

Place Attachment and Well-Being Interrelations in Traditional and New Settlements in Alanya Highlands

Emine Cimrin Koçak*

Bahçeşehir University, Abbasağa, İhlamur Yıldız Cd. No:8, 34353 Beşiktaş / İstanbul, Turkey

* E-mail of the author: eminecimrin@gmail.com

Abstract

The psychological well-being of individuals is under the influence of many variables, and place attachment is one of the phenomena that need to be emphasized. Until now, there have been limited studies on place attachment and psychological well-being in traditional and modern second homes. From this point of view, this study was carried out with the people living on the western Mediterranean coast of Turkey in Alanya. The locals living in the center of Alanya move to the highlands on the northern slopes of the Taurus Mountains every summer. Besides many other reasons, this seasonal movement is a psychological need for the well-being of these people. The essential characteristic of the highland settlements and houses is their close relationship with nature. A natural environment surrounded homes, including many wild plants and animal species. In the area, two-story traditional houses are located in extensive gardens. The semi-open living spaces were directed to the north to get the cool winds and openly see the natural view. Today, new roads that facilitate the transportation of new building materials and the increasing income levels of the people created a new housing and settlement pattern. Gardens were divided into small parcels, and a denser housing pattern developed. Therefore, the human-nature relationship is weakening. Moreover, problems such as noise, pollution, and parking issues arose. For that reason, this study aims to measure and compare residents' well-being and place attachment levels in old and new settlements and houses in Alanya highlands. The people who lived in both locations and residences were asked to answer a questionnaire to collect the data. The researcher used a random sampling method to determine the participants and formed a sample group with people from different gender and various age groups. The findings revealed a positive relationship between place attachment and the well-being level of the occupants both in traditional and modern second homes in Alanya Highlands. Still, place attachment is a higher predictor of the psychological well-being of the people living in new settlements and houses. Keywords: well-being, place attachment, second homes, Alanya highland houses

Keywords: well-being, place attachment, second homes, Alanya highland houses

DOI: 10.7176/CER/15-1-03

Publication date: February 28th 2023

1. Introduction

In the settlements along the Mediterranean coast of Turkey, it is a tradition to migrate to the highlands in the hot summer months. The locals living in the center of Alanya have moved to the traditional residences on the northern slopes of the Taurus Mountains for centuries. The highlands migrated are Türkteş and Türbelinas, 50 - 60 km from the city.

It is difficult to answer the question of when these settlements arose. However, Evliya Çelebi, in his travel book in the 17th Century, stated that the Alanya people were refreshed by going to the Taurus Highlands every summer (Evliya Çelebi Seyahatnamesi, Anadolu, Suriye, Hicaz (1671-1672), 1935).

The people of Alanya have many reasons for going to the highlands. Despite the city center's high temperature and humidity level, the highlands air is cooler in the summer. In addition, when spring comes, with the habit of centuries, longing for the highlands is an emotional reason for the migration. Despite the city's dry streams, wells, and empty cisterns, water resources are abundant in the highlands. To keep remaining spiritually and physically healthy and prevent epidemics that spread in summer, such as malaria, are other important causes of this migration. Artisans carried on their work in the highlands in traditional life due to the comfortable living conditions. It is known that even government units and courthouses moved to the plateaus in earlier times. Some extraordinary situations have caused migration as well. In times of war, because of the enlistment of men, women and children went to the highlands and spent the winter there. During the 1990 gulf war, some families stayed in the area despite being in winter. Many families from Alanya migrated to the highlands prematurely during the Covid-19 pandemic because they found it more isolated and health-safe. Nowadays, the people of Alanya are going to the highlands mainly to escape the city's dense, unnatural, and cosmopolitan life. Despite the multi-ethnicity of the city at the moment, only the local people live in the highlands. Still, this seasonal movement is a psychological need for the people's well-being in the region.

The part of the Taurus Mountains where the highland settlements were established has a rich natural environment. The region's climate and topography make it possible for many wild plant and animal species to live. Pine forests surround the traditional settlements with two-story houses in the extensive sloped gardens

overlooking the view. The semi-open daily living spaces were directed to the north to get the fresh winds. Hence, comfortable living conditions have been created for a summer house. Residents used closed rooms in the south for the nighttime and the cold days. It is crucial to preserve the traditional settlement and housing pattern principles to maintain the relations between nature and human beings (Figure 1, 2).



Figure 1, Figure 2. Traditional settlement pattern and traditional summer houses in Türktaş - Alanya highlands, 1996.

Today, the introduction of new materials like steel and concrete, the opening of new roads that facilitate the transportation of the materials, and the tourism revenues that have improved the economic level of the town's people created a different settlement pattern. Gardens are being divided into small parcels, and a dense housing pattern with new materials, usually with 3 to 5-story residences, was being developed (Figure 2, 3). Thus, one of the essential characteristics of the highland settlements is disappearing. Human-nature relation is weakening with the buildings that block each other's view and breeze. The number of semi-open spaces that provide relationships with nature reduced in the dwellings, and the natural material use decreased. Moreover, noise, pollution, and parking problems arose that limit the human-nature relationship. As a result of mentioned changes, this study aims to measure and compare the place attachment and the well-being levels of residents in old and new settlements and houses in Alanya Highlands.



Figure 3. New settlement pattern and modern summer houses in Türbelinas – Alanya highlands, 2022.

2. The relationship between the traditional built environment and well-being

The studies on traditional residential buildings are limited in number. For this reason, this part of the study focuses on the effects of traditional houses on the well-being of their occupants. Since highland houses are seasonal residences, the researcher also examined the relationship between second homes, summer houses, leisure, and well-being.

2.1. The definition of the well-being

The history of the concept of well-being is as old as the history of philosophy. Greek philosophers such as Aristotle, Socrates, and Epicurus examined the well-being concept through notions of "virtue", "the good life", and "happiness". Well-being has been recognized as a science along with the Enlightenment period in the 18th century. From the middle of the 20th century to the present day, the theoretical framework of the concept of well-being has been established (Stoll, 2014).

The Cambridge Dictionary defines well-being as "the state of feeling healthy and happy (Cambridge

Dictionary, n.d.). It is remarkable that, in definition, well-being is explained by health. Before the 1940s, health was defined as a lack of disease symptoms. However, in 1946, the World Health Organization (WHO) developed a more comprehensive new definition of "a state of complete physical, mental, and social well-being" (World Health Organisation, n.d.). Today it is accepted as a multi-dimensional concept affected by social, spiritual, emotional, environmental, occupational, intellectual, physical, and financial notions. Disruption of these factors negatively affects the quality of life (Swarbrick & Yudof, 2015).

2.2. Human-nature relationship and well-being

Humankind has completed 99% of its evolution in natural environments; the time frame in cities constitutes a relatively short period (Kellert & Calabrese, 2015). However, contrary to human nature, most of the world's population lives in metropolises today (Ritcheie & Roser, n.d.).

In eliminating the harmful effects of modern life, many studies have demonstrated the importance of being close to nature again. Concerning the result of these studies, nature connectedness is associated with subjective and psychological well-being (Basu, Hashimoto, & Dasgupta, 2020). Moreover, nature can decrease stress affecting emotions and psychology (Ulrich, et al., 1991). Regular visits to natural environments cause progress in physical activity, contributing to the person's general health and level of well-being (Catharine W. Thompson & Peter A. Aspinall, 2011). 1-3 hours of leisure involvement in the parks increase the place attachment and enrich personal well-being in urban areas (Tao, Zhou, Tian, & Zhu, 2022). Leisure time spent in social and open-air activities helps old immigrants adapt to new environments with less stress resulting in higher psychological well-being (Jin, Yoon, & Lee, 2022). The presence of green spaces within walking distance of the residences supports the longevity of the elderly living in cities (Takano, Nakamura, & Watanabe, 2002). Individuals more connected to nature are happier without considering gender and age (Capaldi, Dopko, & Zalenski, 2014). Additionally, individuals who played games in natural environments in their childhood turned into more creative adults (Brook, 2010). The list is too long to fit into the scope of this study.

Nowadays, it is understood that; without the well-being of nature, there would not be any well-being of humanity. Thus, sustainable development policies became one of the most important goals of governments. Urgent measures are needed to improve the human-nature relationship. Recommendations made by the researchers indicate the importance of issues like; seasonal and daily experiences of nature, visiting environments rich in biodiversity, physical activities in natural surroundings, supplying natural therapeutic environments for people, and giving at least simulated options for the ones who have limited access to nature to enhance today's individuals' relation with nature (Brymer, Freeman, & Richardson, 2019).

2.3. Traditional residential buildings and well-being

Changes and technological advances in the lifestyles that emerged in the 19th and 20th centuries have led to the perception of traditional houses as outdated. Hence, many of them were abandoned and destroyed. The theory and practice of architecture ignored ordinary people's residents and concentrated on monumental buildings for a long time. From the middle of the 20th century, researchers such as Bernard Rudofsky, Paul Oliver, and Amos Rapoport treated traditional houses as valuable products of architecture over again (Brown & Daniel, 2012).

The relationship between people and nature in modern dwellings is weakening, which causes various health problems. Additionally, excessive energy consumption in constructing, heating, and cooling these structures inevitably harms nature. The situation has increased the number of scientific research on traditional eco-friendly houses using passive energy systems. Most of these researches include comparative studies of the thermal comfort levels of traditional and modern homes. Occupants' daily productivity and well-being in residence are related to comfortable and healthy indoor environments in different seasons. According to the results of numerous scientific studies, traditional houses provide better thermal comfort levels when compared to contemporary residential buildings (Ayçam, Akalp, & Görgülü, 2020; Bajracharya, 2014; Dili, Naseerb, & Varghese, 2010; Martín, Mazarrón, & Cañas, 2010; Subramanian, Ramachandran, & Kumar, 2017). The selection of building materials is one of the significant elements in maintaining the thermal comfort of occupants in a dwelling. Surveys stated that buildings with traditional construction materials better achieve the preferred thermal comfort while decreasing energy costs (Gezer, 2003).

Several studies were made to understand the relationship between traditional houses and well-being in rural areas. As stated by an investigation, the lessening of the semi-open and open spaces with renovations in traditional rural dwellings is parallel with the residents' decline in happiness and the increase in energy consumption (Zhang, Kondo, & Chutchaipol, 2017). It was revealed that modern architecture in rural areas does not use the wisdom of traditional houses, although the need for today's architecture is the unification of traditional and contemporary (Chandran, Balaji, & Mani, 2015).

As pointed out by researchers, architectural details used in traditional homes contain essential teachings for users' health and well-being. In the Middle East, research is being conducted on increasing Vitamin D deficiency, although there are many sunny days. The results indicated that the loss of traditional courtyard planning and

window details in modern homes significantly affected this situation (Al Awadh & Kenny, 2017). According to the findings of another study, traditionally designed house residents were healthier than apartment residents in physical well-being. In contrast, the apartment residents were healthier in social well-being (Lee, Lee, Jang, & Jang, 2011). Finally, indigenous society's diminution of conventional lifestyle practices, including diets, jobs, and dwellings, led to a decline in their health and well-being (Balick, et al., 2017).

Salutogenesis is a medical discipline that concentrates on the factors that promote health and well-being. Research indicates that using the time-tested design principles of traditional architecture like water elements, greenery, courtyard, semi-open spaces, old roof patterns, shading elements, and natural materials in the design of new houses will result in salutogenic dwellings that enhance the health and well-being of its occupants (Rahman, 2019).

Biophilia, a relatively new concept of bringing nature into homes and public spaces, can be found even in the earliest times of architecture (Abdelaal & Soebarto, 2018; Ramzy, 2015; Tereci, 2020). The number of scientific works searching for biophilic principles in traditional houses is limited compared to biophilia and monumental architecture research. The dwellings that blend with tradition ontologically cover biophilic design patterns like the visual and non-visual connection with nature, access to thermal and airflow variability, water presence, complexity, order, prospect, and mystery (Ryan, Browning, Clancy, Andrews, & Kallianpurkar, 2014).

The visual properties of the built environment affect the psychology and well-being of the inhabitants as well. It was found that residents living in urban settlements perceived traditional-style architectural environments more positively than contemporary ones (Mouratidis & Hassan, 2020).

Several studies recommended that socio-cultural (privacy, security, space use), environmental (natural lighting, natural ventilation, visual comfort, greenery, orientation according to climate and topography), and physical values (use of immediate natural and sustainable materials) of the traditional houses should be followed in the design of contemporary houses for the well-being of the occupants (Ergöz Karahan, 2017; GhaffarianHoseini, Berardi, Dahland, & GhaffarianHoseini, 2014; Saleh, 1999; Varolgüneş, 2020). Moreover, it is stated that traditional houses are more responsive to basic human needs like the need for love, participation, understanding, leisure, identity, freedom, competence, and meaning, which should be a guide for today's designs (Sajad & Sajad, 2016). Building new examples of the old traditional houses for today was highlighted by researchers as a continuity of identity, a longing for nature, and a desire for enhanced quality of life (Shin, 2014).

2.4. Seasonal Migration, Second Home, leisure and well-being.

Traditional living styles comprise societies that migrate seasonally. In some migration forms, people have two or more houses in the same location or geographically dispersed areas. However, some nomadic communities transport mobile homes between different locations during seasonal migrations (Noble, 2014). In other traditional lifestyles, the seasonal shift means simply moving from one part to another in the same house (Foruzanmehr, 2016). Longer-distance periodic movements are related mainly to finding food or water and escaping extreme temperatures (Noble, 2014). Nevertheless, whatever the reason is, the primary purpose of almost all traditional seasonal migration is to ensure that people survive healthily.

The shift in lifestyles from traditional to modern has also changed the character of the seasonal movements, particularly after the Second World War (Periäinen, 2004). During that period, governments improved policies to make it easier for people to reach second homes to support their well-being (Arnesen & Ericsson, 2012; Müller, 2007). Higher living standards of the urban people with more leisure time than before increased the number of recreational second homes. Rural places close to urban centers, sea and lakeshores, and mountainous areas with beautiful views are among the most inhabited places by second homeowners nowadays. Moreover, second homes constitute a critical amount of current building stock worldwide.

Scholars examined the contribution of leisure places to health and well-being through various research. Among them, the studies on second homes and well-being have an essential position. Williams et al. (2008) describe second homes as "refuges to escape from modernity" (Williams & Patterson, 2008). In that way, people can listen to the rhythms of nature and renew with a simple way of living. They are also means of continuity and rootedness that promotes the well-being of the occupants and result in bonds like attachment, identity, and dependence (Periäinen, 2004; Williams & Patterson, 2008). The different meaning of time than the first home without any congested programs promotes renewal (Williams & Kaltenborn, Leisure places and modernity: The use and meaning of recreational cottages in Norway and the USA, 1999). The result of scientific research among men under 65 indicated that leisure homeowner men had lower probabilities of early death (Fransson & Hartig, 2010).

Moreover, in the last decades, the number of retired people living in their second homes year-long increasing parallel to the developing comfort conditions of the second homes (Åkerlund, et al., 2015). Research in New Zealand states that a second home is a place of positive improvements beyond the conventional opinion of escape from urban life (Walters, 2017). The preparations before traveling, the traveling itself, and opening and closing the house at different times of the year are all parts of a ritual that positively transforms the dwellers'

bodies and minds.

3. Place attachment, home, human-nature relationship and well being

3.1. The definition of the place attachment

Place attachment, a significant study area in environmental psychology, can be defined as the emotional, cognitive, and behavioral bond between people and places (Altman & Low, 1992). As a multifaceted concept, place identity and place dependence are among the main components of place attachment. In its shortest description, place identity can be defined as the emotional and the place dependence as the functional attachment to a place (Williams & Vaske, *The Measurement of Place Attachment: Validity and Generalizability of a Psychometric Approach*, 2003). The place of the attachment may vary from a house to a district, a metropolis, a country, or a mainland (Lewicka, *What makes neighborhood different from home and city? Effects of place scale on place attachment*, 2010). Natural environments are subjects of attachment as well.

What is more, in the concept of place attachment, the place is not always a physical environment but sometimes a social one. Additionally, people may develop different attachment levels for more than one place, and the degree of attachment for the same place may vary from person to person (Oktay, 2013). Finally, the attachment to a place can be developed by an individual, a couple, a household, a community, or a whole nation (Altman & Low, 1992).

3.2. Place attachment and well-being

Many scientific studies have studied the connection between place attachment and well-being. Researchers pointed out the positive additions of place attachment on well-being (Junot, Paquet, & Fenouillet, 2018; Scannel & Gifford, 2017). Considerable research focused on the place attachment well-being relation in the living environments of the elderly (Afshar, Foroughan, Vedadhir, & Tabatabaei, 2017; Gilleard, Hyde, & Higgs, 2007). It has been stated that the social well-being of the aged inhabitants is very much related to their residential place attachment. Disorders on place attachment like natural disasters, compulsory or volunteer relocations, and crimes distributed negatively on human well-being and health (Brown & Perkins, 1992; Fried, 1963; Rollero & De Piccoli, 2010). Besides positive distributions, place attachment may sometimes negatively affect human well-being. The strength of the attachment to a place may cause one to ignore new opportunities or possible dangers like natural disasters. Moreover, the excessive number of highly attached people in an environment may create difficulties for newcomers (Anton & Lawrence, 2014).

3.3. Place attachment and nature relationship

Researches on place attachment and nature relationship mainly concentrate on the sustainable and pro-environmental behaviors in natural surroundings. In these studies, nature connectedness as a component of place attachment is presented as one of the distributors of conservation attitudes in natural environments (Gosling & Williams, 2010; Junot, Paquet, & Fenouillet, 2018; Walker & Ryan, 2008). Likewise, the place attachment level of the native inhabitants living in protected natural areas is relatively high despite the strict protection rules (Petrova, Cihar, & Bouzarovski, 2011). It has been indicated that individuals with higher nature bonding mostly show greater well-being levels than those with less bonding (Basu, Hashimoto, & Dasgupta, 2020). It was discovered that emotionally perceiving and experiencing nature is directly related to the quality of place attachment (Daneshgarmoghaddam & Bahrainy, 2014). Research in suburban areas of Australia presented the importance of green spaces that are bigger in size and easier to access for the occupants' attachment to their local community (Kimpton, Wickes, & Corcoran, 2014). Nature bonding is identified as one of the important experienced psychological benefits of place attachment (Scannel & Gifford, 2017).

3.4. Place attachment and being at home

Unlike the meaning of house, the meaning of home is beyond shelter because it has social and psychological dimensions (Oktay, 2013). Therefore, the relationship between the person and home is complicated and has been the subject of many studies. Place attachment, which emphasizes the relationship between people and home, has been one of the most critical theories in the arena (More, 2000). Place attachment studies related to homes are primarily carried out in urban areas (Turton, 2016). It has been found that, in urban environments, home and city attachment are stronger than attachment to neighborhoods (Lewicka, *Place attachment: How far have we come in the last 40 years?*, 2011). Moreover, the feeling of being at home is closely associated with a sense of well-being and pro-environmentally responsible behaviors (Moser, Ratiu, & Ghazlanefle, 2002).

Place attachment studies in rural areas are fewer when compared to the number of studies in urban areas. Residents who live in rural zones have greater place attachment than people living in urban environments (Anton & Lawrence, 2014). Moreover, living in their ancestors' settlements increases the place attachment level of the people (Mishra, Mazumdar, & Suar, 2010).

Second homes have an important place in rural place attachment studies. Research on second homeowners

and permanent residences revealed that seasonal inhabitants were more attached to their homes and the natural environment than the local inhabitants. Nevertheless, the primary source of the attachment was the social relations of the year-round people, whereas it was the environmental features of the seasonal residents (Stedman, 2006).

Age, gender, education, economic level, ownership, length of residence, community relations, feeling related to safety, density, number of green areas, and their proximity are among the main predictors of the place attachment related to home (Lewicka, Place attachment: How far have we come in the last 40 years?, 2011). Although the attachment to home generally has positive effects on people, in some cases, the strength of it may affect negatively depending on the risk perception in threatened areas (Anton & Lawrence, 2014).

4. Case Study: An assessment of well-being and the place attachment levels of residents in traditional and new settlements and houses in Alanya highlands.

4.1 Survey area

The study area of the research is the Alanya Highlands which have been resided in summer months by local people living in the center of Alanya. The name of the highlands migrated are Türkteş and Türbelinas, which are 50 - 60 km from the city. Türbelinas covers two different settlements called Muharbaşı and Gedevev, which are approximately 3 km from each other. The altitude of Türkteş is 750 m, while the altitude of Muharbaşı is 875 m, and that of Gedevev is 1050 m (Seydioğulları, 2010). In Türbelinas, approximately 2000 families live in summer houses, whereas about 200 families live in Türkteş¹. Most of the population is retired people and non-working women (housewives). The employed and married population usually prefers to reside in summer houses at weekends or come and go to the city daily. Single young people usually do not live there or only visit their families on Sundays because the city's dynamism is attractive. Türkteş is an older summer settlement when compared to Türbelinas. However, during the last 70-80 years, many families moved to Türbelinas because it is more fashionable due to its higher altitude. In all the settlements, the houses were resided mainly by the homeowners and their families. The number of rented houses is very few in the area.

4.2 Method

In the present study, the survey method, one of the quantitative research types, was used. The survey method is based on the sampled participants' skills, perceptions, interests, and attitudes regarding a subject, situation, or event. It is a method of trying to determine the properties. Survey studies are divided into sub-types as cross-sectional, longitudinal, and retrospective surveys. In this study, cross-sectional and retrospective survey method was applied (Büyükoztürk , Kılıç Çakmak, Erkan Akgün , Kardeniz , & Demirel, 2009). The "place attachment" and "psychological well-being" levels of the sampled individuals were examined via cross-sectional design in terms of their current residence. On the other hand, the "place attachment" and "psychological well-being levels" of the participants while they were living (remembered/perceived) in their previous (traditional) homes were tried to be determined through retrospective design.

4.3 Study Group

The study group of the research consisted of 123 people residing in the Türbelinas and Türkteş highlands of Alanya, which is 120 km from the province of Antalya. The researcher visited each participant and showed ultimate attention to their voluntary participation. Relatively younger participants evaluated the measurement tools by themselves. For older individuals, the researcher carefully read each scale item and marked it according to their answers. Participants were between 25 and 80. There were 66 female participants and 57 male participants. The participants varied from primary school to graduate level in terms of education levels. While 45 participants were actively working, 78 of them were not. Most of the unemployed ones were retired. Regarding marital status, 103 participants were married, and 20 were single.

4.4 Data Collection Tools

4.4.1 Personal Information Form

The researcher created a personal information form to determine the participants' demographic information and their highland houses' main properties, like the number of floors, the year of the building, and the place of the location.

4.4.2 Place Attachment Scale

The place attachment scale, originally developed by Raymond, Brown and Weber in 2010 (Raymond, Brown, & Weber, 2010), aims to determine people's attachment to a place. In this context, the scale consists of five sub-dimensions, as "place identity", "place dependence", "nature bonding", "family bonding" and "friend bonding", and has 20 items. The scale was applied to a sample of 659 people, 87% male. According to the exploratory

¹ This information was derived from Türkteş Mukhtar Mehmet Arıkan and Türbelinas Mukhtar Hüseyin Uysal.

factor analysis results, the scale items' factor loads vary between .55 and .82. The five factors obtained explain 57% of the total variance. Confirmatory factor analysis results also have acceptable values. In this context, fit indices were calculated as $\chi^2/df=3.96$, RMSEA= 0.7, CFI=.96 and NFI= .98. The Cronbach Alpha internal consistency coefficients obtained according to the reliability analysis results were calculated as .91 for Place identity, .85 for Place dependence, .86 for Nature bonding, .70 for Family bonding, and .60 for Friend bonding. In this study, the place attachment scale was adapted to Turkish and used. First of all, necessary permissions were obtained from the responsible author for the adaptation of the scale. Then, for language validity, the scale items were translated from English to Turkish with the support of an expert in foreign languages. After the scale translation, it was applied to a sample of 123 people, and the obtained data were subjected to confirmatory factor analysis. At the end of the analysis, it was observed that the factor loads of some items were below .32 and were excluded from the analysis (Tabachnic & Fidell, 2012). In this sense, the family bonding sub-dimension of the scale was completely removed. As a result of repeated analysis, fit indices were examined. After three modifications suggested by the model, the fit indices were calculated as $\chi^2/df=1.46$, RMSEA= 0.6, CFI=.97, IFI=.97, and NFI= .90. These fit indices reveal that the Turkish structure of the scale is confirmed. The path diagram of the confirmatory factor analysis for the Turkish version of the scale is given in Figure 3.

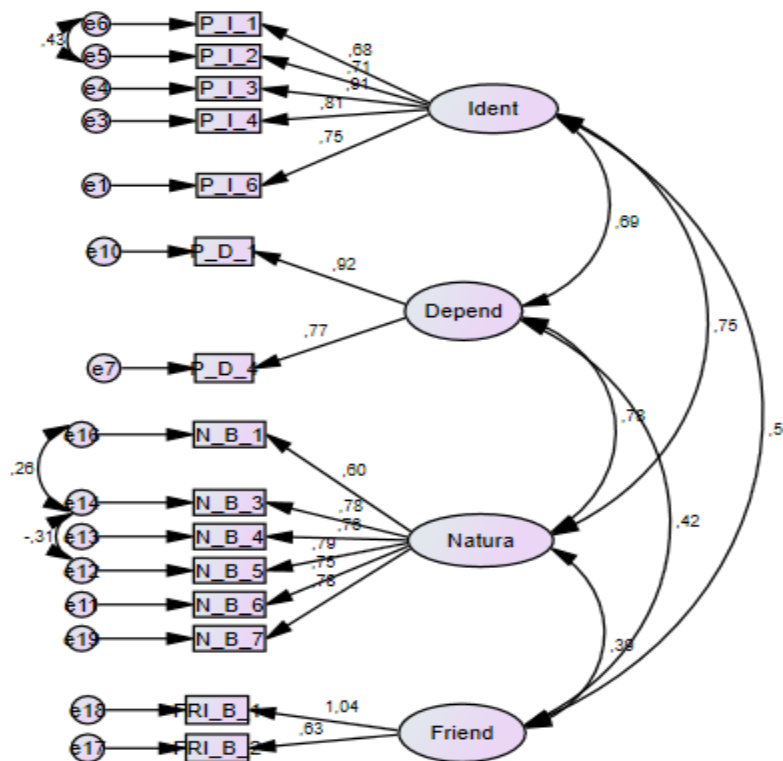


Figure 3. The Path Diagram of Place Attachment Scale regarding its Turkish Adaptation
 The values above the arrows show the standardized path coefficients.

4.4.3 Psychological Well-Being Scale

The Psychological Well-Being Scale, initially developed by Diener, Scollan and Lucas in 2009, consists of 8 items, and a single dimension (Diener, Scollon, & Lucas, 2009). The items of the Psychological Well-Being Scale are answered between 1 and 7, from *I strongly disagree* (1) to *I strongly agree* (7). All items are expressed positively. The adaptation study of the scale into Turkish was carried out by Telef (2013) on 529 pre-service teachers (Telef, 2013). According to the results of the exploratory factor analysis performed, it was seen that the scale was unidimensional and explained 42% of the total variance. The factor loadings obtained vary between .54 and .76. The related scale was also subjected to confirmatory factor analysis. When the obtained fit indices were examined, it was seen that the fit indices were $\chi^2/df=4.64$, RMSEA= 0.08, NFI= 0.94, RFI= 0.92, CFI= 0.95 and IFI= 0.95. These fit indices show that the scale has a good fit. The Cronbach Alpha internal consistency coefficient of the Psychological Well-Being Scale was reported as .90. In the present study, confirmatory factor analysis was performed on the (perceived) Psychological Well-Being Scale.

4.5 Process

The researcher herself carried out the data collection process of the study. One hundred sixty individuals living in different highland settlements were first visited in their houses, and the scope of the study was explained.

Voluntary participation was taken into consideration. The measurement tool was distributed to the people who agreed to evaluate the assessment tools, and they were given a week to complete.

4.6 Data Analysis

The data obtained from the study were first transferred to the SPSS .22 package program. In the study's data analysis, Pearson product-moment correlation coefficient was used to reveal the bilateral relations between the variables. Then, simple linear regression analysis was used to test the predictive power of traditional place attachment on the psychological well-being of the individuals. The procedure mentioned above was also carried out to test the predictive power of modern place attachment on individuals' psychological well-being.

4.7 Findings

The analysis results regarding whether the correlations between the variables to be examined in the study and whether traditional place attachment and modern place attachment predict the dependent variable of psychological well-being are given in this section.

Table 1. Correlation values between (perceived) traditional place attachment and (perceived) psychological well-being

Variables	Traditional place attachment	(Perceived) psychological well-being	α	Skew.	Kurt
Traditional place attachment	1	.662	.94	-.513	-.592
(Perceived) Psychological well-being	.662	1	.90	-.347	-.419

As can be seen in Table 1, the skewness and kurtosis values calculated for the related variables vary between -.349 and -.592. This indicates that the data provide a normal distribution and can be analyzed by parametric statistical methods. In this context, the Pearson correlation analysis shows that there is a moderate ($r=.66$; $p<.01$) positive relationship between traditional home attachment and (perceived) psychological well-being.

Table 2. Simple linear regression analysis to test the predictive power of (perceived) traditional place attachment (perceived) on psychological well-being

Variables	β	t	Durbin Watson
(perceived) traditional place attachment	.66	9.552*	1.519
(Perceived) psychological well-being			

$R = .66$ $R^2 = .43$ $F(1-117) = 91.239^*$

* $p < .001$

When Table 2 is examined, traditional place attachments perceived by individuals significantly predict their perceived psychological well-being levels. In this context, perceived traditional place attachments can significantly explain 43% ($p < .001$) of the perceived psychological well-being variable. In addition, considering the Durbin-Watson test result, the model has no auto-correlation.

Table 3. Correlation values between modern place attachment and psychological well-being

Variables	Modern place attachment	Psychological well-being	α	Skew.	Kurt.
Modern place attachment	1	.778	.93	-.189	.211
Psychological well-being	.788	1	.89	-.312	-.151

The skewness and kurtosis coefficients for modern place addiction and psychological well-being are presented in Table 3. Calculated values vary between -.189 and -.312 and are suitable for parametric analyses. On the other hand, it is understood from Table 3 that there is a moderate ($r=.78$; $p < .01$) positive relationship between modern place attachment and psychological well-being.

Table 4. Simple linear regression analysis to test the predictive power of (perceived) traditional place attachment (perceived) on psychological well-being

Variables	β	t	Durbin Watson
Modern place attachment	.82	15.870*	1.849
Psychological well-being			
R= .82 R ² =.69 F(1-116) = 251.861*			
*P<.001			

According to Table 4, modern place attachments of individuals significantly predict their psychological well-being levels. In this context, modern place attachments can significantly explain the psychological well-being variable's 69% (p<.001). In addition, the calculated Durbin-Watson coefficient reveals no auto-correlation in the model.

Within the scope of the study, it was also investigated whether the results differed according to gender, age and location, but no significant difference was obtained. Therefore, these tables were not included in this article.

5. Discussion

This study aimed to compare the place attachment and the well-being levels of residents in old and new settlements and houses in Alanya highlands. The research outcomes presented a significant positive relationship between place attachment and psychological well-being in traditional and modern highland settlements and houses. The study's findings showed that residents' place attachment in modern houses predicts their psychological well-being at higher levels than traditional ones in summer settlements of Alanya Highlands.

The reason for that result can be explained under a few headings. Before the 1980s, the primary residences of the participants in the center of Alanya and their second homes in the highlands were both in the natural environments. However, the number of natural areas decreased significantly compared to highlands today. Alanya city center is very cosmopolitan nowadays with different citizens from all over the world. Conversely, only the local people reside in the highlands during summer, creating a feeling of security away from the outside world. As a result of this sensation, local people used highland houses even during the winter times of Covid 19 pandemic.

Highland houses are still gathering places for families, especially with the attendance of the younger generation at the weekends or during religious and national holidays. Many families still have their relatives' houses near their own house or in the same apartment building in the highlands, different from the separate living in the city. Moreover, many grandchildren stay with their grandparents while their parents work in the city, which builds a strong relationship between grandchildren and grandparents.

Lastly, the comfort standards, such as ease of transportation and availability of water, electricity, and electrical appliances, cause higher levels of place attachment and well-being in today's modern settlements than in traditional ones that lacked these facilities in the past. Consequently, older people seem more pleased with modern environments as they have experienced the old living style. However, the young generation was born into modernity and did not know to live in another way.

Hence, the reason for the place attachment in modern settlements and houses as a higher predictor of well-being can be explained by the fact that people who almost lost the natural environment, local identity, family, and kinship ties in their first house in the city feel higher levels of place attachment and well-being in their second house where they find them.

6. Conclusion

This study focused on the interactions between people and places by comparing the place attachment and well-being levels of the occupants who have lived in traditional and modern houses and the settlements in Alanya Highlands and contributes to the limited environmental psychology literature on second homes. The results revealed a positive relationship between place attachment and the well-being level of the occupants both living in the traditional and the modern second homes. However, place attachment is a higher predictor for the psychological well-being of the people living in modern settlements and houses.

The research also showed that the environment of the first home affected the place attachment and the psychological well-being levels of the residents for their second homes. Before the 1980s, both the primary home in Alanya town and the second home in the highlands were in a natural environment. Nevertheless, the modern Alanya town in 2000's is a densely built congested town with high floor numbers.

The study also demonstrated that comfort standards positively affect the place attachment in connection with the well-being levels of the occupants of the second homes. Most of the occupants in Alanya highlands left their old houses mainly because of the missing comfort standards, and they moved to modern houses built newly in the last four decades. Incentives and studies should be increased to the public that traditional houses can be repaired to high standards of comfort.

It should be noted that the density of the built environment is still increasing in the highlands. Therefore, it seems essential to do future planning on this issue for the ongoing well-being levels of the occupants.

For further research, similar studies can be carried out in other places where seasonal migration from seaside settlements to the highlands is experienced. Carrying out more studies in countries aside from westernized cultures better resonates with the nature connection, place attachment, and well-being among people from diverse cultural and social settings, thus fulfilling another highlighted research gap in this arena. One may also consider the study of place attachment and well-being with a mixed pattern study. Hence, using the variables of place attachment, traditional settlement, new settlement, comfort perception/passion, and psychological well-being, structural equation modeling-based research can be carried out to reveal the intermediary relationships between these parameters.

Acknowledgements

The author wishes to acknowledge Prof. Dr. Hatice Sezin Tanrıöver's thoughtful commentaries on this manuscript's earlier drafts and Assoc. Prof. Dr. Ceyhun Ersan's support with data analysis. Finally, thanks to Assoc. Prof. Dr. Banu Uslu for proofreading the article.

References

- Abdelaal, M. S., & Soebarto, V. (2018). History matters: The Origins of Biophilic Design of Innovative Learning Spaces in Traditional Architecture. *International Journal of Architectural Research*, 12(3), 108-127.
- Afshar, P., Foroughan, M., Vedadhir, A., & Tabatabaei, M. (2017). The effects of place attachment on social well-being in older adults. *Educational Gerontology* 43(1), 45-51.
- Åkerlund, U., Pitkänen, K., Hiltunen, M., Overvåg, K., Müller, D., & Kahila, P. (2015). Health, well-being and second homes: An outline of current research and policy challenges. *Matkaliututkimus*, 11(1), 43-54. Retrieved 06 07, 2020, from <https://journal.fi/matkaliututkimus/article/view/90916>
- Åkerlund, U., Pitkänena, K., Hiltunena, M., Overvåge, ., K., Müllerb, D., & Petri, K. (2015). Health, well-being and second homes: An outline of current research and policy challenges. *Matkaliututkimus, Finnish Journal of Tourism research* 11(1), 43-54.
- Al Awadh, S., & Kenny, P. (2017). Reinterpreting courtyards: Design for occupant health and well-being. *Conference: Passive and Low Energy Architecture (PLEA) 2017*. Edinburgh, Scotland. Retrieved 04 26, 2020, from https://www.researchgate.net/publication/327871367_Reinterpreting_Courtyards_Design_for_Occupant_Health_and_Well-being
- Altman, I., & Low, M. (1992). Place attachment: A conceptual inquiry. In I. Altman, & M. S. Low (Eds.), *Place Attachment* (pp. 1-12). New York: Plenum Press.
- Anton, C. E., & Lawrence, C. (2014). Home is where the heart is: The effect of place of residence on place attachment and community participation. *Journal of Environmental Psychology* 40, 451-461.
- Arnesen, T., & Ericsson, B. (2012). Policy Responses to the Evolution of Leisure Housing: From the Plain Cabin to the High Standard Second Home (The Norwegian Case). In Z. Roca (Ed.), *Second Home Tourism in Europe: Lifestyle Issues and Policy Responses* (pp. 285-306). Farnham: Ashgate. Retrieved from <https://books.google.com.tr/books?id=vrrCwAAQBAJ&pg=PA303&lpg=PA303&dq=arnesen+ericsson+second+home+2012&source=bl&ots=TxOzFC3rtZ&sig=ACfU3U1qnXuRqXdQ3ZsE1267W21Xu42tZA&hl=tr&sa=X&ved=2ahUKEwiGs-7upvDpAhWpziUKHWieBLAQ6AEwCnoECAoQAQ#v=onepage&q=arnesen%20>
- Ayçam, I., Akalp, S., & Görgülü, L. (2020). The Application of Courtyard and Settlement Layouts of the Traditional Diyarbakır Houses to Contemporary Houses: A Case Study on the Analysis of Energy Performance. *Energies*, 13(3), 587-604.
- Bajracharya, S. B. (2014). The Thermal Performance of Traditional Residential Buildings in Kathmandu Valley. *Journal of the Institute of Engineering*, 10(1), 172-183.
- Balick, M., Lee, R., De Gezelle, J., Wolkow, R., Cohen, G., Sohl, F., . . . Trauernicht, C. (2017). Traditional lifestyles, transition, and implications for healthy aging: An Example from the remote island of Pohnpei, Micronesia. *Plos One*, 14(3), 1-20. doi:10.1371/journal.pone.0213567
- Basu, M., Hashimoto, S., & Dasgupta, R. (2020). The mediating role of place attachment between nature connectedness and human well-being: perspectives from Japan. *Sustainability Science*, 15, 849-862. doi:10.1007/s11625-019-00765-x
- Brook, I. (2010). The Importance of nature, green spaces, and gardens in human well-being. *Ethics, Place and Environment*, 13(3), 295-312. doi:10.1080/1366879X.2010.522046
- Brown, B., & Perkins, D. (1992). Disruptions in Place Attachment. In I. Altman, & S. Low (Eds.), *Place Attachment* (pp. 279-304). New York: Plenum Press.
- Brown, R., & Daniel, M. (2012). Concepts of vernacular architecture. In C. G. Crysler, S. Cairns, & H. Heynen, *The SAGE Handbook of Architectural Theory* (pp. 340-355). SAGE Publications Ltd: London.

- Retrieved from file:///C:/Users/Asus/Downloads/Concepts_of_Vernacular_Architecture.pdf
- Brymer, E., Freeman, E., & Richardson, M. (2019). Editorial: One Health: The well-being impacts of human-nature relationships. *Frontiers in Psychology*, 10(1611). doi:10.3389/fpsyg.2019.01611
- Büyüköztürk , Ş., Kılıç Çakmak, E., Erkan Akgün , Ö., Kardeniz , Ş., & Demirel, F. (2009). *Bilimsel araştırma yöntemleri (4. Baskı)*. Ankara: Pegem Akademi.
- Cambridge Dictionary*. (n.d.). Retrieved 04 23, 2020, from <https://dictionary.cambridge.org/dictionary/english/well-being>
- Capaldi, C., Dopko, R., & Zalenski, J. (2014). The relationship between nature connectedness and happiness: a meta-analysis. *Frontiers in Psychology*, 5, 1-15. doi:10.3389/fpsyg.2014.00976
- Catharine W. Thompson, & Peter A. Aspinall. (2011). Natural environments and their impact on activity, health, and quality of life. *Applied Psychology: Health and Well-Being*, 3(3), 230-260. doi:10.1111/j.1758-0854.2011.01053.x
- Chandran, K., Balaji, N., & Mani, M. (2015). Understanding Transitions in a Rural Indian Building Typology in the Context of Well-being. *CURRENT SCIENCE*, 109(9), 1610-1621.
- Daneshgarmoghaddam, G., & Bahrainy, H. (2014). The Role of Architecture-Nature Interaction in the Quality of Place Attachment Case Study: House-Gardens in Hamedan, Iran. *Armanshahr Architecture & Urban Development*, 6(12), 107-117.
- Diener, E., Scollon, C. N., & Lucas, R. E. (2009). The evolving concept of subjective well-being: The multifaceted nature of happiness. In E. Diener (Ed.), *Assessing Well-Being. Social Indicators Research Series* (Vol. vol 39, pp. 67-100). Dordrecht: Springer. doi:10.1007/978-90-481-2354-4_4
- Dili , A., Naseerb, M., & Varghese, T. (2010). Thermal Comfort Study of Kerala Traditional Residential Buildings Based on Questionnaire Survey Among Occupants of Traditional and Modern Buildings. *Energy and Buildings*(42), 2139–2150.
- Ergöz Karahan, E. (2017). Geleneksel ve günümüz konutunda sürdürülebilirlikve yaşam alışkanlıkları: osmaneli örneği. *Megaron* , 12(3), 497-510. doi: 10.5505/megaron.2017.27037
- Evlilya Çelebi Seyahatnamesi, Anadolu, Suriye, Hicaz (1671-1672)* (Vol. 9). (1935). İstanbul: Devlet Matbaası.
- Foruzanmehr, A. (2016). Thermal comfort and practicality: separate winter and summer rooms in Iranian traditional houses. *Architectural Science Review* , 59(1), 1-11. doi:10.1080/00038628.2014.939132
- Fransson , U., & Hartig, T. (2010). Leisure home ownership and early death: A longitudinal study in Sweden. *Health &Place*, 16(1), pp. 71-78. doi:10.1016/j.healthplace.2009.08.005
- Fried, M. (1963). Grieving for a Lost Home. In L. J. Duhl (Ed.), *Urban Condition: People and Policy in the Metropolis* (pp. 151-171).
- Gezer, N. A. (2003). The Effects of Construction Materials On Termal Comfort in Residential Buildings; An Analysis Using Ecotect 5.0. Ankara: METU, Unpublished Masters Thesis.
- GhaffarianHoseini, A., Berardi, U., Dahland, N. D., & GhaffarianHoseini, A. (2014). What can we learn from malay vernacular houses? *Sustainable Cities and Society*, 13, 157-170. doi:10.1016/j.scs.2014.04.008
- Gilleard, C., Hyde, M., & Higgs, P. (2007). The Impact of Age, Place,Aging in Place, and Attachment to Place on the Well-Being of the Over 50s in England. *Research on Aging* 29(6), 590-605.
- Gosling , E., & Williams, K. (2010). Connectedness to nature, place attachment and conservation behaviour: Testing. *Journal of Environmental Psychology*(30), pp. 298-304.
- Jin, W., Yoon, H., & Lee, S. (2022). A model of leisure involvement, residential satisfaction, and place attachment in passive older migrants. *Asia Pac. Viewp.* 01 24, 2022 tarihinde <https://proxy.bau.edu.tr:2102/10.1111/apv.12356> adresinden alındı
- Junot , A., Paquet, Y., & Fenouillet, F. (2018). Place attachment influence on human well-being and general pro-environmental behaviors. *Journal of Theoretical, Social Psychology* 2018 (2), 49-57.
- Kellert, S. R., & Calabrese, E. F. (2015). *The Practice of Biophilic Design*. Retrieved 04 05, 2020, from www.biophilic-design.com
- Kimpton, A., Wickes, R., & Corcoran, J. (2014). Greenspace and Place Attachment: Do Greener Suburbs Lead to Greater Residential Place. *Urban Policy and Research* 32(4), 477-497.
- Lee, Y., Lee, Y., Jang, M., & Jang, M. (2011). Health-enhancing architectural features of modern hanok experienced in and desired by Korean residents. *Indoor and Built Environment*, 20(1), 171-186. doi:10.1177/1420326X10393720
- Lewicka, M. (2010). What makes neighborhood different from home and city? Effects of place scale on place attachment. *Journal of Environmental Psychology*, 30, 35-51. doi:10.1016/j.jenvp.2009.05.004
- Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*(31), pp. 207-230.
- Martín, S., Mazarrón , F., & Cañas , I. (2010). Study of thermal environment inside rural houses of Navapalos (Spain): The advantages of reuse buildings of high thermal inertia. *Construction and Building Materials* 24, 666-676.

- Mishra, S., Mazumdar, S., & Suar, D. (2010). Place attachment and flood preparedness. *Journal of Environmental Psychology*(30), pp. 187-197.
- More, J. (2000). PLACING HOME IN CONTEXT. *Journal of Environmental Psychology*(20), pp. 207-217.
- Moser, G., Ratiu, E., & Ghazlanefle, F.-B. (2002). Appropriation and interpersonal relationships: From dwelling to city, throughout the neighborhood. *Environment and Behaviour*(34), pp. 122-136.
- Mouratidis, K., & Hassan, R. (2020). Contemporary versus traditional styles in architecture and public space: A virtual reality study with 360-degree videos. *Cities* 97, 97, 2-10. doi:10.1016/j.cities.2019.102499
- Müller, D. K. (2007). Second homes in the Nordic countries: between common heritage and exclusive commodity. *Scandinavian Journal of Hospitality and Tourism*, 7(3), 193-201. doi:10.1080/15022250701300272
- Noble, A. G. (2014). *Vernacular buildings: A global survey*. New York: I.B.Tauris & Co Ltd. Retrieved 04 26, 2020, from <https://proxy.bau.edu.tr:4034/eds/ebookviewer/ebook/bmx1YmtfXzc2NjA1NI9fQU41?sid=d0ba9efa-ff28-47f7-80a6-0e7f69533a4e@redis&vid=1&format=EB&rid=1>
- Oktay, M. (2013). Place Attachment and Perception of Home under the Impact of Internal Displacement in Rural Settlements of Northern Cyprus. (Doctoral dissertation). Oxford: Oxford Brook University.
- Periäinen, K. (2004). Summer Cottages in Finland The cultural construction of life, space and national identity. *Nordisk Arkitekturforskning*(4), 43-53. Retrieved 04 28, 2020, from <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://arkitekturforskning.net/na/article/viewFile/215/178>
- Petrova, S., Cihar, M., & Bouzarovski, S. (2011). Local nuances in the perception of nature protection and place attachment: a tale of two parks. *Area Vol. 43 No. 3, pp. 327–335, 2011, 43*(3), pp. 327-335.
- Rahman, I. M. (2019). Linkage between traditional architectural elements representing regionalism and achieving salutogenesis. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(9S2), 285-289. doi:10.35940/ijitee.I1058.0789S219
- Ramzy, N. S. (2015). Biophilic qualities of historical architecture: In quest of the timeless terminologies of 'life' in architectural expression. *Sustainable Cities and Society*, 15(July 2015), 42-56. doi:10.1016/j.scs.2014.11.006
- Raymond, C., Brown, G., & Weber, D. (2010). The Measurement of Place Attachment: Personal, Community, and Environmental Connections. *Journal of Environmental Psychology*, 30, 422-434.
- Ritcheie, H., & Roser, M. (n.d.). *Our World in Data*. Retrieved 04 24, 2020, from <https://ourworldindata.org/urbanization>
- Rollero, C., & De Piccoli, N. (2010). Does place attachment affect social well-being? *Revue européenne de psychologie appliquée* 60, 233-238.
- Ryan, C. O., Browning, W. D., Clancy, J. O., Andrews, S. L., & Kallianpurkar, N. B. (2014). Biophilic design patterns: Emerging nature-based parameters for health and well-being in the built environment. *Archnet-IJAR: International Journal of Architectural Research*, 8(2 (2014)), 62-76. doi:10.26687/archnet-ijar.v8i2.436
- Sajad, R., & Sajad, S. (2016). Responding human needs in iranian traditional houses in psychological approach (Case study: Haghghi house, Isfahan, Iran). *Journal of Design and Built Environment. Special Issue 2016: The 5th International Conference on Sustainable Development and Urban Conservation*, 22-30. Retrieved 04 26, 2020, from <https://proxy.bau.edu.tr:3996/eds/pdfviewer/pdfviewer?vid=2&sid=d95081f0-0164-495f-82ae-a4b92c8018b7%40redis>
- Saleh, M. A. (1999). Reviving Traditional Design in Modern Saudi Arabia for Social Cohesion and Crime Prevention Purposes. *Landscape and Urban Planning*, 44(1), 43-62. doi:10.1016/S0169-2046(98)00107-8
- Sarkar, A., & Bose, A. (2015). Thermal Performance Design criteria For Bio-climatic Architecture in Himachal Pradesh. *Current Science*, 109(9), 1590-1600.
- Scannel, L., & Gifford, R. (2017). The experienced psychological benefits of place attachment. *Journal of Environmental Psychology* 51, 256-269.
- Seydioğulları, S. (2010). *Alanya*. İstanbul: Hat Baskı sanatları Sanayi ve Ticaret Ltd Şti.
- Shin, J.-h. (2014). Reconstructing Korean Traditional Houses: Architectural Discourse on Tradition, Identity, and Quality of Life in Contemporary Korea. *The International Journal of the Constructed Environment*(4), 53-72.
- Stedman, R. C. (2006). Understanding place attachment among second home owners. *American Behavioral Scientist*, 50(2), s. 187-205.
- Stoll, L. (2014). A short history of wellbeing research. In D. McDaid, & C. L. Cooper (Eds.), *Wellbeing: A Complete Reference Guide, Volume V, Economics of Wellbeing* (Vol. 5, pp. 13-32). Wiley-Blackwell.
- Subramanian, C., Ramachandran, N., & Kumar, S. (2017). Performance evaluation of traditional and modern residential buildings for thermal comfort by questionnaire survey in Thanjavur. *International Journal of Civil Engineering and Technology*, 8(2), 440-451. Retrieved 04 26, 2020, from

- https://www.researchgate.net/publication/314206932_Performance_evaluation_of_traditional_and_modern_residential_buildings_for_thermal_comfort_by_questionnaire_survey_in_Thanjavur
- Swarbrick, M., & Yudof, J. (2015). *Wellness in the Eight Dimensions*. Retrieved 03 23, 2020, from https://www.researchgate.net/publication/299127407_Wellness_in_the_8_Dimensions
- Tabachnic, B. G., & Fidell, L. S. (2012). *Using multivariate statistics (6th. ed.)*. New York, Harper Collins Collage Publishers, USA.
- Takano, T., Nakamura, K., & Watanabe, M. (2002). Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. *Journal of Epidemiology and Community Health, 56*(12), 913-918. doi:10.1136/jech.56.12.913
- Tao, H., Zhou, Q., Tian, D., & Zhu, L. (2022). The Effect of Leisure Involvement on Place Attachment: Flow Experience as Mediating Role. *Land, 11*(2), 151. doi:<https://doi.org/10.3390/land11020151>
- Telef, B. B. (2013). The adaptation of psychological well-being into Turkish: A validity and reliability study. *Hacettepe University Journal of Education, 28*(3), 374-384.
- Tereci, A. (2020). Biophilic Wisdom of the Thirteenth and Fourteenth Century Seljukians Mosque Architecture in Beyşehir, Anatolia. *Architectural Science Review, 63*(1), 3-14.
- Turton, C. (2016). Defining residential place attachment and exploring its contribution to community and personal environmental actions. (Doctoral dissertation). Guildford, England: University of Surrey.
- Ulrich, R., Simons, R. F., Losito, B. D., Fiorito, E., Miles, M. A., & Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology, 11*, 201-230. doi:10.1016/S0272-4944(05)80184-7
- Varolgüneş, F. K. (2020). Evaluation of Vernacular and New Housing Indoor Comfort Conditions in Cold Climate – A Field Survey in Eastern Turkey. *International Journal of Housing, 13*(2), 207-226.
- Walker, A., & Ryan, R. (2008). Place attachment and landscape preservation in rural New England: A Maine case study. (86), pp. 141-152.
- Walters, T. (2017). Facilitating well-being at the second home: the role of architectural design. *Leisure Studies, 36*(4), pp. 493-504.
- Williams, D. R., & Patterson, M. E. (2008). Place, Leisure, and Well-being. In J. Eyles, A. Williams, & (Eds.), *Sense of Place, Health and Quality of Life* (pp. 105-119). Canada: Mc Master University.
- Williams, D., & Kaltenborn, B. (1999). Leisure places and modernity: The use and meaning of recreational cottages in Norway and the USA. In D. Crouch (Ed.), *Leisure practices and geographic knowledge* (pp. 214-230). London: Routledge.
- Williams, D., & Vaske, J. (2003). The Measurement of Place Attachment: Validity and Generalizability of a Psychometric Approach. *Forest Science, 49*(6), 830-840. Retrieved 13 06, 2020, from <https://www.proquest.com/docview/197734165/fulltextPDF/818817740C31485CPQ/1?accountid=15407>
- World Health Organisation. (n.d.). Retrieved 04 23, 2020, from <https://www.who.int/about/who-we-are/frequently-asked-questions>
- Zhang, Y., Kondo, K., & Chutchaipol, A. (2017). Influence of favorite place in house—outdoor or Indoor—on energy consumption and happiness in rural Thailand. *Sustainability 9*(9), 1350-1364. doi:10.3390/su9081350