



DOCUMENTING RURAL ARCHITECTURAL HERITAGE: ANKARA FETHIYE VILLAGE

Özlem SAĞIROĞLU¹

Arzu ÖZEN YAVUZ¹

¹Gazi University, Faculty of Architecture, Department of Architecture, Maltepe / Ankara. TURKEY

Article Info

Received: 30/07/2019

Accepted: 30/09/2019

Keywords

Rural architecture,
Fethiye Village, Adobe,
Masonry Systems, Wood.

Abstract

Fethiye is a village in Kahramankazan District, Ankara province, Turkey. The village was established on the slopes of the eastern slopes of the Ayas mountains towards the Akıncı plain and has been the subject of settlement since ancient times; it is known to have been present in the 1500s and before. With the establishment of TAI facilities in 1984 and the registration of residents in the Akıncı air base social facilities to the village population, the population has increased dramatically with the advent of the Apostate plain, which is located next to the village with a population of around 500 people. With the increasing population, the raider quarter, which was re-established around the village, caused the village to undergo change and transformation. The vast majority of the village people have moved on to the new neighbourhood, where reinforced concrete new housing is available, leaving – or demolishing – their existing housing. Some of the people have demolished their old houses and built new reinforced concrete houses within the village where comfort conditions can be improved. The dwellings, which constitute elaborate and original examples of Central Anatolian rural architecture, were left to crumble and the majority of them were destroyed by atmospheric effects during this process.

The work carried out within the scope of this paper covers the determination of the original village settlement characteristics, the establishment of the structures and typologies of the structure elements and the analysis of the traditional construction technique. In the context of structural system analysis, the properties of mudbrick and wood, which are the building materials of the houses, were evaluated and the sections, junction details and qualities of the buildings were determined and presented.

Since the majority of them were abandoned, no work has been done to date on Fethiye Village Residences, which are in the process of rapid deterioration and destruction. The study of Central Anatolian rural architecture is also very limited. With this work, it aims to document these original examples before their destruction and to create resources for future work.

1. INTRODUCTION

Fethiye village is a village settlement located on the eastern slope of the Ayaş mountains towards the Apostate (Akıncı) plain, which is nowadays connected to Kahramankazan District of Ankara province. In the southwest of Kahramankazan District, 13 km from the district center, the settlement's land extends to the borders of Xinjiang and Ayas district. The village is built on the sediment cones from the steep and high slopes of the eastern slopes of the Ayas mountains, formed by the slopes of the Akıncı (apostate) plain, and is a settlement with rich geological formations, consisting of Northeast seks. The region is also rich in fossil deposits and has extensive deposits in the context of the trona (Natural Soda Ash) mine (Erdogan, 2009).

The wealth of the village's groundwater makes the village favorable in terms of vineyard-garden and field agriculture. The village also has large and small head animal breeding with poultry.



Figure 1. Human map showing location of Fethiye village (a) (web1) and Google earth image (B)[^]

Erdogan refers to the region as a residential area from ancient times with reference to historian Ramsay; the route of “Via Taura” (holy pilgrimage road), which was the transportation route from Ankara to the Northwest during Roman times, passes through the village (Erdogan, 2009). The ruins of Grentius (Girindos), an important town settlement of Galatians, have been preserved as an archaeological site and are located very close to the village.

The oldest information about the existence of the village can be obtained from the Ankara Tahrir notebook dated 867H/1463M. In this notebook, the village was found to be present within the karye (village), hamlets and farms attached to the administrative unit of “Murtad (apostate) Plain”, with the name “Girendost”. In the Ankara Tahrir notebook of 1463, the nahiye of “Murtad Plain”, which is among the administrative units of the Sanjak of Ankara, was named “Murtaza-abad” accident in the Ankara Tahrir notebook of 1530, and in this notebook the Fethiye village was registered with the name “Girendus”. Also in this book, it is stated that half of the annual tax revenue of the village is connected to the Ankara Melike Hatun Madrasa Foundation. 1311h / 1895m in the Ankara province of Salnamesi zir accident between Kazan villages with the name of Girindos existing village, with the declaration of the Republic was named Fethiye (Erdogan,2009).

In the village, there are currently 70 households with users, with a population of 6585. The actual population of the village is 306, but personnel working and residing here at the Akinci air base and TAI social facilities located within the village limits are also included in the village population in the census (web1).

2.GENERAL DETERMINATIONS

A case study was conducted in March 2015 to determine the current state of the structures in the study area. Within the scope of the study, features such as natural data for the whole area, construction system and condition, number of floors and function were identified.

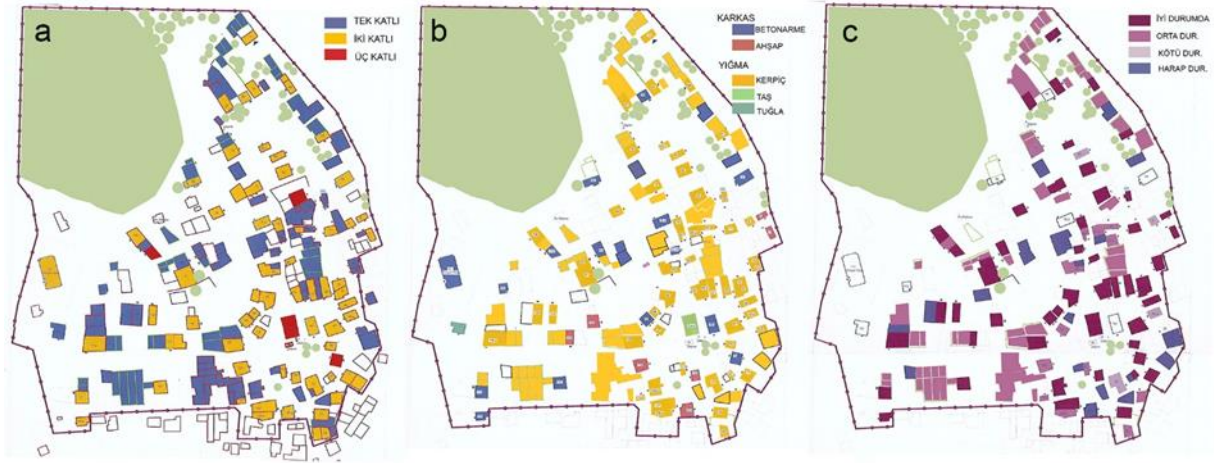


Figure 2. The number of floors (a), construction system (b) and structural status (C) are determined in the field.

Within the scope of the findings made in the area, 78 of the 142 existing buildings were found to be single-storey, 60 units were 2-storey and 4 units were 3-storey. The vast majority of single-storey structures are used as outbuildings, barns or warehouses.

The majority of the structures in the work area are built with Adobe masonry system (Figure 3c). The ratio of these structures to the structures in the area is 85%. The number of structures with other construction systems in the area is 22 units, including 2 pieces of stone masonry (Figure 3a), 13 pieces of reinforced concrete and 7 pieces of wooden carcass system (Figure 3b).



Sekil 3. Examples of masonry stone, masonry Adobe and wood carcass brick infill structures

² Case study, lecturer .Dr. Özlem Ortaklıoğlu carried out the M611 coded 'Rural Architectural Heritage And Conservation' graduate course which is being carried out by Gazi University Graduate School of Natural and Applied Sciences. The students who participated in the field study are Asım Tahir Basoda, Begum Akdan, Burcu Yıldırım, Esin Aktay, Emine Sanatkar, Ilkay Ayaz, Merve Kaya, Serap Güney, Sevinç Duygu Yalvaç and Seyma Tekin.

Within the scope of the determinations made in the field, the structural States of the original structures were also identified, and these determinations were covered under 4 main headings in the context of the following criteria::

- Structures in good condition: structures that require simple repair without structural problems
- Medium structures: structures that do not have structural problems to pose a Risk
- Structures in poor condition: structures with structural problems that are at risk of collapse
- Ruined structures: structures that cannot be seated or destroyed

The examination found that 35% (50 units) of the structures were in good condition; 48% (68 units) were in medium Condition; 3% (4 units) were in poor condition; and 14% (20 units) were in dilapidated condition. Since the structures in the study area were 13 pieces of reinforced concrete - not original – the structural situation was excluded from the scope of the examination.

3.PROPERTIES OF MUDBRICK MASONRY STRUCTURES IN THE AREA

The majority of the original structures in Fethiye village were built in Adobe masonry technique (Figure 4). The majority of these structures have simple or structural problems due to short-term use or abandonment. The review of the structures was carried out under the following headings.

3.1. Structural elements

Foundations

It was not possible to obtain detailed information about the foundations of the structures. However, with the examination of the demolished structures, it can be seen that the foundation is continued in the form of masonry walls up to the level of flooding or below the ground floor window. In this section, rubble stones with rounded surfaces collected from the vicinity were used; while they were used, it was noted that their smoothest surfaces were matched to the exterior. The mortar used among the Stones is soil-based, and the presence of rotten plants or hay in it has been determined by the eye. Kafescioğlu found that in rural dwellings built in this area, the foundation level was rarely below 1 meter, and again it was rarely made wide of the wall (Kafescioğlu, 1949).

Walls

The walls of the buildings in the study area were constructed in the form of massive masonry adobe walls (Figure 4a). No thick or sparse wooden skeleton was seen in any structure. The mudbrick section of the walls begins after the masonry stone wall is finished at the level of flooding and is leveled with wooden calligraphy. The wooden hatillas used at this stage were made of coarse wood branches or of smooth-cut wood. It is possible to see properly cut wood more densely in the recently built (1950 and later) of the structures. Wooden calligraphers are connected to each other in the corners by kertme method, and in early specimens they were often left sloppy without cutting (figure 4b).

It is possible to see the use of wooden calligraphers as lintels at the top and bottom of the windows and on the door , between the floors and at the end of the wall, except for the passage from the masonry masonry to the masonry adobe wall(Fig4c). In a small number of examples, there is also the application of intermediate lines at various distances (such as 100-150 cm).

The main Adobe dimensions used in the walls (25x38x12 cm, 20x30x11 cm) vary. For this reason, it is not possible to say a certain measure of Adobe. However, it has often been found that the walls are built with the use of complete and half pieces (main and lamb) together. There has not been much attention paid to joint baffling in the wall braids. Kafescioğlu states that this was caused by both carelessness and the breakdown of brittle mudbrick (Kafescioğlu, 1954).

Although the wall thickness varies between 50-80 cm, it is usually formed by the use of 2 full halves or 2 half full pliers. There are also more mudbrick walls. Soil mortar was used as a binding between the mudbrick and it can be determined with the eye that hay or sand is mixed into it. This mixture, which was used as mortar, was also used for plastering the wall². The houses, many of which are in disrepair today, have serious deterioration in their plaster and in connection with their walls. However, there are buildings in good condition in the houses that are continuously inhabited because the plaster process is repeated every few years.

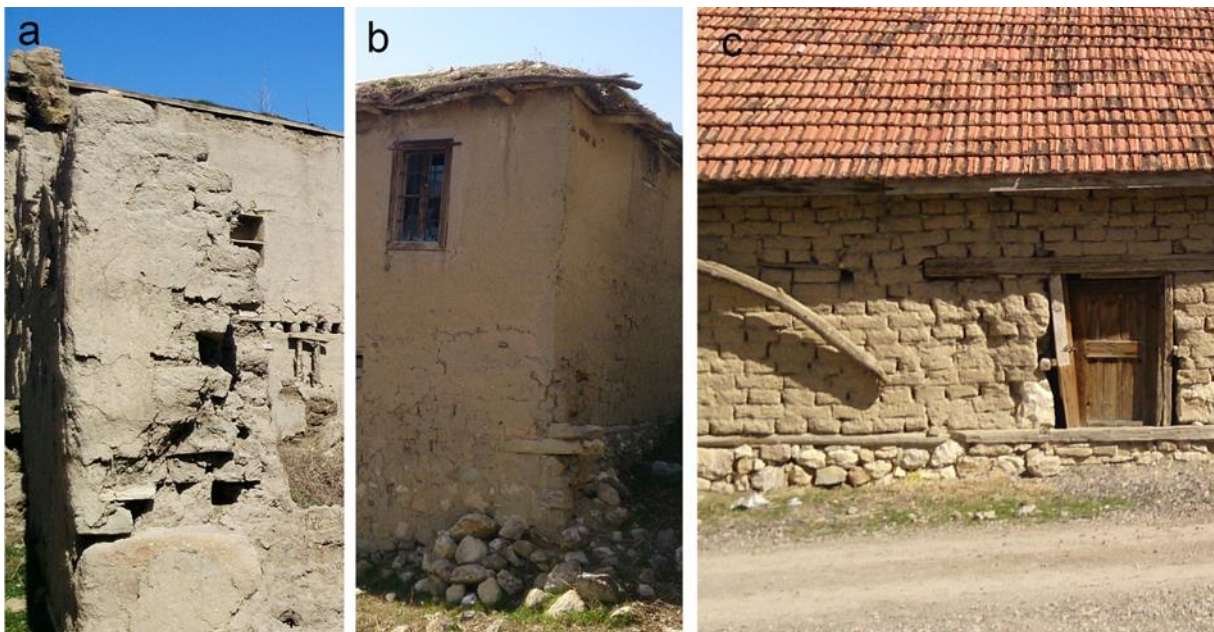


Figure 4. Examples of Adobe and calligraphy

Floors

Floors on the ground floors of the buildings in the study area were left as compressed soil. Oral information obtained from the residents of the houses; plaster used for the hay – soil mixture was laid to the ground floor and compacted with the tile was obtained has been determined. Kafescioğlu states that the height of this mixture is 6-8 cm (Kafescioğlu, 1954).

The upper floor tile is obtained by extending the rough wood logs into the mudbrick wall. The top of these wooden beams is berkitted with more spaced wooden beams in the opposite direction in some dwellings. The range of logs ranges from 20-50 cm. Wood cladding boards are applied directly on these logs or insulation is provided by sedge bundles and soil. No application of sedge bundles and soil (bulgurlama) was observed in the houses that can be entered into the area. But information from building owners has also enabled the existence of such applications to be identified.

³ See: Karakul, Şahin Güchan(2016) for production and construction of kerpicin in Fethiye village.



Figure 5. Photos that show the top floor tile

Roof (Dam)

There are 2 types of roof applications in the buildings in the area. The first of these is the soil dam application (Fig6a,b), and today only examples of dilapidated structures or single-storey outbuildings can be seen. Since an example of this type of dam is under constant care, no measurement of the slope of the dam has been made. However, the observations made, 12-15 cm rough wood tree branches 30-50 cm after laying, 2 types of application has been made on the determination. The first is the laying of thin branches in opposite directions at intervals or very short intervals and covering them with a dense soil of lime (barren). The second type of application is the use of straw bunches or wicker cover instead of tree branches. Examples of this type of application have often been encountered in the field (figure 6b). In this type of application, the application of barren bunches on the harvest and then compression is made. Since this soil (barren) coating was made again every few years, it has not been possible to tell exactly its original thickness. However, Kafescioglu found that this layer was made as thick as 20 cm (kafescioglu,1954).

In other structures, ground dams were removed over time and the application of breaking or gable roof was made (Figure 6 C,d). Since they were made in the late period, the roof coverings have survived to the present day as Marseille-type tiles.



Figure 6. Photos on top cover: earthen dam (a, b); gable roof (c, d)

3.2. Architectural Elements

Open and closed jumps on façade

2 types of jump on façade were identified in the structures in the area. The open jumps on façade forming the first type were designed to form a protective fringe, usually on the axle of the street door, but also on

the door. Only one exception (figure 7g) has been found to be in the door axle of the Open jump on façade. The tiles of these exits are usually at the same level as the tiles (Figure 7a, e), as they are formed by extending the wooden rough beams that form the flooring in the structure towards the outside of the structure. In some examples, it was also observed that two thicker wooden rough beams extended out of the structure were placed between the beams in the opposite direction (Figure 7 b,c, d).

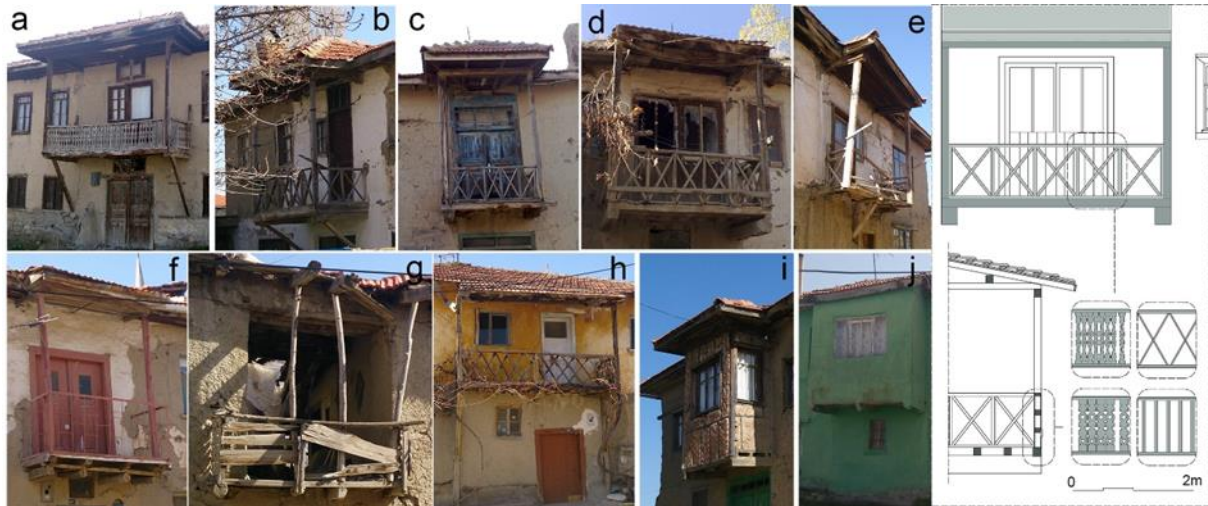


Figure 7. Open and closed jumps on façade

The balustrades of open jumps on façade constitute a typology for the village, as they are usually designed in the same way (Fig7b, c,d). These balustrades were formed by designing the cross between the Struts, which were set at different intervals between the wooden base and the handrail, with finer pieces of wood. However, 4 different types of railings were identified in the study (Figure 7-detail). One of these examples is found in the village.

Above the open jumps on façade are closed by extending the roof to the carrier struts at the exit corners. In a small number of examples, it has been observed that the dating with wooden buttresses is entrenched (Fig 7a,b).

Closed jumps on façade, which constitute another type of jump on façade in the field, are available in fewer instances. These examples were created and carried out by extending the trim beams outwards, as in open jumps on façade (Fig7i, j).

Windows

Since the majority of the buildings in the area are reserved for service units such as ground floor storage, haystacks and animals, they are designed in different sizes (Fig8a), far from forming a specific type of Windows.

But the upper floor, which is the living space, has qualified wooden windows in the original examples. 6 types of original windows have been identified (Figure 8 detail) some of these windows also contain examples of qualified wood carving (Fig8c) in the village, where the type of triangular upper pediment window seen in Ankara and its surroundings is also seen as dense.

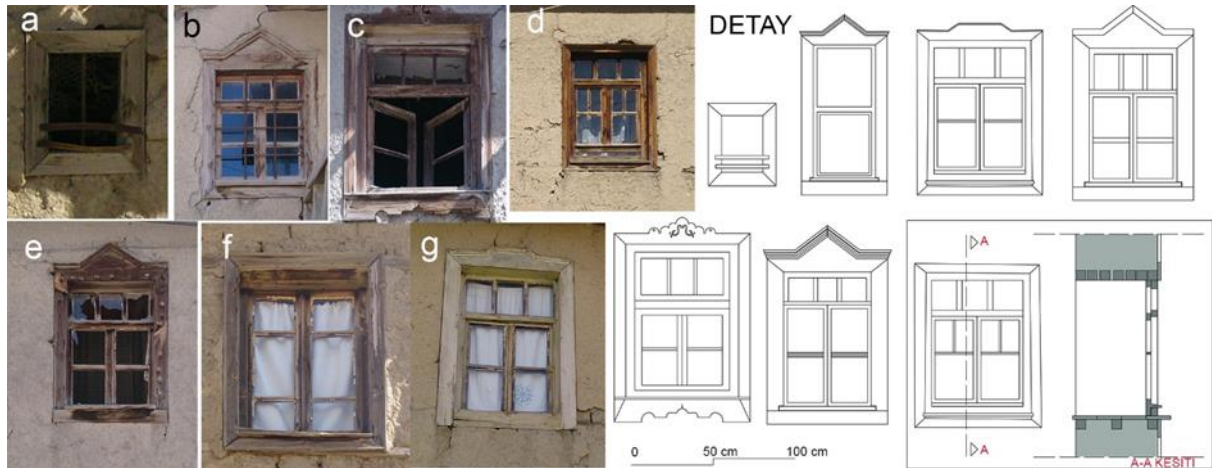


Figure 8. Windows

Doors

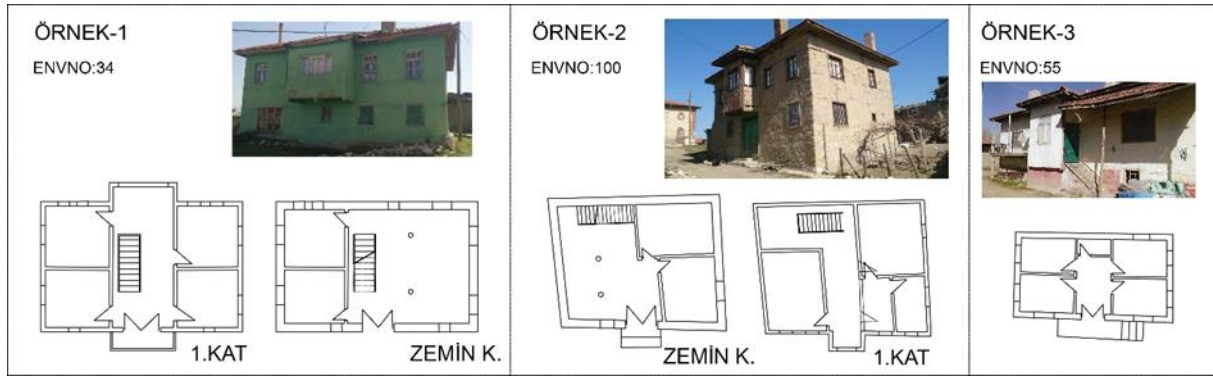
The entrance doors of the building are constructed with double wings and wide so that the animals can also enter. There are also narrow skylights on the door moldings in some of the doors, which are constructed from wood with Ara belted and tabla.



Figure 9. Doors

3.3. Plan Organization

In March 2015, when the field study was conducted, it was possible to enter 3 residences and talk to 6 families (survey) because the majority who used the structures during the periodical – summer season had not yet arrived in the village; and some of the structures were also abandoned. Therefore, it was not possible to remove the plan typology of the buildings in the village. But the 2 - story examples 1 and 2 have generated data in the context of detecting the location of the on-off Exit, which determines the location of the common use area. In this context, the location of the exit in other original residences suggested that the common use area of the vast majority of the houses was behind this exit.



A study by Karakul and Şahin Güchan (2016) states that the common use area is called 'zeygah', zeygah is designed narrower than the sofa in a traditional Turkish residence, and usually has a small wooden balcony with a street connection (Karakul and Şahin Güchan, 2016).

In two-storey dwellings that can be enclosed, the ground floor has often been used for storage activity. Information from the local population is that in the past, there were also stables for cattle on the ground floor, but in recent years there have been no animal feeders, so these spaces have been transformed for storage purposes.



Figure 11. No. 2 (Env.No:100) interior photos of the residence

The upper floor is built as a living space for the family. On this floor there is a kitchen (ashhane) with rooms. It was observed that cooking activities were carried out using a scuba cooker – tube in the ashhouse in the houses that can be identified in the area, and it was determined that the elements for cooking were removed over time. However, Karakul and Şahin Güchan (2016) found that there was a cooking stove in these places and that meals were also cooked in addition to bread prepared on a weekly basis (Karakul and Şahin Güchan, 2016). There are also niches with simple unadorned lids and pieced tereks in ashhane spaces (Fig.11a).

The rooms of the residences, however, are quite simply constructed and have loads and niches. Today, looms are used for different purposes, such as lifting the covers and putting on television, for everyday clothes and other items, as well as using non-fixed cabinets placed inside the venue, on the basis of houses that can be entered (figure 11b). The niches preserved in their original form are functionally qualified (fig11c), with a fairly simple lid.

The toilets, although unique in the garden, are taken into place today. As with the housing with inventory number 100, there are examples where bathroom - toilet was removed from the room, as well as examples (Fig .10-Sample2); there are also examples where toilet was obtained by adding a space into the zeygah (Fig.10 - sample3).

4.EVALUATION AND CONCLUSION

Fethiye village is a rural settlement with a history of nearly 600 years and still has original examples in terms of Central Anatolian rural architectural heritage. With its dwellings built with mudbrick masonry technique, which has been in use since the earliest times in history, the document bears value. However, these dwellings are in the process of extinction due to the fact that landlords have abandoned or demolished their buildings in the area and built reinforced concrete dwellings instead.

In the field study, surveys conducted with residential users (6 users could be done) showed that while housing is warm in winter , non – humid - healthy-and cheap in the economic context of the region , in the context of positive features, the lack of hygiene conditions, the inability to establish the desired communication and relationship due to the fact that close relatives have emigrated to Kahramankazan Although housing users are all homeowners, they want to build new housing and sit in new housing because of the difficulties of providing affordable and technical infrastructure that can afford it. Many see the need for permanent plastering of houses as the biggest problem, and talk about the disruption of their business, such as paying bills and shopping, if there are no private vehicles.

The present situation of the majority of the houses in the village is not in good condition due to the fact that they require maintenance and repair, even if they do not have structural problems. The majority of household users are 40 years of age and older, and the young population does not remain in the village because of the difficulty of these jobs can be seen as the reason for many of them to leave their homes. However, if necessary, repairs are made with cement-based material, which leads to larger problems in structures during the long process.

Because of the scarcity of users in the field, businesses such as grocery – butchers and schools have closed. TAI neighborhood (lodgings), which was established in the continuation of the village, has become a district used only in the evenings. The villagers stated that the residents stayed outside the neighborhood during the holidays. With all these negative situations, the large amount of migration of the village poses a major problem in the protection of this tissue and the village by using it.

As a result, the migration of the user in the village and the exclusion of the dwellings, the continuity of the traditional economic and ecological materials used in rural architecture, the continuity of the construction and living culture of the region, as well as the originality of the rural areas formed by the user - structure and natural landscape leads to the loss. It is inevitable that these values will be lost by the separation of the end users who try to perpetuate this spirit by representing social culture and memory. For this reason, it is urgent that the sustainable conservation approach, which is the principle of rural development, be implemented as soon as possible for Fethiye village, as in many rural regions of Turkey.

REFERENCES

- Başoda, A. T.; Akdan, B.; Yıldırım, B.; vd. (2016). *M611 Kırsal mimari miras ve korunması dönem araştırması* [Lisansüstü ders Ödevi]. Gazi Üniversitesi Fen Bilimleri Enstitüsü, Ankara.
- Erdoğan, A. (2009). *Geçmişten Günümüze Kazan*. Ankara: Kazan Belediye Başkanlığı Kültür Yayınları.
- Kafescioğlu, R. (1949). *Orta Anadolu'da Köy Evlerinin Yapısı*. İstanbul: İstanbul Matbaacılık, T.A.O.
- Karakul, Ö., Şahin Güçhan, N. (2016) "Ankara kırsalında geleneksel konutların yapım tekniklerine bir örnek: Fethiye Köyü- Kazan", Ö. Çobanoğlu, Z. Kaderli, P. Karataş, B. Acınan (Der.). *IV. Kazan Uluslararası Halk Kültürü Sempozyumu Bildiriler* içinde, (ss. 855-866), Ankara: Hacettepe Üniversitesi, Türk Halk Bilimi Bölümü Yayınları.
- Web1. www.ankarafethiye.com (Erişim: Haziran,2017)