RESTORATION PROJECT OF ÇARBOĞA AND YENİGÜN HOUSES IN ŞİRİNCE, İZMİR

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BY

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IN

RESTORATION
THE DEPARTMENT OF ARCHITECTURE

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all the material and results that are not original to this work.

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ABSTRACT

RESTORATION PROJECT FOR ÇARBOĞA AND YENİGÜN HOUSES IN ŞİRİNCE, İZMİR

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The subject of the thesis is Yenigün and Çarboğa Houses within the wider context of Şirince houses and Aegean Region vernacular architecture.

The thesis analyses the appropriate methodology and approach for a restoration project. As such, it includes the necessary research and analysis that would provide the base for coherent restoration principles and decisions.

The thesis includes the historical background of Şirince, detailed description of the present state of the buildings and their surroundings (supported by survey drawings, photographs and visual analysis), comparative study of the buildings within Şirince and the Aegean Region, restitution scheme, and the restoration project including the restoration principles, interventions and the proposal for the future function of the buildings.

Keywords: Traditional Houses, Restoration, Şirince Houses

ÖZ

İZMIR, ŞIRINCE KÖYÜ, ÇARBOĞA VE YENIGÜN EVLERI
RESTORASYON PROJESI

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Bu çalışmanın konusu Şirince Köyü ve Ege Bölgesi geleneksel konut mimarisi bağlamında Yenigün ve Çarboğa Evleridir.

Yapıların sahip olduğu mimari, kültürel ve tarihsel değerleri göz önüne alan tutarlı bir restorasyon projesinin oluşturulabilmesi için uygun yaklaşım ve yöntem araştırılmıştır.

Tez kapsamında Şirince Köyü tarihi araştırması, yapıların halihazırdaki durumlarının çizim fotoğraf ve görsel analizlerle desteklenerek ayrıntılı belgelenmesi, yapıların Şirince Köyü ve Ege Bölgesi konutları ile karşılaştırmalı olarak incelenmesi, restitüsyon projesinin oluşturulması sonrasında restorasyon ilkelerini, müdahale kararlarını ve işlev kararlarını içeren restorasyon projesi hazırlanmıştır.

Anahtar kelimeler: Restorasyon, Geleneksel konut, Şirince evleri

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To the past and present inhabitants of Şirince

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CHAPTER 1

INTRODUCTION AND METHODOLOGY

1.1. AIM OF THE STUDY

This thesis is theoretical study of a restoration project. As such, the aim of the study is not the final restoration project and the actual conservation of the buildings but the understanding of the methodology and the steps that provide the base for the coherency of the restoration decisions.

Şirince is a small village near the Aegean shore that has maintained its traditional fabric together with its rural lifestyle. The houses of Şirince, displaying a homogeneous and unique nature of civil architecture, have to be preserved since they reflect the living conditions and the construction techniques of the period it was constructed in.

Being inhabited by a Greek population until January 30, 1923, (Arı, p.1) the protocol for the exchange of citizens between Greece and Turkey at this date, has been a turning point on the history of the village where the population had to be changed with the group of Turkish population migrating from around Tessaloniki in Greece.

Today, the village is facing another turning point with the increasing tourism activity in Şirince. The village, in addition to having a well preserved traditional pattern, is located in a very strategic point for tourism. In the vicinity there are important archaeological sites including Ephesos, Miletos and Priene, other tourist centres like Kuşadası and Selçuk and beaches like Pamucak Beach. With the improvement of the road network and the increase in the interest to cultural heritage and mainly to traditional houses in Turkey, especially after the 90'ies, the village has faced a 'tourist invasion'.

The change in the economic life of the village has been reflected also on the physical appearance, with the increasing activity of construction and restoration in the village to adapt to tourism requirements. However, the quality of the restoration work is open to discussion.

Furthermore, within the centuries past after the construction of the houses of Şirince, the comfort conditions has changed drastically, resulting in new spatial requirements in the houses like modern sanitary spaces and kitchens. Together with the change in construction techniques and materials, the problem presents itself in finding a way to preserve the cultural heritage while integrating modern requirements in the program of the buildings. Within this context the thesis aims to exemplify a project that takes into consideration the architectural and social values and problems of the settlement.

1.2. SELECTION OF THE BUILDINGS

Yenigün and Çarboğa Houses are neighbouring houses located at an important node of the village at the end of the valley that separate the village into two neighbourhoods. Yenigün House is inhabited by the Yenigün family. Çarboğa House is owned by Hasan Çarboğa but it is out of use today.

The two houses show similar characteristics in street – building relationship, courtyard – building relationship, plan and façade layout. Similar problems are observed in both of the houses. Furthermore, they are related functionally as a space of Yenigün House is reached through the courtyard of Çarboğa House. The plan and façade layout of both of the houses is atypical within Şirince Village and they provide some indicators of alterations and different phases, therefore they provide information about the changes in building typology within Şirince Village.

All the spaces of Çarboğa House and some of the spaces of Yenigün House are out of use today. The sanitary spaces and the kitchen are missing in Çarboğa House, they are in poor condition in Yenigün House.

In summary the two houses were selected to be studied together as they form a meaningful cluster with similar problems and potentials, as they exemplify alterations within the village in history, and the exemplify the above mentioned problems in Şirince.

1.3. METHODOLOGY OF THE THESIS

1.3.1. FRAMEWORK

The thesis will be composed of several steps including:

- Historic research on both the selected buildings and Şirince Village. This step constitutes a historical background for the study.
- Preparation of the complete graphical and verbal information of the buildings together with their surroundings to document the current condition of them. This Step will include the preparation of the measured survey drawings, analysis of the construction system and materials and their deterioration and analysis of the traces of alteration in the buildings.
- The next step would be the comparative study of the buildings within the other buildings of Şirince and within the vernacular architecture in the Aegean region. This analysis is important not only to discover the cultural context within which the buildings are situated but also to form a comparative base for the restitution project.
- The comparative study will be followed by the restitution project in which the traces from the building and the information from the comparative study and historic research will be evaluated in order to understand the alterations that the original building has gone through.
- Finally the restoration project will be prepared, which will take into consideration the present state of the buildings together with their evolution in history and the requirements to adapt them to changing functions and comfort conditions.

The information gathered in the settlement scale study of Şirince Village prepared in Rest- 507 Restoration Studio in the fall semester of

2001 (in which also the author of the thesis had participated) will be a base for the current study.[1]

1.3.2. DOCUMENTATION OF THE BUILDINGS

1.3.2.1. SURVEY DRAWINGS

For the preparation of the survey drawings, first the plan, elevation, section and detail drawings were prepared in sketches. The measurements were taken using conventional techniques with tape meter. In the plans, the buildings are drawn together with the surrounding elements. Since the buildings are located on a sloped ground, the ground floor of Çarboğa House corresponds to the first floor of Yenigün House. Therefore the plans couldn't be named as ground or first floors but they were identified with the reference altitude like the plan at +1.00, +3.50 and +7.00.

The 7 sections were determined in order to see the walls of all the spaces in the houses. During site survey, apart from the drawings, a detailed photographic documentation of the buildings was prepared.

The final drawings were prepared in computer media using AutoCAD program. The rendering of the facades and sections were made utilising the photographs that were rectified using Photoshop program. The rectified photographs were transferred to AutoCAD and the rendering was made tracing directly from the photographs.

The Spaces in the ground floors of the buildings are identified with space numbers that start with the letter 'G'. Those in the first floors have space numbers that start with 'F' (for example: G01 or F02). G01 and F01 spaces are the main circulation spaces of the houses.

1.3.2.2. ANALYSIS DRAWINGS

The construction system and materials analysis was prepared in order to differentiate and classify the changes in materials and construction

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[1] Uyar, S., Lecture Notes. (Fall, 2000) Rest 507: "Conservation Plan of Şirince" Design in Restoration. Instructors: Şahin, N., Madran, E. & Bilgin, G.

techniques in the buildings. This study has two objectives: To understand the construction process and to search for clues for alterations in the buildings.

For the analysis, a typology of the construction systems was prepared under the main headings of the constructions system and materials used in the walls, floors and ceilings and in the roof. These systems were explained in A4 sheets together with photographs and detail drawings. The location of each item was indicated on the key plans. Each of the items in the typology of constructions systems in the building is indicated with a colour. The different colour groups indicate the use of different materials. The tones of green indicate the use of stone. Brown colours indicate timber. Pink and purple were used for brick; tones of blue were used for concrete.

After each of the types of constructions systems are explained, the mapping of all the systems was shown on the plan, section and elevation drawings.

The different materials and construction systems used in the architectural elements were studied in another set of drawings where the typology of architectural elements in the building was shown.

The material and structural problems were studied parallel to the analysis of construction and material systems. The types of material and structural problems observed in the houses were determined for each type of material and construction system. For this purpose, the types of problems observed in each system were shown on A4 sheets with the help of photographs. The different material problems are indicated with colours whereas the structural problems are indicated with linear hatches. After the types of problems are explained, the mapping of these problems was shown on plan section and elevation drawings. The information about material deformation is displayed with colours whereas the structural problems are displayed with linear hatches.

The indicators of alterations observed in the buildings were classified according to the source of information. As a result five groups of indicators were determined:

- Discontinuity within the construction system – vertical or horizontal joints or gaps between components of the construction system
- Discontinuity within the construction system – use of different construction systems
- Use of modern materials
- Traces of removed elements
- Peculiarities among architectural elements.

Each group of indicators was shown with a different colour. The indicators under each group were explained in A4 sheets with the help of photographs. Every indicator was assigned a reference number. The mapping of the different groups of indicators was later shown on the drawings together with the reference numbers.

1.3.3. HISTORIC RESEARCH

Information on the history of Şirince and the surroundings has been studied from the written sources. Among the sources, articles written about Şirince, the travellers' notes visiting the antique sides around Şirince, the books written about the exchange of citizens after the First World War were utilised.

There was no information specifically about Yenigün and Çarboğa Houses. The history of the two houses was studied within the framework of the study of the village itself.

1.3.4. COMPARATIVE STUDY

The comparative study is based on the comparison of Yenigün and Çarboğa houses first with the houses in Şirince and then with the houses in the Aegean region.

The information gathered was organised according to two objectives. First to understand the typology and characteristics of houses in Şirince and second to discover traces about problems of restitution in Çarboğa and Yenigün Houses.

For the comparative study within Şirince Village, the information sheets prepared during the study of Rest – 507 course was utilised together with the information gathered by the author herself. 25 houses are included in the study. The houses included in this study were selected according to two criteria:

→ The houses that display the general typology of Şirince houses and their variations.

→ The houses that help to understand the peculiarities in Yenigün and Çarboğa Houses as they have common elements with Yenigün and Çarboğa Houses.

In the end a chart including information about the parcel, building courtyard relations, plan and façade layouts, space use and architectural elements of the houses was prepared. The houses are identified with their building lot numbers in the chart.

For the comparative study in the Aegean region, the houses in Kuşadası, Samos, Kayaköy and Kayaçukuru Region, Çine, Muğla and Milas, Bodrum and Datça were studied. The graphic information is mainly the plan layouts. Façade layouts and photographs were also included when necessary. Information about architectural elements and construction techniques was given verbally.

1.3.5. RESTITUTION

The restitution phase of the study is composed of three main parts:

- The construction of the restitutive history of the houses and the different phases in the history of the houses. In other words, the determining of the main groups of interventions within the history of the houses.
- The preparation of restitution schemes (with plans and sections) for the different phases of the restitution

- The determination of levels of reliability among the elements and changes suggested within the restitution schemes.

The sources of information for the study are the traces on the buildings, the historic research, comparative study and oral information. For the phases of the building, the dates could not be discovered but a proposal for the evolution of the architectural scheme was prepared. This information was transmitted in 3-d schematic drawings where the different phases of the houses were shown with different colours.

The restitution project is prepared for each phase starting from the original phase of the building and showing the evolution of it until today. The input for this study has different levels of reliability depending whether it is derived from the traces itself or from comparative study and historic research or from both. A scala for the different reliability levels was prepared and it was shown on the drawings.

1.3.6. RESTORATION

After the studies above, the building is evaluated using the information from the analysis about the actual state of the building (with the problems and alterations), historic research and comparative study.
Then the space use of the original and current building was assessed and compared according to space quality, quality of lighting, use of furniture and architectural elements, circulation layout and authenticity.

The restoration interventions can be grouped under two headings:

- Interventions concerning the physical state of the building, in other words material and structural interventions to solve the physical problems of the building.
- Interventions concerning the function of the houses, therefore interventions concerning the changing lifestyle and requirements of the inhabitants of the houses.

- The change in lifestyle of the inhabitants is considered. The problem of new requirements of the modern life is discussed and solutions are offered for these requirements.

CHAPTER 2

HISTORICAL BACKGROUND

2.1. HISTORY OF ŞİRİNCE VILLAGE

The name of the village can be traced in the historic maps as Kyrkindje, Kirkindsche, Kirkidje, Kırkıca and Kirkince. It can be understood that before becoming Şirince (It can be translated to English as Nice Town) it was called Çirkince (Ugly Town). (Tül, 1997, p.14)

It is believed that after the arrival of the Seljukids in Ayasuluk (Selçuk of today), the Christian population of Ephesos chose to move to higher locations for defence and that they settled near Şirince. The fact that Şirince is also referred to as Ephesos on the mountains, “Orini Epheso” in greek, support this idea. (Muss, 1994/1999, p.54) The oldest remains in the nearby surroundings of Şirince are the remains of a Hellenistic building possibly a tower, halfway to Şirince. (Tül, 1997, p.17) The evidences of the roman era in Şirince are the marble urns reused in the fountains and other reused blocks that can be found in the houses today. Near Şirince, there are remains of a building with vaulted spaces in a fruit garden, which probably are the remains of a Roman Villa. Furthermore, two relief tablets with the depictions of gladiators were found on the way to Şirince and they are now in display in the courtyard of the Museum of Ephesos in Şelçuk. (Muss, 1994/1999, p.53)

The evidences of the Byzantine period in the village are the several remains on orchards surrounding the village. These remains that are from the 11th, 12th and 13th centuries are referred to as “monasteries” by the inhabitants of Şirince. Also there are the remains of aqueducts from the Byzantine period and Byzantine frescoes on walls of Sütini and Kemalpaşa Caves on the way to Şirince. (Atalay, 1984, p.63) 1m wide terracotta jars were discovered in the village. One of them is by the main square, another

can be seen in the open area in İstiklal Neighborhood in front of the house with parsel number 2319. (Tül, 1997, p.18)

The earliest known document in which the name of Çirkince can be traced is the archive document number 571 of Ankara Tapu ve Kadastro Genel Müdürlüğü, where the name of the village is mentioned as *"Nahiye"* with surrounding villages in a foundation book dated to1583. In these records some property located in Çirkince is mentioned as source for the foundation of Aydınoğlu İsa Bey. Aydınoğlu İsa Bey lived in 14th century and had the famous mosque known with his name built in Ayasuluk, known as Selçuk today. The village might have been existing in 14th century also.

The oldest traveller's diary giving information about the area is written by Edmund D. Chishull, a former monk who worked for a company in İzmir. (Chishull, 1699/1994). Chishull visited the village 30th of April 1699 having intentions of visiting Ephesus. In his diary he states:

> 30 April 1699 … [w]ith the anxiety to reach Ephesos before the morning coolness, we have the intention to stay the night in Kirkingecui a Christian village two hours to the east of the ancient city. … May, 1, 1699. All the inhabitants of Kirkingecui are Christian, who we suppose to be the miserable remains of the church of Ephesos…"[2]

After the discovery of the House of Holy Virgin Mary in 1891, the area around Şirince became important and also people in Şirince helped this. A group of monks came for the search of the House of Holy Virgin Mary. They describe Çirkince as a Christian town that has a population of 4000 people, speaking mostly Turkish. (Tül, 1997, p.27)

Another traveller, archaeologist Francis Jago Arundell visited Şirince in 1832 and tells about 300 houses and a Christian population of around 1500 people. (Arundell, 1842, p.266).

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[2] Chishull, p.41 – 42. Since only the Turkish translation of the book was available, the text was translated into English by the author. Therefore it might not match exactly the original text written by Chishull.

Peaceful atmosphere of the village changed at the beginning of 20th century. Beginning from 1910, with the provocations of Greece the resistance against Ottoman Empire began. The resistance continued at the period of Balkan War.

In 1922 coming to the end of the war Greek armies lost the war and began to retreat towards west around İzmir. The period of damage and destruction for the village gained speed. The village was plundered by both the Greek armies and Turkish volunteer groups and gangs. People living in the village began to abandon the village in groups and started the move towards İzmir for Greece.

After the Turkish Independence War, the agreement about the great population exchange was signed by Turkish and Greek governments at 30th of January 1923 and the remaining people in the village were forced to move. In the novel written by Dido Sotiriyu titled "*Mathomena Chomata",* ('Farewell Anatolia' in English), the memories of a family from Şirince during the time of this exchange are told. (Sotiriyu, 1962/1992).[3]

After the agreement about great exchange the Turkish people from Thessaloniki, Provusta, Kavala, Crete began to arrive the village and form settlements.

Sabahattin Ali, in his story titled "Çirkince" in his book Sırça Köşk, tells about his two travels to Şirince, first around 1915 and second in 1945. In the story he tells about his disappointment from the destruction and transformation he observed between his two visits. He mentions that all the architectural elements of the beautiful house he stayed in his first visit, were removed by the treasure hunters and many of the houses were destroyed. He also mentions that only one of the many cafes in the main square remained. (Ali, 1947/1998).

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[3] The original title of the book is *Mathomena Chomata* (Blood Stained Lands). The English translation was published with the title "Farewell Anatolia". The title of the Turkish translation is *Benden selam söyle Anadolu'ya* (Send my regards to Anatolia).

2.2. HISTORY OF CONSERVATION STUDIES IN THE AREA

The beginning of the conservation activities in the village is the registration in the list of cultural treasures under the first degree of protection of the two churches of the village in 1978.

This decision was followed by the registration of two houses in 1979 by the decision of Gayrimenkul Eski Eserler ve Anıtlar Yüksek Kurulu – GEEAYK (The Supreme Council for the Unmoveable Historic Treasures and Monuments).[4] (Uğuroğlu, Salgırlı, Atakan & Güler, 1983, p.7)

In 1982, for the planning of new settlements in the area a geological report was prepared by "İller Bankası". This is the first important study for the beginning of the planning activities in the area. (Uğuroğlu, Salgırlı, Atakan & Güler, 1983, p.7)

In October of 1982 a team of experts from the Ministry of Culture and Tourism including archaeologists, art historians an anthropologist and an architect implemented a site survey for the village. A report and a development plan for the area was prepared, presented and published in 1983 as a result of this study. (Uğuroğlu, Salgırlı, Atakan & Güler, 1983)

In 1984 Şirince was designated as an "Urban Site" by. The registration of many of the traditional houses of the village in the same year followed this decision.[5]

In 1987 St. John the Baptist Church was restored by J.B. Quatmann Foundation (Ohio, USA).

In 1997 the designated Urban Site area was enlarged to its current status by Kültür ve Tabiat Varlıklarını Koruma İzmir 1. Kurulu – KKTVK (The First Council for the Conservation of Cultural and Natural Heritage of İzmir).[6] Parallel to this action, the surrounding areas around the village were designated as a "Natural Site" at the same date

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[4] The decision number A – 1667 of GEEAYK at 11.05.1979

[5] The decision number 397 of KTVKK in 25.09.1984

[6] The decision number 6758 of KTVKK in 27.03.1997

On October of 1998 the plan proposal for the new building and development areas was refused by the council. In this plan proposal, the areas that contain the remains of the old settlement are shown as suitable areas for new development of the current settlement.

In September 2000 a group of master students and academics from METU, visited the village in order to prepare a large-scale study about the area.

In May 2002, the preparation of the Conservation Aiming Implementation Plan was entrusted to Orhan Beker Kent Planlama Ofisi in Mersin. The plan is expected to be finished in 2004.

CHAPTER 3

DESCRIPTION

3.1. LOCATION

The village “Şirince” is located in a valley about 350m high from the sea level at 9km east of Selçuk, near İzmir, in Western Anatolia in Turkey. The village is reached by a 9km narrow road from Selçuk. Selçuk is located on the highway between İzmir and Aydın and it is well connected to the cities on the Aegean coast. The railroad provides an alternative way to Selçuk. (See figure 3.1)

The area where Şirince is located in is a region that has serious touristic potential. In the vicinity there are many important archaeological sites like, Ephesos, Miletus, Priene, Didyma, and House of Holy Virgin Mary (Meryemana). Also it is near important seaside resorts in the Aegean Shore. The nearest bay is the Pamucak Bay that is 10 km away. There are many hotels in Pamucak Bay and in the surroundings between Kuşadası and Selçuk. Selçuk is also a historic centre, where the remains and present monumental buildings display continuity from antique periods to Ottoman Period. It is also a commercial and activities centre with accommodation facilities consolidating tourism in this area.

Şirince itself is an attraction with its well-preserved traditional fabric and authentic village life and products.

The village is located at two sides of a valley rising from south-west to north-east. On the south and east boundaries of the village there are hills. On the north side there is a plain, to the west there is a second valley. The riverbed on the valley is another natural boundary that separates the village to two neighbourhoods: İstihlas Neighbourhood to the west of the riverbed and İstiklal Neighbourhood to the north of it. (See figure 3.2)

Figure 3.1 Location of Şirince – Map of İzmir and surroundings[7]

[7] Source: Türkiye Turistik Karayolları Haritası. Ankara: Yeni Galeri Kültür, 1993.

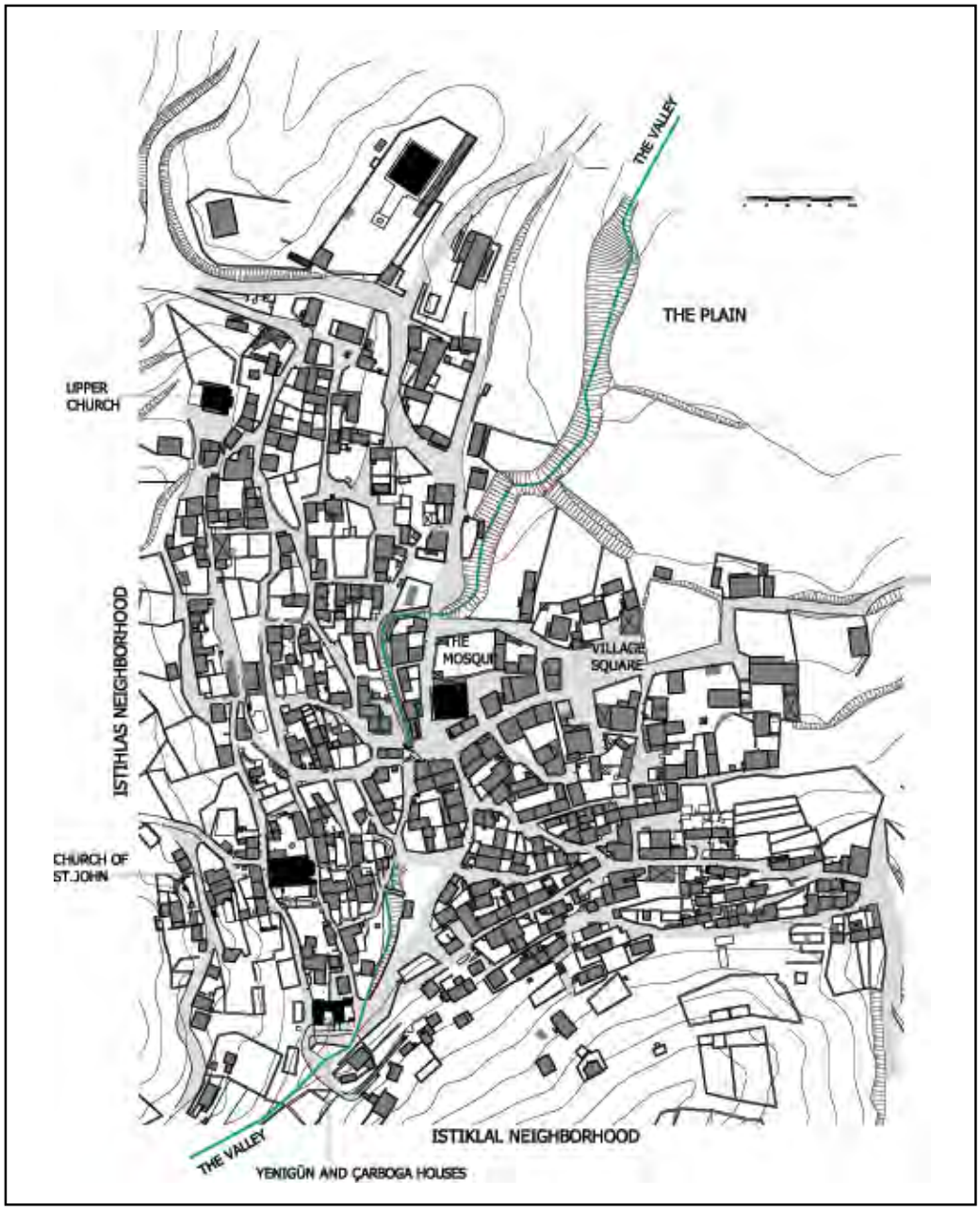


Figure 3.2. Site plan of Şirince

Streets generally lie parallel to the topography. Some streets lie diagonally to the direction of the slopes in order to reduce the pitch. And also some streets are formed with stairs and stepped slopes.

There are 148 houses with traditional technique and 137 new houses. The monumental buildings of the village are Yukarı Kilise (Church of St. John), Aşağı Kilise, and the school building. The two churches are located in İstiklal Neighbourhood. The school building is located to the north of İstiklal Neighbourhood at the entrance of the village. To the north of İstihlas Neighbourhood, there is the commercial centre starting including the "kahvehane", the recently built mosque and the traditional and new shops. The "kahvehane" is the focal point for the village life. It has closed and open section. The open section has a panorama to the plain and is situated next to the main village square.

Vineyards, fields and gardens are mostly located outside the settlement on the flat areas of the plain. Unlike fields and vineyards, gardens are located both in and out of the settlement. These areas include fruit trees arranged in an artificial order.

3.2. SITE PLAN

Yenigün House and Çarboğa Houses are neighbouring houses located in building lots 2461 and 2460 respectively. They are built at the south-west edge of the village, in İstiklal neighbourhood to the north of the riverbed. (See figure 3.3)

Çarboğa House is placed to the west of Yenigün House. Both houses are built on the slope; their elevations are 2 floors on the east and single floor on the West Side. Between the streets to the east and west of the buildings there is a level difference of approx. 7.5m.

The two streets to the east and west of the houses are the two streets that pass also by the east and west elevations of the Church of St. John the Baptist and are among the important streets of the village. The street to the east runs between the houses and the riverbed. (See figure 3.5)To the south of the river bed is a square that is one of the important

nodes of the village. From this node there is a nice panorama to both İstihlas and İstiklal Neighbourhoods and the Church of St. John the Baptist. One of the 7 registered fountains of the village is present on this square. Also, it is among the 5 selected open areas, for which landscape projects will be prepared within the conservation plan that is being prepared for the village. To the west of the street to the west there is the ruin of another building of which only the outer walls remain.

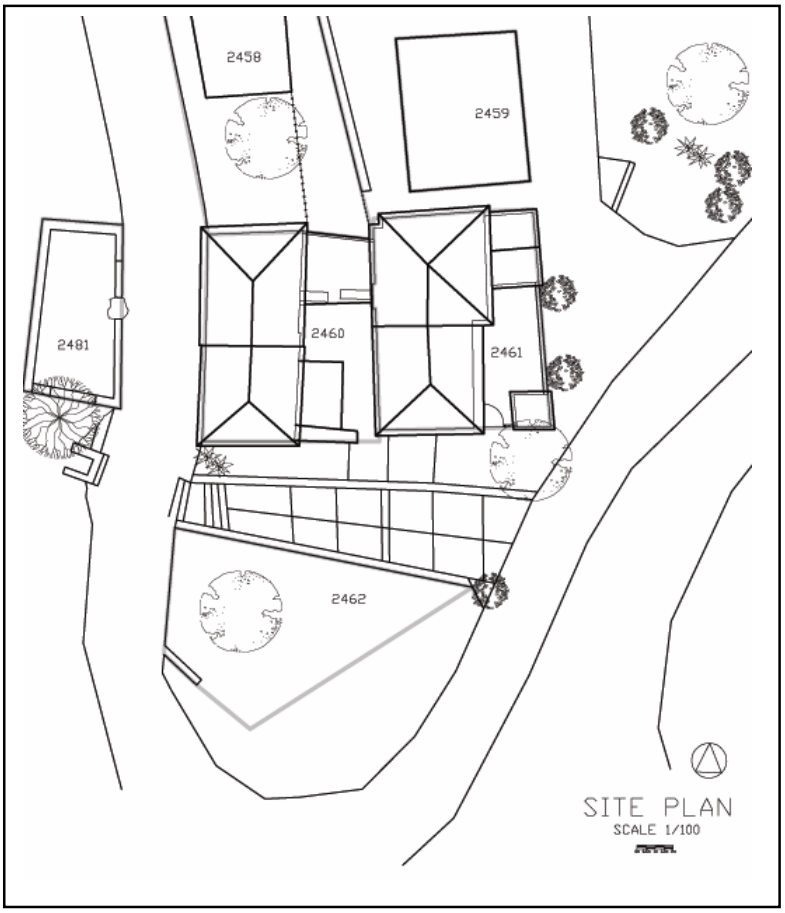


Figure 3.3 Site plan of Yenigün and Çarboğa Houses

To the south of the houses there is a stepped ramp combining the streets to the east and west of the houses. Between the ramp and the houses there is an approx. 2.5m wide strip of land. On this strip the parts in front of courtyard doors and door of G02 space in Yenigün House are terraced .On the upper end of the ramp there is an old fountain, which is among the 7 registered fountains in the village. (See figure 3.4). It is made of rubble stone masonry. Today it is plastered but on earlier photographs it can be observed that it was without plaster. To the north of the houses there is an undefined and irregular path.

Both houses have rectangular mass; they are placed parallel to topography in north-south orientation. They are entered through courtyards placed to the east of the buildings. The courtyards are reached through the doors on the south wall, from the stepped ramp on the south of the houses.

Figure 3.4 Yenigün and Çarboğa Houses

Figure 3.5 Yenigün and Çarboğa Houses

3.3. ELEVATIONS

The facades of the houses are 2 storey on east facades single storey on west facades as a result of the slope. The west façade of Yenigün House is also the east courtyard façade of Çarboğa House.
Observing from east to west, the south elevation of the houses are formed of, the courtyard of Yenigün House, Yenigün House, courtyard of Çarboğa House and Çarboğa House. (See figure 3.15)

Observing from east to west, the north elevation of the houses is composed of the north wall of G03 space in Yenigün House, main building of Yenigün House, and G04 space of Çarboğa House, main building of Çarboğa House.

Between the street to the east of Yenigün House and the street to the west of Çarboğa House there is a level difference of 8.35m where the street to the east is lower.

3.3.1.YENİGÜN HOUSE

3.3.1.1. EAST ELEVATION

The two-storey east elevation of Yenigün House is approx.12m wide and 6.3m high. It is composed of the 2 storey main building, the courtyard

walls, the single storey additional mass to the north of the courtyard and the toilet space at the south east corner of the courtyard. (See figure 3.6, 3.14)

The main building is formed of two adjacent masses. The south mass is in rubble stone masonry on both floors. The ground floor of north mass is in rubble stone masonry whereas the first floor is in timber frame construction. The timber frame part projects 90cm from the east elevation and 70cm from the north elevation. There are three bracings beneath the projection. The roofs of the two masses are constructed separately.

On the Ground floor there are two doors. Main entrance door (D1-b) opening to G01 space (at north mass) and D2 door opening to G02 space (south mass). Next to this door there is a slit window

Figure 3.6 East elevation of Yenigün House

On the first floor, on north mass there are three W1 type windows with timber balustrades and shutters. On south mass there are two W2 type windows with timber shutters. On two sides of these windows there are 2

stone shelves measuring projecting 30 cm from the façade. Above and below these windows there are timber lintels that continue along the façade of the south mass.

The eaves project 38cm at south mass and 24 cm at north mass. There is no covering below south mass whereas at the north mass the eaves are covered with timber boarding.

On the middle part of the ground floor wall approx.2.5m above ground level there are two holes measuring 10cm by 10cm placed with 1.5m distance. 1.8m above the one on the north there is a third hole measuring 20cm by 12cm.

The timber frame part of the wall is plastered and whitewashed. The lower parts of the ground floor walls are white washed. On the upper parts of the south mass between and below the windows there are traces of plaster and whitewash. The lower part of the ground floor wall is covered with a cement wall that is approx. 1m high and 20cm wide.

On both eaves there are missing boards and tiles.

The northern part of the roof of the south mass has partially collapsed. There are cracks and deformations on the northern part of the wall of the south mass.

On the timber elements insect holes can be observed, and they have changed colour due to radiation from the sun.

The courtyard wall is 1m high from the floor of the courtyard, 2m from high from the level of the street. (There is a level difference of 1 m between the street to the east and the floor of the courtyard.) It is constructed in brick masonry.

G03 space is adjacent to the ground floor of main building at north corner. The east façade of it is 3.8m long, 4m high (measured from the street), There are no openings on this façade. It has a pitched roof covered with French tiles. A chimney is located on east wall at the highest point of the roof. The construction date, 1970 is inscribed on the plaster of the chimney. The walls are in brick masonry, they are covered with lime plaster and white wash.

The toilet space is adjacent to the courtyard wall at south corner. It is 1.80m wide and 2.30m high. It has a sloped roof covered with French tiles.

3.3.1.2. SOUTH ELEVATION

South elevation of Yenigün House is composed of the south elevation of the main building, the courtyard door and wall and the wc space at the corner of the courtyard. Overall elevation is 9.5m long.

The main building is 5.17m wide. The west corner of the wall is 3.67m high whereas the east corner is 6.11m high due to slope. (See figure 3.7, 3.15).

On the ground floor wall near the west wall there is a D3 type door opening to G02 space. On the first floor near the east corner there is W2 type window with timber shutters. Above and below the window there are tie beams. Unlike east elevation these beams are only present near the window they do not continue on the elevation.

The façade is constructed in rubble stone masonry. The jambs of the door are constructed with brick masonry.

The courtyard doors of both houses are formed of timber beams roughly attached to each other without any lintel or jamb. Next to the courtyard door of Yenigün House there is a wooden partition serving as courtyard wall. The WC building is 1.85m wide on this elevation.

3.3.1.3. WEST ELEVATION

West elevation of Yenigün house is also the west courtyard elevation of Çarboğa House. It is 11.2m wide and 3m high. It is composed of two adjacent masses that are separated by a vertical joint. (See figure 3.8, 3.14). Near the south corner there is a door measuring 0.90m by 1.30m, opening to F05 space of Yenigün House.

On the north side of the vertical joint, the wall of the fireplace in F01 space projects 17cm from the elevation. On the south part of the joint there are two holes 15cm by 15cm approx. 1.5m above ground level and placed with 1.30m distance. In the fabric of the wall there are two timber lintels one

of them 1m the other 1.5m long. They are not continuous, and are randomly placed; they do not refer to any architectural element on the elevation. There are traces of plaster on the wall of the fireplace and near the north corner.

Figure 3.7 South elevation of Yenigün House

Figure 3.8 West elevation of Yenigün House

The eaves project 24 cm from the elevation. There are missing boards and tiles in the eaves. On the parts of the walls below the parts of the eave that are damaged, it is observed that the mortar has begun to disintegrate and that there are empty joints between the stones. Also at lower parts of the walls near the ground there are empty joints.

3.3.1.4. NORTH ELEVATION

The north elevation of Yenigün House is composed of the north wall of main building and the north wall of additional G03 space in the courtyard. (See figure 3.9, 3.15)

The north wall of main building is 5.26m wide in ground floor. At the east corner it is 5.41m high at west corner it is 2.7m high. It is constructed in rubble stone masonry at ground floor and timber frame construction on first floor. The timber frame part projects 70cm from the north elevation and 90cm from the east elevation. Near the west corner on the first floor wall there is a window with guillotine glass pane, without shutters, opening to F04 space.

There are two bracings beneath the projection, one at east corner, the other 2.2m west of it.

At the lower edge of the timber frame part there is a 20cm timber band. The eave projects 38cm from the timber frame wall. There is no covering beneath it. There are cracks on the plaster over timber frame wall near the window. At some parts the plaster is missing and the wood lath is visible beneath.

At the upper parts of the ground floor wall there are traces of plaster. The plaster is missing on the lower parts of the wall. Empty joints and erosion of stone can be seen at the lower parts of the wall.

North elevation of G03 space is 3.74m wide and it is in brick masonry covered with lime plaster. At the east corner it is 2.9m high. It has a pitched roof covered with French tiles. On the lower part of the wall in a band of approx. 65cm the plaster is missing. At the lowest part of the wall near the ground there is erosion of bricks.

Figure 3.9 North elevation of Yenigün House

3.3.2. ÇARBOĞA HOUSE

3.3.2.1. EAST ELEVATION

The east elevation of Çarboğa House is 12m wide and is composed of the main building and a single storey service building attached to the north part of the ground floor. (See figure 3.10, 3.14)

The main building is composed of two adjacent masses that are separated by a vertical joint. The south mass is 6m high, the north mass is 7.5m high. (Measured near the vertical joint, from ground level to eave level). The south mass is in rubble stone masonry on both floors. The north mass is in stone masonry at ground floor and timber frame construction on first floor. A 13-cm wide timber band separates the first floor and the second floor. The roofs of the two masses are constructed separately.

On the ground floor, on north mass there is the main entrance door opening to G01 space. To the north of this door, above the roof of the

service space there is a slit window (W5). On the ground floor façade of the south mass there is a window with concrete lintel and sill.

On the first floor wall of south mass there are 3 windows with timber shutters and balustrades. Many of the shutters and parts of the balustrades are missing. On the first floor of the south mass, similar to Yenigün House there are two windows with timber shutters and there are stone shelves on sides of them and two tie beams below and above the windows extending throughout the elevation.

The eave of the south mass projects 30 cm from the elevation and there is no covering beneath it. The eave of the north mass projects 21cm from the elevation. The covering beneath it has a convex curved profile and is covered with wood lath and plaster.

Upper part of the wall between the two masses, over the level of the south mass is constructed in hollow brick masonry.

Figure 3.10 East elevation of Çarboğa House

On the elevation of the south mass there are three rows of holes measuring 12cm by 12cm. There are 3 holes on lowest row, 2 and 4 in the remaining two respectively. The elevation is without plaster but there are traces of plaster below the windows.

On the elevation of the north mass, the ground floor is plastered and white washed. The plaster on the southern part of the wall is removed, the wood lath beneath is in a bad condition, and some of the pieces are broken or missing.

The lover part of the ground floor wall near the south wall is covered with an approx. 1m high 20cm wide concrete wall. There is also a concrete platform on the courtyard on this part of the wall.

The roofs of both masses are covered with over and under tiles. The service building is constructed in rubble stone masonry without mortar. It has a sloped roof with over and under tiles.

3.3.2.2. SOUTH ELEVATION

The south elevation of Çarboğa House is 5.18m wide. At west corner it is 3.29m high, at east corner it is 5.18m high. It is constructed in rubble stone masonry with lime mortar. A kind of pointing with lime plaster is applied on the wall surface. Approx. 80cm part of the wall at the west corner is altered with hollow brick masonry and this part is covered with cement mortar. Behind the south mass, the southern wall of the north mass is visible. It is covered with cement mortar.

The Courtyard wall of Çarboğa House is constructed with rubble stone masonry without mortar. There are tie beams in the fabric of the wall. The upper part of the wall is irregular it is approx. 1.5m high and is roughly parallel to slope. (See figure 3.11, 3.15).

3.3.2.3. WEST ELEVATION

West elevation of Çarboğa House is 11.4m long. It is constructed in hollow brick masonry covered with cement plaster and it is composed of two adjacent masses separated by a vertical joint. The north mass is approx.

2.9m high whereas the south mass is approx. 2.30m. Due to the slope of the street, there is a 70-cm difference between the north corner and the south corner of the elevation, where the north corner is higher.

On the north mass on the south part there is a single wing metal door (D4-b) opening to F01 space.

The eaves project 38 cm at the north mass and 25 cm at the south mass. (See figure 3.12, 3.14)

Figure 3.11 South elevation of Çarboğa House

Figure 3.12 West elevation of Çarboğa House

3.3.2.4. NORTH ELEVATION

The north elevation of Çarboğa house is composed of the north wall of the main building and the elevation of the single space service building (G04). The elevation of main building is 5.25m wide. At east corner it is 5.63m high, at west corner it is 2.88m high. It is constructed in rubble stone masonry at ground floor and timber frame construction at first floor. A 10cm high timber band separates the two storeys. A 63cm wide column at the west corner of the first floor wall is constructed in hollow brick masonry without plaster. (See figure 3.13, 3.15)

The eave that projects 34 cm from the elevation has a covering with a convex profile; it is covered with wood-lath and plaster.

In the fabric of the ground floor wall there is a single timber tie beam approx. 2.25m long. It does not correspond to any architectural element. On the upper parts of the ground floor wall pointing is applied at the joints of stones with lime plaster. The pointing is missing at the lower parts of the wall. There is erosion of stone at the lowest part of the wall near the ground.

The wall of G04 space of Çarboğa House is in rubble stone masonry without mortar. It is covered with a sloped roof where there are over and under tiles.

Figure 3.13 North elevation of Çarboğa House

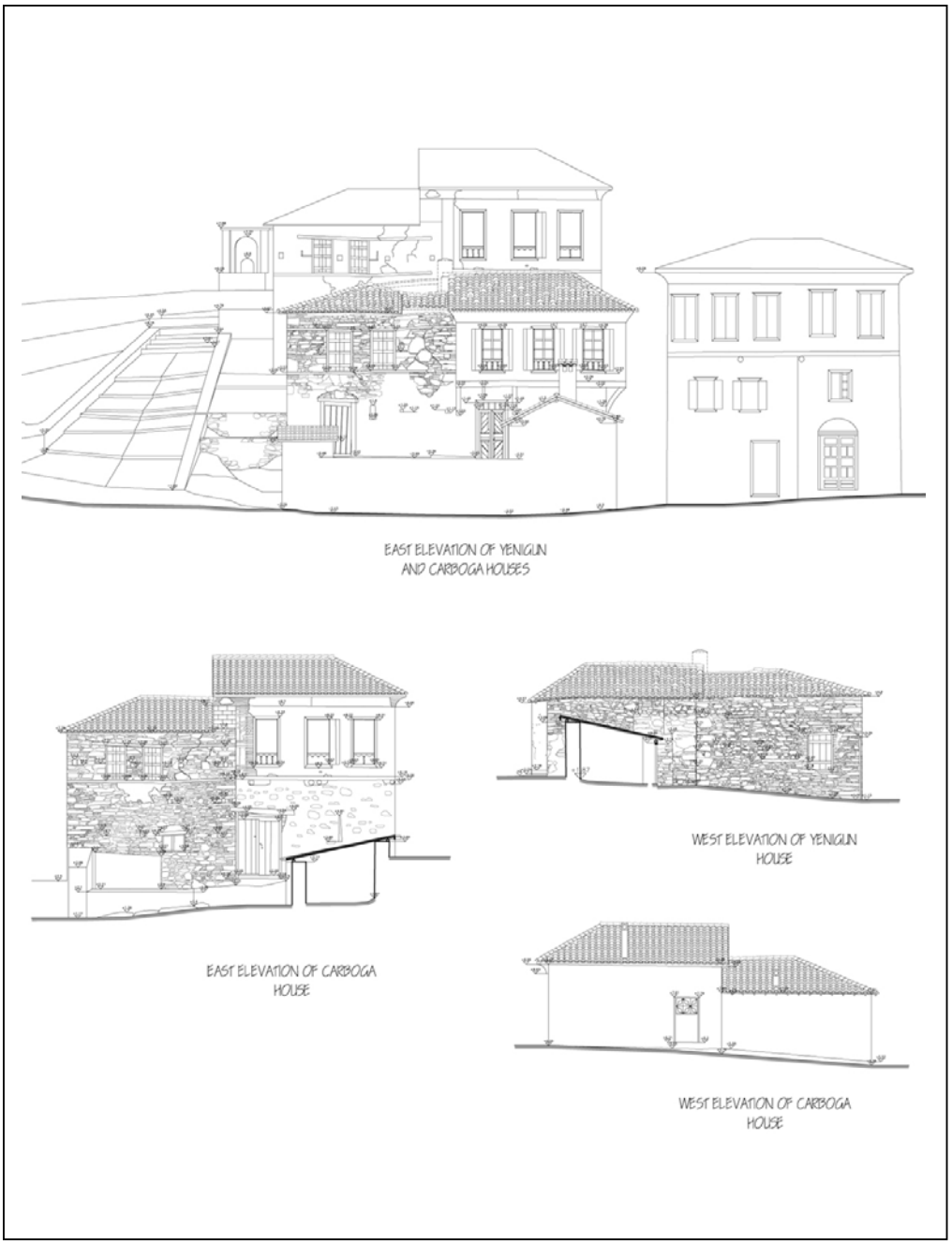


Figure 3.14 East and West elevations of Yenigün and Çarboğa Houses

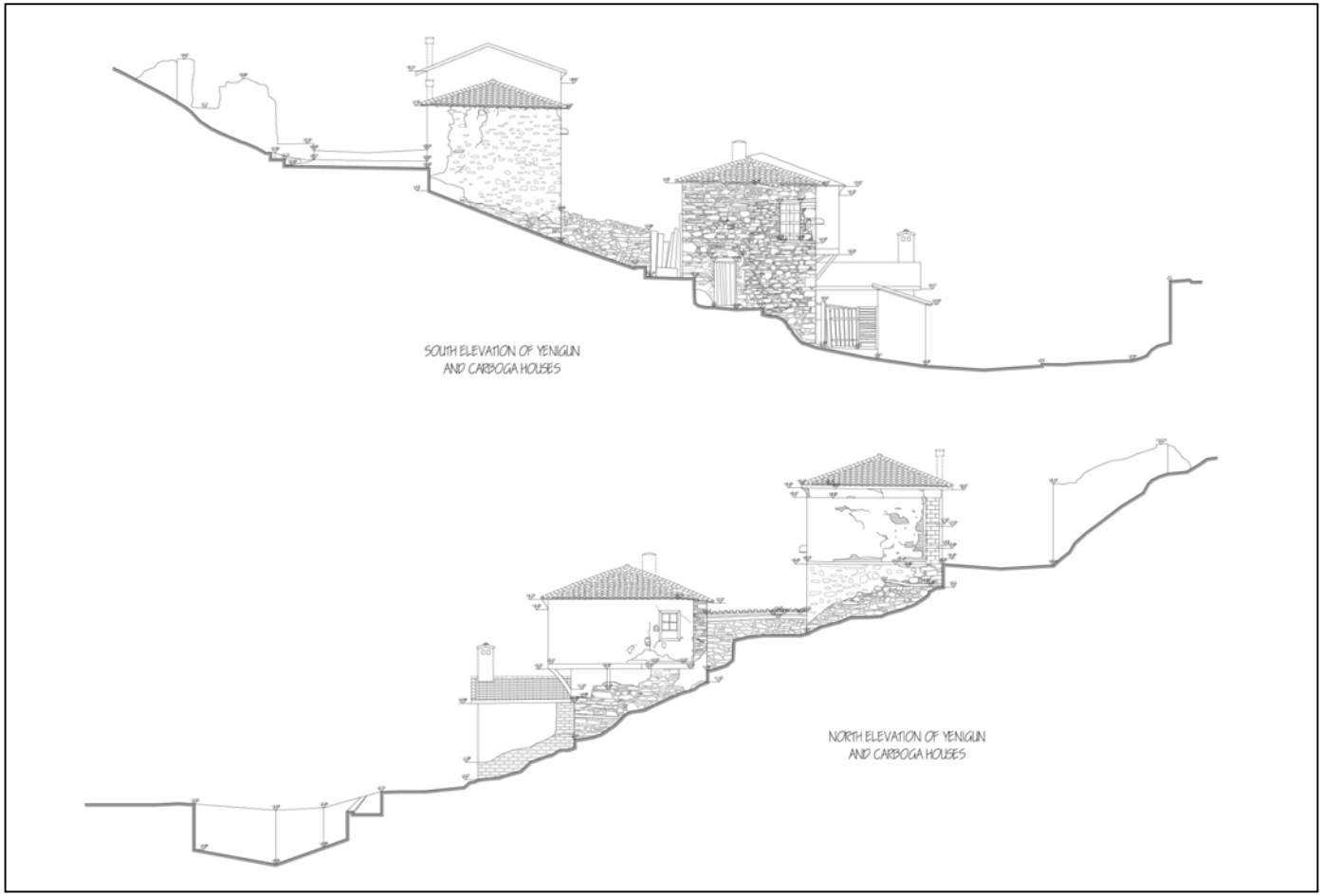


Figure 3.15 North and South elevations of Yenigün and Çarboğa Houses

3.4. PLANS

3.4.1. GROUND FLOOR PLAN OF YENIGÜN HOUSE

The ground floor of Yenigün House is composed of 2 spaces (G01, G02) in main building, a third space (G03) in the additional building in the courtyard and the toilet space (G04) arranged around a courtyard.

3.4.1.1. COURTYARD

The courtyard of Yenigün house is entered from the stepped ramp on the south of the houses. The courtyard is a rectangular space measuring 3.55m by 7.8m at north and east walls. The east boundary of the courtyard is the main building of Yenigün House. On the north side is G03 space, on the west side is the 1m high courtyard wall. On the southeast corner there is the WC space. On the south side there is the courtyard door and a wooden partition serving as courtyard wall.

On the northeast corner of the courtyard there are 4 cement steps leading to the main door and G01 space of Yenigün House.

G03 space is entered from the courtyard through a metal single wing door. (D4a) Next to the door is a metal-framed window. (W6)

The floor of the courtyard is covered with levelling concrete below which traces of slate stone covering is visible. (See figure 3.16)

The courtyard wall is in hollow brick masonry.

3.4.1.2. G01 SPACE

It is a rectangular space measuring 3.99m by 4.69m at north and west walls and it can be entered from the courtyard through D1-b door. In it there is the staircase leading to F01 space at first floor. The staircase is adjacent to the south wall. The first 3 steps are stone; the remaining steps are in timber. (See figure 3.17).

The floor is covered with levelling concrete. Traces of slate stone covering are visible beneath the concrete.

Figure 3.16 Courtyard of Yenigün House

Figure 3.17 G01 space of Yenigün House

The ceiling is spanned with roughly shaped primary and secondary timber beams. Over the beams there are approx. 25cm wide timber floorboards.

The walls are constructed in rubble stone masonry and they are whitewashed. The whitewash repeatedly applied over the years has formed a layer that is 2-3 cm thick.

Today it is being used for kitchen and storage.

3.4.1.3. G02 SPACE

It is a rectangular space measuring 4.11m by 4.67m at north and west walls. It can either be reached from the courtyard through door D2 at east elevation or through D3 at south elevation. The door at east wall is out of use today and the space is entered from the south wall.

The west wall is solid without openings. On the east corner of the north wall there is a 31cm deep niche in the form of a door opening measuring 1.26m by 1.87m. The back wall of the niche is in rubble stone masonry but it has a different fabric than the other walls.

On the south part of the east wall is the door opening (D2). Part of the jamb of this door is altered with brick masonry. Next to the door, to the north of it is a slit window. (W5). There are two 10cm by 10cm holes on this wall placed with 1.5m distances that continue throughout the thickness of the wall and that were also mentioned on the description of the elevation.

The ceiling is spanned with primary and secondary beams and there are approx.25cm wide floorboards above the beams. There is a level difference of 17 cm 2.7m away from and parallel to the south wall.

The floor is partly covered with slate stone paving. Near the west wall there are rocks.

The jambs of the door at south wall are brick masonry and the lintel above the door is timber.

On the walls there are traces of whitewash. On the lower parts of the walls, empty joints can be observed. There is sagging and partial collapse at the northeast corner of the ceiling. On the remaining parts of the ceiling

there are insect holes, discoloration on the timber surfaces. Furthermore, the timber has a spongy appearance and most of the beams have sagged.

Today it is being used for wood and olive oil storage.

3.4.1.4. G03 SPACE

It is a rectangular space measuring 2.78m by 3.37m at north and west walls and is entered from the courtyard through the metal door D4-a. The space is 2.19cm high. On the south wall there is the metal door and a metal-framed window to the east of it. The west and north walls are blind. On the east wall there is a fireplace. To the north of the fireplace there are two cupboards. To the south is another cupboard with a niche above it. (SW3). (See figure 3.18). The walls are constructed in brick masonry and they are covered with lime plaster.

Figure 3.18 Service wall of G03 space of Yenigün House

The ground is covered with levelling concrete. The ceiling is covered with pressed wood. Pieces of wood lath are attached on the ceiling resulting in a pattern of rectangles measuring 45cm by 61-cm.

Above the ceiling there is a pitched roof covered with French tiles. At the roof above the fireplace there is a chimney. On the chimney the date1975 is inscribed as the construction date of the mass.

Today it is being used as a living room.

3.4.1.5. G04 SPACE

It measures 1.41m by 1.33m at the north and west walls and is entered from the courtyard through a door on its west wall. The walls are built in brick masonry, the floor is covered with levelling concrete and the roof is timber with French tiles. There is no ceiling covering below the roof construction.

Today it is being used as WC space.

3.4.2. FIRST FLOOR PLAN OF YENIGÜN HOUSE

First floor plan of north mass is composed of spaces F02, F03 and F04 arranged around F01 space. F01 space is located at the southwest corner of the plan. F02 and F03 are at the east side. F04 space is at northwest corner. The west and south walls are rubble stone masonry. The east and north walls and the interior walls are timber frame. The floors and ceilings are covered with 25cm wide and 3cm thick timber boards.

First floor plan of south mass is composed of a single space. (F05).

Today there is no passage between south mass and north mass; they both have independent entrances.

3.4.2.1. F01 SPACE

It is a rectangular space measuring 2.24m by 3.83m at north and west walls. The height of the space is 2.37m. It is reached from G01 space through the staircase adjacent to the south wall of the space.

On the south wall there is the staircase. On the east corner over the staircase there is a timber shelf. To the west of the staircase there is an aborted opening measuring 0.55m by 1.35m connecting the space to F05 space. The opening has been closed by nailing timber panels over it.

On the west wall, on the south corner there is a niche with a timber cover. Next to the niche is a fireplace. Both over the niche and over the fireplace there are 12cm wide timber shelves.

On the north wall there is a timber partition on which doors and cupboards are attached. On the west corner of the partition there is a door opening leading to F04 space. Next to it there is a cupboard with a niche above. On the east corner there is a bath partition measuring 0.98m by 0.98m at east and south walls. It is entered from F01 space through a narrow door on the partition. (See figure 3.19)

On the east wall starting from north corner, there is the double wing, ornamented timber door of F02 space at north corner. Next to it is the single wing timber door of F03 space, at the south corner is an interior window between F03 space and F01 space.

The floor is covered with 0.25m wide floorboards extending parallel to east and west walls. The floor covering does not touch the west wall; there is a 2-3cm wide gap between the floor covering and the wall. Also, the first floor wall on west side is not flush with the ground floor wall. It projects around 5cm from the surface of the ground floor wall.

The ceiling is covered with timber boards approx.25cm wide. Between the boards 4cm thick wood lath pieces are nailed and the ceiling cover is framed with an 8-cm border. The ceiling covers over F01 and F04 spaces are common, the same cover continues over F04 space.

3.4.2.2. F02 SPACE

It is a rectangular space measuring 2.97m by 3.12m at north and west walls. The height of the space is 2.35m from ground to floor. It is reached from F01 space through door D5.

On south corner of west wall there is door D5.

On north wall there is a service wall including a central niche for mattresses flanked by two cupboards on and a row of cupboards below them. On the covers of cupboards there are geometric decorations.

Figure 3.19 North wall of F01 space in Yenigün House

Figure 3.20 South wall of F01 space in Yenigün House

Figure 3.21 Service wall of F02 space in Yenigün House

On east wall there are two windows with timber shutters and balustrade. The one to the south is covered with cardboard and it is out of use today.

On the west, north and east walls, passing at the upper level of the door, cupboard and windows, there is a wooden shelf “sergen” that is 8cm wide.

The walls are constructed in timber frame construction and are whitewashed. Similar to ground floor walls, the whitewash applied year after year has formed a 2-3cm thick and irregular layer.

The floor is covered with floorboards placed parallel to east and west walls.

The ceiling cover is composed of 25cm thick timber boards with 4-cm wood-lath pieces between them. The covering is framed with a 33cm wide border and there is a timber panel measuring 76cm by 78-cm with carved decoration at the centre of it.

3.4.2.3. F03 SPACE

The space measures 2.94m by 2.05m. The height is 2.35m. It is reached from F01 space through door D6. On the west wall, on the north

side is the door. To the south of it is the interior window opening to F01. The north wall is solid, on the east wall is a single window with timber shutters and balustrade and guillotine glass pane. At the east corner of south wall there is a timber shelf 75cm long and 12 cm wide. To the west of the shelf is a fireplace.

The west, north and east walls are in timber frame construction. The 75cm part of the east side of the south wall is in timber frame, the rest of the south wall is in rubble stone masonry. There is a vertical crack on plaster where the two different construction techniques meet.

The floor is covered with timber floorboards. The ceiling cover is composed of timber boards and wood lath pieces framed with a border of 8 cm.

3.4.2.4. F04 SPACE

The space measures 2.26m by 1.26m. The timber bath partition measuring 0.98m by 0.98m takes up the southeast corner of the space.

The timber partition on south wall of the space separates it from F01 space. It is entered through the door opening at the west corner of the partition. Between the door opening and the bath partition there is a niche on the timber partition that can be reached both from F01 and F04 spaces. The bath partition does not reach the ceiling level. The gap between is covered with timber boards.

The west wall is solid. On the north wall there is a window with a guillotine glass pane. At the east wall, next to the bath partition there are 3 timber shelves attached to the wall. Below the shelves, approx.0.85m above floor level, there is a sink measuring 0.63m by 0.72m. It is made of timber. The upper surface is covered with lime mortar, and there is a drain at its corner leading to the outer elevation.

The floor is covered with floorboards. The ceiling over F01 space continues over F04 space.

3.4.2.5. F05 SPACE

The space measures 4.12m by 4.61m at north and west walls.

It is entered through a narrow door (D3) measuring 0.90m by 1.30m from the courtyard of Çarboğa House. The height of the space is approx. 2.56m at the north part. Approx. 2m from the north wall there is a level difference on the floor, the remaining 2.65m of the space is 0.17m higher.

On the west wall near the south corner there is the door. On the north half of the wall 2 m above ground level there is a “sergen” shelf. This shelf has a different profile than the one in F02 space and it is ornamented. On the north wall, at the west corner there is an opening with a timber shutter measuring 0.62m by 1.31m connecting the space with F01. From the side of F01, timber boards are nailed on the shutter to cancel the connection. Next to this opening is a fireplace. On the east corner of this wall there are a vertical and a horizontal joint defining an area of a *b m. (this part of the wall corresponds to the fireplace on F03 space on the other side of the wall). On east wall there are two W2 type windows. Above the windows there is a 10 cm wide “sergen” shelf.

Figure 3.22 West wall of F05 space in Yenigün House

On the south wall, at east corner there is a third W2 type window. At the place corresponding to the level difference on the floor, there is a vertical trace on the on the west wall. To the south of the trace the plaster is partly missing.

The floor is covered with approx. 30 cm wide floor boards. There is a level difference on the floor of the space. The south half is 17 cm higher. The floor boards have partially collapsed near the north east corner.
The ceiling cover has collapsed. Above it the roof construction can be observed. At the north east corner, also the roof has collapsed. Sagging, cracking and breaking of the beams in the roof construction can be observed.

3.4.3. GROUND FLOOR PLAN OF ÇARBOĞA HOUSE

The ground floor plan of Çarboğa House is composed of G01 and G02 spaces in north mass, G03 space in south mass of main building, G04 space in service building arranged around the courtyard.
Courtyard

The courtyard measures 3.98m by 6.87m at north and west walls. It is entered from the south wall through the courtyard door at the east corner of the south courtyard wall.

The west elevation of the courtyard is the east elevation of Çarboğa House and is described above.

The north elevation is the south wall of service building including G04 space. It is a rubble stone masonry wall without mortar. At the centre of the wall there is the entrance door to G04 space. The parts of the wall at two sides of the wall are not aligned.

3.4.3.1. COURTYARD

The east elevation of the courtyard is the west elevation of Yenigün House, which was described above.

The floor is covered with earth and rocks. At the southwest corner of the courtyard there are rocks on the ground. A concrete platform measuring 2.50m by 3.70m is constructed over the rocks.

In front of the entrance door of Çarboğa House, at southwest corner of the courtyard there are traces of slate stone steps.

3.4.3.2. G01 SPACE

The space measures 4.29m by 1.59m at north and west walls. It is reached directly from the courtyard through double wing entrance door. (D1a)

The spaces G02 and G03 are reached from this space. A staircase leads to F01 space at first floor.

On the east wall there is the entrance door. On the east corner of the south wall there is the door leading to G03 space. The first flight of stairs is located next to the door of G03, attached to south wall. At the west wall is a landing built with concrete similar to the first flight of steps. On the south wall starting from the level of the landing, above the steps, there is a diagonal trace on the wall, leading to the first floor.

On the west part of the north wall is the second flight of steps that are timber. At the east part of the wall there is the doorway leading to G02 space. The lintel is concrete. Today there is no door wing.

The east, south, west walls are constructed in rubble stone masonry with lime mortar. The north wall is constructed with rubble stone masonry with cement mortar. There are traces of plaster and white wash on east, south and west walls whereas there is no trace of plaster on north wall. Furthermore, the north wall is separated from the east wall by a vertical joint; they are constructed separately.

The floor is covered with slate stone paving. The ceiling is spanned with finely shaped primary and secondary beams. The floorboards are 10cm wide and approx.1m long. The timber steps and the ceiling construction are not aged; they look new.

3.4.3.3. G02 SPACE

Since the space is being used for storage, it could not be studied in detail. It measures approx. 3m by 3.75m

It is entered from the south wall. At the east wall there is a split window. Next to the window is a hole in the wall measuring 12cm by 12cm. The floor is covered with slate stone paving.

The timber in the ceiling construction looks new. The primary and secondary beams are finely shaped. The floorboards above the beams are 10cm wide.

3.4.3.4. G03 SPACE

The space measures 3.86m by 4.68m at the north and west walls. It is reached from G01 space through the door on the north wall of G03.

The single wing timber door (D2) is at the east corner of the north wall. On the east wall there is a window measuring 0.84m by 0.74m with concrete lintel and sill. At the level of the sill of the window there is a timber tie beam in the wall extending between the window and the north edge of the wall. There is another tie beam approx.1.2cm above ground starting from the south corner and extending for 1.75m to the south.

At the southeast corner an 11-cm thick stone slab is placed diagonally 0.94cm from south wall and 1.02m from east wall to form a 30cm deep storage space. On the east wall above this container there is metal ring attached to the wall.

The south and west walls could not be studied in detail since the space covered with piles of straw.

At the centre of the room there is a column measuring 0.50m by 0.50m constructed in rubble stone masonry with cement mortar. There is another timber column adjacent to it. The two columns support the main beam carrying the ceiling construction.

The floor is covered with slate stone paving and rocks. The rocks are abundant near the south and west walls.

Figure 3.23 Courtyard of Çarboğa House

Figure 3.24 South-east corner of G03 space in Çarboğa House

The ceiling is spanned by a primary beam with secondary beams placed with approx. 0.30m distances. Above the secondary beams there is bedding composed of roughly shaped timber boards. Above the bedding there is a type of lime mortar that serves as the floor cover of the first floor.

3.4.4. FIRST FLOOR PLAN OF ÇARBOĞA HOUSE

The first floor plan is composed of F01 and F02 spaces in north mass and F03 and F04 spaces in south mass. F02 and F03 spaces are reached from F01 space. F04 space is reached from F03 space. The roof of the building is recently renewed. The ceiling cover of F03 space is still intact whereas the ones in the other rooms are missing.

3.4.4.1. F01 SPACE

The space measures 4.81m bu 2.24m at north and west walls. It is either reached through the staircase connecting it to G01 space or through the metal door at the west elevation. The staircase is located by the north wall of the space.

The north, south and west walls are in hollow brick masonry with cement mortar. The brick wall surfaces are presently bare without plaster. The east wall is timber frame. On the east side of the north wall there is an opening leading to F02 space. The door itself is missing. The lintel is concrete.

On the east wall there is a single window with timber balustrade without glass pane. There are traces of timber shutters that are missing today. The east stone masonry wall of F03 space continues at F01 space for 0.57m. This part of the wall is 1.63m high from the floor of the space and the upper level of it is irregular. The remaining 1.30m part of the wall above the stone wall is in hollow brick masonry.

At the east side of the south wall there is an opening leading to F03 space. The door is missing the lintel is concrete. Since the floor level of F03 space is 0.70m lower than the floor level of F01 the doorway is only 1.70m

high. At the centre of the wall, ends of the beams of the roof structure of F03 space are visible.
At the west wall, there is a single wing metal door (D4-b) leading to the street to the west. The floor is covered with 10cm wide floorboards.
The ceiling cover is missing.

3.4.4.2. F02 SPACE

The space measures 4.92m by 3.33m at north and west walls. It is reached from F01 space through the door opening at the east side of the door opening on south wall of F02 space.

The south and west walls of the space are hollow brick masonry with cement mortar. 0.47m part of the north wall at west corner is in hollow brick masonry. The remaining part is timber frame construction.

0.50m wide part at the west part of the timber frame wall is separated from the rest of the wall by a vertical trace. There is no plaster on this part and the *"*sergen *"* shelf on the rest of the wall does not continue on this part. The plaster is still intact on the part of the wall below the *"*sergen*"* level on the west half of the wall. It is missing on the remaining parts and the wood lath and wall structure is visible.

There two windows on the east wall with timber balustrade. There are traces of timber shutters but only a single wing of one of the windows remains.

Between the two windows there is a shelf on the wall 1.55m above floor level. Passing from the upper level of the windows there is a 10cm "sergen" on the wall. The plaster is missing on the lower parts of the north corner of the wall.

The floor is recently renewed and it is covered with 10cm wide floorboards.

The ceiling cover is removed, yet some of the ceiling boards and the central panel are left on the floor of the room. The ceiling panel measures 0.95m by 0.95m and the carvings on it are similar to the ones at Yenigün

House. Also dismantled parts of a cupboard that is 3.55m long can be observed in the room.

3.4.4.3. F03 SPACE

The space measures 4.37m by 3.06m. It is reached from F01 space through the door at the east side of north wall. Between the floor of F01 and F03 there is a level difference of 0.72m. Ceiling level of F03 is 1.46m lower than the ceiling level of F01 space.

The north wall is in hollow brick masonry. Below the door opening 0.30m above floor level, ends of 25cm wide timber boards are visible embedded in the wall.

The east wall is rubble stone masonry and there are a niche without cover and a window with timber shutters (W2) on it similar to the ones in F05 space of Yenigün House.

The south wall is timber frame. On the east side of it there is a door opening leading to F04 space.

The west wall is in hollow brick masonry with cement mortar. The south wall, floor and ceiling cover of the space do not intersect the west wall. There is an approx. 25cm gap in between.

The floor is covered with lime mortar. The ceiling cover is intact but it is detached from the north and east walls. In order to keep it from falling down, it is supported by two timber posts in the middle of the room. The ceiling cover is composed of 30cm timber boards placed next to each other and parallel to east and west walls with 9cm wide timber boards nailed between them. The cover is framed with a border of 9cm at west and north walls and 20cm at east wall. At south side there is no border.

3.4.4.4. F04 SPACE

The space measures 4.26m by 1.53m at south and east walls. It is reached from F03 space through the door at east corner of north wall. The wall separating F03 and F04 is in timber frame but its construction differs from the other timber frame walls.

The other walls are covered with wood lath plaster on both sides whereas this one is covered with bamboo sticks only on the north side.

On the stone masonry east wall there is a window with timber shutters similar to the one in F03 space. However, in the sill of this window there is a lime mortar cover in which, a water drain is embedded. Below the window there is a metal gutter attached to the outer elevation. (See figure 3.25).

The south wall is also in rubble stone masonry but an approx. 47cm part of it at the west corner is altered with hollow brick masonry. The west edge of the stone masonry wall is irregular.

The west wall is hollow brick masonry. The brick wall sits on a 55cm wide concrete lintel placed above the stone masonry wall of the ground floor.

The floor is covered with lime mortar similar to the floor of F03 space. An approx.60 cm part of the floor covering near the west wall is missing and the beams carrying the floor are visible below. These beams are attached to the concrete lintel between the brick and stone masonry walls.

The ceiling cover is missing and the roof construction is visible above.

Figure 3.25 Window of F04 space of Çarboğa House

Figure 3.26 Plan and ceiling plan of Yenigün House at +1.00

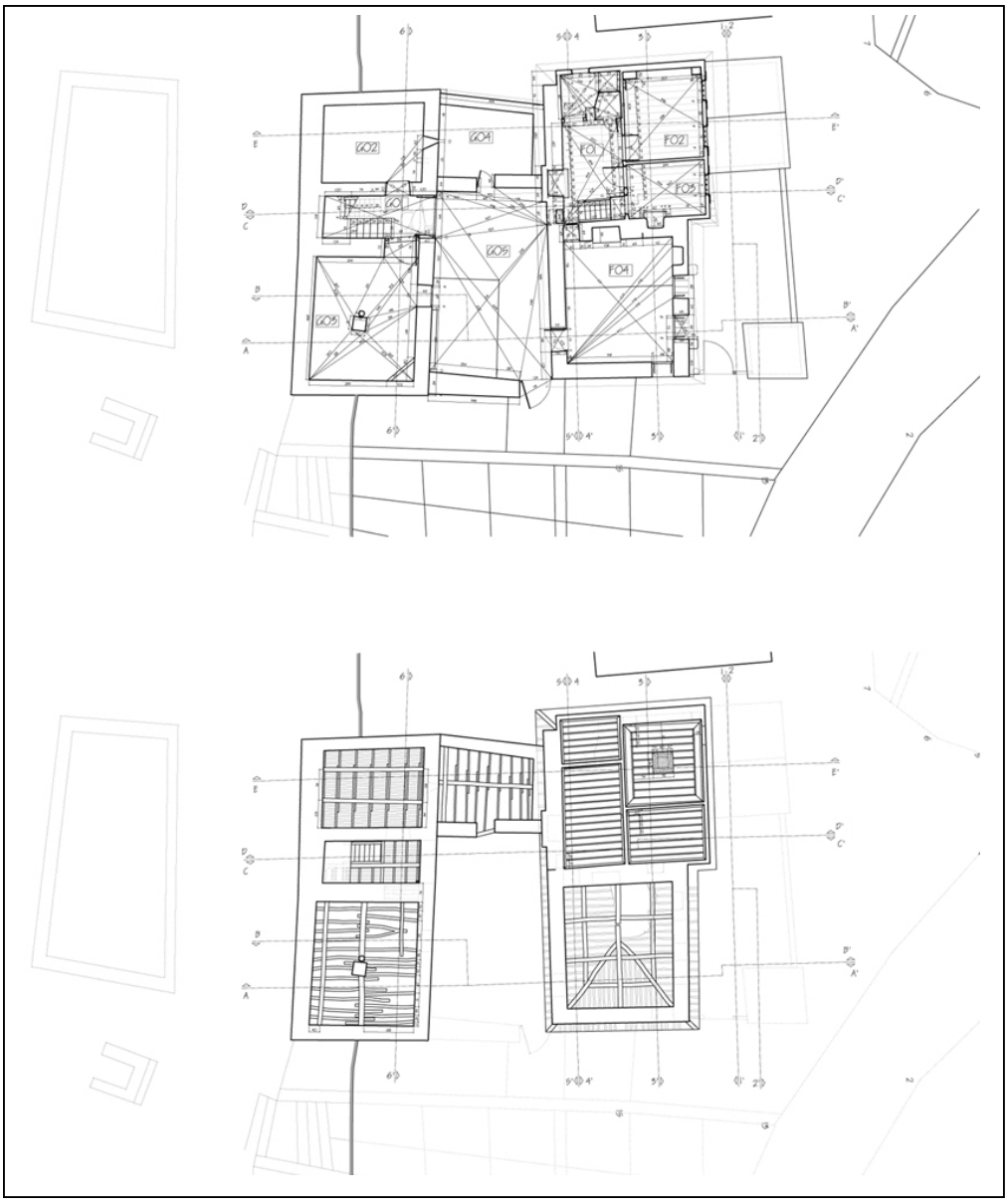


Figure 3.27 Plan and ceiling plan of Yenigün and Çarboğa Houses at +4.00

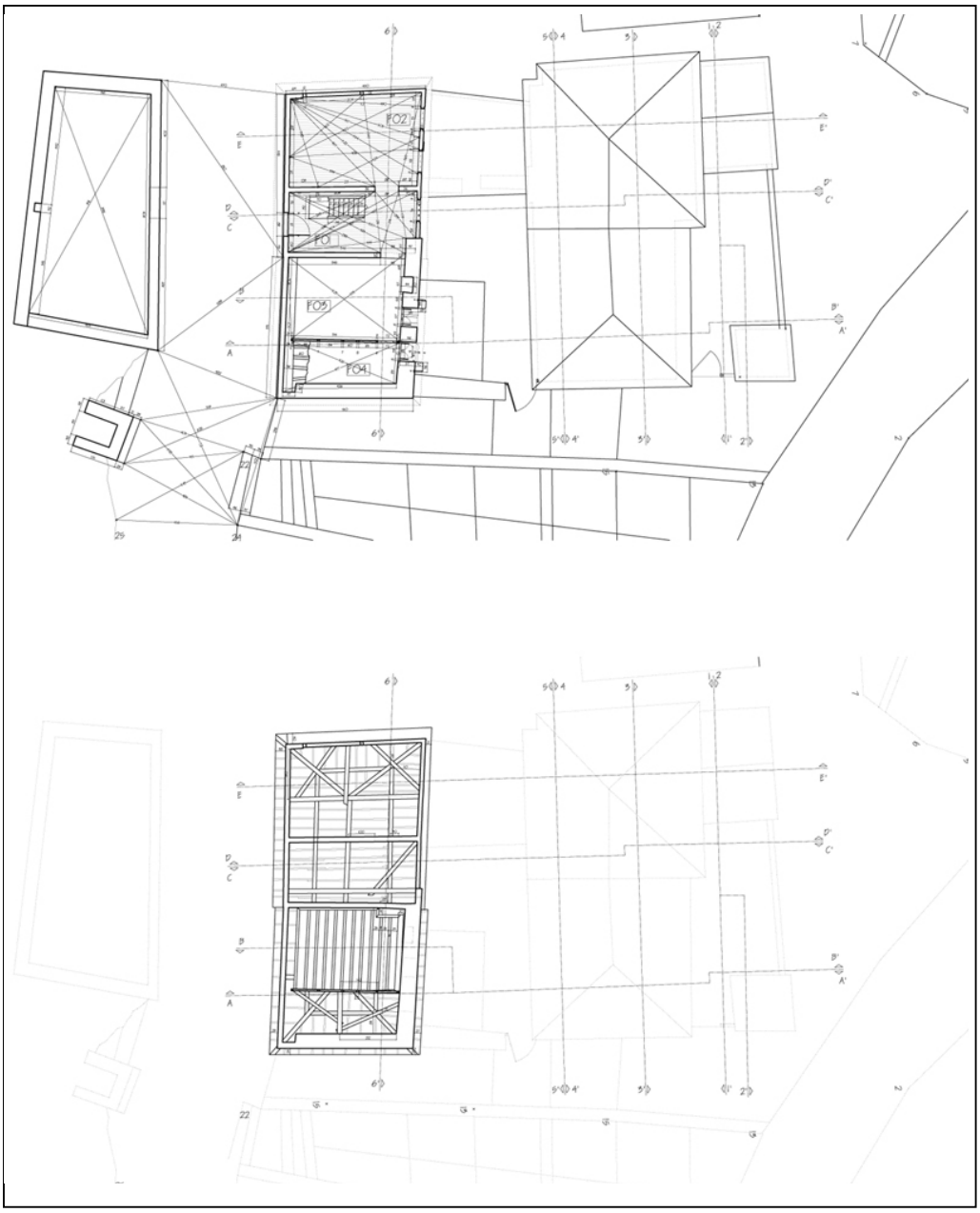


Figure 3.28 Plan and ceiling plan of Çarboğa House at +7.00

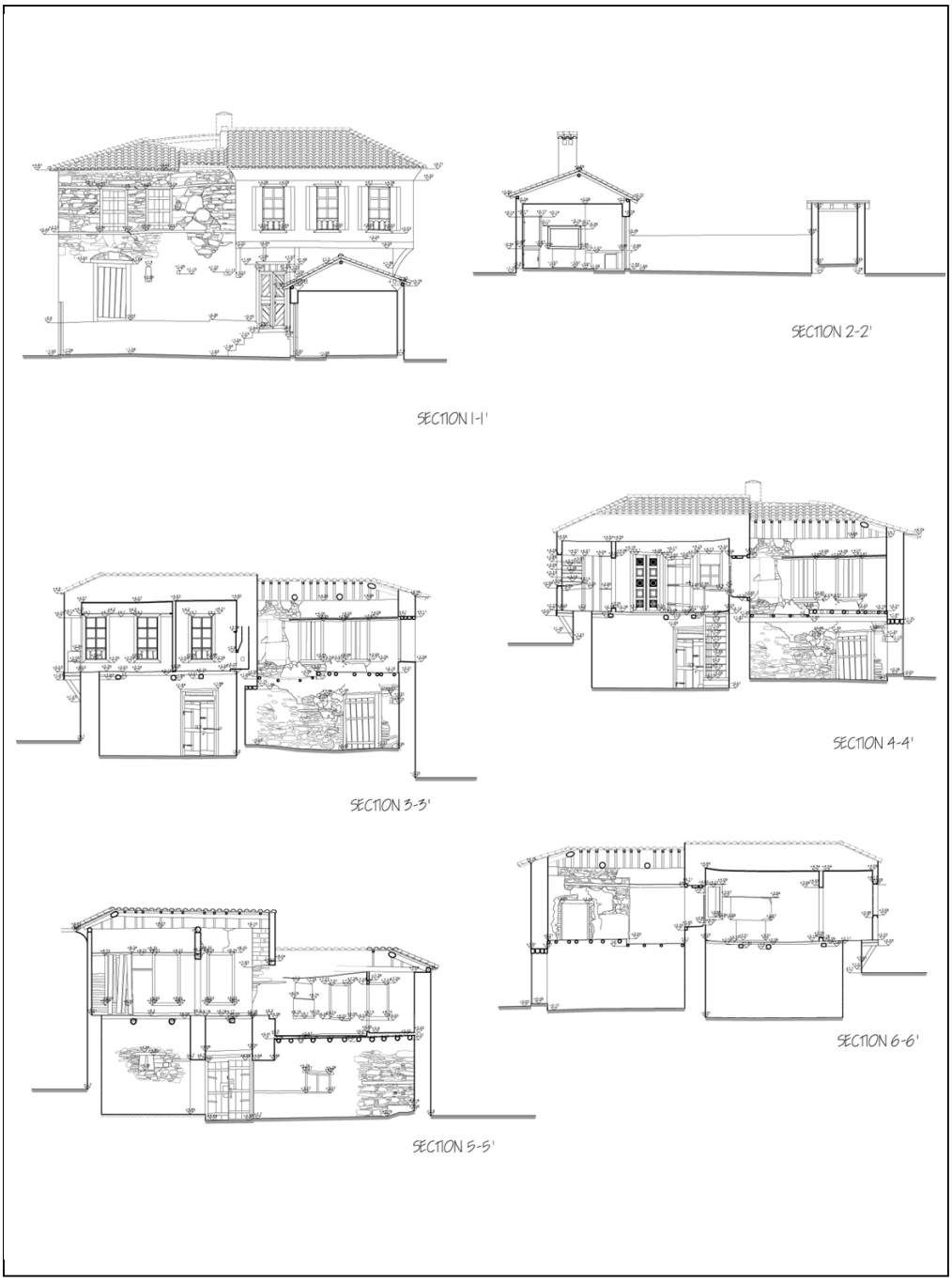


Figure 3.29 Sections of Yenigün and Çarboğa Houses

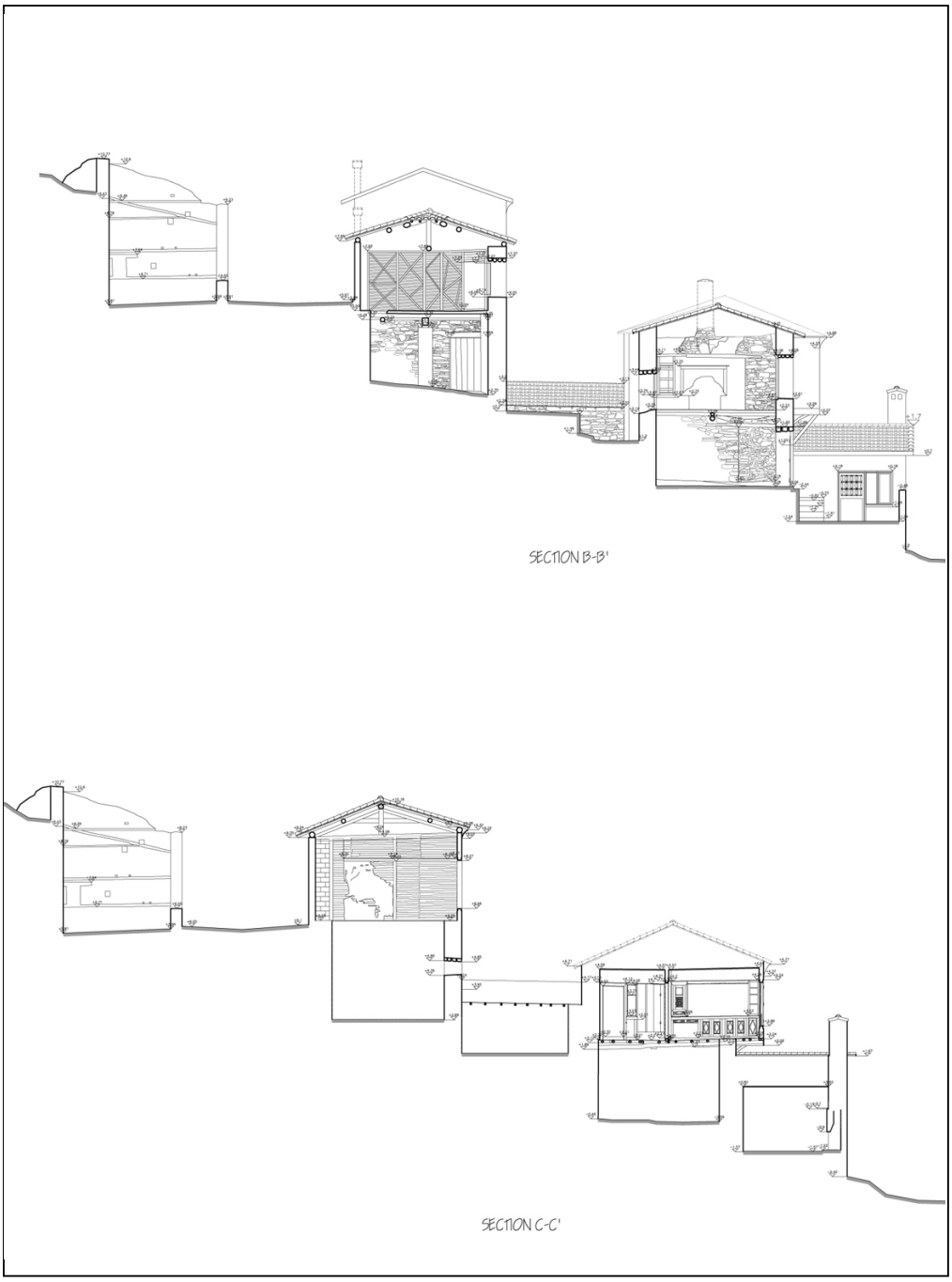


Figure 3.30 Sections of Yenigün and Çarboğa Houses (continued)

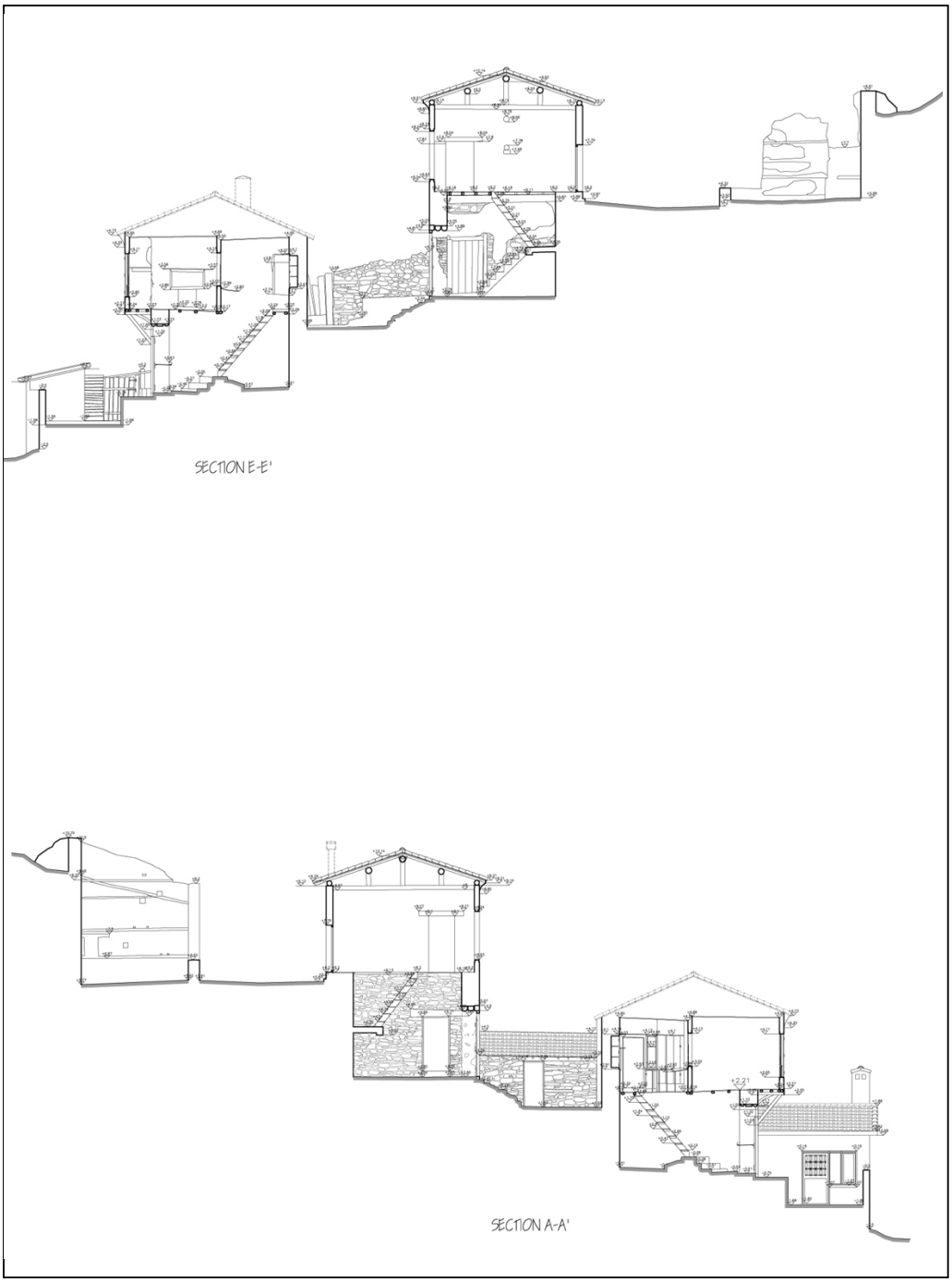


Figure 3.31 Sections of Yenigün and Çarboğa Houses (continued)

3.5. ARCHITECTURAL ELEMENTS

3.5.1. DOORS

- **Courtyard Doors (DC)**

The courtyard doors of both the houses are very simple without any elaborate detail. There is no doorframe. Instead of a proper doorjamb the door wings are attached to timber posts placed by the opening in the wall. The door wings themselves are composed of a few timber boards attached together by nails. The boards do not have the same length, some are higher the others lower. (See table 3.1).

- **Entrance Doors (D1-a, D1-b)**

The entrance doors of both houses are double wing and timber. They are located in openings in stone masonry wall. Over the openings there are three timber lintels with approx. 15cm diameter.

At Yenigün House, there is a doorframe at two sides and above. The door opening measures 1.27m by 2.32m therefore the proportion of height to width is 1.8/1. Between the door wings and the lintel there is a 0.25m high opening for light and ventilation. The outer surface of the door wings are ornamented with diagonally placed planks, symmetrically located in four (two in each) framed rectangles. In the inner surface of the wings the construction of the wings are visible. Two vertically placed timber planks are attached to three horizontal planks at the upper, middle and lower part of the door wing. There are two hinges at each wing that attach the door wing to the doorframe.

At Çarboğa House the posts at two sides of the door opening and the lintel serve as the doorframe. The opening measures 1.59m by 2.34m and the proportion of height to width is 1.5/1. The outer surface of the door is plain there is no ornamentation. There are three vertical timber planks on each door wing. On the inner surface three horizontal planks attached to the vertical ones can be seen. There are two hinges at each wing that attach the door wing to the doorframe. (See table s.1).

- **Exterior Doors (D2a, D3a, D3b, D4a, D4b)**

The exterior doors of the houses are: Door of G02 space (D2a) at east elevation, door of G02 space at south elevation (D3a), door of G03 (D4a) space, door of F05 space (D3b), door of G04 (wc) space at Yenigün House and door of F01 space (D4b) at west elevation of Çarboğa House.

D2a is a timber door without doorframe. The timber posts at two sides of the door opening serve as doorframe. The door measures 1.19m by 1.90m

D3a and D3b doors are timber doors on stone masonry elevations but the jambs of the door openings are altered with brick masonry. D3a and D3b measure 0.90m by 1.86m and 0.94m by 1.34m respectively.

D4a and D4b doors are metal doors with glass panes. D4a is located in brick masonry wall, D4b in hollow brick masonry wall. Their lintels are concrete. Next to D4a there is also a metal window. (See tables 3.2 and 3.3).

- **Interior Doors (D2b, D5, D6)**

There is no interior door at the ground floor of Yenigün House. At the ground floor of Çarboğa House there is D2b door between G01 and G03. The door between G01 and G02 is missing.

D2b is a timber door at stone masonry wall. There is no frame. The posts attached to doorjambs serve as frame.

On the first floor there are D5 and D6 doors connecting F01 space to F02 and F03 spaces.

D5 is the door between F01 and F02 and it measures 1.05m by 2.04m. It is a double wing timber door with timber doorframe of 9cm. The outer surfaces of the door wings are ornamented. There are carvings with floral or geometric motives on 4 square panels on each of the door wings. Each wing is attached to doorjambs by 3 metal hinges.

D6 is the door between F01 and F03 and it measures 0.94m by 1.88m. It is a single wing timber door with a doorframe of 9cm. The wing is attached to doorframe by 3 hinges. (See tables 3.2 and 3.3).

At Çarboğa house at hollow brick masonry walls there are door openings with concrete lintels at F02 and F03 spaces, but the doors are missing. Between F03 and F04 at Çarboğa House and between F01 and F04 at Yenigün House there are timber doorframes at walls but the door wings are missing.

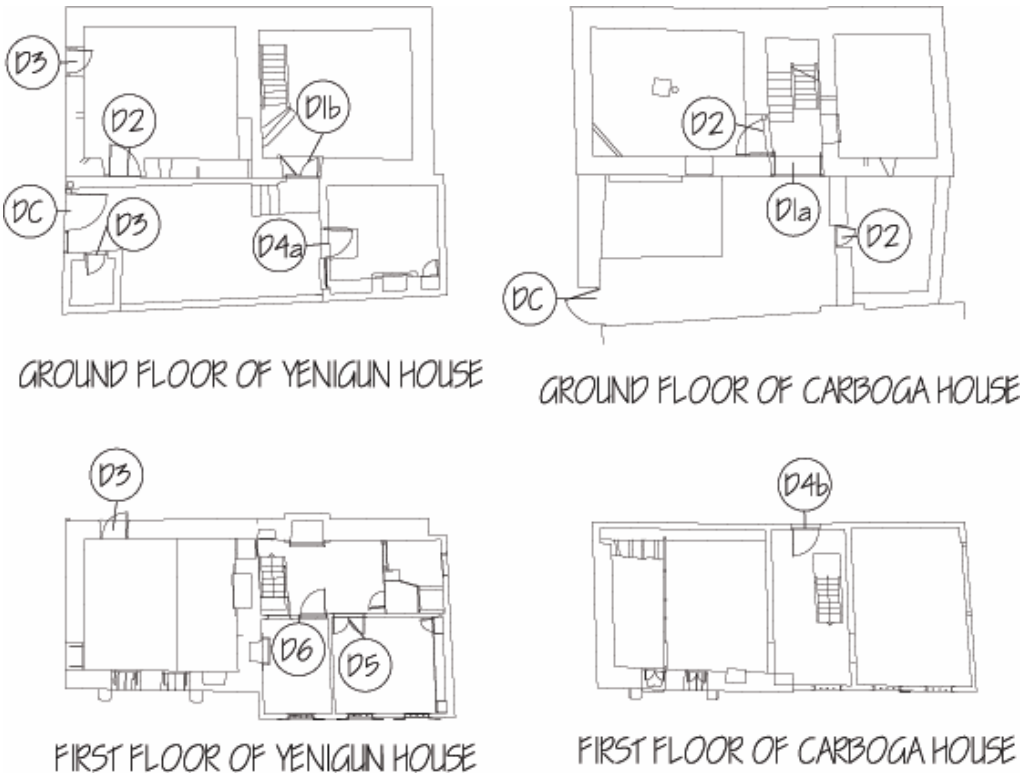


Figure 3.32 Key plans for doors

Table 3.1 Architectural elements, doors

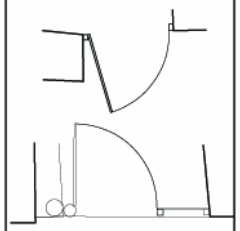
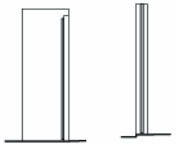
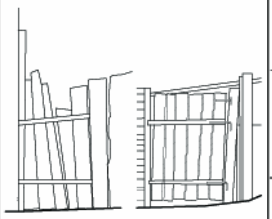
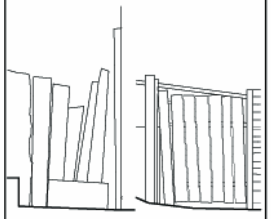
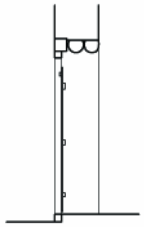
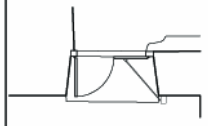
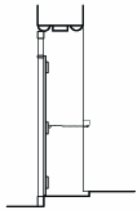
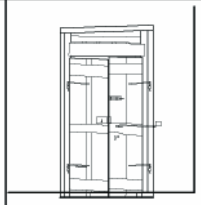
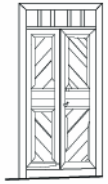
DOOR TYPE		PLAN	SECTION	ELEVATION		MATERIAL	
				INTERIOR			
COURTYARD DOORS	DC					FRAME	NO PROPER FRAME. TWO ROUGHLY SHAPED TIMBER POSTS ON 2 SIDES OF THE WING.
						WING	ROUGHLY SHAPED TIMBER
						LINTEL	–
						JAMB	TWO ROUGHLY SHAPED TIMBER POSTS ON 2 SIDES OF THE WING.
						THRESHOLD	–
ENTRANCE DOORS	DIa					FRAME	ROUGHLY SHAPED TIMBER
						WING	FINELY SHAPED TIMBER
						LINTEL	ROUGHLY SHAPED TIMBER
						JAMB	STONE MASONRY
						THRESHOLD	ROUGHLY SHAPED TIMBER AND STONE
	DIb					FRAME	FINELY SHAPED TIMBER
						WING	FINELY SHAPED TIMBER
						LINTEL	ROUGHLY SHAPED TIMBER
						JAMB	STONE MASONRY
						THRESHOLD	ROUGHLY SHAPED TIMBER AND STONE

Table 3.2 Architectural elements, doors (continued)

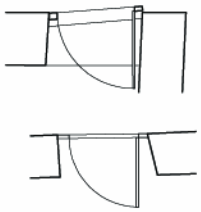
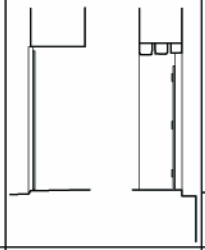
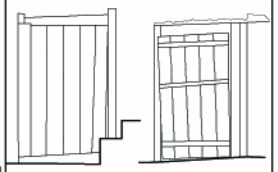
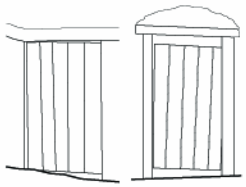
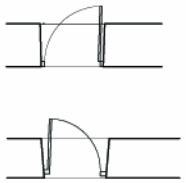
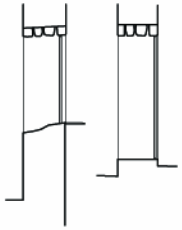
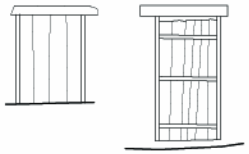
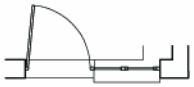
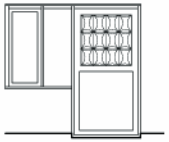
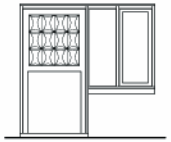
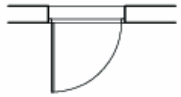
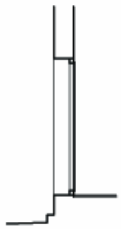
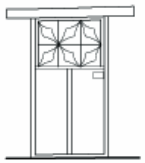
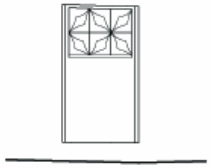
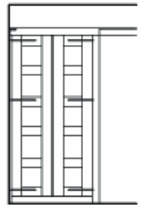
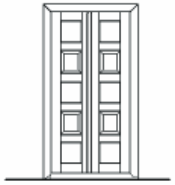
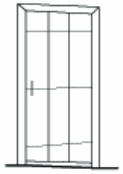
DOOR TYPE		PLAN	SECTION	ELEVATION		
				INTERIOR	EXTERIOR	
EXTERIOR DOORS	D2					MATERIAL FRAME: NO PROPER FRAME. TWO ROUGHLY SHAPED TIMBER POSTS ON 2 SIDES OF THE WING. WING: ROUGHLY SHAPED TIMBER LINTEL: ROUGHLY SHAPED TIMBER JAMB: STONE MASONRY THRESHOLD: STONE
	D3					FRAME: NO PROPER FRAME. TWO ROUGHLY SHAPED TIMBER POSTS ON 2 SIDES OF THE WING. WING: ROUGHLY SHAPED TIMBER LINTEL: ROUGHLY SHAPED TIMBER JAMB: BRICK MASONRY THRESHOLD: –
	D4a					FRAME: METAL WING: METAL AND GLASS LINTEL: TIMBER JAMB: BRICK MASONRY THRESHOLD: CONCRETE

Table 3.3 Architectural elements, doors (continued)

DOOR TYPE		PLAN	SECTION	ELEVATION		MATERIAL	
				INTERIOR			
EXTERIOR DOORS	D4b					FRAME	METAL
						WING	METAL AND GLASS
						LINTEL	CONCRETE
						JAMB	BRICK MASONRY
						THRESHOLD	–
INTERIOR DOORS	D5					FRAME	FINELY SHAPED TIMBER
						WING	FINELY SHAPED TIMBER
						LINTEL	NCOULD NOT BE OBSERVED
						JAMB	TIMBER FRAME WALL
						THRESHOLD	FINELY SHAPED TIMBER
	D6					FRAME	FINELY SHAPED TIMBER
						WING	FINELY SHAPED TIMBER
						LINTEL	COULD NOT BE OBSERVED
						JAMB	TIMBER FRAME WALL
						THRESHOLD	FINELY SHAPED TIMBER

3.5.2. WINDOWS

- **W1a, W1b**

They are timber windows with shutters and balustrade located at north side of east elevations at first floor of both houses. There are 3 windows on each house, the ones in Yenigün House are encoded W1a, the ones in Çarboğa House W1b. (See table 3.4).

W1a measures 0.97m by 1.80m and has a proportion of 1/1.85 whereas W1b measures 0.91m by 1.65m. and has a proportion of 1/1.8.

W1a at Yenigün House has guillotine glass panels but they are not fixed and they do not have intricate details. Thin pieces of wood-lath are nailed on window jamb and the glass pane is placed in between. In order to open the window, the panes are removed from the window and put aside.

W1b window does not have glass panes. The shutters of both window types are formed of two vertical timber planks attached to three horizontal planks. On two sides of the windows on wall surface there are metal elements that are twisted over the shutters to keep them open. On the interior wall, at the upper level of the windows there is a 8 cm wide timber shelf. “sergen”.

- **W2a, W2b**

They are located in first floor of south mass of both houses.

At Yenigün House there are two of them at east elevation and another one at south elevation, all of them at F05 space. At Çarboğa House there are two of them, one at F03 the other at F04 space. The window of F04 space (W2a) differs from the other windows since it has drainage detail in its sill. (See table 3.4)

The windows at Yenigün House measure approx. 0.90m by 1.45m whereas the ones at Çarboğa are smaller and measure 0.75m by 1.25m. The proportions of the windows are approx. 1/1.6

The window frames and shutters are attached to the interior surface of the stone masonry walls. The timber shutters are composed of two vertical planks attached by three horizontal planks.

The sill of the window opening is covered with timber boards except for the window of F04 space at Çarboğa House (W2a). At W2a there is lime mortar at the windowsill and a drainage detail is embedded in it. Below the window on the outer elevation there is a metal gutter.

Over the upper level of the windows at east elevation of Yenigün House there is a “sergen” as described above in F05 space.

At both of the houses, at two sides of windows at east elevation there are 2 stone slabs projecting from the wall surface at each building that measure approx. 30cm by 30cm.

- **W3**

There are two W3 type windows at Yenigün House. One of them is an interior window between F03 and F01 the other is the window of F04 space at north elevation. They are timber windows with single guillotine glass pane without shutter or balustrade at timber frame walls.

The interior window between F01 and F04 measures 0.86m by 1.29m. Window of F04 measures 0.80m by 1.18m. The proportion of width to height of the windows is 1/1.5. There is a single guillotine pane attached to the window. The remaining space of the window opening is covered with cardboard. (See table 3.4).

- **W4**

It is the aborted opening between F01 and F05 spaces and it measures 0.57m by 1.32m (1/2.3). It is located in rubble stone masonry wall, the window frame and timber shutter are attached to the north face of the wall. (see table 3.5)

At the north elevation of the opening, timber boards and cardboard is attached on the shutter and they are whitewashed with the wall surface.

- **W5**

It is the slit window type observed at east wall of G02 space in Yenigün House and G02 space in Çarboğa House. The opening in the wall is smaller on the outside face and larger in the inner elevation.

The example in Yenigün House measures approx. 0.20m by 0.50m at the outer elevation and 0.40m by 0.21m at inner elevation. The one in

Çarboğa House measures 0.08m by 0.44m at the outer elevation and 0.52m by 0.61m at inner elevation.

At the outer elevation there is no lintel at the inner elevation there are lintels over the openings. (See table 3.5)

- **W6, W7**

W6 is the metal-framed window at south elevation of G03 space at courtyard of Yenigün house. It measures 0.95m by 1.21m and is divided to two vertical parts. One of them is fixed the other has a wing that can be opened.

It is a W7 is the window on east elevation of G03 space at Çarboğa House. It measures 0.84m by 0.75m. It has no shutter or glass pane. The lintel and windowsill are concrete. Cement mortar can be observed at the jambs of the window. It is adjacent to the door D4a.(See table 3.5).

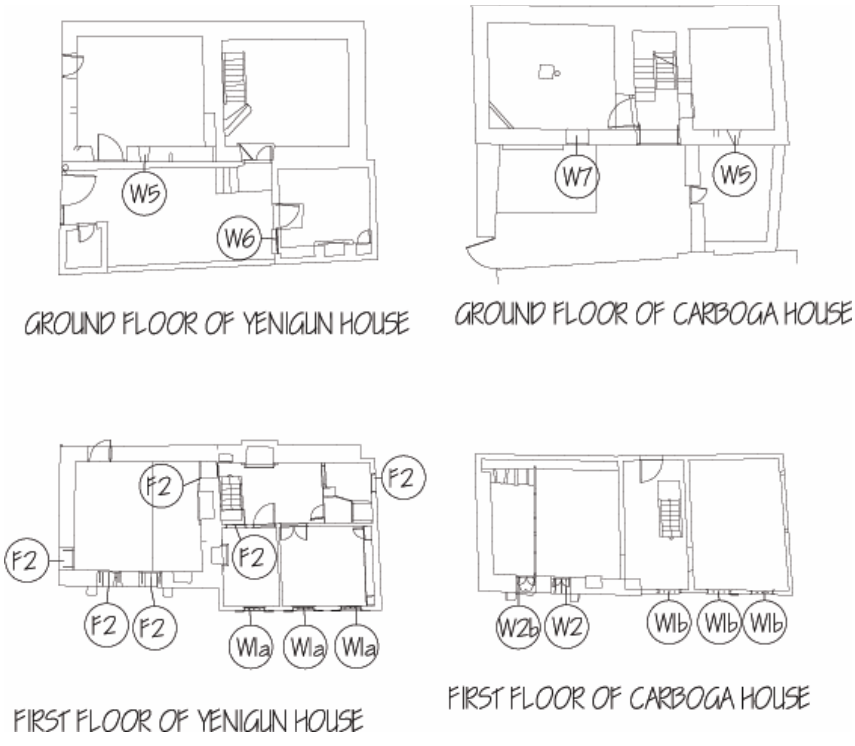


Figure 3.33 Key plans for windows

Table 3.4 Architectural elements, windows

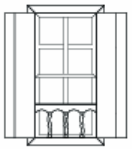
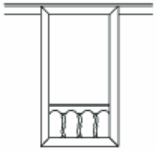
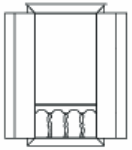
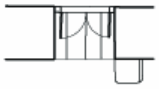
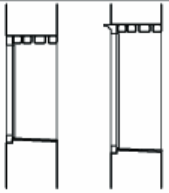
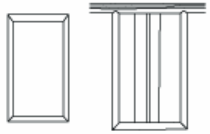
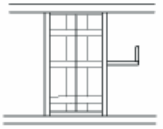
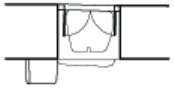
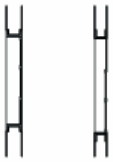
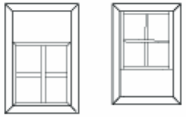
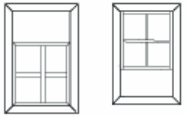
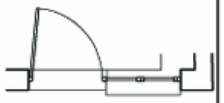
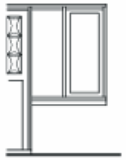
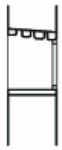
WINDOW TYPE	PLAN	SECTION	ELEVATION		ELEMENTS	MATERIAL				
			INTERIOR	EXTERIOR		FRAME	WING	LINTEL	JAMB	SILL
W1a					TIMBER SHUTTER BALUSTRADE "SERSEN" OVER WINDOW GLASS WING (REMOVABLE GUILLOTINE WINGS PLACED BETWEEN WOOD CTA NAILED ON WINDOW JAMB)	TIMBER	TIMBER & GLASS	TIMBER	TIMBER	TIMBER
W1b					TIMBER SHUTTER BALUSTRADE "SERSEN" OVER WINDOW	TIMBER	—	TIMBER	TIMBER	TIMBER
W2					TIMBER SHUTTER STONE PROJECTION NEXT TO THE WINDOW "SERSEN" OVER WINDOW	TIMBER	—	TIMBER	STONE	TIMBER PLANKS OVER STONE WALL
W2b					TIMBER SHUTTER STONE PROJECTION NEXT TO THE WINDOW LIME MORTAR SINK AT WINDOW SILL					LIME MORTAR OVER STONE WALL
W3					GLASS WING (REMOVABLE GUILLOTINE WINGS PLACED BETWEEN WOOD CTA NAILED ON WINDOW JAMB)	TIMBER	TIMBER & GLASS	TIMBER	TIMBER	TIMBER

Table 3.5 Architectural elements, windows (continued)

WINDOW TYPE	PLAN	SECTION	ELEVATION		ELEMENTS	MATERIAL				
			INTERIOR	EXTERIOR		FRAME	WING	LINTEL	JAMB	SILL
W4					TIMBER SHUTTER	TIMBER	—	TIMBER	STONE	STONE AND TIMBER
W5						—	—	TIMBER	STONE	STONE
W6						METAL	METAL & GLASS	TIMBER	BRICK	CONCRETE
W7						TIMBER	—	TIMBER	STONE	CONCRETE

3.5.3. CUPBOARDS AND FIREPLACES

- **Service Wall 1 (SW1):**

Service wall SW1 of Yenigün House serves as partition wall between F01 and F04 spaces and includes the doorway, a niche over a cupboard and a bath partition. In F04 space attached to the bath partition at east wall is a sink. Over the partition wall at south elevation, (in F01 space) there is a 9cm wide timber shelf "sergen" 1.9-m above floor level.

The doorway is 0.70m wide and 1.70m high, there is no door wing.

The bath partition has a 1m by 1m-square plan that is chamfered at northwest corner. The sink is a simple white washed and plastered timber basin. There are 3 timber shelves over the sink. (See table 3.6)

- **Service Wall 2 (SW2):**

Service wall SW2 is located in north wall of F02 space and is composed of cupboards and niches. There are 4 cupboards below a 30cm deep, 1.15m high, 2m wide central niche flanked with a niche and a cupboard on two sides.

The covers of the first cupboard on the lower east corner and that of the higher west corner are missing. All the covers are ornamented with geometric patterns. There is a 10-cm wide timber shelf over the service wall. This shelf continues over east and west walls of the room. (See table 3.6)

- **Service Wall 3 (SW3):**

Service wall of SW3 is located in G03 space in Yenigün House and is composed of fireplace with two cupboards on two sides of it. There is a 10cm wide timber shelf over the fireplace. The cupboards have simple timber covers coloured in green. From the inscription on the chimney and from oral information it is known that this wall is constructed in 1970, therefore much later than other fireplaces and niches of the house. Yet, the details of the fireplace are similar to that of the other two fireplaces. (See table 3.6).

- **Fireplaces (F1, F2, F3):**

F1 is located in F05 space in Yenigün House. There is a 7cm wide timber shelf over it. Parts of the front wall of it are missing.
To the west of the fireplace is the service window between F01 and F05 spaces.

F2 is located in F01 space. To the south of it is a covered niche.

F3 is located in F03 space. On the part of the wall corresponding to the west of the fireplace on F05 space is a vertical joint all through the wall.

F1 and F2 have rectangular cross sections in plan. The cross section of F03 is smaller and it is rounded. (See table 3.7).

- **Single Niches (NI):**

Single niches without covers are seen on the east walls of F05 space of Yenigün and F03 space of Çarboğa Houses. (See table 3.7).

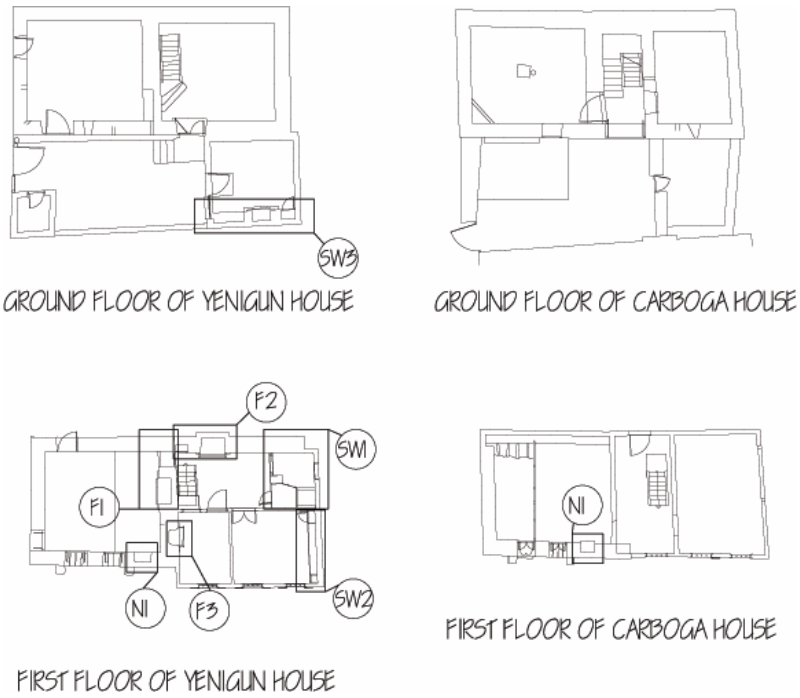
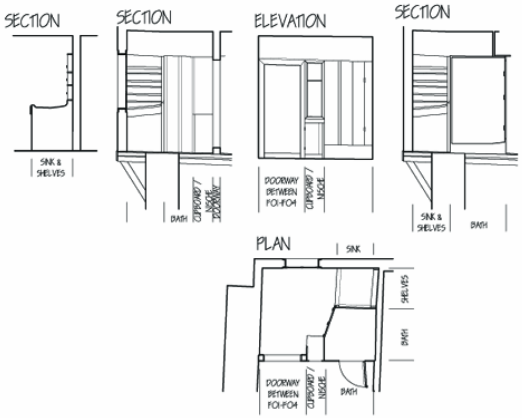
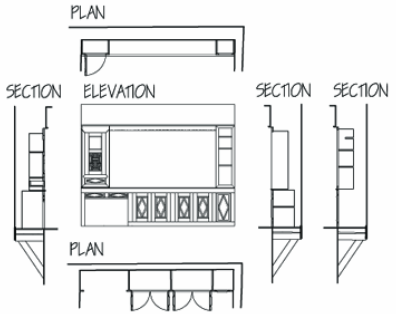
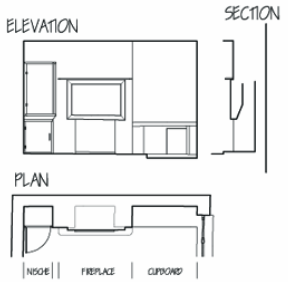


Figure 3.34 Key plan for cupboards and fireplaces

Table 3.6. Architectural elements, cupboards and fireplaces

ARCHITECTURAL ELEMENTS - CUPBOARDS AND FIREPLACES

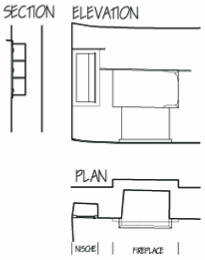
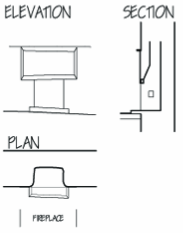
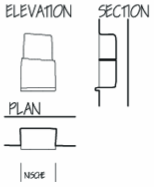
SERVICE WALL COMPOSED OF DOORWAY, NISCHE, BATH, SINK AND KITCHEN SHELVES (SW1)	SERVICE WALL COMPOSED OF CUPBOARDS AND NISCHES (SW2)	SERVICE WALL COM. OF CUPBOARDS & FIREPLACE (SW3)
		

DESCRIPTION AND NOTES

LOCATION: FO4 SPACE AT FIRST FLOOR OF YENIGUN HOUSE. THE ARCHITECTURAL ELEMENTS ACT AS A PARTITION BETWEEN FO1-FO5 SPACES. MATERIAL: MAIN MATERIAL IS TIMBER. THE HINGES ARE METAL. THERE IS SCREECH ON THE FLOOR OF THE BATH PARTITION AND IN THE SINK. THE SHELVES AND THE SINK ARE PAINTED.	LOCATION: FO2 SPACE AT FIRST FLOOR OF YENIGUN HOUSE. THE CUPBOARD IS ATTACHED TO THE TIMBER FRAME EXTERIOR WALL OVER PROJECTION. MATERIAL: MAIN MATERIAL IS TIMBER. THE HINGES ARE METAL.	LOCATION: FO3 SPACE AT GROUND FLOOR OF YENIGUN HOUSE. THE ELEMENTS ARE INSERTED IN EXTERIOR BRICK WALL. MATERIAL: THE CUPBOARDS ARE TIMBER. THERE IS A CONCRETE SILL OVER THE CUPBOARD NEAR THE WINDOW. THE WALLS OF THE STOVE ARE BRICK. THE FRONTAL FINISH OF THE STOVE IS MADE OF GYPSUM PLASTER, FRAMED WITH TIMBER.

Table 3.7. Architectural elements, cupboards and fireplaces (continued)

ARCHITECTURAL ELEMENTS - CUPBOARDS AND FIREPLACES

FIREPLACE & "SERVICE WINDOW" (F1)	FIREPLACE AND NISCHE (F2)	SINGLE FIREPLACE (F3)	SINGLE NISCHE (N1)
			
LOCATION: FO3 SPACE AT FIRST FLOOR OF YENIGUN HOUSE. THE ELEMENTS ARE INSERTED IN INTERIOR STONE WALL. MATERIAL: LINTEL, FRAME & SHUTTER OF SERVICE WINDOW ARE TIMBER, JAMBS ARE STONE, SILL IS TIMBER & STONE. WALLS & CHIMMNEY OF STOVE ARE STONE, FRONTAL IS GYPSUM PLASTER FRAMED WITH TIMBER.	LOCATION: FO1 SPACE AT FIRST FLOOR OF YENIGUN HOUSE. THE ELEMENTS ARE INSERTED IN EXTERIOR STONE WALL. MATERIAL: NISCHE IS IN TIMBER. WALLS OF STOVE ARE STONE, FRONTAL IS GYPSUM PLASTER FRAMED WITH TIMBER.	LOCATION: FO3 SPACE AT FIRST FLOOR OF YENIGUN HOUSE. THE STOVE IS INSERTED IN INTERIOR STONE WALL. MATERIAL: WALLS & CHIMMNEY OF STOVE ARE STONE, FRONTAL IS GYPSUM PLASTER FRAMED WITH TIMBER.	LOCATION: FO3 SPACE AT FIRST FLOOR OF YENIGUN HOUSE, FO3 SPACE OF CARBOGA HOUSE. THE ELEMENTS ARE INSERTED IN EXTERIOR STONE WALL. MATERIAL: THE NISCHES HAVE NO SHUTTER. JAMBS ARE STONE, SHELVES ARE TIMBER. SILLS ARE GYPSUM. LINTELS COULD NOT BE OBSERVED.

3.5.4. TIMBER SHELVES “SERGEN”

7 - 10cm wide timber shelves are present in Yenigün House at the walls of F01, F02 and F05 spaces and over fireplaces. The ones over fireplaces and in F01 and F02 are simple, at F05 they are more elaborate. At Çarboğa House they are present in north and east walls of F02 space. (See table 3.8).

3.5.5. STAIRCASES

The staircase of Yenigün House that connects G01 and F01 spaces is constructed in timber. The first 3 steps are in stone. There are 9 timber steps. There is a timber balustrade. Over the staircase at southeast corner of F01 space there is a timber shelf.

Between the courtyard and G01 space there is a concrete staircase with 4 steps.

Between the courtyard and G01 space in Çarboğa House there are traces of a stone staircase.

Between G01 space and F01 space there is a staircase in reinforced concrete and timber. The first 6 steps are in concrete after which there is a concrete landing. The second arm of the staircase is in timber with 7 steps. The timber parts of the staircase are non-weathered and they look new. (See table 3.9)

3.5.6. CHIMNEYS

The chimney of the fireplace in SW3 in G03 space of Yenigün House is constructed in rubble stone masonry. It has a pitched cap, covered with French tiles and it is plastered with cement plaster. There are two rectangular holes on each side of it. The inscription (1970) over the chimney indicates its construction date.

The chimney of F1 in F05 space of Yenigün House is in rubble stone masonry. It has a capping in lime mortar. The tiles over the capping are missing. The chimney of F2 is missing. That of F3 in F03 space of Yenigün

House is in rubble stone masonry, it is much thinner and lower than the chimney of F1. It is covered with a tin cap.

There is no original chimney in Çarboğa House. On the east wall with in the hollow brick masonry wall two chimneys in hollow brick are constructed that correspond to F02 and F03 spaces.

Table 3.8 Architectural elements, "Sergen"

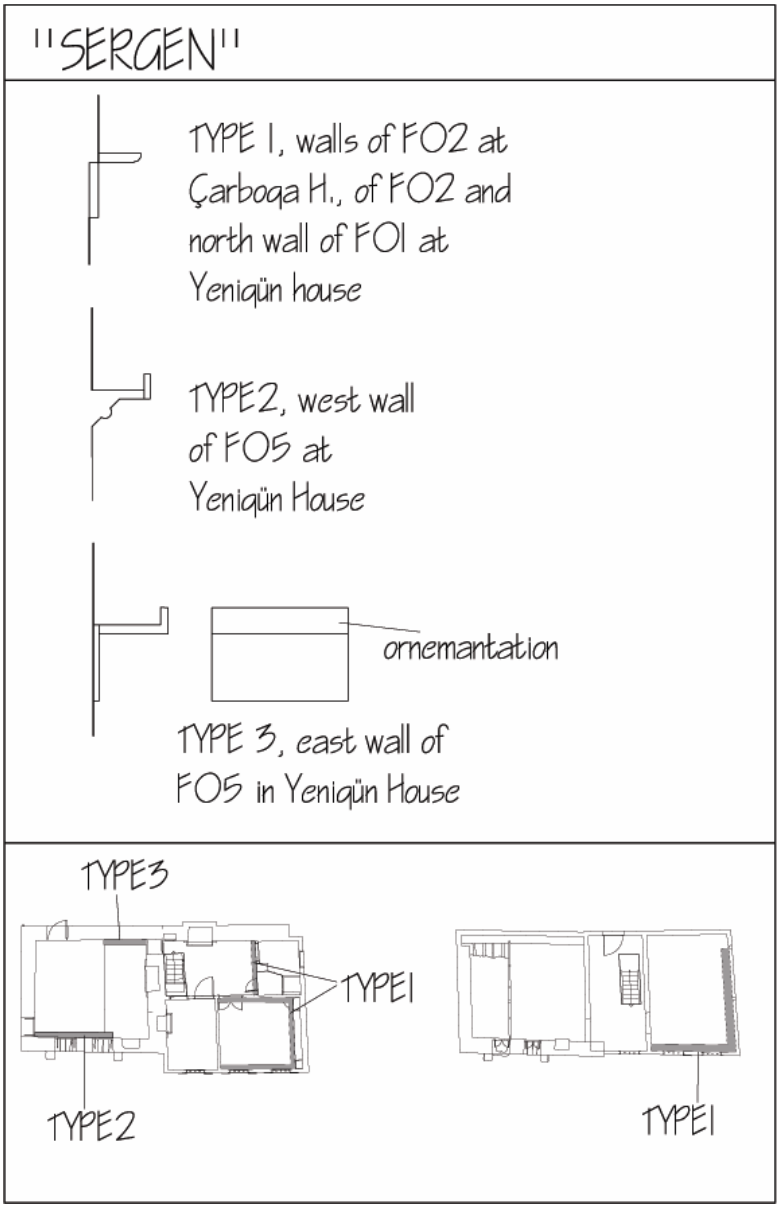
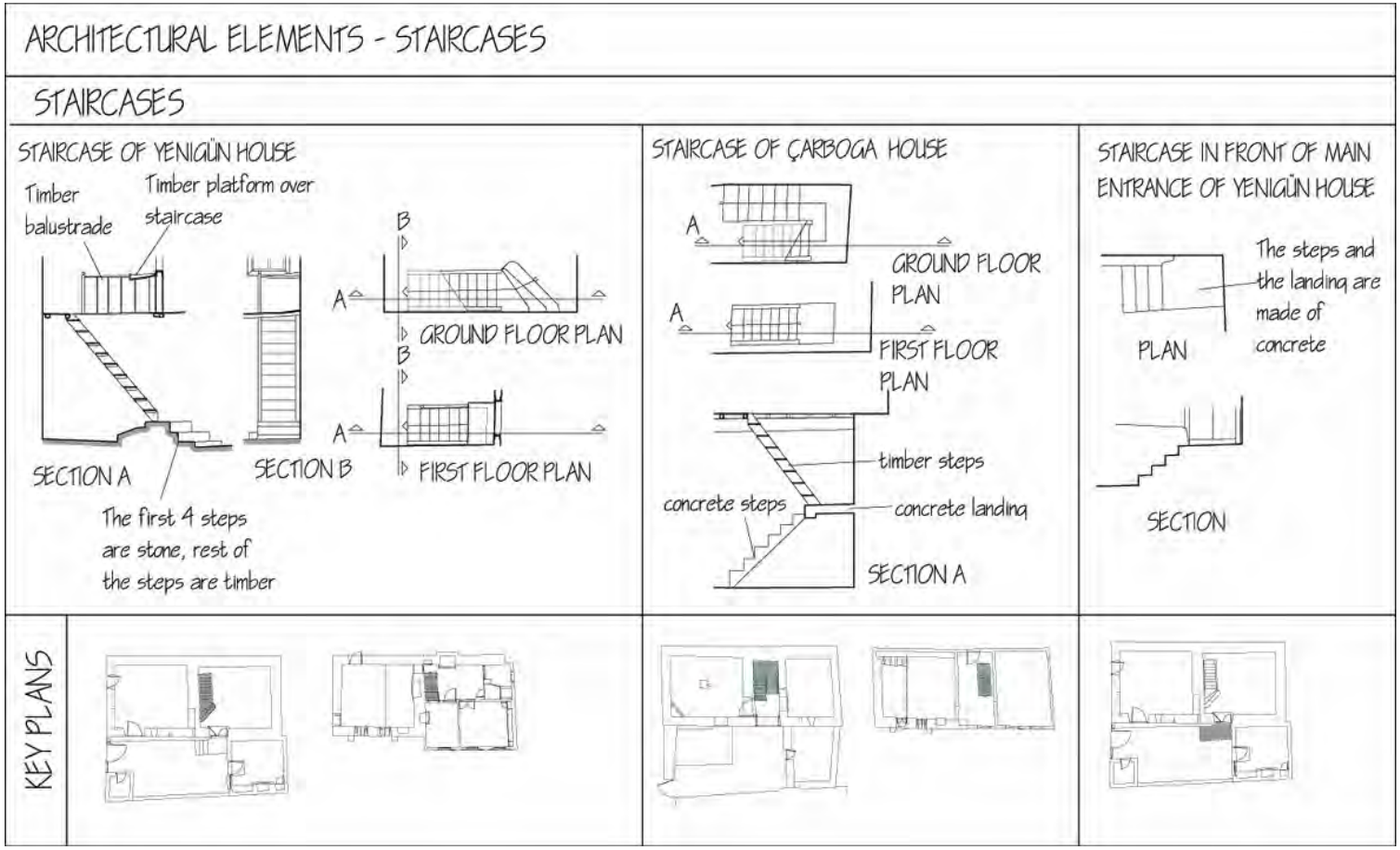


Table 3.9 Architectural elements, staircases



CHAPTER 4

ANALYSIS

4.1. CONSTRUCTION SYSTEM AND MATERIAL USE

The different various techniques and materials used in the construction of the houses were classified in order to understand the use of materials and to highlight the uniformity and diversities within the construction.

4.1.1. WALLS

4.1.1.1. STONE MASONRY WALLS

Three types of stone masonry walls were observed in the houses. All three types are in rubble stone but there are differences within the use of binding materials and finishing materials.

The first type (A1) is observed in courtyard walls and the walls of single floor service building (G03 space) in the courtyard of Çarboğa House. It is without binding material or finishing material. Timber lintels were observed in the fabric but they are irregular and are not continuous. (See figure 4.2)

In the second type (A2) cement mortar is used as binding material and it is without plaster. It is observed in the south wall of G02 space and in the stone masonry pillar in G03 space of Çarboğa House. (See figure 4.3).

The third type (A3) is rubble stone masonry wall with lime mortar and lime plaster, observed at ground floor and first floor walls of both houses. (See figures 4.4, 4.5)

Larger stones are used and the fabric is more rigid near the corners, the order diminishes towards the center of the wall.

Approximately 10cm by 10cm-wide holes placed horizontally and vertically within approx. 1m distances were observed in the fabric (probably utilized for scaffolding).

Timber and cement lintels are used above and below openings. On east elevations and on the east corner of the south elevation of Yenigün House the lintels above and below the windows form horizontal bands on the façade.

White wash is applied over the plaster. Texture is observed on east elevations over the plaster and whitewash.

4.1.1.2. BRICK MASONRY WALLS

There are two types of brick masonry walls observed in the houses. The first type (B1) is constructed with solid bricks measuring 8cm by 10cm by 20cm. It is observed on the walls of G03 and G04 spaces in the courtyard of Yenigün House. It is also observed in the jambs of altered doors in Yenigün House. (See figure 4.6)

The binding material is lime mortar and the finishing material is lime mortar. White wish is applied over the plaster.

The second type (B2) is observed in first floor walls of Çarboğa House. Between the stone masonry ground floor walls and the brick walls, cement lintels are placed. The binding material is cement mortar. The exterior faces of the west wall and the west corner of the south wall are covered with cement plaster. The interior faces and the other walls are left bare without finishing. (See figure 4.7)

4.1.1.3. TIMBER FRAME WALLS

Two types of timber frame walls were observed in the houses. In the first type (C1), the sides of studs and diagonals are covered with wood lath and lime plaster. There is no infill. The construction of the walls is observed through the deterioration of the plaster. It is best observed in the north wall of first floor of Çarboğa house. The studs have rectangular cross

sections of approx. 10cm by 15-cm. The wood lath has a rectangular cross-section of approx. 2cm by 6cm. (See figure 4.8)

The second type (C2) is observed on the first floor of Çarboğa House between F03 and F04 spaces. The studs are roughly shaped and they have circular cross sections. Reed sticks are nailed on north face of the wall

Instead of wood lath and they are covered with reed and lime plaster. The south face of the construction is left bare without wood lath or plaster. (See figure 4.9)

4.1.1.4. CONCRETE WALLS

At east elevation of both houses, a 20cm thick and approx. 1m high concrete wall is built in front of the stone masonry wall. (See figure 4.10)

4.1.2. FLOORS AND CEILINGS

4.1.2.1. FLOORS RESTING ON GROUND

The courtyard of Çarboga House is covered with earth without any paving. In front of the entrance door there are traces of stone steps. On the southeast corner of the courtyard there are rocks. Above the rocks a concrete floor is applied forming a platform of 2.5m by 3.70m. Rocks are observed also in G03 space in Çarboğa and G02 space of Yenigün Houses, where they alternate with slate stone paving. Especially the west walls of these spaces, which also serve as foundation walls, stand on rocky ground.

On the ground floor of Yenigün House and in the courtyard, screed is applied over slate stone paving, where the traces of the slate stone paving is visible beneath the screed. The floor of G03 space is covered with screed. (See figure 4.11, figure 4.12)

4.1.2.2 FIRST FLOOR FLOORS

The first floors are in timber. All the timber members are attached by nailing there are no joints. Three types of construction were observed.

In the first type (B1), secondary beams are placed over primary beams and they are covered with approx. 25cm by 2cm floorboards. Both the primary and secondary beams are roughly shaped with circular cross-sections.

It is observed in first floor of Yenigün House.

There are differences between the ceilings of G01 and G02 spaces. At G01 space there are 3 primary beams over which secondary beams are placed with approx. 40cm distance. In G02 there is a single primary beam over which secondary beams are placed with approx. 15-cm distance.

For the projection of Yenigün House, the primary beams on east elevation continue in the projection. On north elevation 3 additional, shorter primary beams are supported over the first primary beam to the north. (See figure 4.13).

The second type (B2) is observed on the floor of F01 and F02 spaces of Çarboğa House. These floors are recently altered. Finely shaped secondary beams of approx. 6cm by 10cm cross sections are supported over circular cross-sectioned primary beams. The floorboards have 10cm by 2cm cross-section. (See figure 4.14).

The third type (B3) is observed on the floors of F03 and F04 of Çarboğa House. The primary beams and secondary beams are similar to those of G02 space of Yenigün House. Roughly shaped secondary beams are placed with approx. 15-cm distance over a single primary beam. The primary beam is supported by the stone masonry pillar in the centre of the room. Over the secondary beams a bedding of timber pieces are placed over which a lime mortar finish is applied. (See figure 4.15)

4.1.2.3. CEILINGS BELOW ROOF CONSTRUCTION

Two types of ceiling cover is observed in the houses.

The first type (C1) is composed of finely shaped timber boards measuring 2cm by 25cm between the boards there are long narrow strips of wood. It is observed at the ceilings of F01, F02, F03 and F04 of Yenigün

House and in the ceiling of F03 at Çarboğa House. The narrow strips of wood in Yenigün House are 4cm, in Çarboğa House 9cm.

A centrally located decorative panel can be observed at the ceiling of F02 in Yenigün House. (See figure 4.16)

Roof construction above these ceilings could not be observed.

The second type (C2) is observed at the ceiling of G03 at Yenigün House. It is formed with plywood panels over which 2.5cm thick narrow strips of wood are nailed. (see figure 4.17)

4.1.3. ROOFS

The roof of Çarboğa House is recently altered. It has a gable roof with beams and rafters. The beams are roughly shaped with circular cross - sections. The rafters are finely shaped with rectangular cross sections of approx. 6cm by 10-cm. The eaves project 20cm to 40cm on the facades. On the north and east facades of F01 and F02, underneath the eaves are covered with wood lath and lime plaster. The wood lath is places so as to form a concave profile on the facade.

The roof is covered with over and under tiles. (See figure 4.18)

The roof of Yenigün House can only be observed in F05 space where the ceiling is missing and the roof itself has partially collapsed. It has a gable roof with roughly shaped beams and rafters. (See Figure 4.19)

Over the wc space (G04) of Yenigün House and G04 space in Çarboğa house there is a one way sloped roof with finely shaped rafters. (see figure 4.20)

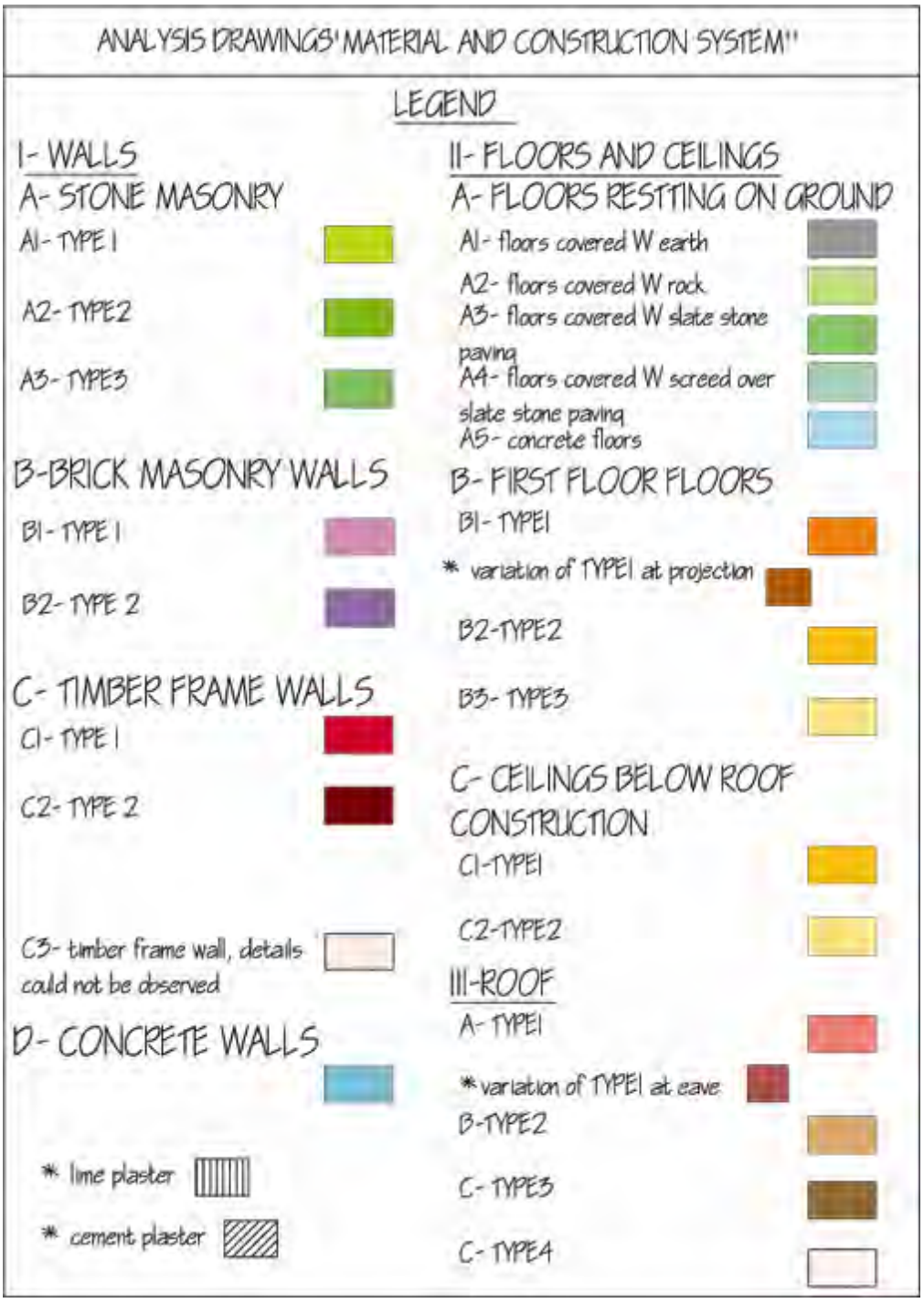


Figure 4.1 Material and construction system analysis legend

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

A - STONE MASONRY

A1 - Type 1

Rubble stone masonry wall without mortar or plaster.

Observed at courtyard walls, walls of single storey building in the courtyard of Çarboğa House.

Timber lintels and tie beams are observed in the fabric but they are irregularly placed and are not continuous.

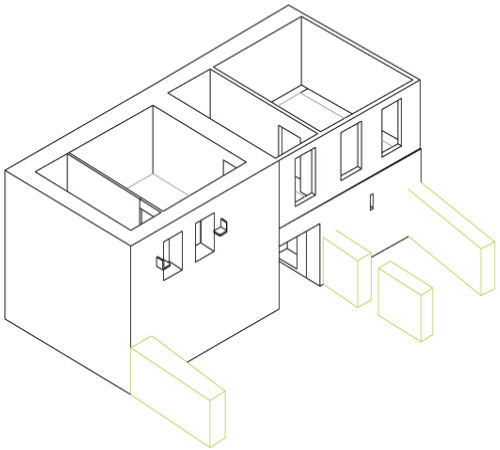


Figure 4.2 Material and construction system, stone masonry walls type 1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

A - STONE MASONRY

A2 - Type 2

Rubble stone masonry wall with cement mortar, without plaster.

Observed at ground floor wall of Çarboğa House. On the wall between G01 and G02 spaces and on the pillar at the center of G03 space.

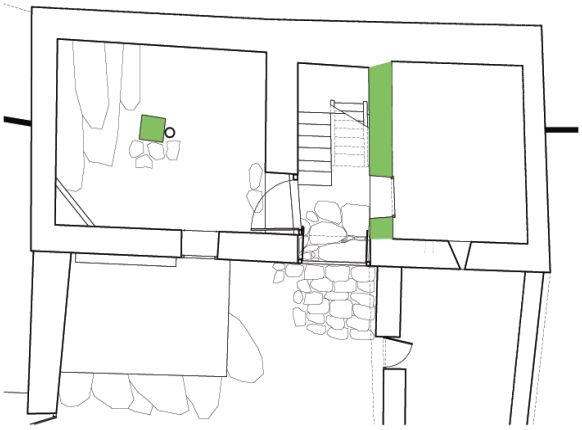


Figure 4.3 Material and construction system, stone masonry walls type 2

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS - a

A - STONE MASONRY

A3 - Type 3

Rubble stone masonry wall with with lime mortar, with lime plaster.

Observed at ground floor and first floor walls of Çarboğa and Yenigün Houses.

Figure 4.4 Material and construction system, stone masonry walls type 3

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

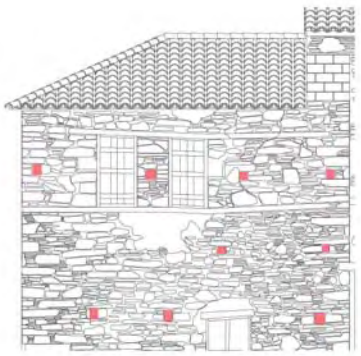
I- WALLS

A - STONE MASONRY

A3 - Type 3

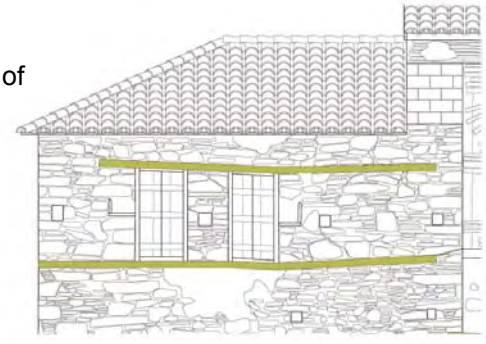
Rubble stone masonry wall with with lime mortar, with lime plaster.

Observed at ground floor and first floor walls of Çarboğa and Yenigün Houses.



Larger stones are used and the fabric is rigid at the corners. The order diminishes towards the center of the wall. App. 10cm by 10cm holes are located with app. 1m distance on the facades

Below and above openings bands of timber lintels are used.



Texture was observed on the plaster on exterior walls.

Figure 4.5 Material and construction system, stone masonry walls type 3 (continued)

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

B - BRİCK MASONRY WALLS

B1 - Type 1

Solid brick masonry wall with with lime mortar, with lime plaster.

Observed at walls of G03 and G04 spaces, courtyard wall, jambs of altered doors of Yenigün House

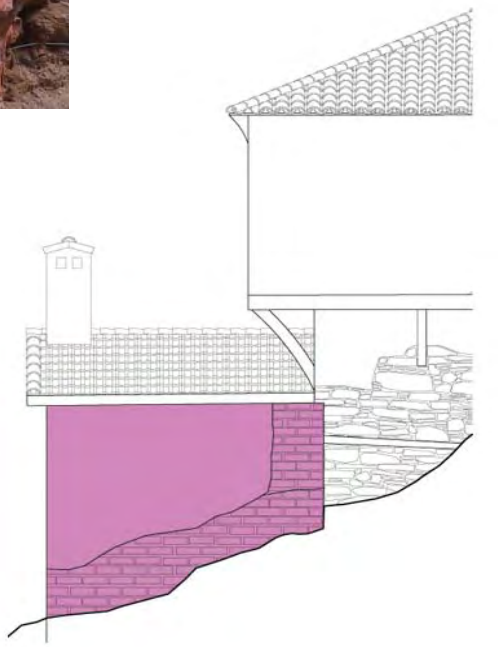


Figure 4.6 Material and construction system, brick masonry walls type1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

B - BRICK MASONRY WALLS

B2 - Type 2

Hollow brick masonry walls with with cement mortar, with cement plaster.

Observed at first floor walls of Çarboğa House

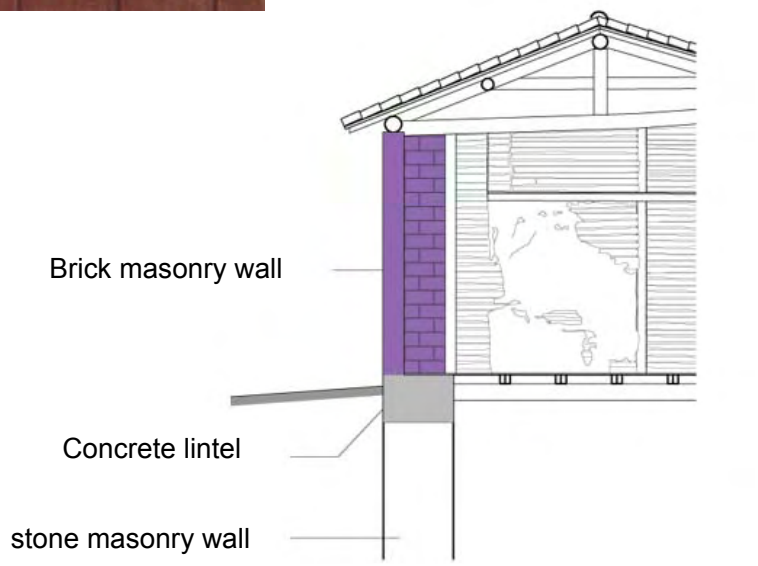


Figure 4.7 Material and construction system, brick masonry walls type 2

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

C - TIMBER FRAME WALLS

C1 - Type 1

Timber frame wall, without infill, with lime plaster on woodlath on both sides.

Observed at first floor walls of Yenigün and Çarboğa Houses

Woodlath has rectangular cross section. (app. 1cm by 4cm)

woodlath and plaster is applied on both sides of the wall.

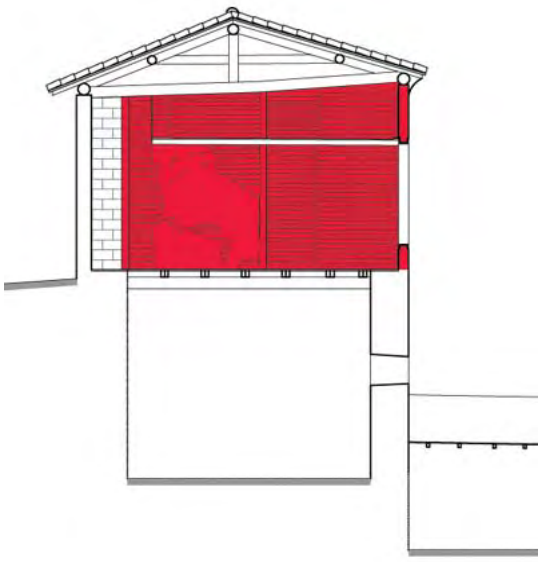


Figure 4.8 Material and construction system, timber frame walls type 1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

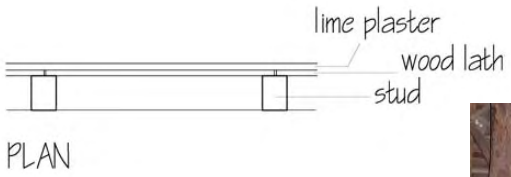
I- WALLS

C - TIMBER FRAME WALLS

C2 - Type 2

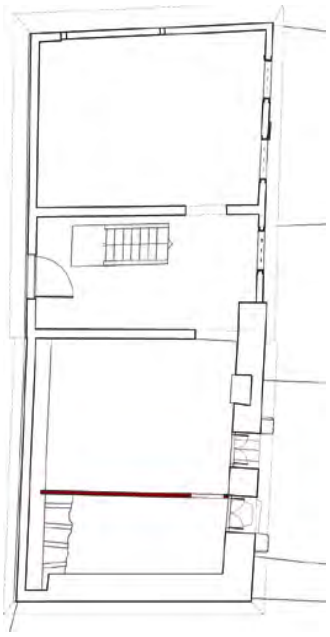
Timber frame wall, without infill, with lime plaster on woodlath on one side.

Observed at the wall between F03 and F04 spaces of Çarboğa House.



PLAN

Reed sticks with circular cross section are utilized for woodlath.



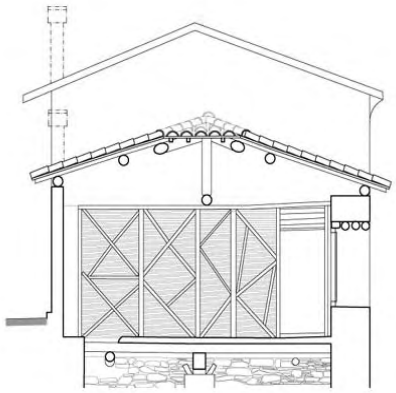


Figure 4.9 Material and construction system, timber frame walls type 2

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

I- WALLS

C - TIMBER FRAME WALLS

C3 - Type 3

Timber frame wall, with plaster on both sides. Details could not be observed.

I- WALLS

D - CONCRETE WALLS

At the east elevation of Çarboğa and Yenigün Houses a 20cm thick and 1m high concrete wall is attached to the stone masonry wall at ground level.

Figure 4.10 Material and construction system, timber frame walls type 3 and concrete walls

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

II - FLOORS AND CEILINGS

A - FLOORS RESTİNG ON GROUND

A1 - floors covered with earth

Observed at courtyard of Çarboğa House. No paving is applied the ground is left as it is.

A2 - floors covered with rock

Observed at courtyard of Çarboğa House and ground floor of both houses. At ground floors the rocks alternate with slate stone paving. Especially the west walls (which also serve as foundation walls) rest on rocks.

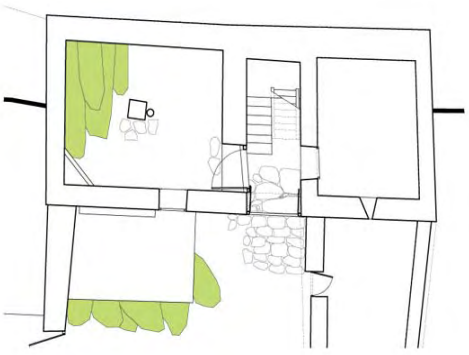


Figure 4.11 Material and construction system, floors resting on ground A1 – A2

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

II - FLOORS AND CEILINGS

A - FLOORS RESTİNG ON GROUND

A3 - floors covered with slate stone paving

Observed at ground floor of Yenigün and Çarboğa Houses.

A4 - floors covered with screed over slate stone paving.

Observed at ground floor and courtyard of Yenigün House. Traces of slate stone paving is visible below the screed.

A5 - Concrete floors

Observed at G02 space at ground floor of Çarboğa House; G03 and G04 spaces of Yenigün House.

Figure 4.12 Material and construction system, floors resting on ground A3 – A4 – A5

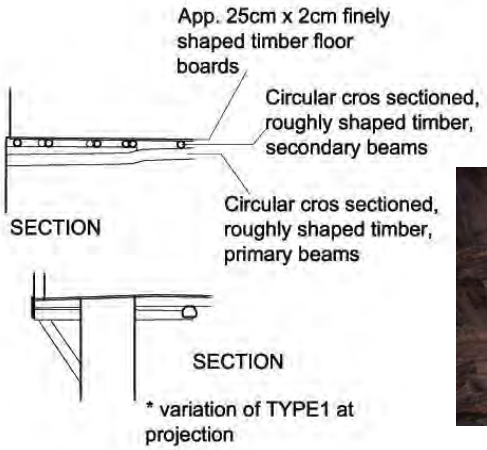
MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

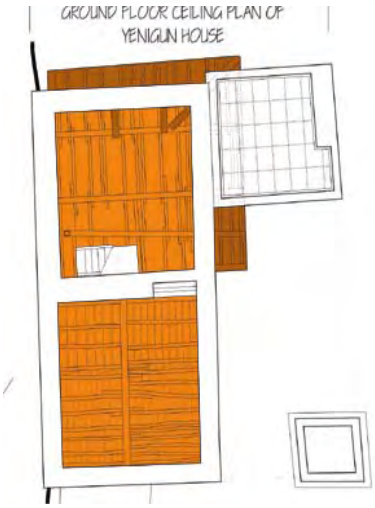
II - FLOORS AND CEILINGS

B - FIRST FLOOR FLOORS

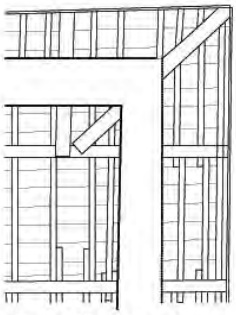
B1 - Type 1, timber floors with roughly shaped timber beams and floor boards

Observed at first floor floors of Yenigün House

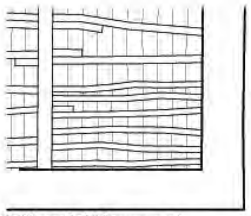




Floors of G01 and G02 are different. At G01, there are 3 primary beams over which secondary beams are placed with app. 40 cm distance. At G02, there is a single primary beam over which secondary beams are placed with app. 15 cm distance.



Ceiling of G01 space of Yenigün House



Ceiling of G02 space at yenigün House

Figure 4.13 Material and construction system, first floor floors type1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

II - FLOORS AND CEILINGS

B - FIRST FLOOR FLOORS

B2 - Type 2, timber floors with finely shaped timber beams and floor boards

Observed at floors of F01 and F02 spaces of Çarboğa House.

The floors are recently altered. There are circular sectioned primary beams and finely shaped secondary beams with rectangular cross section of app. 6 x 10 cm. The floor boards are app. 10 cm wide.

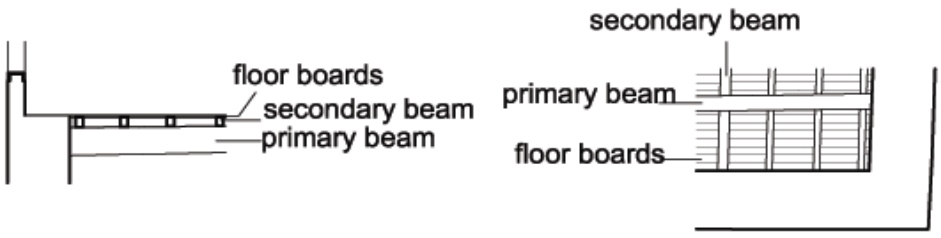


Figure 4.14 Material and construction system, first floor floors type2

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

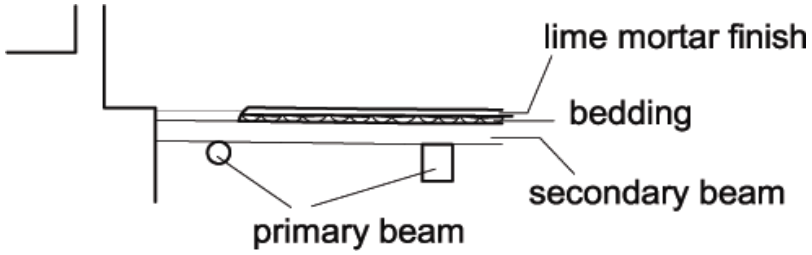
II - FLOORS AND CEILINGS

B - FIRST FLOOR FLOORS

B3 - Type 3, timber floor with roughly shaped timber beams lime mortar finish as floor finish

Observed at floors of F03 and F04 spaces of Çarboğa House.

There are roughly shaped primary and secondary beams with circular cross sections. Above the secondary beams a bedding of timber pieces is placed, over which lime mortar is applied as floor finish.



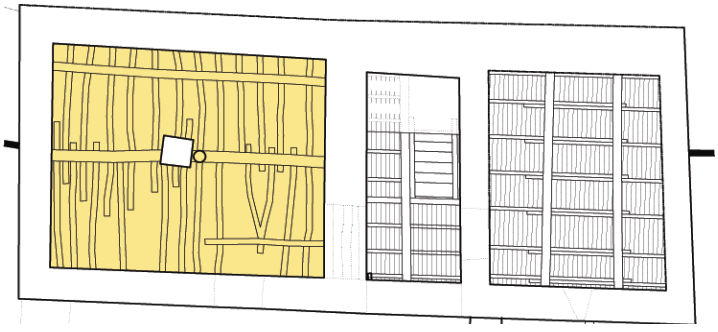


Figure 4.15 Material and construction system, first floor floors type3

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

II - FLOORS AND CEILINGS

C - CEILINGS BELOW ROOF CONSTRUCTION

C1 - Type 1, ceiling with finely shaped timber boards.

Observed at ceilings of F01, F02, F03 F04 of Yenigün House and F03 of Çarboğa House. Roof construction above these ceilings could not be observed.

Roof construction above these ceilings could not be observed

Ceiling boards are app. 25cm x 2cm. The laths between the boards are 4cm wide at Yenigün House, 9 cm at Çarboga House

A centrally located decorative panel can be observed at ceiling of F02 of Yenigün House

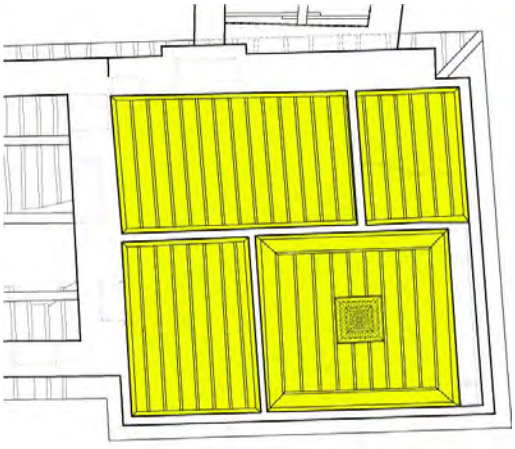


Figure 4.16 Material and construction system, ceilings below roof construction type1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

II - FLOORS AND CEILINGS

C - CEILINGS BELOW ROOF CONSTRUCTION

C2 - Type 2, ceiling with plywood sheets.

Observed at ceiling of G03 space of Yenigün house

Figure 4.17 Material and construction system, ceilings below roof construction type 2

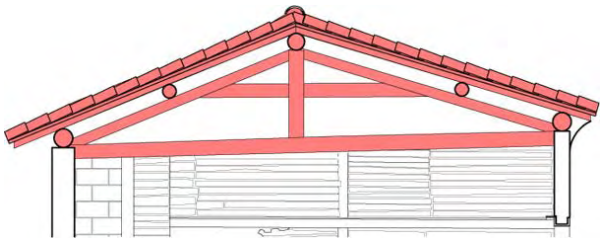
MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

III - ROOF

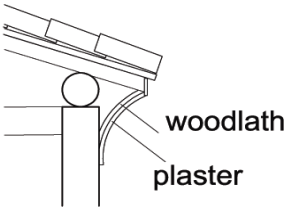
A - Type 1, gable roof with finely shaped timber beams and rafters

Observed at roof of Çarboğa House.

The roof has been recently repaired. The Beams are roughly shaped circular sectioned timber. The rafters are finely shaped timber with app. 6cm x 10cm rectangular section.



variation of TYPE1 at eave



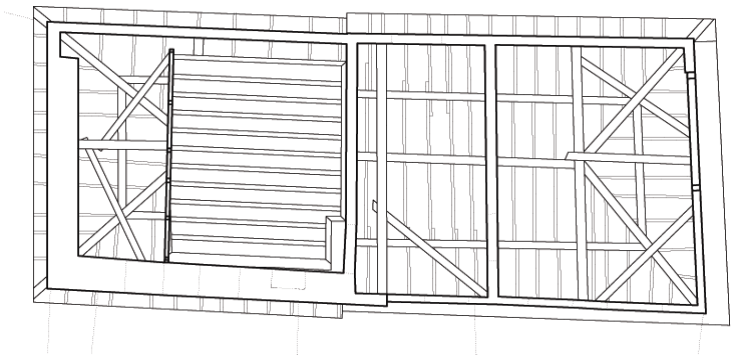


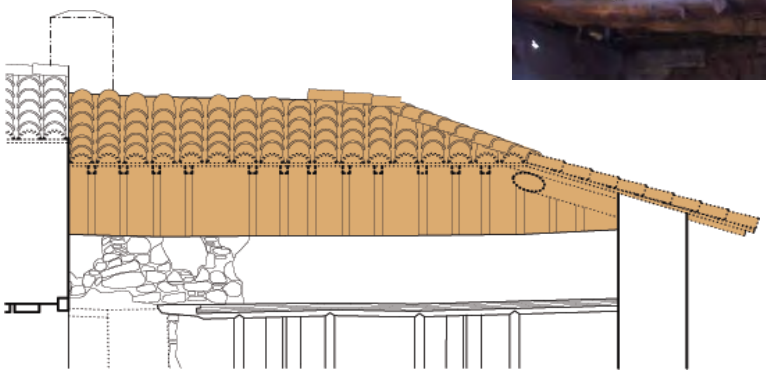
Figure 4.18 Material and construction system, roof type 1

MATERIAL AND CONSTRUCTION SYSTEM ANALYSIS

III - ROOF

B - Type 2, gable roof with finely shaped timber beams and rafters

Observed at roof of Yenigün House over G05 space.



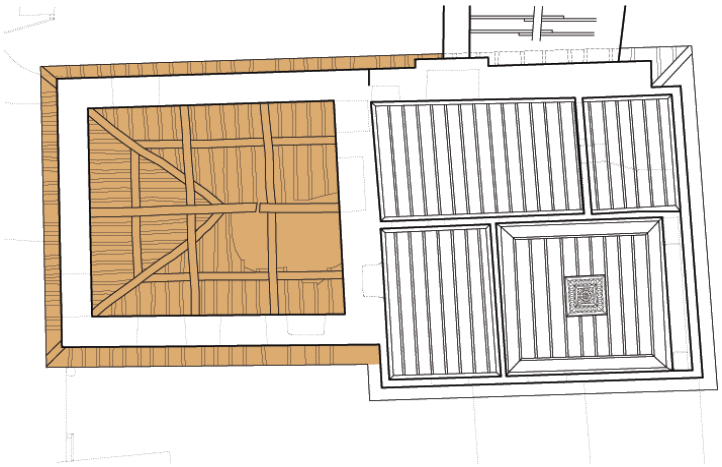


Figure 4.19 Material and construction system, roof type 2

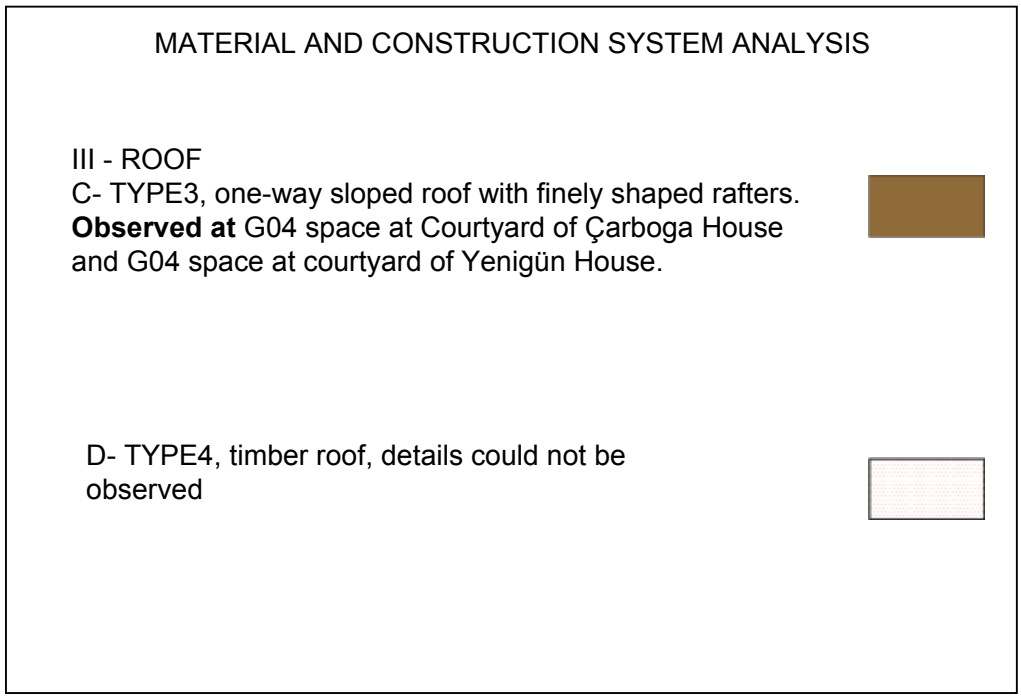


Figure 4.20 Material and Construction System, Roof Type 3 - 4

Figure 4.21 Mapping of material and construction systems on plan at +1.00

Figure 4.22 Mapping of material and construction systems on ceiling plan at +1.00

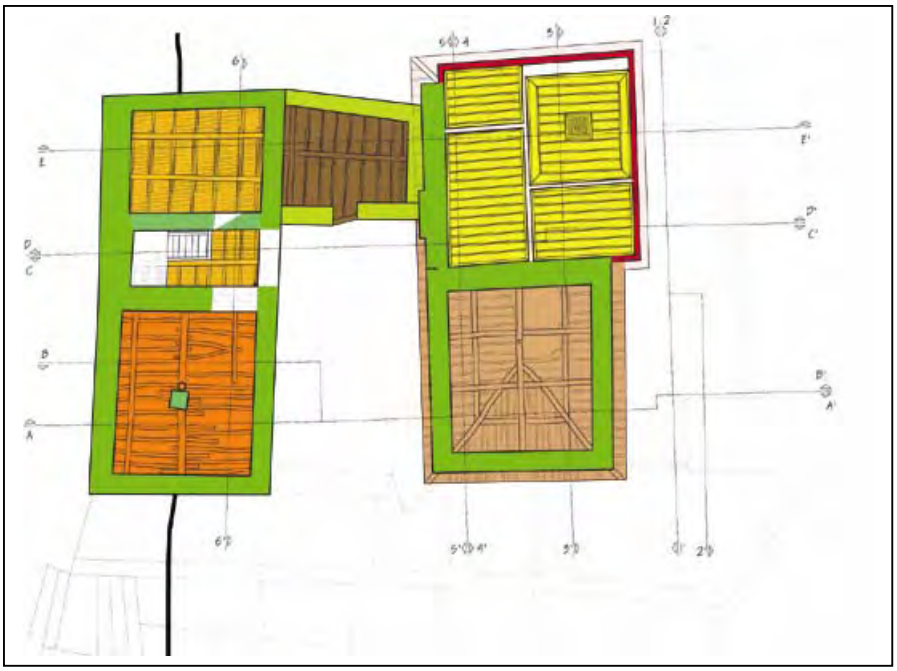


Figure 4.23 Mapping of material and construction systems on ceiling plan at +4.00

Figure 4.24 Mapping of material and construction systems on plan at +4.00

Figure 4.25 Mapping of material and construction systems on ceiling plan at +7.00

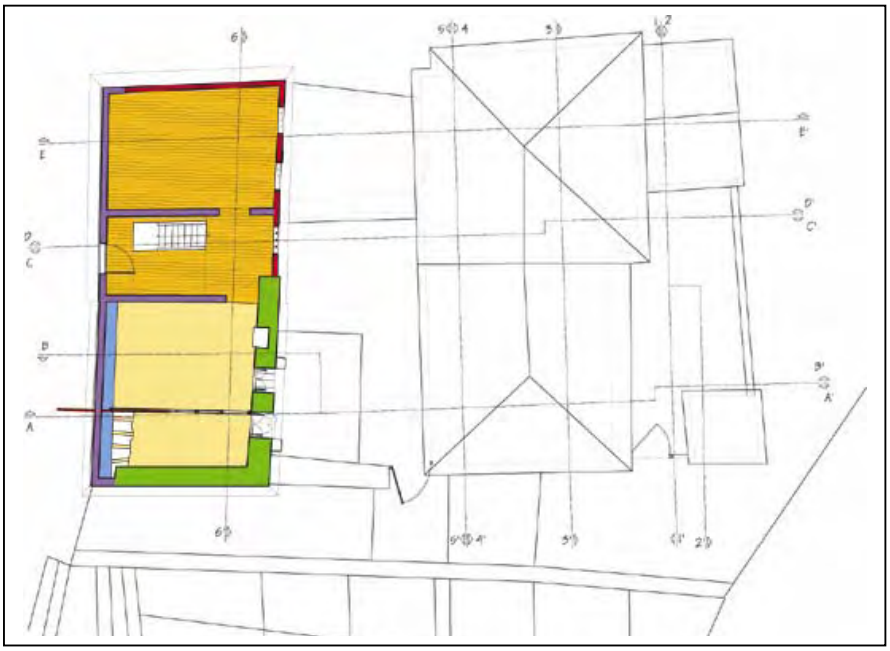


Figure 4.26 Mapping of material and construction systems on plan at +7.00

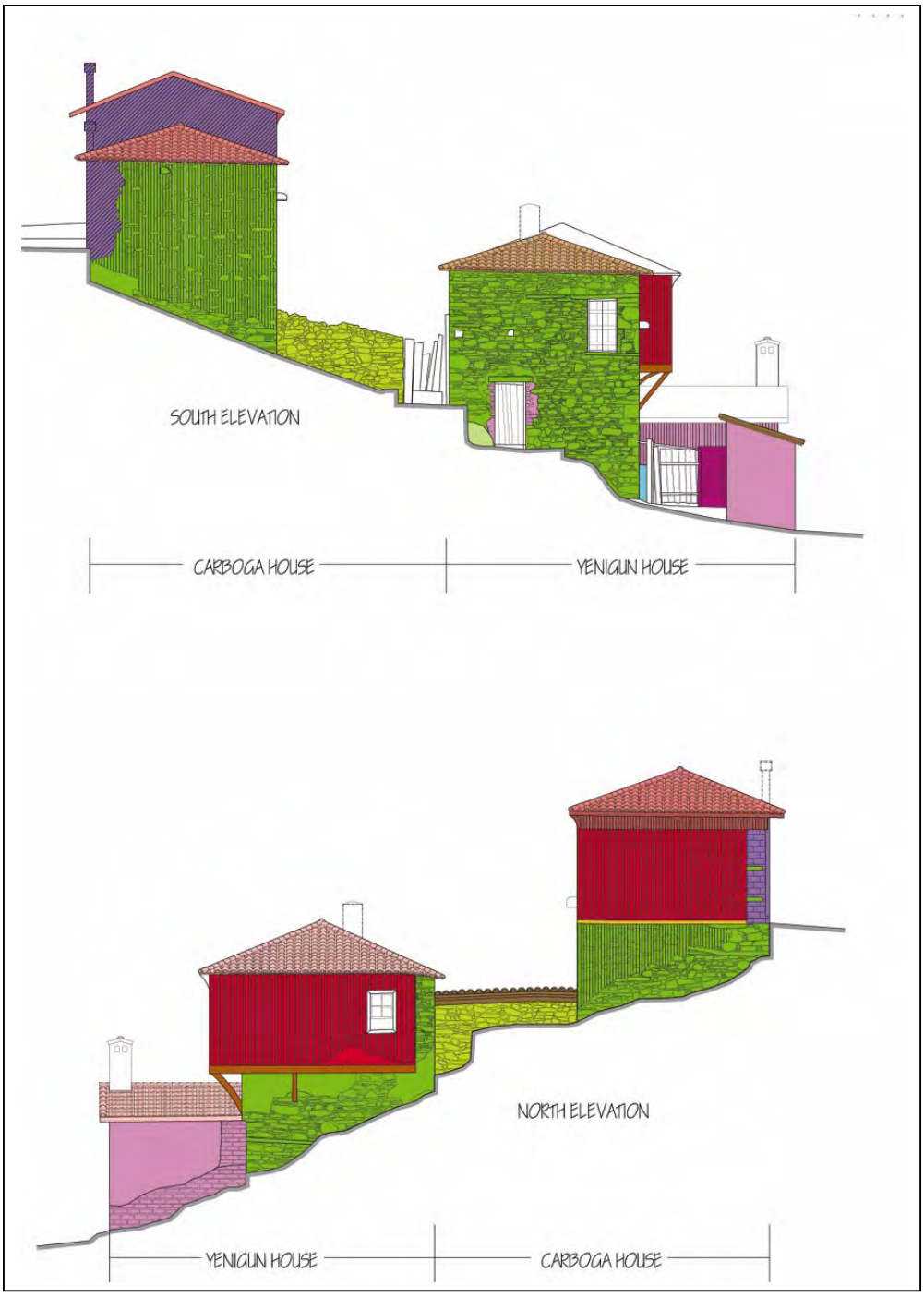


Figure 4.27 Mapping of material and cconstruction systems on elevations

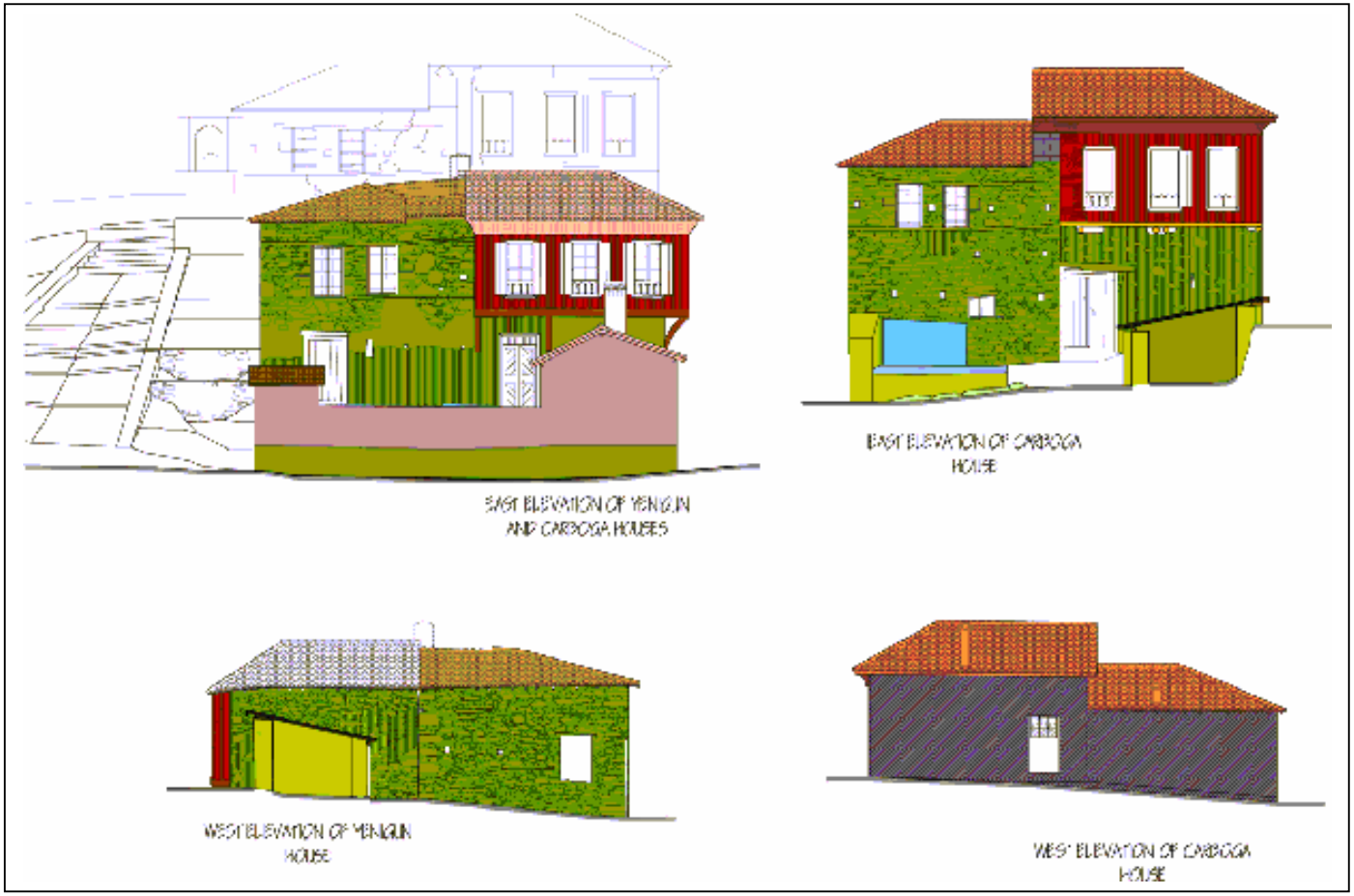


Figure 4.28 Mapping of material and construction systems on elevations

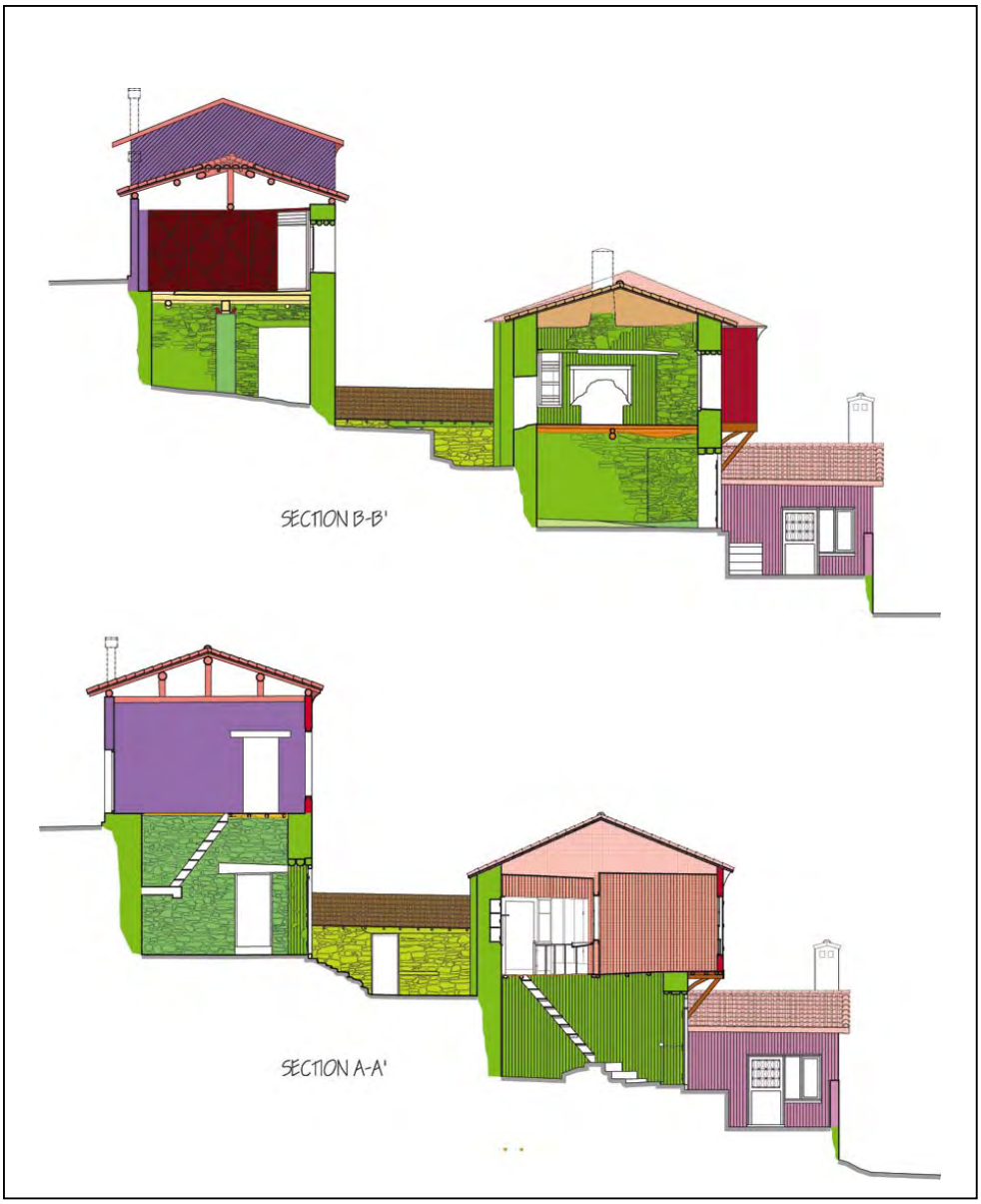


Figure 4.29 Mapping of material and construction systems on sections

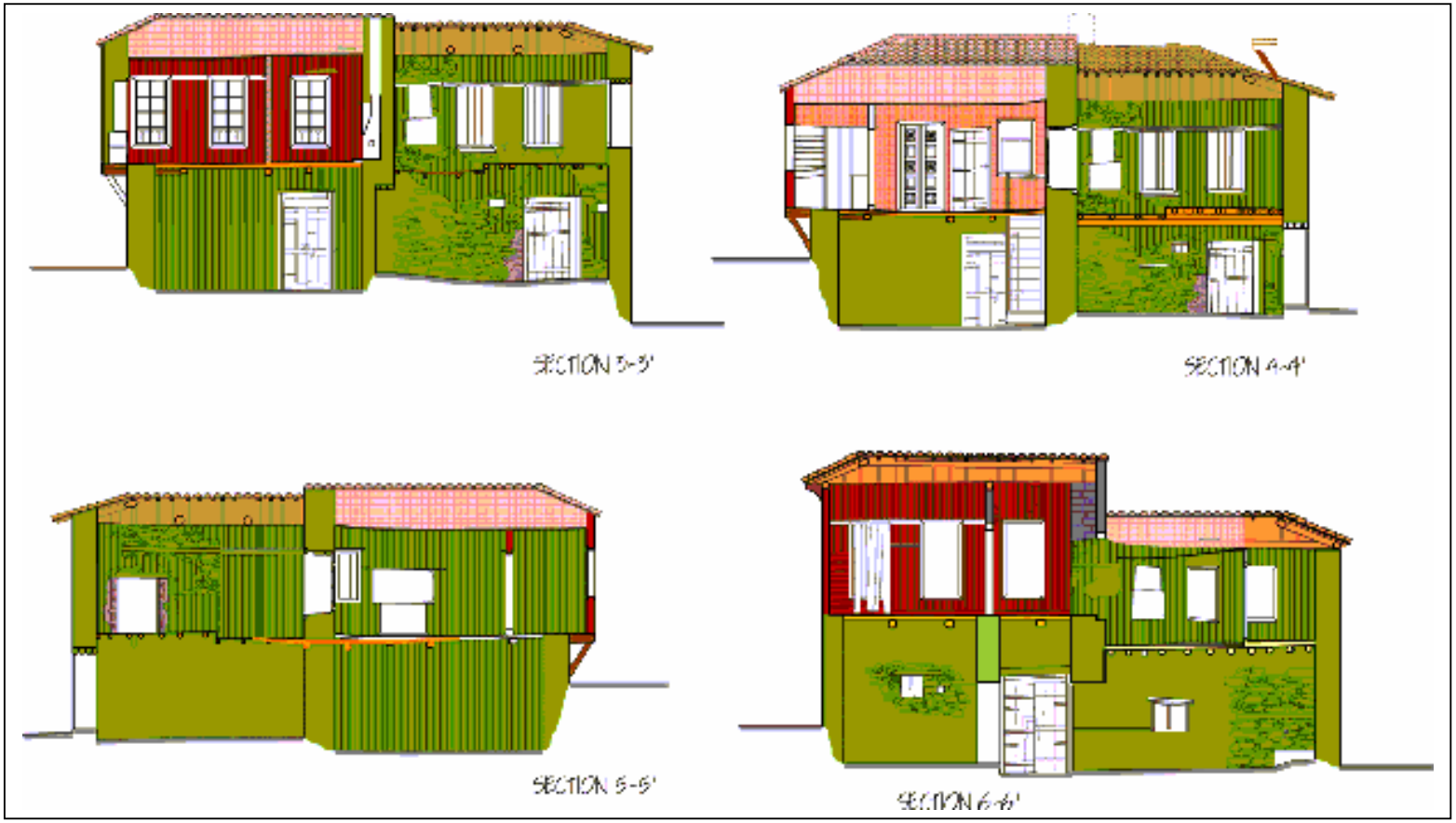


Figure 4.30 Mapping of material and construction systems on sections

4.2. MATERIAL AND STRUCTURAL PROBLEMS

4.2.1. MATERIAL PROBLEMS

4.2.1.1. PROBLEMS IN STONE MASONRY WALLS

Stone masonry walls Type 1 and Type 2 are in good condition.

The problems in stone masonry walls Type 3 were observed in 4 stages.

The first stage is the problems observed on the plaster. The second stage is the disintegration of the mortars in the joints; the third is the loss of jointing mortar (empty joints); and the fourth is the erosion of the stones. (See figure 4.31).

On east facades of both houses disintegration of mortar is observed on south mass, between the eave and the windows. At Çarboğa House the same problem is seen also near the ground level, over the concrete platform. At Yenigün House, on the part of the eave where the roof has partially collapsed empty joints can be observed together with cracks on the wall surface.

On the south elevation of Yenigün House the plaster is totally missing and there is disintegration of the mortar on the whole façade. On the higher east corner of the façade between the eave and the window there are empty joints. To the east of the window there is erosion of stones and missing stones on the wall.

On west elevation of Yenigün House, plaster remains only at central part of the north mass. There is disintegration of mortar all through the façade. At the lower parts of the wall there are also empty joints. On the south mass empty joints are seen also near the eaves.

On the north elevations, starting from the ground level deterioration is seen in stages. Lower parts are more deteriorated and empty joints can be seen. On Yenigün House near the ground level erosion of stone can also be seen. On the upper parts of the masonry walls the plaster still remains.

On interior spaces, disintegration of mortar is seen in F05 and G02 spaces of Yenigün House on the east wall and on northeast corner over which the roof has collapsed.

As a result the problems on masonry walls are seen near the ground level and near the eaves especially where the eaves are damaged and therefore they are probably caused by humidity problems like rainwater penetration and rising dampness.

4.2.1.2. PROBLEMS IN BRICK MASONRY WALLS

On Brick masonry walls Type 1, material problems can be observed in 3 stages. The first stage is the problems in plaster. The second stage is the disintegration of binding mortar and the third stage is the erosion of bricks. (See figure 4.32).

On the north wall of G03 space of Yenigün House, there is disintegration of mortar between the bricks. On the higher part of the wall there is also erosion of brick.

On the jamb of the door on south façade of Yenigün House there is erosion of bricks.

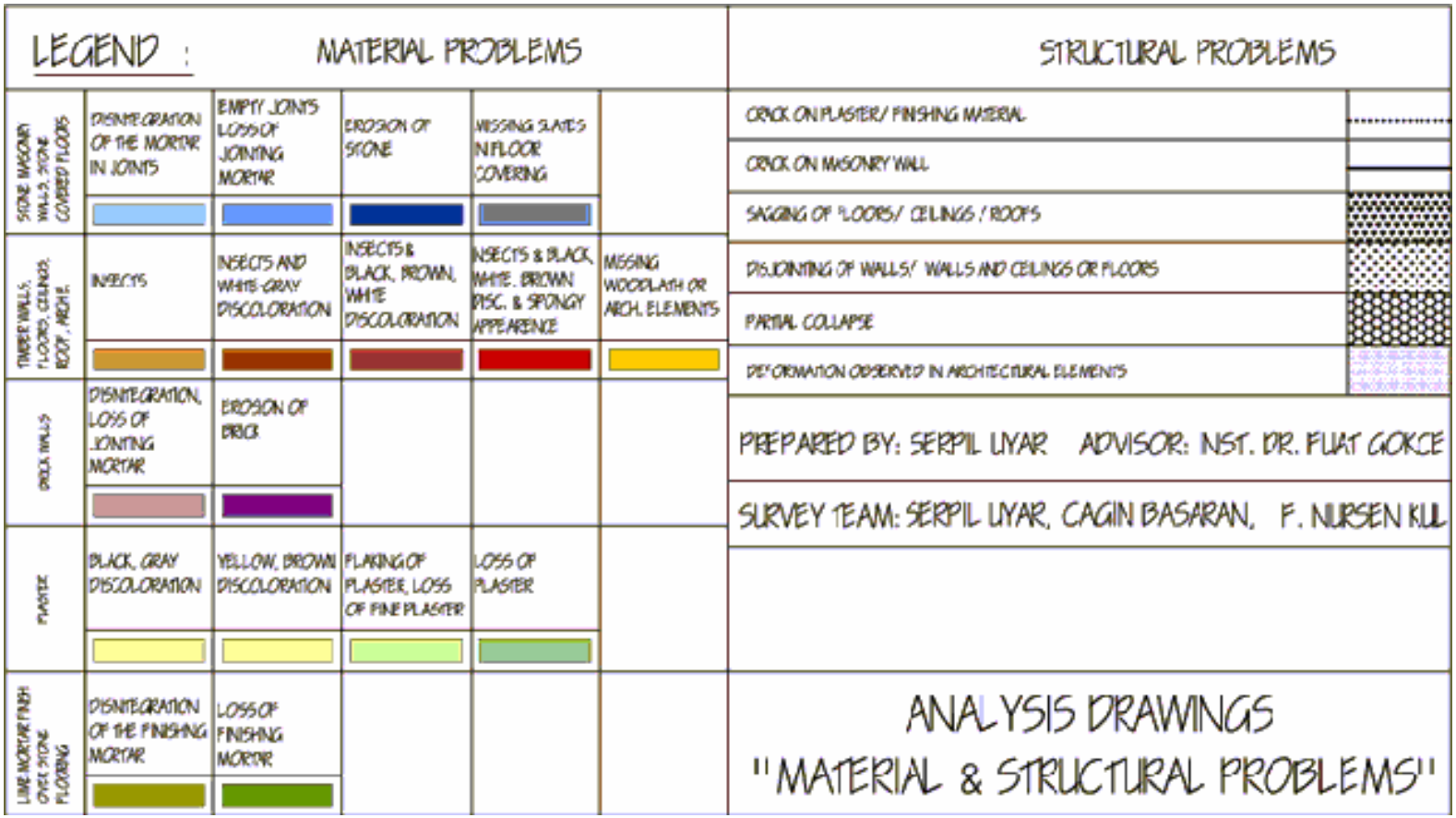
Brick masonry walls type 2 are in good condition.

4.2.1.3. PROBLEMS IN TIMBER FRAME WALLS

The problems on timber frame walls Type 1 are seen in 4 stages. The first stage is the problems with plaster. (see below). The second stage is the presence of termites. The third stage is the presence of termites together with white / grey or brown discoloration on timber elements. The fourth stage is missing wood-lath on wall construction. (See figure 4.33).

Timber frame walls type 2 are in good condition.

Table 4.1 Legend of material and structural problems



MATERIAL AND STRUCTURAL PROBLEMS

MATERIAL PROBLEMS

PROBLEMS IN STONE MASONRY WALLS

Problems ın stone masonry walls type 3

Figure 4.32 Material problems in stone masonry walls

MATERIAL AND STRUCTURAL PROBLEMS

MATERIAL PROBLEMS

PROBLEMS IN BRICK MASONRY WALLS

Problems ın brick masonry walls type 1

Figure 4.32 Material problems on brick masonry walls

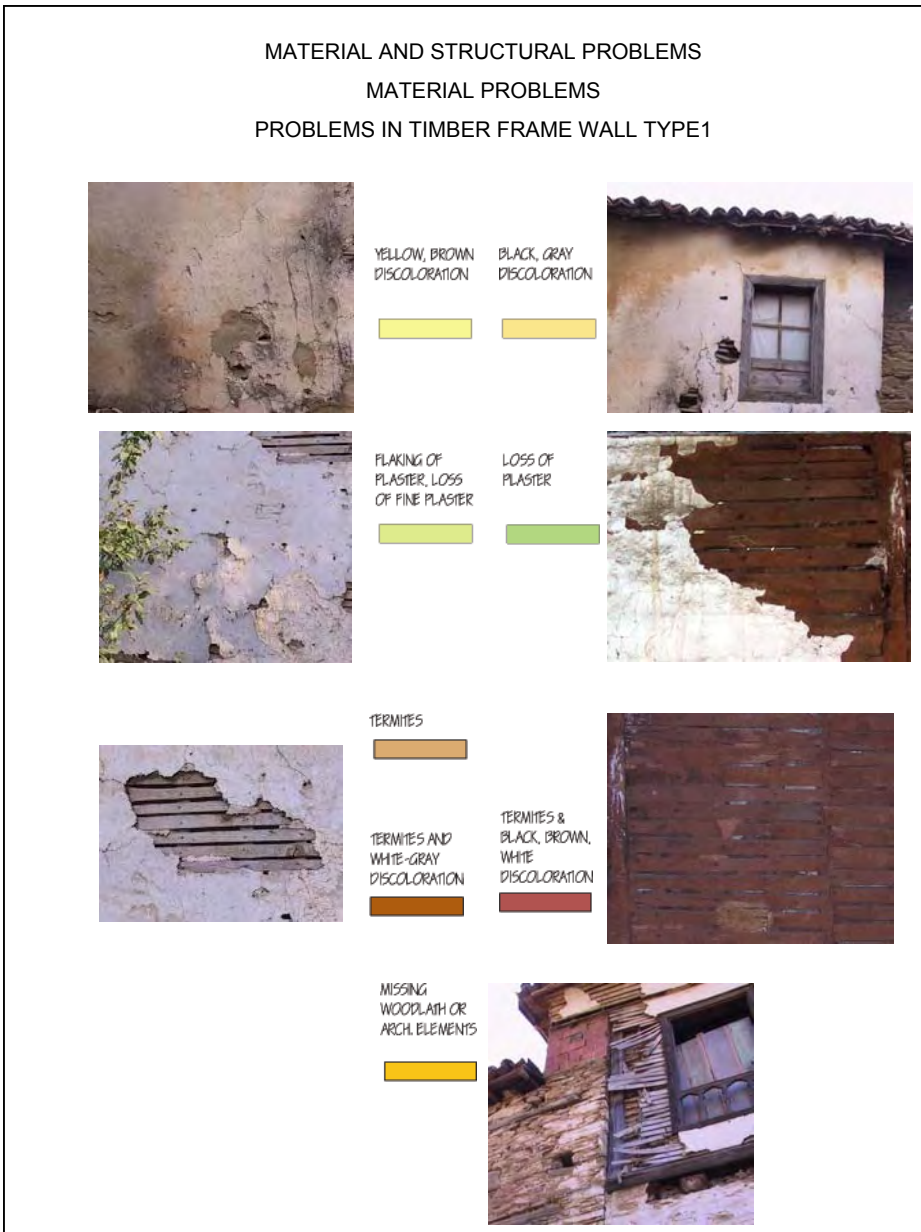


Figure 4.33 Material problems on timber frame walls

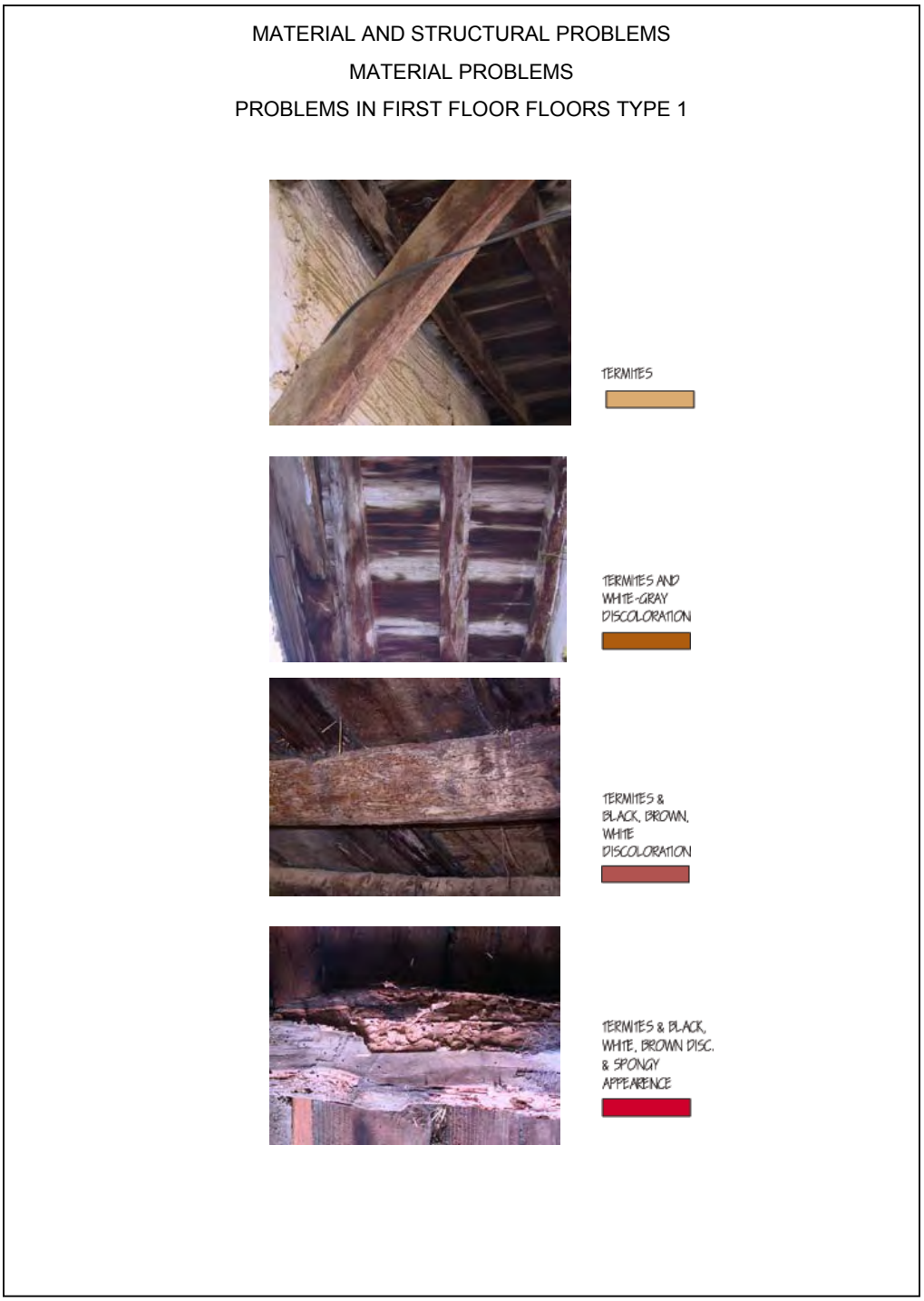


Figure 4.34 Material problems in first floor floors type1

MATERIAL AND STRUCTURAL PROBLEMS

MATERIAL PROBLEMS

PROBLEMS IN FIRST FLOOR FLOORS TYPE 3

TERMITES & BLACK, BROWN, WHITE DISCOLORATION

DISINTEGRATION OF THE FINISHING MORTAR

LOSS OF FINISHING MORTAR

4.2.1.4. PROBLEMS IN FIRST FLOOR CEILINGS

TERMITES

TERMITES & BLACK, BROWN, WHITE DISCOLORATION

Figure 4.35 Material problems in first floor floors type 3 and first floor ceilings

4.2.1.4. PROBLEMS IN FLOORS RESTING ON GROUND

Floors covered with earth are in good condition.

Floors covered with rock are in good condition.

On floors covered with slate stone paving many of the slate stones are missing.

On floors covered with screed over slate stone paving, the screed is missing at some parts and slate stone covering can be observed from below.

The floors covered with screed are in good condition.

4.2.1.5. PROBLEMS IN FIRST FLOOR FLOORS

The deterioration in the first floor floor type 1 is seen in four stages. The first is the presence of termites. The second is the presence of termites together with white-grey discoloration, the third is termites together with black brown and white discoloration and the fourth is termites together with black, white brown discoloration and spongy appearance. (See figure 4.34).

Timber floors type 2 are in good condition.

Two stages of deterioration are observed on timber floors type 3. The first is the presence of termites together with black brown and white discoloration. The second stage is the disintegration of mortar finish over floor construction. The mortar finish over floor construction in F03 space is missing and disintegrated at the part near the west wall. (See figure 4.35)

4.2.1.6. PROBLEMS IN CEILINGS BELOW ROOF CONSTRUCTION

On ceilings below roof construction problems are observed in two stages. The first stage is the presence of termites. The second is the presence of termites together with black brown and white discoloration. (See figure 4.35)

Ceilings below roof construction type 2 are in good condition.

4.2.1.7. PROBLEMS IN ROOF CONSTRUCTION

Roof type 1 is in good condition.

Roof type 1 can be observed above F05 space in Yenigün House where the ceiling cover is missing. On this construction the presence of termites together with black, brown and white discoloration and spongy appearance can be observed. These problems are accompanied with serious structural problems as the north east corner of the roof has collapsed. (See figure 4.35)

4.2.1.8. PROBLEMS IN PLASTER

The deterioration of plaster is seen two stages: Discoloration and material loss.

Two types of discoloration can be observed that are black, grey discoloration and yellow brown discoloration.

Black grey discoloration was observed on the north wall of F05 space near the fireplace; on the interior south corner of the east courtyard wall; on the north façade near the window of F04 space of Yenigün House and on the east elevation of Çarboğa house below the slit window. The discoloration near the fireplace is probably caused by fumes from the fireplace. The other problems are probably caused by bio degradation since they are near sources of humidity. Near the courtyard wall there is a water tap. F04 space is used as kitchen and bath.

Yellow brown discoloration was observed on the north wall of Yenigün House below the eaves and on the walls of F05 space. It is probably caused by the water dissolving the sand in the plaster since it is seen on the walls washed by water.

Material loss in plaster is seen in 2 stages. The first one is the disintegration and flaking of plaster and loss of fine plaster. The second one is the loss of coarse plaster.

On west elevation and south elevation of Yenigün House and on north mass of east elevation, on south mass of east elevation and interior

walls of ground floor of Çarboğa House there is total loss of plaster. On lower parts of north elevation of both houses, the plaster is again totally missing, on upper parts there is flaking of plaster or loss of fine plaster. In G02 space of Yenigün House plaster remains on upper parts of south and east walls where flaking and loss of fine plaster can be observed. In F02 space and F03 space of Çarboğa House and in F05 space of Yenigün house plaster is partially missing and there is flaking of plaster on the plaster that remains.

The plaster in the interior walls of south mass of Yenigün House is intact. The walls have thickened with the use of layer after layer of white wash within years.

On the north masses of east elevations and on south elevation of Çarboğa House plaster is intact and in good condition. Whitewash is applied over the plaster and texture is applied on the surface of the wall.

4.2.1.9. PROBLEMS IN ARCHITECTURAL ELEMENTS

In the entire timber elements termite holes were observed. The second-degree deterioration together with white - grey discoloration was observed on timber elements exposed to radiation on outer facades.

The third degree deterioration is observed on the doors on east façade, staircase, the eaves in north facade in Yenigün House and the window of F03.

4.2.2. STRUCTURAL PROBLEMS

The structural problems in the buildings were studied under the headings of:

Cracks on plaster/ finishing material, cracks on masonry wall, sagging of floors/ ceilings/ roofs, disjointing of walls/ walls and ceilings or floors, partial collapse, deformation observed in architectural elements. (See figure 4.37).

Cracks on plaster/ finishing materials were observed on timber frame walls on north elevations, on the south elevation of Çarboğa House, in

Yenigün House F03 space on south wall there is a vertical crack on plaster that corresponds to the corner of the projection. There are also some cracks on the plaster on F05 space around the opening on west wall where the brick wall meets the stone masonry wall.

Cracks on masonry walls were observed in Yenigün house on upper north corner of south mass of east elevation below the part of the eave where the roof has collapsed; on south elevation, to the east of the window; on the west elevation below the eave at the centre of the façade, where the empty joints phenomenon is dominantly observed; and on the north wall of F05 space at the part of the wall that correspond to the fireplace in F03 space.

In Çarboğa House they are observed on the south mass of east elevation between the eave and the windows.

Sagging is observed on the roof of Yenigün House in south and north masses. The first floor of south mass has also sagged. Especially the northeast corner of the floor of F05 space is about to collapse.

Disjointing of walls is seen in Yenigün House on the east corner of north wall of F05 space. The stone masonry wall corresponding to the fire place on F03 space is separated from the east wall and the rest of the north wall with a regular vertical joint, without continuity and jointing in the wall fabric. There is disjointing of walls where this wall meets the adjoining walls. Also on the east elevation of Çarboğa House where the stonewall meets the brick wall at F01 space there is disjointing of walls. The ceiling of F03 space of Çarboğa house is also disjointed from the east and north wall and is supported by timber posts.

Partial collapse is observed on the roof of south mass in Yenigün House.

Deformation of architectural elements is observed in doors on east elevations (D1a, D1b, D2a) and doors on first floor of Yenigün House (D5, D6), window of F03 space of Çarboğa House (W2) and in the service wall of F02 space in Yenigün House.

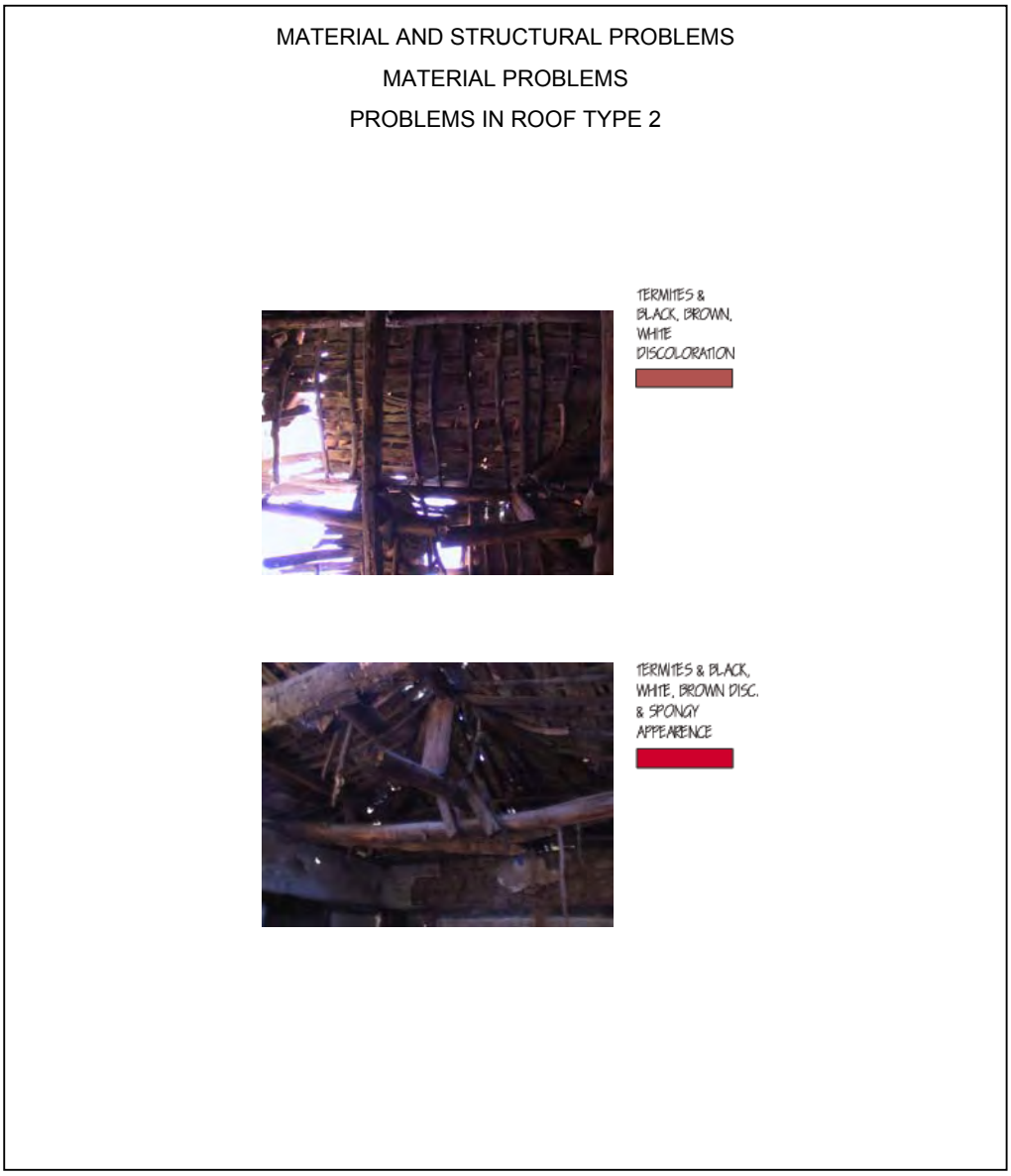


Figure 4.36 Material problems in roof type 2

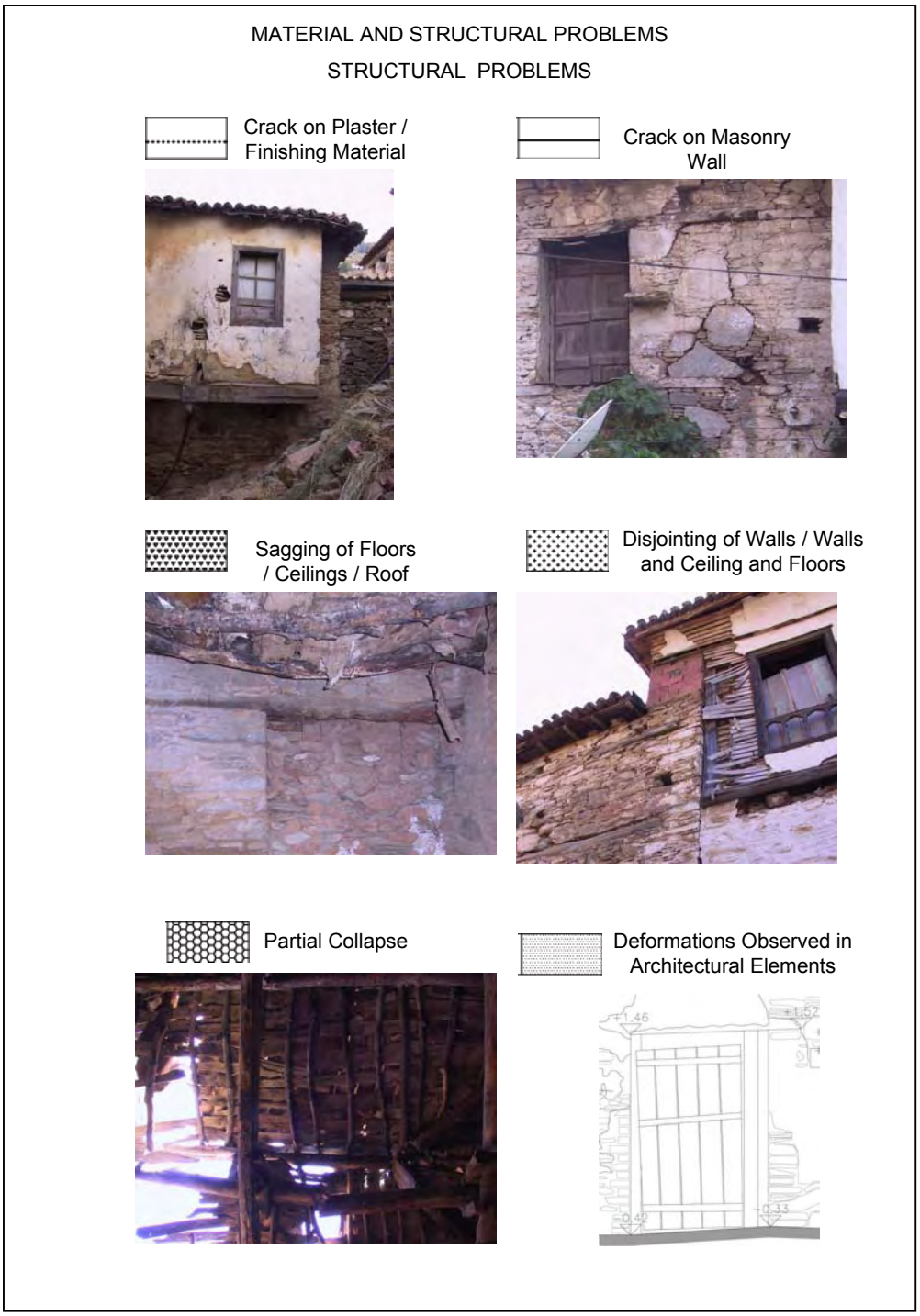


Figure 4.37 Structural problems

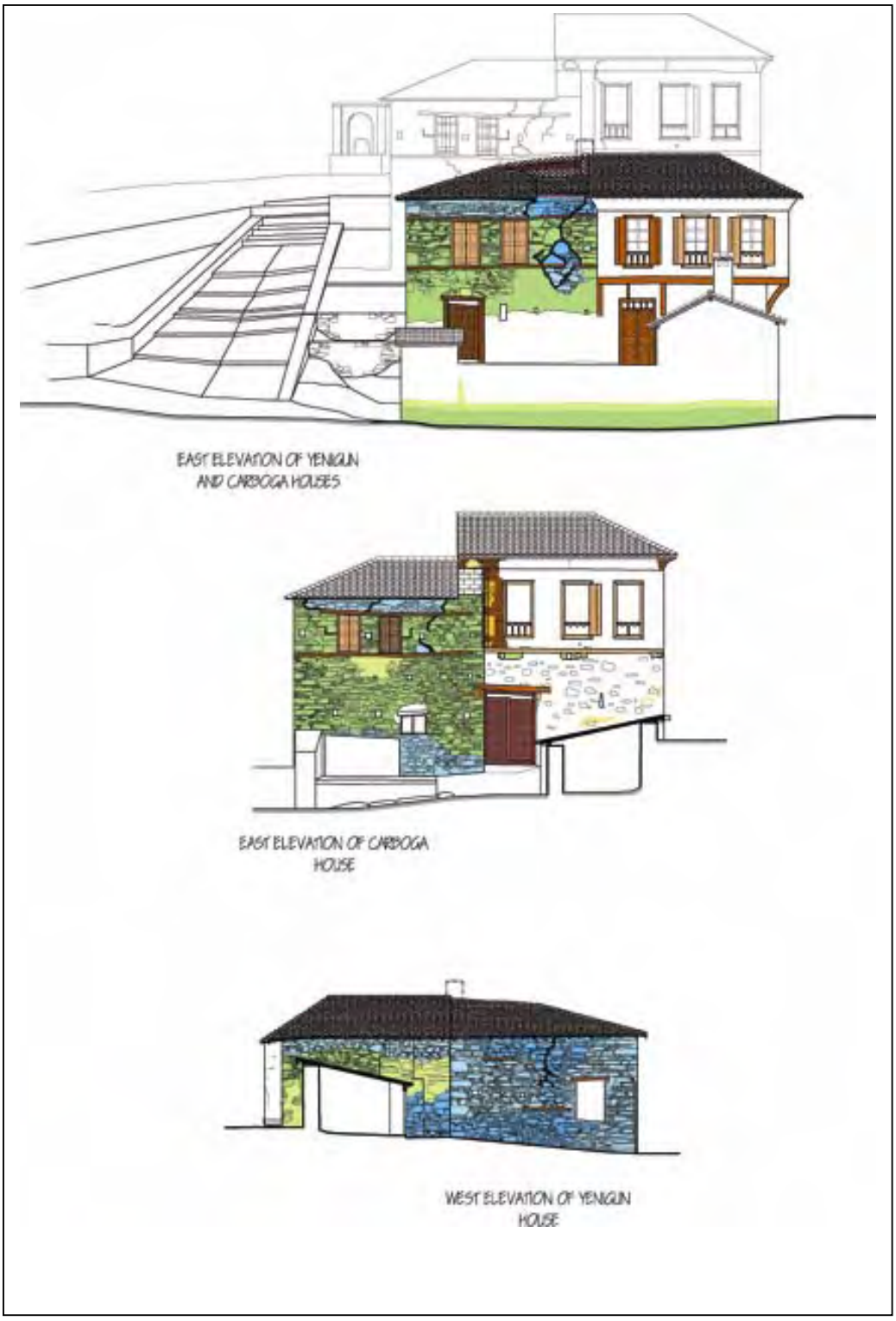


Figure 4.38 Mapping of material and structural problems on elevations

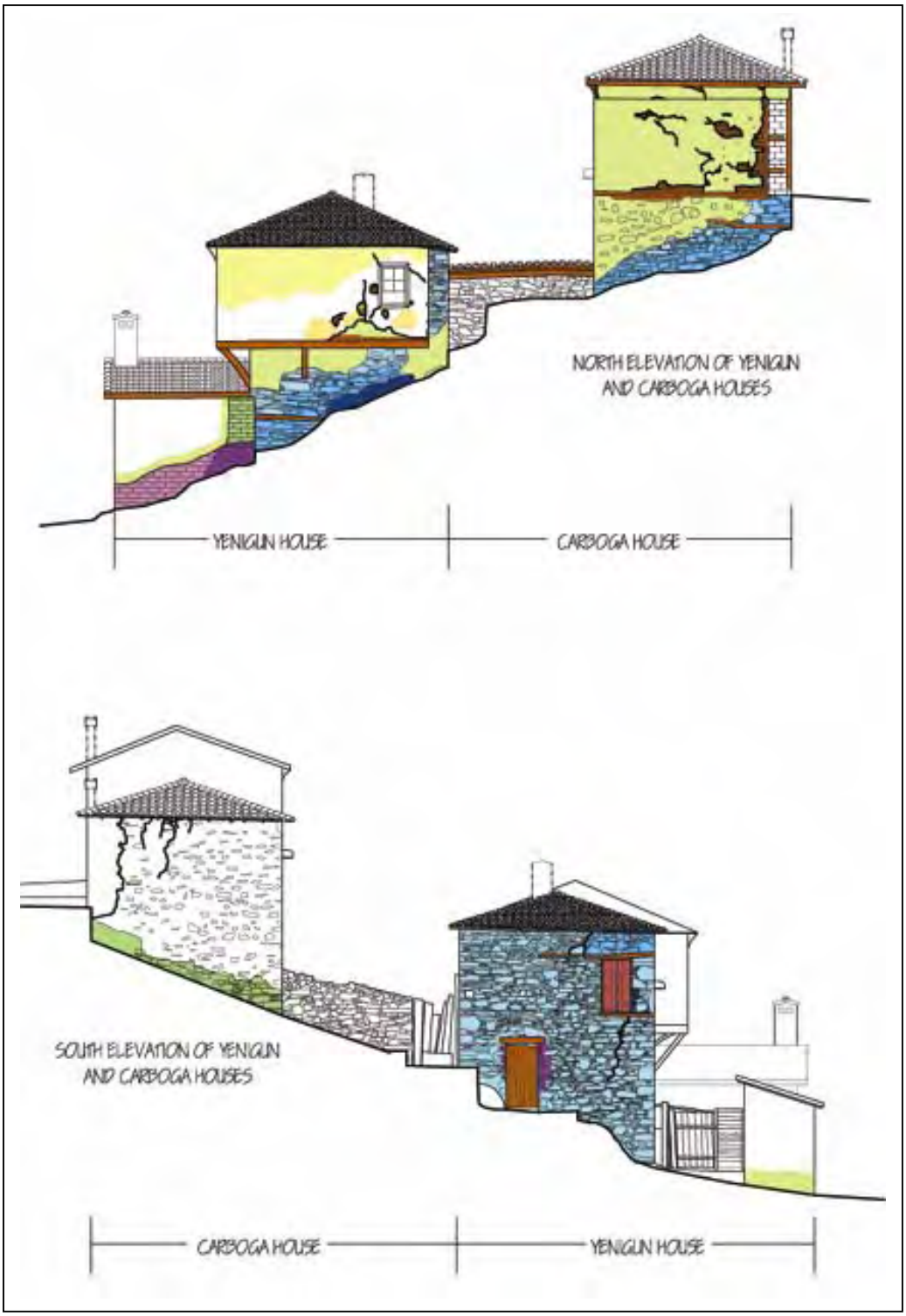


Figure 4.39 Mapping of material and structural problems on elevations (continued)

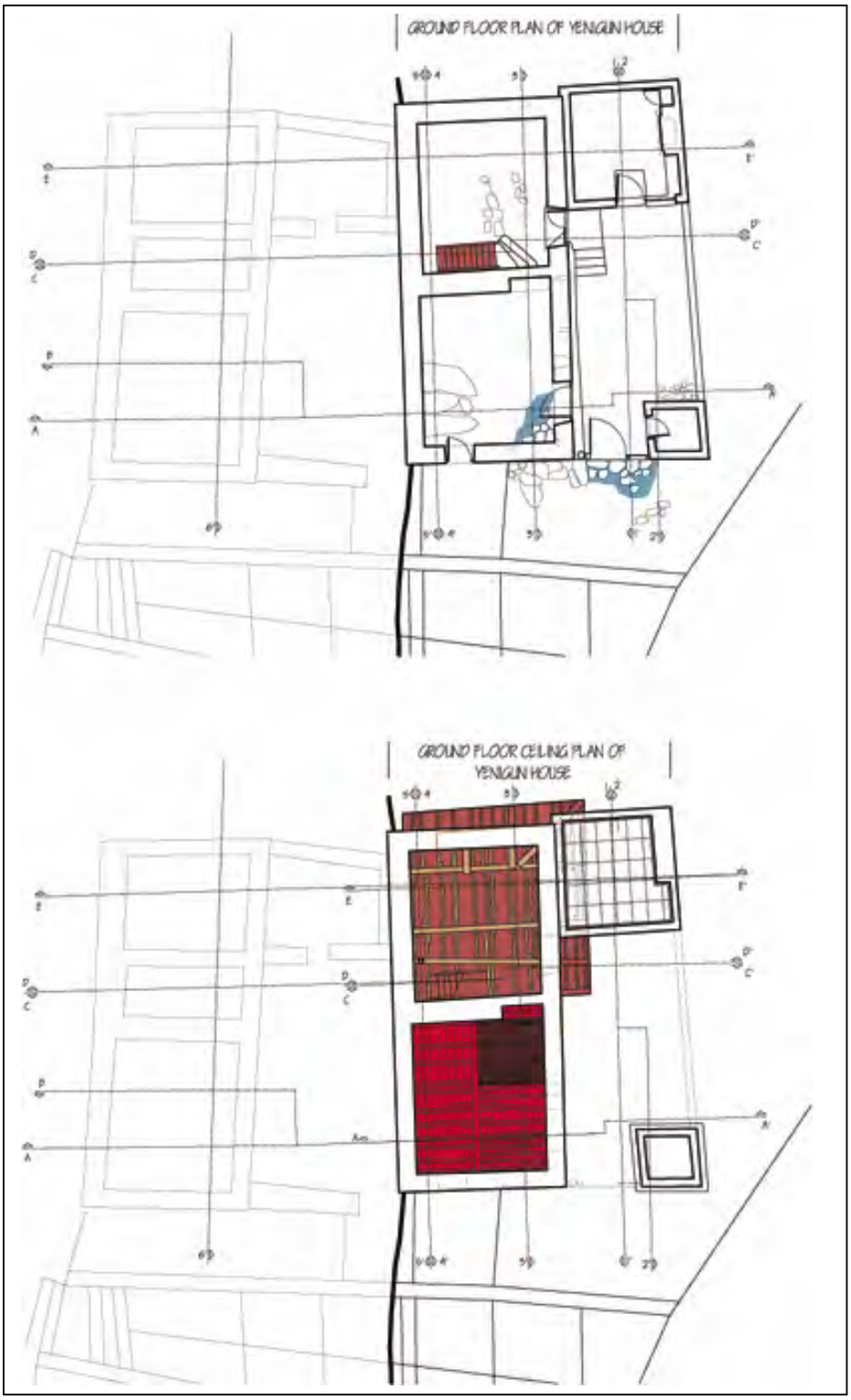


Figure 4.40 Mapping of material and structural problems on plans at +1.00

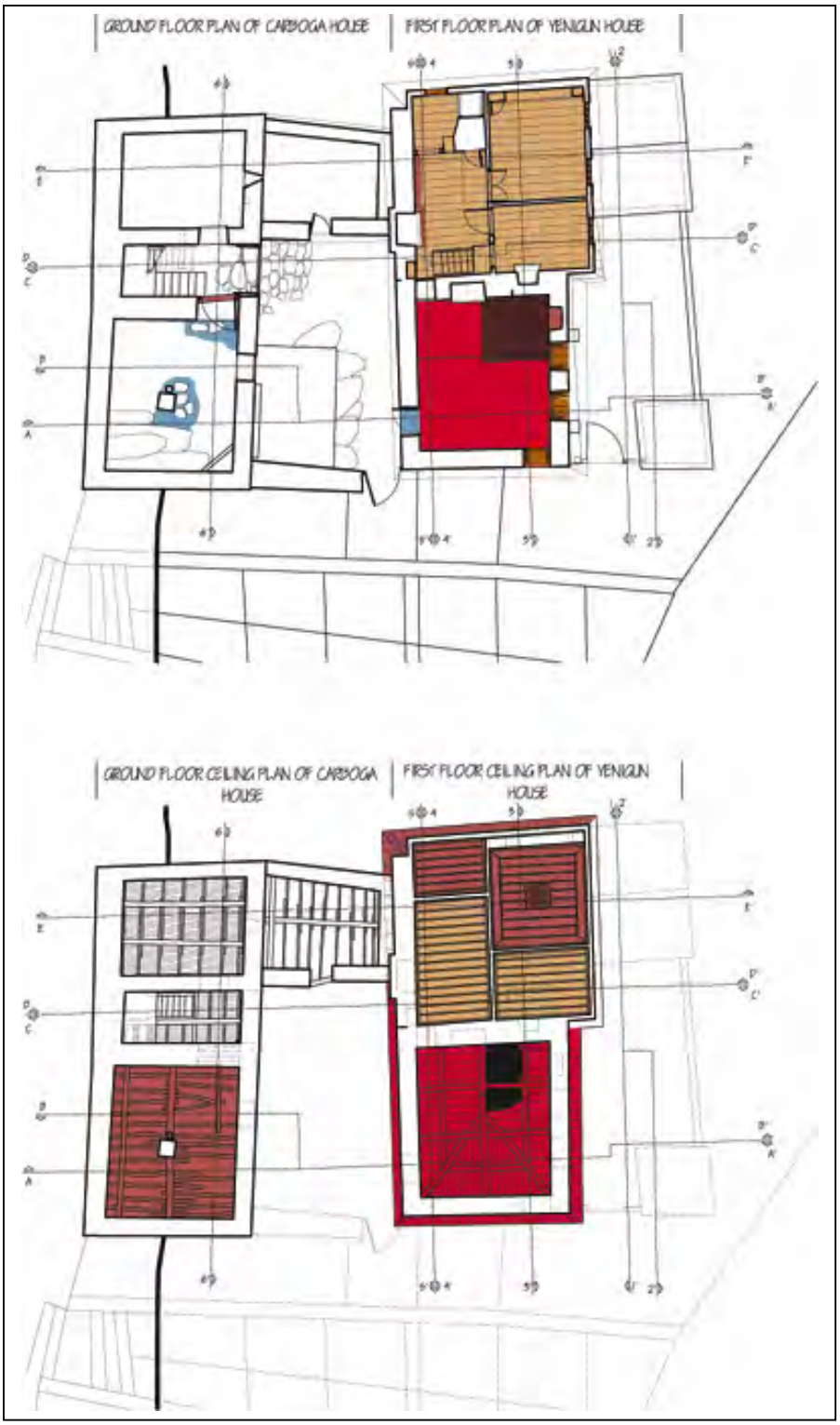


Figure 4.41 Mapping of material and structural problems on plans at +4.00

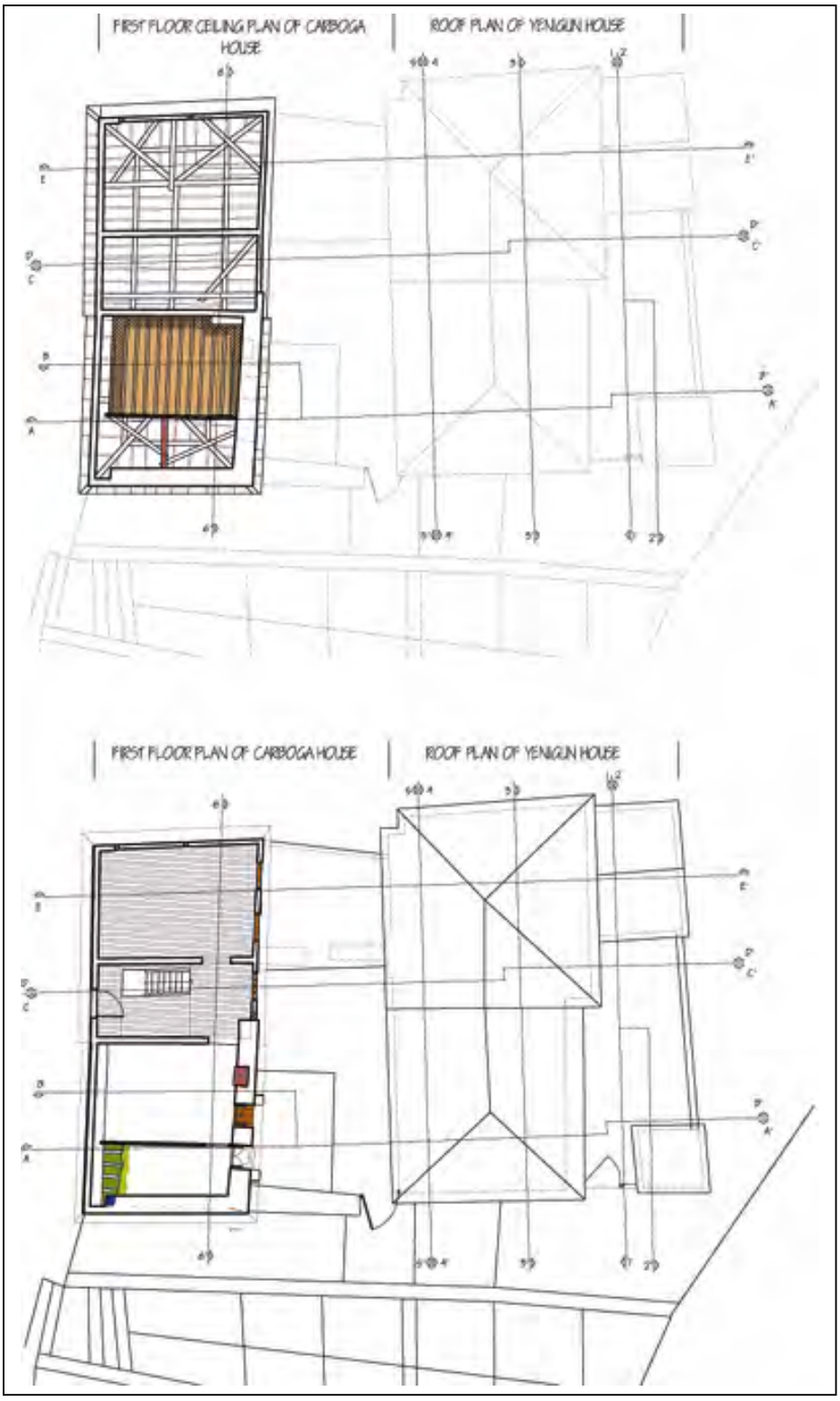


Figure 4.42 Mapping of material and structural problems on plans at +7.00

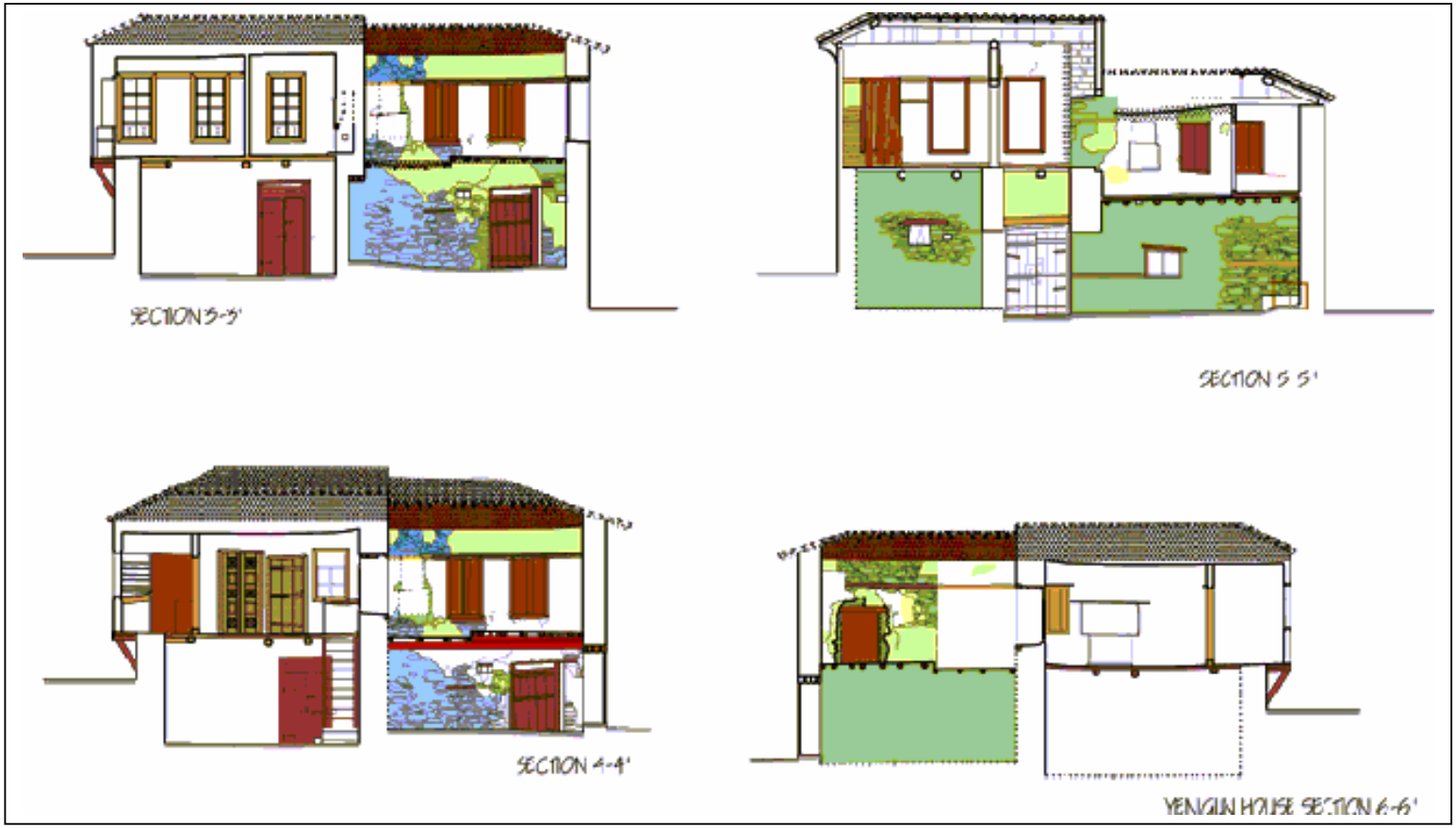


Figure 4.43 Mapping of material and structural problems on sections

Figure 4.44 Mapping of material and structural problems on sections (continued)

4.3. INDICATORS OF ALTERATIONS

The indicators of alterations in the buildings can be grouped into five categories.

4.3.1. DISCONTINUITY IN CONSTRUCTION SYSTEM - JOİNTS OR GAPS IN THE CONSTRUCTION SYSTEM

In the buildings several interruptions and discontinuities can be observed in the construction.

The examples in this group are:

In both houses, the roofs of north and south masses are constructed separately.

In Çarboğa House the north and south masses are separated with a vertical joint on east and west elevations.

In Yenigün House, the north and south masses are separated by a vertical joint on west elevation. On east elevation the ground floor wall is continuous there is no joint between masses. On the first floor wall, the construction system of the two masses is different. (South mass in rubble stone masonry, north mass in timber frame construction). Therefore there is a joint between the two masses.

Again in Yenigün House the floor of F01 space at first floor is constructed separately from the west wall. There is a 2cm gap between the floor construction and the wall. Furthermore, the faces of the ground floor wall and first floor wall of the west wall are not flush. The face of the ground floor wall is a few cm indented. (Yet, this difference might also be a result of the different thickness in plaster layers.)

In Çarboğa House In F03 and F04 spaces the floor construction is 48cm away from the west wall, indicating the original thickness of the stone masonry wall. (See figure 4.45).

4.3.2. DISCONTINUITY IN CONSTRUCTION SYSTEM - USE OF DIFFERENT CONSTRUCTION SYSTEMS

In the buildings some parts display different construction systems which indicate alterations in the houses.

The examples in this group are:

The courtyard walls of Çarboğa House and the walls of G04 space are constructed in stone masonry type 1, therefore without mortar and plaster. These walls might be additions but it is not evident.

The roof construction of G04 is with Roof Type 3 with new rafters.

The wall between G01 and G02 spaces is constructed with rubble stone masonry Type 2 without plaster and with cement mortar. Furthermore the door opening on this wall has no door wing and the lintel of this door is in concrete.

In F01 and F02 spaces of Çarboğa House the floor construction is altered with floor type 2. (With new floor boards)

The wall between F03 and F04 is constructed in timber frame construction type 2. It looks unfinished since it is not plastered on the south face. Instead of wood lath, there are reed sticks. Yet, it is the only interior wall where the construction of the wall is visible. Therefore this change in the construction system might be the result of interior and exterior wall differentiation. The wall is 48 cm away from the west wall like the ceiling and the floors, therefore it might be an alteration prior to the alteration of the west wall.

The ceiling construction of G01 and G02 spaces is slightly different regarding the number of primary beams and spacing of secondary beams. (See figure 4.46).

4.3.3. USE OF MODERN MATERIALS

Some alterations in the houses are evident because of the use of dfferent materials. The materials that are accepted, as clues of alteration are cement, metal, hollow bricks.

The examples in this group are:

The courtyard walls of Yenigün House, G03 (additional room at courtyard) and G04 (WC) spaces are constructed with brick masonry walls Type 1. The door and window of G03 space is of metal. There is screed on the floor of G03 space. (Furthermore, the date of 1970 is inscribed on the chimney of the fireplace in this space.)

Screed is applied on ground floor floors of Yenigün House. Slate tone paving is partly visible beneath the screed.

The 5 steps leading to the entrance door of Yenigün House are constructed in concrete. Also the concrete wall in front of the ground floor of Yenigün House is an alteration.

Many of the first floor walls of Çarboğa House are altered with brick masonry wall type2 with cement mortar. Concrete lintels are placed between the stone masonry walls of first floor and the brick masonry walls.

On the courtyard of Çarboğa House, the concrete platform and the concrete wall in front of the façade are additions.

In Çarboğa House on the lintel and sill of the window of G03 space concrete is used. Also, cement mortar is used as binding material around this window.

The staircase of Çarboğa House has two wings. The first wing and the landing are in concrete. The second wing is constructed in timber with brand new timber elements. (See figure 4.47)

4.3.4. TRACES OF MISSING /ALTERED ARCHITECTURAL ELEMENTS

In the houses there are some traces left from the removed architectural elements or sub elements.

The examples from this group are:

The balustrades and shutters of some of the windows on the east elevation of both houses are removed, but there are traces that indicate their presence.

Some of the covers of the cupboard in F02 space of Yenigün House are removed. The cover of the niche and the door wing is missing on the timber partition that separates F01 and F02 spaces. The chimney of F1 in F01 space is missing.

In F02 space of Çarboğa House, the cupboard and ceiling decoration of the room are removed but the dismantled pieces are left inside the room. The length of the dismantled cupboard matches the length of the west wall of F02 space. The service wall has a central niche and several small cupboards, all with geometric patterns.

On the north wall of F01 space there is a 47cm wide hollow brick part that corresponds to the thickness of the original stone masonry wall. Next to it there is a 48-cm wide trace on the wall where the service wall used to fit. The ceiling cover has the same dimensions and the pattern as that of Yenigün House, with floral patterns and geometric motives.

On the north and east walls there is trace of the sergen shelf.
In Yenigün House, on the wall between G01 and G02 spaces on the east corner there is a 40cm deep niche starting from the ground and measuring 1.26m by 1.78m (similar to measurements of a door) with timber lintels above the opening.

In F05 space of Yenigün House the traces on the plaster on the west wall might indicate architectural elements attached to the wall surfaces that are missing today.

On the first floor of Yenigün House in F05 space, again on the east corner of the north wall, (the wall between F05 and F03 spaces), there are vertical and horizontal joints on the wall fabric defining a possible aborted opening measuring 1 m x 1.9m. However, this trace is a bit problematic since, on the other side of the wall it corresponds to the fireplace of F03 space. (See figure 4.48)

The fireplace of Çarboğa House is altered. (See 4.3.2. and 4.3.1). On the west wall of F01 space there is a diagonal trace on wall surface, defining the original location of the staircase.

In Çarboğa House between the floor of F01 space and F03 space there is a level difference of 70-cm. At the doorway, 20cm beneath the threshold there are traces of the original floorboards that remain embedded in the wall. These might indicate the original floor level of F01 space or steps in the doorway between F01 and F03.

There are traces of stone steps in front of the entrance door at courtyard of Çarboğa House.

4.3.5. PECULIARITIES IN ARCHITECTURAL ELEMENTS

Some of the architectural elements in the houses bring to mind questions about alterations, because of their relation with the other elements.

The examples in this group are:

In Yenigün House, the fireplace in F03 space has a smaller cross section with a different geometry than the other fireplaces in the house. (The other fireplaces have rectangular cross sections whereas this fireplace has rounded cross section.) Furthermore, the chimney of this fireplace is peculiar. The chimney of F1 in F05 space has a rectangular cross section and has a prismatic cap, (similar to other fireplaces in Şirince, see comparative study), whereas the chimney of F3 has an irregular cross section, does not go above roof level and has a metal cap.

There is an aborted opening between F05 and F01 spaces without any visible function.

The current entrance of F05 space is through D3 door. This door can be reached only through the courtyard of Çarboğa House. It is located 90 cm above the ground level of the courtyard and it is only 1.2m high.

Furthermore, the doorjambs of this opening are constructed in brick masonry.

In F05 space 2 different types of sergen were observed, over the windows and on the west wall both of which are more elaborately profiled than the sergen shelves in the other rooms.

D2 door of Yenigün House (of G02 space) is out of use today. The doorway is 1m above the courtyard level. This indicates a change in the floor levels of the courtyard or the removal of steps that used to be located in front of this door.

Between the floor of F01 space and F03 space in Çarboğa House there is a level difference of 70-cm and there are no steps between the two spaces. On the wall surface 20cm below the wall surface there are traces of floorboards. (See figure 4.49)

INDICATORS OF ALTERATIONS ANALYSIS

4.3.1. Discontinuity within the construction system

vertical or horizontal joints or gaps between components of the construction system

1 - Roofs of north and south masses are constructed separately

2 - There is a vertical joint on east and west façade of the houses between the north and south masses.

3 - There is a gap of 1-2 cm between the floor construction and west wall of F01 space of Yenigün House

4 - There is a gap between the floor and ceiling construction and west wall of F03 and F04 spaces of Çarboğa House

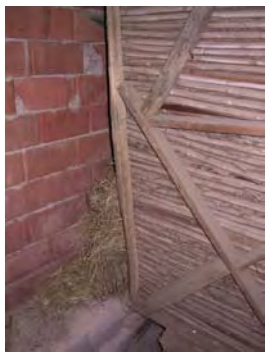


Figure 4.45 Indicators of alterations analysis, discontinuity in construction, gaps or joints in the construction

INDICATORS OF ALTERATIONS ANALYSIS

4.3.2. Discontinuity within the construction system

use of different construction systems

1 - Roof type 1 new timber elements is used in the construction system.

2 - Floor type 2 with new timber elements is used in the construction system.

3 - Stone masonry wall type 2 is used

4 - Timber frame wall type 2 is used

5 - Ceiling type 2 is used in the ceiling of G03 space of Yenigün House

6- Stone masonry wall type 1 is used.

7- Roof type 3 with French tiles is used.

Figure 4.46 Indicators of alterations, discontinuity within the construction system, use of different construction systems

INDICATORS OF ALTERATIONS ANALYSIS

4.3.3. Use of Modern Materials

1- Use of brick in wall construction

2- Use of metal door with concrete lintel

3- Use of solid bricks in door jambs

4- Use of brick chimneys

5- Use of concrete steps

6- Use of concrete on shear wall

7- Use of cement plaster

8- Use of screed

Figure 4.47 Indicators of alterations, use of modern materials

INDICATORS OF ALTERATIONS ANALYSIS

4.3.4. Traces of Removed Architectural Elements

1 - Traces of door openings on F05 and G03 spaces of Yenigün House

2 - Trace of altered staircase on south wall of G01 space of Çarboğa House

3 - Trace of removed slate stone steps

4 - Trace of altered floor construction

5 - Trace of removed stone masonry wall and service wall

7- Dismantled pieces of the service wall and central ceiling decoration of F02 space of Çarboğa House

6 - Trace of removed sub elements of windows

8 - Trace of removed ceiling cover

Figure 4.48 Indicators of alterations, traces of removed architectural elements

INDICATORS OF ALTERATIONS ANALYSIS

4.3.5. Peculiarities Among Architectural Elements

1 - Chimney of fireplace of F03 space of Yenigün House. It is smaller and has a different detail than the chimney of fireplace of F05 space.

2 - Fireplace of F03 space of Yenigün House. It is smaller and has different cross - section than other fireplaces of the house.

3 - Door of F05 space of Yenigün House. It is 1m above ground level, is reached from the courtyard of Çarboğa House and it is only 1.2m high.

4 - Door of F02 space of Yenigün House is 1m above courtyard level

5 - Aborted opening between F01 and F05 spaces of Yenigün House.

Figure 4.49 Indicators of alterations, peculiarities in architectural elements

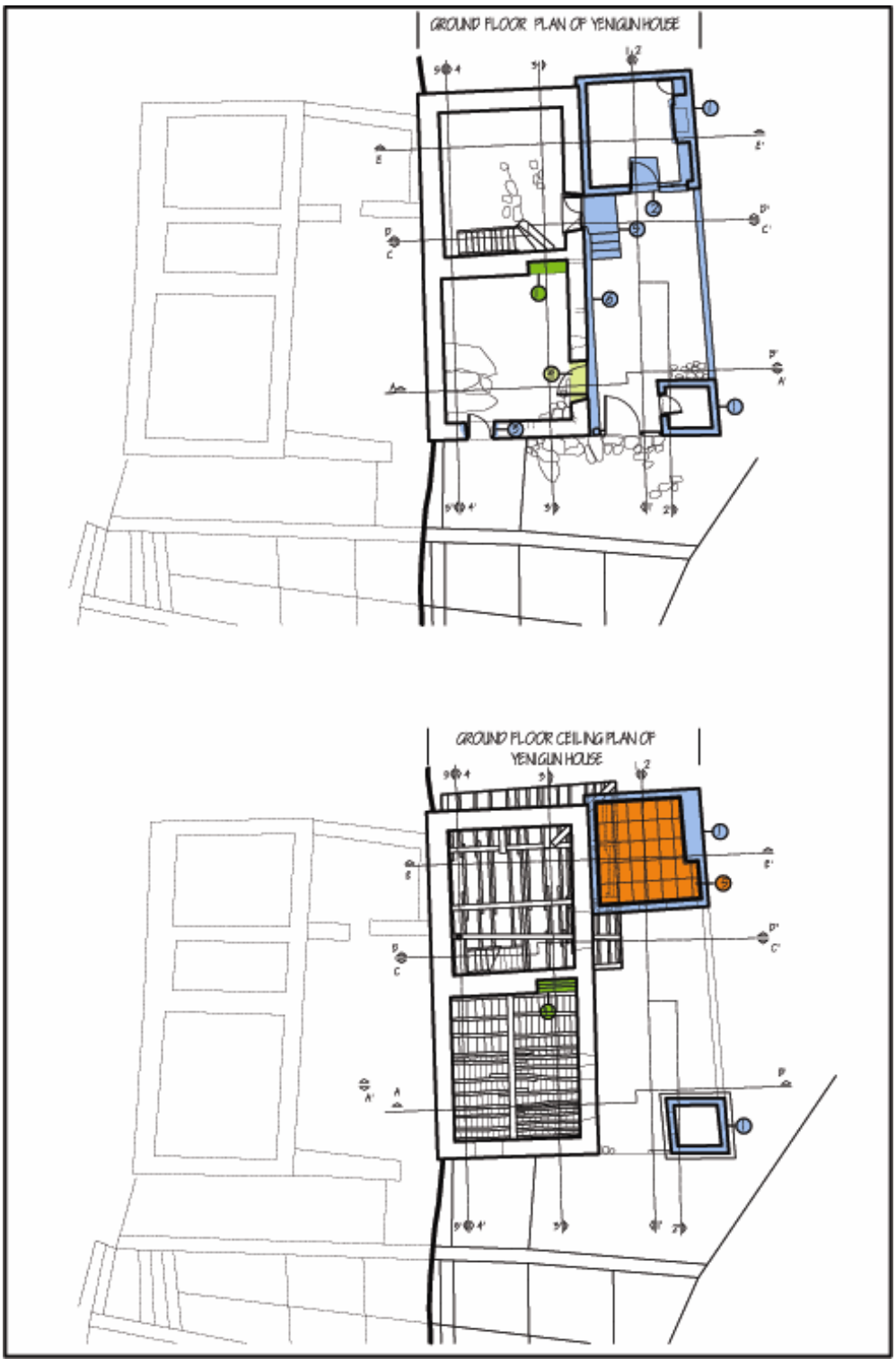


Figure 4.50 Mapping of indicators of alterations on plans at +1,00

Figure 4.51 Mapping of indicators of alterations on plans at +4,00

Figure 4.52 Mapping of indicators of alterations on plans at +7,00

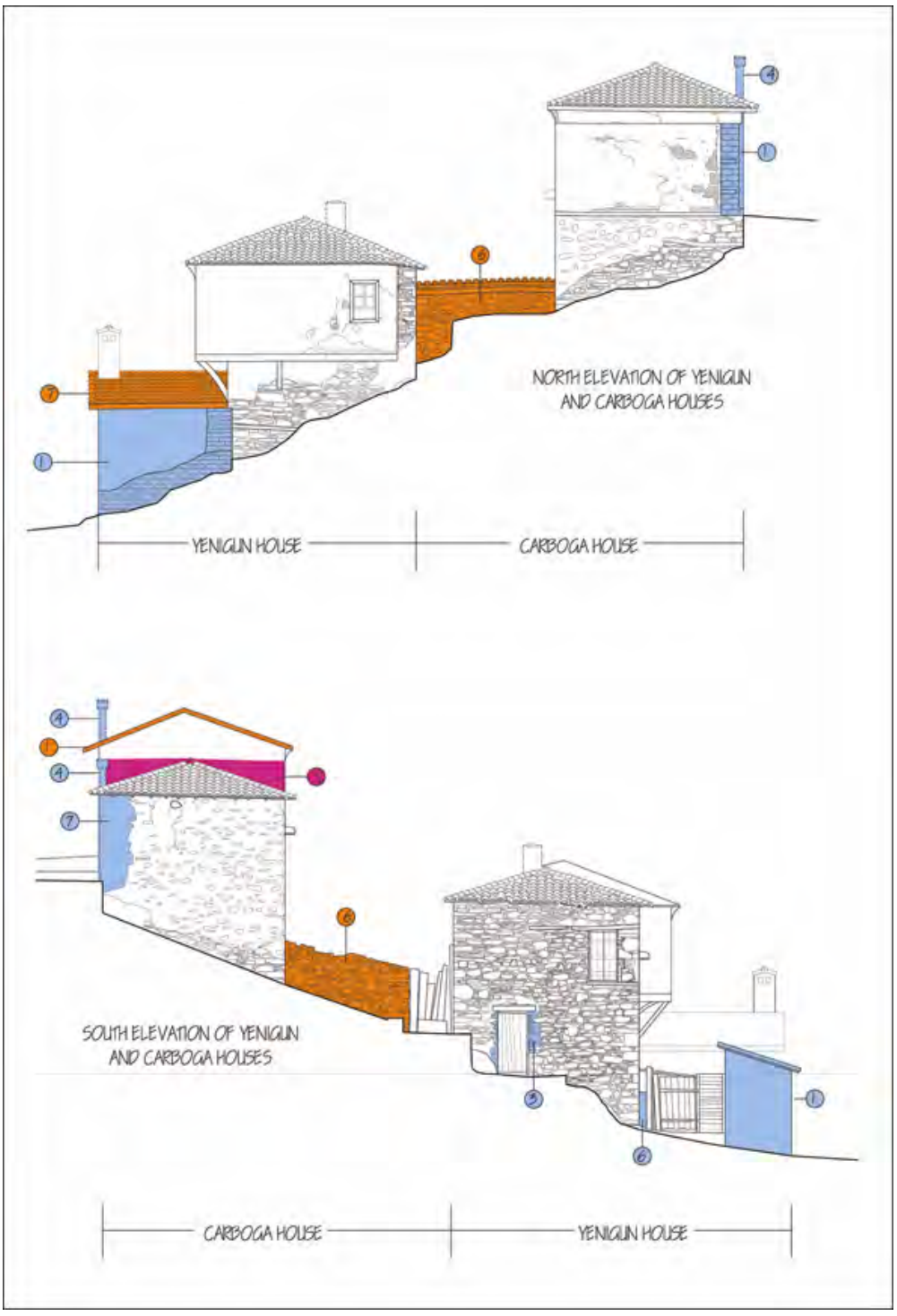


Figure 4.53 Mapping of indicators of alterations on elevations

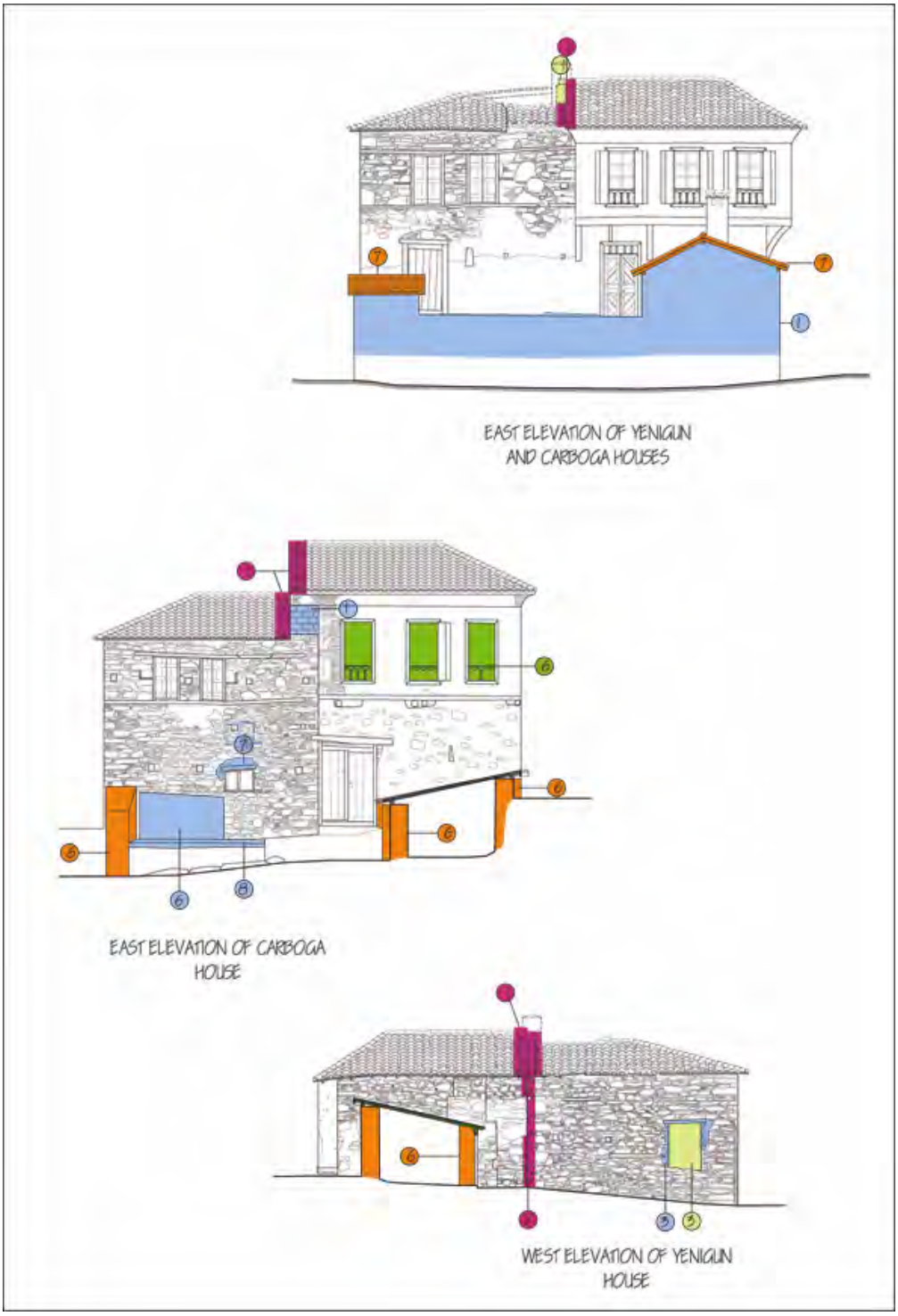


Figure 4.54 Mapping of indicators of alterations on elevations (continued)

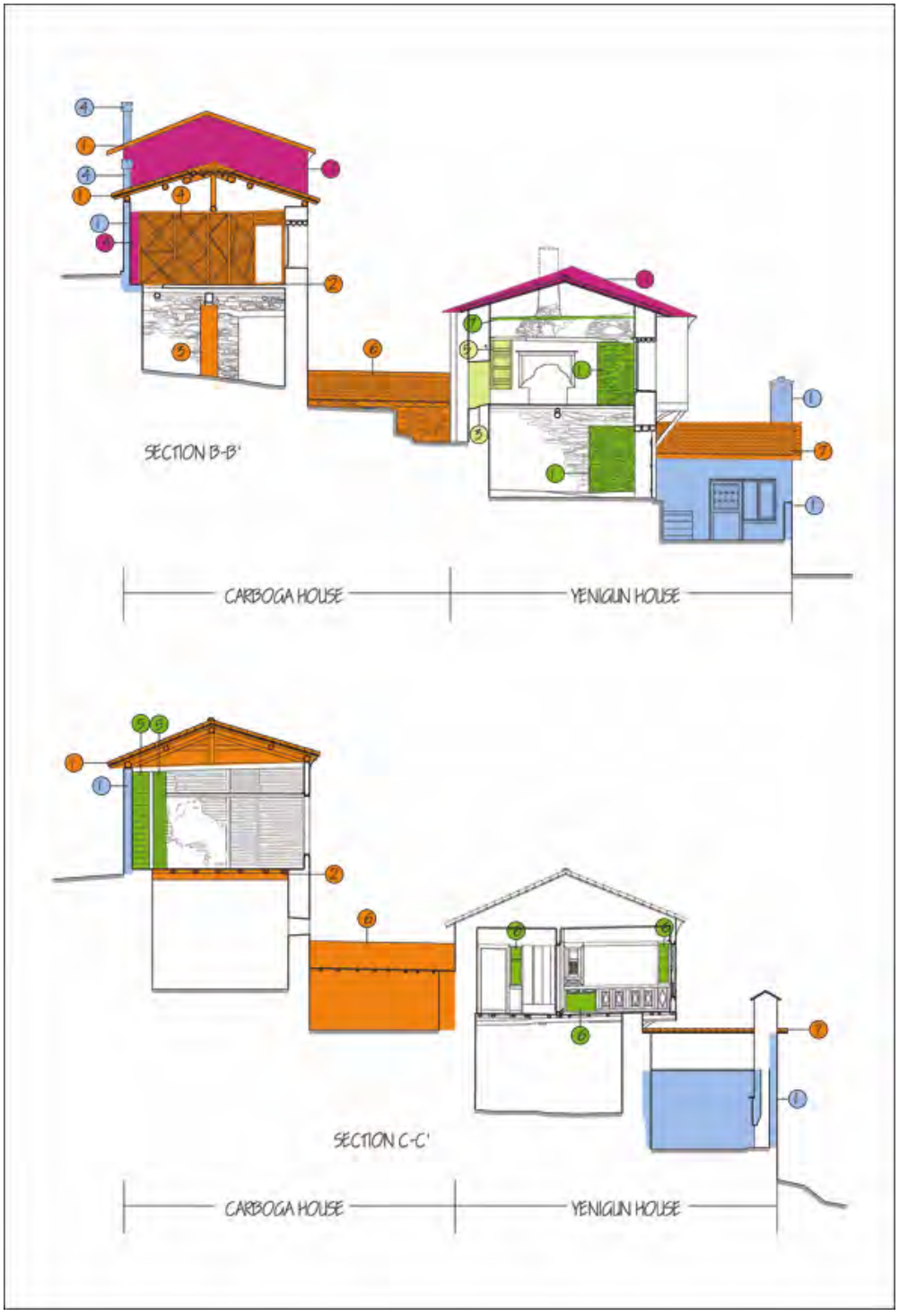


Figure 4.55 Mapping of indivators of alterations on sections

Figure 4.56 Mapping of indicators of alterations on sections (continued)

CHAPTER 5

COMPERATIVE STUDY

In the comparative study Çarboğa and Yenigün Houses are studied in comparison with other houses of Şirince Village and with the houses in the Aegean Region. For the study within Şirince village the 25 houses identified with their building lot numbers are studied in a chart including information about the parcel, building courtyard relations, plan and façade layouts, space use and architectural elements. The houses in the study were chosen according to two criteria: the houses that display the typical plan layouts and characteristics of Şirince Village, and the variations of these types and the houses showing similarities to Çarboğa and Yenigün Houses. The examples within the Aegean Region are studied more generally and the visual data is not classified strictly in charts but reference is made to drawings and photographs when necessary.

5.1. GENERAL CHARACTERISTICS OF THE NEIGHBORHOODS

The two neighborhoods of the village display slightly different characteristics. On İstiklal neighborhood to the west of the river bed the ratio of open areas is more. On İstihlas neighborhood to the east of the riverbed the building fabric is denser and there are less open spaces.

Şirince Houses are in general located parallel to the topography. (Houses 2535 and 2383 in table 5.5 are exceptions to this principle as they are located perpendicular to the topography.)

Most of the houses have courtyards. Within the thesis with term courtyard, the open spaces of the houses surrounded by courtyard walls and covered with slate stone or pressed earth are intended. In some houses, there are additional open spaces adjacent to the courtyards, surrounded with walls or fences and covered with earth. Vegetables and

fruit trees are located in these open spaces and they are referred to as gardens.

The houses without courtyard or with small courtyards are located more near the commercial axis and the mosque where the fabric of buildings is denser.

On the periphery of the village and by the riverbed, the courtyards are bigger and the gardens are more common.

5.2. STREET – BUILDING LOT RELATIONSHIP

In Şirince, the houses that do not have a courtyard have their main facades to the street and they are entered directly from the street. (see table 5.4, 2418) In the houses that have courtyards, the courtyard is located between the street and the main façade of the house and the house is usually entered from the courtyard. In houses behind the Church of St. John, the courtyard is located behind the house. The houses have their main facades to the street and they have a secondary door to the courtyard at the back of the house. In house 2383 (table 5.5), although it has a courtyard, the main door is located on the side façade and there is a secondary door that opens to the courtyard. In house 2535 (table 5.5) the secondary door of the stable space opens directly towards the street.

5.3. COURTYARD – BUILDING RELATIONSHIP AND COURTYARD USE IN ŞIRINCE HOUSES

The houses are situated on one side or corner of the courtyard. When the houses have the courtyard bigger than the area of the house, part of the courtyard is used as garden.

The houses can be classified in 3 groups according to open space use:

- The houses without courtyard or garden
- The houses with courtyard
    1. The house is located at on side of the courtyard

2. The house is located at the corner of the courtyard

- The houses with courtyard and garden

The most common type is when the house is placed at one side of the courtyard. Both Çarboğa and Yenigün Houses have small courtyards located at one side of the courtyard.

The courtyard walls are in rubble stone masonry with or without mortar. The floors of the courtyards are covered with slate stone or pressed earth. In many of the courtyards screed is applied over slate stone paving.

The smaller courtyards (the area of the house is bigger than the courtyard) are utilized for cooking, eating and sitting. The wc is usually located at one corner of the courtyard. The houses 2506, 2507 and 2508 have a common courtyard and they use the same wc, that is located at the corner of the courtyard near house 2506. (See table 5.1). The wc can be located adjacent to the façade of the house or on the corner of the courtyard wall away from the house. The bigger courtyards, in addition to the functions above, are also being used for animal breeding (cow, goat, chicken, duck, etc.). Some part of the courtyard is being used as garden where they grow vegetables, flowers and fruit trees. Vine trellises are dominantly observed. In some courtyards there are basins for making wine or grape molasses (pekmez).

In some houses additional buildings have been built including kitchen (2506), living space (A and 2397, 3031, 2545, 2458, 2380, 2535, 2383, 2444). Also in Yenigün House, additional unit including living space is built in the courtyard.

In some of the courtyards there are stone fireplaces. (2397, 2382, 2431) The stoves can either be adjacent to the facades or separated from it. Apart from these, there are also fireplaces on streets that are used commonly by the neighboring houses.

With the increase in tourist activity in the village, the use of the courtyard for tourist activity such as restaurants or “gözleme” houses has also increased in the recent years.

In houses of Kuşadası, Şirinköy, Datça and Muğla the Houses have courtyards behind high walls. As it can be observed from the photographs and plans of the houses in Samos, they do not have courtyards separated by walls. (Papaioannou). In Kayaköy and Kayaçukuru region, the courtyards have low rubble stone walls without mortar.

5.4. PLAN ORGANIZATION IN ŞIRINCE HOUSES

The plan typology in the thesis is prepared according to the plan layout of the first floors. Therefore, the first floors are described before the ground floors in the thesis. And the different plan layouts are explained in relation ship with the typology of the first floors.

5.4.1. FIRST FLOORS

Mainly three different plan layouts were observed on first floors of Şirince Houses. These typologies were prepared according to number of spaces on first floors and the organization of the spaces. The location of "hanay" space, which is the main circulation space around which all the other spaces are organized, has been the decisive element.

5.4.1.1. PLAN TYPE A

"Hanay" is situated at the corner on front façade. Next to hanay on front facede is room type A with ornamented cupboard and central ceiling decoration. It is usually entered through the double wing door with ornamented door wings. Behind the hanay is room type B with fireplace. The fourth space is the kitchen space behind room type A. It is entered through room type B. (See tables 5.1, 5.2)

Variations of plan type A were observed in the houses numbered 2458, 3039, 2380 and 2303. (See table 5.3). The plan of 2458 is similar to the plan of north mass of Yenigün House. On the front elevation there are room type a and room type B. "Hanay" is situated behind the rooms at back façade. On one side of hanay there is the bath partition. Also in 3039, "hanay" has changed place with room type B. "Hanay" is located behind

room type B. The kitchen is located behind room type A and it is entered from “hanay”. In 2380 kitchen has changed place with room type B and is located behind “hanay”. In 2303 room type A projects from the plan forming an L shape. The space behind room type A is much bigger. (room type F)

The plan of the north mass of Yenigün House - when considered without the south mass - is also a variation of plan type A.

The double space houses with entrance space in Kayaköy and Kayaçukuru Region and the triple space houses from Kınalı Village in Kayaçukuru Region[8] (see table 5.9) or Samos (see table 5.7) (Papaioannou, p.27) have a similar plan layout with the circulation space at the corner but these plans do not have the kitchen space that is present in the typology of Şirince Houses.

5.4.1.2. PLAN TYPE B

“Hanay” is situated in the center between two rooms. On two sides of the hanay is room type A and room type B or room type A and room type C. In room type C there are both the ornamented service wall and the fireplace.

The kitchen is a narrow rectangular space located behind one of the rooms or behind hanay and one of the rooms. it is usually situated parallel to the back facade but there are also examples where it is situated perpendicular to the back façade. It can be entered either directly from hanay or from one of the rooms. (See table 5.5)

Variations of plan type B were observed in the houses with building lot numbers: 2535, 2431, 2418, 2383, 2444. (See table 5.6)

2535 is located perpendicular to the topography and it is entered from the short side of the building. The hanay has an L shaped form and the staircase is located at the short arm. Behind the staircase there is the sink and shelves and this space is used as a kitchen niche. All three A, B and C types of rooms are present in the plan.

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[8]The information about the houses of Kayaçukuru Region was obtained from the personal notes of Yelda Yıldırım from the site survey of the year 2000. The plan layouts of the houses in Kayaköy was obtained from the typology prepared by H. Saraç

In 2431, a third room is added between hanay and room type B. Room type B is reached from this third room.

In 2418 the kitchen is located on ground floor. There's no kitchen in first floor. A third room is added next to room type A. There is a passage between this third room and the kitchen in ground floor.

In 2383 and 2444 the kitchen is located parallel to the side façade, perpendicular to back façade. In 2444 all three A, B, C rooms are present.

The first floor plan of Çarboğa House is also a variation of Plan type B. It resembles the plans of 2383 and 2444. However, it is different from these two since it is composed of two adjacent masses. There are level differences between the two masses.

Plan type B of Şirince Houses resembles the "Sakız" (Chios) type houses observed in the coastal parts of the Aegean Region in Bodrum and Marmaris . (Özcan, Z. 1994, p. 85 – 94) "Sakız" type is a triple space plan where the two rooms are reached from a central circulation space. The central space often projects from the façade with a projection or balcony. The triple space houses in Şirinköy (table 5.8, Bektaş, 1987b, p. 59) in Samos (table 5.7, Papaioannou, 1984, p.39), and the house in Gökçeburun Village in Kayaçukuru Region (table 5.9) also display a plan layout similar to "Sakiz" type houses. The plan type B of Şirince differs from the examples of "Sakız" type houses with the presence of the kitchen space.

5.4.1.3. PLAN TYPE C

The plan is composed of two spaces, a room and the hanay space next to it.

Three examples of it were observed in the village. (2361, 2293 and 2443). All four facades of the houses are in rubble stone masonry. The room in 2361 and 2443 have both fireplace and cupboard whereas in 2293 there's only the fireplace. In 2293 and 2443 there's no staircase leading to the first floor. The door on façade of 2443 is a trace of an exterior staircase. The trace of a staircase can not be observed on 2293 due to the adjacent buildings.

The plan of house number 2541 is a combination of plan type A and plan type C.

The plans of the south masses of Çarboğa and Yenigün Houses are similar to plan type C. In south mass of Yenigün House there is a single space divided into two with a level difference. In south mass of Çarboğa House there are two spaces but they are not exactly the same with the two spaces present in the other examples. In other examples the secondary space is like a vestibule or an entrance space, from which the main space is reached. In Çarboğa House, directly the main space is reached. The secondary space is a service space reached from the main space.

The plan layouts of Çarboğa and Yenigün Houses are similar to house number 2541 in the sense that they are a combination of plan type C and other plan types.

In settlements around Şirince, examples similar to plan type C with single or double space on first floors and plan types derived from plan type C were observed. In Kayaçukuru region, Samos, Datça, Bodrum examples of the plan type with single or double space on first floor were observed. In these examples, the first floor is usually reached by an exterior staircase. In Samos and Kayaköy, it was observed that the main space was divided to subspaces with level differences on the floor of the room. This type of house is referred to as the “musandra” type house. (Özcan, 1994, p.86). The floor of the part of the room near the fireplace is lower. The part of the room far from the fireplace is higher 20 to 80 cm. The lower part is used for daily life. the higher part is used for sleeping. In Yenigün House, there is also a level difference of 17 cm where the part near the fireplace is lower. This feature was not observed in the other examples of plan type C in Şirince. Özcan also mentions that in the single flat houses one end of the space is separated with a timber partition as kitchen space. (Özcan, 1994, p. 86) This definition overlaps with the position of the kitchen in Çarboğa House.

In Samos, similar to Şirince, a shift from the single space stone masonry house to the timber frame house with double or triple spaces can be observed in the houses of the 19th century. (Papaioannou, 1984, p.21)

5.4.2. GROUND FLOORS:

Mainly three different layouts were observed in the ground floors of Şirince houses.

- Ground floors with a single “taşlık” space
- Ground floors with two spaces. (taşlık and storage or “taşlık” and stable spaces)
- Ground floors with three spaces. (“taşlık”, storage and stable)

In house 2543 there is also a commercial space on ground floor. This space has a shop window and a secondary door, opening towards the street. In only house2380 (table 3) living room was observed on ground floor. In house 2418 kitchen is observed on ground floor.

Timber bath partition can be observed in many of the houses at one corner of stable or storage space.

In the plan type A, the ground floor is composed of either a single “taşlık” space or of two spaces, “taşlık” and stable or “taşlık” and storage. The ground floors of 2380 and 2303 at table 3 are exceptions to this where the ground floors are atypical with three or more spaces.

In plan type B, the ground floor is composed of two or three spaces: “taşlık” and storage and /or stable. In house 2418 (table 5), since the plan is too narrow and long, there are four spaces including kitchen space on ground floor.

In plan type C, the ground floor is composed of the single “taşlık” space. House number 2541 is composed of two masses similar to Yenigün and Çarboğa houses. The ground of the stone masonry mass is composed of a single stable space whereas that of the timber masonry part is composed of” taşlık” and storage spaces.

In Yenigün House the south mass is a variation of plan type A (with “hanay” at the corner). The south mass is in plan type C. The ground floor is also in line with the typology, both parts being composed of single spaces. The south space has a separate entrance similar to house 2541 and it was probably used as the stable space.

In Çarboğa House the space below the south mass which display characteristics of plan type C, is a single space similar to 2541 and Yenigün House but it has no secondary door to the courtyard. Yet, the drinking basin at the south east corner of the space and the chain ring on the wall above it indicate that the space was used as a stable.

The north mass is composed of two spaces, similar to 2541. However, the construction technique of the wall separating these spaces is different than the other walls and there is a vertical joint where this wall meets the east façade. Therefore this space, originally might have been a single space similar to Yenigün House. When the plans of Çarboğa house are considered as a whole (together with north and south masses), the plan layout in first floor is similar to plan type B with the kitchen space parallel to the short wall. In such plan layouts ground floors can be composed of both double spaces or triple spaces.

Around Şirince in the Aegean Region in the two storey houses the ground floors are used for storage and stable spaces. In Kuşadası and Muğla, the first floor is reached by an interior staircase or by a staircase that is located in the “hayat” or exterior sofa.

In Kayaçukuru Region, Çine (Aydın), Datça and Bodrum the ground floors and first floors have separate entrances. The first floor is reached by an exterior stone or timber staircase. In these settlements, plan types with single spaces similar to plan type C in Şirince Houses were observed.

In Samos there are two dominant house types. The flat roof type and the hipped roof type. In flat roof type, the ground floor and first floor have separate entrances and there is an exterior staircase. In many examples the landing in front of the door of the first floor is enlarged into a terrace below which is utilized as an extra room for ground floor. In hipped roof type there is an interior staircase. (Papaioannou, 1984)

5.5. PLAN ELEMENTS

- **“Taşlik” (Entrance Hall)**

It is the entrance space of the house and the main circulation space of the ground floor. Other spaces of the ground floor are reached from this space and the staircase leading to the first floor is located here. The floor is covered with slate stone covering.

In 2507, 3031, 2302, 2535, 2431 “taşlık” spaces have proportions similar to a square, the staircase is located at one corner and the rest of the space is used for storage. In 2507 and 2397 a timber partition separates the part of the space used for storage. In other examples like 2508, 2545, 3039 the space is narrower and it serves only as a circulation space where the staircase is located.

In 2303, part of the space is separated as modern bathroom space. In House 3031(table 1), where “taşlık” space is bigger, a single timber post is located in the center of the space.

In Yenigün House, the “taşlık “space is square in form and the staircase is located at one corner. In Çarboğa House, the “taşlık” space (G01) is narrow where only the staircase is present. However, the traces on the wall between G01 and G02 indicate that this wall is an addition. The original space might be the combination of G01 and G02 spaces similar to the examples mentioned above.

- **Storage Space**

It is reached from “taşlık “space and is covered with slate stone floor covering. Normally there are no window openings. It is used to store olive oil and other products. G02 space in Çarboğa House might have been used for storage. However, there is a slit window in this space.

- **Stable**

It can be reached from “taşlık” space but it also has an independent opening from the outside. The floor can be covered in slate stone paving or pressed earth. It usually has a slit window for ventilation.
G02 space in Yenigün House has a separate entrance door and a slit window.

In G03 space in Çarboğa house, there is a stone basin in one corner of the room. Above this basin there is an iron ring on the wall.

- **“Hanay”**

“Hanay” is the main circulation space of the first floor. In plan type A (“hanay” at the corner) it is usually situated at the front elevation next to room type A. Houses 2458, 3039 and Yenigün House are exceptions to this rule, where room type B replaces place with the “hanay” space.

In Plan type B (“hanay” at the center) it is located between room type A and B. Some of the “hanay”*s* are big enough to be used as living spaces (2508, 2380, 2397) whereas others are only used as a circulation space. Near the staircase there are usually some timber shelves. Only in Yenigün House and in house number 2397 there are fireplaces on *Hanay* spaces.

In Plan type C, there is a narrow entrance space instead of the “hanay” space in 2361, 2293 and 2361. In 2541, “hanay” is located at the timber frame mass. The stone masonry mass is a single space.

- **Room (Living Unit)**

The rooms of Şirince Houses are very similar. There are a few types that repeat each other. Room type A is entered through a double wing ornamented door from hanay. It has the service wall. Faces the front elevation and has windows with timber balustrade and shutter. On the ceiling there is the central decorative panel. This room is referred to as the “summer room” by the inhabitants of Şirince.

Room type B is located on the back façade. It has the fireplace. Often there is an interior window between this room and hanay. This room is referred to as the “winter room”.

Room type C has both the fireplace and the service wall. It also has the double wing door and the central ceiling decoration.
In few houses additional rooms without fireplace or cupboard were observed.

- **Kitchen**

The kitchen in Şirince Houses is a narrow rectangular space usually located on first floor. In 2397 it is located on mezzanine floor. In 2418 it is located on ground floor.

In plan type A it is located behind room type A on the back façade. In 2380, kitchen space has replaced place with room type B and it is located behind “hanay”. In 2458, room type B and “hanay” have changed places and the kitchen is at one end of the “hanay” space. The plan layout and the location of the kitchen of this house is very similar to the north mass of Yenigün House. In 2507 and in 2380 there is a bath partition in the kitchen space, similar to the kitchen of Yenigün House. In 2507, the partition is entered from room type A. In 2380 it is entered from the kitchen.

In plan type B, the kitchen is located behind one of the rooms or “hanay”. In 2383 and 2444, it is located by at the side façade parallel to the sidewall, similar to the kitchen of Çarboğa House.

In 2508, there is no kitchen in the plan layout. Behind the “hanay” space is a bath partition where normally the kitchen would be located. There is often a fireplace, a sink and shelves in the kitchen. Sometimes there is a window with timber shutters.

F04 space in Yenigün House has a sink and shelves in the kitchen.

F04 space in Çarboğa House, considering its dimensions and location, is similar to kitchen spaces observed in other examples of Şirince Houses. There is trace of a sink inside the window sill in this space. No other example of it was observed in the other Şirince Houses.

- **WC Space**

The WC space is located in one corner of the courtyard. It has rubble stone masonry walls. It can be located adjacent to the façade of the house or on the opposite corner by the courtyard wall. In many houses there's no electricity in this space. In 2303 modern WC is added to ground floor of the house.

- **Bath**

The bath space in Şirince Houses is observed as a timber partition located at corners of other spaces. Many of the houses do not have a bath partition at all. In 2530 it is located at the corner of the stable space. In 2542 it is located at the corner of the storage space.

In 2507, 2380 and Yenigün House it is located in the corner of the kitchen. In all three of these examples the baths are embedded in the service wall between, kitchen and "hanay" / room. In 2508 it is located behind the "hanay" and it can be reached from room type B.

Examples of modern baths added to ground floor or first floors of houses were also observed in the village. In house A, the bath partition is located inside room type A at the corner of the service wall.

5.6. STREET – FAÇADE RELATIONSHIP AND FAÇADE ORGANIZATION IN ŞIRINCE HOUSES

In the village, the properties of the street boundaries and the proportion of the street with to the façade height changes according to the density of the fabric and according to the houses having courtyards or not. The courtyards face the streets. The front facades are located behind courtyards with respect to the street. The back facades face the street.

In the village, the houses 2551 and 2434 have a specific relationship with the street as the first floor of these houses continue over the street, forming a covered passage over the street.

The different facades of Şirince Houses display different characteristics. Since the houses are generally located parallel to topography, the front facades facing the panorama are two storey, whereas the back facades are single storey. The heights of front facades are between 6 – 9m. The back facades are between 3 – 6m.

The ground floor facades and mezzanine floor facades – when present – are in rubble stone masonry. In the upper floors, the front façade is usually in timber frame construction. The back façade is in rubble stone masonry, the side facades can be both in rubble stone masonry and timber frame construction. The houses with plan type C are an exception to this. All four facades of these buildings are in stone masonry.

Çarboğa and Yenigün Houses and the house 2541 are composed of 2 masses. One of these masses have stone masonry walls on all facades, whereas the other has the front façade in timber frame construction.
The houses with plan type A or B and the houses with plan type C display different sets of architectural elements on the main facades. On plan type A and B, there is the timber plank along the façade that separates the floor levels, the windows are with timber balustrades and shutters (like W1 type windows on north masses of Yenigün and Çarboğa Houses). On plan type C, there are windows only with timber shutters (like W2 type windows on south masses of Yenigün and Çarboğa Houses). There are stone shelves on the sides of theses windows. There is no timber plank separating the floor levels.

The entrance doors of houses are usually located on front facades. In 2383 and 2535 – that are located perpendicular to topography – the main doors are located on side facades. Apart from the entrance doors there can also be stable or commercial space doors on the facades.

There are windows with timber shutters and balustrades on timber frame front and side facades. There are few or no openings on rubble stone masonry walls.

The 10 to 20 cm projections of the fireplaces can be observed on rubble stone masonry walls.

Front and side elevations

Back elevation

Front and side elevations, house no:2543 with commercial space and shop window

Figure 5.1 Elevations of Şirince Houses

Projections can be observed in timber frame facades. They project 50 to 90 cm from the façade. One of the rooms, only the hanay, a room and a hanay or the whole façade may project, there is no determinate rule about it.

According to the balustrade and the cover beneath, the projections can be classified in three groups:

- Simple projection without bracing or cover.
- Projections with bracings (There are examples of simple straight bracings or bracings with concave profile. In some houses two sides of the bracings are covered and thin wood-lath pieces are placed in between.)
- Projections with bracings. Beneath the projection it is covered with wood lath and plaster. In some of the houses there are stylized motifs of birds, leaves or flowers on the plaster.

The eaves of the roof project 20 to 50cm. Beneath the eaves is not covered in rubble stone masonry facades. In timber frame facades they are covered with wood-lath and plaster. They have a concave form. Over the plaster there are sometimes motifs of birds, leaves or flowers(similar to those on projections).

In the hipped roof type house in Samos and in Kuşadası houses, although the plan layouts are different, features similar to Şirince Houses were observed on the façade layouts. The forms of the eaves and projections, the blue and green color used in the windows and doors, the decorative motifs used on the façade are similar.

5.7. ARCHITECTURAL ELEMENTS

- **Courtyard Doors**

In the houses with courtyards, the courtyard walls can either be higher than 1.5m, preventing the view of the courtyard or they can be simple rubble stone masonry walls up to 1m height. The low walls have doors similar to those of Yenigün and Çarboğa houses. The ones with high walls

have double wing timber doors with an eave covered with tiles above the door opening. (2535).

- **Entrance Doors and Service Doors**

The entrance doors are located on the front façade and they open towards the “taşlık “space. He door opening can be rectangular or arched. There might be a window opening above the entrance door. The window can be part of the door opening, as a grill above the door wings, a separate window inside the arch of the opening or a separate top window above the door opening. As the “taşlık” space has no other window, this window provides daylight and ventilation for the space. In Yenigün House, the window opening is a grill above the door wings. In Çarboğa House there is no window opening. The entrance doors have double door wings. The wings can have geometric decoration as observed also in Yenigün House or they can be composed of the nailing together of 10cm vertical wooden planks with 3 horizontal timber planks as observed in Çarboğa house.

The service doors or shop doors are with single wing in timber.

- **Windows**

There are slit windows on facades of stable spaces. The shops have shop windows with timber shutters.

On timber frame facades there are windows with timber shutters and balustrade. Some of the shutters have rectangular decoration on them. The shutters of the house number 2420 – which is also known as the Greek doctor’s house – are particular since they have an intricate floral decoration.

On back facades and side facades in rubble stone masonry there are sometimes windows with timber shutters.

On the front facades of houses with plan type C there are windows with timber shutters. On two sides of these windows there are stone shelves.

Examples of such stone shelves were also seen in Kayaköy and flat roof type Samos Houses.

Decoration on eaves and beneath the projections.

Decoration on eaves and beneath the projections.

Figure 5.2 Elevations of Şirince Houses – Decoration on eaves and projections

Entrance Doors in Şirince

Interior Doors in Şirince

Figure 5.3 Entrance doors and interior doors of Şirince Houses

The inner doors at ground floor are simple single wing timber doors. On ground floor the door of room type A and sometimes that of room type B have double wing ornamented doors.

In some houses there are openings / passages between houses in the dimensions of the windows with single timber shutters. They were observed both between hanay to hanay and between room to “hanay”.

Between room type B and hanay there is often an interior window.

- **Service Walls / Cupboards**

The service wall (observed in room type A and C) is similar in all the houses. There is the central niche that is about 25 – 40 cm deep and it is flanked with other covered niches. There are variations among the decorative motifs. The service wall can be either located on the façade of the house or between two rooms. In plan type A, the service wall is between room type A and kitchen. The back side of the cupboard is also utilized for plate shelves from the side of the kitchen. In 2530 and 2545, there is also a second service wall for room type B, between the “hanay” and the room. This cupboard is smaller than that of room type A and has no ornamentation.

In plan type B, the service wall can be located by the back façade or between one of the rooms and the kitchen. In 2383 and 2444 where, the kitchen is located parallel to the side façade, it is separated from the room next door by the service wall. In this plan type, one or both of the rooms might have service walls. In Çarboğa House, the traces in F02 indicate that the service wall was located on the west (back) façade. There is an indication of alteration on the wall between F03 and F04 spaces. When the houses 2383 and 2444 that have a similar plan are considered, there might have been a second service wall between F03 and F04 spaces.

Apart from the service wall there are also single niches in the houses. They are often seen next to fireplaces.

- **Fireplaces**

In plan type A, the fireplaces are observed in room type B and in the kitchen. In Plan type B, the fireplaces are observed in room type B and C and in the kitchen. In plan type C, they are observed in the main room. Only in 2 examples among the houses studied (Yenigün House and 2391) they are also seen in “hanay”. The fireplaces are usually located on outside facades. Only in 2444 (plan type B) and in 2541 they are observed in the interior stone masonry wall. Often a niche is located next to the fireplace.

- **Staircases**

In plan type A and B, the staircases are located in” taşlık” space on ground floor and “hanay” space on first floor. The staircases are in timber but the first few steps can be in stone as observed in Yenigün House.

The balustrade of the steps of the staircase is composed of a timber railing supported by timber posts. The balustrade around the opening on the floor for the staircase on “hanay” space can either be of the same construction or it can be composed of a railing supported by timber lattice. Usually there is a timber shelf above part of this railing and there are timber shelves on the wall behind the staircase.

In plan type C, in 2293 and 2361 (see table 5.6), there is no staircase in the houses. The trace of door openings on the front facades indicate removed exterior staircases.

- **“Sergen”**

“Sergen” shelves were observed in the rooms. All of the rooms type A have “sergen” shelves. Some of the rooms type B and C have “sergen” shelves. The examples of “sergen” shelves observed are of similar to type 1 in the typology of archtectural elements. Only in Yenigün house “sergen” shelves type 2 and 3 were observed.

In the kitchen the sink is observed. It is a simple timber basin covered with plaster. In the kitchen and in hanay shelves are observed.

Figure 5.4 Service walls in Şirince Houses

Table 5.1 Comparative study within Şirince, plan type A

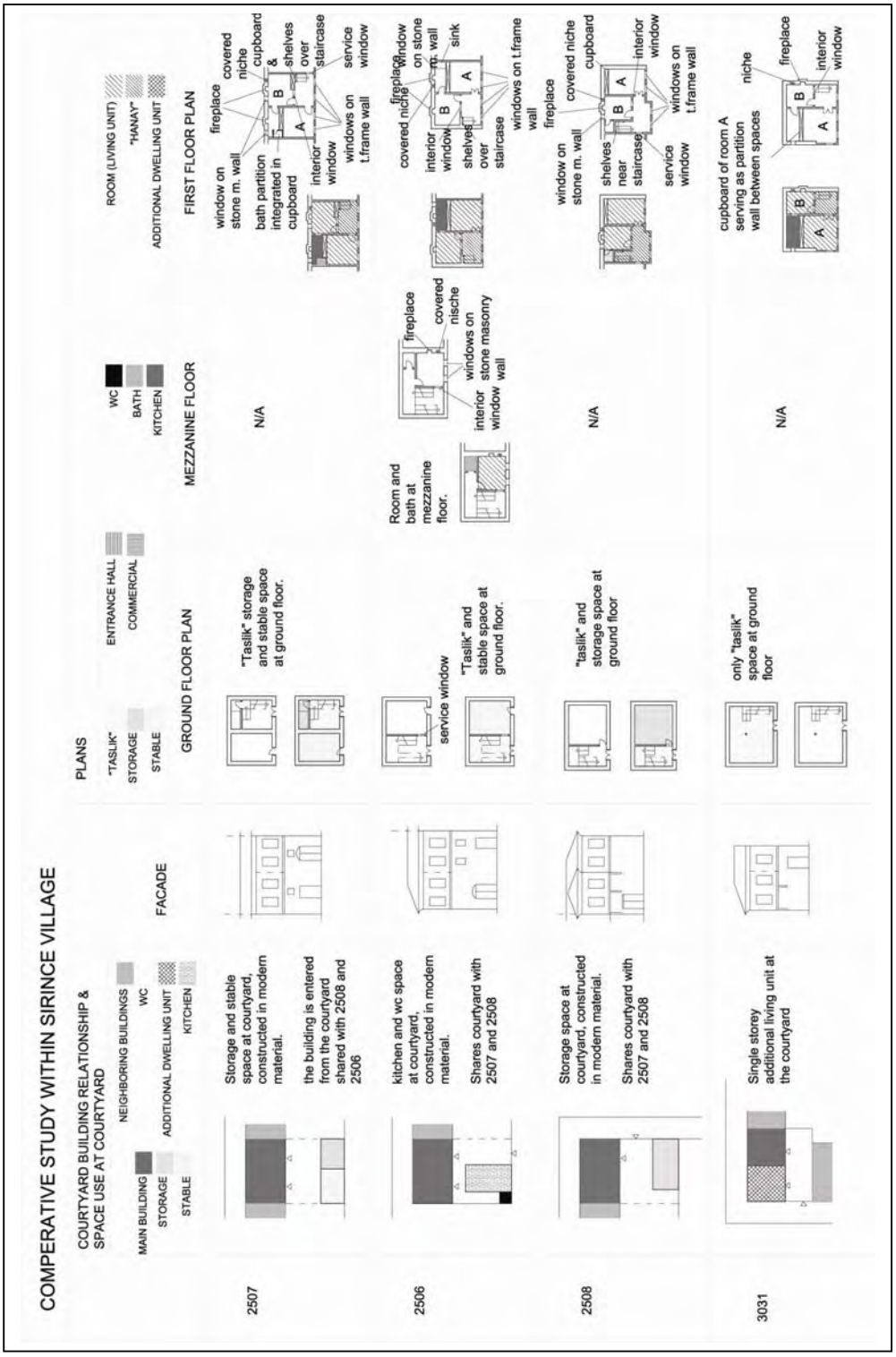


Table 5.2 Comparative study within Şirince, plan type A (continued)

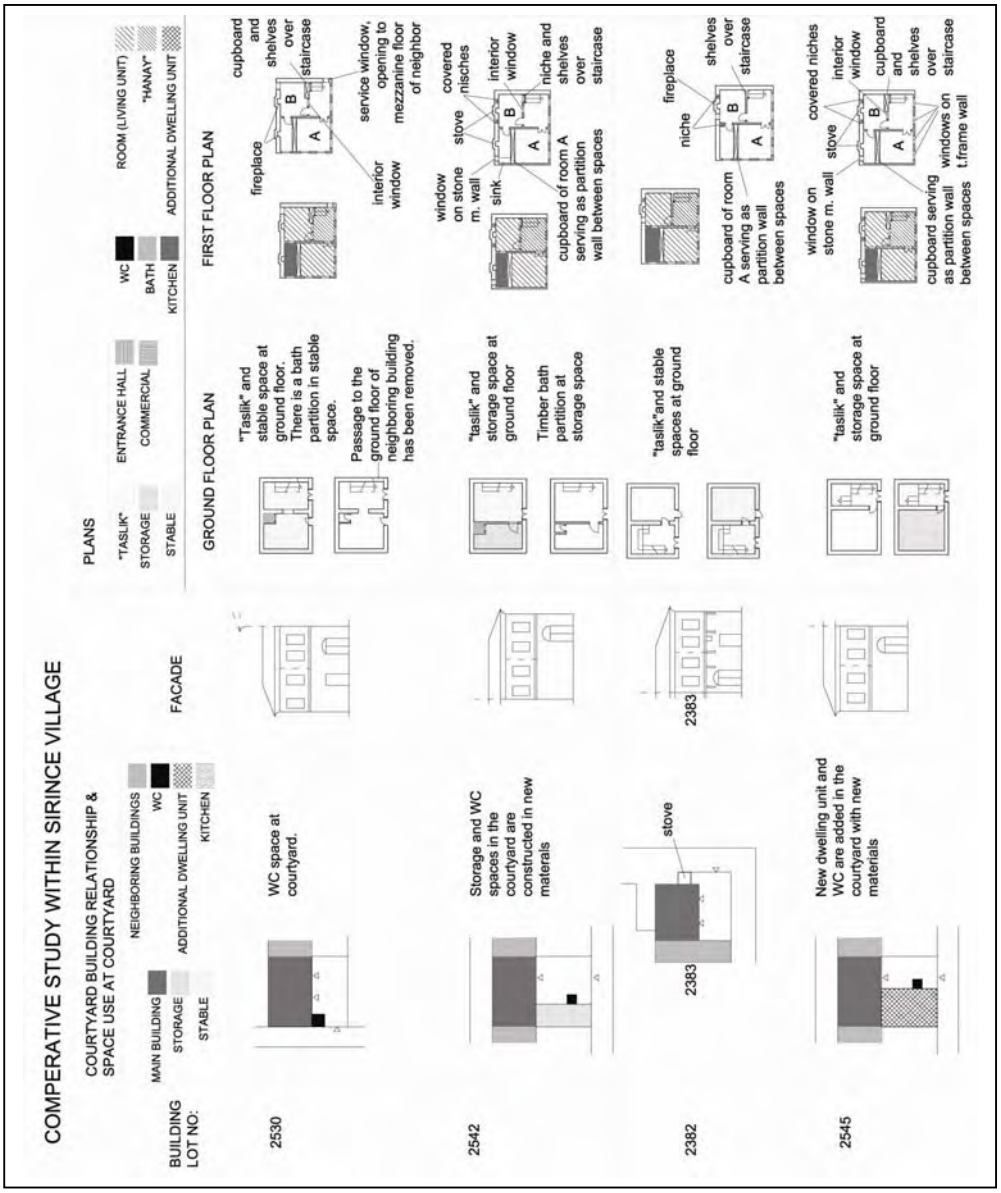
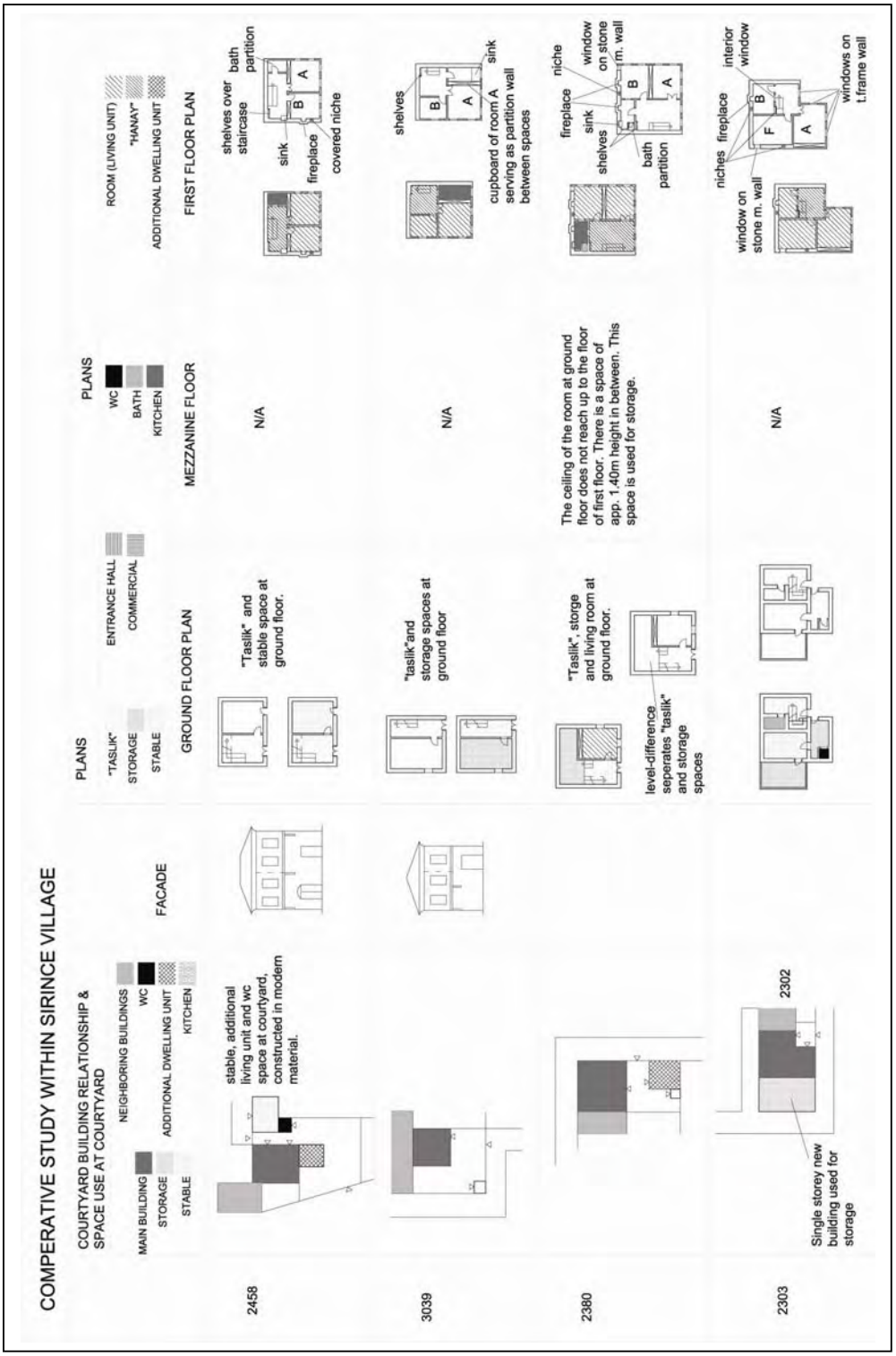


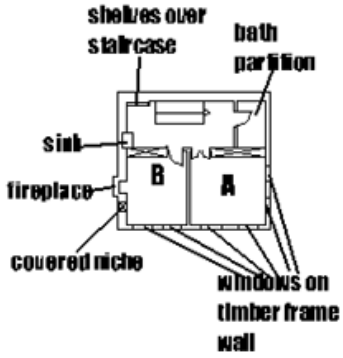
Table 5.3 Comparative study within Şirince, variations of plan type A



House number: 2458

Ceiling panel

Cupboard



Fireplace and niche

“Hanay” and staircase

Figure 5.5 House number 2458 – Plan and photographs

Table 5.4 Comparative study within Şirince, plan type B

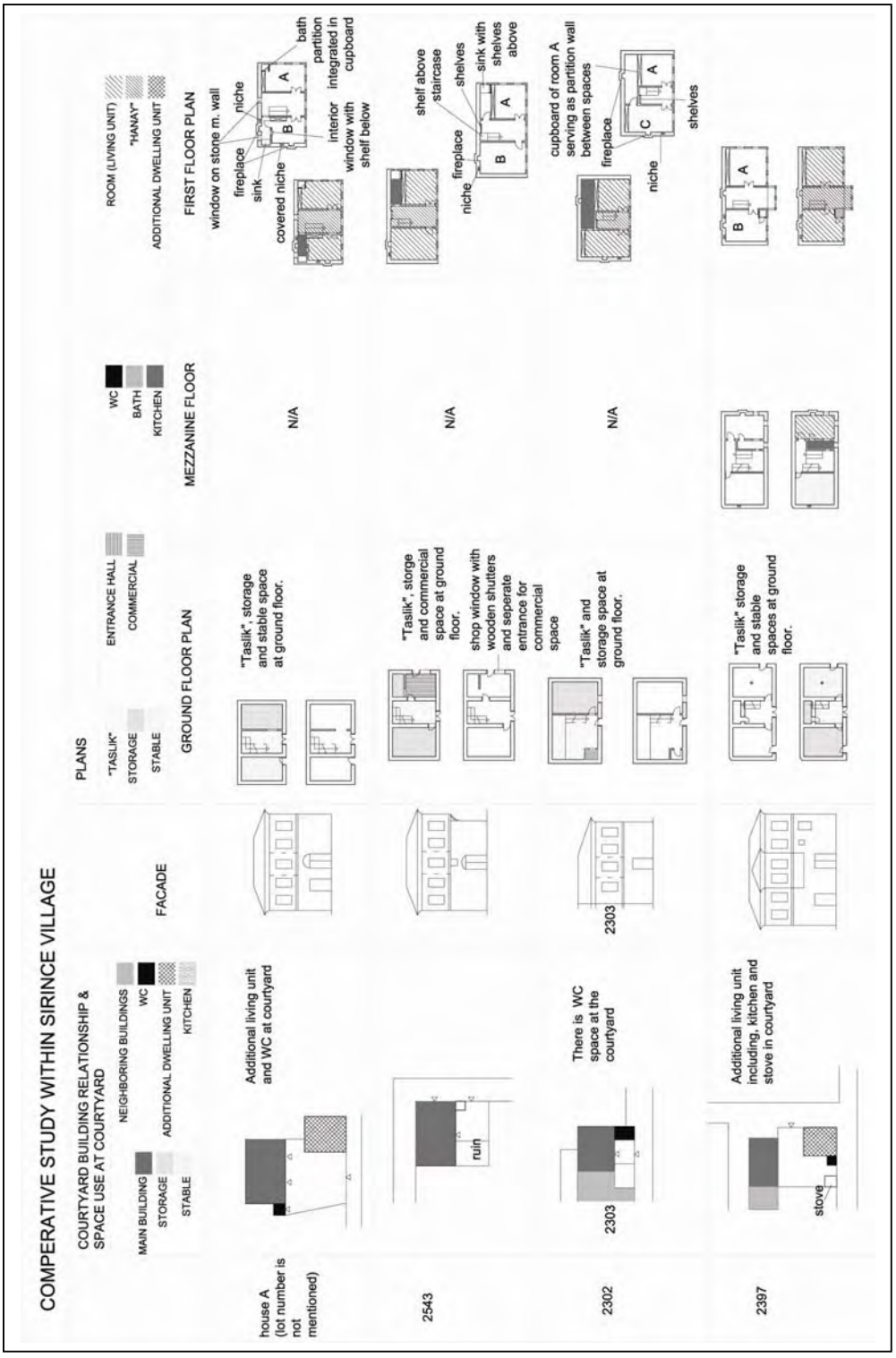


Table 5.5 Comparative study within Şirince, variations of plan type B

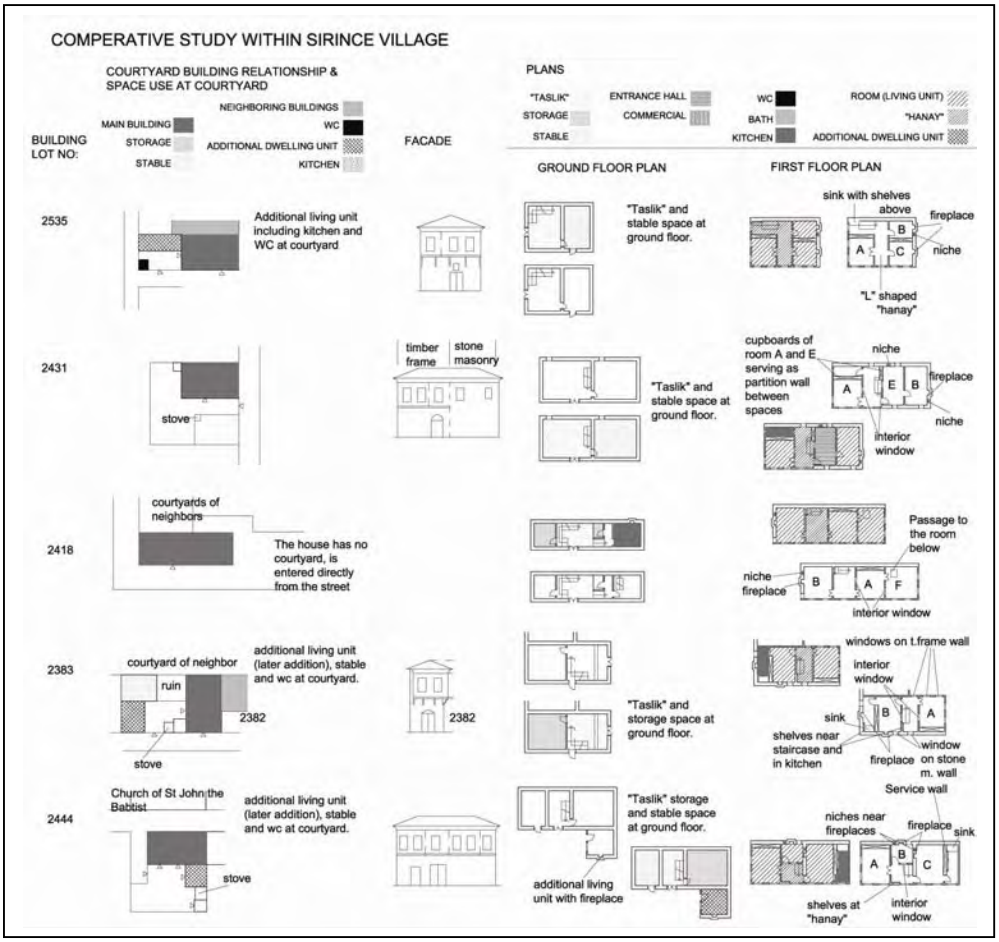
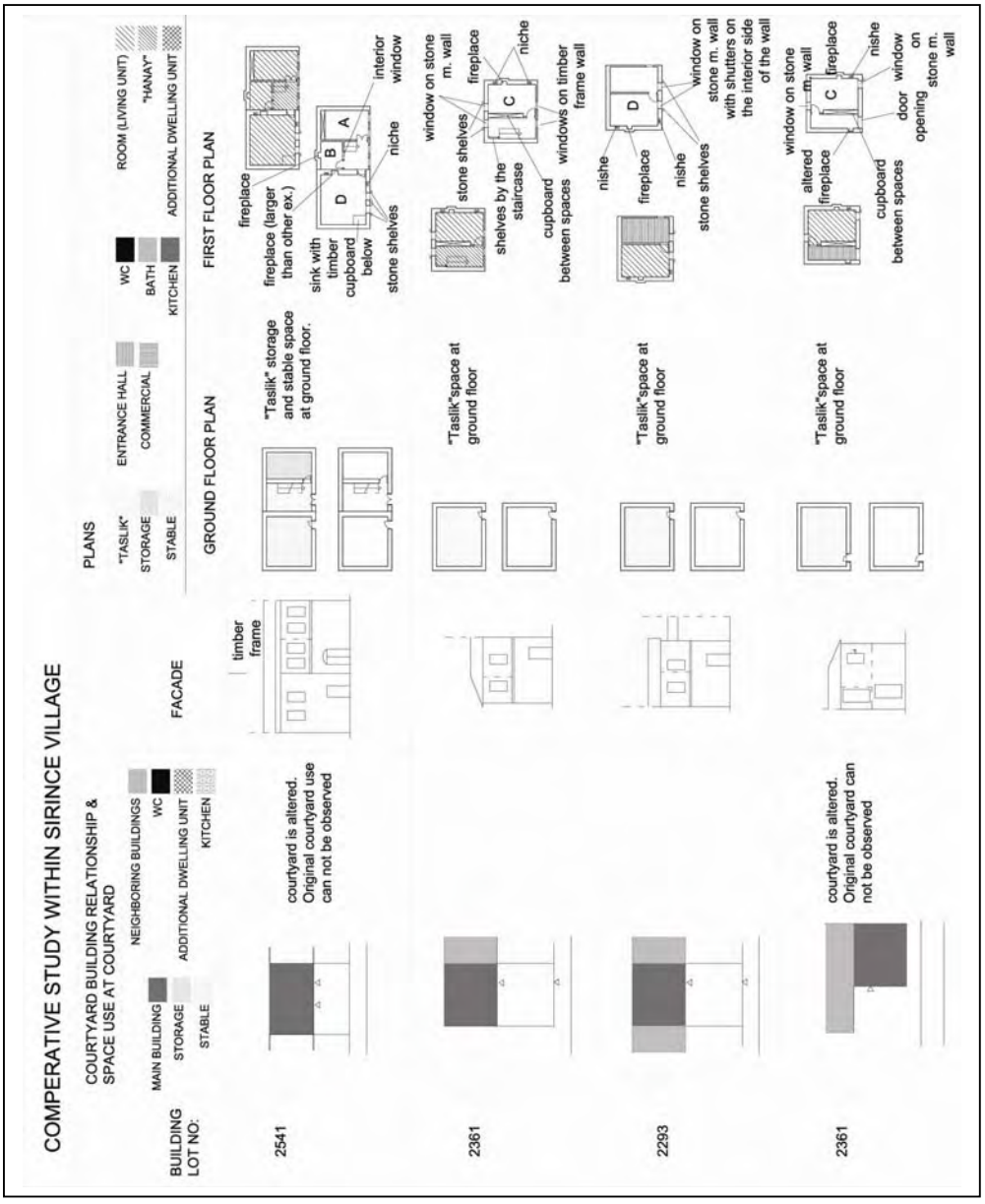


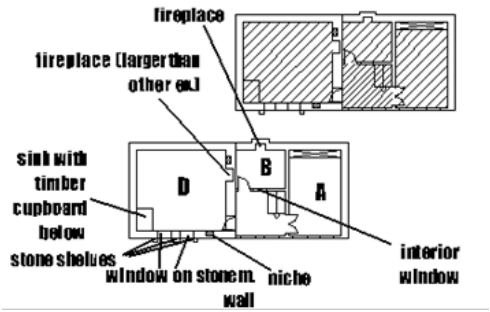
Table 5.6 Comparative study within Şirince, plan type C



House number: 2541

Fireplace and niche

Ceiling panel



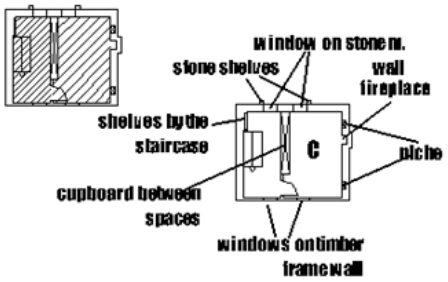
Elevation

Figure 5.6 House number 2451 – Plan and photographs

House number: 2361

Elevation

Fireplace and niche

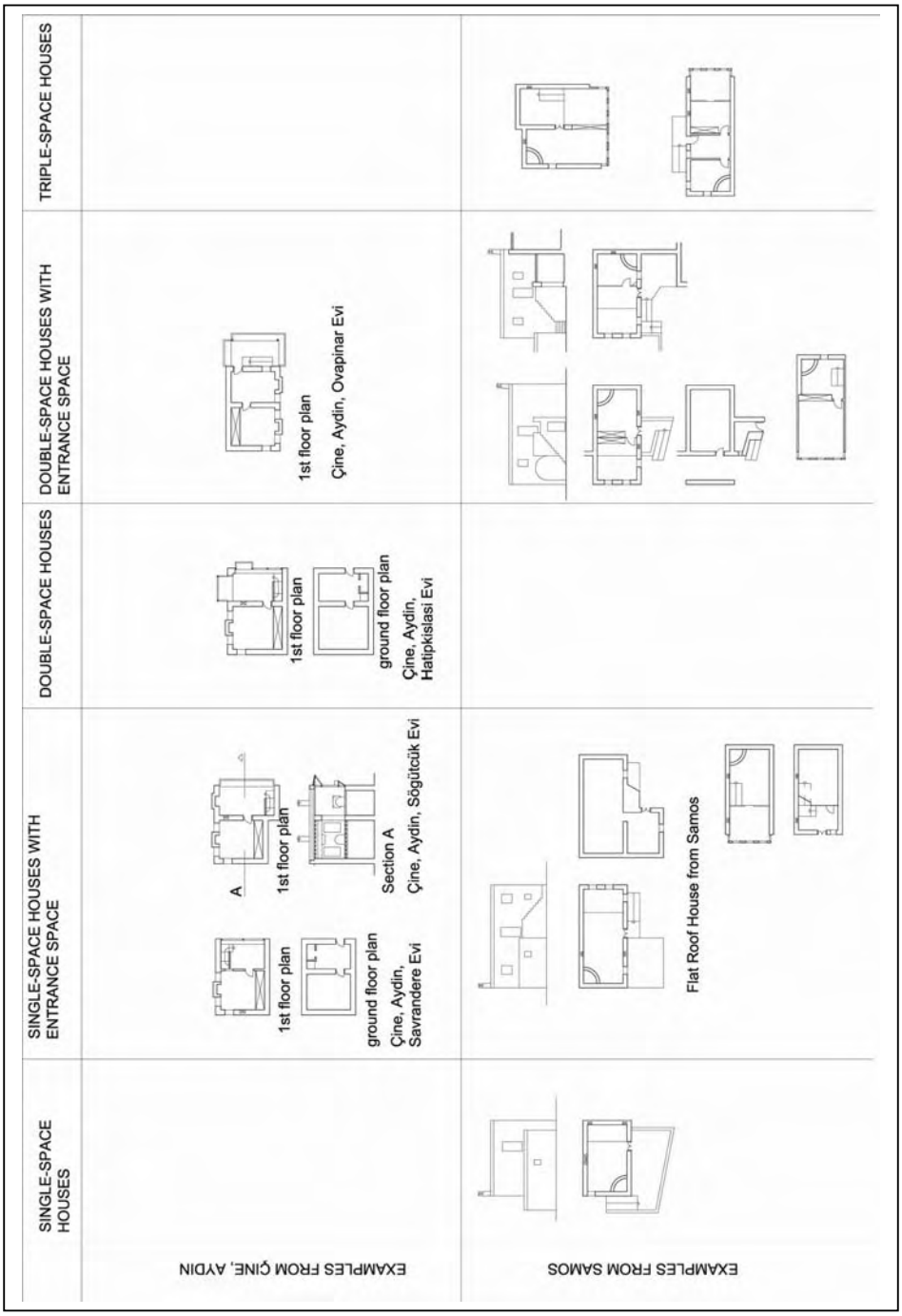


Elevation

"Hanay"

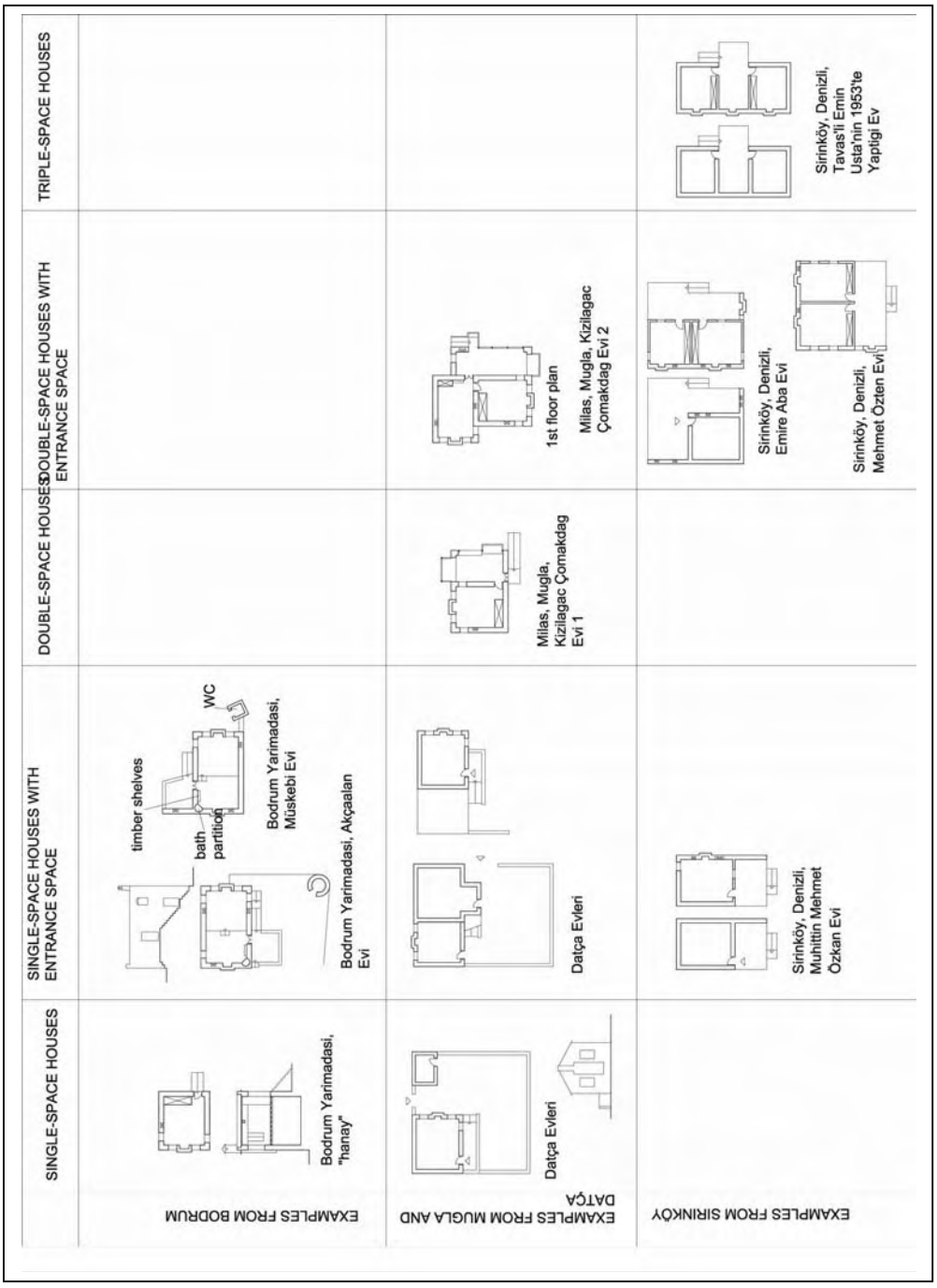
Figure 5.3 House number 2361 – Plan and photographs

Table 5.7 Comparative study in the Aegean Region (Çine Aydın, Samos)[9]



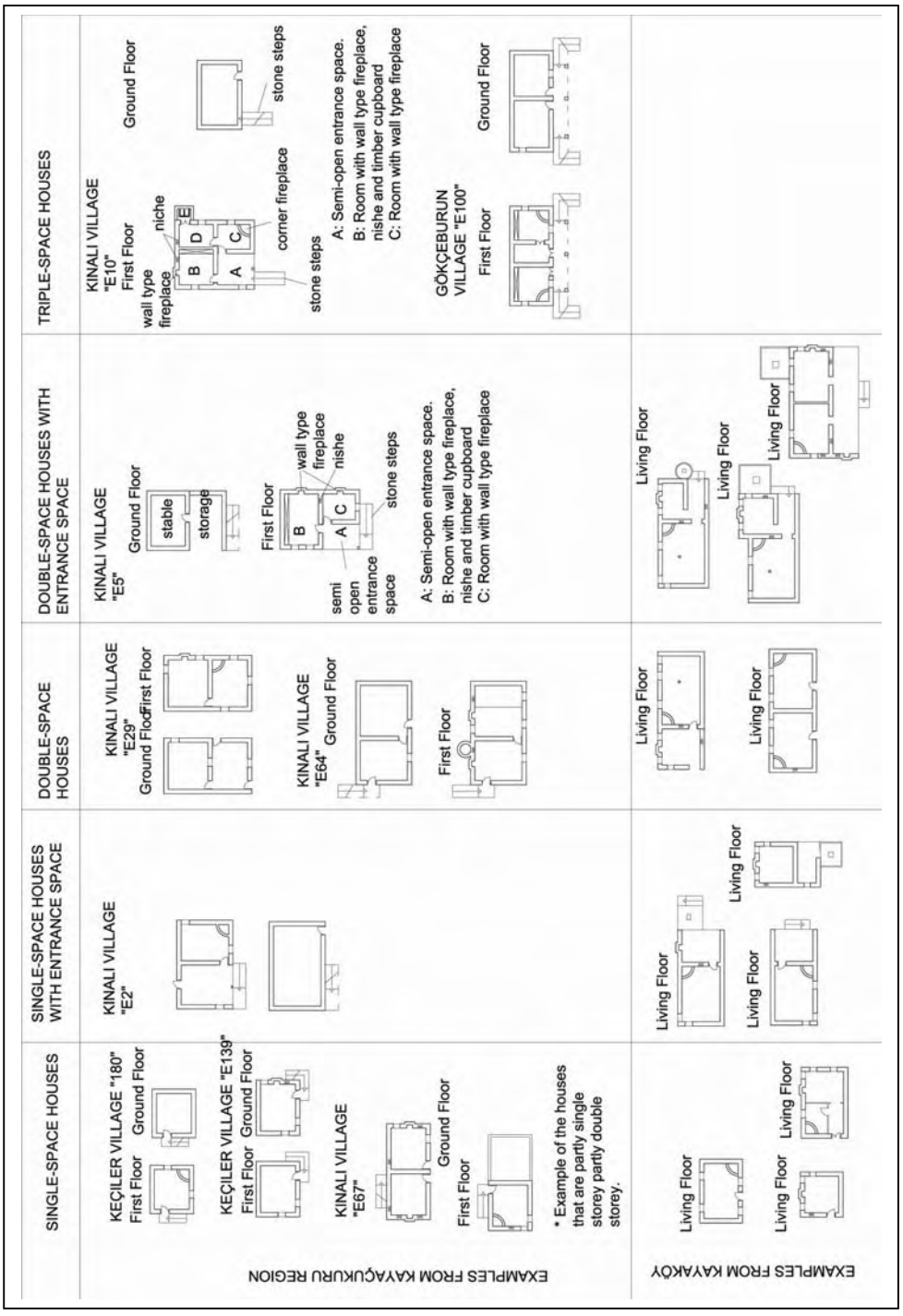
[9] Source for Çine, Aydın: Aran, K. (2000). *Barınaktan Öte*. Source for Samos: Papaioannou, K.S. (1984). *Samos*.

Table 5.8 Comparative study within The Aegean Region (Şirinkoy, Muğla, Datça, Bodrum)[10]



[10] Source for Şirinköy: Bektaş, C. (1987b). *Şirinköy Evleri*. Source for Datça: Bekem, E. (1985). *A Preservation and rehabilitation proposal for Datça Mahallesi (Eski Datça)*. Source for Muğla and Bodrum: Aran, K. (2000). *Barınaktan Öte*.

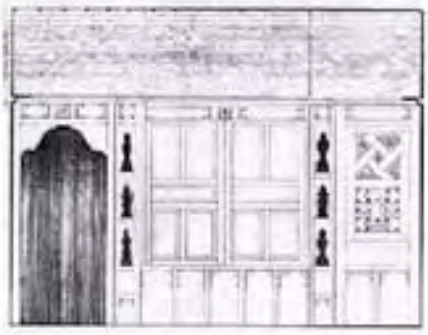
Table 5.9 Comparative study within The Aegean Region (Kayaçukuru Region, Kayaköy)[11]



[11] Source for Kayaçukuru: Yıldırım, Y. (1983). *Muğla İli Kayaçukuru Bölgesi Tespit Çalışması Raporu*, and personal notes and sketches of Yelda Yıldırım obtained at the

Elevations of Samos Houses with pitched roofs with tiles.

Elevations of Samos Houses with flat roofs.



Service wall from Samos.

Stone Shelve next to window.

Figure 5.5 Samos Houses[12]

[12] Source: Papaioannou, K.S. (1984). *Samos*.

Figure 5.6 Kuşadası Houses[13]

[13] Source: Bektaş, C. (1987a). *Kuşadası Evleri*.

CHAPTER 6

RESTITUTION

6.1. RESTITUTIVE HISTORY OF YENİGÜN AND ÇARBOĞA HOUSES

Previous research on the village and the existing inscription with the date 1890 on one of the houses support the idea that the existing houses in the village can be dated to the end of 19th, beginning of 20th Century. (Muss, 1994/1999, p.55; Uğuroğlu & Others, 1983, p.15)

According to the data gathered in the historic research (see chapter 2), it is possible that the settlement itself dates back to the antique period. In many of the houses in Şirince there are traces of alterations, and the houses that are proposed to be from the 19th century might include parts or elements that are from earlier periods.

The traces in the houses and the data from the comparative study indicate that Yenigün and Çarboğa Houses have undergone many alterations. The traces in Yenigün house indicate three important groups of alterations whereas those in Çarboğa house point to two important groups of alterations. (see figure 6.1, figure 6.2 and figure 6.3)

The two houses were probably composed of simpler cubical forms in the first phase. In the restitution scheme, single or double space cubical masses with stone masonry walls are proposed for the initial design of the houses. The examples of such a typology can still be observed in the village among the houses with plan type C studied within comparative study.

It is suggested that the houses were later enlarged with the addition of masses with timber frame facades.

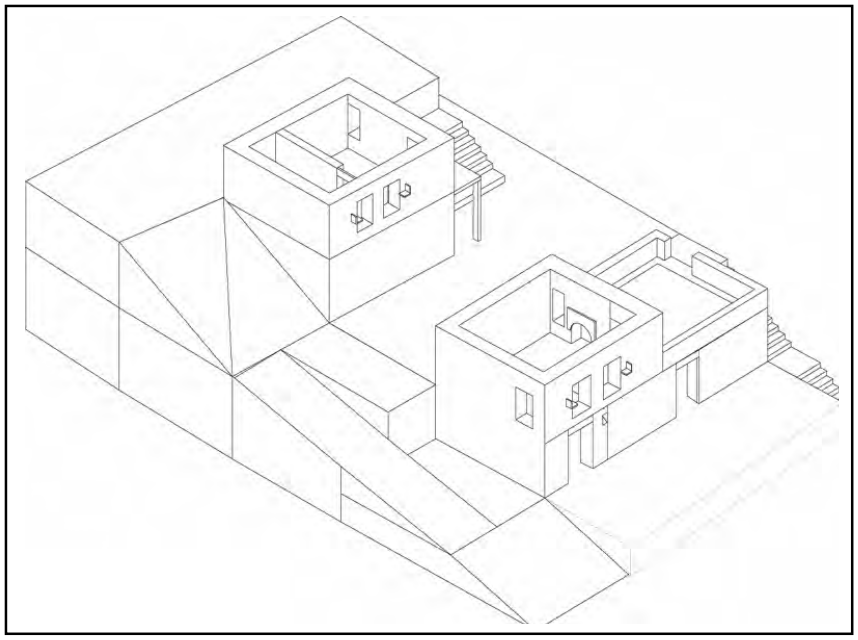


Figure 6.1 Restitution scheme for the first phase of Yenigün and Çarboğa Houses

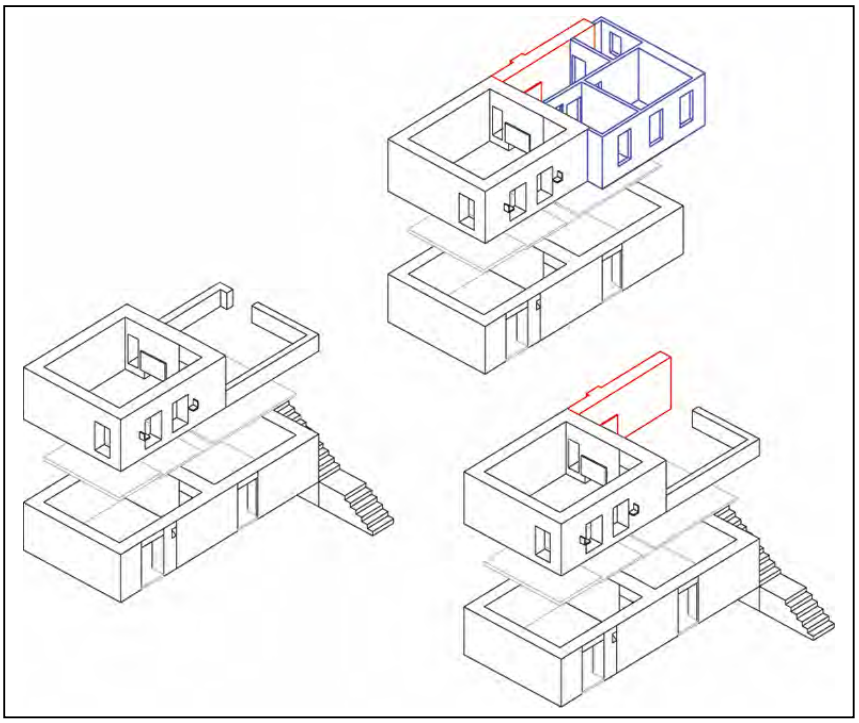


Figure 6.2 Restitution scheme - Different phases of Yenigün House

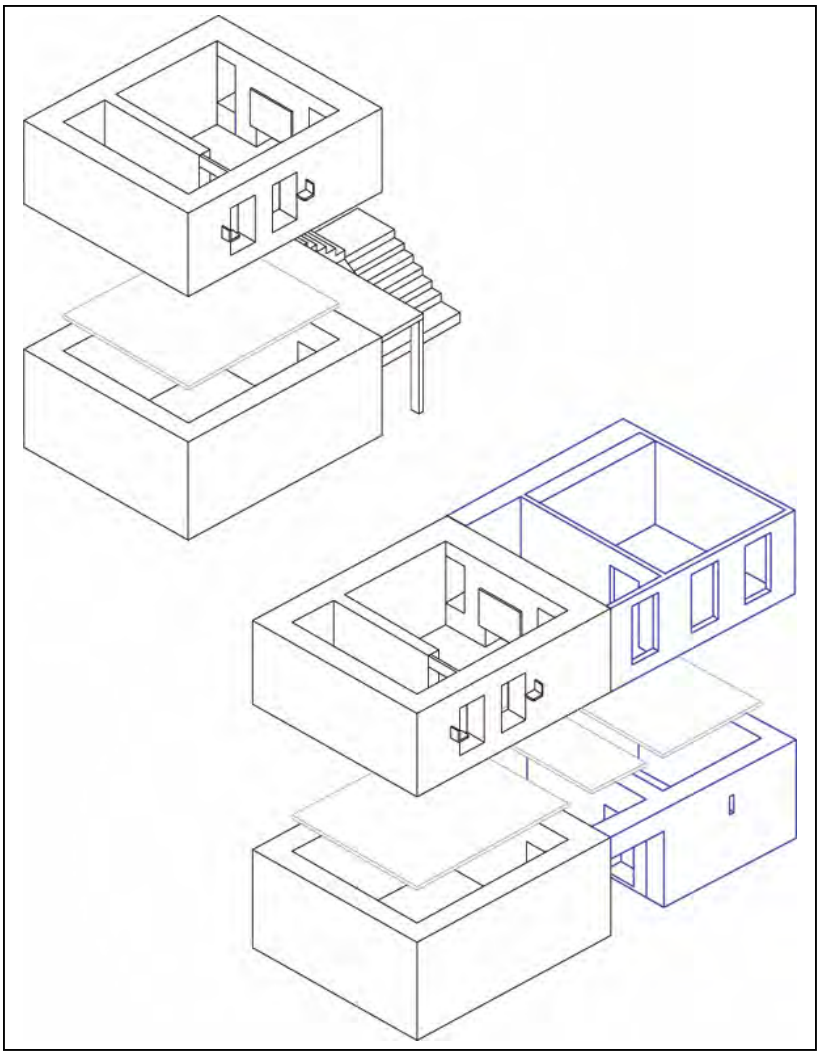


Figure 6.3 Restitution scheme - Different phases of Çarboğa House

6.2. SITE PLAN

Although the traces in the nearby surroundings of the houses were not studied in detail, they indicate some of the obvious changes in the site plan of Yenigün and Çarboğa Houses.

To the west of the houses is a two storey ruin, of which the upper floor has collapsed and they have built a second inclined roof on the level of the first floor. The traces on the building and the oral information from the elderly people indicate the possibilty that this building was among the shops of Şirince.

Between the ruin and the fountain, there is the beginning of a stepped street and on the slope to the west; there are traces of other ruins. Also on the open area to the south of the houses and further south in the valley there are traces of ruins. Therefore, in the past the fabric of houses in Şirince probably used to continue to the west and south of Yenigün and Çarboğa Houses.

In the first phase, the houses were entered not from the ramp to the south - as they do today - but from a stepped and terraced street to the north of the houses. This street used to connect the streets to the east and west of the houses. The houses had entrances opening to this street in different levels of the topography.

6.3. PLANS

6.3.1. YENIGÜN HOUSE

- **Plan at +1.00**

In the first phase the plan at +1.00 is composed of two spaces. G01 and G02. The two spaces can be entered directly from the courtyard. There are stone steps in front of the doors of the spaces. There is a passage between the two spaces on the east corner of the wall between the two spaces. The floors of the spaces are covered with slate stone paving.

Figure 6.4 Restitution scheme - Site plan and elevations of the houses in the first phase

The steps to the north of G01 space lead to the first floor of Yenigün House.

There is a WC space in the courtyard.

In the second phase the staircase leading to the first floor is constructed in G01 space.

- **Plan at +4.00**

In the first phase, the plan is composed of F05 space (above G02 space) and an open entrance space above G01 space. F05 space is entered from the door at the east corner of the north wall. There are sergen shelves on east and west walls. The opening on the west corner of the north wall is an exterior window opening.

There is very little information about the second phase of the first floor of Yenigün House. The discontinuity between the west wall of F01 space and the floor construction and the presence of the fireplace in F01 are indicators of different phases in the plan layout. In the restitution scheme, an hypothesis for an alternative plan layout was searched. In this layout there are 4 spaces in the plan layout: S1, S2, S3 and the current F05 space. S1 space is the hanay space. The staircase is located here and S2, S3 and F05 spaces can be reached from this space. S2 space is a room type A with double doors, service wall and central ceiling panel. S3 space is a kitchen with fireplace. There are no traces to support the scheme, the reliability is very low, it can be justified only by the comparative study and architectural logic.

6.3.2. ÇARBOĞA HOUSE

- **Plan at +4.00**

In the first phase the ground floor plan of Çarboğa House is composed of a single space (G03 space). The space is entered from the north east corner through D2 door. There are no windows of the space. The

ceiling is covered with a ceiling cover with 25cm wide timber planks. The first floor is reached through the exterior steps by the north façade.

In the second phase, the ground floor is reached through slate stone steps from the courtyard. It is composed of two spaces. G01 and G02 spaces are a single space without the wall in between. G03 space is reached from G01 space. There is no timber or stone masonry post supporting the ceiling construction. The staircase leading to the first floor is attached to the south wall of G01 space. (The diagonal trace on the wall surface defines the original location of the staircase.)

- **Plan at +7.00**

In the first phase the plan at +7.00 is composed of F03 and F04 spaces either as a single space without the wall in between or as two separate spaces. If there were two separate spaces; they were either separated by a wall or by a service wall. The probability of the scheme with two separate spaces is higher since the ceiling of F03 space is complete in itself.

The west wall of the spaces and the north wall of F03 space are in stone masonry. The thickness of the west wall is 55cm; that of the north wall is 80cm. In all the examples studied in the comparative study, a fireplace is located in one of the stone masonry walls in this typology. The fireplace can be located on the west wall or the north wall. The probability of the north wall is higher. (The north wall is thicker, in the examples the fireplaces are located on the side wall perpendicular to the front facades with windows.) To the west of the fireplace there can be a niche or a window opening. The probability of a niche is higher.

In the second phase the plan is composed of F01, F02, F03 and F04 spaces. The west facade is in stone masonry. The wall between F01 and F03 is in stone masonry, the one between F01 and F02 is in timber frame.

F01 space is reached through the staircase from G01 space. There is no door opening to the street on west façade.

Figure 6.5. Restitution scheme - Plan at +1.00 in phase 1 and phase 2

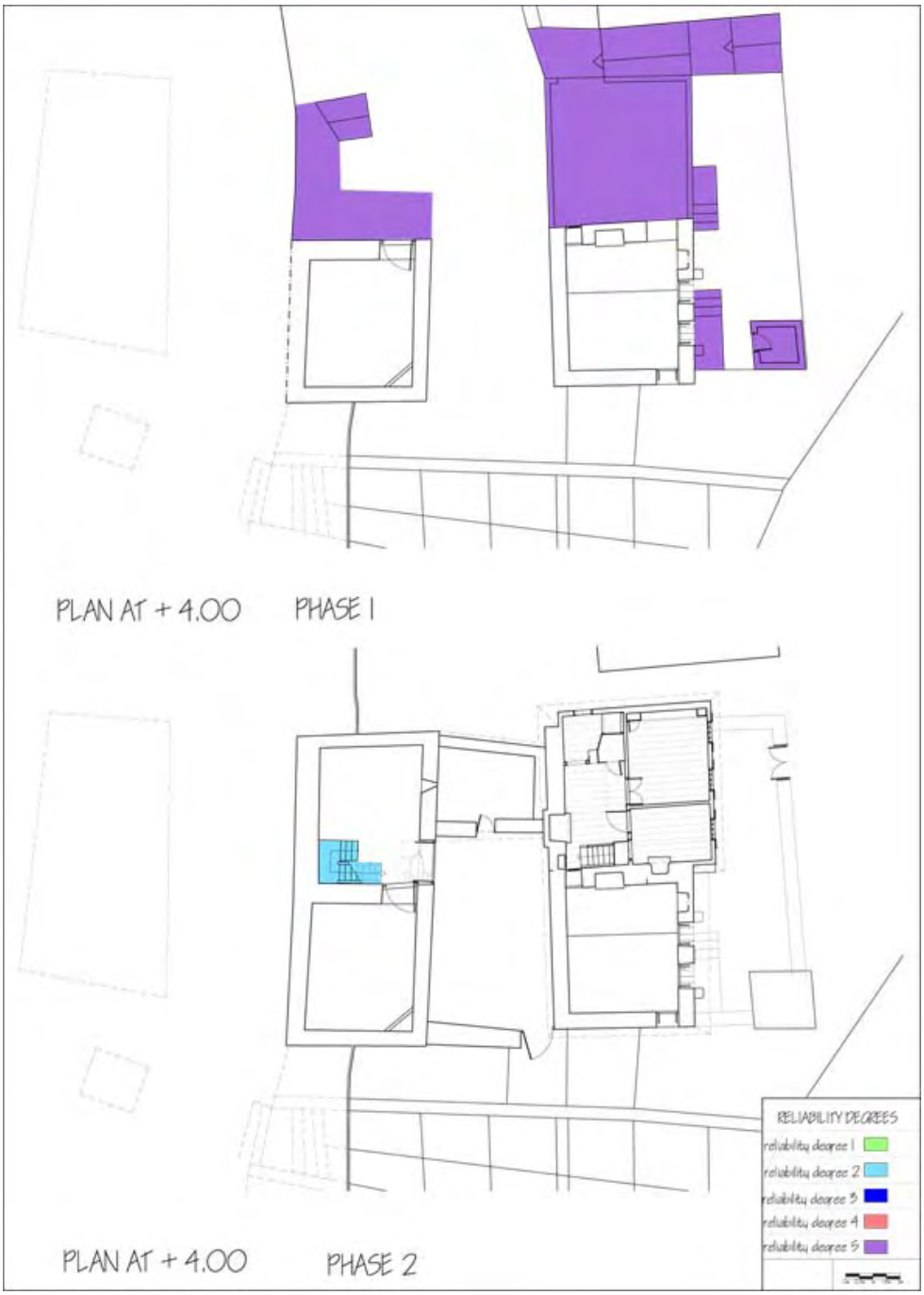


Figure 6.6. Restitution scheme - Plan at +4.00 in phase 1 and phase 2

Figure 6.7. Restitution scheme - Plans at +7.00 in phase 1 and in phase 2

F01 space is entered through a double wing door with decorated door wings. Along the west wall is a 45cm deep service wall. Below the roof construction there is a ceiling cover with 25cm wide timber planks. On the center of the ceiling cover is the decorative ceiling panel.

6.4. ELEVATIONS

In the first phase, the buildings have stone masonry facades. There are W2 type windows on the facades with stone shelves on the sides of the windows. There are no covering below the eaves. The windows have no glass panes.

The north facades are the facades where the fireplaces are located. There are no fireplace projections as these walls are built thicker than the other stone masonry walls of the buildings. In Yenigün House, next to the fireplace there is a window opening. In Çarboğa House there might be a similar opening at the same location.

Yenigün House has a terrace above G01 space with low parapet walls. The terrace is reached by the steps adjacent to the north façade. Çarboğa House has a timber balcony on north façade. The steps on the north façade reach this balcony. The roof of the house extends over this balcony.

In the second phase, the timber frame facades with W1 type windows are added. The windows do not have any glass panes. The glass panes in Yenigün House are added later on.

6.5. RELIABILITY OF RESTITUTION

In the restitution schemes, 5 groups of reliability degrees can be differentiated.

In the first reliability degree, the presence of the elements are justified by the traces in the buildings. The details and dimensions of the elements can be understood from the comparative study within the building. The elements in this group are: Missing sub – elements of windows and doors, cupboard and central ceiling panel of F02 space of Çarboğa House,

Figure 6.8. Restitution scheme - Plan alternatives

Figure 6.9. Restitution scheme – Elevations in phase 1 and phase 2

ceiling and floors of F01, F02 and F03 spaces of Çarboğa House. Altered walls of Çarboğa House, ceiling of F05 space of Yenigün House, the slate stone covering of the ground floors.

In the second reliability degree, the existence of the element is certain, there are traces of it in the buildings but there are no other examples of it in the buildings, therefore the details are not certain. The elements in this group are: The door between G01 and G02 spaces in Yenigün House, door between F05 and F03 in Yenigün House, door between F01 and F03 spaces in Çarboğa House.

In the third reliability degree, the existence of the elements are known through comparative study. There are examples of the elements in the buildings. The elements in this group are: The double wing door of F02 space of Çarboğa House, the fireplace in F03 space of Çarboğa House.

In the fourth reliability degree, the existence of the elements are speculated through comparative study. There are alternatives about the location and presence of the elements. The elements in this group are: service wall in F03 space, the niche / window next to the fireplace in F03 space of Çarboğa House, the roofs of the houses in the first phase.

In the fifth reliability degree, the existence of the elements are speculated through architectural necessity, there are no traces and no examples from comparative study. The elements in this group are: Staircases of the houses in the first phase, wc spaces of the houses in the first phase, the plan scheme of Yenigün house in the second phase, the terrace above Yenigün House in the first phase, the steps in front of the doors of G01 and G02 in the first phase of Yenigün House.

CHAPTER 7

RESTORATION

7.1. EVALUATION OF THE PRESENT STATE OF THE BUILDINGS

7.1.1. EVALUATION OF THE COMPARATIVE STUDY

Within comparative study it was observed that many of the houses have undergone changes in typology and that there has probably been a transformation from single or double space stone masonry masses to the timber frame masses with 4 spaces. Another feature that was observed in comparative study was that with the increase in the number of houses building groups with repeating units were formed attached to each other in row house manner. Çarboğa and Yenigün Houses are valuable and atypical within the houses of Şirince since they display the juxtaposition of the two different phases of this transformation in typology. This juxtaposition is also important as it sets an example of the feature of the repetition of units. The houses are also valuable within Şirince Houses as they display the typical features of the Şirince houses with the courtyard building relationship, organisation of the facades and the presence of the typical architectural elements.

Evaluation of the location of the buildings and the surrounding elements

Çarboğa and Yenigün Houses are located in a very strategic position in Şirince Village. The two streets to the east and west of the houses are among the most popular streets of the village as they pass to the east and west of the Church of St. John – the most frequented building of the village by tourists. These two streets are joined together with the ramp that is located to the south of the houses. Therefore, the tourists that visit the village pass along the east, south and west facades of the houses. The single storey ruin to the west of Çarboğa House has an important potential.

Oral information confirms that it was used as a shop. To the south of this ruin is the fountain. Situated at the highest point of the village and the beginning of the riverbed the two houses, the ramp and the fountain at the end of the ramp provide important points of vista – to observe and to be observed in return - not only towards the panorama of the rest of the village and the valley to the south; but also as a part of the panorama of İstiklal neighbourhood.

To the east of Yenigün House, the square across the river bed has an important potential with the panorama of both neighbourhoods, the riverbed and the fountain at one side of it. This square is also among the 5 nodes of the village for which landscape projects are being prepared as a part of the Conservation Plan of Şirince.

7.1.2. EVALUATION OF THE SPACES IN THE BUILDINGS

7.1.2.1. EVALUATION OF SPACE USE

Yenigün House is being used in its original function as the house of the Yenigün family. (Orbay, Sabihe and Pelin Yenigün). The life in the house revolve around the courtyard and the first floor. As a result of the mild climate it is possible to sit outside in Şirince during most of the year. Therefore the courtyard is an important space of the house where the guests are entertained, the meals are prepared using a mobile cooker, the dishes and the clothes are washed and the local products like tomato paste, *tarhana* and *erişte* are produced. G01 space is used for the storage of food and cooking utensils but there are no, water supply, workbench, cupboards or stove in the space. The refrigerator stands by the door and the rest of the pots and pans and olive oil and food containers are placed randomly by the walls over wooden boxes. In the cold winter months the cooker is used inside this room to prepare the meals. G02 space is used for firewood and local production storage. G03 space is used as the living room. The television and the only stove of the house is in this room. The family sit here in the afternoons and in winter days. The toilet - G04 space - is at the

corner of the courtyard. The comfort conditions are not very high since there is no toilet flush tank or electricity in this space and it is located outside the house on the corner.

The first floor is used mainly for sleeping. F01 space is used for circulation. It is among the bigger “hanay” spaces in the village, but contrary to other “hanays” it is not used for sitting since it is located at the back façade and it does not have any windows. The parents use F02 space whereas their daughter use F03 space. F02 space also serve as a living room where guests can be entertained. In both F02 and F03 spaces there is a problem of storage since there is not a convenient place to put a wardrobe.

The original function of F04 space is the kitchenette but it is not being used. As it is mentioned above, the daily life in Yenigün House revolve around the ground floor and courtyard and the kitchen utensils and refrigerator take too much space. Therefore, F04 space is not convenient for a modern kitchen. The bath partition in this space is used as the bath but there is no running water and the outlet of the water is a plastic pipe that is left in the open on the north façade of the house.

F05 space is not being used. Its original function is a living unit. Yet, today the entrance door of the space has been removed and it can only be entered from the 1.2m high opening from the courtyard of Çarboğa House.

Çarboğa house is owned by the elderly Çarboğa couple. Since the couple have another house in the village the house remains empty. The owners have mentioned that they intend to transform it to a pension.

7.1.2.2. CIRCULATION LAYOUT AND QUALITY OF LIGHT

According to circulation layout the spaces in Yenigün and Çarbğa Houses can be classified as:

- The spaces that can be reached directly from the street.
- The spaces that can be reached directly from the courtyard.
- The spaces that can be reached passing through another space.
- The spaces that can be reached passing through two spaces.
- According to quality of light, the spaces can be classified as:

- The spaces receiving indirect light through slit window or door opening.
- The spaces receiving direct light without view of the panorama
- The spaces receiving direct light with view of the panorama.

In Yenigün House, G02 space can be reached directly from the street. It also has a door that connects it to the courtyard but it is out of use since there is a level difference of 90cm between the courtyard floor and the floor of G02 space. From the courtyard of Yenigün House there is direct access to G01, G03 and G04 spaces. F01 space in first floor can be reached passing through G01 space in ground floor. F02, F03 and F04 spaces can be reached passing through G01 and F01 spaces. The original passage between F05 space and the rest of the first floor is missing. This space can only be reached from the courtyard of Çarboğa House. (See figure 7.1.).

G01 space receive indirect light from the door opening and the narrow window over the door opening. G02 space receive indirect light from the slit window and the door openings. G03 space receive direct light from the glass and metal window and door opening towards the courtyard – without view towards the panorama. G04 (wc space) receive indirect light from the door opening – there is also no electricity in this space. F01 space in ground floor receives light indirect light through the interior door between F01 and F03 spaces. F02 F03 and F05 spaces receive direct light from the windows on east facade that provide view towards the panorama. F04 space receives direct light from the window on north façade – without view of the panorama.

In Çarboğa House G01 and G04 spaces are reached directly from the courtyard. G02 and G03 spaces can be reached passing through G01 space.

F01 space on first floor can be reached both through the staircase from G01 space and directly from the street to the west. F02 and F03 spaces can be reached passing through F01. F04 space can be reached passing through F01 and F02 spaces.

Figure 7.1. Evaluation of the spaces in the building – Circulation layout

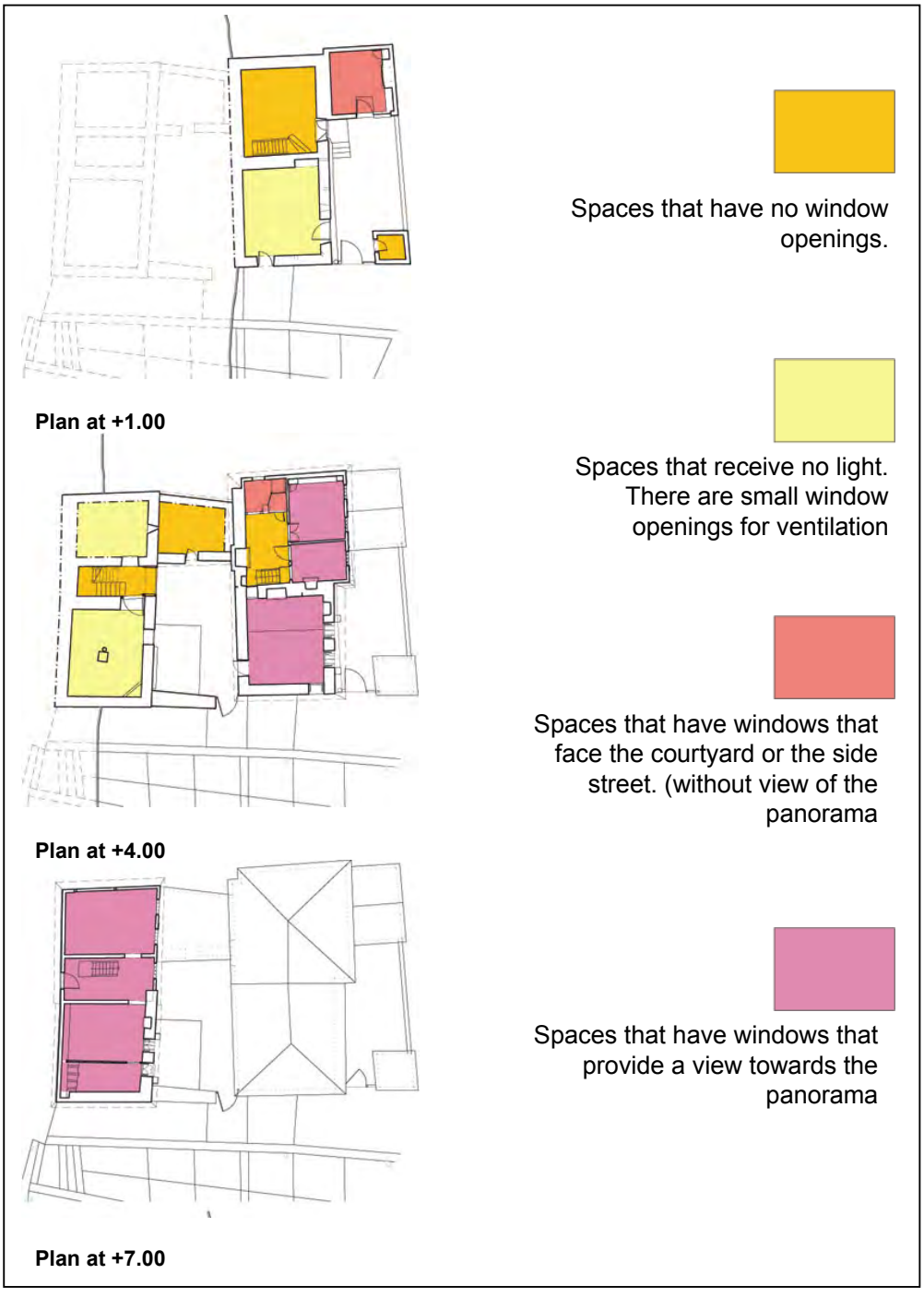


Figure 7.2. Evaluation of the spaces in the building – Circulation layout

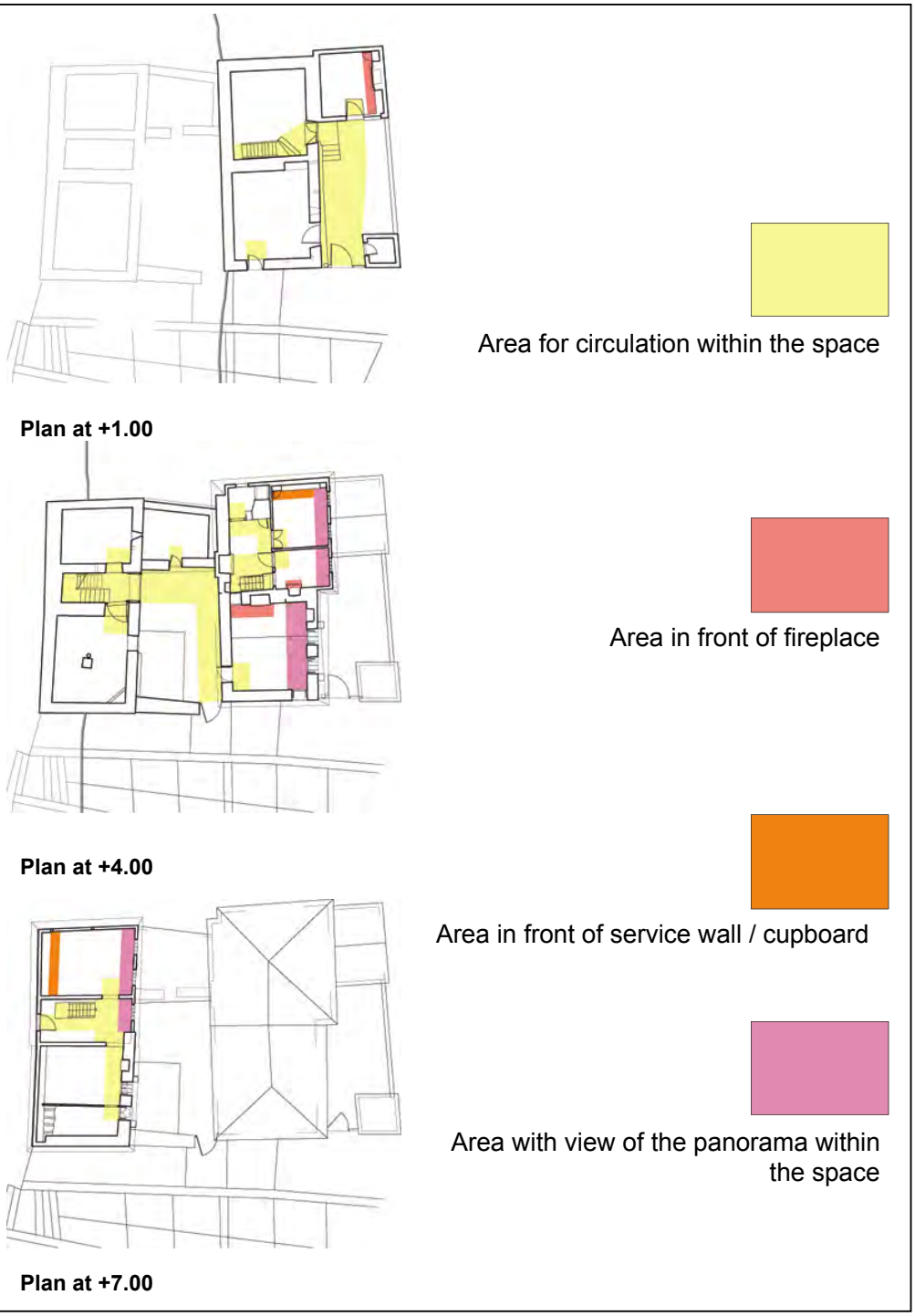


Figure 7.3 Evaluation of the spaces in the building – Circulation layout within the spaces

All the spaces in ground floor receive indirect light from slit windows or door openings. The spaces in First floor receive direct light from windows overlooking the panorama.

7.1.2.3. AUTHENTICITY OF THE SPACES AND WEALTH OF ARCHITECTURAL ELEMENTS

In general, both Yenigün House and Çarboğa House conserve the authentic characteristics typical of Şirince Houses.

In Yenigün House, all the spaces conserve their authenticity in terms of the construction system, architectural elements and space use. There has only been slight alterations like the addition of door to G02 space – without removing the original door, removal of the door of F05 space, removal of some of the sub elements of windows of F02 and F03. All the spaces of first floor conserve the wealth of architectural elements presence of windows, cupboards, niches, fireplaces and sergen shelves.

Çarboğa House has undergone some alterations in recent years and lost some of its architectural elements but conserves the authentic plan layout.

In the courtyard the slate stone steps are missing and the concrete platform is added. In G01 space the concrete staircase is added but the trace of the original staircase is left on the south wall. The door wings of G02 and G03 spaces are missing and screed is applied over slate stone paving of G02 space. In the first floor the authenticity of the spaces is destroyed with the alteration of the stone masonry walls on west façade and interior walls with brick masonry walls. This alteration has generated problems with the joining of walls and floors and ceilings since the dimensions are set according to stone masonry walls. Furthermore some of the authentic architectural elements like the door and cupboard of F02 space, door and fireplace of F03 space are removed during this alteration. Another important alteration in Çarboğa House is the removal of the ceilings

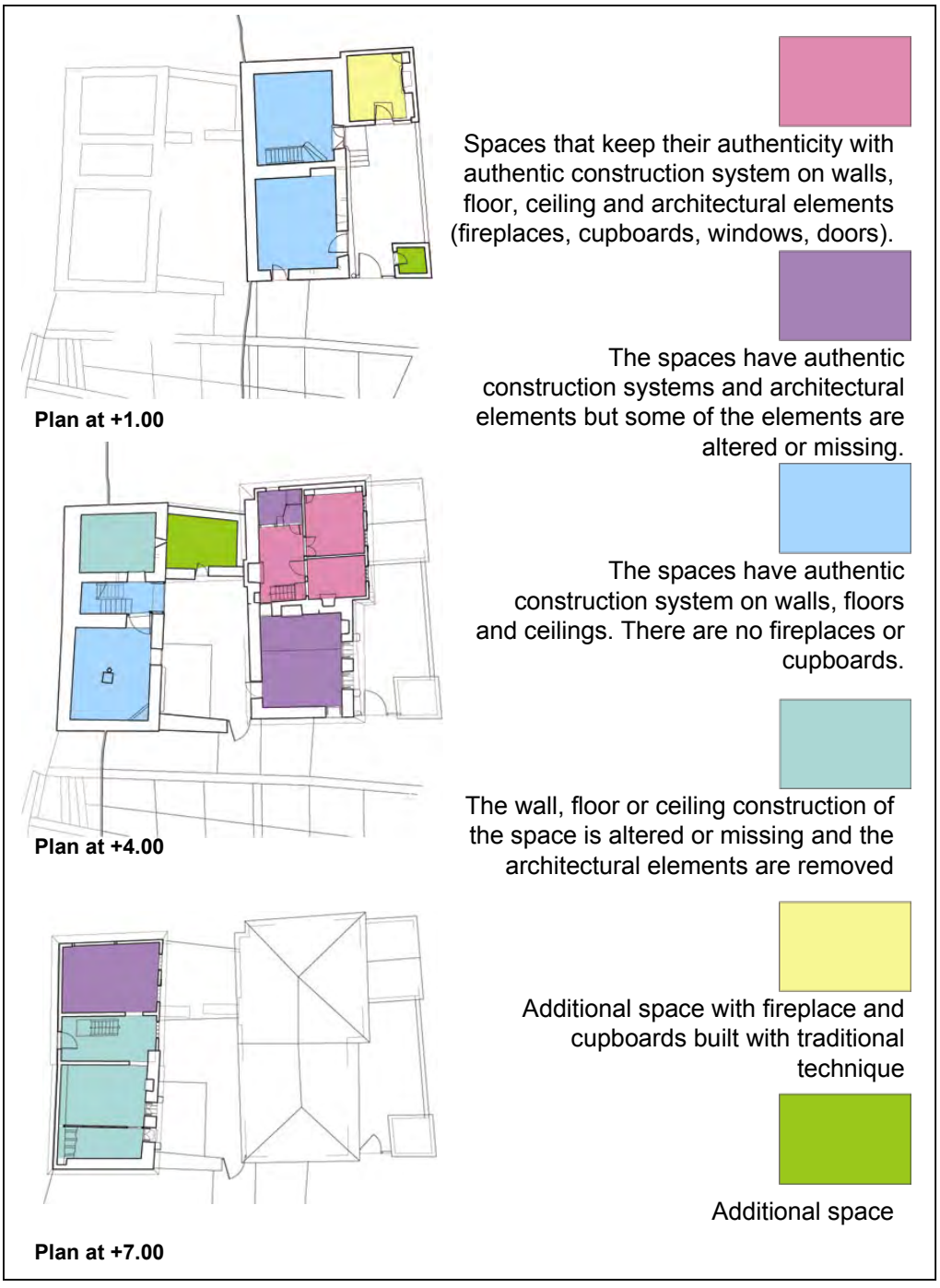


Figure 7.4. Evaluation of the spaces in the building – Authenticity of the spaces

of F01, F02 and F04 spaces. The authentic ceiling decoration of F02 space is removed during this alteration.

Despite all these changes, Çarboğa house conserves its authentic plan layout and the traces of these alterations.

7.1.3. EVALUATION OF THE CHANGES IN THE BUILDINGS

The alterations in the buildings can be grouped into 4 categories.

- **Changes in Plan Layout, Alteration, and Addition of Spaces**

As it was explained in the chapters above, Çarboğa and Yenigün Houses initially included only the south masses and the north masses are built in the later phases with traditional technique and materials in line with the typology of Şirince Houses and they include typical architectural elements of Şirince Houses. The juxtaposition of the north and south masses has provided and additional value for Yenigün and Çarboğa Houses as it provides and evidence to the transformation of typology in Şirince Houses and sets an example for the repetition of units within the dynamic growth of the village.

G03 space in the courtyard of Yenigün House is an additional space built in 1970. Although different materials are used the proportions and scale of this mass is in harmony with the rest of the building. It does not prevent the perception of the east façade. The service wall with the fireplace and cupboards in this space is important since it displays the continuity of the tradition. The space also has an important role in the use of the house with its close relationship with the courtyard.

The WC space G04 in the courtyard of Yenigün House is similar to other WC spaces in Şirince village. It is in harmony with the rest of the building in terms of proportions and scale and it does not disturb the perception of the east or south facades of Yenigün House.

G04 space in the courtyard of Çarboğa House does not affect the perception of the east façade of the house. It is in harmony with the rest of

the building in terms of proportions and scale. Yet, inside the space the height is too low, it is not possible to stand upright in the space and there are no windows.

- **Changes in Construction System**

The roof construction of Çarboğa House is altered. The new construction system is similar to the original one despite some changes in the form and dimensions of the rafters. The authentic ceiling covers of F01, F02 and F04 are removed during this alteration and currently there is no ceiling cover in these rooms.

The floor of F01 and F02 spaces of Çarboğa House is altered. Again the new construction system is similar to the original one despite the different dimensions of the floorboards. The staircase has also been altered during this alteration. The landing of the staircase and the first 7 steps are in concrete and the workmanship is not very fine. The rest of the steps are in timber. There is no balustrade of the staircase.

The west wall and interior walls of first floor of Çarboğa house are altered with brick masonry walls. This alteration has generated problems with the joining of walls and floors and ceilings since the dimensions are set according to stone masonry walls. Furthermore, concrete lintels (concrete is incompatible with the traditional materials) are used between stone masonry and brick masonry walls. Concrete is also used as a shear wall on the east façade of Çarboğa and Yenigün Houses.

- **Changes in Architectural Elements**

Except for the removal of the service wall of F02 space of the changes in architectural elements are changes that do not cause problems of structure or space definition. The missing elements have their traces in the building. These traces are valuable as the evidence of the evolution of the houses.

The service wall of F02 space in Çarboğa House is an important architectural element that define one façade of the space and together with

the central ceiling panel it is one of the elements that define the characteristics of a typical room of Şirince Houses. Its removal has destroyed the space definition of F02 space.

The traces on the north walls of G02 and F05 spaces of Yenigün House indicate the location of removed doors. These doors are no more required for the space use since the spatial relationship between the spaces they connect has changed within the evolution of the house. Also the opening on F05 space today corresponds to the fireplace of F03 space which is an important architectural element identifying F03 space as the B type room with fireplace.

The concrete steps in front of G01 do not add any aesthetic values to the house but they also do not cause any physical or aesthetic problems.

The removal of the steps between the threshold of the door of G02 and the courtyard has destroyed the functional relationship between G02 and courtyard and caused G02 space to be isolated from courtyard use.

The quality of the door wing and jamb details of the door D3 of G02 and F05 spaces Yenigün House and are carelessly done. Especially the door of F05 creates problems as it opens o the courtyard of Çarboğa house, is 90 cm above ground level and only 1.20 m high.

The window added to the ground floor of Çarboğa House is modest in size and does not disturb the perception of the east façade. However its jamb, window sill and window pane details are carelessly done and need to be improved.

The door of F01 space on the west façade of Çarboğa House is modest in size and detail, it does not cause any aesthetic problems and it provides a flexibility of function with both floors of the house having independent access directly to the street.

The screed applied over the original slate stone paving in the ground floor of Yenigün house disables the perception of the slate stone covering, it is not necessary functionally and its aesthetic quality is low.

7.1.4. EVALUATION OF THE STRUCTURAL AND MATERIAL PROBLEMS IN THE BUILDINGS

In the study the structural and material problems were studied only according to visual mapping without the necessary laboratory analysis. For a realistic study it should be kept in mind that the material analysis about the nature of the materials and the material problems is an indispensable part of the research, not only to understand the nature of the materials and the cause of the problems but also to offer materials and solutions for restoration. Nevertheless, the visual mapping of the problems in the houses point out to some possible conclusions about the source of the problems. (In a realistic study these conclusions would be verified with the accompanying analysis.)

The problems in stone masonry walls and brick masonry walls are concentrated on two locations:

- On the upper pats of the walls in Yenigün House where the eaves are damaged and on the walls of F05 space of the same house where the roof has partially collapsed.
- On the lower parts of the walls near the ground level, especially on north facades.

The possible causes of these problems are rain water penetration and rising dampness due to drainage problems of ground water or rain water.

Almost all of the timber elements in the buildings suffer from termite attacks. The effect of the termites is combined with black, brown and white discolouration and spongy appearance where the materials are subject to rain water penetration. The most severe cases are located on the roof and floor of F05 space of Yenigün House where the roof has collapsed partially.

Apart from these material problems were observed on the floor of F04 space in Çarboğa House, where the floor finish is missing and part of the floor construction has collapsed. The problem is probably caused by the alteration of the west wall with brick masonry walls.

Structural problems were observed in Yenigün House on the floor, roof and walls of F05 space where the roof has collapsed partially. The timber elements subjected to rain water penetration have lost their material strength and the have sagged, cracked and some elements were broken. Cracks on stone masonry walls are also seen on the walls of F05 space.

Structural problems were also observed in Çarboğa House on the ceiling of F03 space caused by the alteration of the north and west walls of the space.

In summary there seem to be three main reasons for the material and structure problems in the building.

- Rain water penetration due to the partial collapse of the roof of Yenigün House.
- Termite attack.
- The alterations made in Çarboğa House at the west wall and inner walls.

7.2. GENERAL RESTORATION PRINCIPLES

The restoration project for Çarboğa and Yenigün Houses is prepared for two purposes: To conserve the plan and façade layout, architectural elements and construction techniques that identify the two houses as a part of the traditional fabric of Şirince Village and to offer solutions to the problems observed in the houses so as to set an example for the rest of the houses in Şirince. The following principles and considerations are taken into account in the restoration project of the houses:

The different phases of the houses that display the change of building tradition and lifestyle in the village will be conserved. The traces observed in the buildings that supply evidence of the changes in the building will also be conserved.

The additions in the buildings that do not have any positive or negative effect will be conserved. Those that have negative effects will be removed or improved.

The authenticity of the materials will be respected. The original materials will be conserved when possible. Only the elements that have lost their structural properties without any means of conservation will be replaced with new elements of the same materials.

The missing elements (that were not altered with other elements) in the first reliability degree will be completed with original material, technique and details.

The missing elements in the second degree of reliability will be completed with the same material with simpler details.

The missing elements in the third or fourth degree will not be completed.

The elements that are required for architectural necessity or new function will be made with modern materials.

The elements that would be replaced or added as a whole (the replaced doors, walls, door wings, steps) will bear the stamp of the restoration indicating the date of intervention.

7.3. FUNCTION

Regarding the evaluation of the location of the houses and their environs, the quality of the spaces and the current space use and the circulation layout of the houses, they are suitable for a joint function including touristic activity. Currently, Yenigün House is being used for residential purposes, conserving the original function of the building. This use pattern will be conserved in the restoration decisions. Çarboğa House has undergone many alterations and it is out of use today. Therefore it is more available for the adoption of alterations to accommodate touristic activity.

The program for touristic activity will be:

- Two guest rooms
- Bathroom, wc
- Dining room / cafe (open air and closed)
- Storage (for clean sheets, towels etc.)

- Kitchen
- Administration

The program for Residential Activity will be:

- Two bedrooms
- Living Room
- Kitchen
- WC
- Bath
- Storage (for local products and olive oil)

Yenigün House will continue to be used as a house. Çarboğa House will be a small pension.

F01 space of Çarboğa House will be the entrance space for the guest rooms. with access to the street. F02 and F03 spaces of Çarboğa House will be guest rooms. F04 space will serve as the bathroom and WC of F03 room. F02 room will use the bathroom and WC on ground floor at G02 space. G01 space will be the entrance space. G03 space will be used for storage. G04 space in courtyard will be used for the mechanical equipment necessary for heating. F05 space of Yenigün House will serve as the closed dining room and café. The courtyard of Çarboğa House and the open area to the south of the houses can be used for open air café.

Yenigün family will be the administrators of the pension.

On the ground floor of Yenigün House, G01 space will be used for storage. G02 space will serve as the common kitchen of the two houses with easy access to both courtyards. G03 and G04 spaces will continue with their current functions. On the first floor, F01 space is the entrance space. F02 and F03 spaces are the bedrooms. F04 space will be converted to a modern bathroom with WC, sink and bath partition.

7.4. INTERVENTIONS

Before any intervention, the assumptions on the cause of the problems and the nature of the materials need to be verified with the

Figure 7.5. Program for new function of the Houses

necessary laboratory analysis. In the study it is assumed that these studies are made.

The interventions for the material and structural problems aim to remedy the sources of the problems.

The roof of Yenigün House will be repaired. The ground water drainage on the north façade will be examined and the probable problems will be solved.

The activity of termites in the buildings will be examined. If they are still active, the houses will be disinfected with toluen or xylen solutions. If they are inactive, the holes on timber will be filled with wax without disinfecting.

The timber elements of the partially collapsed roof and floor construction of F05 space will be altered with new timber elements. The other elements will be conserved.

On timber frame walls, the existing plaster will be conserved. The missing pats of the plaster will be completed with a plaster similar to the original one.

On stone masonry walls, the plaster on the inside faces of the walls of the houses will be conserved. The missing parts of the plaster will be completed with the same material. On the outer sides of the walls the jointing and the decoration on the wall surfaces will be conserved. Plaster will not be reapplied over the jointing. The parts of the walls where there are empty joints will be filled with mortar (similar to the properties of the original mortar).

On brick masonry walls type 1, the missing plaster on outer walls of G03 space of Çarboğa House will be completed.

On brick masonry walls Type 2, the walls constructed instead of the stone masonry walls in Çarboğa House will be removed and they will be reconstructed in stone masonry. The wall between F01 and F02 spaces, constructed instead of the timber frame wall will be conserved.

The concrete shear walls applied in front of the east facades will be removed.

On ground floor floors, the screed applied over slate stone covering will be removed. The missing slate stones of the floor covering will be completed. The slate stone steps in front of the entrance door of Çarboğa House will be completed.

The altered floors of F01 and F02 spaces and the staircase of Çarboğa house will be conserved.

The missing ceiling of F02 space of Çarboğa House will be reconstructed using the original central decoration panel. The ceilings of F01 and F04 spaces of Çarboğa House and F05 space of Yenigün House will be reconstructed according to the original ceiling design.

The missing sub – elements of the windows and cupboards will be completed according to the original design. The service wall of F02 space of Çarboğa House will be reconstructed using the original elements. The missing parts of the sergen shelves in F02 space of Çarboğa House and F05 space of Yenigün House will be completed.

The doors of G01 and F05 space of Yenigün House will be altered. For F05 space the door opening will also be altered according to human standards. In both doors a doorframe and a simple single wing door will be added. The missing door between G01 and G02 and between F03 and F05 spaces will not be reconstructed, however the traces of these walls will be kept on the wall surfaces to maintain the information.

Door frames and door wing will be added to G03, F02, F03 and F04 spaces of Çarboğa Houses. The door of F02 will be double wing. The other door wings will be single. They will be pressed wood panels without any decoration.

The opening between F05 and F01 spaces will be reopened. This will serve as a service window between the two spaces.

The other missing elements in the buildings (with lower reliability degrees) will not be completed, they will be left as they are.

7.5. DECISIONS AND INTERVENTIONS FOR FUNCTIONAL ADAPTATION

F04 space of Yenigün House will be converted to a modern bathroom space. For this function, a door wing will be added, the floor of the space will be covered with ceramic tiles. The façade of the bath partition and one wall side wall of it will be conserved, the other side wall will be removed in order to place a pvc bath – cabin inside this partition. The shelves above the sink will be conserved, a modern basin will be placed instead of the current basin. A WC basin will be added to the space.

G02 space and F04 space of Çarboğa House will be converted to bathroom spaces. For this function, the floor and part of the walls will be covered with ceramic tiles. WC, bath tub, shower and basins will be added to these spaces

G03 space of Yenigün House will be converted to a kitchen space. For this function, workbenches and cupboards will be added to this space. The oven in the kitchen will use the chimney shaft of the fireplace in F05 space. In order to use the door between this space and the courtyard of Yenigün House, steps will be added in front of this door. The door wings of both the doors will be renewed. The new door wings will have glass panes in order to provide natural light to this space.

G01 space of Yenigün House and G03 space of Çarboğa House will be used for storage. Cupboards and shelves will be constructed by the walls of these spaces.

The furniture in F02 and F03 spaces of Yenigün House will be rearranged according the spatial characteristics of the spaces. (According to view, towards panorama, circulation layout, authentic architectural elements)

Bedrooms, cupboards, divans and armchairs will be placed in guestrooms in Çarboğa House according to the spatial characteristics of the spaces.

7.6. INSTALLATIONS

- **Electricity System**

Today there is no electricity in Çarboğa house and the installations in Yenigün house have to be renewed according to security standards. The electrical outlets in the buildings will be supplied with neutral lines connected to the soil. The system will be arranged in order to supply for the possible electrical devices in the kitchen. Necessary fuses will be installed in order to cut the electrical supply in case of fire.

The cables will pass behind skirting boards, independent from the wall surface, where possible.

- **Water Supply System**

There is no water supply in the buildings except for the faucet in the courtyard of Yenigün House. In Yenigün House water supply will be provided for G04 space (WC) in courtyard and G02 space (kitchen) on ground floor and F04 space on first floor.

For Çarboğa house, water supply will be provided for G02 space on ground floor (at north façade) and F04 space at first floor (at south façade). The water line can pass outside the houses by the north and south facades. For the waste water two cesspools will be dug to the north and south sides of each house.

The water supply of F04 space of Yenigün house will be provided by a vertical shaft outside the wall surface, below the projection. That of F04 space of Çarboğa House will be supplied by a shaft that will be placed inside the south – west corner of the wall that will be reconstructed.

- **Heating System**

The buildings will be heated by air conditioners placed at appropriate locations. The G04 space in courtyard of Çarboğa House will serve as the mechanical room where the main device will be placed.

Figure 7.6 Legend for interventions

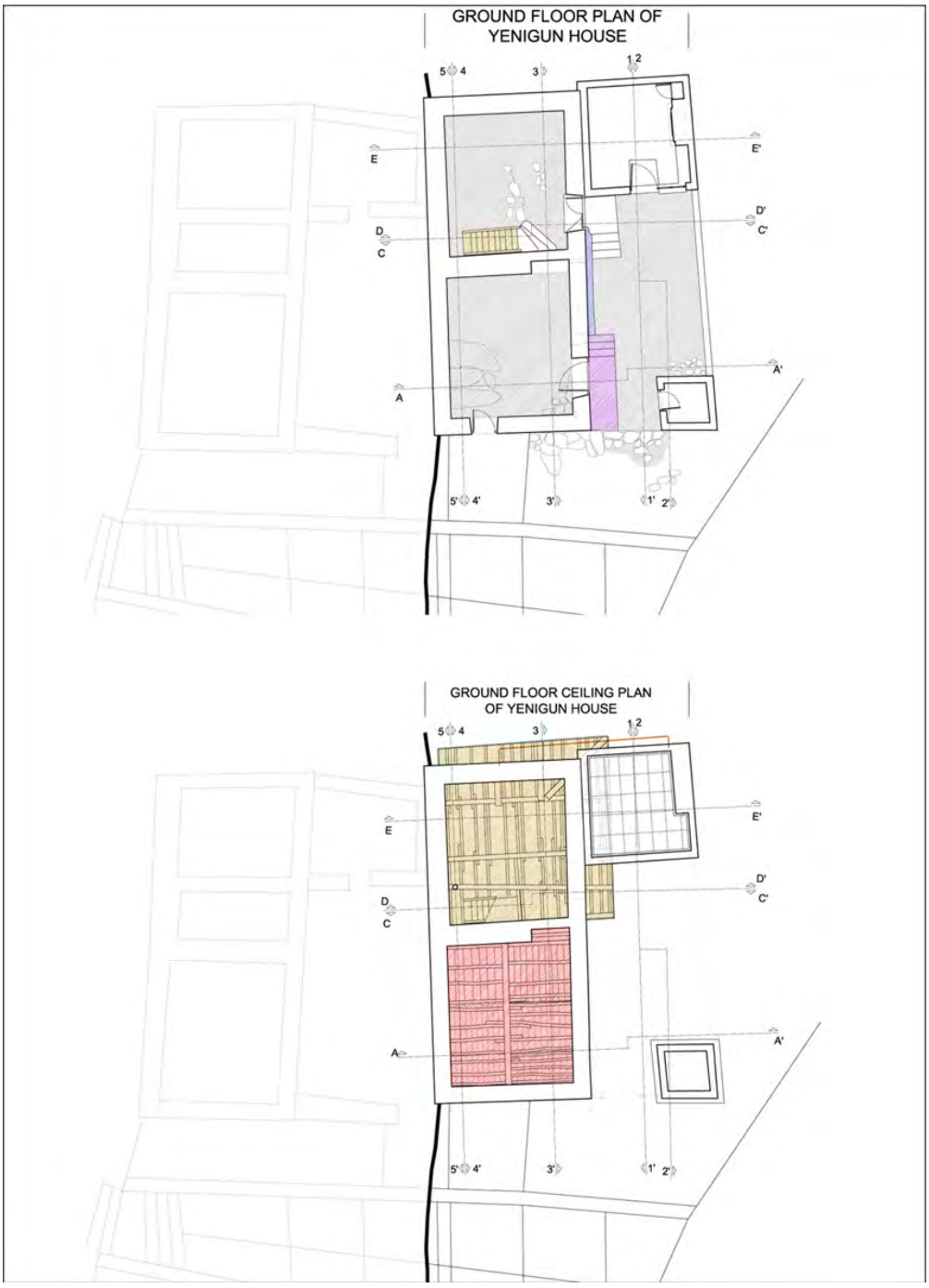


Figure 7.7. Mapping of interventions on plans at +1.00

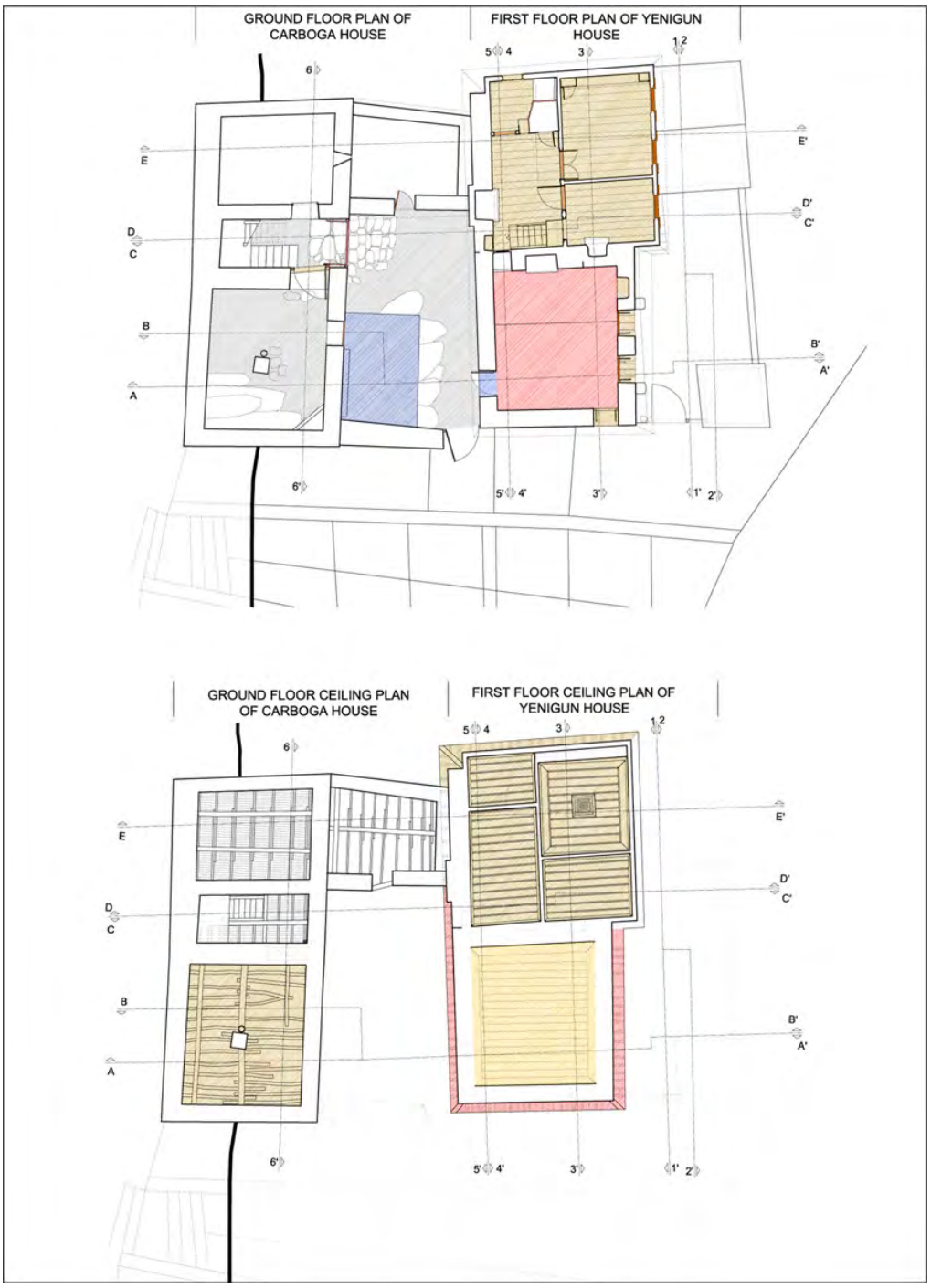


Figure 7.8. Mapping of interventions on plans at +4.00

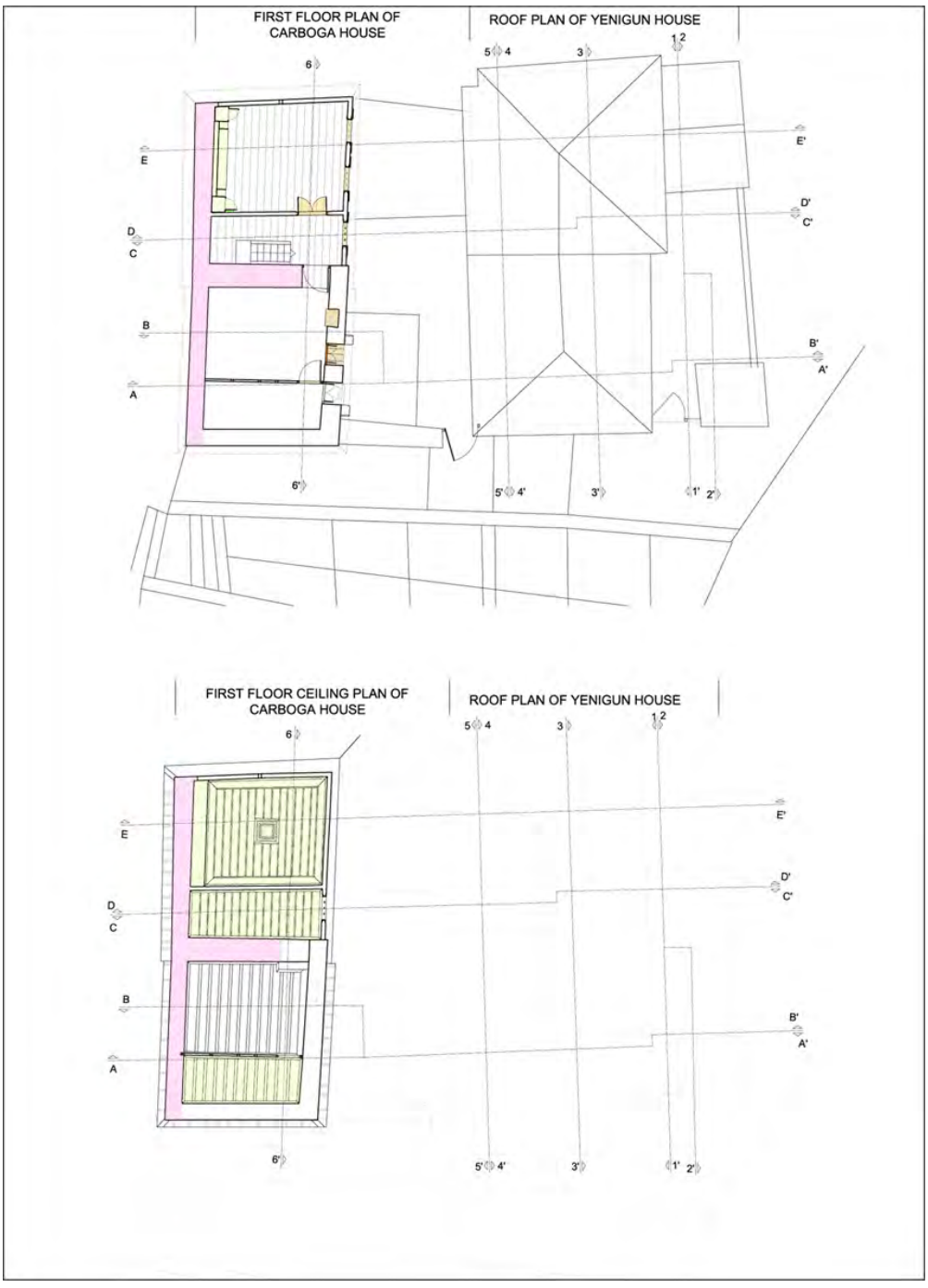


Figure 7.9. Mapping of interventions on plans at +7.00

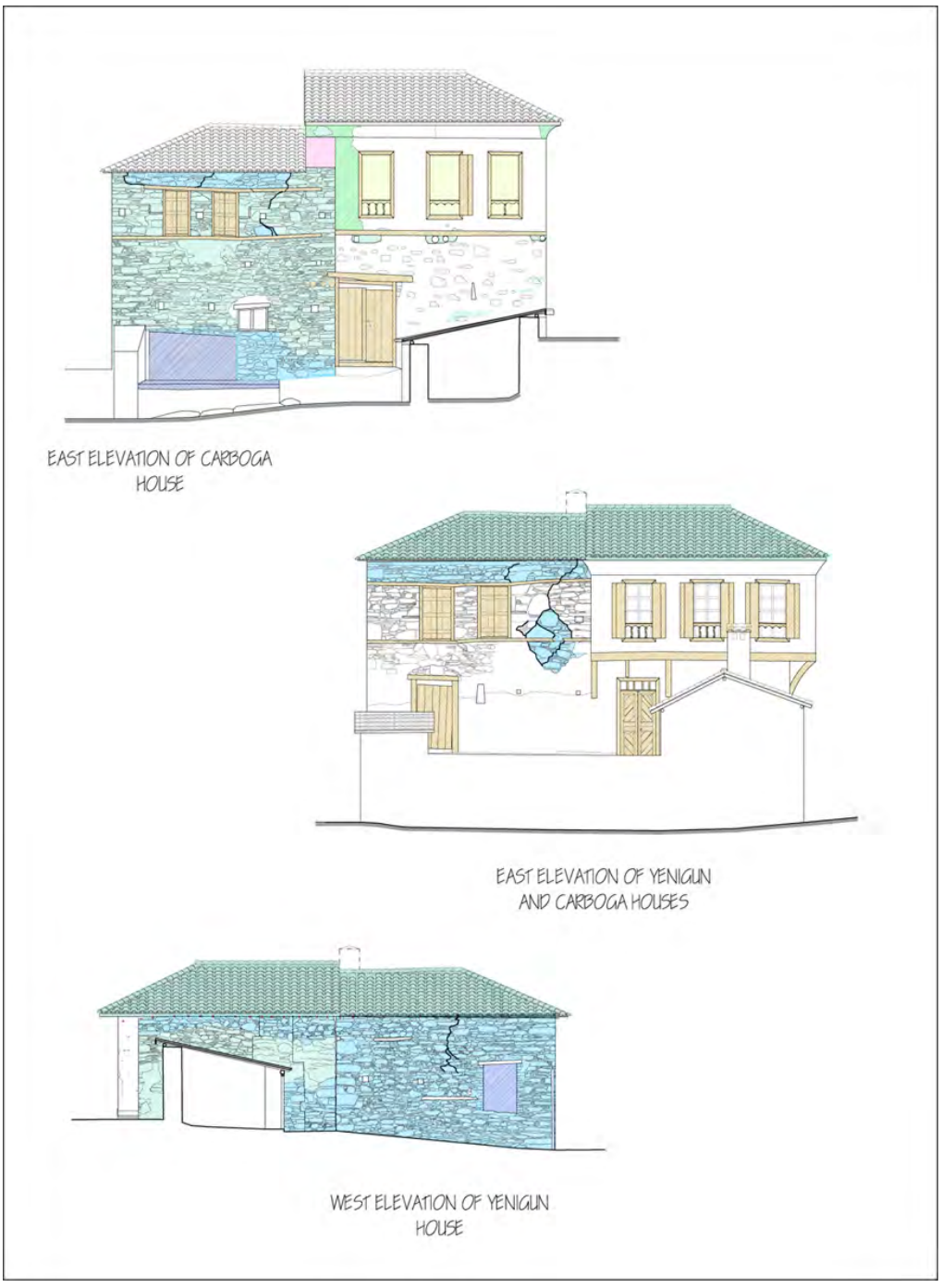


Figure 7.10. Mapping of interventions on elevations

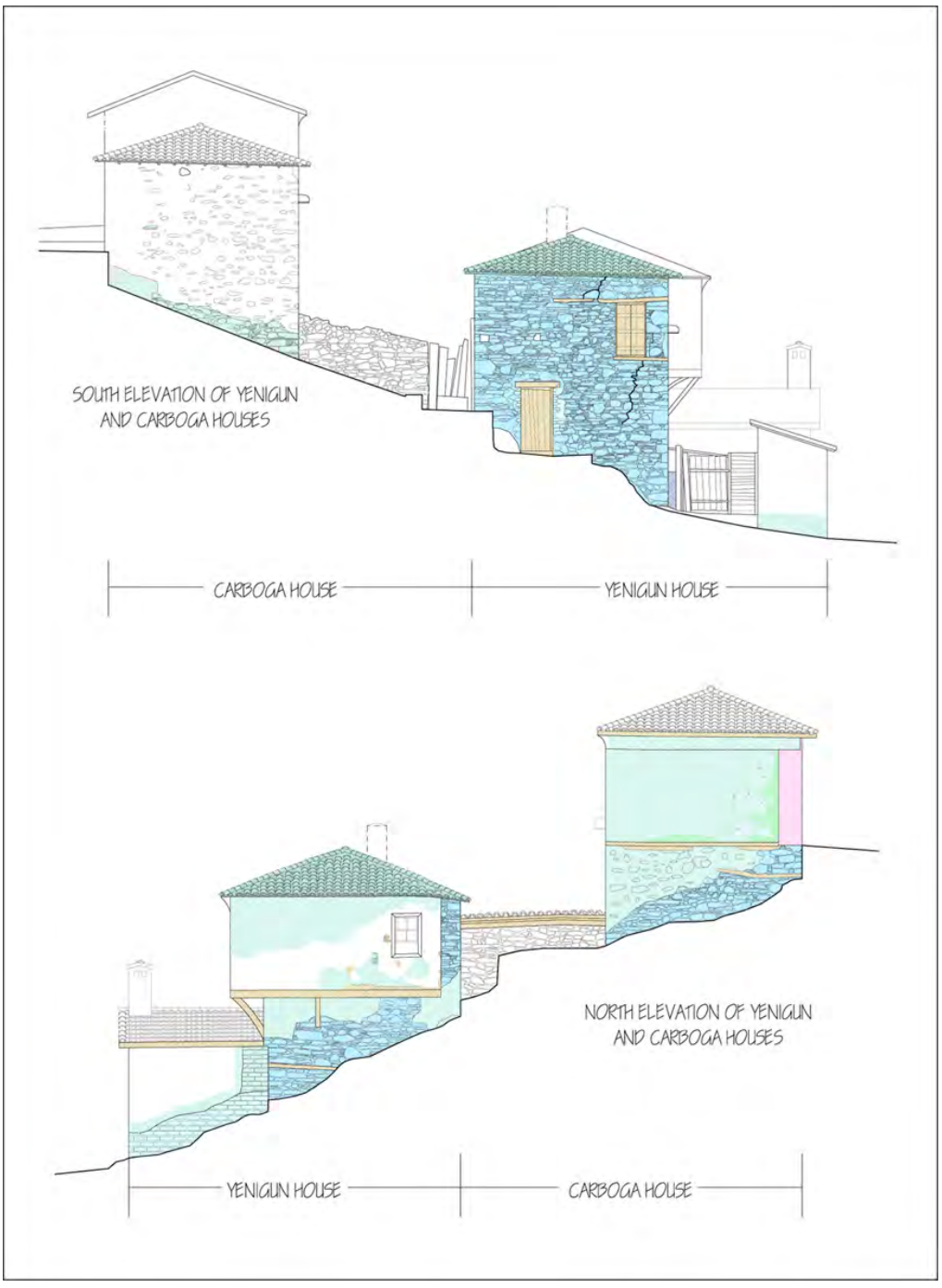


Figure 7.11 Mapping of interventions on elevations (continued)

Figure 7.12 Mapping of interventions on sections

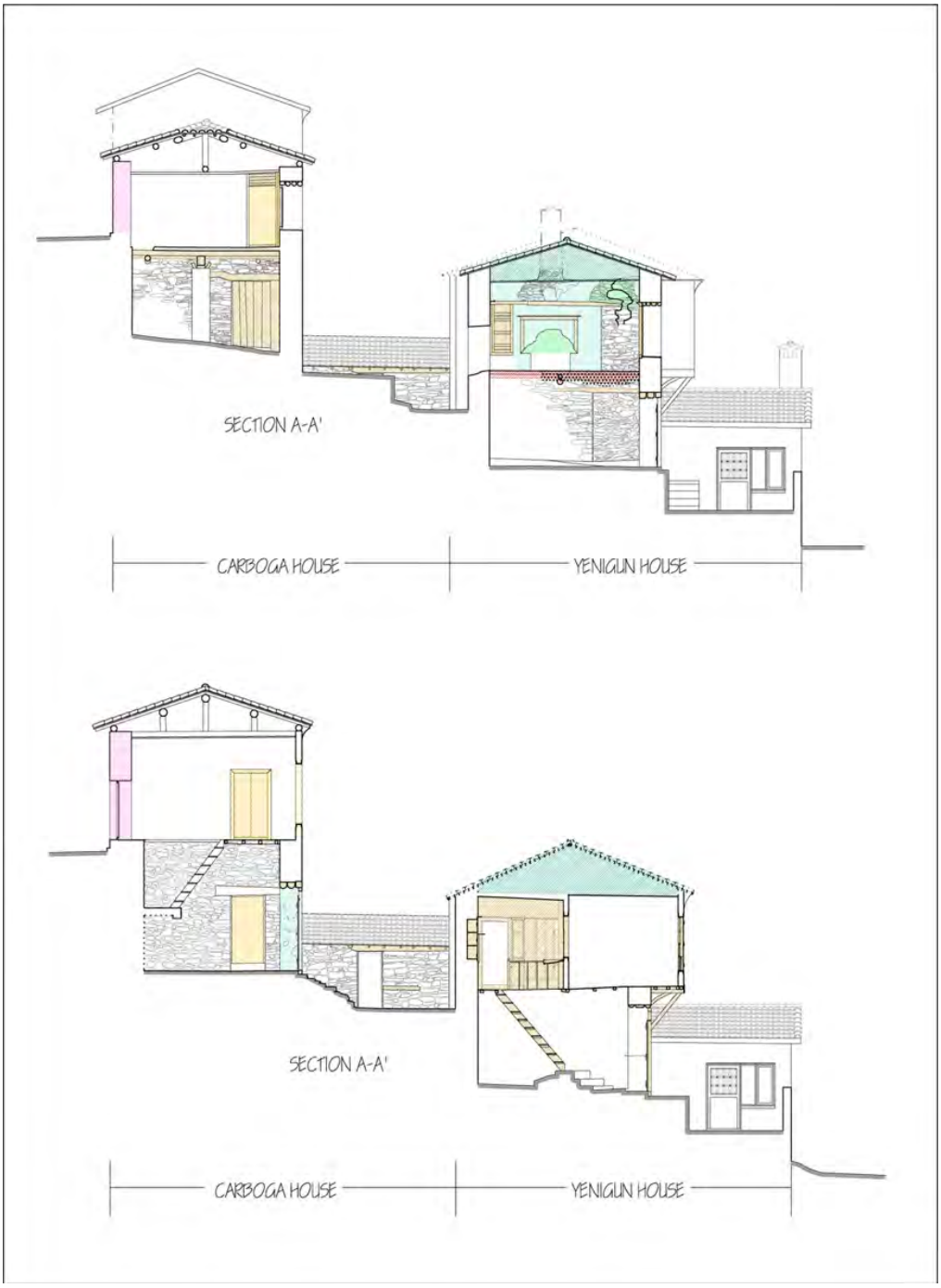


Figure 7.13 Mapping of interventions on sections (continued)

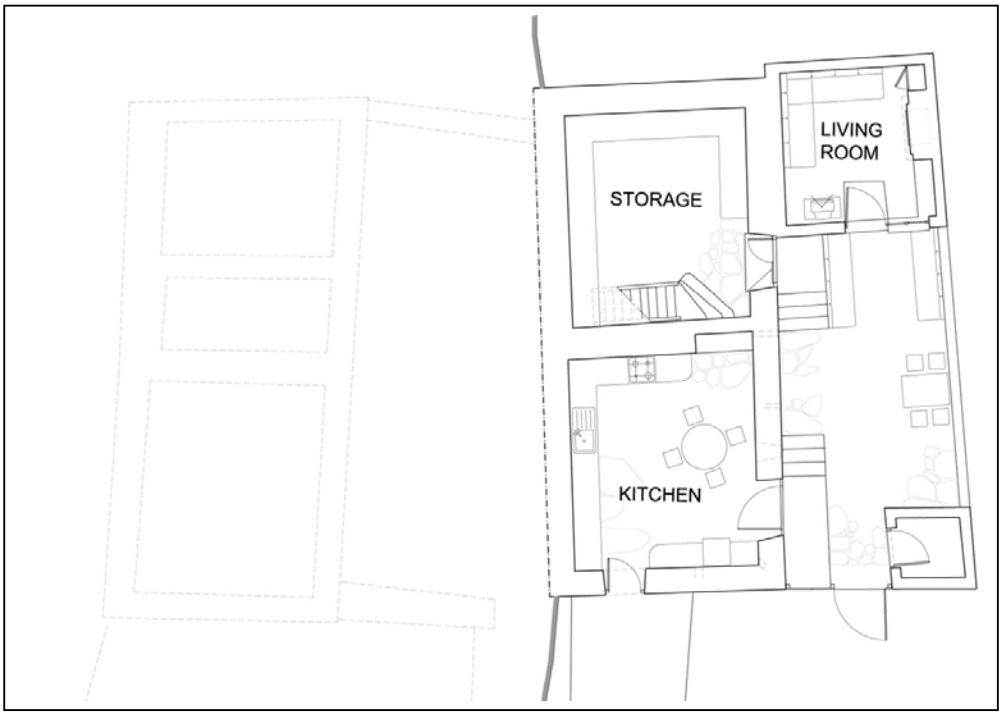


Figure 7.14 Restoration project – Plan at +1.00

Figure 7.15 Restoration project – Plan at +4.00

Figure 7.16 Restoration project – Plan at +7.00

CHAPTER 8

CONCLUSION

In the thesis, the approach for a restoration project and the stages involved to reach the final restoration decisions were studied within the framework and predefined methodology of the thesis

The predefined methodology of the thesis includes also the limitations for the study. Assumptions were made in the thesis in order to cover for the steps falling beyond the limits and the framework of the thesis that should be integrated into a applicable restoration project.

An applicable restoration project involves a inter-disciplinary team and it can not be prepared solely with the participation of the restorer – architect.

The historic research was prepared utilising the available sources within the time limit of the thesis. As such, the propositions the hypothesis about the antique origins of Şirince could only be mentioned as a probability. Further data about this hypothesis can be provided with further research involving the participation of historians and archaeologists.

Survey of Çarboğa and Şirince Houses were prepared in satisfactory detail. However, the detail of the survey of the nearby surroundings were more limited. Further information about the physical context of the houses can be gained with the further investigation of the buildings and traces around the two houses.

The typological approach used in the visual analysis of the material and construction system, material and structural problems and indicators of alterations provided probable results in understanding the construction technique, causes of problems and changes in the building. However, for a realistic restoration project, it is indispensable that such results are

supported by the necessary laboratory analysis involving the participation of chemical and civil engineers.

The comparative study within Şirince was prepared with the available information that could be gathered from the houses that could be entered. A detailed study was prepared and valuable information was gathered about the typology of the houses in Şirince and the location of Yenigün and Çarboğa House within this typology. Yet, the study was limited with the number of houses about which information could be gathered and with the detail of this information. It was observed that the other houses of Şirince also have traces of alterations. The further study of these traces can lead to a deeper study of the typology of Şirince Houses.

The comparative study within the Aegean Region was limited with the prior studies available in the field. Within this thesis it could not be developed into much detail as only general statements about the parallels and differences with the existing typology in the Aegean Region could be stated. The understanding of the vernacular architecture of the Aegean Region so as to provide data for a consistent comparative study requires a much more detailed study including a programmed study of all the settlements of the Region.

The restitution stage provided important information about the changes that the two houses display. With a more detailed research on the other houses of Şirince, some of the results gained in the study can be applied also to the other houses of the village and as such the information gathered in this study can be helpful to understand the restitutive history of the houses of Şirince village at large.

Finally in the restoration phase after the evaluation of the prior steps of the thesis, it was possible to provide restoration principles and basic intervention decisions. Yet, detailed intervention decisions were avoided, as such decisions can not be prepared without the necessary laboratory analysis.

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