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Doç.Dr. Deniz DEMİRARSLAN

Kocaeli Üniversitesi, Mimarlık ve Tasarım Fakültesi İç Mimarlık
Bölümü, demirarslandeniz@gmail.com

Öğr. Gör. Oğuz DEMİRARSLAN

Maltepe Üniversitesi, Mimarlık ve Tasarım Fakültesi, İç Mimarlık
Bölümü, oguzdemirarslan@gmail.com

A STUDY ON DETERMINING THE NEED FOR USE OF OUTDOOR SPACES IN HOUSES DURING THE COVID-19 PANDEMIC PERIOD

Abstract

The Covid-19/Coronavirus epidemic and consequently the quarantine period around the world in 2020 have changed the way we work, the way we live, and the way our spaces are organised. In this crucial period, one of the residential areas that have come to the fore again is the residences' outdoor spaces. Outdoor spaces that we have made more functional in residences have helped to make our social isolation a more satisfying and less claustrophobic experience. In this research, a survey was carried out to classify the Covid-19 epidemic in Turkey in the process of outdoor usage during the social isolation of people and their housing needs. The survey was conducted on social media to preserve social distance by assessing a sampling area and taking into account the epidemic process. Households live in apartment blocks in the neighbourhood of the province of Kocaeli have been chosen sampling areas. The results obtained have been analysed, presented and open to discussion.

Keywords: Balcony, Terrace, Design, Requirement, Apartment.

COVID-19 PANDEMİSİ SÜRECİNDE KONUTLARDA AÇIK HAVA MEKANLARININ KULLANIM İHTİYACININ BELİRLENMESİ

Özet

Tüm Dünyada, 2020 yılında Covid-19 / Korona virüs salgını ve sonuç olarak karantina dönemi, çalışma şeklimizi, yaşama şeklimizi ve alanlarımızın düzenlenme biçimini değiştirmiştir. Bu önemli süreçte yeniden gündeme gelen konut mekanlarından biri de konutların açık hava mekanlarıdır. Konutlarda daha işlevsel hale getirdiğimiz açık hava mekanları sosyal izolasyonumuzu daha tatmin edici ve daha az klostrofobik bir deneyim haline getirmede yardımcı olmuştur. Bu çalışmada Türkiye’de Covid-19 Salgın hastalığı sürecinde insanların sosyal izolasyonları sırasında konutlarının açık hava mekanlarını kullanım şekli ve gereksinimini belirlemek üzere bir anket çalışması yapılmıştır. Anket salgın hastalık süreci dikkate alınarak sosyal mesafeyi koruma amaçlı sosyal medya üzerinden bir örneklem alanı belirlenerek yapılmıştır. Örneklem alanı olarak ise Kocaeli ilinde bir mahallede yer alan apartman bloklarında yaşayan hanehalkı seçilmiştir. Elde edilen bulgular değerlendirilmiş ve yorumlanarak tartışmaya açılmıştır.

Anahtar kelimeler: Balkon, Teras, Tasarım, Gereksinim, Apartman.

INTRODUCTION

*If the child falls, he dies,
Because the balcony
Is the brave bay of death in houses
Balcony inside me and in my homes
takes up as much space as a coffin
Sezai Karakoç*

The new Coronavirus epidemic, named Covid-19, became a public health crisis in a short period in 2020. The World Health Organization (WHO) has announced that Covid-19 is an epidemic that causes anxiety and distress among all populations around the world. The long period epidemic and its distribution over a large geography also increased the number of people infected by the epidemic and the manner in which they were affected. According to December 2020 reports, 67,089,615 cases and 1,537,142 deaths have been recorded worldwide (URL-1, 2020). Humans are not only physically; they are both socially and psychologically affected. The use of quarantine against disease has been introduced in many countries around the world. Relationships are limited to a virtual line called "social distance".

Places such as educational institutions and offices where people engage in social life and become part of public life have been temporarily closed or structured in line with social distance with the increase in the impact of the epidemic and the practice of quarantine. All factors that

are effective in socialising individuals have been suspended, such as classes, peer groups, and co-workers. Since there is no face-to-face and mutual communication, the function of socialization has inevitably temporarily weakened. People were pulled to their borders, like countries, to guard against the virus. It was the square meter of the houses that determined this boundary for people. The contact between individuals, which may extend to wide areas beyond the house, has been fitted into the square of the house with the closing. Trying to manage social life and daily life within the house has changed the normal usage of the house. The sheltering function of the house and the way individuals develop their relationship with the house have changed. Any activity, such as business, school, shopping, socialising, painting, friendships, has begun to be carried out from home with the motto “Life fits home”. However, psychological and physiological consequences have arisen as people have started to perform all their acts from home. When people remained inactive, they have been exposed to chronic diseases such as obesity, blood pressure, metabolic conditions, and the effects of continual life between four walls, such as boredom, nervous disorder, and condition disorder. Health is defined by the World Health Organization not only as the absence of illness and disability, but also as a state of complete well-being in terms of physical, mental, and social aspects (Health Promotion Dictionary, 2011: 1). Social well-being refers to social networks, especially the family. Being physically healthy is not enough to attain full well-being. Public relations and social networks must be involved. Withdrawal to the home, restriction of social ties, loss of the common places that can be formed almost face to face, of course, have impaired social cohesion during the disease process. In this tough time, television and social media have recorded that people in different parts of the world use the open-air spaces of their residences for sports, cultural and artistic events, leisure, and sunbathing. This research has studied the usage of outdoor spaces in the epidemic situation of people’s houses and requirements in Turkey.

1.OUTDOOR SPACES IN HOUSE BUILDINGS

Balconies, terraces, verandas and gardens are places for outdoor activities in houses. Based on their function, outdoor spaces are linked to living spaces, kitchens, or bedrooms. These outdoor spaces in apartment buildings are typically built as balconies. Terraces and verandas in detached houses provide a connection between the building and the garden. In certain homes, whether in an apartment building or a single house, both of these outdoor areas may be placed together. Today, one of the main reasons for preferring apartment flats, such as garden duplexes and roof duplexes, is that people are overwhelmed by the complexities of daily life and need outdoor space.

The balcony, which is the subject of paintings by famous painters, is characterised as an open space made on the upper floors of a house, standing out, enclosed by a railing or a wall at the level that reaches the person's waist, allowing the person to get out and air (Hasol, 2020) (Fig.1). According to the Planned Areas Turkey Zoning Regulations; the balcony is defined as open or closed areas on all floors, built in the form of a cantilever or embedded in the facade, with at least one side open to the outside, completing the use of the room and / or kitchen area to which they are connected and separated from this space by partition elements (Official Gazette Issue: 30113, 2017). According to this regulation, balcony design does not exceed 15% of the net area of individual sections of buildings in Turkey. Hence there is a size limitation on the balcony in urban areas according to the zoning regulations in Turkey. Again, according to the

same regulation, the collapsible and folding window applications made on the balconies are not subject to license. It is possible to close the balconies with a window without any permission (Official Gazette Issue: 30113, 2017).

"Balcony" is a term that comes from the Latin word "Balcone" meaning "Pier". "Balcone" is also defined as a large window. Today, it is a raised platform extending from the walls of a building (Erdoğan & Seli, 2019) (Açıklan & Erdoğan, 2018). The terrace (Italian: Terazza) or veranda (Spanish: Baranda) is the usable open space above ground level and outside of a building.

Figure 1. Le Balcon, Édouard Manet (URL-2, 2020).

In addition to the balconies designed for the family to carry out life activities by utilising the open air, a business balcony is often installed for activities such as garbage disposal and hanging laundry. A balcony or terrace should contain enough space for family activities. It is essential to remember and design the main balconies, terraces, and verandas as an outside space. For this reason, it is preferable to design outdoor spaces as square or rectangular (Fig.-2). It should be separated from other housing units by separation in terms of privacy. Sun, rain and wind protection systems should be considered on terraces and balconies built for functions such as seating and dining.

Figure 2. Required Minimum Dimensions in Outdoor Spaces of Houses (Demirarslan D. , 1997:37), (URL-3, 2020).

Building materials to be used in outdoor spaces should be of high quality to withstand external effects and heat and water insulation should be created. Balconies and terraces are semi-outdoor spaces that can be considered as a continuation of the living space. It is also possible to describe some balconies and terraces as "an outside room". In this respect, as a living space, the balcony and terrace are considered as an extension of the house or an outdoor space connected to the house. For example, in traditional Japanese architecture, gardens, verandas and rooms are considered together. If required, the outdoor space is connected with the indoor space. In this respect, it is very important to ensure the integrity of the interior and exterior space in architectural design (Erdoğan & Seli, 2019). In addition, balconies and terraces are the living spaces of living creatures such as plants and animals (Fig.-3). Mladenovic et al. (2017: 43) stated in their article that; balcony and terrace plants could be very effective in buffering noise, collecting dust from the surrounding streets, preserving heat or making shade (provided the space is exposed to high insolation during the summer), and cooling buildings.

(2) (PDF) Opportunities and Benefits of Green Balconies and Terraces in Urban Conditions. Available from: https://www.researchgate.net/publication/322559937_Opportunities_and_Benefits_of_Green_Balconies_and_Terraces_in_Urban_Conditions [accessed Jan 07 2021].

Figure 3. Arrangement of Balconies as an Outdoor Space (URL-4, 2020), (URL-5, 2020).

The garden, called "Hortus conclusus" in Latin, is a place that differs from the building architecture in terms of both its arrangement and its maintenance, and mostly has an organic character (Gürses , 2019). The garden is an open-air space that meets the nature and basic needs of people, created with various types of grass, ground cover plants, flowers, shrubs, shrubs, deciduous or evergreen trees, ornamental plants or natural vegetation. The gardens are aesthetically designed according to household structure, wishes and usage habits. A design strategy, in which ecological requirements, the relationships of plants with each other, the continuity of the environment and the relationship between flora and fauna are taken into account, should be taken into account in garden design, without degrading the essence of nature. Garden arrangement requires very specific knowledge and experience. Comfort, noise, energy and safety are other issues to be considered in design (URL-6, 2020).

2.HISTORY OF OUTDOOR SPACES IN HOUSE BUILDINGS

Garden culture has evolved with the existence of humanity, as described by Gürses in his research (2019). Even though the garden is a closed space in ancient Egypt, it has a wide, rectangular pool in the centre and an order of fig trees around it. In Mesopotamian civilizations, the garden covers large lands in the form of flat areas that can be irrigated and cultivated. In addition, as can be seen in the Babylonian culture, terrace gardens were planted with transport soils (Fig.-4).

Figure 4. Garden in Ancient Egypt (URL-7, 2020), Gardens of Babylon (URL-8, 2020).

The garden in the centre of the house was built as an inner courtyard in ancient Roman houses. The garden is equipped with a marble table, benches and various plants (Fig.-5). Renaissance gardens have contributed to the birth of garden art in Europe ever since the 15th century. Gardens have been used as a symmetrically planned landscape design arranged on an axis in the 16th century with the Baroque era, and garden design has until today been one of the significant subjects of landscape architecture. The moon, the mountain, the stone and the tree are the Creator's blessings and are holy in ancient Turkish culture. This understanding has been effective in the development of garden art in Turkish culture. Gardens are closed to the street in terms of privacy in traditional Turkish architecture, and functionality is at the forefront and functional in their designs. Courtyards have been used in traditional Turkish and Islamic architecture as outdoor spaces in houses instead of gardens. Courtyards are places where the concept of privacy that isolates the residences from the outside world is effective in design.

Figure 5. Courtyard in Ancient Roman House (URL-9, 2020), Courtyard in Ancient Roman House (URL-10, 2020).

In tradition, balconies have not only been a functional place for houses. Balconies have also been used to provide social communication, to symbolise hierarchy and prestige, and to symbolise legendary love. Moreover, balconies, as in the ancient Greek Stoa, act as boundary areas separating public and private life. French sociologist Henri Lefebvre made a definition in his book *Rhythmanalysis* (2013) that "Balconies are border areas that act as a bridge between public and private life" (URL-11, 2020). Aronis (2009:157-180), who has researched the balconies of Tel Aviv and the Mediterranean for years, said, "Until the advent of television,

watching people from the balconies was an important evening entertainment. But technologies such as telephones, televisions, and air conditioning slowly pushed people indoors. In the last 50 years, balconies around the world have lost some of the role they once played in urban life." If we compare a building to a human body, in the words of the former mayor of Tel Aviv, Dizengoff, the windows are the eyes of the building, the balconies the smile, the foundations are the legs, and the facade is the soul (Aronis, 2009: 157-180). "The balconies were the first social media," according to Italian cartoonist Makkox, and vines and separations were used to isolate ourselves from the prying eyes of our neighbour (URL-12, 2020). According to Makkox, who shared the same idea with Aronis, watching people from the balcony was an important evening entertainment before the invention of television.

Balconies, which have a history of more than two thousand years, have been designed to improve air circulation in hot climates and to provide sufficient natural light to the building. Over the years, balcony designs have developed to incorporate improvements in urban planning, architecture, and building materials, and zoning laws, and have become one of the distinguishing characteristics of architectural styles.

The balconies in Mesopotamia overlooked the house's inner courtyard on the second floor and surrounded the courtyard. The balconies were built to shade the streets of the ancient Mesopotamians from the scorching light, according to Shepperson (2017: 363) (Shepperson, 2009) (Fig.-6). The balcony, built in the Persian and Egyptian cultures, had a special ritual role comparable to the pulpit, and also had a hierarchical function: The subsequent masses were governed by the man on the balcony. The balcony and terrace have assumed new functions and roles over time (Fig.-6) (URL-12, 2020). The construction of balconies was actually common in Greece and Ancient Rome (called *maenianum*) for entertainment purposes. For example, citizens participating in public demonstrations near the Forum could better see what was happening thanks to the balconies (Fig.-7). In the 1400s BC, the Mycenaeans built balconies to illuminate and ventilate the interior (URL-13, 2020).

Figure 6. City of Ur House and Balcony, Mesopotamia, 2100 BC (URL-14, 2020), Ali Qapu Palace, Isfahan (URL-15, 2020).

Figure 7. Insula and Balcony in Ancient Rome; Balcony of a House in Herculaneum
(URL-16, 2020).

Balconies have assumed the role of toilets since the Middle Ages. At almost the same time, balconies were constructed to defend the castles of the Middle Ages. During the Renaissance, balconies became real works of art to be confidently exhibited. Balconies were "status symbols" which main purpose was aesthetic rather than functional. During the Middle Ages and Renaissance, exterior balconies were supported by stone cornices or large wood. In the Baroque period, the balcony had eventually played a key role in determining the composition of the noble facades. In particular, the use of complex and ornate iron railings has become increasingly fashionable. British traveller Thomas Coryat, in his travel diary of 1611 *Crudities*, explained that he had noticed the presence of "small terraces" only in Italy, which was supposed to "let people think" (Llyod, Mitchinson et al, 2015). Materials widely used in balcony building from the 19th century onwards include cast iron, reinforced concrete and other materials. At the beginning of the 20th century, with the development of the Art Nouveau style reinforced concrete construction system, a sculptural appearance took place and the balconies became an ornamental feature of the facade. Even then, modern architecture has included simple balconies on the facade with the Bauhaus effect.

Some cities and countries, on the other hand, are popular for their balconies. The traditional Maltese balcony is a wooden closed balcony protruding from the wall (Fig.-8). Juliet House is one of Italy's most important tourist destinations, attracting about 1.2 million visitors a year. The house belonged to the Cappello family, historically associated with the Capulets in Shakespeare's *Romeo and Juliet*, which contributed to the assumption that Shakespeare's fictional character once lived there. Juliet balconies (named after the famous balcony of Shakespeare's *Romeo & Juliet*) do not protrude outside the building. It is usually part of an upper floor, has a narrow depth and only has a railing in front. In Turkey nowadays, Juliet balconies are named "French balconies" as well. These balconies, which are generally opened with double wing doors, are built to provide lighter and ventilation to the interior (Fig.-9).

Figure 8. Balconies in Valette City, Malta, (URL-17, 2020), (URL-18, 2020).

Figure 9. Juliet Balcony Villa Capuleti, Verona; Mashrabiya, Cairo (Photo: mtcurado / Getty Images).

In the Arab world, the balconies known as “mashrabiya” are constructed to comply with privacy rules, which is one of the requirements of Islamic life (Fig.-9), while in traditional Turkish housing architecture, bay windows and open halls were built instead of balconies in terms of privacy. From the 19th century onwards, however, rare examples of balconies started to be used in Turkish residential architecture and became popular in the 20th century. According to Akin (2013: 33), the culture of the balcony is an extension to western architecture in Turkey. Again, according to Akin (2013: 35), the balcony is a symbol of civilization. Batur states the following in his work: “The balcony was not recognised by the people of developing Turkey. He was happy that he had won square metres by including it in the dining room, bedroom, or living room, but he did not understand that any house had a dream room missing, that men like the Christian Hunziker had created a magical amusement park on earth, he did not want to know.”. With this discourse, Batur emphasizes that the balconies cannot be integrated with the life style of the Turkish people in the housing planning that has changed with Westernization in the Turkish house (Batur, 2014: 172-176) (Arslan, 2020). On the other hand, Bodur (Bodur, 2018: 43-55) states that apartment balcony construction in the 1950s, has become widespread in Turkey. However, he stated that since balconies are not made in sizes and shapes to meet the actions of people, they cause accidents and deaths such as falling from the balcony, and that the balconies are closed and added to the interior due to the size and functionality of the interior.

From royal families to popes, from pop stars to heads of state, it is possible to say that balconies are used as “centre stage” at events around the world (Fig.-10).

Figure 10. Eva Peron Making Her Famous Balcony Speech, (URL-19, 2020); Pope Francesco Giving a Balcony Speech (URL-20, 2020).

3.RESEARCH METHOD AND SCOPE

Under the framework of the study, as the disease of the Covid-19 epidemic continues and social isolation rules have to be followed, the survey was performed using a random sampling method for participants via social media in order to achieve the results of the research. A period of 30 days has been determined for the implementation of the survey. The survey was conducted on social media platforms where the problems of the neighbourhood people were brought up and discussed between October 27 and November 25, 2020. Kocaeli province Yahyakaptan District of Izmit town was selected as the research area (Fig.-11). The main reason for choosing this region is that it houses mass housing settlements, apartment blocks, and detached housing types together and constitutes one of the crowded residential areas of Izmit. It is the second most populous neighbourhood of Izmit and construction started in the region after 1985. As of 2015, there are 1502 building entrance gates, 757 buildings, 73 roads, and 363 parcels officially registered in the quarter (Demirarslan & Demirarslan, 2016:112) (URL-21, 2015). The neighbourhood population is 23,318 (URL-22, 2020). In calculating the sample size, the confidence level was taken as 95%, the confidence interval was 5%, and when the margin of error was calculated as 5%, the sample size was calculated as 378 (URL-23, 2020). As a result, 378 subjects were reached in the survey study and the survey study was completed. The questionnaire consists of multiple-choice questions. In some questions, the "other" option was given, allowing the subjects to express written statements in this field. In the survey, a total of 22 questions was asked to determine the demographic, economic and educational levels of the subjects, as well as the type and use of outdoor spaces in houses, the way to use them and satisfaction in the Covid-19 epidemic process, and the results of the questions were interpreted graphics. In addition, samples from the houses in the region were photographed and typical plan types were found. Thus, the relationship of outdoor spaces with housing and usage was also examined.

Figure 11. Research Area - Map of Yahyakaptan District.

In the quarter, there is a communal housing complex consisting of 5368 houses, apartment blocks and detached houses within closed housing estates. These dwellings are typically designed in different design styles of 2 and 3 rooms. There are usually 2 balconies (living room and kitchen balconies, bedroom balconies) in residences. There are a total of 6 different plan types of apartment blocks in the collective housing settlement in the quarter (Table-1). There is one balcony used from the kitchen, the other balconies used from the kitchen and the other bedrooms in one type of flat type of these blocks. In most of the other apartment-type housing blocks, there are 2 balconies used from the kitchen or living room and used from the bedroom. The detached houses have terraces on the ground floor and balconies used from the bedrooms on the upper floors. Some of the apartment blocks have French balconies. Some residences have the opportunity to use a terrace because they are roof duplexes, and some residences have the opportunity to use a garden because they are located on the garden floor. During the photo shoot, it was noted that the balconies in the residences in the region were usually covered with glass windows (Fig.-12).

Figure 12. Residences and Outdoor Spaces in the Region.

Table-1. Examples of Plan Types of Houses in the Research Area (Demirarslan, 1997)

APARTMENT BLOCKS OF MASS HOUSING SETTLEMENT
APARTMENT BLOCKS
DETACHED HOUSE

4.FINDINGS

Grigoriadou states in her work (Grigoriadou, 2020:1) that balconies are the new public space of cities during the pandemic process. In addition, it is stated in this work that especially in Mediterranean countries such as Italy, Spain, Greece, Lebanon and Israel, the balconies facing the street are preferred by people. Playing instruments, reading books, sunbathing, chatting from balcony to balcony has been featured in the media as the main actions of balconies during the Covid-19 epidemic process. Within the framework of the analysis, the results obtained with respect to the use of the balcony during the pandemic process as a result of the sampling survey performed in the test field within the scope of social isolation introduced during the Covid-19 epidemic process are briefly as follows:

72% of subjects are female and 28% are male. 52% of subjects are single and 48% are married (Fig.-13).

Figure 13. Gender and Marital Status Ratio Graphs of the Subjects.

The number of respondents' households is 3 people with 48 %, single person with 24 %, 2 people with 16 %, +5 people with 8 %, and 4 people with 4 %. Therefore, the family type of the majority of the subjects are nuclear families consisting of 3 members (Fig.-14). According to the results of the Address Based Population Registration System (ABPRS); the average household size of 3.35 people in Turkey was determined to be in 2019. Also, according to the findings of the 2019 Turkey Statistical Institute, the country's single nuclear family (The definition of a single nuclear family is households made up of only spouses or spouses and children or single parent and at least one child.) population ratio is 65.2 % (URL-24, 2019). It is shown that the results of studies conducted were similar to the results in the general statistics as a result of survey work. While 72% of the subjects are 40 years and older, 18% are over 65 years old. Based on 2019 results, the demographic distribution by age group population of Turkey is examined; the age group of 40 and above comprises 37.85% of the total population. People living in the study area are from the age groups of 40 years and above, as can be understood from here. This rate is way above Turkey's average. People over the age of 65, in particular, have reported that they have encountered great difficulties due to the social limitations placed on this age group during social isolation.

Figure 14. Age Status and Household Size of the Subjects.

The professions of the subjects are 40% academicians, 25% self-employed, 12% retired, 8% Architect-Interior Architect, 7% Civil Servant, 4% Doctor, 4% Educator, respectively. The majority of the subjects' professions are academics and self-employed persons, as the region chosen as a study area is close to educational institutions and trade centres. It is known from here that people need to live close to their workplaces. When analysing the educational status of subjects, it is seen that 64 % are graduates of master's and doctoral degrees, 24 % are graduates of high school, and 12 % are undergraduates. It is also known that the socio-cultural standard of the people living in the area studied is high (Fig.-15).

Figure 15. Occupational Groups and Educational Status of the Subjects.

The monthly income of the subjects is 5001-8000 TL for 45%, 8001-9999 TL for 30%, 2000-3001 TL for 17%, and +10000 TL for 9%. The monthly income of the majority of subjects is seen to be above the minimum wage (Fig.-16). In addition, all of the middle-income subjects that make up the majority live in apartment-type houses and 57% of them are tenants (Fig.-17). The houses of 40% of the subjects are on the street, 32% are inside the residential campus, and 28% are on the street.

Figure 16. Subjects' Monthly Income and Housing Ownership Status.

Figure 17. Type of Housing and Location of the Residence.

When questioning the open areas of the subjects' house, it is found that there are 80 % balconies, 8 % gardens, 6 % French balconies and 6 % French terraces (Fig.-18).

Figure 18. Outdoor Spaces in the House of the Subjects

When the purpose of using balconies in the house of the subjects was questioned, it was shown that 48 % was used for drying clothing, 24 % for leisure time, 16 % for eating and talking, 4 % for storing and 8 % for other purposes. 58 % of the subjects said they had closed their balconies and terraces with a window framework, and 42 % of them had opened them (Fig.-19).

Figure 19. Outdoor Use Purpose and Closing Open Areas with a Window System.

88% of the subjects emphasized that the outdoor spaces of their residences are insufficient in terms of size (Fig.-20).

Figure 20. Participants' Satisfaction with the Size of the Outdoor Spaces of the Housing

47% of the subjects felt the need to cover the open areas in their residences with a window system for heat insulation, 27% for cleaning, 13% for space saving-room expansion, and 13% for other purposes (Fig.-21). 69% of the subjects who had a French balcony in their houses did not find this type of balcony functional and useful (Fig.-21).

Figure 21. Reasons for Closing Open Spaces in Houses and Questioning the Functionality of French Balconies.

As a requirement of the epidemic disease, it was determined that 60% of the subjects could not use the outdoor spaces of their houses during the social isolation process, and only 40% of them spent time in the outdoor spaces of residence (Fig.-22). During the pandemic period, 37% of the subjects who used the outdoor spaces of their houses for sitting, chatting and social communication, 20% for eating, drinking tea and coffee. The subjects stated that 18% of them used books for reading, 10% for growing plants, taking care of pets, 7% for watching around, 5% for playing games and watching movies, and 3% for other purposes (Fig.-23).

Figure 22. Balcony Usage Rates of Subjects in Epidemic Disease-Social Isolation Process.

Figure 23. The Purposes of Balcony Use in the Epidemic Disease-Social Isolation Process of the Subjects.

In this complicated process, when subjects who may not use the outdoor spaces of their homes during the epidemic-social exclusion process were asked, the response of 64 % of subjects was yes. Most of the subjects said they wanted to spend time in outdoor areas in their homes during the pandemic process. 64% of the subjects emphasized that after the social isolation caused by the epidemic disease, they need a decoration work to make the outdoor spaces of their houses more functional and aesthetic and that this requirement is important in creating more functional and beautiful spaces in other social isolations (Fig.-24).

Figure 24. Identification of the need for the outdoor spaces of the houses and the organisation of these spaces after social isolation in the epidemic process.

71% of the subjects thought of changing their houses due to their dissatisfaction with the outdoor spaces of their houses during the social isolation process, but stated that their financial situation was not suitable (Fig.-25).

Figure 25. Housing Change Idea caused by the Subjects' Dissatisfaction of Outdoor Spaces as a Result of Social Isolation.

89% of residential users over 65 years old, who constitute 18% of the subjects, emphasized that the residential outdoor areas are important for activities such as sitting, eating, sunbathing, chatting, and doing sports (Fig.-26).

Figure 26. Determination of the Necessity of Using Outdoor Spaces for Daily Living Activities of the Subjects Over 65 Years Old.

5.EVALUATION AND CONCLUSION

The results of the study can be briefly outlined as follows:

72% of subjects are women and 64% of subjects in need of outdoor spaces in their homes during the epidemic period. The need for outdoor spaces in women's residential life is also a major part of the social isolation process. Regardless of income, marital status, housing ownership, people need open-air space in their houses.

As the education level increased, the perception of the subjects of the necessity of the outdoor space of the houses increased. However, as the economic level increases, the need for outdoor space does not change, showing that the relationship between residential comfort and outdoor space does not change. Under the framework of the research, it was decided that, in fact, subjects over 65 years old need to use outdoor spaces for a number of purposes. As is known, during the introduction of social isolation in Turkey, such unique social restrictions necessitated the use of open-air living facilities for citizens of this age group.

According to the findings in the apartment blocks, which is also common types of housing in our emerging research areas and against common types of housing in general in Turkey as there is a need outdoor space. Existing outdoor spaces are inadequate in terms of functionality and comfort.

Most of the houses are on the avenues and streets, and most of the houses have balconies as outdoor spaces. Since watching the environment is one of the aims of people using their balconies, this should be taken into account in housing planning. Since the French balcony is not found to be usable by users and is not used functionally throughout the pandemic process, the reason why these balconies are designed in housing designs should be questioned again.

Balconies are often used for drying clothes because of their size. As the zoning rules allow, balconies should be sufficiently designed for further activity. The measurement standards for outdoor spaces should be strengthened in the zoning laws. Closing of outdoor spaces mainly for reasons such as heat insulation, storage and room enlargement suggests that housing structures should be rethought in terms of insulation, function, scale and requirements, and should step away from traditional apartment blocks plans. In addition, since the permission of closing the balconies with glazing systems in the zoning regulations causes the balconies to deviate from being outdoor spaces in houses, necessary arrangements should be made in the zoning regulations. Outdoor spaces should be designed as a living space in residences. Storage areas should be considered in house buildings, and transformation of open-air spaces into storage spaces should be prevented. The fact that people think of reorganizing their balcony spaces after social isolation is an indicator of this situation. Those who experienced the need for outdoor spaces during the social isolation process stated that they were thinking of changing their houses and living in houses with outdoor spaces where they would perform various activities in adequate dimensions. This shows that open-air spaces are important in housing selection and use.

It is evident that open spaces, such as balconies, terraces, residential gardens, are major human necessities. These areas provide people with leisure time, mental relaxation, better air quality and a pleasant sense of energy. The need for these areas, especially during the Covid-19 pandemic, has increased even further. Therefore, balconies should be designed like residential interiors as an open-air space in architectural planning.

KAYNAKLAR

- Açıkalın, E., Erdoğan, R. (2018). “*Antalya En Güzel Bahçe Ve Balkon Yarışmasının Kente Getirileri* “. P. 1-10. *Türkiye/ Konya: Uluslar arası Yeşil Başkentler Kongresi (International Green Capital Congress, Turkey/Konya)*.
- Akın, H. (2013). "Balkon' Şiirini İçeriden Okuma Denemesi". *TÜRK DİLİ* , p. 33-35.
- Aronis, C. (2009). “ *The Balconies of Tel-Aviv*”, *Cultural History and Urban Politics*, 14(3), p. 157-180.
- Arslan, M. M. (2020), “Balkonu Yeniden Düşünmek”, sosyalbilimler.org.: <https://sosyalbilimler.org/balkonu-dusunmek> adresinden alındı
- Batur, E. (2014). *Kediler Krallara Bakabilir*. İstanbul: Sel Yayıncılık.
- Bodur, A. (2018). “Sezai Karakoç’un Balkon Şiiri Üzerinden Yakın Dönem Mimarisinin Değerlendirilmesi”, Ed. Çiğdem Eren içinde, *Mimarlık Planlama ve Tasarımda Akademik Araştırmalar* (p. 43-55). Ankara: Gece Kitaplığı.
- Demirarslan, D. (1997). *Endüstri Şehirlerinde Orta Gelir Grubundaki İnsanların İhtiyacı Olan Toplu Konutların İç Mekân Kullanım Alanları Standartlarına İlişkin Sistem Önemlerinin Geliştirilmesi ve Ülkemizden İzmit Örneği*. İstanbul: Mimar Sinan Üniversitesi Fen Bilimleri Enstitüsü.
- Demirarslan, K. & Demirarslan, D. (2016). “Kentlerde Yeni Yerleşim Alanlarının Gelişimi ve Katı Atık Sorunu: İzmit- Yahyakaptan Mahallesi Örneği”, *Doğal Afetler ve Çevre Dergisi*, 2(2), p. 108 – 120.
- Erdoğan, R. & Seli, C. (2019), <https://www.plantdergisi.com/prof-dr-reyhan-erdogan-dr-ogruye-ceren-selim/balkon-ve-teraslarda-mekan-tasarimi.html> adresinden alındı. Accepted Date: 23.10.2020.
- Grigoriadou E., T. (2020). “The urban balcony as the new public space for well-being in times of social distancing”, *Cities & Health*, p.1-4. doi: DOI:10.1080/23748834.2020.1795405
- Gürses, İ. (2019). <https://www.plantdergisi.com/dr-ismet-gurses/gecmisten-gunumuze-bahce-kavrami.html> adresinden alındı. Accepted Date: 23.10.2020.
- Hasol, D. (2020). *Ansiklopedik Mimarlık Sözlüğü*. İstanbul: Yem Yayınevi.
- Health Promotion Dictionary, 2011: 1, <https://www.thefreedictionary.com/Health+promotion>. Accepted Date: 10.8.2020.
- Lefebvre, H. (2013). *Rhythmanalysis Space, Time and Everyday Life*. London: Bloomsbury Academic.

- Llyod, J. M. (2015). *QI: The Third Book of General Ignorance* . Faber&Faber.
- Mldanović, E., Lakicević, M., Pavlović, L., Hiel, K., & Padejcev, J. (2017). "Opportunities And Benefits Of Green Balconies And Terraces In Urban Conditions". The Serbian Journal of Agricultural Sciences, 66(3-4), 38-45.
- Official Gazette Issue: 30113. (2017, 07 03).*
<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=23722&MevzuatTur=7&MevzuatFrtip=5> adresinden alındı.
- Shepperson, M. (2009). *Planning for the Sun: Urban Forms as a Mesopotamian Response to the Sun*. Taylor&Francis.
- Shepperson, M. (2017). *Sunlight and Shade in the First Cities: A Sensory Archaeology of Early Iraq* . Vandenhoeck & Ruprecht Aufl. ed. Edition.
- URL-1. (2020). <https://www.bbc.com/turkce/haberler-dunya-51719684> adresinden alındı. Accepted Date: 12.12.2020.
- URL-2. (2020). <http://mucri.univ-paris1.fr/la-peinture-sujet-du-tableau/> adresinden alındı. Accepted Date: 12.12.2020.
- URL-3. (2020). <https://www.livabl.com/2017/11/8-tips-designing-balconies-people-will-actually-use.html> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-4. (2020). <https://www.architectureanddesign.com.au/features/list/balcony-ideas-5-inspirational-balcony-designs#> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-5. (2020). <https://www.zameen.com/blog/small-balcony-decor-ideas-apartments.html> adresinden alındı. Accepted Date: 20.11. 2020.
- URL-6. (2020). <https://tr.wikipedia.org/wiki/Bah%C3%A7e> adresinden alındı. Accepted Date: 20.11. 2020.
- URL-7. (2020). <http://www.touregypt.net/featurestories/gardens.htm> adresinden alındı. Accepted Date: 20.11. 2020.
- URL-8. (2020). <https://www.thenationalnews.com/arts-culture/academic-unearths-new-lead-to-fabled-babylon-gardens-1.408158> adresinden alındı. Accepted Date: 20.11. 2020.
- URL-9. (2020). [https://hu.wikipedia.org/wiki/Periszt%C3%BClion#/media/F%C3%A1jl:Ricostruzione_del_giardino_della_casa_dei_vetii_di_pompei_\(mostra_al_giardino_di_boboli,_2007\)_01.JPG](https://hu.wikipedia.org/wiki/Periszt%C3%BClion#/media/F%C3%A1jl:Ricostruzione_del_giardino_della_casa_dei_vetii_di_pompei_(mostra_al_giardino_di_boboli,_2007)_01.JPG) adresinden alındı. Accepted Date: 20.11. 2020.
- URL-10. (2020). https://www.flickr.com/photos/mr_mikage/50049913562/in/photolist-2jfJTAb-2j4TukA-2eyPwHv-2iF3717-QPxcS6-2dUSt2z-2bFNsbQ-2h5xjYV-2eeRjZw-2h7E1WB-2k4q7qp-2h8EGab-2h9cmrv-2gW4FtY-27eWPXL-HsM69E-Tz2r4W-2iDR4qV-2e54Zoz-RznCHZ-2j8mtAJ-TzqojU-29EHmxh-Tzqo8m-2iUC adresinden alındı. Accepted date: 08.10.2020.
- URL-11. (2020). <http://www.bbc.com/travel/story/20200409-the-history-of-balconies> adresinden alındı. Accepted Date: 15.8.2020.

- URL-12. (2020). <https://www.domusweb.it/en/architecture/2020/04/03/a-brief-history-of-the-balcony-from-ancient-persia-to-the-covid-19-pandemic.html> adresinden alındı. Accepted Date: 15.8.2020.
- URL-13. (2020). <http://www.bbc.com/travel/story/20200409-the-history-of-balconies> adresinden alındı. Accepted Date: 15.8.2020.
- URL-14. (2020). <http://s8int.com/phile/page45.html> adresinden alındı. Accepted Date: 15.8.2020.
- URL-15. (2020). <https://persianposts.files.wordpress.com/2013/03 /324.jpg> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-16. (2020). <https://www.proromanis.store/product/insula-marcia/> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-17. (2020). <https://www.amjourneys.com/valletta-city-guide/> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-18. (2020). <https://www.gotaway.ca/malta/valletta-apartment/>, <https://www.workaway.info/en/host/339211862242/gallery-5> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-19. (2020). <https://www.bbc.com/future/article/20150710-the-gruesome-untold-story-of-eva-perons-lobotomy> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-20. (2020). https://commons.wikimedia.org/wiki/File:Carlo_Frisi_nell%27imitazione_di_Papa_Francesco_dal_balcone.jpg adresinden alındı. Accepted Date: 23.11. 2020.
- URL-21. (2015). <http://keos.izmit.bel.tr/keos/>, [Erişim 13 Eylül 2015] adresinden alındı
- URL-22. (2020). <https://www.nufusu.com/izmit-kocaeli-mahalleleri-nufusu> adresinden alındı. Accepted Date: 26.12. 2020.
- URL-23. (2020). <https://www.surveysystem.com/sscalc.htm#one> adresinden alındı. Accepted Date: 13.9. 2020.
- URL-24. (2019). <https://tuikweb.tuik.gov.tr/PreHaberBultenleri.do?id=33730> adresinden alındı. Accepted Date: 13.9. 2020.

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