Research Article

Spatial Properties and Improvement of the Urban Square: An Investigation on Isparta Urban Square

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Abstract

Urban squares which are seen as intersections or crossing points in today's cities, are important public spaces that make up the urban culture. Isparta urban square is a crossing square with heavy traffic flow. In the immediate vicinity of the square, there are historical buildings and cultural symbols that do not interact with the square. With the intensification of vehicular traffic over time, pedestrianization has decreased and the historical structures around the square have lost their visibility. The main goal of this study is to develop the existing spatial characteristics of Isparta Urban Square. Pedestrianization alternatives envisaged by considering its historical environment and an integrated square design are other aims of the study. In this context, plans, reports and current maps of the study area were obtained from Isparta Municipality. On-site observations were made regarding photographic taking and square activity in the area, and maps were developed for spatial analysis, pedestrianization and urban square design for the area with the information obtained. The maps were prepared using Autocad, Photoshop and Lumian computer programs. It is aimed that the developed spatial solutions will guide the square design ideas in cities that are demographically and culturally similar.

Keywords: urban square, spatial analysis, pedestrianization, Isparta

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Öz

Günümüz şehirlerinde kavşak veya geçiş noktaları olarak görülen kent meydanları, kent kültürünü oluşturan önemli kamusal alanlardır. Isparta kent meydanı, yoğun trafik akışının olduğu bir geçiş meydanıdır. Meydanın yakın çevresinde, meydan ile etkileşimsiz tarihi yapılar ve kültürel semboller bulunmaktadır. Zaman içerisinde araç trafiğin yoğunlaşması ile yayalaşma azalmış ve meydan çevresindeki tarihi yapılar görünürlüğünü kaybetmiştir. Isparta Kent meydanının mevcut mekânsal özelliklerini geliştirmek bu çalışmanın esas hedefidir. Tarihi çevresi göz önünde bulundurularak öngörülen yayalaştırma alternatifleri ve bütünleşik bir meydan tasarımı çalışmanın diğer amaçlarıdır. Bu kapsamda çalışma alanına ait plan ve raporlar, hâlihazır haritalar Isparta Belediyesi'nden temin edilmiştir. Alanda fotoğraf çekimleri ve meydan hareketliliği ile ilgili yerinde gözlemler yapılmış ve elde edilen bilgiler ile alana yönelik mekânsal analiz, yayalaştırma ve kent meydanı tasarımı için haritalar geliştirilmiştir. Haritalar Autocad, Photoshop ve Lumian bilgisayar programları aracılığıyla hazırlanmıştır. Geliştirilen mekânsal çözümlerin, demografik ve kültürel açıdan

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Received Date/ Gönderim Tarihi : 03.03.2022

Accepted Date / Kabul Tarihi: 28.08.2022

benzerlik gösteren şehirlerdeki meydan tasarım fikirlerine yol göstermesi hedeflenmektedir.

Anahtar Kelimeler: kent meydanı, mekân analizi, yayalaştırma, İsparta

1. Introduction

Urban squares could no longer serve as "squares" due to urban sprawl induced by rapid population increase. Squares are mostly utilized as crossroads and do not fulfill the sense of urban identity, recreational or social requirements. So-called modern and urban square designs often are not consistent with the local identity and urban history. The squares that reflect local traditions and serve as a cultural showcase are closely associated with both material and spiritual daily lives of individuals. Modern urbanization led to the death of the "square culture" in urban squares.

The squares have changed over time in terms of form, structure and occupancy. The only thing that remained constant throughout history was the significance of squares in urban life. The town square is an important part of urban recreation areas. Town squares provide opportunities for individuals to express their culture and ideas.

It could be observed that the number of urban squares increased with rapid urbanization. The urban square became a part of the urban life and is adopted by more and more people over time. As a type of urban structure, it does not only maintain historical values, but also contributes to urban aesthetics and sociology as an important urban component (Wei-bing, 2009, p. 2).

Squares establish ecological relations between natural and structural elements. Furthermore, squares are also spaces that emphasize the visual quality and traditional structure of the city and eliminate the artificial manifestation of structural elements (Carr et al., 1992, p. 55). Today, the employment of unique cultural symbols to reflect the geographical and cultural attributes of the urban square and the original urban image has become the common components of square design (Jun and Hexiang, 2013, p. 97).

Square; "Platea", which means open place or extended street in Latin, was born from the word "Place" in English and French. The Spanish "Plaza" and the Italian "Piazza" are of the same origin (Marcus and Francis, 1997, p. 13).

According to Lynch (1960), squares are centers of intense activity created in urban spaces. Typically, squares are surrounded by high-density buildings and streets. The properties of the square affect human groups and make it easier for them to meet. On the other hand, Moughtin (2007) considered the square in its simplest definition, as urban spaces surrounded by buildings serving especially the commercial buildings. In ancient Greece, squares were perceived as an agora, marketplace, a space for the temple adorned to gods and goddesses, for theaters, baths, sports fields and schools (Kishlansky et al. 2005, p. 16).

In contemporary cities, squares assumed several urban functions. They connect the public buildings, meeting places, performance venues, theaters, movie theaters, food and beverage spaces, main streets, residential semi-private spaces, traffic intersections and several other outdoor spaces.

Today, squares became public parks and open spaces. However, the main difference between a public park and a square is that in a square, a citizen experiences the culture of the urban heart, history and memory, not the manifestations of nature (Levy, 2012, p. 157). It is possible to perceive the squares that have been called various names throughout history as urban "breathing areas" (Atik et al., 2018, p. 2).

Squares define focal points in the urban fabric and assume the function of an assembly. These spaces that offer equal occupancy for all residents, create a common platform for various activities (Semerci, 2008, p. 99; Kır, 2009, p. 5).

The squares reflect the culture of their epoch based on the spatial dimensions or ostentation, formal or informal occupancy facilities. Thus, agoras in ancient Greek cities were forums where various social issues were discussed, the Middle Age squares were without a geometric form but served as sculpture exhibitions, the people-oriented squares of the Renaissance, the artistic lifestyle of which was dominated by the balance, primarily served the pedestrians, the Baroque squares highlighted the mobility of the period, and the modern squares, stuck in the urban texture and respond to the fancy and flamboyant contemporary lifestyle, serve the intense vehicle traffic and professional requirements, reflecting a more mechanical lifestyle (Çulcuoğlu, 1995, p. 19).

Traditional analysis of urban spaces often focused on the determination of the architectural and urban character of the textures or was based on a morphological approach that reveals the historical development. The main aim in these approaches was to analyze configurations, techniques, and architectural styles (Soufiane et al., 2015, p. 1-2; San-Juan et al., 2017, p. 4; Çınar & Çermikli, 2019, p. 9192).

The cultural landscape is closely associated with historical urban squares. The concept of cultural landscape was introduced at the 16th session of the United Nations UNESCO World Heritage Committee in 1992 and included in the World Heritage List (Taylor, 2007, p. 3).

Cities lost their historical identity due to urban sprawl (Çınar et al., 2021, p.371). New residential areas pressure the traditional texture and turn these areas into irregular spaces. In the revelation of the identity of urban squares, their impact on urban identity should be scrutinized after the collection of formal, functional and social data on the significance of the urban square (Güneri & Yerli, 2019, p. 25).

Cities go through a rapid urbanization, lose their unique elements (Çınar Altınçekiç et al., 2014, p. 133), over time and resemble one another, especially due to changes in economic conditions. This similarity destroys the urban character and eliminates the uniqueness of urban identity. This is generally due to socioeconomic factors and leads to the development of detached environments for rent and without identity (İlgar, 2008, p. 108). The landscape of the urban square is not only an urban symbol, but also the symbol of cultural performance. The development of the urban square landscape is of paramount importance for historical heritage and regional culture.

Good squares are social places (Whyte, 2003, p. 12). Square is a place that molds social life as much as it is occupied and could be kept alive as long as it is a meeting and discussion scene. If the squares could be considered as an urban courtyard, they should possess a quality that fulfils the needs such as resting and entertainment

contributes to the individual culturally and could meet the physical requirements (Yazar, 2006, p. 5).

Squares also serve to create a social life between the buildings. This social life allows the individuals to communicate and socialize, and gather in a public space, and creates a common identity (Erdönmezer, 2014, p. 3; Erdönmez & Apak, 2015, p. 73).

In short, the square is one of the indispensable elements in urban identity. Because the square is a historical cultural environment that functions as a historical bridge between yesterday, today and tomorrow. People are born, live and grow in this environment (Öztan, 1980, p. 72).

2. Study Area

2.1. A Brief History

Isparta is an old and historic city. It was estimated that the history of the city dates back at least 4000, or even 5-6 thousand years, and could be traced to the Neolithic period. The city was ruled by Hittites, Phrygians, Lydians, Iranians, Macedonians, Romans, Arabs, Crusaders, Seljuks, Hamitoğlu principality, and Ottomans. The PISIDIA region, which includes the current Isparta, and was named Baris at the beginning of the Gregorian calendar, was the religious center of Christianity for a long period when it was ruled by Romans. In 1204, it conquered by the Seljuk sultan, Kılıçaslan III, and Turks were settled in the region. In 1300, the city served as the capital of the Hamitoğlu Principality. Famous traveler Ibni Batuta, who visited Isparta during this period, described the city as a decent town with well-kept, rich bazaars, numerous rivers, vineyards and orchards, and stated that the fortress was on a high hill. In 1390, Isparta became an Ottoman Sanjak during the reign of Suleiman the Magnificent. With the proclamation of the Turkish Republic, Isparta became a province in 1923 (Anonymous, 1997, p. 82).

2.2. Isparta Urban Square

Isparta urban square has been known with different names such as the Government Square, Kaymakkapı Square. Isparta urban square is rectangular in form and based on Zucker's classification of squares, it is a closed square (Zucker, 1960, p. 103).

The urban center, which also includes the urban square, developed when Kutlubey built the Kutlubey (Ulu) Mosque in 1417. The development of the city in the Kutlubey region as a trade and urban activity center was ensured by the increase in construction activities in the area. The Isparta urban center developed in the area and a new urban square developed for public functions such as the government building, barracks, municipality, and military offices (Saka Kocaman, 2018, p. 58).

The square is approximately 32816.3 m^2 and its circumference is approximately 731.6m. The square includes about 11357.2 m^2 open green spaces and 21.4 m^2 of hard pavement (Figure 1).



Figure 1. The study area

The study area is limited by the vehicle roads around it. The buildings on these roads around the study area include residences, commercial, military and official institution buildings. Isparta gendarmerie command, telecom office building and the administrative court are located on the northeastern side, commercial and residential areas are located in the south, officers' club is located on the east, historical buildings such as the Grape Market and Mimar Sinan Mosque are located on the west, and the statue erected to honor the 9th President of Turkey Suleyman Demirel is located in Kaymakkapı Square on the southwest. Also, İplikçi (Halil Hamit Paşa) Mosque, Cumhuriyet Middle School, Gazi Primary School and Kavaklı (Abdi Paşa-Prophet) Mosque are located on the southwest. The study area includes food and beverage vendors, a tea garden, playground for typical children, underground parking, a clock tower, Atatürk statue, Gülcü İsmail Efendi Statue, who introduced roses to Isparta and an ornamental pool.

The study area that includes several historical and cultural assets is also a designated historical conservation site. The historical and cultural buildings in the square are registered and conserved by the Prime Ministry Undersecretariat of Culture according to Demirgil (2007) and declared as historical building by the General Directorate of Antiquities (Figure 2). These buildings include Dalboyunoğlu Hammam, Firdevs Bey Bedesten, Provincial Governorate, Kutlubey (Ulu) Mosque, Bey Hammam, Mimar Sinan Mosque, Historical Üzüm Bazaar, İplikçi (Hacı Abdi) Mosque, Kavaklı (Abdi Paşa-Prophet) Mosque, Gazi Primary School and Cumhuriyet Middle School.

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Figure 2. Historical and cultural posessions in the square and vicinity

3. Method

Town squares shape the cultural heritage of a city and promote cultural connotations. The aim of the study was to discuss the forgotten history of the squares and to render the cultural heritage tangible and viable through pedestrianization. Spatial analysis has been adopted to analyze the squares with a holistic approach and integrated with their historical environment.

The conceptual framework was established based on the literature review conducted on domestic and international theses, articles and books about urban squares, public spaces, urban and urban identity, cultural heritage and Isparta. In the next stage, photographs and documents were collected.

The plans and reports about the study area were obtained from relevant institutions. The current base map was obtained from Isparta Municipality. On-site observations were conducted to shoot photographs and determine the mobility in the square.

The spatial organization designed to protect and discover the cultural urban assets around the urban square is an abstract restoration in reality. It includes physical renovations to conserve the historical spirit of the urban square in the present. Thus, the historic urban square design and pedestrianization recommendations are presented as a project based on the urban square data, and developed with AutoCAD, Photoshop and Lumian software.

4. Research Findings

In the study findings section, a square that would sustain the historical assets of Isparta was designed primarily with a model using spatial analysis, pedestrianization and urban square design.

4.1. Spatial Analysis

The feasibility of the study area was determined, and vehicle roads, pedestrian roads, historical buildings, green spaces, nodes, landmarks, street names, area boundaries and conservation site boundaries were plotted on the plan. Traffic flow direction, bus stops, study area entrances and exits and parking lots are marked (Figure 3).



Figure 3. Proposed spatial analysis model

4.2. Pedestrianization

Pedestrians cannot walk comfortably and safely in contemporary cities dominated by motor vehicle traffic. Pedestrianization is an important step in urban squares with low walkability to provide a sense of belonging. Pedestrianization was proposed to reduce the impact of chemicals on cultural buildings in the study area and allow pedestrians to socialize. On the proposed pedestrian roads, the design of sidewalks, road signs, trash bins, lighting poles, billboards, benches, pergolas and other seating elements were included to serve the cultural sustainability through the employment of pavement material adequate for the cultural structure of the area.

Two pedestrianization scenarios were developed to slow down the vehicle traffic in the area. The first scenario was determined as "pedestrianization with an underpass road" and the second was "pedestrianization by detour".

4.2.1. Underpass road

For the road that was proposed to be pedestrianized with an underpass, the traffic was maintained with two exits. The underpass was planned to start at Mimar Sinan Mosque on Mimar Sinan Street with exits at the end of the Dalboyunoğlu Baths on Hasan Fehmi Street and at the beginning of Hastane Street. The streets painted in red are the proposed pedestrian ways (Figure 4). Zones marked in orange represent the existing pedestrian ways.

6 March Atatürk Street was closed to traffic and completely pedestrianized. It is planned to move the public transportation stop (purple colored) on Hastane Street to Şehit Fethi Bey Street (blue colored).



Figure 4. Pedestrianization proposal 1

4.2.2. Detour

Pedestrianization of the square was planned by removing the normal flow of the vehicle traffic via a detour. The areas crossed in red on the yellow roads indicate the future pedestrian ways.

It was planned to control the vehicle traffic in the urban center by installing electronic gates that only allow pedestrian traffic at the entrance of Atatürk Street. The conservation of the natural and historical texture, the environment, the survival of cultural and social traditions and the coexistence of adequate lifestyles were included among the basic criteria (Figure 5).



Figure 5. Pedestrianization proposal 2

Electronic doors were also planned at the entrance of Hasan Fehmi Street to close the section up to Dalboyunoğlu Street to vehicle traffic. It was planned to move the public transport stop (purple colored) on the Hastane Street to Şehit Fethi Bey Street (blue colored).

4.3. Isparta Historical Urban Square Design

During the determination of feasibility and observations, possible occupancies were considered in the urban square and a requirements list was developed. Thus, a space for ceremonies, children's playgrounds for different age groups, roof garden, food and beverage vendors, private recreation area for the public institution, ornamental pools, pocket green spaces, natural stone pavement and dry pools were included in the design. The design was supported by models from certain urban pespectives (Figure 6).



Figure 6. Isparta historical urban square design

5. Design Recommendations

The occupancy of urban squares depends on their multifunctionality and the occupants' desire to conduct social and personal activities in these spaces. However, it is important for the square to allow the occupants to conduct social activities. The square, the primary function of which is gathering, should be closed enough to require little association with the space, and open enough to require lively social relations (Altınçekiç, 2000, s.177-178; Yazar, 2006, s.6).

A historic urban square proposal was developed in Isparta against the idea that the squares do not fully reflect original features of a square due to historical developments; the symbolic elements have been ignored and lost their identity. In this context, various spatial analyses were conducted on and around the square to conserve the old spirit of Isparta urban square to some extent.

The current status of the study area and proposed design model are presented at Table 1:

Table 1. The current status of the study area and proposed design model



Behind the governors' offices, there are large hard pavement spaces, which are used as a passage and include a roof garden. Partially green spaces were planned for these areas to soften them.



Since the texture, colors and form of the pavement did not orient to the square, the pavement was modified with different applications. Considering the elements of urban identity, a contemporary, aesthetic and traditional pavement was developed with the employment of compatible elements.



There are ornamental pools on both sides on descending from the ramps. There is the statue of Gülcü İsmail Efendi in the left pool, and monumental stones that reflect Ispartan history on the right. In the green areas next to the Dalboyunoğlu Hammam at the back side of the pools, diagonal seating units are placed on terraces.



In the square center, mosaic carpet and rose figures that symbolize Isparta were used on the pavement. The octagonal geometric pattern (Seljuk star) employed in Seljuk architecture was used as a pattern, dedicated to the Seljuks who dominated Isparta for a period in history. Other pavements are travertine in the square.



An outdoor recreation area was planned for the employees of the governors' office. Seating areas and green space were developed.

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The existing Atatürk Statue was preserved. Shrubs and herbaceous plants were planned around the statue to highlight it. Stagnant ornamental pools are planned around the statue to maintain the focus on the Atatürk Statue.



Pedestrianization of the square would prevent the damages induced by the vehicle exhaust gases on historical buildings. Vehicle traffic would be detoured to different roads to improve the walkability quality in the square.

6. Conclusion

One of the important problems that arose with rapid urban growth is the loss of historical urban identity. Urban squares should be modernized for the current conditions; however, they should also reflect the cultural heritage sustaining the traces of the past.

In the past, the squares were formed by the historical structures around it. However, today, we see that most of the squares are used as intersections and historical buildings are outside the squares. Isparta urban square is one of these squares. It has lost its identity with the effect of urbanization and population growth over time. However, there is a very dense historical texture in the square and its surroundings. Whereas, the structures that make up this historical texture are inactive and disconnected from each other due to vehicle traffic. With the pedestrianization alternatives, a square integrated with its historical environment has been created both in terms of the integrity of the urban silhouette and in terms of the urban people. Vehicle density was reduced in the surrounding of the square and pedestrian access was opened. Thus, historical structures, which are only transited by vehicles, have left their place to a sensible living square. In addition, suggested usage areas have been developed for the square center and cultural and recreational contributions have been provided for the urban people. Historical sustainability is considered as one the main criteria in design to ensure habitable and safe urban future. Today, urban squares are

public spaces that not only meet the recreational needs of the occupants, but also ensure the preservation of the shared heritage that is the foundation of urban identity.

Public squares play a key role in the development of quality urban life. When the squares are pedestrianized, historical urban centers should be cleared of motor vehicles and available only for pedestrians. Pedestrians could easily navigate through and experience the historical texture and the area should be revitalized.

In the identification of squares, their historical and cultural values should be taken into account and included in spatial analysis. It should not only be at the scale of the square center, but also living squares and squares where the history around them lives. In this study the conservation of the traditional texture ensured the sustainability of cultural assets and provided a marker for the urban identity.

It is expected that design criterias, proposed in this study, will contribute to improve urban identity outdoor spaces of similar urban squares elsewhere and will be a useful guidelines for the landscape architects and other professionals responsible for such areas.

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