BUILT FORM

Transformation, Connectivity and Accessibility Analysis of Elazığ's Urban Squares

Burcu Ayerdem [1†] **Emrah Şıkoğlu** [2]

[1]Department of Geography, Faculty of Humanities and Social Sciences, Fırat University, Elazığ, Turkey, E-mail: burcuayerdem@icloud.com. [2]Department of Geography, Faculty of Humanities and Social Sciences, Fırat University, Elazığ, Turkey, E-mail: emrahskoglu@firat.edu.tr

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Abstract

Urban squares are significant public spaces utilized by city dwellers for social, cultural, political, and commercial purposes, in short, they are central venues for urban life. City users frequently prefer urban squares to carry out recreational activities. Within the process of urbanization, the most intensively used urban spaces are squares and the main streets associated with them. Streets that provide access to these squares, along with the squares themselves, serve as carriers of the social memory accumulated throughout a city's historical development, while also forming the core of urban life as elements of cultural heritage. Furthermore, urban squares stand out as key areas that reflect urban identity and play an important role in shaping the city's image. This study aims to analyze the historical development, spatial transformation, urban context, and accessibility levels of 15 *Temmuz Demokrasi* Square and Republic Square located in the city centre of Elazığ. The physical and functional transformations these squares have undergone from past to present are evaluated with their impacts on urban memory and social life. Within the scope of spatial analysis, the positions of the squares in the street hierarchy, along with their local and global integration levels, are examined. In the accessibility analysis, service areas at the neighbourhood scale are determined based on walking distances.

Introduction

The term *meydan* (square) originates from Arabic and has been referred to by various names across different cultures throughout history. These public open spaces, known as *agora* in Ancient Greece, *forum* in Rome, *piazza* in Italy, *plaza* in Spain, and *platz* in Germany, represent spatial organizations that serve similar functions (Akman, 2020). Within the urban fabric, squares are considered important public open spaces and urban focal points that accommodate various functions and are characterized by their roles in facilitating gathering and dispersal (Kayalar, 2006).

[†]**Contact** Emrah Şıkoğlu, E-mail: emrahskoglu@firat.edu.tr, Department of Geography, Faculty of Humanities and Social Sciences, Fırat University, Elazığ, Turkey.

Squares reflect the cultural values of the period in which they were constructed, in terms of their size, visual appeal, formal or informal structure, and the possibilities they offer for use. In this context, the agoras of Ancient Greek cities symbolized a simple and functional lifestyle as spaces where social issues were debated. In contrast, medieval squares, despite their geometric irregularity, reflected a lifestyle emphasizing art, often featuring sculptures and pedestrian-friendly environments. During the Renaissance, squares emphasized balance and symmetry, representing an orderly and formal way of life. Baroque-era squares, with their dynamic and ornate designs, showcased a more decorative and flamboyant lifestyle. In the modern era, however, due to increasing business activities and vehicle traffic, squares have become confined within the urban fabric and reflect a more mechanical and functional mode of urban living (Taşçı, 2012).

Since the early years of the Republic, Turkey has entered a new era. During this period, urban squares were not only regarded as open spaces but also began to be formally defined and accepted as integral elements of urban space. These areas functioned as gathering places imbued with socio-economic, symbolic, and political significance, and became focal points for social organization. Particularly from the early 1980s onward, in line with economic and foreign policy implementations, the concept of the urban square gained further prominence in Turkey, leading to the realization of various projects. In this context, society began to shift away from traditional gathering venues such as mosques, and instead, adopted urban squares—perceived as spaces of encounter—as new sites for public congregation (Seydioğulları, 2018).

During the Seljuk and Ottoman periods, squares were not considered key components of urban design. However, this perception changed with the Republican era, during which the role of mosques and their surroundings as gathering points was gradually replaced by alternative spaces of interaction. Squares located in front of administrative buildings such as governorates and district offices came to be regarded as spaces of political authority. These squares, initially used for ceremonies, celebrations, and various events, gradually evolved to serve diverse purposes (Püşman, 2019).

The 1950s marked a period when multi-party politics became more vibrant and the public began to occupy squares more frequently. As a result, areas such as Taksim Square and Kızılay Square emerged as key elements of urban identity, deeply embedded in collective memory (Püşman, 2019).

Today, urban squares have become more dynamic environments. They are spaces where people fulfill their social needs, attend concerts and exhibitions, and access amenities such as shopping centers, cafes, and restaurants. These areas host a wide range of public activities and are now recognized as urban spaces that reflect the identity of the city (Seydioğulları, 2018).

Methods and techniques

Within the scope of this study, relevant core concepts, definitions, and scientific research were examined in line with the adopted research methodology. In developing the conceptual framework, key urban terms such as city, urban open space, urban green space, square, and urban square were analyzed through a comprehensive literature review. To understand the typological transformation of urban squares over time, historical aerial imagery was utilized with the support of Google Earth Pro.

Spatial analyses were conducted using the Space Syntax method, which is an analytical technique used to investigate the configuration of spatial structures and their effects on user behavior. This method evaluates the topological features and connectivity of space through mathematical and graphical models, enabling assessments of spatial properties such as accessibility, permeability, and functionality (Czerkaue-Yamu, 2010). Typically applied via software like DepthmapX, this analysis provides data on visual accessibility, movement patterns,

and social interaction potential. It is widely used in urban planning, architecture, and urban design to assess human movement, social interactions, and spatial intensity of use (Çil, 2006; Gündoğdu, 2014). By uncovering the influence of spatial layout on user behavior, the method supports the development of more functional and user-oriented design decisions.

In this study, the spatial relationships and accessibility levels of central urban squares in Elazığ were examined through the Space Syntax method along with various GIS-based spatial techniques. Connections between main roads and squares were identified, and their influence on urban life was analyzed. Accessibility conditions of squares were interpreted based on street and road usage intensities.

Additionally, Buffer Analysis was employed to assess the accessibility of squares within the administrative boundaries of Elazığ's central neighborhoods. Buffer analysis is a geographic technique used to calculate areas within a specified distance from a point, line, or polygon. It is commonly applied in land-use planning, environmental management, and transportation network development. In the context of public open space accessibility, buffer zones help determine which areas fall within accessible distances from urban squares and support the formulation of planning policies to improve spatial equity (Gümüş & Çiftçi, 2023).

Furthermore, the Network Service Area Analysis method was used to analyze the accessibility of squares from neighboring areas based on walking time. The analysis defined 5-10- and 15-minute walking distances to determine areas that could or could not access the squares within these time thresholds. The initial phase of this analysis involved organizing square and road network data to ensure compatibility. The ArcGIS StreetMap Premium database was then used to generate spatial analysis maps. Network service area analysis determines the areas reachable from a specific point within a defined time or distance on a transportation network (Kaya, 2024). For instance, a five-minute walking service area includes all paths that can be reached from a location within that time frame (Özdemir & Yolcu, 2023).

Historical evolution of urban squares in Elazığ

In the city of Elazığ, there are two large urban squares, each covering approximately 20,000 m². Located at the heart of the city, 15 *Temmuz Demokrasi* (Post Office) Square derives its name from the PTT (Post Office) building situated within the area (Figure 1). In the area where the square is located today, residential buildings existed in the 1930s (Figure 2). Between 1935 and 1940, these buildings were demolished (Figure 2), and the vacant area initially became a route frequently used by people to reach the train station and the butcher's market located within the covered bazaar.

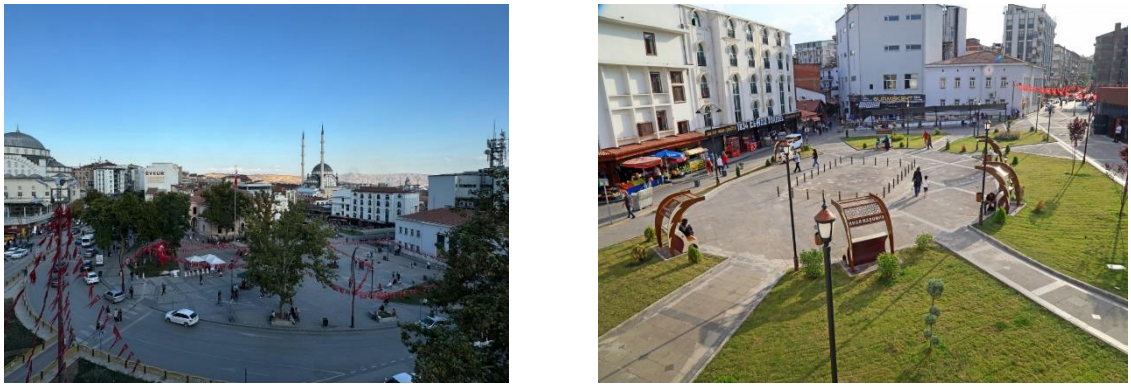

Figure 1. 15 *Temmuz Demokrasi* square (Post office square)

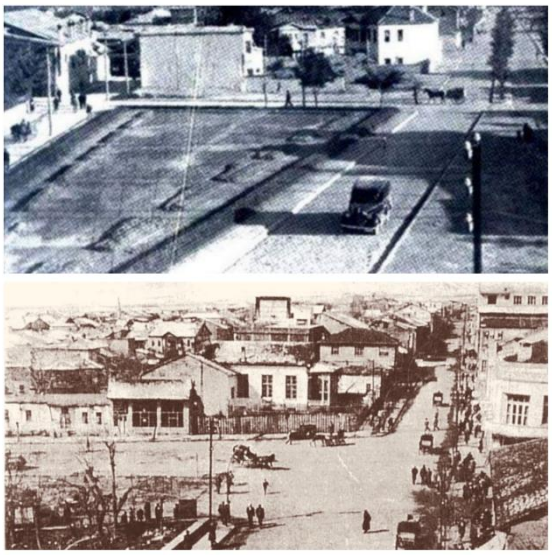

Figure 2. 15 *Temmuz Demokrasi* (Post office) square cin 1935-40s

Figure 3. 15 *Temmuz Demokrasi* (Post office) square taxi stand – bus stop

By the years 1945–1950, the area began to be used as a taxi stand. At that time, the municipal building was located to the north of the area, while the governor's office stood to the east. In the 1950s, the PTT (Post Office) building was constructed to the south of the area. Following the construction of the PTT building, the area began to be used intensively by the public. Until the 1975s, the square functioned as a place where taxis waited and street vendors sold soft drinks. In the 1980s, it was converted into a municipal bus stop (Figure 3). Municipal buses serving many parts of the city began operating from this stop.

The area currently used as a square was not originally designed for that purpose. Over time, however, it gradually acquired the characteristics of a public square. Initially, it served merely as a shortcut used by pedestrians, later evolving into a taxi stand and subsequently a municipal bus stop. In the course of this transformation, the area further developed into a space where city residents could sit, rest, and engage in social, cultural, and commercial activities.

The square experiences a high rate of usage due to its proximity to the city's central business district and its location at the intersection of some of the city's most important and busiest streets, such as Valifahribey Street to the west, *İstasyon* Street to the south, and *Gazi* Street to the northwest, as well as its immediate northeast adjacency to the *İzzetpaşa* Mosque. In 2003, the square covered an area of approximately 1,600 m². In 2015, the square was expanded to around 3,000 m² by incorporating a portion of the western side of the historic governor's office garden located immediately to its east. Following the 2020 Elazığ earthquake, the SGK building situated to the southeast of the square sustained severe damage and was subsequently demolished; the site was then integrated into the square, increasing its total area to approximately 5,600 m² (Figure 4).

The project initiated for Post Office Square following the 2020 Elazığ earthquake was completed in 2023, and the square was renamed as 15 *Temmuz Demokrasi* Square. Another significant urban square is *Cumhuriyet* Square (Figure 5).

Figure 4. Satellite images of 15 *Temmuz Demokrasi* square, 2003-2024

Figure 5. *Cumhuriyet* square

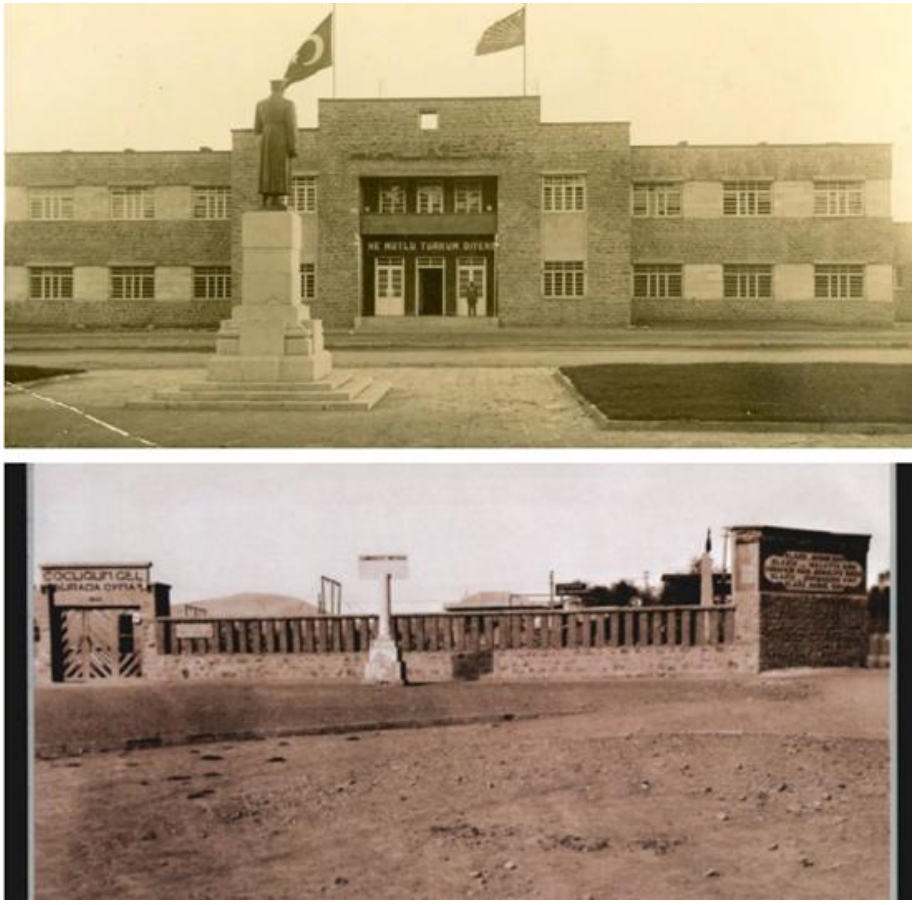

Figure 6. The entrance to the *Cumhuriyet* square and *Kültür Park* in the 1930s

The square was established in 1933 through a redevelopment initiative led by the then-governor *Tevfik Sırrı Gür* and was named '*Cumhuriyet* Square' in commemoration of the Republic Day celebrated on October 29. At the time of its initial construction, the square was built in front of the Elazığ Community Center (currently the Teachers' House). To the west of the

square - on the site where the former *Mehmet Akif* High School was located - there was a cultural park, while a stadium occupied the area where the current governor's office stands (Figure 6).

The name '*Cumhuriyet* Square' was used until 2007. Following the demolition of the *Ahmet Aytar* Indoor Sports Hall and the incorporation of the resulting vacant area into the square, it began to be referred to as *Ahmet Aytar* Square. In 2011, the square covered an area of approximately 5,200 m². After the site of the demolished *Ahmet Aytar* Sports Hall was added to the square in 2013, the area expanded to approximately 7,700 m². Following the 2020 Elazığ earthquake, the *Mehmet Akif Ersoy* High School located in the area sustained severe damage and was demolished, and its site was also incorporated into the square. The current size of the square is approximately 15,000 m² (Figure 7).

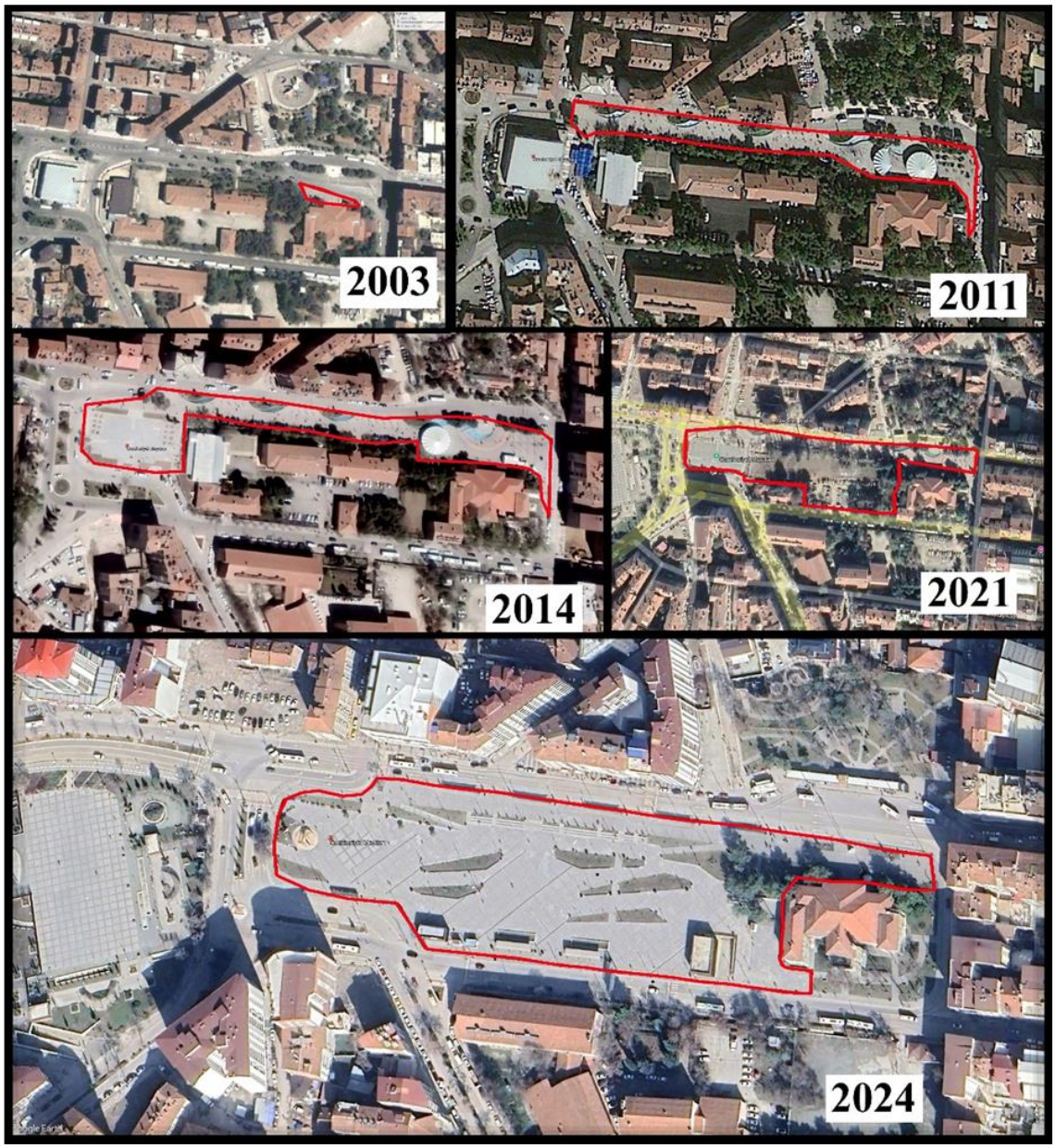

Figure 7. 2003-2024 *Cumhuriyet* square satellite images

In 2019, the municipal government developed an underground parking project for the square area. Following the 2020 Elazığ earthquake and the subsequent inclusion of the high school site

into the square, the project was completed in 2023. After the completion of the project, the area was once again named *Cumhuriyet* Square. Thus, while the upper level functions as an urban square, the lower level is now used as an underground parking facility.

Spatial analysis of the squares

Spatial analysis begins with a systematic approach to the morphological characteristics of cities and buildings. This system encompasses spatial voids such as urban blocks, parcels, streets, parks, and squares. These voids are spaces where people move and carry out physical activities. At times, access to these voids can be restricted by physical elements such as walls, elevation differences, or trees. Additionally, buildings create a series of enclosed spaces within themselves, and within these spaces, they form routes that provide spatial connections. The structural features that shape spaces and their connections can evolve into social spaces that directly affect people's living environments and behaviors within those spaces. Ultimately, what unites all these concepts is the relationship between people and space.

On an urban scale, spatial structures may appear in mono morphological, organic, or deformed forms. These universal types of space generally consist of interwoven shapes that connect the entire structure. Naturally, spatial forms that emerge at different scales exhibit different geometric characteristics and lead to varying outcomes. Topological and geometric analyses of urban networks can help us understand the usage patterns of these spaces and interpret social behaviors within them.

In light of all this information, in attempting to understand human behavior within space, we must also evaluate the relationships between spatial elements themselves. For this reason, this section of the study will first examine the relationship between the hierarchical structure of the urban environment and the squares. In addition, strategies for accessing these spaces will be assessed through the concept of accessibility.

The Squares' positions according to street and road hierarchy

According to the research conducted, the first square in the city center of Elazığ that was planned and constructed in line with an urban design strategy is *Cumhuriyet* Square (Ahmet Aytar Square). In contrast, 15 *Temmuz Demokrasi* Square (Post Office Square) is a space that has undergone transformation over time due to the increasing need for a central square.

The urban layout of Elazığ generally extends along an east-west axis. As is the case in most urban systems, the highest levels of movement intensity are typically observed in city centers, and Elazığ is no exception; the most active and densely used areas are concentrated in the central part of the city. The two major urban squares in Elazığ are located around areas of high density in the city center. In this context, to analyze the connectivity of the urban squares, the surrounding streets and avenues were subjected to both local and global analyses.

In global analyses (Figure 8), the integration values obtained can be interpreted as indicating spaces that are more likely to be used by people arriving from outside the study area. In the city center of Elazığ, it is observed that the routes with higher integration levels predominantly extend in the east-west direction, which aligns with the city's urban form. In these analyses, areas with the highest integration are shown in red, whereas areas with the lowest integration are depicted in blue.

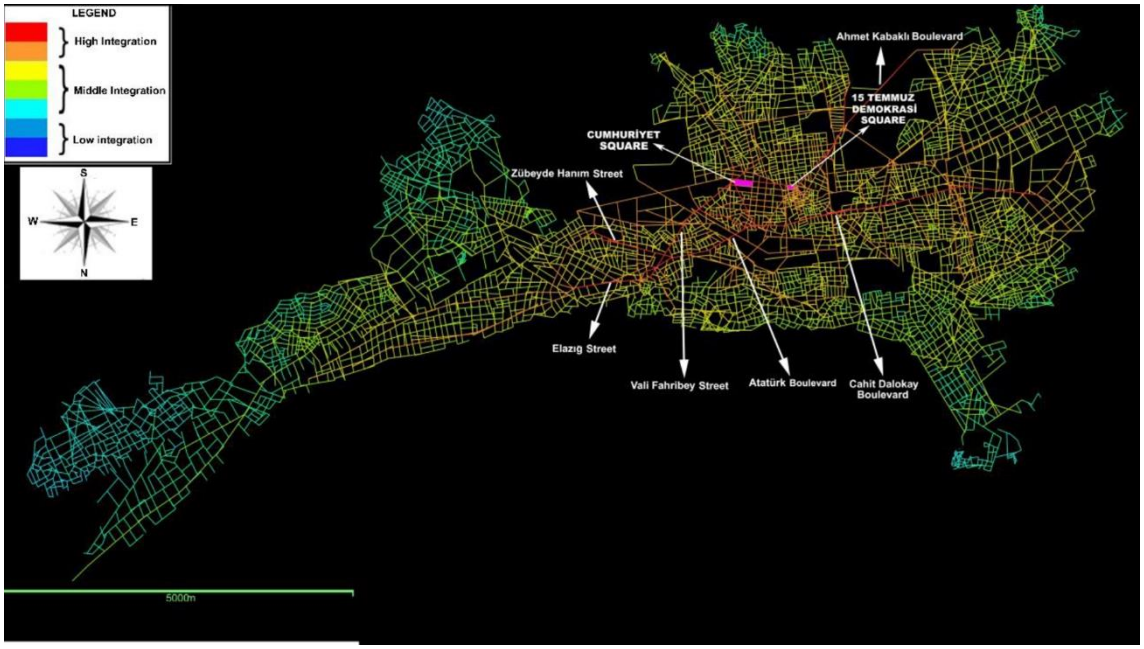

Figure 8. Global integration analysis of Elazığ (HH)

An examination of Elazığ's global integration analysis map (Figure 8) reveals that *Gazi* Street, *Cahit Dalokay* Boulevard, *Atatürk* Boulevard, Elazığ Street, *Vali Fahribey* Street, and *Zübeyde Hanım* Street constitute the areas with the highest integration values. The two major urban squares that are the focus of this study are located in proximity to these highly integrated routes. To the north of the 15 *Temmuz Demokrasi* Square lies *Gazi* Street, and to the northeast is *Balakgazi* Street both of which exhibit first-degree integration values. To the south of the square is *Ardıçoğlu* Street, and to the east is *Hürriyet* Street, both possessing second-degree integration values. Similarly, to the southeast, *Bankalar* Street also displays a second-degree integration value. *Vali Fahribey* Street, located to the southwest of the square, has a second-degree integration value in that area, but this value transitions to first-degree as it extends westward through the city.

The other major urban square, *Cumhuriyet* Square, is also situated along routes with high integration values. To the north of the square lies *Gazi* Street; to the west and continuing southward is *Vali Fahribey* Street; and to the southeast is *Şehit İdris Doğan* Street. At the northwest corner of the square, *Kemal Şedele* Street extends in a north-south direction, while *Bölge* Street branches toward the northwest both exhibiting high integration values. *Bahçeli* Street, located to the east of the square, is noted for its second-degree integration value within the street hierarchy.

The values derived from local analyses are typically interpreted as indicating spaces where the potential for interaction among residents of the area is high. Local integration analyses facilitate the understanding of social interactions among people living in a specific area. In this context, the system provides insight into areas where the likelihood of interpersonal encounters among local residents is relatively high or low (Şıkoğlu, 2022).

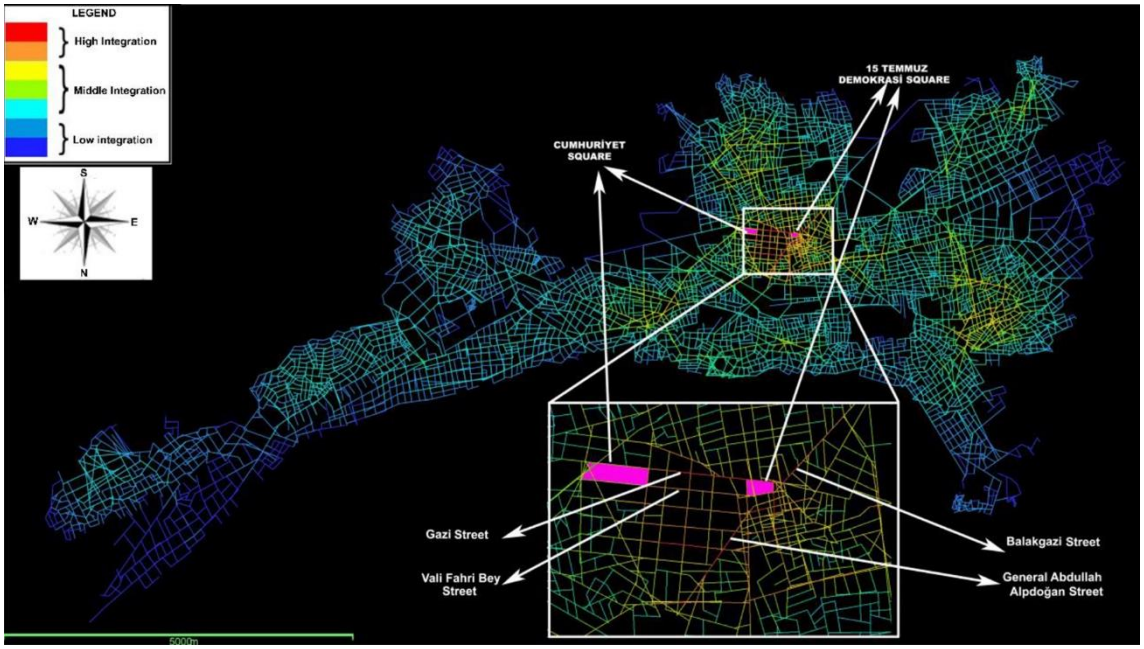

Figure 9. Local integration analysis of Elazığ (R3)

In the local analysis (Figure 9), when viewed across the city, areas with high integration values are largely concentrated in the central parts of the city. This region represents the area with the highest level of integration at the local scale and also contains the city's central business district. Both urban squares included in this study are located within this zone. When examining Figure 2, it is evident that the area surrounding the 15 *Temmuz Demokrasi* Square has a higher integration value compared to *Cumhuriyet* Square. Gazi Street to the north of the square, *Balakgazi* Street to the northeast, and *Bankalar* Street to the southeast all have high integration values. These routes are among the most heavily used by both pedestrians and vehicles. Additionally, the presence of the Covered Bazaar just to the south and the *İzzetpaşa* Mosque to the north contributes to the high pedestrian activity in and around the area. These indicators are also noted in other sections of the study as influencing the intensity and pattern of space usage in the area.

On the other hand, *Cumhuriyet* Square, located at the western end of *Gazi* Street, lies at the intersection of streets with a moderate level of integration compared to the 15 *Temmuz Demokrasi* Square. While *Gazi* Street passes to the north of both squares, it exhibits a lower hierarchical integration value in the western segment where *Cumhuriyet* Square is situated, and a higher integration value in the segments extending toward the 15 *Temmuz Demokrasi* Square. *Vali Fahribey* Street, located to the south of *Cumhuriyet* Square, shows a moderate level of integration in this area. In contrast, *Bahçeli* Street, which runs to the east of the square, exhibits a higher integration value compared to these two streets.

Neighborhood and accessibility analysis of the squares

According to 2023 data from the Turkish Statistical Institute (TÜİK), the total population of Elazığ city center is 443,448. This figure includes neighborhoods that, while officially part of different municipalities, are considered part of the central urban population. Specifically, 10 neighborhoods from the *Akçakiraz* Municipality, 3 from *Mollakendi*, 6 from *Yazıkonak*, and 7 from *Yurtbaşı* are included in this count. The 43 neighborhoods within the jurisdiction of Elazığ Municipality alone have a total population of 379,595. Among these neighborhoods, the most populous is *Çaydaçıra* with 33,718 residents, while the least populous is *Alayaprak*, a former village of *Harput* now incorporated into the urban area, with a population of 133. Additionally,

Hankendi Neighborhood, with a population of 870, is not shown in Figures 5 and 6 due to the municipality's inability to clearly define its boundaries.

When evaluated based on their locations, the urban squares in the city center of Elazığ are situated within the city's earliest developed neighborhoods. The 15 *Temmuz Demokrasi* Square (Post Office Square) is located at the northwestern edge of the *Çarşı* neighborhood, while the western section of *Cumhuriyet* Square lies within the *Kültür* neighborhood, and the portion extending eastward is situated in *Nailbey* neighborhood. Based on their locations, the squares also share borders with surrounding neighborhoods. 15 *Temmuz Demokrasi* Square is adjacent to *İzzetpaşa, Nailbey, Akpınar, Sarayatik, Rüstempaşa, Mustafapaşa*, and *Rızaiye* neighborhoods. *Cumhuriyet* Square is bordered by *Olgunlar, Üniversite, Sürsürü, Hicret, Akpınar, Çarşı*, *Yenimahalle*, and *İzzetpaşa* neighborhoods.

To determine the accessibility and impact radius of the squares within the study area, Buffer Zone Analysis and Service Area Analysis methods were employed. Buffer zone analysis is a method frequently used in the field of geography to evaluate the influence of a specific point, line, or area on its surroundings. Similarly, service area analysis is one of the most commonly used methods to assess the accessibility of open spaces (Kaya, 2024).

The impact zones of open and green spaces are defined within Section Four of the Regulation on the Preparation of Spatial Plans, under the principles for plan-making. Article 12(2) of this regulation states: 'In zoning plans, functions such as children's playgrounds, open neighborhood sports areas, family health centers, nurseries, kindergartens, and primary schools may be planned within service impact areas that are accessible on foot within approximately 500 meters.' In this context, it is emphasized that factors such as topography, building density, existing urban fabric, and natural and artificial boundaries must be considered when defining the impact areas of services such as education, health, and green spaces (Regulation on the Preparation of Spatial Plans, 2014).

However, it has been identified that the current planning of open and green spaces around Elazığ's urban squares does not fully comply with the provisions of this regulation. Therefore, in the buffer zone analyses, service radii of 100 meters, 200 meters, and 400 meters were calculated for each green space, and evaluations were made based on these distances.

The distances used in the analyses have been adjusted to include the 500-meter criterion for walking distance set in the zoning plans (Figure 10). As a result of these analyses, the accessibility, functionality, and relationship of the two urban squares within the study area with surrounding neighborhoods have been evaluated. In the buffer zone analysis, when assessing the impact area within a 100-meter radius of 15 *Temmuz Demokrasi* Square, it was determined that this area not only falls within the boundaries of *Çarşı* Mahallesi but also includes İzzetpaşa and Nailbey neighborhoods. These neighborhoods are directly within the square's impact area and are significant in terms of environmental relationships. Similarly, when examining the impact area within a 100-meter radius of *Cumhuriyet* Square, it was found that Nailbey, Yenimahalle, and Kültür neighborhoods are included in this region. For both squares, the mentioned surrounding neighborhoods encompass areas with the most suitable and easiest pedestrian access to these squares.

When examining the buffer zone analysis map (Figure 10), it is observed that in the 200-meter radius, in addition to *Çarşı, Nailbey*, and *İzzetpaşa* neighborhoods, *Rızaiye, İcadiye*, and *Akpınar* neighborhoods also fall within the 15 *Temmuz Demokrasi* Square's accessibility area. *Cumhuriyet* Square, on the other hand, covers the same neighborhoods of *Nailbey*, *Kültür*, and *Yenimahalle* within its 200-meter radius. Looking at the buffer zone analysis of the 400-meter radius, the impact area of 15 *Temmuz Demokrasi* Square extends to include Rüstempaşa, Yenimahalle, and *Sarayatik* neighborhoods, while *Cumhuriyet* Square also includes the *Üniversite Mahallesi* within its buffer zone. It is observed that the 400-meter buffer zones of both squares intersect in some neighborhoods. *Nailbey* is one of the neighborhoods where these intersection areas are most

prominent, as it is directly affected by both 15 *Temmuz Demokrasi* Square and *Cumhuriyet* Square. Another neighborhood in the shared impact area is *Yenimahalle*. This situation highlights the central location of both *Yenimahalle* and *Nailbey* within the city. The shared area between the two squares can be considered a high-density interaction zone.

The neighborhoods within the 100, 200, and 400-meter buffer zones are able to benefit more from the social, commercial, and cultural services provided by the squares and can easily access them. *Nailbey, Çarşı*, and *İzzetpaşa* neighborhoods stand out as the areas that benefit the most from the squares' environmental effects in terms of multifunctional use. The connections of these neighborhoods with the squares make them more active and lively within the city. Moreover, the neighborhoods within this area are strategically located in terms of pedestrian access to the squares. These neighborhoods play an important role in urban accessibility, facilitating people's access to the squares. Although accessibility is a broad concept, in studies related to urban open spaces, it refers to the walking time between open spaces and residential areas (buildings). In this study, the walking time of a healthy adult was calculated as 5, 10, and 15 minutes, and these durations were used as the basis for the analyses.

According to the analysis results, neighborhoods close to the city center have been found to be in an advantageous position in terms of access to the squares. For example, *Çarşı*, *Rızaiye*, *İcadiye, Yenimahalle*, *Akpınar*, and *Nailbey* neighborhoods are within a 5-minute walking distance to 15 *Temmuz Demokrasi* Square, while *Nailbey, Kültür, Yenimahalle*, and *Üniversite* neighborhoods can reach *Cumhuriyet* Square in the same amount of time. These neighborhoods stand out as areas with the fastest access to the squares. When evaluating the 2023 *TÜİK* population data, it was determined that approximately 46,000 people are within a 5-minute walking distance to 15 *Temmuz Demokrasi* Square, while around 44,000 people can access *Cumhuriyet* Square within the same distance. When the walking distance is extended to 10 minutes, the neighborhoods of *Olgunlar* and *Kültür* are added to the accessibility area of 15 *Temmuz Demokrasi* Square, and the total number of people who can reach the square within 10 minutes increases to 64,700. Similarly, with the inclusion of *İzzetpaşa* and *Akpınar* neighborhoods, the total accessible population for *Cumhuriyet* Square rises to 56,150 people.

To examine the service network from a broader perspective, when considering the 15-minute access boundary, neighborhoods such as *Mustafa Paşa, Fevzi Çakmak, İzzetpaşa*, and *Rüstempaşa* are added to the accessibility area of 15 *Temmuz Demokrasi* Square, allowing a total of 98,000 people to benefit from the square's services. For *Cumhuriyet* Square, the inclusion of *Olgunlar, Rızaiye, Rüstempaşa, Fevzi Çakmak, Sarayatik*, and *Çarşı* neighborhoods brings the total accessible population to 91,675 people. When considering the overall accessibility capacity of the service networks, it was determined that due to the proximity of both squares, approximately 190,000 people can access these areas within a 15-minute walking distance.

In the accessibility analysis of the urban squares of Elazığ (Figure 11), the different color tones represent the walking times of 5, 10, and 15 minutes. The dark-colored areas indicate the locations with the quickest access to the squares, while the lighter areas represent longer walking times.

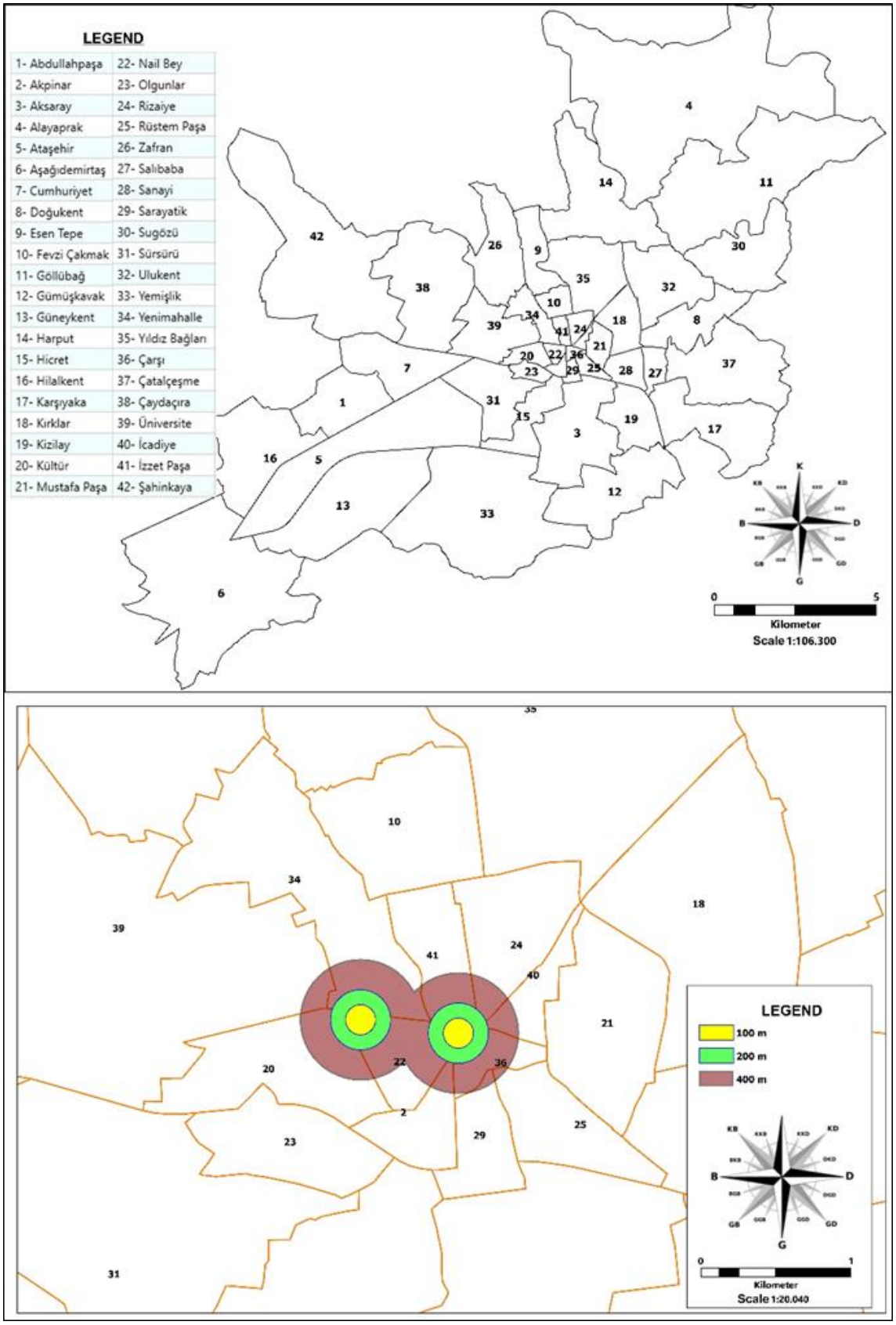

Figure 10. Elazığ neighborhood borders and square buffer zone analysis (100 m, 200 m, 400 m)

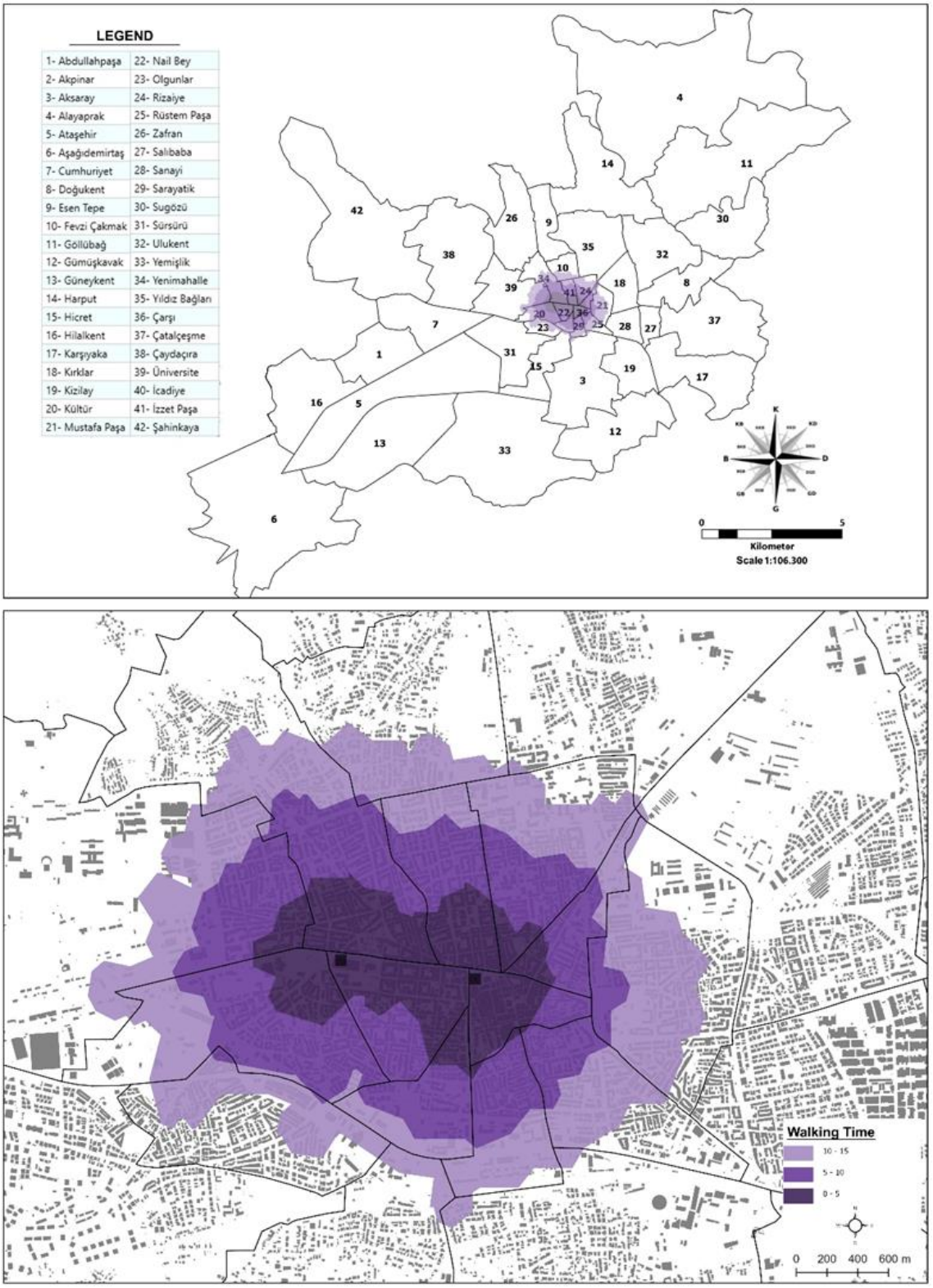

Figure 11. Elazığ neighborhood borders and accessibility status of squares

Discussion

The historical development of Elazığ's urban squares is directly related to the city's socio-economic and cultural structure. Throughout the urbanization process and spatial developments, the city's squares have undergone various functional transformations. The analyses reveal that both squares are not merely physical voids but significant focal points that shape the social, cultural, and economic dynamics of urban life. Parallel to the expansion of urban areas over time, the need for open public spaces and squares has also increased. Particularly after the 2020 Elazığ earthquake, the resulting physical destruction created new urban design opportunities; the inclusion and functional reintegration of demolished structures into square areas has led to a positive transformation for both the city and its inhabitants.

Spatial integration analyses demonstrate that the squares in question are surrounded by major transportation axes with high integration values, indicating that they are easily accessible for both local residents and visitors. Local integration data highlights the high potential for social interaction around the squares, indicating that these areas have become the spatial expression of urban sociability. Especially the 15 *Temmuz Demokrasi* Square stands out in terms of pedestrian density due to its historical background and current functionality within the city center.

Accessibility analyses clearly illustrate the physical relationships between the squares and surrounding neighborhoods, emphasizing their significance in terms of access to urban services. Evaluations based on 5, 10, and 15-minute walking distances reveal that both squares have strong connections to residential areas near the city center and directly serve approximately 190,000 people.

Conclusion

It has been concluded that the urban squares of Elazığ should not be evaluated solely based on aesthetic or physical design criteria, but through a multidimensional framework that includes social integration, accessibility, intensity of use, spatial connectivity, and historical continuity. Urban squares derive their significance not only from their architectural configuration but also from their relationship with the social fabric and the lived experiences of their users. Therefore, these spaces should be considered as inclusive, multifunctional, and accessible public environments that support everyday practices and foster socio-cultural interaction among diverse groups within the city. Accordingly, future square arrangements and urban transformation projects should prioritize the creation of resilient public spaces that are socially inclusive, functionally diverse, and spatially accessible. Such an approach will contribute not only to the sustainability of physical space but also to the enhancement of social resilience within the urban context. Ultimately, as cities grow over time, the demand for urban open spaces and public squares increases proportionally. The destructive impact of the 2020 Elazığ earthquake demonstrated the necessity and transformative potential of public spaces in post-disaster recovery. The conversion of the *SGK* building and *Mehmet Akif Ersoy* High School areas into public squares represents a significant example of how urban voids can be repurposed to serve collective needs. This transformation not only addressed the physical restructuring of the urban fabric but also contributed to the communal healing process by reclaiming and reactivating spaces with shared meaning for the city and its residents.

Disclosure Statement

The authors report there are no competing interests to declare.

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