



## Investigation of Traditional Features' Effect on Modernist Designs in The Framework of Environmental Sustainability

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### Abstract

Geography, climate, culture, and technology directly influenced the architectural production of societies. These effects first shaped the production of traditional architecture. After the developments in the industrial revolution, architectural formatting has been open to constant and rapid changes. These changes, dating back to the twentieth century and called modernism, aimed to move away from tradition and design with its forms. Design theorists divide between the view that modernism is directly influenced by tradition and that modernity is an entirely new formation. This research aims to identify the effects of these parameters with the parameters that shape tradition and modernism to shed light on the debates about the effect of modernization. In literature research, the design parameters that can be reached from the past to the present generally do not change in housing structures, and these parameters are included in the concept of environmental sustainability today. Therefore, traditional and modernist design product housing structures have been analyzed through environmental sustainability parameters. Information collected from the literature and selected structures were studied using the comparative analysis method. The results of the analysis will shed light on the discussions about the interaction of traditional and modernist designs with extracts from residents.

**Keywords:** Traditional architecture, modernism, modernist architecture, environmental sustainability.

## Konutlarda Geleneksel Özelliklerin Modernist Tasarımlara Etkisinin Çevresel Sürdürülebilirlik Çerçevesinde İncelenmesi

### Öz

Coğrafya, iklim, kültür ve teknoloji toplumların mimari üretimini doğrudan etkilemiştir. Bu etkiler önce geleneksel mimarilerin üretimini şekillendirmiştir. Endüstri devrimindeki gelişmeler sonrası mimari biçimlenişler, sürekli ve hızlı değişimlere açılmıştır. 19. Yüzyıl sonları ile 20. Yüzyıla tarihlenen ve modernizm olarak adlandırılan bu değişim, gelenekselden uzaklaşıp kendi biçimlerini tasarlamayı amaçlamıştır. Ancak tasarım kuramcıları, modernizmin gelenekselden doğrudan etkilendiği ile modernizmin tamamen yeni bir oluşum olduğu görüşü arasında ikiye ayrılmışlardır. Bu araştırma gelenekselin modernizme etkisi ile ilgili tartışmalara bir ışık tutabilmek amacıyla geleneksel ve modernizmi şekillendiren parametreler ile bu parametrelerin etkilerini tespit etmeyi amaçlamaktadır. Literatür araştırmalarında geçmişten günümüze ulaşabilen tasarım parametrelerinin konut yapılarında genelde değişmediği ve bu parametrelerin günümüzde çevresel sürdürülebilirlik kavramının içerisinde yer aldığı tespit edilmiştir. Bu nedenle geleneksel ve modernist tasarım ürünü konut yapıları, çevresel sürdürülebilirlik parametreleri üzerinden analiz edilmiştir. Literatürden derlenen bilgiler ve seçilen yapılar karşılaştırmalı analiz yöntemi ile incelenmiştir. Analiz sonuçları, geleneksel ve modernist tasarımların etkileşimi ile ilgili tartışmalara konut yapıları üzerinden çıkarımları ile ışık tutacaktır.

**Anahtar kelimeler:** Geleneksel mimarlık, modernizm, modernist mimarlık, çevresel sürdürülebilirlik.

**Citation:** Coşkun, S. & Çelebi Karakök, E. (2023). Investigation of traditional features' effect on modernist designs in the framework of environmental sustainability. *Journal of Architectural Sciences and Applications*, 8 (1), 188-199.

DOI: <https://doi.org/10.30785/mbud.1278674>



## **1. Introduction**

Architecture is the art of creating structures that adhere to specific measurements and rules. It designs and constructs spaces in which people will conduct all their activities such as sheltering, working, resting, and having fun. It develops as a combination of many factors such as geographical, social, economic, and technological data (Özyılmaz et al., 2008). Architecture evolves in response to changes in the global order. Consequently, it is expressed in the literature by categorizing it into different periods. The construction systems before the industrial revolution in the 19th century are called traditional, and the period that started with the industrial revolution leading the construction sector and lasted until the 1970s is called modernism (Omay Polat & Can, 2008).

Traditional architecture is the built environment that people produce to sustain their daily life. It is the accumulation of knowledge and experience that comes from people's ancestors in the region and is a reflection of the living culture (Kıstır & Kurtoğlu, 2018). Many factors influence traditional architecture, including geographical location, topography, climate, tradition, material, and construction technique. Despite all these factors, environmental factors are the most important in determining the components of traditional architecture. Traditional architecture has been shaped by the pursuit of environmental respect, adaptation, and effective use of environmental data (Muşkara, 2017). Since the middle of the nineteenth century, the rapidly developing industrial revolution and its aftereffects have led some to label traditional practices as primitive and should be abandoned. Modernization, which began with the industrial revolution, transformed agricultural society into industrial society and took architecture to a whole new level with chemicalization and mechanization technologies (Biol, 2006). Thus, traditionalism and modernism came to be seen as opposite approaches, and debates began to judge both approaches by comparing them to one another. One of these debates is the belief that modernist architecture is directly influenced by traditional architecture, whereas modernism is a completely independent formation (Artun, 2019).

Sedad Hakkı Eldem, Sibel Bozdoğan, Ernesto Peresutti, and Josep Lluís Sert can be given as examples to those who think that the architecture of the modernist period was directly influenced by traditional architecture. According to Sedad Hakkı Eldem, traditional Turkish houses are quite close to modernist house designs. He stated that traditional Turkish houses are distinguished by bright spaces with plenty of windows, freedom in the plan, emphasis on comfort, keeping decorations to a minimum, sensitivity in material selection, and establishing a connection with nature through spaces such as open canopies, gardens, and courtyards. He also stated that Le Corbusier, a modernist designer, was inspired by traditional Turkish houses in his designs (Bozdoğan, 2009: 19, cited in Ulubay, 2019: 388). According to Sibel Bozdoğan, the rational and utilitarian features of the traditional are reflected in the modern, hence modernism is not a new and foreign approach. According to Ernesto Peresutti, so-called modernist constructions with rectangular or square plans, developing horizontally or vertically, capturing the rhythm of fullness-space, and with white walls are already typical of classic Mediterranean architecture. It has been stated that Gropius, Le Corbusier, and Mies van der Rohe misrepresented modernist architecture as a northern innovation of the twentieth century and that humanity was misled. According to Josep Lluís Sert, if traditional Mediterranean architectural examples are compared to works of modern architecture, they will have many common characteristics. He claimed that, while contemporary architecture is portrayed as a northern invention, it is essentially a styleless Mediterranean architecture (Bozdoğan, 2009: 19, cited in Ulubay, 2019: 388). According to Hassan Fathy, traditional values must be nourished for modern period structures to be nice and beautiful (Bilir, 2019).

Despite the belief that modernism is influenced by tradition, some argue that modernism is an invention. Indeed, some theorists have carried their discourses to the point where the traditional should be completely rejected and destroyed. Raymond Williams defined modernism by emphasizing creativity and rejecting the tradition. Clement Greenberg defines modernism as aesthetics and traditionalism as kitsch. J.M. Richards defined modern architecture as the new understanding of architecture demanded by the twentieth century, rejecting previous architecture (Artun, 2021). The discourses of architects, who are regarded as modernism's forefathers, also emphasize in a non-direct

way that modernism is a very different design from traditional. They even want to get rid of the traditional. For example, Le Corbusier stated that he hoped Mussolini would demolish a traditional settlement to make way for the construction of his Radiant City, a utopia city project (Artun, 2019). He also stated that he came in 1925 to witness the demolition of traditional structures and the production of modernist products during Istanbul's reconstruction works (Bozdoğan, 2009). In a speech in which traditional Indian architecture was mentioned, he derisively referred to traditional architecture as "few pieces of stone." (Özkan, 2005: 58-61; Ulubay, 2019). Mies Van Der Rohe claims that he tries to move away from the traditional as much as possible in his works and that this discourse is exaggerated in his works. With his Farnsworth House design, he rejected traditional closed-room systems and instead used glass on the exterior of the building with unprecedented dimensions and transparency (Arkitektuel, 2023). He leaves the interior solutions to the users in his designs, claiming that he gives users design freedom while saving architects from traditional production (Can, 2010).

Although, in recent years, researchers have tried to express the injustice and destruction of the traditional against the modernism (Artun, 2019; Artun, 2021; Bilir, 2019; Kistir & Kurtoğlu, 2018; Ulubay, 2019). The voice of modernism's internalization and marginalization debates had begun to fade. Because in the 1970s, modernism also faded, left its golden period behind, and became a part of the past (Omay Polat & Can, 2008). However, currently, the demolition of reinforced concrete structures built before 2000 because the structures have completed their economic life and are not safe for use due to natural disasters, especially earthquakes, has made modernist structures in need of protection and defense. At a time when all concepts are becoming more intertwined and complex, it would be beneficial to reopen all discussions to comprehend that modernist structures are now the legacy, perhaps traditional of an era. Because it is impossible to define the battle between modernism and the contemporary without first understanding the battle between traditionalism and modernism. To preserve what is traditional and modern, its substances must be analyzed, and their parameters defined.

Consequently, the purpose of this study is to identify the parameters that shape both traditional and modernism, as well as the effects of these parameters, to shed light on discussions about the interaction of traditional and modernism.

According to the literature, the design parameters that can be achieved in residential buildings from the past to the present do not generally change, and these parameters are now included in the concept of environmental sustainability. The concept of sustainability is defined as the ability to carry out the functions of ecology and ecology-related elements, the stages of its order, and the mission of creation to the future (Yavuz, 2010). The three main principles of sustainability are economic, social, and environmental. Environmental sustainability is one of these principles, and it includes architectural definitions. It focuses on how the built environment will be built and transferred in the future while avoiding harm to nature and considering all living things. Currently, architectural structures' success is measured by their ability to meet sustainability criteria. It is also supported by certificates such as LEED, BREAM, BEST, and WELL. Since the basic needs of the world and humanity are the same, analyzing the buildings with environmental sustainability parameters, regardless of the date they were built, will be a guide for both defining the buildings themselves and comparing them with other buildings. Environmental sustainability parameters compiled from the literature were determined as "being sensitive to ecology, using clean energy resources, using local resources, protecting cultural assets and historical environment, protecting architectural values and morphological features" (Büyüçam & Eyüboğlu, 2022; Durukan et. al., 2021).

It was previously stated in the literature review that the design parameters that can be reached from the past to the present do not generally change in residential buildings. However, it should be noted that another reason for selecting residential buildings is that they have also served as a shelter since the beginning of humanity. Therefore, it is intended to analyze traditional and modernist residential buildings using environmental sustainability parameters. Five parameters were determined to make this determination, and five traditional and modernist building examples were chosen. Residential buildings that reflect their architectural form and traditional or modernist features well and are praised

in the literature were chosen as building samples. Although making inferences from so few parameters and structures is insufficient to make a complete generalization the selected parameters and residences will be highly informative due to their specific features.

Environmental sustainability parameters were used to compare the houses, and the effect of the parameters was determined. The analysis findings will shed light on discussions about the interaction of traditional and modernist designs, as well as their implications for residential buildings.

## 2. Material and Method

This study's methodology consists of four steps. These steps include literature research, determining environmental sustainability parameters, selecting traditional and modernist housing structures to be analyzed, and comparing selected houses based on environmental sustainability parameters (Figure 1).

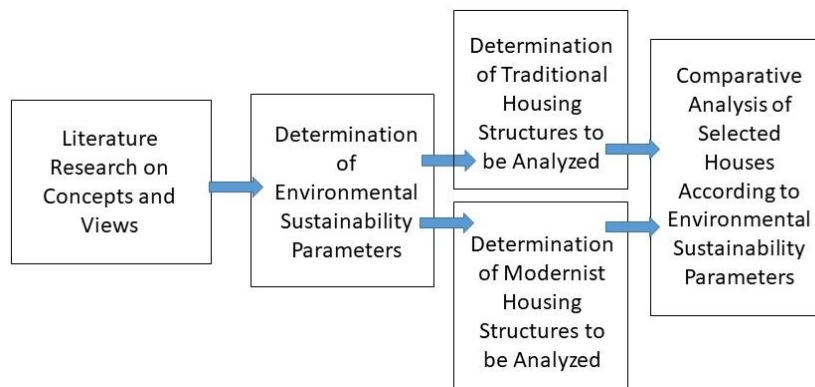


Figure 1. Flowchart of research method

The flowchart of the literature research phase, which is the first phase of the research, consists of two parts (Figure 2). The first part is the exploration of the concepts of traditional architecture, modernist architecture, and environmental sustainability. The second part is the exploration of views discussing the interaction of traditional and modernist architecture. The views of Sedad Hakki Eldem, Sibel Bozdoğan, Joseph Lluís Sert, and Ernesto Peresutti, argue that modernism is influenced by the traditional; The views of Le Corbusier, Walter Gropius, and Mies Van Der Rohe, which they argue that modernism rejects the traditional, constitute the problem of this research.

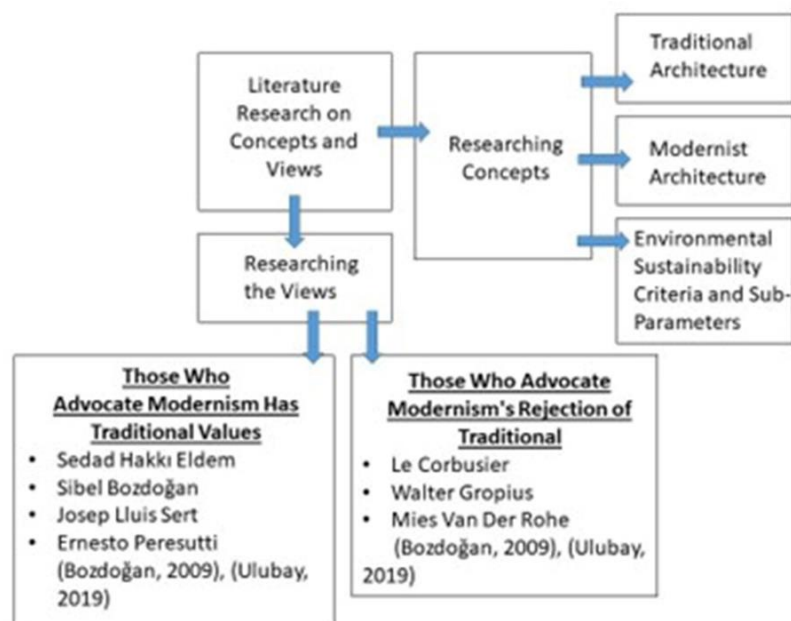
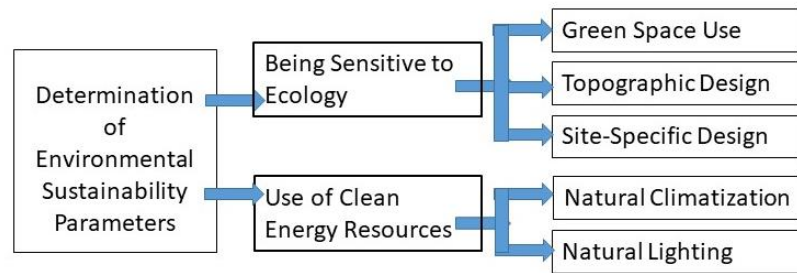


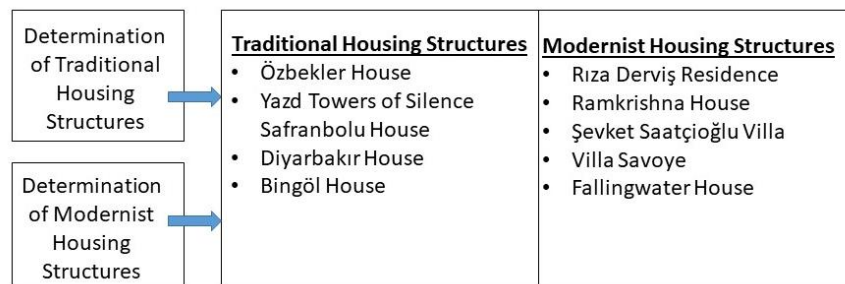
Figure 2. Flowchart of literature research

The analysis parameters were determined in the second phase because it is intended to look at the interaction of traditional and modernist housing structures in terms of environmental sustainability (Figure 3). Environmental sustainability has many parameters such as ecological design, use of clean energy resources, use of local materials and resources, protection of cultural assets and historical environment, preservation of architectural value and morphological features (Büyükçam & Eyüboğlu, 2022). The interaction of traditional and modernist residential buildings was analyzed using ecological design and clean energy usage parameters. Protection parameters, use of existing buildings, and waste management parameters have been neglected as they are the design criteria of the researched buildings. Ecological design and clean energy use parameters are also subdivided to conduct more in-depth research. Green space use, topographic design, and site-specific design are all ecological design parameters. Local materials were considered as part of the site-specific design parameter. Natural climatization and natural lighting are examples of clean energy usage parameters.



**Figure 3.** Environmental sustainability parameters

In the third stage, traditional and modernist housing examples are discussed for analysis, with the parameters of environmental sustainability that can be observed. In the selection of the sample, attention was paid to the analysis of the prominent residential buildings in the literature with the specified parameter. While the traditional housing structures to be analyzed were chosen as Özbekler House, Yazd Towers of Silence, Safranbolu House, Diyarbakır House, and Bingöl House; modernist housing structures are determined as Rıza Derviş Residence, Ramkrishna House, Şevket Saatçioğlu Villa, Villa Savoye and Fallingwater House (Figure 4).



**Figure 4.** Flowchart of determination of housing structures to be analyzed

Finally, the existence and significance of the parameters determined in the selected houses are discussed. The interaction of traditional and modernist architecture has been attempted to reveal data in terms of environmental sustainability based on the effect of the parameters.

### 3. Findings and Discussion

For centuries, people have either adapted to their surroundings or attempted to change their surroundings. Natural disasters have reacted negatively to human efforts to change the environment. Therefore, humanity has realized the importance of caring for and understanding the environment. They have created an architecture that respects and incorporates the topography, climate, wind, and sun of the environment in which they live (Canan et al., 2020). However, the long-term occurrence of natural disasters and rapid technological developments encouraged people, and therefore people turned to environmentally harmful production technologies. However, the depletion of fossil resources, the excessive increase in pollution in air and water resources, the gradual restriction of

access to clean water, and natural warnings such as global warming and climate change repeatedly warn people to consider their surroundings. People must understand the concept of sustainability to live environmentally conscious lives. The three pillars of the concept of sustainability; economic, social, and environmental sustainability, are guiding concepts and parameters. The principles of environmental sustainability include the measures to be taken in the field of architecture. The use of existing buildings, the use of local materials, waste management, natural climatization, natural lighting, ecological design, and clean energy usage are all aspects of environmental sustainability (Büyükçam & Eyüboğlu, 2022).

This study's findings include an analysis of the environmental sustainability parameters of traditional and modernist architecture on houses. To comprehend the interaction of traditional and modernist residential buildings, ecological design and clean energy usage parameters were chosen. While green space use, topographic design, and site-specific design are ecological design parameters, natural climatization, and natural lighting are considered clean energy usage parameters.

### **3.1. Ecological Design Parameters**

Ecological design parameters were determined as green space use, topographic design, and site-specific design.

#### **3.1.1. Green space use**

Green spaces have long been important for human health and environmental quality, and their presence has improved both indoor and outdoor quality of life. It contributes significantly to the field of architecture by cleaning the air, creating shade and cool areas, and strengthening the ground by compacting the soil (Ceylan, 2007). Traditional houses are typically made up of structures with sofas, courtyards, or gardens. In modernist architecture, detached houses utilize the same approach (Akdemir & Aykal, 2021). The traditional architectural product Özbekler House and the modernist period structure Rıza Derviş Residence were examined for this research to assess the impact of green space use. The garden design is given a large place in both housing structures, trees are planted, and other spaces are directed to the garden (Figure 5). It is seen that the use of green areas is given importance in traditional and modernist houses.



**Figure 5.** Left: Özbekler House (Menteşe Prefecture, 2022); Right: Rıza Derviş Residence (Salt Research, 2022)

#### **3.1.2. Topographic design**

Settlements are typically found on slopes, foothills, and stream banks. The most important factors, in this case, are topography, water, and light, but topography already shapes the water and light elements. Because the topography has numerous formations in itself. It is made up of landforms like ridges, valleys, water distribution lines, water collection lines, necks, slopes, skirts, plateaus, fills, and cuts. The temperature, wind speed, and shading time vary depending on the location of the building on the land. The radiation and wind speed increase as the building's elevation increases, while the temperature decreases. The building's orientation toward the south allows it to benefit from solar energy. The northern directions are shady and cool. According to Christopher Alexander, the area can be used efficiently by establishing agricultural areas, city settlements on slopes, and hills on the plains. The architect should also create architectural designs that make use of the sloping area. Only in this way can existing land conditions be improved and new land acquired. Walls, stairs, sloping roads, and

ground floor elements can be used to make the topography into a place (Saçık, 2018; Bayraktaroğlu & Arabacıoğlu, 2022).

The traditional Safranbolu house and the modernist residence Şevket Saatçioğlu Villa were designed by the sloping topography (Figure 6). There is a height difference between the house facades depending on the slope settlement. The entrance level is given from the upper road in houses with front and back facades facing the road. The lower road level facade has been converted into a retaining wall. Again, depending on the slope, some houses' ground floor rear walls are buried in the ground. The gardens are terraced by the valley's slope (Saçık, 2018). The Saatçioğlu Villa was built in 1960 on a sloping plot of land with five levels. A gap in the floor allows a tree from the field to enter. The free plan solutions, which are solved at various levels, are also regarded as a site-specific project, with an approach that considers the existing tree (Bingöl, 2018; Kuru, 2018). It is seen that the use of topographic design is given importance in traditional and modernist houses.

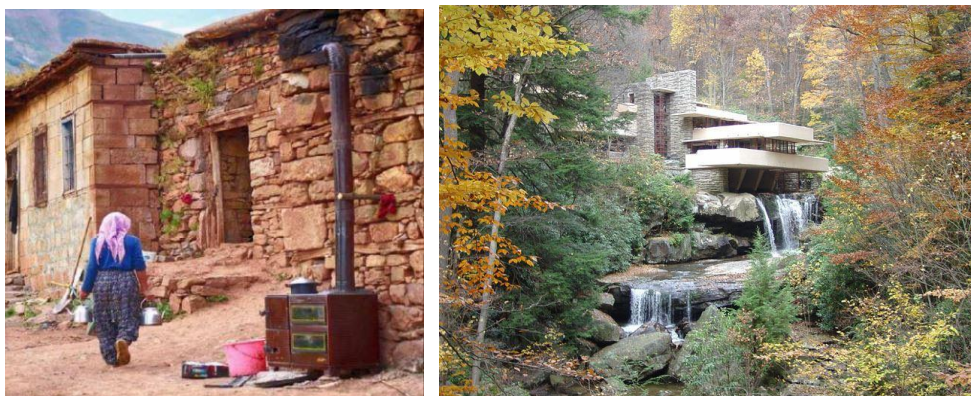


**Figure 6.** Left: Safranbolu House (Wikipedia, 2023); Right: Şevket Saatçioğlu Villa (Arkitera, 2013)

### **3.1.3. Site-specific design**

Each designed building should be unique to the specific location where it will be constructed. Geography, topography, climate, materials, construction techniques, and natural and local features are all considered in site-specific design (Bilir, 2019).

The traditional Bingöl House is made of local materials such as wood, stone, and clay. Because of the cold climatic conditions of its location, the walls were constructed thick, and the windows were shuttered. The house was built at two different elevations to accommodate the sloping terrain (Varolgüneş, 2021). The Modernist Fallingwater takes its name from the waterfall on which it was built. The majority of the rock fragments were left on the plot during construction, and some of them appear to have come out of the pavement. Modernist Fallingwater House's walls and terraces were built with stones from the surrounding area and the existing plot. With large windows and balconies, it aims to be close to nature. The sound of the waterfall can be heard throughout the house. Even inside the house, one feels as if they are in nature (Arkitektuel, 2017). Therefore, both examples are specific and unique to the place where it is located and was produced for that place (Figure 7). It is seen that the use of site-specific design is given importance in traditional and modernist houses.



**Figure 7.** Left: Bingöl House (Varolgüneş, 2021); Right: Fallingwater House (Arkitektuel, 2017)

### 3.2. Clean Energy Usage Parameters

The approaches that are kept away from the use of fossil fuels and towards clean energy sources are important factors that shape architecture and contribute to its sustainability. Clean energy sources include solar, wind, and plants (Yılmaz, 2019). Natural climatization and natural lighting are examples of clean energy usage parameters. It is seen that the use of clean energy is given importance in traditional and modernist houses.

#### 3.2.1. Natural climatization

The building does not require an additional element for natural climatization. The building solves its air-conditioning problems through design. For example, precautions such as benefiting from the wind thanks to the location or elevation of the land where the building is located, high air permeability level of the materials used in the building, controlled use of wind and sun rays with elements such as eaves, shutters, and blinds, and controlling the sunlight and wind by paying attention to the type and planting places of the trees can be taken (Yılmaz, 2019).

The Ramkrishna House, a modernist period residence structure, has a sloped roof that is used in the natural airflow of the adjustable louver systems (Architectural Digest, 2018). In Yazd City, an example of traditional architecture, wind chimneys called *badgir* on the underground houses cool and direct air into the building (Abu-Hammad & Abu-Hammad, 2017). Both examples include natural climatization (Figure 8). It is seen that the use of natural climatization is given importance in traditional and modernist houses.

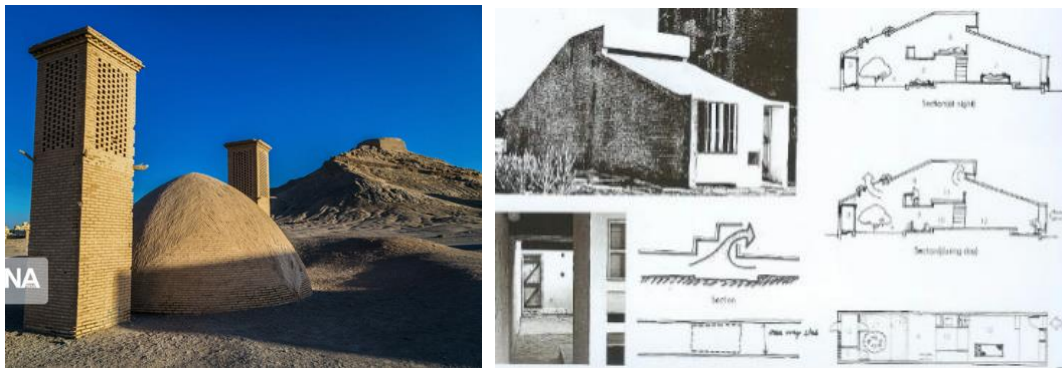


Figure 8. Left: Yazd Towers of Silence (IRNA, 2023); Right: Ramkrishna House (Architectural Digest, 2018)

#### 3.2.2. Natural lighting

One of the artifacts associated with the use of natural lighting in traditional buildings is the design of daytime spaces that receive a lot of sun and places that do not need the sun, such as cellars and warehouses, in directions that see the little sun. Eaves and bay windows are used to provide illumination at the desired time and angle. Natural lighting is also preferred using rows and high windows (Aktuna, 2007). The use of wide and high glass on the facades or band windows along the width or height of the building was intended to benefit from natural lighting during the modernist period (Bilir, 2019).

Basement lighting is at ground level in traditional Diyarbakır houses, and windows are opened under the eaves. The goal here is to take advantage of natural lighting as much as possible (Payaslı & Işık, 2003). The use of horizontal band windows in the modernist Villa Savoye is intended to bring light into the interior (Şahin & Satıcı, 2022). Natural lighting was considered in both cases (Figure 9). It is seen that the use of natural lighting is given importance in traditional and modernist houses.





**Figure 9.** Left: Diyarbakır House (Diyarbakır Hafızası, 2023); Right: Villa Savoye (Arkitektuel, 2016)

#### **4. Conclusion**

The traditional and modernist housing structures chosen for analysis in this study were examined through the perspective of environmental sustainability principles. To comprehend the interaction of traditional and modernist residential buildings, ecological design and clean energy usage parameters were chosen. Ecological design and clean energy usage parameters are also subdivided. Green space use, topographic design, and site-specific design are all ecological design parameters. Natural climatization and natural lighting are clean energy usage parameters.

According to the findings of the study, ecological design and the use of clean energy are incorporated into both traditional and modernist housing structures. Green area usage is in Özbekler House and Rıza Derviş Residence; The topographic design is in traditional Safranbolu Houses and Şevket Saatçioğlu Villa; local design in traditional Bingöl House and Fallingwater House, natural climatization in traditional Yazd Houses and Ramkrishna House; natural lighting is prominently observed in the traditional Diyarbakır House and Villa Savoye.

Since ecological design and the use of clean energy are used in traditional buildings with natural and rational methods, it would be appropriate to say that this knowledge and construction techniques may have been gained by humanity over a long period as a result of many experiences and transferred from generation to generation. Although applications for the same purpose can be found in modernist structures, there are differences from traditional ones. However, it is understood that this difference is in the form of elements that serve the same purpose, sometimes changing form and sometimes transferring the function to another building element. When it comes to the analyzed structures, the green space usage of Özbekler House and Rıza Derviş Residence is almost identical. Only in other examples can the garden or courtyard elements change shape. An effort was made to adapt to the topography in the Safranbolu Houses and Şevket Saatçioğlu Villa. While this harmony is achieved in Safranbolu house by using retaining walls at various levels, columns can be observed in Şevket Saatçioğlu Villa. The Bingöl House and the Fallingwater House each have a site-specific design. For example, while the Bingöl House was built with local stone, the Fallingwater House's walls and fireplace were made from nearby rocks. Natural climatization is skillfully provided in traditional Yazd Houses and Ramkrishna Houses. However, while chimneys perform this function in traditional Yazd Houses, the roof performs this function in Ramkrishna House. Natural lighting has been noticed in the traditional Diyarbakır House and Villa Savoye using rational solutions. While the location and dimensions of the windows in traditional Diyarbakır Houses vary depending on the function of the spaces, Villa Savoye has carried the sunlight completely indoors with its wide horizontal band windows that continue along the facade, as it is only a residential function away from production.

As a result, environmental sustainability parameters can be seen in both traditional and modernist architecture. Knowledge and methods used in traditional architecture have been gained over a very long period, possibly as a result of thousands of experiences, since what is traditionally defined as the 19th century and before. Although modernism also denies the traditional, it is clear that it has used the traditional architecture's ratio and tried solutions in the designs that it provided. If we exclude post-industrial technological inputs such as reinforced concrete, steel, and large-scale glass production in modernist buildings, the environmental sustainability differences are only formal.

## Acknowledgments and Information Note

The article complies with national and international research and publication ethics. Ethics Committee approval was not required for the study.

## Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article. There is no conflict of interest.

## References

- Abu-Hammad, N. & Abu-Hammad, M. (2017). Sustainable design thinking: Adaptability, resilience, and productivity at the core of regionally responsive architecture. *Architecture Research* 2017, 7(3), 55-68, DOI: 10.5923/j.arch.20170703.01
- Akdemir, E. & Aykal, F. D., (2021). Kadının mekandaki rolü ve yöresel konut mimarisine etkisi. *Journal of Urban Culture and Management*, 14(2), Summer 2021.
- Aktuna, M. (2007). *Geleneksel Mimariye Binaların Sürdürülebilir Tasarım Kriterleri Bağlamında Değerlendirilmesi: Antalya Kaleiçi Evleri Örneği* (Unpublished Master's Thesis). Yıldız Technical University, İstanbul.
- Architectural Digest. (2018). Ramkrishna House. Access Address (03.04.2023): <https://www.architecturaldigest.in/content/iconic-house-ramkrishna-house-ahmedabad-charles-correa/>
- Arkitektuel. (2016). Le Corbusier, Villa Savoye, 1931. Access Address (27.03.2023): <https://www.arkitektuel.com/villa-savoye-2/>
- Arkitektuel. (2017). Fallingwater Evi (Şelale Evi). Access Address (03.04.2023): <https://www.arkitektuel.com/fallingwater-evi-selale-evi/>
- Arkitektuel. (2023). Farnsworth Evi. Access Address (03.04.2023): <https://www.arkitektuel.com/farnsworth-evi/>
- Arkitera. (2013). Şevket Saatçioğlu Villası. Access Address (26.12.2022): <https://www.arkitera.com/haber/gecmisin-modern-mimarisi-3-bogazici/>
- Artun, A. (2019). Bauhaus: modernleşmenin tasarımı. *Skop Dergisi*, No. 14. <https://www.e-skop.com/skopdergi/bauhaus-modernlesmenin-tasarimi/4584>
- Artun, A. (2021). *Modernizm Kavramı ve Türkiye'de Modernist Sanatın Doğuşu*. İstanbul: İletişim Yayınları.
- Bayraktaroğlu, B. & Arabacıoğlu, P. (2022). Kültürün yayılmasında mimarlığın yeri: "Bilge Mimar" Turgut Cansever. *Journal of Architectural Sciences and Applications*, 7 (2), 781-794. DOI: 10.30785/mbud.1158573
- Bilir, M. B. (2019). *Modernizmin Revizyonu Bağlamında Geleneğin İhyası* (Unpublished Master's Thesis). Fatih Sultan Mehmet Vakıf University, İstanbul.
- Bingöl, E. İ. (2018). İstanbul'un Modern Konutları. *Mimar.ist Dergisi*, Sayı 2018/2, p. 56-64.
- Biröl, G. (2006). Modern mimarlığın ortaya çıkışı ve gelişimi. *Megaron, Mimarlar Odası Balıkesir Şubesi Dergisi*, 3, 16.
- Bozdoğan, S. (2009). *Unutulmuş Bir Başka Sedat Eldem Çizgisi: Makine Çağına Karşı Lirik Bir Anadolu/Akdeniz Modernizmi*. İstanbul: Osmanlı Bankası Arşiv ve Araştırma Merkezi Yayınları.
- Büyükcım, F. S. & Eyüboğlu, H. (2022). An evaluation on the adaptive reuse of monuments with a focus on sustainability. *Open House International*, 48(1), pp. 81-99. <https://doi.org/10.1108/OHI-03-2022-0072>
- Can, N. A. (2010). *Weissenhofsiedlung Stuttgart Üzerinden Bir Dönem Mimarlık Üretimi Okuması* (Unpublished Master's Thesis). Yıldız Technical University, İstanbul.

- Canan, F., Kobyay, H. B., Aköz, A. B. & Temizci, A. (2020). Vernaküler ve çağdaş mimarlık örneklerinin sürdürülebilirlik bağlamında karşılaştırmalı analizi: Antalya Kaleiçi ve Deniz Mahallesi örneği. *Süleyman Demirel University Journal of Natural and Applied Sciences*, No. 2, p. 256-266.
- Ceylan, A. (2007). *Yaşam Kalitesinin Arttırılmasında Kentsel Yeşil Alanların Önemi Ve Kentsel Dönüşüm İle İlişkilendirilmesi* (Unpublished Master's Thesis). İstanbul Technical University, İstanbul.
- Diyarbakır Hafızası. (2023). Diyarbakır Evi. Access Address (27.03.2023): <https://diyarbakirhafizasi.org/cemil-pasa-konaginin-bir-sakini-olarak-tarih>
- Durukan, A., Ertaş Beşir, Ş, Koç Altuntaş, S. & Açikel, M. (2021). Evaluation of sustainability principles in adaptable re-functioning: Traditional residences in Demirel Complex. *Sustainability*, 13, 2514.
- IRNA. (2023). Yazd Evleri. Access Address (26.03.2023): <https://tr.irna.ir/photo/83499104/Yezd-de-Sessizlik-Kulelerinden-kareler#gallery-3>
- Kıstır, M. R. & Kurtoğlu, D. (2018). Geleneksel konut mimarisinin sürdürülebilirlik bağlamında incelenmesi: Ayvalık ve Oxford evleri örneği. *The Journal of Graduate School of Natural and Applied Sciences of Mehmet Akif Ersoy University*, No 1, p. 83-90.
- Kuru, Z. (2018). *A Study on Villa Type Housing in Sayfiye Settlements: Dragos, Orhantepe Neighbourhood as A Case Study* (Unpublished Master's thesis). Yeditepe University, İstanbul.
- Menteşe Prefecture. (2022). Özbekler House. Access Address (26.12.2022): <http://mentese.gov.tr/ozbekler-evi>
- Muşkara, Ü. (2017). Kırsal ölçekte geleneksel konut mimarisinin korunması: Özgünlük. *Selçuk University Journal of Faculty of Letters*, (37), 437-448. DOI: 10.21497/sefad.328638
- Omay Polat, E. E. & Can, M. C. (2008). Modern mimarlık mirası kavramı tanım ve kapsam. *Megaron*, Vol.3.
- Özkan, S. (2005). Chandigarh'ı kutlama. *Betonart Dergisi*, Le Corbusier Special Issue (Summer-2005), p. 58-61.
- Özyılmaz, H., Dağtekin, E. & Oğuz, G. P. (2008). Sivil toplum kuruluşları ve meslek örgütlerince mimarlık. *Electronic Journal of Social Sciences*, 7 (26), 206-222.
- Payaslı Oğuz, G. & Işık, N. (2003). Tarihi Yapılardaki Doğal ve Yapay Aydınlatma Uygulamaları. 2. *Ulusal Aydınlatma Sempozyumu Bildiriler Kitabı*.
- Saçık, K. (2018). *Mimarlıkta Topoğrafya: Turgut Cansever Eserleri İle Safranbolu, Beypazarı Ve Odunpazarı Örnekleri* (Unpublished master thesis). FSM University, İstanbul.
- Şahin, F. & Satıcı, B. (2022). Biyofilik tasarım ve modern mimarlık kesişiminde bir değerlendirme: Carlo Scarpa Mimarlığı. *Istanbul Commerce University Journal of Technologies and Applied Sciences*, No. 2, p. 21-45.
- Salt Research. (2022). Rıza Derviş Konutu. Access Address (26.12.2022): <https://archives.saltresearch.org/handle/123456789/79595>
- Ulubay, S. (2019). Erken Cumhuriyet Dönemi Türkiye'sinde moderni millileştirme çabasının sorgulanması. *Kent Akademisi*, No. 2, p. 387-396.
- Varolüneş, F. K. (2021). Yerel/Vernaküler mimarinin sürdürülebilirlik bağlamında değerlendirilmesi: Geleneksel Bingöl konutları örneği. *The Journal of International Social Research*, 14(76), p. 286-300.
- Wikipedia. (2023). Safranbolu Evi. Access Address (26.12.2022): <https://tr.wikipedia.org/wiki/Safranbolu>
- Yavuz, V. A. (2010). Sürdürülebilirlik kavramı ve işletmeler açısından sürdürülebilir üretim stratejileri. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, No. 14, p. 63-86.

Yılmaz, E. (2019). *Geleneksel Mimari Verilerin Sürdürülebilirlik Anlamında İncelenmesi: Hasankeyf Örneği (Unpublished Master Thesis)*. Gazi University, Ankara.

