CHAPTER 1. INTRODUCTION

This chapter provides an overview of the doctoral dissertation where critical information is presented. It indicates the research background and the statement of the problem to define research originality and objectives. It also represents how primary and secondary data are collected for the objectives of the research, selection method and brief introduction of the case study areas to provide a background information for the dissertation. Finally, it also presents the framework and structure of the dissertation.

1.1 Research Background

Vernacular architecture represents natural features of the settlements as well as social, economic and cultural features of societies which have been formed in respect to the local people's needs, in long time periods, and transferred from generations to generations (Oliver, 2006). The main influencing factor in vernacular housing formation is the values which are the generators of living ways, activities and behaviors (Rapoport, 1998, 2005). Culture, tradition, economy, religion, and climate are the other factors which are underlying forces in the vernacular house formation (Saleh, 2004). In that sense, vernacular architecture constitutes tangible and intangible heritage of the societies. It also contributes to the local identity of the communities. It has significant functions to maintain local identity, values and social structure (Graham, 2005).

On the other hand, globalization and modernization experienced in the world have drastically changed the lifestyles of people, which are also reflected on their living spaces and settlements. As a result, the unique characteristics of the communities have been homogenized, local identities are dedifferentiated and heritage is negatively affected from this process. However, in 1978, Aga Khan stated that *"We must ask ourselves how we can prevent future architectural development from accelerating the loss of our cultural identity. ... We must acknowledge that the world is changing, but in doing so, we must realize that there are still many lessons that must be drawn from the past"* (Holod, 1980). As it can also be understood from this saying, it is crucial to conserve vernacular architecture in the contemporary world.

Therefore, there have been various researches and projects conducted in the world, including in Turkey, focusing on the significance, characteristics and conservation of the vernacular architecture. For instance, the historical development, material and construction systems in the vernacular houses in Turkey have been widely studied in the previous studies (Sümerkan, 1989, 1990; Özgüner, 2017; Güler & Bilge, 2014; Aydın & Alemdağ, 2014; Gür & Batur, 2000; etc.).

Despite of the fact that there are various studies dealing with the vernacular houses in Turkey, the conservation activities, or the rural conservation activities, to be more precise, are still in the early stage. It is

highlighted in the several studies that the definition, regulation and activities for the rural conservation activities in Turkey are ambiguous or there is no mention on the vernacular heritage conservation in the existing policies. Although Eminağaoğlu and Çevik (2007) claims that there are several attempts by the Turkish government in this aspect, they are not detailed and not sufficient for the real-life applications. As a result, several researchers advocate for more researches on the conservation of rural vernacular heritage in Turkey should be conducted (Çelik, 2005; Eminağaoğlu & Çevik, 2007; Eres & Akın, 2010; Eres, 2013; etc.)

Considering all those factors, this research focuses on the conservation of vernacular houses in the rural areas of Trabzon. The case study of Trabzon is selected intentionally as it has characteristic features compared to the other vernacular houses in Turkey, which is also mentioned in one of the benchmarks of vernacular studies - namely "Encyclopedia of Vernacular Architecture of the World"-. In addition to that, local government's ongoing attempts in the focusing area for rural conservation, which have been recently initiated, make the region more attractive for the research. Since the architectural conservation process has not been completed and there are few limitations, it is considered that it is a crucial time to research on this issue in the rural areas of Trabzon.

1.2 Statement of the Problem

The concept and implications of architectural conservation have not been fully developed in Turkey. Until recent decades, conservation efforts have always focused on the architectural heritage located in the urban areas and the rural areas have often been neglected in this respect. As a result, the number of academic studies focusing on the identities of the urban environments and urban heritage is more than the ones focusing the heritage in the rural areas which have resulted in the loss of rural heritage, even without documented (Eres, 2016). Unfortunately, this process has caused negative impacts on the rich architectural heritage in Turkey, which have been shaped by the various cultures, climatic conditions, resources and traditions throughout the history, thanks to the strategic location of the country.

Lack of detailed regulations for the rural conservation, sociocultural, economic and technological changes in the rural communities have been resulting in the various changes in the rural settlements and in the vernacular houses. However, the number of studies trying to figure out the current condition of the vernacular houses, needs and expectation of the inhabitants, points to be improved for the future housing units, etc. are limited. That is why, this study concentrates on the existing situation of the vernacular houses and residents' perception of the conservation issues, in order to provide conservation strategies which can improve the current condition of the vernacular houses, without negatively affecting the authenticity of the vernacular heritage.

1.3 Research Objectives

The objectives of this research are mentioned below:

- To examine and to document the current condition of existing vernacular houses in the selected case study areas located in the city of Trabzon, Turkey.
- To find out the spatial, functional and morphological changes of the vernacular house which are made by the residents and the reasons behind them.
- To understand current conservation activities, to identify possible challenges and the points to be improved for the future practices.
- To discuss possibilities of a new conservation approaches which can promote more continuous architectural conservation practices and sustainable rural environments.

1.4 Research Scope

This study focuses on the current condition of vernacular houses and conservation issues in the rural areas of Karacakaya, Üstündal, and Dirlik in Trabzon, Turkey. The changes made to the vernacular houses, residents' desire for architectural conservation as well as the difficulties faced, conservation activities in the rural areas are presented. Because of the seasonal stay and the population changes in the rural areas, the data collection could be conducted in the August – September period in 2016 and 2017. The conservation activities initiated by the regional conservation board are still in the beginning stage. Therefore, this study can be utilized for the future conservation practices in the region. It is also expected to use such data for future housing solutions and rural design guidelines for sustaining local heritage, environment and identity in the region.

1.5 Research Methodology

In order to meet the objectives mentioned in the previous section, this research utilizes the concept of the case study research method. The research site is decided to be the rural areas of Karacakaya, Üstündal, and Dirlik which are located in the district of Sürmene, in the city of Trabzon, Turkey. The site is selected with respect to various factors such as the rich socio-cultural, natural and historical background (Ertaş et.al., 2017), a variety of construction techniques (Sümerkan, 1990), and the existence of the vernacular built heritage which is figured out during the preliminary survey of this research. Also, recently initiated conservation activities, changes in the population and easier accessibility are some other factors affecting the case study selection.

The research is implemented with the help of fieldworks and desk works which are conducted for the primary data collection and secondary data collection (Figure 1.1). The primary data are obtained through the fieldworks where architectural documentation, photographic documentation, and non-participant observations are

made. In addition to that, semi-structured questionnaire surveys and the informal talks with the owners of the vernacular houses are also conducted during the on-site data collection phase.

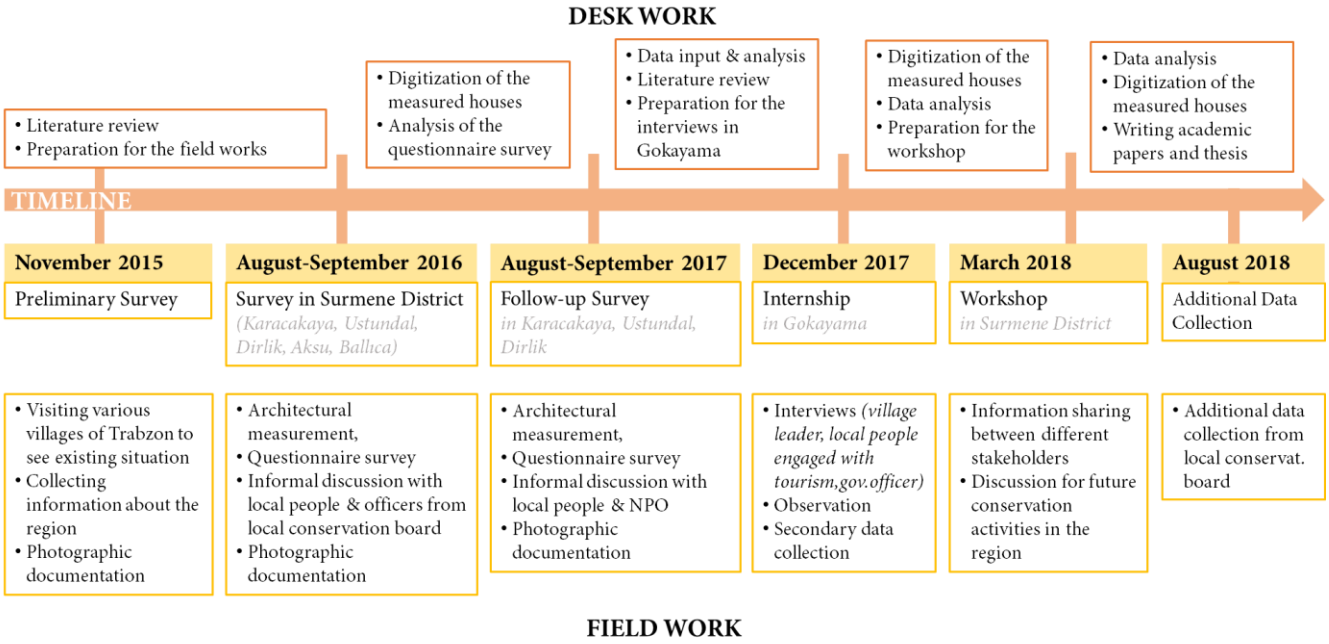
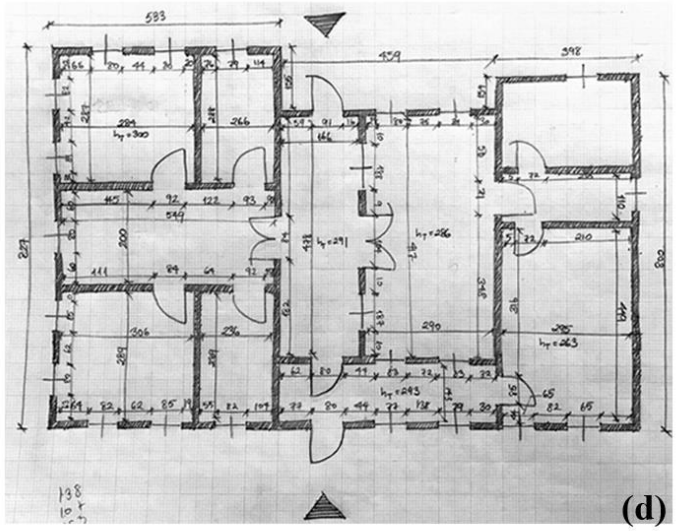


Figure 1.1 Research process.

Besides the primary data, the secondary data are also used for this research to form the background of the research as well as to support the primary data gained. For this purpose, an extensive literature review and analysis are undertaken by reviewing the published books, academic papers, guidelines, manuals, organizational reports, etc. The data provided by the local government, regional conservation office, and local NGO in Trabzon are also collected in addition to primary data collection.

After making an initial investigation of the issues of vernacular architecture and conservation, a more detailed research is carried out in the context of Turkey. Following that, the same issue is investigated in the local context of Trabzon throughout the literature review. After that, a preliminary survey was conducted in the various villages of Trabzon in November 2015. The aim was to understand the real situation in the rural areas and to point out villages with greater number of vernacular houses. In this survey, it was found out that rural areas located on the eastern part of Trabzon City Center have a greater number of conserved vernacular houses.

Following the preliminary survey, main surveys are conducted in August - September, 2016 and August - September, 2017 (Figure 1.2).



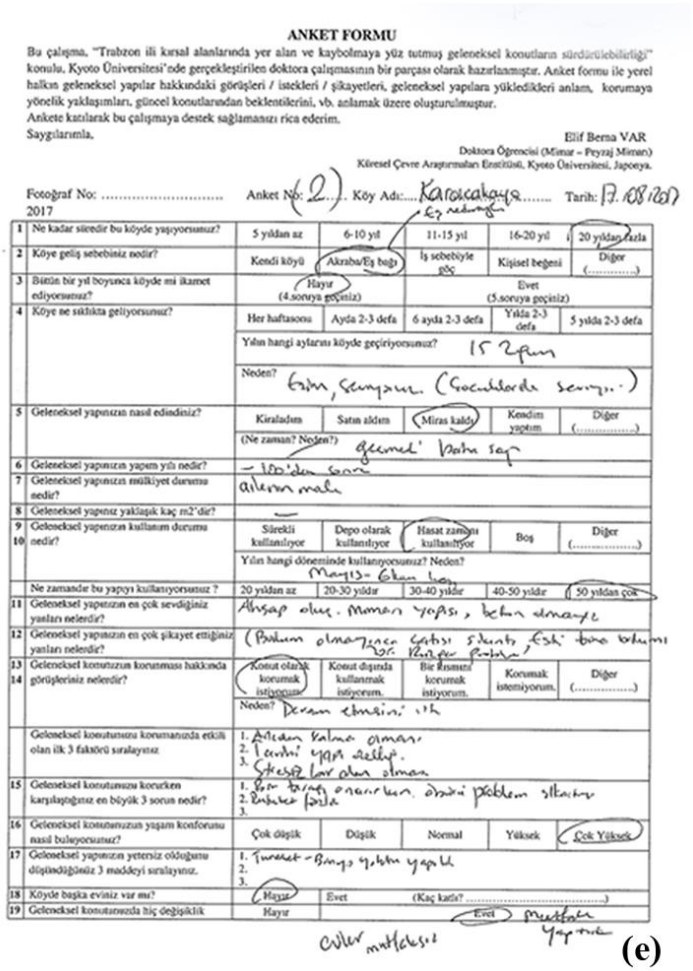


Figure 1.2 Fieldwork activities in Trabzon: (a) Exterior measurement survey, (b) Interior measurement survey (c) Questionnaire survey, (d) Sample on-site drawing of a vernacular house, (e) First part of the questionnaire survey.

During the fieldworks architectural measurement surveys are done to figure out the existing situation of the vernacular houses and changes made by users. The survey is done from the exterior of the vernacular houses in the first place. If the landowner is in the village and gives the permission, the interior measurement is also made. In order to gain more information about the history of the vernacular houses, rural settlements and the residents' perception for the conservation, semi-structured questionnaire surveys as well as non-participatory observations are conducted. The questionnaire survey consists of close-ended questions which are supported by the limited number open-ended questions. Various questions are asked to the residents to understand their perception towards conservation as well as changes in the village, the maintenance activities for the vernacular houses and difficulties faced, socioeconomic and demographic background, etc.

The architectural measurement survey covers 74 vernacular houses in three villages. It is found out that 15 of them were abandoned (See Appendix 1 & 2). 40 out of remaining 59 households participated in the questionnaire survey. The main reasons for having limited number of answers are related to the unavailability of the residents at the time of the survey (whether not in the village because of the seasonal stay or not in the house due to agricultural/personal works), or not willing to participate the questionnaire survey.

In the last stage of the data collection, a workshop entitled as "Existing Situation of Vernacular Houses in Karacakaya, Ustundal, Dirlik Areas and Rural Conservation Practices in Japan" is organized in Sürmene, Trabzon (Figure 1.3). The workshop was held in Sürmene Kulaçzade Ahmet Cultural Center *(Sürmene Kulaçzade Ahmet Kültür Merkezi)* on March 23, 2018.

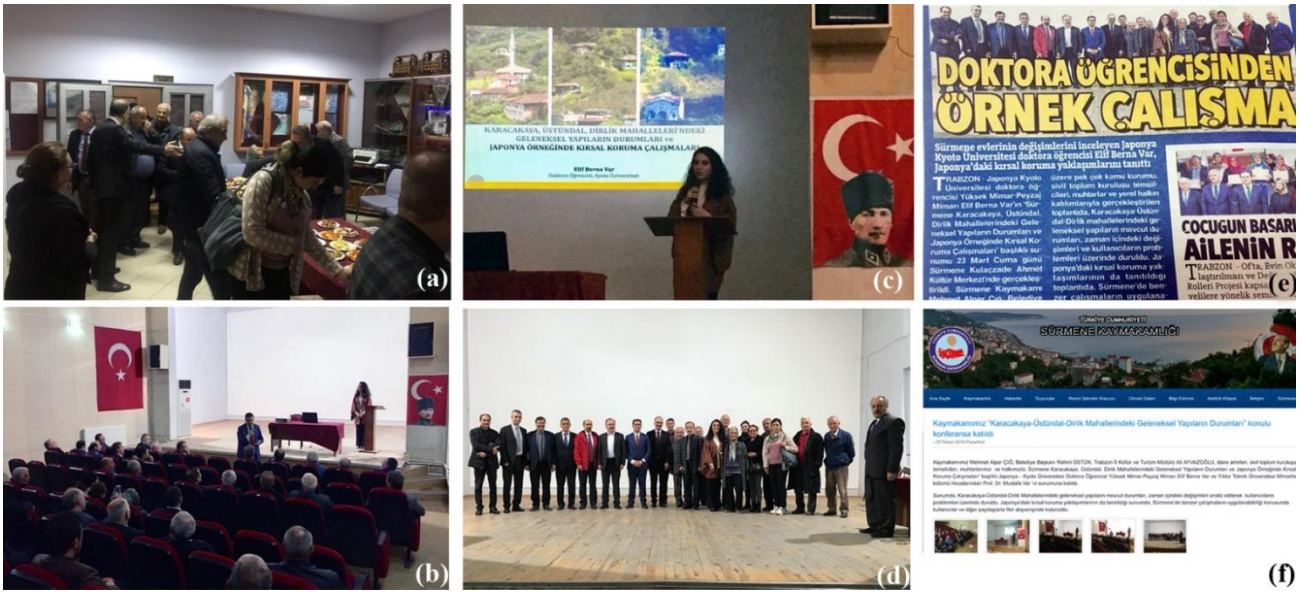


Figure 1.3 Workshop held in Sürmene, Trabzon: (a) Welcome session for the workshop, (b) Comments from the District Governor, Mr. Çığ, (c) Presentation by E.B. Var, (d) A group photo with some of the participants, (e) A newspaper article about the workshop (Karadeniz, 26.03.2018), (f) An online article (Resource for (f): URL 1).

The workshop is participated by the various stakeholders, including the governmental and non-governmental groups. Sürmene District Governor, Major of Sürmene District, Trabzon Provincial Director of Culture and Tourism, officers from District Directorate of National Education, head and members of a local NGO (Doğa - Tarih), professors from Karadeniz Technical University are some of the participations of the workshop. Also, the head of several villages including Karacakaya, Dirlik, Üstündal, and Gültepe, and some of the local people also took part in the event.

During the workshop, the research in the rural areas of Karacakaya, Üstündal and Dirlik, in Trabzon as well as the rural conservation practices in Japan are introduced. Also, an interactive discussion session is conducted focusing on the applicability of new rural conservation activities containing an essence of the Japanese conservation practices in the villages in Sürmene, Trabzon. Making and tremendous impact on the participants and in the press, the event is provided a good opportunity to start a participatory process in Sürmene, to discuss the nature of rural conservation activities in the future and to expand the network of researcher for upcoming activities.

1.6 Outline of the Case Study Areas

This research is carried out in the rural areas of Trabzon City, located in the northeastern part of Turkey (Figure 1.4). Trabzon has a mountainous terrain and a mild climate with a high precipitation throughout the year. Because of these factors, the city is prone to the landslides. Although the district centers and the city are located along the Black Sea, the rural areas are mostly located in the inland areas. Therefore, this research focuses on the mountainous areas of Karacakaya, Üstündal and Dirlik which are around the Manahoz River, in the eastern part of the city.

Geographically, Karacakaya is located on the western side of the Manahoz River. On the other hand, Üstündal and Dirlik are located on the eastern side of the valley and adjacent to each other. Three sites have hilly topography, whereas Karacakaya has relatively milder land formation comparing to that of in Üstündal and Dirlik.

These rural areas are significant as they were located on the historic trade routes and home to Muslim and Christian communities, enriching the socio-cultural background of the villages. Also, the rich natural resources, unique architectural traditions, and seasonal population changes in the region are some other characteristics of the region which were effective on the site selection of this research. However, as it has been experiencing in other rural areas, the case study areas have been also encountering various spatial and social changes which are reflected in the living spaces. Therefore, rural settlements have been undergoing a transition where various changes are made to the houses, including the vernacular ones.

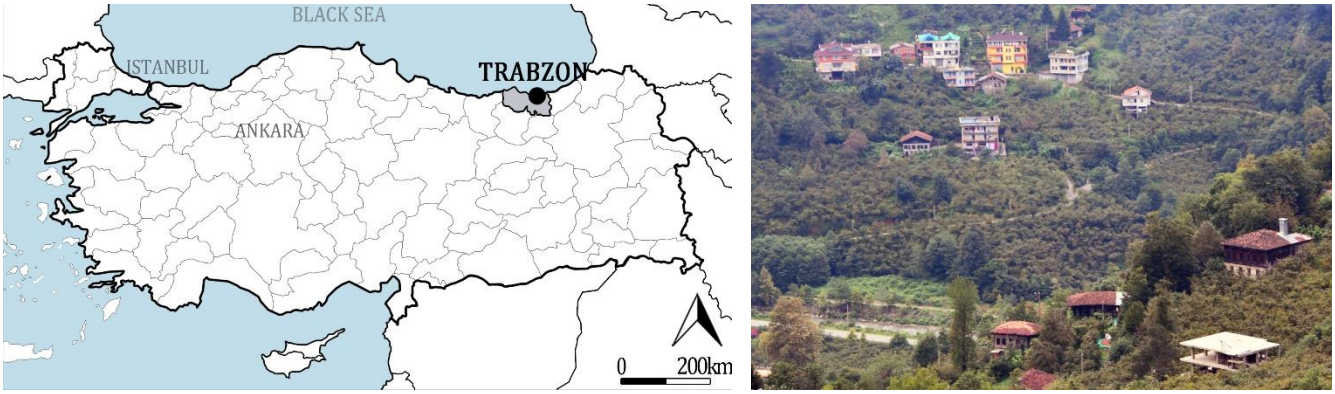


Figure 1.4 Location of the city of Trabzon and the focusing area (left), partial view of Üstündal (right).

Since, the changes made by the inhabitants are the expression of the insufficient parts of the vernacular houses or the new desire and need of the current communities, it is important to understand the changes occurred in the vernacular houses. Also, changes may cause irreversible impacts on the vernacular architecture which is a part of the heritage. Therefore, it is crucial to conserve the vernacular architecture in a proper way.

However, when this research was first initiated in 2015, there were no conservation activities in the case study areas conducted by the governmental bodies. However, Karacakaya and Üstündal areas have been officially announced to be a conservation area in 2017. In the case of Dirlik, although the registration process has already initiated by the regional conservation board, it has not been completed, yet as of March, 2018.

1.7 Literature Reviews

The term "vernacular architecture" is a wide and ambiguous concept which has been trying to define by various researchers, in different time periods (Asquith & Vellinga, 2006). Although there is not a well-accepted universal definition, it often refers to an architectural style which is shaped by the climatic conditions, local materials, culture, and local craftsmanship to meet the needs of local people. In other words, it is a physical representation of the natural, socioeconomic, and cultural characteristics of the communities. It has been formed in a long time, by trial and error method and transferred from generations to generations. Therefore, it constitutes a significant part of the heritage, crucial for local identities and common memory of the communities (Oliver, 2006; ICOMOS, 1999).

However, globalization has resulted in various changes, including economic, cultural, architectural homogenization, and significant lifestyle changes, threatening the survival of vernacular built heritage. One of the most common and serious problems of vernacular architecture is the consideration that vernacular houses represent living standards or low economic status (Oliver, 2006). Unfortunately, this way of thinking, migration

to cities, changes in the living style, etc. have caused the modernization, deterioration, abandonment or decaying of the vernacular houses, neglecting the socio-cultural, intellectual and historic significance of them.

The vulnerabilities of built vernacular heritage in the contemporary life have been pointed out in various global meetings (Council of Europe, 1985; ICOMOS, 1996, 1999; etc.) and academic studies (Debaieh, 2009; Aikpehae et.al., 2016; etc.). It is a must to safeguard vernacular built heritage for the future generations with the full richness of their authenticity and cultural reference (ICOMOS, 1964, 2011; Council of Europe, 1975, 1985, 1989; etc.). Considering the challenges and vulnerabilities of the vernacular houses, it is a very crucial time to take proper actions for the survival of the vernacular architecture. At this point, conservation plays a significant role in identifying, documenting, and safeguarding vernacular built heritage.

The issues affecting the architectural conservation process have been discussed broadly in the last decades and various factors are highlighted to have impacts on the process, such as continuous care, shared values, community involvement, financial capacity, and so on (Akasah et.al. 2011). Among them, involvement and support of the community are considered to have vital roles in the conservation of the vernacular built heritage which have been pointed out during various global meetings (Table 1.1). In the global meetings mentioned in the Table 1, crucial points are highlighted for the success and continuation of the conservation activities, including the appreciation by the public and younger generation (Amsterdam Declaration, 1975); involvement and support of the community, continuing use and maintenance (Charter of the Built Vernacular Heritage, 1999); empowerment and participation of local communities in the heritage conservation, planning and in decision making (Paris Declaration, 2011), etc.

From this point of view, it is understood that the local people's level of appreciation for vernacular architecture, perception of the architectural conservation and participation have vital impacts on the success of the conservation process. However, this concept is often neglected in the case of Turkey, despite of some exceptions. Therefore, it is aimed to understand the residents' perspective on the vernacular architecture and conservation related issues in the rural areas due to the literature review pointing out the lack of sufficient regulations and activities in the rural areas. For this purpose, it is considered that it would be more meaningful to focus on a research site where the conservation activities are in the initial stage so that this study would be more helpful. Therefore, the rural areas in Sürmene District which was briefly explained before are selected for this study.

Table 1.1 Decisions showing the importance of community participation in the architectural conservation process.

Year	Name of the Meeting	Decision
1975	The Declaration of Amsterdam	"The architectural heritage will survive only if it is appreciated by the public and in particular by the younger generation."
1985	Convention for the Protection of the Architectural Heritage of Europe	"With a view to widening the impact of public authority measures for the identification, protection, restoration, maintenance, management and promotion of the architectural heritage, each Party undertakes to establish in the various stages of the decision-making process, appropriate machinery for the supply of information, consultation and co-operation between the State, the regional and local authorities, cultural institutions and associations, and the public."
1994	The Nara Document on Authenticity	"Responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to that which cares for it."
1996	Principles for the Recording of Monuments, Groups of Buildings and Sites	"As the responsibility for conserving and maintaining the cultural heritage rests not only with the owners, but also with conservation specialists and the professionals, managers, politicians and administrators working at all levels of government, and with the public."
1999	Charter of the Built Vernacular Heritage	"The appreciation and successful protection of the vernacular heritage, depend on the involvement and support of the community, continuing use and maintenance."
2005	Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas	"Co-operation and engagement with associated and local communities is essential as part of developing sustainable strategies for the conservation and management of settings."
2011	The Paris Declaration on Heritage as a Driver of Development	"… To encourage their (local communities) empowerment and their participation in heritage conservation, in the planning process and in decision making. Local participation, drawing on local perspectives, priorities and knowledge, is a pre‑condition of sustainable tourism development."
2012	World Heritage Convention - World Heritage and Sustainable Development: "the Role of Local Communities"	"We reiterate the important role of communities, including local communities and indigenous peoples, in the implementation of the World Heritage Convention, in accordance with one of its five strategic objectives, the fifth "C" adopted in 2007, and the Strategic Action Plan 2012-2022."
2017	Principles for the Conservation of Wooden Built Heritage	"The principles recognize the relevance of community participation in protection of the wooden heritage, its relation with social and environmental transformations, and its role in sustainable development."

1.8 Research Framework and Thesis Structure

This thesis consists of three main parts and seven chapters (Figure 1.5).

The first part consists of the Chapter 1 and 2 which forms a background for the research. **Chapter 1** introduces the research background, main objectives, and methodology. It also presents the literature review, introduction of the case study areas and research framework. The following chapter, **Chapter 2**, expresses the historical and conceptual development of architectural conservation in the world in general, with a more focus in the case of Turkey. Several case study areas are also introduced in the later parts of this chapter to provide a better understanding of architectural conservation activities in Turkey.

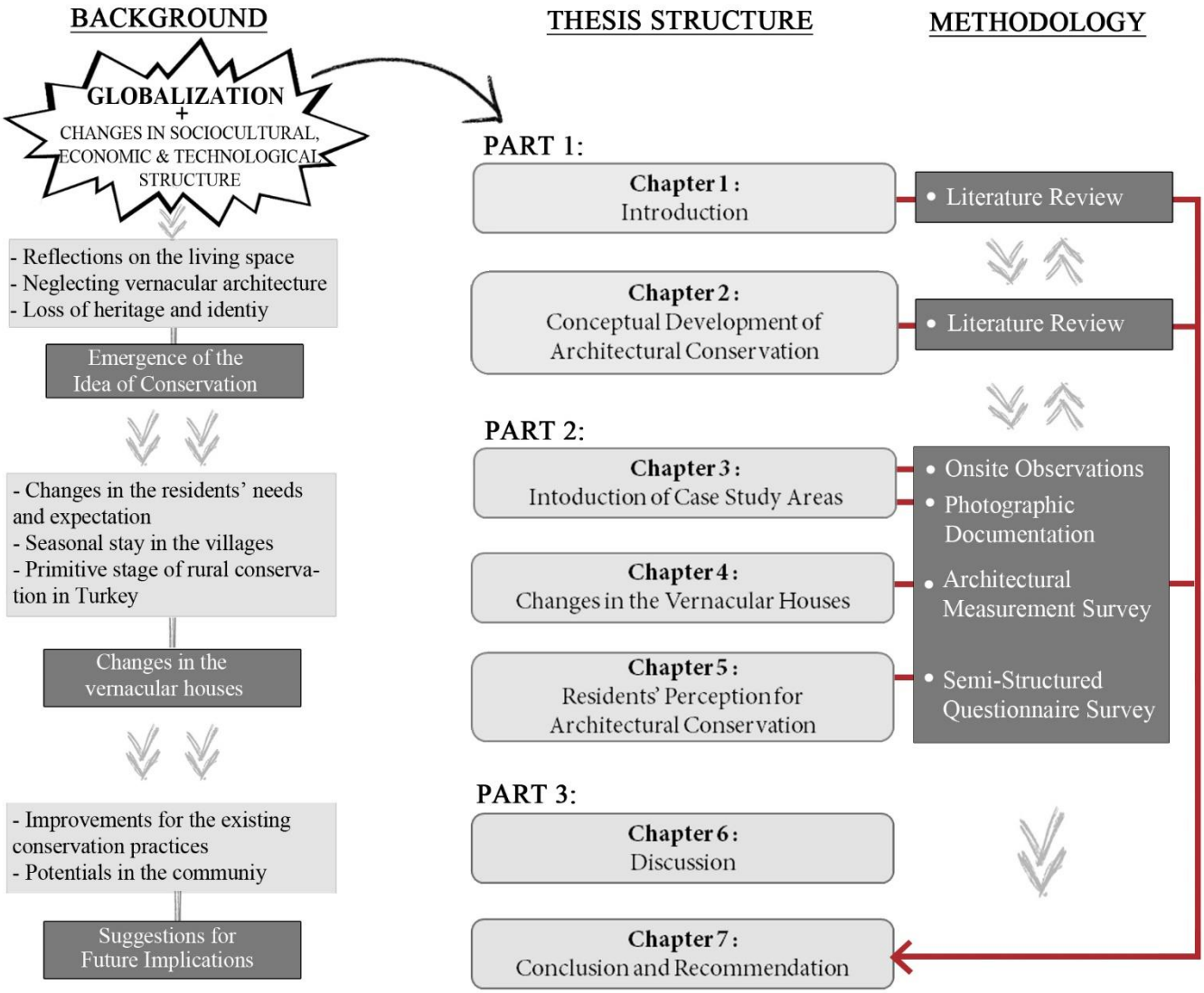


Figure 1.5 Research framework.

The second part contains Chapter 3, Chapter 4 and Chapter 5 where the background of the case study area, existing situation of vernacular houses and the conservation activities are explained. **Chapter 3** provides a detailed information about the geographical, natural, and socio-cultural backgrounds of the case study areas. The main aim of this chapter is to familiarize the readers with the existing situation of rural areas of Sürmene District, Trabzon which is the focusing area of this research. The common features of the vernacular houses are also introduced in this chapter. The next chapter, **Chapter 4**, examines the current condition of the vernacular houses by evaluating the spatial, functional and morphological changes in the structures. The results of the architectural measurement survey and non-participant observations on site are pointed out in this chapter. After identifying the changes occurred in the vernacular houses, the residents' perception on the vernacular houses as well as the architectural conservation activities are investigated in **Chapter 5**. Since the perception of local people, continuous usage and maintenance activities have significant impacts on the continuation of the conservation activities, this chapter represents the results of the semi-structured questionnaire survey which aims to understand residents' opinions about the changes experiencing in the rural environments as well as in the vernacular houses, the level of desire for conservation, difficulties faced, etc.

The last part of the thesis consists of the Chapter 6 and Chapter 7. In the **Chapter 6**, a comprehensive discussion is prepared in terms of the current condition of the vernacular houses as well as the conservation activities in the rural areas of Trabzon. The pros and cons of the existing system are pointed out, several points which can be improved for the future conservation activities are highlighted. By giving the reference of Historic Villages of Gokayama, Japan, several suggestions for a new conservation approach for Trabzon is also prepared in this part. Finally, in the **Chapter 7** overall findings of the research are summarized and several recommendations are made for the future conservation activities in the case study areas of Karacakaya, Üstündal, and Dirlik areas in Trabzon, Turkey.

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CHAPTER 2. DEVELOPMENT OF ARCHITECTURAL CONSERVATION IN TURKEY

In this chapter, first of all, the basic terms used in the research are defined. After that, the starting point and the development of the architectural conservation in the world are briefly explained, which is followed by more detailed information on the conservation issues and sample case study areas in Turkey.

2.1 Definitions of General Terms

a) Vernacular Architecture: Etymologically, originated from the word "*verna*", meaning slave in Latin language, the term vernacular or "*vernaculus*" in Latin means "native" (Oliver, 2006)

In the architectural context, vernacular architecture is defined by Dabaieh (2009) as "a product of a natural cycle of sustainable building tradition (p.29)" and by Oliver (2006) as the following statement*: "Vernacular architecture, comprises the dwellings and all other buildings of the people, related to the environmental contexts and available resources, they are customarily owner –or community-built, utilizing traditional technologies, all forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and ways of living of the cultures that produce them (p.30)*". Another researcher, De Filippi (2005), explains the built vernacular heritage as "the essence of sustainability, being constructed with local materials and the minimum waste of resources".

As it can be understood from the definitions, the vernacular architecture focuses on the needs, cultures, socioeconomic and intellectual abilities of communities, as well as the climatic conditions in the region. The unique knowledge has been formed in the long period of time by trial and error, and it has been transferred from generation to generation.

In the last decades the number of studies focusing on the vernacular architecture has been increasing gradually for various purposes, including to save the vernacular heritage, to documentation of disappearing features of building traditions, to have clues for the peoples' future housing, to understand the relationships between vernacular architecture and the cultures shaping them, etc.

Vernacular architecture has different meanings depending on the culture to which vernacular architecture belongs. Because of the cultural differences, it cannot be understood without thinking their cultural and environmental contexts, as vernacular architecture is shaped by them.

b) Conservation: Conservation is defined in the ICOMOS New Zealand Charter (2010) as all the processes of understanding and caring for a place so as to safeguard its value, while respecting the existing fabric, associations, meanings, and use of the place. Requiring for a cautious approach, the process of conservation

includes the necessary efforts as much as needed, but as little as possible, in order not to negatively affect its authenticity and integrity for conveying the place and values on to the future generations (ICOMOS, 2010).

In this sense, the term architectural conservation used in this research implies a continuous process of protecting the authentic nature of the built heritage while improving its quality for the contemporary needs, comfort and safety of the local people. As it can be understood from this point of view as well as the definition, conservation works as a tool for the continuity of local and cultural identity.

Aga Khan, in one of his speech in 1978, highlights the vulnerability of cultural identities in the present day and the importance of conservation by expressing the following statement*; "We must ask ourselves how we can prevent future architectural development from accelerating the loss of our cultural identity. …We must acknowledge that the world is changing, but in doing so we must realize that there are still many lessons that must be drawn from the past"* (Holod, 1980).

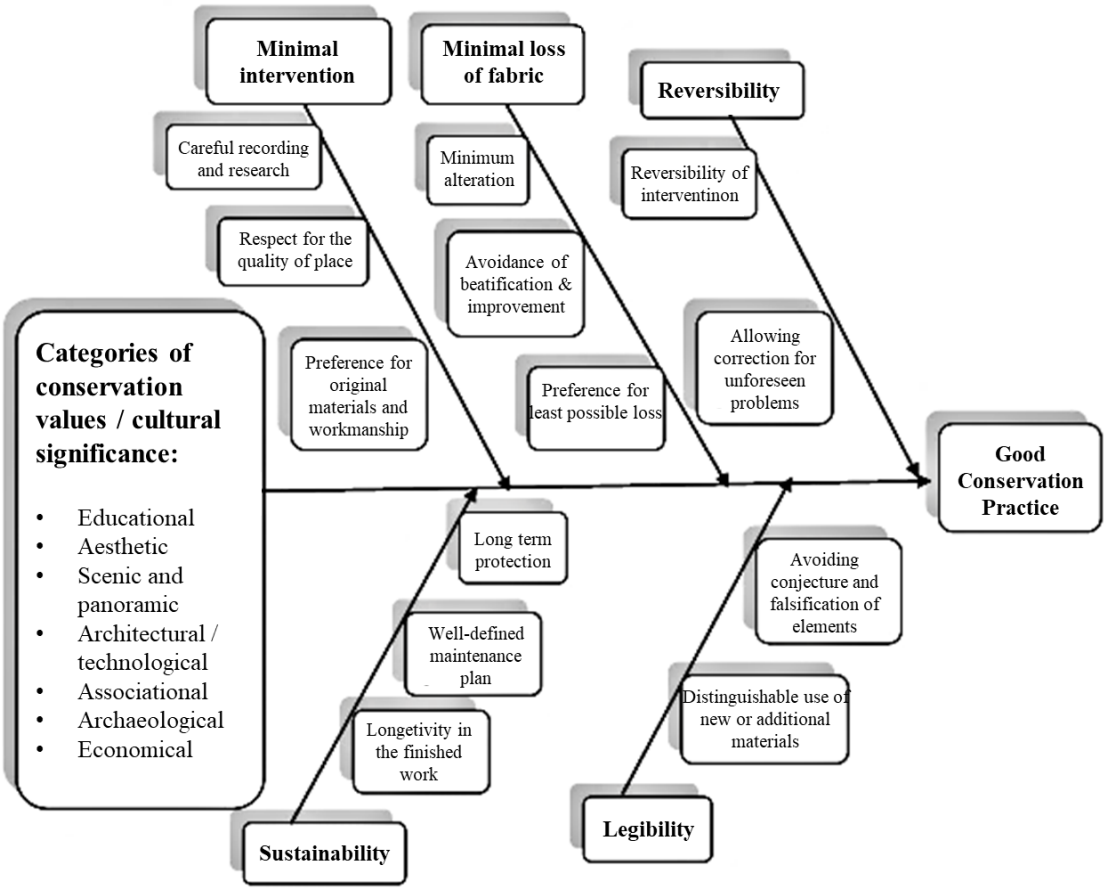

Figure 2.1 Criteria for good conservation practices proposed by the international charters (A.F. Mohd-Isa et al., 2011).

There have been various academic researches, global meetings and charters on the conservation issues to Figureure out what are the criteria for a good conservation process. Although it shows slight differences according

to the features of the heritage and the background of the communities, it is possible to form a basic template for guiding the conservation activities towards a better direction. For this purpose, it is a requirement to get the references from the international charters. For this purpose, A.F. Mohd-Isa et al. (2011) summarizes the criteria highlighted by the various international charters (Figure 2.1).

c) Maintenance: A good conservation process is closely associated with a good maintenance of the built heritage. Therefore, the significance of continuous maintenance with minimum changes and interventions have been highlighted in various global meetings and charters focusing on the conservation. Maintenance is defined as "regular and on-going protective care of a place to prevent deterioration and to retain its cultural heritage value" in the New Zealand Charter (ICOMOS, 2010).

As it is highlighted before, conservation has a vital impact for protecting the cultural heritage, history and identity of the communities. However, what is more important is the continuity and the sustainability of the conservation and the maintenance activities, which is highlighted in the Segesta Declaration (1996). Also, the same point is emphasized in the Venice Charter (ICOMOS,1969) with the following statement "it is essential to the conservation of monuments that they be maintained on the regular basis". Similarly, in the New Zealand Charter (ICOMOS, 2010), it is also expressed that, "a place of cultural value should be maintained regularly and according to plan…" which also emphasizes the significance of continuous efforts for the conservation and maintenance activities.

d) Cultural Heritage: According to the definition proposed by UNESCO, **1**cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations" (URL 2). For the inscription of a site to be the cultural heritage, UNESCO uses six fundamental criteria for cultural heritage which is shown on Table 2.1.

Cultural heritage possesses various values, including aesthetic, archaeological, architectural, commemorative, functional, historical, landscape, monumental, scientific, social, spiritual, symbolic, technological, traditional, or other tangible or intangible values, associated with human activity. Any of those values associated with the cultural heritage should be recognized, understood and respected. Also, any legal regulations, implementations, or practices related to conservation must be based on the cultural heritage values (ICOMOS, 2010).

Table 2.1 Criteria for the inscription of the cultural heritage in UNESCO.

Inscription criteria for cultural heritage
1. To represent a masterpiece of human creative genius.
2. To exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.
3. To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.
4. To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.
5. To be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.
6. To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance (The Committee considers that this criterion should preferably be used in conjunction with other criteria)

Therefore, cultural heritage value and its significance of a place / building should be fully documented for the conservation practices in order to convey the heritage to the future generations. In here, the term **documentation** refers collecting, recording, keeping, and managing necessary information about a place and its cultural heritage value. This can include the information about its history, fabric, and meaning; information about physical changes and interventions made, as well as all the decisions taken for the conservation of the place (ICOMOS, 2010).

Documentation should be made in a way to make archival records which can help the longevity of the record. In fact, recording plays a significant role for the physical condition of a building or a place. Especially, recordings have a vital importance for the conservation activities, ranging from planning to the implementation. That is why, recording of a place or a building should be made throughout its lifespan, especially before, during and after the changes made to the building / place.

e) Outstanding Universal Value (OUV): According to the Operational Guidelines for the Implementation of the World Heritage Convention (2005), outstanding universal value refers to "the cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. (Article 49)"

A clearer definition is provided in the report of the World Heritage strategy meeting in Amsterdam in 1998: "*The requirement of outstanding universal value, characterizing cultural and natural heritage, should be interpreted as an outstanding response to the issues of universal nature, common to or addressed by all human*

cultures. In relation to natural heritage, such issues are seen in bio-geographical diversity; in relation to culture in human creativity and resulting cultural diversity" (Droste, et al. 1998, p. 221).

For defining and understanding outstanding universal value, ICOMOS (2005) defines ten main factors and a site must have at least one of those ten criteria to categorize as having outstanding universal value (Table 2.2). Among the factors mentioned in the Table 2.2., the last four relate to natural heritage and the rest refers to the cultural heritage. According to that, cultural heritage can represent: a masterpiece, important interchange of values, exceptional testimony to a civilization, a type of construction or site, traditional land-use, and/or association with the traditions or beliefs.

Table 2.2 The Criteria for Selection of World Heritage Sites (UNESCO, 2005).

The Criteria for Selection of World Heritage Sites	
a)	To represent a masterpiece of human creative genius
b)	To exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design
c)	To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
d)	To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history
e)	To be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change
f)	To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance
g)	To contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
h)	To be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
i)	To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
j)	To contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation

f) Authenticity: Originated from the Latin word authentique, authenticity refers to the "truthfulness of origins, attributions, commitments, sincerity, devotion and intentions" in general (Ito, 1994). The term was first introduced to the architectural fields in the Venice Charter.

In the Nara Document on Authenticity (1994), it is mentioned that "All cultures and societies are rooted in the particular forms and means of tangible and intangible expression which constitute their heritage, and these should be respected (Article 7)".

The components of the authenticity have been identified by the following criteria in the Article No 13 in the Nara Document on Authenticity (1994):

a) Form and design,
b) Materials and substance,
c) Use and function,
d) Traditions and techniques and management systems,
e) Location and setting,
f) Language and other forms of intangible heritage,
g) Spirit and feeling;
h) Other internal and external factors.

It is also mentioned in the same document that the use of the sources mentioned above allow the elaboration of the specific artistic, historic, social and scientific characteristics of the cultural heritage. It is claimed in the Nara Document on Authenticity (ICIOMOS, 1994) that the understanding of the authenticity has a significant role for any studies or practices focusing on the cultural heritage or its inscription, conservation or restoration. However, it is not possible to judge the authenticity and value of a heritage on fixed sets of criteria, as it differs from community to community. Therefore, the authenticity and the values of each heritage should be recognized and evaluated within the cultural context they belong.

g) Integrity: It means the wholeness or intactness of a place / a heritage, including its meaning and sense of place, and all the tangible and intangible attributes and elements necessary to express its cultural heritage value (ICOMOS, 2010).

As it can be understood from the definition made by ICOMOS, there are two main factors to be considered in terms of the identification of the integrity: wholeness and intactness. To clarify these two points more, wholeness is the ability of a property to express the significance which is strongly linked to the authenticity. On the other hand, intactness refers to the "physical fabric of the heritage and/or its significant features" that "should be kept in

a good condition", while "the impact of deterioration or decaying [should be] controlled" (UNESCO, 2005: Stovel, 2007).

For identifying the existence integrity, property should be checked it it: a) includes all elements necessary to express its outstanding universal value; b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance; c) suffers from adverse effects of development and/or neglect. (UNESCO, 2005, Paragraph 88)

2.2 Overview of the Development of Architectural Conservation in the World

Housing of the common people has started to be considered as a "heritage" first during the Industrial Revolution. As a result of the improvements in the agricultural techniques and migration from rural areas to urban areas have started to influence rural areas and this has caused the occurrence of the first ideas for the conservation.

Vernacular architecture is considered as a significant part of heritage as being the physical representation of socioeconomic, natural, cultural and religious characteristics of the local communities. The significance of built vernacular heritage is expressed as "The built vernacular heritage is important; it is the fundamental expression of the culture of a community, of its relationship with its territory and, at the same time, the expression of the world's cultural diversity" (ICOMOS, 1999).

The necessity to safeguard heritage for future generations as well as to hand them with the full richness of their authenticity and cultural references were highlighted in several global meetings (ICOMOS, 1964, 2011; Council of Europe, 1975, 1982, 1985, 1989; etc.). Although the scope of this idea was limited to historic monuments or architectural artefacts in urban areas in the beginning, the European Charter of Architectural Heritage (1975) paid the equal attention to the built vernacular heritage in rural areas.

There have been various global meetings (Council of Europe, 1985; ICOMOS, 1996, 1999; etc.) and academic studies (Debaieh, 2009; etc.) focusing on the vulnerabilities of built heritage in the contemporary life. For the last decades, it has been expressed many times in various occasions that globalization resulted in economic, cultural, architectural homogenization and significant lifestyle changes and this has been threatening the survival of built vernacular heritage. Therefore, it is very crucial to take necessary actions for the survival of the vernacular architecture.

2.3 Architectural Conservation in Turkey

Although various attempts have been made, regulations and implementations of architectural conservation practices in Turkey have not been effective set until now. Particularly after the industrialization of Turkey, migration to bigger cities have accelerated in 1950-1960s, causing various outcomes such as a rapid urbanization, uncontrolled expansion of cities, illegal housing and insufficient infrastructure (Sat, et.al., 2006). When previously mentioned factors were combined with the low level of consciousness, inadequate financial resources and lack of proper regulations, heritage areas have been negatively affected.

More detailed information about the background and development of architectural conservation practices in Turkey are explained in the following section:

2.3.1 Definitions of the terms related to architectural conservation in Turkey

There are different laws, codes and regulations for the topics related to conservation of architectural heritage in the legislative system. The definitions as well as the issues related to implementing and operational aspects are expressed in this section in detail.

For this purpose, the following regulations are utilized to define terms related to conservation in the Turkish context as well as the criteria for the evaluation of the cultural and natural heritage in Turkey: a) Regulations on the Designation and Registration of Immovable Cultural and Natural Heritage Required to be Conserved *(Korunması Gerekli Taşınmaz Kültür ve Tabiat Varlıklarının Tespit ve Tescili Hakkında Yönetmelik)* (URL 3); b) Regulations on the Designation and Registration of Immovable Cultural Assets and Sites Required to be Conserved *(Korunması Gerekli Taşınmaz Kültür Varlıklarının ve Sitlerin Tespit ve Tescili Hakkında Yönetmelik)* (URL 3) ; c) Regulations on the Provision of Assistance to Immovable Cultural Heritage *(Taşınmaz Kültür Varlıklarına Yardım Sağlanmasına Dair Yönetmelik); d)* Regulations on the Contribution for the Conservation Immovable Cultural Heritage *(Taşınmaz Kültür Varlıklarının Korunmasına Ait Katkı Payına Dair Yönetmelik); e)* Regulations on the Construction Principles and Supervision of Immovable Cultural Heritage Required to be Conserved *(Gerekli Taşınmaz Kültür Varlıklarının Yapı Esasları ve Denetimine Dair Yönetmelik)*

One of the main guidelines for the definition and conservation of cultural heritage is the **Regulations on the Designation and Registration of Immovable Cultural and Natural Heritage to be Conserved** *(Korunması Gerekli Taşınmaz Kültür ve Tabiat Varlıklarının Tespit ve Tescili Hakkında Yönetmelik)* (Date of the Publication on Official Gazette: 10.12.1987, Official Gazette No.: 19660) (URL 3). The regulation consists of 3 parts, where the aim, context, and definition of the related terms are explained in the first part; the criteria and process for the

identification, documents to be prepared are included in the second part; finally, the issues related to operation and implementation are included in the last part.

a) Conservation area ***(Korunma alanı):*** It refers to the areas where immovable cultural heritage exist in the historical environment which are required to be conserved (URL 3).

b) Heritage Site ***(Sit):*** It covers to the following three occasions: 1) The cities and ruins of the cities being one of the product of the communities lives since prehistorical times, reflecting the social, economic, architectural, etc. characteristics of the historical periods; 2) places where there are a great number of cultural heritage witnessed to the social lives of historical events; 3) natural places designated for the conservation (URL 3).

c) Urban heritage site *(kentsel sit)* is described as cultural and natural elements of the environment (including buildings, gardens, vegetation, settlement patterns, walls) which are valuable thanks to the architectural, local, historical, aesthetic and artistic features they have and are even more valuable as they are located close to each other (URL 2). In another regulation, the urban heritage is defined as "the immovable assets from the prehistoric or historical periods; located above the ground, in the underground, or under the water; representing social, cultural, economic, political, scientific or aesthetic qualities of the society that has formed the forenamed heritage, which is related to whether science, culture, religion or fine arts; which are required to be conserve (URL 3).

d) The term **Immovable Cultural Heritage** ***(Taşınmaz Kültür Varlıkları)*** is defined as the immovables related to the science, culture, religion and fine arts of prehistoric and historical periods, above or underground which are required to be conserved (URL 3).

e) Designation ***(Tespit)*** is to document and evaluate the immovable cultural and natural heritage by a technical study in accordance with the procedures, principles and criteria, which is described in Article 3 and specified in Article 6, in the Code of Protection of Cultural and Natural Properties (No.2863) (URL 2). There are ten criteria to be considered for the evaluation for the Designation of the Immovable Cultural and Natural Heritage in Turkey which are compiled below:

1) Being a part of natural heritage required to be conserved and immovables made until the end of the 19th century.
2) Although it is made after the 19th century, it is considered to conserve thanks to its features and significance.
3) Being located in a heritage site.

4) Buildings and areas which have played an important role during the Independence War of Turkey and the history of Republic of Turkey, regardless to the its construction year and the reasons for registration, as well as the houses used by the Mustafa Kemal Atatürk.

5) Immovable natural heritage which has rare and different features.

6) For the **individual buildings** to be conserved; having significant features in terms of the structural, decorative, material, construction technology, morphological aspects, in the context of artistic, architectural, aesthetical, local, archaeological values.

7) For the **urban sites**; the density, architectural and historic integrity of the individual buildings which are considered as cultural heritage to be conserved.

8) For the archeological sites; having the features in terms of the written information, ruins, scientific research, environmental observations, ecological observations, scientific estimation, and topographical structure.

9) For the natural sites; having the features in terms of the scientific research, geological structure, environmental observations, ecological observations, and topographical structure.

10) For the historic sites; being witnessed to the significant historical events which is expressed in the written sources or historical researches.

f) Registration *(Tescil):* It is the process to determine which of the immovable cultural and natural heritage must be conserved, according to the decision of Conservation Board (URL 3). After the registration of the cultural heritage**,** necessary documents are prepared. In order to prepare the registration documents, the following information should be gathered and included in the registration sheets in Turkey (Article 5, URL 3):

1) Identification sheet of the immovable cultural and natural heritage for the registration,

2) Sufficient number of photos to introduce the building / site (Appendix 3). There are different requirements for such photos according to the regulation. For instance, in the case of individual buildings, photos showing the immovable from inside, outside and the surrounding environments are necessary. However, for the archaeologic, urban and natural heritage sites, panoramic photos indicating the overall area in addition to the detailed photos are necessary.

3) Slides for the identification of the immovable.

4) The drawing / map showing the location and borders of the immovable.

5) The opinion of the identification committee for describing the immovable cultural and natural heritage and the list of the proposed immovable cultural heritage.

6) Other necessary documents required by the conservation board.

2.3.2 Legal development for architectural conservation in Turkey

The first attempts for the conservation practices have been started in the Ottoman Empire in the 19th century. For the conservation of archaeological sites and moveable heritage, the First Law of Antiquities Statute *(Asar-ı Atika Nizamnameleri,* 1869) and the Second Law of Antiquities Statute (1874) were prepared. They were followed by the Third Law of Antiquities Statute in 1984, which proposed that the architectural monuments produced by old civilizations that do not exist anymore should be conserved (Madran, 2002).

After that, the movable and immovable heritage were decided to be conserved as the government's property in the Forth Law of Antiquities Statute (1906). The most important features of this law were that historic houses as well as other groups of monuments which should be conserved are defined (Zeren, 1981), it proposed to conserve the surroundings of the artefact as well as to prevent any new functions which would be harmful to them (Akozan, 1977).

In 1951, High Council of Immovable Monuments and Antiquities *(Gayrimenkul Eski Eserler ve Anıtlar Yüksek Kurul*u) was founded. The responsibility of the council is to take necessary actions for recording, conserving and maintaining immovables.

In 1967, ICOMOS Venice Charter was accepted in Turkey with the Law No.3674.It is considered as a milestone in Turkey for introducing the concept of "conservation areas" for the first time. However, the scope of the application of the concept has been limited to urban areas and rural areas could have not been benefited from this improvement.

"A-1609 Decision" was accepted in 1979 with the Law No.3674. It was the first and only document mentioning "rural conservation areas" In this decision, it is stated that there should be commissions which makes the decisions for any new constructions in the rural and urban areas. It is proposed that the information for local construction techniques or styles should be sent to the commission and the decisions of the commission have to be gained for the new constructions (Eres, 2013).

Almost a decade after A-1609 Decision, "Law No.2863 - Code of Protection of Cultural and Natural Properties" *(Kültür ve Tabiat Varlıklarını Koruma Kanunu)* has been enacted in 1983. It was the additional law complementing the Law.No.1710 which was enacted in 1973. Following that, "Law.No.728 – Natural Protected Areas, Conservation and Utilization Rules" *(Doğal Sitler, Koruma ve Kullanma Koşulları)* has been put into practice in 2007. Natural Protected Areas have been defined in this law. However, there is no mention about the conservation of rural environments or vernacular houses which are a part of the natural setting.

From this brief introduction to the legal background for the conservation activities in Turkey, it is understood that there is more sensitive approach in the last decades. However, the ambiguous definition of architectural conservation, including rural conservation, is a problematic issue for the legal regulations and the implications onsite (Eres & Akın, 2010). Eres (2008) states that despite the fact that international charters have been accepted in Turkey, the implications of the concept take longer time.

Kahya & Sagsoz (2004) claim that urban heritage sites *(ketsel sit)* are exposed to several changes even after registeration which indicates that although the site seems to be conserved, the building based analysis show the opposite. In other words, although there are more detailed regulations for the architectural conservation in the urban areas, the success of the process is debatable. This is considered as a challenging point for the future conservation activities and regulations in Turkey.

2.3.3 Institutional structure for architectural conservation in Turkey

There are different levels and authorities for the in the institutional structures for conservation of natural and cultural heritage in Turkey (Figure 2.2). The biggest authority in Turkey for the conservation of cultural and historical values is the Ministry of Culture and Tourism. The Ministry has various duties ranging from determining the heritage areas to be conserved, conducting the registration process, preparing the conservation or development plans and putting them into practice, carrying out and supervising the archaeological digs, managing the museums, etc. (Sat, et.al., 2006).

Figure 2.2 Institutional structure for architectural conservation in Turkey.

Ministry of Culture and Tourism has several sub-sections which support the ministry for previously mentioned tasks. In terms of the conservation practices, General Directorate of Cultural and Natural Heritage, as

well as the General Directorate of Monuments and Museums are the two sections which directly assigned to the issues related to conservation.

Assigned under the General Directorate of Cultural Heritage Museums, "Supreme Council for the Conservation of Cultural Assets" has a significant role in the conservation of vernacular houses. Members of this council consist of Undersecretary and Deputy Undersecretary of Ministry of Culture and Tourism, Cultural Heritage and Museums General Director, General Manager of investment and business, General manager of the Ministry of Environment and Urban Planning, General Manager of Directorate for Foundations, 6 members of Regional Committees for the Conservation of Cultural Assets selected by the Ministry, General Manager of Directorate of Mining Affairs, and General Manager of Directorate of Nature Conservation and National Parks. The supreme council is located in Ankara and responsible for various issues, such as providing a bridge between regional conservation boards, deciding principles for the implementation of conservation and restoration of immovable cultural and natural heritage, evaluating the problems in the practice and giving feedbacks to the Ministry of Culture and Tourism, making decisions on the conservation issues sent by the ministry, etc.

When the Supreme Council for the Conservation of Cultural Assets perform its duties, it is supported by various regional branches, Regional Committees for the Conservation of Cultural Heritage, which are located in 25 cities (Istanbul, Ankara, Izmir, Adana, Antalya, Çanakkale, Nevşehir, Diyarbakır, Edirne, Erzurum, Eskişehir, Konya, Aydın, Bursa, Gaziantep, Karabük, Kars, Kocaeli, Kütahya, Muğla, Samsun, Sivas, Şanlıurfa, Trabzon, and Van). Architects, urban planners, archaeologists, art historians, and lawyers are should involve in the Regional Committees. Some of the responsibilities of this committee are the registration, identification and designation of cultural and natural heritage; deciding the principles for the transition process in 3 months after the registration is completed; preparing conservation plans, evaluating the existing plans and updating them whenever changes required; etc. These commissions come together regularly in every month to discuss and take decisions for the issues on the agenda.

In addition to previously mentioned authorities, there are also other governmental authorities giving support, punditry or consultation to the General Directorates in the Ministry. Some of those organizations are the ministries such as the Ministry of Public Works and Settlement, Ministry of Industry; investor organizations, including Housing Development Administration of Turkey (TOKI), General Directorate of lller Bank, General Directorate of Foundations (VGM), General Directorate of State Hydraulic Works (DSI), General Directorate of Highways (KGM) and local authorities like special provincial administrations and municipalities.

Besides the governmental organizations; The Chamber of Architects, The Chamber of City Planners, related departments of universities as well as and non-governmental organizations in the national and local level. They also deal with the conservation issues and support the governmental units working on the conservation issues.

Especially, in the implementation process, they very have significant roles. The Foundation for the Promotion and Protection of the Environment and Cultural Heritage (ÇEKÜL) and Union of Historical Towns (TKB) are some of the examples of NGOs working at the national level.

Another significant institutional stakeholder for the conservation activities is the municipalities. They are expected to have a leading role in the conservation process. They should prepare, implement and control conservation practices. However, Bademli (1997) asserts that in Turkey, municipalities do not have the proper attitude, consciousness and responsibility towards the conservation issues. Although there are a few successful implementations of conservation projects, such as Beypazarı and Safranbolu; in general, municipalities consider conservation as a limitation against development (Sat, et.al., 2006). Also, inadequate financial and human resource, lack of consciousness, lack of modern governing techniques, etc. are some other factors causing municipalities not to be able to take proper actions for the conservation (Yılmaz & Üçer, 2004).

As it can be understood from the above explanation, there are several institutional and organizational steps and stakeholders exist in Turkey. However, the number of successful conservation practices is limited. The reasons for that can be various, whereas some common problems can be elaborated. First of all, as it might be easily guessed, providing coordination, cooperation and harmony between different stakeholders are difficult which is one of the most challenging points for having a consensus for the conservation. Being also a problem for implementing a holistic process, insufficient communication between parties have resulted in the partial improvements which cannot lead the project to the conclusion. Moreover, insufficient financial resources, limited number of qualified personnel or technical supplies, and complicated bureaucratic processes have caused more challenges for the success of the conservation projects (Sat, et.al., 2006).

2.3.4 Architectural conservation in the rural areas in Turkey

Conservation of architectural heritage in the rural areas have been a recent subject of the conservation practice in Turkey. Being exposed to the insensitivity of various groups ranging from governments to local people, vernacular architecture in the rural areas has been facing the risk of extinction, deterioration or abandonment. After confronting this tragic situation and having very limited number of vernacular buildings, public institutions have started to focus on more in the rural areas and initiate projects which aims to conserve vernacular houses or rehabilitate the historic streets in the rural areas.

Table 2.3 Strategies and projects implemented for the rural areas in Turkey since the Republican Era.

Year	Action	Details
1923 -	Village Law No. 442	• The legal entity of the villages is accepted for the first time. • It is suggested that the village can be self-sufficient.
1963 -	5 Year Development Plan	• Several strategies and concepts have been used to solve the problems in the rural areas. • For instance, "Community Development", "Regional Planning and Development", "Central Village", "Village-Cities", "Priority Areas for Development", "Regional/Agricultural Development Projects", "Settlements planning", "Rural Development", "Sustainable Development", "Compliance with European Union policies" are some of the concepts developed for solving the rural probems.
1970 -	Rural Development Projects	• Various projects are implemented aiming to enhance animal breeding, irrigation and agricultural activities; to improve the agricultural and animal products; to construct of village roads and forest roads; as well as to o provide drinking water.
2000 -	Regional Plans	• They are prepared for providing regional developments.
2005 -	National Rural Development Strategy	• It is prepared to provide a holistic approach towards the rural development activities to utilize the local potentials and resources, to conserve the cultural and natural heritage, to improve the working and living situation of rural population.
2006 -	KÖYDES Project	• It focuses on the villages where the healthy and sufficient water resources are not sufficient or not provided at all. • It also aims to improve the quality and the standard of the village roads.
2010 - 2013	Draft of the National Rural Development Plan	• It was prepared according to the National Rural Development Strategy prepared in 2005. • It is a framework demonstrating the prioritized activities for the rural development in Turkey.

Although the first studies on the rural vernacular architecture was made in 1970s, the number of such studies are very limited. The number of studies documenting architectural heritage in the urban areas and dealing with the problems related to them is very huge unlike that of in rural areas. As a result, most of the vernacular houses in the villages have already been lost even without being documented and the local identity has been lost or negatively affected by this process (Eres, 2016). Therefore, more interest should be given to the projects or studies focusing on the built vernacular heritage in the rural areas.

2.3.5 Example of architectural heritage conservation practices

Recently, national and international tourists have been having more interest in the places where natural, cultural and historical characteristics are conserved. Therefore, governments have also been giving more attention

to conservation and sustainability issues. In Turkey, a few attempts for architectural conservation has been made. Among those efforts, some cases are considered to be significant or successful because of the various aspects.

In this part, detailed information about the successful conservation practices in Turkey is shared which can be helpful in the focusing area of this study as well as to the other conservation areas in Turkey. Also, current conservation activities in Trabzon are expressed to be able to make a comparison as well as to Figure out points to be improved in the future.

2.3.5.1 Safranbolu, Karabük

Safranbolu is a district in the city of Karabük located in the Western Black Sea Region in Turkey (Figure 2.3). It has a mountainous topography. The altitude of the town ranges from 300m to 1.750m., but it ranges between 400m-600m in the town center (Gezer, 2013). The town has been settled on two sides of the hills with slight slopes divided by a river. Because of this natural characteristic, the town has an organic pattern.

Figure 2.3 Overview of Safranbolu. Karabük. (1): Location of Karabük City, (2): Location of Safranbolu District in Karabük City, (3,4,5): Photos from Safranbolu (Var, 2018).

Safranbolu has a long history, which is considered to be inhabited since prehistory. ICOMOS (1991) claims that the existence of rock-cut tombs and a Roman temple in the vicinity of Safranbolu proves that it has been occupied by human settlements since then. Safranbolu was conquered by Turkish in the 11th century and after that it has been an important hub. The settlement became an important spot for caravan trades in the 13th century.

Connecting to various sources of productive industries and being located to the Silk Road, the significance of Safranbolu had started to increase in the 14th century. The fact that some part of the Silk Road connecting East Mediterranean Sea - Iran- China was passing through Bolu-Kastamonu region in Turkey enhanced the importance of Safranbolu and 17th century, it reached to a peak when the central market was expanded (Özdemir, 2007). The town of Safranbolu has been developed more in the 19th century, when a great amount of investment was done to the private estates (ICOMOS, 1991)

However, there have been a changing trend in the trade routes after the improvements of train systems and the prosperity in Safranbolu came to an end in the early 20th century. Because of the serious economic deprivation in the town, many people have migrated to bigger cities. Also, after the establishment of the iron and steel plants in Karabük city, more people from Safranbolu moved to Karabük city. As a result, there have been many empty vernacular houses. Since there were some of the workers of the factory was coming from far places, they rented the abandoned vernacular houses in Safranbolu which were not so expensive, but close to their work in Karabük. Because of their low economic situation, vernacular houses are not maintained well and went through a deterioration process to the conservation activities were initiated in 1970s (Canbulat, 2011).

A) Architectural characteristics of Safranbolu: Safranbolu is an example of typical Ottoman settlement where a combination of a mosque, public bath and inns exist in the town center. Also, a marketplace is located around the main mosque in the town which is located in the lower areas of the terrain. On the other hand, residential areas are located on the slopes surrounding market place as well as the workshops of craftsman (such as leather workers, blacksmiths, shoemakers, and textile workers) (ICOMOS, 1991). Streets in Safranbolu are formed by the exterior and garden walls of the vernacular houses. The high stone walls of the gardens both provide a secluded space and create a milder environment inside the walls by blocking winds (Özdemir, 2007).

Constructed with stone, adobe and timber; vernacular houses are carefully placed not to obstruct the view of other villagers. They have generally 2-3 floors and the size of the houses is decided by the size of the family and financial capacity of the families (Figure 2.3). The ground floor is usually used as a storage and stable, most of the daily activities happen on the second floor. Ground floor is constructed with stone materials, whereas upper floors are constructed more with timber materials with cantilevers and many windows Cantilevers which helps to get more light into the buildings, creates a good vista for the users and provides a visual characteristic to the street. The cantilevers are located in a way not to block the neighbor's view (Günay, 1989; Gezer, 2013). In the third floor, several rooms are located which are connected with a common space called *"sofa".* It is a common space used in many vernacular houses in Turkey, connecting family rooms and creating a common space where family members gather, communicate, work, rest, and sleep. Since extended families used to live together, every room is designed as individual unit which are self-sufficient.

B) Conservation activities in Safranbolu: Thanks to such natural characteristics of the area, Safranbolu could conserve its built and cultural heritage intact. Because the town has been developed in the plateau, which is surrounded by high mountains, it has not made it possible for the town to expand more (Özdemir, 2007). This feature of the town protected it from the pressure of development and population.

The first conservation activities in Safranbolu dates back to 1970s. Since then, several cultural events and collaborative projects have been held in the town with the collaboration of several stakeholders (Figure 2.4). In 1975, with the collaboration of Istanbul Technical University and Municipality of Safranbolu, events for the European Heritage Year were conducted in Safranbolu. During the following year, the historic town of Safranbolu was registered as an urban heritage *(kentsel sit)* by the High Council of Monuments *(Anıtlar Yüksek Kurulu).* In the same year, a vernacular house in Safranbolu was also bought by Turkiye Touring and Automobile Corporation *(Türkiye Turing ve Otomobil Kurumu).* Also, a documentary, Time in Safranbolu *(Safranbolu'da Zaman),* was prepared and it was effective for promoting the town and its heritage (Kuş, 2003; Özdemir, 2007). Safranbolu Architectural Values and Folklore Weeks were organized in 1975, 1976 and 1977. Following that, conservation plan *(koruma amaçlı imar planı)* for Safranbolu was prepared in 1978 with the collaboration of Istanbul Technical University and the Municipality of Safranbolu.

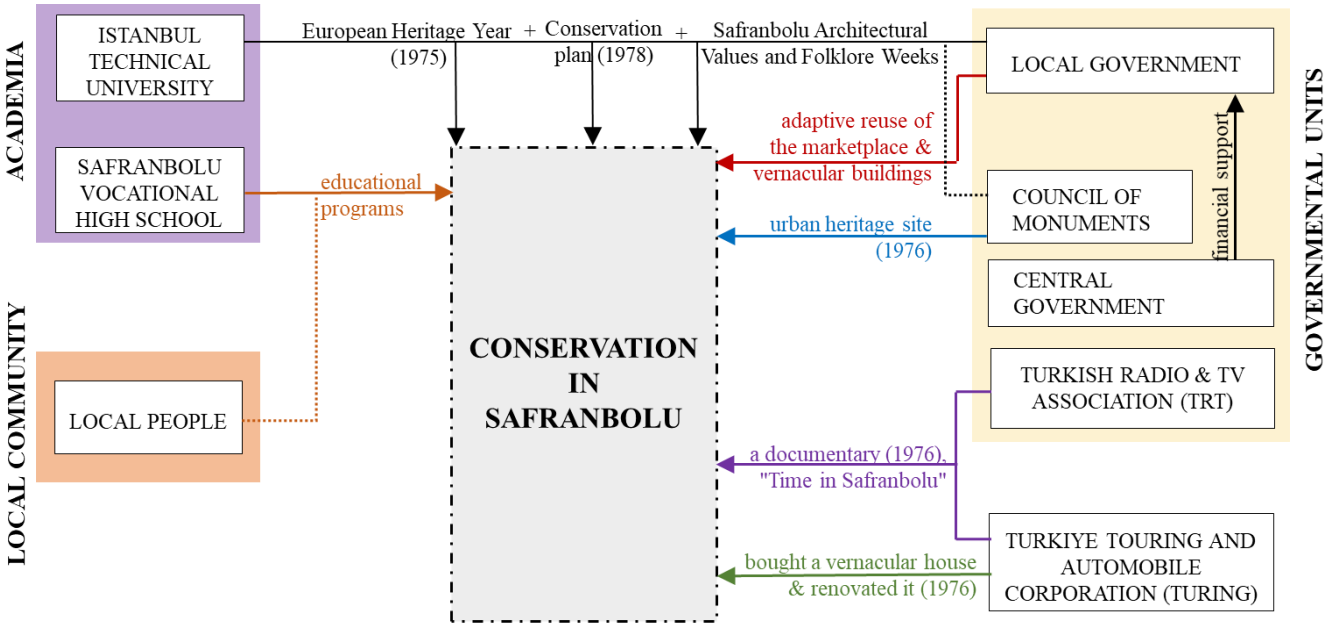

Figure 2.4 Stakeholders involved in the conservation process and activities conducted in Safranbolu.

Despite the inscription decision made in 1976, restoration of individual buildings did not start until 1982. By that time, various cultural events were organized to increase the awareness level of the local people towards the heritage conservation. Also, central government supported the conservation activities in Safranbolu by supporting conservation programs. Marketplace and adaptive reuse of some buildings were completed thanks to a

conservation program implemented by the local government (ICOMOS, 1991). Moreover, Safranbolu Vocational High School has started a new education program on restoration in 1992 to train young population in the field of conservation. Finally, in 1994, Safranbolu was inscribed as UNESCO World Heritage Site (Kuş, 2003) (See Appendix 4). Representing the historical, socioeconomic, technological and cultural characteristics of Safranbolu in 18th and 19th century, 800 vernacular houses over 2000 are registered (Gezer, 2013).

In the recent years, Safranbolu has become a significant spot for the cultural tourism and a role model for similar areas in Turkey. Various factors have been effective for this. One of the important factors was the existence of a great number and variety of cultural heritages in Safranbolu which have been conserved. Also, the documentary broadcasted in Turkish Radio and Television Association (TRT) was significant for the PR activities of Safranbolu and taking the attention of the country. Furthermore, being close to another touristic destination Amasra in the Western Black Sea Region, Istanbul and Ankara have contributed the development of tourism activities in Safranbolu. Last but not the least, efforts of the Municipality of Safranbolu, Safranbolu Vocational High School and local people have significance for this process. (Özdemir, 2007). Thanks to all those efforts, Safranbolu was included in the list of well conserved historic towns by The European Association of Historic Towns and Regions in 2003.

Although there were various positive attempts for the conservation activities in Safranbolu, there are also some points to be improved in the future. First of all, it was debated that the conservation activities in Safranbolu have been limited to the built vernacular heritage (Kuş, 2007). Other cultural heritage elements such have not taken the same level of interest up until now. Also, it was pointed out by the ICOMOS evaluation committee (2014) that the available budget for basic management needs to be increased as it has limited capacity to take proper management action. It was also highlighted in the same report that the input from local people is limited which should be improved and they should take a direct role in the management process. Another point pointed out in the report is the buffer zone and risk preparedness plans which have not been prepared, yet.

In short, although there are some issues to be improved, Safranbolu is one of the leading examples of the conservation practices in Turkey.

2.3.5.2 Cumalıkızık Village, Bursa

With an altitude of 340m, Village of Cumalıkızık is a village in Yıldırım District, in the eastern side of the historic center of Bursa city (Figure 2.5). Located in the northeastern part of Turkey, Bursa was the first major capital of Ottoman Empire thanks to the geostrategic location and rich natural resources. Since Ottoman Era, several investments and improvements have been done in Bursa which is still one of the most populous and

industrialized cities of Turkey. Since the city was formed in the early years of the Ottoman Empire, it was used as a reference or a model for other Ottoman-Turkish cities (ICOMOS, 2014). Considering this, it is no surprise that some of the oldest and most authentic examples of architectural and cultural heritage exist in Bursa, including the village of Cumakızık.

It was founded on the eastern slopes of Uludag Mountain. Cumalıkızık was a waqf village which also reflections on the way of living, settlement pattern, and architectural style in the village (Tas et.al., 2009). Waqf villages were the endowment of the ruler to the society which also created income and provisions for the ruler's court. Village of Cumalıkızık is one of the only surviving waqf villages indicating the settlement setting and the pattern.

Figure 2.5 Overview of Cumalıkızık, Bursa. (1): Location of Bursa City, (2 - 3): Location of Yıldırım District in Bursa City and with a photo (URL 5), (4 - 5): Settlements in Cumalıkızık Village (Image 4 – 5: URL 6).

Being the eponym of the village, one of the Oghuz clans, Kızıks, established the village. In fact, Kızık clan established six more villages in the region, whereas only five of them -namely Hamalıkızık, Derekızık, Fidyekızık, Değirmenlikızık, Cumalıkızık- could exist today. Among the existing ones, the village of Cumalıkızık is the one which has been conserved with its authenticity more (Yıldırım Municipality, 2007). Therefore, it is considered to be the closest reference to understand how an early period Ottoman village and its landscape looked like (ICOMOS, 2014).

The village of Cumalıkızık was an important place for producing one of the best quality silks during the Ottoman era as well as the tobacco and chestnut production until 1955. After that, the population of the village has decreased gradually. In 1940, 924 lived in the village, it decreased to 830 in 1990 and 770 to in 2017. Currently,

males work as unqualified staff / workers for low wage and females sell local products such as raspberry, apple and several homemade goodies such as jam, marmalade, fruit juice, etc. (Altunbas & Alptekin, 2004).

A) Architectural characteristics of Cumalıkızık: The village has a collective settlement pattern with an organic plan where a mosque and tea houses are located in the center (Figure.3). Providing the most convenient access, alleys in the village are arranged to give the impression to convey the importance of a mosque in the settlement (Altunbas & Alptekin, 2004).

There used to be 270 vernacular houses in the village of Cumalıkızık, whereas only 180 of them have survived until today. Among them, around 150 houses are used for residential purposes (Yıldırım Municipality, 2007; Tas et.al., 2009). In terms of the ownership, %78 of the houses are privately owned, %11 of them are the property of waqf and the rest is owned by the state government (ICOMOS, 2014).

The houses and streets are formed in respect to the local materials and culture. Rubble stone, timber and adobe are used as the building materials of the vernacular houses. In general, ground floors have rubble walls strengthened with wooden joints. However, on the upper floors, exterior walls are constructed by using timber frame systems filled with adobe (Altunbas & Alptekin, 2004). Moreover, in some cases, brick is used as the filling material instead of adobe. After the structural systems of the walls were shaped, timbers were nailed and mortared with mud plaster (Bağbancı, M.B., 2013).

Houses were originally constructed for extended families who used to live together and cooperate for various daily works. Therefore, houses are generally designed with two or three floors. Although the houses are located close to each other, privacy of the families was an important concern for the Muslim community. As a result, whether ground floors have high solid walls or the property is surrounded by an exterior wall built of rubble stone and timber beams blocking the view from outside (Altunbas & Alptekin, 2004; Bağbancı, M.B., 2013). Those closely located residential units with no windows on the street level are effective in the formation of narrow street pattern in the village of Cumalıkızık.

Two main plan types are identified in Cumalıkızık: In the first group of the houses, there are exterior courtyards and houses are indirectly connected to the street. In this type of the houses, courtyard is surrounded by a rubble stone wall which connects to the entrance of the house. The second group of the vernacular houses is designed without exterior courtyards, instead interior ones. The entrance door of the house directly connects the house to the street and the upper floors are cantilevered over the street. First floor is constructed with low ceilings to make it easier to heat two/three-storey-high houses. The cross beams, vertical and diagonal supports are not covered on the highest floor which makes it possible to see the structure clearly (Altunbas & Alptekin, 2004; Bağbancı, M.B., 2013).

B) Conservation activities in Cumalıkızık: City of Bursa became an important place for commerce and production in the 14th century. Although the capital was moved to Edirne in 1413, Bursa had not lost its significance and kept growing until the 17th century. However, Celali riots in the 17th century, and industrialization in the 18th century negatively affected Bursa's expansion. In addition to that, devastating earthquakes happened in 1855 severely affected the architectural heritage in the city. After this catastrophe, various attempts made for reconstruction of the architectural heritage of early Ottoman times and the city was declared as a "model Ottoman city" which initiated and accelerated the efforts for the conservation, reconstruction, and rehabilitation of the early Ottoman heritage (ICOMOS, 2014).

Cumalıkızık was not affected by fires made during the Greek occupation in 1920-1922. Therefore, the natural, historical, cultural and architectural features of the village were not affected negatively (Cetin, 2010). However, illegal constructions, migration to bigger cities, changes in the family structure, division of property rights by the inheritance, and economic limitations of the owners have resulted in the deterioration of the vernacular houses as well as historic, socio-cultural and natural characteristics of the town (Taş & Taş, 2009).

In order to conserve the architectural heritage together with the local community, conservation activities have been initiated and in 1980, Cumalıkızık and its surrounding area was announced as a conservation area by the High Council of Monuments (Figure 2.6). Since then, all the construction and maintenance works are required to get the permission from the board. In the next year, this historic settlement has been announced to be an Urban and Natural Heritage Site *(kentsel ve doğal sit alanı)* with the resolution No.12730 of the Supreme Board of Monuments in 19.4.1981. There are 61 registered elements in the village: 59 buildings (57 vernacular houses, 2 monumental structures – a mosque and a public bath) and 2 monumental plane trees (Akkılıç, 2001).

In 1987, Cumalıkızık has been included into the Yıldırım Municipality, which is one of the districts of Bursa Metropolitan City. It used to be categorized as a village. However, with the expansion of the Bursa metropolitan area, it belonged to the Yıldırım Municipality (Altunbas & Alptekin, 2004). Although Cumalıkızık still has an agricultural characteristic, it is officially categorized as a neighborhood *(mahalle)* in Yıldırım, instead of a village.

A collaborative project called *Cumalıkızık Koruma-Yaşatma Projesi* (Cumalıkızık Conservation-Sustainability Project) has been initiated to conserve the physical and cultural features of the Cumalıkızık and transfer this heritage site to the next generations by local government, university, volunteers, local people etc. (Bursa Yerel Gündem 21, 1999; Clare & Var, 2002; Cetin, 2010). Females in the village have founded *Cumalıkızık Köyü Kadınları Eğitimi Dayanışma ve Kalkındırma Derneği* (Association for the Education, Support and Improvement of Females in Cumalıkızık Village) to introduce and improve the situation in the village. Some of

the local people have donated various tools utilized in the village and in 1992, Cumalıkızık Ethnography Museum and Art House was founded.

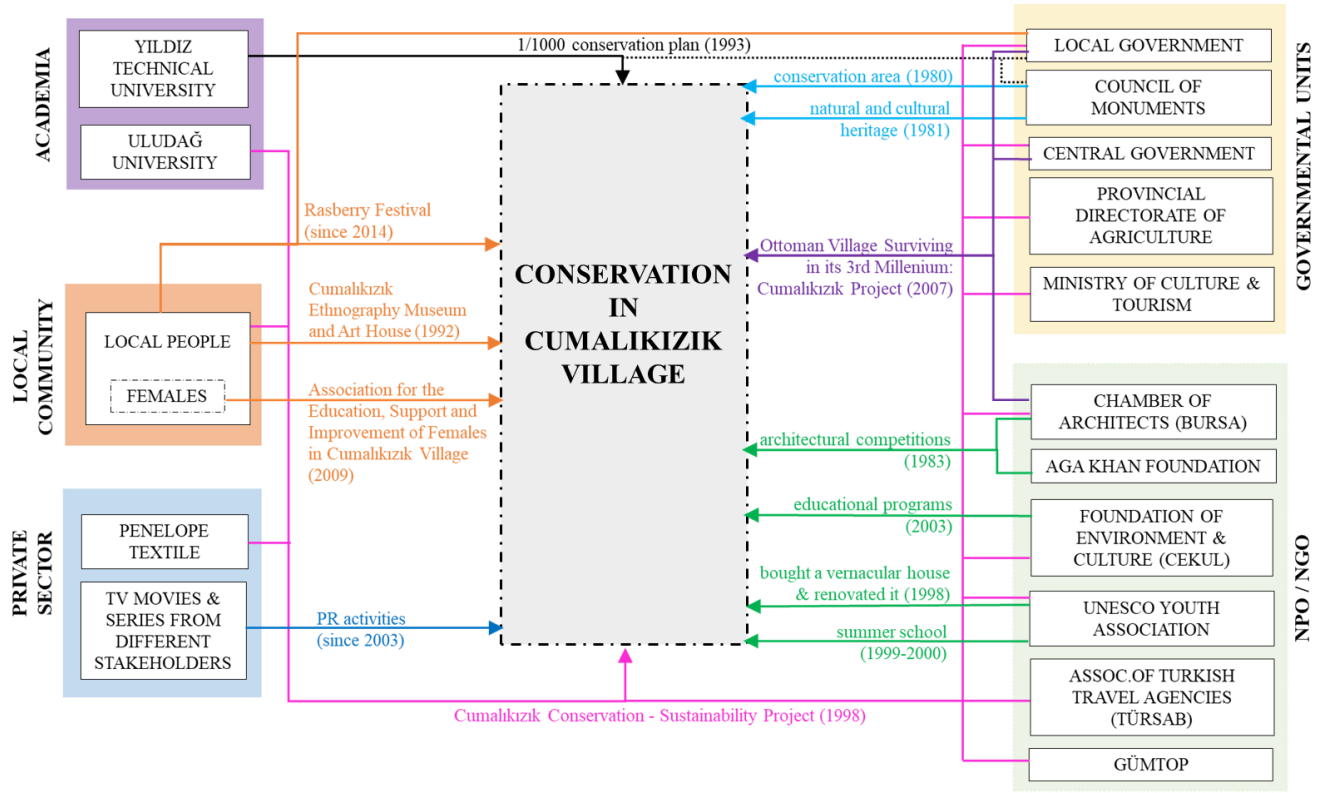

Figure 2.6 Stakeholders involved into the conservation process and activities conducted in Cumalıkızık.

A collaborative project, *"3. Binyılda Yaşayan Osmanlı Köyü - Cumalıkızık Projesi"* (Ottoman Village Surviving in its 3rd Millenium: Cumalıkızık Project), has been initiated in 2007 to sustain ecological, physical, socio-cultural features of Cumalıkızık and to improve the economic situation of the local people. Special Provincial Administration of Bursa (central government), Yıldırım Municipality (local government), Chamber of Architects – Bursa Branch (NGO) prepared a protocol. The aims of this project are to conduct several studies together to provide sustainable development and better infrastructure, to increase the living quality of the houses, prevent decay on the vernacular buildings, to improve the local economy, to increase the awareness level of the local people for the conservation, to set up the socio-cultural and economic organization (Taş & Taş, 2009). This project is considered to be different from other attempts to conserve the village in a sense that it was covering the whole settlement, providing collaboration between different stakeholders. As a part of this project, guest houses are opened, social behavior and English language classes have been organized (Çetin, 2010).

In 1993, Yıldız Technical University prepared a conservation plan (1/1000 scale) and it was put into place after the approval of the Supreme Board of Monuments with the no. 3508 on 24.10.1993 date. This plan was only

focusing on the conservation of architectural and environmental characteristics of Cumalıkızık (Altunbaş & Alptekin, 2004). However, social, cultural, economic issues were ignored in this plan like that of in Safranbolu.

Also, cultural events and festivals organized in the village have impacts on the conservation activities. Every year in the last week of June, Raspberry Festival has been organized in the village since 1998. The festival has been effective to make PR of the village in the national and international level as well as to contribute the sustainability of 700 years old heritage in the village to the next generations. Moreover, in 1998, UNESCO Youth Association also bought and restored a vernacular house. In the following next two years, summer schools are organized in Cumalıkızık and the students worked for the strategies for the sustainability of the village. Also, the Agha Khan Foundation and the Chamber of Architects organized a competition in 1983. In addition to that, Rio Conference, Local agenda 21, Foundation of Environment and Culture (ÇEKÜL) have had some other important impacts on the conservation of village life and the vernacular buildings (Altunbaş & Alptekin, 2004). In 2000s, several movies and TV series have been broadcasted in Cumalıkızık which was effective on the PR activities of the village (Çetin, 2010). In the end, the profile and destiny of the settlement have been changed and now it is a famous tourism spot.

Finally, Cumalıkızık was included on the Tentative List of UNESCO World Heritage Site in 2000 and the official approval of the village as a UNESCO World Heritage Site happened in 2013 (ICOMOS, 2014) (See Appendix 5). ICOMOS experts confirm that the villages of Cumalıkızık has a high level of authenticity by stating that *"The village of Cumalıkızık in its agricultural landscape provides an overall perception of a higher degree of authenticity. Few of the houses are used for other than residential purposes and the village seems to retain a special atmosphere, providing an impression of earlier times. Several aspects, like the village pattern, the form and layout schemes applied in the houses, the materials with which they are made, in particular the local stone for the ground floor, wood for the upper floors and the typology of roofs, give a largely original impression despite many 19th century reconstructions and regular repairs which have been undertaken at other times (p.274)."*

Besides all the efforts for the conservation activities in Cumalıkızık, several challenges have been faced to sustain the village life and keep the heritage intact. Until 1990 there were not any study for Cumalıkızık, and local people wanted to move new settlements having a bigger space because of the socioeconomic reasons. However, it was contradictory for the conservation of Cumalıkızık as there will not be a village without villagers. Therefore, Yıldırım Municipality together with the non-governmental organizations (NGOs) and universities have started some programs. In 1992, a vernacular house was restored by the Municipality to utilize this place as a guesthouse.

Also, ICOMOS (2014) reports that traffic, earthquakes, and gentrification are considered as the main risks for the architectural heritage in the village of Cumalıkızık which will be shortly discussed in here. First of all, traffic jams, noise and air pollution in the commercial areas, narrow streets in the village, causing difficulties in

car parking are considered to be some of the risks related to traffic. Secondly, being close to the North Anatolian fault line, earthquakes are other threats to the conservation of the village. In fact, the city of Bursa has been negatively affected by the various earthquakes happened since 1855 to 1999. Therefore, sufficient precautions and risk management plans should be prepared. Moreover, fires caused by the earthquakes are also regarded as another challenge for the conservation. Last but not the least, the risk of gentrification in the village is expressed as another big threat for Cumalıkızık. In the report, it is mentioned that almost half of the houses are not occupied in Cumalıkızık. If this situation gets worse in the future and more houses are abandoned gradually, it may cause the village to turn into an architectural museum and tourist destination. If so, the authenticity of the village might be negatively affected from this process and it might cause an undesired gentrification process (ICOMOS, 2014). In fact, Uslu & Kiper (2006) debate that the case of Cumalıkızık has been relatively less successful than the case of Beypazarı (explained in the following part). It is claimed in their study that after tourism has been introduced to the village, local people were influenced by the commercialization which resulted in loss of authenticity in the village.

To sum up, Cumalıkızık is a significant example of representing a rural settlement in the early Ottoman period. Despite some challenges and risks are there; historical, natural, and cultural heritage has been conserved after numerous attempts of the several stakeholders including local government, universities, NGOs, and local people.

2.3.5.3 Beypazarı, Ankara

Being one of the districts of the capital city, Beypazarı is located in the northwestern part of Ankara (Figure 2.7). It has a total area of 1.868 km2 land with and altitude of 675 m. Currently, the district has an historic and a new settlement (Türkiye Tarihi Evleri Koruma Derneği, 2001; Eceral & Özmen, 2009).

The population of Beypazarı was 42.000 and 48.476 in 2017 (URL2). Some of the economic activities are agriculture, animal husbandry, trade, industry and handicrafts, whereas it is mainly based on the rural economy as %67 of the population work in agriculture (Beypazarı Ticaret Odası, 2003; Günay, 2008).

It has been occupied by several civilisations thanks availability of fertile lands, rich water resources as well as safe environment surrounded by the mountains. It is said that the history of the town goes back to the Hittites (1600 BC – 1178 BC) and Phrygians (1200 BC – 700 BC) and Romans, Byzantines, Anatolian Seljuks and Ottomans dominated the area. The fact that it was located on a historical trade route connecting Istanbul – Baghdad, a part of the Silk Road, made it possible for Beypazarı to have a lively economy from the era of Roman Empire until the Turkish Republican era (Yaman 2000; Uslu & Kiper, 2006). During the Ottoman dynasty, Beypazarı had

the greatest market place or bazaar of the time where people living close by come to Byepazarı to sell or to buy various products (Eceral & Özmen, 2009; Bircan et. al., 2010).

Figure 2.7 Overview of Beypazarı, Ankara. (1): Location of Ankara City, (2): Location of Beypazarı District, (3): A general photo of Beypazarı (URL 7), (4 – 5): Vernacular houses in Beypazarı (Image 4: URL 8, Image 5: URL 8)

A) Architectural characteristics in Beypazarı: Beypazarı has two types of settlements: Old town and new town. New settlement has been developed towards the south and east of the historic town from the beginning of the 20th century (Uslu & Kiper, 2006). The old town has not been affected from the urban expansion and developments. The old town is consisted of historic market place which is more than 150-year old, historic mosques and inns surrounded by six neighborhoods where 3500 vernacular houses exist (Günay, 2008). Among those vernacular houses, only 89 of them are registered by the Ministry of Culture and Tourism.

Housing units are closely located to each other. As a result, the collective settlement pattern is produced in the historic town. Vernacular houses are generally 3-storey-high. As it is explained in the previous sections, ground floors are constructed with stone, whereas on the upper floors, timber frame system is used and it is filled with timber or adobe. Plan characteristics also represent the common features of vernacular houses in Turkey (Türkan, 2013).

B) Conservation activities in Beypazarı: When Evliya Çelebi, a famous Ottoman explorer who travelled through the territory of the Ottoman Empire and nearby lands for decades, came to Beypazarı in 1638, he reported that there were 3060 vernacular houses which had two floors. The fact that 3500 vernacular houses exist today is

a proof that local people in Beypazarı protected the local values and vernacular houses for long (Kurşun et.al., 1999). However, this has been gradually changed in the recent times and in order to conserve heritage in Beypazarı, actions have been taken.

The history of conservation activities in Beypazarı has a history of almost two decades. Although the it is not a very long time period, significant outcomes have been gained and Beypazarı has become an important tourist destination and also a good model for other small towns/villages which have the potential for cultural tourism.

The first attempts for the conservation was initiated in 1995 when a project for the rehabilitation of streetscape started (Figure 2.8). As a part of this project, facades of 13 vernacular houses were maintained (Eceral & Özmen, 2009). Although the first conservation activities were conducted in 1995, the turning point for the conservation of Beypazarı was in 1999 when the new Mayor had great enthusiasm to conserve vernacular houses and local culture (Özmen, 2007; Türkan, 2013).

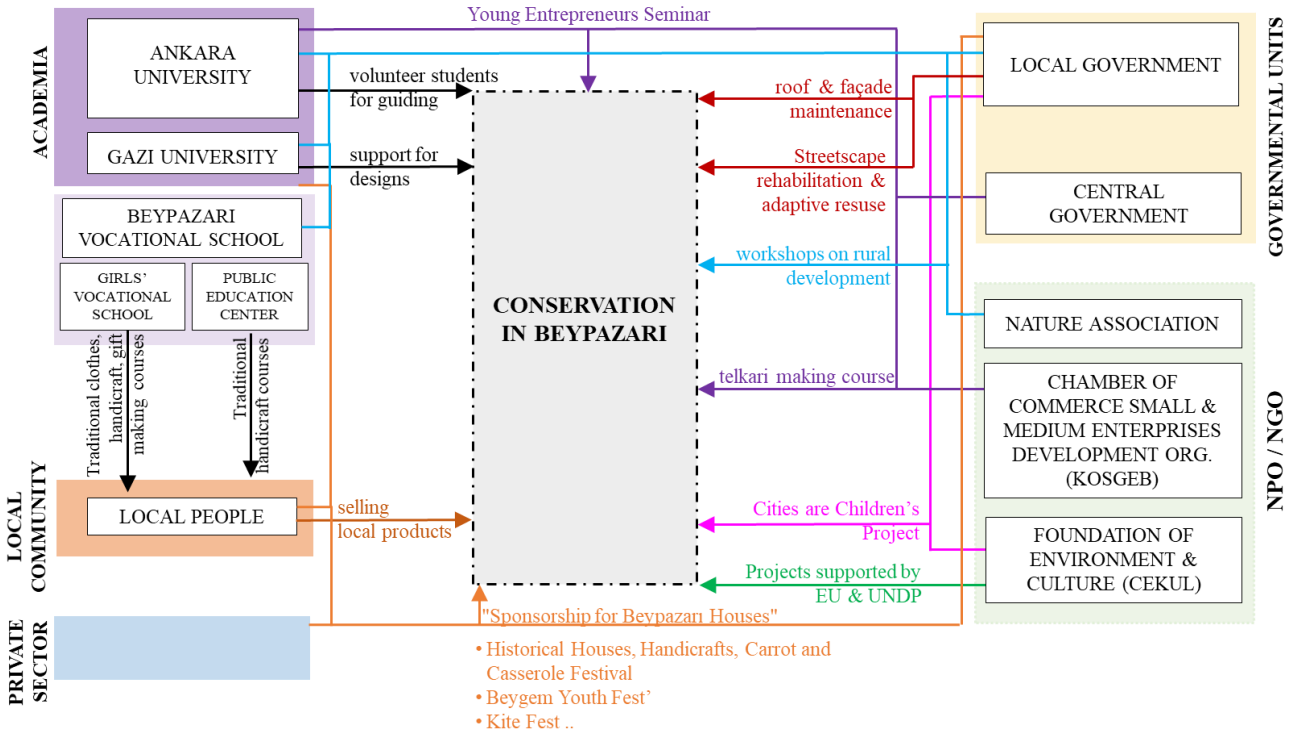

Figure 2.8 Stakeholders involved in the conservation process and activities conducted in Beypazarı.

For this purpose, a project called "*Beypazarı Yeniden Projesi* (Project of Beypazarı Once Again)" has been started in which various strategies are set for conserving vernacular architecture, sustaining the local culture and identity in Beypazarı. For this aim, first of all, façades of vernacular houses were painted and maintained whenever needed. After that, projects have been implemented for the improvement of the streetscape and the restoration of

vernacular houses. This process has resulted in visible outcomes on the improvement in the physical environment which helped to take the attention of local people. 550 vernacular houses have been restored for this purpose by 2008 and 283 of them are registered (Eceral & Özmen, 2009).

Adaptive reuse strategies have also been implemented to the some of the vernacular houses and after the completion of the project, they are refunctioned as guesthouses, restaurants, museums, etc. A tourist information center has been established where more than 30 students from the Department of Tour Guiding, Beypazarı College (Ankara University) have worked voluntarily (Takano, 2008). Also, in 2006, guidebooks are prepared both in Turkish and English to inform visitors about the history, cultural heritage, local food and products as well as the activities/events organized in Beypazarı (Aydoğan, 2005).

Several actions have also been taken for the PR activities. For instance, festivals and cultural events have been organized to advertise the cultural and natural values in Beypazarı, to increase the value given to the cultural heritage and the awareness level of local people in Beypazarı. Among them, 'Historical Houses, Handicrafts, Carrot and Casserole Festival' is one of the most significant festivals happening annually in the first week of June. Various concerts and exhibitions are made, several stands are made for selling various local products and handicrafts. Another festival is "Beygem Youth Fest' focusing on the younger generation in Beypazarı to make them learn the cultural richness in their hometown. Similarly, Kite Fest in Beypazarı firstly organized in April, 2002 has had the significance to take attention from inside and outside the community. Since 2001, PR activities have been accelerated in the written and visual media in the countrywide (Türkan, 2013).

Also, *Kentler Çocuklarındır* (Cities are Children's), has also begun in 2008 with the collaboration of Beypazarı Municipality and *Çevre ve Kültür Değerlerini Koruma ve Tanıtma Vakfı - CEKUL* (Foundation for Conservation and Promotion of Environmental and Cultural Values). As it can be understood from the name of the project, it focuses on increasing awareness of children about the cultural richness of their hometowns, the issues related to urbanism, identity and conservation (Günay, 2008).

Such events were firstly organized by the Cultural and Natural Heritage Conservation Board of Ankara. However, in time, more stakeholders have been included to this propaganda, including universities (Gazi University and Ankara University), district governor, private sector, NGOs, etc. Gradually, Beypazarı has taken more attention and become a tourist destination.

During this process, with the incentives of the Mayor and the collaboration of local government, private and public sector, universities, NGOs and local people (Eceral & Özmen, 2009). Several strategies have been applied to get the support from various corporations, universities and local people. One of those is the "Sponsorship for Beypazarı Houses" program which provides various opportunities for sponsors such as the renaming of a street

after the name of the sponsor firm, the provision of stands in the festivals for ten days, promotion of the conservation works event in the media, etc.

NGOs have also played a significant role for the heritage-led-conservation and cultural tourism in the local level. NGOs have conducted internationally supported projects (by EU & UNDP) to conserve and develop cultural, historical and natural values with the collaboration of other stakeholders, such as local community, local government and universities. In addition to Major's incentives, such projects have also been effective for the conservation, maintenance and renovation of vernacular houses (Bircan et.al., 2010).

Moreover, educational and academic support has also been received from various institutions, including filigree *(telkari)* making, weaving, and other traditional handicraft techniques have been taught by the Public Education Center to sustain traditional handicrafts. Also, educational and guidance programs were organized for the local producers, to support younger entrepreneurs, to educate labors, etc. *Telkari* making course organized by the collaboration of Chamber of Commerce and District Governorship; "Young Entrepreneurs Seminar" organized by the Chamber of Commerce, Small and Medium Enterprises Development Organization (KOSGEB), Ankara University Beypazarı College and Gazi Univesity - Vocational School of Technical Sciences; or courses for traditional clothes, handicrafts and gifts making organized by the Girls' Vocational School are some of them (Eceral & Özmen, 2009).

In addition to that, academic support has been received from the nearby universities. For this purpose, Municipality of Beypazarı has received support from the Department of Tourism and Guidance in Beypazarı College at Ankara University for the guidance activities and from the Department of Industrial Design in Gazi University for the design related aspects. Also, a workshop, "Agriculture, Tourism and Environment Workshop on Rural Development in Beypazarı", was organized in 2006 with the collaboration of Centre for Research on Environmental Issues, Faculty of Agriculture in Ankara University and the Vocational School of Beypazarı, Municipality of Beypazarı and the Nature Association (Bircan et.al., 2010). After 4 years, another workshop is organized on October 4-8, 2010 with the support of local municipality for designing products for the advertisement of Beypazarı. Participants designed urban furniture, souvenirs, etc. during the workshop and in the end, proposals were evaluated by the committee of notables of the local community, mayor, university professors and retired teachers. Considering the fact that the number of collaborative projects is limited in Turkey (Salam & Öztin, 2004), conservation practices in Beypazarı can be called as a milestone in the field of conservation.

Furthermore, the Mayor has also promoted the conservation works for local people by pointing out the fact that vernacular house owners will be living in healthier places, the value of buildings will be increased and they will be earning money from the vernacular houses as well as the local products and culture. For the conservation works, expenses for the roof and façade maintenance is paid by the Municipality and the rest expected to be done

by the owners. The possible opportunities of having a restored property have created willingness for the community to conserve their environment and properties. The Mayor has also conducted various face-to-face meetings to provide an opportunity for local people to share their ideas and to take active role for the project.

Instead of providing financial supports, municipalities provided educational courses for the local people, particularly for the females who wants to start up a business (Öter & Ünal, 2011). According to Takano (2008), %60 of the local people working in the tourism sector in 2005 was females (900 females). Also, the local government give permission to have small stands to sell local products and for this purpose, more than 100 stands are prepared by the local government (Eceral& Özmen, 2009). Another program which has been initiated by the local government is the same price for the same group of products to keep the quality of the products, lessen the competition with equal opportunities for everyone (Günay, 2008; Hocaoğlu, 2016).

Contribution of house owners, artisans and tradesmen to this process have made it faster to get positive results (Türkan, 2013). By promoting the cultural heritage through the *Beypazarı Yeniden Project*, this agricultural and historic settlement of Beypazarı has been transformed into a viable and lively settlement, with a stronger cultural identity and local economy within ten years (Günay, 2008). During this period, a drastic increase has been observed in the number of people visiting Beypazarı. Before the conservation and regeneration activities are started, there were only 2.500 tourists came to Beypazarı in 1999. However, this number has increased to 370.000 in 2008 (Eceral & Özmen, 2009).

Having the emphasize on the local identity and culture has vital impacts on the development of tourism activities. Obtaining patents for the traditional local foods, having a decision in the Municipal Council in 2002 to prevent using foreign names in the signs of the shops (Eceral & Özmen, 2009), organizing courses to teach traditional handicrafts as well as festivals to spreading local culture are considered as significant factors intensifying the local identity of Beypazarı.

One of the significances of the heritage related conservation activities in Beypazarı is that tourism and development are combined as well as the local people have involved in the process actively (Öter & Ünal, 2011). Thanks to the that characteristic, Beypazarı has been pointed out as a sample case for the local economic development plan in the national and international arena (Aydoğan, 2005). Besides those two factors, the main difference of Beypazarı case is that, conservation activities have been initiated before the site is registered as an urban heritage site. According to Günay (2008)'s study, the Mayor of Beypazarı asserts that designation would have brought strict measures for the conservation which would not have made it possible to make the same level of actions in the same period of time because of the bureaucratic limitation. In fact, the designation of Beypazarı as an urban heritage site has not happened before January 2008.

Günay (2008) also claims that local government and community taking a pioneering role for the conservation activities in Beypazarı is considered to be an important factor for the management of the process. Thanks to the project, not only the beautification of the physical environment and conservation of vernacular houses are achieved, but also local people are encouraged to have their own business, unemployment level decreased, females have gained a special role in the local economy, local products are commercialized. Integration and active participation of local people, increase in the confidence and pride in the community, exchanging and expressing ideas, are considered as some of the success factors of the project.

Besides the positive outcomes of cultural heritage tourism on the local economy, pride and identity; there are some negative impacts as well. According to the study made by by Günay (2008), competition and the demand in the market has caused the owners of traditional craft shops to start selling cheap Chinese products, quality of local products has become lower. Also, it is expressed that some of the local people complained that the project is limited to a specific area and income group. Because of that reason, they mention that visitors prefer going to the areas with furbished facilities and the other areas have started to loss their importance. Moreover, it is also stated in the same study that local people hesitate about the increasing number of visitors in the future which may cause alienation within the local community. Günay (2008) also highlights that there have been various criticisms in the academia because of the fact that Beypazarı was not designated as an urban heritage site and a self-management scheme was applied to prevent the measures of conservation legacy.

In short, Beypazarı is an example showing that conservation cannot be achieved through focusing on the physical environment only. Instead, the area should be considered as a whole together with its economy, nature, identity, marketing, etc. and strategies for active participation, collaboration as well as integration are necessary.

2.3.5.4 Sürmene, Trabzon

Located along the coastal areas of Black Sea, Trabzon is a city in the north eastern part of Turkey (Figure 2.9). Being located on a geographically strategic point, Trabzon has been the hub for the road and sea transportation throughout the history. Especially being located in the historic caravan trade routes, including the Silk Road, the city has always played an important role in the history.

The City of Trabzon has eighteen districts and Sürmene is one of them. Located in the eastern part of the city center, Sürmene is famous for the handicrafts, such as knife making, coppersmith and jewellery making, etc. Thanks to the port in Sürmene District, local people are also good at boat making and wood crafting. The professions other than the knife making have almost lost their importance in the present life.

Figure 2.9. Overview of Sürmene, Trabzon. (1): Location of Trabzon, (2): Location of Sürmene District, in Trabzon, (3): Photo of Sürmene (URL 9), (4): Rural environment in Karacakaya, 5: A vernacular house in Dirlik.

Sürmene has been inhabited by numerous civilizations throughout the history which have resulted in a diverse cultural background in the region. The culture of Sürmene has been directly and indirectly shaped by the cultures of the different communities which have lived there. There is no need to mention that the architectural features in Sürmene have also been shaped by such unique characteristics as well as the natural conditions. As a result, a very unique architectural style, which is explained in more detail in the next chapter, have been formed.

Although this architectural style is identical to the region of Trabzon and Rize, the neighboring city of Trabzon on the east side, the conservation of them has not been properly provided. It can be understood from the abandoned and decaying houses in the rural areas of the city. As it has been experienced in many parts of the country, the built vernacular heritage in the urban areas have been taken more attention, unlike rural areas. As a result, the loss of culture and the local identity has been experiencing in rural areas in the region.

Coming to realize the importance of this unique knowledge and heritage, there is an increasing interest in the architectural conservation in Turkey. Thanks to the strategies implemented in the national level, more concern is given to the construction systems which are more incompatible to the rural areas, natural setting and the local culture. Despite the good motivation for the new startup, the real implications and impacts of the strategies developed have not been very successful. In fact, when the preliminary survey of this research was conducted in 2015, there were no conservation activities conducted in the rural areas of Sürmene, especially in the villages of Karacakaya, Üstündal and Dirlik.

However, in 2017, a local NPO named called "Association for Conserving Natural and Historic Values *(Doğal ve Tarihi Değerleri Koruma Derneği, in Turkish)*" have had the interest in Sürmene. In general, NPO has the interest for achieving the objectives mentioned below:

a) to introduce nature, historic and cultural heritage of the region,
b) to work on the awareness increasing activities to conserve previously mentioned values,
c) to work as a bridge to involve stakeholders for any kinds of activities to support their purpose.

For this aim, the NPO has been involved in several activities in the region mainly to highlight the importance of natural, cultural and historic values and to increase public awareness. One of the most recent activities focuses on the "Historic Trade Route of Surmene - Bayburt" which has a very long history and has been actively used since ancient times until today. Although the historic route has lost its function as a trade route, the route itself and the settlements -used for accommodation / resting at that times- still exists. Since it forms an important cultural and historic heritage site of the region, the "Historic Trade Route of Surmene - Bayburt" connected to the Historic Silk Road, is selected as a focusing area for their research activities.

Located along this historic trade route, Karacakaya and Üstündal areas have been the interest of the NPO and they organized field visits to those villages to observe the natural, cultural and historical heritage in this region. When they visited the villages, they were amazed with the village and the built vernacular heritage. Therefore, they have initiated a process towards the conservation of them by writing an official request to the regional conservation board in Trabzon in 2017 (Figure 2.10). They also had meeting with the local government to inform them about this process and obtain their support whenever is necessary. Thanks to the efforts of the local NPO, three stakeholders –members from the local NPO, regional conservation board and the local government– organized a technical visit to the site. After this visit, necessary actions have been initiated towards the conservation of the rural areas. In fact, Karacakaya has been designated as the urban heritage site and Üstündal as the conservation area. The vernacular houses required to be conserved are identified and registration sheets are prepared for Karacakaya and Üstündal (See Appendix 6). In terms of the Dirlik, the process is still ongoing, as the size of the village is larger as well as there have been some issues related to property conditions.

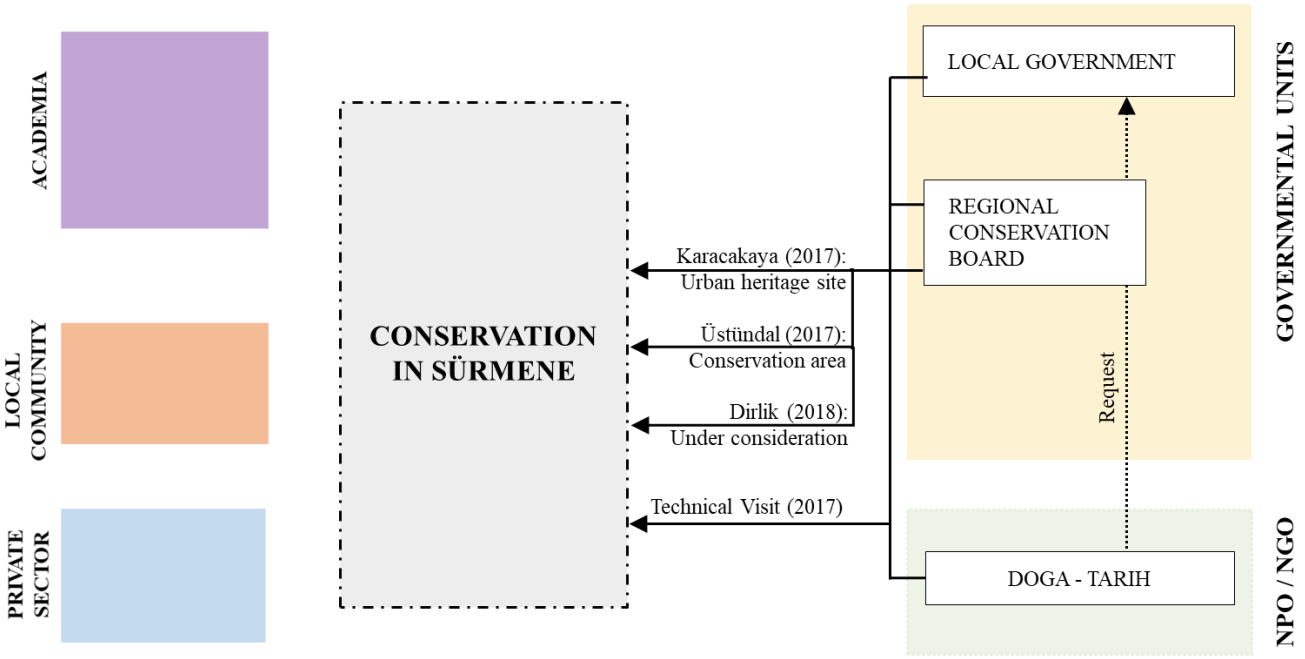

Figure 2.10 Stakeholders involved in the conservation process and activities conducted in Sürmene.

As it can be understood from the previously mentioned points, the rural conservation history in the region is relatively short. Therefore, comparing the previously introduced case study areas, the conservation process is still in the initial stage and the number of stakeholders is limited. Since it is the beginning of the process and there will be many conservation-related activities in the region, there are various lessons to be taken from the example case study areas in or outside of the country. The suggestions made for the focusing area of this research are shared in the last chapter of this thesis.

2.4 Summary

In this chapter, the conceptual and legal development of architectural conservation practices are discussed in the global and Turkish context. Also, key terms related to conservation are defined with a reference to the international charters and academic studies. In addition to that, similar terms are explained in the context of Turkish legal system used for the architectural conservation. Following that, more focus is given to the rural conservation activities in Turkey where example case study areas are introduces.

It is understood in this chapter that despite the developments in the contextual and the legal framework for the architectural conservation in Turkey, the concept is still ambiguous with lack of clear and proper definition as

well as the regulations. It is also found out that although Turkey has accepted the decisions taken in the international charters, the real implications of them take longer time.

Also, the examples of the architectural conservation practices in Safranbolu, Cumalıkızık, and Beypazarı, it is understood that the architectural conservation process takes a long time and requires to involve various stakeholders for numerous activities. Having the vital importance for the sustainability of the built vernacular heritage and the activities for conservation, the contribution of local people plays an important role for the end result.

Last but not the least, it is understood from the introduction of the architectural conservation activities in Sürmene that it is still in the very early stages of the process. The process is still primitive and requires more collaboration between different stakeholders, especially the local people for the conservation activities which will be conducted in the near future.

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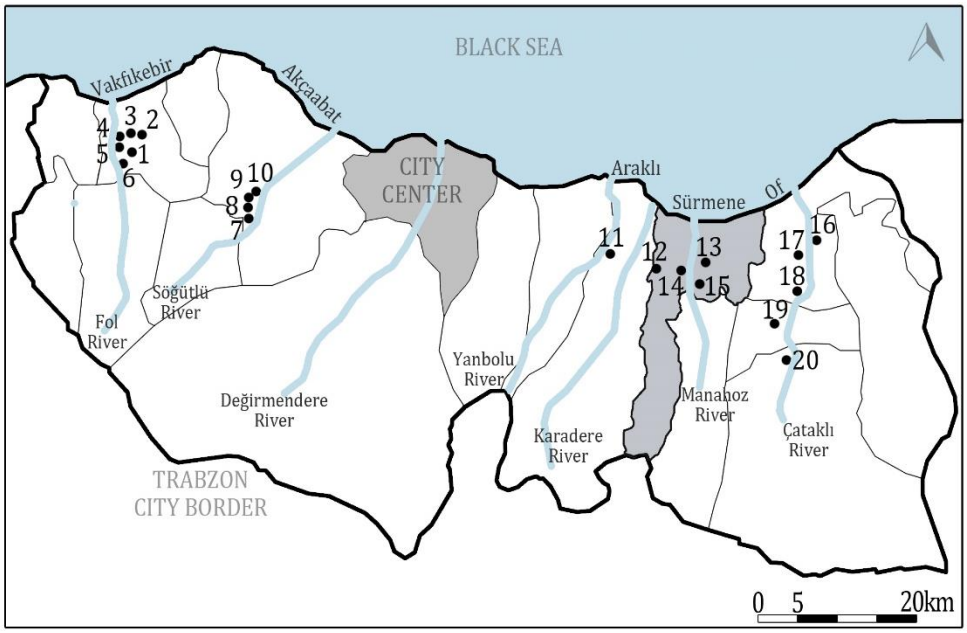
CHAPTER 3. INTRODUCTION OF CASE STUDY AREAS

Turkey is divided into 7 geographical regions, namely Marmara Region, Black Sea Region, Aegean Region, Mediterranean Region, Central Anatolia Region, Eastern Anatolia Region and South-Eastern Anatolia Region. This research focuses on case study areas in Black Sea Region. The Black Sea Region itself is also categorized into sub-regions, namely Eastern, Central and Western Black Sea Regions. The case studies selected are in the city of Trabzon which are located in the Eastern Black Sea Region.

Before giving detailed information about the case study areas, it is necessary to explain case study selection process. Before going to the field, desk study is carried out where various literature reviews are made. Especially, Sumerkan (1990)'s study is significant showing the detailed construction techniques in the region. After this, a preliminary survey is conducted in the 20 villages in the different districts of Trabzon, to understand the real situation of existing vernacular houses and the rural environments (Figure 3.1).



Western Side of Trabzon City			Eastern Side of Trabzon City		
No.	Village Name	District Name	No.	Village Name	District Name
1	Fethiye	Vakfikebir	11	Ayvadere	Araklı
2	İlyaslı	Vakfikebir	12	Gültepe	Sürmene
3	Sekmenli	Vakfikebir	13	Aksu	Sürmene
4	Soğuksu	Vakfikebir	14	Karacakaya	Sürmene
5	Sinanlı	Vakfikebir	15	Ortaköy	Sürmene
6	İshaklı	Vakfikebir	16	Ballıca	Of
7	Ambarcık	Akçaabat	17	Fındıkoba	Of
8	Demirkapı	Akçaabat	18	Cumapazarı	Dernekpazarı
9	Ortaalan	Akçaabat	19	Kondu	Çaykara
10	Şinik	Akçaabat	20	Soğanlı	Çaykara

Figure 3.1 Villages visited in Trabzon during the preliminary survey in 2015.

Onsite observations, photographic documentation and informal discussions with the local people are conducted during the preliminary survey. It is found out that the number of vernacular houses in the eastern part of Trabzon city is higher than that of in the western. Although the distance between the district centre and the villages are more or less the same, villages in the districts of Vakfıkebir and Akçaabat have almost no vernacular house. This can be related to the fact that western parts of Turkey are more developed than that of in the eastern part, which can be interpreted in the case of existence of vernacular houses in western-eastern Trabzon.

Following the preliminary survey, the first actual survey is conducted in August-September 2016 when the more focus is given to Sürmene District. At that time core areas of Karacakaya, Üstündal, Dirlik and Aksu Villages in Sürmene, together with Ballıca Village in Of District are visited. During the fieldworks, architectural measurement survey of the vernacular houses and questionnaire surveys with the residents/owners of them are conducted. After this trip, it is decided to focus on the Karacakaya, Üstündal and Dirlik areas, due to the existence of vernacular houses, interest of some of the local people to the research as well as the historical, socio-cultural and architectural features in this region which is explained in more detail in the following section. After this study has been initiated, Ertaş et. al. (2017) conducted a study in the regional level, highlighting several axes in the city of Trabzon, having high potentials for tourism activities due to their socio-cultural and/or natural features. The area that this dissertation focusing is shown as the core area in Sürmene district which suggested to be utilized for cultural tourism activities in the future (Figure 3.2).

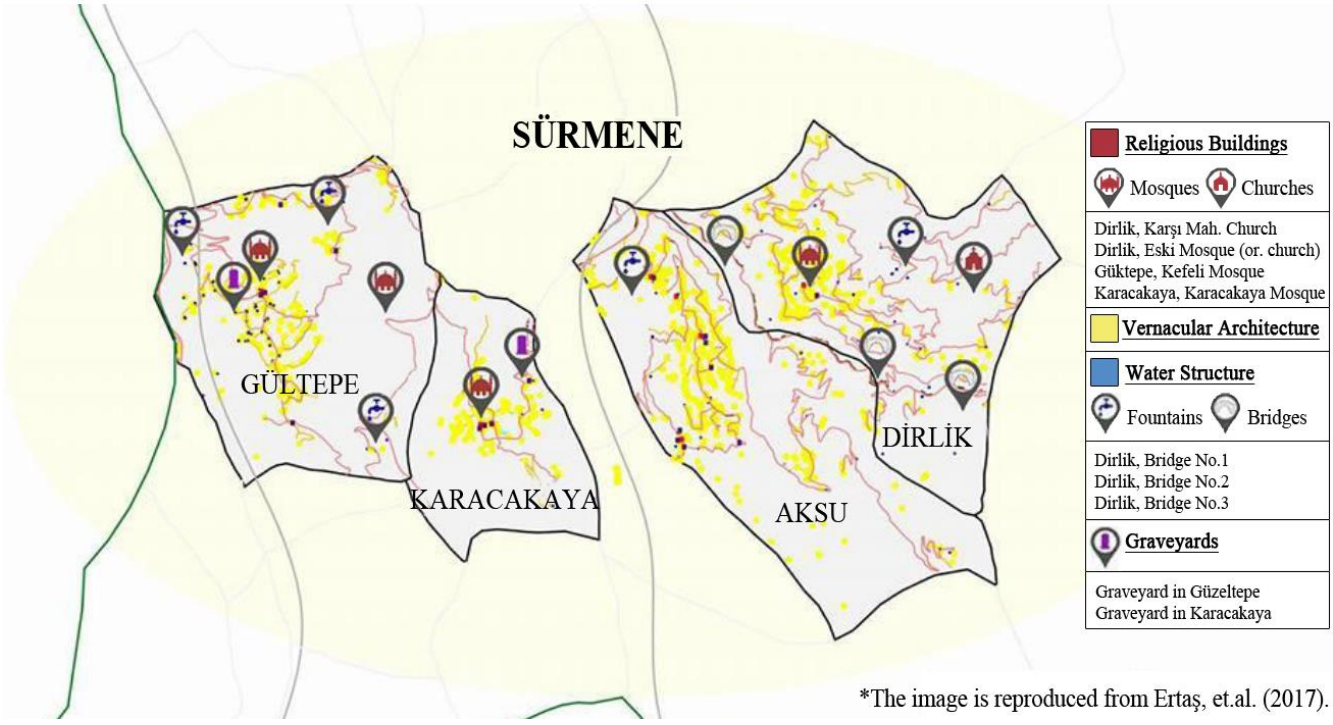


Figure 3.2 Core area of the cultural axis proposed in the study of Ertaş et.al. (2017), highlighting the importance of the case study area of this research.

The study of Ertaş.et.al is considered as a proof that the case study area selected for this research has a significance for the city of Trabzon and the cultural heritage in this area should be studied in more detail. However, in their research, they only studied in the regional level, without getting into housing level. Therefore, it is believed that the architectural examinations made in this study can be utilized for the conservation or tourism strategies which will be applied in the future.

3.1 Location and Historical Development

3.1.3 Location

The case study areas are located in Sürmene District, in Trabzon. Located in the north-eastern side of Turkey, Trabzon is a coastal city along the Black Sea (Figure 3.3, left up). The city is surrounded by the Black Sea on the north and is neighbouring 4 different cities on the other sides, which are the city of Rize on the east, the city of Giresun on the west, and the cities of Bayburt and Gümüşhane on the south direction.

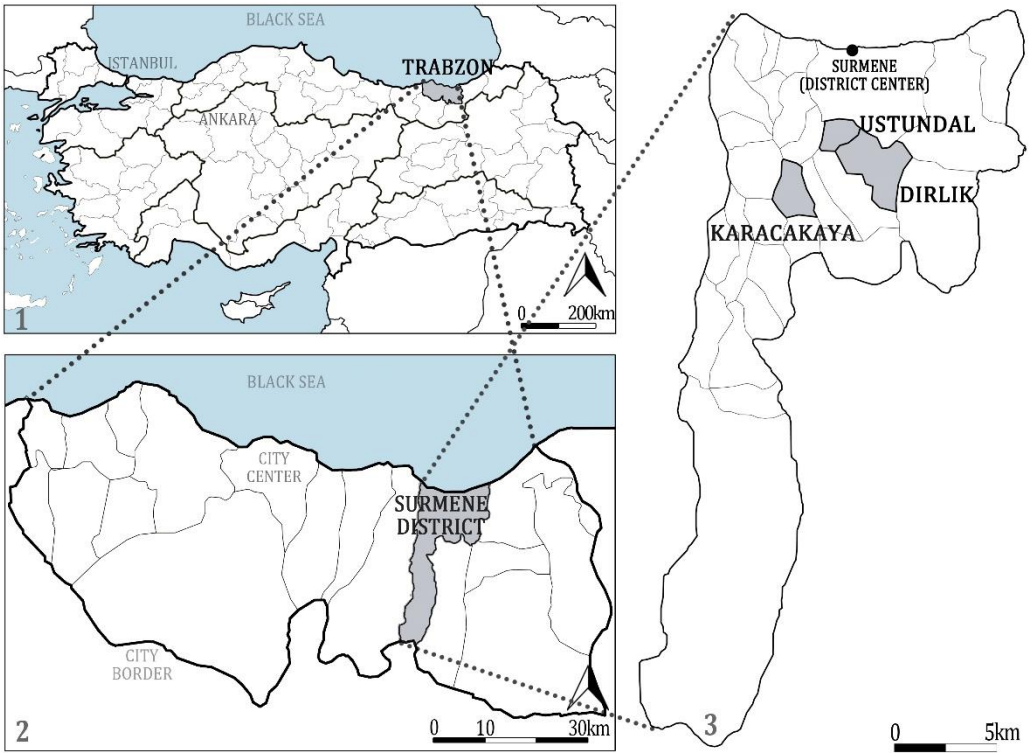


Figure 3.3 Focusing area of the research. (1): Trabzon City, (2): Sürmene District, (3): Case study areas of Karacakaya, Üstündal, Dirlik.

Trabzon has eighteen districts and Sürmene is one of them (Figure 3-3, left down). Having a distance of 36 km from the city centre, Sürmene is located in the eastern part of Trabzon and has an area of 312km^2 (URL10). This research focuses on the mountainous areas located around the Manahoz River in Sürmene District. The distance between Karacakaya and District Center is 9 km, whereas it is 2 km for Üstündal and 7 km for Dirlik. The altitude of three case study areas is almost similar and ranges from 350-400m. Karacakaya was established

in 1825 and Dirlik was established in 1929, whereas no information was obtained for the case of Üstündal (URL 11).

The topography in Üstündal and Dirlik are harsher than that of in Karacakaya. Therefore, settlements in Karacakaya are relatively less scattered and looking like in a compacter pattern. On the other hand, the total area of Karacakaya and Üstündal is similar to each other, but Dirlik has relatively large area. It is necessary to mention that the case study areas were used to be called as "villages" before the Law No.6360, whereas after the changes in the legal and administrative system, they are now categorized as "neighbourhoods".

Table 3.1. Basic information of rural settlements studied (Var & Kobayashi, 2017).

Village Name	Distance to City (km)	Distance to District (km)	Altitude (m)	Establishment Year	Settlement Place	Settlement Type	Seasonal Population Change
Karacakaya	47	9	400	1825	Foothill	Collective	Yes
Üstündal	40	2	-	-	Hillside	Dispersed	Yes
Dirlik	45	7	350	1929	Hillside	Dispersed	Yes

3.1.4 Historical Development

Having a strategically important location and a long history, Trabzon has always played a vital role as being an important hub in the region since the ancient times. According to the archaeological excavations, there are traces of human habitation from the Chalcolithic and Bronze Ages. There are researchers claiming that the earliest known settlement in the region was created by a trading colony of Miletus, which was appeared around 670 BC (URL 12).

Previously named as Trapezus or Trebizond, the city of Trabzon was inhabited by Greek colonists (in the 7th century BC), the Medes (609-550 BC), Persians (550-332 BC), Ponthos (332-66 BC), Romans (66BC-AD395), Byzantines (395-1461), Ponthos (1204-1228), and Ottomans and Turks since 1461 until today. (Özgüner, 1990; Sözen et.al., 1992).

Trabzon was one of the important intersections of the Silk Road connecting Asia and Europe (Figure 3.4). Starting from China and crossing to Asia Minor, the Silk Road was connecting Anatolia to Europe through various connections in the Middle Ages. In addition to road connections, there were various connections through the sea transportation thanks to the port cities, including the port located in Trabzon. Being connected to Batum in Georgia, the port in Trabzon was connected respectively to the ports in Samsun, Sinop Istanbul, Bursa and Gallipoli which were finally connected to the Venice port in Italy (Aksoy, 2014).

Due to the strategic location of Trabzon, various civilizations have been evolved in this region resulting in the cultural richness. Selected villages are located along the Silk Road as well, which is considered to increase the importance of the heritage in the village.

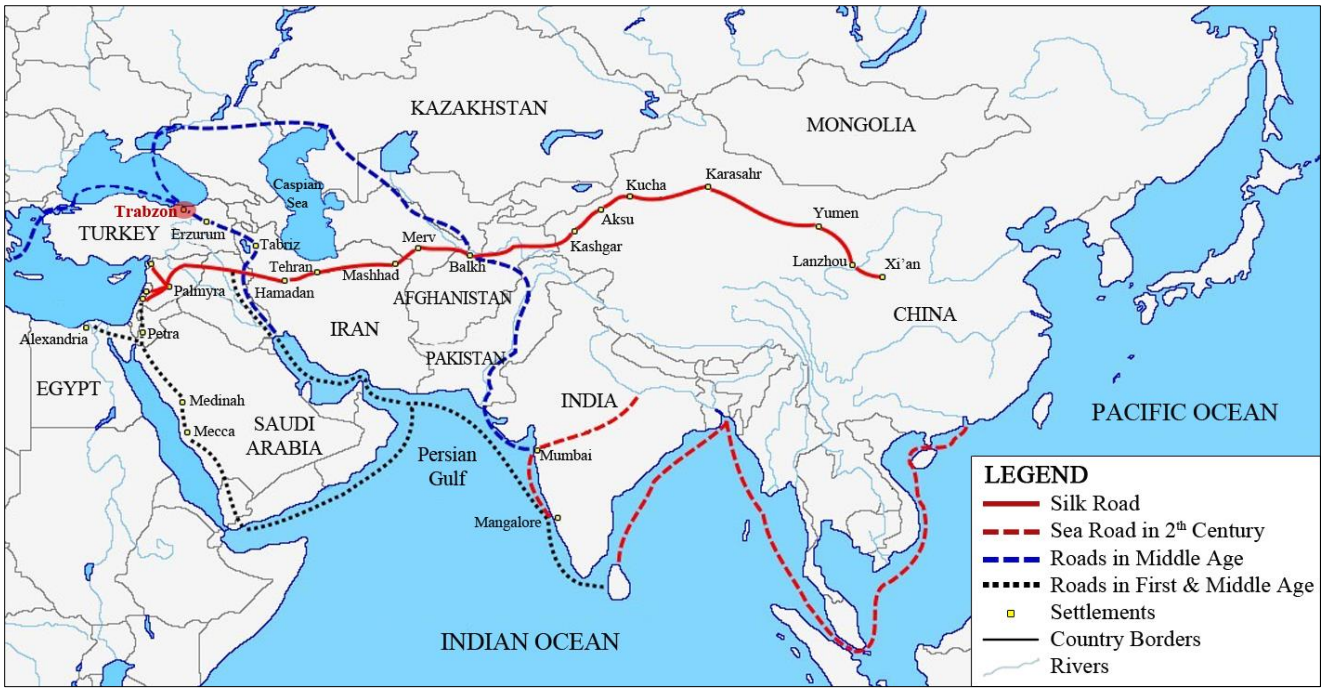


Figure 3.4 Silk Road and the connection in Trabzon (reproduced from URL 13).

3.2 Natural Features

Trabzon has a rich nature thanks to the mild climatic conditions and high precipitation in the region. The natural features of the city are examined in several categories which are topography, climate and vegetation, natural hazards and disasters.

3.2.1 Topography

Topography has been affected for the site selection, orientation and formation of the rural settlements. For example, in the hot and dry places, valleys are preferred to settle, whereas in the places with steep topography and high precipitation, the slopes are preferred because of the drainage and flood risk. Also, it has always been an important factor for the communities to locate their settlements close to the water resources. In addition to those, topographic conditions can also result in interesting design solutions which can identify the characteristic of the rural settlements (Çifci, 2012).

The form of the topography also affects the direction and power of the winds. Therefore, different civilizations have preferred different locations in the field, according to their purpose. If a more protected environment is desired, rural settlements are established in the opposite direction of the dominant wind direction. On the other hand, if the aim is to get the benefit of the winds, slopes which are open to wind impacts are preferred (Çiftci, 2012).

In Trabzon, 78% of the total land has a mountainous topography and mountains extend parallel to the sea. Almost there is no coastal lands appropriate for agriculture. At the same time, there is nearly no flat land in the villages. Considering the fact that main economic activity in Trabzon is agriculture, lands relatively flat or convenient for agriculture are definitely utilized for agricultural purposes. However, the number of flat land in the region is almost none. Therefore, villagers have to settle, do daily activities and agriculture on the slopes (Sümerkan, 1990).

In the Northeastern Black Sea Region, generally, a road is constructed parallel to the river in the valleys which is utilized as the common and the main road for surrounding villages. Since the mountains have very steep slopes, sometimes there are even no pedestrian ways connecting one side to the other. Therefore, people living on one side of the mountain have almost no connection with the people living on the opposite side. As a result, each valley is considered as a culturally rich basin, which is closed to the outside impacts. Considering the harsh topography and lack of proper roads until the 1970s, any form of cultural interaction or introduction of new construction techniques and materials could not have been done easily in the region (Sümerkan, 1990).

3.2.2 Climate and vegetation

Trabzon has a humid subtropical climate, according to the Köppen climate classification which is a vegetation-based climate classification system developed by a German climatologist (Figure 3.5). Humid subtropical climate is defined by the symbols Cfa which represents a temperate climate where the warmest month is greater than 10°C, and the coldest month less than 18°C, but greater than 0°C (C); there is no dry season (f); and the temperature is 22°C or above in summers (Peel et.al., 2007).

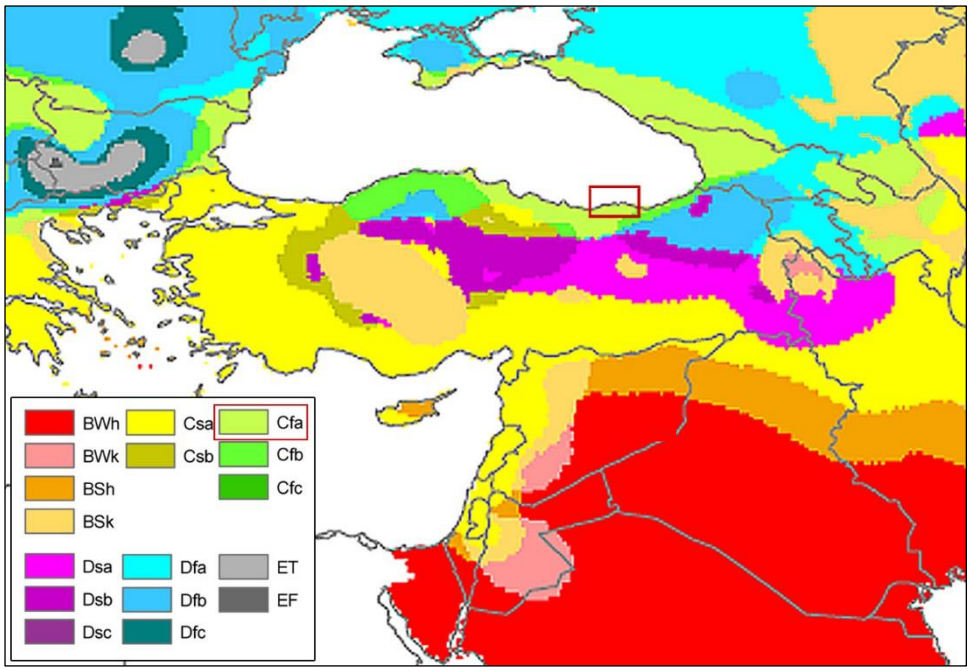


Figure 3.5 World map of Köppen-Geiger climate classification (Peel et.al., 2007) and location of Trabzon.

Table 3.2. Meteorological data for Trabzon from 1929-2017 (TSMS, 2018).

TRABZON (1929 – 2017)	Months												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Average Temperature (°C)	7.3	7.2	8.3	11.7	15.9	20.3	23.1	23.4	20.3	16.6	12.8	9.5	14.7
Average Maximum Temperature (°C)	10.7	10.7	11.8	15.5	19.1	23.1	25.8	26.5	23.6	20.0	16.4	12.9	18.0
Average Minimum Temperature (°C)	4.5	4.3	5.3	8.6	12.8	16.9	19.8	20.3	17.3	13.6	9.9	6.6	11.7
Average Sunshine Duration (hour)	2.7	3.2	3.4	4.2	5.5	7.0	5.9	5.6	4.9	4.5	3.6	2.7	53.2
Average Number of Rainy Days	11.5	11.8	12.6	12.4	12.1	10.3	7.5	8.3	10.6	11.9	11.4	12.1	132.5
Average Monthly Rainfall (mm)	82.0	63.8	58.1	57.2	51.6	50.4	35.5	45.1	78.5	115.5	99.1	83.3	819.6

Trabzon has a high precipitation throughout the year (Table 3.2). In fact, North-Eastern Black Sea Region receives the highest amount of precipitation compared to the other regions in Turkey. The highest precipitation in Trabzon is seen in autumn and winter. Annual temperature is 14,7 °C in average. Winters are cool and damp where the lowest average temperature is 4.5°C in January. Summers are warm and humid. The hottest month August has an average maximum temperature of 26.5°C.

Thanks to the mild climatic conditions and high precipitation, a great variety of vegetation can be seen in the city of Trabzon. Plants grow in humid environments are seen in the region. Broad-leaved trees can be seen from sea level to the places having an altitude up to 1200m, after that the broad-leaved trees are replaced by coniferous trees. Thick forests are seen from sea level up to 2100-2300m, after 2300m grasses. Chestnuts, alders, beeches, scotch pines, spruces are the main species in the forests (PDCT, 2011).

3.2.3 Natural hazards and disasters

According to the Annual Disaster Statistical Review (2016), among the natural disasters happened between 2006 – 2016, highest share is taken by the hydrological disasters (50.5% for 2006-2015 and 51.8% in 2016), followed by meteorological disasters with a percentage of 28.1, climatological disasters with 11.1% and geophysical disasters 9.1%. In the same report, it is also mentioned that the floods were the first cause of disaster deaths for the period 2006-2015 and even in 2016, it did not change (Sapir et.al., 2017).

In the case of Turkey, earthquakes have highest percentage (55%) of the disasters occurred since 1950, which is followed by landslides (21%) and floods (8%) (AFAD, 2008). Considering the frequency of occurrence and the damages happened, the Eastern Black Sea Region is the region which has been affected most from the landslides, whereas the city has not been prone to the earthquakes. Being a city in the Eastern Black Sea Region, Trabzon has the highest number of landslides recorded since 1950 after the city of Rize (Filiz & Avcı, 2013). Also, the number of meteorological and hydrological events between 2005-2008 has increased in Trabzon which caused loss of human lives and property (Bayrak & Ulukavak, 2009).

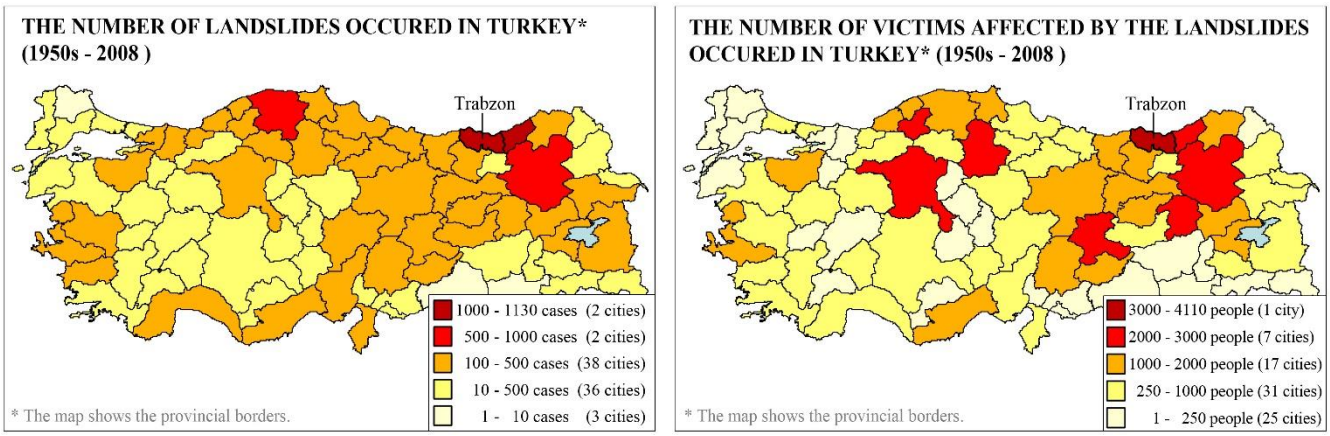


Figure 3.6 Maps showing the number of landslides occurred and the victims in the cities of Turkey.
(Reproduced from the data gained from AFAD, 2008)

Figure 3.6 indicates the distribution of number of landslides, rock falls and floods happened in Turkey since 1950. The first map showing the distribution of landslides proves that Trabzon and Rize cities have the highest number of landslides, whereas people in Trabzon has suffered most (Figure 3.6).

Heavy rainfalls, hilly topography and soil structure in Trabzon are considered as the main reasons to have the greatest number of landslides in the region. Having similar natural conditions, Sürmene is also prone to landslides and suffered several times from the natural disasters. In fact, one of the serious floods of the Republican Era (1923-) happened on July 5-6, 1929 when a heavy rainfall for more than 40 hours caused severe floods and landslides in the region. It caused a serious number of deaths, physical and economic loss in Sürmene, Of and Çaykara districts in Trabzon. The biggest damage occurred in Of District, whereas Sürmene also affected seriously by this natural disaster. In Sürmene, 20 people killed and 30 shops, various bridges as well as roads were damaged. After the disasters, victims were temporarily located to the houses left by Rums after the population exchange between Greece and Turkey. Starting from December 1929, they were sent to the new settlements gradually and as part of this process, 989 people from 193 households living in Sürmene were sent to various villages (Başkaya, 2015). Following the disaster in 1929, the region also suffered from other floods in 1998 and 2006 which had relatively smaller impacts than the previously mentioned one (Sarı, 2018).

In short, among natural disaster, especially landslides and also floods have a high frequency and possibility of occurrence in Trabzon which has negative impacts on the socioeconomic and infrastructural aspects. Therefore, necessary measures should be taken into consideration for conservation of the built vernacular heritage in the region.

3.3 Socio-Cultural Features

Trabzon has played an important role in the history thanks to its geological location which made possible to have a port and caravan trade in the region. Thanks to the existence of port, being located on the historic Silk Road and caravan trade route, its long history and natural features, Trabzon has been inhabited by various civilizations throughout the history which contributed the sociocultural background of the city. The fame of the city has been expanded to the world when Marco Polo visited the city in the 14th century. Later on, other worldwide known travellers, including Xenophon, Evliya Çelebi, Fallmerayer and Frunze, visited the city, and wrote manuscripts about the historical, natural and cultural background of the city (URL 12).

In the Ottoman Era, cities have been developed mostly in the period of 1580-1880. Especially, in the second half of the 19th century, a sharp contrast with the urban and rural environments have been experienced in terms of the sociocultural aspects. During the Ottoman Era, the difference between urban and rural areas were not as obvious as that of in European countries. Until the mid 20th century, there used to be tradesmen in the rural areas and some of the people living in the urban areas used to earn their livelihood from the agricultural fields and vineyards they have as well as they used to spend months in the vineyards during the summer time. The income of artisans and craftsman were not enough at that period of time, which was making a must for them to deal with the agriculture. Therefore, in terms of the economic aspects, there was not a big difference between urban and rural areas, whereas the cultural difference was quite strong (Suraiya, 1993).

Since Greek and Ponthos communities had lived in the region before Turkish inhabitation, the city of Trabzon has still a Greek-speaking Muslim community who mostly lives in the districts of Tonya, Sürmene and Çaykara (Öztürk, 2011). Different cultural habits and traditions melted in the same pot, Sürmene region has a unique cultural organization.

In Sürmene, the sociocultural life could be defined with several factors such as extensive family structure, close relationships with the family members and neighbors, community work *(imece)* in the village, marriage at the early ages or consanguineous marriage, gender inequalities, more work load for the females, etc. However with the improvements in the infrastructure, transportation and industry, increasing level of education and economic condition, migration to bigger cities and coming back to the village in the summers have resulted in changes in the rural lifestyle. Currently, sociocultural and economic differences between rural and urban areas are not much comparing to the previous times.

With the facts that modernization has affected the family structure in the rural areas and families have become financially independent, it can be understood that it is a common trend for families to have their private space. This has resulted in the change of extended family structure. However, families who do not become self-supporting or who still follow the traditional system may still continue to live in the same house with the 2-3

generations. Traditionally, the head of the household is the males and females are considered in the secondary place which has not changed much even in the current societies in Sürmene. In the 1960s, the males went to big cities or foreign countries to earn money. Although in some cases the whole family migrated, at first place it was always the males who left the village. This has caused females in the Eastern Black Sea region to take more responsibility which is still the same. Also, there used to be 3-5 animals in each household in Sürmene region. However, recently, it is rarely found families breeding animal in the current situation.

Similarly, community works (imece) used to be the core element of the rural communities. Harvesting agricultural products, supporting each other during celebrations or mourning times, constructing and cleaning village roads, mosques, etc. used to be done all together with the villagers. However, this tradition has been gradually changed in the region.

Some of the common beliefs in Sürmene region are the evil eye, good luck, bad luck, believes on nature and natural events. For instance, the moonrise is considered to be related to productivity, innovation and good luck. Such kind of faiths is strongly believed in the rural areas compared to that of in urban areas (Sarı, 2018). Another common trend in the rural areas is to go to the houses in the highlands during the summer time. This inhabitancy pattern or having a different house for summer and winter is associated with the nomadic roots of the Turkish communities (Kuban, 2017).

The district of Sürmene is popular for being a popular place for knife making, including the daggers with ornamental details which are worn for the traditional costumes. However, currently, the main production in the district focuses on the kitchen knives and tea harvesting shears which are sent to different parts of the country (URL 12). The local people in the region are also known as being talented for boatbuilding, coppersmith, jewellery making, etc. On the other hand, the number of people dealing with such professions is very limited in the present life.

3.3.1 Population

Being one of the most significant elements of the social structure, population has a vital impact on the production, development, and advertisement of the communities. An increase in the population affects the various aspects such as industrialization, education, services, the settlement patterns, etc. This impact can be in a positive if the employment opportunities increase in a parallel way to the population increase.

According to Öztürk (2012), the population increase in Turkey was not considered in a negative way see the beginning of the Republican Era of the 1960s. Because, the majority of the population was living in the rural areas and they were dealing with the agricultural works. In fact, when the population of Trabzon is reviewed, it is

understood that during the period of 1927-2000, the population of Trabzon has increased and it reached to its peak in 2000 (Figure 3.7).

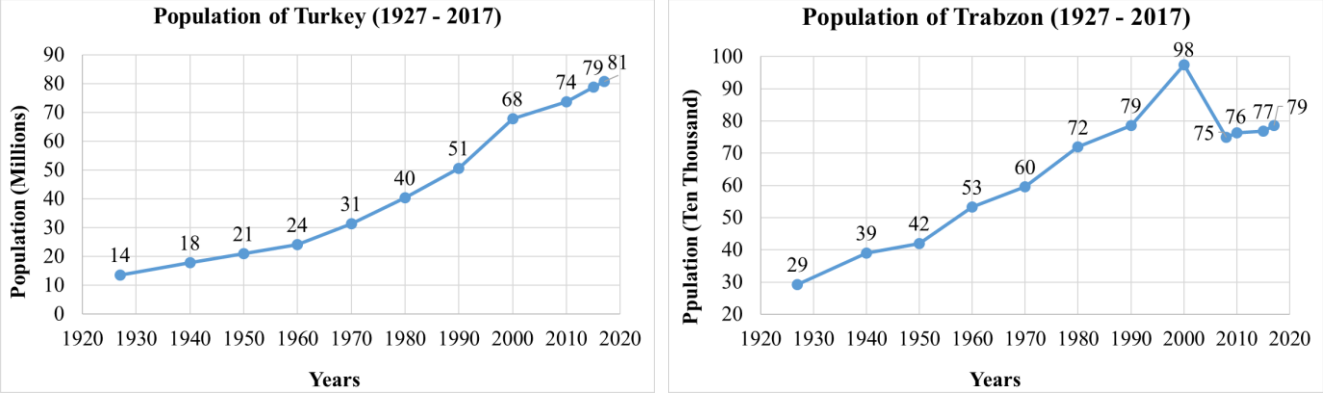


Figure 3.7 The population changes in Turkey and Trabzon in 1927 – 2017 (prepared by the data gained from TUIK).

The distribution of the population in Trabzon regions is in harmony with the topography. In the coastal areas, the population is denser, whereas it drastically decreases towards the inland areas. However, a population movement from cities to villages occur in the early spring or summer (Özgüner, 2017). Therefore, during this season, a fluctuation in the population is seen.

Gradually decreased each year since 2009, Sürmene has a population of 25.669 as of 2017 (URL 11). The population in the case study areas of Karacakaya, Üstündal and Dirlik is shown in Table 3.3. It can be easily understood from the table that in the last decades, population in the focusing region has also decreased drastically. Moreover, the population in the focusing area also differs depending on the seasons. In winter, local people go to cities for better service, work and education opportunities whereas they come back to the village since April for agricultural reasons. This causes a fluctuation in the current population of the case study areas in Sürmene, Trabzon.

Table 3.3 Population changes in Karacakaya, Üstündal, Dirlik villages in 1965-2015 (Prepared by the data from TUIK).

Village Name	1965	1970	1975	1980	1985	1990	2000	2007	2010	2015
Karacakaya	217	320	316	285	233	160	176	61	63	72
Üstündal	289	264	322	402	243	209	-	116	143	128
Dirlik	748	720	625	582	548	489	355	302	293	306

3.3.2 *Education*

The changes in the socioeconomic structure are directly related to the education. Considered as the first criteria for the socioeconomic development, since their childhood, education is a need for individuals. (Öztürk, 2012). In the recent years, the desire for having proper education has increased drastically.

Similarly, Trabzon has also experienced an increase in the educated people. Although 28% of males and %3, 7 of females were literate in 1935, this ratio has been changed to 95,9% for males and %81, 1 for females in 2000 (Öztürk, 2012). After a decade, the 94,6% of the male population and 84,6% of the female population could read and write in 2010. This ratio has become 82,9% for males and 84,1% for females in Trabzon in 2017.

In the district level, the 91% male population (11.713 males) and 83% of the female population (10.696 females) in Sürmene are literate, according to the statistical information publicized by TUIK. Although the rate of literacy for both genders are almost the same in these days, the gender inequality still exists in the social life in Trabzon as well as in the case study areas.

3.3.3 *Livelihood*

Although the topography of Trabzon is not very convenient, the main income source is still related to agriculture. Hazelnut and tea are two of the most common agricultural products in the region. 10% of the hazelnut production and 12% of tea production of Turkey is from Trabzon (Governor of Trabzon, 2015) whereas productions of potato, corn, etc. are also common.

Trade has also played an important role in Trabzon's economy due to its strategic location between Europe and Central Asia. The historic trade routes passing from the region have played an important factor affecting the economic development of the city which has been replaced by the modern port and airport facilities in the contemporary life. Besides agriculture and commerce; fishing, carpentry, copper working, and boat making are some other important economic activities in Trabzon (Sözen & Eruzun, 1992). For the manufacturing industry, some of the significant products are flour and bran, dairy products, fish oil, and so on (URL 10).

In the case of Sürmene, agriculture, animal breeding and fishery play a significant role. Tea and hazelnut are the main agricultural products. A tea factory is located in the district. Also, knife making is the most popular handicraft which is still practiced in the region. In the coastal areas, shipyards exist for making boats and small ships (IGTHM, 2014).

3.3.4 Administrative system

During the Ottoman Empire, administrative system consisted of following subcategories: province *(vilayet)* and city *(eyalet)* in the first-level division and district *(sancak)* in the second-level division. Conquered in 1461, Trabzon was first managed as sanjak *(sancak)* until 1598. In 1598, the administrative system was transformed into the city *(eyalet)* and in 1868, it became to a province *(vilayet)*.

In the Turkish Republican Era, the administrative system changes to the following structure: cities, districts, towns, villages, neighbourhoods. Having the total area of 4.664 km^2, Trabzon is one of the 81 cities in Turkey. It has been converted to a metropolitan city in 2012 and since then it has 1 metropolitan municipality and 18

municipalities. The city has 18 districts and 688 neighbourhoods. Districts of Trabzon from west to east, Vakfıkebir, Çarşıbaşı, Akçaabat, Ortahisar, Yomra, Arsin, Araklı, Sürmene and Of have a connection to the coastal areas, whereas the rest of the districts (Tonya, Düzköy, Şalpazarı, Maçka, Köprübaşı, Dernekpazarı, Hayrat and Çaykara) are located on the inland (IGTHM, 2014).

There have been some changes in the administrative systems of Turkey after the enactment of the changes in the Law No.6360. With the changes in this Law, rural areas which used to be classified as village have been transformed into neighbourhoods *(mahalle)*. This practice almost affected the half of the villages in Turkey (URL 13), including the case study areas of this study. Since 2012, Karacakaya, Üstündal and Dirlik are not classified as a village, but as a neighbourhood *(mahalle)* which have direct impacts on the management of the areas.

Also, in the beginning of the 20th century, there was a policy to change the names of the settlements which did not have Turkish name. For this purpose, the settlements for instance, the name of Karacakaya used to be called as Maçuka, later changed to Soğukpınar and then to Karacakaya. Similarly, Üstündal used to be Karakanzı which was changed to Hanlı later and it is currently called as Üstündal or Dirlik was named as Cida (Zida) followed by Boğazlı and Dirlik (Yüksel, 2013).

3.4 Architectural Features

Architectural traditions in Trabzon are affected by various factors such as topography, climate, natural resources, and local cultures. For instance, form, structure and construction materials are closely related to the climate, steep topography and rich vegetation in the region. Similarly, architectural styles and plan formations of vernacular houses have been shaped by the Christian and Muslim communities lived in the Trabzon (Sümerkan, 1989).

In the following part, more information about the architectural features seen in the region is explained in two different levels: settlement level and housing level.

3.4.1 Settlement level

Harsh and steep relief in Trabzon has resulted in the formation of scattered residential settlement pattern in the rural areas of Trabzon (Dinçer, 1995). Each vernacular house is usually located in the upper parts of the land. The abundant water and forest resources, steep topography, desire to have easier access to the agricultural fields have resulted in this situation (Özgüner, 2017; Şen, 1967).

Vernacular houses are located whether on the southern or eastern parts of the slopes or sometimes they are located parallel to the topographical lines as a result of the climate and topography in the region. Despite the disadvantages of the cold climatic conditions, north sides of the slopes have better sceneries. The decision of the

location of the vernacular houses is often shaped by various factors, such as location of agricultural lands, protection against the humidity, topography, orientation towards the exposure and best scenery, desire to observe sun movement from east to west, etc. (Sümerkan, 1990). Topography is the most effective factor on the orientation of the vernacular houses compared to other factors. As a result, houses are not parallel to each other as they are located in a compatible way to the natural settings.

According to Ertürk and Sümerkan (1987), rural settlements are categorized into three subdivisions. The first group is the scattered rural settlements on the slopes facing the north. They are usually located on the coastal lines up to 1500-1600m. The second group is the settlements in the 1500-2000m elevation which is usually used as temporary settlements where local people stay almost a month before and after going to the highlands. The last group is the settlements in the highlands between 1800-2800m elevation.

In this region, the most common settlement pattern is the scattered settlement pattern which is defined by the 1 or 5 residential units. It is an expected outcome of the topography. In addition to that collected, group, or linear settlement patterns can also be seen. Vernacular houses forming a group in the vicinity usually belong to relatives. When male kids get married and vernacular house is not enough for the whole family, it used to be a common trend to construct a new house nearby for them. As a result, small neighbourhood with many houses of relatives have been formed (Çevik & Kantar, 2000).

There can be kilometres between the houses or to the village centre as a result of scattered settlement in the regions. This also causes to have difficulties in identifying the borders of the village which is one of the differences of the rural settlements in the Eastern Black Sea region. The distance between houses makes it difficult for people to socialize easily. Therefore, mosques, marketplaces, or tea houses are used for gathering and communicating.

3.4.2 Housing level

All features of the vernacular houses, including spatial, structural and morphological features, are shaped by the high precipitation and mild climate in the region (Batur, 2005). The houses are mostly located on the upper parts of the fields (Özgüner, 2017). This has caused to have one more floor on the lower part of the slopes as a result of the elevation differences (Figure 3.8).

Designed as independent units, vernacular houses in Trabzon are detached houses. They are surrounded by gardens at least on the three directions. There are no courtyards or inner gardens in general. Although, the building elements such as chimneys, extensions, pergolas, etc. can be in a different form or can be constructed with a different construction technique, the plan formation of the vernacular houses have a common pattern (Figure 3.9)

In the following parts, vernacular houses are examined in terms of the spatial, structural, morphological and aesthetic features of the vernacular houses.

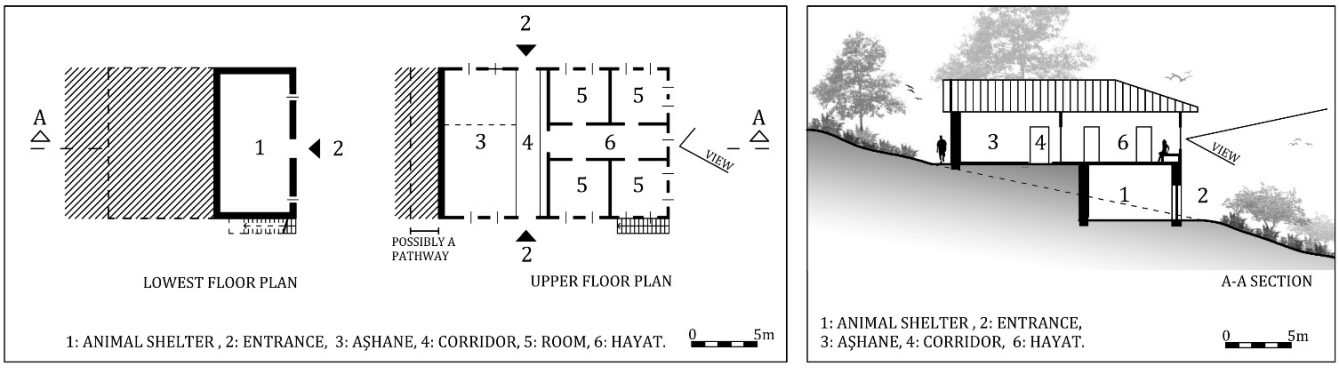


Figure 3.8 General layout of the vernacular houses and the typical section (Var, 2018).

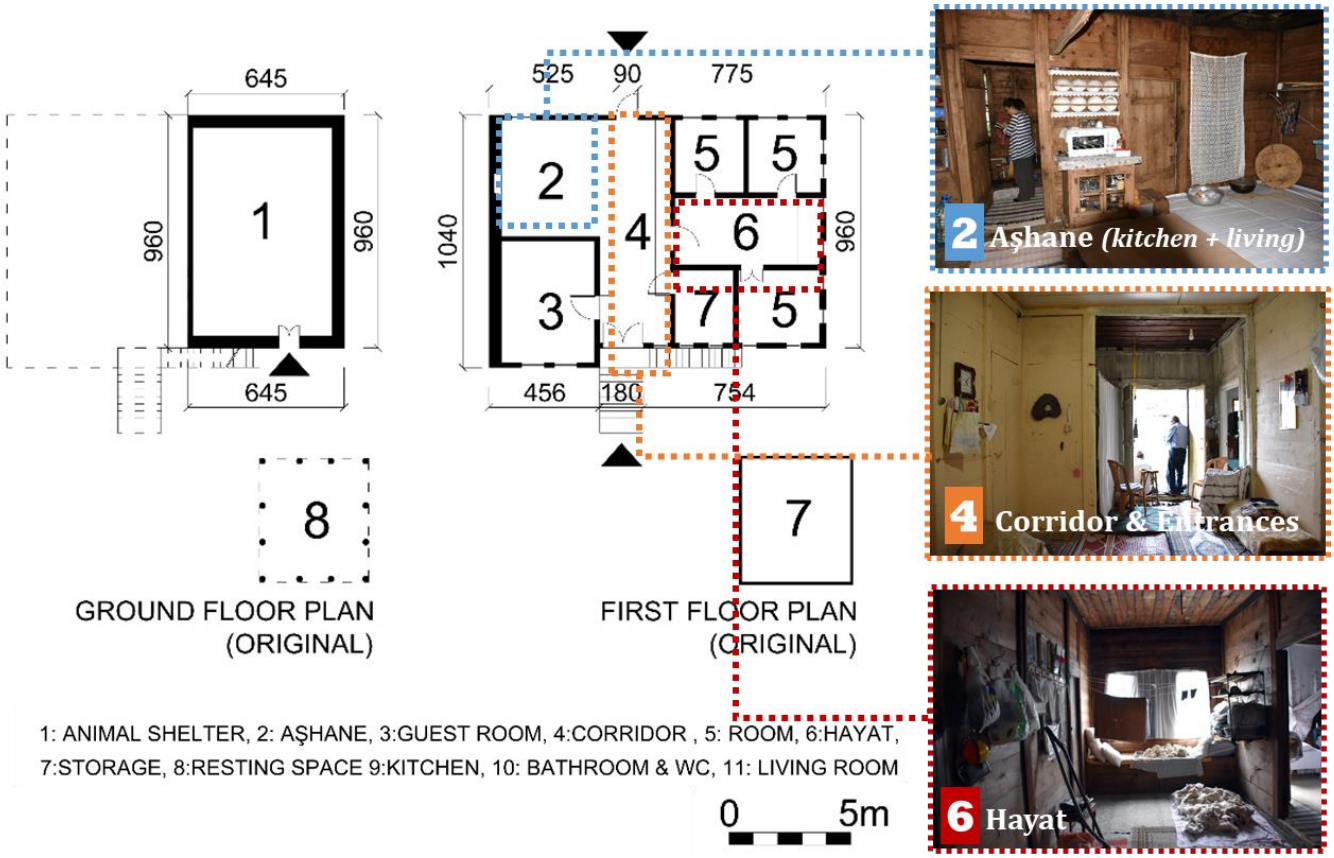


Figure 3.9 Original features of a vernacular house (No.14) in Karacakaya (Var, 2016).

3.4.2.1 Spatial features of vernacular houses

Unless there is a change in the lifestyles of the villagers, there has not been any change in the plan formation of the vernacular houses. Özgüner (2017) claims that the craftsman in Eastern Black Sea region have not tried to create new solutions for the plan formations as the plans are formed in a long period of time which is perfectionized for the people in the region.

Although the height and size of the vernacular houses differ depending on the topography, economic condition and size of the families; vernacular houses in Trabzon are usually constructed with 2 or 3 floors. Located on the upper sides of the hills, excavation works have to be carried out for the construction of the vernacular houses. As a result, vernacular houses are seen with less floor on the higher parts of the slope.

Originally, the lowest floor is used as an animal shelter and in some cases as a storage area. The floor areas of this level are usually less than the upper floors as a natural outcome of the topography. Cold winter conditions and significance of animal breeding for local people's income have made it a necessity to have an easier access which can be used whenever needed, including nights or the cold winter conditions. Therefore, in some cases, this floor is connected to the upper floor by an interior staircase which is covered with a wooden cap. But, most of the cases, the access is provided from the outside (Figure 3.10).

The upper floor(s) is utilized for daily activities, sleeping and storage purposes. The access to this floor is provided by entrances oppositely located on the two sides of the façade. The corridor divides the house into two. One side of the corridor has a multipurpose space which is locally named as *aşhane*. *Aşhane* is the place where most of the day is spent (Figure 3.11). Used for various purposes such as a living, cooking, dining and socializing, *aşhane* is actively used lively space (Sümerkan, 1989). A fireplace is located in this multipurpose space which can be categorized as the heart of the house.

Figure 3.10. Animal breeding and storage space (left-middle), interior staircase (right). (Var, 2016).

Living and sleeping spaces are separated in the vernacular houses of Trabzon. Divided by a wooden wall and a door, the other side of the corridor is connected to the more private part of the house. Rooms are collected on one side of the house. In this part, there are up to four rooms in general which are open to a multipurpose hall called "*hayat*". Being the most important element of the Turkish vernacular houses, *hayat* acts as an interior courtyard of the house where family members come together (Figure 3.11) (Özgüner, 2017; Bektaş, 2018). It always faces the most beautiful view. Most of the cases, *hayat* is furnished with a wooden sofa at the end of the

space to look at the scenery. This place functioning as a buffer zone between the rooms are widely used by the family members (Var & Kobayashi, 2017).

Figure 3.11. Details of *aşhane* (A-B-C) and *hayat* (D-E-F-G) (Var, 2016).

The size of the families does not affect the plan formations, it only changes the number of rooms in the house. Rooms are mostly prepared in a rectangular plan form. The square plans are very rare. The entrance to the rooms is generally located in one corner which enables to the diagonal access to the rooms. Although it is not a part of the tradition, there are rooms which have the access from the symmetrical axis, which happened as an impact of European houses (Kubat, 2017). Although each room is utilized by the different members, *aşhane* and *hayat* are the places where family members come together and use the space for common purposes.

A guest room accessed from the corridor or *aşhane* can also be seen in the vernacular houses of the families which are financially powerful. It sometimes has the direct access from the outside which is designed not to disturb core members of the family.

According to the livelihood of the families, sometimes specific spaces are created which are used as a working space. The working spaces in the vernacular houses are seen in the case study areas of this research. For example, some of the vernacular houses in Dirlik and Üstündal Villages have spaces for copper works, jewellery making or clock making. On the other hand, some vernacular houses in Karacakaya Village have the working space for cloth making, wood carving, cheese making, etc.

Originally, toilets are located outside the vernacular houses, but unique examples where toilets are attached to the vernacular houses can also be seen in Sürmene region. However, in any cases, toilets cannot be located on the southern part which is considered as a sacred direction for Muslim community in Turkey (Sümerkan, 1989).

Vernacular houses in the region have auxiliary components in the form of simple buildings, such as a storage building *(serander / merek)*, oven, toilet, etc. Among the auxiliary buildings, the architectural characteristics of *serander* are significant. Literally, the word "*serander*" means cool, airy place (Özgüner, 2017). Constructed with a two-storey-high, *seranders* are used for storing or drying corn, hazelnuts. In order to prevent pests accessing the agricultural products stored in this building, *seranders* are elevated from the ground. Also, to provide proper ventilation, there are small openings in the structure. Although the structure, plan and section of such storage buildings are very simple, the aesthetic concerns of the craftsman can be easily seen on the facades. Özgüner (2017) claims that Trabzon has one of the best examples of *seranders* in the region.

3.4.2.2 Structural features of vernacular houses

Different construction systems are seen in the rural areas of Trabzon (Figure 3.12). Mainly, timber masonry or timber frame systems are common in the region (Güler & Bilge, 2014). However, timber masonry system or the combination of more than one construction system is often preferred.

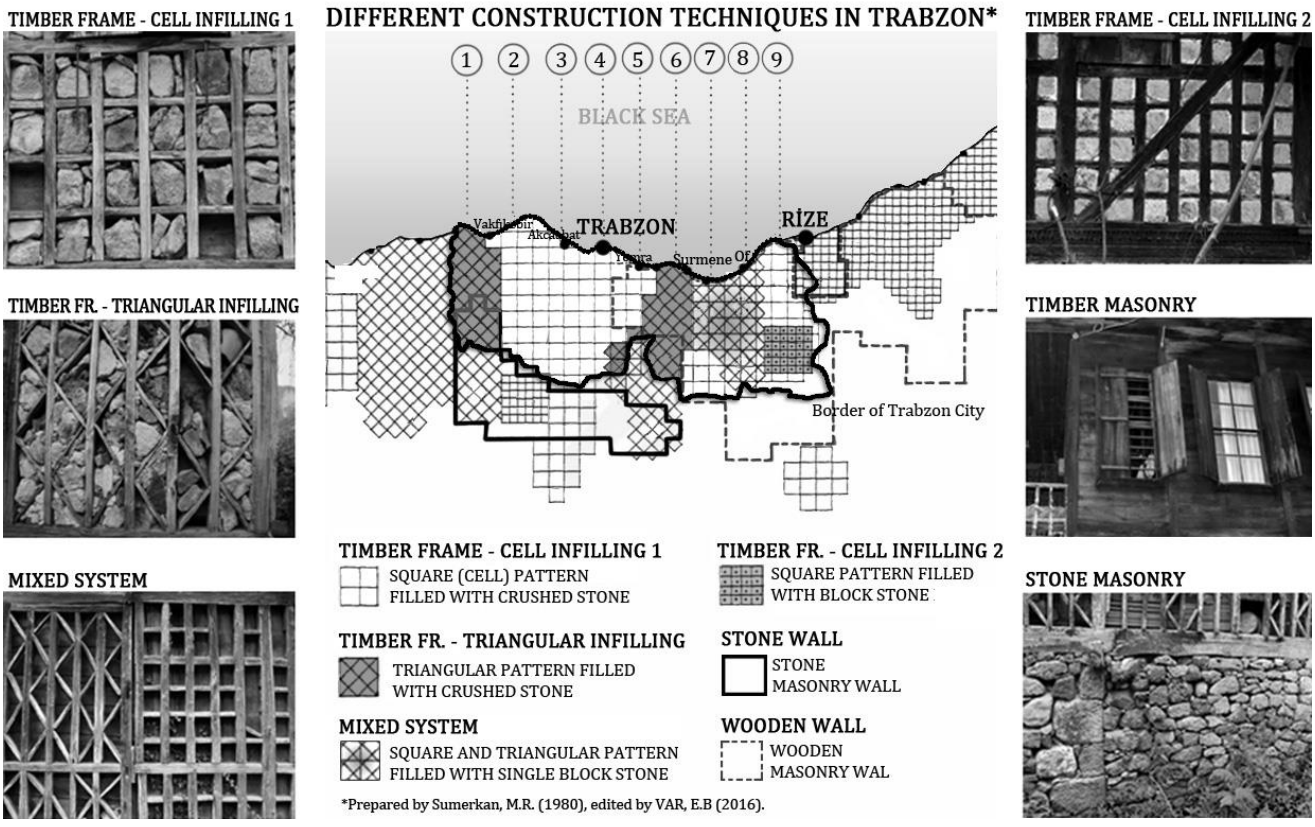


Figure 3.12 Different construction techniques in the in Trabzon and sample façade patterns.

In some cases, it used to be difficult for the villagers or for the craftsman to finish the construction at once. Because the craftsman working in the vernacular houses were used to work at the stone bridge constructions in the

region. Therefore, timber frame systems used to be preferred which could provide the possibility to finish the exteriors and the roof of the house. Since the roof was completed, it could protect the house from the heavy rainfall in the region. Interior partitions and doors are completed later (Özgüner, 2017).

A) Timber masonry (ahşap yığma) construction system: It is the construction system which logs or wooden plates with the thickness of 2 - 5cm are overlaid to create wall patterns. Regardless the differences in wooden materials -logs or timber plates-, they all perform as the load bearing elements. Therefore, there is no need for any other bearing elements. The horizontal wooden elements are extended on the corners for 15 - 25cm for the overlaying and the connections can be made with different construction details, namely *kertme boğaz, kurt boğaz, çalma boğaz* or *kara boğaz geçme* (Figure 3.13) (Şen, 1967; Özgüner, 2017). The corner joints can define the rooms which can be read from outside as well. For instance, 4 wooden corner joints define a room or 6 of them defines two rooms (Özgüner, 2017).

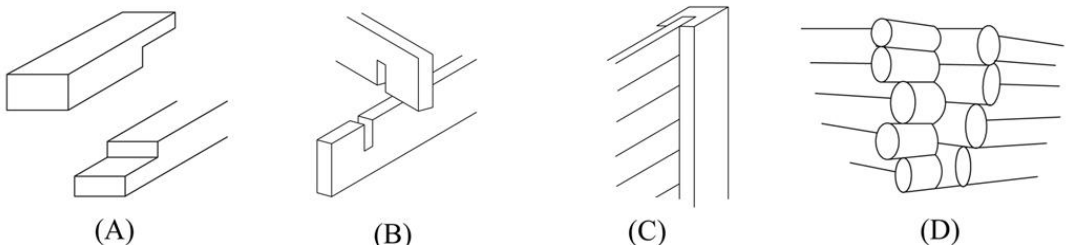


Figure 3.13 Details of the connection systems (A: Kertme boğaz, B: Kurt boğaz, C: Çalma boğaz, D: Kara boğaz).

The pros and cons of this system can be elaborated with the following explanations: The fact that all the interior and exterior walls must be constructed at the same time makes it difficult to make changes on the plan formation (Batur, 2005). Therefore, it is mostly utilized in simple vernacular houses in the villages with 1-2 rooms. On the other hand, it provides a possibility to disassemble the structure and to reconstruct it in a different place thanks to the construction with wooden joints, instead of nails (Sözen & Eruzun, 1992).

a) ***Log staking (kütük yığma) construction system:*** In these systems, logs are horizontally stacked on top of each and they act as the load bearing elements of the structure. At the corners, they are overlapped and extended to increase the structure's stability. This system is used in auxiliary buildings or one-storey-high houses in the highlands (Sözen & Eruzun, 1992). Since such buildings are not used regularly, revetment wall is not needed in the interior space (Özgüner, 2017).
b) ***Yontma ahşap yığma construction system:*** In this system, processed timbers are horizontally used as the load bearing and a wall element (Figure 3.14). Similar to log staking systems, the intersecting timbers are extended. The connection system can be "*kurt boğaz, kertme boğaz* and *çalma boğaz"*

(Özgüner, 2017). In the earlier examples, 7-10cm thick timbers are used, but with the improvement of the technology they have been changed to the ones with 4-5 cm (URL 14).


Figure 3.14 Timber masonry (*yontma ahşap yığma)* houses in Karacakaya (left) and in Üstündal (right), (Var, 2017).

B) Timber frame (ahşap çatkı) construction system: Timber frame systems are common construction techniques used in various parts of the world since ancient times. For instance, it is called as "fachwerk" in Germany, "colombage" in France, "half-timbered" in Great Britain, "dhajji-dewari" in India, etc. Although names or details of the construction system might be changed, the basic concept for the construction is almost the same (Bağbancı, 2013).

The timber frame system has various benefits such as the lightness of the structure, less need for different tools and less time required for the construction, bigger interior space thanks to the thin walls, etc. In the case of Turkey, the infillings of the structure can be filled with adobe, brick, crushed stone, timber or straw, tree branches, nailed with wood lath and covered with plaster *(bağdadi).* However, the stone infillings are only seen in the Black Sea Region, where Trabzon is also located (Bektaş, 2018).

Timber framing system in Trabzon has vertical load bearing elements. To protect the timber from water / humidity coming from the soil, the foundation is made with stone walls which is extended on the lower parts of the topography to form the space used for animal shelter. On the top of this stone wall, thick and wide wooden common joist is placed (locally called as *taban kirişi*) which is connected with the *kurt boğaz* system (Özgüner, 2017). The thickness of the walls differs according to the height of the buildings. Usually it is 10cm in the buildings with one floor and it is increased to the 15cm for the vernacular buildings with 2-3 floors (URL 14). In the timber frame system, posts with the profile of 15-20 cm are placed in the 80cm wide common joist. The load bearing elements are highlighted in the timber frame *(ahşap karkas)* system (Özgüner, 2017).

The façade pattern is decided according to the distance between the posts. Each system is named according to the differences in the construction system. For instance, if the space between posts are filled with the horizontal

elements to form almost a square pattern on the facade, the construction system is *göz dolma* system or if they are filled with the elements located with 30° or 45° angles, it is muskalı system. On the other hand, if the outer wall is covered with lath-and-plaster *(bağdadi),* then the system is called *çakatura* system (Özgüner, 2017).

a) Göz dolma construction system: It is the most commonly used system which has been invented after the decrease in the forest areas. Because of the transformation of the fields from forests to agricultural lands, thick and big trees have decreased, resulting in the invention of this construction technique (URL 14).

Posts with the profile of 3/10 or 5/10 are located on the common joist with the 15-25 cm breaks which are connected with the horizontal elements having the same profile size with the vertical ones. In this system, bigger frames (17/22 or 20/25cm) are produced, forming the wall structure of the *göz dolma* system (Figure 3.15). The square-like spaces in this frame are filled with the block stones collected from the nearby rivers (Özgüner, 2017). The corners of each square cells are plastered with lime mortar. In case big square stones are not available, smaller stones can be placed as well (Sözen & Eruzun, 1992). The size of the windows is decided by the distance between the cells, which is generally 3 cells on the horizontal line and 5-6 cells on the vertical line (Özgüner, 2017). The connection of vertical and horizontal elements is made by the wooden joints. No nails are used in this system.

Figure 3.15 Vernacular houses with g*öz dolma* construction system with the details (Var, 2017).

b) Muskalı construction system: The wooden joint system is replaced by the metal nails in this system (Şen, 1967). The main load bearing members have the same characteristic with the göz dolma system. However, the space between horizontal elements have wider spaces in muskalı system and the cells are filled with diagonal wooden elements with 30° or 45° angles to form triangular shapes. The triangular cells are filled with crushed stone and the corners are plastered with lime mortar (Özgüner, 2017). However, sometimes those cells are kept empty to show the beauty of the structure (Batur, 2005).

In this system, each triangular cell is not in accurate size with the other triangular cells on the façade. Because the aim of this system is to have a faster construction process and to provide more stability with the help of diagonal connections supporting the horizontal loads (Şen, 1967). Since this system is constructed with nails, it is not possible to disassemble and reassemble the building in other places. In that sense, although it has been invented after the *göz dolma* construction system, it is not a development. Yet, it has the only advantage of shortening the time needed for construction. *Muskalı* system is often seen between the districts of Yomra and Of, whereas *göz dolma* system can be seen in a wider area from Trabzon to Artvin (Özgüner, 2017).

c) Çatakura construction system: It is a type of timber framing system with triangular patterns *(muskalı dolma)* covered with plaster (Figure 3.16). The triangular cells are first covered with wooden plates and then lime plaster. Therefore, the triangles are prepared with a less consideration in their form. The only difference with the *muskalı* system is the plaster used in the *çatakura* system (Figure 3.16) (Özgüner, 2017).

This system is used very rarely compared to the other construction systems. The reasons for using this system less can be elaborated with the fact that wooden elements on the façade covered with plaster blocks the air circulation and causes corrosion in time. Since it is also difficult to make the maintenance of the plaster, *çatakura* systems are not preferred much in the region (Batur, 2005; Şen, 1967).

Figure 3.16 Vernacular house with *muskalı system* & details; vernacular house with *çatakura* system (Var, 2017).

c) Mixed construction system: Houses in this category are the ones constructed with at least two of the previously mentioned systems *(kütük yığma, yontma ahsap yığma, blok ahsap yığma, göz dolma, muskalı, çakatura systems)* (Figure 3.17). The reasons for using this construction system are whether the unavailability of proper construction materials in the region or the talent of the craftsman. (Özgüner, 2017). Whichever is the construction system, the timber houses in the region are constructed in a way to disassemble and reassemble the houses in general. In fact, instead of the term demolish, the word "dismantling" is used in the region. Another issue is that the structural elements in the vernacular houses are not always with the same profile size. Especially in *muskalı* system, the size of the triangles or the

distance between the vertical and supportive elements are not always the same. Small differences in the sizes of the structural elements are not considered as a negative issue in the region (Özgüner, 2017).

Figure 3.17 Mixed construction system in Karacakaya and Üstündal (Var, 2017).

3.4.2.5 Morphological and aesthetic features of vernacular houses

The morphological and aesthetic features of the vernacular houses are examined in terms of the exterior and interior aspects. Starting from the interior features, it should be mentioned that the rooms and the common space connecting them, *hayat*, are the core members of the vernacular houses, due to their functional and spatial features. Some of the rooms of the vernacular houses in the region has a step at the entrance of the room which visually and spatially defines the room. The morphological features of the floorings do not play an important role. Because, its surface is anyway covered with the carpets. Therefore, the ceilings are always very simple with no decoration. On the contrary, the ceilings are often decorated with various crafts (Fig 3.18).

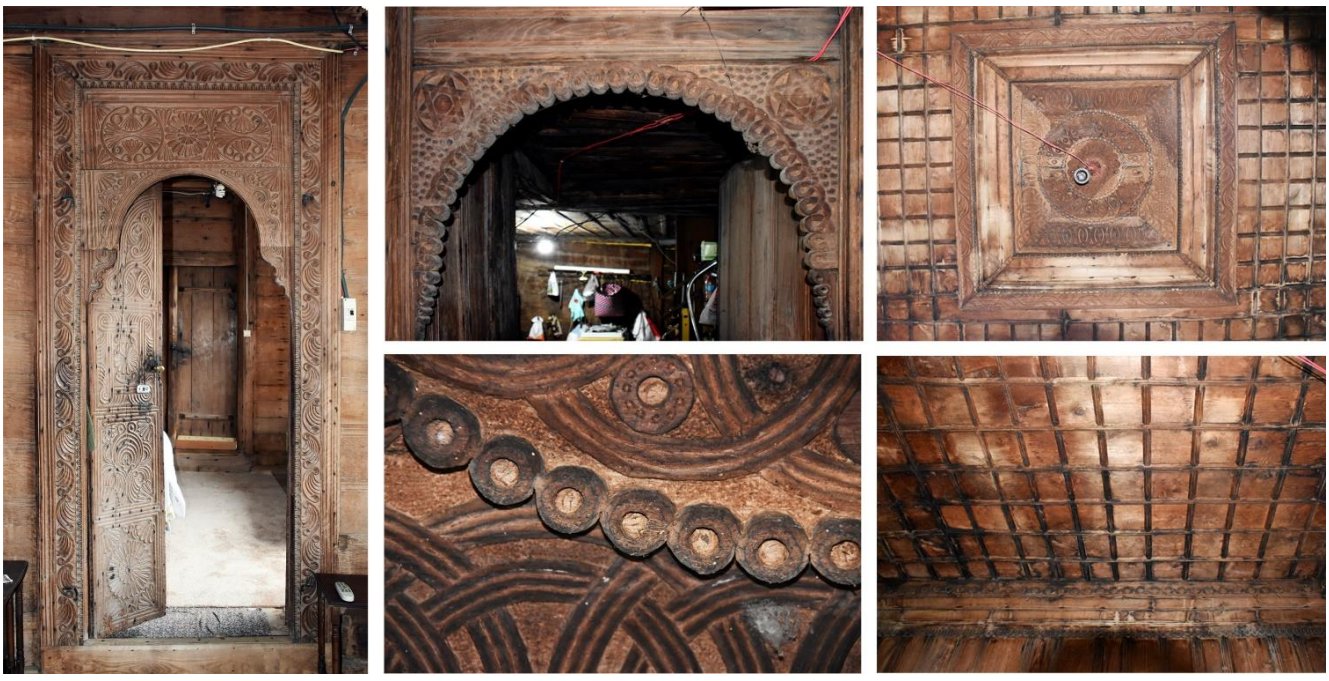


Figure 3.18 Aesthetical details of the interior of a vernacular house in Karacakaya (Var, 2016).

Also, the private rooms used for sleeping generally have a higher ceiling with a flat surface, but various aesthetical decorations. This high ceiling and the radical decorations in the centre are often interpreted as a reflection of the tribal roots of the Turkish communities (Kuban, 2017).

Hayat, has often been decorated with wooden craft works, especially on the doors, door or window frames, shelves on the walls, and on the ceilings. The density and detail of the decorative works are related to the economic situation of the families. In addition to the decorative details, *hayat* is furnished with a wooden sofa *(sedir)* located in front of the windows. The size of *sedir* has been formed for the habits of Turkish people. Its height is generally around 30-40cm with a depth of 70-80cm (Kuban, 2017). In addition to the sitting purpose, it has been used for sleeping and storage purposes.

Having wooden interior with wooden furniture –including the *sedir* in *hayat*–, the characteristics of the rooms of vernacular house is very distinctive. However, starting from the 19th century, new furniture has started to be introduced to the vernacular houses, which creates contrasting interior spaces. Although such contrasting solutions can sometimes result in interesting outcomes, they are usually not comprehensive with the house identity, causing alienation of the authenticity of the house (Figure 3.19) (Bektaş, 2018; Kuban, 2017).

Doors and windows of the rooms are often decorated with wooden crafts. Windows are often designed with casements, protecting the house from cold, rain or snow and providing more comfortable living spaces inside the house. Moreover, large built-in cupboards are also one of the characteristics of the vernacular houses which may have some decorative details. These large closets are used for storing the bedding, clothes and other utensils (Figure 3.20). In addition to its storage functions, sometimes those cupboards have a bathing cubicle which is used for ablution as well as for bathing purposes. This bathing cubicle is often located in the room of the head of the family. However, there are cases where more than one room having the private space for bathing and ablution, when the household is a prosperous family. Another element of the room with aesthetical features is the shelves *(sergen)* on the wall. Being horizontally replaced elements in the rooms, these shelves create a better visual composition by dividing the vertical elements and ceiling height.

Figure 3.19 New furniture used in the existing vernacular houses in Karacakaya, Üstündal, and Dirlik (Var, 2016).

Figure 3.20 Built-in cupboards in the existing vernacular houses in Karacakaya, and Üstündal (Var, 2016).

One of the most significant and characteristic parts of the vernacular houses is related to the exterior decorations. As it was explained previously in detail, the structural features of the houses have resulted in the unique façade patterns. The details of the construction system and the combination of different material usage have shown the competence of the local craftsman in the region.

Such decorative details are not only used for the main building, but also for the auxiliary structures of the vernacular house. In this respect, morphological and aesthetic features of *serander* are very unique (Figure 3.21). Although this building is mainly used for storage purposes, the details on the hand rails, roof details, etc. are very unique and high quality representing the creativity of the local craftsman in the region.

Figure 3.21 Details of a *serander* in Karacakaya Village, Sürmene (Var, 2016).

3.5 Summary

Located along the Black Sea and on the Historic Silk Road, Trabzon has been inhabited by various civilizations throughout the history. Thanks to this strategic location of the city, the trade has always played a significant role in the economy of the region. Besides commercial activities, the main economic resource depends on the agriculture.

The region has a rich sociocultural background, shaped by the cultures of the communities lived in the region, which have been melted in the same pot. Similarly, vernacular architecture of the region is constituted from the traditions of communities lived in the region, especially the Ponthos and Turks.

The vernacular houses in Trabzon, including the case study areas of Karacakaya, Üstündal, Dirlik, have significant characteristics. Although the spatial features of the vernacular houses indicate some similarities with the vernacular houses in other parts of Turkey, the morphological and structural features are very distinct. Especially, the unique façade organization and wall patterns, combinations of different materials on the façade as well as the aesthetical details in the vernacular houses are very characteristic in Trabzon. Last but not the least, the exterior storage buildings –*serander*- are very in distinctive in the region, with their functional and aesthetical features.

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CHAPTER 4. CHANGES ON THE VERNACULAR HOUSES

This chapter represents the changes occurred in the village level, in terms of the sociocultural, landscape and architectural features with a more comprehensive analysis on the vernacular houses. The changes observed in the vernacular houses are analyzed in terms of spatial, functional and morphological.

4.1 Overview of Original Features of Rural Environments and Communities

After the World War II, tractors have been introduced to Turkey with the Marshall Plan and the less human resource was needed in the agriculture. Therefore, many people from rural areas have started to migrate to urban areas or to foreign countries. Although rural communities have also started to use modern agricultural tools, since the purchasing power was still low, there has not been significant changes in the rural environments since the 1980s.

In 1980s, vast improvements in the industrialization and technology have resulted in easier accessibility and cheaper prices of construction materials (Eres, 2016). This is considered as a breaking point for the changes in the rural areas. After this point of time, the number of concrete or briquette houses with higher floors have been drastically increased as they have been considered to be "modern".

4.2 Current Condition of Rural Environments and Vernacular Houses

In this part, the rural communities in Karacakaya, Üstündal and Dirlik are examined in terms of the changes occurred in the social structure, rural landscape and the vernacular houses. Although social structure and the rural landscape are also analyzed, more focus is given to the changes occurred in the vernacular houses, as the starting point of this research focuses on the buildings. However, it is believed that the other issues should also be

4.2.1 Changes in the sociocultural structure

Turkish society was an agricultural society with strong connections between the family members and the community. Thanks to the strong community ties and the community works *(imece)* in the neighborhood, each community was a big family where each member supports each other. For instance, they used to support each other for planting the seeds, harvesting the agricultural products, collecting the local materials for construction, preparing food together for the ceremonies arranged for the wedding or death, and so on. However, reforms and revolutions made from the beginning of 1920s have resulted in numerous socioeconomic changes in the society. Starting from this time, the agricultural population with high illiteracy rates have been transformed into a more industrialized and educated group of people. During this period of time, several improvements have been made in

the transportation, industry, education, legal and administrative systems, etc. As an outcome of successive developments, Turkish society has become more urban and industrialized one by the 1990s.

The changes experienced in the previously mentioned fields have also caused changes in the social structure. Originally, the core of the Turkish society was consisted of big extended families which were strongly connected to each other and the children were mostly staying in the parents' house after the marriage. However, with the socioeconomic changes experienced in the last decades, the nuclear families have started to appear and somehow replace this structure. On the other hand, even in this case, the importance of the extended families and family relationships have still importance in the society. The extended family members still respect and support each other during milestones of the family, including birth, marriage, finding/starting up a business, death, etc.

Similar to the family ties, the connection and support in the community used to be also extremely strong. The community was like a big family and everyone was behaving accordingly. The mutual trust and community work *(imece)* were stronger before. Local people used to collaborate in various activities such as planting, harvesting, processing the harvested products, maintaining the good quality of environment, collecting local materials for construction, and so on. However, with the changes in the sociocultural structure, the amount of community works has gradually decreased in the local communities which is also related to having less care or trust for the neighbors. Sometimes, the temporary stay in the villages and different sociopolitical background have worsened the situation and some households have even very limited or no information about the other families in the village.

4.2.2 Changes in the rural landscape

The changes in the socioeconomic structure of the communities have caused several changes in the lifestyles of the people in the rural areas. Such changes have affected the spatial organization in the rural areas as well as the landscape characteristics (Figure 4.1).

As it was introduced before, the vernacular houses in the region have 2-3 floors. However, the height of the buildings does not look so high even they are 3-story-high, thanks to the natural relief in the rural areas. Those houses are seemed as 3-story-high in lower parts of the slope, whereas they have 2 floors on the slope which is in higher parts of the land.

Also, the material choice and usage are in correspondence with the nature and the climate in the region which creates a very harmonious landscape pattern. Combined with the agricultural lands, the houses are almost scattered in the landscape which are surrounded by vegetation. Until the 1960s, the forest had been managed by the local people and the local material had been used for the several reasons, including construction or heating. Another fact is that the roads used to be soil or some of them were constructed with stones.

Figure 4.1 Existing situation of Üstündal Village/Neighborhood (2017).

On the other hand, when the current landscape is examined, it is understood that there have been various changes as a result of the changes in the changes of the lifestyles. For instance, as the family ties are weakened, the number of concrete houses is increased in the rural areas (Figure 4.2). The height of the new houses is sometimes more than 3 story height. The amount of asphalt roads in the rural areas is increased.

The management of the forest areas has been done by the government as they are categorized as public property in terms of the current laws and regulations. However, local people have complained about the less maintenance activities in the forest areas which resulted in the expansion of forest areas towards the residential areas of the case study areas. Although this may be considered as a positive impact, local people have stated it in a negative way during the fieldworks. They mentioned that since the maintenance activities are not conducted properly, the forest areas have become thicker and wild animals sometimes come to the residential areas. Therefore, the negative aspects of this issue are highlighted during the fieldworks.

Figure 4.2 Some examples of the new houses in Dirlik village (left) and Üstündal Village (right).

Another change observed in the rural landscape is related to the agricultural fields. As a result of the urban migration, the population in the villages fluctuates according to the seasons. Although most of the households come back to the village at least during summers, there are some families which do not visit the village at all. Especially, their agricultural lands are not utilized and affect the landscape of the village. What is considered valuable in this respect is the existing scheme utilized for continuation of the agricultural activities, maintenance of the vernacular house, agricultural fields, and the rural landscape. In this system, which exists in the community is that the owners of the family assign another family from the village –who is generally a lower income family– to take care of the house and the fields. In some cases, the assigned family lives in the vernacular house as well. Since this system contributes to the conservation of the rural landscape and the vernacular houses, the negative impacts on the rural landscape is slowed down.

Considering the types of agricultural products in the villages, it is found out that there was no tea plantation in three case study areas in Sürmene. The main production was hazelnut, and there were secondary products including corn which were harvested in the households' own agricultural fields. However, according to the answers of the local people the main agricultural product in the region is tea, and hazelnut comes after that. The reason for this change is that tea can be harvested 3-4 times/year in the region and this increase the income source for the local people. On the other hand, in terms of the hazelnut, the harvesting time is once a year and it is more sensitive to the precipitation during the year. As a result, local people prefer planting more tea plants, comparing to that of hazelnut, which was the main product earlier.

To give more detailed examples of the changes experienced, it is necessary to mention some of the factors highlighted by the local people. For instance, in Karacakaya Village, "easier access thanks to new road construction, the negative impacts of the new roads on nature, more concrete structures, changing of the agricultural products, the negative impacts of two TV transmitters in the village" are mentioned. On the other hand,

respondents from Üstündal and Dirlik expressed the changes in the village landscape as “new roads, concretion of the village, population decrease and smaller forest areas”.

4.2.3 Changes in the vernacular houses

The changes experienced in the socioeconomic and cultural structure have directly or indirectly caused several changes in the houses, including the vernacular houses in the rural areas (Figure 4.3). The changes made by the residents have significance for understanding the insufficient parts of the buildings in the present life. In addition to that, the changes can give an idea about the issues to be considered for the architectural conservation practices in the case study areas. Therefore, existing vernacular houses in three case study areas are examined in terms of the spatial, functional and morphological aspects in this part.

The purpose of the architectural measurement survey is to understand the existing situation of vernacular houses, to make the documentation of them, and to track common changes made by the users in the vernacular houses. It is considered that this documentation and analysis process is crucial for the conservation activities and the data produced in this research can be utilized for future conservation activities in the region.

For this purpose, the exterior measurement surveys and observations are made for 74 vernacular houses (Karacakaya: 39 vernacular houses (all), Üstündal: 21 vernacular houses (all), Dirlik: 14 vernacular houses) (Figure 4.4., Figure 4.5, & Figure 4.6). During the surveys, it is found out that 15 out of 74 houses were abandoned, as a result, it was not possible to enter those. Among the 59 houses, whenever the owners accepted to show the interior of vernacular house, interior examinations were also conducted. Excluding the house owner who did not let us to enter and make the interior measurement survey of the house, it could only be possible to enter 40 vernacular houses for interior observations. For each examined house, building identity cards / sheets are prepared (See Appendix 7).

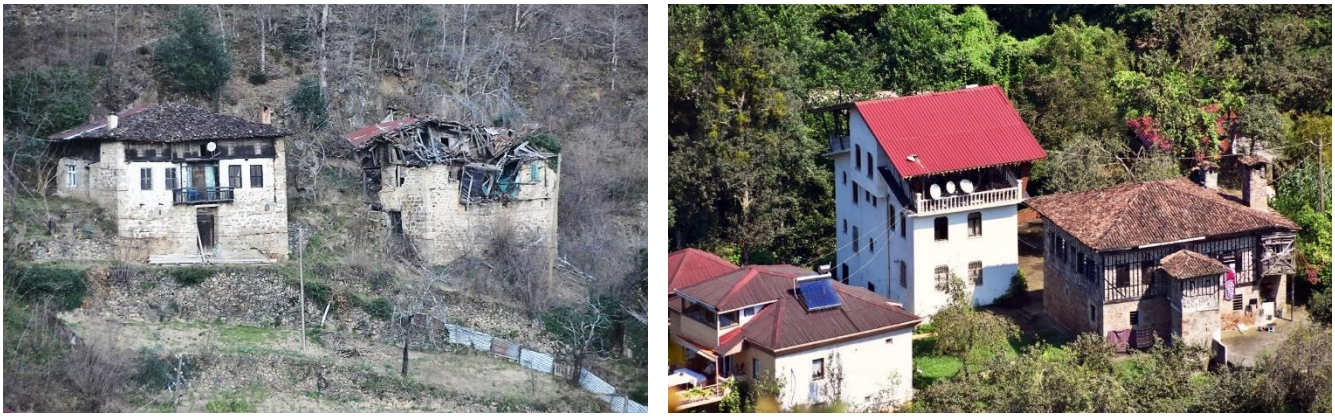

Figure 4.3 Abandoned and decayingvernacular houses in Kondu (left; 2015);
new houses constructed close to a vernacular house in Üstündal (right; 2016).

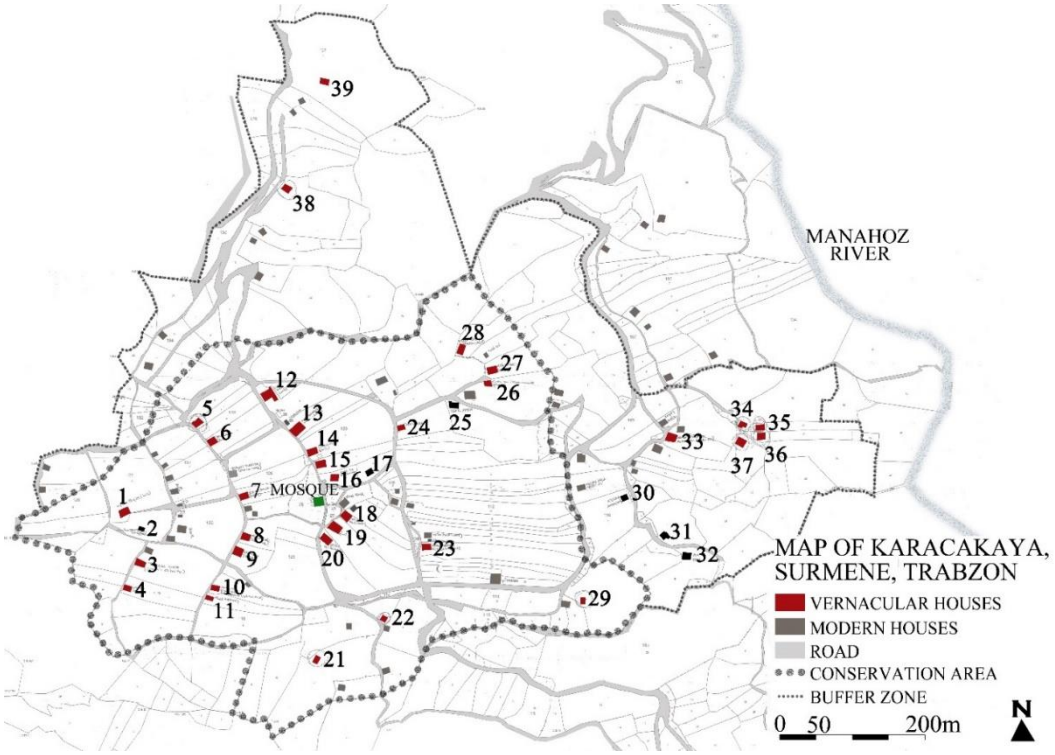

Figure 4.4 Vernacular houses visited and modern houses in Karacakaya Village.

(It is prepared according to the data obtained from the regional conservation board (2017) and local municipality (2016)).

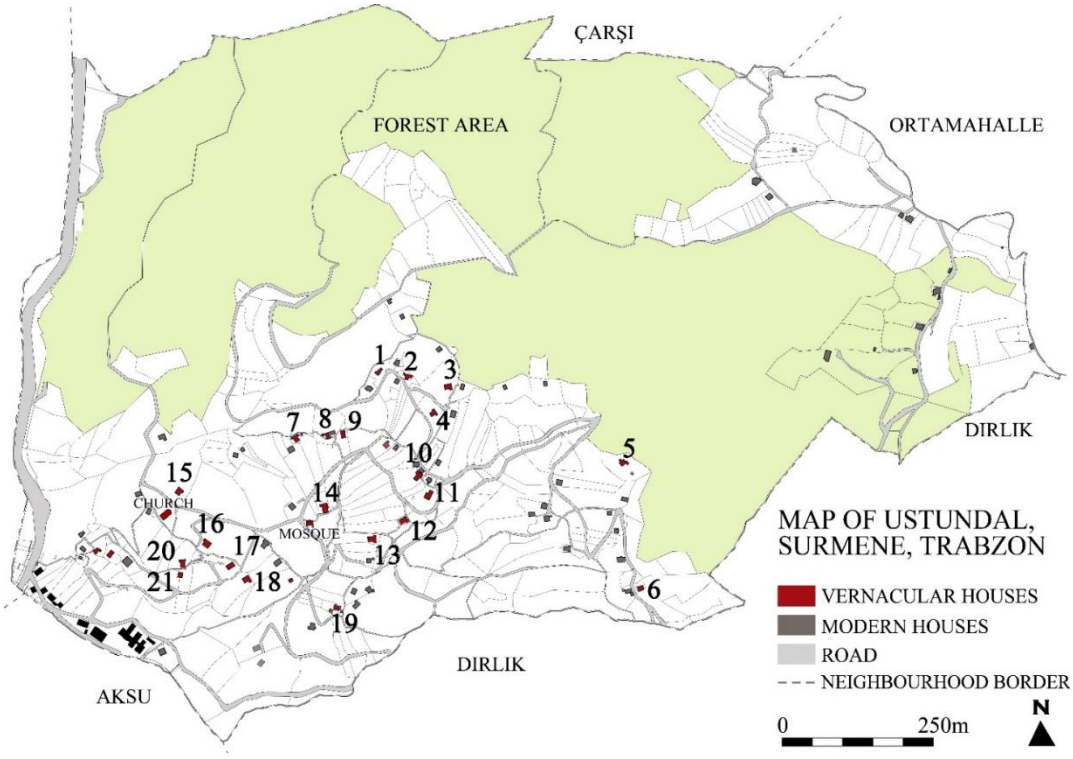

Figure 4.5 Vernacular houses visited and modern houses in Üstündal Village.

(It is prepared according to the data obtained from the local municipality in 2016).

Figure 4.6 Vernacular houses visited and modern houses in Dirlik Village.

The outcomes of the examinations in the vernacular houses are shared in the following parts. As it is expressed above, the changes in the vernacular houses are categorized in terms of the changes in the spatial, functional, morphological features.

4.2.3.1 Changes in the spatial features of the vernacular houses

In terms of the spatial features of the vernacular houses, main changes are observed in the form of unused spaces, interior partitions, division of the whole house into two, and exterior addition(s) (Figure 4.7).

Figure 4.7 Spatial changes in a vernacular house in Üstündal: interior (left) and exterior (right).

Vernacular houses were originally constructed for extended families. As a result, some of the houses, whose owners were prosperous families, are very huge. Although extended families were the smallest unit of the communities before, the current family structure has been changed –even in the rural areas– and this has caused unused spaces in the existing vernacular houses. Such unused spaces are whether kept as it is and not used, or they are changed spatially or functionally. In this part, the spatial changes will be explained.

As the family connections have weakened and more private residents have needed more private spaces, bigger spaces in the vernacular houses or unused spaces are utilized by adding interior partitions. In some of the extreme cases, the interior partitions not only divide a space, but the whole house. In this situation, mostly inheritors have issues or conflicts between each other. As a result, they separate the house into two to have more private space and less contact with the other inheritors. However, in most of the case, the divided part of the house does not satisfy the needs of the residents and they make more additions to their part (Figure 4.8). The building materials used in those additional parts are modern materials with various patterns and colors, depending on the choice and socioeconomic situation of the owners. Such additions are made with modern construction techniques,

creating incompatible texture with the main part of the vernacular house as well as with the rural landscape, affecting the local identity in a negative way in the end.

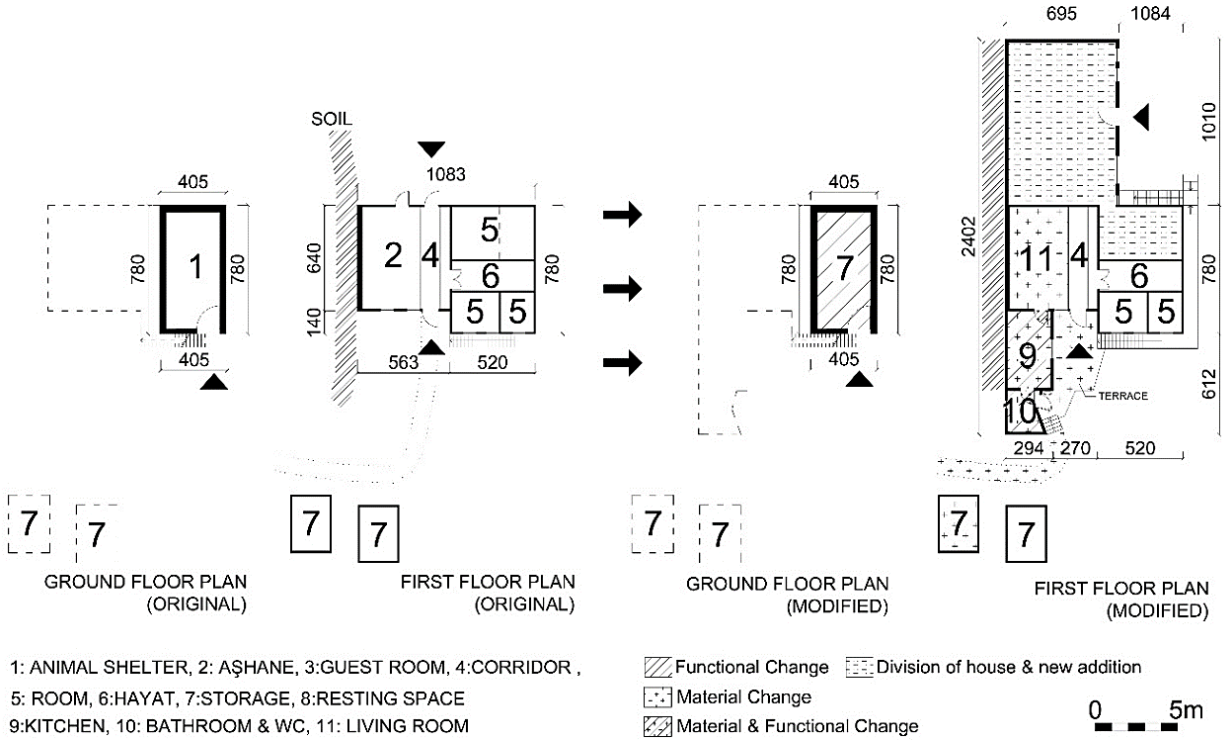

Figure 4.8 Spatial changes in a vernacular house in Üstündal due to the inheritor conflicts (2016).

Table 4.1 Spatial Changes in the vernacular houses in the case study areas.

Spatial Changes		Karacakaya (39)	Üstündal (21)	Dirlik (14)	Total
A	Interior partition(s) in a room	3	4	3	10
B	Division of the house into two	2	3	1	6
C	Cancellation of door(s)	3	3	2	8
D	Cancellation of window(s)	6	4	0	10
E	Cancellation of room(s) / unused spaces	3	5	0	8
F	Shading space in front of the entrance.	10	3	2	15

In addition to spatial changes, some functional changes are also observed in the vernacular houses examined. Previously mentioned spaces, which are not used anymore in the contemporary life due to the changes in the family structure, are sometimes transformed into a toilet / bathroom (Figure 4.9). Although there are some vernacular houses which have the toilets located inside, the number of such houses are limited. It is found out that such households were one of the high-income families of the village, when the vernacular house was constructed. In fact, the total area of the house is also bigger, comparing to that of with toilets located outside the buildings. However, in general, the toilets are located outside the houses.

4.2.3.2 Changes in the functional features of the vernacular houses

In addition to spatial changes, some functional changes are also observed in the vernacular houses examined. Previously mentioned spaces, which are not used anymore in the contemporary life due to the changes in the family structure, are sometimes transformed into a toilet / bathroom (Figure 4.9). Although there are some vernacular houses which have the toilets located inside, the number of such houses are limited. It is found out that such households were one of the high-income families of the village when the vernacular house was constructed. In fact, the total area of the house is also bigger, comparing to that of with toilets located outside the buildings. However, in general, the toilets are located outside the houses.

Figure 4.9 Different examples of toilet and bathroom facilities. (1): Original toilet, (2): Traditional toilet – new fixture, (3): New bathroom, (4): New toilet fixture.

Also, there were not proper facilities for taking bath, other than the small spaces with a drain which are used for bathing purposes. As it can be understood from this point, the existing facilities of the vernacular houses for toilet and bathroom purposes are not convenient for the contemporary life. As a result, many households made functional changes in their vernacular house.

Another functional change is found in the lowest floor of the vernacular houses, which used to be the animal shelter. However, since 75% of the households do not permanent residents in the village and there are changes in the livelihood sources of the households. As a result of such changes, the animal breeding has been diminishing and the animal shelter has not been used for the same purpose any more. Thus, the function of this space is changed to a storage area or in some cases, it has not been used at all.

Functional changes on the plan level have sometimes caused changes in the organization of the openings. For instance, sometimes windows or doors have been cancelled for creating toilet / bathroom space or other functions in the house (Figure 4.10). In addition to that, ground-level sinks used for ablution/bath in the older times

have not been needed after the with the introduction of modern bathroom fixture. Therefore, such elements have lost their function and are covered with cement in most of the vernacular houses. Similarly, fireplace used in *aşhane* has also lost its significance due to the factors such as modern kitchen fixtures, difficulty of getting local firewood, etc.

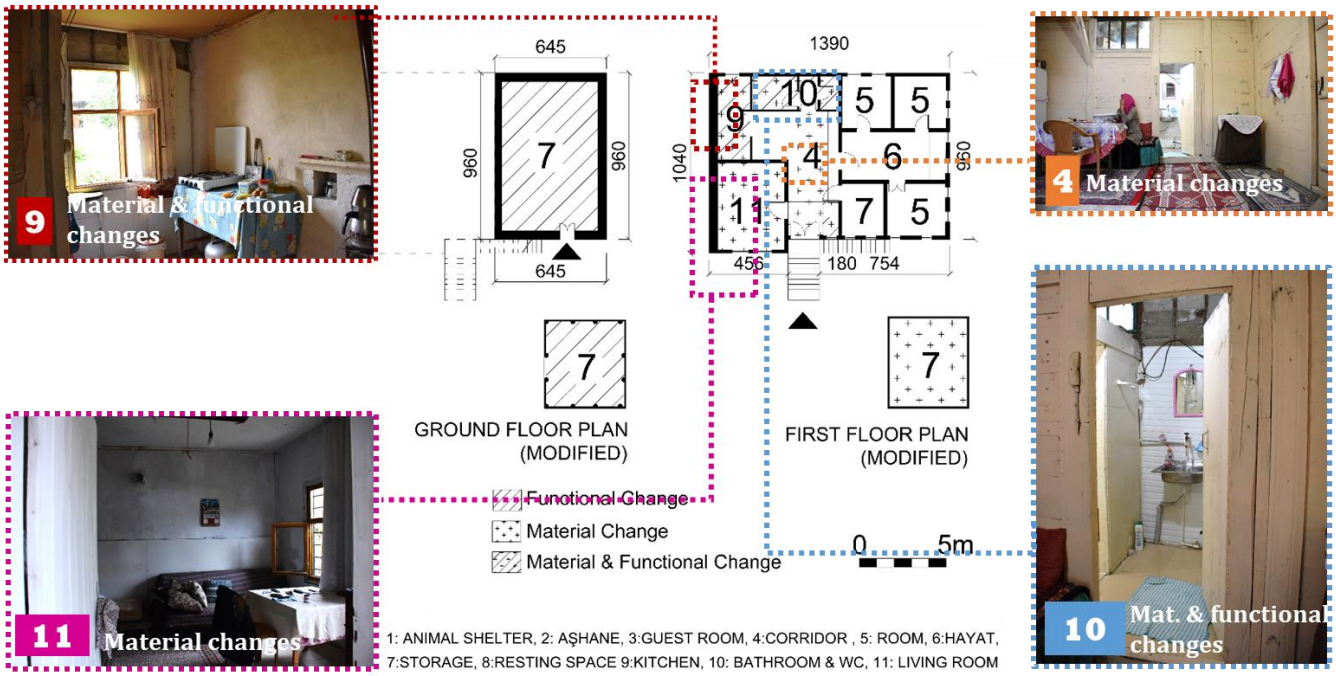

Figure 4.10 Functional and material changes made in a vernacular house in Karacakaya.

Moreover, it is found out that there are changes in the height of the ceilings. Originally, the rooms in the vernacular houses in the region have high ceilings. Actually, *aşhane*, where a fireplace is located and actively used, have no ceiling at all. The main purpose of this solution is to provide more space for discharging the smoke caused by the fireplace. Also, thanks to the open ceiling in this space, the visual impact of the roof structure can be felt. However, as the fireplaces have not been used in most of the cases, there is no need for such a high height. Moreover, it makes more difficult to heat the house because of the height. Therefore, it is seen that a new layer of ceiling is added to provide easier heating solutions and creating more comfortable living environments inside the house (Var & Kobayashi, 2017) (Figure 4.11).

Changes have also been observed in the exterior storage building, which is locally called as *serander* or *merek*, used as an exterior storage building. It is an elevated storage building which was used for temporary or long-term storage purposes. Therefore, the ground floor has a semi-open space and the first floor has close space. The semi-open space on the ground floor is often utilized as a shading area where family members and neighbors get together. However, it was observed during the field works that the semi-open space of the *serander* has been

transformed into a closed space to create more storage area with more protection. In that sense, it can be said that the resting / socializing functions of *serander* have been lost in time.

Figure 4.11 Changes in the interior space and modern furniture usage.

The overall changes observed in the vernacular houses are represented in the Table 4.2. The table indicates that the most common functional change examined in the sites is in the animal shelter as a storage area, followed by the cancellation of the fireplace which caused functional changes in *aşhane*.

Table 4.2 Functional changes in the vernacular houses in the case study areas.

Functional Changes		Karacakaya (39)	Üstündal (21)	Dirlik **(14)**	Total
G	Functional changes of a room as a WC/bathroom	8	11	6	25
H	Functional changes of animal shelter as storage area	16	12	8	36
I	Functional changes of the whole building	6	1	3	10
J	Loss of usage of attic	3	1	1	5
K	Usage of empty fillings on the façade	4	2	0	6
L	Changes in the height of ceiling	1	3	2	6
M	Cancellation of fireplace	12	8	9	29

4.2.3.3 Changes in the morphological features of the vernacular houses

Another change observed in the vernacular houses is the morphological changes, which is mainly related to the material changes and the construction techniques used. In this respect, it is found out that the main changes are the replacement of cut stones on the lowest floor of the vernacular houses, refilling square/triangular cells on the façade with cement which was originally filled with local crushed stones, and the replacement of traditional roof tiles with metal sheets (Figure 4.12). Also, the replacement of wooden window frames with PVC/metal ones, covering the earthen floor with concrete and indoor paneling for better insulation (Var & Kobayashi, 2017).

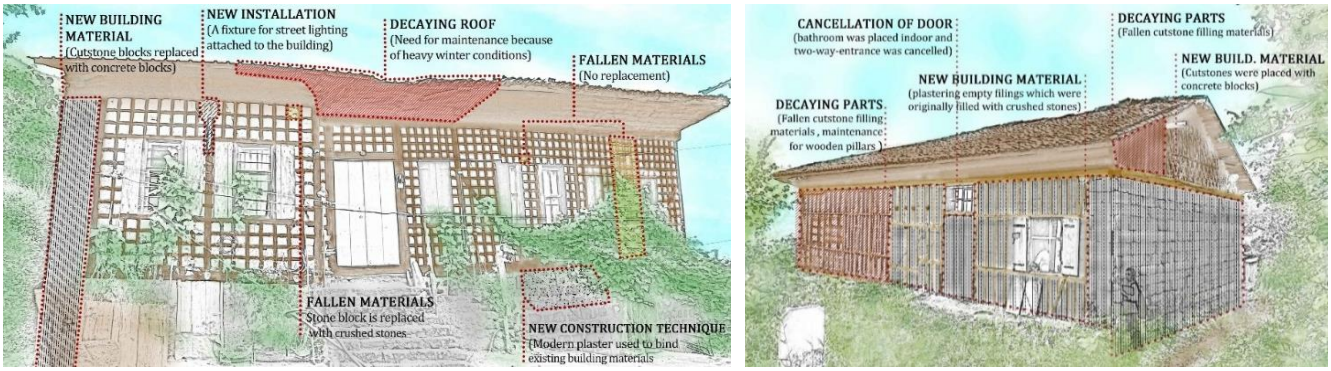

Figure 4.12 Existing situation of a vernacular house (No.14) in Karacakaya Village (Var & Kobayashi, 2017).

In terms of the maintenance of the existing vernacular houses, cement is used for infillings instead of using the crushed stones. This change has caused the negative impacts on the identity of the vernacular houses. This change can easily be associated with the unavailability of the original materials, high prices of the stone materials in the market, easy accessibility and applicability of cement infillings.

Another morphological change observed, as a result of the building material change, is seen on the roof (Figure 4.13). Originally, roofs are constructed with traditional roof tiles in the three case study areas. However, in the recent days, they are mostly replaced with the metal sheets requiring less maintenance after heavy rains in the region. In some of the houses the whole roofing material is changed, whereas the partial replacement of the roofing material is more common in general.

Figure 4.13 Morphological changes in a vernacular house in Karacakaya (left) and in Üstündal (right; 2016).

Some other morphological changes observed are the changing building materials of the window frames. Originally constructed with wooden materials, residents have changed the windows needed maintenance with the PVC/metal window frames. The reason for that can be elaborated as new window frames providing better insulation, having cheaper price and longer durability. In addition to that, the changes of the flooring material in

the corridor connecting entrances of the houses are significant. In most of the cases, the earthen floors are covered with concrete or wooden materials which provides neater and more comfortable interior spaces.

Table 4.3 Morphological Changes in the vernacular houses in the case study areas.

Morphological Changes		Karacakaya (39)	Üstündal (21)	Dirlik (**14**)	Total
N :	Differences on the size of openings	6	9	4	19
O :	New materials on window frames (wood)	11	10	4	25
P :	New materials on window frames (PVC/metal)	4	4	2	10
R :	New materials on main doors,	8	5	3	16
S :	Cement infillings on the façade (slightly)	23	6	5	34
T :	Cement infillings on the façade (extensive)	11	7	8	26
U :	Maintenance with new construction techniques	28	16	8	52
V :	Covering earthen floor with concrete/wood	12	12	9	33
W :	Replacing roof tiles with metal sheets (partially)	22	7	3	32
X :	Replacing roof tiles with metal sheets (extensively)	5	5	3	13
Y :	Indoor panelling for better insulation	1	5	3	9
Z :	Addition(s) to main building	11	9	5	25

Several reasons can be related to the such morphological changes observed in the vernacular houses. For instance, it is known that when the vernacular houses were constructed, cut stones or crushed stones were obtained from the surrounding area to be used for the buildings. Local craftsman, who had the main roles in the unique construction system of the vernacular houses in the region, used the local wooden materials and combined with cut or crushed stones according to the convenience and abundance of the materials.

However, in the present days, it is difficult to get the same stones from the local vicinity because of the unavailability of the materials. Moreover, it is almost impossible to utilize the wooden materials in the case study areas, as the forestry regulations has been changed which resulted in the changes in the ownership of the forest resources. Now, the forest areas in the case study areas are owned and protected by the government. Besides those factors, the fact that the number of local craftsman who are capable of local construction techniques are very few. Therefore, keeping the traditions for the vernacular house construction intact had become difficult for the local people.

As a result, instead of using original materials and constructing the houses in the traditional style, mainly concrete buildings are preferred for the additions to the vernacular houses or for the new construction in the case study areas (Figure 4.14). In the extreme cases, vernacular houses are abandoned or demolished to make space for new modern houses which are considered as a representation of higher social status by the local people.

Figure 4.14 Additions to a vernacular house in Üstündal Village (2016).

Figure 4.15 New houses with the vernacular façade in Karacakaya (right) and Üstündal (left).

On the other hand, there are few attempts to construct new houses with vernacular façade by some of the households in the village (Figure 4.15). During the questionnaire survey and informal discussions with local people, it was discovered that those new houses with vernacular façades are highly appreciated by the local people. Also, exist showing the respect and desire of local people to conserve vernacular houses.

4.3 Overall Changes Observed in the Researched Vernacular Houses

Common changes observed in the vernacular houses of Karacakaya, Üstündal and Dirlik areas are summarized in this part. Although it is challenging to generalize changes observed in the vernacular houses examined, as they are individual units with a different setting and background; it is believed that categorization of changes can be helpful to track common tendencies and differences.

The changes observed in the vernacular houses studied in the focusing region are shown in separate tables. The details of each house are shown village by villages. Changes are categorized into the following groups: spatial changes, functional changes and the morphological changes. Each change is represented by different letters from A to Z. In the table, three marks are used which are (○), (x) and (-). In this system, (○) indicates one of the spatial,

functional or morphological changes exists in the vernacular house, (x) represents when the change does not exist in the building and (-) is used whenever the aforementioned change is not appropriate for the case (ex. Interior observation could not be done, it is not appropriate for the examined vernacular house, etc.).

Table 4.4 Characteristic changes on vernacular houses in Karacakaya.

	Basic Information about the Vernacular House			Changes on the Vernacular Houses*																								
				Spatial						Functional								Morphological										
		Function	Filling System	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	V	W	X	Y	Z
KARACAKAYA	1	Residential	Muskalı Dolma	-	-	-	○	-	x	-	-	-	-	x	-	-	○	○	○	○	○	x	○	-	x	○	-	○
	2	Abandoned	Muskalı Dolma	-	-	-	-	-	x	-	-	○	-	-	-	-	-	-	-	-	○	x	○	-	○	x	x	x
	3	Residential	Muskalı Dolma	-	-	-	-	-	○	-	-	x	-	x	-	-	x	x	x	x	x	x	○	-	○	x	-	○
	4	Residential	Muskalı Dolma	-	x	-	○	-	x	-	-	x	○	x	-	-	○	x	x	x	○	x	○	-	○	x	-	○
	5	Abandoned	(No access)	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	-	-	-	-	-	-	-	○	-	○
	6	Residential	Muskalı Dolma	x	x	x	○	-	x	-	○	x	-	x	-	x	○	x	○	○	x	○	○	○	x	○	-	○
	7	Residential	Muskalı Dolma & Timber Masonry	x	x	○	x	○	○	x	○	x	-	○	x	○	x	x	○	○	○	x	○	x	○	x	x	x
	8	Abandoned	Muskalı Dolma	-	-	-	-	-	x	-	-	-	-	x	-	-	○	x	x	x	x	○	○	-	○	x	-	x
	9	Residential	Muskalı Dolma	x	x	x	x	x	x	x	-	-	x	-	x	x	x	○	x	○	○	x	x	x	○	x	x	x
	10	Residential	Muskalı Dolma	x	x	x	x	x	x	○	○	x	x	x	x	○	x	○	x	○	○	x	○	○	○	x	x	x
	11	Abandoned	Göz Dolma	x	x	x	x	x	x	○	○	x	-	x	x	○	x	○	x	x	○	x	x	x	○	x	x	X
	12	Residential	Göz Dolma	x	x	x	x	x	○	x	○	-	-	x	x	x	x	x	x	x	○	x	○	○	○	x	x	○
	13	Residential	Muskalı & Göz Dolma	○	x	x	○	○	x	x	○	x	-	○	-	○	○	○	x	○	x	○	○	○	○	x	x	○
	14	Residential	Göz Dolma	○	x	○	○	x	x	x	○	x	-	x	x	○	○	x	x	x	x	○	○	○	○	-	-	-
	15	Residential	Göz Dolma	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	○	x	-	-	-	x	x	-
	16	Abandoned	Muskalı Dolma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	x	-	-	-	-	-	-
	17	Residential	Muskalı & Göz Dolma	x	x	x	x	x	○	x	○	-	-	x	x	○	x	x	x	x	x	○	○	○	x	○	x	x
	18	Residential	Muskalı Dolma	x	x	x	x	x	○	○	○	x	-	x	x	○	x	x	x	x	○	x	○	○	○	x	x	○
	19	Storage	Muskalı & Göz Dolma	x	x	x	x	-	x	x	x	○	-	x	x	x	x	x	x	x	○	x	○	x	○	x	x	x
	20	Storage	Muskalı & Göz Dolma	x	x	x	x	-	x	x	-	○	-	x	x	x	x	x	x	x	○	x	○	x	○	x	x	x
	21	Abandoned	Göz Dolma	x	x	x	x	○	x	x	x	○	○	x	x	x	x	x	x	x	x	x	x	x	x	x	x	c
	22	Not visited		-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23	Residential	Muskalı Dolma	x	○	○	x	x	○	-	x	x	-	x	x	x	x	x	x	x	○	x	○	○	○	x	x	○
	24	Residential	Muskalı Dolma & Timber Masonry	-	x	-	-	-	○	-	x	x	x	x	-	-	x	○	x	-	○	x	○	-	x	x	-	○
	25	Residential	Muskalı & Göz Dolma	-	-	-	-	-	x	○	○	x	-	○	-	-	-	○	x	x	x	○	○	-	-	x	-	x
	26	Abandoned	Muskalı Dolma	x	x	x	x	x	x	x	○	x	x	x	x	x	x	x	x	x	○	x	○	x	○	x	x	○
	27	Residential	Göz Dolma & Timber Masonry	x	x	x	x	x	x	○	○	x	x	x	○	○	x	○	x	○	○	x	○	x	x	○	○	○
	28	Residential	Muskalı Dolma	x	x	x	x	x	○	x	x	○	x	x	x	x	x	x	x	x	○	x	x	x	○	x	x	x
	29	-	Muskalı Dolma	-	-	-	-	-	x	-	-	-	-	-	-	-	-	○	x	-	x	○	○	-	x	x	-	-
	30	Residential	Muskalı Dolma	x	x	x	○	x	x	x	-	x	-	x	x	○	x	x	x	x	○	x	○	○	○	x	x	○
	31	Residential	Göz Dolma	-	-	-	x	-	○	-	-	x	-	x	-	-	x	x	x	x	x	○	○	-	x	x	-	x
	32	Residential	Muskalı Dolma	x	x	x	x	x	○	○	○	x	-	x	-	○	x	x	○	○	x	○	○	○	x	○	x	x
	33	Residential	Muskalı Dolma	-	○	-	x	-	x	-	-	-	-	○	-	-	x	x	x	x	○	x	○	-	○	x	○	x
	34	Residential	Muskalı Dolma & Timber Masonry	x	x	x	x	x	x	○	○	x	x	x	x	○	x	○	x	x	○	x	x	○	x	x	x	x
	35	Residential	Muskalı Dolma	○	x	x	x	x	x	○	○	x	○	x	x	○	x	○	x	x	x	○	○	○	x	x	x	x
	36	Residential	Muskalı Dolma & Timber Masonry	-	-	-	-	-	-	-	-	-	-	x	-	-	x	x	x	x	x	○	○	x	○	x	-	x
	37	Abandoned	Muskalı Dolma & Timber Masonry	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	○	x	x	x
	38	Abandoned	Muskalı Dolma & Timber Masonry	-	-	-	-	-	x	-	-	-	-	x	-	-	x	x	x	x	○	x	○	-	○	x	-	x
	39	Abandoned	Muskalı Dolma, Göz Dolma & Timber Masonry	-	-	-	-	-	x	-	-	x	-	x	x	-	x	x	x	x	-	x	x	-	-	x	-	x
			Total	**3**	**2**	**3**	**6**	**3**	**10**	**8**	**16**	**6**	**3**	**4**	**1**	**12**	**6**	**11**	**4**	**8**	**23**	**11**	**28**	**12**	**22**	**5**	**1**	**11**

(* *[Spatial]* - A: Interior partition(s) in a room, B: Division of the house into two, C: Cancellation of door(s), D: Cancellation of window(s), E: Cancellation of room(s) / unused spaces, F: Shading space in front of the entrance.

[Functional] - G: Functional changes of a room as a WC/bathroom, H: Functional changes of animal shelter as storage area, I: Functional changes of the whole building, J: Loss of usage of attic, K: Usage of empty fillings on the façade, L: Changes in the height of ceiling, M: Cancellation of fireplace.

[Morphological] - N: Differences on the size of openings, O: New materials on window frames (wood), P: New materials on window frames (PVC/metal), R: New materials on main doors, S: Cement infillings on the façade (slightly), T: Cement infillings on the façade (extensive), U: Maintenance with new construction techniques, V: Covering earthen floor with concrete/wood, W: Replacing roof tiles with metal sheets (partially), X: Replacing roof tiles with metal sheets (extensively), Y: Indoor panelling for better insulation, Z: Addition(s) to main building)

Table 4.4 shows the changes observed in the vernacular houses in Karacakaya Village. From the table, it is understood that 80% of the vernacular houses in the village have 2 floors. 18% of them are abandoned and 5% of the buildings have changed their function from a residential purpose to a storage which is used during the summer time for storing the harvests.

It is also identified that 72% of the vernacular houses have maintained with modern construction techniques (U) and 87% of all vernacular houses have cement infillings on the façade (S: 59% slightly, T: 28% extensively). Changes in the roofing materials are one of the remarkable changes observed (W + X). Originally, traditional roof tiles are used as a roofing material, whereas 56% (22 houses) of the vernacular houses have changed the roof tiles partially (W). In addition to that roofing material of 5 houses have been fully replaced with the metal sheets (X).

Table 4.5 Characteristic changes on vernacular houses in Üstündal.

	Basic Information about the House				Changes on the Vernacular Houses*																							
					Spatial						Functional							Morphological										
	No.of floors	Function	Filling System		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	V	W	X	Y	Z
	1	2	Residential	Timber Masonry	x	x	x	x	x	○	○	○	x	x	x	○	○	○	○	x	○	x	○	○	○	x	○	○	○
	2	3	Residential	Timber Masonry	○	○	○	x	○	x	○	○	x	x	x	○	x	○	○	x	○	x	x	○	○	x	○	○	○
	3	2	Residential	Göz Dolma & Timber Masonry	x	x	x	x	○	**x**	**O**	**O**	**x**	**-**	**x**	**x**	**O**	**x**	**O**	**x**	**x**	**x**	**x**	**x**	**O**	**O**	**x**	**x**	**x**
	4	3	Residential	Muskalı Dolma & Timber Masonry	x	x	x	x	○	x	○	○	x	-	○	x	○	○	x	x	x	○	x	○	○	○	x	○	○
	5	2	Residential	Göz Dolma & Timber Masonry	x	x	x	x	x	x	x	○	x	x	x	x	x	○	x	○	○	x	○	○	○	x	○	○	○
	6	2	Residential	Göz Dolma & Timber Masonry	x	x	x	○	x	x	○	○	x	-	x	x	○	○	○	○	x	x	○	○	○	x	○		○
	7	2	Residential	Muskalı Dolma, Göz Dolma, Timber Masonry	x	x	x	x	x	x	○	○	x	-	x	x	○	x	○	x	x	x	x	○	○	○	x	x	x
	8	2	Residential	Muskalı Dolma, Timber Masonry	○	○	○	x	○	x	○	○	x	-	x	-	○	○	○	x	x	x	○	○	○	○	x	x	○
	9	2	Abandoned	Muskalı Dolma, Timber Masonry	-	-	-	-	-	x	x	x	x	x	x	-	-	x	x	x	x	○	x	x	-	x	x	x	x
	10	2	Residential	Göz Dolma(renew)	-	x	-	-	-	○	-	-	-	-	-	-	-	-	○	-	○	-	-	○	○	x	x	-	x
ÜSTÜNDAL	11	2	Residential	Göz Dolma, Timber Masonry	x	x	x	○	x	x	○	○	x	-	x	x	x	○	○	x	x	○	x	○	○	x	x	x	○
	12	3	Residential	Muskalı Dolma, Göz Dolma, Timber Masonry	○	○	○	x	○	x	○	○	x	x	x	○	○	x	x	x	x	x	○	○	○	x	x	○	x
	13	2	Residential	Göz Dolma, Timber Masonry	x	x	x	x	x	x	○	○	x	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	14	2	Residential	Göz Dolma, Timber Masonry	-	-	-	-	-	x	-	-	-	-	x	-	-	x	x	x	x	○	x	○	-	○	x	-	x
	15	2	Abandoned	Göz Dolma, Timber Masonry	Decaying (not possible to enter/evaluate)																							
	16	2	Residential	Göz Dolma, Timber Masonry, Stone Masonry	-	x	x	○	-	x	-	-	-	-	-	-	-	x	x	x	x	○	x	○	-	x	x	-	x
	17	2	Residential	Göz Dolma, Timber Masonry	-	-	-	○	-	x	-	-	-	-	-	-	-	○	○	x	x	x	x	○	-	x	x	-	x
	18	2	Abandoned	Göz Dolma	-	-	-	x	-	x	-	-	-	-	-	-	-	x	x	x	x	x	x	-	-	x	x	-	x
	19	3	Residential	Göz Dolma	-	-	-	-	-	○	-	-	x	-	x	-	-	○	○	○	○	x	○	○	-	○	x	-	○
	20	2	Abandoned	Göz Dolma, Timber Masonry	x	x	-	-	-	x	-	-	○	○	x	x	x	x	x	x	x	○	x	○	-	x	○	-	○
	21	2	Residential	Göz Dolma, Timber Masonry	○	x	x	x	x	x	○	○	x	x	○	x	○	x	x	○	x	x	○	○	○	○	x	x	x
				Total (Üstündal)	**4**	**3**	**3**	**4**	**5**	**3**	**11**	**12**	**1**	**1**	**2**	**3**	**8**	**9**	**10**	**4**	**5**	**6**	**7**	**16**	**12**	**7**	**5**	**5**	**9**

(* *[Spatial]* - A: Interior partition(s) in a room, B: Division of the house into two, C: Cancellation of door(s), D: Cancellation of window(s), E: Cancellation of room(s) / unused spaces, F: Shading space in front of the entrance.

[Functional] - G: Functional changes of a room as a WC/bathroom, H: Functional changes of animal shelter as storage area, I: Functional changes of the whole building, J: Loss of usage of attic, K: Usage of empty fillings on the façade, L: Changes in the height of ceiling, M: Cancellation of fireplace.

[Morphological] - N: Differences on the size of openings, O: New materials on window frames (wood), P: New materials on window frames (PVC/metal), R: New materials on main doors, S: Cement infillings on the façade (slightly), T: Cement infillings on the façade (extensive), U: Maintenance with new construction techniques, V: Covering earthen floor with concrete/wood, W: Replacing roof tiles with metal sheets (partially), X: Replacing roof tiles with metal sheets (extensively), Y: Indoor panelling for better insulation, Z: Addition(s) to main building)

Table 4.5 indicates the changes observed in the existing vernacular houses in Üstündal. It is identified that 81% of the vernacular houses are originally constructed with two floors. Similar to the case of Karacakaya Village, 19% of the vernacular houses in Üstündal are abandoned.

On the other hand, there is no functional change in the whole house (I). It is also found out that the modern construction techniques are used in the 76% of the vernacular houses in Üstündal (U). When the ratio of cement infillings on the façade is investigated, it is understood that the ratio in Üstündal is lower than that of in Karacakaya (S: 29% slightly, T: 33% extensively). However, extensively cement infillings (T) are higher (33%) in the case of Üstündal, compared to the case in Karacakaya (28%).

Changes in the roofing materials are also common in Üstündal Village. In fact, 57% of the vernacular houses have differences in the roofing materials in which roof tiles are replaced with the metal sheets (W + X). Some other remarkable changes made by the residents of the vernacular houses (21) in Üstündal are the functional changes of animal shelter as storage (H: 12), covering the earthen floor with concrete/wood (V: 12), functional changes of a room as a WC / bathroom (G: 11), differences in the size of the openings (N: 10) and addition to the main building (Z: 9) (Var & Kobayashi, 2017).

In the last case study area which is next to the Üstündal Village, the majority (86%) of the studied vernacular houses is two-floor-high (Table 4.6). Among the studied 14 houses, 4 of them are abandoned (29%). The rest of the vernacular houses are used for residential purposed. 57% of the vernacular houses have been maintained with modern construction techniques in Dirlik. This ratio is the lowest of all three case study areas.

On the other hand, the cement infillings (S + T) in the vernacular houses in Dirlik represent similarities to the other two case study sites. As it is one of the most common changes in Karakaya and Üstündal, cement infillings on the façade are the most remarkable change observed in the houses in Dirlik Village. To make it clearer, 36% of the studied houses in Dirlik have cement infillings on the façade which are slightly made (S), whereas 58% of them have cement infillings extensively (T). In addition to the previously mentioned changes, changing the flooring material of the corridor with earthen floor (V: 64%), cancellation of fireplace in *aşhane* (M: 64%), and functional changes of animal shelter (H: 57%) are some other notable changes observed in the case of Dirlik.

Table 4.6 Characteristic changes on vernacular houses in Dirlik.

	Basic Information about the House				Changes on the Vernacular Houses*																							
					Spatial						Functional							Morphological										
		No.of floors	Function	Filling System	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	V	W	X	Y	Z
DIRLIK	1	2	Residential	Göz Dolma, Timber Masonry	x	x	x	x	x	x	x	○	x	-	x	-	○	x	x	x	x	○	x	○	x	○	x	x	x
	2	2	Residential	Göz Dolma, Timber Masonry	x	x	x	x	x	x	○	○	x	x	x	x	○	x	x	x	x	○	x	x	○	x	x	x	x
	3	2	Residential	Göz Dolma, Timber Masonry	○	x	○	x	x	○	○	○	x	-	x	○	○	○	○	x	○	x	○	○	○	x	○	○	○
	4	3	Residential	Timber Frame, Timber Masonry	x	x	x	x	x	x	x	○	x	-	x	x	○	x	x	x	x	x	○	○	○	x	x	x	x
	5	2	Abandoned	Timber Masonry	x	x	-	-	-	x	-	-	○	-	x	-	○	x	x	x	x	x	x	x	○	○	x	x	x
	6	2	Abandoned	Muskalı Dolma, Timber Masonry	x	x	x	x	x	x	-	-	○	-	x	x	x	x	x	x	x	x	○	x	○	x	x	x	○
	7	2	Residential	Timber Frame, Timber Masonry	○	○	○	○	x	○	○	○	x	-	x	○	○	○	x	○	○	x	○	○	○	x	○	○	○
	8	2	Residential	Timber Frame, Timber Masonry	○	x	x	x	x	x	○	○	x	○	x	x	○	○	○	x	x	x	○	○	○	x	x	x	○
	9	2	Residential	Significantly Modified	x	x	x	x	x	x	○	○	x	-	-	x	○	○	○	○	○	x	○	○	○	x	○	○	x
	10	2	Residential	Timber Masonry	x	x	x	x	x	x	○	○	x	-	x	x	○	x	x	x	x	○	x	○	○	○	x	x	x
	11	3	Residential	Göz Dolma, Timber Masonry	-	-	-	-	-	x	-	-	-	-	x	-	-	x	x	x	x	○	x	-	-	x	x	-	○
	12	2	Residential	Göz Dolma, Timber Masonry	-	-	-	-	-	x	-	-	-	-	x	-	-	x	○	x	x	x	○	○	-	x	x	x	x
	13	2	Abandoned	Göz Dolma	-	-	-	-	-	x	-	-	○	-	x	-	-	x	x	x	x	x	○	-	-	x	x	-	x
	14	2	Abandoned	Muskalı Dolma, Göz Dolma, Timber Masonry	-	-	-	-	-	x	-	-	-	-	x	-	-	x	x	x	x	○	x	-	-	x	x	-	x
				Total (Dirlik)	**3**	**1**	**2**	**0**	**0**	**2**	**6**	**8**	**3**	**1**	**0**	**2**	**9**	**4**	**4**	**2**	**3**	**5**	**8**	**8**	**9**	**3**	**3**	**3**	**5**
				TOTAL(Overall)	**10**	**6**	**8**	**10**	**8**	**15**	**25**	**36**	**10**	**5**	**6**	**6**	**29**	**19**	**25**	**10**	**16**	**34**	**26**	**52**	**33**	**32**	**13**	**9**	**25**

(* *[Spatial]* - A: Interior partition(s) in a room, B: Division of the house into two, C: Cancellation of door(s), D: Cancellation of window(s), E: Cancellation of room(s) / unused spaces, F: Shading space in front of the entrance.

[Functional] - G: Functional changes of a room as a WC/bathroom, H: Functional changes of animal shelter as storage area, I: Functional changes of the whole building, J: Loss of usage of attic, K: Usage of empty fillings on the façade, L: Changes in the height of ceiling, M: Cancellation of fireplace.

[Morphological] - N: Differences on the size of openings, O: New materials on window frames (wood), P: New materials on window frames (PVC/metal), R: New materials on main doors, S: Cement infillings on the façade (slightly), T: Cement infillings on the façade (extensive), U: Maintenance with new construction techniques, V: Covering earthen floor with concrete/wood, W: Replacing roof tiles with metal sheets (partially), X: Replacing roof tiles with metal sheets (extensively), Y: Indoor panelling for better insulation, Z: Addition(s) to main building)

To sum up, the most common change observed in the 74 vernacular houses examined in the rural areas of Sürmene District is the cement infillings on the façades -both slight (S) and extensive (T)-. This change is observed in 60 houses (81%) in three case study areas in total. This change on the façade is followed by the changes in the roofing material (W + X: 61%), functional changes of animal shelter (H: 49%) and covering the earthen floor with concrete/wood (V: 45%). From the field survey results, it is understood that despite the slight changes, changes occurred in the vernacular houses indicate similarities in general.

4.4 Summary

In this chapter, existing situation of vernacular houses in the region covering Karacakaya, Üstündal, and Dirlik villages in Sürmene, Trabzon is examined. In addition to the documentation of the vernacular houses, the changes made by the residents in terms of the spatial, morphological and functional changes are also identified.

The similarities and differences in the tendencies and needs of local people are analysed together with the reasons behind such changes. In addition to the deep-in examinations in the individual houses, basic analysis is also made in the sociocultural structure of the community and the rural landscape which should be considered for a more holistic conservation approach.

It is found out that, the needs and expectations of the residents have similarities in the case study areas, despite the changes in the sociocultural differences in the households' background. It is also understood that most of the changes have been occurring in terms of the morphological aspects compared to that of in spatial and functional. Another point clarified is that the changes are implemented mostly by utilizing the modern construction techniques, which can be related to the difficulty of finding craftsman capable of traditional construction methods.

Some of the most common changes are observed in the roofing materials, cement infillings on the façades, changes in the flooring material of the corridor, introduction of modern kitchen, toilet and bathroom spaces. Also, various additions have been made to the vernacular houses, although the size, form or the materials indicate differences.

Changes made by the vernacular house residents are crucial to understand in order to realize their needs, expectations and insufficient parts of the houses. It is believed that the analysis made in this chapter is valuable for the conservation activities in the region which are in the initial stage. It is considered that utilizing the outcomes of this research as the inputs for the future conservation activities can contribute to the process.

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CHAPTER 5. RESIDENTS' PERCEPTION FOR VERNACULAR HOUSES AND ARCHITECTURAL CONSERVATION

The importance of local people's appreciation of vernacular houses, desire for conservation and participation to the conservation process are the highlighted in various global meetings and academic studies. They are considered to be significant factors for the continuity and the success of the process. Therefore, residents' perception towards the vernacular houses, level of desire for the conservation activities, difficulties faced for the maintenance and conservation of the houses, ideas for the potential tourism activities in the focusing areas, etc. are investigated through questionnaire surveys.

During the field trips, 74 vernacular houses in surveyed 3 villages are visited in which 15 of them are abandoned. In other words, the possibility of conducting the questionnaire survey with the residents of the vernacular houses is limited to 59 even if everyone participated. However, the semi-structured questionnaire surveys could only be done with 40 households because of various reasons. Among those, the main reasons can be elaborated as the unavailability of the residents as a result of temporary stay in the village for harvesting tea and/or hazelnut, been busy with agricultural / personal works, or not willing to participate the survey. As a result, there is a difference in the houses visited (74), the number of potential respondents (59) and the number of actual participants (40).

5.1 Overview of the Respondents

5.1.1 Background information of the respondents

Family members preferred male and senior people participating the questionnaire as the males are the head of household who involve more to the construction works. Also, when a couple gets married, it is a tradition to move to the male's village / home. Therefore, some of the females were not originally from the place they live and they had limited knowledge about the history of the vernacular house as well as the village. As a result, 75% of the participants are males (Table 5.1). The majority of the participants are over 40s and in the overall, the greater amount of the respondents is between the ages of 51 – 65.

The size of the families is also investigated, and it is found out that 62% of the participants have 3 – 5 people in their family which is the most common group. Other than that, %12 of the households has 1-2 people, 9% has 6-8 people, 5% has 9-11 people and 12% has more than 12 people. On the other hand, 45% of the interviewees mentioned that none of the family members live in the village and 23% stated that less than half of them stays in the village.

Table 5.1 Some of the information about the respondents' background.

Categories	Answers					Total
Gender	Male 30		Female 10			40
Age	25-35 1	36-50 7	51-65 21	65-80 9	More than 80 2	40
Marital status	Married 33		Widow 5		Single 2	40
Residency status	Permanent Resident 6		Seasonal Resident 34			40

Educational background and profession of the residents are also examined. As it is shown in Figure 5.1, the almost half of them graduated from the primary school which forms almost the half of the respondents. This group is followed by the group of people who have the high school education (33%), junior high education (13%) and university (5%). All the local people interviewed in Karacakaya and Dirlik went to at least primary school, whereas in Dirlik one of the questioned people has no education at all.

The professions of the respondents, their income sources and monthly incomes are also investigated to gain more information about the socioeconomic background of the families. It is understood that there are two main groups of professions which are the self- employed people and retired people. To make it clearer, 45% of the respondents are self-employed dealing with commercial activities and 38% of the participants are retired (Figure 5.2). Some of the retired people have started their own business after the retirement. As a result, the total number of responses received on this question is more than the total number of participants. Another significant point to be mentioned is that although many families deal with the agricultural works in the village, they do not consider themselves as farmers as it is not the main activity for them to earn money. Therefore, the number of farmers is very limited in Figure 5.2.

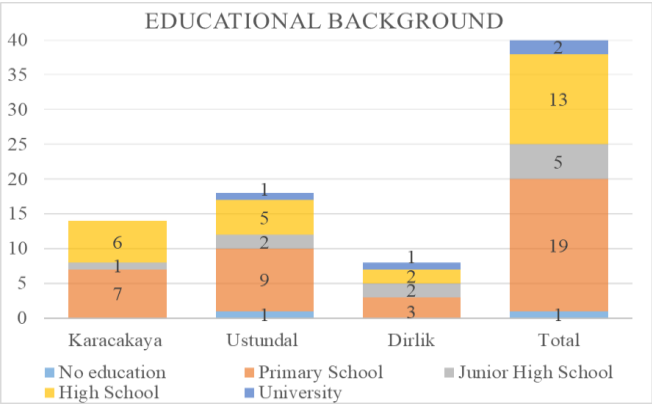

Figure 5.1 Educational background of the respondents.

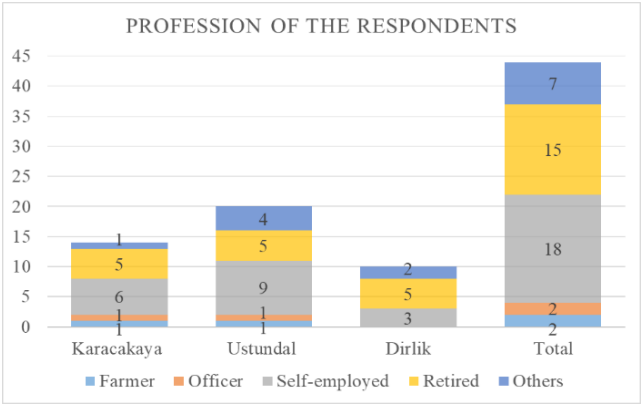

Figure 5.2 Profession of the respondents.

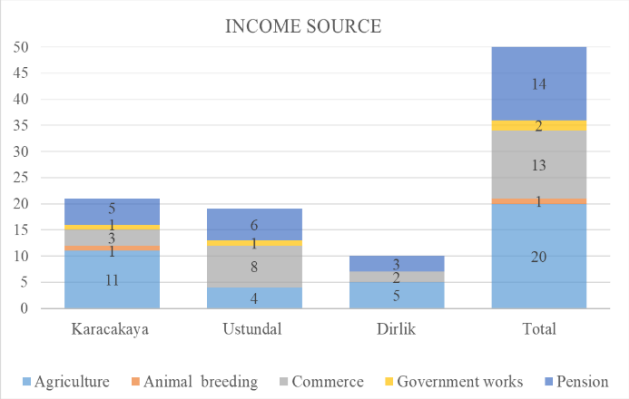

Figure 5.3 Monthly income of the respondents.

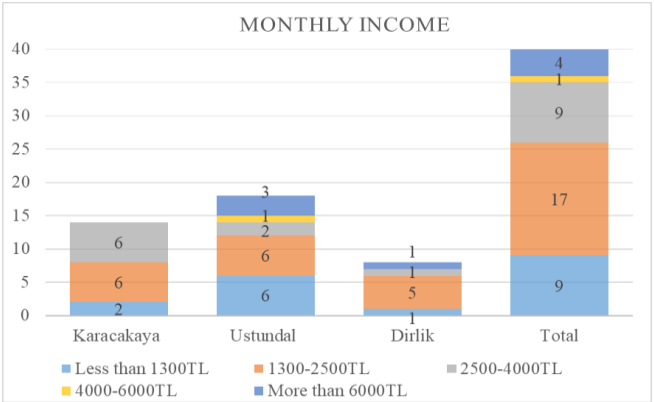

Figure 5.4 Income source of the respondents.

However, when the source of residents' income is examined, half of the respondents stated that agriculture is one of the income sources for them (Figure 5.3). Since some of the residents have multiple income resources, agriculture is a supplementary tool for them for earning money. Another common income source mentioned was the commerce which was mentioned by 35% of the residents questioned. In addition, 33% of the participants do commerce and run their own business for their livelihood. Considering the age of the respondents, it is expected for them to live on the pension money.

When the economic status of the families is investigated, the lowest level of monthly income is defined as 1300TL (~215USD) which was the minimum wage in 2016 when the first questionnaire survey conducted. It is found out that almost 25% of the participants have an income less than a 1300TL / month and almost half of them (42,5%) earn 1300-2500TL (~215 - ~410USD) /month (Figure 5.4).

In all three cases, the majority of the people questioned live in the village for temporarily (Table 5.1). %85 of the overall respondents do not live in the neighborhood -at least- during the winter time and only %15 of them permanently stay there (Figure 5.3). Therefore, most of the vernacular houses are used as secondary or holiday houses in the case study areas, which has been a popular trend in the rural areas of Trabzon in the last decades. In fact, local people stated that only 4 households spend the whole year in Karacakaya neighborhood. Although reasons mentioned for not staying in the village were numerous, changing according to the background of the family, some of the major factors stated were family related reasons (ex. taking care of the grandchildren, education of the children), unavailability of the jobs, hard winter conditions, nothing to do / no one in the winter. Therefore, population drastically decreases in the neighborhood during the cold winter times and it starts to increase from spring and it reaches to the peak point at summer time.

When the duration spent in the village in a year is investigated, it is understood that %33 of the households questioned stay in the village for 1-3 months (Figure 5.4). Local people in Karacakaya and Dirlik are found to be more attached to their villages as they more frequently come to the village and spend longer time comparing to

that of in Üstündal. According to the answers obtained, households who have houses in Sürmene District tend to visit the village every weekend to check the condition of their house, whereas people living in the city of Trabzon or other cities visit the village in longer intervals. When the answers are evaluated according to the villages, it is understood that the majority of participants from Karacakaya spend 6 - 9 months in the village, whereas greater amount of participants from Üstündal spend only 1 -3 months. However, no specific differentiation is observed in the responses received in Dirlik.

The months that families come back to the village and the duration of stay varies as it depends several factors. Figure 5.5 indicates the number of families returning to the village and the duration spent in the village in a year. It is understood from the semi-structured questionnaire survey that the most common season for the resients to return to the village is summer. As a reuslt, the population in the neighbourhood reaches its peak during the summer time, which is considered as a positive issue according to the answers of the respondents. The main motivation for respondents to come back to the village is the harvesting the agricultural products. In addition to that, school holidays being from June to September, desire to spend off days in nature, meeting relatives or friends as well as maintaining the house in the village are some other reasons for local people to return their hometown.

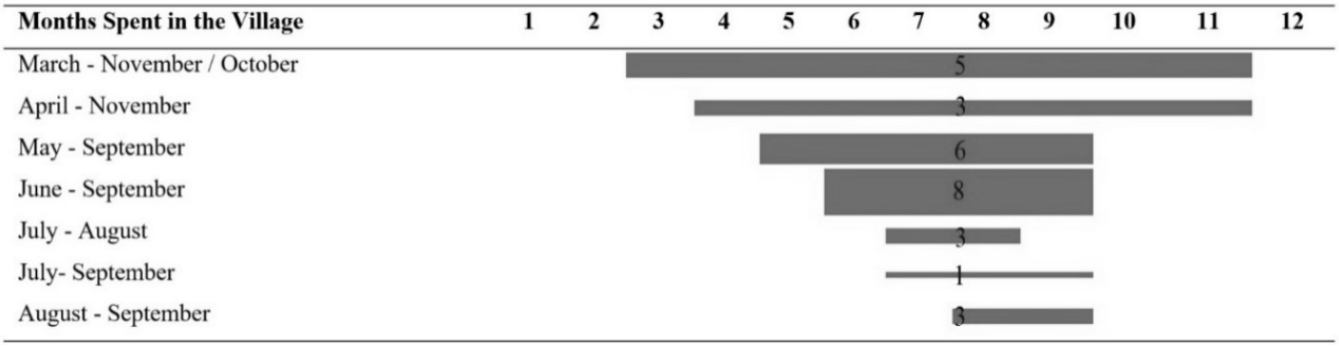

Figure 5.5. Months spent in the village.

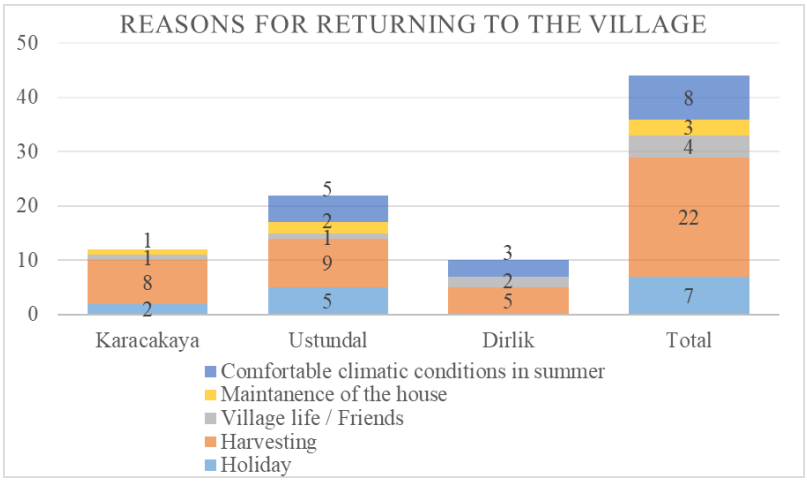

Figure 5.6 Reasons for returning village.

In terms of the reasons for coming back to the village, some of the respondents mentioned multiple factors which are summarized in Figure 5.6. The most common reason mentioned was harvesting tea and/or hazelnut which is stated by more than half of the participants (55%). It is followed by the factors such as cooler climatic conditions in the village during the summer (20%) and having holiday / relax (18%). Some local people also mentioned that they like to come back to the village during summer times as the village becomes lively. That is why, they come back to the village to see the friends and families. (10%). Although it was not stated in the case of Dirlik, in the other two villages, some local people also mentioned that they come back to the villages for maintaining the house.

5.1.2 Background information of the vernacular houses

In addition to the questions asked to get information about the backgrounds of the residents, various questions are asked to get more details about the history of the vernacular houses (Table 5.2).

It is understood that half of the vernacular houses are considered to have a history of 101 - 200 years, 30% of them have 50 - 100 years old and 15% of them 201 - 300 years old. Only one household considered his vernacular house to be more than 300 years old. The vernacular houses have been actively used for centuries, but, the recent usage pattern shows some differences. Since the most of the villagers come back to the village during the harvesting time, greater amount of the vernacular houses is more actively used during this time. Although there are vacant houses which are abandoned, they were not included in the survey as it would not be possible to conduct the questionnaire survey.

Forming the 88% of the overall participants, most of the current residents have their vernacular houses through inheritance. As a result, the 35 vernacular houses are shared properties. On the other hand, 10% of the respondents stated that they purchased the shares of other inheritors, and now, they are the owner of the vernacular houses.

Table 5.2. General information about the vernacular houses.

Categories	**Answers**					**Total**
Age of the Vernacular House	50 - 100 years	101 - 200 years	201 - 300 years	More than 300 years		
	12	20	6	1		40
Way of Possession	Rental	Purchase	Inheritance	Self-built	Others	
	1	4	35	0	0	40
Property Conditions	Shared Property			Personal Property		
	35			5		40
Frequency of the Usage	Permanently used	Used during harvesting time		Used as a storage	Others	
	11	18		1	10	40

Table 5.3. Residents' perception for the most advantageous part of the vernacular house.

	What / where is the best feature / part of your vernacular house?								
Village name	Wooden house	Cool in summer	View from house	Location of the house	Healthy & airy	Comfortable (not boring)	My own house	Relation to my past/childhood/ memories	Others
Karacakaya	8	6	2	0	2	0	1	3	3
Üstündal	10	4	4	2	1	6	1	4	3
Dirlik	3	0	2	1	0	1	1	2	0
Total	21	10	8	3	3	7	3	9	6

Table 5.4. Residents' perception for the most disadvantageous part of the vernacular house.

	What / where is the most complained part of your vernacular house?									
Village Name	Coldness in winter	Difficulty in maintenance	Roof	Bathroom / WC / Kitchen	Old	The sound coming from the woods	No proper roads	Extra hot after making lambri	None	Others
Karacakaya	2	3	4	1	2	1	2	0	0	6
Üstündal	1	0	7	2	1	1	4	0	3	1
Dirlik	0	1	2	0	2	0	0	2	2	0
Total	3	4	13	3	5	2	6	2	5	7

In addition to the questions on the basic information about the vernacular houses, the residents' perception on the vernacular houses is also investigated. It is aimed to understand what kind of feature or which part of the house is more appreciated by the residents, which can be an input for the future conservation strategies or for new house design approaches in the region. Also, participants are requested to mention which is the most disadvantageous part of the vernacular houses which can be used for improving the living conditions of vernacular houses. Since the aim is to get the residents' own perception, open ended questions are asked where respondents could state factors as much as they want. The answers given for the first question are compiled in Table 5.3 and the second one is in Table 5.4.

According to the residents, the best feature of the vernacular houses is the fact that it is a wooden house (Table 5.3). At this point, especially the good smell of the wooden material inside the house is mentioned several times by different residents. It was followed by the factors, such as the cool environment in the house during the summer time, or the time spent in the vernacular houses in the past / during the childhood, or the memories of the respondents. Although the view from the vernacular house is another factor highly appreciated by the residents, it is an outcome of the tradition for the site selection and spatial layout of the vernacular houses, as well as the natural richness and beauty in the region. Some other factors mentioned are being comfortable, healthy and airy environment, the location of the house, being own property, etc. The category "Others" indicates the rarely given

answers, such as no moisture in the house (2), vernacular houses being heritage (2), the verandah of the house (1) and no best features in the house (1).

The following table indicates the complained parts of the vernacular houses. It is clearly understood from the responses that the most complained part is the roofing of the vernacular houses. Since the region receives a lot of precipitation throughout the year and the roofs are constructed by using traditional *(alaturka)* tiles, they need continuous maintenance efforts which is considered as a negative feature by the residents. Another complained part is the unavailability of proper roads to access vernacular houses because of the steep topography and the lack of infrastructure in the village. Residents stated this not only for their daily activities, but also for carrying materials, including for the construction works. Vernacular houses being old, difficulty in the maintenance, coldness during the winter times, or insufficient kitchen, bathroom, WC facilities are some other factors residents complained about. Moreover, it is understood that although there are people who like to live in wooden houses, some respondents are not content about the sound coming from the old woods. The category entitled as "others" in Table 5.4 indicates the answers such as not enough water (2), difficulty in cleaning (2), existence of mice or insects (2), and not enough space (1). As it can be understood from the aforementioned factors, those are not directly related to the features of the vernacular houses. Instead, they are whether infrastructural problems or issues related to temporary stay in the village as well as the inheritor conflicts. Besides the households stating the complaint parts of the houses, there are 5 households who could not mention any problematic parts of the vernacular houses.

5.2 Residents' Perception for the Vernacular Houses and Architectural Conservation

This section presents the perception of residents for the vernacular houses and architectural conservation in the village. The living quality, importance and value of the vernacular houses as well as the perception for the conservation, motivation and difficulties, etc. are indicated in detail.

5.2.1 Residents' perception of the living quality of the vernacular houses

According to the answers received from the residents, the majority of the participants (53%) consider that vernacular houses have an average living quality and 28% think that the living conditions of the vernacular houses are high or very high (Figure 5.7). This can be interpreted as a greater amount of the respondents assumes that vernacular houses have enough capacity to meet their needs. However, when the reason for such perception is investigated, it is understood that that was an outcome of the changes made to the vernacular houses to make it more convenient for the contemporary life. On the other hand, residents who do not make proper changes because of the financial incapabilities or lack of consensus between the inheritors think that vernacular houses have low or very low living quality (20%).

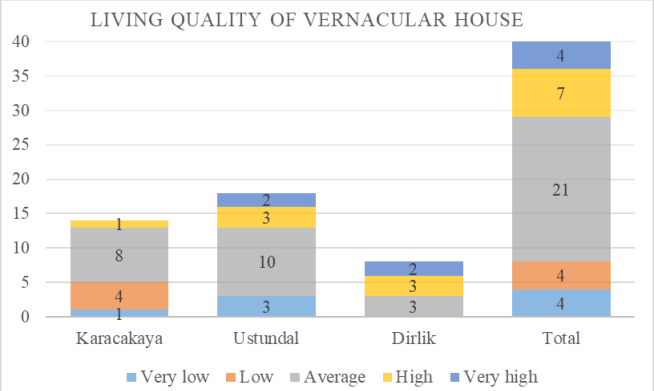

Figure 5.7 Perception of the living quality of the houses.

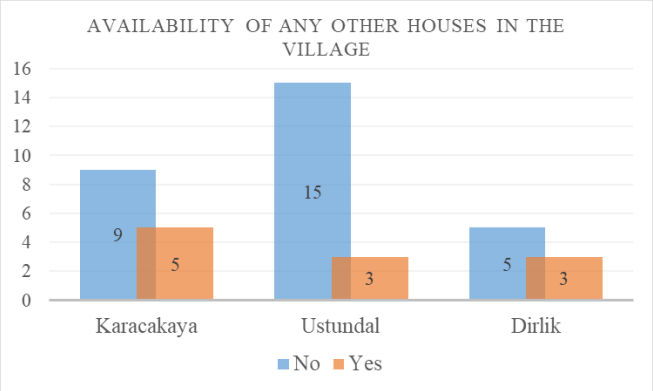

Figure 5.8 Availability of any other houses in the village.

In order to verify the answers received about the value and importance of the vernacular houses, the residents of vernacular houses are asked if they have any other houses in the village to investigate if there is a relationship between perception of the living quality of the vernacular house and the existence of other houses in the village. According to the answers received, 11/40 of the respondents has houses in addition to the vernacular houses they have (Figure 5.8).

The same ratios in Karacakaya and Dirlik are higher than the overall ratio, which is 36% in Karacakaya and 38% in Dirlik. On the other hand, households having another house in the village other than their vernacular houses are limited to 17% which is less than other two villages. Although it seems compatible with the Figure 5.9, no significant relationship could be pointed out except the case of Karacakaya which can be interpreted as the respondents from Karacakaya have new houses because of the low living quality of the vernacular houses.

The existence of changes in their vernacular houses is also inspected and it is discovered that 75% of the respondents made changes in their vernacular houses (Figure 5.9). In addition to that, the desire of making more changes in the vernacular houses is investigated and it is found out that 75% of the residents questioned would like to make more changes if they have the chances.

To conclude, residents who made changes to their vernacular houses consider that vernacular houses can fulfil their needs and most of the respondents are willing to make more changes to the vernacular houses in the future. Since every household uses different materials, it is necessary to provide guidelines for the construction materials and techniques to be used to avoid negative impacts of the possible changes on the vernacular houses.

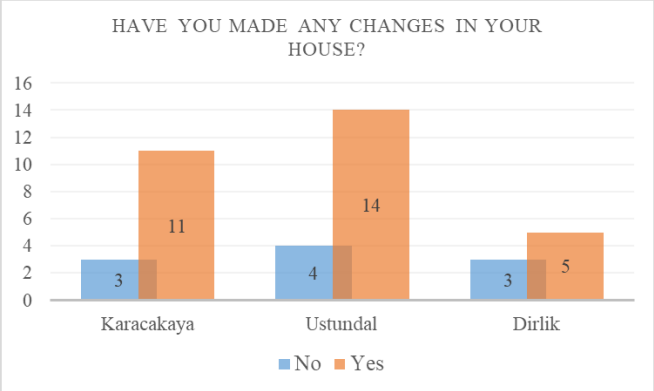

Figure 5.9 Existence of changes in the vernacular house.

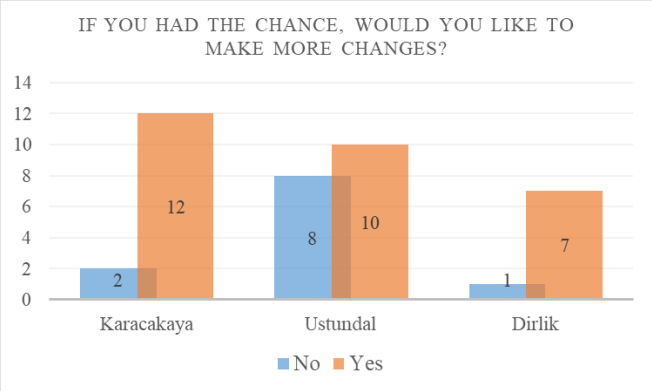

Figure 5.10 The desire to make more changes.

5.2.2 Residents' perception of architectural conservation

The residents' perception of the importance of vernacular houses, desire for architectural conservation, motivation and difficulties for conservation, etc. is investigated throughout the semi-structure questionnaire survey. The results of the relevant questions are represented in this section.

Table 5.5 Respondents' perception for the conservation.

Questions	**Answers**					**Total**
Q1. What do you think about the importance of the vernacular houses?	Very important 26	Important 13	Neutral/ Average 0	Not Important 1	Not important at all 0	40
Q2. What do you think about the conservation of vernacular houses in the village?	All should be conserved 40	Some of them should be conserved 0	There is no need to conserve 0	Others 0		40
Q3. What do you think about the conservation of your own vernacular house?	I want to conserve it for residential usage 36	I want to conserve it for non-residential usage 0	I want to conserve some part of it. 1	I do not want to conserve. 2	Others 1	40
Q4. Do you think conserved vernacular houses can provide an opportunity for local people?	Strongly yes 23	Yes 10	I do not know 2	No 3	Strongly no 2	40
Q5. If you were building a new house, how would you like it to be?	Totally vernacular house 33	Concrete house, looking like a vernacular house 0	Concrete house, with a modern façade & low height 6	Concrete house, with a modern façade & high height 0	Others 1	40

In this respect, first of all, the importance of the vernacular houses, according to the residents is inquired and it is found out that almost all the respondents believe that vernacular houses are important (Table 5.5 - Q1). It is also understood from the same table that, in general, residents assume that all the vernacular houses should be conserved (Q2). However, when the desire to conserve their own vernacular houses is investigated, the results

show a slight difference with the previously mentioned question (Q3). Two participants supported comprehensive conservation in the previous question, stated the opposite when the conservation of their own house is asked. They explained this change with the desire of having a more comfortable living space which needs less maintenance.

More than half of the participants believe that conserved vernacular houses can provide an opportunity for the local people (Table 5.5 - Q4). On the other hand, five of them did not agree with the idea that conserved vernacular houses can provide any opportunity for them and two respondents had no idea about this issue.

In order to double-check the responses obtained for the conservation of vernacular houses, follow-up questions are asked to lessen the bias in the answers. For this purpose, respondents are asked if they were constructing a new house, how they would like it to be looking like (Q5). Two main groups of residents are observed in this question. The first group consist of 33 households who would like to have a new house which is totally looking like a vernacular house and the other group desires to have a low-rise concrete house with a modern façade. As it can be understood from the above answers, although all participants think all the vernacular houses should be conserved, when their desire for new constructions is examined, their replies represent differences.

The most common reasons for the desire to have a new house like a vernacular one are the visual or aesthetic beauty of vernacular houses (7), environmental compliance of vernacular houses (7), and cool nature of vernacular houses (7). The household who preferred to have a low-rise reinforced concrete building with modern façade because several reasons such as "new materials being great, construction techniques being improved, necessity for constructing new houses or having a comfortable life". However, 1 out of 6 people expressed that he would prefer to construct a vernacular house, whereas it is very expensive, that is why he preferred low-rise reinforced concrete building.

On the other way, 73% of the respondents are strongly against and 23% of them are against to sell or demolish the houses (Figure 5.11). The most common reason for this is the fact that vernacular houses are inherited from the ancestors (Figure 5.12) followed by the reasons such as vernacular houses are part of the heritage, they want to sustain the cultural history, and personal memories in the vernacular house as it is the place where they were born. Other answers given, such as "we need a house / no need for selling it / we do not have a culture to sell our house / it is valuable / sentimental value is high" are classified under "other" category in Figure 5.14. Besides the local people who want to conserve vernacular houses, there are 2 households who want to demolish vernacular houses to make space for the construction of a new house.

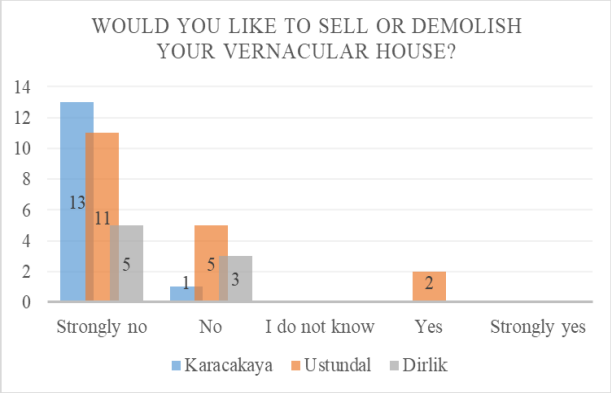

Figure 5.11 The perception of selling/demolishing the vernacular house.

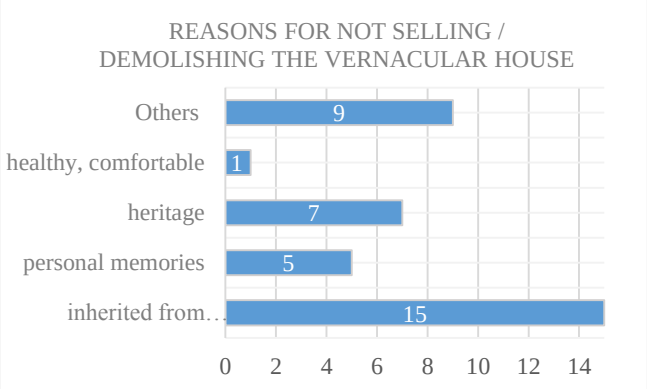

Figure 5.12 Reasons for not selling/demolishing the vernacular house.

All the participants from Karacakaya and Dirlik have the desire to keep the vernacular houses, whereas 2 households in Üstündal want to demolish the vernacular house they have (Figure 5.11). When their answers are investigated in detail, it is understood that one of them considers the vernacular house to have very low living quality. As a result, he wants to demolish the house for constructing a new one.

In order to understand the most common motivations for the residents, they are asked to list 3 main factors for the motivation towards conservation of the vernacular houses. Later, each factor is multiplied by 3, 2, or 1 point(s), according to the ranking in the list to identify the most effective factors. After receiving various reasons from different respondents, the answers obtained are grouped into ten different categories to make it easier for analysis.

Among those factors, the highest points are given to inheritors from ancestors and personal memories which were followed by the reasons, having no other house in the village or sharing the property with siblings / relatives, the historical value of the house, features of vernacular houses such as its unique structure, living environment, view, etc. (Table 5.6). There are several people appreciating the vernacular houses as they are constructed with wooden materials or the historical value they have. The vernacular houses to have high historical value. Therefore, they have the desire to prevent decaying the vernacular houses and to transfer them to the next generations. Another group of people wants to keep their vernacular houses as it provides a chance for them to experience social and natural life in the village which they appreciate.

The answers summarized in Table 5.6 elucidate that the majority of the respondents have the mind set to conserve vernacular houses as a result of personal memories and attachment to the village or family. It can be interpreted as the people spent more time in the vernacular house can contribute having a bigger desire to conserve vernacular houses. On the other hand, although the unavailability of other houses in the village or sharing the

property with siblings / relatives is stated as one of the motivations for the conservation, it is not considered as a motivation for the conservation. Those can be considered as obligations for the residents to keep the vernacular houses.

Table 5.6. Motivation for conservation of vernacular houses.

Motivations for Conservation	No.1 (x3)	No.2 (x2)	No.3 (x1)	Total
Inherited from ancestors	12	5	2	48
Memories / Place where I was born	7	8	3	40
No other house in the village / Shared property	6	1	2	22
Features of the house (unique structure, airy, cool, healthy, comfortable, view, location)	3	4	3	20
Historical (value)	1	8	1	20
Desire to transfer it to the next generations	4	2	1	17
Wooden building	3	2	1	14
Desire to prevent house decay	2	3	1	13
Social life in the village & environment	2	0	2	8

In addition to the motivations for the conservation activities, difficulties encountered by the households are also asked. The same process used to understand the most effective motivations for the conservation of vernacular architecture is also utilized to identify difficulties faced. Among the answers obtained the major difficulty confronted for the conservation is understood to be economic constraints (Table 5.7). Following that, harsh weather conditions, unavailability of craftsman, maintenance works related to roof tiles are considered as some of the biggest obstacles for the conservation. Moreover, accessibility is considered to have significant impacts on the conservation vernacular houses. To clarify this, some of the vernacular houses do not have proper roads because of the steep relief or lack of infrastructural investment which causes difficulties for carrying construction materials or accessing to the house. Therefore, lack of proper roads is considered as a challenge for the conservation activities. Furthermore, vernacular houses being shared property and different motivation levels of different inheritors for conservation are stated as other sources of difficulties faced for conservation. Although less points are given; unavailability of original materials, time limitation, and new legal rules are some other factors mentioned as difficulties.

Table 5.7. Difficulties for conservation of vernacular houses.

Ranking	Difficulties for Conservation	No.1 (x3)	No.2 (x2)	No.3 (x1)	Total
1	Economic constraints	17	6	0	63
2	Weather conditions	8	4	2	34
3	Unavailability of craftsmen	5	3	1	22
4	Problems related to the roof	2	4	1	15
5	Access / Lack of proper roads	1	4	3	14
6	Shared property	3	2	0	13
7	Unavailability of original materials	0	1	3	5
8	Time limitation	0	1	1	3
9	New legal rules	0	1	0	2

5.2.3 *Residents' perception of the maintenance activities*

In addition to the general information about the vernacular houses and the perception of the architectural conservation activities, additional questions are asked to understand issues related to the maintenance of the vernacular houses.

Some of the questions asked in this sense are presented in Table 5.8. In terms of the maintenance frequency (Q1), it is understood that 38% of the respondents make the maintenance activities once in 1-5 years, 17% maintain the house once in 5-10 years, and 30% do it whenever it is necessary. They make such maintenance work, whether with the help of local craftsman in the village (45%) or by themselves (28%) (Q2). Conversely, 15% of the participants do not maintain the vernacular house at all.

Table 5.8 Responses obtained for the maintenance of the vernacular houses.

Questions	**Answers**					**Total**
Q1. How often do you make the maintenance of your vernacular house?	Once in 1-5 years	Once in 6-10 years	Once in 11-15 years	Whenever it is necessary	No maintenance	
	15	7	0	12	6	40
Q2. How do you do the maintenance of your vernacular house?	By myself	With the help of villagers	With the help of local craftsman in the village	With the help of local craftsman outside the village	Others	
	11	0	18	6	5	40
Q3. How easily can you find people who can maintain vernacular houses?	Very easy	Easy	I do not know	Difficult	Very difficult	
	23	10	2	3	2	40
Q4. Do you know anyone who can construct houses with the vernacular construction techniques?	Yes			No		
	22			18		40

Different types of the construction materials used during the maintenance activities are also investigated (Figure 5.13). Residents mentioned several materials for this question, such as wooden materials, cement-concrete, stones, tiles and glazed ceramic tiles, or glass. Some respondents shared that they use any construction material that they can find nearby. Also, one female participant expressed that she has no ideas as her husband is engaged with construction related work.

The participants' perception of the availability of local materials in the village is also examined. Figure 5.14 demonstrates that the majority of the respondents consider that local materials are not available in the region.

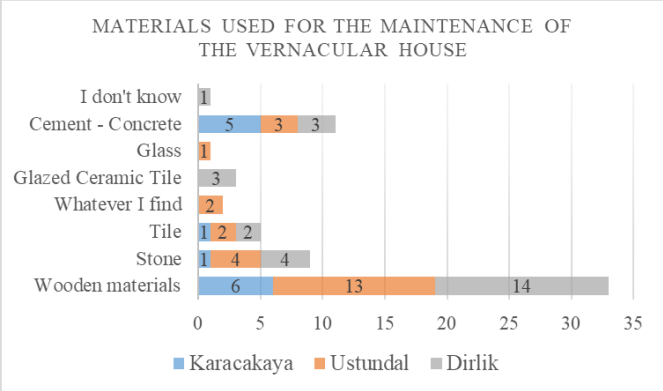

Figure 5.13. Materials used for the maintenance activities.

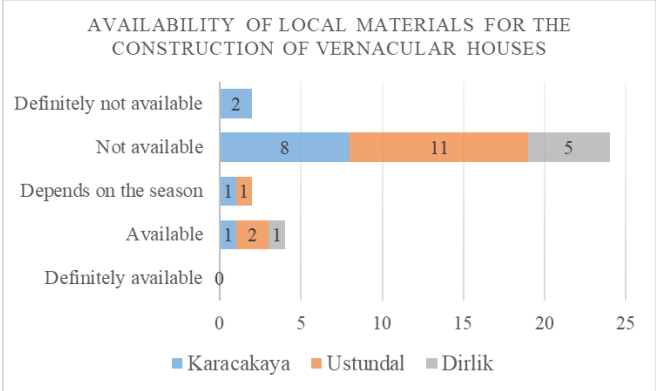

Figure 5.14. Perception of the availability of local materials.

Figure 5.15 presents the amount of money spent in a year for maintenance activities. It is ascertained that residents spend between 1000TL (175USD) to 5000TL (~875USD) in average. More precisely, 45% of the participants spend less than 1000TL/year, 35% spend between 1001TL - 3000TL/year, and 20% of them spend 3001TL - 5000TL/year. Considering the monthly income of the households (Figure 5.4), it is quite costly for the families. Therefore, it is asked if the residents have the information about the supports provided by the government for the conservation of vernacular houses or not.

As it can be seen from Figure 5.16, 75% of the participants have no idea about the existing governmental supports and some of them think there is no support for that purpose. On the other hand, 10/40 residents stated that they are aware of the existing support for the conservation of vernacular houses. When the names of the governmental offices are asked, different organizations are mentioned. For instance, 6 of them mentioned the Ministry of Culture and Tourism, 2 of them stated the Council of Monuments, and the rest could not express any names of the offices. Some of the households who are aware of the governmental supports, shared that the government provides support and in return, they get the ownership of the property. Since the owners do not want to lose their rights as an owner, they stay away from getting involved in such systems.

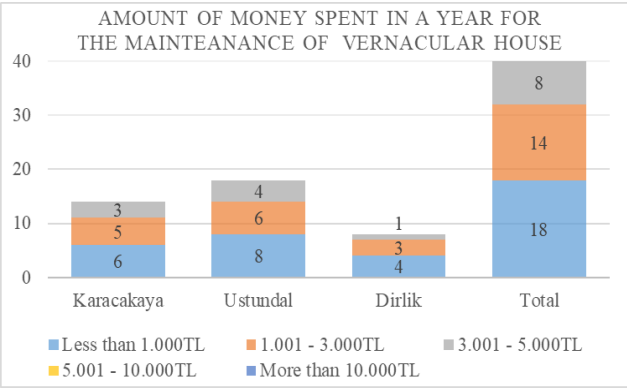

Figure 5.15. The amount of money spent/year for the maintenance

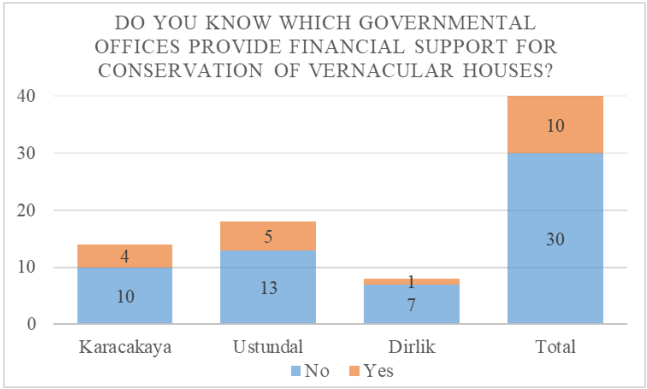

Figure 5.16. Awareness of participants about the financial supports.

5.3 Users' Perception for Changes in the Neighborhood

The perception of local people for the changes in the neighborhood is also investigated and it is found out that 70% of the participants think that there are changes in their village (Figure 5.17). The following issues are mentioned in common for the changes observed in Karacakaya, which are easier access with the construction of new roads, increase in the number of houses, less population in the village, less lively community. One respondent expressed the existence of TV transmitters in the village which causes visual pollution as well as negatively impacts on the agricultural products. In terms of the changes in Dirlik, participants mentioned about no animal breeding in the village, damages on the graveyard and road near to the church as well as the historic settlement pattern are mentioned in addition to decreasing population, more concrete houses, new roads in the village. On the other hand, the respondents shared more comments on the changes observed in the village. In addition to the new roads and more concrete buildings, different changes are also mentioned. Among those, "vernacular buildings are in a bad situation, there used to be green bands before which do not exist anymore, the history of the village is being destroyed, there used to be many jewelers, communication between people is not as good as it used to be, there are more forest areas / green space, there are more landslides, village is not as full/lively as before – I don't like it anymore".

Figure 5.18 indicates the different types of activities that villagers come together. Although 28% of the respondents stated that they do not get together with the villagers, other residents mentioned several occasions for meeting the neighbours. For instance, the participants from Karacakaya expressed the following occasions, such as meeting with the villagers / friends at the mosque or community café, during the construction work (ex. for the canal construction in the village), meeting during the neighborhood meeting for males; and, home gatherings, harvesting tea/hazelnut for the females. In the case of Üstündal, females' gathering, during the neighborhood meetings, religious festivals, or harvesting tea/hazelnut are the occasions mentioned for the getting together with other villagers. Respondents from Dirlik stated that they come together with the other villagers to solve a village problem, or during religious festivals, weddings, etc.

Although a greater amount of the residents mentioned several occasions where they get together with the villagers, some of them are traditionally and culturally very typical gatherings, such as the ones during weddings, religious festivals, meeting at the mosque, etc. It is understood that despite the very few cases, traditional way of helping each other –*imece*– for the daily activities or village issues has been losing the significance in the community which is a common trend in the world.

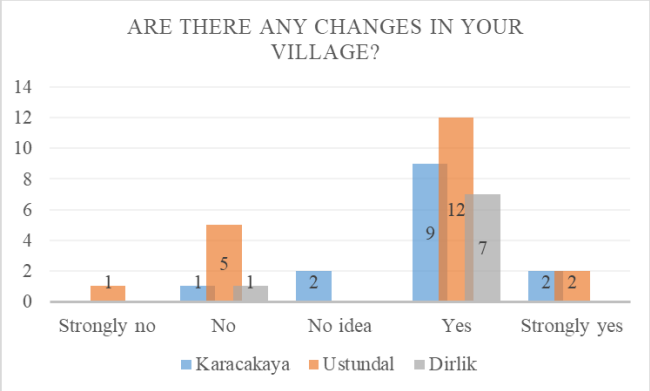

Figure 5.17 Perception of the changes in the village.

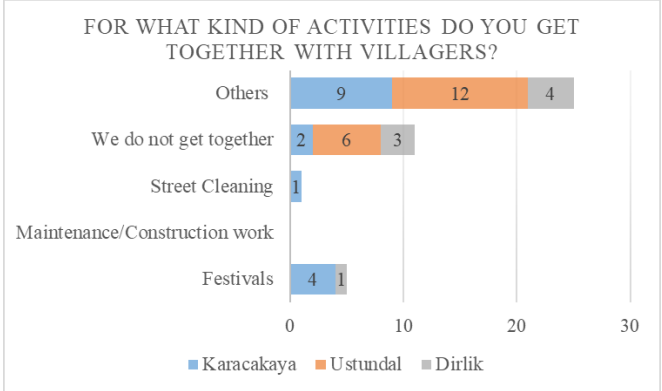

Figure 5.18 The type of activities that villagers come together.

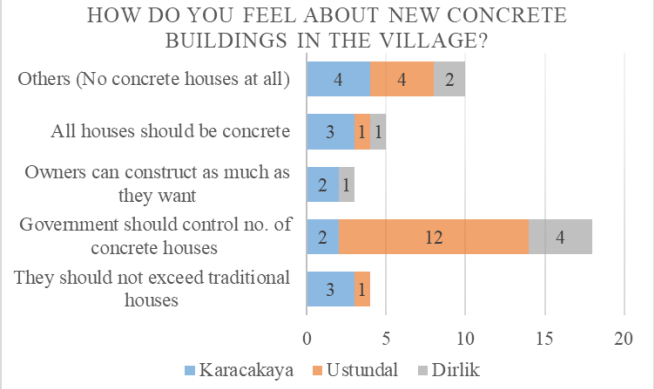

Figure 5.19 Perception of the new concrete houses

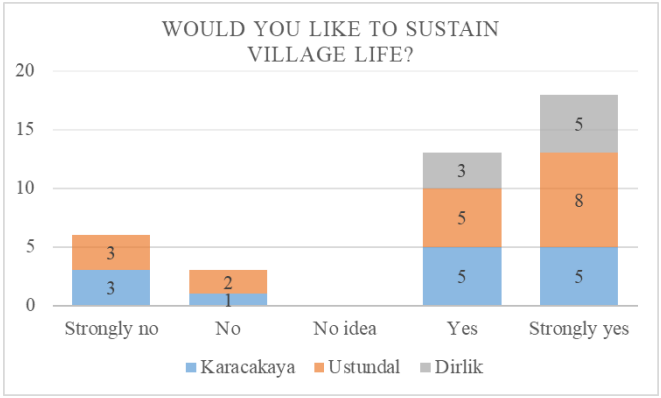

Figure 5.20 Desire to sustain village life.

The perception of local people for the new concrete buildings in the village is also examined and it is understood that 13% of the respondents think all new houses should be concrete (Figure 5.19). On the other hand, 45% believe the number of concrete houses should be limited by the government. 25% have an even stricter view, not to allow any other new concrete houses in the neighborhood.

The desire of residents for sustaining the village life is also enquired and Figure 5.20 summarizes the responses. It is understood that 75% of the respondents have the mind set to sustain village life, whereas the rest does not want to do so.

With almost a similar ratio, %88 of the respondents believe that the impacts of new constructions on the rural environment should be considered. It is understood that greater number of respondents believes that the impact of new constructions on the residential and natural environment should be considered, despite the few opponents (Figure 5.21). More than half of the participants think that the façade and height of vernacular houses should be considered for the new construction in the village, whereas 15% of them thinks it is not necessary to refer vernacular houses for the new buildings in the village (Figure 5.22).

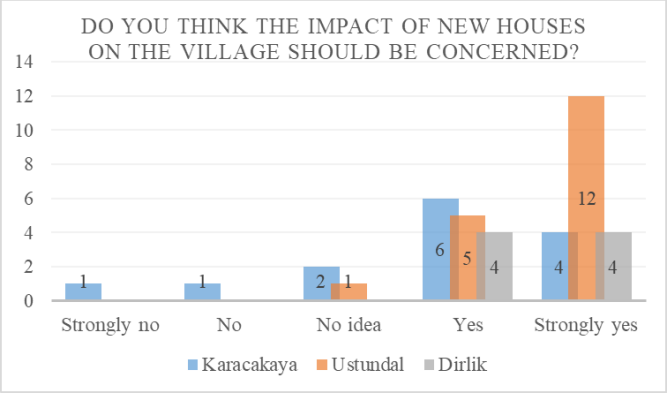

Figure 5.21 Perception of the impact of new houses in the village.

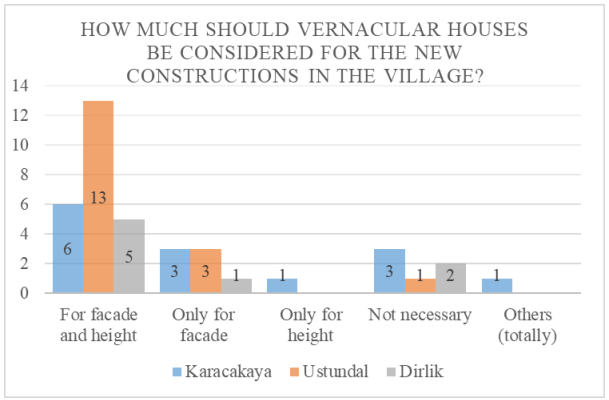

Figure 5.22 Perception of the relationship of new houses and vernacular houses.

In short, it is understood that residents in the three case study areas assume that the environment and life in the rural areas have been changed. Although they have a positive perception of the construction of new roads in the village, they have the opposite view for the increase in the number of concrete houses. Most of them have the mind set to sustain the village life and they think the impact of new houses in the village as well as the vernacular houses should be considered.

5.4 Users' Perception for Possible Tourism Activities in the Neighborhood

Although there are no tourism activities actively done in the focusing areas, the residents' perception of the possible tourism activities in the region is also investigated. Being close to the center of Sürmene District, having a strategic location on the historic trade route as well as having cultural and natural heritage, the region has recently taken the attention of the local government and they are considering this area as a potential for the tourism activities in the future. In fact, on the way to the villages the traffic signs are prepared as the ones for tourist spots. Therefore, although there is no considerable number of tourists in the villages, the perception of the local people for tourism activities in the village is investigated.

Participants are asked if they consider their village convenient for tourism or not. The results show that regardless of their background, %88 of the residents think that they village is convenient for tourism activities (Figure 5.23). They are proud of the village, mostly because of its natural beauty. However, %10 of the respondents believe that the village is inconvenient for touristic activities.

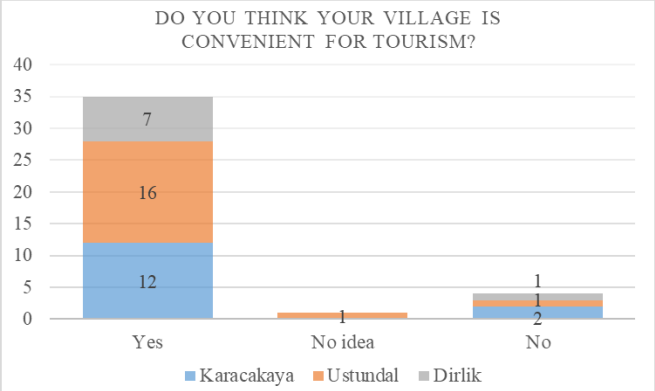

Figure 5.23 Perception of potential of tourism activities in the village.

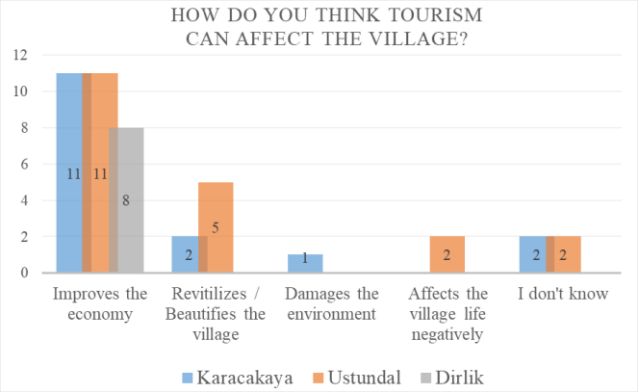

Figure 5.24 Perception on the possible impacts of the tourism in the village.

As a follow-up question, residents' perception of the possible effects of tourism activities on the village is investigated (Figure 5.24). For this question, some respondents selected more than one answer. That is why the number of responses is higher than the total number of participants. It was understood that, greater amount of participants considers that tourism activities can improve the economic situation in the village. Although participants from Karacakaya and Üstündal think that various impacts might occur, all the residents questioned in Dirlik believe the it will only impact the economy. On the other hand, there %16 of the respondents believe the environment and village would become more beautiful if the tourism activities were initiated. Especially people from Üstündal, elaborated this statement by stating the facts such as "villagers would come back to the village, more roads would be constructed, the village would be more lively and beautiful". Although the greater number of respondents considers the positive outcomes, there are also people hesitating about the negative impacts of the tourism activities on the village life and the environment.

Since almost %90 of the interviewees considers the village to have potential for the touristic activities, possible tourism activities in the existing vernacular houses and Figure 5.31 summarizes the answers of the participants. It is understood from the answers that %40 of the overall respondents prefer to use their vernacular house as a pension / guesthouse and 13% prefer to use as a shop where they sell agricultural products.

Individually focusing on the answers received from each village, it is understood that people from Karacakaya and Üstündal have more desire to keep the vernacular houses as it is which is not observed in Dirlik. For instance, the category "others" in Figure 5.25 represents the group of people who preferred to keep the vernacular house as it is in the case of Üstündal and also Karacakaya. The participant from Karacakaya mentioned that if he should select a function related to tourism for his house, he would prefer to use it as a center for sharing local information with the tourists. On the other hand, local people from Dirlik have a different mindset for the tourism activities in the village. It is found out that they have a more positive attitude towards the tourism in the

village as they are all willing to use their house for tourism related activities. To make it clearer, 63% of the respondents in Dirlik think all of the alternative functions can be possible to do (others in Figure 5.31) in their vernacular houses, 38% prefers to utilize it as a guest house and 13% prefers to use it as handicraft shops.

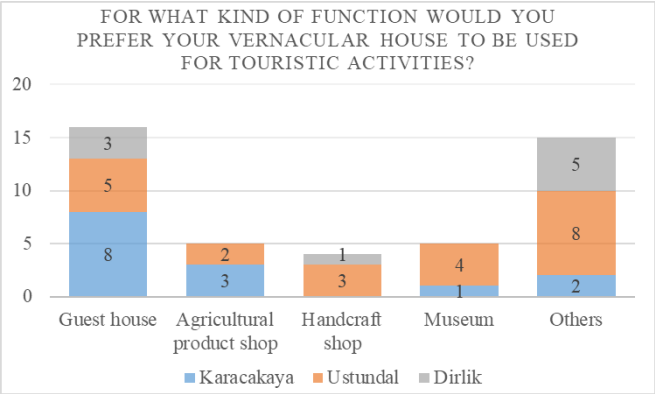

Figure 5.25 Perception of the potential usages for the vernacular houses used for touristic activities.

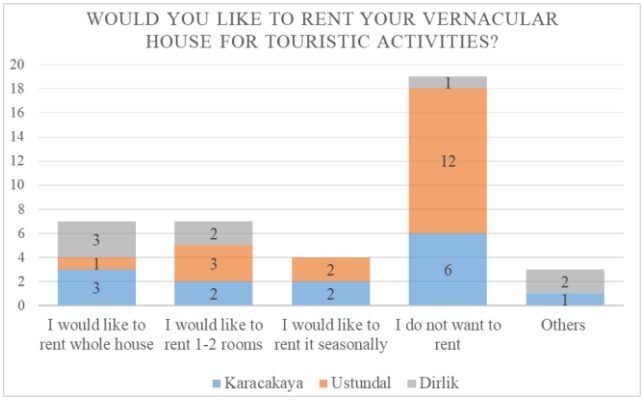

Figure 5.26 The perception of renting the vernacular house for touristic activities in the future.

Figure 5.26 summarizes the desire of local people to rent their vernacular house for tourist activities. Despite the fact that local people consider village and vernacular houses having potential for touristic activities, almost half (48%) of the respondents stated that they do not want to rent the vernacular houses. On the other hand, another 48% of the participants are open to rent their house seasonally (18%), partially (20%) or completely (10%). In Figure 5.32, the category "others" represents two different categories. The first group is the household who is willing to rent 4 rooms (in Karacakaya) and the second group is the households who could not reply answers since the vernacular houses they live in are not their own properties (in Dirlik).

5.5 Summary

In this chapter, perception of the residents of the vernacular houses, architectural conservation activities, changes in the village, etc. are investigated. It is understood that half of the vernacular houses have a history of 100-200 years and almost 90% of the residents get the property through inheritance. Most of the participants use the vernacular house during the harvesting time as 85% of the interviewees stay in the village temporarily.

In terms of the changes made to the vernacular house, 75% of the participants stated that they made spatial, functional or morphological changes and almost the same amount of people confirmed that they have a desire to make more changes in the future if they get the opportunity. Since they made various changes to meet their needs, 53% of the respondents consider vernacular houses having average living quality and 28% think they have high living quality.

Regarding the importance of the vernacular houses, almost all the residents consider vernacular houses to be important and to be conserved. As a result, 96% of the respondents are against to sell or demolish their vernacular houses. The strongest reasons for this are the facts that vernacular houses are inherited from their ancestors and vernacular architecture is a part of the heritage. Local people's desire to sustain cultural history and their memories in the vernacular houses intensifies their motivation to keep vernacular houses. In addition to that, the participants confirmed that the desire for constructing new houses looking like vernacular houses which can be interpreted as another proof for the value given to the vernacular houses. Visual beauty, aesthetical features, comfortable living environment and the compliance with the nature are some of the main reasons for residents to highly appreciate vernacular houses and to have new houses looking like them.

In a similar way, participants have negative perception for the new concrete houses in the village. The majority of the respondents expect that the government should control the number of vernacular houses in the village or there should not be any concrete houses at all. However, the existing situation in the village is different from their expectation. In fact, they approve that village and village life significantly changed in the last decades. Also, they mention various difficulties confronted for the conservation of vernacular houses. In terms of the difficulties faced for the conservation, local people mentioned various factors, including the economic constraints, hard weather conditions, unavailability of craftsman, lack of proper roads, or difficulty of having a consensus between several inheritors.

CHAPTER 6. DISCUSSION

Focusing on the vernacular houses in the rural areas of Karacakaya, Üstündal, Dirlik, this research examines the changes happened in the vernacular houses, residents' needs, expectations and problems in terms of the living quality of the houses, conservation activities, changes in the village, etc.

The results of this research represent that various changes have been happening in the case study areas which have been accelerated in the last decades, and it is a critical time to take strategic actions to control such changes affecting the authenticity of the vernacular houses. This attempt is crucial to be able to form an efficient rural conservation framework which is a need for the case of Turkey.

6.1 Potentials for the Architectural Conservation

In this section the potentials of the case study areas in terms of the architectural conservation activities are examined in the following sub-categories:

6.1.1 Existence of vernacular houses and rural conservation activities

Unlike other villages in Trabzon, the amount of vernacular houses in the three case study areas are still notable. Also, the official conservation activities initiated by the regional conservation board with the collaboration of local NPO are an important input. Although the process has just been started and there are still a lot to do for achieving the successful conservation activities, these issues are still considered as positive factors which should be carefully utilized for the future.

In addition to that, the potentials of vernacular houses should be considered for future housing solutions or for new functions. For instance, rural tourism activities can be a good example which has been implemented in several parts of the world, including Japan. As a limited number of vernacular house owners have already had a motivation to have tourist activities in their houses, such samples can be selected as pilot cases which can also promote other vernacular house owners to start the similar activities. In the end, more population may live in the village thanks to the new job opportunities and local economic activities may increase.

6.1.2 Residents' desire for conservation of vernacular houses

It is understood from the questionnaire survey that the greater amount of participants does not spend the whole year in the village. For instance, local people in Karacakaya stated that only 4 / 60 households permanently stay in the village. This can be considered as a challenge since continuous usage is important for conservation.

However, the fact that residents coming back to the village -at least once in a year- for checking the condition of the houses, doing the maintenance works and being strongly against to sell or demolish the vernacular houses show that they are still attached to the vernacular houses. Also, this is a proof showing the vernacular houses are highly valued and local people desire to convey this heritage to the next generations as it was also mentioned in the questionnaire survey.

In fact, the majority of the interviewees stated that vernacular houses should be conserved and the main motivations for that were the inheritance from the ancestors and personal memories. This can be related to the sentimental value and personal attachment intensifying the desire to conserve vernacular houses.

At this point, continuity of having the motivation for conservation is open to dispute. Since the younger generation spends less time in such rural settlements, it might be considered that they may not have the same motivation for the conservation. In fact, when this research was conducted, it was one of the issues occupying the researcher's mind. Therefore, during the fieldworks, some informal talks were made with teenagers in the village and one of the case is shared here to be an example. The girl in her early teens mentioned that she does not like to stay in the neighborhood more than a week as she does not have her friends or access to the internet. However, when it is asked if she wanted to come back to the village after she had her own kids, interestingly she said she would love to come. The reason for that was to show her children to the place where their mother spent her summer holidays, where their grandparents were born, etc.

Although this case does not represent the whole young population, it is an example showing that even though the younger generation spend less time in the village, they still have some sort of connection and place attachment which is considered as a hope for the sustainability of the vernacular house in the future.

6.2 Points to be Improved for the Architectural Conservation

Although there are potentials for the architectural conservation in the case study sites, there are also various points which are considered to needs improvements. Therefore, in this section, the issues are highlighted which needs improvements for the future conservation activities in the rural areas of Karacakaya, Üstündal, and Dirlik.

6.2.1 Awareness level of local people for material selection and construction techniques

Despite residents have the mind for conservation, changes in the lifestyles and expectations of the residents have resulted in various changes in the vernacular houses. The changing process occurred in the vernacular houses, a great variety of new materials are used on the facades of the buildings, creating incompatibilities with the vernacular houses and the rural settlements.

Although it is agreed that residents have needed to increase the living quality of the houses, authentic nature of the buildings should also be taken into consideration carefully because the changes may have irreversible impacts on the vernacular houses. That is why, more attention should be given to the practices, creating balance between the residents' needs, good quality of conservation, and the authenticity of the buildings.

Although new materials are used on the window frames, users mostly prefer wooden materials comparing to PVC/metal ones. This proves the user's desire to keep a vernacular house looking like the original as much as they can. However, most of the cases, it is not easy to achieve due to the high cost of original or new materials. Users' unawareness of existing financial supports indicates that more communication between local people and government is required for future conservation implications.

Another issue observed is that changes in the vernacular houses are mostly made by modern construction techniques. This can be elaborated by the factors, such as difficulty in finding the original materials or craftsman capable of traditional construction techniques in the region. There is no doubt that it is important to conserve vernacular houses physically, as a tangible heritage. But, it is also crucial to sustain unique construction knowledge of the vernacular houses. Therefore, it is a necessity to find people knowing vernacular construction techniques who can convey it to the next generations through educational courses/workshops.

6.2.2 Technical and financial supports

During the fieldworks it is stated by the residents' that the unavailability of the craftsman and financial constraints causing difficulties for the them to take proper actions for the architectural conservation. Economic background of the families, inheritors conflicts, or unawareness of existing financial supports can be the reasons for having this perception.

In fact, the questionnaire survey results reveal that more than 75% respondents have no idea about the governmental supports for the vernacular house conservation. This ratio is quite critical showing the unawareness of local people or government's lack of ability to convey information. In addition to that, the participants who have information about the supports complained the complexity of the process as well as their concern about the ownership issues after using the support.

After receiving such answers from the participants, the availability of the financial supports is investigated which are explained in brief below:

a) Financial Supports by the Local Government: There is a financial support program provided by the General Directorate of Forestry and Village Relations (*ORKÖY*), in the Ministry of Agriculture and Forestry, for

the protection, development, operation and expansion of forest areas; to reduce the negative impacts induced by the local people by contributing to the socioeconomic condition of the local communities (URL 15). This program only covers the villages which are categorized under the Forest Villages. However, the villages which are the target areas of this research are not forest villages. Therefore, it is not possible for local people in Karacakaya, Üstüdal, and Dirlik villages to utilize this financial support provided by the central government.

On the other hand, these villages can get the benefit of the fund programs provided by the Ministry of Culture and Tourism. Although some participants have had the idea about this program, they do not prefer to utilize it due to the complexity of the application process and concerns about the ownership issues. However, when the regulations for the fund is investigated, no information was found about the change of ownership after using the fund. Therefore, it is considered that the wrong information has been spread in the community, causing none of them to use the fund provided by the government. This also shows the leakage in the communication process between the local people and the government officers.

b) Financial Supports by the Local Government: In the current scheme, the main financial support is provided by the central government. Thus, there is no financial or technical support program by the local government.

c) Financial Supports by the Local Government: Although there is no scheme for technical or financial support provided by the local NGO/NPOs, previously mentioned local NPO, DOĞA-TARİH, has a very strong motivation to contribute to the conservation of natural, cultural and historical heritage in the region. Therefore, if it is requested, the guidance or support can be obtained from them

Another issue is the challenges from the perspective of the regional conservation board. According to the information gained from the regional conservation board, located in the city centre of Trabzon, the responsibility area of the board is huge. It is not only limited to the city of Trabzon, but also the neighboring cities of Giresun, Gümüşhane and Rize. However, the committee has a limited number of staffs, location of the board is very far from the rural areas. It becomes very difficult to access to the mountainous villages in winter, which needs plenty of time and money to check inland areas. This issue is considered as one of the biggest challenges in terms of the implementation. Therefore, solutions should be made to solve the problems of the regional conservation board.

6.2.3 Ownership and legal issues

It is also found out that one of the most problematic aspects towards conservation is the land ownership issues. Considering the fact that vernacular houses have numerous inheritors and each inheritor does not have similar motivation to conserve vernacular buildings, it is not difficult to guess why vernacular houses are

abandoned or divided. Since it affects the conservation of the houses, more importance should be given to this issue for future implications.

However, this is not so easy to solve. It is considered that each inheritor should make the consensus for the sustainability of their history and the cultural heritage of the community. In order to solve this issue, collaborative actions should also be taken if necessary. Because this problem is one of the biggest challenges for the future of the vernacular houses in the region.

6.2.4 Community participation and efficient communication

It is found out during the field surveys that the participants have no idea that their vernacular houses have already been registered by the regional conservation board indicating that local people are not involved into the conservation process. As it is also highlighted in previous studies (Özdemir, 2005; Eminağaoğlu & Çelik, 2005; etc.) top-down decision making process for the conservation practices in Turkey should be improved for the future implications if better outcomes are desired.

It is suggested that more actions should be taken to increase the amount of communication between the local people and local government. For example, as local people are mostly unaware of the financial supports, such information should be disseminated more. For this purpose, seminars, campaigns or workshops can be organized where several stakeholders, including local people can come together and interact. These activities aim to increase the awareness level of the local people as well as the communication level between different stakeholders plays an important role or the success of the conservation project. It is suggested in this study that the amount of rural conservation activities should aim to give more responsibility to local people in the conservation of built vernacular heritage.

6.3 Summary

In this part, the potentials and the challenges for the conservation activities in the region are highlighted. Having the conserved vernacular houses in the case study areas as well as the motivation of local people for the conservation are considered as potentials for the future conservation activities in the region. On the other hand, various points are found which needs improvements for a better process. Better communication process between the stakeholders, need for increasing the awareness level of local people for choosing the construction materials and the techniques used, need for providing guidance or manual for new construction in the village, providing better schemes for technical and financial supports, etc. are some of the points which needs to be improved in the future. In the following chapter, the suggestions made for such problematic topics are included.

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CHAPTER 7. CONCLUSION AND RECOMMENDATIONS

In this doctoral dissertation, the current condition of the vernacular houses located in the rural areas of Karacakaya, Üstündal, an Dirlik, located in Sürmene District, Trabzon (Turkey) is analyzed. Also, the residents' perception of the architectural conservation activities, desire for conserving/not conserving the vernacular houses, the problems associated with the process, as well as the changes in the rural landscape and sociocultural structure are also investigated.

In this chapter, the main findings of the research are summarized and the suggestions are made for improving the sustainability of the rural environments as well as the conservation level of the vernacular houses for the future implications.

7.1 Summary of the Research Findings

Chapter 1

Vernacular architecture is an architectural artefact indicating socio-cultural and economic situation of communities, natural features of environments, unique intellectual knowledge which are shaped in a long time and conveyed from generation to generation. That is why, vernacular architecture is considered as a sustained architecture, forming both tangible and intangible heritage of the communities.

Being closely related and affected by human-beings, vernacular architecture is a living organism which is dynamic and exposed to several changes depending on the lifestyles and/or needs of users. The reasons for such changes can be various and are specific to each case which should be investigated in deep to understand influencing factors for them. It is a crucial effort for establishing appropriate conservation approaches and frameworks. It is considered to be even more important in the case of vernacular houses in the rural environments which are given less importance in some countries, including Turkey. Therefore, this study focuses on the conservation of vernacular houses in the rural areas of Trabzon, Turkey.

In the chapter, key facts about the dissertation is presented. It consists of the research background, the statement of the problem and research objectives. Data collection methods and research process are also explained in this part together with an overview of the case study areas. Finally, the framework and structure of the dissertation is included in this chapter.

Focusing on the vernacular houses in the rural areas of Sürmene District in Trabzon, this research aims to examine and to document the current condition of existing vernacular houses in the selected case study areas; to find out the spatial, functional and morphological changes of the vernacular house which are made by the residents and the reasons behind them; to understand current conservation activities, to identify possible challenges and the points to be improved for the future practices; and to discuss possibilities of a new conservation approaches which can promote more continuous architectural conservation practices and sustainable rural environments.

Chapter 2

In Chapter 2, the literature reviews made in terms of the conceptual and legal development of architectural conservation practices are introduced. The overview of the concept is first reviewed in the global level and after that, it is shown in the case of Turkey. For this purpose, commonly used terms are defined in accordance with the international charters and the legal framework used for the architectural conservation practices in Turkey. In the end, example cases for the conservation activities from Turkey are introduced, aiming to provide inputs for the future conservation strategies used in the case study areas of this research.

After reviewing various academic papers, project reports and legal regulations in terms of the legal and institutional structure for architectural conservation in Turkey. It is concluded that although there are improvements in the contextual and the legal framework the concept for the architectural conservation is still unclear in Turkey. In fact, in the regulations, the clear definition of architectural conservation does not exist. It is also understood out that although Turkey has accepted the decisions taken in the international charters, the real implications of them take longer time. From this point of view, it can be said that there are still points to be improved for a smoother and more successful conservation approach.

Following that, the examples of the architectural conservation practices from Turkey –namely, Safranbolu, Cumalıkızık, and Beypazarı– are introduced. The general architectural features of the vernacular houses in the conservation sites as well as the architectural conservation process have been introduced. From the examinations in the three conservation sites, it is understood that the conservation takes a long time, which need the collaboration of different stakeholders for numerous activities. The stakeholders involved in the process can be the local government, local people, NPOs / NGOs, academia, and private sector. Although each stakeholder takes a different role which is important for a smooth conservation process, one of the most significant impacts is done by the local people, as they are the ones who uses and takes care of the built vernacular heritage.

It is also realized in this chapter that conservation activities in Sürmene are still in the early stages, compared to that of in Safranbolu, Cumalıkızık, and Beypazarı. Therefore, more collaboration between different stakeholders

are needed for the future conservation activities. At this point, the participation of local people in the process plays a vital role in the success of the process.

Chapter 3

In this chapter, the region where this research focuses on are introduced. The background information about the natural, sociocultural and architectural features of the case study sites are explained which are selected from the rural areas in Sürmene District, Trabzon City which is a coastal city in the north eastern Turkey.

Located along the Black Sea and on the Historic Silk Road, Trabzon as well as Sürmene has been the home for numerous civilizations. Thanks to its strategic location, the trade has always played a significant role in the economy of the region. The region has a rich sociocultural background, shaped by the cultures of the communities lived in the region, which have been melted in the same pot. Similarly, vernacular architecture of the region is constituted from the traditions of communities lived in the region, especially the Ponthos and Turks.

The vernacular houses in Trabzon, including the case study areas of Karacakaya, Üstündal, Dirlik, have significant characteristics. Although the spatial features of the vernacular houses indicate some similarities with the vernacular houses in other parts of Turkey, the morphological and structural features are very distinct. Especially, the façade organization, material usage as well as the aesthetical details in the vernacular houses and the exterior storage building –*serander*- are very characteristic.

For the sociocultural background, it can be said that there were strong community ties in the case study areas of Karacakaya, Üstündal and Dirlik villages just like other rural areas in the region. However, the changes in the lifestyle and temporary stay in the village have weakened the family and community relationships.

In terms of the natural features, the region has a steep topography and high precipitation around the year, which makes the case study areas to be weak to landslides. Although the frequencies and the impacts of the natural disasters are not very notable in the case study areas, there is still a risk of floods and landslides. Considering the possible negative impacts on the human lives, sociocultural systems, infrastructure, built vernacular heritage, etc., necessary precautions should be taken before a disaster happens in the region.

Chapter 4

This chapter presents the changes observed in the village level, in terms of the sociocultural, landscape and architectural features with a more comprehensive analysis on the vernacular houses. The changes observed in the vernacular houses are analyzed in terms of spatial, functional and morphological.

In this chapter, existing situation of vernacular houses in the region covering Karacakaya, Üstündal, and Dirlik villages in Sürmene District is examined. Architectural documentation of vernacular houses is made where the spatial, functional and morphological changes made by the residents, similarities and differences in the tendencies for the changes of the houses shaped by the local people's needs are identified. After that, the reasons behind the changes occurred in the vernacular houses are investigated. The analyses are not limited to the individual buildings, another analysis is made for the changes in the rural landscape, community and the community ties.

It is revealed that, the needs and expectations of the residents in three different case study areas show similarities, despite the differences in the residents' sociocultural background. In terms of the changes observed in the houses, the most common changes are found in the morphological aspects compared to that of in spatial and functional. Some of the most common changes are observed in the roofing materials, cement infillings on the façades, changes in the flooring material of the corridor, introduction of modern kitchen, toilet and bathroom spaces. It is also documented that there are various additional spaces or maintenance activities made by using the modern construction techniques. This is elaborated by the unavailability of original materials in the vicinity, the difficulty of finding craftsman who know the traditional construction methods.

Changes made by the vernacular house residents are crucial to understand in order to realize their needs, expectations and insufficient parts of the houses. It is believed that the analysis made in this chapter is valuable for the conservation activities in the region which are in the initial stage. It is considered that utilizing the outcomes of this research as the inputs for the future conservation activities can contribute to the process.

Chapter 5

In this chapter, the outcomes of the semi-structured questionnaire survey are disseminated. During the field trips, 74 vernacular houses were visited, whereas 15 of them were abandoned and 19 households did not want to participate in the survey. The main reasons for the local people not to contribute to the questionnaire survey can be explained by the following points, such as the unavailability of the residents as a result of temporary stay in the village for harvesting tea and/or hazelnut, being busy with personal or agricultural works, or simply not willing to participate the survey. As a result, the semi-structured questionnaire surveys could only be done with 40 residents who own a vernacular house in the village.

During the questionnaire surveys, background of the vernacular houses, residents' perception towards the vernacular houses, residents' desire for the conservation of the houses, difficulties faced for the maintenance and conservation activities, perception of the potential tourism activities in the villages, etc. are investigated.

It is understood that half of the vernacular houses have a history of 100-200 years and almost 90% of the residents possess the vernacular house through inheritance. Also, it is discovered that 85% of the interviewees stay in the village temporarily. As a result, they used the vernacular house during the harvesting time or holidays.

In terms of the changes made to the vernacular house, 75% of the participants stated that they made spatial, functional or morphological changes and almost the same amount of people confirmed that they have a desire to make more changes in the future if they get the opportunity. Since they made various changes to meet their needs, 53% of the respondents consider vernacular houses having average living quality and 28% think they have high living quality.

Regarding the importance of the vernacular houses, almost all the residents stated that they consider vernacular houses to be important and that is why they think they should be conserved. Related to the same issue, 96% of the respondents are against to sell or demolish their vernacular houses. The strongest reasons for this are the facts that vernacular houses are inherited from their ancestors and vernacular architecture is a part of the heritage.

It is found out that the residents' desire to sustain built vernacular heritage, a common history of the village and their memories in the village as well as in the vernacular house create a stronger motivation for conservation. In addition to that, they mentioned that they want to construct new houses which look like vernacular houses. This can be interpreted as a proof for the value given to the vernacular houses and the residents' desire to continue the tradition. Some other reasons for having the mind for conservation are expressed by the visual beauty, aesthetical features, comfortable living environment and the compliance with the nature.

Similarly, respondents have a negative image for the new concrete houses in the village. The majority of the respondents expect that the government should control the number of vernacular houses in the village or there should not be any concrete houses at all. However, the existing situation in the village is different from their expectation. In fact, they approve that village and village life significantly changed in the last decades. Also, they mention various difficulties confronted for the conservation of vernacular houses. In terms of the difficulties faced for the conservation, local people mentioned various factors, including the economic constraints, hard weather conditions, unavailability of craftsman, lack of proper roads, or difficulty of having a consensus between several inheritors.

Chapter 6

This chapter points out the discussion points for the existing situation of the vernacular houses as well as the issues for the future conservation activities in the region. It was found out that one of the issues for the

conservation activities is that residents have several difficulties for conserving the houses. For instance, local people highlighted the unavailability of the craftsman and financial constraints causing difficulties for them to take proper actions towards conservation. Economic situation of the families, inheritors not having the same level of motivation for conservation, or unawareness of financial supports provided by the government can be related to this perception. In fact, more than 75% respondents stated that they have no idea about the governmental supports which can be interpreted as local people are not aware of or have not been well informed.

Another significant challenge mentioned was the harsh weather conditions. Although it is a natural phenomenon, the reason why local people stated it can be related to their temporary stay in the village. Because the precipitation in the region is very high, local people's temporary stay in the neighbourhood. Since they are mostly busy with agricultural works, they consider weather conditions as a limitation for the conservation. Another reason for this consideration is related to the traditional roof tiles which needs a regular maintenance work after heavy rains. Because of those factors, although the residents' have the mind for the conservation of the built vernacular heritage, the real situation is way different from their statements.

In addition to difficulties mentioned by the local people, few challenging points were also found in terms of the implementation. According to the information gained from the regional conservation board located in the city centre of Trabzon, the responsibility area of the board is vast covering the city of Trabzon as well as surrounding cities of Giresun, Gümüşhane and Rize. In addition to that, limited number of staffs, location of the board being away from the rural areas, difficulty of travelling to the mountainous villages in winter, need for sufficient time and budget to control the situation of the rural heritage sites, lack of conservation offices in the villages / districts are some other factors causing difficulties for the implementation of conservation practices as well as the controlling existing situation of cultural heritage in the rural areas. In fact, it was found out during the field surveys that residents have no idea that their vernacular houses have already been registered by the regional conservation board indicating that local people are not involved into the conservation process.

7.2 Recommendations for the Conservation of Vernacular Houses in Sürmene

As it is found out during the field surveys made in the villages of Karacakaya, Üstündal, and Dirlik; the number of vernacular houses is still remarkable, despite the increasing number of concrete houses. However, there are various points which can be improved for the future conservation activities in the region, as it is expressed before. In this section, recommendations for improving the level of conservation activities in the region are dwelled on.

Suggestions made are categorized into six categories: recommendation for technical and financial support, recommendation for educational programs, recommendation for participatory and holistic conservation process, recommendation for abandoned vernacular houses in the neighborhood, recommendation for the new constructions in the neighborhood, recommendation for socioeconomic support.

7.2.1 Recommendation for abandoned vernacular houses

As it is mentioned in the earlier parts of this study, abandoned vernacular houses exist in the case study areas which have been deteriorating year by year. It can be easily foreseen that such houses might get worse or even collapse in time, which will be resulting in the loss of the heritage.

In order to avoid the collapse of the abandoned vernacular houses, some strategies should be implemented. To give an example, three main approaches can be implemented which are figured out with the inspiration of the Historic Villages of Gokayama, Japan (Appendix 9). For instance, some of the abandoned vernacular houses can be utilized as museums representing the local culture and traditions. It can be considered as an ethnography museum in a small scale, in the local context. In addition to the general tools used in the daily lives or agriculture, traditional clothes and so on, the process and the tools for the traditional crafts in the village -such as a coppersmith, jewellery, or clock making- can also be introduced in those local museums.

Second option for utilizing the abandoned houses can be a program for renting the houses to the families who want to stay in the rural areas in the region. In the case of Gokayama, the government initiated a program where families under the age of 40s with children apply and stay in the rented vernacular houses in the village. The decision process is made with some other criteria, together with the approval of the government officer and the local community. The local people in the Ainokura Village, which is a traditional village located in the region of Gokayama stated that they are positive about this program as it helps the village to be much lively, thanks to the young parents and their children. Similarly, the abandoned vernacular houses in the case study areas of Karacakaya, Üstündal, and Dirlik can also be utilized. For this purpose, the local government should collaborate with the local community to start up a program where abandoned vernacular houses can be used to prevent their decay. Considering the fact that the vernacular houses are private properties in the case study areas, the NPO/NGOs or local governments should purchase the house first and make the maintenance of the house before the younger families settle in. Even in Turkey, similar processes have been experienced in Safranbolu and Cumalıkızık, although the purchased houses are used as a shop, guest house or a centre for organizing workshops.

Another possibility can be utilized abandoned vernacular houses as guest houses which is a common tendency in the conserved rural areas recently. In addition to the accommodation facilities in the vernacular houses, the experience of local culture should also be included in such systems which provides visitors to experience local

culture and food, at the same time it helps to sustain the local knowledge intact. For this purpose, introducing the local instruments, local food, plants, traditions, songs, etc. could be interesting for local people. In fact, during the observations in the Historic Villages of Gokayama, it is found out that similar practices are implemented which are highly appreciated by the visitors. However, in the case of Sürmene, there is a challenge that the owners of vernacular houses are not very positive about selling or renting their own house. On the other hand, it was found out that some of them are positive to rent the vernacular houses seasonally –when they are out of the village– or to let the visitors stay in the abandoned house of the other family members and meet the guests for having meals together. Therefore, it is considered that some changes are necessary for using the guesthouse facility for abandoned or inhabited vernacular houses. Nevertheless, it is necessary to mention that the residents in Gokayama also mentioned that they were hesitating or against the idea of having foreigners in the village at first. However, when they see other families who started up the guest house business and get profits out of it, their idea was changed and in time they have started the same

7.2.2 Recommendation for technical and financial support

As it is understood in the questionnaire survey, residents have the mind to conserve vernacular houses. It is believed that the potential of the residents should be utilized for the success of the conservation practices initiated by the regional conservation board. It is suggested that their potential should be utilized for the conservation of the vernacular built heritage in Trabzon.

For this purpose, local conservation offices should be established which provide the necessary information for the conservation activities and support schemes (Figure 7.1). Such offices should also provide guidance and assistance in the application process for the owners' of the vernacular houses. In addition, local people should be able to express their problems, expectations, opinions, etc. about the new/existing implications in the village, problems related to the maintenance / conservation process or their desires for the existing or future implications. According to the local people's desires and problems, such offices should communicate to the local government, NGO/NPOs, etc. to provide necessary technical or financial help that the local people need. In addition to such functions, those local conservation offices should work as a bridge between regional conservation board and local communities. They can lessen the workload of the regional boards by supporting the implementation of conservation activities, sharing information about the existing situation in their responsibility areas, providing feedbacks about the problems related to regulations.

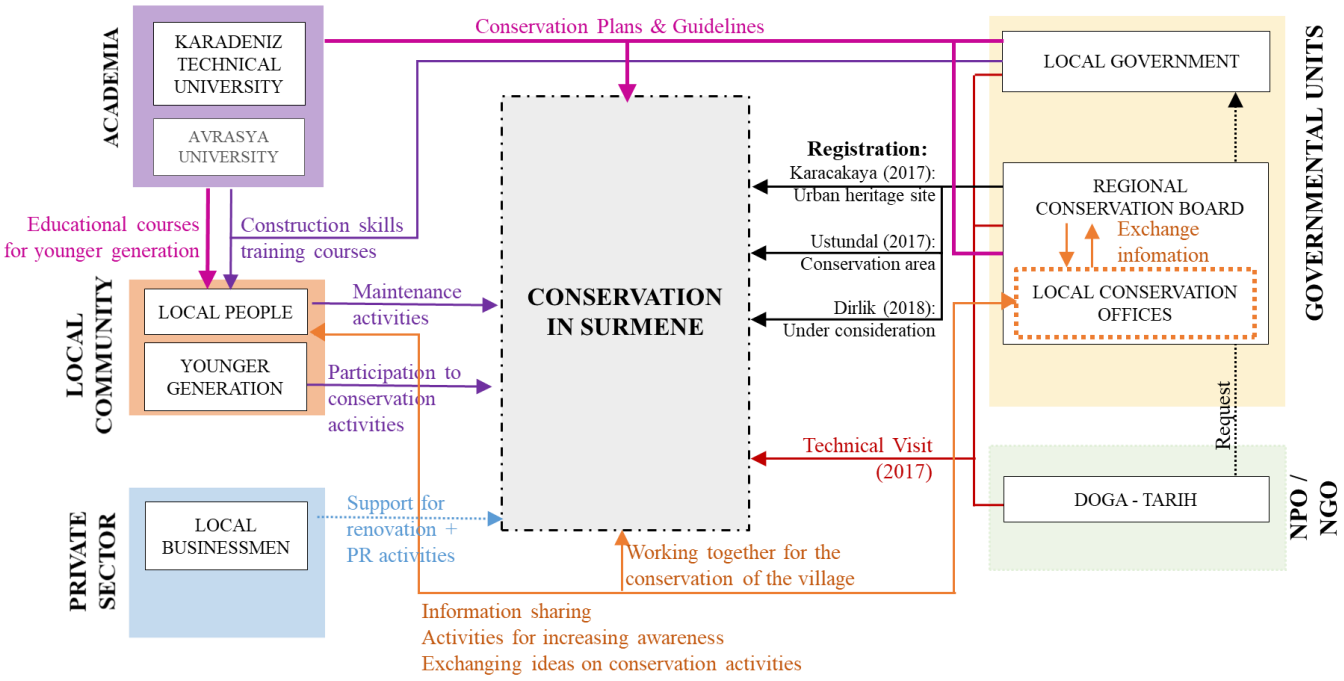

Figure 7.1 Proposed scheme for the local conservation offices.

On the other hand, when the current system is reviewed, it is understood that people state their problems to the *muhtar*, who is the head of the village elected by the community, and the *muhtar* whose office is in the district center, should communicate to the municipality in the district or in the city. However, as it can be guessed, this process takes time and sometimes causes problems such as the misunderstanding when the information is spread abroad in the village. In fact, it is guessed that it was the case for change of ownership after obtaining the government supports which was expressed by many vernacular house owners, whereas such information could be accessed in the regulations. Therefore, proper information sharing is a requirement.

For the same purpose, it is also suggested to have a local committee for discussing the issues affecting the architectural conservation and cultural landscape in the village. For this purpose, the existing community council *(ihtiyar heyeti)* can also be utilized. This committee together with the *muhtar*, as well as the members of the local conservation office, which is proposed in this research, representative of local government as well as the regional conservation board should have regular meetings to discuss the current situation of the conservation, possible implications for the future, necessary changes, and so on. By having regular meetings several times in a year, the necessary information will be shared with the involved stakeholders and after getting the approval from the local people, more support and involvement of local people can be obtained.

7.2.3 Recommendation for educational programs

As it is highlighted before, the appreciation and value given to the vernacular houses by the residents and local people have a vital importance of the architectural conservation activities. Also, outcomes of the questionnaire survey reveal that spending time in the vernacular houses or having memories related to vernacular houses have impacts on the desire of conservation. Considering the fact that, in general, new generations have less opportunities to spend time in the vernacular houses due to the temporary stay in the village, more efforts should be done to increase the awareness level of the younger generation who will be the owners of the houses in the future.

For this purpose, new programs should be included in the educational system which is not included in the current systems. Courses on the importance of architectural heritage, local identity and traditional construction techniques should be included in the curriculum of elementary, junior-high and high schools. In addition to the architectural aspects, the other elements of the local artefacts or cultural, natural and historic heritage should be introduced to the students. For instance, the local craftsmanship, such knife making, coppersmith, jewellery making, etc., can also be included to sustain and revitalize the local arts.

It is believed that this should be implemented especially for the schools which are located in the vicinity of the villages having vernacular houses. As it has been experienced in the schools located in the Historic Villages of Gokayama, Japan; the courses teaching the traditional construction techniques and also giving the students the opportunity to try such methods on the prototypes prepared in the villages have importance for creating the more awareness and interest in the vernacular houses. In the case of Gokayama, there are also some school trips to make the PR activities of the uniqueness of their village which helps students to realize the significance of their hometown and have the aim to promote the natural as well as cultural heritage in their village.

If possible, it is better to include such activities in the curriculum of the schools. In this respect, high schools might be in the targeting group where teenagers get more conscious about their village and heritage as well as can propose actions for the PR and conservation activities for them. However, such activities may cause a financial burden to the schools or to the families. Therefore, in the case of Historic Villages of Gokayama, the local organization founded for arranging and supporting conservation activities in the village covers the expenses for such field trips. Since such community system is no longer common in the rural communities in the region, according to the answers given by the participants, supports from the NGOs, local government, or Provincial Directorate for National Education.

7.2.4 Recommendation for more participatory and holistic conservation process

It is proposed that conservation schemes with community participation can provide more successful and continuous efforts for the conservation. Therefore, as it has been mentioned before, it is a must to share the

information with the local people about the ongoing / future conservation activities, technical and financial support systems for the owners, and local people should give their feedback. Having the consensus between different stakeholders, including the local people, is vital for the continuity and the success of the architectural conservation practices. Therefore, a participatory process is necessary.

Also, vernacular houses should not be considered as individual units. Instead, the conservation approach should be more comprehensive and holistic. For this purpose, the rural landscape should be conserved. For instance, the amount and the quality of the agricultural fields should be sustained as a part of the cultural landscape. If it is not possible to be maintained by the owners of the property, it can be rented to the other households living in the village. In fact, a similar system exists in the case study areas traditionally, as being the form of usufructuary tenancy (locally called *yarıcılık*). According to this system, one household, which is usually low-income family, is assigned to take care of the house and agricultural field of a family who does not live in the village continuously. In some cases, the assigned family also lives in the vernacular house if the owners do not come back to the village at all. Since it contributes to the conservation of the vernacular houses together with the agricultural lands, this system should be empowered.

In addition to the existing system, a new scheme can also be introduced in which agricultural fields are rented annually to the people living in urban areas who have a chance to do agricultural activities. Some of the harvested crops are shared with the owners and the rest is utilized by the person who rented the field. It provides a chance for the urban people, who rarely interact with the nature, gets a unique chance to be in touch with nature and get the experience of doing agriculture. At the same time, it will contribute conserving the rural landscape intact.

7.2.5 Recommendation for new constructions in the neighbourhood

The main reasons for local people to construct new houses in the village are the desire for a more comfortable living space where modern fixtures and facilities are installed or the incapability of solving the problems between different stakeholders. As a result, it is observed that there is no common language on the materials or the typology used for the new construction in the village which creates an incompatible housing pattern with the vernacular houses and the rural landscape. It negatively affects the authenticity and the local identity in the village, either. Therefore, preventive actions should be taken to lessen the negative impacts of new constructions in the village.

For this purpose, guidelines for the new construction in the case study areas should be prepared to decrease the amount of damage given to the rural landscape as well as the local identity. Such guidelines should be prepared in a way that both expert people as well as the inexperienced local people can understand easily. Activities such

as the seminar, workshops or advertisements should be prepared to increase the awareness level of local people to conserve local identity, culture and landscape in a holistic approach.

There are guidelines prepared for the same purpose in the world. For example, the guideline prepared by with the support of the Culture Program of the European Union, "VerSus: Lessons from Vernacular Heritage to Sustainable Architecture" is one of the examples for the manuals aiming to conserve the local habitat and the culture. Although it is not very common, there are also similar attempts made in Turkey. One example from Turkey can be the "Identification of Architectural Features in the Rural Areas, Preparation of A Manual and Sample Projects: Case Study of Kayseri *(Kırsal Alanda Mimari Özelliklerin Belirlenmesi, Rehber Bir Kitap ve Örnek Projelerin Oluşturulması: Kayseri Örneği)"*. Since it has been found out that local people have the desire to conserve the vernacular houses, but they stated the lack of information for the materials used and the construction techniques, it is believed that providing a manual for conservation and new construction in the village can help to local people. At the same time, it will contribute to the conservation of built vernacular heritage and the local culture.

7.2.6 Recommendation for socioeconomic support

In order to enhance the work opportunities of the local people and to improve their economic situation, new economic programs should be introduced. For instance, in the case of Historic Villages of Gokayama, various activities, such workshops for planting or harvesting rice, making traditional Japanese paper, village tours guided by the local people, renting the abandoned agricultural lands to the people living in the urban areas. Also, refunctioning the abandoned vernacular houses as guest houses, local museums, and renting the house for young families provides additional income for the local people. In addition to those, the local conservation committee in the village gets the parking fee from the visitors which are later used for the maintenance activities in the village. Such implications help both the economic condition of the local people and the conservation activities in the settlement.

Starting from this point of view, some suggestions are made for the case study areas in Sürmene. In addition to the utilization of abandoned houses expressed above, local activities can be benefited through the day-trips to the village. For instance, the workshops on how to harvest tea or hazelnut can be organized targeting the population living in the urban areas or foreign tourists. Also, the courses on bee culture can be given, as it has been in Dirlik Other possible events can be the cooking classes for the local cuisine where the females can introduce the local food in the region.

Moreover, village tours can be organized which are guided by the local people. Those village tours can be expanded to the other villages in the region as well. In order to take more attention during the winters, vernacular

houses can be illuminated the village several times in the season. It should be mentioned that Karacakaya is considered to have more potential in that sense, since one of the households has already initiated the tourism activities. However, the focusing area of his activities are the places outside Karacakaya as much as it is learnt during the fieldworks. On the other hand, his father mentioned the motivation and desire of his son to initiate rural tourism practices in the village.

7.2.7 Recommendations for the other issues in the case study areas

Besides the actions focusing on the problems and conservation of vernacular houses, there are some other points to be focused on for the improvement of the living style of the local community as well as the rural environments. In this part, such issues are pointed out.

One of the problems of the three villages is that the difficulty of access. The villages in the region, including Karacakaya, Üstündal, and Dirlik, have the public transportation, whether for two times/day (one in the morning and one at night) or not at all. It causes difficulties for the local people who have no private car. As a result, local people who have works in the district or city center, will share the car of other villagers who have a car and are going outside the village at the same time. If not, the local people walk towards the district center and on the way, they hitch hike. As it can be understood from this scene, lack of proper public transportation causes a difficulty for local people as well as the visitors. Therefore, the local government should provide better public transportation facilities for both the local people and the visitors. It is believed that easier access may result in more visits to the village by the local people living in the district or the nearby cities.

Also, this transportation facility should be improved in the future if the tourism activities are initiated. The villages should not be considered as single units. Yet, the planning should be made in the region covering the area of Historic Trade Route. Right now, only the traffic boards in brown color, indicating the touristy spots, are located in the district center. However, no other arrangements -in terms of transportation, infrastructure, tourism, etc.- have been made, as of now. Therefore, if the regional revitalization led by the cultural and natural heritage is made in the future, shuttle busses should be provided on this route, which is also observed in the case of Gokayama, Japan.

Another problem of the local communities in the rural areas is the issues related to garbage and sewage. During the interactions with the local people in the field, regardless to their village, most of the interviewees complained about the service provided by the local government for the garbage collection is inadequate. According to the information gained, the garbage collection is done once or twice a week, which is not considered as a sufficient service for the communities. Therefore, it is suggested to increase the frequency of the garbage collection in the future. Although the service provided for the garbage collection is considered not to be sufficient enough,

at east there is the garbage collection service. On the other hand, there is no infrastructure for the sewage in the case study areas. Thus, the sufficient infrastructure for the sewage system should be installed in the villages.

7.3 Recommendations for Future Research

In this study, all the vernacular houses are covered in the Karacakaya and Üstündal neighbourhoods, whereas all the vernacular houses could not be studied in the case of Dirlik, due to the bigger size of the village, time limitation and temporary stay of the local people. Therefore, it is suggested to expand this study to the other vernacular houses in Dirlik village.

Also, in order to provide a more holistic conservation approach in the region, it is recommended to conduct similar studies in the surrounding villages. This attempt is considered to have significance as the case study areas of this research are located along the historic caravan trade route. The same efforts for conserving built vernacular heritage in the other villages located in the trade route are considered to have importance for revitalizing this spot as well as increasing the self-awareness of the local communities. For this purpose, more collaborative projects and academic studies focusing on the problems of the local people, issues related built vernacular heritage should also be implemented.

In the future, this study can be improved more by forming the framework for rural tourism activities by utilizing conserved vernacular houses in the selected villages. This attempt may provide several advantages for different stakeholders such as better livelihood sources for local people, unique experience for outsiders (national or international tourists), easier controlling process for local governments, etc. Moreover, this attempt focusing on the case of Trabzon can be implemented in other rural areas in Turkey which they face similar problems.

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