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Development of "Environmental Attributes Scale" in Historical City Centers: The Case of Ankara-Hacıbayram Square

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Abstract

The aim of this study is to develop a scale to identify the effects of the physical and social transformation of Hacıbayram Square after urban on the residents, employees and visitors from different districts of Ankara. In the scale development process, firstly, a literature review was conducted, and no scale was found for the purpose of the study and the research question. In this context, it was decided to develop a scale for determining the physical and social qualities of the place. In this context, deductive method was used, literature review and expert opinions were taken into consideration. Thus, an item pool of 37 items was created. In the scale development study, a 5-point Likert-type scale was used. Initially, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were applied to determine the construct validity of the scale. The factorization structure was determined with EFA and it was decided that the KMO (0.851) and Bartlett's test chi-square value (2933,668) were appropriate. With CFA, it was tested whether a previously defined and delimited structure was confirmed as a model. The 8 items with low factor loadings and incompatibilities under the dimensions were removed from the data set. According to the results of the construct validity analysis of the scale, it was determined that the "Environmental Attributes Scale" consists of 22 items and four dimensions. As a result of the analyzes, it was determined that the scale had an adequate fit index. Chi-square degrees of freedom ratio (1.51) was at the expected level, RMSEA value (0.055) was at the expected level, CFI value (0.98) was at the expected level, NFI value (0.93) was at the expected level and GFI value (0.86) was slightly below the expected limit. According to the results of the reliability analysis of the scale, Cronbach's Alpha internal consistency coefficient was founded as 0.89 for the whole scale. Cronbach's Alpha internal consistency coefficient was .768 for "comfort and visual image" dimension, .815 for "access and linkages" dimension, .840 for "use and activities" dimension, and .712 for "socialization" dimension. As a result of these findings, it was determined that the "Environmental Attributes Scale" developed to identify the attitudes of users towards the physical and social characteristics of Hacıbayram Square and its environment is a valid and reliable measurement tool.

Keywords: *Scale development, reliability, validity, place quality, content analysis, environmental qualities*

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Tarihi Kent Merkezlerinde "Çevresel Özellikler Ölçeği"nin Geliştirilmesi: Ankara-Hacıbayram Meydanı Örneği

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Öz

Bu çalışmanın amacı, Hacıbayram Meydanı ve çevresinin kentsel yenileme sonrası geçirdiği fiziksel ve sosyal dönüşümün, alanda yaşayanlar, çalışanlar ve Ankara'nın farklı ilçelerinden gelen ziyaretçiler üzerindeki etkilerinin tespit edilmesine yönelik bir ölçek geliştirmektir. Ölçek geliştirme sürecinde öncelikle alan yazın taraması yapılmış, çalışmanın amacına ve araştırma sorusuna yönelik bir ölçek bulunamamış, bu bağlamda yerin fiziksel ve sosyal niteliklerinin belirlenmesine yönelik bir ölçek geliştirilmesine karar verilmiştir. Bu kapsamda tümdengelim yöntemine başvurulmuş, alan yazın taraması ve uzman görüşleri göz önünde tutulmuştur. Böylece, 37 maddelik bir madde havuzu oluşturulmuştur. Ölçek geliştirme çalışmasında, 5'li likert tipi ölçek kullanılmıştır. Öncelikle, ölçeğin yapı geçerliğini belirleyebilmek için Açımlayıcı Faktör Analizi (AFA) ve Doğrulayıcı Faktör Analizi (DFA) uygulanmıştır. AFA ile faktörleşme yapısı belirlenmiş, KMO (0.851) ve Barlett testi ki-kare değerinin (2933,668) uygun olduğuna karar verilmiştir. DFA ile daha önceden tanımlanmış ve sınırlandırılmış bir yapının, bir model olarak doğrulanıp doğrulanmadığı test edilmiştir. Boyutlar altında faktör yükü düşük oran alan ve uyumsuz olduğu belirlenen 8 madde veri setinden çıkarılmıştır. Ölçeğin, yapı geçerliği analizi sonuçlarına göre, "Çevresel Özellikler Ölçeği" nin 22 madde ve dört boyuttan oluştuğu tespit edilmiştir. Yapılan analizler sonucu ölçeğin yeterli düzeyde uyum indeksine sahip olduğu belirlenmiştir. Ki-kare serbestlik derecesi oranının (1.51) beklenen düzeyde, RMSEA değerinin (0.055) beklenen düzeyde, CFI değerinin (0.98) beklenen düzeyde, NFI değerinin (0.93) beklenen düzeyde ve GFI değerinin (0.86) beklenen sınırın bir miktar altında olduğu görülmüştür. Ölçeğin güvenirlik analizi sonuçlarına göre, Cronbach Alpha iç tutarlık katsayısı ölçeğin tümü için 0,89 olarak tespit edilmiştir. Cronbach's Alpha iç tutarlık katsayısı "konfor ve görsel imaj" boyutu için .768, "erişim ve ulaşılabilirlik" boyutu için .815, "kullanım ve etkinlikler" boyutu için .840, "sosyalleşme" boyutu için .712 olarak belirlenmiştir. Bu bulgular sonucunda, alan kullanıcılarının Hacıbayram Meydanı ve çevresinin fiziksel ve sosyal niteliklerine yönelik tutumlarını belirlemek amacıyla geliştirilen "Çevresel Özellikler Ölçeği" nin geçerli ve güvenilir bir ölçme aracı olduğu tespit edilmiştir.

Anahtar Kelimeler: *Ölçek geliştirme, güvenirlik, geçerlik, yer kalitesi, içerik analizi, çevresel nitelikler*

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Introduction

Place is a phenomenon that organizes people's actions and experiences (Relph, 1976). Human beings transform the life energy they receive from the place into space, and the individual builds by shaping his/her interaction with the environment (Relph, 1976). Spatial production is the materialization of this formation (Asiliskender, 2004). Sancar (1994, cited in Beidler, 2007) stated that the existence of a sense of place as the center of human activities depends on "experiences on place", "the structure of a place and ongoing social processes", and "sensory reactions". The phenomenon of place refers to a part of the space that has been given meaning by humans, in other words, it is a "meaningful location" (Turner, 2006). Individuals shape their lives according to the human characteristics of the land they live on (Turner, 2006). For example, natural factors such as the flatness or ruggedness of the land and climatic characteristics determine the styles and needs of those living on it (Asiliskender, 2004). Tuan (1977) stated that the knowledge gained by people on the natural and built environment is related to life experience and that people create their personal spheres of influence in this way.

Places are the strongest common points of people who share a city. After private and semi-private spaces, people have the opportunity to see and interact with each other in streets, alleys, squares, parks, etc. In this way, they get clues about the city and the society they live in and perceive that they are socially part of it. However, in order for a place to provide these, it must first be usable/livable. This can only be the case as long as people meet their various needs for these places. People go to public places in order to meet some of their social and physical needs. In their tendency to use the urban environment, they choose the place that meets their needs the most. In other words, the effect of the architectural and urban environment on the user's satisfaction level depends on its performance in meeting user needs.

In establishing the human-place relationship, places where people can connect, belong, remember and take into account user needs with their environmental qualities are significant (Williams et al., 1992; Tekeli, 2003). In addition, these places, which host people with different cultures and social structures, as well as having unique traditions, customs, rituals, dif-

ferent lifestyles and habits that have accumulated in a society, allow people to come together and perform various activities and socialize as a result (Koca, 2005). For this reason, places should be considered not only for their physical environment but also for their social characteristics that create a sense of place as a result of people's memories and experiences (Williams et al., 1992). In this context, people's needs are taken into consideration in creating a sense of place (Ertürk, 2019).

Altman & Low (1992) state that sense of place is formed within the framework of three important categories as "cognitive/perceptual, behavioral and emotional" within the framework of space and people. Its spatial counterpart is defined as "form, function and meaning" (Altman & Low, 1992). Human interaction with space is created through perception, so that people can easily orient themselves in space. The emotional acts of perception that people establish with the place help people to become familiar with the place and people start to feel satisfied with that place. When people feel satisfied, place attachment occurs. As a result of experiences and actions, a human-space relationship is established with the transformation of space into place, and as a result of this three-dimensional relationship, a sense of place becomes possible (Altman & Low, 1992). With the place providing this three-dimensional relationship, user needs are met to a great extent.

According to Maslow's (1954) Hierarchy of Needs theory, people's lives in a place should be met without physiological, social and psychological disturbances (Maslow, 1954). People also consider the environment around them in order to fulfill their needs, because all needs affect people's behavior, as well as the necessary places must be created for behaviors to turn into actions (Whyte, 2000). Sense of place depends on meeting user needs (Whyte, 2000; Marcus & Francis, 1990). Research on the phenomenon of sense of place states that it is possible to develop a special feeling for a place as a result of the place meeting user needs (Kyle et al., 2005; Williams et al., 1992). This interaction between people and place helps to attribute meaning to the place, thus creating a sense of place (Jorgensen and Stedman 2001). The physical and social qualities offered by the place contribute to the formation of a sense of place by enabling people to integrate with the place. Scannell and Gifford (2010) stated that people are more likely to belong and connect to places that meet their specific needs, expectations and goals, depending on their past experiences. In this respect, the impact of environmental attributes on meeting people's

needs is of great importance (Scannell & Gifford, 2010). It is important that the place fulfills basic human needs such as comfort, relaxation, curiosity, passive and active engagement (Carr et al., 1992). In order for the place to meet human needs, it should be designed and managed in a way to respond to users' needs for security, aesthetics, privacy and personal space in addition to these concepts. Maslow (1954) grouped user needs under five headings. In this grouping, "each behavior is aimed at meeting a specific need and these needs have a certain hierarchical order". These are physiological needs such as nutrition, clothing, rest, shelter; security needs; the need to belong and attachment; prestige needs; self-actualization needs such as personal fulfillment (Maslow, 1954). This hierarchy of needs, which Maslow (1954) discussed in line with user needs, is nowadays handled with different interpretations.

Studies examining the human-place relationship have revealed that the physical and social qualities of place strengthen the sense of place (Prohansky, 1983). Especially, the discipline of environmental psychology examines the foundations on which the human-place relationship is based and what the qualities offered by environments are or should be (Prohansky, 1983). For example, Canter (1977) emphasizes that "experiences of a place are a combination of environmental attributes". Proshansky (1983), on the other hand, states that "the physical environment we construct is a social as well as a physical phenomenon". The results obtained by the theorists from these studies show that human behavior differs depending on the environmental attributes offered by the place in line with certain needs. Environmental features transform places into vibrant locations that are intensively used or dysfunctional areas that cannot integrate with users (Whyte, 2000). Especially in the process of transformation of places with historical texture into places, the physical and social features offered by the place become important in terms of symbolic, historical and cultural values that historical textures harbor (Whyte, 2000).

Recently, urban spaces have been analyzed in a way that includes both physical and social characteristics. Research on this subject is scrutinized within the phenomenon of "place" (Whyte, 2000; PPS, 2000). One of the most important examples of this research is the PPS (*Projects for Public Spaces*), which examines urban spaces in the context of "place" and develops various criteria in this context (Whyte, 2000; PPS, 2000). PPS, founded by Whyte (2000), was established in 1975 and has occurred criteria for "living places" in more than 2000 urban spaces. These criteria are "sociability,

uses and activities, access and linkages, comfort and image" (Whyte, 2000). Access and linkages are defined as continuity, proximity, connected, readable, walkable, convenient, accessible; comfort and image as safe, clean, green, walkable, sittable, spiritual, charming, attractive, historic; use and activities as fun, active, vital, special, real, useful, indigenous, celebratory, sustainable; sociability as diversity, stewardship, cooperative, pride, neighborhood, interactive, welcoming (Whyte, 2000; PPS, 2000). To summarize, considering the needs of users, the environmental attributes of places such as uses and activities, access and linkages, comfort and image, and sociability greatly affect people's relationship with the place. These features of urban spaces are prominent in terms of creating a sense of place for users by allowing individuals to attach meaning to the place and integrate with the place.

Especially, identifying environmental attributes in historic city centers is considered necessary for the development and protection of a sense of place. Historic city centers are defined as places that have important cultural values, are the collective memory of the society and carry traces in people's memory (Altınçekiç et al., 2014). While shaping the identity of a place, historic city centers differ according to their geographical and social characteristics (Altınçekiç et al., 2014). Such places add value to the city with their social characteristics. In this respect, historical city centers are important in terms of the presence of a sense of place on people. Historic city centers, which are intertwined with natural, historical and archaeological areas, support the interaction between society and the environment, as they are places that can both connect with the past and help people establish a relationship with place (Prohansky et al., 1983). These places have tangible meanings through their architectural, urban and artistic qualities and intangible meanings through their identity, memory or memorial values (Prohansky et al., 1983). According to Pallasmaa (2018), buildings and cities are instruments of time and help to see the passage of history. Depending on the time, a number of factors such as changing natural conditions and needs, globalization or technological developments are beginning to change places (Heritage Led Regeneration, 2005). In this process, urban renewal studies, which are carried out in order to adapt to the conditions of the day, cause especially historical city centers to change their functions rapidly and lose their perceptibility in time (Heritage Led Regeneration, 2005). Considering both spatial and social elements together in the renewal processes of these places ensures the continuity of

the sense of place (Heritage Led Regeneration, 2005). For this reason, understanding the sense of place is not only about the physical environment but also about the experiences and needs of the people living there (Prohansky et al., 1983). In historic city centers, spatial and social qualities come together in physical and social dimensions to form place (Prohansky et al., 1983).

In this context, the study aims to develop an environmental attributes scale for Ankara-Hacıbayram Square and its environment, which is included in the urban renewal area. Determining the impact of the physical and social qualities of Hacıbayram Square and its environment on people after the renovation is significant in terms of revealing the meaning of the place. As a result of the literature research, it was aimed to create a valid and reliable scale when a scale suitable for the purpose of the research and suitable for the research area could not be found. It is thought that the developed scale will make an important contribution to the determination of the environmental characteristics of the place in urban renewal processes. At the same time, the developed scale is crucial because it aims to reveal the transformation of historical city centers depending on the changing political, economic, cultural and social conditions over time and to guide the analysis phase of urban design processes.

Material and Method

Material

Research Model

This study was conducted according to the survey design, one of the quantitative research method designs. This model is a design in which the qualities of the study group such as opinions, interests, skills, attitudes, attitudes and beliefs about a subject or event are revealed (Fraenkel & Wallen, 2008).

Research Sample

The participants to be surveyed will include different segments of the society (women, men), and the sample size was determined according to the population data of 2021. According to 2021 data from TUIK, the total population of Altındağ is 407,675 people (204,907 men, 202,768 women)

and the total population of Hacıbayram neighborhood in 2021 is 7350 people (4469 men, 2881 women). Based on this, in the survey conducted in Hacıbayram Square and its environment, the size of the main mass (N) in the sample group including "those who live and work in Hacıbayram Square and its environment" was determined as 7350 people and the number of participants was calculated using the formula below (Özdamar, 2003):

Formula: n=(N.t2.p.q) / (d2.(N-1)+t2.p.q)

N: Population size (number of population units)

n: Sample size (number of individuals to be sampled)

p: Probability of occurrence of the event of interest

q: 1-p (or probability of not seeing the event of interest)

d: sampling error rate

t: 95% confidence level (z test value 1.96)

ta,sd: t table critical value according to degrees of freedom at α significance level (Özdamar, 2003)

n=(7350*1,962*0,5*0,5)/(0,12*7349+1,962*0,5*0,5)

n=94,81~**95 (residents and employees)**

In addition, since the survey also included "visitors from different districts of Ankara", the number of daily visitors to Hacıbayram Square and its environment was obtained by asking the local authority of Hacıbayram neighborhood. According to the information received, Hacıbayram Square is visited by an average of 5,000-10,000 people on weekdays, while it is visited by an average of 10,000-20,000 people on weekends or special days (holidays, holy days, Fridays, etc.). In this context, the size of the main mass (N) in the sample group including visitors was determined as 20,000 people.

n=(20.000*1,962*0,5*0,5)/(0,12*20.000+1,962*0,5*0,5)

n=95,54~**96 (visitors)**

The total number of individuals to be sampled (n) was determined as approximately 190 people, with a minimum of 190.35 (residents, employees and visitors). The margin of error was taken as 0.1 (10%) and reliability was taken as 95%. In the study, p and q values (0.5) were taken equal to each other. According to the calculations made according to the formula, at least 190 questionnaires were found to be sufficient. However, in order to increase the validity and reliability of the questionnaire, it was decided to direct the scale questions to "250 people" who could be reached in Hacıbayram Square by random selection and face-to-face.

Data Collection Process

The study included both mandatory (residents/employees) and voluntary (visitors from other districts of Ankara) users of the area. However, it was decided to include "adults over the age of 18" as well as "individuals over the age of 65". The reason for choosing this group is the idea that the data obtained from individuals who know the place better and have more experience with the place will increase the reliability. On the other hand, volunteers who did not respond adequately to the data collection tool to be used in the research and who stated that they wanted to leave during the survey were not included in the research.

The survey was conducted on one day on weekends, between the hours of 12:00-14:00, when users use the area intensively. On weekdays, the surveys were conducted on three days and were conducted in two different time intervals: 10:00-14:00 and 14:00-18:00. The reason for choosing these time periods is that user groups may vary by day and time. It was decided to choose these time periods in order to reach a wider range of users. The survey was conducted "between January and May 2023". The location of the survey was determined as Hacıbayram Square and its environment. When necessary, the survey was also conducted at the workplaces of the employees.

Development of The Data Collection Tool

As a result of the literature searches, a valid and reliable scale was started to be created since a scale suitable for the purpose of the research and suitable for the research area could not be found. One of the most widely used techniques in literature research is the Likert-type scale developed by Likert, which is easier to apply and answer (Tezbaşaran, 1997). In this respect, it was decided to use a five-point Likert-type scale ranging from "strongly disagree=1" to "strongly agree=5" in the scale studies.

Creating The Item Pool

Generally, deductive and inductive methods are used in the process of developing scale items. The deductive method is used when there is sufficient theoretical knowledge in the area where the scale is to be developed (Karasar, 2011). With this method, a wide literature review on the research topic is conducted and a theoretical framework must be established (Ka-

rasar, 2011). The scale developed in this way is based on a theoretical foundation and the development of the questions becomes easier, thus increasing the content validity of the scale. In this study, the deductive method was used, the relevant theories were examined, and a new conceptual framework was developed to form the basis of the research. The literature on the environmental characteristics that are effective in the formation of sense of place was extensively reviewed and an item pool was created. In this process, expert opinions on the subject were also obtained. The scale development stages of the research are described as follows (Figure 1).

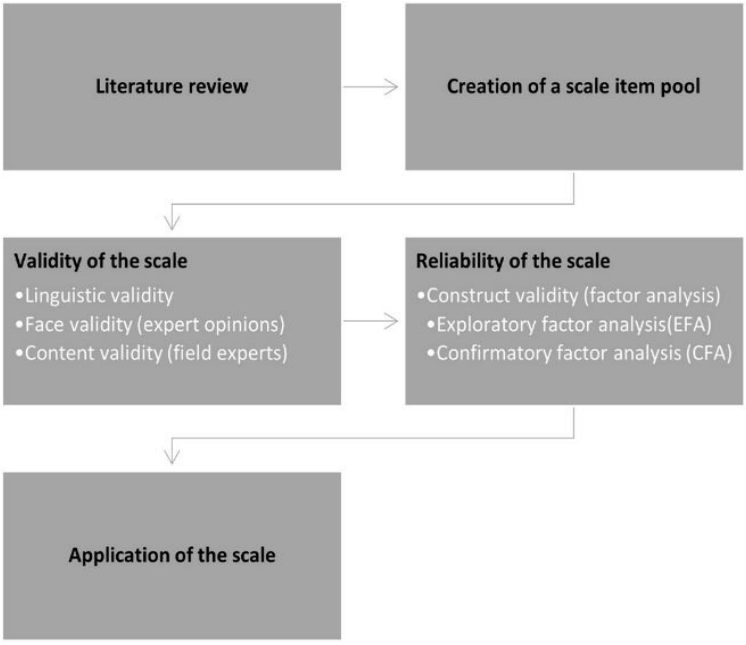

Figure 1. Development Stages of The Environmental Attributes Scale

Ensuring Scale Validity

In order to ensure scale validity, it is important to ensure grammatical, face and content validity. According to Karasar (2011), whether the items are not suitable for the purpose is determined by consulting expert opinions. Lawshe (1975) states that there should be certain stages in determining the expert group. In this context, firstly, a field expert group was formed. It was ensured that the experts were from different disciplines (environmental psychology, landscape architecture, urban sociology, urban and regional planning). A total of 10 experts evaluated whether the

items had the characteristics to be measured, whether they were easily understandable by the target audience, and whether the items were expressed clearly enough. In the form prepared for the experts, the items were expressed as necessary, useful/insufficient and unnecessary. In this context, whether the scale items are suitable for the purpose and the targeted group, and the structural accuracy of the items were evaluated by experts. In line with the expert opinions, questions that were not very clear were removed from the item pool. At the same time, items such as language structure, length and number of items, response time, and appearance were also taken into consideration in this process. In the creation of the scale questions, it was emphasized that the format should be simple, easy to understand and easy to answer. After all of the expert forms were returned, item-by-item expert opinions were combined into a single form, and after the content validity ratios (CVR) were determined, the items were made ready for pilot study. The prepared statements were tested with a sample of 15 participants. It took approximately 10-15 minutes to mark all statements. During the interviews with the participants, it was seen that some of the statements in the questionnaire were not fully understood, some questions were left blank, and arrangements were made in line with the criticisms received. At the end of the research, it was decided that the item pool consisting of 37 items was suitable for the pilot study.

Pilot Study: Validity and reliability of the Environmental Attributes Scale

Within the scope of the pilot study, it was decided to conduct exploratory and confirmatory factor analyses to test the environmental attributes scale and determine its sub-dimensions. The data were first subjected to exploratory factor analysis (EFA), then the validity of the emerging structure was examined by confirmatory factor analysis (CFA) with new data collected from a different group, and finally the internal consistency reliability coefficient (Cronbach's alpha) of the scale was calculated with the data of the same group.

Findings

Findings Regarding the Validity of the Scale

The degree to which a developed test can measure accurately and completely depends on its construct validity (Çokluk et al., 2014). Before the exploratory factor analysis to determine the construct validity, the data collected from the study group were checked for missing values and intervened and removed from the data set. In this study, first exploratory factor analysis and then confirmatory factor analysis were conducted to ensure construct validity.

Exploratory Factor Analysis (EFA)

Prior to the analysis process, the prepared scale questions were administered to 165 participants, including both mandatory (employees/residents) and voluntary (visitors from other districts of Ankara) users in and around Hacıbayram Square. First, it was decided to conduct Exploratory Factor Analysis (EFA) to test the "construct validity" of the 37-item "Environmental Attributes Scale". According to Çokluk et al. (2014), after reducing the number of variables and naming the dimensions formed by the variables related to each other as a result of the analysis, exploratory factor analysis is performed to determine whether these dimensions are compatible with the latent variables in the theory. In this context, each variable is expected to be collected in a dimension related to itself. In this process, the relationship between observed variables and latent variables is revealed (Çokluk et al., 2014).

In exploratory factor analysis, "principal component analysis" is applied to determine the factorization structure and "varimax axis rotation" technique is used as a rotation technique (Durmuş et al., 2013). KMO (Kaiser-Meyer-Olkin) and Bartlett test values were examined. KMO reveals the adequacy of the sample (Tabachnick & Fidell, 2007). In the examination, it was determined that the KMO measurement value was 0.851, Bartlett's test chi-square value was 2933,668, and the degree of freedom was .666, which was significant ($p=0.000$, $p<0.05$) and it was revealed that the sample was suitable for factor analysis.

After testing whether the data were suitable for factor analysis, EFA was conducted using "Principal Components Analysis" and "Varimax rotation method" to examine the factor structure of the scale. In the factor

analysis, common variances (communalities), scree plot, factor loadings of the items, correlation matrix and overlapping items were examined. In addition, eigenvalues and explained variance ratios were also monitored. There are three important methods suggested by researchers in deciding the number of dimensions. One of the methods used is the "Eigen-value statistic". This method is based on the criterion of "eigenvalue greater than 1" (Kalaycı, 2006). In the analysis process, first of all, all dimensions with eigenvalues above 1 were considered and the number of dimensions was not changed in the first stage. In this context, 37 items were subjected to "Exploratory Factor Analysis" and the dimensions related to the environmental attributes of Hacıbayram Square and its environment were tried to be determined.

When the structure was analyzed, it was seen that nine dimensions with eigenvalues higher than 1 emerged. In addition, "total variance explained" is taken into consideration in deciding the dimensions. It was determined that the dimensions explained 46.82% of the total variance (Table 1).

Table 1. Total Amount of Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.89	29.43	29.43	10.89	29.43	29.43	6.71	18.13	18.13
2	2.48	6.69	36.12	2.48	6.69	36.12	4.82	13.04	31.17
3	2.10	5.68	41.80	2.10	5.68	41.80	3.70	10.00	41.16
4	1.86	5.02	46.82	1.86	5.02	46.82	2.09	5.66	46.82

In scale development studies, researchers can decide on the number of dimensions that should emerge as a result of the analysis depending on the theoretical knowledge they have obtained and the purpose of the research. In order to do this, it is necessary that the entire literature has been reviewed (Çokluk et al., 2014). Some environmental characteristics are taken into account in the creation of quality places, and in this context, it was determined that environmental attributes consist of four dimensions

within the scope of the literature examined. It was seen that the "Environmental Attributes Scale" was divided into nine dimensions as a result of EFA, and no reduction was made in the number of dimensions initially. On the other hand, it was considered to obtain a four-dimensional structure based on the literature research. Considering the analyses conducted in the preliminary study, it was envisaged that different dimensions or dimensions could be included in the structure. After the analysis, it was determined that the structure created did not support the theoretical infrastructure as it was, and the items that negatively affected the structure were identified.

Before item elimination, some issues need to be taken into consideration. First of all, the correlation matrix is examined by looking at the correlations between the variables. However, "scree plot is a graph that helps dimension reduction by revealing the dominant dimensions" (Çokluk et al., 2014). Also, the number of items under each dimension should not be less than three. "In the common variance table of the items, the variance of each item in the common dimension and the explanation ratios are also included" (Kalaycı, 2010). The explained common variance of the items is examined by considering the extraction values, and it is stated that this value is expected to be 0.50 and above (Kalaycı, 2010). Item factor loadings are generally expected to be at least 0.30, but there are also some researchers who state that the factor loading can be at least 0.25 (Kline, 1994). When the correlation matrix of the data was analyzed, it was examined whether there was a relationship between the observed variables, and after the examination, it was revealed that some items in the data group were highly correlated with each other. Another method used to decide the number of dimensions is the scree plot. According to this analysis, the point where the dimension numbers turn into a horizontal line after a sharp drop determines the number of dimensions. When both the Eigen-value statistic, the total variance explained and the scree plot were analyzed, it was found that the solution indicated 5 dimensions. When the Eigenvalue is analyzed, a sharp decrease is observed after the first dimension, but this decrease starts to decrease after the fifth dimension. Therefore, it was predicted that the scale consisted of a five-dimensional structure.

By looking at the correlation of the items with the scores obtained from their own dimensions and the factor loadings in each dimension, the items to be included and discarded in the final scale were decided. While making this decision, it was first evaluated whether the item was related to the

dimension to be measured, whether it was written for that dimension or whether it would be used for that dimension. In this context, it was decided that the item-total score correlation coefficient was below r=.25, which was accepted as the limit. At the same time, after the items were analyzed by applying varimax rotation, the items that showed overlapping (on more than one dimension) and did not form an appropriate dimension (7 items; 5, 6, 12, 21, 22, 28, 29) were removed from the analysis, and the number of dimensions to be retained was determined as 4. Thus, the validity of the scale was increased. As a result of EFA, a four-dimensional structure consisting of 30 items was obtained (Table 2).

Table 2. Items Removed From The Scale After Exploratory Factor Analysis

	Items Removed from the Scale
Q5	The spaces in this area (religious places, park, cafes, bazaars, bazaars, facilities, etc.) have an interesting view for viewing and photography.
Q6	I like the appearance of the green areas in Hacıbayram Square (Hacıbayram Veli Park and Rose Gardens).
Q12	I am aware of the Roman inscriptions in the Temple of Augustus and the archaeological remains around it, and I think that they increase the cultural and historical meaning/value of this area.
Q21	I think that Hacıbayram Square has an adequate size for the number of users it accommodates.
Q22	I think that Hacıbayram Square and its environment have sufficient areas for activities (rest, worship, shopping, eating and drinking, etc.).
Q28	The archaeological remains in the Temple of Augustus and its environment make me visit the area more often.
Q29	Hacıbayram Veli Museum located behind Hacıbayram Veli Mosque makes me use this square and its environment more.

After the Exploratory Factor Analysis, it was decided to conduct Confirmatory Factor Analysis (CFA) to ensure the validity of the structure obtained and to test the accuracy of the structure put forward.

Confirmatory Factor Analysis (CFA)

"Confirmatory Factor Analysis is an analysis that tests whether a previously defined and delimited structure is confirmed as a model and is used to assess construct validity" (Çokluk et al., 2014). At this stage, the scale obtained from EFA was applied to 170 participants, including mandatory (employees/residents) and voluntary (visitors) users in Hacıbayram Square and its . The di-

mensioning of the scale obtained by Confirmatory Factor Analysis was structured separately. In this context, it was decided that the item-total score correlation coefficient was below r=.25, which is accepted as the limit. It was decided to remove 8 items (8, 10, 12, 23, 25, 25, 27, 27, 35, 37) from the data set, which were found to be incompatible and decreased the coefficients of other items (Table 3).

Table 3. Items Removed From The Scale After Confirmatory Factor Analysis

	Items Removed from the Scale
Q8	The high-rise buildings (4-5 storeys) in the environment of Hacıbayram Square disturb me.
Q10	I think that the Temple of Augustus has changed compared to the past years.
Q13	Sign and directional boards in Hacıbayram Square are adequate.
Q23	I can use this area at any time of the day.
Q25	The bazaars in this area (Bookstores Bazaar, Chandeliers Bazaar, souvenirs/religious goods, etc.) enable me to use the area more.
Q27	Aid associations/foundations in this area allow me to use the area more.
Q35	I think this area allows me to meet my acquaintances.
Q37	I can easily meet different people in Hacıbayram Square.

As a result of the analyses obtained, it is seen that the scale is suitable for confirmatory factor analysis with the help of structural equation modeling. Finally, the "Environmental Attributes Scale" was prepared as 22 items and 4 dimensions. The environmental attributes to be evaluated in Hacıbayram Square and its environment and the issues to be addressed were determined in line with Maslow's (1954) hierarchy of needs and PPS's (2000) quality place characteristics. In this context, the first sub-dimension of the "Environmental Attributes Scale" was defined as "comfort and visual image", the second sub-dimension as "access and linkages", the third sub-dimension as "uses and activities", and the fourth sub-dimension as "socialization". Comfort and visual image sub-dimension has six items, and their values vary between 0.24 and 0.81. Access and linkages sub-dimension has 8 items, with values ranging between 0.41 and 0.73. 4 items were defined for the uses and activities sub-dimension, with values ranging between 0.62 and 0.80. Four items were defined for the socialization sub-dimension and their values ranged between 0.44 and 0.76 (Table 4).

Table 4. Dimensions and Factor Loadings of Items

Sub-dimensions		Items	Factor loadings
Comfort and Visual Image (6 items)	Q1	I think the seating elements (benches, etc.) in this area Are comfortable and useful.	0,81
	Q2	I think that the flooring in this area is comfortable and Useful for walking.	0,77
	Q3	I think Hacıbayram Square and its environment are clean and well-maintained.	0,76
	Q4	I feel safe in Hacıbayram Square.	0,74
	Q7	I think that the architectural style of the old Ankara houses in Hacıbayram Square has changed.	0,24
	Q9	I think that Hacıbayram Veli Mosque and Tomb have Changed compared to the past years.	0,25
Access and Linkages (8 items)	Q14	Access to the area is easily provided by vehicular roads.	0,68
	Q15	Green areas/trees support my access to the area.	0,54
	Q16	I can easily find my way around Hacıbayram Square and its environment.	0,73
	Q17	Escalators and elevators around Hacıbayram Veli Mosque support my access to the area.	0,69
	Q18	The multi-storey parking lot under Hacıbayram Square is sufficient for use.	0,41
	Q19	I can see what is happening in Hacıbayram Square and its environment from a distance.	0,48
	Q20	Entry points to Hacıbayram Square are clear and sufficient.	0,64
	Q30	I think that Hacıbayram Square and surrounding places can be easily used by everyone.	0,70
Uses and Activities (4 items)	Q11	I think that Hacıbayram Veli Mosque and Tomb is a sacred area for worshipping (praying, praying, etc.) and is center.	0,70
	Q26	The mosques and mausoleums in this area make me use the area more.	0,62
	Q31	I recommend my friends to visit this place and I would like to visit it in the future.	0,82
	Q36	I would also like to bring another friend here.	0,80
Socialization (4 items)	Q24	The seating areas in this area (cafes, restaurants etc.) allow me to use the area more.	0,44
	Q32	I think that the traditions, ceremonies, festivals and festivities specific to Hacıbayram Square and its environment continue to be maintained from past to present.	0,59
	Q33	I think that the soup kitchens around Hacıbayram Square emphasize the traditional meaning/value of this place.	0,76
	Q34	I think that people in Hacıbayram Square organize events/activities in groups or with more than one person.	0,73

In addition, the first sub-dimension, comfort and visual image, includes questions about the comfort of the seating elements Hacıbayram Square and its environment, the safety of the place, the well-maintained place, and the change in the original fabric. The second sub-dimension,

access and linkages covers issues such as accessibility, adequacy of parking, legibility of the place, and convenience. The third sub-dimension, uses and activities, includes questions about the specialness of the place, the usefulness of the place, the popularity of the place, and sustainability. The fourth sub-dimension, socialization dimension, includes questions about the inviting nature of the places, localness, and interaction with people.

LISREL program was used in the "Confirmatory Factor Analysis". "The LISREL model is specifically designed to create models that include latent variables, measurement errors in both dependent and independent variables, mutual causality, simultaneity and interdependence" (Tabachnick & Fidell, 2007). Thus, by testing factor loadings, correlations and comparative models, the degree of fit of the model can be revealed. During CFA, scale models were transformed into path diagrams with the help of LISREL and the necessary criteria for model fit were examined. Chi-square and degrees of freedom (*X2 and sd*), RMSEA (*the Root Mean Square Error of Approximation*), GFI (*Goodness of Fit Index*), CFI (*Comparative Fit Index*), NFI (*Normed Fit Index*) values were taken as criteria (Tabachnick & Fidell, 2007). In the final version of the 22-item scale that emerged as a result of the CFA analysis, modifications were suggested between items 7 and 9 as a result of the LISREL analysis, and the error variances of these items were equalized since it was seen that these items were very similar in content and were included in the same dimension. The final CFA diagram with this modification is given in Figure 2.

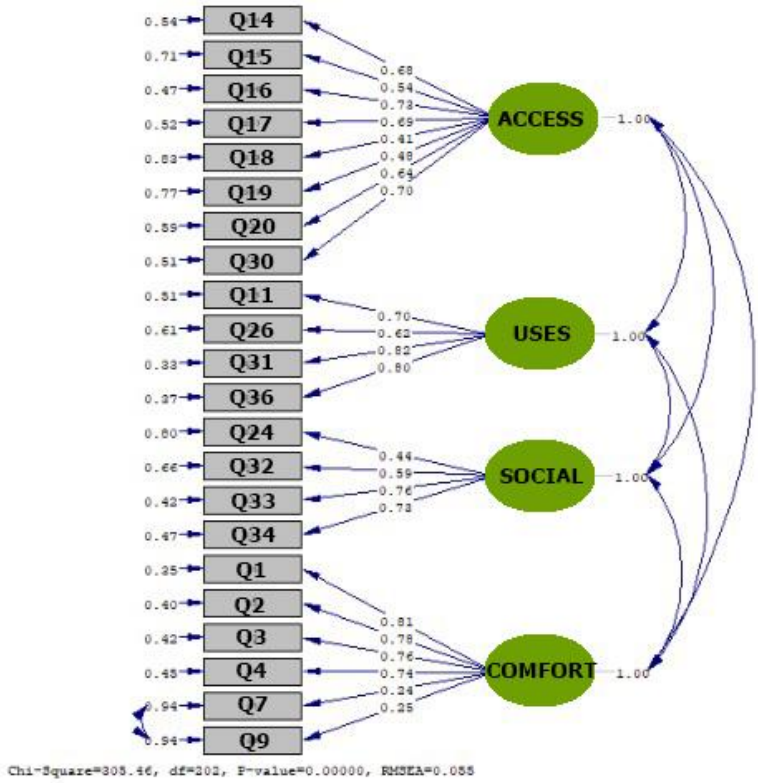

Figure 2. Diagram of The CFA Model and Factor Loadings of The Items

The expected value for the chi-square degrees of freedom ratio is expected to be below 2 or at most 3, the expected value for RMSEA is expected to be less than 0.08, and the other values are expected to be above 0.90 (Tabachnick & Fidell, 2007). It is seen that the chi-square degrees of freedom ratio is at the expected level, RMSEA value is at the expected level, CFI value is at the expected level, NFI value is at the expected level and GFI value is slightly below the expected limit (Table 5). When EFA and CFA results were considered together, it was seen that the construct validity of the scale was provided as 22 items and 4 dimensions.

Table 5. CFA Conformity Indexes

MODELS	Chi-square/ sd ratio	RMSEA	CFI	NFI	GFI
MEASUREMENT MODEL	1,51	0.055	0,98	0,93	0,86

Findings Related to the Reliability of the Scale

"Internal consistency is related to the homogeneity of the items in the scale" (DeVellis, 2014). In order to determine the reliability of the scale that emerged after CFA and item analysis, "Cronbach's Alpha" method, which is one of the internal consistency analyzes, was applied. "Cronbach's Alpha coefficient takes a value between 0 and 1 and it is stated that the reliability of the scale increases as the value approaches 1" (Durmuş et al., 2013).

The overall reliability coefficient of the 22-item scale was 0.896. The Cronbach's Alpha coefficient of the 1st sub-dimension was 0.768, the Cronbach's Alpha coefficient of the 2nd sub-dimension was 0.815, the Cronbach's Alpha coefficient of the 3rd sub-dimension was 0.840, and the Cronbach's Alpha coefficient of the 4th sub-dimension was 0.712 (Table 6). When evaluated in terms of the scale and dimensions, it can be said that the scale has a high reliability.

Table 6. Cronbach Alpha Values of The Scale

Dimensions of the Scale	Cronbach α	Number of Item
1. Sub-dimension: Comfort and Visual Image	0.768	6
2. Sub-dimension: Access and Linkages	0.815	8
3. Sub-dimension: Uses and Activities	0.840	4
4. Sub-dimension: Socialization	0.712	4
Overall of The Scale	0.896	22

Conclusion

Places are defined as common areas where people meet their daily needs and perform their cultural activities, connecting individuals to each other (Kostoff, 1999). The most important contribution of these places, which include streets, squares, parks and all the spaces surrounding buildings, to the city is that they bring many people together and create socialization opportunities and interaction areas (Gehl, 2001; Madanipour, 1996). However, in recent years, these places have come to the fore with problems such as neglect, poor quality, abandonment, insecurity and privatization. According to Sennett (2002), the root of these problems lies in the dissolution of public life due to the rapid changes in all areas of life since the 19th century under the influence of industrial capitalism and secularization.

Crisis of faith, turning inward, hiding one's feelings, the importance of privacy, a local logic of defense against the outside world and the rise of communities have caused people to withdraw from public places. This situation negatively affects people's sense of place. In order to keep the urban culture alive and to realize daily activities, places of great importance in public life should be designed in sufficient quantity and quality within the city. Especially with rapid urbanization, it is seen that public places in historical urban fabric have entered into aging and obsolescence processes over time due to the lack of necessary interventions, and the lack of spatial quality causes physical and social problems. In this context, evaluating the environmental qualities of places is of great importance in terms of both making users feel the sense of place more intensely and increasing the quality levels of places.

In this study, a 22-item scale consisting of 4 sub-dimensions: comfort and visual image; access and linkages; uses and activities; and socialization was developed to determine the environmental perceptions of residents, employees (mandatory users) and visitors (voluntary users) from different districts of Ankara-Hacıbayram Square and its environment. As a result of this study, the scale was found to have adequate psychometric properties.

The "Environmental Attributes Scale" is a measurement tool consisting of four sub-dimensions developed to determine the experiences of mandatory and voluntary users towards the place after urban renewal. With this scale, the question "How do the dimensions of comfort and visual image, access and linkages, uses and activities, and socialization that Hacıbayram Square and its environment offer to users after the renovation process differ in urban space?" is sought to be answered.

In determining the content validity of the scale, Maslow's (1954) hierarchy of needs and PPS's (2000) quality place characteristics were taken into consideration and expert opinions were utilized. The suitability of the data for factor analysis was tested with KMO and Bartlett tests, and the construct validity of the scale was primarily ensured by EFA. As a result of EFA using the Promax rotation technique, it was revealed that the scale consisted of four sub-factors and these factors coincided with the results of the scree-plot graph. The structure and results obtained with EFA were confirmed with CFA. As a result of the LISREL analysis, modifications were suggested between items 7 and 9, and the error variances of these items were equalized since it was seen that these items were very similar

in content and were included in the same dimension. The appropriateness and adequacy of the CFA results were supported by acceptable and excellent fit values. The convergent validity of the scale was calculated by the correlation between the factors. In the comfort and visual image sub-dimension, 6 items were defined and their values ranged between 0.24 and 0.81. Access and linkages sub-dimension was defined with 8 items with values ranging from 0.41 to 0.73. Four items were defined for the uses and activities sub-dimension, with values ranging between 0.62 and 0.80. Four items were defined for the socialization sub-dimension and their values ranged between 0.44 and 0.76.

The high Alpha coefficients for the sub-dimensions of the scale (Comfort and visual image = .76, Access and linkages = .81, Uses and activities = .84 and Socialization = .71) indicate that the items in the sub-dimensions are consistent with each other. EFA and CFA results also confirmed the validity of the scale. As a result, based on the validity and reliability studies, it can be said that this scale is applicable in studies with users. Based on this idea, the contributions of the research to the literature can be listed as follows;

- While the scale is intended to be used in historical city centers included in the renovation process, it is also important as it aims to guide the analysis phase of urban design processes.
- The developed scale helps to determine the quality of Hacıbayram Square and its surroundings after urban renewal.
- The Environmental Characteristics Scale reveals that people's physical development is a need as well as their mental and spiritual development.
- The developed scale is important in terms of experiencing cities both visually and physically in daily life, maintaining the unique values of cities and protecting their identities.
- In addition, the study reveals the transformation of the sense of place in historical city centers over time depending on changing political, economic, cultural and social conditions.

In this context, it is envisaged that the vision and management plans included within the scope of future urban renewal projects will raise awareness on the protection and maintenance of the quality of place in physical and social terms. The preservation of historic cities and environments require good planning processes, constructions centered on the determination to protect historical and cultural values, and integrated goals

that are in line with national and international frameworks and that can create livable places with quality of place management. There is a need for planning decisions, design approach and practices that will increase the livability of the city, reduce inequality in the social structure, accommodate and develop all environmental and natural values, assimilate local values and protect and transfer all these to the future. In this respect, it is thought that the developed "Environmental Attributes Scale" will contribute to increasing the level of urban livability of the places included in the renovation process.

Other historical city centers that reveal different physical and social characteristics offered by the place and that are included in the renovation process should also be examined, and it should be checked to what extent the findings here overlap with this study. In this way, the validity of the quality of the physical and social features identified from historic city centers and their effects on the sense of place will be ensured.

References

Altınçekiç, H., Ergin, B., & Tanfer, M. (2014). Tarihsel Süreç İçinde Kent Kimliğinin Mekânsal Kalite Değerlendirmesi Üzerine Bir Araştırma (Taksim Meydanı). *Artvin Çoruh Üniversitesi Orman Fakültesi Dergisi, 15*(2), 132-148. doi: http://dx.doi.org/10.17474/acuofd.26010

Altman, I., & Low, S. (1992). *Human behavior and environments: Advances in theory and research.* New York: Plenum Press.

Asiliskender, B. (2004). Kimlik, Mekân ve Yer Deneyimi. *Kültür ve İletişim, 7*(2), 73-94.

Beidler, K. (2007). *Sense of Place and New Urbanism: Towards a Holistic Understanding of Place and Form*, [Doctoral dissertation, Faculty of the Virginia Polytechnic Institute and State University]. Virginia Tech Digital Thesis (Open access). Blacksburg, Virginia. http://hdl.handle.net/10919/27571

Canter, D. (1977). *The Psychology of Place.* London: Architectural Press.

Carr, S., Francis, M., Rivlin, L., & Stone, A. (1992). *Public Space (Environment and Behavior Series).* USA: Cambridge University Press.

Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2014). *Sosyal bilimler için çok değişkenli istatistik SPSS VE Lisrel uygulamaları (*3. baskı). Ankara: Pegem Akademi.

DeVellis, R. (2014). *Ölçek geliştirme kuram ve uygulamalar.* (T. Totan Çev.). Ankara: Nobel Yayıncılık.

Durmuş, B., Yurtkoru, E., & Çinko, M. (2013). *Sosyal bilimlerde SPSS ile veri analizi* (5. baskı). İstanbul: Beta Yayınları.

Ertürk, F. (2019). *Sokak Pratiği Aracılığıyla Yer ve Yerin Ruhunun Anlamaya Yönelik Bir Sentez Önerisi: Hermeneutik-Fenomenolojik-Semiyolojik Çerçeve Yaklaşım* [Yayımlanmış

Doktora Tezi]. Kocaeli Üniversitesi Fen Bilimleri Enstitüsü, Mimarlık Anabilim Dalı]. Kocaeli.

Fraenkel, J., & Wallen, N. (2008). *How to Design and Evaluate Research in Education* (7th ed. ed.). New York: McGraw-Hill.

Gehl, J. (2001). *Life between buildings* (5th ed.), Copenhagen: Danish Architectural Press.

Heritage Led Regeneration. (2005). *Delivering Good Practice Göteborg Declaration.* Retrieved from https://cetaf.org/elementor-9222/ (10.02.2023).

Jorgensen, B., & Stedman, R. (2001). Sense of place as an attitude: Lakeshore owners' attitude toward their properties. *21*, 233-248. https://doi.org/10.1006/jevp.2001.0226

Kalaycı, Ş. (2006). *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri.* Ankara: Asil Yayın Dağıtım.

Karasar, N. (2011). *Bilimsel Araştırma Yöntemi.* Ankara: Nobel Akademik Yayıncılık.

Kline, P. (1994). *An easy guide to factor analysis.* New York: Routledge.

Koca, S. (2005). *Çağdaş Mimarlıkta Yersizlik* [Yayımlanmış Yüksek Lisans Tezi]. İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü, Mimarlık Anabilim Dalı. İstanbul.

Kostoff, S. (1999). *The city assembled,* London: Thames and Hudson.

Kyle, G., Graefe, A., & Manning, R. (2005). Testing the Dimensionality of Place Attachment in Recreational Settings. *Environment and Behavior, 37*(2), 153-177. https://doi.org/10.1177/0013916504269654

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology, 28*(4), 563–575. https://doi.org/10.1111/j.1744-6570.1975.tb01393.x

Madanipour, A. (1996). *Design of urban space.* New York: Wiley.

Marcus, C., & Francis, C. (1990). *People Places: Design Guidelines For Urban Open Space.* USA: Van Nostrand Reinhold.

Maslow, A. (1954). *Motivation and Personality* (3rd ed.). New York: Longman.

Özdamar, K. (2003). *Modern Bilimsel Araştırma Yöntemleri.* Eskişehir: Kaan Kitabevi Yayınları.

Pallasmaa, J. (2018). *Tenin Gözleri: Mimarlık ve Duyular.* İstanbul: Yem Yayınları.

Prohansky, H., Fabian, A., & Kamikoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology, 3,* 57-83. https://doi.org/10.1016/S0272-4944(83)80021-8

Project for Public Spaces. (2000). *How to Turn A Place Around: A Handbook of Creating Successful Public Spaces.* New York: Project for Public Space.

Relph, E. (1976). *Place and Placelessness.* London: Pion Limited.

Sennett, R. (2002). *Kamusal insanın çöküşü.* İstanbul: Ayrıntı Yayınları.

Scannell, L., & Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology, 30*, 1-10. https://doi.org/10.1016/j.jenvp.2009.09.006

Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education Inc.

Tekeli, İ. (2003, Nisan 11-13). *Kentleri Dönüşüm Mekânı Olarak Düşünmek* [Tam metin]. Kentsel Dönüşüm Sempozyumu (pp. 2-7). İstanbul: YTÜ Basım Yayın Merkezi Matbaası.

Tezbaşaran, A. (1997). *Likert Tipi Ölçek Geliştirme Kılavuzu.* Ankara: Türk Psikologlar Derneği Yayınları.

Tuan, Y. (1977). *Space and Place: The Perspective of Experience.* London: University of Minnesota Press.

Turner, P. (2006). Place sense of place and presences. *Presence: Teleoperators & Virtual Environments, 15*(2), 204-217. https://doi.org/10.1162/pres.2006.15.2.204

TÜİK. (2021). *İstatistik Veri Portalı*. 3 Ağustos 2023 tarihinde https://www.tuik.gov.tr/ adresinden ulaşılmıştır.

Whyte, W. (2000). *The Social Life of Small Urban Spaces.* New York, USA: Project for Public Spaces.

Williams, D., Patterson, M., Roggenbuck, J., & Watson, A. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure Sciences, 14*, 29-46.

Başak Yurtseven

2014'te İhsan Doğramacı Bilkent Üniversitesi Kentsel Tasarım ve Peyzaj Mimarlığı Bölümü'nden dereceyle mezun oldu. Yüksek lisans derecesini TOBB Ekonomi ve Teknoloji Üniversitesi Mimarlık Bölümü'nde tamamladı. 2018 yılında Ankara Üniversitesi Peyzaj Mimarlığı Bölümü'nde doktora programına başladı. Doktora programının ilk yılında, YÖK 100/2000 Doktora Projesi'ne katılarak, öncelikli alanlardan biri olan "Kentsel Dönüşüm Çalışmaları" ile ilgili olarak tez çalışmalarına devam etti. 2024 yılında tamamladığı doktora tezini "Çevresel Özellikler ve Yer Duygusu Arasındaki İlişkinin Kentsel Yenileme Alanları Üzerinde Değerlendirilmesi" üzerine hazırladı ve Doktor unvanını aldı. Başlıca araştırma alanları arasında kentsel yenileme, mekân kalitesi, kentsel tasarım, kentsel peyzaj, yer ve mekân ilişkisi, kent sosyolojisi, insan-çevre ilişkisi, kültürel peyzaj konuları yer almaktadır.

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