduces planning education; "second generation" planners emerge.	Davidoff (1965); De Carlo (1969/2005); Batuman (2006); Tekeli (2006); Pacchi (2018)
1970s Managerialism & Social Planning	Expansion of planning bureaucracy; managerialism; social policy integration; crises limit utopian visions.	Planners absorbed into expanding bureaucracy (Çıracı). Yüksek Planlama Kurulu institutionalizes dialogue between politicians & planners. "New municipalism" reframes gecekondu from patronage to community-based local governance. Professional identity splits between technocrats and reformists.	Çıracı (1990s); Batuman (2006); Kansu (2001)
1980s–1990s Entrepreneurialism & Neoliberal Urbanism	Shift to entrepreneurial city-making, global competition, mega-projects. Decline of technocratic planning authority; rise of private actors.	1980 coup + Özal era: DPT loses power, neoliberal reforms dominate. Istanbul positioned as "global city." Planners marginalized by political elites/private capital (Tezer). Many planners move into politics (ANAP) or consultancy (World Bank, UN).	Tezer (2014); Palermo & Ponzini (2014); Kansu (2001)
1990s–2000s Sustainability, Place-making, Heritage	Planning discourse widens to sustainability, place-making, and heritage. Participatory governance gains weight.	Declining centralized planning opens space for heritage and environment. Ahunbay emphasizes conservation; NGOs, universities, and consultancies gain visibility. Participatory approaches promoted (Ataöv). Planners' profiles diversify (academics, NGOs, consultants).	Ahunbay (1996); Ataöv (2007); Tekeli (2006, 2011)

2000s–Present Resilience & Adaptive Planning	Focus on resilience, adaptive governance, risk mitigation. Planners as mediators in complex governance networks.	Neoliberal mega-projects (3rd Bridge, Kanal İstanbul, etc.) dominate politics. Yet, discourses of sustainability, disaster resilience, heritage, and participatory governance also shape practice. Planners often globalized in education, acting as facilitators rather than regulators.	Moroni (2018); Tekeli (2011); Ataöv (2007); contemporary heritage/resilience studies

The aim of this research is to examine how these shifting paradigms are reflected in the work of planners within a specific urban context. Rize a provincial capital on Turkey's eastern Black Sea coast is selected as the case study. By mapping planner profiles, stated priorities, and planning outputs against the historical phases identified in the literature, the study reveals how global trajectories in planning thought are translated into local practice.

METHODOLOGY

This qualitative case study examines how shifting paradigms in planning theory and practice are reflected in the city of Rize. The research is interpretive rather than evaluative, aiming not to assess the "success" or "failure" of plans but to contextualize them within the evolving professional and intellectual environments outlined in the literature review. Each planning episode is treated as an expression of its historical context—influenced by prevailing ideologies, governance structures, and the educational and professional backgrounds of the planners.

The methodological framework draws directly on the phases and theoretical lenses synthesized in the introduction. By employing these phases as a conceptual framework, the research connects the evolution of planning ideas at the global and national levels to the tangible practice's observable in municipal plans and the biographies of their authors.

The analysis proceeds in three complementary steps:

Planner Profiles – The first group of analysis is the biographies of the planners that prepared Rize's master plans. Using archival records, professional registers, and secondary sources, the study documents their educational backgrounds, institutions of training, and professional trajectories. These profiles are essential to situating the plans within the broader historical development of the planning profession in Turkey—for instance, early reliance on foreign-trained architects in the 1940s, the dominance of MSGSÜ graduates in the 1960s, the emergence of METU-

trained planners in the 1980s, and the diversification toward younger universities in the 2000s.

Document Analysis – The second layer examines the plans themselves, including original reports, plan decisions, and design codes. A content analysis identifies recurring priorities (e.g., zoning, housing standards, infrastructure, heritage, resilience), guiding values, and the implicit role assigned to planners.

Contextual Interpretation – Finally, the content of these plans and the backgrounds of their authors are interpreted in relation to the phases identified in the literature. This comparative step allows for assessing convergence or divergence between local practice and dominant planning paradigms, both internationally and within Turkey.

By keeping the profiles and plan content analyses as separate but interlinked strands, the study demonstrates how planners' educational and institutional trajectories shaped their visions for Rize, and how those visions reflected, adapted, or resisted prevailing planning paradigms. This dual focus—on people and plans—provides a richer understanding of the evolution of the planner's role, while also illuminating the tensions between formal planning intentions and the socio-political realities in which they were embedded.

Case Study: Rize

The empirical focus of this study is Rize, a provincial capital located on Turkey's eastern Black Sea coast. With a provincial population of approximately 350,000 and roughly 150,000 residents in the city center (TÜİK, 2023), Rize serves as the administrative and economic center of the region. It comprises 12 districts and is characterized by a distinctive geography of steep mountains that descend directly into narrow coastal plains. Historically, the local economy has been predominantly driven by tea cultivation, forestry, and small-scale trade. However, recent decades have witnessed the challenges posed by coastal reclamation, highway construction, and urban transformation.

Rize presents a particularly valuable perspective for analyzing the evolving role of planners. Its planning history spans over seven decades, from the early Republican period to the present day, providing a comprehensive narrative of how global and national paradigms were interpreted and adapted within a provincial context. Each master plan prepared between 1946 and 2021 encapsulates the socio-political climate and professional norms of its respective era, while simultaneously highlighting the limited ability of planners to envision their visions being fully realized.

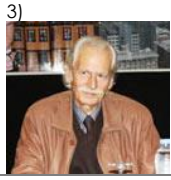
FINDINGS

The research presents findings structured around two complementary dimensions. Firstly, it analyzes the profiles of the planners who shaped Rize's successive master plans. These profiles include their educational backgrounds, professional trajectories, and institutional affiliations, all within the broader context of Turkish planning history. Secondly, the study examines the content of the plans, including their scales, projections, planning decisions, and visionary outputs. By tracing how shifting theoretical and institutional contexts were translated into spatial strategies, the research reveals the biographical and professional continuities of the planners. It demonstrates how their visions materialized or failed to materialize through concrete planning documents. Together, these two strands of analysis provide the empirical foundation for the subsequent discussion, linking Rize's planning history to the broader international and national trajectories outlined in the literature.

Planners Profiles

In the initial section of the findings, we explore the profiles of planners responsible for the urban planning of Rize. The city underwent five major urban plans and revisions, spanning from 1946 to 2021. Each of these plans was commissioned by a distinct planner or planning team. The table below presents a comprehensive overview of these planners' names, educational backgrounds, and professional activities. This information sheds light on how generational shifts in education and practice influenced their approaches to urban planning (Table 2).

Table 2. Profiles of Planners of Rize's Master Plans (1946–2021)

Plan No	Planner(s)	Graduation School	Graduation Year	Other Works
1 (First Plan) 1946	Nezihe Taner (URL-1) 	Berlin Technical University, Architecture	1944	Plans for Tavşanlı, Mardin, Kırıkkale, Karabük
	Pertev Taner	MSGSÜ (DGSA), Architecture	1943	Translator, photography, books on door knockers
2 (Second Plan) 1969 (rev. 1971)	Fahri Yetman (URL – 2) 	MSGSÜ (DGSA), Architecture	1949	Kağıthane, Konya (competition – 1st mention), İzmit (competition – 2nd mention)
2nd Rev. Plan 1989	Ergün Subaşı (URL-3) 	METU, City & Regional Planning	1961	Düzce Akçakoca Mosque (1989), Bandırma Coastal Project (2nd prize), Iller Bankası Planning Department; publications & consultancy
3rd Rev. Plan 2021	Adem Yerlikaya (URL-4) 	Erciyes University, City & Regional Planning	2003* (Year Registered to Chamber of Urban Planners)	Urban transformation projects, municipal planning roles

The notes accompanying each profile reveal how personal interests, academic backgrounds, and professional networks influenced the planners' visions for Rize. For instance, the Taners' early training in architecture abroad and their cultural pursuits such as photography and translation suggest a modernist, state-oriented outlook rooted in national architecture. Fahri Yetman, also an architect, combined professional practice with artistic interests, reflecting a generation where architectural culture and planning were deeply intertwined Figure 1).

Ergün Subaşı's education at METU and his later involvement in professional associations and planning consultancies signal the rise of the technocratic planner embedded in both bureaucracy and academic debate. Finally, the most recent plan by UTEM Planning, represented by Adem Yerlikaya, reflects a new generation trained in regional universities, shaped by contemporary discourses of resilience and sustainability.

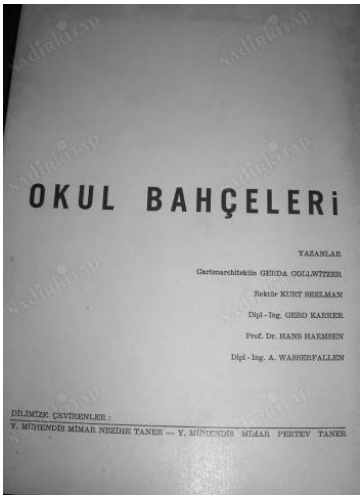




Figure 1. Book covers reflecting the extracurricular contributions of planners across different phases: (Okul bahçeleri by the 1st-phase planners Taner's (URL-5) and Kent yenilenmesinde kriterler by a 3rd-phase planner Ergun Subaşı (URL-6)).

Evaluation of Planner Profiles (First Group of Findings):

Generational shift:

- First generation (1940s–1950s): architect-planners trained abroad or in early Turkish architecture schools; emphasized modernization, hygiene, and order.
- Second generation (1960s–1980s): METU-trained professionals and contemporaries, positioned within state institutions (DPT, İller Bankası); combined macro-strategic planning with urban design ambitions.
- Recent generation (2000s–present): graduates of regional universities, shaped by global discourses of resilience, ecology, and disaster risk management.

Educational Backgrounds:

- Early absence of dedicated planning schools pushed planners toward architecture and engineering faculties or foreign universities.
- Later decades consolidated METU and ITU as key training hubs, embedding planning as a discipline.
- Contemporary planners reflect internationalized and diversified academic backgrounds, often with exposure to global policy frameworks.

Professional orientation:

- Early planners acted as state technocrats implementing centralized visions.
- Mid-century figures combined technical expertise with visible political engagement, often via the Chamber of Architects or DPT.
- Recent planners increasingly act as mediators, producing plans aligned with sustainability and resilience but facing limits in implementation.
- Taken together, these profiles show how the educational and professional backgrounds of Rize's planners mirrored the broader transformations in Turkish planning history, setting the stage for the second group of findings, which turns from the planners themselves to the plans and decisions they produced.

Evaluation of Urban Plans In this second group of findings, the analysis shifts from the personal and educational trajectories of planners to the concrete documents they produced. Between 1946 and 2021, Rize was shaped—or intended to be shaped—by a sequence of six major planning episodes, each carrying distinctive assumptions about urban growth, spatial organization, and the role of the planner. These plans include the 1946 Taner Plan, the 1969 and 1971 Yetman Plans, the 1974 and 1981 revisions, the 1987 Subaşı Plan, and the 2021 UTEM Planning revision (Figure 2).

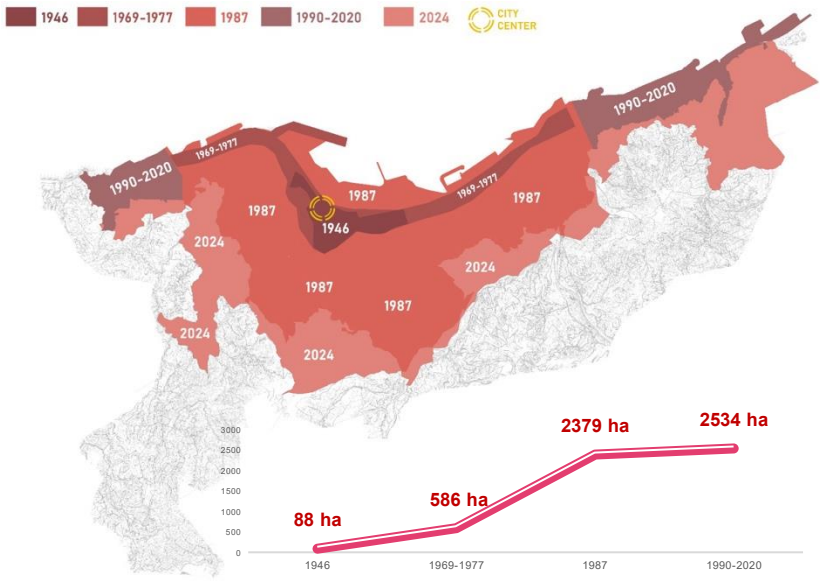


Figure 2. Coverage area changes of the plans over the years (Generated by Onur Öztürk, 2025)

Over the span of nearly eight decades, Rize has been shaped by a sequence of at least seven statutory plans and revisions prepared between 1946 and 2024. These plans demonstrate a steady increase in both the population projections and the spatial coverage of the planning area. The first plan in 1946 addressed a town of roughly 15,000 inhabitants within 88 hectares, while the most recent 2021 plan projected a population of 140,000 across more than 2,500 hectares. On average, a new comprehensive plan or revision has been prepared roughly once every decade, reflecting both the dynamic pressures of urban growth and the evolving planning paradigms. Table 3 below represents the main features of these plans, providing a technical

baseline for the subsequent discussion of their implementation and visionary outputs.

Table 3. Summary of Plans Made for Rize

Plan (Author)	Approval Year	Scales Used	Projection Year	Planned Area	Prep. Duration
First Master Plan – "Taner Plan" (Nezihe & Pertev Taner)	1946	UİP 1/2000; urban design 1/500	— (designed for ~15,000)	~88 ha	~1 mo.
Second Master Plan (Y. Mimar Fahri Yetman)	1969	NİP (—); UİP	1985 (~45–50k)	~536 ha	—
Reclamation Revision Plan ("Sahil Bandı") (F. Yetman)	1971	Revision of 1969	1985 (~45k)	205 ha res.; 17.7 ha trade	—
Third Master Plan (F. Yetman)	1974 (77)	—	1990 (proj. 34–53k)	Expanded coastal/ Valleyareas	—
Revision Plan (F. Yetman)	1981	NİP/UİP revision	—	—	—
Fourth Master Plan (Ergün Subaşı)	1987 (rev.1989)	—	2005 (~105k)	2,379 ha	2 yrs
Comprehensive Revision (UTEM Planning)	2021	NİP 1/5000; UİP 1/1000	2035 (140k)	2,534 ha	3 yrs
İlave/Extension Plan	2024–26 (ongoing)	NİP 1/5000; UİP 1/1000	—	~1,860 ha	Ongoing

Taken together, the tabulated information illustrates how each new planning effort responded to shifting demographic pressures, urban growth dynamics, and broader socio-economic conditions. As both the **scale of planning areas expanded** and the **population forecasts rose**, planners introduced increasingly complex land-use frameworks, urban design proposals, and infrastructure provisions. Yet, the recurrence of revisions also indicates persistent implementation challenges, particularly in accommodating coastal expansion, regulating densities, and aligning planning visions with local realities. In the following section, each plan is examined in greater detail, with attention to its planning decisions, visionary components, and the degree to which its proposals were realized in practice.

Evaluation of Plan Documents (Second Group of Findings):

First Plan: 1946 Plan (Nezihe & Pertev Taner)

- Prepared for a target population of 15,000, consolidating dispersed settlement into an 88-hectare compact urban core.
- Included detailed 1/500 urban design drawings and proposed standardized housing types (A, B, C) tailored to slope and climate conditions (Figure 3a).
- Designated facilities such as a stadium, hospital, and administrative centers—several of which were later implemented (Figure 3b).
- The model neighborhood of detached garden houses was not realized, reflecting the gap between vision and implementation.

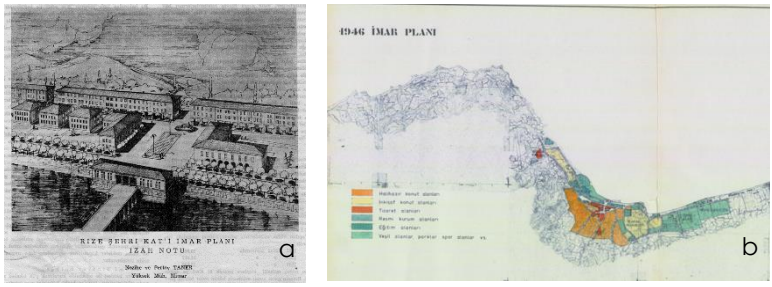


Figure 3. First Master Plan – "Taner Plan" (Nezihe & Pertev Taner, 1946). (a) Perspective drawing of the city center; (b) Urban development plan (1946).

Second Plan: 1969 Plan (Fahri Yetman)

- Based on the 1963 base map, with a 20-year horizon projecting a population of 50,000.
- Directed linear growth along a 12 km coastal strip, supported by new road and port infrastructure.
- Organized land use into seven functional groups, emphasizing balance between housing, trade, industry, and public institutions (Figure 4).
- Limited encroachment into agricultural lands, particularly tea cultivation areas.

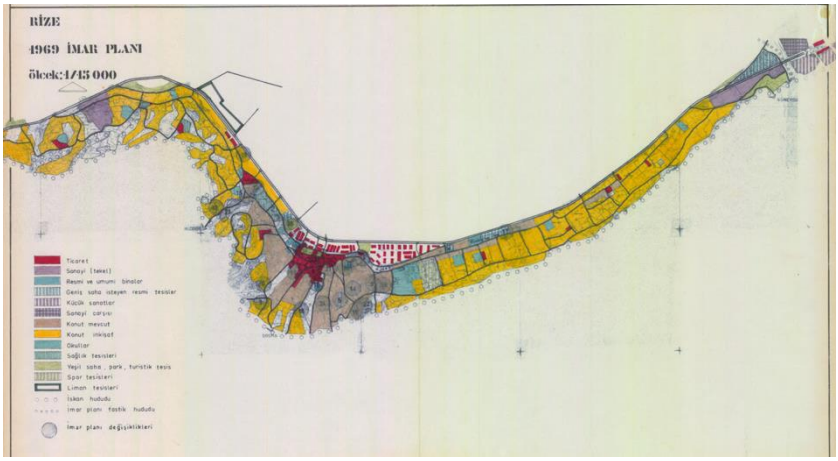


Figure 4. Second Master Plan (Fahri Yetman, 1969). 1:13,000 scale urban development plan.

Third Plan: 1971 Revision (Yetman)

- Focused on newly reclaimed coastal areas, modifying land-use allocations to maximize benefit from infill zones.
- Reduced housing area while expanding commercial functions, reflecting increasing urban pressure on the waterfront (Figure 5).
- Between 1971–73, multiple amendments were approved, indicating strong demand for central and coastal land.

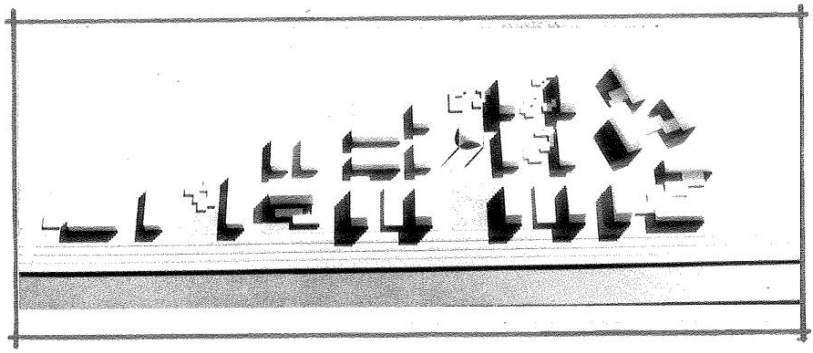


Figure 5. Reclamation Revision Plan – "Sahil Bandı" (Fahri Yetman, 1971). Physical model study of the landfill project in Rize (104,500 m² / 10 ha).

Fourth Plan: 1974-77 Plan (Yetman)

- Extended projections to 1990, with demographic scenarios ranging between 34,000–53,000 residents.
- Linked population growth directly to the expansion and limits of tea agriculture (Figure 6).
- Emphasized density regulation, distribution of social services, and introduction of small industrial sites.
- Represented a more analytical approach, integrating economic and demographic trends into spatial design.

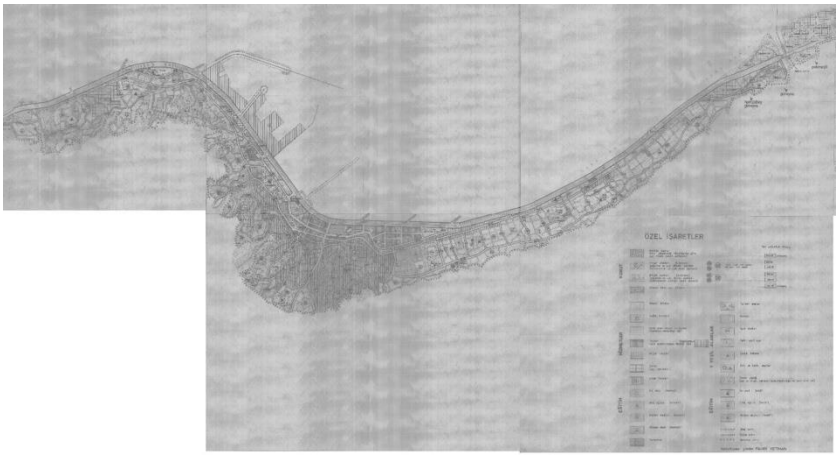


Figure 6. Third Master Plan (Fahri Yetman, 1977). Urban development plan, excerpted from *Rize imar planı raporu* (İller Bankası, Rize Municipality Archives).

Fifth Plan: 1981 Revision (Yetman)

- Addressed rapid densification in coastal areas.
- Increased floor area ratios and building heights are increased in newly reclaimed zones.
- Reflected pressures from speculative development and the state's willingness to accommodate demand through regulatory adjustments.
- The plan also considers urban-rural relations and the contextual relationship of different groups (Figure 7).

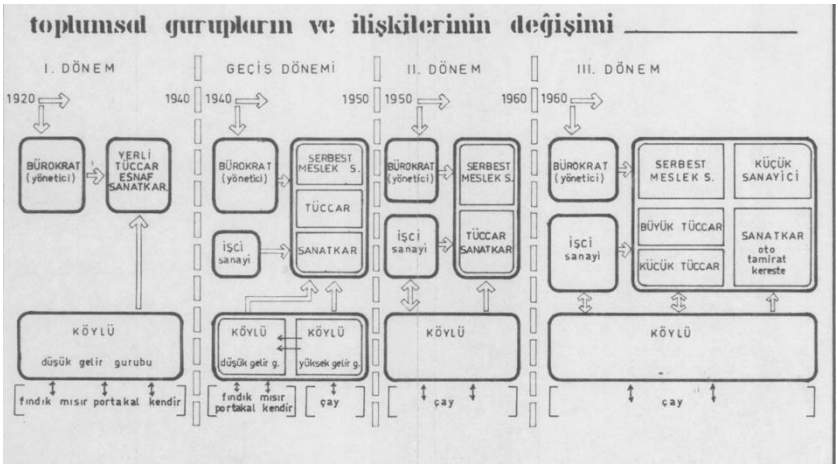
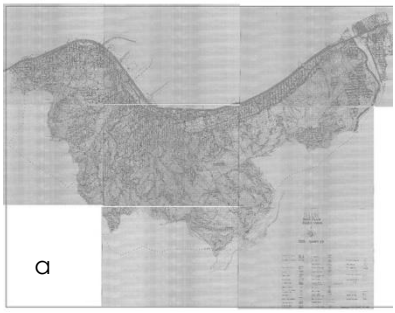


Figure 7. Revision Plan (Fahri Yetman, 1987). (Matrix of social groups and relations, from *Rize (Merkez) imar planı izah raporu* (Ministry of Public Works and Settlement, Planning and Zoning Directorate, Rize Municipality Archives).

Sixth Plan: 1987 Plan (Ergün Subaşı, revised 1989)

- Projected population of ~105,000 for 2005 and expanded the planning area to 2,379 hectares (Figure 8a).
- Proposed a prestige boulevard (Pazar Caddesi) as a new urban axis to redefine identity.
- Introduced new housing typologies alongside cultural, recreational, and transport facilities.
- For the first time a comprehensive land-use chart is included in the report (Figure 8b).



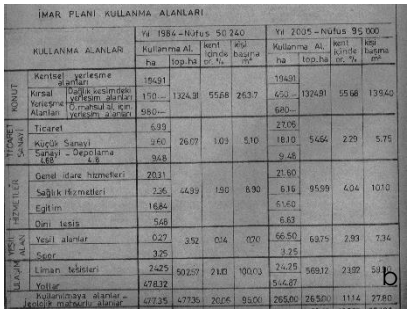


Figure 8. Fourth Master Plan (Ergün Subaşı, 1987).
(a) Urban development plan; (b) Land-use chart, both excerpted from Rize (Merkez) imar planı izah raporu (İller Bankası, Rize Municipality Archives).

- Integrated Atmeydanı neighborhood into the city, reflecting an effort to spatially consolidate urban growth.
- The 1989 revision further increased permitted building heights, showing continued adaptation to development pressures.

Seventh Plan: 2021 Plan (UTEM Planning)

- Prepared for a 2035 projection of ~140,000 residents within 2,534 hectares.

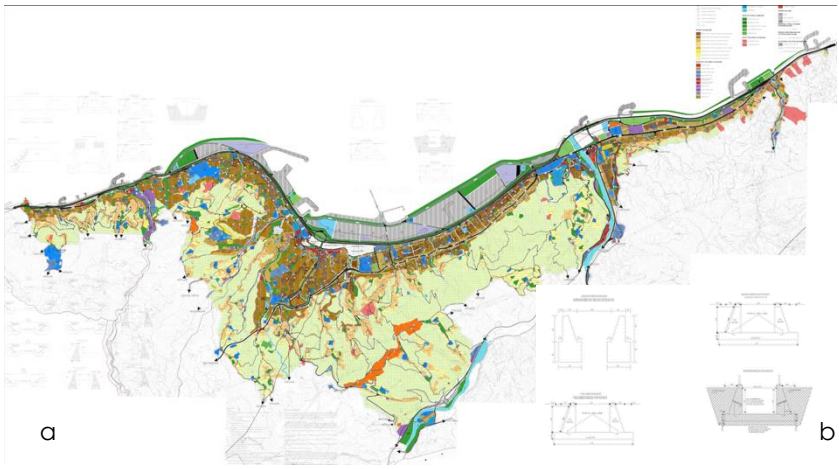


Figure 9. Comprehensive Revision Plan (UTEM Planning, late 20th c.). (a) Urban development plan; (b) DSİ irrigation channel section drawing, part of flood-prevention system.

- Incorporated ecological and disaster-resilience measures: urban growth boundaries, differentiated building heights, floodplain setbacks, and silhouette preservation (Figure 9).
- Integrated river cross-section data from DSİ into the zoning framework, showing a stronger environmental orientation.
- Aligned with global planning discourses on sustainability and resilience, though implementation remains uncertain.

Eight Plan: 2024 Extension Plan (ongoing)

- Expands planning coverage to 1,860 hectares, integrating previously unplanned municipal areas.
- Focuses on extending natural gas, infrastructure, and utilities to fringe settlements.

- Work is still underway, representing the most recent effort to integrate peripheral areas into the city's planning framework.

DISCUSSION

The findings from Rize's planning history can now be situated within the broader trajectories of planning thought discussed in the literature. By juxtaposing planner profiles, planning documents, and their implementation against both international paradigms and Turkish-specific shifts, it becomes possible to assess the extent to which Rize's case fits or diverges from dominant models. Table 4 below synthesizes this comparison.

Table 4. Comparison of Rize's urban plans with international and Turkish planning paradigms.

Era	Expected Role	Planners in Rize	Plans / Documents	Fit or Divergence
1940s–1960s Modernist technocracy	State-embedded technocrat; modernist rationalism; foreign-educated	Nezihe & Pertev Taner – both architects, Berlin & MSGSÜ graduates; hybrid professionals (architecture + translations, photography)	1946 Plan: compact core, A/B/C housing types, standardized facilities	Fits the technocratic role, but divergence in weak implementation of visionary housing
1960s–1970s Institutionalization & politicization	Macro-strategist, urban political actor; METU/İTÜ trained	Fahri Yetman – MSGSÜ architect, Oda activist, photo-writer; not formally planning-trained but close to era's intellectual activism	1969, 1971, 1974, 1981 Plans: linear growth, reclaimed coast, socio-economic projections	Visionary, aligned with DPT-era rationalism, but still architecture-led rather than formally "planner" profiles
1980s–1990s Neoliberal restructuring	Planner sidelined; consultant/ activist; some shift to heritage, NGOs	Ergün Subaşı – METU-trained planner, state bureaucrat (İller Bankası), later critic of projects; wrote in *Mimarlık*	1987/1989 Plan: prestige boulevard, monumental design, cultural facilities	Embodied prestige/monumental vision more than global neoliberal pragmatism; fits technocrat more than facilitator
2000s–Present Resilience, sustainability, participation	Mediator between state, market, civic actors; resilience advocate	Adem Yerlikaya – Erciyes Univ. trained planner, younger generation, ecological planning orientation	2021 Plan: growth boundary, floodplain setbacks, DSİ data; 2024 Extension: fringe inclusion, infrastructure	Aligns with resilience and global discourses, although its implementation remains uncertain.

Rize's planning illustrates the diffusion of international and national paradigms into a local context and the evolving figure of the urban planner. From Taners' modernist vision to Yetman's politicized activism, Subaşı's monumentality, and Yerlikaya's resilience-oriented practice, the planner shifted from team leader to team player or mediator, negotiating between state, market, and community demands. This evolution encapsulates Turkey's planning profession: once identified with national modernization, it's now an actor among many in fragmented governance systems.

CONCLUSION

This study aimed to explore how shifting planning paradigms manifest in the work of planners, specifically through the case of Rize, a city whose development has been guided by successive master plans since 1946. By combining planner profile analysis with document-based content analysis, the research shed light on the evolving roles, constraints, and aspirations of Turkish planners within broader intellectual currents.

At the international level, the findings align with criticisms of the rational-comprehensive model proposed by Jacobs (1961), Davidoff (1965), De Carlo (1969), and Banham (1976). These critiques exposed the limitations of technocratic control and highlighted the complexity, plurality, and unpredictability inherent in urban life. The Rize plans effectively exemplify this tension: while initial visions sought to establish order, hygiene, and national progress through compact forms and standardized housing, implementation challenges and delayed realizations underscored the vulnerability of technocratic authority. Subsequent plans incorporated ecological resilience, risk management, and silhouette preservation, reflecting global discourses on sustainability. However, these plans also remain susceptible to institutional and political obstacles.

In the Turkish context, the study corroborates the distinct trajectory identified by Tekeli (2006, 2011), wherein planners were deeply integrated into state-led modernization projects before gradually assuming a role as mediators in fragmented governance structures. Aktüre's (1969) work on the institutional embedding of planning, Çıracı's (1993) reflections on bureaucratic expansion, and Batuman's (2006) analysis of architects and planners as urban political actors in 1960s Ankara provide a contextual framework for the findings. Rize's planners consistently operated at the intersection of politics and technical expertise. Tezer's (2014) observation of planners' diminishing authority in neoliberal Istanbul is also reflected in the marginalization of planning priorities in Rize after the 1980s, when political elites and private-sector actors increasingly drove urban development. Concurrently, Ataöv's

(2007) advocacy for participatory, action-oriented planning and Ahunbay's (1996) emphasis on heritage preservation are evident in the most recent plans, which harmoniously integrate risk management, ecological sensitivity, and conservation with the pressures of growth. Kansu's (2004) memoirs further highlight the perception of many planners during the "developmentalist" era as not merely technicians but also national policymakers, a role that gradually diminished with neoliberal restructuring.

This synthesis presents a narrative that encompasses both continuity and rupture. Over nearly eight decades, Rize's planners consistently envisioned ambitious projects from model housing developments in 1946 to prestigious boulevards in 1987 and resilience-oriented boundaries in 2021. However, their authority to implement these visions has rarely corresponded with their responsibility to articulate them clearly. This persistent implementation gap is echoed in broader critiques from both international and Turkish scholarship: plans often serve less as enforceable blueprints and more as intellectual constructs that encapsulate the contested priorities of their respective eras.

Consequently, the role of the planner cannot be confined to the domains of technocrats or bureaucrats alone. In Turkey, as in global discourse, planners emerge as multifaceted cultural and political actors: visionary leaders, mediators, and occasionally activists engaged in negotiations between state agendas, market forces, and civic aspirations. Their educational trajectories, from foreign-trained architects during the early Republican era to METU and ITÜ graduates of the developmentalist era, to globally networked professionals of the contemporary era—further elucidates the profession's evolution in sync with shifting paradigms.

In essence, the Rize case illustrates how global theoretical currents, and domestic institutional dynamics intersect to define the role of the planner. It underscores the importance of interpreting plans not only as technical instruments but also as historical records of imagination, ideology, and constraints. By situating local planning episodes within both international critiques of technocracy and Turkish debates on modernization, bureaucracy, neoliberalism, and resilience, the study contributes to a more nuanced understanding of how planners' roles and priorities evolve—and how these changes, in turn, leave enduring yet partial imprints on the urban fabric.

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DESIGNING WITH URBAN NATURE: LONDON AND MUNICH CASES

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ABSTRACT

Our world is experiencing an era of transformation defined as the Anthropocene, characterized by dramatic environmental changes caused by rapid urban expansion, population growth, and industrialization (Bors, 2017). One of the drastic consequences of rapidly growing cities is the destruction of ecosystems and the displacement of non-human species. So, in the last decades, urban biodiversity has been rapidly declining, and the boundaries between human and nonhuman realms are increasingly blurred. Because of that, it is essential to rethink how cities are designed and what the priorities of urban design are.

As a response to environmental issues caused by factors such as current urban development, an urban design approach called "coexistence" has emerged to protect and develop urban ecology. Cohabitation can be defined as an urban concept that describes the environment, including different plant and animal species living together in and around human settlements. According to the concept of cohabitation, cities are ecosystems with all the different species living in and around the city. According to that, urban areas should cater to human needs and the diverse species that share these spaces, including animals, plants, and microorganisms.

This paper aims to reposition urban design as a discipline capable of creating inclusive urban environments for humans and non-human species living in urban environments by questioning anthropocentric planning paradigms. Spatial examples in London and Munich, designed with a species-inclusive understanding, show how biodiversity can be supported at different scales in urban spaces. This paper compares these two case studies and discusses them in relation to the theory of cohabitation and urban ecology.

Keywords: Urban Biodiversity, Cohabitation, Animal Aided Design (AAD), Urban Ecology

INTRODUCTION

The contemporary era is commonly referred to as the Anthropocene, which is a period characterized by the negative and widespread impacts that humans have on ecosystems, climate, and biodiversity (Bors, 2017). Rapid urbanization and population growth have adverse effects on the natural environment and infrastructure, accelerating the loss of biological diversity and the fragmentation of natural habitats (Elmqvist et al., 2021). While cities promote economic and cultural development, their expansion in recent years often displaces non-human species. Therefore, ecosystem services such as pollination, seed dispersal, and pest control are being weakened due to imbalances in the ecosystem (Sekercioglu et al., 2016).

The combined effects of urban changes demonstrate the urgent need for sustainable urban planning and environmental management to reduce the risks posed by human impact on the natural environment (Elmqvist et al., 2021). Given these challenges, urban priorities should be reassessed in line with biodiversity conservation, ecological resilience, and species-inclusive urban Development. Urban design, therefore, plays a critical role in redefining urban priorities for a sustainable future for our cities. If cities are viewed as ecosystems and redesigned with inclusive and ecological approaches, they can become more resilient and equitable shared living spaces for humanity's coexistence with non-human life.

Despite such conditions affecting ecological systems, green spaces in cities hold significant potential for ecological sustainability. Urban green transformation and the preservation of existing green areas are among the most important indicators of cities' ecological improvement and restructuring processes. Recently, views arguing that cities should be defined and planned not only as living spaces for humans but also for other species have increasingly gained ground in ecology, architecture, landscape, and urban planning (Beatley, 2017). This approach is referred to as "cohabitation" and viewing cities not only as places that meet human needs, but also as resilient and inclusive ecosystems where different species can live together.

This study investigates, within a conceptual framework, the design and planning approaches that facilitate coexistence between humans and non-human species in urban environments. Grounded in a theoretical foundation, the framework critically examines existing literature, along with successful practical examples, to identify the principles necessary for cities to function as inclusive and resilient ecosystems. This study aims to investigate the current development of comprehensive urban design strategies that integrate ecological and ethical considerations, particularly in the context of rapidly transforming urban landscapes

during the Anthropocene era. Consequently, this paper conceptualizes urban coexistence as a transformative paradigm for future cities and positions this understanding as a guiding principle for sustainable and biodiversity-friendly urban development.

Urban areas should be rethought not only as a human-centered system but also as a multi-layered ecosystem where humans and non-human species can cohabit. In this context, the research proposes that cohabitation strategies promote ecological coexistence, thereby fostering the development of urban ecosystems and enabling a more inclusive and sustainable urban future. To support this proposal, the study will review the literature, analyse the theoretical framework, and examine existing spatial strategies to facilitate a discussion on the concept of cohabitation.

In this regard, the research question is as follows:

How does the cohabitation approach in urban design, as observed in examples such as London and Munich, contribute to the sustainable coexistence of humans and non-human species in cities?

THEORETICAL FRAMEWORK

The term Anthropocene refers to the idea that human activities have had a profound impact on Earth's systems at a geological scale. The rapid urbanization process following the Industrial Revolution has significantly altered land use, species distribution, and ecosystem cycles. The literature indicates that urbanization leads to habitat fragmentation, which in turn compromises the functional integrity of ecosystems and accelerates biodiversity loss (Elmqvist et al., 2021). These changes in natural environments may endanger the long-term sustainability of urban systems.

Rapid urbanization can harm natural habitats within and around cities, leading to a significant decline in urban biodiversity. As cities grow into nature all over the world, green spaces that are habitats for many species are degraded, leading to the fragmentation of ecosystems and reduced biodiversity. So, urban sprawl directly affects the landscapes, resulting in changes to land use from the natural environment to build settlements and the displacement of wildlife, which is the destructive result of urban sprawl on nature (Li, G., Fang, et al., 2022) On the other hand, urban green spaces (parks, community gardens, and backyards) are crucial in cities as they improve air quality, reduce noise pollution, and provide cooling effects that help combat climate change.

Urban green spaces also play a crucial role in maintaining urban biodiversity, as many pollinators and synanthropic animals have only urban green spaces and wetlands to inhabit in and around the cities. Well-designed and sufficient urban green spaces provide natural resources that improve the health of both people and wildlife (Kabisch et al., 2015). Cities define a system with its green areas, water resources, buildings, and infrastructures, and many different species living within it, and this system is in relationship with other systems around it.

Although the term 'ecosystem' is often perceived as a more distant concept from humanity, such as forest ecosystems or marine ecosystems, in fact, urban environments are also ecosystems, with many different living species in and around, including humans, animals, and plants. In these ecosystems, like other living beings, humans rely on different species for survival, and this mutual relationship should be considered when designing living spaces (Orff, 2016). This understanding presents a transformative change in urban design discourse by changing the focus of design from humans to nature.

The concept of coexistence is a relatively new and important part of the ecological design discussions, which extends beyond human-centered planning paradigms to recognize the presence and needs of multiple species in urban spaces (Houston et al., 2018; Tsing, 2015). According to this understanding, cities should be designed with a "more-than-human" perspective, and ecological, ethical, and social elements are integral dimensions of this understanding. (Wolch, West, and Gaines, 1995). The concept of "biophilic cities," developed by Beatley (2017), forms the fundamental theoretical basis of the more-than-human approach and argues that cities can enhance both ecosystem health and human well-being by establishing strong relationships with natural elements.

The ecological design aims to redesign the urban space and its surroundings as a system that supports ecosystem services in different and diverse ways and provides healthy habitats for synanthropic animals, plants, and other living species living in the urban environment (Van Dooren, Kirksey & Münster, 2016). Prominent spatial strategies of the cohabitation approach include green infrastructure systems, habitat corridors, and the design of micro-living areas. Furthermore, methods such as "animal-aided design" aim to contribute to urban biodiversity by designing spaces that facilitate the integration of specific species into the urban ecosystem (Hauck & Weisser, 2015).

In the literature on urban ecology and sustainable urban design, coexistence is a term that defines the space shared comfortably by human and non-human species (Avolio, 2021). In this context, species

coexistence in cities depends on spatial inclusiveness, continuity of ecosystem services, and mutual harmony of living species in this place. Cohabitation, more specifically, refers to an approach in urban design that emphasizes the integration of target species' ecological needs into concrete spatial strategies and planning processes (Apfelbeck et al., 2019). Thus, while cohabitation addresses the coexistence of human and non-human species within urban ecosystems from a practical design perspective, coexistence provides a broader theoretical and ecological context.

In fact, cohabitation uses urban design and architecture to create harmonious spaces with nature for creating ecologically and socially sustainable urban environments. Therefore, urban theory is evolving beyond human-centered goals to encompass the ecological transformation of urban areas. Drawing on the existing literature, cohabitation seeks to provide a framework of urban design strategies for the sustainable development of future cities by examining cohabitation (Beatley,2017) and animal-aided design (Weisser & Hauck, 2017) spatial implementation examples from London and Munich.

Theoretical discussions point out that the cohabitation approach is not limited to conceptual discourse but also generates concrete spatial strategies and design tools. Urban planning approaches that consider the needs of non-human species, such as the creation of habitat corridors in urban areas and green infrastructure designs that provide opportunities for multi-species existence, are some of the theoretical focuses that stand out in the literature (Beatley, 2017). Moreover, these theoretical discussions have started to find spatial implementation opportunities in recent years.

The Animal Aided Design is an approach that serves as a new methodology for creating species-inclusive urban environments with its species-inclusive spatial implementation examples. In this understanding, target species are analysed in every single project area specifically, and spatial necessities for target species are defined. Birds, bats, insects, or mammals could be among the target species, depending on the project area. Following that, spatial interventions were implemented to create inclusive and sustainable urban environments (Weisser & Hauck, 2015). In this approach, humans and non-human species are integral part of the whole design process of the project.

This paper explores the potential for urban design to respond to the environmental crises of the Anthropocene by creating species-inclusive spaces that prioritize the coexistence of multiple species, offering a new

perspective on how urban spaces can be made more inclusive and sustainable. It discusses the cohabitation of indicator species, such as birds and insects, to highlight the importance of this approach. Birds and insects are crucial ecosystem service providers, playing important roles in seed dispersal, pest control, and pollination. (Sekercioglu et al., 2016) Pollinator-inclusive environments are also inclusive for many synanthropic animals in many cases.

In this context, the examples of London and Munich discussed in this study demonstrate the applicability of cohabitation and Animal-Aided Design methods as practical counterparts to the concept of coexistence. If we design our cities around ecological coexistence, that is, urban priorities that support the health and well-being of all living organisms living in and around the city, cities can become flourishing environments for biodiversity conservation and climate adaptation, rather than the cause of environmental destruction.

METHODOLOGY

This study uses a qualitative method that combines a literature review and comparative case study analysis to examine design strategies that enable humans and non-human species to cohabit in urban environments. The literature review focused on academic publications and project documents related to cohabitation and other related design approaches, aiming to articulate the conceptual framework and implementation practices. Accordingly, the systematically reviewed strategies are presented, and common themes were identified.

Subsequently, this study examines case studies selected from London and Munich, comparing and evaluating spatial and conceptual design examples that support the coexistence of diverse species. This research brings together the theoretical foundations of the concepts of cohabitation and interspecies design with their concrete reflections in practice, helping to understand a wide variety of perspectives on life in urban design and planning. Thus, the relationship between theory and practice is analysed; consequently, this method contributes to understanding space from a multispecies perspective in urban design and planning and provides theoretical foundations for the practical applications of the cohabitation and urban biodiversity paradigm.

CASE STUDIES

Understanding the theoretical foundations of protecting urban biodiversity and transforming them into spatial practical scenarios contributes to the development of ecological design understanding. Spatial interventions demonstrate that the coexistence approach,

which provides a compelling theoretical framework for urban biodiversity and ecological conservation, can be effectively implemented in cities through practical design and planning applications. There are some notable implemented examples in Europe, two of which are the B-line Project in London and the Brantstraße Housing Project in Munich.

London and Munich stand out as two important examples because each is developing environmentally friendly design practices at different scales and through different strategies. Meanwhile, Munich serves us a successful example of cohabitation by adopting the Animal-Aided Design (Weisser & Hauck, 2015) model, which integrates the life cycle necessities of specific species into the design process. London stands out with its ecological corridors and pollinator-focused biodiversity strategy. Comparison of two examples of cohabitation is important for providing insight into how cohabitation, that is, the coexistence of species, can be applied in various contexts.

London: The B-Lines Project

The London example is one of the creative and innovative models developed to confront the loss of biodiversity in one of Europe's most densely populated cities. Studies have shown that rapid construction activities in cities and the resulting fragmentation of green spaces have led to a significant decline in pollinator species, particularly bees and butterflies (Baldock et al., 2015). This situation has been seen as a significant problem in terms of urban sustainability, as the ecosystem services provided by pollinators, such as pollination, food security, and the sustainability of urban ecosystems, are of great importance (Sekercioglu et al., 2016).

In this project, the "B-Lines" initiative, in partnership with the London Wildlife Trust and Buglife, aims to create ecological corridors in parks, gardens, and roadside areas across the city, providing a continuous pathway for pollinators within the urban environment. This method reconnects fragmented habitats, forming a network that allows pollinators to move safely within the city while preserving urban biodiversity (Buglife, 2023). This project, which created pollinator corridors in London, has not only provided ecological benefits but has also had significant impacts on urban planning and community engagement.

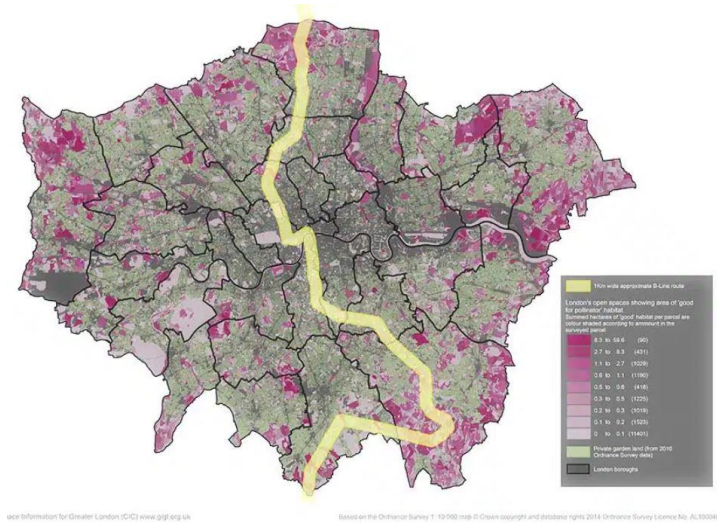


Figure 1. Pollinator-friendly Corridor in London. *From "London's New B-Line," by M. Williams, 2023.*

Although the B-Lines project aims to establish a network of pollinator corridors across England, the first step involved selecting London as the pilot area, as this city, where urban habitat fragmentation is most intense, is critical for pollinator conservation and ensuring ecological connectivity (Buglife, 2021). The "B-Lines (insect superhighways)" project primarily aims to create interconnected habitat corridors throughout the country, providing pollinators with uninterrupted migration and feeding routes (Buglife, 2021). The project helped to increase the number of insect pollinators, which are important for ecosystem services, also helping to protect other wildlife around the city (Buglife, 2023).

B-Lines enhances the ecological integration of fragmented urban areas while also fostering cooperation among local governments, communities, and the private sector, as well as promoting urban ecological awareness. Urbanites also have a chance to be part of these transformative processes; this organisation serves people a guideline and supplies wildflower seed mixes to support the native flora of the region (Buglife, 2023). This example demonstrates that urban-scale habitat conservation strategies have not only environmental but also governance and social dimensions (Hall et al., 2017).

According to literature, involving residents in the project through voluntary gardening activities, rooftop gardens, and school gardens has strengthened the interaction between nature and city dwellers

(Zimmermann et al., 2020). Also, a Study shows that green spaces of different scales within the city (such as small parks and community gardens) are crucial for ensuring the continuity of pollinator habitats (Goddard et al., 2010). In parallel with academic literature, the London practice supports the fact that cohabitation is not only a spatial design aspect for ecology but is also an accelerator for social participation and environmental awareness.



Figure 2. Participatory Processes of the B-line Project. From "B-Lines," Buglife, 2025. https://www.buglife.org.uk/our-work/b-lines/

In short, the B-Lines Project in London demonstrates how urban design can strategically support the cohabitation of humans and non-human species. By connecting green spaces and creating habitat corridors, the project supports pollinator mobility, increases biodiversity, and strengthens urban ecosystem resilience. This cohabitation-based approach shows that careful spatial planning can mitigate the negative effects of urban sprawl and promote sustainability. The B-Lines initiative highlights the potential for integrating ecological priorities into urban planning, offering a model for diverse cohabitation in densely populated cities.

Munich: Brantstraße Housing Project

One of the pioneering interventions in the field of urban ecology, the Animal-Aided Design (AAD) concept, was first introduced in 2015 by Weisser and Hauck in an article. Munich stands out as the city where this new approach was developed and first implemented. Following the first spatial implementation example in Munich, other spatial

implementation projects using the AAD approach have also been implemented in other metropolitan cities in Germany, like Berlin and Hamburg.

In theoretical grounds, the Animal-Aided Design approach views animal species as an integral part of the urban design process in urban planning and architecture, hence gaining prominence in urban ecology literature for this aspect. Therefore, an innovative design paradigm is emerging in which city residents accept the presence of animals, plants, or other living species in the city and even place these species at the center of the planning process. The residential project on Brantstraße, the first project in Munich to implement the AAD approach, is a notable example of the spatial manifestation of the concept of cohabitation.

One of the key aspects of AAD is its emphasis on addressing urban outdoor environments as multifunctional and inclusive ecological spaces for diverse species. The green facades, birdhouses, and bat shelters used in the residential projects on Brantstraße have not only supported the ecological diversity of the area but also contributed to the quality of life for people (Apfelbeck et al., 2019). This urban design approach, proposed by Weisser and Hauck (2017), aims to integrate the life cycle requirements (such as feeding, sheltering, and nesting) of specific target species (e.g., sparrows, hedgehogs, or bats) into urban space design. The species-focused spatial arrangements in the project have been specifically designed based on the analysis and identification of species that live here and are important for the continuity of the ecosystem. Innovative urban design approaches like AAD enable the transformation of the urban landscape into sustainable, multi-layered spaces that serve both people and non-human species, for their continued existence and well-being. Hence, urban biodiversity is preserved, and the harmful effects of urbanization on natural areas may be mitigated.

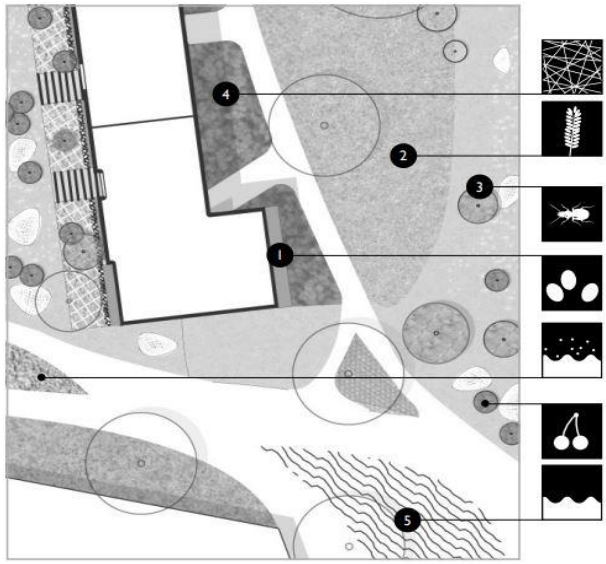


Figure 3. Master Plan of the Brantstraße Housing. From "Animal-Aided Design in the Living Environment: A Project from Munich," Studio Animal-Aided Design, 2025.

Although the Munich Brantstraße Housing Project is an example of a spatial application that represents not only the ecological but also the social and cultural dimensions of the cohabitation paradigm. Collective efforts developed between local authorities, civil society organizations, and designers have enabled the long-term success of the implemented projects. Through participatory processes, the local community has come to see that species conservation is not only an ecological necessity but also an element that strengthens the city's identity and quality of life (Weisser & Hauck, 2023). This raises awareness that cities should be built not only for humans but for diverse species.

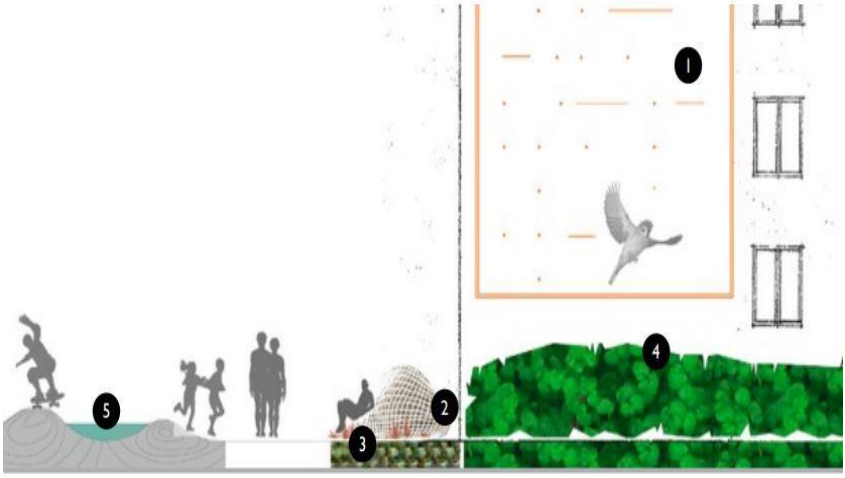


Figure 4. Front View of the project with target species interventions. From "Animal-Aided Design in the Living Environment: A Project from Munich," Studio Animal-Aided Design, 2025.

As a result, the Munich case study is an outstanding example of cohabitation-focused urban design strategies, both in theory and practice. The Animal-Aided Design approach enables cities to be reimagined within the context of ecosystem integrity by incorporating the needs of target species into the design process. The success of this application demonstrates that, beyond ecological benefits, it is possible to create healthier, fairer, and nature-friendly living spaces for city inhabitants. As such, the Munich example sets an inspiring model for other housing projects and strengthens the applicability of cohabitation-based planning strategies.

DISCUSSION

Urban cohabitation is an approach that allows humans and other species to coexist harmoniously within cities, and it is implemented in various forms in different cities. The B-Lines Project in London and the Brantstraße Housing Project in Munich represent different cases of this innovative approach.

The B-Lines Project in London aims to create a network of "insect superhighways" connecting existing pollinator-friendly habitats across the city. This project seeks to support pollinator mobility and enhance biodiversity by creating continuous habitats enriched with native wildflowers. The project focuses on promoting these habitats in various

districts of London, particularly in areas close to the city center. This enables pollinators to move across broader areas throughout the city, thereby contributing to the sustainability of ecosystem services (Williams, 2023). Since the pilot study in London proved successful, the project has been introduced as an urban biodiversity policy throughout the rest of the UK.

The Brantstraße Housing Project in Munich is the world's first residential project to implement the "Animal-Aided Design" (AAD) method. In this housing project, the needs of various target animal species have been integrated into urban planning to create shared living spaces for humans and animals in the urban environment. In particular, the habitats of species such as the green woodpecker, house sparrow, hedgehog, and common bat have been taken into account in the building design and the surrounding open spaces. In this unique project, a living space has been created that meets the needs of both humans and animals (Hauck & Weisser, 2023).

The B-Lines Project in London enhances pollinator mobility by creating habitats and promoting ecological connectivity. By linking fragmented green spaces across the city, the initiative not only facilitates pollinator movement but also strengthens urban biodiversity and supports the long-term provision of ecosystem services. This approach reflects broader theoretical perspectives that emphasize cities as dynamic ecosystems, where ecological networks are essential for fostering resilience and enabling multispecies coexistence (Baldock et al., 2019).

The Brantstraße Housing Project in Munich uses a species-inclusive approach in residential environments to make it more conducive for humans and animals to cohabit. By integrating the ecological needs of target species—such as nesting opportunities for birds and habitats for small mammals—into both building design and surrounding open spaces, the project creates living environments that meet the needs of diverse species. This practice reflects the principles of Animal-Aided Design (AAD), which advocates for the inclusion of non-human species' life cycle adaptation needs in architectural and landscape design processes (Weisser & Hauck, 2017). Thus, the project demonstrates how design can actively contribute to rethinking human-nature relationships within the built environment, while also increasing urban biodiversity (Hauck & Weisser, 2019).

Both cases examined in this study represent distinct aspects of urban cohabitation design, aiming to enable humans and other species to coexist in cities, thereby preserving urban biodiversity. While the B-Lines Project is implemented at the urban ecosystem scale, the Brantstraße

Housing Project represents a spatial intervention at the residential area scale. These projects essentially serve the same purpose and are important in demonstrating the applicability of urban cohabitation at different scales and in different contexts.

CONCLUSION

This research discusses cohabitation, an approach that supports humans and other species to co-exist in cities, through spatial examples from the B-Lines Project in London and the Brantstraße Housing Project in Munich. The London B-line case study creates ecological corridors connecting green spaces to support the movement of pollinator species between natural habitats. In contrast, the Munich case study demonstrates a street-scale spatial design solution that integrates the life cycles of specific species into housing-scale spatial interventions by using the Animal-Aided Design methodology.

Although these two different case studies demonstrate that urban biodiversity must be addressed at various architectural scales, ranging from large-scale ecological networks to spatial interventions at the building level. Because the combined application of spatial interventions at different scales will lead to a holistic transformation of urban green spaces and the sustainability of the urban biodiversity, this innovative design approach, which is discussed using spatial examples at different urban scales, has emerged in line with views in contemporary literature that cities should be reconsidered as ecosystems not only for humans but for all living species.

In conclusion, these two cases that support urban biodiversity highlight the importance of comprehensively integrating ecological responsibilities into urban planning and design processes, as seen in the Brantstraße Housing Project in Munich. In the age of the Anthropocene, coexistence among species in cities should be considered not only an ecological necessity but also an urban priority for building more inclusive and resilient urban environments. In this context, architects and planners should consider plants and animals living in the urban environment as part of the design and implementation process (Apfelbeck et al., 2019). Thus, cities designed to provide inclusive spaces for different species contribute to the continuity of species living in these areas, while also enhancing human health and well-being.

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CONSERVATION / TRANSFORMATION / REUSE

POST-CONFLICT CULTURAL DESTRUCTION AND INTERNATIONAL POLICIES FOR PRESERVATION

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ABSTRACT

Throughout history, conflicts have caused extensive and irreversible destruction to cultural heritage. This destruction has revealed not only physical structures but also social memory and identity. Religious buildings, monuments, museums, and libraries, especially those with symbolic value, have often become strategic targets of war. This study examines the destruction of cultural heritage in the context of the Ukraine-Russia war that began in 2022 and aims to discuss the effectiveness of international protection policies. The study involves a three-stage process. In the first stage, damaged cultural heritage sites were mapped. In the second stage, spatial changes at the urban scale were identified using satellite imagery. In the final stage, the pre- and post-war conditions of heritage buildings were documented. The findings indicate significant damage to numerous historical buildings in and around city centres, which has a direct impact on the urban texture. Furthermore, the Mariupol Theatre and similar examples highlight the inadequacies in the implementation of international charters. In conclusion, the impact of wars on cultural heritage is not limited to physical damage but also leaves a lasting impact on social memory, identity, and intergenerational transmission. Today's ongoing conflicts in regions like Ukraine, Syria, and Palestine urgently reveal the need for effective implementation of international protection policies.

Keywords: Cultural Heritage; Conflict; Preservation; Culturicide; Policy

INTRODUCTION

Over the centuries, conflicts have not only caused damage to cultural heritage sites but have also inflicted permanent impacts on social memory and identity (Sørensen & Viejo-Rose, 2015). Heritage sites of significant value, such as monuments, museums, and libraries with high symbolic and representational power, have often become strategic targets. The cycle of looting and illegal trade has become intertwined with conflict economies, and cultural heritage has thus become an integral part of the conflict itself (Lazzaretti, 2024; Min, 2025). United Nations (UN) Security Council Resolution 2347 explicitly condemns the illegal destruction and trafficking of cultural heritage in armed conflicts and imposes responsibilities on states for prevention, punishment and cooperation (UN, 2017). The normative framework is based on the 1954 Hague Convention and its protocols (UNESCO, 1954). These regulations are the most comprehensive multilateral provisions on the protection of heritage in times of peace and war. While technological advances have increased the rapid processing of destruction (Gerstenblith, 2006), the effects of this destruction have now been quantitatively confirmed by satellite-based studies, which systematically document the damage to heritage across a geography stretching from Syria and Palestine to Ukraine. UNESCO has confirmed that, since February 24, 2022, 508 cultural sites in Ukraine have been damaged, including 151 religious structures, 268 historical buildings, 34 museums, 33 monuments, 18 libraries, 1 archive, and 3 archaeological sites (UNESCO, 2025). These data clearly demonstrate the necessity of positioning heritage preservation not only through emergency management but also as the core of long-term sustainability and social rehabilitation policies. Assessing the relationship between armed conflict and cultural heritage necessitates an integrated approach at the intersection of architecture, international relations, and public policy/preservation law disciplines. The discipline of architecture develops objectives aimed at preserving physical and cultural value through on-site documentation, risk-based design, and adaptive reuse strategies. International relations and law, on the other hand, question the applicability of norms such as the 1954 Hague Convention and UN Resolution 2347, their enforcement capacity, and multi-stakeholder governance (Hausler, 2018). The aim of this study is to analyse the destructive effects of the conflict in Ukraine on cultural heritage using a three-stage methodology: spatial mapping of damaged heritage, urban-scale change analysis using satellite imagery, and pre-post documentation.

For this reason, this study focuses on Mariupol, Ukraine, which is one of the areas most affected by the Russian-Ukrainian conflict. It also concentrates on evaluating the practical effectiveness of international

protection policies in light of indicators, to assess conflict situations from an architecture-international relations perspective, and to offer applicable conclusions for current conflict areas such as Syria and Palestine. This study is based on the following research questions:

- To what extent and in what ways have urban cultural heritage sites in Ukraine been destroyed? What impact has this destruction had on the urban scale?
- What is the effectiveness of international protection policies in preventing this destruction, and what deficiencies exist in their implementation?
- What strategies should be developed in the international arena for the protection of cultural heritage sites in current conflicts?

On a final note, the study clearly reveals that the ongoing destruction in Ukraine, Syria, and Palestine necessitates that the current normative framework does not extend beyond text. The processes unfolding today make the application of field-friendly and effective protection and recovery policies an urgent necessity. While international preservation policies offer an important starting point, comprehensive strategies involving multiple actors, data-driven approaches, and prioritising local participation are needed to increase the real impact of these policies. Such a holistic approach will ensure that the preservation of cultural heritage is not only a responsibility of the past but also an integral part of strategies for future sustainability and social resilience.

THEORETICAL FRAMEWORK AND INTERNATIONAL POLICIES FOR PRESERVATION

enhance social identity not only through their architectural and functional characteristics but also through their symbolic meanings. These areas are memory spaces, where memory is spatially embodied and social memory is passed on to future generations. Cultural memory requires continuity and sociality. Therefore, the loss of space following catastrophic events such as war, conflict, or disasters results not only in physical loss but also in the disappearance of cultural memories. There is a direct relationship between the loss of space and the loss of memory. Because spatial loss eliminates the link between the community and space, it will not be possible to ensure dianoetic continuity. Thus, the loss of space will cause the loss of a community's sense of belonging and cultural memory. In particular, the destruction of heritage during conflicts causes significant spatial losses and creates gaps in cultural memory. Areas such as historical buildings, archaeological sites, monuments, religious buildings, marketplaces, and educational and

cultural buildings are heritage sites that reflect the common past of societies. During wars and armed conflicts, these areas become direct targets and suffer damage (Shydlovskyi et al., 2023). The disappearance of these spaces leads to the loss of knowledge and traces of heritage. This destruction leads to the loss of cultural and spatial memory and, as LaCapra (2014) points out, can be considered a trace of trauma in space. According to LaCapra (2014), traumatic experiences do not remain in individual memory; they cause a loss of collective consciousness. In other terms, physical destruction creates a void in the collective memory of society and causes a rupture by transmitting the trauma at the societal level. Cultural heritage sites targeted during war are not only a military strategy but also a deliberate act aimed at damaging the identity and collective memory of the target society (Chamberlain, 2004; Weiss et al., 2022).

The concept of culturicide, based on Lemkin's 1944 idea of genocide, refers to the intentional destruction of a group's cultural assets, including works of art, monuments, and historical buildings (Lemkin, 2014). Acts of culturicide are considered an aggression against humanity's common heritage. Therefore, the preservation of cultural heritage became an international responsibility with the Hague Convention, various UNESCO conventions, and UN resolutions (UNESCO, 1954; UNESCO, 2019). However, practices in the field are often inadequate due to a lack of political will and resources. When assessed from the perspective of contemporary conflicts, the concept of culturicide is becoming increasingly important for understanding the dynamics of modern warfare. The Russia-Ukraine War, which began in 2022, is one of the most significant examples of cultural heritage being systematically targeted. Since the beginning of the war, both international organisations and local actors have reported that museums, historical buildings, religious sites, and monuments in Ukraine are facing the threat of destruction as a result of deliberate attacks and vandalism (Kosciejew, 2023; Shydlovskyi et al., 2023). These developments reveal that the concept of culturecide is not just a theoretical debate; it is an issue that must be prioritised in today's conflicts in terms of preserving social memory, identity, and cultural continuity.

The most renowned international document is the 1954 UNESCO Hague Convention. Through article 1, the convention defines what cultural heritage is (memorials, museums, archives, religious buildings, among others). The convention has imposed specific responsibilities on the parties involved. Article 4, clause 1 clearly states that contracting parties are liable to respect and protect cultural heritage during both peace and war times. Said heritage is restricted to be used for military purposes or any direct attacks should be refrained from (UNESCO, 1954). Clause

2, however, opens a controversial parenthesis on the matter of preservation of cultural heritage during war times. It states: "The obligations mentioned in paragraph I of the present Article may be waived only in cases where military necessity [emphasis added] imperatively requires such a waiver". In a similar manner, Article 11, Clause 2 expresses an exceptional case where there is an unavoidable military necessity. In his article, Hladík (1999) argues that these exceptions have opened the gates for parties in conflict to utilise cultural heritage and permit them to attack these heritage sites. The Second Protocol, adopted by UNESCO (1999) to fill this gap, tried to define the notion of military necessity. According to the additional protocol, military necessity is limited to certain events, and the conflicting party is bound to forewarn the attack on and/or close to the cultural heritage. The second protocol also introduced the concept of enhanced protection to reinforce the security of sites designated for special protection. Specifically, the status of special protection aims to provide international guarantees for historical buildings, religious sites, museums, and archives.

UNESCO's Outstanding Universal Value (OUV) principle (UNESCO, 2019) is grounded on the understanding that all sites of cultural heritage carry a value for the entire humanity. This principle, similar to other international policies for preservation, is criticised for not being applied at sites of active conflict. Article 6(3) of the World Heritage Convention, signed in 1972, prohibits all activities that can damage a site of world heritage (UNESCO, 1972).

Additionally, Report A/71/317 of the Special Rapporteur in the field of cultural rights highlights the deliberate and intentional destruction of cultural heritage (UN, 2016). Sections IV and V quote the UNESCO (2003) Declaration concerning the Intentional Destruction of Cultural Heritage: intentional destruction is "an act intended to destroy in whole or in part cultural heritage, thus compromising its integrity, in a manner which constitutes a violation of international law or an unjustifiable offence to the principles of humanity and dictates of public conscience". The report highlights that deliberate attacks on cultural heritage sites and cultural objects harm communities' ability to sustain and express diverse beliefs, traditions, and memories.

Another significant provider for the international preservation system is the International Council on Monuments and Sites (ICOMOS). ICOMOS has acted as the advisory body to UNESCO since 1965. The two main documents Venice Charter (ICOMOS, 1964) and the Burra Charter (ICOMOS, 2013) set the standards and fundamental principles for the modern preservation policies. These charters, specifically the Burra Charter, underlined the significance of community participation, local

context, and originality in the preservation of cultural heritage. ICOMOS Charters, through their ethical and professional qualities, became binding reference points for the international policies and actions in the field.

METHODOLOGY

Conflicts can have devastating effects on cultural heritage and the urban landscape. This study aims to reveal the magnitude of this impact through spatial and multi-scale analyses. The methodological approach is designed both to question the practical implementation of international protection policies and to produce data that will contribute to documentation, analysis and replanning processes. In this context, the research is based on a three-stage methodology (Figure 1).

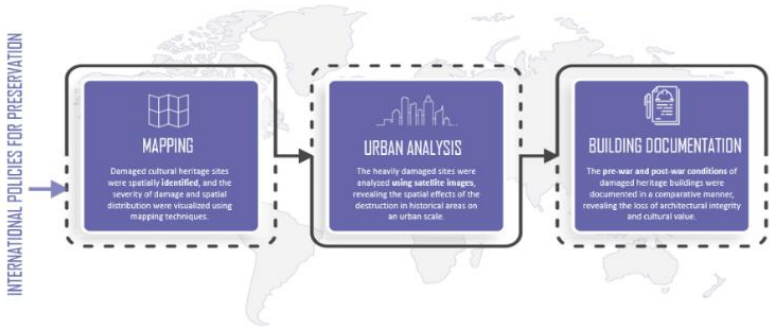


Figure 1. Representation of the stages of the study (created by the authors.)

In the first stage, the locations of cultural heritage buildings damaged in war zones were documented, and new mapping representations were produced using this data. Mapping techniques were used to visualise the locations of heritage buildings, the extent of damage, and the impact of destruction. In the second stage, heavily damaged areas are identified, and spatial changes at an urban scale are examined using satellite imagery. The high-resolution satellite data revealed before and after the effects of the destruction, particularly in historic areas of city centres, on the surrounding textures. In the third stage, the pre-war and post-war conditions of damaged cultural heritage buildings are documented. Within this scope, the original architectural features of the buildings were determined through photographs. Thus, not only physical damage but also loss of architectural integrity and cultural value was identified.

FINDINGS

The war between Russia and Ukraine should be examined from the perspective of environmental vulnerability and urban resilience. There is intense and continuous pressure along Ukraine's eastern and southern axes, particularly along the border with Russia (Figure 2). This pressure is intensifying beyond direct frontline conflicts and is now focusing on a systematic war strategy that targets logistical hubs, energy and water infrastructure, and heavy industrial clusters (International Energy Agency, 2024). This study examines Mariupol, one of the areas most affected by the war. Strategically located between Donbas and Crimea, Mariupol is an urban-industrial port city (Figure 2).

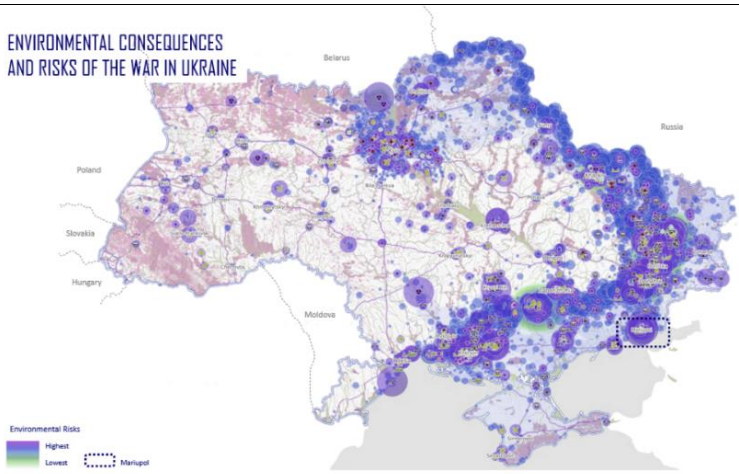


Figure 2. Map that reveals the environmental consequences of the war in Ukraine and Mariupol's strategic location (adapted from Ecodozor, 2025.)

The war between Ukraine and Russia is causing increasing damage to cultural heritage and urban texture, as evidenced by the numbers. One of the most striking examples of this macro-scale destruction at the micro-level is Mariupol. The city is known for the systematic targeting of civilian infrastructure during the siege. In particular, the bombing of the Mariupol Theatre (Donetsk Regional Drama Theatre) while hundreds of civilians were sheltering there created a moment of profound shock in the international public sphere, and the incident was described as a clear war crime by independent news media (Amnesty International, 2022a). Quantitative assessments based on satellite imagery reveal the extent of urban destruction in Mariupol. According to an investigation by Human Rights Watch (HRW), more than 4,800 buildings in the urban

area have been damaged, and as of 20 May 2022, 433 out of 477 high-rise residential buildings (approximately 93 per cent) are damaged or destroyed, while at least 47 per cent of single-storey buildings have been affected (HRW, 2024). These findings demonstrate the simultaneous collapse of the historical centre, dense residential areas, and daily commercial fabric.

The city's destruction also resulted in the damage and disablement of nearly all heavy industry and port components. In April 2022, intense bombardment nearly completely destroyed Azovstal Iron and Steel Works. UNOSAT's high-resolution images from April 25, 2022, revealed visible war damage (craters) in 220 of 294 structures in the industrial area, with at least 75% of the built stock estimated to be damaged (UNOSAT, 2022). According to the Conflict and Environment Observatory – CEOBS (2024) report, a similar situation occurred at the Ilyich Iron and Steel Works, located in the north of the region. The destruction of these two industrial cores also means the release of toxic elements such as asbestos, heavy metals, and petroleum derivatives into the environment, the failure of wastewater systems, and an increased risk of leakage into coastal and river ecosystems. Consequently, this multi-layered damage transforms the city into a high-risk centre, overlapping the historical centre, dense residential areas, and heavy industrial zones (Figure 3).

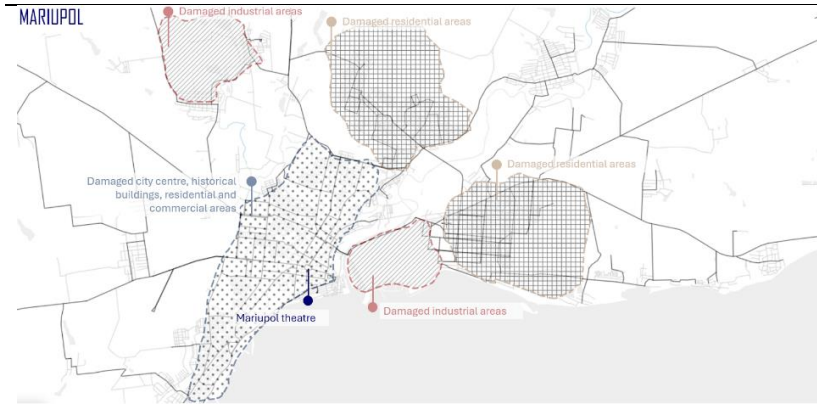


Figure 3. Mapping damaged areas in Mariupol (created by the authors.)

In the urban anatomy of Mariupol, the Drama Theatre is not only a cultural building but also a node where networks intersect. The building is located at the intersection of *Prospekt Myru* (ENG: PEACE BOULEVARD), the city's historical *spine*, which surrounds Teatral'na Square on two axes and intersects with *Arkhipa Kuindzhi* Street. The

Prospekt Myru arterial road surrounds the entire square, enhancing its spatial centrality. The junction of *Prospekt Myru* with numerous main arteries (*Arkhitektora Nilsena* Street and *Metalurhiv* Boulevard) has led to the theatre functioning as an intersection station in the city's internal circulation and accessibility network. This urban configuration has ensured that the building is not only a focal point for the performing arts but also for everyday public life. This location hosted events throughout the year. In the first months of the war with Russia, thousands of people gathered at this intersection (Калюжна, 2024). Briefly, this positioning of Teatral'na Square—the intersection of main axes, the surrounding square system, and its visibility within the city—has positioned the theatre as the *centre of the centre* of Mariupol and has made the building a focal point for both cultural and civic memory.

Satellite imagery analysis tracking the periods from 2002 to 2024 around the theatre reveals how this central location gradually transformed into a cycle of destruction (Figure 4). In the pre-war periods (2002, 2010, 2014, 2019, 2020), the continuity of the radial path-green pattern of Teatral'na Square and the block texture around it is preserved. By 2010, the silhouette of the Church of the Intercession of the Mother God, whose foundation was laid northwest of the theatre, had emerged. Despite the multifaceted destruction, the satellite image analysis revealed that the church's roof remained intact and relatively undamaged. One of the few buildings in the city that escaped damage is this church. The first image from March 2022, when the war intensified, displays smoke and soot marks around the theatre, damaged roof coverings, and ruins, indicating the initial shock phase. Following the airstrike on March 16, 2022, while civilians were taking shelter (Amnesty International, 2022b), the second March 2022 satellite image clearly shows morphological fractures such as the massive collapse of the theatre, successive building collapses within a 100-300 metre radius around the square, and the complete disappearance of load-bearing walls and roof traces. This incident was reported in international investigations as a deliberate airstrike and a clear war crime (Winsor, 2022).



Figure 4. Presentation of the destruction of the Mariupol Theatre Building and its surroundings in nine fragments (created by the authors.)

The image taken in May 2022 indicates a second phase, characterised by the partial removal of the ruins and cleaning of the square. The cleaning process, which reveals the extent of the destruction, also caused the central public space to lose its traces of memory and the urban memory to be removed along with the war. The August 2024 image displays traces of a new organisation and reconstruction in the square-road landscape. This aligns with independent reports and analyses indicating that the occupation administration has turned to accelerated reconstruction demonstrations in Mariupol for showcase purposes (Yagodkin, 2024). Consequently, the satellite images presented, the centrality of the theatre and its evolution into a focal point of urban destruction, the simultaneous collapse of the historical-residential-commercial fabric, and how representative reconstruction practices affect the reframing of public memory within spatial and temporal continuity. At the same time, the church in the northwest, that construction began in 2010, also preserves relative integrity and reveals the heterogeneity of damage distribution at the micro-scale.

The destruction of the Mariupol Theatre is one of the most salient examples of the violence in the war against both physical space and urban memory. During the siege, the theatre served as a centre where medicine, food, and water were distributed; a gathering point for participants in humanitarian corridors; and a shelter for civilians. To

emphasise the building's civilian nature, the word *"ДЕТИ"* (ENG: CHILDREN) was written on both facades. Despite this, the damage to the building clearly reveals the interaction between the explosion and the load-bearing system. According to independent technical investigations, the attack was initiated by two heavy aerial bombs that entered from above toward the main performance space on the eastern side of the building and exploded at stage level (Amnesty International, 2022b; Kelly & Sadof, 2022). The explosion at the stage level significantly damaged the interior partition walls, which in turn affected the load-bearing walls outside. This damage resulted in the formation of two distinct piles of rubble in the northeast and southwest directions. The defacement to the exterior walls did not extend to the foundation, and no craters formed at the base of the walls, indicating that the explosion occurred inside the building rather than underground. At the same time, the roof decking and main roof superstructure suddenly rose and then collapsed onto the hall. The damage to the roof is also clearly visible in high-resolution satellite images. Therefore, the explosion within the building during the conflict resulted in a heterogeneous distribution of damage. While severe damage was observed around the stage and main hall, where the blast wave was most intense, it is visible that the structural integrity of the basement floor was largely preserved.

The entire conflict process reveals the intersection of the theatre's architectural typology and the physics of the explosion (Figure 5). The sudden increase in pressure caused by the explosive in the wide-span upper space created a cycle of *upward buckling-backward collapse* in the roof truss. This produced pressure "from the inside to the outside" on the exterior walls, causing ruin piles in two directions. Burn marks visible in satellite and aerial photographs of the interior, as well as soot on the portico façade, suggest that post-explosion fire and heat also increased structural deterioration. The engineering interpretation of the explosion is as follows: a high-mass explosion at stage level, sudden roof collapse and upper hall collapse, two-way damage and scattering of ruins on the exterior load-bearing walls, and basement and interior core damage.

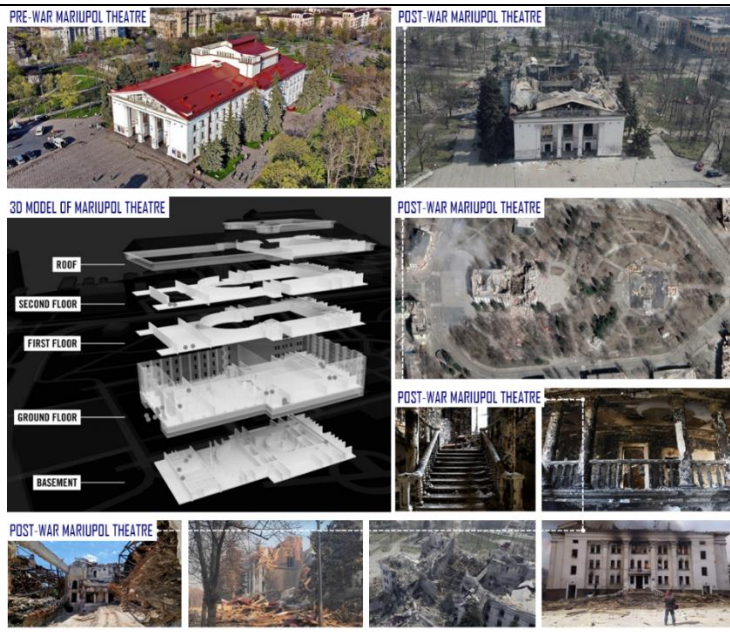


Figure 5. Mariupol theatre after the pre-post war (3D model from Amnesty International 2023, and the photographs from Mariupol Daily Life, 2022.)

Since December 2022, the occupation administration's rapid removal of the theatre rubble and demolition of significant parts of the building were documented by Reuters (2022) as *destruction of evidence*. Following this, rumours of the reconstruction efforts conducted throughout the city, described by the Financial Times (2022) as *Potemkin* and *showcase reconstruction* (Figure 6). The occupying authorities announced that as of the summer of 2025, the building was 100% restored, interior renovations were continuing, and they planned to reopen the stage by the end of the year (Lobanok, 2025).

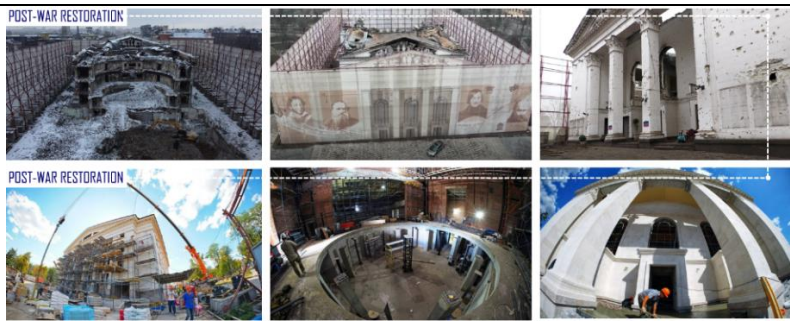


Figure 6. Conservation and restoration works conducted after the conflict (Photographs were sourced from Mariupol City Council, 2025.)

Documents related to the debris removal, retrofitting, and reconstruction processes conducted after the conflict reveal the tension between preserving the city and protecting the layers of memory and remembrance. On one hand, this tension confronts the restoration of spatial continuity through rapidly normalised reconstruction, and on the other hand, the preservation of the visibility of traces of destruction as forensic evidence, the space of mourning, and local narratives. Post-conflict developments in the urban space reveal two clear objectives: to restore the building's pre-war image by completely erasing its traces, thereby *normalising* the flow of daily life, and to accept the conflict as an inherent layer in the building's history, making the traces of destruction visible in a controlled manner.

ASSESSMENT AND DISCUSSION

The intentional targeting of cultural heritage sites during periods of war and conflict signifies not only physical destruction but also the rupture of social memory. Therefore, the protection of cultural heritage is a fundamental requirement, not only for preserving historical sites but also for preserving identity, belonging, and social recovery processes.

Today, international policies provide a fundamental framework in the preservation of cultural heritage during and post-conflict scenarios, yet they fall short due to certain limitations. First of all, there are no suprastate, enforcing and binding mechanisms that can oversee states if they are abiding by the conventions that they are a party to. Second, the international community reacts to the destruction of cultural heritage merely symbolically, and the public opinion is insufficient in preventing the possible damage. Third and finally, each and every conflict and conflicting party has certain qualities specific to the area, history and shared memory. Despite this fact, local actors' and

communities' participation in the preservation process is often neglected both in international policies and in the field.

When examining the findings from the Russia-Ukraine armed conflict, it is evident that even the signatory states to international conventions and agreements fail to fulfil their obligations. This demonstrates the lack of control mechanisms and legal enforceability. In Mariupol, the theatre building which served as a place of connection and action, is targeted as an act of culturicide. This act demonstrates the spatial and social impact of culturicide - the destruction of this place of memory triggers the loss of spatial identity, heritage knowledge and cultural spatial practices within the framework of the discipline of architecture. Architecture assumes a multidimensional responsibility at this point, transcending the boundaries of traditional design and construction in the recovery and reconstruction of societies devastated by conflict. Post-conflict reconstruction, adaptive reuse and conservation approaches should preserve cultural identity and memory. Post-conflict spatial reconstruction is also a political process. Although it may be presented as an opportunity to make a fresh start, free from the trauma of war, by completely demolishing existing structures in post-conflict areas and constructing new, modern cities, it is highly controversial, as it carries the risk of erasing the community's historical narratives and memories. Documentation studies constitute the basis of this complex reconstruction process. In addition to traditional methods, digital technologies, such as three-dimensional (3D) scanning, photogrammetry, and artificial intelligence, are effective tools for documenting and reconstructing cultural heritage. Techniques capable of creating high-quality 3D models even with low-cost equipment are skilful in assessing the condition of destroyed or damaged structures, preparing the ground for future restoration works, and providing valuable data for structural analyses. Technologies such as virtual reality (VR) and augmented reality (AR) can help to re-experience cultural spaces; thereby, they consolidate the continuity of space of memory and the sense of belonging.

Additionally, in post-conflict reconstruction processes, it is also crucial to promote a delicate balance between international support and local ownership. For this reason, local engagement in the preservation and restoration of cultural heritage is crucial. In other words, rethinking heritage protection is a complex matter where there is the need to exceed imposing a single universal policy-making or relying merely on law enforcement. The call for adaptive, technological and ground-level approaches could be the future of international preservation policies.

CONCLUSION

The destruction caused by conflicts in urban spaces and cultural heritage is not limited to physical damage; it is directly related to urban memories, collective remembering, and layers of belonging. The study examines the extent of the impact that armed conflicts can have through urban, spatial and multiscale analyses. In conflict conditions, cultural heritage is not merely an object to be protected; it also provides a foundational public infrastructure for both legal evidence and collective memory. The dialectic of memory and forgetting, along with LaCapra's understanding of trauma being encoded in space, intersects with multi-scale analyses in the post-war example of Mariupol between Ukraine and Russia.

Disruptions in circulation and focal points at the urban scale, along with physical explosions in stage-hall volumes at the building scale, have created both morphological and semantic traces of destruction. These traces unequivocally demonstrate how warfare can strategically instrumentalise cultural heritage. Although the principles of institutions such as UNESCO, ICOMOS and the UN provide a framework at the normative level, serious gaps in their applicability in the field have become apparent.

The case of Mariupol Theatre clearly reveals that operations in the field fail to provide active and effective preservation. Said gaps in the normative framework stem from the inability of international organisations to provide a binding mechanism as well as signals for their limited enforcement capabilities. For this reason, in the aftermath of armed conflicts, there is a need beyond the physical restoration and reconstruction: the international community requires a new preservation approach that eliminates institutions' structural restrictions and creates binding and accountable forms of governance. The accelerated reconstruction of the Mariupol Theatre and its surroundings has also partially removed the basis for urban memory, collective remembering and material evidence of the war. Consequently, the application of international policy in these processes has once again become a topic of discussion. First and foremost, there must be clear steps towards recognising cultural genocide as an independent and criminal offence under international law. Furthermore, in international protection initiatives, consideration of local conditions and community needs, as well as universal standards is critical for long-term success.

This study has established a conflict-sensitive process by combining multi-scale satellite interpretation with typological-observational analysis and memory theory. In the future, international law must fill the gaps in this

area, develop stronger sanctions for the protection of cultural property, and establish new strategies against the actions of non-state actors. Furthermore, databases for long-term process monitoring, machine learning for automatic damage detection, comparative case studies (different conflict geographies) and ethnographic memory research should be developed. Ultimately, however, protecting cultural heritage is not merely a legal or architectural obligation; it is also a responsibility to safeguard the shared values of a civilised society and the diversity of humanity.

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RECONCILING AUTHENTICITY WITH CONSERVATION VALUES: INSIGHTS FROM THE GEVHER NESIBE COMPLEX AND AVGUNLU MADRASAH

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ABSTRACT

Architectural conservation emphasizes the preservation and re-experience of existing structures rather than creating new ones. It extends beyond safeguarding physical fabric, encompassing cultural, social, and economic values that influence decision-making. As Mason (2006) argues, heritage values must not be confined to physical or historical attributes but should also include social, economic, and symbolic dimensions. Within this context, authenticity emerges as a dynamic concept shaped by historical integrity, material continuity, and evolving cultural contexts. Conservation strategies must therefore negotiate tensions between maintaining original conditions and enabling contemporary re-use.

This study investigates the relationship between authenticity and values in architectural conservation, synthesizing Alois Riegl's and Randall Mason's value definitions with the authenticity criteria of the Nara Document to propose a systematic evaluative framework. The framework is applied through a comparative analysis of two Seljuk-period structures in Kayseri's Mimar Sinan Park: The Gevher Nesibe Complex and the Avgunlu Madrasah. The Gevher Nesibe Complex demonstrates successful adaptation to modern functions while preserving architectural and structural integrity, whereas the Avgunlu Madrasah illustrates how misguided interventions and functional loss compromise authenticity.

Findings show that cultural heritage conservation involves a set of shifting priorities shaped by historical, social, and contemporary needs. Re-use and functionality often dominate, yet must be balanced with authenticity, aesthetic integrity, sustainability, and economic viability. By integrating theoretical perspectives with real-world challenges, this study highlights that the way heritage values are defined directly shapes their preservation, positioning authenticity as a key measure of reliability in conservation practice.

Keywords: Alois Riegl, Randall Mason, Nara Document on Authenticity, Heritage Sustainability, Architectural Priorities.

INTRODUCTION

Avgunlu Madrasah and Gevher Nesibe Complex are two structures that reflect the architectural understanding and functionality of the Seljuk period and have an important place in the cultural heritage of Anatolia. They are in Mimar Sinan Park in Kayseri next to each other (See Image 1). Each of these structures, which have undertaken different functions, have left a significant historical and cultural mark on the geography where they are located and still maintain their importance today.



Image 1: Aerial views of Gevher Nesibe Complex and Avgunlu Madrasa (Kayseri Metropolitan Municipality Madrasahs and Tombs Inventory)

Both structures have undergone numerous restoration interventions over time, raising questions about their authenticity and the degree to which they faithfully represent their original use, function, and materials. Historical buildings like these serve as vital records of the past, providing insights into the technological advancements and lifestyles of the era in which they were constructed. However, the extent to which these structures preserve and convey accurate historical information remains uncertain.

This study aims to define the values associated with the Gevher Nesibe Complex and Avgunlu Madrasah through the lens of Alois Riegl's and Randall Mason's value systems. Subsequently, the authenticity of these buildings will be assessed in terms of the preservation of these values. The authenticity of these buildings will then be evaluated based on how well these values have been preserved, with a particular focus on the criteria outlined in the Nara Document.

Architectural conservation today is increasingly understood as a value-based process rather than a purely technical one. As Randall Mason (2006) highlights, heritage values extend beyond physical and historical aspects to encompass social, economic, and symbolic dimensions. This means that decision-making in conservation requires balancing

multiple, and often conflicting, priorities. Reuse and functionality, spatial integrity, aesthetic continuity, material sustainability, and adaptability are among the most pressing priorities guiding contemporary heritage interventions. Authenticity, in this context, is not a fixed essence but a dynamic construct negotiated through these diverse values. This study aims to develop an evaluative framework by synthesizing Alois Riegl's monumental values, Mason's multidimensional value system, and the authenticity criteria outlined in the Nara Document (ICOMOS, 1994). Through this framework, the conservation status of two Seljuk-period structures—the Gevher Nesibe Complex and the Avgunlu Madrasah—will be critically analyzed to reveal how authenticity and values interact in practice.

1. Theoretical Framework

In conservation research, theoretical frameworks are crucial for bridging abstract concepts with practical decision-making. The relationship between authenticity and values is particularly complex, as heritage is shaped by both historical legacies and contemporary societal needs. To address this, the study develops a synthetic evaluative framework by integrating three well-established approaches: Alois Riegl's monumental values, Randall Mason's multidimensional value-based model, and the authenticity criteria defined in the Nara Document (ICOMOS, 1994). Each of these frameworks has been influential independently, but their integration allows for a more comprehensive understanding of how authenticity can be preserved while addressing contemporary priorities.

Alois Riegl's typology of values remains a cornerstone for assessing monuments, highlighting tensions between preserving original fabric and allowing adaptive interventions (Riegl, 1996). Building on this, Randall Mason (2006) introduced a broader framework that recognizes social, economic, and symbolic values, situating conservation within societal and cultural dynamics rather than material fabric alone. Complementing these perspectives, the Nara Document on Authenticity (ICOMOS, 1994) emphasizes that authenticity is culturally relative and context-dependent, defining key evaluative dimensions such as form and design, material and substance, use and function, location and setting, and spirit and feeling. Taken together, these three perspectives expand conservation from a technical process into a multidimensional negotiation of values, where both tangible and intangible factors shape decision-making.

By synthesizing these perspectives, this study proposes a composite evaluative framework that aligns value-based conservation with authenticity criteria. Riegl's typology provides the material-historical

foundation, Mason's categories capture social and economic dimensions, and the Nara Document operationalizes authenticity as an evaluative lens. This integrated framework allows for a multidimensional analysis of conservation cases, highlighting where values align, where they conflict, and how priorities must be negotiated. It also provides a practical tool for evaluating the Gevher Nesibe Complex and Avgunlu Madrasah, enabling systematic comparison between two structures that have undergone different conservation trajectories.

2. Negotiating Authenticity Criteria in the Context of Riegl and Mason's Value Approaches

Riegl's monumental values examine a structure under the headings of age, historical, use and newness values. In this part, Gevher Nesibe and Avgunlu structures are evaluated according to these value criteria. Historical value is a value form in which the structure is considered as a physical proof of a historical narrative. This value evaluates the structure by associating it with a specific period or historical event. Age value can be explained by the layers of the past showing themselves in the physical condition of the structure. It gives the structure a sense of age and historical continuity together with its age and experience. Use value is a value that addresses the current use of the structure. It discusses the benefit provided to the user and society by evaluating the current use purpose together with the functionality of the structure. Newness value refers to the new form or function of the structure as a result of innovative interventions and additions applied to the structure. It is a value that addresses innovative additions and material interventions added to the structure during the restoration or conservation process (Lamprakos, 2014; Reigl, 1996).

Mason argues that heritage values should not be based solely on physical or historical features, but should also be addressed with social, economic and symbolic effects. According to Mason's value, social value is the cultural or social meaning that a structure carries on a social scale. With this value, the structure can become a social focal point. Economic value is the contribution that a structure makes to the social economy or tourism. Symbolic value is the value that a structure represents, emphasizes and reminds of any culture, period or event. This symbolic approach can be tangible or intangible. Mason's value approaches address the conservation of cultural heritage not only on a physical and literal scale but also socially, economically and symbolically. With this multi-faceted approach, it aims for social participation and awareness in conservation theory (Mason, 2006).

The authenticity criteria defined in the Nara Documents are evaluated together with the value approaches of Alois Riegl and Randall Mason. The overlapping and conflicting values in these three different value scales are determined and discussed through the Gevher Nesibe Complex and Avgunlu Madrasa structures.

2.1 Alignments between Riegl's and Mason's Heritage Values and the Nara Document Criteria

In examining the authenticity criteria outlined in the Nara Document (1994), it becomes evident that these principles can be meaningfully discussed in relation to the value frameworks developed by Riegl (1996) and Mason (2006). While the Nara Document emphasizes form, material, function, setting, and spirit as essential dimensions of authenticity, Riegl's concepts such as age value, historical value, use value, and newness value, together with Mason's classifications of symbolic, economic, and social values, provide a conceptual lens through which these criteria can be interpreted. Table 1 demonstrates how these two systems of values can be aligned with the Nara Document's criteria, highlighting areas of conceptual convergence. This comparative approach makes it possible to identify where heritage values reinforce authenticity criteria, but also to recognize points of potential divergence, which will be discussed in the following section.

In the Nara document, regarding the concepts of form and design, the idea that the architectural form, design details and spatial organization of a structure are the cornerstone of the structure's authenticity is adopted. This conceptual value overlaps with the necessity of preserving the original form and design of the structure while expressing Riegl's concepts of age value and historical value. It also overlaps conceptually with the fact that form and design have an important place in the context of cultural heritage and are a part of the structure's authenticity, as mentioned in Mason's definition of symbolic value (Nara Documents of Authenticity, 1994).

Table 1: Aligning Values with Nara Document Criteria

Nara Document Criteria	Riegl Values	Mason Values
Form&Design	Age Value, Historical Value	Symbolic Value
Material Substance	Age Value, Newness Value	Economic Value
Use&Function	Use Value	Economic and Social Value
Location&Setting	Historical Value	Social Value
Spirit&Feeling	Historical Value	Symbolic Value

Within the framework of the Nara Document, the criterion of material substance plays a central role in ensuring authenticity. The document stresses that the physical originality of the structure must be preserved and that no material loss or alteration in appearance should occur. In this respect, Riegl's age value and newness value can be linked to the processes of change experienced in materials, while Mason's economic value underlines the significance of economic sustainability tied to material conservation.

In the Nara documents, it is emphasized that the balance between the historical function and contemporary use of the structure is important in order to preserve the authenticity of the structure. Since the use value mentioned by Riegl is a concept directly related to the current functionality of a structure, it can be associated with the definition of authenticity in the Nara documents. In addition, since Mason's economic and social values are concepts that include the economic and social returns that the structure offers to society, they are values that can be evaluated together since the contemporary function and purpose of use of the structure have an economic and social return in society.

The environmental context between the structure and its environment, spatial integrity and harmony with the environment are the factors evaluated together with the authenticity values in the Nara documents. The historical context of the structure mentioned in Riegl's historical value coincides with this value. In addition, the social value explained by Mason focuses on the connection between the structure and its environment and the social dynamics it is in. From this perspective, the location of the structure and its environmental context coincide with the originality values.

The spiritual and emotional atmosphere that the building has and makes its visitors feel is an abstract reflection of authenticity according to the Nara documents. In this respect, when we look at Riegl and Mason's value criteria, the defined historical value and symbolic value coincide with this abstract reflection. The fact that the building atmospherically makes its users feel something from its historical context and that its spirit has a place in cultural symbolism coincides with the authenticity of the building.

2.2 Conflicts between Riegl' s and Mason' s Heritage Values and the Nara Document Criteria

Cultural heritage value conflicts are conflicts that arise from changing value systems and practical difficulties in conservation. The foundations of these conflicts are based on the interactions of Alois Riegl's value definitions, Randall Mason's multidimensional and more current approaches to conservation values, and the authenticity criteria defined in the Nara Documents within different frameworks. Intersections and conflicts create a space for conservation values to be considered and addressed in a multidimensional manner.

The preservation of cultural heritage and the theory of conservation bring with them conflicts and situations where the various values it includes and touches upon contradict each other. These conflicts are an indication that the multifaceted richness of conservation studies should be addressed from different scales and perspectives and consist of different perceptions. Each value addressed has its own unique perspective and contributes to the importance of cultural heritage. Contradictions between values indicate that these values should be examined critically and that a balanced evaluation process is needed.

Historical value emphasizes the preservation of the originality of the structure and its historical context, while valuing tangible and intangible elements. In contrast, use value focuses on the functionality of the structure and the benefits it provides to society through its new function. For this, it requires contemporary integrations and interventions. It exhibits a positive approach to such additions. The conflict between these two values begins with the destruction of the historical texture of the structure with contemporary integrations. The preservation of historical integrity and the fact that it can be destroyed with new functionality and the new function and texture can come to the forefront necessitates a balance and compromise strategy between these two values. This situation also creates a tension within the Nara Document framework: while the document emphasizes continuity of use as a dimension of

authenticity, it simultaneously warns that contemporary functions should not compromise the historical authenticity of form, design, and setting.

The age value symbolizes the background of the structure over time and can be seen from the patina and texture on the structure. In addition, the newless value means contemporary additions and improvement interventions applied to the structure. While the improvement applications applied to the structure create a contemporary perspective and a new texture to the structure, they can sometimes destroy and eliminate the patina it has. This situation raises the question of whether the original texture should be meticulously and strictly preserved between two value judgments or whether the innovation value should be made visible with a minimum level of contemporary intervention. Failure to establish a balance between the age value and the newless value during interventions or failure to make meticulous decisions on which value to prioritize causes conflicts between the two values. This dilemma mirrors the Nara Document's criteria of material substance and form & design, which emphasize preserving the originality of materials and appearance while at the same time recognizing that controlled change may be necessary to sustain authenticity in the present.

In addition, economic value poses threats to transform cultural heritage elements into an economic resource. The social past, context and cultural transmission elements established as a result of the social value of the structure are destroyed due to the economic value attributed to the structure, and in some cases, the structure is seen as a financial resource. This situation creates a clear tension with the Nara Document ' s authenticity criteria, particularly location and setting as well as spirit and feeling, since commercialization often disrupts the historical environment and diminishes the intangible sense of place. Thus, while economic value can contribute to sustainability, it simultaneously challenges the preservation of authenticity as envisioned in the Nara framework.

The coexistence of conflicting values in the conservation of cultural heritage is a difficulty that naturally arises for value judgments in the conservation approach and takes shape according to social dynamics. Keeping the conflicting value judgments in balance is possible by considering and preserving cultural heritage in a multi-dimensional way, taking its dynamism into account and proceeding with a multi-disciplinary principle.

Table 2: Conflicting Values and Descriptions

Conflicting Values	Conflict Description	General Perspective
Historical and Use Values	The new museum function given to the buildings weakens their original education and health structure functions.	Arrangements suitable for contemporary use negatively affect the perception of historical function and background.
Age and Newness Values	Innovative restoration materials and textures added to the structure damage the perception of historical texture.	Renovation additions disrupt the balance between old and new.
Social and Economic Values	While the museum function provides economic contribution, the social context of the buildings pushes their identity into the background.	Economic gain goals cause socio-cultural ties to be severed.

3. Values of Gevher Nesibe Complex and Avgunlu Madrasah

Gevher Nesibe Complex is located in the city center of Kayseri and was built in 1206 by the order of Seljuk Sultan I. Gıyaseddin Keyhüsrev. This structure is one of the most striking examples of Seljuk period health architecture and education system. While the hospital part was used as a patient treatment center, the medical school was designed to provide education to students in this field. With its spaces arranged around a rectangular courtyard, a central iwan and wide areas surrounded by porticoes, the structure reflects the architectural understanding of the period both functionally and aesthetically. Today used as a museum, Gevher Nesibe Hospital continues to be a center of attraction for the local people and tourists (Hayırlıdağ, 2021).

Avgunlu Madrasah is located within the Mimar Sinan Park together with the Gevher Nesibe Complex and was built in the 13th century. Used for educational purposes during the Seljuk period, this structure has an open courtyard plan and is notable for its simplicity. Its three-iwan design, single-story layout and educational spaces emphasize the contribution of the madrasah to the academic life of the period. The student rooms around the courtyard and the main iwan to the south clearly reveal the organization of the structure for education. The octagonal dome located in the northwest brings together the functions of a burial chamber and a prayer room, while the simple aesthetics of its exterior form provide clues about the stonework of the period. However, today the madrasah has completely lost its intended use and serious damage has occurred to its original structure (Abicel, 1991).

Both structures represent different aspects of Seljuk architecture. While Gevher Nesibe Complex stands out with its multi-functional design that combines health and education functions, Avgunlu Madrasah is considered one of the educational structures of the period that prioritizes simplicity and functionality. These structures are important works that need to be protected as cultural heritage and contain various values and problems in terms of today's conservation policies.

Gevher Nesibe has a design approach that brings together two main functions: a hospital and a medical school. While the hospital section is organized around a rectangular courtyard, the madrasah section has a smaller courtyard. The hospital has a large courtyard surrounded by porches, treatment rooms and a central iwan. The medical school consists of symmetrically arranged cells and educational areas.

Avgunlu Madrasah is a Seljuk madrasah with an open courtyard built with a simpler design. Its three-iwan plan scheme and single-story structure prioritize functionality and simplicity. While there are traces of porches and student rooms on the east and west sides of the courtyard, the main iwan is located to the south. There is an octagonal dome in the northwest of the structure. This dome consists of two sections: the funeral (lower floor) and the prayer room (upper floor) and is covered with a prismatic cone on the outside.

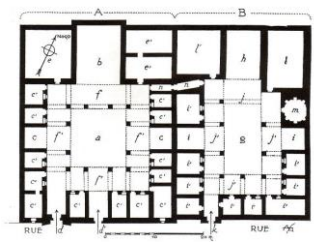


Image 2. Gevher Nesibe Complex Plan
(İnan, A., 1969, *Kayseri Gevher Nesibe Sultan Şifaiyesi*)

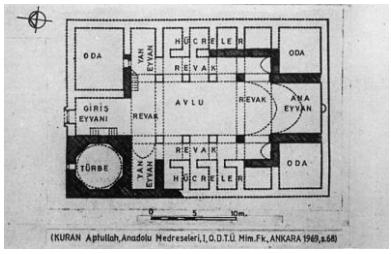


Image 3. Avgunlu Madrasa Plan
(Gabriel Albert.Monuments Turcs D'anatoliel, Paris 1931.S.60)

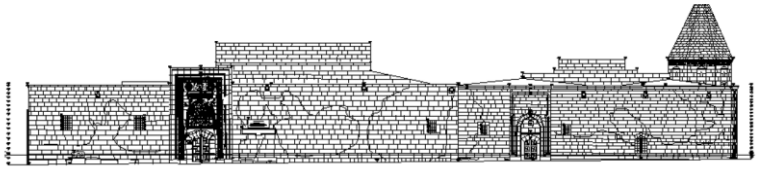


Image 4. Gevher Nesibe Complex Entrance Façade Drawing
(Büyükmıhçı&Kozlu 2008)

Gevher Nesibe Complex is a structure that concretely expresses and makes understandable the health system of the Seljuk period in which it was used. In addition, when you look at the structure today, its age value can be easily read thanks to the fact that the entrance doors do not work despite the restoration processes it has undergone, the patina of the interior floors and walls, the arches of the spaces around the courtyard and the stone materials used today. Since it also has a historical past regarding the health structure configuration of the period in which it was used and makes this past understandable today, the historical value of the structure is also quite perceptible. This structure, which is used as a museum today, still has a living value in terms of innovation value. In addition to these, it also has a monumental value thanks to its dual-function design, the details in the stonework used in the structure and the inscriptions (Riegl,1996).

Avgunlu Madrasah should have been in a position to provide information about the organization and order of educational structures of its time, but due to its current usage, it has experienced some deterioration in physical and spatial integrity. This situation that the structure faces make it difficult to read and feel its historical and age value. This structure, which has completely lost its purpose of use, is very close to losing its living value feature due to lack of restoration and wrong interventions. However, when the architectural simplicity and dome of the structure can be noticed by the eyes that examine the structure carefully, it creates a sense of monumental value. All the values that the structure has or could have had have been negatively affected by the interventions and additions it encountered during the re-functioning of the structure, becoming insensible and unreadable (Riegl, 1996).

Gevher Nesibe Complex is an important tangible heritage for the health system and medical education of the period. It is also used as a center for museums and cultural events today. In this respect, it is a social meeting point at local and national levels. It contributes to the regional economy as a touristic center thanks to its museum function and the visiting value of its historical value. It is a special example representing the combination of health and education functions. All these features attribute social, economic and symbolic values to the structure (Mason, 2006).

Avgunlu, on the other hand, has a cultural bond for the local people and academic circles. Although its contribution to this cultural bond is limited today due to its function, the structure has a social and economic value. In addition, the structure, which has Seljuk architecture,

can also be evaluated as a symbolic reflection of the architectural features of the period (Mason, 2006).

4. Authenticity through Aligning and Conflicting Values in Gevher Nesibe Complex and Avgunlu Madrasah

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4.1. Aligning Values in Gevher Nesibe Complex and Avgunlu Madrasah

The Gevher Nesibe Complex still preserves its original design values today with its fine stonework and central courtyard layout specific to the Seljuk period when it was built. In contrast, unconscious interventions such as closing the central courtyard and creating additional floors in the interior organization in the Avgunlu Madrasah caused both the deterioration of the structure's form and the loss of its authenticity of design. Along with the loss of originality experienced as a result of these additions, the age and symbolic values of the structure also experienced some conflicts and losses.

Despite all the interventions it has undergone, Gevher Nesibe Complex has preserved its age value by strengthening it thanks to the preservation of its fine stonework and the harmonious interventions it has undergone during the restoration process. It has also strengthened its newness value with the new material types added for the new space organization requirements. When we look at Avgunlu Madrasah, the unconscious additions applied to the structure have both damaged the material authenticity of the structure and prevented the structure from creating its own economic value.

The Gevher Nesibe Complex, which is used as a museum, is compatible with Riegl's use value and Mason's economic and social values. However, it contradicts the understanding of preserving its original function defined in the Nara documents. The original function of the hospital and education structure could not preserve its purpose today and the structure continued its life with the museum function. The education structure, which had the function of the Avgunlu Madrasah has completely lost its purpose. It is a structure that has been detached from its social context and has lost its social and economic values due to its new function.

Gevher Nesibe Complex, with its location in Kayseri Mimar Sinan Park, is in harmony with the historical context of its surroundings, while at the same time, it has become a social gathering and meeting point with its museum function. This situation matches the structure with Mason's social value criteria. Avgunlu, on the other hand, contradicts the value perceptions due to its disconnection from its environmental context and the social and environmental context it has lost due to wrong interventions.

Gevher Nesibe Complex, which was transformed into a museum, has become a symbolic cultural center, although it has partially lost its historical spirit. Avgunlu, on the other hand, has suffered serious damage to its spirit and authenticity due to the loss of function it has experienced, and the unconscious intervention process it has undergone. These evaluations show that both structures have difficulty in complying with the spirit and feeling criteria principle specified in the Nara Document.

5. Conflicting Values in Gevher Nesibe Complex and Avgunlu Madrasah

The theoretical basis created by these conflicts and intersections between values creates a new perspective from which the conflicts observed in the Gevher Nesibe Complex and Avgunlu Madrasa can be evaluated.

Gevher Nesibe Complex has managed to transform into a contemporary use by preserving its original charm during restoration and revision works. However, the density of elements supporting the museum function and contemporary touches make it difficult to feel the original atmosphere of the space.

Gevher Nesibe Complex is of great importance in terms of historical and health architecture. However, its reorganization with the function of a museum prevents the spirit and atmosphere of the original health and education buildings from being felt sufficiently. Although its use as a museum increases the liveability of the building for the public and visitors, the connotation of the hospital and madrasah functions has weakened. This situation leads to a significant tension between historical value and use value.

While modern materials used in the restoration process preserved the original stone texture in some parts of the structure, contemporary arrangements and equipment for the museum function (for example, interventions made for the exhibition area) overshadowed the oldness value of the structure. At the same time, the restored sections made it difficult for visitors to directly perceive the historical texture. While preserving the structure on the one hand, the restoration failed to establish a balance between newness and age value on the other.

Today, Gevher Nesibe provides economic contribution to the region with its museum function and creates a social meeting point. However, this intense functionality carries the risk of compromising the authenticity of the structure. The dominance of the museum function may limit the perception of the structure as a symbol of the health and education heritage of the Seljuk period.

The historical value of Avgunlu Madrasah can be shown as an example that has been weakened due to environmental destruction and insufficient restoration. This situation has caused a conflict between the conservation efforts and the cultural value of the structure.

The authenticity of Avgunlu Madrasah has been damaged both physically and functionally over time. Unconscious additions and inadequate restorations have significantly reduced the historical value of the structure. Despite this, it partially preserves its monumental value as a simple example of Seljuk architecture. However, the weakening of its historical context also overshadows the perception of monumental value.

The madrasah served an important social function as an educational structure during the Seljuk period. However, it has lost this function today

and is not actively used. The structure has limited potential to create a social bond and economic value. This creates a mismatch between social value and economic value, making it difficult for the structure to be embraced by a wider society.

Unconscious interventions in some sections (for example, closing the courtyard and adding a mezzanine floor) have damaged the original form of the building and caused it to lose its old value. Although the original stonework has been partially preserved, damage to these materials during restorations has seriously damaged the authenticity of the building.

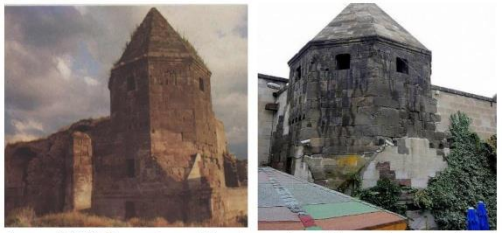
Gevher Nesibe Complex	 Image 4.5 Gevher Nesibe Complex in the late 1950s (VGMA)  Image 6.7 General view of the exterior of the Gevher Nesibe Complex	 Image 8.9 View of the courtyard and main iwan, hospital part (Akşehirlioğlu, 2021)  Image 10.11.12.13 Hospital, student rooms, treatment rooms, portico and bathhouse
Avgunlu Madrasa	 Image 14.15 Comparison of the dome view of the northwestern facade of the Madrasa (after excavation, today)	 Image 16.17.18 Wooden mezzanine floor additions in the inner courtyard, sales stands and inner courtyard covered with a top cover

Table3: Archive photographs of the Gevher Nesibe Complex and Avgunlu Madrasa and the current state of use of the spaces

CONCLUSION

The Gevher Nesibe Complex and the Avgunlu Madrasah are works of two opposing narratives in which conservation and re-functioning practices are seen in the context of Seljuk architecture. In the Gevher Nesibe Complex structure, the concepts of re-use and historical preservation have been implemented relatively successfully and have integrated with the historical background of the structure. In contrast, the Avgunlu Madrasah has largely lost its spirit and originality due to neglect and interventions that are not appropriate for the structure's texture. The losses in spatial integrity, inappropriate additions and obsolescence in spatial functionality have put the cultural and historical heritage of the structure at risk.

While the Gevher Nesibe Complex manages to preserve its historical, social and economic values in a balanced manner despite its current museum function, the Avgunlu Madrasah is facing the risk of losing its sense of authenticity and values as a result of the loss of function it has experienced and the inappropriate additional interventions it has been subjected to. As a result of all these discussions, it is emphasized that Riegl's and Malson's value definitions should be evaluated and addressed in a multidimensional manner with the concept of authenticity. The fact that the sense of authenticity is still preserved as a result of the re-functioning of the Gevher Nesibe structure and that the values of the structure can be read and felt in a balanced manner proves that authenticity is sustainable after the re-functioning process. However, the spatial integrity losses experienced in the Avgunlu Madrasah, inappropriate interventions and the imbalances experienced in the re-functioning reveal the extent to which both the sense of authenticity and the value definitions of the structure have been damaged.

In this context, it is concluded that authenticity and values should be evaluated within the framework of a holistic approach in the conservation of cultural heritage. Sustainable conservation can be achieved in both of the discussed structures and in all other cultural heritage structures only if all these values and the understanding of authenticity are balanced together. Therefore, there is a delicate balance that needs to be established between the values of authenticity and cultural heritage preservation. Achieving this balance ensures that the understanding of conservation is sustainable in every sense.

This study demonstrates that conservation is not solely about physical restoration but is fundamentally a process of value negotiation. Cultural

heritage conservation presents a distinct set of priorities shaped by both historical legacies and contemporary needs. The case of the Gevher Nesibe Complex shows that authenticity can be sustained through balanced integration of reuse, economic viability, and spatial integrity. In contrast, the Avgunlu Madrasah reveals how the neglect of these priorities can result in a compromised sense of authenticity and identity. Therefore, conservation strategies must recognize authenticity as a dynamic, evolving construct, shaped by the interplay of historical context, material continuity, and societal needs. Sustainable conservation is possible only when priorities such as adaptability, aesthetic integrity, and heritage values are approached holistically. Establishing this balance is the key to ensuring that conservation remains both culturally meaningful and socially relevant.

Finally, it should be underlined that the framework developed in this study is not intended as a rigid tool for measuring authenticity, but rather as a platform for discussion. As such, it remains open to further refinement and development in light of future research and conservation practices.

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EXPLORING PRIORITIES IN BURSA: INTERSECTIONS OF FUNCTIONALITY AND SYMBOLISM IN THE EARLY REPUBLICAN PERIOD

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ABSTRACT

Following the establishment of the Turkish Republic in 1923, a wide range of modernization projects were implemented to symbolize Türkiye as a firm and consolidated representation of the new state. During this period, architectural priorities were continually re-interpreted in light of the ongoing economic and political agenda. Besides Ankara and İstanbul, Bursa came to the forefront in the Early Republican Period as the former capital of the Ottoman Empire with its centuries-old architectural heritage. Amongst various implementations in building and urban scale initiatives, functionality and symbolism were raised as fundamental priorities in the Republican architecture. On the one hand, functionality was primarily prioritized in industrial and public service buildings; symbolism became another priority in the built environment with an apparent idealization of the Republic.

Thus, in this study, the reconstruction process of Bursa is valued in terms of the Republican architecture priorities, which were implemented in both the existing Ottoman edifices and the newly constructed buildings as a complex negotiation between functionality and symbolism. Accordingly, this study aims to explore the architectural priorities in Bursa by examining key examples of public, industrial, and cultural buildings constructed/reconstructed in the Early Republican Period of Türkiye. Methodologically, the constructivist approach is applied based on content and discourse analysis of literary and visual materials in primary and secondary source research. Thus, it is aimed to highlight how different types of buildings in Bursa reflect varying degrees of functional and symbolic priorities by illuminating national identity construction processes within the ongoing political agenda of the Turkish Republic.

Keywords: Bursa; Early Republican Period of Türkiye; Architectural priorities, Symbolism, Functionality

INTRODUCTION

At the turn of the 20th century, Anatolia underwent a transformation from the Ottoman Empire's lands to the Turkish Republic's nation. The grandiose change in policy resulted in a comprehensive shift in Turkey's built environment and a multi-layered reconstruction process. Accordingly, following the establishment of the Republic in 1923, a wide range of modernization projects were implemented to symbolize the country as a firm and consolidated reflection of the new state. In this way, the new architectural tendencies became a powerful medium in the 20th century, creating its own national language and symbolizing the new Turkish identity (Bozdoğan, 2012).

During this period, architectural priorities were continually reinterpreted and reconsidered in light of the ongoing economic and political agenda. Critically, the early 1920s marked the struggling post-war years and necessitated a prioritization of the reconstruction of the built environment in Anatolia, amid financial and technical difficulties (Batur, 2005). Instead of constructing new buildings all over the country in a completely new Republican manner, the architectural language of the time was highly influenced by the Ottoman heritage (Batur, 2005).

Here, Hobsbawm and Ranger evaluate governmental institutions as one of the critical settings to adopt new traditions into societies. Accordingly, integrating new habits into daily life flow generates synchronous spatial practices in masses and in this way, the "invented" traditions are deliberately grounded in newly produced built environments (Hobsbawm & Ranger, 1983). To spread the nationalist idea in the country, the Turkish Linguistic Society and the Turkish Historical Society were established in the 1930s as grand steps to institutionally consolidate linguistic and historical research on the Turkish national identity.

On the other hand, the national architecture emerges as another powerful medium to accustom the Turkish nationals to the new Republican state's reformist attitude from the early 20th century. At the first stage, the Turkish Republic prioritized reinterpretation of the ongoing modern movement to represent the nationalist ideal in the built environment. Thus, the new architectural tendency of the state preserved the existing Ottoman architectural heritage with specific interventions (Bozdoğan, 2012). Accordingly, these physical and symbolic constructions have been continuously produced in the Turkish Republic since the early 1920s to declare and convey national identity consciousness. In this way, the architecture of the 1920s mainly prioritized the continuation of the recent past, and Ottoman revivalism became a proper choice in architecture (Aslanoğlu, 1980). Thus, establishing

traditional bonds with the ongoing Ottoman style came to the forefront in re-constructing cities (Bozdoğan, 2012). While the 1920s are described as "the years of shortage", the 1930s illuminate a new period when new architectural tendencies and priorities were tried in the Republican built environment (Aslanoğlu, 1980).

Besides Ankara and İstanbul, Bursa came to the forefront in the Early Republican Period as the former capital of the Ottoman Empire with its centuries-old architectural heritage. The urban planning initiatives were conducted by C. C. Lörcher, H. Prost, and L. Piccinato in Bursa, following their planning commissions for Ankara and İstanbul (Dostoğlu&Oral, 1999). Although a considerable part of those planning initiatives failed in practice, the urbanization of Bursa preserved the significant principles of the plans, particularly in their functionalist approach, as evident in the formation of wide boulevards and neighborhoods, due to the rapid industrialization shift of the city in the 20th century (Aslanoğlu, 2000). Also, the construction of governmental and cultural buildings was accelerated on a large scale. The Provincial Hall, the Court House, the Ahmet Vefik Pasha Theater, and the Tayyare Cultural Center were amongst the pioneer buildings of the era that were constructed as significant symbolic and functional buildings of the Republic in Bursa (Köprülü Bağbancı, 2007).

Functionality was one of the key principles of the Early Republican architecture, particularly prioritized in industrial and public service buildings (Keleş Eriçok, 2013). The establishment of the Merinos Textile Factory in 1938 can be argued as a leading example of the functionalist approach. The industrial complex of Merinos features practical use of space and maximization of production efficiency. Similarly, the İpek-İş Factory (established in 1925) is among the first examples of the Republic's new industrialized and functionalized mindset (Türkoğlu Önce, 2019).

While functionality remained central, the Republican Period remarkably prioritized symbolism in the built environment with an apparent idealization of ideological and national connotations. The Atatürk Monument in the Heykel Square at the city centre was erected in 1926 as a striking symbol of the Republic of Turkey. This way, a visual focal point and an urban meeting area were created while the new Republican ideals were concretized in the city's urban structure. On the other hand, the renaming of main streets and arteries with Republican terms, such as Atatürk Street, Republican Street, and İnönü Street, reflects an urban-scale symbolization of the Republic, which can be traced in the transportation axis of the city (Köprülü Bağbancı, 2007).

Among various implementations in building and urban-scale initiatives, the symbolization of the Turkish national identity and the construction of a modern, functional, and majestic built environment emerge as the common goal of these processes. Thus, in this paper, the reconstruction process of Bursa is evaluated in terms of the Republican architecture priorities, which were implemented in both existing Ottoman edifices and newly constructed buildings, as a complex negotiation between functionality and symbolism. While industrial, governmental, and public service buildings primarily emphasize functional considerations, the city's urban-scale reconstruction initiatives symbolize Republican ideals in Bursa's built environment. In this way, the Early Republican architecture of Bursa reveals a double-edged prioritization of functionality and symbolism.

DISCUSSING THE REPUBLICAN ARCHITECTURE OF BURSA

As the first capital of the Ottoman Empire, Bursa holds a special significance as one of the founding provinces of Anatolia. Accordingly, the city has consistently remained on the agenda from the early Ottoman times until the country's Republican period, serving as an economic and socio-cultural focal point (Karabağ, 2025). However, in the 1800s, significant portions of the city were destroyed by fires. Then, Bursa sustained damage from multiple earthquakes between 1855 and 1860, which led to the initiation of new urban planning projects utilizing Western techniques and urbanization methodologies. Subsequently, the Suphi Bey Map was created as the city's first cadastral map and served as a model for future urban development (Kumaş, 2020). At that time, the comprehensive modernization process of the city, which began during the Tanzimat Reform Era, reached its golden age under the governorship of Ahmed Vefik Pasha (Karabağ, 2025). Firstly, the new city plans were designed, which were grounded on the ideas of the Suphi Bey Map, and the city's main arteries were expanded (Keleş Eriçok, 2013). Secondly, new expressways were constructed to improve Bursa's connectivity to other cities in Anatolia, especially from Kütahya and Eskişehir.

While the main arteries within the city were expanded, new institutions, including hospitals, municipal buildings, and government offices, were rapidly constructed (Aslanoğlu, 2000). Consequently, the Republican era marked a new chapter, which is characterized by the construction of cultural centers and governmental buildings designed to embody the modern ideals of the Republic. Accordingly, the People's Houses, governmental structures, cultural centers, and factories were built as significant symbols and functional necessities of the city. Furthermore, the renaming of major arteries, including the Streets of Atatürk, İsmet

İnönü, and Fevzi Çakmak, can be viewed as another symbolic and functional reflection of the ongoing Turkish national identity debates within Bursa's long-standing Ottoman structure. (Figure-1)



Figure 1: Aerial view of the Atatürk and Cumhuriyet Streets with the Khans Area and the Grand Mosque in Bursa.

As a critical threshold, the transition to mechanical silk production brought about new urbanization trends in Bursa from the late 19th century (Kaygalak, 2008). Developments in industrialization, the construction of new roads, and the expansion of public services, in a modern understanding, resulted in the emergence of new neighborhoods near factories and their associated government buildings. In this way, the traditional urban structure of Bursa, which consisted of the Hisar as the governmental center and the bazaar as the commercial center with khans, was renovated with the emergence of industrial buildings and factories in the built environment. Thus, the spatial and social necessities of those factories led to functional priorities in site selection, such as proximity to water sources and the workforce (Kaygalak, 2008).

Due to the city's advantageous location, Bursa has long been a pivotal center for trade and commerce throughout its history. Thus, the city had a large number of textile factories which were established in the late Ottoman period, such as Muradiye Silk Factory (est. 1838), *Fabrika-i Humayun* (est. 1852), İpeker Silk Factory (est. 1860), Turgut Yılmazipek-Romangal Silk Factory (est. 1861), Rıfat Özbek Silk Factory (est. 1865), and Osman Fevzi Efendi Silk Factory (est. in 1865) as the long-established industrial centers in the city. While non-Muslim investors established the majority of those factories at the time, following the proclamation of the Republic, a significant transformation occurred in the production

economy, particularly in the context of industrial entrepreneurship in the city. In contrast to the dominance of non-Muslim investors, the Republican Era led to a significant increase in Turkish investments, particularly in the production sector (Karabağ, 2025). In this way, the late 1920s and 1930s witnessed the large-scale establishment of textile factories, such as the Merinos Silk Factory (est. 1938) and the Gemlik Sunğipek Factory (est. 1938) (Karabağ, 2025). Besides those weaving factories, the Republican Bursa was expanded with the establishment of flour mill factories, the food industry, and machine and automotive factories, which were significant production complexes of the Republic at that time. In this way, the significant progress in the industrial sector, marked by the establishment of Republican complexes, became a clear sign of the state's functional priorities from the 1930s.

On the one hand, functionality became a major priority of the Republican architecture in Bursa; symbolism also became an apparent idealization of ideological and national connotations within the built environment. On October 29, 1931, the Atatürk Monument, designed by Turkish sculptor Nejat Sirel in Heykel Square, was unveiled in a grand ceremony as a prominent symbol of the Republic in the city. In this way, a visual focal point and an urban gathering space were established by materializing the new Republican ideals within the city's urban fabric. (Figure-2)

Especially from the late 1920s, the architectural environment of the city was greatly influenced by the ongoing Ottoman revivalism, which would later be referred to as the First Nationalist Movement in Republican studies. Accordingly, the Ottoman architectural style was combined with the continuing modernist attitude in the building scale. In this way, a hybrid language of architecture was produced in Bursa until the mid-1930s. Among a significant number of examples in the city, the Government Office (Hükümet Konağı) became one of the most enduring symbols of the Early Republican Era in Bursa. Located in Heykel Square, the Government Office comprises an institutional complex at the heart of the city, in cooperation with the Court (*Adliye*) and Treasury Office (*Maliye*) at the site. (Figure-3)



Figure 2: The Heykel Square on Atatürk Street. (Author's personal archive)



Figure 3: The view of the Government Office at Heykel Square. (Author's personal archive)

Following a decade, the architectural language of the Republic evolved into a more modernist, rationalist, and functional attitude. Accordingly, the Ottoman influences in the design principles were gradually decreased, and pure, geometrical masses came into prominence as concrete symbols of the consolidated Republican regime. The new rationalist manner in architecture can be observed in the cultural venues of Bursa. The Ahmet Vefik Pasha Theater, initially designed in 1938 as the People's House of Bursa by Münevver Belen, one of the leading female architects of the Turkish Republic, has remained a focal point of the Republic, regarding its location across Heykel Square, to this day. With its functional and modern plan typology comprising a cinema hall, classrooms, and administrative units, the Ahmet Vefik Pasha Theater exemplifies a clear, functional, and rational architectural perspective characteristic of the late 1930s (Dostoğlu, 2002). (Figure-4)



Figure 4: The view of the Ahmet Vefik Pasha Theater on Atatürk Street. (Author's personal archive)

Amongst Republican construction activities in the built environment, the Bursa State Fine Arts Gallery is situated on Atatürk Street, one of the city's principal thoroughfares, linking the historical Khans Area to the west with Heykel Square to the east. In addition to the Gallery, the central axis includes the Ahmet Vefik Pasha State Theater and the Tayyare Cultural Centre, which are significant cultural landmarks from the late Ottoman and early Republican periods. Accordingly, the building's location holds particular significance within the urban fabric, symbolizing the ideals of

the late Ottoman and Republican eras. Its immediate surroundings actively participate in urban life by hosting venues that exemplify Bursa's cultural modernization efforts. Furthermore, the Bursa State Fine Arts Gallery exemplifies a functional and minimalist architectural style through its tectonics. The Gallery's high ceilings provide an expansive exhibition space, facilitating an uninterrupted visitor experience that aligns with the functional priorities of Republican architecture. (Figure-5)



Figure 5: The view of the Bursa State Fine Arts Gallery (Author's personal archive, 2025)

Consequently, the Republican era signified a new chapter, characterized by the development of cultural centers and governmental edifices intended to embody the modern ideals of the Republic, such as the People's Houses, governmental structures, cultural centers, and factories. Moreover, the renaming of the central axis can be perceived as a symbolic reflection of the emerging Turkish national identity within Bursa's longstanding Ottoman framework. Through this process, the city exemplifies the intricate layers of modernization and institutionalization following the declaration of the Republic. Accordingly, Bursa occupies a distinctive position in Turkey, distinguished not only as the strategic capital of the Ottoman Empire with its rich commercial and historical significance but also as a city embodying the evolution of modern Turkey.

CONCLUSION

In this manner, the city exemplifies the complex layers of modernization and institutionalization following the declaration of the Republic. Therefore, Bursa holds a distinctive place in Turkey, distinguished not only as the strategic capital of the Ottoman Empire with its rich commercial and historical significance, but also as a city that embodies the evolution of modern Turkey.

Following the establishment of the Turkish Republic in 1923, a wide range of modernization projects were implemented to symbolize Türkiye as a firm and consolidated representation of the new state. During this transformative period, architectural priorities were continually reinterpreted, taking into account the ongoing economic and political agendas. Besides Ankara and İstanbul, Bursa came to the forefront as the former Ottoman capital with its centuries-old architectural heritage. Within this context, the question of architectural priorities became apparent in the city, concentrating on two main themes. On the one hand, functionality was emphasized in industrial and public service buildings; on the other hand, symbolism was prioritized in monuments, governmental institutions, and urban-scale interventions that aimed to embody the ideals of the Republic.

Accordingly, this study examines Bursa as a unique case where the negotiation of architectural priorities - between functionality and symbolism - shaped both the adaptation of Ottoman edifices and the construction of new buildings. The city's industrial complexes, such as the Merinos and İpek-İş factories, clearly demonstrate the functional urgency of production efficiency and economic modernization. At the same time, symbolic interventions - ranging from the Atatürk Monument in Heykel Square to the renaming of central streets -redefined the urban landscape as a medium for projecting Republican ideals. In this way, Bursa became a site where pragmatic concerns of modernization and ideological imperatives of nation-building were inscribed simultaneously in the built environment.

Thus, Bursa reveals that architectural priorities in the Early Republican period extended beyond technical or aesthetic considerations; they represented ideological strategies to balance functionality with symbolism as parallel instruments of reform. While functionality ensured the practical viability of industrial and public service structures, symbolism anchored collective memory and identity within the city's fabric. Thus, by focusing on Bursa, this study revealed how priorities in architecture functioned as dynamic agents of transformation,

mediating between economic realities, political agendas, and cultural heritage in the Early Republican Period of Türkiye.

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PRIORITIES IN THE CONSERVATION AND ADAPTIVE REUSE OF FETIH MOSQUE: A HISTORICAL AND ARCHITECTURAL ANALYSIS

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ABSTRACT

This paper examines the frescoes of the Greek Orthodox Church in Erzurum, later converted into the Fetih Mosque, with a focus on their historical, artistic, and technical aspects. Among the few surviving wall paintings in Erzurum's city center, these secco frescoes provide critical insights into Ottoman-period ecclesiastical art and the transformations of sacred spaces. The study traces the construction of the church, its conversion into a mosque, and the recent restoration process. Between 1996 and 1997, the building underwent modifications to serve as a mosque, during which many painted surfaces were concealed with iron and plaster panels. In 2025, these panels were removed under the supervision of conservation specialists, revealing the secco wall paintings. A detailed condition assessment identified surface dirt, localized paint loss, detachment of pigment layers, and structural issues such as cracks in the vault and supporting arches. The restoration process employed interdisciplinary methods, combining architectural, chemical, and art historical expertise, and involved careful consolidation of fragile paint layers, micro-injections for wall stabilization, and selective cleaning. This study emphasizes the technical characteristics of secco painting, the challenges of conserving exposed wall surfaces, and the importance of documenting the intervention stages. While traces of former religions, languages, and communities are hardly visible elsewhere in the city, this building offers a valuable contribution to reading and understanding those layers of the urban past.

Keywords: Adaptive Reuse, Erzurum, Church-To-Mosque Conversion, Restoration, Architectural Heritage

INTRODUCTION

Since wall paintings are integral parts of the buildings in which they are located, the development of an understanding of their conservation cannot be considered independently from the broader history of cultural heritage conservation. Although efforts to preserve cultural assets date back to ancient times, it was from the 19th century onwards that "restoration" emerged as a discipline grounded in scientific methods. The various conservation approaches that developed during this period influenced and advanced methods not only for architectural structures but also for wall paintings that form an inseparable whole with these structures (Ahunbay, 1996).

Eugène Viollet-le-Duc was recognized not only as the first architect and restoration expert to focus on medieval structures in France, but also as a pioneer of the Romantic movement, rationalist architecture, and the transition into the age of criticism at the beginning of the 19th century (Erder, 1972, pp. 5–6).

The French Revolution (1789–1799) profoundly transformed the political and social fabric of Europe and had equally significant effects on cultural heritage. During the Revolution, churches, palaces, and aristocratic properties were destroyed, looted, or rendered functionless. This devastation underscored the need to preserve historic buildings, particularly in heritage-rich regions such as France and Italy (Choay, 2001, pp. 33–35).

The awareness of restoration that arose in the aftermath of the French Revolution was based on two principal needs. First, the reconstruction of historical and cultural identity: the monuments damaged or destroyed during the Revolution held symbolic importance in the construction of a new national identity. Restoration efforts were therefore not only about repairing structures but also about preserving historical continuity. Second, the pressures of industrialization and urbanization: as France's industrial and urban growth accelerated after the Revolution, historic structures came under increasing pressure from modernization. This made it necessary for restoration practices to be placed on scientific and interdisciplinary foundations (Jokilehto, 1999, pp. 20–25).

These historical and social transformations were decisive in shaping Viollet-le-Duc's approach to restoration. His philosophy, rooted in historical research and scientific principles, emphasized respect for the historical and aesthetic identity of buildings. For him, restoration was not only the safeguarding of physical integrity but also the rearticulation of a structure's historical and cultural meaning. Accordingly, Viollet-le-Duc

framed restoration as a field at the intersection of science, aesthetics, and history (Viollet-le-Duc, 1858).

In the 19th century, restoration thinking in Europe developed under the influence of industrialization, urbanization, and the imperative of safeguarding cultural heritage. Alongside Viollet-le-Duc, three other important pioneers—Camillo Boito, Luca Beltrami, and Gustavo Giovannoni—laid the foundations of modern restoration practices through their differing approaches. Camillo Boito (1836–1914) argued that restoration must rest on scientific principles, stressing the importance of distinguishing between original and later additions. He also emphasized the preservation of the "traces of time," the principle of reversibility, and the ethical responsibility of restoration (Boito, 1883; Boito, 1884; Boito, 1893).

Luca Beltrami (1854–1933) grounded his approach in the protection of both the historical identity and aesthetic value of buildings. He advocated fidelity to the original design, particularly in the restoration of medieval and Renaissance structures, and emphasized the guiding role of historical documents and drawings in the process (Zanchetti, 1996).

Gustavo Giovannoni (1873–1947), by contrast, highlighted the principle of "conservation before restoration." He recommended intervention only when necessary to ensure preservation, privileging the retention of a structure's original patina and historical traces over additions or renewals (Giovannoni, 1926).

The approaches of these three figures can broadly be evaluated along two axes: Boito viewed restoration as a scientific and interventionist process, Beltrami emphasized historical aesthetics and fidelity to original design, while Giovannoni prioritized the preservation of authenticity and patina. The interplay of these three perspectives laid the groundwork for modern restoration as a discipline (Boito, 1883; Zanchetti, 1996; Giovannoni, 1926).

The movements initiated in this period eventually culminated in international charters and declarations that articulated restoration and conservation principles from a shared perspective. In the case of wall paintings, restoration and conservation approaches begin with the principles of authenticity and minimal intervention in the 1964 Venice Charter; the 1975 Amsterdam Declaration extends these principles into the broader urban and environmental context with its concept of integrated conservation; and the 1994 Nara Document expands the definition of authenticity into a multi-layered cultural concept. Specifically for wall paintings, the ICOMOS Principles for the Preservation

and Conservation/Restoration of Wall Paintings (2003) define core requirements: pre-intervention documentation (damage maps, photographs, analytical studies); addressing salt- and moisture-induced deterioration at its source; selecting materials compatible with original techniques (physico-chemically harmonious); ensuring reversibility and re-treatability; employing distinguishable yet visually coherent reintegration; and providing comprehensive "before–during–after" reporting.

In the Turkish context, these principles are implemented within the framework of the Law No. 2863 on the Conservation of Cultural and Natural Assets and its amendments under Law No. 5226, executed through the decisions of Regional Conservation Boards. Field implementation and supervision are carried out by KUDEBs (Conservation Implementation and Supervision Bureaus) and relevant local authorities, in line with the Regulation on the Principles of Conservation of Immovable Cultural Properties and the Regulation on Conservation-Oriented Development Plans and Environmental Design Projects.

Professional ethics and competencies of conservator-restorers must adhere to the E.C.C.O. Professional Guidelines (professional definition, ethics, competencies). Interventions should be conducted by interdisciplinary teams (conservators, material scientists, art historians, structural engineers, etc.), prioritizing authenticity, documentation, and traceability.

In this context, a particularly exciting development has recently taken place in Erzurum, where the Fetih Mosque—originally constructed as a Greek Orthodox Church—revealed long-hidden wall paintings after the removal of the secco panels that had concealed them from visitors for decades. This discovery not only provides a rare opportunity to study the artistic and iconographic layers of the monument, but also raises new questions about the building's historical transformations and cultural significance. The aim of this study is therefore to focus specifically on these wall paintings, situating them within both the conservation process now underway and the broader historical narrative of the church.

To achieve this aim, it is first necessary to trace the historical trajectory of the building—from its construction during the Ottoman period to its transformation from church to mosque, and finally to its ongoing restoration and present status.

Construction of the Church in the Ottoman Period

The population records of the Ottoman period indicate that Erzurum had a significant non-Muslim population for many years prior to the Republic era. The location of the present-day Fetih Mosque, near Maşatlık, the Papaz House, and the Sanasaryan Armenian School, suggests that it was in an area predominantly inhabited by non-Muslims. The building, constructed as a Greek Orthodox Church, features an inscription dated 1850, along with a depiction of a horse. However, it remains unclear whether this date refers to its original construction or a renovation carried out when it was transferred from the Greek Orthodox community to the Armenian community.

The Demirciler Church is located in the Ali Paşa neighborhood of Erzurum. This neighborhood takes its name from the Ali Paşa Mosque, which was commissioned in 1566 by Ali Paşa, then governor of Erzurum. The neighborhood is also home to the Erzurum Congress Building, one of the city's historically significant landmarks. In this context, Ali Paşa neighborhood is regarded as one of Erzurum's oldest and most historic settlements, distinguished by structures from the Ottoman era as well as buildings that bear witness to the history of the Turkish Republic (Kayserili, 2014, p.112).

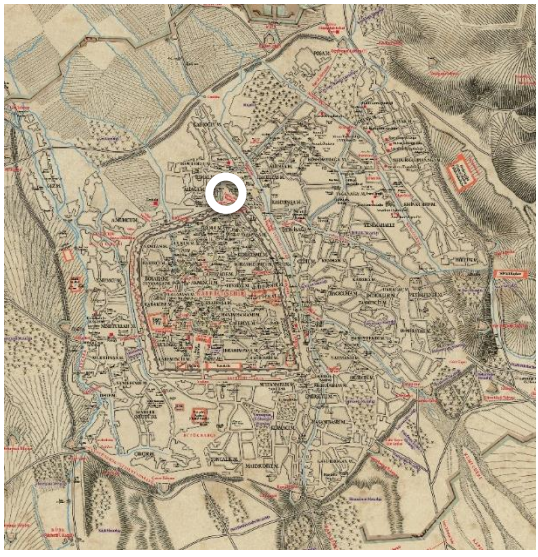


Figure 1. Location of Demirciler Church on the map of Erzurum

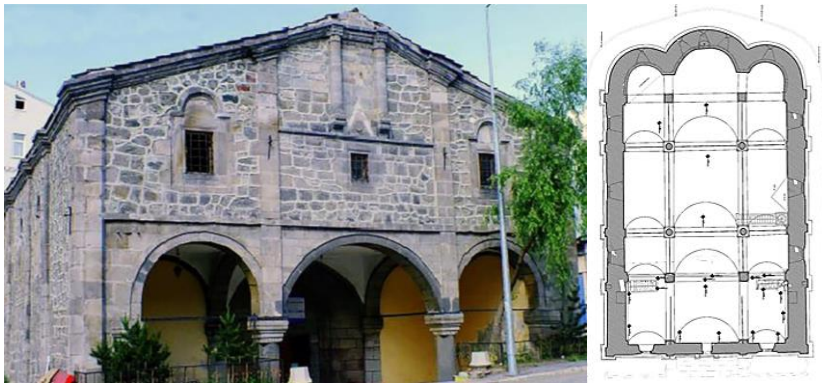


Figure 2. Erzurum Demirciler Chuch

The population register recorded under number 40465 in the Başbakanlık Osmanlı Arşivi Bab-ı Defteri Ceride Odası Defteri Catalog dated 1835 provides important data on the demographic structure of Erzurum before the Tanzimat reforms. According to this document, the neighborhood with the highest concentration of non-Muslims in the city was Ali Paşa, with 543 inhabitants. It was followed by Eminkurbu with 369 and Kavak with 212. Thus, by 1835, Ali Paşa was not only one of the main neighborhoods where the non-Muslim population resided, but also the most populous district of Erzurum (Taşkesenlioğlu, 2020, p.432).

According to the 1835 population records, Muslims made up 36% of the inhabitants in Ali Paşa, the neighborhood with the highest concentration of non-Muslims. A total of 543 non-Muslim men were registered in the neighborhood, 68 of whom were classified as a'lâ (upper class), 264 as evsât (middle class), 63 as ednâ (lower class), and 148 as children. In the same neighborhood, 300 Muslim men were registered, distributed across age groups as 90 young men, 115 children, 93 elderly, and 2 artillerymen (Özger, 2006).

In Kavak neighborhood, the male population in 1835 was 390. Of this, 54% (209 individuals) were non-Muslims and 46% (178 individuals) were Muslims (Özger, 2006).

One of the earliest sources on Erzurum's pre-Tanzimat population is provided by James Brant, a British diplomat who served as consul in Erzurum in 1836. Brant estimated the city's population at approximately 130,000 (Brant, 1836, p.201). Another British consul, Mr. Taylor, serving after the Imperial Edict of Reform (Islahat Fermanı), reported in 1869 that the city was home to 4,000 Orthodox Greeks, while the total non-Muslim population amounted to 411,000 (Bayraktutan, 2010, pp.91–95).

Following the Russo–Ottoman War of 1877–1878, French researcher Vital Cuinet, in his 1892 travel account, recorded 7,236 households across Erzurum's 50 neighborhoods. According to his data, the city's population totaled 60,097, of which 33,535 were Muslims, 21,413 Gregorian Armenians, 2,988 Catholics, 545 Protestants, 1,417 Orthodox Greeks, 6 Jews, 1,078 foreigners, and 960 other non-locals (Cuinet, 1890, p.183).

According to official statistics from 1914, the total population of Erzurum was recorded as 815,432, consisting of 673,297 Muslims, 136,618 Armenians, and 4,859 Greeks (Demirel, 1996, p.605; Karpat, 2010, p.358; Karataş, 2018, p.51). These figures reflect the ethno-religious composition of the city on the eve of World War I, showing that while Muslims formed the overwhelming majority, Armenian and Greek communities also maintained a notable presence. Overall, Erzurum maintained a diverse demographic composition from the 19th century up to World War I, although the proportion of Muslims steadily increased over time (Karpat, 2010, p.358).

However, the non-Muslim population of Erzurum, which had been considerable throughout the 19th century, decreased drastically during World War I due to the events of 1915, the Russian occupation between 1916 and 1918, and the conflicts accompanying the Ottoman recapture of the city in 1918.

As a result of this decline, many churches in Erzurum gradually lost their function as places of worship.

Before the First World War, according to Kévorkian (2011), 37,480 Armenians lived in 53 localities within the kaza of Erzurum, maintaining 43 churches, three monasteries, and 52 schools with an enrollment of 6,355 children. Evliya Çelebi, in his *Seyahatname*, noted that in 1645 the Armenian community in Erzurum lived across seven streets and used 13 churches for their worship. Firdevs Kulak Torun further identifies the churches associated with the Armenian community in Erzurum city center and surrounding districts as follows: Demirciler Church (now Fetih Mosque), Surp Minas Church, Hınıs Church, Hins Church, Oğlan Kale Church, Tortum Kale Church, Kevank Church, and possibly Pernak Church, (Kulak Torun, 2024).

Contemporary studies on Erzurum's historical monuments and churches, however, primarily mention only Demirciler Church in the city center and Surp Minas Church outside the center. This indicates a significant gap in the literature, (Yurttaş, Özkan, Köşklü, Tali, Okuyucu, Geyik, & Kındığılı, 2024); Yurttaş, Özkan, Köşklü, Tali, Okuyucu, Geyik, & Kındığılı, 2008).

The exact number of churches existed in Erzurum remains unknown. Archival records, however, document photographs and plan schemes for the Armenian community associated with the Surp Asdvadzadzin Cathedral. According to Collectif 2015, the basilica, measuring 47 meters in length and 27 meters in width including its bell tower, ranks—together with the restored Diyarbakır Surp Giragos Church—as one of the largest two Armenian churches in the eastern provinces of the Ottoman Empire (Collectif 2015, n.d.).

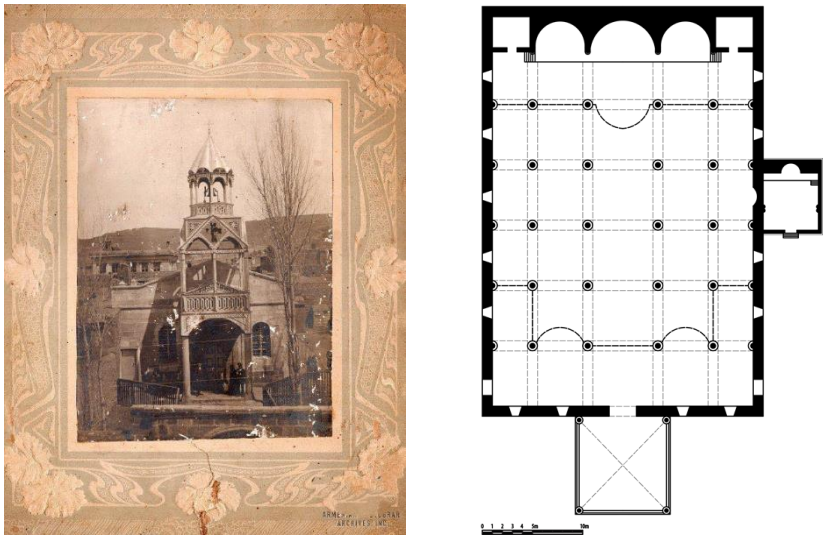


Figure 3. Erzurum Surp Asdvadzadzin Cathedral (Collectif 2015, n.d.)

Following 1915, the Erzurum Surp Asdvadzadzin Cathedral is believed to have been demolished along with other Armenian churches in the city. The only church in the city center of Erzurum that has endured is the Greek Orthodox Demirciler Church that was later converted into the Fetih Mosque. This situation may be attributed to the differing political positions of the two communities during the final years of the Ottoman Empire.

Transformation from Church to Mosque

In the following years, Demirciler Church was repurposed as a storage facility. The first visual record from this period dates back to 1977. On June 10, 1977, the structure was officially registered as a protected cultural asset by the Supreme Council of Real Estate Antiquities and Monuments under decree A601. In 1983, the Law on the Protection of Cultural and Natural Assets was enacted.

In 1989, local shopkeepers submitted a petition requesting that the building be converted into a mosque. A meeting held in 1990 resulted in the decision to transform the building into a mosque. Restoration efforts began in November 1996, and the mosque was officially opened for worship in May 1997. Archival records and photographs reveal that during the restoration process, the gypsum board panels installed at that time were later painted green at an unknown date. In another unknown period, the green paint was removed, and the panels were repainted white, maintaining their original appearance after the restoration.

One of the most significant decisions in the restoration process concerned the wall paintings in the central nave. The paintings, including a depiction of Jesus Christ, were covered due to the building's new function as a mosque. Despite the city's sociological structure and the limited conservation methods available at the time, experts chose an approach that would not damage the wall paintings. Instead of applying paint or plaster directly onto the frescoes, metal profiles were installed, and gypsum board panels were placed over them to conceal the images. Unlike common methods where wall paintings are directly covered with paint or plaster, this approach distinguished the Fetih Mosque, formerly the Demirciler Church, from other examples. Unfortunately, no archival photographs documenting the covering process have been found, though images taken before the intervention exist.

On April 19, 2009, a local newspaper, Bizim Anadolu, published an article titled "Fetih Mosque Abandoned to Its Fate", prompting the Ministry of Culture to take action. In August 2009, the Erzurum Conservation Council issued decree 1360, ordering the removal of a stove pipe from the structure. In December of the same year, the district mufti's office carried out the removal. On January 30, 2015, under decree 1512, the building was designated as a first-degree cultural heritage site. On July 13, 2021, decree 4677 determined its official conservation area.

Restoration and Contemporary Status

A new restoration project was initiated in 2024, during which the gypsum board panels were carefully removed. Upon examination, it was observed that the frescoes had remained largely intact despite exposure to moisture, salt deposits, and structural issues. However, structural problems within the building, along with temperature fluctuations and humidity, had caused the painted surfaces to swell and detach, resulting in the deformation of the plaster layers and material loss.



Figure 4. Erzurum Demirciler Chuch B4 grid colored photograph of the secco

The upcoming restoration phase, continues to focus on reinforcing the vault and stabilizing the detached plaster layers. The flaking paint layers will be secured to prevent further deterioration. These interventions will be carried out in accordance with contemporary conservation principles to ensure both structural safety and the preservation of the frescoes.

Conservation and Restoration of Wall Paintings

One of the oldest known wall paintings is located in the Chauvet Cave in the Ardèche region of southern France. According to radiocarbon analyses, the paintings on the cave walls date back approximately 32,000–30,000 years. The Chauvet-Pont d'Arc Cave was discovered in 1994, and the black-colored paintings on its walls were created using burnt wooden materials. Based on this method, carbon samples were directly taken from the paintings, and C14 dating studies were conducted in 1995. The mastery of painting techniques in Chauvet Cave is considered a milestone in Paleolithic art. The cave's discovery and its historical data have necessitated a fundamental reassessment of

traditional linear models regarding the development of prehistoric art and symbolic thought. By 2014, it was reported that more than 150 C14 dating had been conducted in the cave (Fritz & Tosello, 2015; Valladas et al., 2005).

There are a total of 400 animal depictions in the cave. When initially discovered, the vivid appearance of the paintings raised some doubts about their authenticity. However, subsequent detailed examinations identified a layer of calcite that had formed over thousands of years on the painting surfaces. This finding allowed the authenticity of the wall paintings to be verified. It is thought that a stone falling from the slope and blocking the cave entrance contributed to the natural preservation of the cave (Koca Meltem, Chauvet Cave).

Initially, wall paintings appeared on cave walls as handprints and depictions of daily life such as hunting, geometric shapes, portraits, and sacred symbols. With the emergence of monotheistic religions, these images evolved into religious content and were used to inform illiterate populations through depictions from the Bible in churches. In Islamic communities, wall paintings appear as artistic decorations often accompanied by verses from the Qur'an. Although their original purpose was to inform and convey knowledge, over time, these works also assumed an artistic and ideological dimension. Religious buildings have thus served as mediums for magnificent depictions with religious subjects.

In addition to places of worship, wall paintings can be found in palaces, madrasas, and residences, reflecting the wealth of the individual or period. For example, the depiction of cities in merchant houses or murals in palaces or state offices commissioned by kings or sultans demonstrates the wealth and status of that era.

Since their inception, wall paintings have shown variations in construction techniques. Key factors include the condition of the plaster, the quality of pigments, and the skill of the artist. Wall paintings are images applied directly to architectural surfaces using various painting techniques. They can be applied directly to stone surfaces (e.g., with oil techniques) or on pre-plastered or layered surfaces. Lime-based plaster techniques vary depending on the application method: paintings applied on fresh and moist plaster (fresco, lime fresco), on dry plaster (dry fresco/secco, lime dry fresco, oil paintings), or on semi-wet plaster (semi-fresco) must be distinguished. Additional techniques include incising and two supplementary applications: decorative coatings and wax- or oil-based polishing methods for protection or embellishment (Weyer, Roig Picazo, Pop, Cassar, Özköse, Vallet, & Srša, 2015).

Wall paintings are commonly referred to as "fresco." The term "fresco" originates from Italian, meaning "fresh." Frescoes are painted on wet plaster and require professional skill, quick execution, and precision. The artist applies pigments mixed with water or water-lime binder to wet plaster. As the plaster dries, the pigment binds strongly, creating highly durable images resistant to damage (Italian Renaissance Art, n.d.); Fuat, 2012).

Secco is a wall painting technique applied on dry plaster. The Italian term means "dry." Unlike fresco, it allows the artist more time and flexibility for planning and execution, making it more forgiving of mistakes (Evitan, 1992).

Tempera involves applying pigments with natural binders, derived from the Latin "to mix." This method is seen in both wood and wall paintings, often using egg whites, fig juice, or Arabic gum as binders. Because these are organic, they increase the paint's sensitivity (Fuat, 2012).

The quality of the wall itself plays a major role in the preservation of the painting. In stone or cave surfaces, no plaster or preparatory layer was initially used; pigments were applied directly to the stone. As human settlements transitioned to architecture, plaster became commonly used. The composition of layers, the ratio of aggregates and binders, their homogeneity, and proper drying determine the quality of the painting. Lime is used as the binder, while aggregates vary in size and ratio depending on the painting. Examples include washed river sand, brick fragments, marble dust, or pozzolan. Lime must be fully slaked; incompletely slaked lime mortars can cause surface efflorescence over time.

The wall painting's exposure to water, humidity, frost, salt, and sudden temperature changes can cause structural deterioration. Therefore, proper preservation or restoration of the building or site significantly slows the deterioration process of the artwork.

Fetih Mosque Wall Paintings: Restoration and Conservation Process

In general, the restoration of wall paintings follows several key stages: Initially, a condition assessment report is prepared by the restorer/conservator. The current state of the wall paintings and any deterioration are identified and documented with detailed photographs, which are included in the report. The construction technique of the wall painting is also indicated based on these observations.

Based on the condition assessment report, interventions that require urgent attention are prioritized. Restoration procedures are determined in accordance with ICOMOS guidelines and restoration ethics. Restoration is an interdisciplinary work, and when necessary, support from architects, civil engineers, chemists, art historians, and archaeologists is included in the planning and execution of the work.

The interventions outlined in the intervention report are implemented in the specified order. Unexpected developments may arise at any stage of the restoration. Therefore, the restorer must document and report any new developments and consult with other specialists to decide on potential revisions during the process.

Materials selected for restoration must be compatible with the original artwork and applied directly on the painting surface. Spot tests are crucial to determine the appropriate materials. In wall painting restoration, both the painted areas and the original plastered surfaces are important. Cleanliness and careful handling are the restorer's top priorities.

Photographs of the site should be taken before, during, and after the intervention. The types and ratios of materials used must be documented in the report.

Regarding the wall paintings in Fetih Mosque, prior to the restoration efforts, the building had already undergone modifications that affected the painted surfaces. Between 1996 and 1997, the municipality initiated a renovation process to make the previously unused building functional as a mosque. In the central nave, depictions of Jesus and angels were covered with iron panels and plaster boards. While there was no direct intervention on the painting surface, iron supports were installed in areas without designs.

In the 2025 restoration process, the plaster panels were removed under the supervision of ministry experts, revealing the wall painting. On-site examinations were conducted to assess the state of the area. Surface dirt is present on the painted areas, and stains are observed on plaster surfaces due to welding when iron panels were installed. Four paintings on the sides of the vault exhibit losses in the paint and plaster layers. Localized losses are noted in the area of Jesus on the ceiling. In areas outside the figures, some grey-colored paint remains on the plastered surface. Surface losses are present on the plastered areas, and some areas appear to contain cement-based plaster not belonging to the original period, showing white efflorescence due to salinity.

In addition to losses, blisters and curling are observed on local areas of the paint layers. In some areas, paint has lost adhesion and may flake in small pieces, although visible blistering is not observed. Cracks appear at different intervals on the vault, some reaching through multiple layers of the wall painting.

On the structural arches of the vault, stone blocks have a varnish layer applied in previous restorations. Over time, this varnish has yellowed and reduces permeability, but it has not caused material loss like in other similar areas.

First, the iron panels were removed from the site. In the A2 grid, especially under side lighting, the secco wall painting shows surface dirt, non-original paint, burn marks, and paint lifting/blistering. Documentation using three different techniques revealed varying details of the condition. Restoration began with consolidating the painted surfaces. Fragile paint layers detached from the surface were stabilized using reversible water-based acrylic resin.

The wall painting technique in the Fetih Mosque/Demirciler Church is secco. Consequently, paint layers are highly prone to detachment. Secco wall paintings, with their binder, require very careful stabilization due to their delicate nature. Priority is given to dry cleaning. Micro-injections are applied to stabilize the supporting wall. Salinity measurements guide salt extraction interventions. Wet cleaning may be performed under expert supervision. Lastly, aesthetic fills and retouching are planned for areas where plaster layers are missing.

CONCLUSION

Considering that Demirciler Church was built several centuries ago and its wall paintings were hidden behind panels for a long time, the restoration process can be described as exciting. The discovery that the wall paintings were largely preserved when the panels were removed, and that they are now awaiting to be presented to visitors by an interdisciplinary team, is thrilling from both a heritage and scientific perspective. Unlike other examples where wall paintings were covered with plaster and paint, in this case they were hidden behind panels to convert the church into a mosque, which proved to be a very effective preservation method. The church's significance is further heightened by the fact that it is the only surviving church in the city center of Erzurum, representing the city's rich and layered history. While traces of former religions, languages, and communities are hardly visible elsewhere in the city, this building offers a valuable contribution to reading and understanding those layers of the urban past.

The case of the Fetih Mosque demonstrates how architectural priorities evolve over time, shaped by changing cultural, social, and functional needs. The transformation of the building from a church to a mosque and the different approaches taken in its conservation reflect broader discussions on architectural priorities, adaptability, and historical preservation. The non-invasive covering method used for the frescoes during the 1996 restoration and the ongoing efforts to balance conservation with functionality illustrate the dynamic nature of architectural decision-making. This study contributes to the discourse on how heritage buildings can be preserved while accommodating contemporary uses, emphasizing that architectural priorities are neither fixed nor universal but rather shaped by the needs of their time.

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PRIORITIES IN POST-DISASTER URBAN TRANSFORMATION: MALATYA AFTER THE 2023 EARTHQUAKES

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ABSTRACT

The earthquakes of February 6 2023 significantly affected the historical and symbolic values of Malatya's city center. The destruction of Yeni Cami and its surrounding bazaar fabric not only caused physical losses but also created a profound void in terms of collective memory and urban identity. The interviews highlight that post-disaster reconstruction prioritized housing and the revival of economic activities, while the preservation of historical fabric and urban memory was relegated to a secondary position. The process, largely directed by central government authorities, limited the participation of local communities and experts; furthermore, the inadequate implementation of national and international conservation standards reinforced this tendency. These findings indicate the necessity of developing holistic approaches in post-disaster processes that focus not only on engineering-based resilience but also on the preservation of cultural and spatial identity. In conclusion, post-disaster reconstruction processes must ensure a balance between conservation and use, apply restoration methods strengthened by modern engineering techniques while preserving original values, and provide for the active involvement of local actors in decision-making. In this way, not only the physical environment but also the cultural continuity and collective memory of the city can be sustainably preserved.

Keywords: Urban Memory, Post-Earthquake Reconstruction, Historical Preservation, Architectural Priorities, Malatya

INTRODUCTION

Malatya has long been a gateway and crossroads for Anatolia and the Middle East. Due to its location, it has served as a settlement for various civilizations since prehistoric times and has undergone a modern urbanization process since the Republican period. The city's urban structure includes various dynamics such as historical texture, industrial zones, agricultural areas, and modern residential districts. Particularly known worldwide for apricot production, Malatya is also a city that attracts attention with its cultural and historical heritage. Between 1923 and 1950, Republican-era public buildings, government offices, train stations, schools, and main streets such as Atatürk Street were established in Malatya. After the 1950s, migration waves and industrialization movements across Turkey led to the expansion of new residential areas in the city center, and during the 1970s and 1980s, industrial zones developed, along with new housing areas and apartment-style buildings. After the 2023 Kahramanmaraş Earthquakes, many buildings in the city center were damaged, and urban transformation projects accelerated.

Malatya's traditional urban fabric consisted of relatively low-rise, intertwined commercial and residential areas. After the earthquake, however, larger buildings, which are common in many cities across the country but lack a relationship with the city's scale, have been constructed, spreading across larger areas. This new construction has not only destroyed Malatya's historical urban fabric but also significantly altered social life. With the destruction of traditional commercial areas in the city center, the old tradesman culture and community-based commercial structures have begun to disappear. These changes raise critical questions about priorities in architecture.

If architecture has priorities, what should they be in post-earthquake urban development? Should functionality, sustainability, cultural preservation, or economic concerns take precedence in shaping the reconstructed city? If architecture does not have priorities, how can the absence of a clear direction impact urban identity and collective memory?

The aim of this study is to examine the effects of the destruction of historical buildings and the subsequent redevelopment in the city center of Malatya after the February 6, 2023 earthquakes on urban memory. This study compares the urban fabric before and after the earthquake, evaluating the challenges faced in preserving historical and cultural values. To achieve this aim, the study analyzes the effects of post-earthquake urban development on urban memory, identifies the

damage sustained by historical buildings, and examines the restoration or demolition processes. It further proposes sustainable urban development strategies that prioritize the city's historical identity. A literature review was conducted on topics such as urban memory, post-disaster urban development, and the preservation of historical buildings. Changes in the urban fabric before and after the earthquake were analyzed using aerial photographs, satellite imagery, and field observations. Additionally, qualitative data obtained from interviews with local authorities, architects, urban planners, and historians were evaluated. In Malatya, eight in-depth interviews were conducted, during which the following questions were posed to experts specializing in the areas discussed:

Table 1. Example

Personal Information
Age:
Gender:
Profession and institution:
How many years have you been working in this profession?
How many years have you been living in Malatya?
Interview Questions
1. After the earthquake, in which buildings did you observe the most critical physical losses in the historic city center and landmark structures? Which building/market/street/alley held the most significant place in your memory?
2. In reconstruction decisions, was the preservation of the historical fabric prioritized, or did other agendas and priorities come to the fore?
3. When deciding on the reconstruction of landmark or other buildings, were the opinions of local people, civil society, and experts taken into account? What kinds of urban strategies were developed to preserve the social fabric?
4.What opportunities and obstacles were encountered in implementing national and international conservation standards?
5.What were the most important lessons learned from the reconstruction process? Was fidelity to historical references and original architectural elements maintained?
6. What strategies should be developed to enhance the post-disaster preservation of landmark structures and the resilience of historic city centers against similar disasters?
7. After the earthquake, how was the balance managed between urgent emergency response and long-term urban planning?

The responses to these questions will be reported in the Survey Findings section. As a preliminary step, the subject will be explored in depth through the following thematic headings: *Earthquake and Conservation*

Approaches in Historic Cities, *The Urban and Earthquake History of Malatya*, and *The Extent of Destruction in Malatya City Center During the 2023 Earthquakes*.

Earthquake and Conservation Approaches in Historic Cities

The management of settlements at risk of earthquakes in the face of a potential disaster is a crucial issue. Within this context, one of the key concerns affecting disciplines such as architecture, planning, history, and archaeology is the preservation of historic monuments in cities and the strategies to be adopted in the event of a disaster. The significance of a building for a city does not necessarily depend on it being thousands of years old, even in Turkey. For instance, a 50-year-old heritage site from the Republican era can also serve as a landmark for the city and its residents. In disasters such as earthquakes, not only physical structures are damaged, but the city's memory and identity are also affected. In major earthquakes experienced in our country, urban identity and memory have faced the risk of being lost, which in turn undermines residents' sense of belonging.

Recent studies on post-earthquake interventions in historic cities emphasize both physical resilience and socio-cultural preservation. Baquedano-Juliá et al. (2024) propose a multi-vulnerability analysis for seismic risk management in the historic city center of La Serena, Chile. Their study integrates structural, social, and functional vulnerabilities, demonstrating that effective conservation strategies must consider not only building safety but also urban fabric, community networks, and cultural heritage.

Simpson (2020) examines post-earthquake reconstruction in Gujarat, India, highlighting how everyday life, memory, and local politics influence reconstruction processes. The study reveals that neglecting community memory and social practices during rebuilding can lead to a sense of loss and disconnection, underscoring the importance of inclusive, culturally sensitive interventions in historic urban areas.

Qian et al. (2021) analyze emotional responses and place attachment in post-earthquake Beichuan, China. Their findings indicate that preservation and reconstruction strategies must address not only physical damage but also collective memory and emotional connections to place. The research demonstrates that successful recovery of historic towns involves balancing structural repair with the continuity of local identity and social cohesion.

Together, these studies underline that earthquake preparedness and conservation in historic cities require an integrated approach combining

structural safety, cultural heritage preservation, and attention to social memory.

The Urban and Earthquake History of Malatya

Malatya is located along the Eastern Anatolian Fault Zone, which has made it highly vulnerable to destructive earthquakes throughout history. According to Acarel et al. (2019), the Malatya Fault, situated within the Ovacık Fault Zone, is an active strike-slip fault system that has generated numerous earthquakes of varying magnitudes. Historical records indicate that the city and its surroundings have been repeatedly affected by strong seismic events, shaping both the urban fabric and settlement patterns over time.

The study emphasizes that seismic activity in the region has not only caused significant physical destruction but also influenced socio-economic and spatial transformations within the city. The recurrence of strong earthquakes highlights the persistent seismic risk for Malatya, underscoring the necessity of integrating earthquake preparedness and heritage conservation into its urban development strategies (Acarel et al., 2019).

Olğun's study emphasizes that earthquakes affect not only the physical fabric of a city but also its collective memory and identity. Using the case of Malatya New Mosque, the article demonstrates how a symbolic structure continues to preserve its position within the collective memory of the city even after a destructive event. This perspective highlights that post-disaster conservation should not be limited to structural reinforcement but must also aim at safeguarding cultural continuity. In the literature, this approach underlines the idea that architectural heritage plays a crucial role in transmitting urban memory and identity across generations, reinforcing the argument that conservation entails not only the preservation of material elements but also of social belonging and cultural heritage (Olğun, 2023).

The Extent of Destruction in Malatya City Center During the 2023 Earthquakes

In Malatya, following the 2023 Kahramanmaraş earthquakes, 16,870 buildings were reported as collapsed or heavily damaged, 1,694 as moderately damaged, and 17,745 as lightly damaged. With a population of 812,580 in 2022, this corresponds to approximately 208 collapsed or heavily damaged buildings per 10,000 people (Sakarya & Bektaş, 2025).



Figure 1. Example

Findings indicate that many buildings in the city center of Malatya were either completely destroyed or heavily damaged. Particularly, the old structures in the Battalgazi and Yeşilyurt districts were significantly affected. One of the city's landmarks, the Yeni Mosque (Hacı Yusuf Taş Mosqe), was largely destroyed in the February 6, 2023 earthquakes. The restorations it underwent throughout its known history and its recent destruction were examined. Similarly, the Government House, a significant example of Republican-era architectural heritage, was heavily damaged, demolished, and then rebuilt. The demolition of commercial areas in the city center disrupted the traditional shopkeeper culture and the commercial structures based on neighborhood solidarity. Important buildings that were a crucial part of the city's historical and cultural heritage were cleared without considering restoration plans. Traces of these buildings, along with the plots they were located on, were removed. Structures with no connection to the context were built in place of buildings that shaped the identity of Malatya's city center and held a significant place in urban memory.

Satellite images and field observations confirm that many historically and culturally significant areas, such as the Bazaar Center, Akpınar, the area surrounding Yeni Mosque, Buhara Street, and Fahri Kayahan, experienced substantial destruction. The historic Yeni Mosque, which had been an important symbol of the city, was almost entirely destroyed in the first earthquake at 04:17. The Government House, another landmark structure, suffered severe damage in the second major

earthquake at 13:24 on the same day, leading to its demolition. Other significant landmarks in the city's memory, such as the Bakırcılar Bazaar, Kuyumcular Bazaar, Şire Market, and Söğütlü Mosque, were also heavily damaged or completely destroyed. Furthermore, other iconic commercial areas, including Ayakkabıcılar Bazaar, Sebze Hali, Kasap Hali, and Mısır Çarşısı, were largely demolished, leading to an irreversible transformation in Malatya's urban identity.

Sakarya and Bektaş (2025), who analyzed 16 districts across 11 earthquake-affected provinces, also included two districts in Malatya: Battalgazi (#11) and Yeşilyurt (#12). According to their findings, old buildings in these areas were demolished and replaced with new ones, enhancing earthquake resilience. However, the focus of this paper is on how this reconstruction process was managed.

SURVEY FINDINGS

To better understand the earthquake damage and reconstruction processes in Malatya, qualitative data obtained from eight in-depth interviews with local authorities, architects, urban planners, and historians were evaluated, during which the questions listed in Table 1 were posed to experts specializing in the areas discussed.

Question 1. Critical Physical Losses in the Historic City Center

1. After the earthquake, in which buildings did you observe the most critical physical losses in the historic city center and landmark structures? Which building/market/street/alley held the most significant place in your memory?

G1: The most symbolic structure was the Yeni Mosque, which formed the main square of Malatya, along with the shoemakers' bazaar, the coppersmiths' bazaar, and other clustered bazaars built in the traditional arasta style. All of these were completely lost.

G2: I would say Yeni Mosque. In addition to its physical loss, it also served as a central square, a meeting point, and a focal structure. Therefore, its destruction was not just an architectural loss but also a loss of memory and identity. Its complete demolition brought an additional emotional impact, especially since restoration efforts from the previous earthquake had just been completed before it was destroyed again. I believe this created a distinct sense of grief in the social context.

As for the clustered commercial structures in Akpınar, which perhaps originated from the guild (ahilik) culture, I think their disappearance

represents a significant problem regarding the loss of traditional crafts and trade.

G3: The greatest loss is Yeni Mosque... Not only the mosque itself, but also the surrounding tea houses, tradesmen, and bazaars disappeared. Yeni Mosque was the symbolic monument of the city's heritage. It was not as large as a Friday mosque, but people would gather there. The tea houses and shops around it were centered on Yeni Mosque. In other words, it was the common symbol of the city, accepted by all segments of society.

G4: One of the saddest aspects after the February 6 earthquakes in Malatya was the destruction of the city's symbols—the Yeni Mosque, the Governor's Office buildings, and the central square where they stood. It was heartbreaking to witness the disappearance of a history and a set of memories tied to the city in our minds. The saddest moment for me was seeing the complete loss of the historic Malatya Bazaar, stretching from the Governor's Office and İnönü Bazaar all the way to the ring road—a place that had loomed large in our childhood and youth—now reduced to the appearance of an empty field.

G6: In my memory, the most important structure in the city center was Yeni Mosque and the streets and avenues leading to it. The city center also contained buildings dense with commercial activity, along with religious, public, and monumental structures—all of which were destroyed.

G7: Religious and cultural buildings experienced greater physical losses. Among the city's symbols, Söğütlü Mosque can be seen as the most significant example. In addition, important parts of the city's ancient culture disappeared, such as the Şire Bazaar, the Coppersmiths' Bazaar, and the road we used to call Halep Street, which had been in use since the reign of King Sargon of Akkad.

G8: After the earthquake, the most critical losses concentrated on the monumental structures and the traditional commercial fabric that shaped Malatya's historical identity. Mosques, inns, and bazaars suffered severe damage, erasing the focal points that had sustained the city's collective memory. From the perspective of urban identity, the loss of Yeni Mosque, Şire Bazaar—the heart of commercial life—and the market axes that housed traditional trades represents not only physical destruction but also a rupture in functionality. The disappearance of these areas has led to the erasure of the spatial references that ensured the city's historical continuity.

Question 2. Priorities in Reconstruction: Preservation vs. Other Agendas

2. In reconstruction decisions, was the preservation of the historical fabric prioritized, or did other agendas and priorities come to the fore?

G1: Historic buildings were not prioritized. Naturally, meeting the needs of earthquake victims had to come first; however, in doing so, no consultation was made with professional experts or with people familiar with the city's fabric. Ready-made projects drawn from outside the city began to be implemented. As a result, it can be said that the city's texture was almost completely lost.

G2: The preservation of memory and the revitalization of historic monuments were always discussed in principle, but as we have all observed, this was not reflected in practice. Urgent security measures, the housing crisis, the repair of damaged infrastructure, and the revival of economic life overshadowed these goals, and consequently, the issue of preserving the historic fabric became secondary.

G4: In the city's reconstruction process, efforts were made to turn the disadvantages caused by the earthquake into advantages, while also addressing the difficulties that residents and administrators had faced for years. The goal was to do this without losing Malatya's unique bazaar culture (such as the Coppersmiths' Bazaar, Shoemakers' Bazaar, Spice Bazaar, Şire Bazaar, and its surroundings), thereby keeping alive the urban memory shaped by this culture. The intention was to create a project process that, once completed, would resolve infrastructural and superstructural issues—such as parking—while still preserving the city's memory. However, the Malatya Metropolitan Municipality was not the sole authority in this process; the Ministry of Environment, Urbanization and Climate Change and other ministries were also involved, and their differing perspectives influenced the outcome.

G5: Of course, it was a priority, but the state, on the other hand, aimed to provide spaces for tradesmen. Since only mosques were officially registered as historic structures, they were protected. If they had not been registered, they too would have undergone interventions. The urgency was to restore spaces quickly. However, I believe that while the state was trying to revive the area, it was also attempting to create a space for itself, rather than truly grounding the process.

G7: Unfortunately, decisions taken without preserving the historic fabric and identity caused significant damage to urban memory. Streets and buildings that had retained their names and functioned as meeting points in the pre-digital era, despite the city's growth, disappeared as a result of these construction decisions.

G8: In the reconstruction process, the priority was largely placed on rapid solutions for housing needs and on reviving economic activities. Consequently, the street morphology, scale, and material integrity unique to the historic fabric were mostly overlooked. Instead of maintaining the balance between conservation and use that should characterize historic centers, functional priorities dominated, pushing the continuity of the city's authentic urban identity into the background.

Question 3. Inclusion of Local Communities and Experts in Reconstruction Decisions

3. When deciding on the reconstruction of landmark or other buildings, were the opinions of local people, civil society, and experts taken into account? What kinds of urban strategies were developed to preserve the social fabric?

G1: The views of local residents, architects, and people who grew up and lived in these streets were neither sought nor respected, in my opinion.

G2: In principle, participation was emphasized in texts and speeches, and we all heard these discussions. However, in practice, decisions evolved according to emergency circumstances. Speaking specifically about our city—since I don't know how it was in others—the fact that decisions were made by the central government left issues such as expert opinions, NGOs, and local community involvement insufficient.

G3: The public was not included in anything within the city. Even the Chamber of Architects was unaware of the projects and processes being carried out. No information was provided when asked, nor were they allowed to take part in the process.

G4: In the preservation of symbolic structures, consultations were held with NGOs that had local influence, such as the Chamber of Architects, and their opinions were taken into account through various meetings.

G5: The municipality was supposed to take the lead in this, but since its hands were tied, it could not do anything. What we actually witnessed here was a rather authoritarian approach.

G7: Expert opinions were consulted only in the construction of public buildings (such as the Malatya Governor's Office). For registered buildings, however, construction was initiated directly through board decisions without seeking such expertise.

G8: In reconstruction decisions, the involvement of experts and civil society remained limited, with decisions shaped primarily by central government and administrative institutions. As a result, no shared decision-making mechanisms were established during the restoration or reconstruction of symbolic structures—mechanisms that could have reinforced a sense of local belonging.

Question 4. Opportunities and Obstacles in Applying Conservation Standards

4.What opportunities and obstacles were encountered in implementing national and international conservation standards?

G1: I don't think national or international standards were applied.

G2: At the national level, the most important decision was taken a week after the earthquake—the board decisions of February 14. These decisions stated that historic buildings requiring urgent demolition—most of which were examples of civil architecture—should first be documented by local experts, KUDEB (Conservation Implementation and Control Office), or, if unavailable, by the Ministry of Culture, local museums, or similar institutions, before being demolished.

Afterwards, the grants provided by the Ministry for civil architecture were very positive—covering amounts that would normally never be funded, in some cases nearly the entire project cost. Agreements were made with property owners and architects, and the Ministry has continued to give significant support to ongoing projects. Progress, however, has been slow; even after nearly three years (about 2.5 years), only 8–9 projects have been initiated. This is a weak point, but overall, I think the Ministry has provided commendable support in these areas.

G4: At the national level, the February 14 decisions were taken. With these board decisions dated February 14, it was prioritized that buildings be documented and, if in emergency condition, demolished without delay in order to eliminate hazards. In terms of civil architecture, the financial support provided by the Ministry of Culture and Tourism to property owners made a positive contribution to the process.

G5: Since no conservation area was designated, administrators had no strategy to revive cultural heritage or to benefit from international funding sources in this field. In this regard, nothing was done—not from an engineering perspective, nor in terms of design, conservation, or urban planning.

G6: The Ministry of Culture and Tourism also mobilized in this process and demonstrated it through the related board decisions. These are the decisions taken on February 14, 2023, a week after the earthquake.

Question 5. Lessons Learned from the Reconstruction Process

5.What were the most important lessons learned from the reconstruction process? Was fidelity to historical references and original architectural elements maintained?

G1: I do not think any lessons were learned. In a city that was completely destroyed, there was no concern about avoiding the mistakes of the past. A rapid implementation process was initiated. Of course, it was a difficult situation—after all, this earthquake caused the destruction of 11 cities, and reconstructing them all at the same time is extremely challenging. However, historic buildings were not given the necessary importance. While efforts were made to preserve registered structures, unfortunately, the surrounding urban fabric was not protected.

G2: The most important lesson learned from the reconstruction process was that we realized we had no strategic decisions in place for emergencies. In terms of cultural heritage, urban fabric, and zoning plans, it became clear that we lacked critical strategic planning.

When it comes to the restoration of historic monuments, efforts were made to remain faithful to the original. However, as we saw in the case of Yeni Mosque, concrete was incorporated into the structure, since it was deemed impossible to rebuild it entirely as a masonry structure. In such structural matters, compromises were made—or perhaps inevitably had to be made.

Civil architecture appears somewhat more successful in this regard, staying closer to authenticity. Yet in the newly built areas, there are no references to history. I rarely observe connections to our heritage, traditional architecture, or historical references. I am not sure whether reconstructing Yeni Mosque in its place will truly revive collective memory. From the perspective of urban fabric, even the streets in this area are no longer connected as they once were.

G3: We did not see any effort or sensitivity directed toward preserving the city's identity or spirit. As I said, there was no consultation or exchange of ideas—the ministry simply acted according to its own decisions and left. That is the reality.

G4: Unfortunately, unlike the planning stage, the construction phase did not yield outcomes that preserved the city's memory or its bazaar

culture. The sole focus on rapid building led to such a level of cultural degradation that the city's identity was nearly erased. In the end, projects designed by people unfamiliar with Malatya's culture, and not reflecting the city's values or bazaar tradition, were implemented—destroying the historical memory of the city.

G8: The most important lesson is that post-disaster processes must not be built solely on engineering-based resilience, but also on the preservation of cultural and spatial identity.

Question 6. Strategies for Enhancing Post-Disaster Preservation and Resilience

6. What strategies should be developed to enhance the post-disaster preservation of landmark structures and the resilience of historic city centers against similar disasters?

G1: For example, Yeni Mosque was also damaged in the 2020 Elazığ-Sivrice earthquake, even though it had been reopened only 1.5–2 months earlier. This suggests that there were already issues in the restoration works. It was clear that there were problems with the ground, yet restoration was initiated without addressing these, which was later proven inadequate during the 2023 earthquakes. This shows that modern technological advancements must be integrated into restoration practices. It is necessary to ensure that historic buildings are transferred more securely into the future, and that modern construction technologies are more effectively applied in preservation.

G2: Now, what is very important is inventorying… Whether historic or not, documenting the traditional urban fabric is a crucial task. Another major shortcoming, in my opinion, lies in the identification and registration processes for cultural assets: during this stage, proper measured drawings (rölöve) are not produced. Instead, only rough dimensions such as length and width are given, and the buildings are documented superficially. At this stage, scans, 3D laser surveys, and measured drawings must be carried out. I believe this is a significant gap on the part of the Ministry of Culture—documenting the structures is essential.

What the earthquake has shown us in terms of restoration is the importance of ground- and statics-based strengthening. Restoration decisions must absolutely be made with structural analysis, and I believe a financing strategy should also be developed—perhaps a dedicated conservation fund, or whatever form such a fund might take. Otherwise, historic monuments remain neglected. For this reason, I think having a designated fund allocated specifically for such emergencies would be an important strategic decision. Another key issue is craftsmanship.

Skilled artisanship is one of the areas where we face the greatest difficulties. I believe that these traditional crafts and skills must be preserved, supported, and strengthened at the national level.

G3: Symbolic structures, which now mostly belong to history, should have been solidly restored. Otherwise, as in the case of Yeni Mosque, you end up carrying out multiple restorations. Historic houses and buildings could have been reinforced and renovated appropriately while they were still standing. However, since we had not yet reached that level of awareness, we must act more consciously from this point onward.

G4: In order to ensure the post-disaster preservation of symbolic structures, projects were developed using modern construction technologies to increase their earthquake resistance. Project and construction techniques were implemented to ensure that these symbolic structures would remain standing in the event of any future earthquakes.

G5: Identity strategies are more important than technical strategies. Without a mental and cultural transformation, unfortunately, nothing can truly be achieved.

G7: For registered and symbolic structures, post-disaster restoration and reconstruction works must be carried out while preserving original materials. Among the preventive measures, efforts should be made for areas that are strongly identified with the city, as in the case of Istanbul's Istiklal Street. Unfortunately, no such applications were implemented in our city before the disaster.

G8: Without compromising the authenticity of traditional buildings, they should be strengthened with contemporary engineering techniques, documented through 3D laser scanning and BIM-based conservation inventories, and safeguarded within risk-based master plans for historic city centers. Traditional materials should be reused in harmony with modern construction technologies. The local population—especially tradespeople and user groups—should be actively included in the reconstruction process, thereby reinforcing the social legitimacy of architectural decisions. In addition, the technical and financial support of organizations such as UNESCO, ICOMOS, and ICCROM should be utilized more effectively.

Question 7. Balance Between Emergency Response and Long-Term Planning; Preventing Permanence of Temporary Solutions

G2: I don't think such a step was taken, and each time I wonder how these issues will be resolved. It seems that the process will be carried out

somewhat together with the municipal police, so I am not very sure whether a binding decision, a protocol, signed agreements, or contracts exist. My guess is that they do not. This will be a very challenging process.

G5: In the February 6 earthquakes, unlike previous earthquakes, a disaster occurred that affected all the cities designated in emergency plans to support one another. This situation revealed the inadequacy of the emergency action plans. In the first days, the city carried out rescue and relief operations with its own resources, and later national and international teams stepped in.

Shelter containers and container workplaces were built for those who lost their homes and businesses in the city. However, since these were placed in pedestrian walkways, parks, and parking areas, they diminished the city's visual appeal and quality of life. To prevent these measures from becoming permanent, eviction commitments were obtained from organizations such as chambers of tradesmen. In this way, it was guaranteed that once permanent housing and workplaces were completed, the temporary areas would be vacated.

G6: After the earthquake, container towns were established, and people continued their lives there. However, in recent months, these containers have been rapidly vacated, and a return to the city's fabric has been achieved. This is indeed the correct approach: the traces of the earthquake should be erased, and new beginnings should be made. Temporary solutions must be removed before they become permanent

CONCLUSION

The interviews reveal that the February 6, 2023 earthquakes in Malatya led not only to physical destruction but also to profound losses in social and cultural memory. In particular, the disappearance of the Yeni Mosque and the surrounding bazaar fabric erased the city's symbolic focal points and disrupted the continuity of urban memory. This demonstrates that post-disaster processes must address not only structural resilience but also the preservation of collective memory, identity, and urban continuity.

In the reconstruction process, priority was given to housing and the revival of economic life, while the preservation of historical fabric and urban memory remained secondary. Due to the dominance of central government, the participation of local communities and experts was limited, highlighting the lack of a participatory and locally oriented approach.

In conclusion, post-disaster reconstruction processes must ensure a balance between conservation and use, apply restoration methods strengthened by modern engineering techniques while preserving original values, and provide for the active involvement of local actors in decision-making. In this way, not only the physical environment but also the cultural continuity and collective memory of the city can be sustainably preserved.

This study highlights the significant consequences of prioritization—or the lack thereof—in post-earthquake reconstruction efforts. The transformation of Malatya's city center following the earthquake was not carried out with a clear architectural or urban planning priority that considered the historical and social fabric of the city. Instead, the reconstruction process focused on rapid redevelopment without prioritizing cultural sustainability, historical preservation, or urban memory. If architecture has priorities, this case study suggests that those priorities should include protecting the historical and cultural integrity of urban areas, ensuring sustainability, and fostering community engagement in reconstruction efforts. However, the findings of this study indicate that the absence of such priorities in Malatya's reconstruction process has contributed to the erasure of urban memory rather than its preservation.

The post-earthquake urban transformation of Malatya serves as a critical example of how architectural priorities—or the failure to establish them—can shape the future of cities. The rapid destruction of historical structures without comprehensive restoration plans, the replacement of context-sensitive architecture with large, unrelated buildings, and the disruption of traditional economic and social networks all point to a reconstruction process that did not consider architectural priorities beyond immediate functional needs. The study ultimately argues that architectural priorities should extend beyond physical reconstruction to include historical continuity, cultural preservation, and sustainable urban development. In the case of Malatya, the post-earthquake reconstruction efforts have not only reshaped the built environment but also weakened the city's urban memory, proving that when everything is treated as a priority, nothing truly is.

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CULTURAL RESISTANCE AND MODES OF ADAPTATION IN HOUSING: THE CASE OF FENER-BALAT

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ABSTRACT

This study examines the transformation processes of housing in both their physical and socio-cultural dimensions, discussing the balance between sustainability and identity preservation in historic settlement areas. In this regard, the concepts of "resilience" and "adaptation" have been adopted as a methodological framework to analyze the responses of settlements to changing social, economic, and spatial conditions. Within this framework, the efforts of local communities to preserve their historical spatial practices, cultural identities, and collective memories (resilience capacity) on the one hand, and their ability to adapt flexibly to changing conditions (adaptation capacity) on the other, have been evaluated as two fundamental axes. Based on the assumption that housing is not only a physical structure but also a carrier of identity, belonging, and social relations, the study aims to examine urban transformation processes through the balance established between the preservation of cultural heritage and inclusive spatial development.

The study concretizes this theoretical approach through the Fener-Balat district of Istanbul, analyzing the district's resilience and adaptation capacity in the context of its multi-layered historical fabric, collective living practices, and current transformation dynamics. Ultimately, the Fener-Balat example demonstrates the need to evaluate traditional housing fabrics not only physically but also in terms of their social and cultural dimensions, emphasizing the importance of addressing urban interventions with a multidimensional approach.

Keywords: Housing, Resilience, Adaptation, Traditional Housing Fabric, Fener-Balat

INTRODUCTION

Housing is a multi-faceted phenomenon that has undergone transformation over time due to various dynamics. These transformations stem from various elements such as socio-cultural changes, adaptation to modern living practices, historical processes, environmental factors, technological advances, urbanization, government policies, individual preferences, and conservation-development strategies (Liu & Ye, 2024). Socio-cultural factors play a decisive role in shaping the functional organization and interior design of housing (Seo et al., 2022).

The influence of the natural environment on housing formation has weakened as people's capacity to transform nature has increased, while the determinism of socio-cultural factors has grown stronger. In the process of adapting to modern lifestyles, traditional dwellings are being transformed and repurposed to meet new spatial requirements (Jung et al., 2025). The urbanization process weakens the social and collective structures of rural settlements, while modernism has a transformative effect on traditional housing typologies and spatial characteristics (Gartiwa et al., 2024). However, efforts to preserve local cultural elements while adapting to modern requirements also constitute an important area of research.

Technological advances and the use of new building materials have fundamentally changed housing design and construction processes. Concrete has become one of the basic materials in housing construction on a global scale due to its durability and flexible use (Stolz et al., 2024). Consequently, housing has a dynamic structure shaped by the constant interaction of social, cultural, economic, environmental, and political factors. These transformations manifest themselves in spatial forms and usage practices that vary across different geographies and historical contexts.

Housing is not merely a physical shelter unit, but also a spatial carrier of social structures, cultural norms, and historical continuity. Modernization, globalization, and neoliberal urbanization processes are fundamentally transforming the formative dynamics of traditional housing typologies; this situation leads to complete change in some structures, while in other cases it results in hybridization or the continuity of cultural resistance.

This study aims to analyze the transformation of traditional housing typologies in different socio-spatial contexts, focusing on the concepts of resistance and adaptation. The balance between housing's capacity to preserve cultural identity and its flexibility to adapt to contemporary lifestyles will be a key subject of examination in this context. The study

also aims to reveal how economic pressures, urban transformation policies, and changes in lifestyles transform not only the physical structure of housing but also social relations and collective memory. In this framework, housing will be evaluated as a dynamic spatial system that carries the legacy of the past and responds to the needs of the present.

This study is structured based on the assumption that housing is not merely a physical shelter; it is also a carrier of cultural identity, social relations, and spatial memory. The following research questions have been posed to understand the tense relationship between the historical continuity of housing and its capacity to adapt to social change:

- How do the concepts of resistance and adaptation manifest themselves in traditional housing fabrics?
- How can relationships between the physical structure of housing and social and cultural continuity be established?
- What perspective do theoretical approaches offer in explaining these processes?

Through these questions, the study will analyze how housing is shaped not merely as an object but as a multi-layered social production space, and how this shaping demonstrates resilience or adapts at temporal and spatial levels.

METHODOLOGY

This study is designed within the framework of qualitative research methods and adopts a "case study" approach in order to analyze the local context in depth. The main focus of the research is to examine the forms of social and spatial resistance of the traditional housing fabric in the Fener-Balat district against urban transformation pressures, the processes of social change, and the interventions of the local community in this transformation process. In this context, it is anticipated that an analysis will be conducted on how the historical structure of the region maintains a balance from the perspectives of cultural identity and spatial sustainability.

The research process consists of three main stages. In the first stage, the physical characteristics of the dwellings will be examined in detail using on-site observation and photographic documentation methods. This stage aims to systematically analyze physical elements such as facade arrangements, entrance typologies, number of floors, and building materials. The second stage involves analyzing the relationships that housing units establish with public, semi-public, and private spaces. In this phase, the socio-spatial permeability of the living environment,

privacy levels, and accessibility patterns will be evaluated. In addition, active social interaction areas in the region (neighborhood relations, public meeting points, local commercial areas, etc.) will be mapped and addressed within the framework of the "social backbone" concept. In the third stage, a reading will be conducted on the unique spatial fabric of Fener-Balat; the differentiating and continuous aspects of residential organizations will be analyzed around concepts such as floor plan diversity, openness to growth, and spatial flexibility.

Finally, the qualitative data obtained will be transformed into spatial patterns through typological analysis and mapping techniques, and the relationships between indicators of resistance and adaptation will be conceptualized.

THE SPATIAL RESISTANCE AND ADAPTABILITY OF HOUSING

The evolution of housing should be understood not only as a product of architectural or engineering processes, but also as a dynamic formation process shaped by mutual interaction with social, cultural, and ecological systems. Grasping this multi-layered structure is only possible by evaluating different theoretical approaches together. This study proposes a multi-layered theoretical framework that extends from the aesthetic perceptions and cultural preferences of social structures to the production relations of space, from ecological continuity to the formation of cultural forms, to comprehend the temporal and spatial transformation of housing.

Bourdieu's (1984) shows that individuals' spatial preferences are shaped not only by economic capital but also by their cultural and social capital accumulations. The shaping of housing is expressed as a reflection not only of users' financial means but also of the tastes and lifestyles historically internalized by the social classes to which they belong. In this context, housing becomes a representational space where class identity is reproduced. The impact of class differences and cultural norms on housing design forms the basis for the potential for resistance or adaptation to spatial changes. In this context, Holling's (1973) concept of "resilience" also plays an important role. By defining a system's capacity to maintain its basic functioning despite external pressures, Holling helps us understand the forms of continuity exhibited by housing and urban settlements in the face of economic, environmental, and political transformations. This concept emphasizes that the understanding of spatial resilience should not be limited to the physical robustness of structures, but that the social bonds of communities, their sense of belonging, and their practices of coexistence also play a decisive role in resilience processes. Therefore,

multi-layered socio-spatial structures such as historic neighborhoods can be evaluated within this theoretical framework as resilient systems not only physically but also in terms of their social integrity. Similarly, Rapoport (1969) argued that housing forms are not solely determined by climate, materials, or engineering, but are rather shaped by cultural patterns. According to Rapoport, dwellings reflect cultural components such as the rituals of daily life, the concept of privacy, and family structure. This perspective suggests that housing goes beyond being merely a physical structure and that housing forms can also change with shifting cultural norms. However, it should be noted that this transformation does not always occur in linear progression. Some structures may resist transformation to preserve cultural continuity. This resistance indicates the power of space to preserve its social and cultural meaning. At this point, Turner's (1976) understanding of housing also emerges as an important source of inspiration. Turner emphasized that housing is not merely a physical shelter but a system in which the user carries out their life practices. According to Turner, the quality of a dwelling is directly related to who built it, who controls it, and who uses it. This indicates that housing should be approached as a participatory and flexible process. Environments that are shaped according to the needs of users and can be changed and transformed over time create settlements that are stronger and more meaningful in terms of spatial resistance and sustainability. Lefebvre (1991) also argued that space is not only a physical entity but also an area woven with social relations and constantly reproduced. Lefebvre's triad of space—perceived space, conceived space, and lived space—is extremely functional in understanding the multi-layered nature of housing. This approach emphasizes that when assessing the resistance of housing, it is necessary to focus not only on physical or legal components, but also on the memories, habits, and social relationships of those who use space. In this context, housing becomes not only a place of shelter, but also a stage where identity, belonging, and resistance are produced. This transformation can also be interpreted as a form of resistance, particularly against economic pressures, urban renewal projects, or processes of social exclusion. The "designed" space envisaged in official plans is reinterpreted through the daily practices of its users and becomes a "lived" space. This process of transformation forms the basis for space's resistance within its social, cultural, and economic contexts.

It is accepted that housing is not only a physical shelter but also a complex of structures shaped by socio-cultural, economic, and spatial practices. As proposed in the Habitat Rights Declaration presented at the United Nations Conference on Human Settlements in 1976, housing should be evaluated not only at the level of individual units but also at different scales such as "dwelling," "cluster," "pedestrian zone," and

"urban community." This multi-layer approach allows housing to be understood at both the individual and collective levels. This theoretical framework positions housing not only as shelter, but also as an object of production, a field of social relations, and an area of identity. In this respect, the plurality and flexibility of housing typologies are among the key determinants of spatial resilience and cultural adaptation.

Spatial resilience in relation to housing can be summarized as the capacity of a dwelling's physical structure, interior organization, and settlement pattern at the site plan scale to maintain its basic functions, meanings, and cultural significance over time or in the face of external pressures. This resilience is influenced by socio-cultural factors such as the beliefs, experiences, and cultural values of the inhabitants.

Traditional housing structures not only meet physical shelter needs; they are also important structures that reflect the cultural values, belief systems, and social relationships of communities in space. In this context, despite social change, modernization, and globalization processes, it has been observed that housing forms and spatial organizations in many traditional settlements show a certain resilience. This resilience in housing functions as a tool that serves to preserve cultural identity, historical continuity, and collective memory. However, this resilience does not imply absolute stagnation. The transformation of the social structure, changes in economic conditions, and differences in lifestyles bring about adaptation processes at various levels in the ways housing is used and in the organization of interior spaces. This situation demonstrates that traditional housing structures are not only carriers of the past but also flexible systems capable of responding to current needs (Ayuning Suwarlan et al., 2024). In this context, the resistance and adaptation of housing should be considered as two complementary dynamics, not mutually exclusive ones. Resilience represents the desire to preserve cultural continuity, while adaptation emerges as a strategy that enables this continuity to be sustained under changing social conditions. The "resilience" of housing refers to its capacity to ensure the continuity of cultural identity, local knowledge, and collective memory; its "adaptability" refers to the flexibility of housing structures to respond to changing economic, environmental, and social needs (Ukhurebor & Umukoro, 2016).

Increasing population pressure, transformations in land use, and modern urban requirements make the transformation of traditional housing forms inevitable. This transformation process also profoundly affects social norms, behavioral patterns, and forms of interaction within the community. At this point, Anthony Giddens' (1984) theory of structuration and Henri Lefebvre's (1991) theory of the production of space

emphasize that housing is an area where social relations are reproduced, arguing that individuals and institutions both reproduce and transform social structures through mutual interaction. In light of these approaches, traditional dwellings emerge as carriers of cultural resistance and socio-spatial identity. For this reason, the transformation processes of dwellings should not be limited to physical interventions but should be addressed together with their social and cultural dimensions. Balancing these two dimensions plays a critical role in both preserving cultural heritage and ensuring sustainable urban planning.

Study area

Considering these theoretical approaches, this section analyzes the physical and socio-cultural transformation processes of the residential fabric in the Fener-Balat district. Through the concepts of resistance and adaptation, this study aims to reveal how the spatial continuities of the neighborhood have evolved in terms of user interventions and social relations. These two concepts were used as the fundamental analytical tools of the study, enabling multi-layered readings of the transformation of space. While Fener and Balat are subjected to transformation pressures, the Mürselpaşa – Sancaktar – Yıldırım axis and its surroundings were selected as the focus area in this study as a micro-region with high representativeness. This area offers a unique example in terms of the spatial continuity of the traditional residential fabric, the traceability of social relations, and the concrete observability of transformation dynamics (Figure 1). Examinations based on historical photographs, documents, and comparisons with the current situation reveal traces of the region's transformation over time, demonstrating that the physical space has evolved not only through architectural elements but also as a carrier of social memory. This layered structure has made visible the patterns of resistance and adaptation to transformation exhibited by traditional housing typologies.

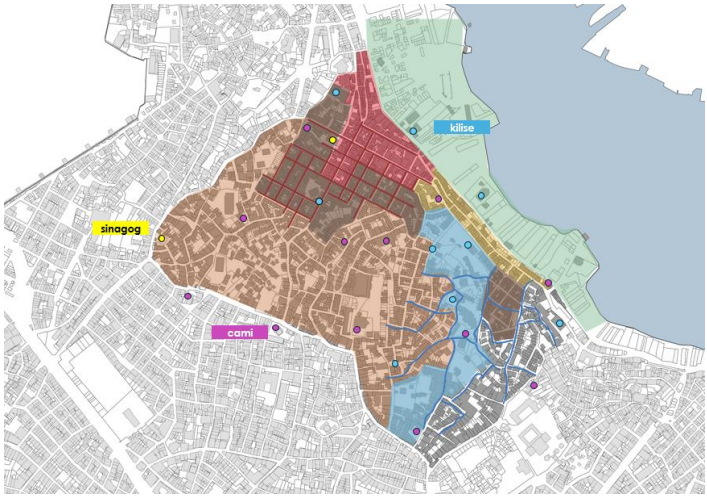


Figure 1 Study area Fener-Balat (Özçelik, 2025)

Throughout history, the Fener-Balat district has developed a multi-layered settlement fabric where different cultures, beliefs, and social groups have coexisted. During this process, residential buildings have demonstrated practices of both adaptation and resistance in response to changing conditions. New urban planning regulations developed after frequent fires during the Ottoman period created fractures in the traditional urban fabric. In this process, the organic street network was abandoned in places and replaced by grid-planned settlement forms (Figure); thus, the space was reshaped according to the modernization ideology of the central authority (Dinler & Güçhan, 2016). At the same time, different ethnic and religious communities—Jews, Greeks, Armenians, and Muslims—brought their own spatial practices to the region, leading to the development of an adaptation based on cultural pluralism in housing typologies. The row house typology seen in the late 19th and early 20th centuries demonstrated architectural resistance by being reinterpreted according to local needs. However, with the intense migration after 1950, the houses were divided into multi-unit buildings due to functional pressures; in this process, adaptation was mostly forced, while resistance was weak and fragmented. With restoration initiatives after 1996, the residences were equipped with new functions for tourism and the service sector (Gur, 2015); this transformation took shape as a planned but economically prioritized adaptation process claiming to preserve the historical fabric. Today, the area is experiencing selective and often exclusionary adaptations under the influence of gentrification, while some older user groups continue to show resistance at the spatial and social levels against socio-economic pressures.

This region, where different ethnic and religious communities have coexisted since the Ottoman period, possesses a strong capacity for resistance, embedded in space through its multicultural memory. The narrow street fabric, the houses with bay windows, the lively street life, and the use of public spaces reflect the collective lifestyles and spatial practices of the residents. However, since the 2000s, increasing pressure for urban transformation, the intensification of tourism, the change in the function of residences, the increase in the rate of tenancy, and changes in the ownership structure have caused this historical fabric and network of social relations to transform (Dinler & Güçhan, 2016). The efforts of the local community in Fener-Balat to maintain their sense of belonging to the place and preserve neighborly relations manifest as "socio-spatial resistance." On the other hand, with some buildings being converted into functions such as guesthouses, the area has developed a capacity for "spatial adaptation" towards a profile of temporary users. However, this adaptation is only embraced to a limited extent by temporary users who lack emotional and historical ties. According to the Habitat II Turkey National Report (1996), temporary settlements by low-income groups have become widespread in the area; this has led to the weakening of neighborly relations, the disruption of cultural continuity, and the loss of value of the housing fabric. Thus, a fragile balance has emerged between conservation efforts and socio-economic adaptation in Fener-Balat. Although rehabilitation projects after 2003 were designed with the aim of using original materials and social revitalization (Kishali E & Grecchi M, 2010), the effects of these projects in practice are debatable. The claim of a holistic approach has often been limited to the participation of a few actors, with visual similarity taking precedence over adaptation to the original fabric, while 'social revitalization' has been overshadowed by phenomena such as displacement and gentrification. Therefore, it is necessary to question the extent to which the region's socio-cultural resilience has been maintained, even if it has been physically preserved.

FINDINGS

A significant shift occurred in Ottoman residential architecture in the late 19th century; moving away from traditional housing concepts, new housing typologies influenced by the West began to be adopted. The first phase of this process took shape with the emergence of row houses; these structures gradually evolved into apartment buildings, forming the basic housing form of modern urban life. Row houses, developed in the second half of the 19th century as a solution to housing needs, were built for Muslim and non-Muslim middle-class merchants, tradesmen, artisans, and civil servants. These houses adopted typical floor plans consisting of two rooms, one facing the street and the other facing a small backyard,

with stairs and service areas located between them (Figure 2). The rooms were placed on both sides to provide natural lighting and orientation towards the street. The central sofa found in traditional residences has disappeared; the passageway and staircase have taken over this function. Functional differentiation in room use has increased; the first floor with its bay windows is arranged for sitting, while the second floor is for sleeping. Thus, the traditional plan based on the street-courtyard-sofa relationship has been replaced by a more compact layout with direct access from the street (Karakişi, 1999). The rooms and bay windows on the street facade are exemplary in terms of scale and symmetry. The front facades are designed as prestigious faces with rhythmic window arrangements, while the rear facades have a simpler and more functional layout. In some buildings, projections are seen from the ground floor upwards, with balconies above these projections on the upper floors (Photos 1, 2, 3).

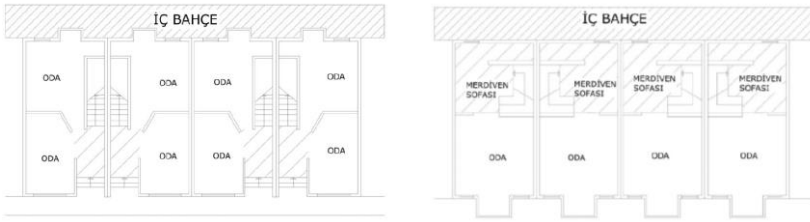


Figure 2 Fener Yıldırım Street row house ground floor and standard floor plan (Yılmaz, 2018)

The ground floors of houses in the Fener-Balat area are designed to maintain continuity with the street fabric. Due to the narrow width of the plots, no outdoor space such as a front garden, courtyard, or veranda has been created in these residences, which already utilize space optimally. Most of the residences are accessed directly from the street or from street level via a few steps. Stepped entrances have enabled the functional use of the basement. In residences where the ground floor is at the same level as the road, the entrances are mostly located on the right or left side along the facade, and in some cases, the entrance is placed in the center of the facade. In examples where the entrance is provided from the side of the facade, the remaining facade width offers more flexible spatial solutions, while this location also allows users to control who is entering; therefore, the window openings facing the entrance are placed in a way that supports functional and visual control (Figure 3). In residential typologies specific to the Fener-Balat area, entrance doors carry both functional and symbolic meaning; they stand out as architectural elements that emphasize the concept of entrance and guide the user through different formal arrangements (Photos 4, 5,

6, 7, 8, 9). Door openings generally range from 220 to 250 cm, and window openings and information about the year of construction are often located at the top of these openings, with these dates frequently inscribed according to the Hebrew calendar (Photos 10, 11).

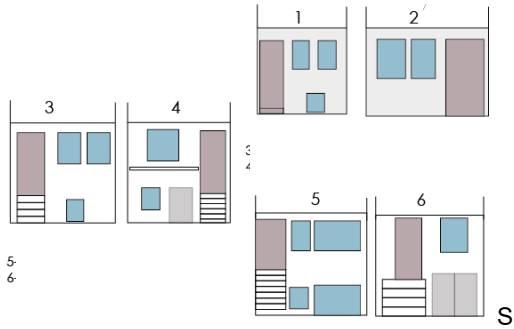


Figure 3 Types of residential access (Özçelik, 2025)

Entrances to homes are generally through a spacious hall, which also houses a staircase facilitating vertical circulation. The staircase opens onto a living room or hall on the upper floors. In cases where there are large plots, an additional room is often found on the rear facade. In residences where traditional planning has not been disrupted, kitchens are said to feature stone ovens and, in addition, a stove for washing clothes (Karakişi, 1999). Unlike the ground floors, toilets are also found on the upper floors. The toilets in these types of houses in Balat do not have separate cleaning areas. However, in residences that have changed hands and are now inhabited by a different ethnic group, the toilets have been converted into bathrooms or utilized with additions from storage rooms or other spaces. Some of these houses also have a backyard; due to the limited usable space, the backyard has either been enclosed and incorporated into the house or retained in its original state to allow for air and light. The kitchen, located at the rear of the house, opens onto the entrance hall and is usually adjacent to the toilet. However, in some solutions, the toilet has been removed from the hall and concealed within a space created inside the kitchen (Figure 4).

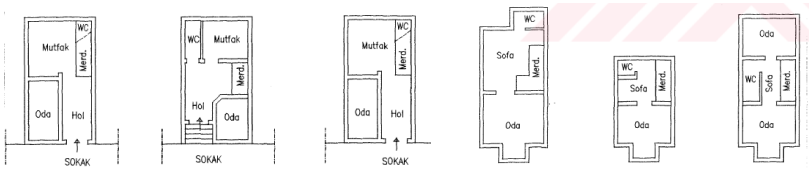


Figure 4 Functional separation within the residence, ground floors and standard floors (Yılmaz, 2018)

The first apartment buildings seen in the Balat neighborhood are residential structures belonging to the Jewish community, known as "yahudhanes." The Yahudhanes in Balat are among the early types of high-density housing developed in response to increasing population pressure, particularly from the second half of the 19th century onwards. Yahudhanes were typically multi-unit buildings constructed on narrow plots, accommodating multiple families. In this respect, they differed from the classical Ottoman housing typology and heralded the first trends toward apartment living. These structures supported multi-unit living out of economic necessity; today, however, they have largely changed functions and are used for commercial purposes. The Jewish residences in Balat show great architectural similarities, although they vary according to income level. Middle-class families lived in apartments with shared floors, while the upper-income group lived in houses with entire floors to themselves; the poorest segment lived in Jewish houses where multiple families lived together (Photos 12, 13). There is no separate bathroom; hygiene needs are met in communal baths or toilets. Laundry and dishes are washed in sinks in the kitchen (Figure 5). The residences are generally located around the synagogue, and the settlement pattern shows an orientation towards the religious center (Karakişi, 1999).

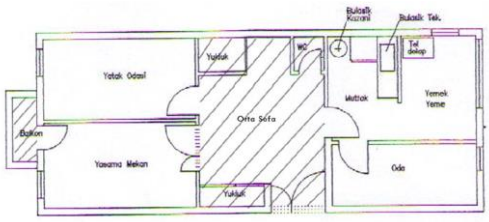


Figure 5 A residence belonging to Leon Brudo (Karakişi, 1999)

The socio-cultural and socio-economic changes of the 19th century led to significant spatial transformations in residential buildings. Initially serving a single family, these dwellings gradually transformed into structures where different families lived on each floor. With this transformation, the kitchen became integrated into the living space, the living room shrunk and evolved into a hallway, and access to the rooms began to be provided through these small hallways. Housing became increasingly specialized, with independent units formed on each floor that accommodated all functions. The living room transformed into a "staircase living room" that housed the staircase and wet areas (Figures 6, 7). Along with this change, the size of houses on narrow plots increased through extensions, and there was a shift from an inward-looking architectural approach to outward-facing structures with balconies.

While sensitivity to women's privacy continued, balconies were added above the bay windows, connecting the residences to the outdoor spaces. All these transformations emerged as necessary spatial adaptations responding to the social dynamics of the period (Karakişi, 1999; Verdön, 2007; Yılmaz, 2018).

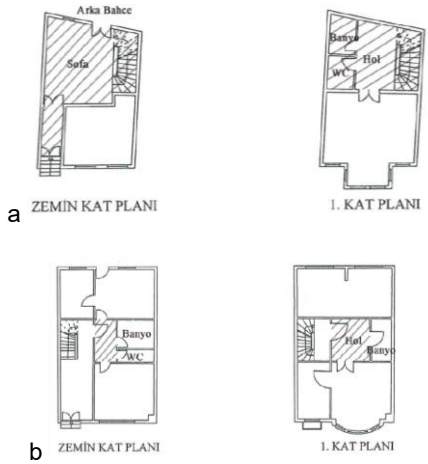


Figure 6 a) Housing plan for a single family, b) Housing plan for multiple families (Yılmaz, 2018)

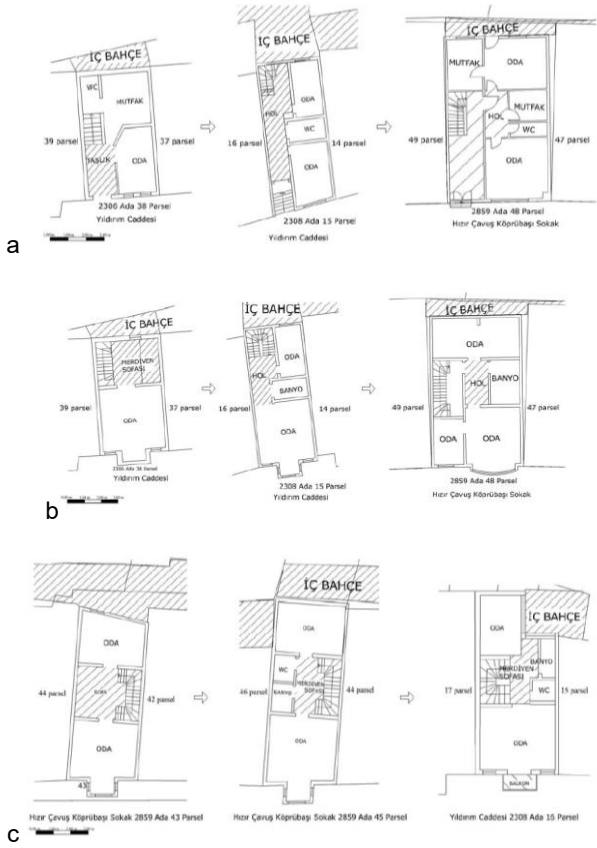


Figure 7 a) Interior renovation of residential buildings on the ground floor, b) Interior renovation of residential buildings on standard floors, Renovation of living rooms in residential buildings (Yılmaz, 2018)

When examining the temporal transformation of bay window types in the Fener and Balat districts and their effects on the facade, the bay window form, which was initially limited to a single story above the entrance, gained the function of a balcony with the introduction of balcony use into the architecture and was eventually extended throughout the entire story over time. During this process, the locations of the bay windows diversified geometrically, being placed in the center or on the sides, and the number of windows increased to achieve wider openings. In the final stage, the spread of the projections, starting on the ground floor and covering the entire facade and floors, formed the first forms of today's apartment concept (Karakişi, 1999; Yılmaz, 2018). This spatial evolution indicates a systematic transformation shaped by the need to gain space in residences and respond to user needs (Figure 8).

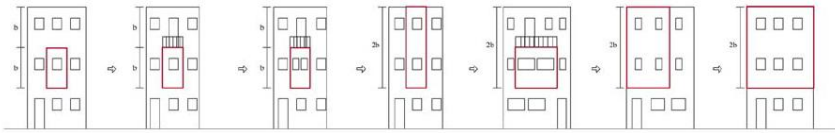


Figure 8. Differences in the bay windows of the residences on Fener Yıldırım Street (Yılmaz, 2018)

Over time, old structures that had deteriorated were demolished and replaced with multi-story reinforced concrete buildings, and the functions of the floors changed. Buildings that were once residential were converted for uses such as storage and workplaces. Particularly in the buildings on Ayan Street and Kürkçü Çeşme Street, some of the floors began to be used for commercial purposes such as cafes, bakeries, and pharmacies. (Photos 14, 15) As the ground floors were used for commercial purposes, the facades expanded, and the entrances were altered. Impressive entrance doors and windows have been closed, proportions have been changed, balcony railings and decorations have been altered or removed. Changes have been made to the layout of kitchens and bathrooms. Old stone ovens and wells have been removed, and laundry areas have been reorganized. Staircases that were previously shared have been separated to suit the use of different families. This transformed the independent dwellings into apartment buildings (Gur, 2015; Karakişi, 1999; Verdön, 2007). This transformation process changed the spatial character of the area and led to the fragmentation of the traditional housing fabric (16,17,18,19,20).

CONCLUSION

Located on the shores of the Golden Horn in Istanbul, the Fener-Balat district offers a multi-layered settlement fabric where different cultures, religions, and social classes have coexisted throughout history. This historical continuity, stretching from Byzantium to the Ottoman Empire and from the Republican era to the present day, has profoundly influenced the residential forms in the area, not only physically but also in terms of social relations and cultural meanings. In this context, Fener-Balat should be considered not merely as a place of shelter, but as a system where life practices, identity production, and social relations take place, as defined by Turner (1976).

The traditional housing fabric of Fener-Balat is characterized by wooden houses from the Ottoman period, narrow streets, bay-windowed facades, and a neighborhood-type settlement pattern. These spatial configurations, as Rapoport (1969) points out, were shaped not only by physical necessities but also by cultural values such as the concept of

privacy, family structure, and neighborly relations. These values were particularly evident in the spatial practices of the settled Greek, Armenian, and Jewish communities; the organization of the interior and exterior spaces of the houses bore the traces of this cultural diversity.

The resistance of these structures to the passage of time is based not only on the durability of the materials but also on socio-cultural elements such as social memory, collective belonging, and cultural continuity. Within the framework of Holling's (1973) definition of systemic resilience, the social fabric of this neighborhood, as much as its physical form, has shown a certain capacity to resist change. The spatial patterns in which everyday life is engraved in memory, expressed by Lefebvre's concept of "lived space," have been preserved for a long time in Fener-Balat.

However, this resistance does not imply absolute stagnation. Starting in the second half of the 20th century, migration, population mobility, changes in ownership, and differences in economic conditions led to changes in the residential fabric and user profile of the area. With the wave of internal migration that began in the 1950s, the demographic structure of the neighborhood changed; traditional users were replaced by new communities with different economic and cultural backgrounds. When evaluated within the framework of Giddens' (1984) structuration theory, this process shows that the existing social structure was both reproduced and transformed.

In recent years, Fener-Balat has undergone a more complex transformation process due to increasing tourism pressure and the impact of urban transformation policies. On the one hand, efforts to preserve the historical fabric aim to maintain spatial continuity; on the other hand, boutique hotel and café conversions challenge traditional forms of use by causing residences to evolve into public functions. This dual structure reveals a tension between cultural resistance and economic adaptation. While some structures and users resist urban transformation pressure, others adapt to the process, motivated by economic gain, social prestige, or integration into contemporary life. At this point, spatial resistance is not only related to the preservation of physical form but also to the desire to preserve users' established habits, social relationships, and their world of meaning associated with space.

Interventions made by users over time to traditional housing units—such as extensions, balcony additions, and roof enlargements—have not only responded to individual spatial needs but have also left permanent marks on the morphological structure of the region as a sign of unplanned densification and uncontrolled urban transformation. Such interventions can be interpreted as a result of efforts to adapt existing

structures to contemporary living conditions; however, they also contribute to the erosion of the original spatial pattern and the disruption of cultural continuity. In contrast, the continued preservation of traditional facade arrangements and certain architectural elements indicates that resistance strategies persist in some places. However, this resistance often remains symbolic; it has not been transformed into an intervention policy on a scale that would preserve structural integrity.

With the intervention of new users in space, the dwellings have undergone both physical and functional transformations: interventions such as divisions in interior spaces, additions of floors, and facade alterations can be interpreted as a local reflection of Turner's participatory housing production approach. This situation has made it possible to adapt the dwellings to changing lifestyles by developing a spatial adaptation strategy. This transformation process also highlights the difference between Lefebvre's "designed space" and "lived space."

In the case of Fener-Balat, it is seen that the spatial preferences and daily life practices of long-time residents reflect the continuity of a certain habitus. This habitus is the spatial counterpart of individuals' lifestyles, which stem from their social positions and are internalized over time. However, interventions from outside this established structure—particularly the influx of actors with greater economic and cultural capital into the neighborhood—threaten the sustainability of this habitus and produce a mechanism of pressure that can be assessed within the framework of Bourdieu's concept of "symbolic violence." In this context, the confrontation of different forms of capital (economic, cultural, social) in the field reveals the tensions that arise in the transformation processes of housing. All these processes reveal the fragile balance between resistance and adaptation in the urban space, demonstrating that housing is constantly reproduced not only as a physical entity but also as a socio-cultural one.

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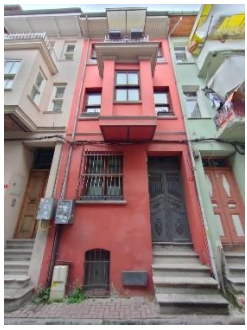
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PHOTOS



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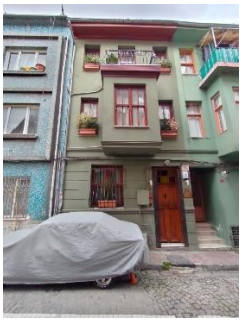
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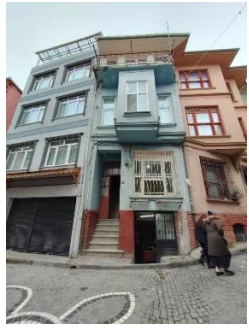
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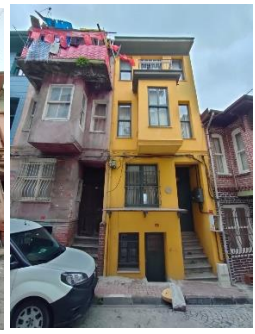
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