

CONSERVATION OF RURAL EARTHEN ARCHITECTURAL HERITAGE: THE CASE OF MALATYA REGION

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ABSTRACT

Rural architectural heritage has become a subject of frequent debate in recent years as a value that stands out with its unique qualities. This heritage, which is worth exploring in the context of conservation with the use of natural materials, tailor-made designs and unique details, is threatened with rapid extinction. Many reasons such as migration of rural areas due to various reasons, increasing the average age of the population living in these areas, changes in livelihoods and economic conditions are effective in the rapid loss of rural architectural heritage. In this context, the sustainable qualities of this heritage, which is very difficult to preserve, are also destroyed. Today, together with the rural areas that are under protection as the subject of many laws, regulations and meetings, especially the Venice Charter; The existence of many rural architectural heritage is also known.

The earthen settlements that stand out with their authenticity within the rural architectural heritage are the areas that have been lost rapidly due to the material properties and building designs. Conserving rural earthen architectural heritage, which includes many unique features; it is also of great importance in terms of the sustainability of the architectural designs put forward today and in the future. In this sense, as one of the most abundant rural earthen architectural heritage in our country, Malatya is worth examining for its conservation and sustainability. The settlements in the Malatya region, which stands out in terms of rural earthen architectural heritage with its natural, socio-cultural and architectural values, contain a lot of data on the conservation and sustainability of this heritage.

The aim of this study is to contribute to the conservation and sustainability of the rapidly disappearing rural earthen architectural heritage by emphasizing the Malatya region, which is one of the most intense areas in Turkey. Within the scope of the study, the developments in the world and

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in our country for the conservation of rural areas are mentioned; In the light of these developments, the situation of the earthen-dense rural areas in the Malatya region with unique values will be examined and suggestions will be made for the conservation of these areas. Literature researches will be carried out on the subject as a method of study and studies will be conducted in the sample areas with these researches. As a result, it is aimed to contribute to the conservation and sustainability of rural earthen architectural heritage through the examples in Malatya region.

Keywords: Conservation, Sustainability, Rural Architectural Heritage, Earthen, Malatya

1. INTRODUCTION

An analysis of the progress of building construction throughout history reveals that, from the beginning of humanity, the need for shelter has been met primarily to protect and safeguard against harmful external influences. But, it is possible to state that spaces have also diversified and evolved in parallel with increasing needs. In this context, structuring with functions such as production, worship, gathering and trade has gained a different dimension. Accordingly, both in the world and in our country, the closest materials and the easiest techniques that reflect the traditional construction production; many structures with different functions and the settlement textures that contain these structures have started to disappear. This negative situation brought the concept of conservation in architecture to the agenda. The basis of today's understanding of conservation is based on a different point. First of all, it is seen that monumental buildings that have cost to societies are worth conserving. However, over time, not only monumental buildings; the necessity of conserving many modest structures has been understood and steps have been taken for this purpose. Although the structures that are worth conservation lost during the whole process are a lesson in the context of conservation, there are also buildings and settlements whose importance is yet to be understood and whose works for conservation are quite new. These are rural areas and traditional structures forming these areas.

The definition of traditional building is a product of architectural works, which are known as local, indigenous, rural, spontaneous, anonymous, vernacular or unarchitectural architecture; It covers not only the buildings for housing but all the buildings constructed by traditional methods (Bektaş, 2001). Hence, not developed by any expert; The traditional structures that emerge as a result of the location-specific needs and qualities are unique and worthy of protection in these aspects. But, the necessity of conserving these structures and rural settlements consisting of these structures has been understood recently.

Accordingly, it is seen that rural settlements and the identities they reflect are not documented yet in many parts of the world and our country and there are no studies to conserve them.

Many cities in our country, especially in Anatolia, are surrounded by rural settlement areas specific to the region. A limited number of these conserved areas have been documented and brought to future generations through various conservation practices. However, most of them are not documented in any way; some have started to lose their original qualities. In this sense, this situation is also observed in Malatya region which is one of the prominent areas in Anatolia with its adobe architectural identity. In Malatya region where there are rural areas worth conserving with original mudbrick structures, it is seen that there is almost no information and documents about these settlements. The aim of this study is to emphasize the conservation and sustainability of the rapidly disappearing rural adobe architectural heritage through the Malatya region, which is one of the most intense areas in Turkey. Within the scope of the study, mentioning the developments in the world and in our country for the conservation of rural areas; in the light of these developments, the condition of rural areas with earthen density in Malatya region has been examined and suggestions have been made for the conservation of these areas. In this context, the study has been handled within the framework of conservation, sustainability, rural protection and adobe material in rural areas. As a working method, literature studies on the subject have been conducted and investigations in sample areas have been carried out with these researches. As a result, it is thought that the study will contribute to the conservation of rural adobe architectural heritage both in our country and in the world through Malatya region.

2. BACKGROUND OF CONCEPTUAL FRAMEWORK

The conceptual framework of the study constitutes the phenomena of conservation, sustainability, rural conservation and adobe material in rural areas. Hence, firstly, it is thought that examining the general characteristics of these concepts will be useful in the context of evaluating the settlements considered within the scope of the study.

2.1. Conservation and Sustainability

It is possible to take the history of the concept of conservation up to the beginning of the building art by considering that there are a small number of architectural works that have survived in their original form (Ahunbay, 1999). Starting from here, when the conservation activities carried out throughout history are examined, the basic question of the architectural conservation action can be

expressed as to which structure is to be protected and why (Tanaç Zeren, 2010). The question can be answered that physical and cultural heritage should be protected and transferred to future generations because of the elements that determine the identities of rapidly changing people and societies today (Ulusoy Binan, 1994). In this context, it is possible to state that the worn-out architectural heritage has undergone various repairs and conservation in order to survive. However, there are many differences between conservation concepts that have been discussed in the past and present. At the beginning of these differences, the adoption of protection in the past, usually on a single structure scale; Nowadays, this scale has expanded and reached the historical environmental dimension.

The process of transforming the idea of conservation into a scientific field of work began in the 19th century. Especially with the French Revolution that took place in 1789, the interest in the medieval buildings that were damaged increased and studies were carried out for the restoration of these buildings. Thus, the first steps of today's conservation applications were taken. (Kuban, 2000). However, the legal process on the concept of conservation, which began in 1931 with the resolution of Carta del Restauero, was elaborated by the Venice Regulation in 1964 and continued with the Amsterdam Declaration published in 1975 (Madran and Özgönül, 2005). These legal studies, which contain important explanations for the correct orientation of conservation practices, have been supported by many more detailed and inclusive laws and regulations.

When the evolution of conservation concept in the world and the development of applications in this field in our country are examined; It is possible to state that there were works aimed at the restoration and transfer of the buildings to the future, even though it was different from the conservation understanding of the present period, especially during the Ottoman period. Since the Republican Era, increasing works in this field have been detailed in the Law No. 5226 on the Conservation of Cultural and Natural Heritage. In addition, many legal studies in the field of conservation in the world are being followed and evaluated in our country.

Considering the relationship between conservation and sustainability in architecture; firstly, it is striking that sustainable approaches aim at minimizing the natural environment to harm the natural environment. In this context, the concept of sustainability has recently been discussed in architecture, which is one of the leading disciplines constituting the artificial environment. However, these debates and the practices in this field are quite new compared to the developments in the world. Therefore, both in urban Turkey, both located in the rural environment and sustainable buildings which have many attributes

structure has been lost due to lack of work done in that area or is about to be lost. In this sense, while sustainability in architecture contributes to the protection of the structural and cultural heritage of the past, it is thought that the artificial environment to be organized in the future will contribute to the design of the environment in a way that will cause the least harm to the nature.

2.2. Conservation and Sustainability of Rural Architectural Heritage

In the development process of the concept of conservation from past to present, the evaluation of the accommodation places where ordinary individuals live as cultural assets first emerged as a result of the Industrial Revolution at the end of the 18th century (Eres, 2013). Thus, the conservation action on a single structure scale is not only a monumental or symbolic structure; and modest housing. With the rapid migration of the rural population to the cities in the mentioned period, the transformation process started in rural areas as well as in urban areas. This transformation in the traditional rural areas has made it difficult to transfer the original architecture produced by the peasant-farmer society to future generations; For this reason, it has come to be considered as the cultural heritage of the architecture in question (Eres, 2013).

Traditional rural architecture, in the definition of the World Vernacular Architecture Encyclopedia "... includes all houses and other structures built by the public. It was built with the possibilities of the chosen environment and available materials, mostly by the landlord or local craftsmen using traditional techniques. All forms of folk architecture are aimed at meeting specific requirements; it carries the traces of culture, lifestyle, economic activity and values behind these requirements "(Çekül, 2012). In this context, the most important characteristics determining the characteristics of traditional rural architecture are;

- Geographical location and climate,
- Traditions and customs,
- It is possible to state that there are forms of production and consumption (Muşkara, 2017). Additionally;
- Constructing the buildings by the people who are raised by master-apprentice relations,
- Harmonization between natural and built environment,
- Ability to enlarge and develop structures according to needs,
- Characteristics such as shaping building sizes and shapes according to economic data also reflect the general characteristics of traditional rural architecture (Kısa Ovalı & Delibaş, 2016).

While the process for the conservation of traditional rural areas, which has become cultural value with its unique characteristics, is rapidly developing and progressing in the world; it is not possible to say that the rural areas in our country are in a good state of protection (Eyüpgiller & Eres, 2016). Starting from this point, it is thought that examining the development of this process in the world and in our country will be beneficial in order to understand the reasons and results of the developments in this field.

The process of achieving the concept of conservation from the single scale of structure to the historical environment dimension has progressed with the adoption of different studies, laws, regulations and recommendations issued as a result of various activities in this field in the world. In this sense, as one of the first legal works for the holistic protection of historical cities, the Malraux Law enacted on 4 August 1962 in France is an important step in the process. (Okuy, 2001). However, the 62 Preservation of the Identity and Attractiveness of Settlements and Natural Environments 19 organized by the United Nations Educational Science and Culture Organization (UNESCO) in Paris in 1962 and the recommendations adopted after this conference can be considered as an important study for the protection of rural areas. (Eres, 2013).

The concept of historical cultural existence, which is included in the first article of the definitions of the Venice Charter published in 1964, is not only an architectural work; In addition, the statements of a particular civilization, including urban or rural settlements, which bear witness to an important development and historical event, come to the fore with their emphasis on contributing to the protection of rural areas. (URL 1).

It has been observed that the efforts to protect rural areas have increased rapidly since the 1970s. International Colloquium of Folk Architecture organized in these years, Symposium on the Revitalization of Rural Sites and Folk Architecture Examples, Symposium on Built Environment and Complementary Natural Elements, 3rd Colloquium in Vernacular Architecture and Contemporary Life, Rural Architecture Symposium in Regional Planning and Architectural Heritage Colloquium in Rural Planning activities indicate that the 1970s were an important period in the context of the protection of traditional rural architectural heritage (Binan, 1999; Madran and Özgönül, 1999). In 1979, the Council of Europe's recommendation for the protection of rural architectural heritage was stated that this heritage is a value that must be protected (Madran and Özgönül, 1999).

The 1980s came to the fore with an emphasis on the change and destruction of rural architectural heritage (Eres, 2016). The activities such as the Rural Cultural Heritage Colloquium, the Colloquium for the Protection of Rural Landscape, the

Symposium on Architectural Heritage and Rural Development, and the 1st International Meeting of the Principles of Conservation and Restoration of Urban Rural Cultural Heritage in Earthquakes prepared the ground for new discussions in this area (Binan, 1999). However, in 1989, the Council of Europe's recommendations for the conservation and conservation of rural architectural heritage, the built and natural environment are mentioned as two important components of rural architectural heritage; It is emphasized that with the change of agricultural production, the social structure has started to change and consequently the traditional architecture produced by the rural society has entered the process of change and destruction (URL 2). In 1990, the Council of Europe's recommendations on the issue were made to address the inadequate infrastructure and transportation facilities of rural areas, thus reducing the population living in rural areas and making it difficult to protect the built environment (URL 3).

When the activities aimed at the conservation of rural areas in the world in the 1990s are examined, it is seen that the rural architectural heritage and the natural environment together with this heritage are conceptualized as "cultural landscape" (cultural natural environment) and evaluations are made on this concept (Binan, 1999). However, with the recommendations of the Council of Europe in 1995, the relationship between the conservation of cultural natural environment and environmental policies was emphasized. "It is defined as a defined region where the natural environment is determined by special forms of the earth, created by the effects of man and nature, showing the development of the society, its settlements and original qualities in time and space" (Eres, 2016).

The annual Heritage @ Risk reports by the International Council of Monuments and Sites (ICOMOS) indicate that the world's fastest degradation is in the field of rural architecture (URL 4). From this point of view, the problems related to the conservation of rural cultural heritage have been put forward with different activities both in Europe and in many other continents and many decisions have been taken to solve these problems. These decisions include the architectural heritage as well as all human values and the identity of communities; aims to preserve the abstract and concrete whole cultural heritage as a whole (Eres, 2013). In this context, while it is seen that the practices towards the protection of traditional rural areas have increased in developed countries in line with the decisions taken; however, in many countries, it is possible to state that rural architectural heritage has been rapidly changed and destroyed even without documentation.

Architectural conservation process in Turkey, has progressed more slowly in comparison to the developments in the world. It can be stated that the legal

arrangements made during this process started in the second half of the 19th century (Eres, 2016). In the Asar-ı Atika Regulations prepared during this period, houses with historical features were also mentioned as one of the buildings considered as antiquities (Zeren, 1981; Madran, 2002). In this sense, although there is no direct study on the protection of rural areas in the period in question, the fact that houses with historical characteristics are accepted as antiquities regardless of whether they are in rural or urban areas shows that historical houses in rural areas are considered as a value. However, in the Asar-ı Atika Regulations, conditions have been introduced for the protection of the environment of the antiquities. However, these legal studies, which show that the understanding of conservation of the period has gradually developed, have concentrated on the preservation of archaeological artifacts in practice and not to take them abroad; It is inadequate in terms of practices regarding the protection of the built environment (Akozan, 1977; Eres, 2016). From this point of view, it is possible to state that there is not a direct legal study and adequate implementation for the protection of rural areas in the Ottoman period.

As for the Republican Era, it was seen that the Asar-ı Atika Regulations were in force until 1973 with various changes. In 1951, the Supreme Council of Real Estate Antiquities and Monuments was established and many decisions were taken under the leadership of this committee to develop Asar-ı Atika Regulations. (Zeren, 1981). Board Venice Charter in 1967 in Turkey's acceptance of the application, be considered as an important step towards the protection of rural areas in terms of legal process (Durukan, 2004).

With the Law on Antiquities No. 1710 published in 1973, the concept of the site, which encompasses monuments and their environs, rests on a legal basis (Eres, 2013). In the second half of the 1970s, it was seen that the Supreme Council of Real Estate Antiquities and Monuments made decisions to protect urban sites. The first legal studies in which the definition of rural site is expressed separately from urban site are included in these decisions. A-1609, dated 14 April 1979, requires the submission of information and documents related to local building characteristics to the Board in order to determine the temporary settlement conditions in urban and rural sites. (Durukan, 2004).

Law No. 1710 on the Protection of Cultural and Natural Heritage entered into force on 23 July 1983, as the Law on Antiquities was inadequate in the context of implementation. However, this law does not include any definition that evokes the concept of rural sites. (Durukan, 2004). On the other hand, in the law, urban and regional qualities, architectural and art history in terms of physical characteristics, and the characteristics of the environment created by the socio-economic, socio-cultural structuring of the period, reflecting the way of life

together and reflecting the texture integrity of these areas. It can be stated that the definition of urban site includes rural settlements (Durukan, 2004; URL 5). An example of this is to be certified as an urban conservation of rural areas in various regions of Turkey and the integrity of the tissue preparation of the conservation plan can be shown that these regions (Durukan, 2004). One of the key developments for the protection of rural areas in Turkey is 3 October 1985 and approved the Law No. 3534 dated April 13, 1989 European Convention for the Protection of the Architectural Heritage. Some provisions of Article 10, in which protection policies are expressed in this Convention, are as follows:

“1. To include the preservation of architectural heritage among the main objectives in the regulation of rural areas and cities, and to ensure that this requirement is taken into account both in the preparation of regulatory plans and in the implementation of these plans;

3. Facilitate the adoption of protection measures whenever possible in rural areas and urban planning ...” (URL 6).

When the mentioned provisions of the convention are examined, it is possible to state that the architectural heritage is evaluated in two groups as rural and urban and both groups are given equal importance (Eres, 2016).

An important application for the protection of rural areas in 2000, Turkey Academy of Sciences (TUBA) and Turkey's Culture Inventory cooperation with the Ministry of Culture are working to establish the system (TUBA, 2001). In the system created, architecture inventory is considered under two headings as urban and rural; In order to better express rural cultural assets, a “rural architecture settlement and building voucher” was created specifically for the subject (Akin et al., 2003).

Turkey ratified the European Landscape Convention held on October 20, 2000 to 10 June 2003 and Law No. 4881 (Eres, 2016). Recognizing that the landscape is an important part of the quality of life for people everywhere in rural areas and outside the city, in degraded areas as well as in high-quality areas, in areas well-known for its extraordinary beauty, as well as in everyday areas; ... with the emphasis on rural areas (URL 7).

Despite the ratification of international agreements in many rural areas of conservation process in Turkey, compared to developments in the world it has been extremely slow. In this context, the evaluation process for the protection of rural areas in Turkey; Although examples such as Şirince, Yörük, Cumalıkızık have been found, it is possible to state that these areas were rapidly lost due to both legal deficiencies and the neglect of many settlements bearing rural architectural heritage value.

3. RURAL EARTHEN ARCHITECTURAL HERITAGE OF MALATYA

3.1. Rural Earthen Architecture

Soil, which constitutes the main component of earthen material, has been the basic material of the structures that people built especially for shelter since ancient times around the world. Despite all the developments in the field of construction today, in the 21st century, most of the people in many areas of the world still live in earth structures. While these structures provide housing for low-income people; On the other hand, environmental protection, energy saving, sustainability, such as the concepts of more and more come to the agenda has become preferred by high-income segments. (Kafescioğlu, 2017).

The concept of soil structure refers to all types and components used without firing (Kafescioğlu, 2017). The earthen structure is constructed by using the material obtained by mixing clay, ie clay soil, with plant residues such as hay, grass, bush (Çelebi, 2012). However, in some settlements, earthen structure can be built with sandy, marly and pozzolan soil; In some settlements, it can be stated that the special soils specific to the region are used in the construction of adobe (Kafescioğlu, 2017). In this sense, adobe, which can be formed with soils of different qualities, is defined in various sources as follows:

- "Raw bricks which are formed by pouring the soil put into water with slime in wooden molds mixed with straw and drying in the sun." (Arseven, 1956).
- "Poured into molds for use in masonry and dried in the sun." (Turkish Dictionary, 1974).
- "Straw and slime mixture, primitive and uncooked bricks." (Meydan Larousse, 1972).

Along with the definition of adobe, there are various terms for the production of adobe in our country. Some of these terms can be listed as:

Earthen pit: Places where soil is extracted in order to obtain mud brick.

Earthen mold: A tool usually made of wood to shape adobe mortar. It is also called "full" in some regions.

Cut earthen: give shape to adobe with wooden mold.

Ana: Large block adobe. Kuzu: Small block adobe.

Çaput: Cloth used for wetting and wiping the wooden mold. Çorak: Clay soil laid on soil drips.

Loğ Stone: Round stone used to fix and tighten the roof covered with soil.

Mihra: Pouring kerpic into molds. Künde: Molded garden wall.

Loda: A pile of adobe blocks. (Çelebi, 2012).

Although there are many building materials in the world, earthen materials have been preferred frequently since ancient times. The reasons for this preference are;

- Economic,
- Climatic,
- Technological,
- Functional,
- Traditional,
- The properties of the equipment. However;
- Easily accessible and inexpensive, especially in areas with low income levels,
- In areas where earthen is used extensively, past production behavior is mainly based on earthen; this situation becomes a tradition,
- Especially in our country, Anatolian people find the earthen building material more healthy than other materials,
- For ease of construction, the earthen material allows everyone to build their own shelter,
- One of the materials that best respond to climatic factors is earthen,
- Minimizing heating and cooling costs by providing natural air conditioning can also be listed as the reasons why earthen is preferred as a building material (Çelebi, 2012).

Earthen is preferred in both urban and rural areas for the reasons stated above. However, both economic activities are intertwined with nature and consequently the functional characteristics are directly affected by natural data; the need to pay more attention to traditional factors; and because the technological data are less effective, it can be stated that the use of earthen is more intense in rural areas than in urban areas. In this context, earthen production is frequently encountered both in many parts of the world and in our country, especially in rural areas in Anatolia.

When the rural areas where earthen material is dense in Anatolia are examined, it is seen that these areas are poor in terms of other natural building materials. In this sense, since the basic building material is soil in the mentioned areas, it is absolutely checked by the people who have been trained with the master-apprentice relationship whether the selected soil is suitable for building production. In addition, two types of additives to be added to the soil, plant

residues (straw, grass, reed, plant stems, pine leaves, tree branches, dry shrubs, etc.) and additives in terms of stones (sand, gravel, etc.) are also constructed. The water is brought into mortar with water. The prepared mortar is used with two different construction systems. These systems can be listed as;

- Massive earthen construction system
 - With earthen blocks,
 - With beaten earthen,
 - With mud brick,
 - With mixed earthen.
- Lightweight earthen construction system
 - With earthen block filling,
 - With cast earthen filling. (Çelebi, 2012).

The main element that gives the above-mentioned systems its name is the wall. It is possible to state that the systems in which earthen is used as the main building material are massive adobe construction systems. Among these systems, it can be stated that the most widely used building construction is the earthen blocks and the massive earthen construction system. Other solid earthen construction systems are more prominent in the construction of elements such as garden walls or in the production of temporary structures. (Çelebi, 2012).

Although earthen material is less emphasized today than many modern materials, it still contributes significantly to the welfare of almost every society. First of all, it reflects the concrete and intangible values of societies due to the intensity of their cultural qualities; however, it contributes positively to social, economic and environmental issues in a natural and cultural context by serving the common goals of sustainable development globally and locally. (Guillaud, 2014). In this sense, it is possible to state that the use of earthen material, especially in rural areas, is an important data in terms of examining the concrete and intangible characteristics of traditional rural architecture.

Turkey, under the influence of civilization which should make both the strategic location has been home to a rich cultural and architectural heritage. In this sense, it is possible to state that our country has a long-established history in terms of rural architectural heritage.

It is possible to find traces of unique rural architectural heritage in almost every region of Anatolia. Part of this heritage, which is made up of local materials and constructions built for needs, consists of earthen structures. The use of soil material in construction together with other natural materials is found in many

rural areas; especially in some regions, soil stands out as the main building material and is used extensively in this sense. These regions can be listed as Kırşehir, Malatya, Elazığ and Van (Çelebi, 2012) (Figure 1).



**Figure 1. The regions where earthen is most used in Anatolia
(Bahtiyar Karatosun and Olğun, 2018)**

3.2. Rural Earthen Architectural Heritage in Malatya

One of the four regions where the most intense of earthen structures in Malatya in Turkey. In Malatya, where many examples of earthen structures have been lost in urban areas, these building examples are still encountered in rural areas. However, many developments in recent years have led to the transformation and extinction of earthen samples in rural areas. In this context, documenting and conserving the rural earthen architectural identity of the region is of great importance. On the other hand, when literature and application studies on the conservation and sustainability of rural earthen architecture in Malatya region are examined, it is seen that the number of studies conducted in this sense is almost nonexistent. In order to shed light on these studies, it is thought that firstly examining the general characteristics of Malatya region will contribute positively to the evaluations to be made in this field.

Malatya is one of the most well-known Anatolian cities. Located in the Middle Euphrates basin, at a point where the strategic paths of the region intersect, Malatya has become one of the main settlements of Anatolia thanks to its geopolitical location. (Gögebakan, 2002).

Malatya is located on the Tohma, Kuruçay and Euphrates valleys and the plateaus and mountains around these valleys located in the Upper Euphrates Section to the west of the Eastern Anatolia Region. Surrounded by Elazığ in the east, Erzincan and Sivas in the north, Adıyaman in the south, Kahramanmaraş in the south, and Diyarbakır in the southeast, Malatya is spread over an area covered with mountains. (Demirbağ, 2013) (Figure 2).



Figure 2. The location of Malatya (It has been arranged with URL 16 and URL 17).

When the literature on Malatya is examined, it is seen that the settlement and its environs are one of the oldest living spaces in human history. Especially in 1908 and after, studies on the history of Malatya increased and the history of the city was unearthed with various excavations. In this sense, Malatya has been used as a settlement area since the Neolithic Age. Malatya, which was the scene of important settlements in Neolithic, Chalcolithic and Old Bronze Ages; Hittite, Assyrian and Urartu periods has continued to maintain its importance. (Ağaldağ, 2016). However, especially during the Assyrian period, the city's name was Melit, Melid, Melita or Melidda; In the Hittite period it is known that Maldiya, Malitâ, Melid and Meliddou (Delaporte, 1940; Kinal, 1962; Honingmann, 1991; Albright, 1992; Oğuz, 2000).

When the architectural development process of Malatya is examined, there are many works that are influenced by different cultures. Many monumental works, especially those built in the 14th century and later, have survived. However, the civil architectural works built during the late Ottoman period and reaching to the present day are of great importance in terms of examining the architectural development process of Malatya.

As in many Anatolian cities with the Republican period, there have been fundamental changes in architecture in Malatya. Malatya, which is among the rapidly growing and developing cities of the region it is located in, has built many buildings with the architectural understanding and styles of the period (Çakan and Olğun, 2018).

Malatya, today as a rapidly developing settlement receiving immigration, is also undergoing architectural changes. In this context, many values were lost in the settlement in terms of architectural development process; however, it can be stated that as time passes new values are gained.

As one of the most abundant settlements in our country, Malatya region has many examples of earthen structures in both urban and rural areas. When the literature related to the region is examined, it is seen that there were many earthen structures in the urban area of Malatya which had different functions in the past; however, most of them were lost before they reached the present day. However, many earthen mansions, examples of civil architecture in the city, were also lost; only some of these structures have survived.

With the decrease of earthen building stock in the urban area in Malatya; earthen buildings peculiar to the region have started to disappear in rural areas. As the reasons for this;

- Abandonment of earthen structures in rural areas due to rural to urban migration,
- The average age of earthen building users in rural areas is high and the elderly population is not able to maintain these buildings,
- The earthen building users do not want to apply maintenance to these buildings periodically and therefore demolish the earthen buildings and build reinforced concrete structures,
- Due to the lack of earthen building master, developments such as the reinforced concrete construction of newly constructed buildings in rural areas can be listed.

The aforementioned reasons have led to the transformation process of many rural areas consisting of traditional buildings in the Malatya region. However, there is no information or document on the many earthen structures in the region that have been lost or are about to disappear. Documentation and implementation studies on protected rural areas are very few.

In order to examine the general rural character of the Malatya region, two earthen rural settlements located in the wall and central settlements of the region are largely preserved; The Beybağı and Seyituşağı neighborhoods were particularly investigated. These areas, which passed from village to neighborhood status with the law numbered 6360 adopted in 2012 and have the characteristics of a rural settlement, contain many important data in the context of earthen building stock and the conservation status of this stock. In the light of the evaluation of these neighborhoods in the context of rural earthen architecture, it is thought that data will be obtained for the protection of the region in general in this sense.

3.2.1. Beybağı Neighbourhood



Figure 3. Location of Beybağı neighborhood

The Beybağı neighborhood in Darende, one of the settlements in the Malatya region, which can be stated on the wall of the region, draws attention with its conserved earthen texture (Figures 3, 4, 5, 6). In this context, considering the general characteristics of the neighborhood, the population, which was 240 in 2013, dropped to 173 in 2017; Based on this, it can be stated that the settlement population is decreasing gradually. However, it can be stated that the main source of income in the settlement is livestock. While historical data about the settlement cannot be accessed; During the interviews with the villagers, it was stated that the village was founded in the late Ottoman period. When the data on the scale of planning and architecture regarding Beybağı was examined, it was observed that there was no study as a map, but all the buildings in the settlement were built with earthen materials and traditional construction technique. The residential buildings in the settlement are located in clusters consisting of two or more earthen houses gathering around a courtyard. Considering the space setup of these two-storey buildings; with the welcoming space entered from the courtyard and the living area integrated with this space; kitchen, bathroom and bedroom units can be accessed from the entrance to the living area. On the upper floors, which can be reached by a staircase outside, there are usually bedrooms lined up around a corridor. The courtyard is used extensively for most of the day, especially in the summer; however, it is also considered as a workshop where various productions are made. (Figures 7, 8).

When the related literature is examined, no data on the social structure of the settlement can be found. As a result of on-site investigations, it was found that a large part of the village inhabitants lived in the cities; they preferred to be in the

village at certain times of the year. Most of the people living in the villages of the villages are from professional groups such as lawyers and doctors. In this way, most of the inhabitants of the cities continue to repair and use their earthen structures.

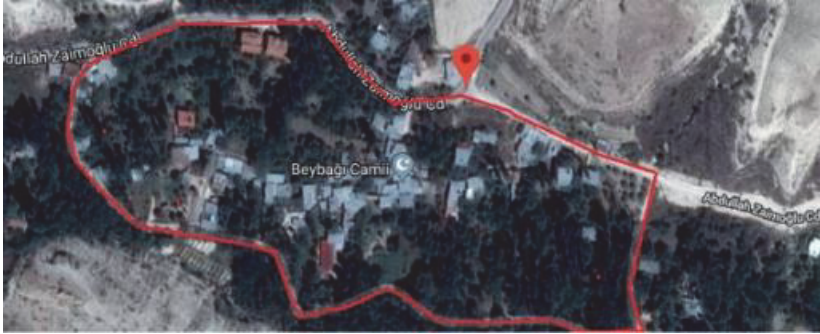


Figure 4. Beybağı neighborhood residential area



Figure 5. Site plan of Beybağı neighborhood

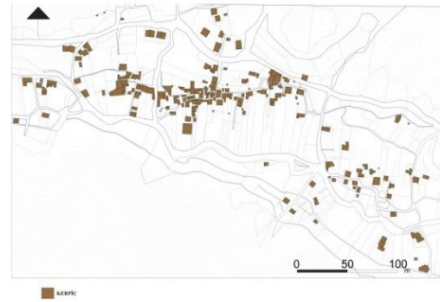


Figure 6. Beybağı neighborhood buildings' construction system analysis



Figure 7. The number 10 house of Beybağı Neighborhood



Figure 8. The number 14 house of Beybağı Neighborhood

As a result of the interviews with the users and the studies carried out in the field, the factors that provide protection of rural earthen architecture in the region can be listed as follows:

- In terms of belonging;
- Knowledge of the local people about the many positive qualities of earthen structures,
- In the cultural context, the use of these structures as valuable heritage from past generations,
- Considering these structures as richness specific to the region,
- Maintenance of earthen structures by users every year,
- In terms of the comfort conditions offered by the buildings;
- The use of earthen structures for holiday and recreation purposes; in this sense, it provides the comfort conditions expected by the users,
- The fact that the indoor temperatures of the buildings are quite low compared to the outdoor temperature in the summer months where the buildings are used in climatic terms.

3.2.2. Seyituşağı Neighbourhood



Figure 9. Location of Seyituşağı neighborhood

Seyituşağı Neighborhood, located in Yeşilyurt, one of the settlements in the Malatya region, which can be stated to be in the center, attracts attention with its conserved earthen texture (Figures 9, 10, 11, 12). In this context, considering the general characteristics of the neighborhood, the population, which was 171 in 2013, increased to 207 in 2015; it is seen that it decreased to 185 in 2017. It can be stated that the population of the settlement changes irregularly. However, it can be stated that the main source of income in settlement is livestock.

When the data on the scale of planning and architecture regarding Seyituşağı is examined, it is seen that there is no study as a map, whereas all the buildings in the settlement are built with earthen materials and traditional construction technique; only the building in the cemetery was found to be reinforced. The residential buildings in the settlement are arranged as one or two floors. Considering the space setup of these structures; It is observed that the entrance to the building is provided directly from the street and there are rooms lined up around the corridor, which can be considered as a welcome place. In two-storey buildings, the same fiction is seen on the upper floor. (Figures 13, 14).

When the related literature is examined, no data on the social structure of the settlement can be found. As a result of on-site examinations, it was learned that a large part of the village people reside in Istanbul and rarely visit the village. The majority of the other population of the village is the retired and returning to the settlement.



Figure 10. Seyituşağı neighborhood residential area

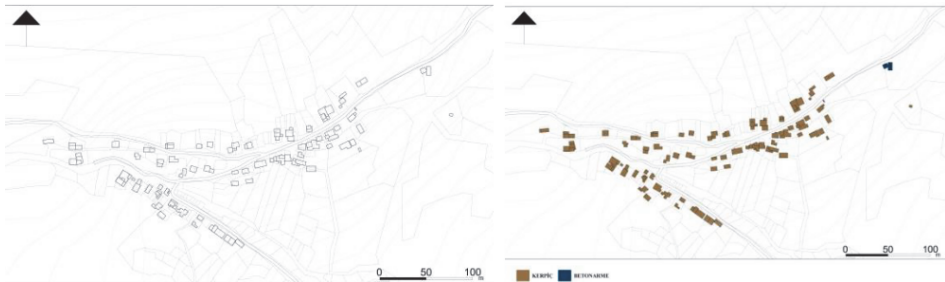


Figure 11. Site plan of Seyituşağı neighbourhood

Figure 12. Seyituşağı neighborhood buildings' construction system analysis



Figure 13. The number 10 house of Beybağı Neighborhood



Figure 14. The number 14 house of Beybağı Neighborhood

As a result of the interviews with the users and the studies carried out in the field, the factors that provide conservation of rural earthen architecture in the region can be listed as follows:

- In terms of belonging;
- The local people evaluate the earthen structures more positively in economic terms,
- The use of earthen structure is established as a culture,
- Many of the local people have previously lived in reinforced concrete structures for a long time and this situation is evaluated as negative,
- Regular maintenance of adobe structures by users.
- In terms of the comfort conditions offered by the buildings;
- The use of earthen structures for holiday and recreation purposes; in this sense, it provides the comfort conditions expected by the users,
- The fact that the indoor temperatures of the buildings are quite low compared to the outdoor temperature in the summer months where the buildings are used in climatic terms.

4. CONCLUSION

The efforts towards the conservation and sustainability of rural areas have gained momentum both in the world and in our country in recent years. However, the fact that the studies carried out in our country started quite late compared to the world caused many qualified rural areas to be destroyed before even the certification could be made. In this process, many rural areas were partially conserved. The most important rural areas are settlements with earthen density.

With its many positive qualities, earthen, which is frequently preferred in our country's rural settlements in Anatolia, is a material that can be lost rapidly if the necessary maintenance is not performed. In this context, it can be stated that most of the original earthen structures were abandoned due to neglect or they were demolished to be replaced by reinforced concrete structures.

Located in Malatya in Turkey where most of the settlements density in rural areas is of earthen, earthen architecture identity of the rapidly changing situation, as in other rural areas is concerned. In this context, Beybağı and Seyituşağı rural areas, where earthen structures are conserved to a great extent, have inspiring qualities in terms of transferring these original values to future generations.

Beybağı and Seyituşağı neighborhoods, located in the central and periphery settlements of Malatya, appear as rare rural areas where the earthen building density is high and these structures are conserved to a great extent. Nevertheless, the original space fiction of the houses in the said settlements has been preserved in many buildings; In this context, it makes it worth to examine these areas in terms of providing information about earthen building culture. From this point of view, although it is known that efforts to protect rural areas in our country are behind the developments in the world; The fact that the two rural settlements examined could be conserved in the natural process is an important development in the context of detecting conservation problems and developing suggestions for the solution of these problems. In this sense, the earthen usage is intense and the problems related to the conservation of the rural areas are as follows:

- The decline in the population living in rural areas with the changing living conditions,
- The population leaving the rural areas for various reasons should not return to these areas again,
- In buildings that require periodic maintenance and are generally maintained by large families, today few or old population live and therefore the buildings cannot be maintained,

- Knowing the importance of traditional buildings and the necessity of their sustainability by protecting them; lack of adequately educated population,
- The culture of living has changed and accordingly, living spaces cannot respond to new needs,
- Economical problems.

When the protection and sustainability phenomena reach today, it can be seen that various solutions can be developed for the above mentioned problems. In this context, in order to overcome these problems, the following studies are recommended:

- To analyze the reasons of the population living in rural areas to leave these settlements and to develop solutions for these reasons,
- Elimination of legal and physical problems for residences and other structures that make up the living spaces of the population leaving the rural areas,
- Explaining the importance and protection of traditional structures in many ways with appropriate training methods for users,
- Depending on the changing living culture, carrying out studies to arrange traditional buildings to meet new needs without losing their original qualities,
- Providing the necessary economic support in terms of efficient use of traditional structures and their transfer to future generations.

As a result, traditional earthen structures are important values that should be conserved in our country as in many parts of the world. In this sense, it is considered that the study has pointed out that these values are correctly preserved and transferred to future generations.

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