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A Comparative Analysis of Different Urban Spaces Using Public Space Index

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Keywords

Ownership, publicness, public space index, urban space.

Abstract

The discussion of ownership of public space, which started with the privatisation of public spaces, especially after the 1980s, and the effects of this situation on the quality of public space, has become important in the literature. This study aims to measure the quality of public spaces that have different levels of ownership in Istanbul with the public space index based on observational and perceptual indicators. Inclusiveness, meaningful activities, comfort, safety, and pleasurability, which are accepted as the main quality dimensions of public space, are measured in different public spaces in Istanbul. Thus, the differences in the perceptual outcomes of the privatisation strategies as perceived at the geographical level and the causes of these differences are identified. It is important to reveal which indicators create differences or similarities in public spaces at different ownership levels in terms of improving public spaces and increasing their level of use. As a result of this study, it was obtained that the ownership of public space is not entirely effective in the perception of quality.

Introduction

The change in the management and ownership of urban public spaces as a result of privatisation policies has also raised the discussion about the publicness of these spaces. On the other hand, the competitive comparison and idealisation of cities have increased the number of studies on measuring and evaluating the quality of urban space. In an era when the boundaries of public space are blurred and multiple typologies exist, these spaces might stand out or lag in terms of qualitative dimensions.

This research aims to assess the quality of public places in Istanbul with varying levels of public ownership. In this context, Mehta's [1] public space index was utilised to assess the quality of public space using observational and perceptual characteristics. Perception and observational measurements may yield different outcomes depending on socioeconomic and cultural situations in different geographies. The five essential qualities of public space, inclusiveness, meaningful activity, comfort, safety, and pleasurability, were measured in various public areas throughout Istanbul, where privatisation policies responded quickly at the spatial level. The disparities in the quality dimensions of the spaces were determined as a result of the analysis, and it was explored where these differences may have emerged. To improve and expand the attractiveness of public spaces, it is necessary to show which components produce variances or similarities at different ownership levels.

While some researchers advocate the privatisation of public spaces because it will bring control and maintenance, increase the perception of safety, and move the public space to a more well-groomed and attractive location [2]–[4], others argue that privatisation of public spaces will transform these spaces into consumption spaces [5], and will increase the use of space based on social discrimination. However, little research has been conducted to investigate the impact of ownership on public space quality perception. The public space index has been used in experimental investigations on medium-sized urban parks [6], [7]; however, it was unrelated to ownership. The study is deemed to have original significance in this regard.

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I. Ideal Public Space in Urban Space Metaphor

The study of the idealised urban environment began in the 1960s, focusing on physical qualities and aesthetics, with topics including design styles, decorations, and building integration with outdoor spaces, vistas, and landmarks [8], [9]. It was later asserted that the quality of a space is a broader concept than its physical attributes and that its social, psychological, and cultural components should be examined. During this period, Jacobs [10], Gehl [11], and Cook [12] proposed that successful urban environments were primarily focused on street activity and generated by buildings and the spaces between them. Canter's [13] three-legged metaphor of activity, conceptualisation and physical features combined these methods and created the idealised urban area. Punter [14] and Montgomery [8] expanded on this concept in the following years, making it a more practical framework.

This theoretical structure has recently been used to assess the quality of spaces. Mehta [1] created an index to assess the quality of public spaces, and in this context, the quality of public spaces was assessed along five dimensions: inclusiveness, meaningful activity, safety, comfort, and pleasurability. This index serves as a road map for quantifying and analysing the quality of public space. While Mehta [1] used this index in the large metropolis of Tampa (Florida), Evans et al. [6] used it in Pensacola (Florida) urban parks. Zamanifard et al. [15] created a new index and applied it to several public spaces in Australia. Aside from that, the quality perception of urban environments was assessed using observation and interview methodologies based on various quality criteria [16]. Forsyth et al. [17] analysed and evaluated diverse urban settings more comprehensively by integrating six distinct methodologies. Studies on the relationship between space quality and walkability have recently gained attention based on the argument that idealised urban spaces should be walkable and experienceable [18] [21].

II. Urban Public Space Typology and Publicness

Publicness is regarded as a determinant feature in defining the identity of public space [9], [22], [23]. Inclusiveness, a dimension in Mehta's [1] public space index, is related to the publicness of the space. Therefore, state-run public spaces are predicted to be more inclusive than privately owned spaces. Defining publicness and specifying its boundaries, on the other hand, is as challenging as defining public areas. Furthermore, democratic and political outcomes are anticipated as a result of transparency. As neoliberal policies redefine spaces as private, the public value of public space grows [23].

The most fundamental issue of publicness is exclusion, and being "visible and accessible" to everyone is acknowledged as the foundation of publicness [24], [25]. While most scholars believe that public spaces should be open and visible to everyone, many urban locations, such as shopping malls, gated communities, and private sports clubs, have limited access and visibility to their target user/consumer group. Neoliberal policies that offer greater public spaces for specific groups reinforce this spatial segregation based on socioeconomic inequality [26].

Public spaces have been classified by various methods by researchers. It is necessary to categorise urban public spaces into different typologies in order to define, understand, and study them. Carmona [27] grouped the types using three primary headings: design, socio-cultural perspective, and economic-political perspective, but he developed a new classification by saying that previous classifications are insufficient to react to publicness arguments. This typology divides public spaces into four major types based on their general characteristics: positive spaces, negative spaces, ambiguous spaces, and private places. As a result, while natural or semi-natural urban spaces such as waterfronts, canals, squares, parks, and cemeteries are referred to as "positive spaces", spaces where antisocial behaviours occur, are functionally weak and/or abandoned, and are primarily occupied by motor vehicles such as highways, railways, or parking lots and are referred to as "negative areas". In addition to these, shops, which are always privately owned even if they are completely open to everyone, can be very clearly defined as "private spaces", and spaces such as shopping malls, street cafes, and sports fields, which are increasing day by day and have unclear ownership to some extent are classified as "ambiguous spaces".

III. Study Areas

The space typology of Carmona [27] was used in this study, and it was hoped to represent each of the space categories in this classification. As a result, the relationship between ownership and quality perception will be better understood in the context of publicness. *Yıldız* Park was chosen as a positive space, *Zincirlikuyu* Transportation Hub as a negative space, *Zorlu* Shopping Centre as an ambiguous space, and *Etiler-Alkent* Residences as a private space (Fig. 1).

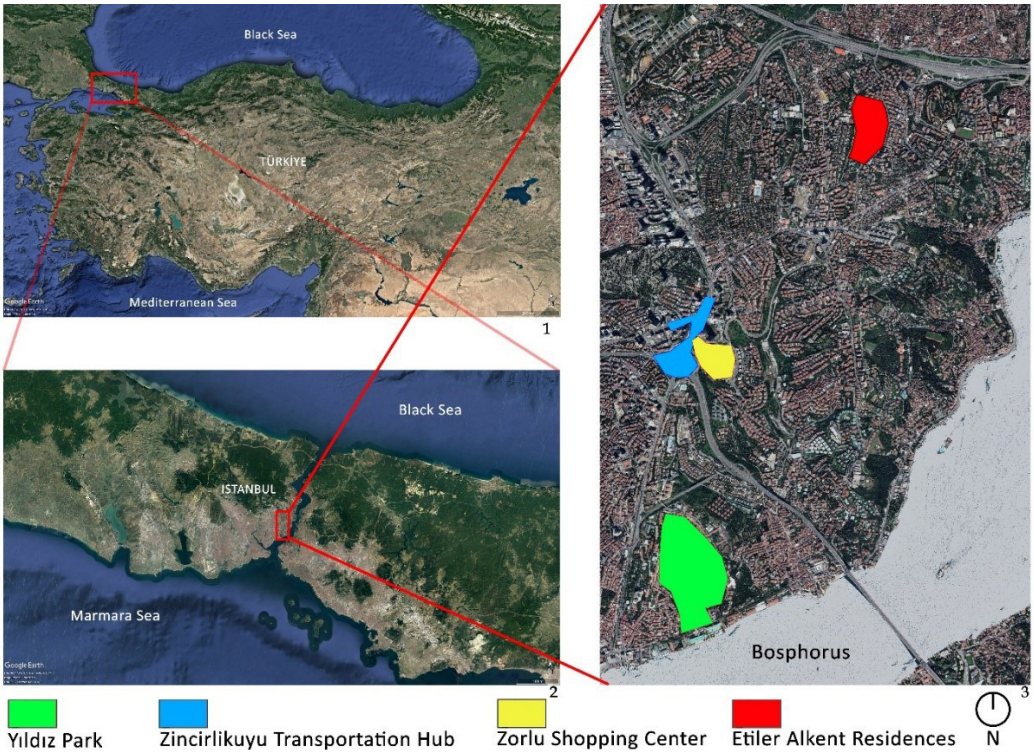

Fig. 1. The location of study areas [data from Google Maps].

A. Yıldız Park

With the globalisation process, state-owned landscape areas in Istanbul have been privatised to a considerable extent, and green areas that are more fragmented and have less ecological integrity have formed [28]. The historical groves enjoy a privileged position at this time and are legally protected due to their unique status. Because of their historical significance, the groves are currently favoured and legally protected. *Yıldız* Park, which is classified as a good area by Carmona [27], is a historical grove with privately owned companies in the food and beverage sector. It is in an advantageous location because it is one of the largest publicly owned positive places in Istanbul's core, and it is easily accessible. It is easy to identify between comparable ones because it is publicly owned, open to everyone regardless of class, and appealing to a wide range of users due to its spatial vastness. This area, which is approximately 287 decares in size, includes many historical structures, such as Malta Pavilion, Çadır Pavilion, *Yıldız* Ceramic Factory, and *Yahya Efendi* Tomb. In addition, there are many historical buildings around *Yıldız* Park, such as Çırağan Palace, *Galatasaray* University, *Kabataş* High School, The *Chalet* Pavilion, Great *Mabeyn* Mansion, and *Yıldız Hamidiye* Mosque [29] (Fig. 2).

B. *Zincirlikuyu* Transportation Hub

Zincirlikuyu Transportation Hub is located between the districts of *Esentepe* and *Levent*, at the intersection of the 15 July Martyrs Bridge connecting road, *Büyükdere* Street, and *Barbaros* Boulevard. It is a zone that organises and directs Istanbul's daily life rhythms, with key focus points in its surroundings. There are numerous corporate and shopping facilities nearby, as well as a few residential districts. It is Istanbul's busiest transit hub, connecting



Fig. 2. Views of *Yıldız* Park [photo by authors].



Fig. 3. Some views of *Zincirlikuyu* Transportation Hub (photo by authors).

public transportation lines of metrobuses, metros, buses, minibuses, and private cars (Fig. 3).

Trancik [30] defines "lost space" as regions dedicated to motor vehicles within urban environments. These areas are chastised for not providing any benefit to their users or surroundings. Gehl & Gemzoe [31], on the other hand, adopted the term "invaded space" to describe such areas, claiming that motor vehicles occupy urban public space. These places, which are suppressed by motor vehicles, render the city unusable and harm the social structure's functionality. Although these sites are owned by the government and designated as public spaces, they cannot perform the functions expected of a public space. Although the *Zincirlikuyu* transportation hub solves a megacity's transportation problems by combining different modes of pedestrian, private vehicle, and public transportation, it is classified as a negative space by Carmona [27] because it lacks social and recreational activities.

C. *Zorlu* Shopping Centre

Shopping malls, which are seen as a classic example of spatial transformation through international capital, appeared in Turkey in the mid-1980s as a result of liberal economic structuring and outward-looking policies. The fact that shopping centres have a significant number of visitors even during a recession period demonstrates that the function of these locations is more than just consumption [32]. The increased street traffic generated by motorized vehicles and the use of pedestrian zones for parking has raised the demand for safe and comfortable pedestrian retail places, particularly in Istanbul. The earliest shopping malls created in Istanbul had a wholly indoor area that included parking areas, a food court, and national and international brands at reasonable costs. However, the rise of the new upper class and the advent of their luxury consumption needs have pushed shopping malls to take on new forms. *Zorlu* Shopping Centre is an urban place that arose in this context, and it provides a consumption model for both the medium and upper-income groups. Since it was constructed in collaboration with a mass housing area and a performing arts facility for the upper-income group, the *Zorlu* Shopping facility has revolved around consumption, living space, and art. In this way, it gives retail malls a fresh lease of life. Furthermore, the growing customer demand for outdoor shopping in recent years has been factored into this space, and certain indoor spaces have been linked to outside areas and terraces. In comparison to other examples, the existence of a free children's playground in the open area has boosted the inclusiveness of this retail mall (Fig. 4). Given all of these characteristics, it is easy to appreciate Carmona's [27] approach to shopping centres as an ambiguous area. These are technically public spaces with both open and closed portions, but they have a powerful control mechanism because they are privately owned.

D. Etiler Alkent Residences

Etiler Alkent Residences, which is classified as private space by Carmona [27], is one of Istanbul's first gated community neighbourhoods and is populated mainly by the



Fig. 4. Views of *Zorlu* Shopping Centre [photo by authors].



Fig. 5. Views of *Etiler Alkent* Residences [photo by authors].

upper-income category (Fig. 5). Gated communities are urban enclaves that have evolved since the 1990s and have become the focus of social science research. Gated communities are defined by walls and fences and are regulated to prohibit non-residents from entering [33]. Caldeira [34] used the term "closed condominiums" to consider gated communities. She classified these regions as areas designed for high-income groups, primarily high-rise and encircled by walls with security controls, with a big number of dwellings, huge landscape areas, and a wide range of common facilities. The residential area is a socially homogeneous environment, and its residents desire to hang out with affluent people who they presume belong to the same social group.

Unlike many gated communities in Istanbul, *Etiler Alkent* Residences permits foreigners to visit the neighbourhood. Surveillance personnel, on the other hand, spy on these guests and watch them with surveillance cameras. Customer demand for private companies established in the area is a significant reason why this residential area is available to visitors from outside. This area, which retains its allure with restaurants, cafes, hairdressers, markets, children's playgrounds, tennis courts, fitness centre, swimming pools, and walking paths, is also well-served in terms of access to other urban services such as transportation, health, and education.

IV. Method

The public space index was used to measure the quality of four different space typologies (positive space, negative space, ambiguous space, and private space) determined by Carmona [27] within the scope of this study, which aims to measure and compare the quality of urban spaces with varying degrees of publicness. Mehta [1] developed the public space index, which Evans et al. [6] applied to urban parks in a larger area. This study benefited from the most recent version of the index established by Evans et al. [6], which is more suited for evaluating various sorts of public places. As a result, the goal is to evaluate each space type in terms of all dimensions that create the public space index (Fig. 6).

The public space index addresses five different dimensions of public space. These are: inclusiveness, meaningful activities, comfort, safety and pleasurability. These 5 dimensions consist of 42 indicators (see Appendix). These indicators are encoded with a value between "0 = the lowest quality" and "3 = the highest quality". This 5-dimensional index helps to see the different features of public spaces. Thus, answers to questions, such as how inclusive public spaces are, how people from different socio-cultural groups come

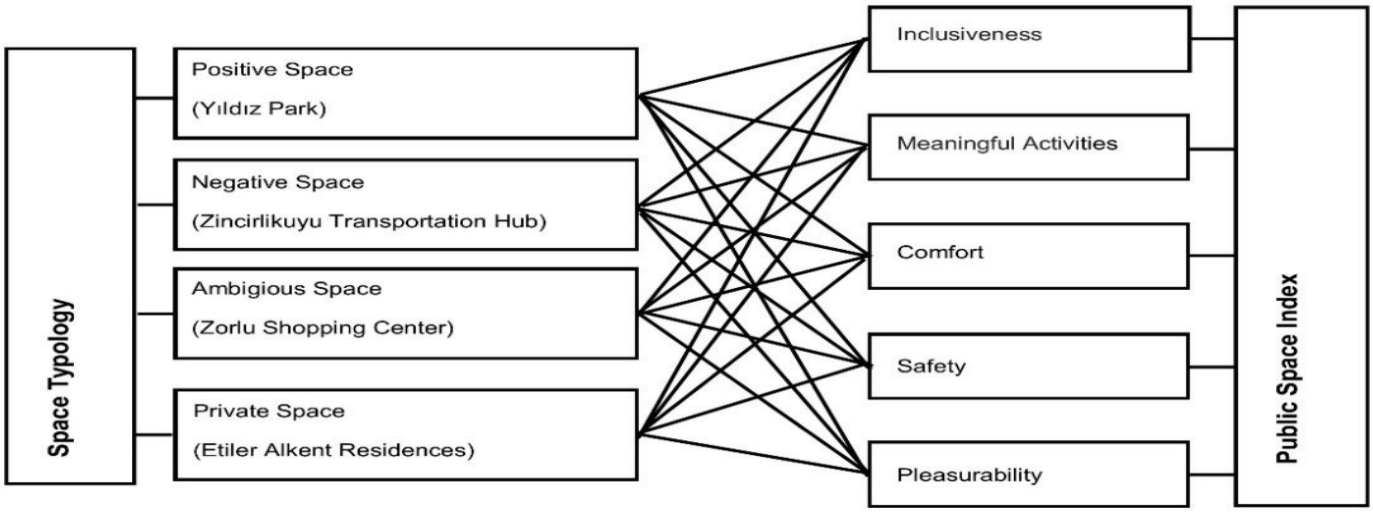

Fig. 6. The methodological framework of the study [created by authors].

together, how access is provided, and how different activities are encouraged for users, can be sought. The ideal condition of public space, the number of meeting areas for people, whether it has a flexible purpose for varied situations, and the availability of food and other basic needs can all be called into question. For example, the existence of shade and sheltered spaces and the actual presence of urban facilities are all evaluated in terms of comfort. This index also contains several safety factors, such as lighting quality, the physical condition of various facilities, and perceived crime safety. Furthermore, the index inquires about people's pleasurability of the locations, how they are remembered, and how appealing they are. Each dimension's total weight is ten. If the highest-scoring public space obtains three points for each indicator, it receives a total of thirty points from each dimension of the index because each dimension is worth ten points. A public space can receive a maximum score of 150 points when all dimensions are evaluated. While weighting the variables, Mehta's [1] study was taken as a basis. Accordingly, while developing the public space index, expectations from public spaces were taken into consideration. A larger weight coefficient was determined for the most important indicators. Following the creation of the observation forms that contributed to the evaluation of the indicators, undergraduate students from the Landscape Architecture Department learned about space typology and public space index within the "Urban Visual Analysis" course, and they were then instructed on how to code the observation forms in the study areas. The students were divided into groups of ten and led to the designated study locations. Observation forms were coded 98 times in total for four different types of public areas during the spring and autumn seasons when public spaces are most heavily used. To analyse the research areas, basic descriptive statistics were used, and radar graphs were constructed to compare quality. At the same time of day, the coders saw the study areas independently. A pre-test was performed to determine whether there was an issue with the measurement tool or scoring.

V. Results

Raw average scores of public spaces for each indicator that creates the index are given in Table 1. In addition, a weighted average score out of 100 is also provided. While *Zorlu* Shopping Centre (72.36) had the greatest inclusiveness score, *Zincirlikuyu* Transportation Hub (56.95) received the lowest. In terms of raw inclusivity scores, I2 (presence of people of different genders) was discovered to be the greatest score indicator for *Zorlu* Shopping Center, whereas I12 (perceived ability to participate in activities and events in the space) was found to be the lowest score indicator for *Zincirlikuyu* Transportation Hub.

Regarding activity dimension, *Etiler Alkent* Residences got the highest score (72.08), and *Zincirlikuyu* Transportation Hub (30.48) had the lowest score. In terms of raw score in the meaningful activity dimension, *Etiler Alkent* Residences got the highest score for M4 (availability of food within or at the edges of the space) and M5 (variety of businesses and other uses at the boundaries of the space) indicators, while *Zincirlikuyu* Transportation Hub got the lowest score for the M1(presence of community-gathering third places) indicator (Table I).

While *Etiler Alkent* Residences (69.58) got the highest score in terms of the comfort dimension of the public space index, *Zincirlikuyu* Transportation Hub (45.71) got the lowest score. When considering the raw averages of the comfort dimension, it was determined that *Etiler Alkent* Residences got the highest score for C6 (perceived physical condition and maintenance appropriate for the space) indicator, and *Zincirlikuyu* Transportation Hub got the lowest score for C2 (seating provided by businesses) indicator (Table I).

Regarding safety, while Etiler Alkent Residences (87.50) reached the highest score, *Yıldız* Park (57.68) got the lowest score. According to the raw scores of safety, the highest scoring indicators were S2 (physical condition and maintenance appropriate for the space), S4 (perceived safety from presence of surveillance cameras, security guards, guides, ushers, etc. providing safety), S5 (perceived safety from crime during daytime), and S6 (perceived safety from crime after dark) for *Etiler Alkent* Residences, and the lowest scoring indicators were S3 (lighting quality in the space after dark) and S6 (perceived safety from crime after dark) for *Yıldız* Park (Table I).

Additionally, *Yıldız* Park (71.33) received the highest score in terms of pleasurability, and Zincirlikuyu Transportation Hub (46.67) got the lowest score. When considering raw averages of pleasurability dimension, *Yıldız* Park got the highest score for the P6 (design elements providing focal points) indicator. However, *Zincirlikuyu* Transportation Hub, earned the lowest score for the same indicator (Table I).

The radar graph in Fig. 7 was generated to determine how the data in Table I, where the public space index is detailed at the indicator level, varies in terms of public space dimensions. According to Fig. 7, which was created based on the index rating out of 100 (in Table I), *Etiler Alkent* Residences has the highest score in terms of meaningful activity, comfort, and safety, *Zorlu* Shopping Centre has the highest score in terms of inclusiveness, and *Yıldız* Park has the highest score in terms of pleasurability. While *Zincirlikuyu* Transportation Hub had the lowest score in all dimensions when compared to other spaces, it received a higher grade in safety than *Yıldız* Park.

TABLE I

Combined Average Scores of Public Spaces [created by authors]

	Index		*Zorlu* Shopping Centre		*Yıldız* Park		*Zincirlikuyu* Transportation Hub		*Etiler Alkent* Residences	
		W	Raw average	Weighted average	Raw average	Weighted average	Raw average	Weighted average	Raw average	Weighted average
Inclusiveness	I1	0.4	2.32	0.93	2.53	1.01	3.00	1.20	2.63	1.05
	I2	0.4	2.76	1.10	2.33	0.93	3.00	1.20	2.63	1.05
	I3	0.4	2.00	0.80	2.20	0.88	2.29	0.91	0.38	0.15
	I4	0.4	2.33	0.93	2.00	0.80	2.29	0.91	1.75	0.70
	I5	0.4	0.96	0.38	1.67	0.67	0.71	0.29	1.75	0.70
	I6	1	2.04	2.04	1.53	1.53	2.14	2.14	2.88	2.88
	I7	1	1.71	1.71	2.14	2.14	1.43	1.43	1.50	1.50
	I8	1	2.25	2.25	2.67	2.67	1.43	1.43	1.13	1.13
	I9	1	2.36	2.36	1.87	1.87	2.29	2.29	2.88	2.88
	I10	1	2.24	2.24	1.33	1.33	1.86	1.86	1.50	1.50
	I11	2	2.52	5.04	1.93	3.87	1.43	2.86	1.38	2.75
	I12	1	1.92	1.92	1.53	1.53	0.57	0.57	1.38	1.38
	Aggregate Score	10		21.71		19.24		17.09		17.65
	Index rating for inclusiveness (out of 100)			72.36		64.12		56.95		58.83
Meaningful Activities	M1	2	2.10	4.20	0.67	1.33	0.43	0.86	1.88	3.75
	M2	1	1.84	1.84	2.07	2.07	1.29	1.29	2.50	2.50
	M3	1	1.64	1.64	2.07	2.07	1.00	1.00	1.50	1.50
	M4	2	1.52	3.04	0.67	1.33	0.86	1.71	3.00	6.00
	M5	1	2.00	2.00	0.70	0.70	1.00	1.00	3.00	3.00
	M6	2	2.32	4.64	1.93	3.87	1.14	2.29	1.75	3.50
	M7	1	1.88	1.88	0.47	0.47	1.00	1.00	1.38	1.38
	Aggregate score	10		19.24		11.83		9.14		21.63
	Index rating for activity (out of 100)			64.12		39.44		30.48		72.08
Comfort	C1	2	1.88	3.76	2.40	4.80	0.86	1.71	2.63	5.25
	C2	1	0.96	0.96	0.73	0.73	0.00	0.00	1.75	1.75
	C3	1	1.76	1.76	1.93	1.93	0.43	0.43	2.63	2.63
	C4	2	1.40	2.80	1.80	3.60	1.00	2.00	2.25	4.50
	C5	1	1.64	1.64	1.27	1.27	2.43	2.43	0.75	0.75
	C6	2	1.80	3.60	1.79	3.57	2.29	4.57	2.75	5.50
	C7	1	1.84	1.84	1.07	1.07	2.57	2.57	0.50	0.50
	Aggregate score	10		16.36		16.97		13.71		20.88
	Index rating for comfort (out of 100)			54.53		56.57		45.71		69.58
Safety	S1	1	1.76	1.76	1.73	1.73	1.57	1.57	0,75	0.75
	S2	1	1.88	1.88	2.13	2.13	2.43	2.43	2,88	2.88
	S3	1	2.00	2.00	1.20	1.20	3.00	3.00	2,75	2.75
	S4	1	2.20	2.20	1.60	1.60	2.43	2.43	2,88	2.88
	S5	2	2.20	4.40	1.33	2.67	1.71	3.43	2,88	5.75
	S6	2	1.85	3.70	1.20	2.40	1.29	2.57	2,88	5.75
	S7	2	2.52	5.05	2.79	5.57	2.29	4.57	2,75	5.50
	Aggregate score	10		20.99		17.30		20.00		26.25
	Index rating for safety (out of 100)			69.96		57.68		66.67		87.50
Pleasurability	P1	1	1.80	1.80	2.20	2.20	1,00	1.00	1.25	1.25
	P2	1	1.80	1.80	1.87	1.87	2.29	2.29	3.00	3.00
	P3	1	1.80	1.80	2.00	2.00	1.00	1.00	2.13	2.13
	P4	1	1.80	1.80	2.00	2.00	2.71	2.71	2.63	2.63
	P5	1	1.84	1.84	1.87	1.87	2.57	2.57	2.00	2.00
	P6	1	1.76	1.76	2.47	2.47	0.71	0.71	1.63	1.63
	P7	1	1.92	1.92	2.13	2.13	1.14	1.14	1.13	1.13
	P8	2	1.88	3.76	2.40	4.80	0.86	1.71	2.25	4.50
	P9	1	1.96	1.96	2.07	2.07	0.86	0.86	1.75	1.75
	Aggregate Score	10		18.44		21.40		14.00		20.00
	Index rating for pleasurability (out of 100)			61.46		71.33		46.67		66.67

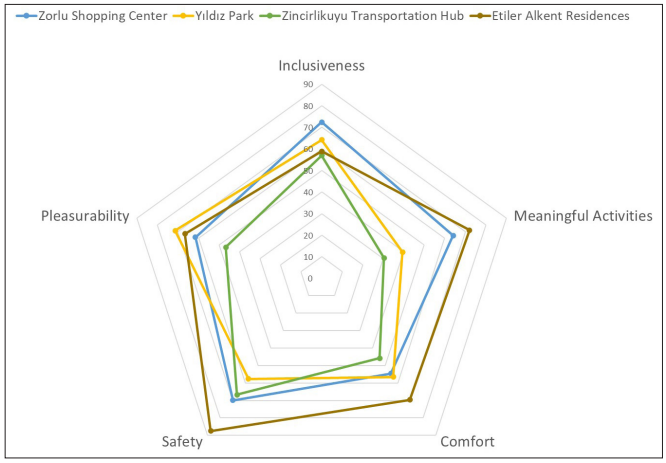

Fig. 7. Comparison of public space index scores of study areas [created by authors].

When each public place is analysed separately, the images depicted in Fig. 8 emerge. *Yıldız* Park scored the best score for pleasurability and the lowest score for activity, while *Zorlu* Shopping Centre obtained the highest score for inclusiveness and the lowest score for comfort. Finally, *Zincirlikuyu* Transportation Hub had the highest safety score and the lowest meaningful activity score, whereas *Etiler Alkent* Residences received the highest safety score and the lowest inclusiveness score (Fig. 8).

VI. Discussion and Conclusions

This study found that whether a space is owned by the government or private does not affect the sense of quality. On the contrary, the qualitative perception of each sort of place has emerged in various dimensions. *Yıldız* Park, which has the highest publicness and is described as a positive space, shines out only in terms of pleasurability when compared to other venues, but it lags behind *Zorlu* Shopping Centre, a privately owned space in terms of inclusiveness. Privatisation, under normal conditions, is said to limit inclusion and produce obstacles such as difficulty in access, inequality, and discrimination [5], [35]. According to Banerjee [3], "distribution of brochures, freedom of speech, charity campaigns, presence of street vendors, and the like" activities observed in urban public places were not appreciated by shopping centre managers, prompting certain administrative choices. The perception of *Zorlu* Shopping Centre as more inclusive may be because its visitors are more ethnically diverse as a result of foreign tourists visiting for consumption, and ergonomic solutions are provided for visitors with varying physical abilities or disabilities. *Zorlu* Shopping Centre is popular with high-income foreign tourists and is ideal for tax-free shopping. Furthermore, architectural solutions for persons with diverse physical features are relatively widespread, as it is an area with more structural and constructive solutions than *Yıldız* Park. Because *Yıldız* Park lies on a steeply

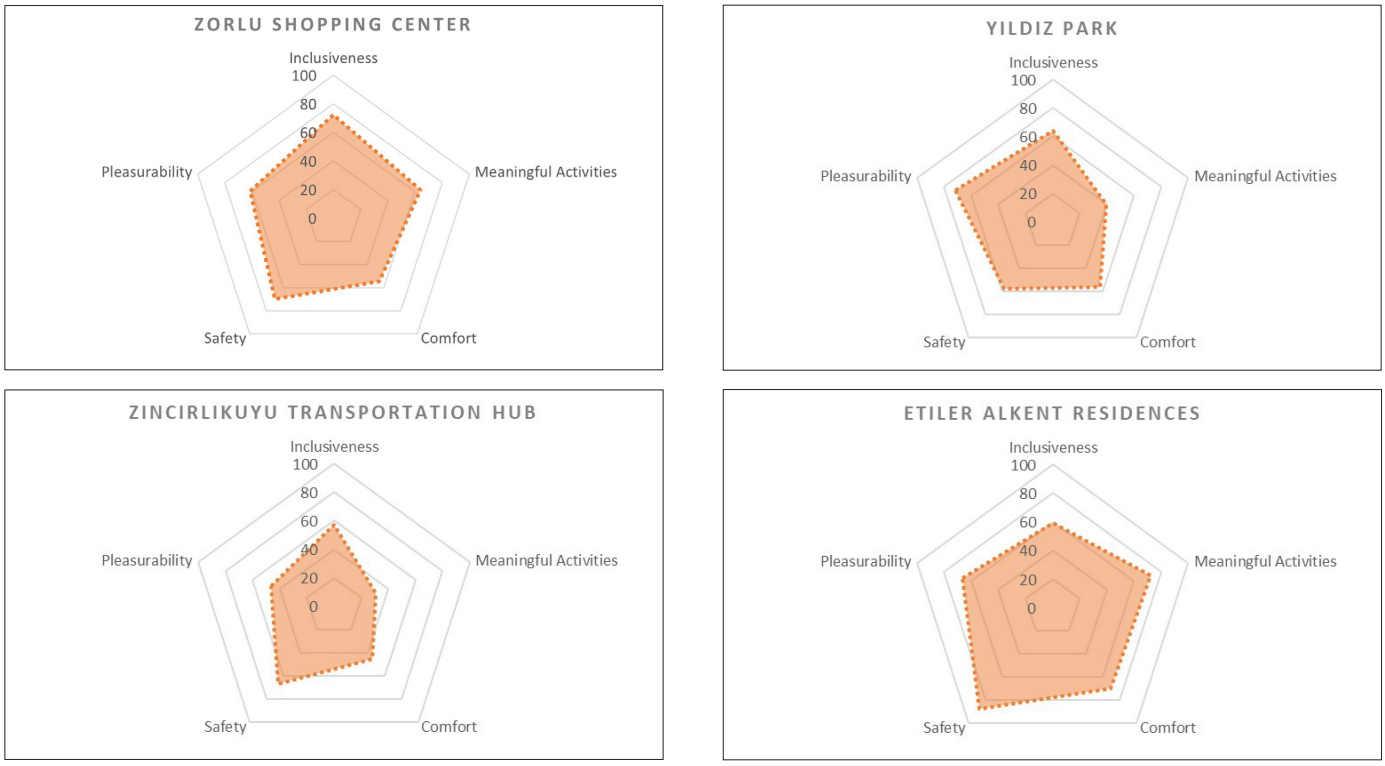

Fig. 8. Comparison of space-specific dimensions [created by authors].

sloping site and is historically protected, architectural and ergonomic possibilities are constrained. According to Madanipour [36], well-designed public areas will draw high-income residents, visitors, investors, and company owners to the city.

As a publicly owned positive space, Yıldız Park has a low impression of safety. The space's lack of physical connection to the openness and its surroundings, the difficulty of perceiving the entire area due to topography and natural elements, and the inability to perceive areas screened by bush and tree groups, particularly at night, may have pushed this area behind all other spaces in terms of safety. The situation reminds us of Jacobs' [10] safety critique of urban parks. While *Zincirlikuyu* Transportation Hub has the lowest quality perception across all dimensions, according to the research, it is viewed as higher quality than *Yıldız* Park only in terms of safety. It is vital to understand how *Zincirlikuyu* Transportation Hub came to the fore when examining why Yıldız Park underperformed regarding safety. Because *Zincirlikuyu* Transportation Hub is one of Istanbul's major transportation hubs, it is used 24 hours a day and is monitored by CCTV. At this point, it is vital to anticipate that different outcomes may occur in a less utilised transit hub with no CCTV or security guard.

Another notable finding of this study is that the *Etiler Alkent* Residences, which is an entirely private space according to Carmona's [27] classification and has almost no public ownership or control, is found to be the highest quality gated community in terms of safety, comfort, and meaningful activity. This study is significant because it demonstrates that the quality of a space can be assessed regardless of whether it is publicly owned or not. According to Yoon and Srinivasan [37], privately owned public spaces can be used to construct public spaces in the city, reducing the average distance to the nearest public space. The fact that several elements of public space are addressed in examples such as *Etiler Alkent* Residences lessens citizens' demand for publicly owned public spaces in the city. This condition, which results in more public space per person, might be seen positively. However, it is undesirable for the city's social sustainability if its citizens prefer to live only in gated communities rather than utilising other public places. In accordance with all of these findings, it has been determined that ownership of public space has a limited effect on perceptions of the space's design quality.

Because this is a research project, one of the most significant limits of this study is that it must be completed within one year, according to the agreement. While conducting a subjective evaluation of the quality of public space, researchers have challenges because the areas cannot be visited depending on seasonal environmental conditions. Future research should consider that the spaces cannot be visited owing to seasonal conditions, and that even a one-year period may be insufficient for such a study.

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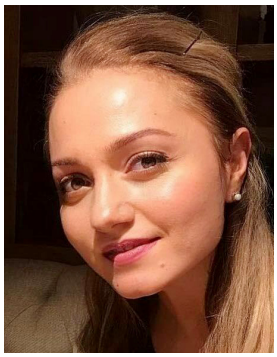
APPENDIX

PUBLIC SPACE OBSERVATION SHEET*

Public Space:
Observation Date:
Observation Time:

		W	Score "0 = lowest quality" and "3 = highest quality"
	Inclusiveness		
I1	Presence of people of diverse ages	0.4	
I2	Presence of people of different genders	0.4	
I3	Presence of people of diverse classes	0.4	
I4	Presence of people of diverse races	0.4	
I5	Presence of people with diverse physical abilities	0.4	
I6	Control of entrance to public space: presence of lockable gates, fences, etc.	1	
I7	Ranges of activities and behaviours	1	
I8	Opening hours of public space	1	
I9	Presence of surveillance cameras, security guards, guides, ushers, etc. intimidating and privacy is infringed upon	1	
I10	Presence of posted signs to exclude certain people or behaviours	1	
I11	Perceived openness and accessibility	2	
I12	Perceived ability to participate in activities and events in space	1	
	Aggregate score	10	
	Meaningful activities		
M1	Presence of community-gathering third places	2	
M2	Range of activities and behaviours	1	
M3	Space flexibility to suit user needs	1	
M4	Availability of food within or at the boundaries of the space	2	
M5	Variety of businesses and other uses at the boundaries of the space	1	
M6	Perceived suitability of space layout and design to activities and behaviours	2	
M7	Perceived usefulness of businesses and other uses	1	
	Aggregate score	10	
	Comfort		
C1	Places to sit without paying for goods and services	2	
C2	Seating provided by businesses	1	
C3	Other furniture and artefacts in the space	1	
C4	Climatic comfort of the space – shade and shelter	2	
C5	Design elements discouraging use of space	1	
C6	Perceived physical condition and maintenance appropriate for the space	2	
C7	Perceived nuisance noise from traffic or otherwise	1	
	Aggregate score	10	
	Safety		
S1	Visual and physical connection and openness to adjacent street(s) or spaces	1	
S2	Physical condition and maintenance appropriate for the space	1	
S3	Lighting quality in the space after dark	1	
S4	Perceived safety from presence of surveillance cameras, security guards, guides, ushers, etc. providing safety	1	
S5	Perceived safety from crime during daytime	2	
S6	Perceived safety from crime after dark	2	
S7	Perceived safety from traffic	2	
	Aggregate score	10	
	Pleasurability		
P1	Presence of memorable architectural or landscape features (imageability)	1	
P2	Sense of enclosure	1	
P3	Variety of sub-spaces	1	
P4	Density of elements in the space providing sensory complexity	1	
P5	Variety of elements in the space providing sensory complexity	1	
P6	Design elements providing focal points	1	
P7	Visual and physical connection and openness to adjacent street(s) or spaces	1	
P8	Perceived attractiveness of the space	2	
P9	Perceived interestingness of the space	1	
	Aggregate score	10	

* This observation sheet is a duplication of Evans et al. (2019) [6].



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