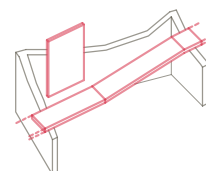
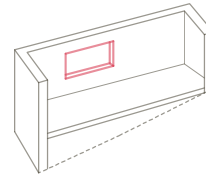
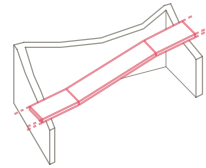
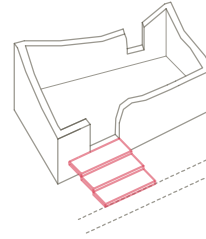
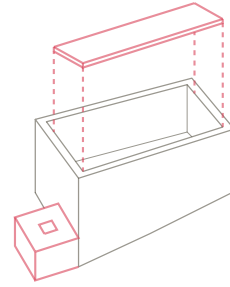
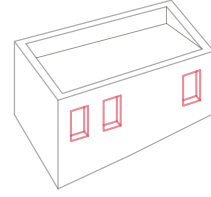
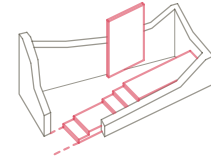
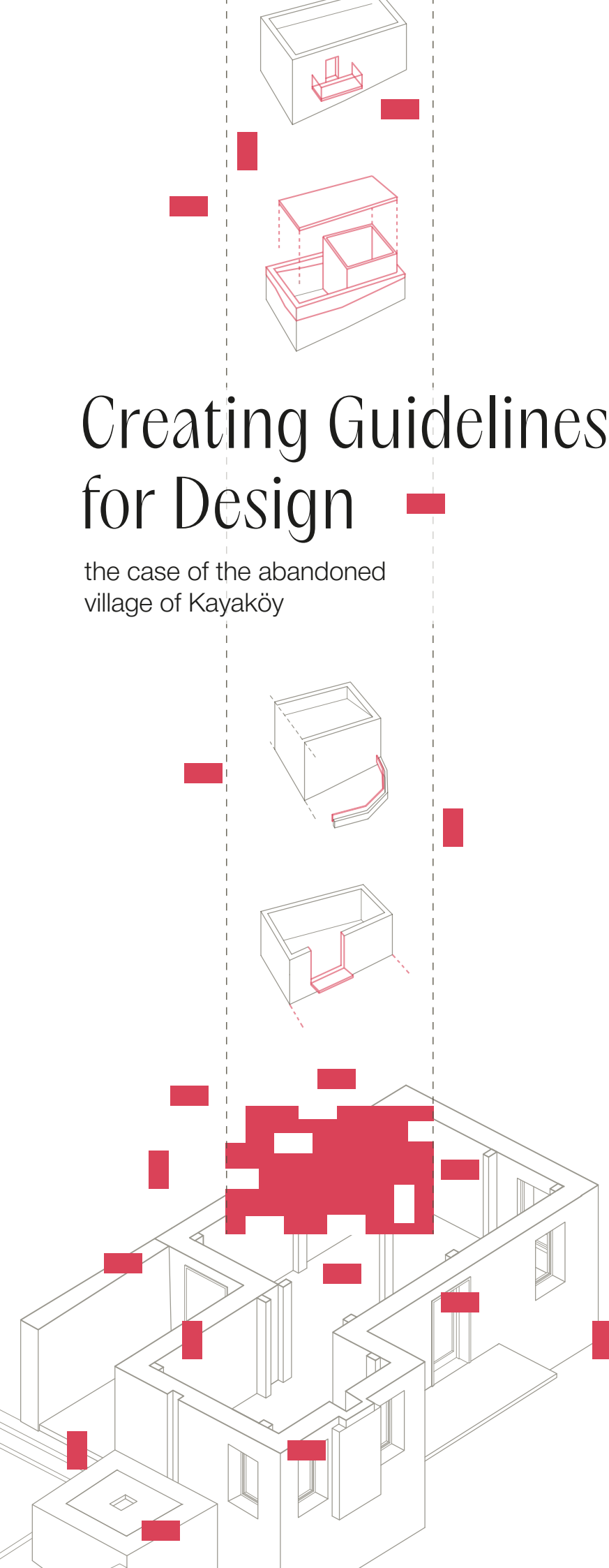


Creating Guidelines for Design

the case of the abandoned
village of Kayaköy



Zeynep Naz
Sökmen

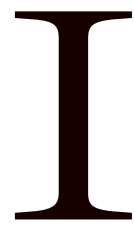


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Thesis Title:	Creating Guidelines for Design: the case of the abandoned village of Kayaköy
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Abstract

EN

Kayaköy, a village located on the southwestern coast of Türkiye, became an open-air museum after its Rum residents left their houses more than 100 years ago. The effects of the passing time have changed the stone houses into hundreds of ruins. Located near Fethiye, a seaside town known for its historical sites and summer tourism, this village is a place that piques the curiosity of visitors. The plan for how to embrace the potential of the site has been discussed among architects, institutions, and government officials. Despite the years of discussions, Kayaköy continues to decay due to the lack of a solid planning process. Therefore, this thesis aims to create guidelines for designing in Kayaköy that can be effective in fostering a transformation over time in accordance with its historical, architectural, and environmental identity.

Since the site is vast, certain areas are selected according to the cumulation of analyses, along with the site visit, which helps determine the key elements for the guide as well. With the identification of important features of the site and an architectural programme, a list of conditions is created. For the next stage, the structures in the chosen areas are categorized according to the list, which acts as a decision-making tool for the primary design choices. In order to have a detailed understanding of the guide, the design rules are explained and illustrated among the selected buildings. The general guidelines and the selection of detailed explanations can be used as references in future interventions to prioritize effective planning and design

Keywords:

Abandoned Village
Kayaköy, Design
Guidelines, Fostering
Transformation,
Identity of a Historical
Site

IT

Kayaköy, un villaggio situato sulla costa sud-occidentale della Turchia, è diventato un museo a cielo aperto dopo che i suoi abitanti, originari della regione del Rum, hanno abbandonato le loro case più di 100 anni fa. L'azione del tempo ha trasformato le case in pietra in centinaia di rovine. Situato vicino a Fethiye, una località balneare nota per i suoi siti storici e il turismo estivo, questo villaggio suscita la curiosità dei visitatori. Architetti, istituzioni e funzionari governativi hanno discusso a lungo su come valorizzare il potenziale del sito. Nonostante anni di dibattiti, Kayaköy continua a decadere a causa della mancanza di un solido processo di pianificazione. Pertanto, questa tesi si propone di creare delle linee guida per la progettazione di Kayaköy che possano favorire una trasformazione nel tempo, nel rispetto della sua identità storica, architettonica e ambientale.

Data la vastità del sito, alcune aree sono state selezionate sulla base di analisi e sopralluoghi, che hanno contribuito a definire gli elementi chiave della guida. Una volta individuate le caratteristiche principali del sito e definito un programma architettonico, è stato stilato un elenco di condizioni. Nella fase successiva, le strutture nelle aree selezionate vengono categorizzate secondo l'elenco, che funge da strumento decisionale per le scelte progettuali principali. Per una comprensione dettagliata della guida, le regole di progettazione vengono spiegate e illustrate attraverso gli edifici selezionati. Le linee guida generali e la selezione di spiegazioni dettagliate possono essere utilizzate come riferimenti in futuri interventi per dare priorità a una pianificazione e una progettazione efficaci.

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I would like to express my gratitude to those who supported me while working on my thesis.

This was a long journey that needed a lot of patience, hard work, and dedication. I am very grateful to my supervisor, Professor Davide Rolfo, who supported and guided me through the process. His advice and perspectives helped me find better ways to execute my thoughts and ideas. The meetings we had about the thesis led to realizations and new ways to improve.

One of the subconscious factors affecting my choice of this site is tied to my parents; thanks to the trips to Fethiye, I have become curious about Kayaköy. I am grateful for your help while climbing through the sloped paths and measuring the decayed stone walls under the scorching sun. Thank you for being by my side and supporting me both financially and morally throughout my academic life.

Writing a thesis does not consist of a clear, straightforward timeline. There were setbacks, improvements, and long pauses occurring at the same time for different parts of the process. Sometimes I needed to look at what I had been working on from different perspectives. Only then was it possible to understand what lay in front of my eyes, but I could not see it. Therefore, I thank my friends for being the pairs of eyes that I needed. Studying with you has made it easier and much more enjoyable. Moreover, all the other activities that we did together has helped me; from hiking to getting ice cream and chatting for hours. My gratitude does not end with the friends from Torino but continues with the ones whom I know from Türkiye. Thank you for being one of the beta readers and offering me your knowledge in design and architecture from kilometres away.

And finally, I am thankful for all the media I have consumed that lifted my spirits, inspired me, and distracted me from the stress and worry. When the music was not enough, there were the comforting TV shows and podcasts. When I still had the energy to be on my computer, it was relaxing to dive into playing games. I had the chance to read some books that are not about my thesis topic, and even though I did not have much time, it made me feel better when I went to the movies.

As a special gesture of gratitude, I am thankful for all the places I managed to work on my thesis. Especially, the library in Castello del Valentino because it was a piece of heaven when the weather became too hot.

Table of Contents

I. Abstract
Acknowledgements
List of Figures

1. Introduction

2. Narrating the History of Kayaköy

- a. History of Telmessos
 - Kayaköy through Civilizations and Periods
 - Historical Narrative: Maps
 - Historical Timeline of Kayaköy, Fethiye
 - Map of Cultural Heritage in Fethiye
 - Map of a Cultural Route: Lycian Path
 - Population Analysis
 - In the Life of the Historical Village of Kayaköy
 - Plans and Discussions

3. Experiencing the Site

- a. An Overview of the Site
- b. Step by Step: Routes and Views
 - Girls' School
 - Boys' School
 - From East Entrance to the Upper Church
 - West Entrance to the Watching Tower
 - Connecting Path

- c. Potentials of the Site

4. Analysing the Site

- a. Territorial Analysis
 - Territorial Map: Part of Fethiye
 - Vegetation and Climate
 - Territorial Map: Land Productivity and Streams
 - Territorial Map: Cultivation and Water Sources
 - Recognizing the Plants on Site
 - Territorial Map: Transportation and Functions
 - Visitors of Kayaköy
- b. Site Analysis
 - Site Photography
 - The Paths of Kayaköy
 - Site Map : Paths
 - Site Map: Buildings

- Information about the Restoration Potential
- Site Map: Restoration Potential
- Site Drawings

- c. Architectural Analysis
 - The Buildings in Kayaköy
 - Construction Method and Materials
 - Characteristics of Spaces in Kayaköy
 - Structural Analysis

5. Case Studies

- a. Restoration Projects
 - Restoration of Colletta di Castelbianco
 - Restoration of Castello dei Doria a Dolceacqua
- b. Design Guides
 - The Essex Design Guide
 - CAUE (Councils of Architecture, Urbanism and the Environment)

6. A Manual for Designing and Building in Kayaköy

- a. Introduction to the Guide
 - First Ideas After Impressions and Analyses
 - Map of the Main Paths
 - Map of the Selected Structures
 - What to Do on Site?
 - Map of Architectural Program
 - A Guide for Designing and Building in Kayaköy
 - Classification of the Structures
 - Rules of the Guide
 - Phases
- b. Masterplan
 - Masterplan
 - Selected Structures for the Design Guidelines
- c. Guidelines
 - Partial Site Plan: *Phase 1*
 - Guidelines *Phase 1*
 - Partial Site Plan: *Phase 2*
 - Guidelines *Phase 2*
 - Partial Site Plan: *Phase 3*
 - Guidelines *Phase 3*

7. Conclusion

Reference List

List of Figures

*If the source is not indicated, it means that the credit is owned by the author.
**For the maps and diagrams that contain multiple images, the credit is given under the main figure. If the information for the credit is short and simple, it is given on the page.

2. Narrating the History

- Figure 2.1** A part of the map of Asia Minor. [Mercator, Gerhard and Hondius, Jodocus. *[Asia Minor]* [Karte], in: *Atlas Minor*, S. 692. 1609. Old Maps Online. Accessed 2025].
- Figure 2.2** A map showing the territory of Menteşe. [Menke, Theodor. *Osmânisches Reich und Nachbarländer 1391 bis 1452*. 1880. 1:5 000 000. Old Maps Online. Accessed 2025].
- Figure 2.3** Map of Türkiye. [Johnston, W. & A.K. *Turkey in Asia (Asia Minor)*. 1912. 47x58 cm, 1:4,007,520. David Rumsey, “David Rumsey Map Collection.” David Rumsey. Accessed 2025].
- Figure 2.4** An illustration of historical narrative of Kayaköy. [*Some of the images are individually credited on the related pages*].
- Figure 2.4.a** Lycian Tomb of Telmessus. [Encyclopaedia Britannica. 1911. “Architecture.” In Encyclopaedia Britannica, 11th ed. Cambridge: Cambridge University Press. Accessed June 23, 2026].
- Figure 2.4.b** Alexander the Great. [Philoxenus of Eretria. Battle of Issus. 2nd century BC. Mosaic, 313 x 582 cm. Naples Natonal Archaeological Museum, Naples].
- Figure 2.4.c** Harpagus. [De Haese, Maximilien. 1775. The Defeat of Astyages. Woven by Jac. van der Borgh, 467 x 832 cm. Museum of Fine Arts, Boston].
- Figure 2.5** An illustration of historical narrative of Kayaköy. [*The images are individually credited on the related pages*].
- Figure 2.6** A map showing the cultural heritage in Fethiye. [Adapted from a Google Maps image]. [*The photos are individually credited on the related pages*].
- Figure 2.7** A graph showing the population of Fethiye through the years. [Gürel, Şükrü. ND. *Fethiye: Tarihi Fotoğraflarla 1874-1923*. Arkadaş Matbaacılık].
- Figure 2.8** A graph showing the population of Kayaköy through the years. [Bozyiğit, Recep., and Tahsin Tapur. 2010. “An Abandoned Settlement in Southwest Anatolia: Kayaköy-Fethiye.” *Marmara Coğrafya Dergisi* 22: 363–387].
- Figure 2.9** Owners sitting in front of their market in historical Kayaköy - 1982. (Gürel, Şükrü. ND. *Fethiye: Tarihi Fotoğraflarla 1874-1923*. Arkadaş Matbaacılık).
- Figure 2.10** Weaving atelier in Kayaköy - 1880. [Gürel, Şükrü. ND. *Fethiye: Tarihi Fotoğraflarla 1874-1923*. Arkadaş Matbaacılık].
- Figure 2.11** People of Kayaköy during a celebration. [Gürel, Şükrü. ND. *Fethiye: Tarihi Fotoğraflarla 1874-1923*. Arkadaş Matbaacılık].

3. Experiencing the Site

- Figure 3.1** Historical village of Kayaköy in the front and the present Kayaköy in the background
- Figure 3.2** Views from the indicated path named as “Girls’ School”.
- Figure 3.3** Views from the indicated path named as “Boys’ School”.
- Figure 3.4** Views from the indicated path named as “From East Entrance to the Upper Church”
- Figure 3.5** Views from the indicated path named as “West Entrance to the watching tower”
- Figure 3.6** Views from the indicated path named as “The connecting path”

- Figure 3.7** An illustration of the Lycian Path.
- Figure 3.8** Higher parts of Kayaköy

4. Analysing the Site

- Figure 4.1** A territorial map of Kayaköy. [Graphic by the author. [Adapted from a Google Maps image].
- Figure 4.2** A map showing the land productivity and streams of Kayaköy. [Yücel, Seher D. K. “Doğal ve Kültürel Peyzajın Bütüncül Analizi: Fethiye Kayaköy-Kayaovası.” In *Mimarlık Planlama ve Tasarım Alanında Uluslararası Çalışmaları*, edited by Sertaç Güngör and Seval Özgel Felek. Serüven Yayınevi].
- Figure 4.3** The average maximum day and minimum night temperatures in Kayaköy. [Weather and Climate, 2026].
- Figure 4.4** Sun path of Kayaköy [Suncalc.org].
- Figure 4.5** A map showing the cultivation and water sources in Kayaköy
- Figure 4.6** A set of photographs for showcasing the vegetation. [*The images are individually credited on the related pages*].
- Figure 4.7** A set of photographs for showcasing the vegetation. [*The images are individually credited on the related pages*].
- Figure 4.8** A map of Kayaköy showing the transportation junctions and important elements
- Figure 4.9** Pie charts illustrating the information about the visitors of Kayaköy. [Kutukız, Doğan, and Abdullah Uslu and Doğan Çaprak 2017. “Fethiye Destinasyonuna Gelen Turistlerin Kültürel Miras Destinasyonuna Yönelik Algılarının Belirlenmesi: Kayaköy Örneği.” *The Journal of Academic Social Science* 5 (60): 41-58].
- Figure 4.10** Pie charts illustrating the information about the visitors of Kayaköy. [Kutukız, Doğan, and Abdullah Uslu and Doğan Çaprak 2017. “Fethiye Destinasyonuna Gelen Turistlerin Kültürel Miras Destinasyonuna Yönelik Algılarının Belirlenmesi: Kayaköy Örneği.” *The Journal of Academic Social Science* 5 (60): 41-58].
- Figure 4.11** An aerial view of Kayaköy. [Terraviva].
- Figure 4.12** An aerial view of Kayaköy. [Terraviva].
- Figure 4.13** West side of the site
- Figure 4.14** Near the top of the west side of the site
- Figure 4.15** A small stand set up by locals in the paths of Kayaköy
- Figure 4.16** A map illustrating the classification of the main paths
- Figure 4.17** A map illustrating the main elements and the buildings in Kayaköy
- Figure 4.18** Restoration potential map [Graphic by the author. Adapted from Saraç, Hakan. 2001. “Conservation and Restoration Problems of Kaya Köyü (Levissi) Houses.” M.Sc. diss., the Middle East Technical University].
- Figure 4.19** Southeast side of the site
- Figure 4.20** A drawing showing a typical house in Kayaköy
- Figure 4.21** Drawings showing the types of houses in Kayaköy
- Figure 4.22** Historical village of Kayaköy
- Figure 4.23** Interior side of a wall of a ruin showing the plaster and the blue paint
- Figure 4.24** Refurbished wall of a recently renovated ruin near the site
- Figure 4.25** Cistern of a house

Figure 4.26 Different types of cisterns

Figure 4.27 An oven in one of the renovated houses

Figure 4.28 A house with an oven

Figure 4.29 The ceiling in one of the renovated houses

Figure 4.30 A floor plan showing the partition wardrobe that acts as a wall

Figure 4.31 Boys’ School

Figure 4.32 Plan drawing of Boys’ School

Figure 4.33 Girls’ School

Figure 4.34 Plan drawing of Girls’ School

Figure 4.35 An opening of a house (first from the left)

Figure 4.36 An opening of Boys’ School (second from the left)

Figure 4.37 The door opening of a chapel (third from the left)

Figure 4.38 An opening of a renovated house (second from the right)

Figure 4.39 A window of a inhabited house (first from the right)

Figure 4.40 A plan drawing showing the connection of closed spaces. [Graphic by the author. Adapted from Saraç, Hakan. 2001. “Conservation and Restoration Problems of Kaya Köyü (Levissi) Houses.” M.Sc. diss., the Middle East Technical University].

Figure 4.41 A plan drawing showing a type of house in Kayaköy with “hayat”. [Graphic by the author. Adapted from Saraç, Hakan. 2001. “Conservation and Restoration Problems of Kaya Köyü (Levissi) Houses.” M.Sc. diss., the Middle East Technical University].

Figure 4.42 Section drawing of Boys’ School

Figure 4.43 Boys’ School, ground structure

Figure 4.44 Section drawing of Girls’ School

Figure 4.45 Girls’ School, missing ground structure

5. Case Studies

Figure 5.1 Section of the row of building. [De Carlo, Giancarlo. 2004. “Colletta di Castelbianco.” *Wilson Web* 16 (2): 4-13].

Figure 5.2 A restored building. [La Licata, Giusy. 2022].

Figure 5.3 Restored buildings. [Ristorante Scola 2024].

Figure 5.4 Elevation showing the stairs and platforms added. [Divisare. 2016. “Restoration of Doria Castle in Dolceacqua.” Published on July 21 2016].

Figure 5.5 Photo of the platforms in Castello dei Doria a Dolceacqua. [Divisare. 2016. “Restoration of Doria Castle in Dolceacqua.” Published on July 21 2016].

Figure 5.6 Building form, an example. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.7 Appropriate use of materials: False half-timbering and alien materials such as the tile hangings should be avoided. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.8 External image drawing. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.9 Shows an appropriate design for a visitor parking area. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.10 Street type description: Type B Link Road. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.11 Use of landscape in urban spaces, an example. (Top) Block of trees transforms long space into two separate spaces. (Bottom) Block of trees transforms square into linear circuit. [The Essex Design Guide. 2018. “Design Details.” Last Updated on February 26 2025].

Figure 5.12 Implications of facade renovation on the hygrometric behavior of the wall. [CAUE. nd. *Bien rénover l’habitat en pisé de mâchefer*. Lyon. CAUE Rhône Métropole].

Figure 5.13 Site plan diagram of this characteristic fabric in a fictional context. [CAUE. 2024. *TARARE Charte pour la qualité du cadre de vie*. Lyon. Agence d’Urbanisme de Lyon].

Figure 5.14 Section through common areas and private gardens. [CAUE. 2024. *TARARE Charte pour la qualité du cadre de vie*. Lyon. Agence d’Urbanisme de Lyon].

6. A Manual for Designing and Building in Kayaköy

Figure 6.1 A map showing the explanation of the first ideas

Figure 6.2 A map showing the explanation of the first ideas

Figure 6.3 A map showing the main paths

Figure 6.4 A map showing the selected structures

Figure 6.5 A map showing the architectural programme

Figure 6.6 Symbols showing the “Design choice” according list of conditions for “Attained Functions”

Figure 6.7 Continuation of the symbols showing the “Design choice” according list of conditions for “Attained Functions”

Figure 6.8. A diagram showing the phases on maps

Figure 6.9 A photo showing one of the selected ruins for the function of “local market” [Terraviva].

Figure 6.10 A photo showing one of the selected ruins for the function of “atelier” [Alamy Image].

Figure 6.11 A photo showing one of the selected ruins for the function of “short-stay” [Terraviva].

Figure 6.12 A render showing the buildings for local market, temporary exhibitions are shown behind. [Rendered with Twinmotion and enhanced with Visoid].

Figure 6.13 A render showing the building for atelier. [Rendered with Twinmotion and enhanced with Visoid].

Figure 6.14 A render showing the building for short-stay. [Rendered with Twinmotion and enhanced with Visoid].

7. Conclusion

Figure 7.1 Two pie charts showing the percentage of selected buildings in total buildings and functions of the selected buildings

Figure 7.2 A connection diagram that shows the relation between the type of data collection and the analysis

1

Introduction

Through the years, many civilizations have left a mark in Telmessos in the span of conquest and defeat. There are the Lycian tombs and ancient heritage sites that evoke the feeling of exploration. In the near vicinity of Telmessos, now named Fethiye, there is a village called Kayaköy. The village, bustling with life, was a place that was narrated through words by writers and travellers. M.C. Anday, who is a Turkish writer and a poet, described Kayaköy in his writings:

“While Fethiye is burning and scorching with the heat, the Rock (Kayaköy) is cool and breezy. Before it was abandoned, there were a thousand blessings here with its tobacco, grain, vegetables, various fruits, especially grapes and figs.(Ilter 1991).”

Many others who travelled to Kayaköy touch on similar aspects, mentioning its blessings, hardworking people, and the prosperous lives they lead alongside their neighbours. After the abandonment, it was seen as a potential home for other people. However, its solitude persisted as the newcomers could not adapt to this new way of life. In the present, the site welcomes visitors and the locals for a few hours for those who want to explore the ruins. Although there are no active efforts for conservation, the site already manages to attract many people by virtue of its unique identity. Its location is highly advantageous, situated between vacation spots near the sea, in proximity to historical sites from the Lycian and Roman periods. The nature is inviting, and the cultural significance makes the site an important asset that needs to be dealt with delicately in the case of planning architectural interventions

This master’s thesis addresses the problem of setting up an inclusive design plan for a possible intervention in the abandoned village of Kayaköy. In its years of abandonment, which have been more than 100 years, the site has been a topic of discussion in terms of its future utilization concerning its cultural and architectural importance. However, the lack of solid planning leaves the village to decay. Therefore, this thesis aims to provide a design guide that can act as a planning tool for the site, which is seen as a possible subject to interventions.

There have been studies, thesis works, and research that contributed to the intricate details of the site in terms of its historical background, territorial features, and architectural properties. They were a substantial part of this thesis while analysing the site. The objectives are to make contributions that can supplement the discussions about Kayaköy and form a worthwhile design guide.

Methodology

The methodology is multi-layered. It combines historical and contextual research with territorial and architectural analyses. The first phase is to make a research about site’s history, providing contextual background and the site’s significance in relation to its past, present, and future. The second phase is the site survey, which was conducted over a couple of subsequent days of observations and data collection. Learning directly from the experience on site reveals crucial details and substantial elements that affect the analysis part. Moreover, visiting Kayaköy makes one wonder what the best way could be to navigate the area. In the next part, this question becomes an important starting point for many analyses, which are done to dissect the circulation of the paths on site.

In the phase of analyses, territorial and architectural features of the site are explained, which bridge the ideas between a personal experience on site and more tangible data. The potentials are listed upon the site survey. However, they gain greater meaning in this part of the methodology, as it is also where the analyses present possible evaluation methods. The cumulation of analyses leads the way in which the elements of the design guide start to take shape. Thus, it is necessary to explore what design guides are in the case studies. This part of the methodology begins with restoration projects, which are helpful references for the overall design and materials, and continues with the explanation of two different guides: The Essex Design Guide and CAUE.

As a result of these studies and analyses, a guide proposal is established through a variety of stages. After the initial presentation of the interpretations of the site, the conditions of the guide are introduced. These conditions emerged from a consideration of the factors that could have the greatest impact on the design. When the conditions are set, the chosen structures are classified accordingly, and the rules are explained in the following stage. The rules covered so far are broad and general. More specific design guidelines are illustrated through designated buildings so that the guide can refer to more detailed decisions. Thus, the project takes on a more concrete form and generates design elements that can serve as references.

The Structure of the Thesis

The thesis is divided into five main chapters, excluding the introduction and the conclusion.

The second chapter, after the introduction, explains the history of the site and ties its relevance to the present. It contains maps, diagrams, statistical data, and general knowledge of life and the residents in Kayaköy. Before moving on to the next chapter, the discussions surrounding its future are explained to give an insight into the thoughts and ideas of the institutions and the public.

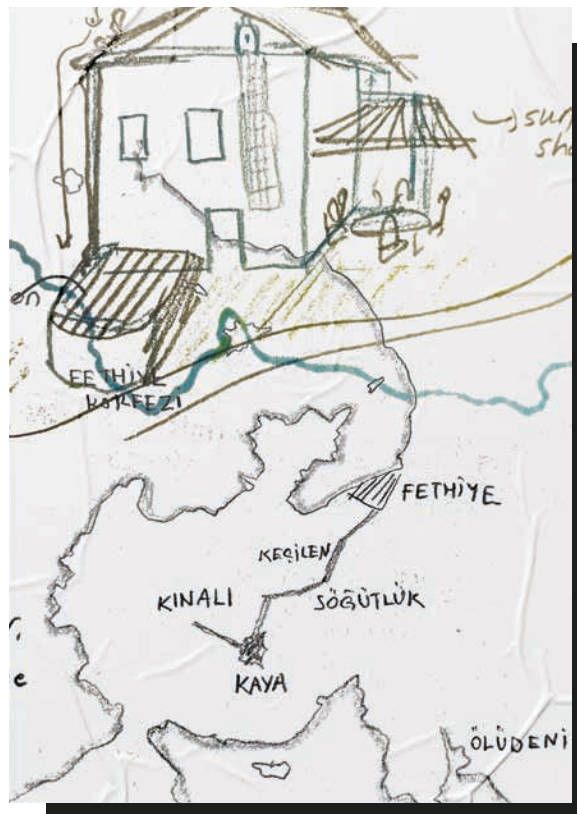
The third presents the site experience along with visual media composed of site photography and text that provides observational data about the context through the lens of the author. The site is explained through sets of views which are marked on maps. These are sequential photos that the author has taken while walking a certain path. These pages are crucial to understanding the circulation of the site in its existing state. The following pages are reserved for the potentials of the site, with the additional mention of certain sources that talk about preservation from different perspectives.

The fourth is one of the most elaborate chapters of the thesis. It starts with the analysis of the territory and the site. The data is tied to the site survey and various sources about Kayaköy and its vicinity, illustrated with diagrams, maps, and architectural drawings. After the general map of the territory, the focus of the maps shifts to the site and its environmental, vegetational, and functional features. A survey that was conducted about the visitors in 2017 is introduced with diagrams. The main elements of the site are illustrated in terms of the paths and the buildings. Thus, the circulation is highlighted and evaluated for possible interventions. Some decisions are made for the general connectivity of the site that will be effective in the considerations of the masterplan, and the map of potential restoration is illustrated. The following pages are dedicated to the buildings, detailing the architectural and structural properties.

The fifth chapter is about the case studies that are related to the topic in two different ways: restoration projects and design guide examples. The restoration projects provide ways of thinking in the context of abandoned villages and historical buildings. They are useful for design strategies and the choice of materials. The latter is important for the main objective of the thesis, serving the purpose of understanding the logic and aims of creating guidelines.

The last chapter before the conclusion provides the masterplan, introduces the phases and the guide. Before the masterplan, the process of choosing the main paths and the buildings on site is concluded with the illustrated maps. The factors that shape the guidelines are explained in two categories: existing and established conditions. Depending on these, the chosen structures for interventions are classified, and the process continues with the explanation of the design rules. The final step of the guide is clarified with the in-depth architectural drawings of three buildings, one from every phase.

Narrating the History of Kayaköy



a. History of Telmessos

- Kayaköy through Civilizations and Periods
- Historical Narrative: Maps
- Historical Timeline of Kayaköy, Fethiye
- Map of Cultural Heritage in Fethiye
- Map of a Cultural Route: Lycian Path
- Population Analysis
- In the Life of the Historical Village of Kayaköy
- Plans and Discussions

Kayaköy through Civilizations and Periods

The name Telmessos was uttered in the mythological story narrating the epic war of Troy as the son of Apollon and Antenor by the ancient writer Suidas. A city was built near the Lycian borders in the name of the child and he was appointed as an oracle to work there. Herodotus claimed that the city was the centre of divination.

The town named Kayaköy is in the southwest of Telmessos (Fethiye in the present) in the city of Mugla, Türkiye. Analysis of findings suggests that the history of the site dates to 4000-3000 BC. The first evidence of a civilization is ancient Lycia in relation to ancient kaya tombs found in the territory dating back to the 4th century BC (Bozyigit et al. 2010, 363–387). The Lycians were invaded by the Persians in the 6th century BC. Then, the Great Alexander captured the area in the 4th century BC without a clash. In these years, the area referred to as Telmessos is the Fethiye district. After the death of the Great Alexander, Telmessos was under the rule of different civilizations for short terms, such as the kingdom of Antigonos and the kingdom of Ptolemy. For a brief period, the city of Telmessos was part of the Pergamene Empire that built the ancient theatre.

The city was annexed by the Romans in 43 BC. The information concerning the Roman period is limited mostly because the modern Fethiye settlements are on top of it. Fortunately, the theatre, odeon, and acropolis built by the Byzantine Empire are still visible. Their rule in Telmessos came to an end when the Mentese Principality took over the area.

An Italian traveler called Sanuda visited Kayaköy in the 14th century and called it Levissi in his writings. According to him, Christians started to live here in the 13th century. Then, in 1424, it was annexed to Ottoman Empire lands. In the Ottoman Period, the majority of the population in Kayaköy was Rum. At that time and in the present, the word “Rum” is used to refer to people of Greek origin living in Muslim countries outside of Greece. During this period, Makri was known for trading due to its cosmopolitan structure.

John Speed, an English cartographer, illustrated the village as a big settlement in 1626. In 1850, Charles Fellows wrote in his journal that he visited Makri on a breezy day, later went to the village of Levissi, called by Greeks and Talı by Turkish people; the word resembles a place with rocks. In the meadow, there are Turkish settlements with cultivated gardens. He described Levissi as entirely settled by Greeks with 300 to 400 houses and an ancient town. One of the first impressions of the people who lived here was that they looked rich and comfortable. A newspaper called “Karya” that was published in Levissi gives

information about the social life: mentioning its schools, pharmacies and a library that makes one understand that the village had variety of amenities (Karaege 2003). The Greek word Makri/Meri was used for Telmessos even in the reign of the Mentese Principality. However, the name has changed to Fethiye in memory of the martyred pilot Fethi Bey in 1934 (Ilter. 1991, 473-482).

In the 19th century, the number of Rums increased due to migration from islands nearby, and they named the place “Levissi” (Yamak et al. 2023, 88-105). People of Levissi made a living with carpentry, smithing, weaving, tailoring, vine cultivation, and tobacco farming. They sold their products in neighbouring villages and exported some through a harbour.

After the First World War, the Ottoman Empire sought its national independence at various borders of the country. On the Western front, the Turkish War of Independence broke out with the Greco-Turkish War. The conclusion of the war meant a population exchange as signed in the Treaty of Lausanne in 1923 between Greece and the Republic of Türkiye. Both for Greek and Turkish people, leaving their homes, a place they felt a belonging, came with hardships. When Kayaköy lost its people in the exchange, Turkish people were to live in those houses. However, they were not accustomed to the characteristics of the place, leaving the village abandoned at present.

In the following years, Kayaköy started to lose its architectural elements along with its people. On April 24 in 1957, an earthquake with a magnitude of 6.2 and 7.1, which happened 6 hours later than the first, struck Fethiye and its close districts. Nearly 4000 buildings were demolished and 67 people lost their life in all of Aegean (Arslan 2017). After the first weeks of aid, reconstruction of the district began. Since it had been more than 30 years since people of Kayaköy left the place, there were no casualties. However, the earthquake damaged the buildings and sped up the process of decay.

Historical Narrative: Maps

Atlas Minor - Lycia and neighbouring countries



Figure 2.1 A part of the map of Asia Minor

Ottoman Empire and neighboring countries 1391 to 1452

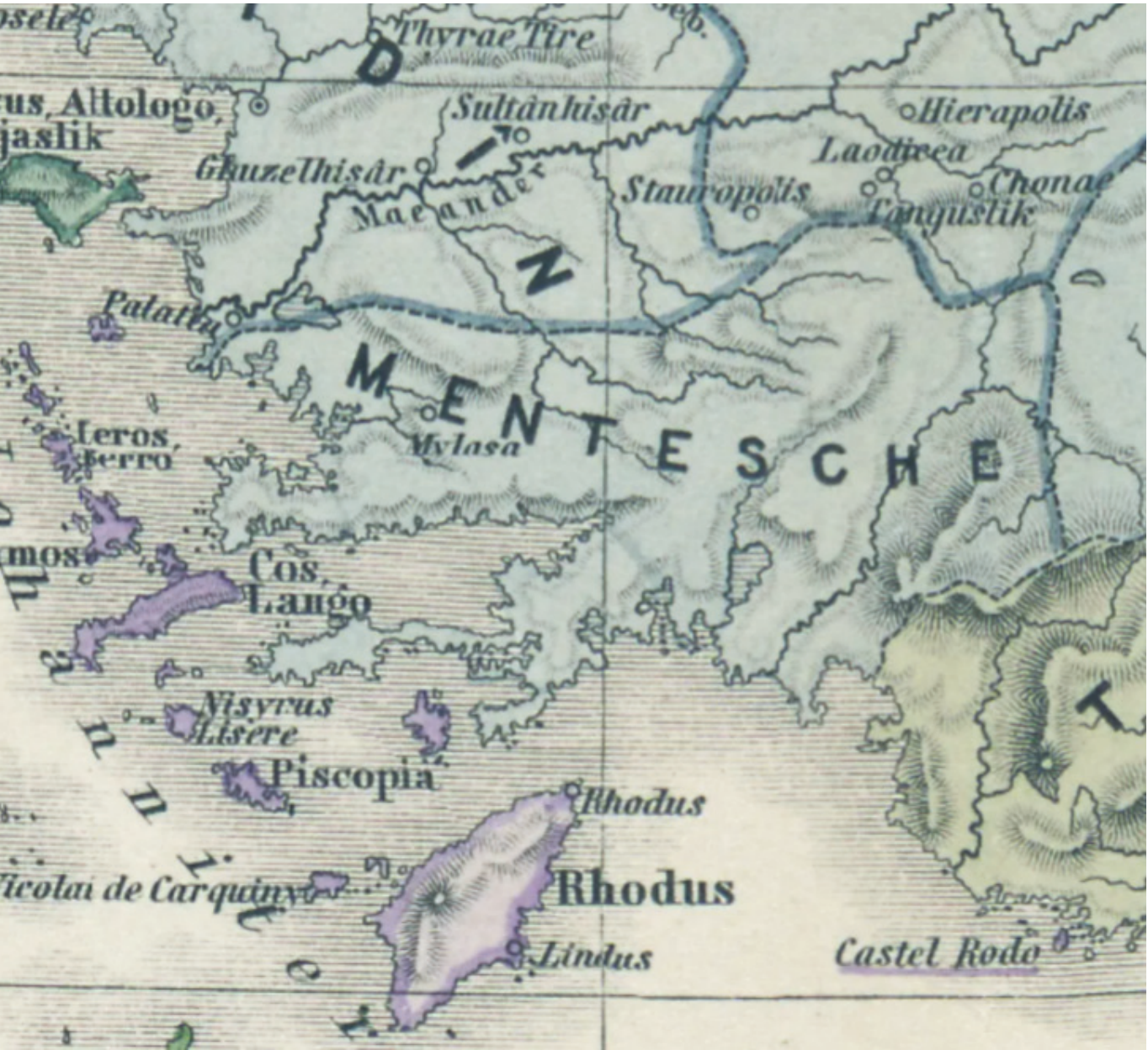


Figure 2.2 A map showing the territory of Menteşe

The original map is in the scale of 1:5,000,000

Historical Narrative: Maps

Türkiye in Asia (Asia Minor)



Figure 2.3 Map of Türkiye

The original map is in the scale of 1:4,000,000



Historical Timeline of Kayaköy, Fethiye

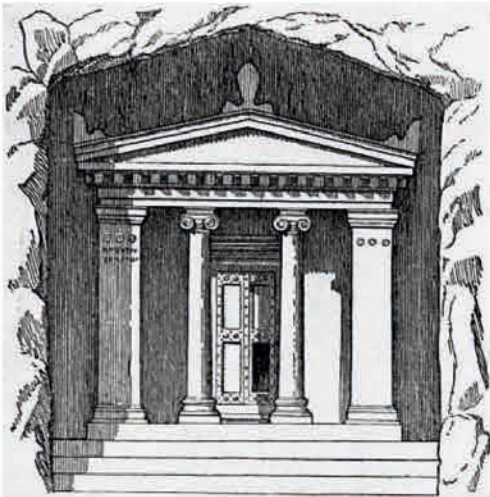


Figure 2.4.a Lycian Tomb of Telmessus

Kaya tombs are one of the key monuments in Fethiye (previously named as Telmessos)

CIVILIZATION of LYCIANS

B.C
4000-3000

547 BC

PERSIAN EMPIRE

Persian King Hargapos invaded Telmessos along with other Lycian cities.



Figure 2.4.c Hargapos

Figure 2.4 An illustration of historical narrative of Kayaköy



Figure 2.4.b Alexander the Great

When Alexander the Great conquered Telmessos, Kayaköy (Levissi) became under Macedonian's control.

MACEDONIAN KINGDOM

B.C 334

B.C 43

BYZANTINE EMPIRE

The information is limited due to built modern settlements on top of ancient ones.



© Theodor Menke

Telmessos came under the rule of the Menteşe Principality in Anatolia.

MENTEŞE PRINCIPALITY

1284

OTTOMAN EMPIRE

The land of Kayaköy was annexed to Ottoman lands

1424



© J. B. Bury

Historical Timeline of Kayaköy, Fethiye

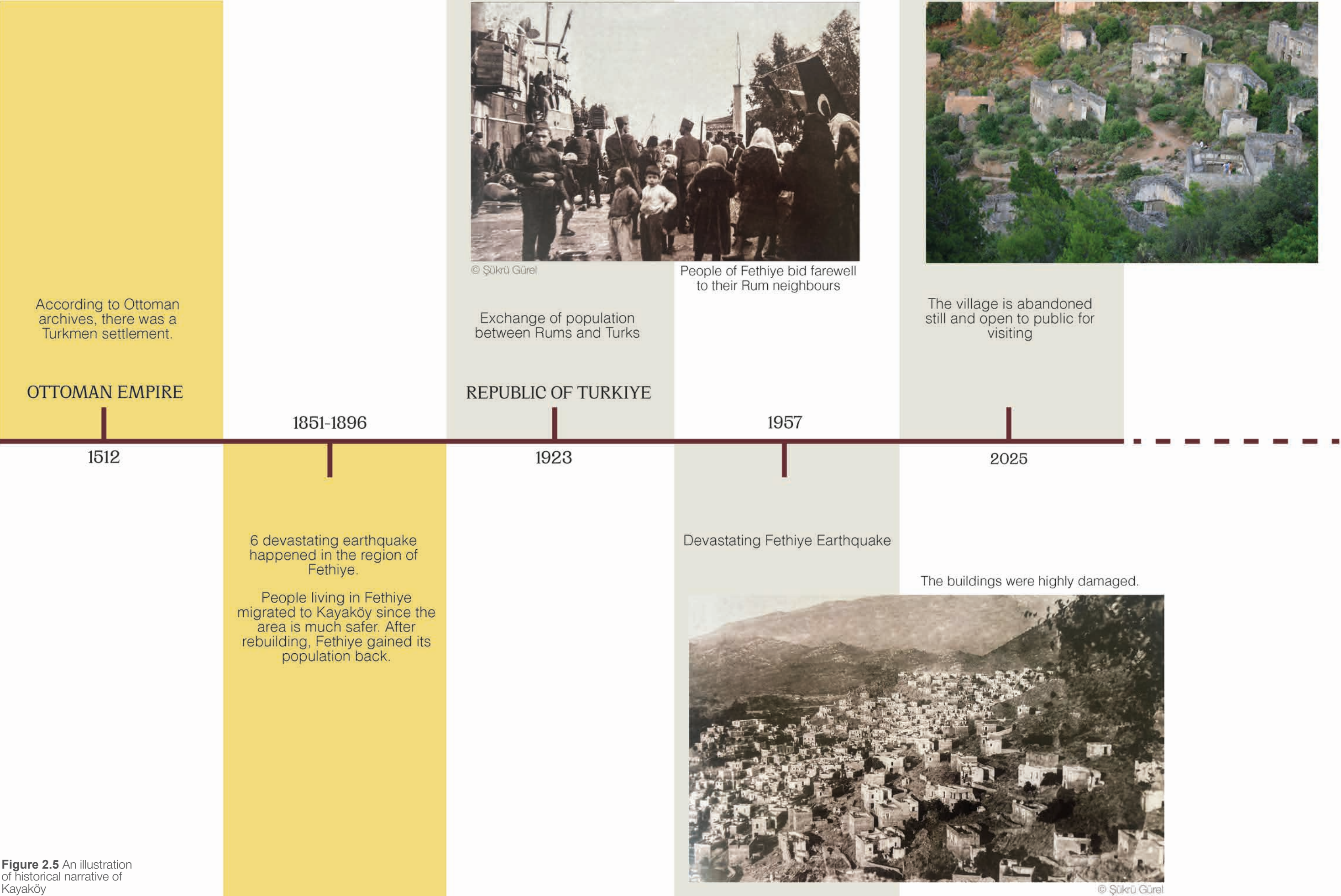


Figure 2.5 An illustration of historical narrative of Kayaköy

Map of Cultural Heritage in Fethiye

Figure 2.6 A map showing the cultural heritage in Fethiye



1 Likya Sarcophagus



2 Aminta Kaya Tombs



3 Fethiye Ancient Theatre



4 Ancient Kayaköy/Levissi



5 Cadianda Ancient City



6 Araksa Ancient City



7 Tlos Ancient City

Population Analysis

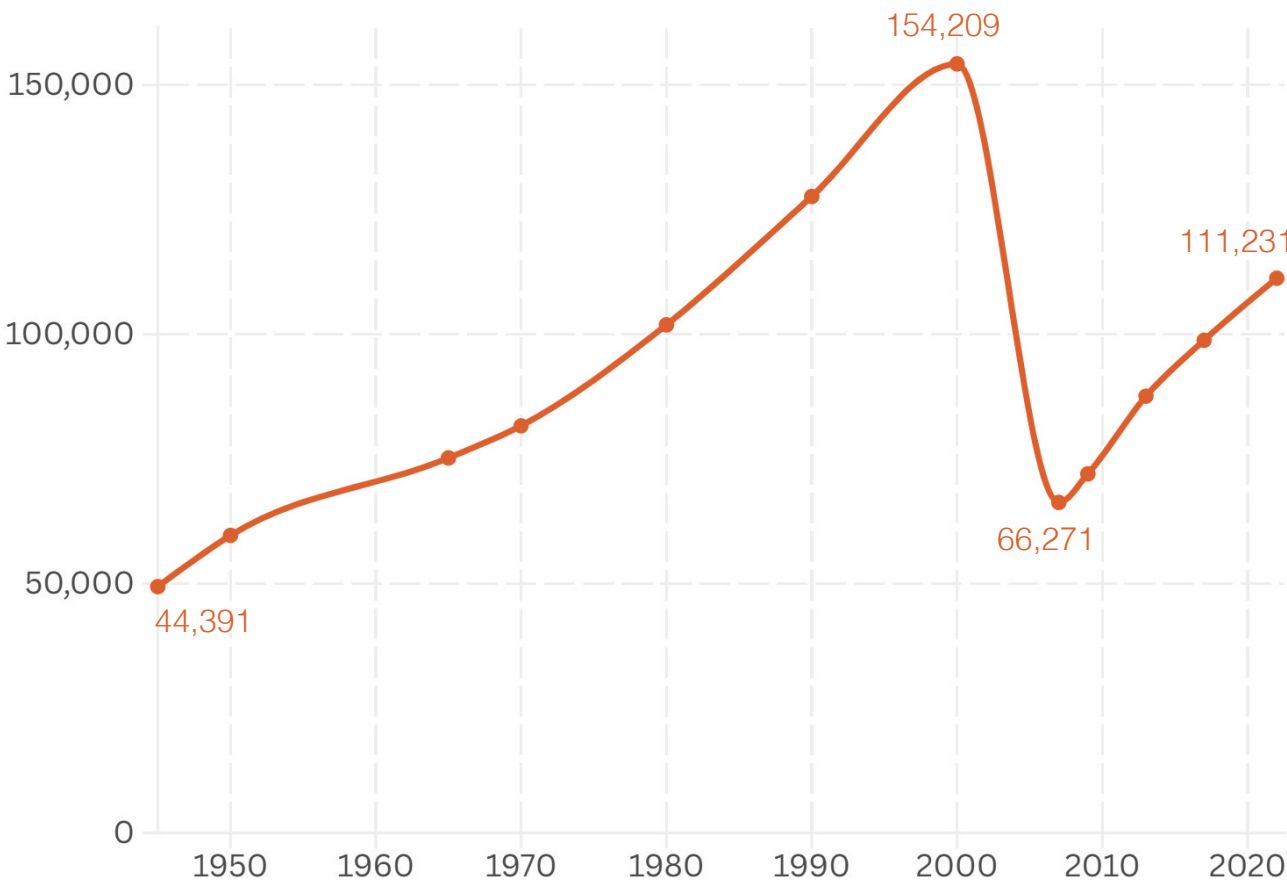
Population Graph of Fethiye (Telmessos)

The records of population in this area are limited to some years. In the year of 1884, the population of Fethiye was 23,958 with 21,528 Muslim and 2430 Rum. In the centre of Fethiye, the population of 1891 was recorded as 6861. From this year on, until 1908, there is no record. In this year, the population is seen to be decreased to 2980 and it is the first time that the number of non Muslims were higher than Rums. However, the total number of foreign population were higher than the locals (Gürel ND). The sudden changes recorded in 2000 and 2020 were mainly due to the increase in touristic activities in the region. However, the reason for the highest data in 2000 is caused by the census being done in the summer. The decrease in 2005 refers to local residents without the overwhelming number of tourists.

According to the Records of Population in Fethiye in 1914:

	Population	Percentage
Muslim:	36,734	83%
Rum:	7,394	16.6%
Jewish:	217	0.4%
In Total:	44,345	

Figure 2.7 A graph showing the population of Fethiye through the years

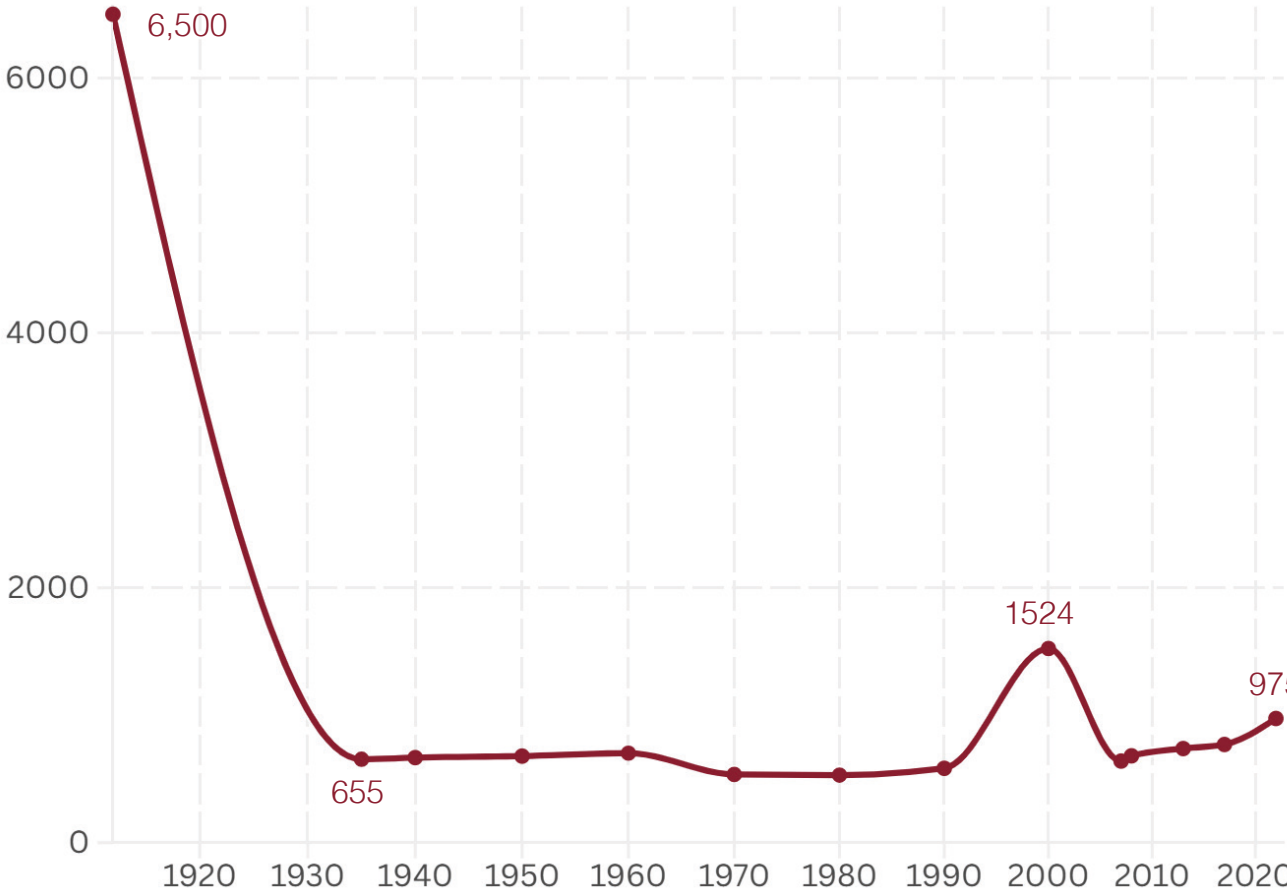


Population Graph of Kayaköy

In Kayaköy, population increase was apparent starting from the 19th century. At this time, there were also Turkish settlements in near villages and while presenting information, these settlements are also included in the records. According to the archives of the Ottoman Empire, Kayaköy had a population of 6500 people in 1912 (Bozyigit et al. 2010, 371). After the population exchange in 1923, Rum residents left Kayaköy according to the treaty made between Türkiye and Greece. The treaty was valid for both countries. Therefore, the Turkish community had to leave their homes in Greece and some of them were placed in Kayaköy. However, most of them moved to other cities and there was a substantial decrease in the population in the abandoned village.

Between the years of 1960-1990, there was a small decrease because of the migration from villages to cities in the scope of Türkiye. Towards the beginning of 2000s, due to touristic activities in the area, the population increased. However, it is explained that the data for 2000 was surprisingly high because census was made in the summer (Bozyigit et al. 2010, 373).

Figure 2.8 A graph showing the population of Kayaköy through the years



In the Life of the Historical Village of Kayaköy

Men's Occupation

People of Levissi were hard working. Some worked in the mines in nearby districts such as Göcek and Kargı. 10% of the workers engaged in trade and manufacturing. The rest of them worked in the nearby Turkish villages as construction worker, tinsmith, carpenter and shoemaker. They would usually leave the village to work after Easter and return with supplies when it is time to celebrate Christmas.

Women's Occupation

Women and children of Levissi were strong people. They weaved carpets and made clothes from wool and silk ready to be used once they got married. The silk was produced from silkworms at their houses. One of the duties of women was to gather wood and sticks to use in the fireplace and ovens. Since every house had an oven, women baked bread weekly. To bathe, the water in the cistern was enough. However, for other usages, it was necessary to carry pots of water from drinking fountains.

Levissi Plain

Levissi plain is described as heaven with 162 hectares of forest and vineyards enclosed with low mountains. In the winter, rainwater accumulated in the plain creating small streams and lakes near a Turkish village called Pelengi. Cultivated fields were mostly here. The plain had a variety of fruit trees: fig and apple along with grapery. Turkish people would work in the fields after Rums finished pruning. The fields were surrounded by stone walls only leaving a small entrance. Rums produced wine after harvesting the grapes and made jam with the leftovers. Figs of Levissi were syrupy with a light case and one of the main ingredients for preparing uzo or rakı, similar types of alcoholic beverages. The latter is commonly consumed in Türkiye (Gürel ND, 63-78).



Figure 2.9 Owners sitting in front of their market in historical Kayaköy - 1982



Figure 2.10 Weaving atelier in Kayaköy - 1880

In the Life of the Historical Village of Kayaköy

People of the village had many talents. They knew about construction, ironworking, weaving, tailoring, tinsmithing, and shoe-making. When it comes to agriculture, they were mainly interested in vine cultivation and tobacco farming. While it was possible to sell the goods in near villages and Mekri, they were also shipping them from Donyücek harbour (İlter 1991). Meanwhile, Turkish people mostly engaged in farming and livestock.

During the population exchange, the plans were to locate people to the areas where they can practice their profession. For the Turkish people coming from Greece, some problems occurred because of insufficient planning. Therefore, an amount of people were placed without considering their lifestyle and the environment that they grew up in which caused adaptation problems (Karaege 2003). Of course, this was a two-sided issue. A number of Greek people who left for Greece mentioned that they have a longing for their lands and neighbours in Türkiye. They named the village that they have settled in Greece “Neo Levissi” to commemorate the memories. Moreover, they tried to connect with each other through an institution called “Hagios Georgios” and established visits to Kayaköy from time to time (Ekinçi 1998). After the population exchange, life in Kayaköy has almost stopped in its steep lands and stone houses.

Figure 2.11
People of
Kayaköy during a
celebration



Plans and Discussions

After the population exchange, Turkish people tried living in Kayaköy but were not comfortable with this way of life. Therefore, they left for living in different areas that were more suitable for them. It is mentioned that after a while, the villagers in Kaya (the closest village in the plain) wanted to have some of the lands. However, at this point, it was too late because the government had other ideas about the site.

In 14th of October 1978, the Ministry of Culture declared the village as a 3rd degree urban site (Saraç 2001). According to this declaration, it is permitted to construct but there are rules and limits that should be followed in order to respect the historical identity. It also meant that it is possible to construct new buildings if it serves the socio-economic needs of the area.

The session for discussing the needs of Kayaköy got together in 1988 and made decisions about certain subjects. They mentioned that Kayaköy should be a reminder of the friendship between Turkish and Greek people. According to them, the village should be enriched considering all the seasons, not just the summer season where there are already many tourists. Another important discussion was about its intentional use (Karaege 2003). If there is any restoration work for functional use of the area, research and education should be the priority along with its cultural and historical assets.

In 12th of June 1991, Superior Council for the Conservation of Cultural and Natural Property declared the area as a 3rd degree archaeological site along with its 3rd degree urban site title. It is possible to construct with respecting the limitations and rules that protect the identity of the place. Therefore, one needs to take the proper permissions to take before any intervention (Ministry of Culture and Tourism 1999). After this, there were backlash from city planners and architects who were concerned about the future of the site. Their worry was that this declaration might not be enough and could bring destruction to the valuable elements of the site. In the present, the declaration stands the same. Throughout the years, there were plans to build hotels in the area which were seen as dangerous. Fortunately, they were not fully approved.

In 2023, the historical village of Kayaköy was the subject of a competition planned by Terraviva. The Municipality of Fethiye and the Department of Urban Design and Landscape Architecture of Bilkent University were the institutional promoters. The design project is introduced with two main objectives: Open-air Museum, which ideally demonstrates coherence from beginning to end and a Visitor Centre that will be a new building. There are not many restrictions for the design apart from the apparent need of being mindful about its cultural and historical integrity. Moreover, there are also suggestions for the visitor centre and open-air museum program.



Experiencing The Site

- a. An Overview of the Site
 - The Site Visit
- b. Step by Step
 - Girls' School
 - Boys' School
 - From East Entrance to the Upper Church
 - West Entrance to the Watching Tower
 - Connecting Path
- c. Potentials of the Site

An Overview of the Site

The Site Visit

The site visit took place in the days of summer and the area was bustling with life since this is the period when the number of tourists increase. The time intervals of the visits varied in different days depending on the weather because most of the time it was extremely hot.

The first visit was in the afternoon. Roads were crowded but there was not any traffic. Transporting from Fethiye to Kayaköy by car approximately takes 30 minutes. The view changes from sparkling blue sea to a dense forest. Near the village named Kaya by locals (the village that is inhabited now and was inhabited in the past by Turkish people), the forest gets scarce and agricultural fields becomes visible. This part of the village is built on the plain ground and it is estimated that there are 2000 residents (T.C Fethiye Municipality 2020). During the summer, the population increases since it attracts people due to vacation possibilities, cooler weather and a peaceful environment compared to the city. There are boutique hotels, rental houses and cabins to spend the vacations. On the road directly in front of the historical village of Kayaköy, the restaurants and cafes were full with people. Since spending long hours outside drains the energy of the people, they go to shaded areas and spend time in these public spaces.

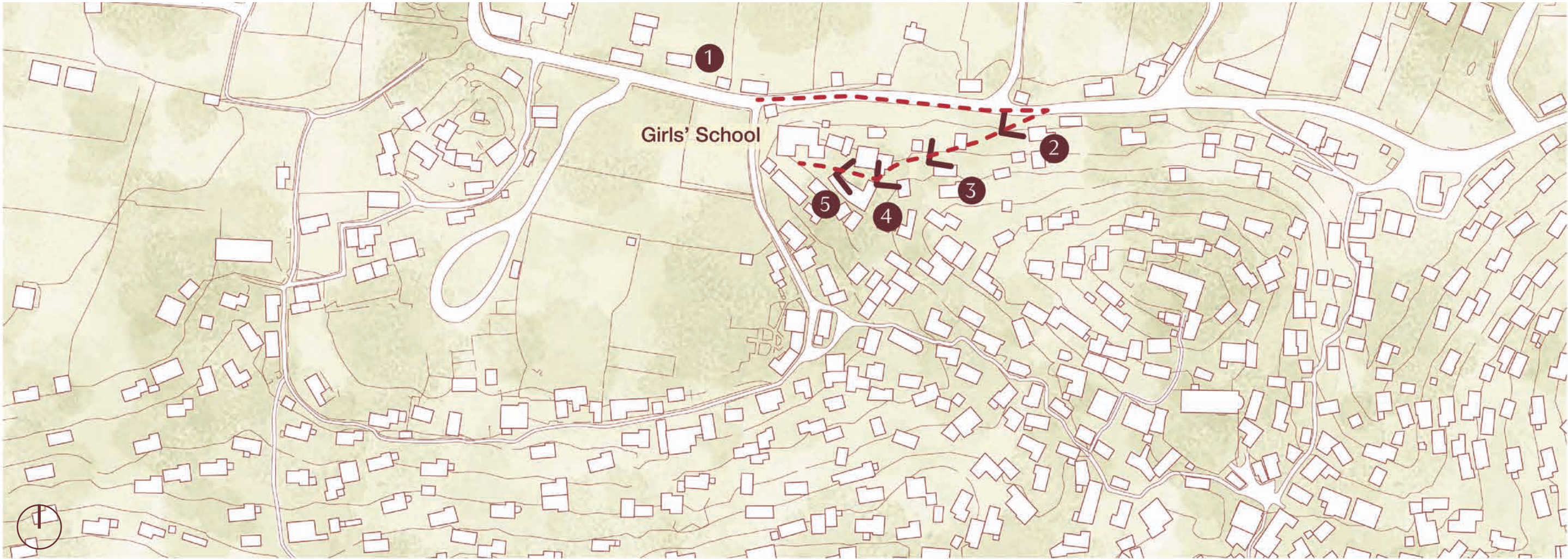
The number of people were visibly higher as sun got closer to setting. The main activity included taking a stroll around and taking photographs. From time to time, there were small stands selling jewelry and crafted objects. After taking measurements, it was time to exit the site. At the end of the site near the plain, there are commercial establishments and a car park. Here, there are also some houses and boutique hotels renovated from the ruins. In the early morning, there were less people and it was easier to navigate in the site due to cooler weather. However, one still needs to rush and it is easier to get tired because there are no shaded areas or resting places to have a break.

To explain the site effectively, there will be maps in the further pages that illustrates the paths that had been taken during the site visit. They will show the routes and the views from specific points. It will help understanding the site better since the vastness of it makes it challenging.

Figure 3.1 Historical village of Kayaköy in the front and the present Kayaköy in the background



Figure 3.2 Views from the indicated path named as "Girls' School"

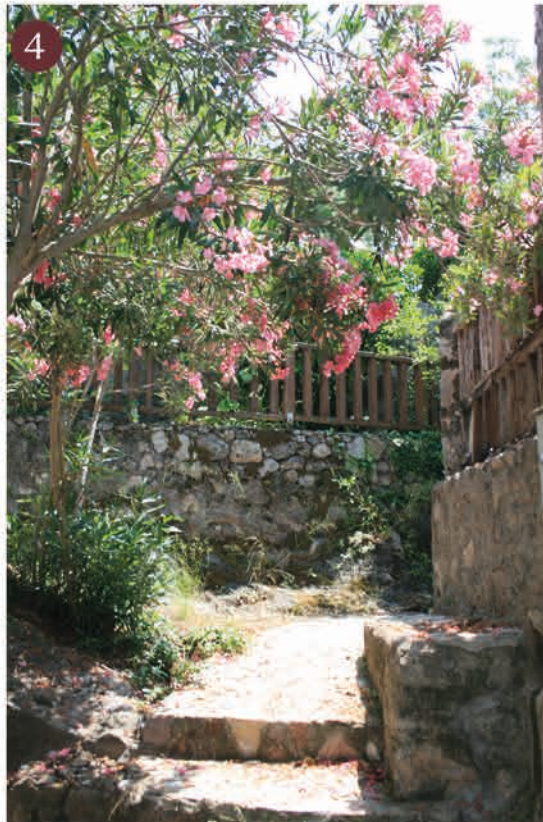


Girls' school and water fountain

Path leading up

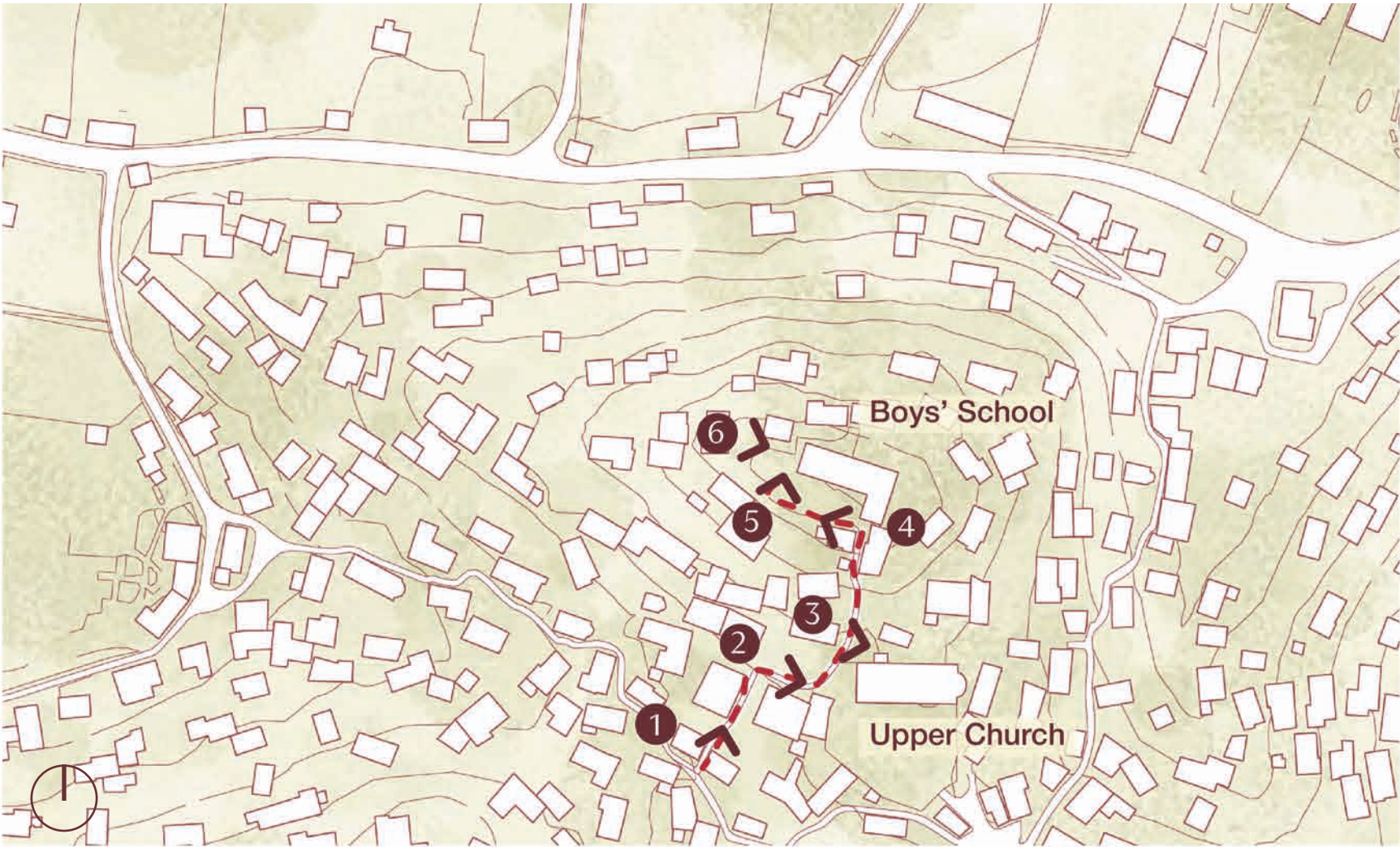
Path with stairs

Straight and narrow path



Step by Step: Boys' School

Figure 3.3 Views from the indicated path named as “Boys’ School”

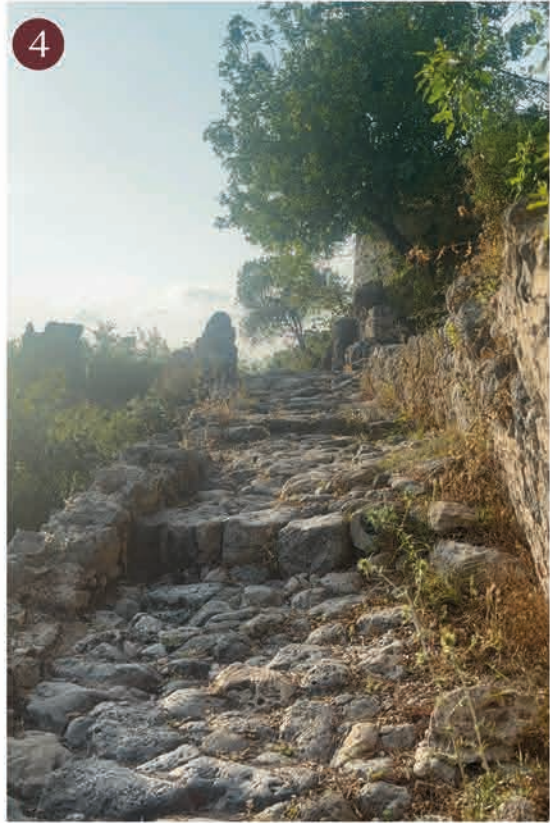


Boys' school



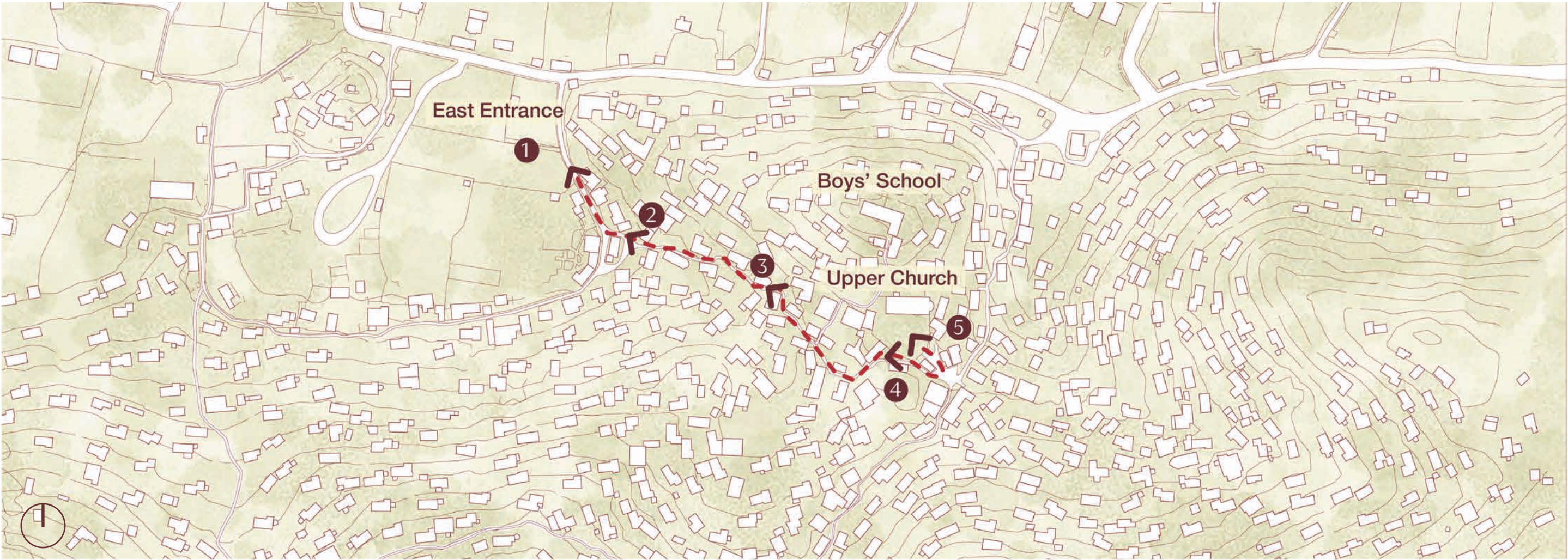
Path with stairs

Entrance through stairs



Step by Step: From East Entrance to the Upper Church

Figure 3.4 Views from the indicated path named as “From East Entrance to the Upper Church”



East entrance - ticket booth



Street vendor



Straight path



Upper church



Step by Step: West Entrance to the Watching Tower



Figure 3.5 Views from the indicated path named as “West Entrance to the watching tower”

Lower church is on the right



West entrance - ticket booth



Grazing goats



Path leading up

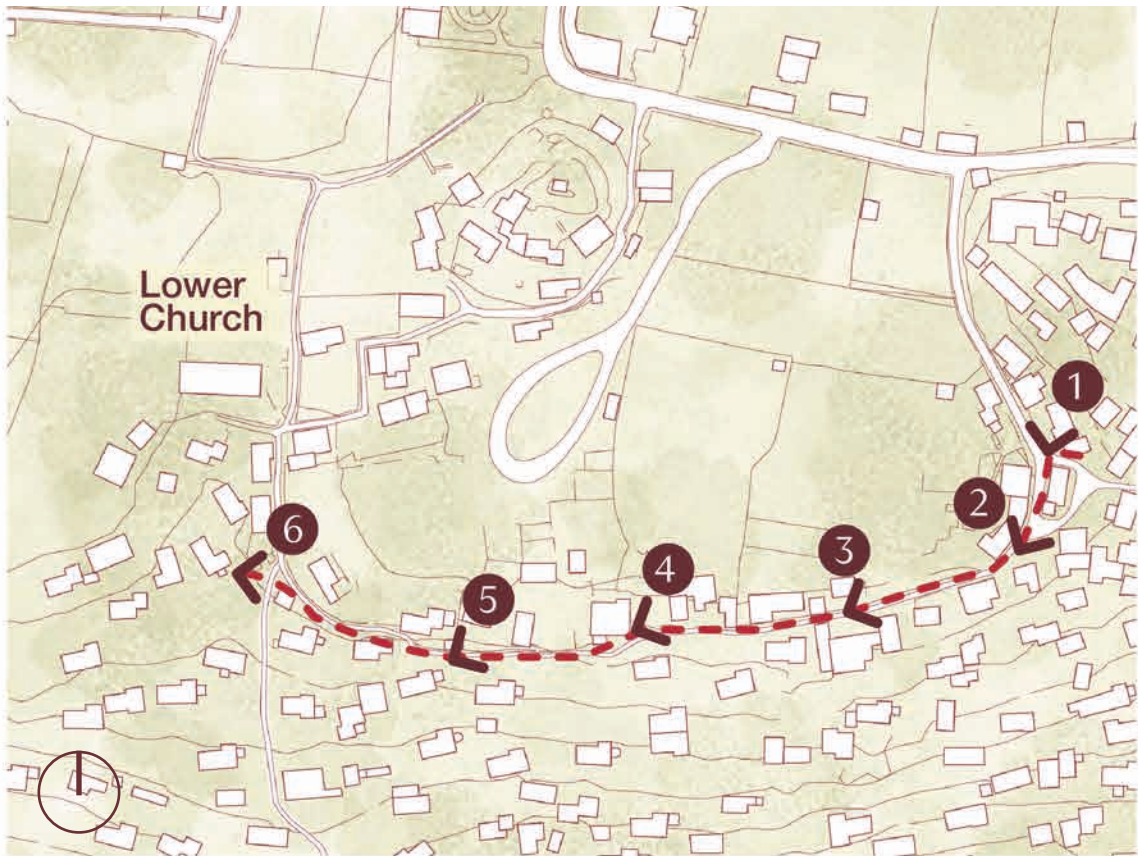


Bird view of the path



Step by Step: The Connecting Path

Figure 3.6 Views from the indicated path named as “The connecting path”



Restored building



Restored building



Comfortable wide path



Restored building



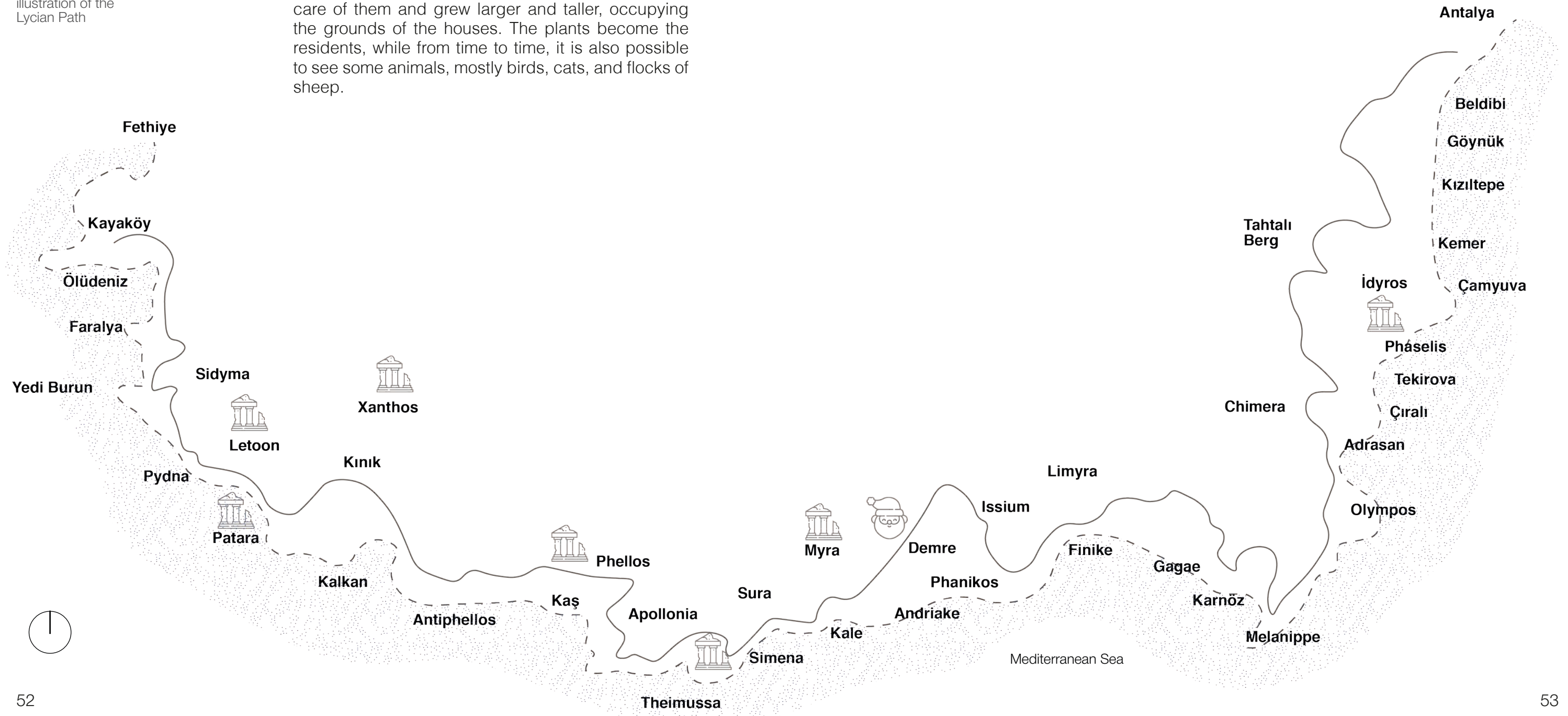
Grazing goats



Potentials of the Site

Fostering a transformation in this area needs to be thought in relation to its past. It is important to rely on facts and historical evidence. The static (constant) elements are the reliable narrators of the site, which link us to its original state. As one might expect, the ruins are one of the constant elements, and they offer information through their visual state. However, they are much more than that. They are still able to offer functionality even in their demolished state, preferably with needed alterations. Another example is undeniably from the landscape. Landscape affects the structures, the living, and creates its own mini collection of vegetation. There are lots of olive and fig trees, flowers, and areas of tall grass that cover the ground. They kept on flourishing while nobody took care of them and grew larger and taller, occupying the grounds of the houses. The plants become the residents, while from time to time, it is also possible to see some animals, mostly birds, cats, and flocks of sheep.

Figure 3.7 An illustration of the Lycian Path



The site has strong connections with the main arteries, other heritage sites, and tourist attractions, and they are illustrated in the next chapter. It is possible to use public transport, travel by a private vehicle, or walk from the nearby villages and towns. Since the district offers many great views and is near the starting point of the famous hike route **“Lycian Path” (Likya Yolu)**, people who are interested in nature and historical sites choose to travel on foot and set up camp areas along the way to the next cities. The Lycian Path begins from Ölüdeniz, which is a nearby seaside town, and ends in Geyikbayırı, Antalya, another seaside city attracting many tourists during the summer season. Travellers include Kayaköy in their itinerary in the beginning of this path as a historical asset that needs to be seen.

Potentials of the Site

While going down the road and getting closer, witnessing the scattered structures on a fairly high-sloped area makes one understand the greatness of it. It is surely a big area, and it stands on high ground. However, the greatness cannot be articulated only by its occupied area. The feeling comes with the current state of the structures as well as their utterly different architectural properties. They are composed of decaying stones, blending with nature, with the vegetation taking control over the area. Yet, they loom over the exact environment that surrounds them with their geometrically distinct features. It is inconceivable to imagine this place with buildings that are all restored without any trace of what had happened until now. The image that had been plastered in many people's minds would be lost. The site would have been transformed into a foreign place that belonged to neither the past nor the present. The potential of this site is not about the number of possible re-usable buildings. This kind of intervention would erase any meaningful connection between the past and the present, as well as with the future. **The site should speak of its journey. Thus, the interventions should be well balanced between preserving the ruined state of the buildings and possible additions to their structural and architectural form.**

As time goes on, their structural and architectural forms get worse, resulting in collapses due to weakened materials. There have been ideas about the site, but there has not been any action taken on that matter. Only the ones that are renovated for commercial use (café, restaurant, and stores), and a few residential buildings, were saved from their decaying state. **Restoration work seems to be for individual buildings without including the whole site, since there is no publicly announced plan regarding the future.**

Running into people is not a rare occurrence, since the site is an open museum and besides visitors, some people live on the site after renovating the buildings. These habitable buildings are only situated near the East entrance of the site, near the village that is called by the locals as "Kaya" (formally, the name is also Kayaköy, but to avoid being mistaken for the ancient village of Kayaköy, it will be referred to as Kaya in this thesis). There are only a handful of people living, and they have their own small gardens connected to their property. The potential here is the possibility of having more people on the site with much more functionality. **It is important to note that avoiding any disturbance in the area is the key to not proceed with certain functions, such as a high number of residential buildings.** It is okay to keep the present residential buildings and design accordingly to not disturb them. However, the potential of a historical site like this does not align with building a series of houses or boutique hotels.

Caitlin DeSilvey discusses the theme of postpreservation in her book titled "Curated Decay". She explains that the prevailing preservation idea of material conservation emerged in the late nineteenth century and continues with ideas revolving around finding value in transience (DeSilvey, 2017). Certain questions can be derived that are in relation to what this thesis is trying to convey. Up to what extent is it possible to allow natural forces to transform historical structures and landscapes? Does the concept of adaptive reuse fall short in addressing the uses by other-than-human living beings and agencies? In terms of Kayaköy, these questions can be answered only after proper analysis, but since this chapter focuses on a pre-analysis commentary, there will be some insights depending on observations.

The topic of how to restore this area encounters several issues from the very beginning, which are already related to the questions derived above. The main reason for that is the ever-mentioned vastness and the number of buildings. It is not a simple mathematical question but is related to the imagery of the site that contributes to its identity. As mentioned above, imagining this site with all newly restored buildings that look nothing like the present decayed ruins would create a meaningless relation. **The area needs organization and some guidance, there could be parts that are chosen for the highest level of intervention.** These can be the functions that need the most defined spaces and services, meaning closed spaces with proper insulation, coverage, and borders.

Figure 3.8 Higher parts of Kayaköy



Potentials of the Site

“Once people and geography labor for centuries to mutually shape each other, however, mere land turns into homeland.”

Identity is an essential feature of how and why we do something. There are many reasons to explain how a person or a place obtains its characteristic features. According to the quote above, it takes time and effort to call a place home. Over time, people shape their environments according to how they live their lives; however, their habits have already developed because of where they have lived. Consequently, the identity of a place is shaped as much as it shapes the people.

The term restoration refers to returning something to its authentic state without adding any new material, and if there are any additions, they should be recognizable, as also explained in the Venice Charter. Whereas when the aim of restoration is to be defined, revealing historic and aesthetic values becomes crucial. Typically, the end product is the ultimate goal for classifying a work as restoration (Karlström 2020). There are also discussions about considering the maintenance process as a meaningful phase. Anna Karlström explains this through a restoration project in the city of Vientiane and says,

“It is rather a restoration of an idea of the prestige of the original, than of the physical form of the original”

Near the main temple in the city of Vientiane, there is a structure named stupa, and it is looked after with the greatest care. However, at first glance, the author thought that it was in a bad shape and decaying. There is continuous maintenance along with activities carried out by villagers and monks. In contemporary heritage, the appreciation for the restoration is high towards the end when the work is about to finish. In this project, it is not dependent on the process itself since it can provide benefits over time. “A temple under construction offers a chance to donate money or provide volunteer labour, which means merit”. **Therefore, the constant change with the addition of new elements and even through the demolition of some, the act of restoration is present-oriented.**

A meaningful reflection of this approach can be thought in Kayaköy with the idea of phases. Any construction work that is planned has a possibility of creating some discomfort. It takes time and in the period of construction, the environment and people may get disturbed. In a historical site like Kayaköy, these concerns are increased with the importance of its heritage assets. However, as mentioned above, the conclusion of construction does not have to be the only goal. This time period can be scattered along a timeline. **With a detailed planning, it is possible to create engagement with the site through the construction period.**

There are already different existing entrances on the site. They can be active depending on the schedule of the construction to define safe zones. **The visitors can experience the transformation of the site while still witnessing the untouched structures and the nature.** Architecture students and any related major can benefit from the on-going work with the activities organized by their universities and the government. The site is already an exemplary for site visits by architecture faculties. Therefore, the process of restoration offers the possibility of enhancing certain activities.

Potentials of the Site

1 Strong connections

- Famous hike route “Lycian Path” (Likya Yolu)
- Other heritage sites
- Tourist attractions

2 The site can speak of its journey

- Preserving the ruined state of some structures
- Planning interventions for some structures depending on their structural and architectural form

3 The possibility of creating different zones in the site

- Since the site is vast, there can be variety of functions and activities managed in different parts of the site

4 The act of restoration can be present-oriented

- Introduction of phases
- The visitors can experience the transformation of the site

Analysing the Site



a. Territorial Analysis

- Territorial Map: Part of Fethiye
- Vegetation and Climate
- Territorial Map: Land Productivity and Streams
- Territorial Map: Cultivation and Water Sources
- Recognizing the Plants on Site
- Territorial Map: Transportation and Functions
- Visitors of Kayaköy

b. Site Analysis

- Site Photography
- The Paths of Kayaköy
- Site Map : Paths
- Site Map: Buildings
- Information about the Restoration Potential
- Site Map: Restoration Potential
- Site Drawings

c. Architectural Analysis

- The Buildings in Kayaköy
- Construction Method and Materials
- Characteristics of Spaces in Kayaköy
- Structural Analysis

Territorial Analysis: Part of Fethiye



Geographical Properties and Vegetation in Fethiye

In Kayaköy, the presence of coastal cliffs surrounding the plains, along with the high and steep topography, makes construction more challenging. Moreover, this sloped area is abundant in water resources, and the need for design in terms of saving and collecting water is highly demanded. Although people may not prefer to settle here today, in ancient times, they preferred sloped grounds to benefit from sunshine and to keep danger away that could emerge from the seaside. In that period, the plains were mainly used for agricultural purposes. As mentioned above, the situation is in reverse in the present since people do not settle on high grounds but rather on fertile lands. It can be discussed whether this is a better idea since the fertile lands are much needed for agriculture and plantations.

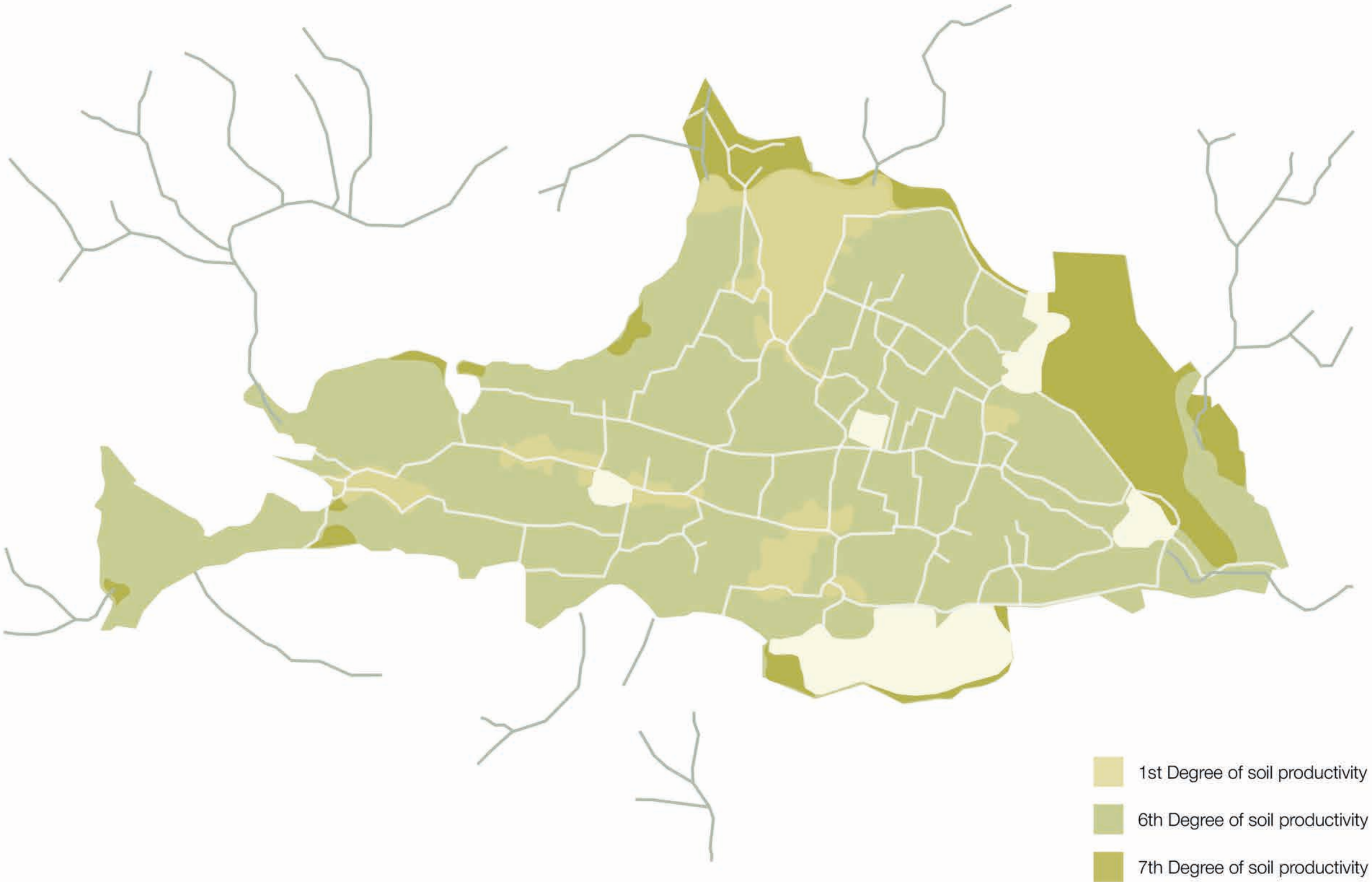
Babadag is the highest mountain in Fethiye and lies in the direction of Northwest and Southeast. The distance to reach from its highest point to Fethiye is nearly 26 kilometres, even though the distance is 2-3 kilometres from a bird's eye. The Babadag is a site of very different morphological sections consisting of a variety of vegetational differences. Kayaköy is on the west of the mountain, and the village has common characteristics with it in terms of its morphology and sources. Both the mountain and its surroundings have water scarcity, and the main factor causing it is the karst terrain. Cracks in the limestone formations and the permeability of the material cause underground water sources to decrease. Therefore, there are many cisterns and water wells. In Kayaköy, the main sources for these are underground water, melting snow, and rainwater. These cisterns are useful for the animals' needs and daily water usage. They are usually dug by human hands and can reach between 5 to 10 meters deep (Tombak et al. 2020). In Kayaköy, dry agriculture is common because of its karst plain base. Other high and uneven parts of the area are occupied by forests.

Soil Productivity and Water Sources in Kayaköy

The increase in the number of settlements between 1939 and 2009 has been observed in Kayaköy using aerial photographs. Since the area mostly consists of lowlands between 3 hillsides, the majority of the settlements are in the lowlands, where it is suitable for agriculture. This area comprises five distinct soil types. Non-calcareous brown forest soil, colluvial soil, non-calcareous brown soil, red brown mediterranean soil, red mediterranean soil. With 61%, non-calcareous brown forest soil is the most common one that is mainly seen in the lowlands. This type of soil is classified in the 6th degree in the fertility ranking. Colluvial soil is 1st in the fertility ranking, and it covers 10% of the area drawn in the map of Land Productivity and Streams. When compared with the density of settlement, it can be seen that the areas with high fertility have denser settlements. New constructions on fertile agricultural land pose a threat to the sustainability of the area's natural characteristics. For the ancient Kayaköy settlement, the situation is different because the area is not highly fertile but suitable for some agricultural purposes. On maps, it is seen as a dense settlement even though the active population is very low. There are only a few occupied residential houses, cafes, restaurants, and small accommodations.

When the hydrological characteristics of the area are analyzed, it is seen that there is no active stream in the lowlands. In the vicinity of the area, nine different streams were found, as highlighted on the map (Fig. 4.2). The streams end in a basin floor. Therefore, the drainage system depends on moving the water from the vicinity to the centre. Since these connections are in the lowest points of the area, in the case of heavy rain, the excessive water is drained outside of the lowlands. However, due to wrong land use decisions in the plain, it becomes difficult to drain the water accumulated in the polje base (Bayrakdar et al. 2020). In 2019, there was a flood due to wrong land use decisions and the blocking of drainage systems.

Figure 4.2 A map showing the land productivity and streams of Kayaköy



Average Temperatures and Precipitation

During the winter, Kayaköy is rainy and cool, whilst hot and arid in the summer. Therefore, the climate is Mediterranean. Kayaköy is located in a humid climate zone, and 58% of the precipitation is in the winter months (Bozyigit 2010). The wettest month of the winter is January, and the average rainfall is 177 mm with more than 14 rainy days. July is the driest month with hot and sunny days. There are only 6 days of precipitation and 3 mm of rainfall. Annually, the rainfall is 875 mm. While January is the coldest month with an average of 15 °C, August is measured to be the hottest month with an average of 33 °C (Weather and Climate 2026).

Figure 4.3 The average maximum day and minimum night temperatures in Kayaköy

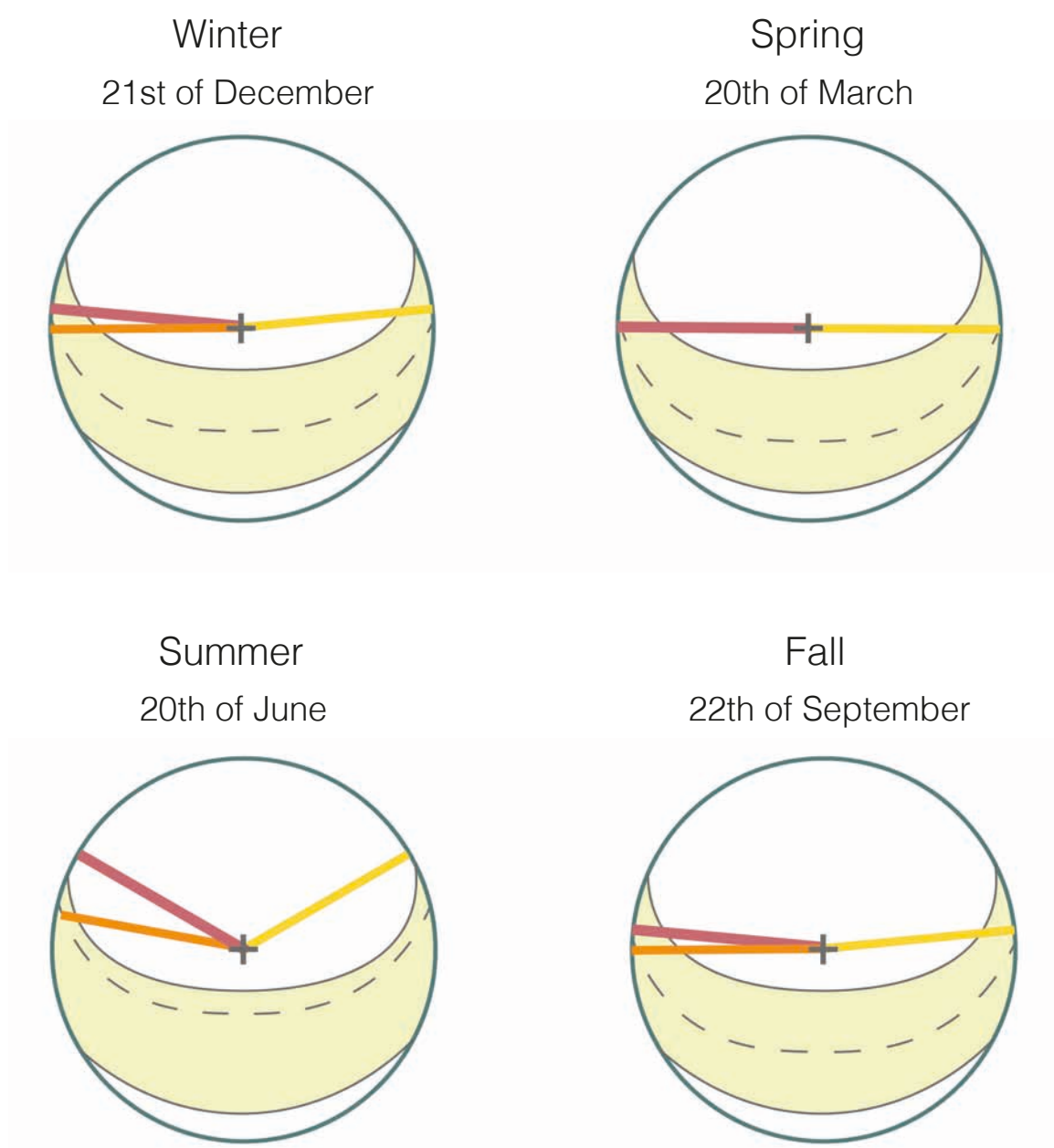
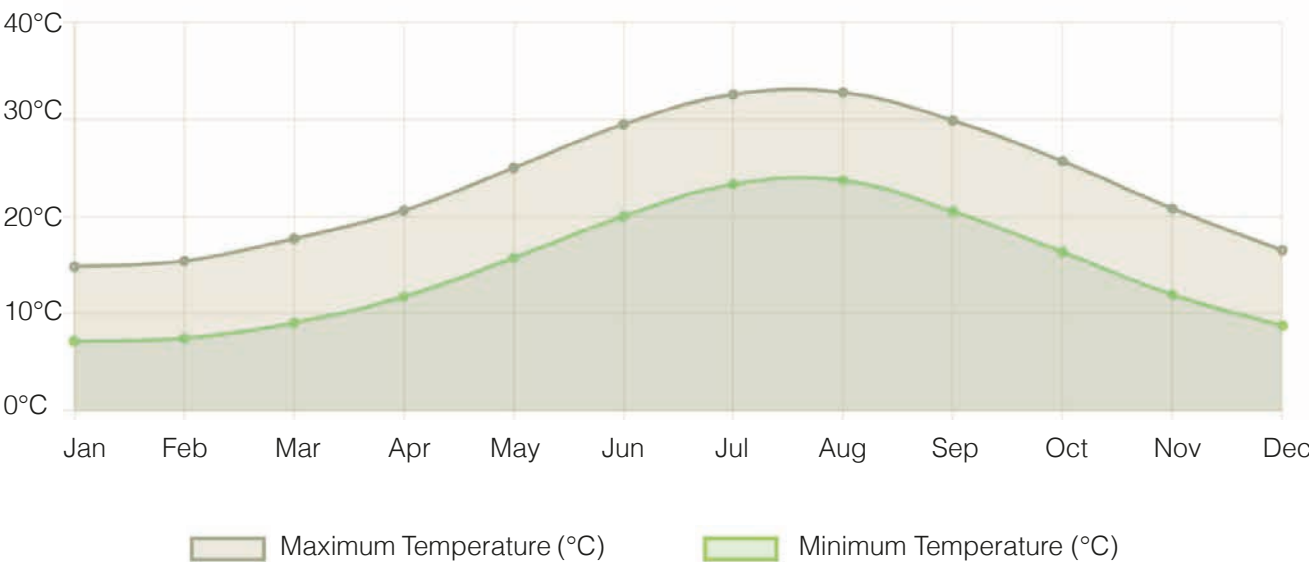
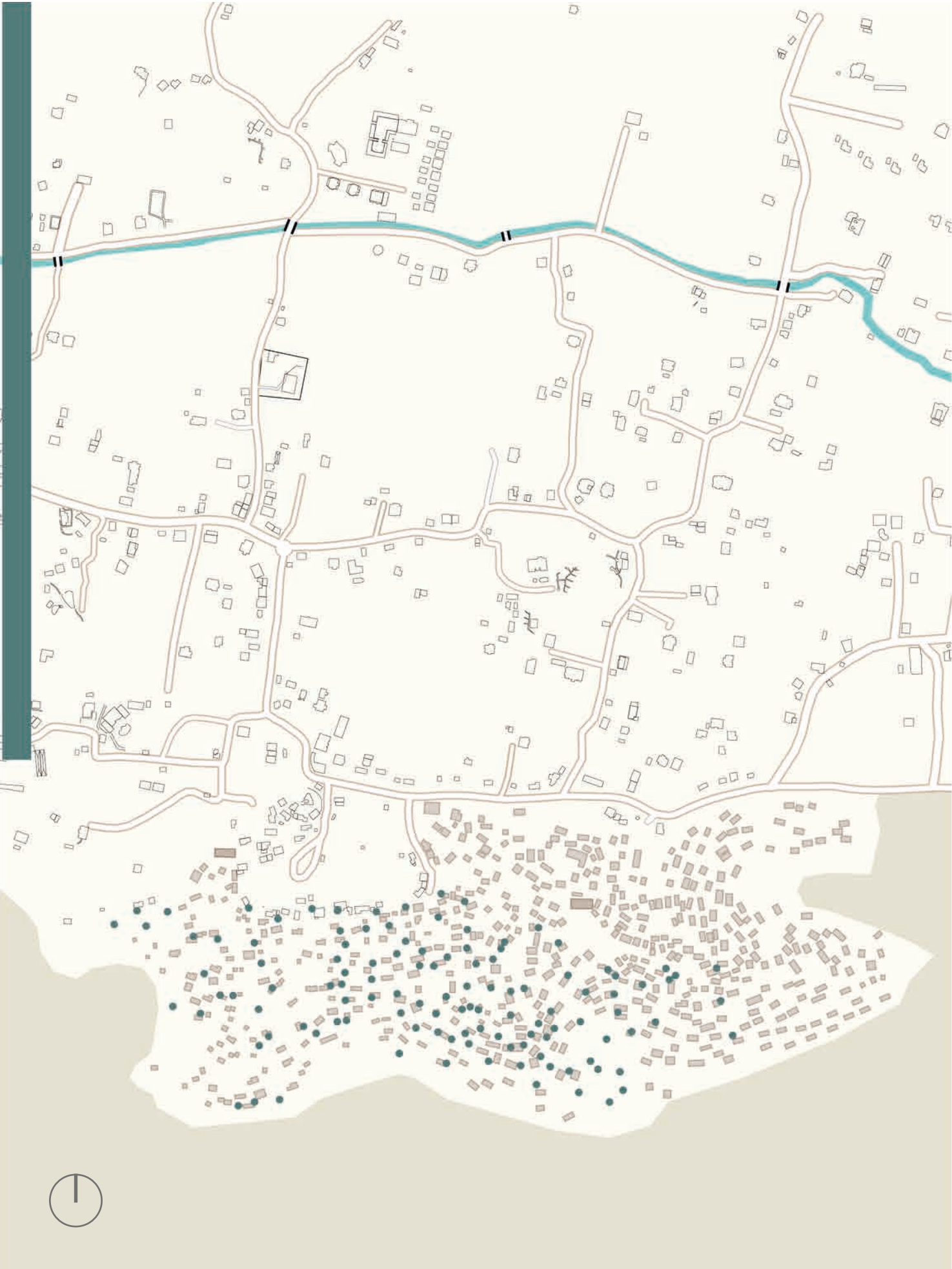
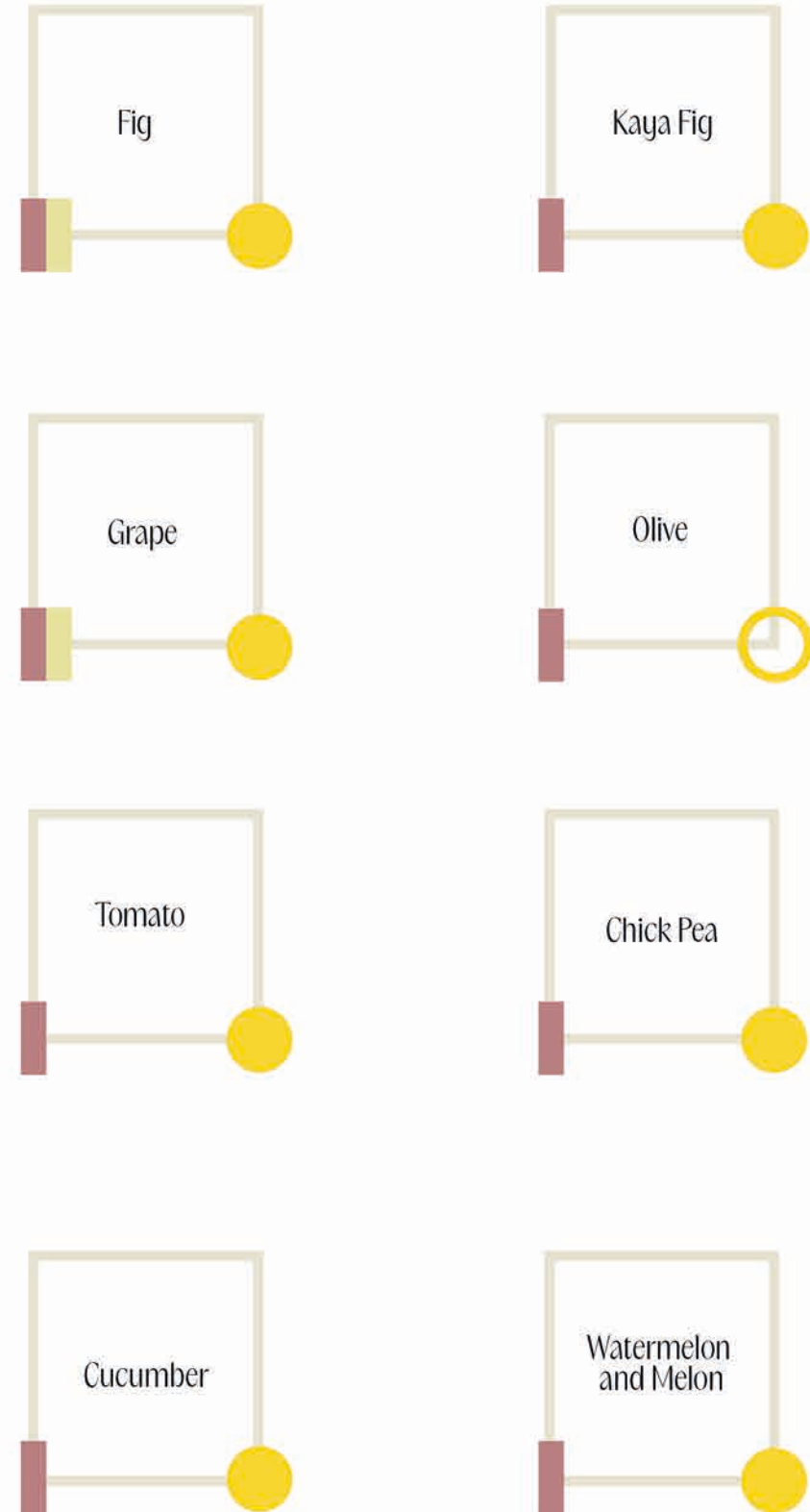


Figure 4.4 Sun path of Kayaköy



Cultivated Products - Past & Present



Legend

- Main Elements**
- Car road
 - Ruins
 - Forest
- Cultivated Products**
- Area**
- Plain of Kayaköy
 - Ancient Kayaköy
- Harvest Season**
- Spring - Summer
 - Fall - Winter
- Water Sources**
- Stream
 - Cistern Density
 - Shows the cisterns that were used in the past. There are still remains.*
 - Danger of Flood

Figure 4.5. A map showing the cultivation and water sources in Kayaköy

Recognizing the Plants on Site



Fig (Incir agacı)
Ficus carica L.



Lentisk (Sakızlık)
Pistacia atlantica Desf.



Olive (Zeytin)
Olea europaea L.



Oleander (Zakkum)
Nerium oleander L.



Poppy (Gelincik)
Papaver dubium L.

Figure 4.6 A set of photographs for showcasing the vegetation.

Recognizing the Plants on Site



Carob (Keçiboynuzu)
Ceratonia siliqua L.



(Dikenli incir)
Opuntia



Yarrow (Civanperçemi)
Achillea millefolium L.



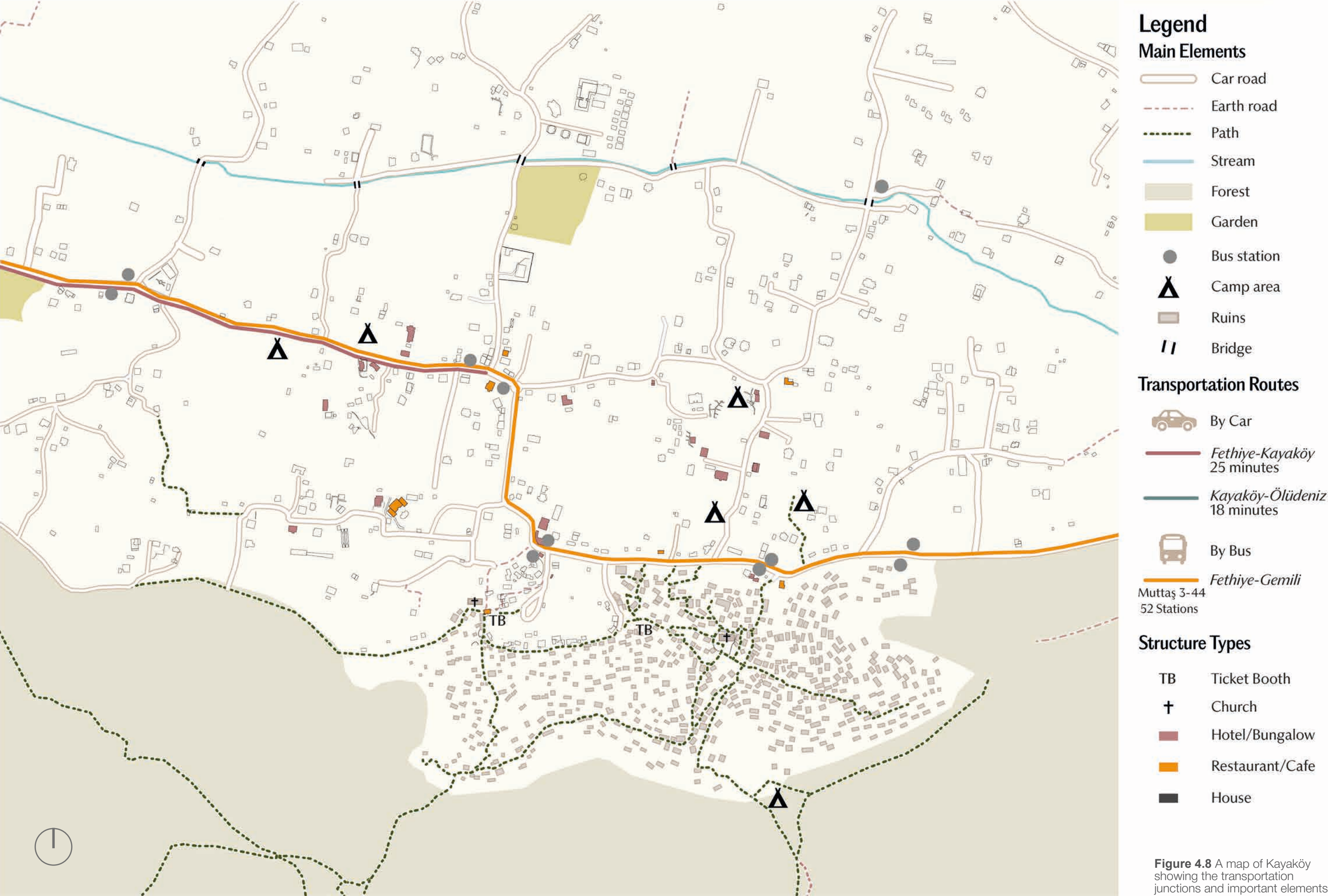
Stavesacre (Bit otu)
Delphinium staphisagria L.



Pomegranate (Nar)
Punica granatum L.

Figure 4.7 A set of photographs for showcasing the vegetation.

Territorial Map of Kayaköy: Transportation and Functions



Visitors of Kayaköy

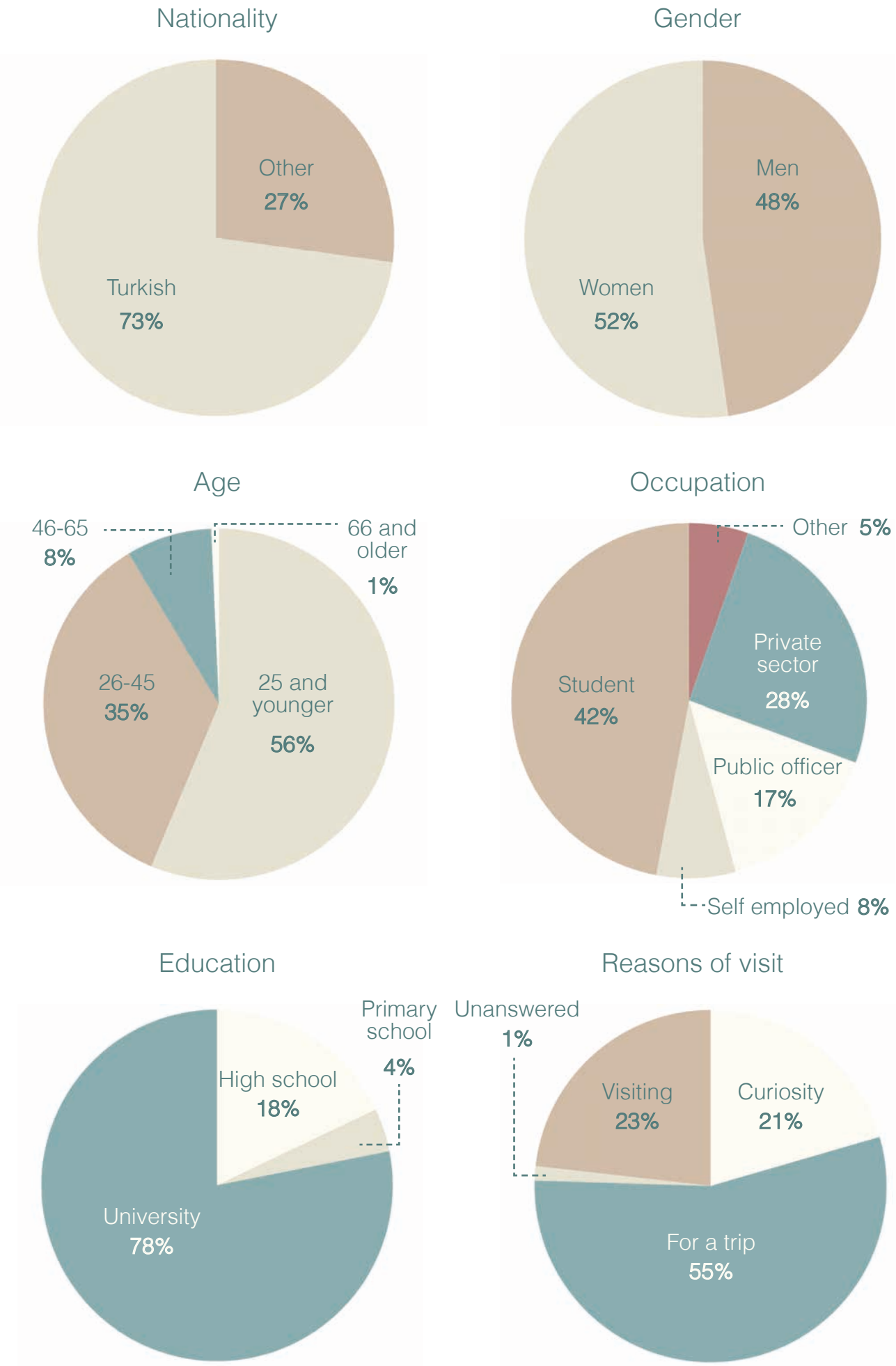
The analysis of the users in Kayaköy can be done in different ways: past analysis done on surveys, which are more numeric and analytical, observations on site, and deductions through common sense. The survey that is mentioned in this thesis gives information about several categories, but it is important to note that it is only about the visitors and not the locals. Moreover, it does not strictly refer to ancient Kayaköy in its place statement; it refers to the nearby village as well.

A high percentage of visitors are Turkish, while 27.2% are foreigners. For the age category, there is no distinction between young adults and children, and the category for “25 and younger” gets ahead of others with 56.3%. As the age bracket goes up, the number of people goes down. For “65 and older”, the percentage is 0.7.

A high number of visitors (43%) spend 1-3 hours in Kayaköy, and the most common reasons for visit are “for a trip”(Kutukız et al 2017). This is a rather general answer. However, the other options on the survey show that none of them are very specific (The rest is curiosity and visit). Nevertheless, it can also be an indicator that there was nothing significant to put on the survey sheet as an option because the reasons are simply these things. It is, of course, not an indicator of a negative trait, but it falls short in learning the detailed reason for the visit, which could be related to activities such as sport, curiosity for the nature, or for its history.

Observations and deductions through common sense are not arbitrary or personal, as long as there are logical reasons for the assumptions. Collecting information about the users is useful for determining functions. Understanding the data from past occurrences and observing the situation in the present creates ideas about possible motivations of visits that might shape the future functions. For example, there have been several workshops and lectures that were conducted by architectural faculties of different universities on the site. Students spent time in Kayaköy and worked on schemes and brainstormed ideas. It is possible to find these past studies on the internet.

Figure 4.9 Pie charts illustrating the information about the visitors of Kayaköy



Visitors of Kayaköy

The visitors usually prefer to come in the afternoon rather than morning. The reason might be the distance. The people who come for vacation prefers to stay in the seaside towns or in the central parts of the city.

44.4% of the visitors find it sufficient to come here once, and 19.2% visited twice. It is much more common to visit on the weekend. However, it is not strictly defined with these answers because, 35% of the people who took the survey thought that it did not matter which day they visit. Since the “Preferred months to visit” shows the highest numbers for the summer season (and in September, because the weather is still very good and schools are on summer break), it is possible to assume that they prefer to have a summer vacation nearby.

It is important to understand which transportation types are commonly used. In the analysis part of the thesis, the routes for the public transportation and private cars are illustrated on a map. There are bus lines that come from near towns and central districts. Nearly half of the people said that they come by town bus. The second major transporation type is by a private car, and it is followed by taxi. There are also some visitors who walks to the site or rides a bicycle/motorcycle.

Figure 4.10 Pie charts illustrating the information about the visitors of Kayaköy

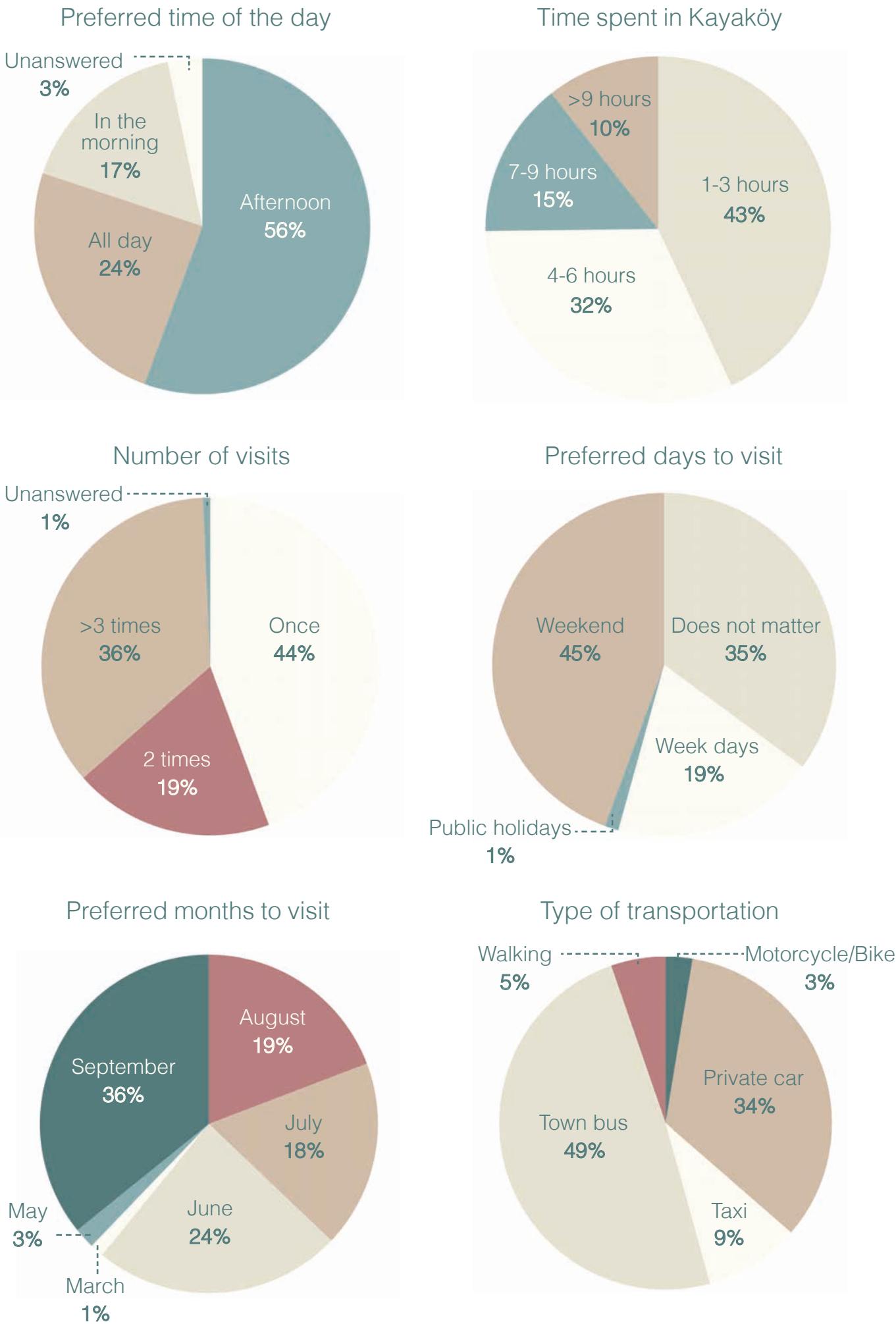




Figure 4.11 An aerial view of Kayaköy



Figure 4.12 An aerial view of Kayaköy



Figure 4.13 West side of the site



Figure 4.14 Near the top of the west side of the site

Why Are the Paths Important Here?

With the accumulation of site visits and academic research, different path classifications were made throughout this thesis paper. After the site visit, the maps shows the paths with providing photographic evidence and informs about the surrounding elements. In the further pages, it illustrates the comfort and identifies the material. Since the site covers a vast area with more than 600 ruins, defining a boundary for where to design on the site is very important. However, there are other crucial reasons to set a boundary. On huge historical sites like this, the design of most elements is not compatible with present requirements. They can be altered and adjusted, but there should be a logical approach with a considerate limit, not to disturb the originality of the site. For Kayaköy, the area already offers numerous opportunities without the need to utilize all of them. Therefore, the routes for the site development will be chosen according to the path classification. Then, the spaces needed for the architectural program will be assigned to these chosen routes, considering the accessibility, geographical conditions, and the general suitability of the areas.

The first and most fundamental functions are the visitor centre and museum. The whole site is an open museum. However, there should be closed or semi-closed spaces that serve everyone. These spaces should be accessible to the public. Therefore, it should be one of the first spaces to be reached when entering the site. These spaces will also serve as buffer zones before the function changes. In some cases, the change of function will also affect the classification of public and private spaces.

To experience the site, one must cover a certain distance and observe the surrounding elements, including plants, ruins, animals, and the path itself. The site introduces itself by presenting different paths to take, and it makes the visitor feel overwhelmed. Therefore, the paths play a big role in the design, and they are a good candidate for the buffer zones with their ability to appear in every part of the area. However, they need alterations and substitutes.

Figure 4.15 A small stand set up by locals in the paths of Kayaköy



Kayaköy is classified as a historical site; therefore, the responsibility to safeguard and preserve it is entrusted to the institutions. Even though the legal responsibility falls upon institutions, immediate users of this area have a high importance in the decision-making. The site is already a part of the everyday life of the local community. Especially in the spring and summer, since these are also the tourist seasons. They visit the site and take a walk in nature. **On the paths, it is possible to see vendors setting up small stands with jewellery and other items. They do not have the chance to engage with the ruins, but are free to use the paths and small spaces that are left between the ruins and paths.** For visitors, it is nearly the same: they can go inside the ruins to take a closer look, but the untended plants prevent them from doing so. Moreover, some of the structures do not give the impression that they are safe to get close such as the Upper Church, which is closed with a lock on its gate. Therefore, these features make it impossible to experience the site in some ways.

While visiting the site, it seemed that the paths are the only way to see the site as much as they allow. The paths are usually made up of soil or stone, possessing the original layout and material in some areas. In some cases, the paths disappear, and one gets lost between the ruins because it gets hard to decide which direction to choose. **The natural slope inclination of the site, collapsed ruins, and untended plants prevent the visitors from seeing ahead.** For the areas marked on the map as comfortable, it is possible to have a walk and observe the surroundings while still not being able to engage with the ruins themselves safely.

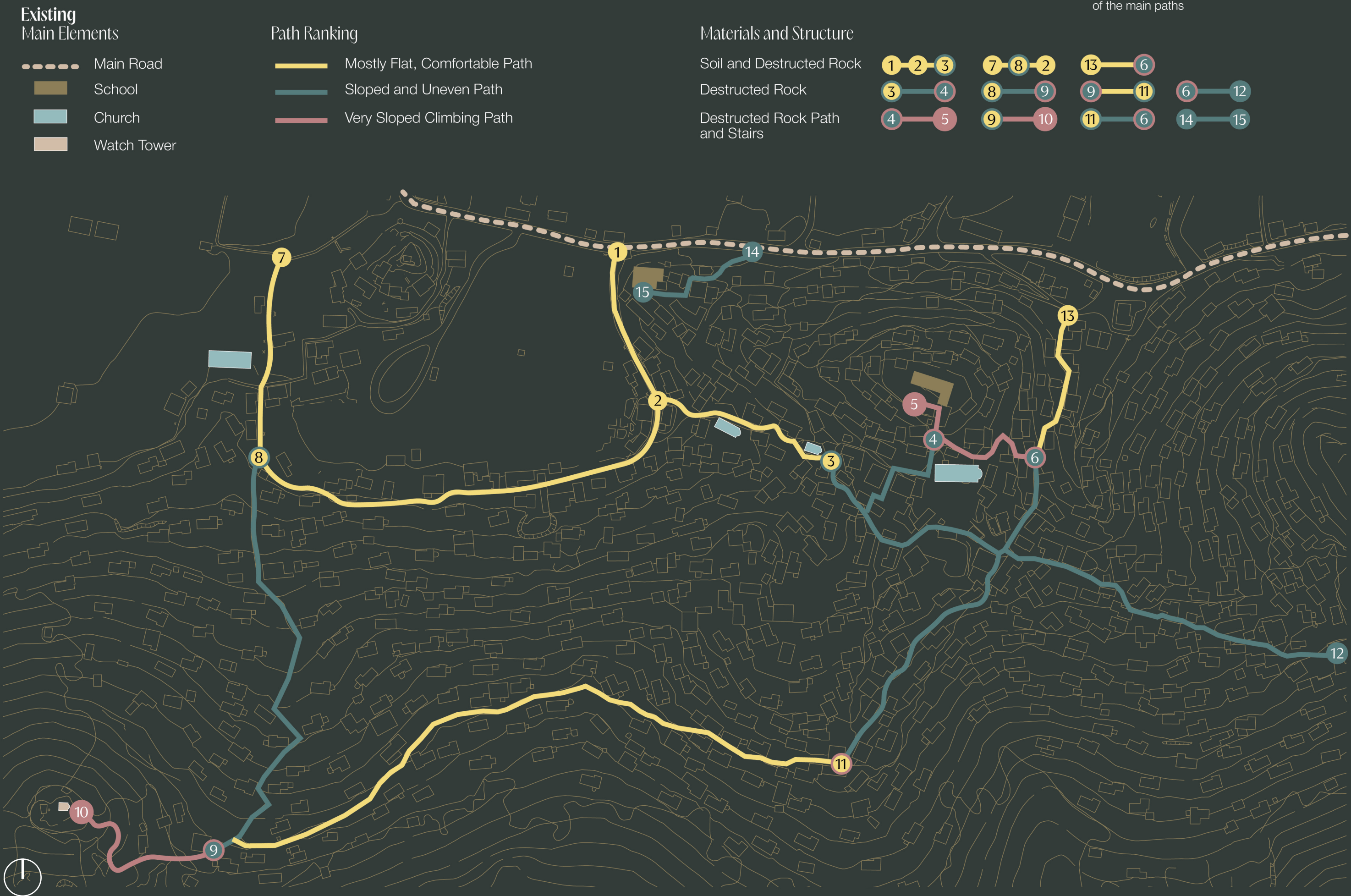
For the less comfortable ones, there can be additional structures or another option of access. **To decide on which action to take regarding the paths, these can be considered:**

1. The inclination of the path
2. The level of destruction
3. The ability to access certain parts of the site
4. The planned function for the type of ruins and their required connectivity

For the comfortable paths, there can be no action or few actions needed. When the path is suitable, it is best to focus on the surroundings to benefit from the accessibility. If everyone can easily access these areas, then the functionality can focus on the main and public needs, such as the museum and the visitor's centre. For the paths in the second place of comfort, either the paths can be altered, or new paths on different parts of the site can be built to connect certain places.

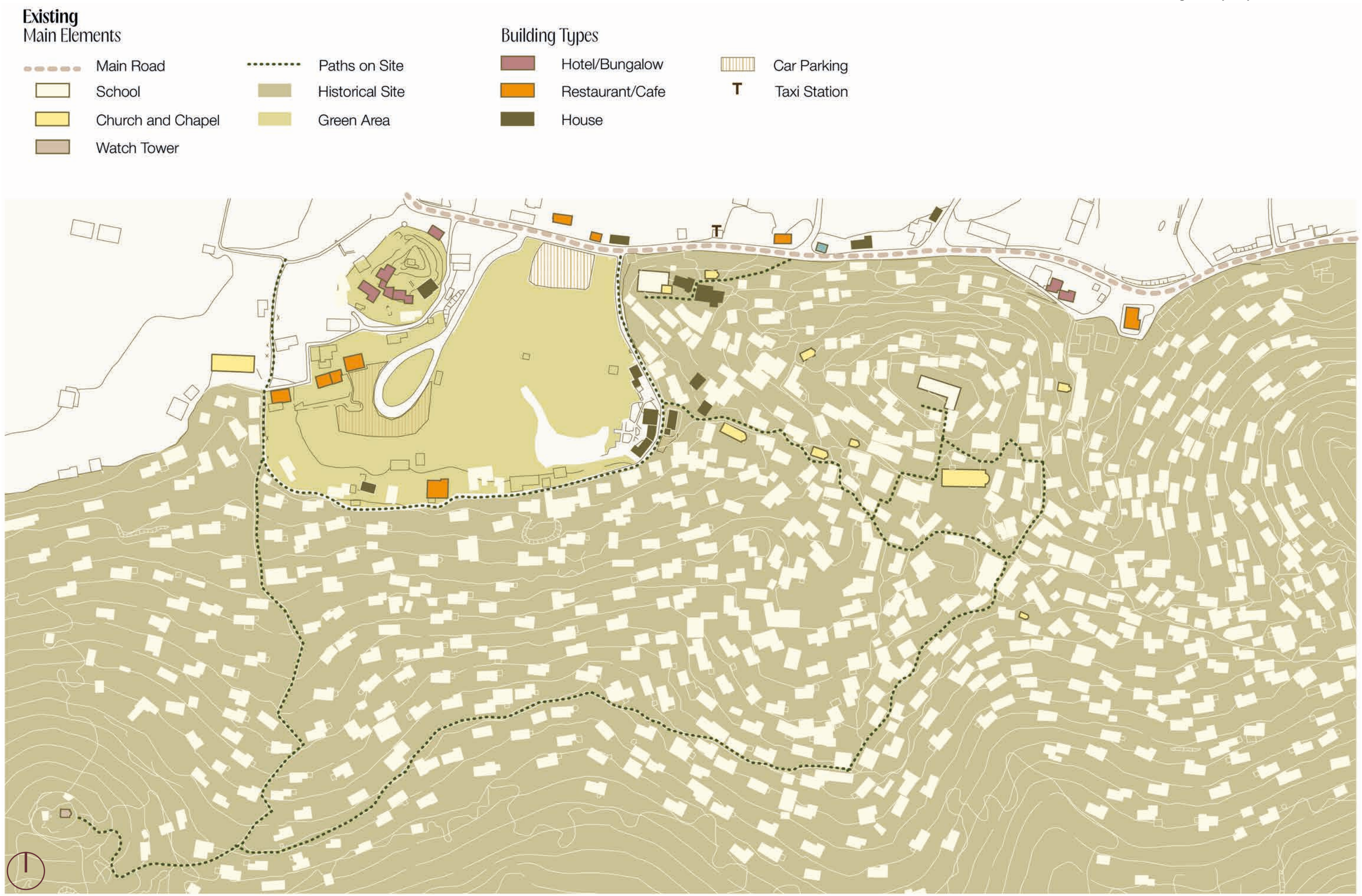
Site Map: Paths

Figure 4.16 A map illustrating the classification of the main paths



Site Map: Main Elements and Buildings

Figure 4.17 A map illustrating the main elements and the buildings in Kayaköy



Information about the Restoration Potential

The thesis titled “Conservation and Restoration Problems of Kaya Köyü (Levissi) Houses” by Hakan Saraç contributed to this thesis by offering in-depth knowledge of the abandoned houses on the site. In the end, it generates examples of interventions for the most typical type of structure. The author only analyses the houses and does not include the monumental buildings, such as schools and churches. In its analysis, decay conditions lead to the classification of restoration potential. Therefore, if the structure is in a relatively good condition, then the potential for restoration is positive. Since the thesis dates to 2001, there have been some changes in the site concerning the decay of the structures. On this basis, the updated map in the further pages is made after a careful evaluation of the digital maps, photographic evidence, and video records from the site visit made in June 2025. The metric for deciding the level of decay is not strictly determined. However, according to the examples given by Hakan Saraç and the general understanding of the terms fully decayed and partial decay, it is possible to deduce an overall apprehension.

The important aspect here is to define the potential too, because any of these structures could be built from scratch, similar to their original forms. However, the idea is to be able to build while keeping the original structure as much as possible. Even if the newly built structure will only act as a visual element, which could be the case for these buildings, since the evaluation of load-bearing capacity is not measured, a new structure will be needed, and sometimes original materials may need protection from further use. On the map, the first item in the list is: structural condition is good and/or medium, indicating that the building has the potential to function with proper structural strengthening and architectural interventions. In this category, only the chapels and the Upper Church have intact roofs since they were made of stone. The condition of the walls is decent enough to understand the overall height and the positions of the openings. However, the slabs and floors are usually absent.

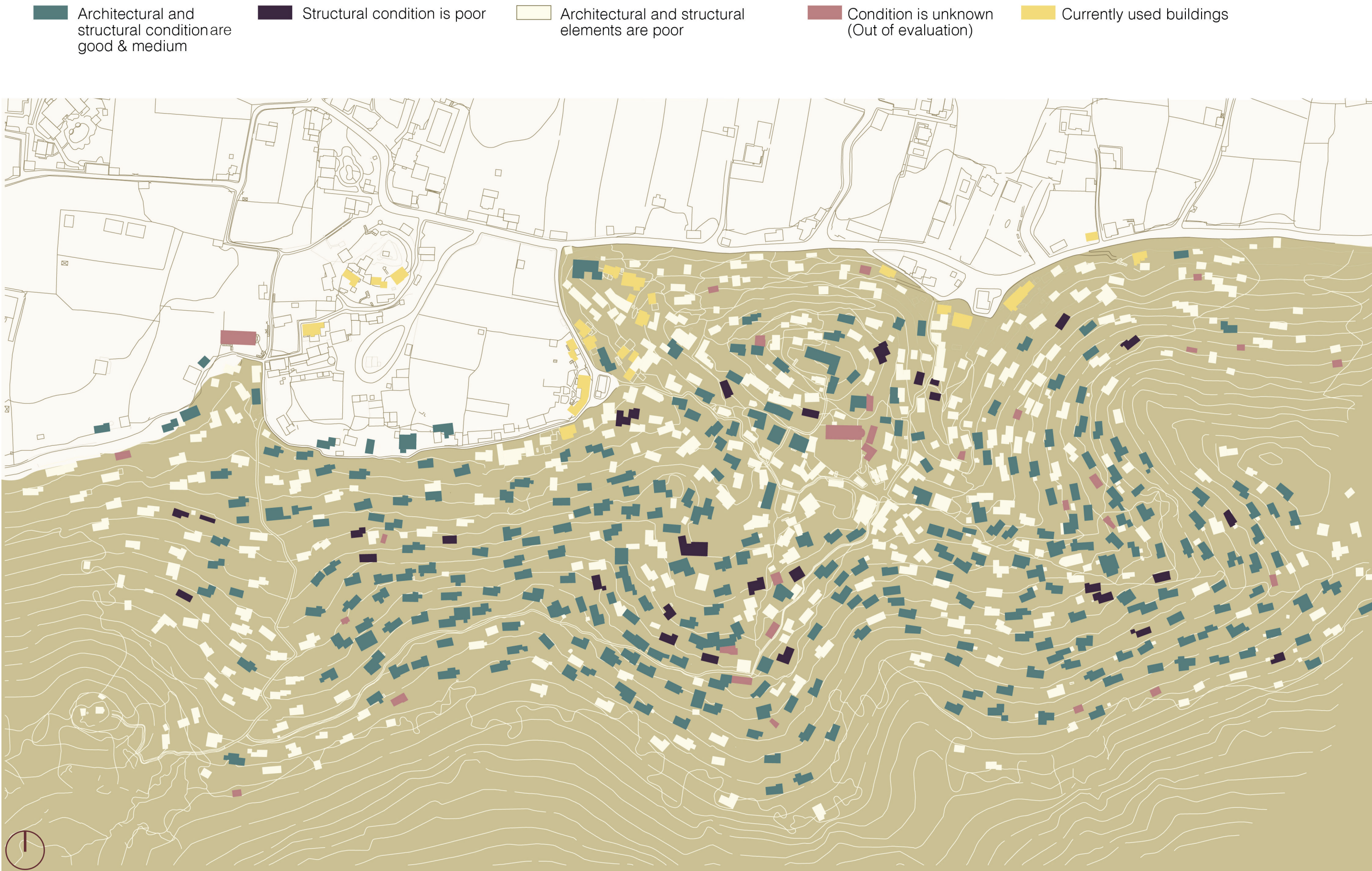
The second and third items show poor structural condition and poor architectural condition, respectively. The author states in his text that it is the priority to make interventions to the poor structural condition with better architectural characteristics compared to poor architectural characteristics (Saraç 2001). Therefore, the poor structural condition refers to a structure that possesses good architectural properties that are worth restoring. Buildings that are in ruins should be subjected to urgent intervention to avoid dangerous collapsing and access should be controlled. It is important to note that these last two categories are not the main subject of re-use. The priority is to maintain security. Nevertheless, there will be further discussions about how to make interventions in these types of buildings in the later chapters.

Some changes have been made to the items on the list to make it less confusing for the focus of this thesis in terms of classification, but the next two items are also present in the map taken from the thesis. The fourth item is the buildings that are out of evaluation (which differ because in this work, the monumental buildings are mostly included), and the fifth is currently used buildings (which have increased from 2001 to the present).

Structural condition is good & medium	Structural condition is poor	Architectural and structural elements are poor
Properties	Properties	Properties
Height of the walls is decent enough to understand the openings	Height of the walls is enough to understand the layout	Structural quality is already bad along with its architectural elements
Usually do not have roof or floor structure	Possesses good architectural qualities	
Needs	Needs	Needs
Structural strengthening	Structural strengthening	Structural strengthening
Architectural interventions	Architectural interventions	

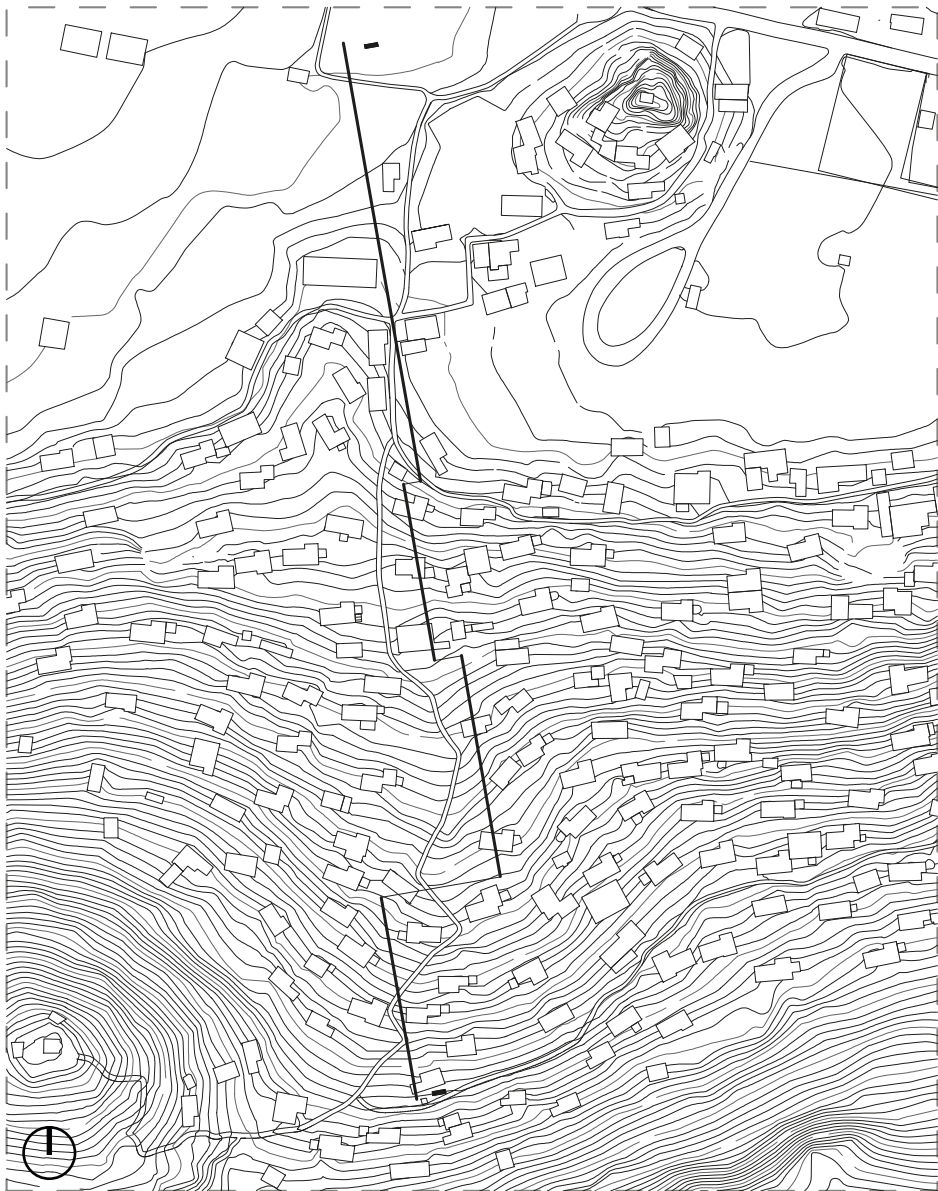
Site Map: Restoration Potential

Figure 4.18 Restoration potential map

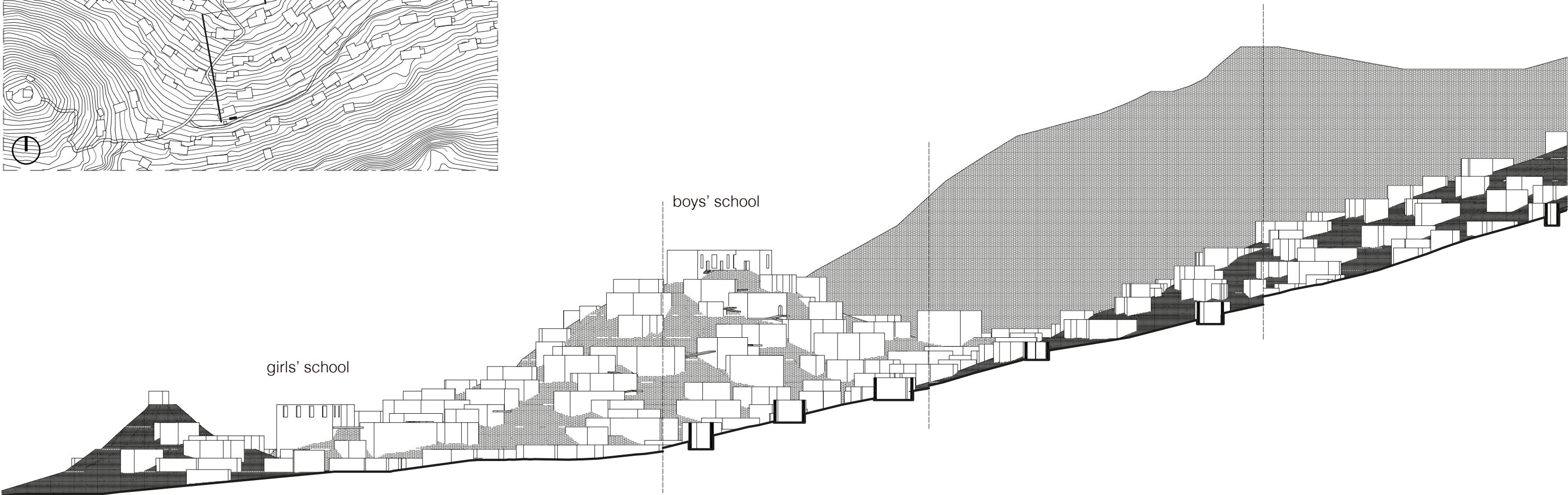


Site Drawings

Site Section 1:1000



Partial Site Plan 1:2000



Site Drawings

Site Section 1:1000



Partial Site Plan 1:2000

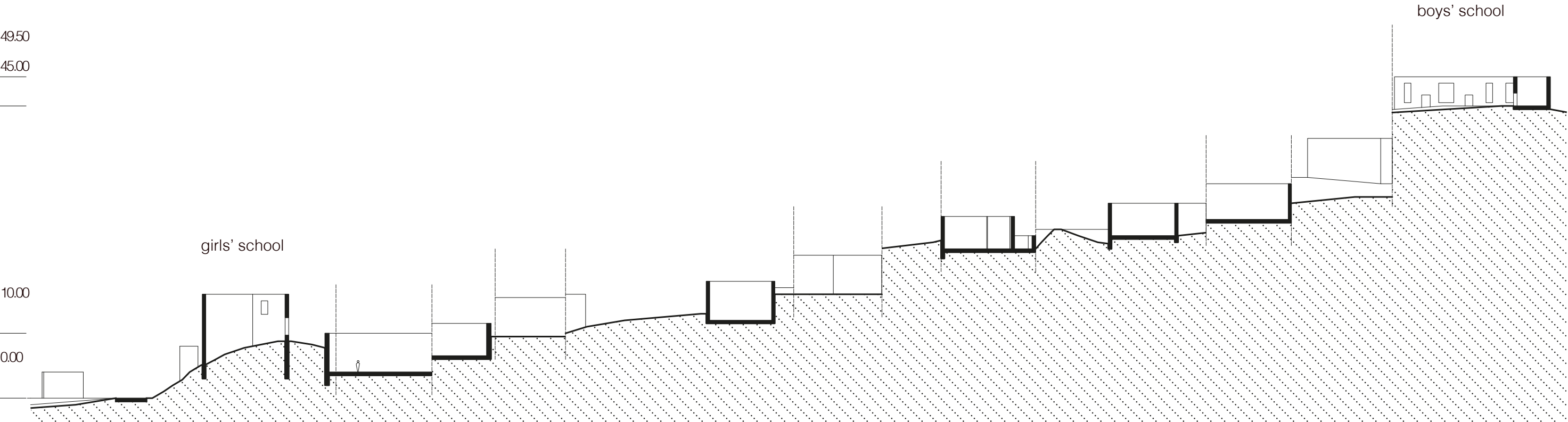




Figure 4.19 Southeast side of the site

A Generic House Plan

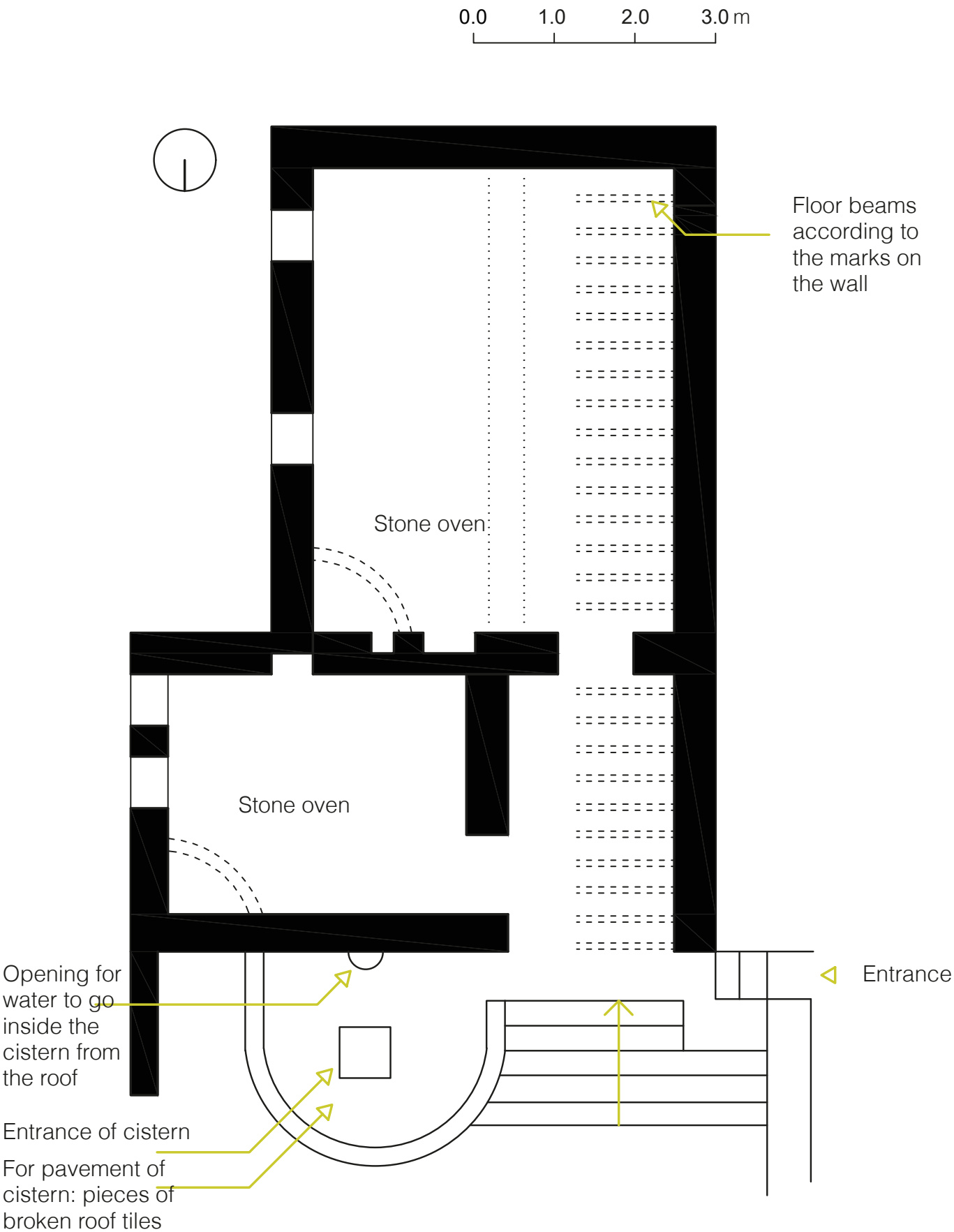


Figure 4.20 A drawing showing a typical house in Kayaköy

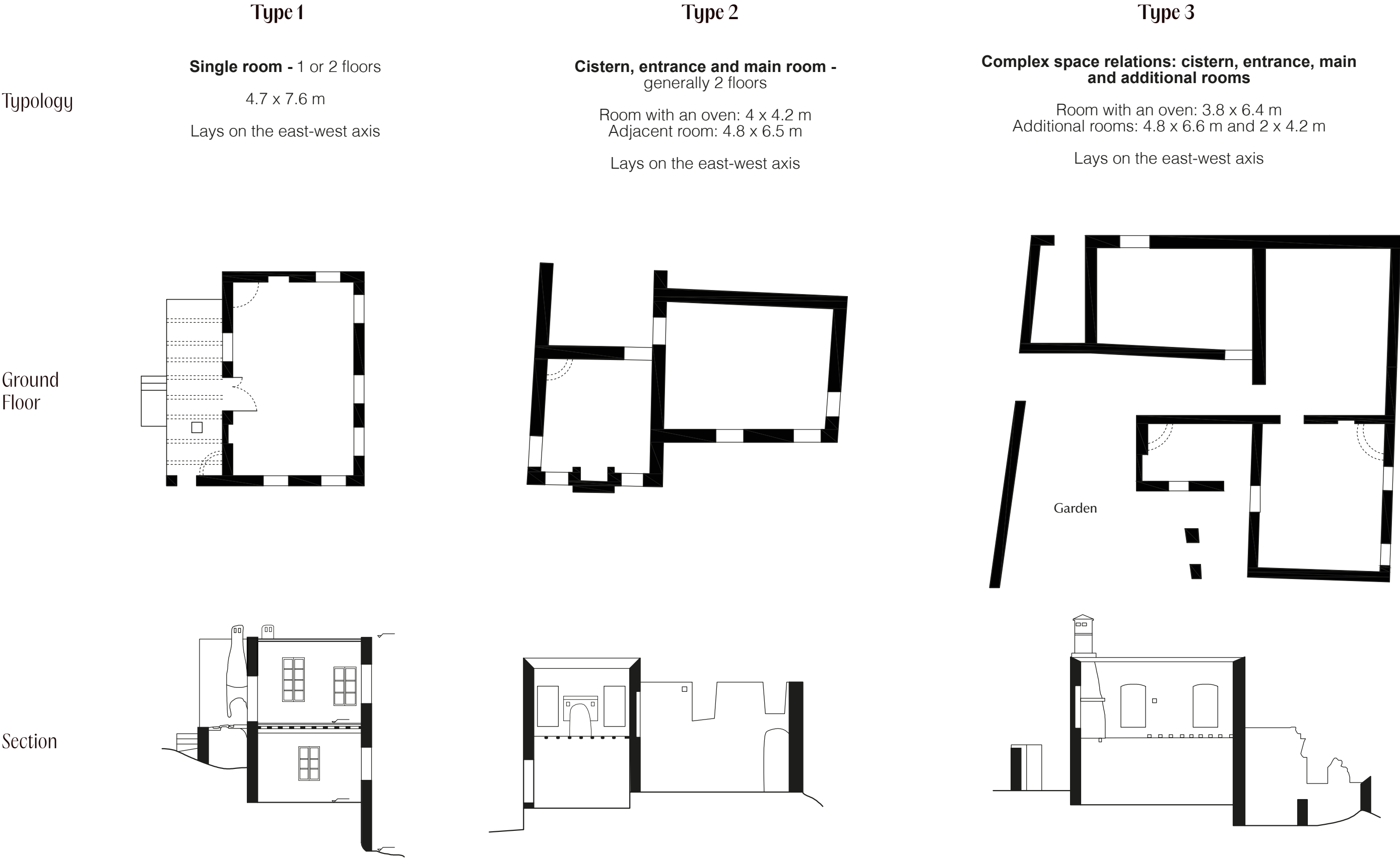


Figure 4.21 Drawings showing the types of houses in Kayaköy

Architectural Analysis

Construction Method and Materials

Gazing upon the village from afar, the prominent observation is the cubic mass organization. Even though the shape is not organic when compared to the hills, the stone material creates a harmony with nature. Then, there are the circular toilet spaces and cubic cisterns that are either attached or near the buildings. In Kayaköy, it is not possible to categorize some of the functions of the structures. It can be concluded that some were used for living, as evidenced by ovens, cabinets, and toilets within the structure. It is also possible to declare that some of them were used as service spaces, such as depots and stables, but it is not possible to list all of them (Saraç 2001,104). The buildings in Kayaköy were generally built parallel to the slope. They do not disturb each other's views and create private spaces. While the hillside facades are lower due to the slope, the facades facing the plain are higher, offering views without being blocked by another structure. There are usually two different entrances: from the basement floor and the ground floor, depending on the characteristics of the structure. Commonly, the structures are designed to have a storage area on the basement floor, and the living floor is upstairs.

The houses of Levissi were mostly one floored and the minority had two floors. The basement floor that is present in all was functioning as a cellar to store tools and woods to use in winters. It is also said that animals were staying there depending on the family's occupation. Since the actual living space is high above the ground, the entrance is through stairs. Because of the sloped topography of the site and the decision to build above the natural ground level, a basement floor appears. Their size and volume differ according to the slope. For the ones that are big enough to be categorized as another floor, they are thought to be storage or workshop spaces. Some residents in the village were carpenters, while some produced their own wine. Therefore, they needed a space for production activities. These areas are usually lower than the actual living floor with 1.50-2 meters high (Saraç 2001, 119).

Looking at the state of Kayaköy, the evaluation of the construction method is tricky because the ruins do not possess enough information. However, the survey on site and the available documentation give information to be deduced. Fortunately, there are research documents made with care through contacting the natives of the area. On my site visit, I also had the chance to talk with people who know the area a couple of decades after the population exchange. Since the buildings have lost their structural unity in most cases, and timber is abundant, careful observation is needed to figure out the techniques. Clearly, the main construction material was stone, and the buildings were constructed with rubble stone masonry. Rough-cut corner stones had been used occasionally where the height of the building increased because of the slope. These stones were gathered from an area nearby "the lake" which is a name given by the locals.



Figure 4.22 Historical village of Kayaköy

Mortar was the binding material, and it consisted of lime, sand, and water. The sand is a special type called "kara kum" or "dargilli," and the locals referred to this material as "argilo". One of the locals stated that this was a very strong binding material because of its special properties. The same mixture had also been used as a plaster mixed with small brick aggregates, which gave it the waterproof property to be used in cisterns and drain channels as well as houses.

On site, there is no trace of a sewage system. Only 4% of the buildings have a toilet inside, and they were added later. In general, the toilets are placed outside, and sometimes the wall is shared with the adjacent building's toilet. They had been constructed with rubble stone masonry, and rough plaster had been applied on the exterior façade. Toilets have their own small septic tanks, which need to be maintained by the residents.

According to the study (Saraç 2001), the types of wall surfaces were listed:

1. Unplastered surfaces
 - 1.1. With pointing
 - 1.2. Without pointing
2. Fine plastered surfaces
 - 2.1. Coloured
 - 2.2. False cut-stone
3. Rough plastered surfaces
 - 3.1. Rough-waved
 - 3.2. Nailed
4. Surface textures with small pieces of tiles
 - 4.1. Only in joints
 - 4.2. Entire surface

This thesis does not prioritize categorizing all the properties of the buildings of Kayaköy. Therefore, there will not be an in-depth analysis and knowledge provided. However, it is useful to mention these to have an overall idea of what these buildings have looked like in the past. Because it may determine the general approach and the design ideas

It was common for one building to have different types of facades on different sides. This might be because of which direction the wall faces, or the variation might suggest the application of plaster in different periods of time, according to the materials they had. The most common type of plastering is the rough plaster, which is called “çivileme” in Turkish. The reason could be aesthetics, but this type of application certainly makes the plaster stick to the wall better.

In the interior walls, the survey shows the common method is to apply fine plaster and dye on rough plaster. The most used colours that had been used are blue, yellow, and occasionally a hint of pink or red. It is suggested that the yellow colour that is observed now might be, in fact, a white colour that had been discoloured due to rain and sun. Although the exterior walls were usually left without applying dye, the surroundings of the windows were whitewashed, which creates a certain rhythmic pattern on the façade. Another noticeable property of the exterior walls is that they have holes that appear to be 15-20 cm wide. They are thought to be the traces of wooden scaffoldings that had been used to build the rubble masonry walls. In some buildings, they were not filled after the construction phase had been completed, whereas on the interior, the ones on the ground floor level were closed.



Figure 4.23 Interior side of a wall of a ruin showing the plaster and the blue paint



Figure 4.24. Refurbished wall of a recently renovated ruin near the site

Architectural Analysis

Cistern



Figure 4.25
Cistern of a house

Adjacent to the houses there were cisterns which were designed to fill with rainwater because the area did not have a nearby natural water source. To bathe, the water in the cistern was enough. However, for other usages, it was necessary to carry pots of water from drinking fountains. Cisterns had been constructed near or in the buildings to collect rainwater. The water is collected on the roof and then transported into the cisterns with the help of drain channels on the façade. However, there are also some cases where the vertical drain pipes are installed inside the walls. The main materials of the cisterns are rubble stone and water-permeable plaster that is applied on the interior part of the masonry. They have openings on top, presumably for taking the water out with a bucket system. There are small drainage holes to be able to remove the excessive water. Most of the cisterns are attached to the buildings, while some of them are detached or inside the building. Generally, the cisterns are placed above the ground, and one needs to climb the stairs to reach the platform that is connected with the cistern.

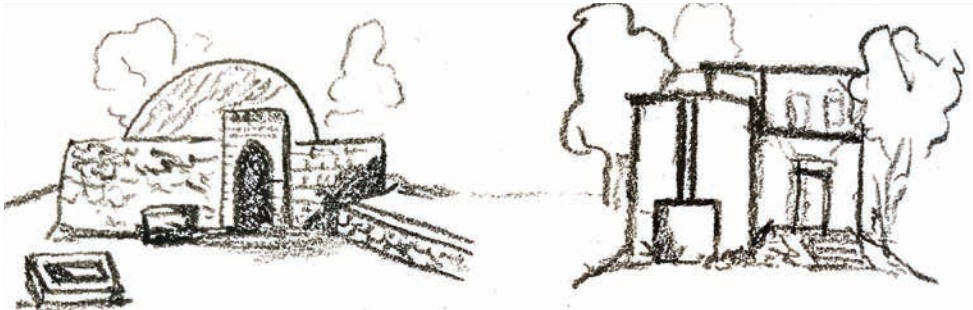


Figure 4.26
Different types of cisterns

Fireplace



Figure 4.27 An oven in one of the renovated houses

Wall-type fireplaces are more integrated with the construction of the buildings. For them to be built, there are holes inside the walls.

Figure 4.28 A house with an oven

A ruined house in Kayaköy with an oven.



Architectural Analysis

Flooring and Roof

Figure 4.29 The ceiling in one of the renovated houses



In Kayaköy, it is possible to see sloped roofs. However, the originality is uncertain. According to surveys, a flat roof is the general design choice. It has been suggested that the pitched roof trusses are not original but were set on top of the flat roof in the recent period (Saraç 2001, 138). On the stone masonry walls of the buildings, there is evidence of beam placements. The spacing is 20-30 cm, and the wooden beams are between 6x10 and 8x10 cm. After observing the beam holes in the ruins, it has been determined that the crossbeam system was utilized. This is a feature that is possible to observe in the currently inhabited buildings as well.

The roof is generally composed of footing stone, wooden posts (stylos), support elements, main beams, and cross beams. This type of structure is common in most of the Aegean islands. Timber boards had been placed on top of wooden roof beams, and then several layers of compressed earth were laid on top, making the total thickness 15 to 20 cm. According to the survey, the slope of the roof slightly decreases following the roof beams towards the cistern's side (Saraç 2001). Similar to the cistern's waterproof plaster, the inner side of the roof parapet is also rendered with this material.

Built-in Furniture and Partition Walls

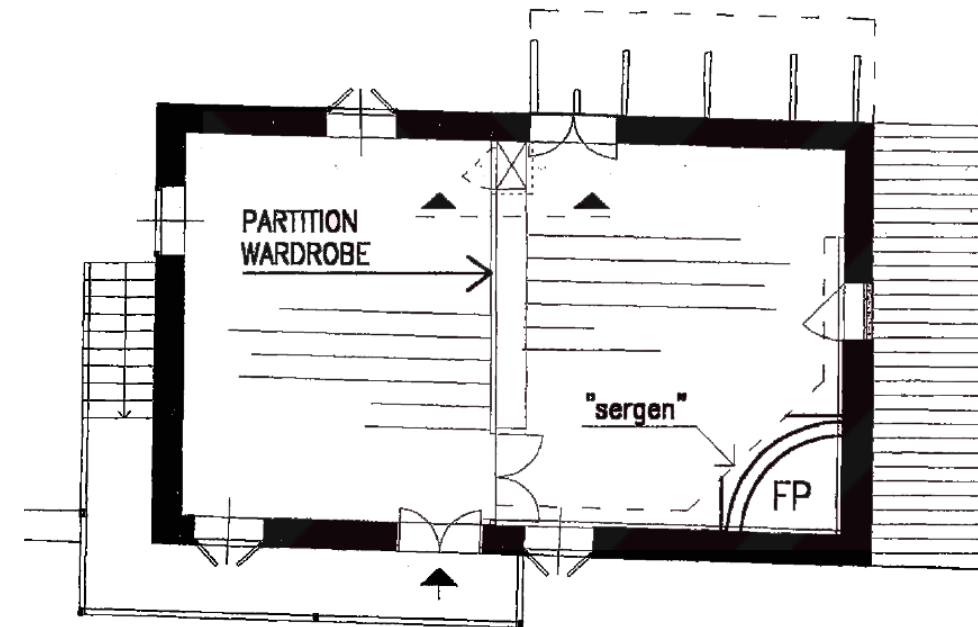


Figure 4.30 A floor plan showing the partition wardrobe that acts as a wall

Observations and analysis of specific buildings on site reveal the existence of fixed built-in furniture. On the ground floor of the buildings, some niches have been designed and timber elements installed to create wall cupboards. Generally, they are located beside corner-type fireplaces and consist of timber shelves. Some of them have wooden shutters and covers. These areas are mostly empty now, but the spaces indicate the evidence of niches. It is possible to see these elements in one of the buildings, which is well conserved with its built-in furniture. Currently inhabited houses usually have their walls covered with timber panels extending to the ceiling. In the ruins, the marks on the stone walls indicate that they had been covered with timber panels up to more than half of the wall.

One of the most prominent examples of fixed built-in furniture is a partition cupboard on the ground floor of the house. It acts as a visual barrier and does not go up to the ceiling. It divides the room into two spaces and has a door that allows connection. This partition can be observed in currently used houses as well. They even have the original ornaments at the top, where it ends, but they do not reach the ceiling. In some cases, there are shutters on the partition wall that indicate the service relationship between the spaces. It is possible to hand objects and maybe plates of food from these small windows. Another element made from timber is a bench that is mainly designed for guests. It has been placed right at the entrance of the main space with a space suitable for keeping stuff under it. On the interior walls, ornamental reliefs were found that were probably carved on the plaster before it dried (Saraç 2001). They might have been made to symbolize something, but this is unknown. Moreover, there are other types of ornaments on the chapels that look like they were added while building the walls.



Figure 4.31 Boys' School

The Boys' School is on the top of a hill on the South East. There are 3 rooms. There is a garden that sees the town and the fields from above.

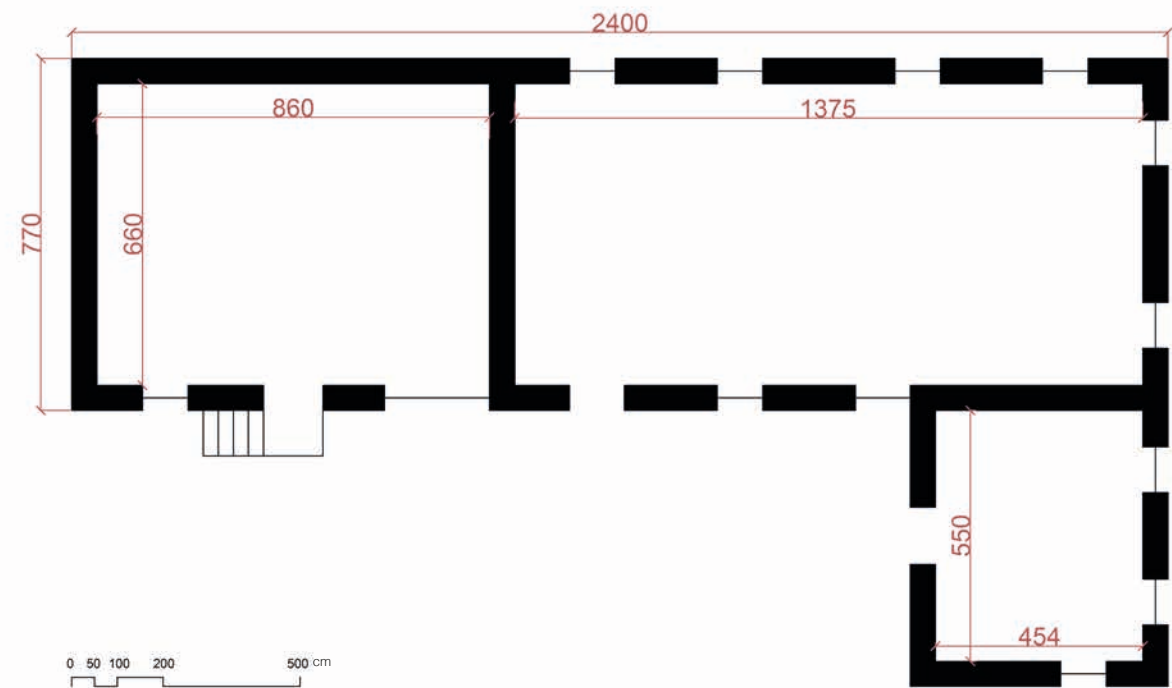


Figure 4.32 Plan drawing of Boys' School



Figure 4.33 Girls' School

The Girls' School is on the left of the East entrance. There are 2 rooms and a small chapel. It is in close periphery with residential buildings that are restored.

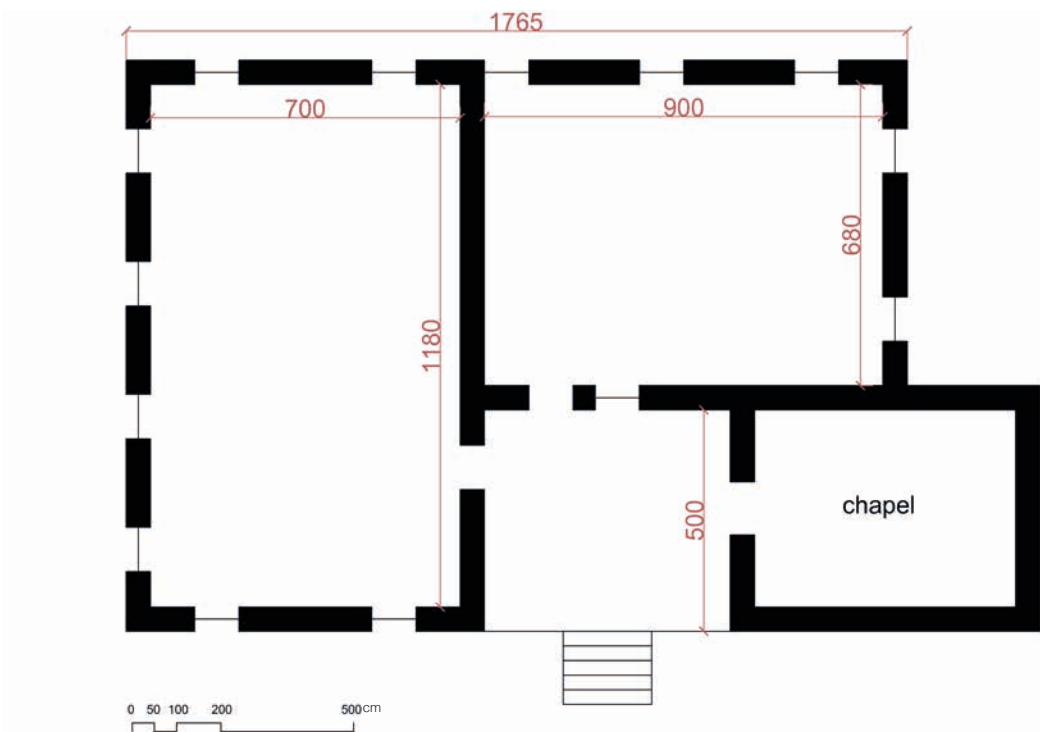


Figure 4.34 Plan drawing of Girls' School

Openings

The timber elements of the buildings were mostly demolished and looted. There are a handful of buildings where the timber window frames and doors exist today but the information is not enough to be able to make a clear categorization. Nevertheless, there are some examples from photographic evidence on what kind of patterns were depicted as carvings. In general, the openings for both the windows and doors are rectangular shaped. This information is derived from the present state of the ruins, where it is possible to see the hollowed parts.

Figure 4.35
An opening of a house (first from the left)

Figure 4.36
An opening of Boys' School (second from the left)



Figure 4.37
The door opening of a chapel (third from the left)

Figure 4.38
An opening of a renovated house (second from the right)

Figure 4.39
A window of a inhabited house (first from the right)

Closed Spaces

Main living room: Door-type windows, normal windows, and crenel-type openings in the buildings. It is thought that the door-type window may have been built for a balcony. Since the timber elements are missing, it could be the reason why we cannot observe them today. The main room space has been divided into two sections: a daily living area and a sleeping area that is elevated with respect to the living area. There are shelves, a fireplace, and a built-in partition wall/wardrobe in this room.

Secondary living room: This area is smaller than the main living room. The entrance is usually from a semi-open entrance space. The height is generally the same as the main one. Typically, the set of furniture is similar as well but smaller in respect to the size of the room.

Shops: The identification of these spaces is not very certain due to high demolition. There are traces of wide doors and rows of shelves in some of the buildings that indicate the possibility of a shop. These buildings are usually on the main streets that are near the Upper Church.

Semi-Open Spaces

Entrance space: They provide an entrance to the main living room. One needs to climb to these spaces, which are two steps high, and sometimes the height could be more. The common design shows that these spaces are surrounded by walls on three sides with walls and a flat roof on top. These walls are plastered and mainly coloured white.

Hayat: It is understandable to encounter “hayat” in Kayaköy since it is an important architectural element in the Anatolian and Aegean regions. Typically, hayat is where many of the daily chores are aligned, and this space is a semi-open space that can be thought of as an atrium. When there are both the hayat and cistern in one building, the terrace of the cistern works as hayat.

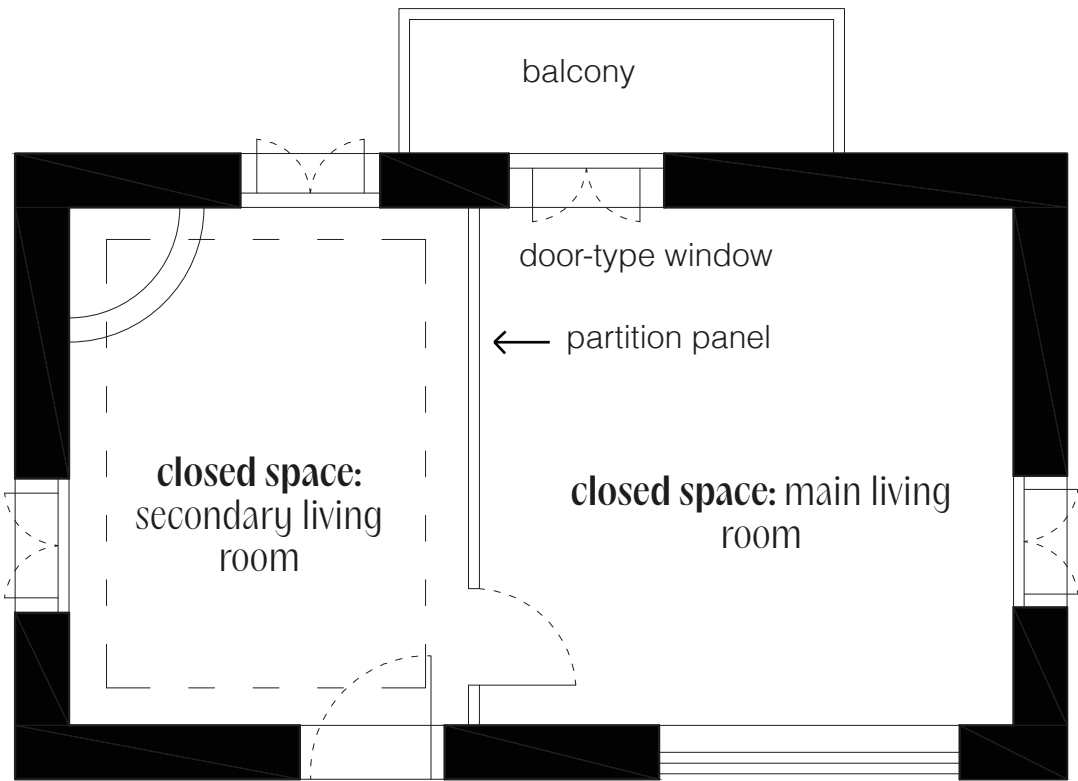


Figure 4.40
A plan drawing showing the connection of closed spaces.

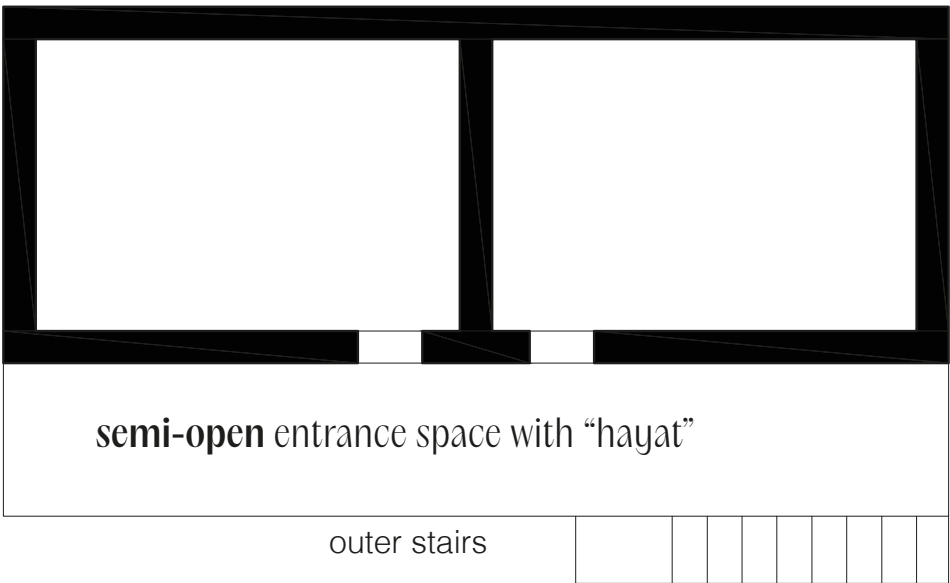
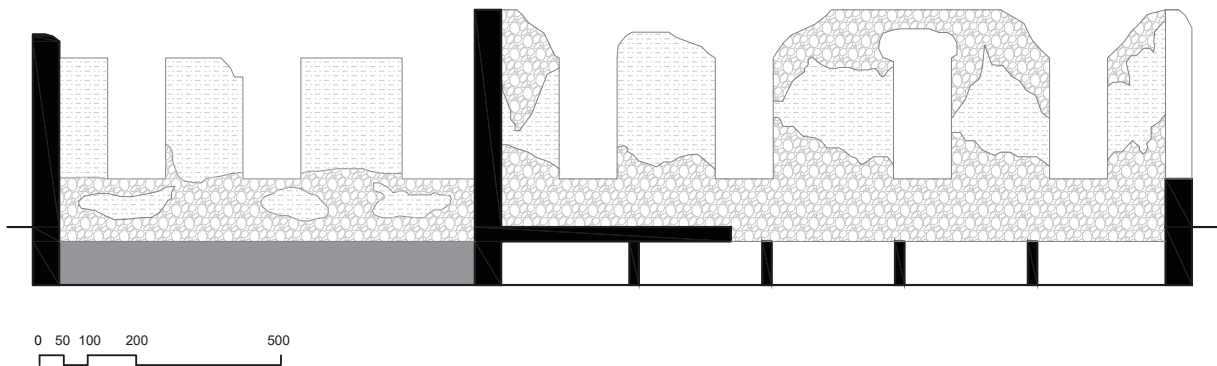


Figure 4.41
A plan drawing showing a type of house in Kayaköy with “hayat”

Structural Analysis

Boys' School

Figure 4.42
Section drawing
of Boys' School



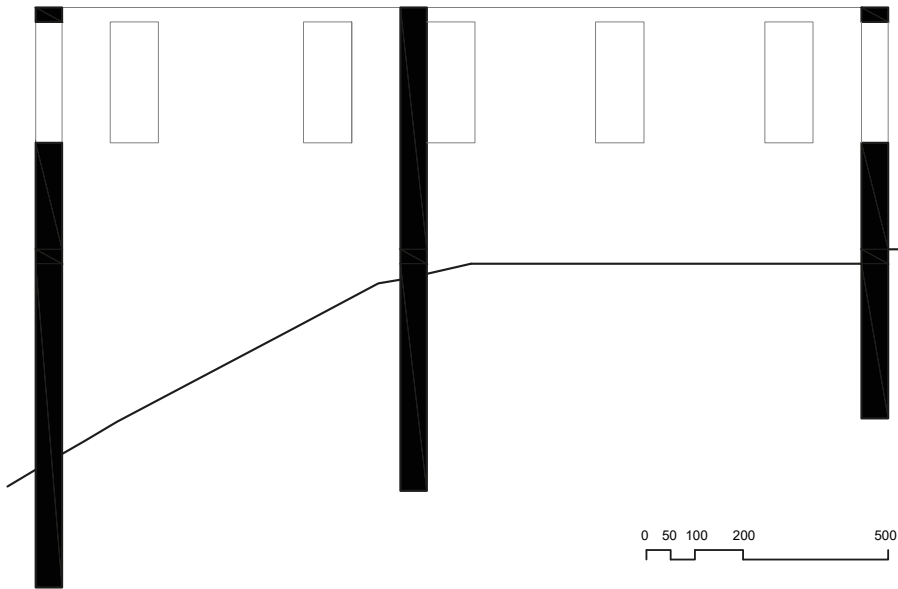
The section depicts the current state of the Boys' School with its ruined walls and missing elements. According to the site survey, there is no paint and plaster on most of its surface area. There is no roof and the walls are not entirely intact. However, it is still possible to understand the general layout of the plan. One of the important features is the foundation and flooring. While it was not possible to observe them certainly, the floor beams were visible. They are made of stone and appear to be on different axis in different parts of the school. Although, the wooden/timber materials are not preserved, it is likely that the flooring was consisting of this material according to past knowledge, resources, and couple of remained houses that are in better shape.

Figure 4.43
Boys' School,
ground structure



Girls' School

Figure 4.44
Section drawing
of Girls' School



During site survey, it was not possible to understand how the beams on the floor were placed. Moreover, it is not clear if they exist but since they are evident on the Boys' School, there is a possibility that they exist in this structure as well. On the Northwest part of the structure (which is left side on the drawing), the slope is steep and the floor is covered with trees and plants.

Figure 4.45
Girls' School,
missing ground
structure



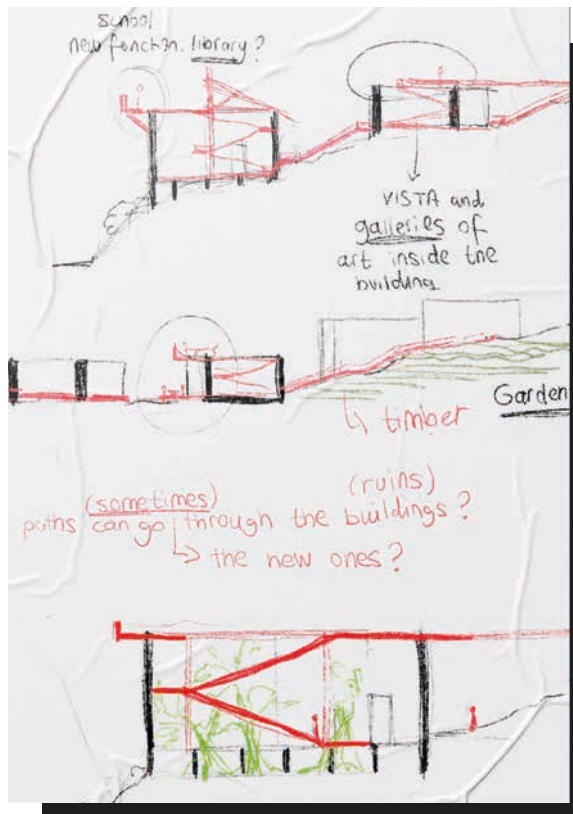
Case Studies

a. Restoration Projects

- Restoration of Colletta di Castelbianco
- Restoration of Castello dei Doria a Dolceacqua

b. Design Guides

- The Essex Design Guide
- CAUE (Councils of Architecture, Urbanism and the Environment)



Restoration Projects

Restoration of Colletta di Castelbianco

✦ Pennavaire Valley, Italy

👤 Giancarlo De Carlo

📅 1995

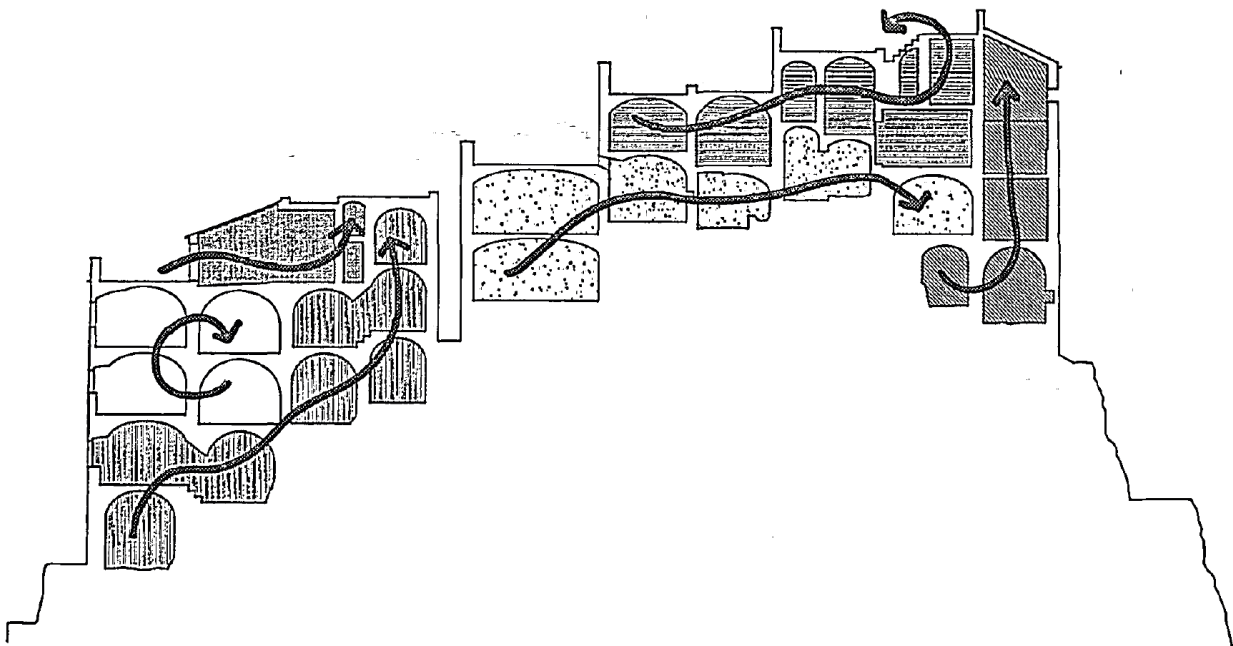
🔧 Restoration

The village of Colletta is on the top of a hill, stretching about 300 meters with intricately bounded interior and exterior spaces creating the houses and gardens. This realization sparked the beginning of Giancarlo de Carlo's conceptual thinking. It seemed to him that the fabric of this village could be identified as the crustacean form because of the strong and compact units. But most importantly, the number of joints that make the movement flexible, which he illustrated through sections and plans. This metaphor shaped his ideas and led him to understand the spaces better.

"Sometimes you need a metaphor to glorify your ideas. And then you follow the matter for, not forever, I recommend you, just for a moment."

If one looks at the village from far, it looks like all the buildings essentially form one huge building. The outdoor spaces are tight and follows a distinct pattern of connectivity. Therefore, Giancarlo de Carlo started to look for the code in the village. The design code that established the rules. Of course, the village was not built by architects but these were the wisdom of people who lived there.

Figure 5.1
Section of the row of buildings



The connectivity in the village was the result of a penetration of volumes. And, in other words, penetration of connections. There was a possibility of entering a space from many different directions and attaining interchangeable uses.

The study of the genetic code did not stop in the volumetric aspect but moved to the facade. Every door and window were framed with plaster and white paint. In order to construct a window with wood, it needed a regular surface, which is possible by using plaster. He argues that this choice of design was not only born out of a functional reason but it was a deliberate self-representation as well.

Some of the frames were painted in a slightly different way. Therefore, it seemed like the house owners had personal taste that differs from the others while still maintaining the genetic code.

In the process of rebuilding, it was crucial to respect these rules which created the soul of the village. Occasionally, there was a need to add new windows to increase the sunlight for the comfortable present-day life. A diagram was created listing the height and width of the openings so that it can serve as a guideline.

"...if you wanted to make a break, and this might happen if there was a need to show a change in organization, you had to calculate your break very carefully."

A similar study was done on the walls as well and the results helped creating instructions on how to rebuild. After that, the renovations proceed slowly because it takes time to work on details to not disturb the identity of a place like this.

Figure 5.3 Restored buildings



Figure 5.2 A restored building



Restoration Projects

Restoration of Castello dei Doria a Dolceacqua

 Dolceacqua, Italy

 LDArchitects

 2015

 Restoration

The Doria Castle is situated on upper levels of a hill and there is a village below. This is a strategic location to control the Nervia Valley. It is said that Claude Monet visited the Castle numerous times and captured its beauty in his famous painting “Le Chateau de Dolceacqua” located in Musée Marmottan Monet, in Paris (Institut Français 2019).

The interventions for the Doria Castle have started in from the early 90’s. The work that are done between 2012 and 2015 are the consolidation and restoration of some parts of the main external walls. Moreover, the main open spaces were restored and a system of trails were placed to create connection to different parts of the heritage site, which surrounds the monument and overlooks from variety of points.

These trails are designed to guide visitors and they make it possible to discover some portions of the structure that survived the bombings. Metallic structures and timber boards of the trails provide a safe connection while usually flying above the ground level (Re-think heritage 2023). An important aspect of the intervention is the distinction of materials between the existing structure and the new construction. Apart from the structural capability of the metal elements, they act as complementary elements for the reconstructed sections of a wall, which has missing parts. They are distinguishable from the original materials and reversible if there is any need to dismantle them.

Since the site is situated within different levels, it is not accessible for everyone in its original layout. However, during the work of restoration, this aspect is resolved with the addition of several elevators.

Figure 5.4 Elevation showing the stairs and platforms added

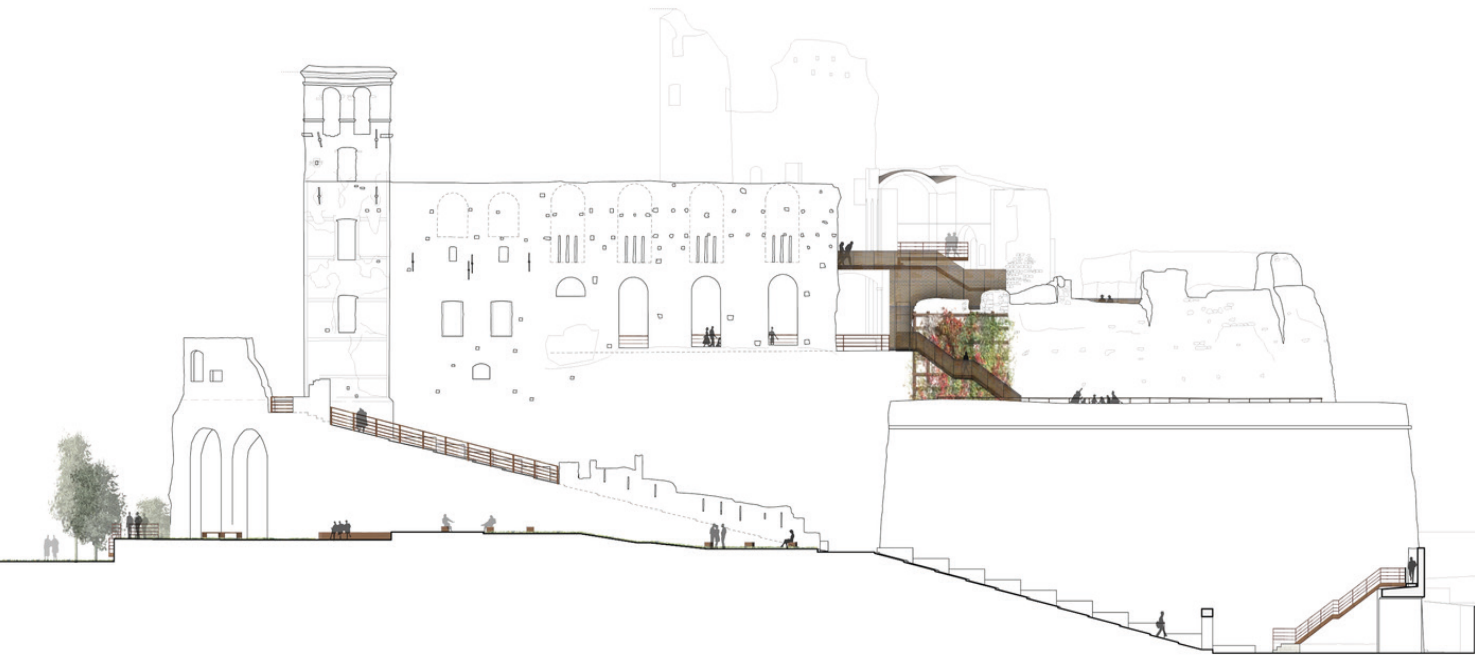


Figure 5.5 Photo of the platforms in Castllo dei Doria a Dolceacqua



Design guidance refers to documents that guide developers, designers, and possibly other agents in planning and design development. Developers, local authorities, organisations, and landowners can prepare these documents to set guidelines. The purpose is to guide the process of planning, facilitate collaboration between parties, and set design standards. It can be useful in indicating the proper steps in all these processes.

The format of these documents usually leans towards an illustrated manual with expressive texts. They highlight how to develop a design in accordance with the explained policies of an authority or other organisation that provides the guidance. It is important to note that the first examples, which started to appear in 1927, were mainly in favour of traditional building types (Rolfo 2010).

With the start of rapid construction in the years of World War II, the importance of a technical-quantitative approach was in favour. Thus, what became important was the control of land use rather than the formal control of the design developments. In some cases, the guidance can be very aesthetically oriented, which focuses more on the balance and continuity of the external appearance of an urban site.

Apart from the aims of a design guide, which become true in some sites through a correct implementation, there are some unexpected outcomes. A problem related to the understanding of a design guide was reported in relation to the Anglo-Saxon subdivision, who do not possess an architectural education. When the criteria for design are limited by guidelines, there is a risk of repetitive prototypes because it is known that certain layouts are already approved. However, it is also observed that builders and developers become more willing to work with architects, who are more capable of interpreting the suggestions of a design guide, in order not to repeat the typical approved projects.

In this section, two guides who have different approaches are explained: the Essex Design Guide and CAUE (Councils of Architecture, Urbanism and the Environment). The first one provides list of reference cases according to variety of criteria in a convincing and clear manner. The latter showcases a flexible “living casebook” and has qualitative indications in the suggested interventions (Rolfo 2010).



It was first established in 1973 by the Essex County Council to act as a reference guide while designing. It explains the rules that help to keep the identity of Essex. There are different categories that talk about the context and provide information about the general layout with further details.

Defining the context is the primary action to take to understand the site and its design choices. In this part, the author states that the observations are not tied to indicative rules or constraints, but they serve as a future tool to determine the rules. In the Sample of a Built-Form Context Appraisal (2018 Edition), an effective context analysis is described: it should not be thought of as a design proposal but rather as an explanation for the development of a design. Based on this, future decisions can be directed towards a contextually proper design. (The Essex Design Guide 2018). The relations between existing features and the development of the site help to conclude appropriate design choices.

Site Analysis:

1. Photographic Analysis
2. Sketch Drawing Analysis
3. Existing Site – physical parameters
4. Development – design parameters

The guidelines are presented in 8 different categories. There are many sub-categories under the main ones, which have their own subheadings. Therefore, in the further paragraphs, the content is going to be selective towards relatively more important titles. The level of importance is based on the relevance to the subject of this thesis. **The sub-categories that have more relevancy are explained in detail** because it is useful to understand them to make sufficient implementations. These will not be solid implementations but could act as inspirations since the context is dissimilar.

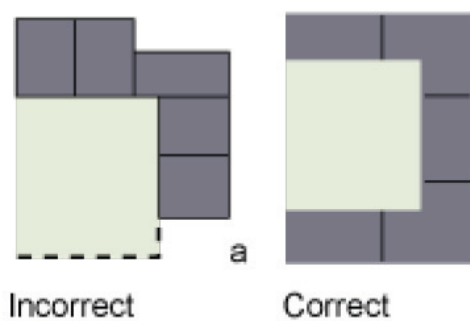


Figure 5.6 Building form, an example.

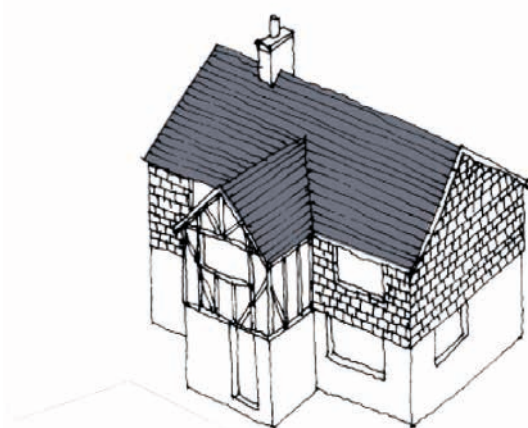
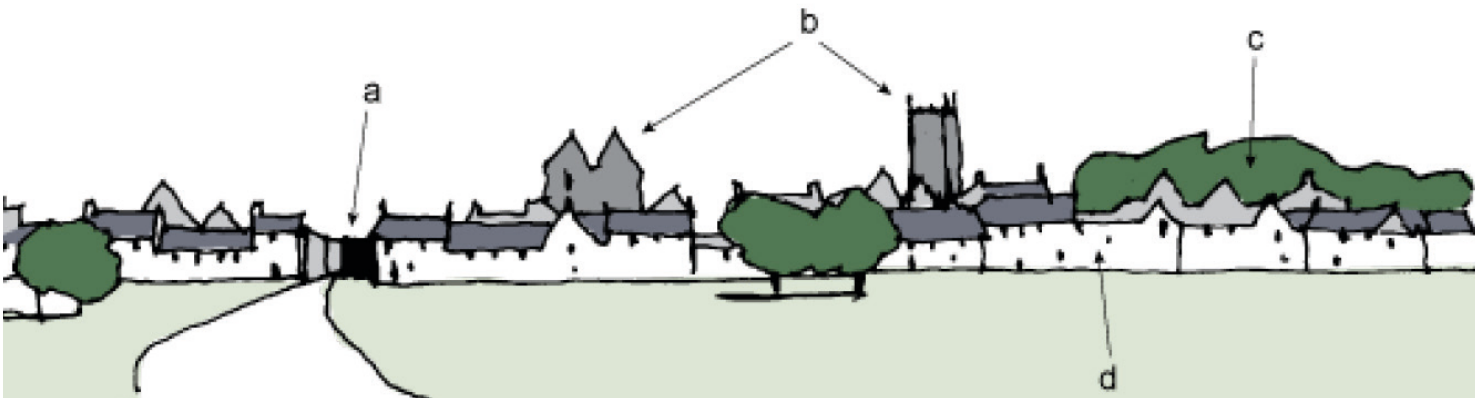


Figure 5.7 Appropriate use of materials: False half-timbering and alien materials such as the tile hangings should be avoided.

Figure 5.8 External image drawing.
a. clear image
b. key buildings
c. block of trees
d. well defined urban edge



1. Architectural Details

- **Building form:** Gives information about the regional building forms, roofs, plans, and layout of the adjacent buildings. There are some drawings to indicate the appropriate choices for specific design ideas.

- **Appropriate use of materials:** Advocates for regional materials characteristic of Essex and presents examples of correct and wrong applications mainly with elevation and axonometric drawings.

2. Internal Design Details

- Accessibility for disabled people to dwellings

3. Layout Details

- Permeability and legibility of the layout

- **External image:** A well-defined image can reflect the identity of a place. There are many factors of how a place is perceived and they are the key characteristics that should be kept while designing new structures.

- Movement
- Inclusive design: designing spaces for specific people should be avoided to have the flexibility to welcome a diverse group of people. They should be appealing to all users.
- Influences upon sustainability

4. Parking Design

- Visitor parking
- Resident parking

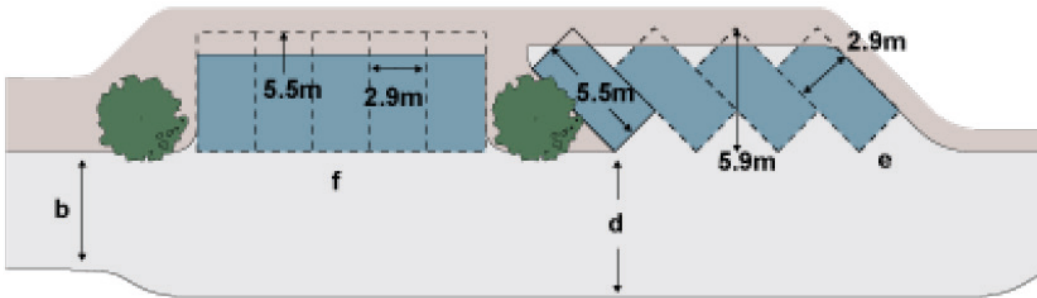


Figure 5.9 Shows an appropriate design for a visitor parking area.

- b. normal road width
- d. road widens
- e. cars parked at angle
- f. cars parked at right angle

5. Streets and Roads

- **Services:** Should be at a satisfactory level both functionally and visually. Connection of services is crucial since everyone is expected to use these spaces. Therefore, they need to be well-connected and easy to spot even from a distance.

- Surface materials
- Public art

- **Street type description:** Before diving into the types, a list of criteria that are applicable to every street type is presented. These are general rules that should be considered while designing new streets. Every type is explained with texts and drawings. Their specific characteristics are highlighted through overall layout, usually with a perspective sketch, additionally a plan drawing is added.

6. Highways Technical Manual

7. Flooding

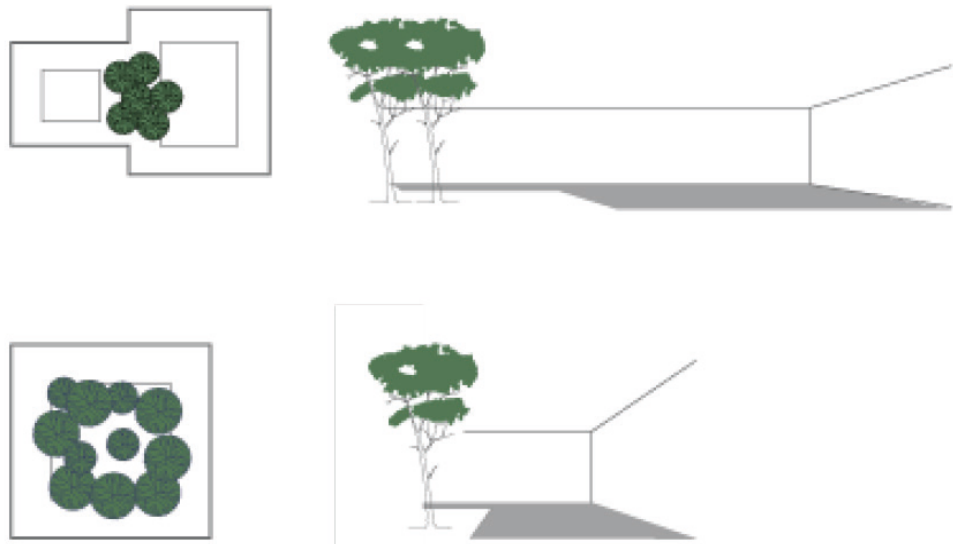
Figure 5.10
Street type
description: Type
B Link Road.



Figure 5.11
Use of landscape
in urban spaces,
an example.

(Top) Block of
trees transforms
long space into
two separate
spaces

(Bottom) Block of
trees transforms
square into linear
circuit



8. Landscapes and Greenspaces

- Key requirements for landscapes

- **Use of landscape in urban spaces:** Talks about how trees, and green elements in general can help to define spaces in the form of barriers or screens. They can also be useful in giving directional emphasis to a place that has a complicated layout. A vegetational element can be impactful when placed alone in the centre and can strengthen the character of a space.

- Community space for growing food
- Recommended plant species

CAUE (Councils of Architecture, Urbanism and the Environment)

✦ France

📅 1977- present

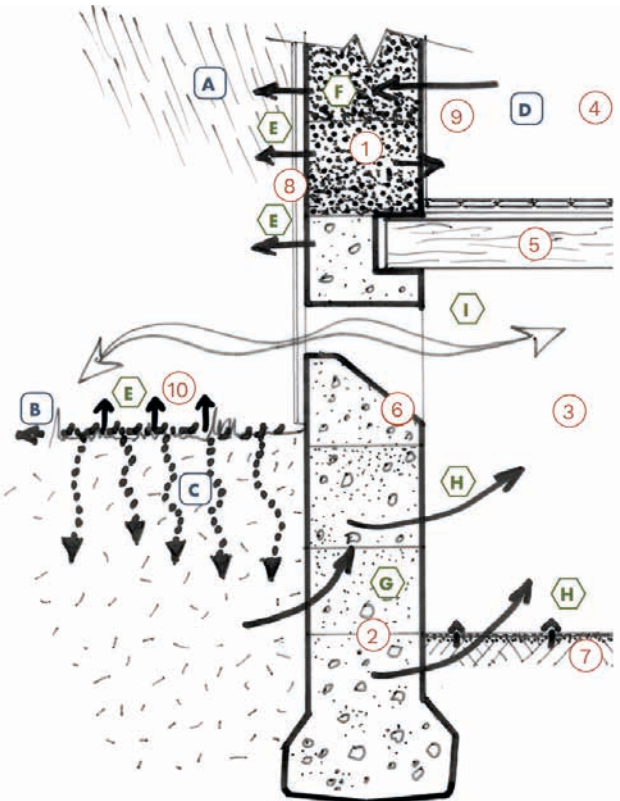
The Councils are organisations that are invested in promoting the quality of architecture, urbanism, and the environment in the established territories. The work is done through activities and training with collaborations from local authorities, government, construction sectors, and the public. (FNCAUE 2022). The Councils were founded in 1977 and formed networks to exchange information and engage in dialogue.

One of the aims of CAUE is to highlight the importance of the relationship between Man and Nature. Thus, the environment is a key aspect of design development. Other aspects include making conscious architectural choices about concepts in relation to their contexts and being disciplined in terms of the development of urban spaces (FNCAUE 2022).

The tools of CAUE are inclusive, meaning that innovating solutions for all stakeholders is a must. An individual or an organization that is involved in rural and urban area management is welcome to receive advice complimentary (Paysalia ND). On its website, it is possible to find resources that address many issues. Similar to The Essex Design Guide, there are photographs, explanatory texts, and drawings. Some of the drawings are very detailed and technical. However, the approach in its core is different from the Essex Design Guide because CAUE favours a direct relationship between the administration and the users (Rolfo 2010).

In the section Publication and Studies, there are guides for specific situations, and people can use these guides to be more aware of the process. One of them is titled "Renovating Cinder Block Homes: A Guide for Rehabilitation" (developed for Lyon) and there are two documents: the study of the project and the technical guide. There are many detail drawings for how to achieve a proper insulated wall and how to sustain a ventilated space.

Figure 5.12
Implications
of facade
renovation on
the hygrometric
behavior of the
wall



Design Guides

CAUE (Councils of Architecture, Urbanism and the Environment)

There is also a section dedicated for charters. One of them is for the town of Tarare. First, there is an introduction for the area. It gives information about its context such as geographical properties and its history. After the introduction of the area, the recommendation part starts (CAUE 2024). In this part, there are examples of different types of houses: a townhouse, an apartment building, a rural house... In one of the examples (Large housing complex), firstly, the typology is introduced. Then, it is explained how to maintain the building in terms of its architectural properties: the facade, openings, roof, and fencing. There is even a section for every typology that illustrates the best colour options and the ones that should be avoided.

After the advices on maintenance, there is a page for the ones who wants to make a new construction for expansion and renovation. The guidance is in a similar manner to the maintenance. However, there are also advices on the volume and the program of functions. The advices are very diverse: from the accessibility of an area to shared outdoor spaces for compost bins and vegetable gardens.

For the landscape, there are suggestions for plantations, which are applicable in different parts of the garden. It is also advised to be mindful about watering and rainwater harvesting. There is a section that shows the common area and private gardens. On this drawing, the plants are identified and the type of fences are marked and explained with further drawings in terms of their materials.

Figure 5.13
Site plan
diagram of this
characteristic
fabric in a fictional
context

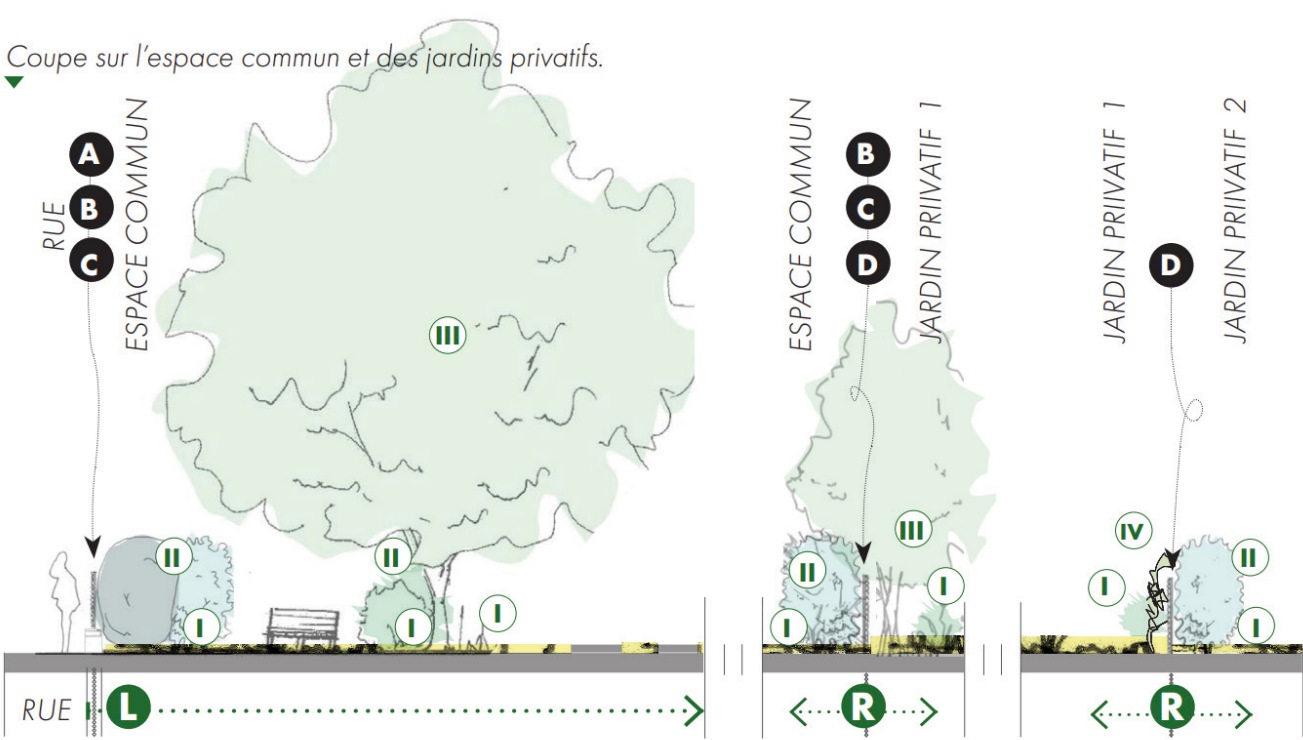
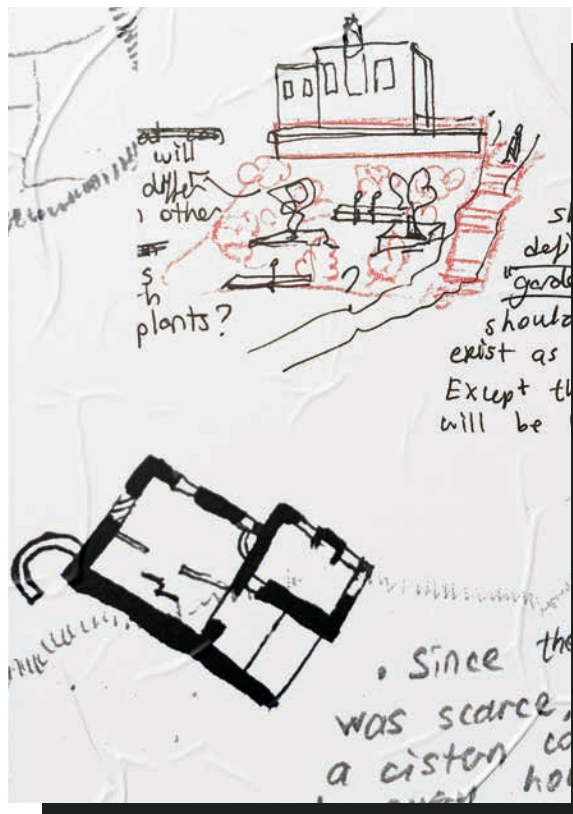


Figure 5.14
Section through
common areas
and private
gardens

Conclusion

Creating a design guide can be advantageous for substantial areas because it helps to build logical set of rules dependant on multiple aspects. On a site like Kayaköy, it is important to be planned, not only for its size but because of its heritage value. One should be conscious about reasons behind the design choices that will be implemented in Kayaköy. Thus, a set of rules, which are deducted after analyses, can guide the designer along the process of making decisions. These rules do not have to be completely restrictive. It is better to have flexibility since there are many possibilities for a structure depending on variety of its aspects. The main logic is to set an understanding of how to design better for a specific structure according to its context.

A Guide for Designing and Building in Kayaköy



a. Introduction to the Guide

- First Ideas After Impressions and Analyses
- Map of the Main Paths
- Map of the Selected Structures
- What to Do on Site?
- Map of Architectural Program
- A Guide for Designing and Building in Kayaköy
- Classification of the Structures
- Rules of the Guide
- Phases

b. Masterplan

- Masterplan
- Selected Structures for the Design Guidelines

c. Guidelines

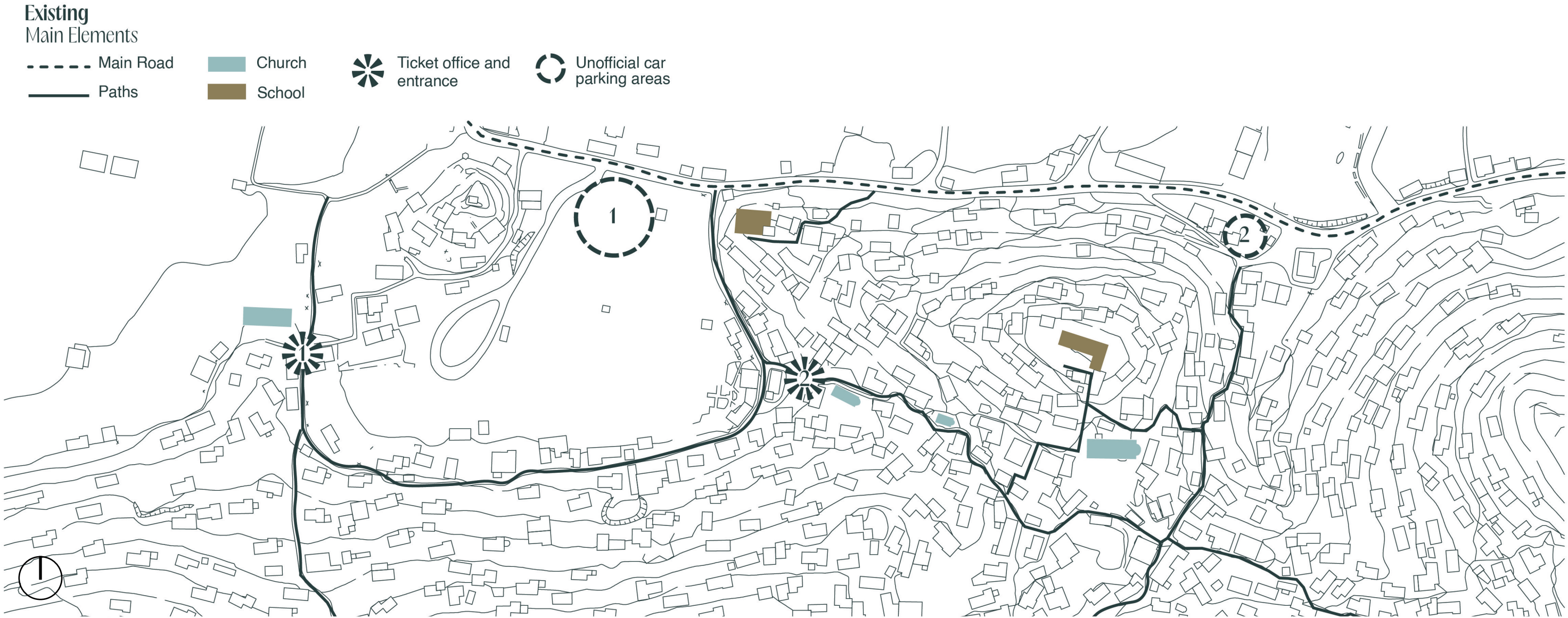
- Partial Site Plan: *Phase 1*
- Guidelines *Phase 1*
- Partial Site Plan: *Phase 2*
- Guidelines *Phase 2*
- Partial Site Plan: *Phase 3*
- Guidelines *Phase 3*

First Ideas After Impressions and Analyses

Until now, the site's impressions and analyses have helped create an understanding of the area, its context, and its environment. For the goal of design, it is time to define the initial ideas. The method to create these first thoughts is through deduction. Therefore, in this part of the thesis, the accumulation of knowledge will be used to make decisions. While referring to former pages, there will also be new maps and diagrams to explain the ideas. One of the first decisions to make will be about the utilization of the site. Before diving into the physical elements and aspects of the area, it is important to define the scope of the program. What is going to happen on this site? The obvious answer is to sustain a contextually and architecturally satisfactory experience. However, the real question is about the depth of it. When one thinks about a space, it is inevitable to tie it to what is being done. What are the opportunities, activities, and possibilities? If one goes to a place, there is a reason for that. A person goes to a café to drink coffee and eat something sweet. A bus station is to take a bus or welcome a person.

Historical places are visited to gain information and witness their wonders. Although it is not the same for every historical site. For Kayaköy, the site offers many possibilities in terms of its great size and locational potential. However, it is necessary to deduct these possibilities to a logical and sensible list of activities. Therefore, the functions should be set and distributed along the site. It is logical to start thinking about the entrance before other elements. The ancient village can be accessed by multiple paths. However, some of them begin directly at a very crowded zone with cafes, restaurants, and small boutique hotels. The entrance from the seaside is not even considered because of its steep slope and dangerous pathways that are not suitable for many. The entrances, which are already set by the Ministry of Culture, are good choices but need alterations. According to the site survey and observations, people either come here by car or bus, but the parking area is not entirely defined.

Figure 6.1
A map showing the explanation of the first ideas

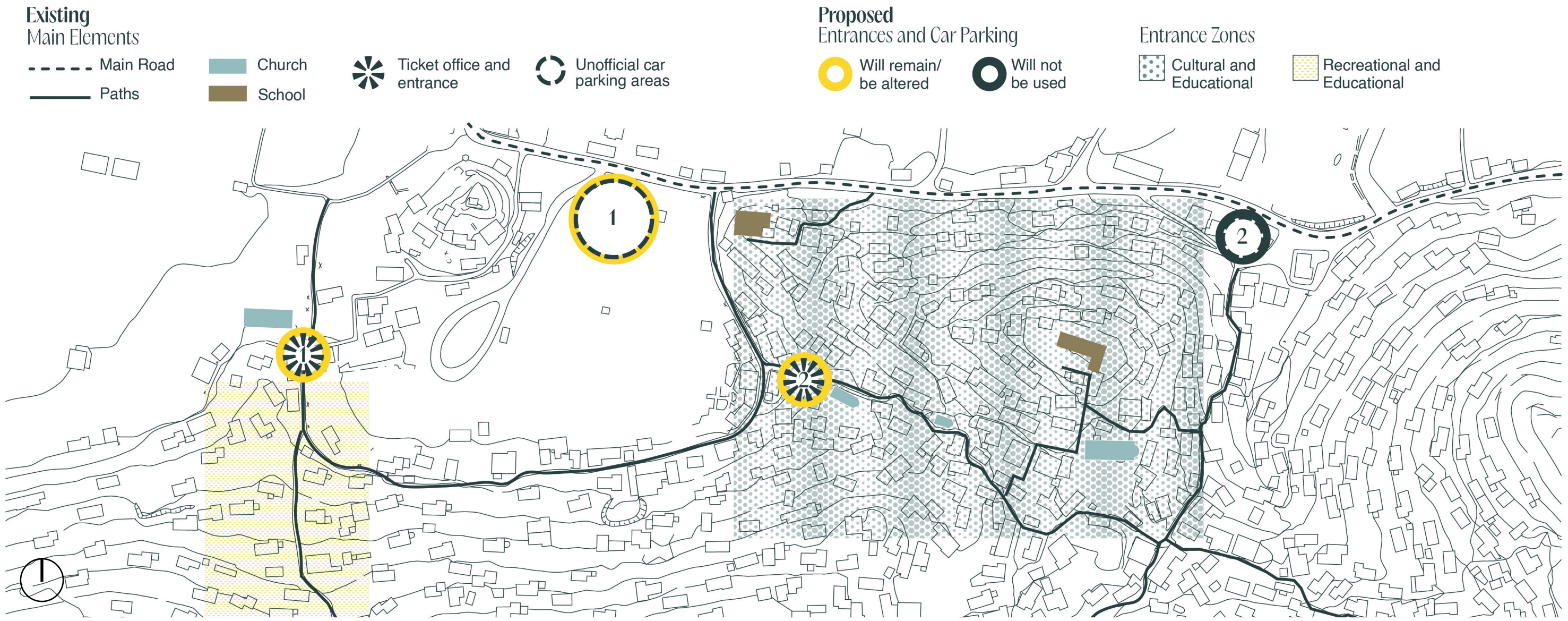


First Ideas After Impressions and Analyses

The first parking area is evidently larger and placed at a better location, considering the possible entrances of the site. Moreover, the second one serves the restaurants and cafes that surround it. The first one also serves the surrounding commercial areas, but its size can be useful for serving both. As for the entrances, it could be wise to use the already determined points. However, they need alterations. The first entrance leads to an easy path at the start and gets more challenging as one goes to the upper levels, but the focus is straight, and it is easier to see what lies ahead. For the number two, it may be more advantageous for those who wish to commute to the site by vehicle, as it is very close to the car park. As opposed to the first one, the second one leads to a more challenging path at the beginning. However, it is much closer to the larger structures such as the Boys' School, Girls' School, and the Upper Church.

Figure 6.2
A map showing
the explanation of
the first ideas

These structures have the potential to function as wider spaces designed for public use. Therefore, most of the public functions are suitable for this side of the area. Before getting into details of the programme, paths are defined in the next map (Figure 6.3). It illustrates previous knowledge and expands further to define the new ideas about entrances and carpark. There is also information about what will be done for each main path. There can be adjustments or additions depending on their comfortability and overall importance in the circulation. While walking on the site, it is almost intentional to understand which are the main paths because they are either paved with stone and larger or they are closer to main public buildings. However, for the East side of the site, where there are the schools, the connection is lacking. Therefore, the suggestion is to create an additional path that will connect them to each other and to the central circulation.



Map of the Main Paths



Figure 6.3 A map showing the main paths

Map of Selected Structures

After selecting the main paths, the next step is to choose the structures. Just as the paths, which were analysed and went through several deduction phases depending on comfort and accessibility, it only makes sense if the functions are centred around them. The rule is initially simple: the functions will be arranged near the paths.

Then, there are other conditions: **potential of restoration and the limit for the number of structure for now** since the site can always be improved more with restoring more buildings.

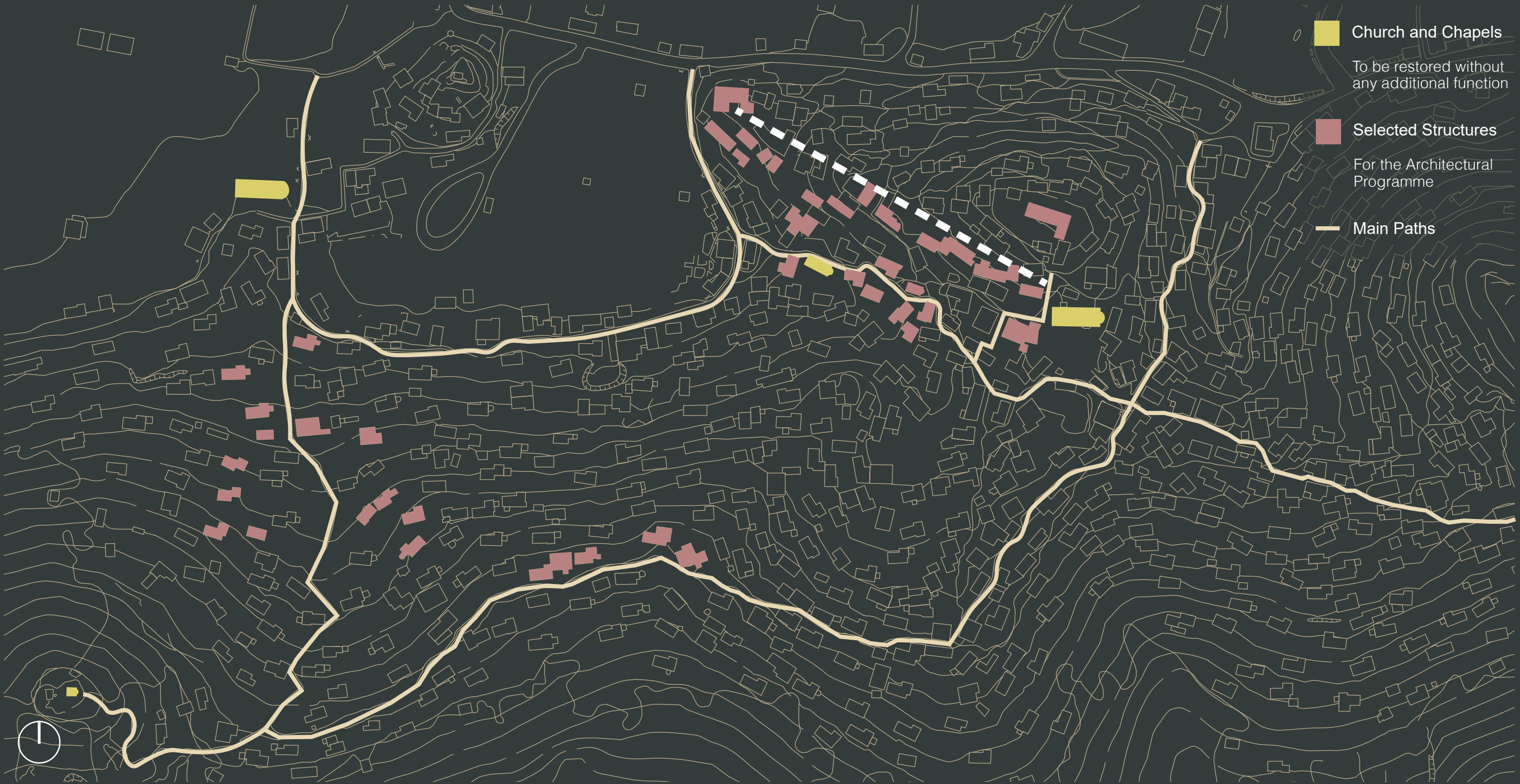


Figure 6.4 A map showing the selected structures

What to Do on Site?

As this chapter focuses on the selection strategy, the decision of attaining suited functions will be the key topic. The reason for that comes from the apparent need to design for the function. While the existing features play an important part in classifying the structures, the attained function will significantly determine the transformation of the structure. Before discussing how each function should be designed, the first phase is going to be about defining them.

Here, the question arises: **Why do people go to historical sites, specifically to Kayaköy?** This question can be answered by presenting examples from the past and present. In Kayaköy, visitors are common occurrences, but there is not much to do besides walking aimlessly, appreciating the natural scenery, and dining. From time to time, there are special types of visitors from universities who spend time on the site to study and brainstorm ideas for studio classes. It is also possible to meet people or spend time alone in the splendid nature, secluded from the crowds of the tourist town.

What do people do in Kayaköy in the present?

Directly in the abandoned village of Kayaköy

- Having a walk around the ruins
- Going on a hike in the natural and cultural scenery
- Some residents live in the site
- Vendors put up small stands for selling goods
- Architecture faculties plans site visits with the students

Near the abandoned village of Kayaköy

- Dining, spending time at a cafe
- Having a rest
- Residing in a hotel

UNESCO’s research report on ideas for activities for the heritage sites can act as a guide for finding meaningful and sensible functions for the site. It suggests that creating links between local communities and establishing cultural and environmental activities can strengthen the bond between the user and the area. More than that, creating a meaningful experience can alter the visitor’s perspective on certain topics and provoke a desire to research. Mainly, interactive learning for students can be an effective tool and a desired approach to create a living historical site. Hands-on experiences and observations provide an insightful appreciation of natural and cultural heritage (UNESCO 2025).

As indicated in previous pages, there will be 3 main entrances: each having its own entrance point. For the east side, where the schools and the Upper Church are present, there are two entrances. **One is mainly for the path that will be designed for experiencing the site by going inside the structures on platforms.** These will be the spaces for temporary and permanent exhibitions. The permanent exhibitions can showcase the characteristics of the structures while offering the opportunity to examine them firsthand. Then, as one climbs the site on ramps, there is the Boys’ School at the top. It will retain its inherent function as a school for children. The view is impeccable from where it stands: looking over present Kayaköy and its fields, along with the Upper Church and all the other ruins.

Then, if you continue to walk, or **if you have entered from the second entrance, you will be directed to the locals’ market and then the museum.** Here, the path is much more connected to the everyday life of the site. Locals and visitors can meet here together to join some activities. As mentioned in the UNESCO booklet, the process of including the residents in the architectural programme is crucial. On the visit to the site, there was a couple of vendors on the side of the paths. Designing these structures for them could be a sustainable choice for securing the use of the area.

Moving on to the Southeast part of the site, there will be an area designated for accommodation. The first idea upon investigating the site is to create a living space limited to a small number of structures. However, this is tricky because there are already a lot of boutique hotels, luxurious hotels, and rental houses in the region. Why should this site offer accommodation as well? The answer is unclear because it does not seem very necessary. However, if the users change, it might be meaningful. In the second chapter of the thesis, there is an example of a restoration, and it aims to create a flow of work through the process. It benefits through this process and not only from the product. The idea here could take a similar form. **Rather than offering houses for the tourists, it can be used to house those who will come here for the activities on site.** Since the site is vast, the function will be useful for many years to come.

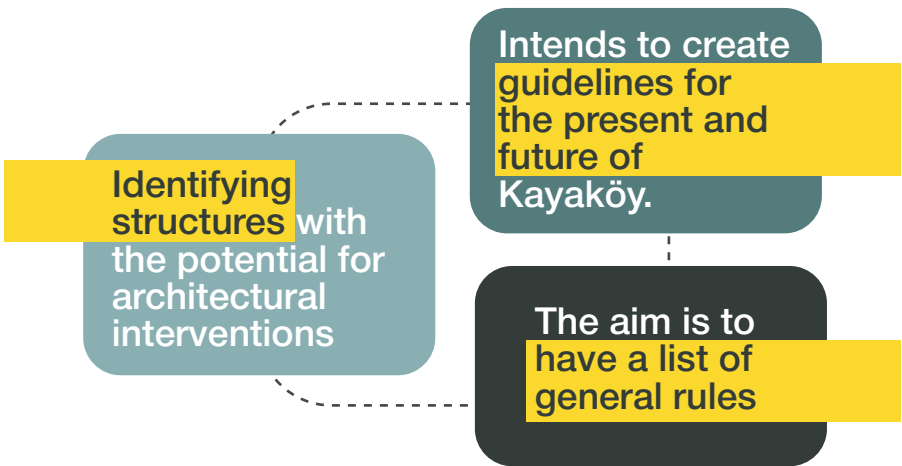
On the west side, the entrance is placed after the Lower Church because this is where the site properly starts. **Before the third entrance, there are other properties which are private. This path goes directly up without any interruptions. The settlement is more orderly than the east side.** On each side, there are one or two storey ruins with some space in front of them. There will be both educational and commercial functions: ateliers, cafe, restaurant and gardens with resting areas. The ateliers will offer gardening, wood working, arts and crafts classes. At the end of the path, it is possible to reach the watching tower.

Map of Architectural Program



Figure 6.5 A map showing the architectural programme

What Are the Objectives of the Guide?



Managing resources and planning effectively are key strategies to achieve balance for urban growth to sustain a better quality of life, and heritage sites create resources to enhance this balance. (UNESCO 2011). To be able to manage effectively, it is important to plan with precise analysis and sufficient thinking. Therefore, there should be an understanding of how a specific heritage site should be treated.

Proper planning for protection and safeguarding is required for the site, and it has been decaying for more than 100 years. However, the immediate solution is not to restore all the buildings and present them as a newly rebuilt village. As mentioned before, this kind of approach would destroy the place's identity and soul. Since the site has over 500 structures that need to be analysed in detail before any intervention, a strategy for selecting can make the process easier. After this selection, the procedure of the guide begins. The objective is to classify the chosen structures into different categories. Then, according to these classifications, the design choices will be shaped.

While thinking about the approach of guiding, there are some questions to ask. The main one is: How to guide? First, it is possible to set the conditions that will later affect the design choices. There can be two general categories: existing conditions and established conditions. The first depends on already existing knowledge on the site. This information is gathered through analysis and classified. The latter category is determined by intentional decisions of functions of the architectural program. The second question is about how to use the data of the categorization in order to design. Every structure is going to be evaluated under the categories mentioned above. Then, according to the answers, there will be a set of rules that should be applied. In the later pages, these rules will be illustrated with a set of tables and diagrams.

A. Existing Conditions:

according to existing features

1. Connection with the Paths

Informs about the connectivity of a structure. Helps to determine the accessibility and informs about the route.

2. The Restoration Potential of a Structure

Gives information about the possible situation of a structure. It helps determine what level of intervention it may require.

3. Location of a Building/Structure/Space

Classifies a structure in a condition based on the proximity of the nearest entrance and if it is situated on a hill or a plain ground.

4. Environmental Characteristics of a Structure

It only informs about an observable presence of environmental design choice. There may have been an environmental choice before but if it is not present, it cannot be listed.

B. Established Condition:

after the analysis and deciding the goal

1. Attained Functions

This condition will act as a guide on how to design a suitable space for the attained function depending on what is expected from a specific architectural program.

Connection with the Paths: Existing Condition

Informs about the connectivity of a structure. There are two conditions and five different connections. The type of conditions can be found on site. Therefore, they are existing features. However, the conditions are the categories in which different connections can be found. A condition serves the purpose of categorizing existing connections under a common title. Then, it will be easier to decide on certain rules for design choices.

Table 6.1 A
table showing
the conditions of
connection with
the paths

Legend	
	No connection
	Obstacle / Disturbance
	Uncomfortable due to slope
	Connected, Fully accessible
	Connected but not accessible for everyone

Conditions	Description	Types of Connection		
No Connection/ Insufficient	Refers to no connection with the main paths or insufficient connection that are not suitable for public circulation.			
Sufficient Connection	Refers to the adequate connection with the main paths.			

The Restoration Potential of a Structure: Existing Condition

There are three conditions and four different types of potential. The conditions are titled according to the potential map. However, they do not exactly talk about what kind of features the structures possess. To understand this, it is necessary to define the type of potential, which gives information about the possible situation of a structure. A structure can be in a good or medium condition, and for every condition there are two types of potential.

Table 6.2 A
table showing
the conditions of
the restoration
potential of a
structure

Legend	
	Walls are mostly intact with roof
	Walls are mostly intact
	Walls are only enough to indicate the layout
	In total ruin - layout is not certain

Conditions	Description	Types of Potential	
Good or medium	Refers to good or medium condition for both structural and architectural properties		
Poor structural condition	Poor structural condition Good architectural condition		
Poor condition overall	Poor condition for both structural and architectural		

Location of a Structure: Existing Condition

There are three conditions and three different types of locations. To give an example, first a structure is classified in a condition based on the proximity of the nearest entrance. Then, for all the conditions, there are three location types: on a flat ground in the plain, on a flat ground in the hills, and on a sloped ground. A structure in this existing condition can only have one of these three since two types cannot be true at the same time.

Table 6.3 A
table showing
the conditions
of location of a
structure

Legend



On a flat ground, near the plain



On a flat ground, on the mountain



On a sloped ground

Condition	Description	Types of Location - on the ground		
East entrance (close proximity from here)	Refers to the existent (and established) East entrance of the site.			
West entrance (close proximity from here)	Refers to the existent (and established) West entrance of the site.			
Middle of East-West entrance	Means that the structures are in between these two main entrances			

Environmental Characteristics: Existing Condition

There are two conditions and two type of environmental characteristics. The conditions are simple and it only informs about the presence of environmental design choice. When there is not any, it is not possible to talk about the type of it. On the contrary, if the structure possesses an environmental design choice, the type is explained.

In this case, a structure can have both types of environmental characteristics. It means that if a structure has a cistern, it is also possible for it to have environmentally mindful design choice for the openings as well.

Table 6.4 A
table showing
the conditions
of environmental
characteristics

Legend



Has a cistern for water collection



Windows are placed according to prevent excessive heat

Conditions	Description	Types of Environmental Characteristics	
Environmental design choice is not detected	Means that there is no evidence of environmental decisions that are apparent in their present form.		
There are environmental design choices present in the structure	Refers to the evidence of environmental decisions that are apparent in their present form.		

The Process

To be able to have a clear understanding of this part of the guide, it is beneficial to summarize the process of establishing the functions.

The functions of the structures are determined by the intended main path routes. The main paths either depend on existing ones or on the new required connections. In the case of the temporary and permanent exhibitions, the connection is through new elements, which will be platforms that provide accessibility to an increased number of people by not introducing stairs or steep pathways. According to this example, the derivation process can be summarized as:

- 1. **Deciding on main paths** or introducing new main paths
- 2. **Determining the restoration potential** of the structures.
- 3. **Combining the knowledge of 1 and 2 to determine the chosen structures** for the architectural program.
- 4. This step (assigned function) will only list the types of functions that are decided for this site.

A type of function is inherently influential in design choices because there are requirements to be fulfilled. Certain functions determine activities and therefore the people who will engage with the space. The aim is not to have a strict definition since it is not very realistic to dictate how a space should be used in every case. However, it is possible to foresee some general rules that are in relation with a function.

First, the functions will be introduced. Then, in the next phase, they will be explained linked with the design choices.

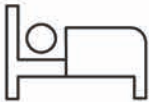
Types of Functions		
	Cultural	Temporary exhibitions Permanent exhibitions Visitors' centre Museum
	Educational	School for children Ateliers
	Commercial Recreational	Locals' Market Cafe Restaurant Gardens Resting areas
	Service areas	Restrooms Storage areas
	Accommodation	Short-stay

Table 6.5 A table showing the list of functions

Classification of the Structures

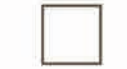
Structures Conditions		1	2	3	4	5	6	7	8	9
existing	Connection with the paths	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 
	Restoration potential	Good or medium 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 
	Location of a building	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 
	Environmental characteristics	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choices are present 	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected
established	Attained function	Visitor centre 	Permanent exhibiton 	Permanent exhibiton 	Permanent exhibiton 	Permanent exhibiton 	Permanent exhibiton 	Temporary exhibiton 	Exit of the exhibition 	Exit of the exhibition 

Table 6.6 A table showing the classification of the structures according to the presented conditions

Classification of the Structures

Structures Conditions		10	11	12	13	14	15	16	17	18
existing	Connection with the paths	Sufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 	Insufficient connection 
	Restoration potential	Poor architectural condition 	Good or medium 	Poor architectural condition 	Poor architectural condition 	Good or medium 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 	Poor architectural condition 
	Location of a building	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 
	Environmental characteristics	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected
established	Attained function	Exit of the exhibition 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 	Temporary exhibiton 

Table 6.7 A table showing the classification of the structures according to the presented conditions

Classification of the Structures

Structures Conditions		19	20	21	22	23	24	25	26	27
existing	Connection with the paths	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 
	Restoration potential	Poor structural condition 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 
	Location of a building	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 
	Environmental characteristics	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choices are present 	Environmental design choice is not detected	Environmental design choices are present 	Environmental design choices are present 	Environmental design choice is not detected	Environmental design choice is not detected
established	Attained function	Exit of the exhibition 	School for children 	The upper church (existing function) 	Museum 	Service Area 	Local market 	Local market 	Chapel (existing function) 	Local market 

Table 6.8 A table showing the classification of the structures according to the presented conditions

Classification of the Structures

Structures Conditions		28	29	30	31	32	33	34	35	36
existing	Connection with the paths	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 
	Restoration potential	Good or medium 	Good or medium 	Good or medium 	Poor architectural condition 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 
	Location of a building	East entrance 	East entrance 	East entrance 	East entrance 	West entrance 	West entrance 	West entrance 	West entrance 	West entrance 
	Environmental characteristics	Environmental design choices are present 	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choice is not detected	Environmental design choices are present  	Environmental design choices are present  	Environmental design choices are present  	Environmental design choices are present 
established	Attained function	Local market 	Local market 	Chapel (existing function) 	Entrance point 	The lower church (existing function) 	Entrance point 	Atelier 	Cafe 	Service Area 

Table 6.9 A table showing the classification of the structures according to the presented conditions

Classification of the Structures

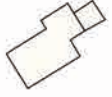
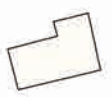
Structures Conditions		37	38	39	40	41	42	43	44	45
existing	Connection with the paths	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 	 Sufficient connection 
	Restoration potential	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 
	Location of a building	West entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 	East entrance 
	Environmental characteristics	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 
established	Attained function	Restaurant 	Atelier 	Atelier 	Atelier 	Atelier 	Atelier 	Cafe 	Atelier 	Atelier 

Table 6.10 A table showing the classification of the structures according to the presented conditions

Classification of the Structures

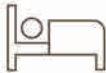
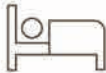
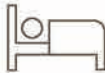
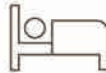
Structures Conditions		46	47	48	49	50	51	52
existing	Connection with the paths	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 	Sufficient connection 
	Restoration potential	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 	Good or medium 
	Location of a building	East entrance 	East entrance 	Middle of East-West entrance 	Middle of East-West entrance 	Middle of East-West entrance 	Middle of East-West entrance 	Middle of East-West entrance 
	Environmental characteristics	Environmental design choices are present 	Environmental design choice is not detected	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 	Environmental design choices are present 
established	Attained function	Atelier 	Chapel (existing function) 	Short-stay 	Short-stay 	Short-stay 	Short-stay 	Short-stay 

Table 6.11 A table showing the classification of the structures according to the presented conditions

Rules of the Guide

Connection with the Paths

1. No connection/ Insufficient connection:

There are three different types in this category: no connection, a disturbed connection with an obstacle, and an uncomfortable path due to a steep slope. **When there is no sufficient connection to a structure, which is already chosen for its restoration potential, a connection can be built with platforms.** This structure can also be monumental, as is the case for the Boys’ School; in this case, the public circulation is crucial. Starting from here, the connection is going to be sustained with platforms that go in and out of the exhibition spaces because there are no pathways. The ground is steep and is covered with vegetation that creates obstacles. These platforms will float above the ground so as not to disturb the landscape and the ruins.

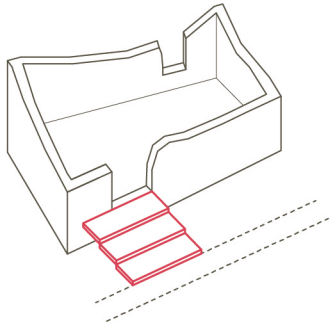
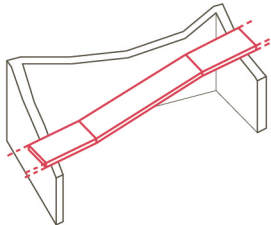
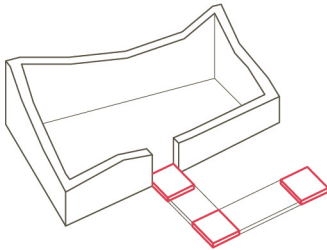
To create an accessible path for people who have difficulty walking and are in wheelchairs, **the permanent exhibition will consist only of ramps with a comfortable slope.** At the end of this exhibition, an exit will be present that will directly connect to the local market. This series of platforms will only work as a one-way route to establish a narrative, except for possible emergencies, when it can be used from both sides.

For the rest of the exhibition (the temporary exhibition), there must be stairs along with the ramps to minimize the number of required ramps because it is almost impossible to create a comfortable path length only with ramps. There would be too many ramps, and that would make it hard to span the desired area.

2. Sufficient connection:

If the paths are sufficient and comfortable for general public use, then there is no need to make alterations. **Only in the case of a fully accessible connection requirement (service areas) and if it needs repairment, there can be modifications.**

Table 6.12 A table showing the “Design choice” according list of conditions for “Connection with the Paths”

Conditions	Design Choice
No connection/ Insufficient	
No connection	 Creating a new path with steel platforms 
Obstacle / Disturbance	
Uncomfortable due to slope	 Creating a floating path with steel platforms 
Sufficient connection	
Connected, Fully accessible	 Small modifications of repair with steel elements
Connected but not accessible for everyone	 

Rules of the Guide

The Restoration Potential of a Structure

1. Good or medium:

The majority of the chosen structures fall into this category. Their functions are determined as ateliers, visitors centre, museum, school, café, restaurant, local market, and service areas. **The idea is to preserve the form and the materials while building with new materials that will still show the borders of the original structure.** To have structural integrity, it is necessary to have separate structural elements since there is no in-depth understanding of the structural competence. This category refers to good structural competence, but the analysis seems to be based on visual factors. In any case, to not disturb the originality of the ruins, it is wiser to attach new elements.

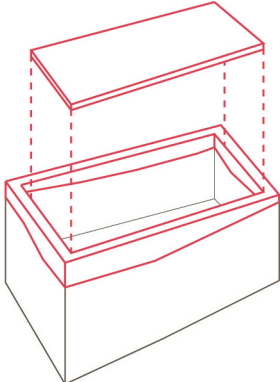
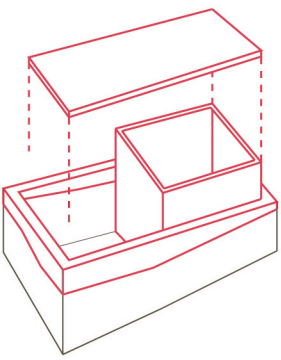
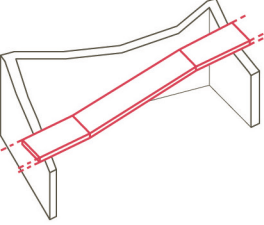
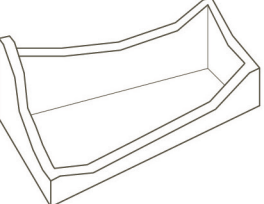
2. Poor structural condition:

Only one structure falls into this category: the structure at the end of the permanent exhibition exit. The interior will not serve for any function. It only marks the end. However, for future reference and the guide, the preferred design choice could resemble the 3rd condition, which has more structures. **If there is no need to assign a function, it is sufficient to sustain the required safety precautions, and they can be open to visitors for a closer experience.**

3. Poor condition overall:

The chosen structures on the East side of the site are mostly in this category. In general terms, the qualification for the chosen structures is according to the high level of restoration potential. However, there is an exception for this area, and the reason is in correlation with the design idea, which necessitates the experience of the ruins in an exhibition format. For this type of structure, **safety precautions should be taken to create a secure space.**

Table 6.13 A table showing the “Design choice” according list of conditions for “Restoration Potential of a Structure”

Conditions	Design Choice	
Good or medium		
Walls are mostly intact with roof		Preserving the original form and building with new materials
Walls are mostly intact		A closed functional space A semi-open functional space  
Poor structural condition		
Walls are mostly intact		Only functions as an open space with platforms for circulation
Walls are only enough to indicate the layout		
Poor condition overall		
Walls are only enough to indicate the layout		Can be maintained with safety precautions 
In total ruin - layout is not certain		

Rules of the Guide

Location of a Structure

These conditions affect the choice of assigning functions at the beginning of the architectural program.

1. East entrance:

Since the East entrance mostly consists of monumental buildings, it is designated as the cultural centre of the site. Compared to the west side of the site, the path is much more comfortable. Therefore, it is decided to be the centre for the majority of the public functions, such as the museum, open-air performance area, and local market. The local market is situated in the less sloped part of the site.

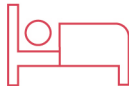
2. West entrance:

The structures are more scattered in this part of the side, and the path always has an inclination. For this reason, it makes sense to place the ateliers, café, and restaurant here because they can function separately.

3. Middle of East-West entrance:

This part of the site consists of structures that tend to be in the same proximity from both designated entrances. The chosen structures in this category are on the upper levels of the site because they are accessible by the main paths, and they do not pose a danger of disturbance to other activities, as they are distant. Therefore, they are considered to have the function of short-stay, which does not require immediate connection with other suggested functions.

Table 6.14 A table showing the “Design choice” according list of conditions for “Location of a Structure”

Conditions	Design Choice
East entrance (close proximity)	
- On a flat ground, near the plain - On a flat ground, on the mountain - On a sloped ground	Abundance of monumental structures on this side determines it as the centre of cultural activities and general public functions 
West entrance (close proximity)	
- On a flat ground, near the plain - On a flat ground, on the mountain - On a sloped ground	The general scattered scheme generates the design choice of placing activities that can function separately. 
Middle of East-West entrance	
- On a flat ground, on the mountain - On a sloped ground	Private spaces reserved for accommodation related functions 

Rules of the Guide

Environmental Characteristics

1. Environmental design choices are not detected:

The lack of environmental design choices in a ruin is not strictly a sign of lack, but it **shows that the ruin either does not possess the characteristics or its ruined state prevents finding out.** Even if nothing is detected, new measures and ideas can be adapted.

2. Environmental design choices are present:

Two types of designs can be listed as environmentally mindful: cisterns and placement of openings. The list could be longer with the addition of using local materials, but this was more a necessity than a very deliberate design choice in the past. Moreover, in the present, this cannot be a property that determines a design choice since it is not desired to build with the same materials in a historical site. It would create confusion and disturb the originality of the structures. It may not even be possible to find the same materials, even if there was a chance to build with the same materials.

For the structures that have the traces of drainage pipes and a cistern, they can be restored to function. Since storing water necessitates the need to construct a proper structure for collection, this condition also affects the roof design.

A prominent characteristic of the structures in Kayaköy shows **the deliberate choice of placing the openings facing the North.** Therefore, the heat gain is minimized in the warm climate, and sunlight is diffused. When observed, this could also be thought of as a partially obligatory decision because the slope does not allow for south-oriented openings. This is, of course, mostly true for the single-floor structures. On the other hand, placing them on a north-facing wall creates a private outdoor area for the houses, so there are few reasons.

Table 6.15 A table showing the “Design choice” according list of conditions for “Environmental Characteristics”

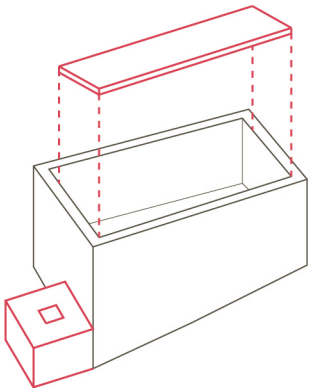
Conditions

Design Choice

Environmental design choices are not detected

- Does not have but it is possible to built one

Depending on the availability of the space, **a cistern can be built.**



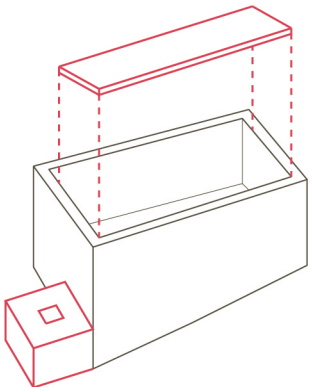
Environmental design choices are present in the structure

- Has a cistern for water collection
- Windows are placed according to prevent excessive heat

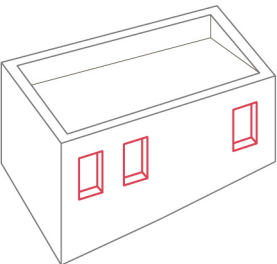


Restoring the pipes and cistern and using it for the rainwater storage

Designing an inclined roof for collecting water



Following the north-oriented openings principle



Rules of the Guide
Attained Functions

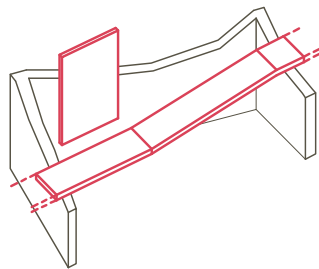
1. Cultural:

1.1 Visitors' Centre and Museum:

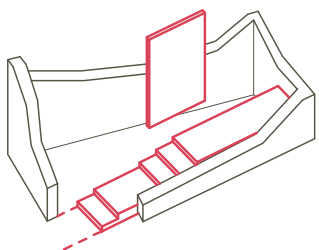
Since it is located close to the main road, it is one of the structures that gets the attention at first sight. Therefore, it is also an entrance for the exhibitions. The main connection is through an elevator, but there is another way of reaching the building that is not considered public because of its close proximity to the existing residential buildings. **The restoration potential is high because the layout of the walls and the openings is apparent. However, the structural elements of the flooring and roof are non-existent. Therefore, it is necessary to make new constructions for a desired closed space.**

Design Choice

Permanent exhibitions' ramps for accessibility



Temporary exhibitions mainly consist of stairs



1.2 Permanent and Temporary Exhibition:

These elongated spaces are connected by platforms. While serving as a circulation path, the main function is the exhibition. **Since the restoration potential of these structures is poor, the decision is to keep their ruined state as a form of exhibition in itself.**

Permanent exhibitions serve as a comfortable passage for people who may have difficulty walking since there are no stairs. The platforms only consist of flat surfaces and low-sloped ramps. One can exit at the end of the permanent exhibitions through ramps and arrive at the local market area.

If one decides to continue to the temporary exhibitions, it is possible through the stairs, which are built on the ground. The reason for this decision is not to obstruct the view of existing residential buildings. Therefore, to be able to ascend the hill, it is necessary to use stairs rather than ramps from this point on.

2. Educational:

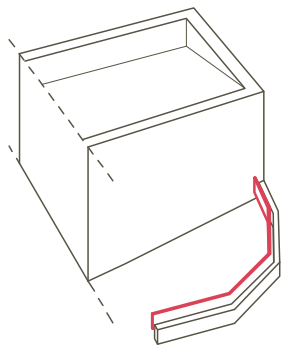
2.1 Ateliers:

In accordance with the chosen structures, **the design option is to create a closed space that resembles its original form with distinguished materials.**

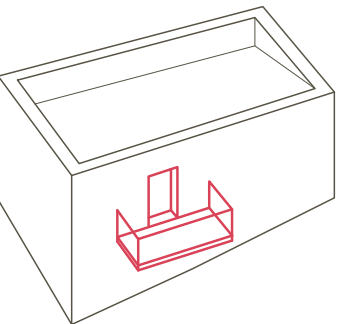
The location of the ateliers (the West part of the site) provides an opportunity to create outdoor areas because the structures are more separated from each other, in contrast to the East part. Therefore, these outdoor areas can be shaped into public spaces with careful design choices that do not manipulate the landscape in a destructive manner.

Design Choice

Railings attached to the garden walls



Referencing the possible original design choice of adding a balcony on the north facade



2.2 School for Children:

This function is assigned to the structure that previously had the function of a boys' school. **Since it is situated on one of the highest points, it has the potential to be more private than the other buildings.** The school will offer courses for children for short periods of time. It can be both for the locals and the tourists, depending on the course requirements. **The walls of the building offer a chance to use the original materials while constructing new walls to arrive at the needed height.**

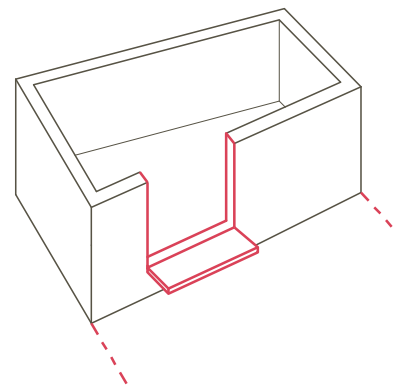
Figure 6.6 Symbols showing the "Design choice" according list of conditions for "Attained Functions"

Rules of the Guide

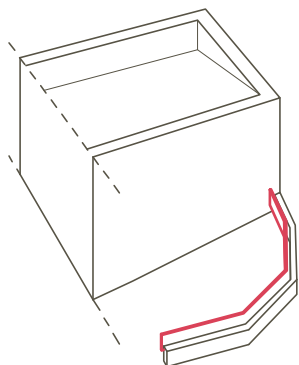
Attained Functions

Design Choice

Bigger openings for the interaction and showcasing of goods



Railings attached to the garden walls



Referencing the possible original design choice of adding a balcony on the north facade

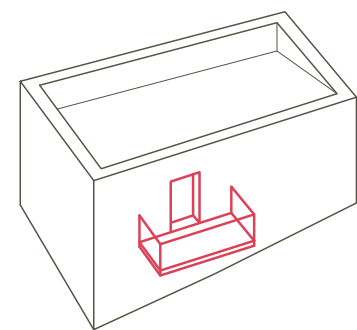


Figure 6.7 Continuation of the symbols showing the “Design choice” according list of conditions for “Attained Functions”

3. Commercial/Recreational:

There can be two categories for this type. The reasons are the contrast of their location and the obvious differences in their functions.

3.1 Local Market:

Requires an instant interaction between the vendors and the customers. The space does not have to be strictly indoor. As long as it is protected from the undesirable weather conditions, the main area can be semi-open. The design for the façade should be inviting. **It is beneficial if the space has the possibility of showcasing the goods to catch the attention of the visitors.**

3.2 Café/Restaurant:

The situated structures for the café and restaurants are generally in a better shape than the local market structures. Even though they are both in the good and medium categories, the walls of these structures are higher and less damaged. Therefore, it is sufficient to complete the walls with a distinguished material up to their original height and to construct a new roof. **The roof form is decided to be similar to its previous form, which presents the structure as a rectangular cubic form.**

Similar to the Ateliers (since they are located in the same area of the site), they also have the potential to have their own outdoor areas.

4. Service Areas:

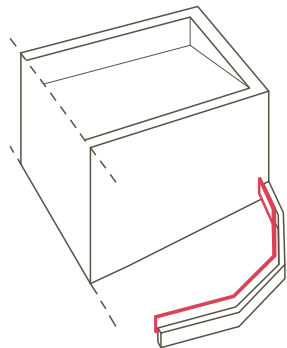
Since the category consists of public restrooms and storage areas, the spaces should be enclosed with walls and a roof.

5. Accommodation:

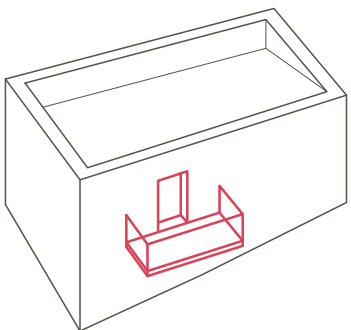
The design resembles the ateliers and café/restaurants in terms of keeping the cubic form by constructing a concealed roof. The reason is to refer to the original form while being able to showcase the original decayed walls. Naturally, the layout is different since it has to accommodate people. **Certain elements that are inspired by its historical form can be used to enhance the features of interior and exterior spaces, such as niches, partition walls, and balconies.**

Design Choice

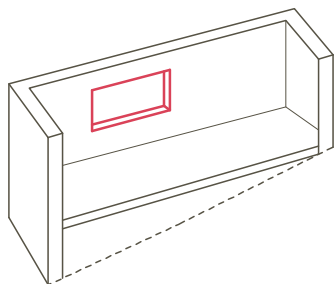
Railings attached to the garden walls



Referencing the possible original design choice of adding a balcony on the north facade



Referencing the original design choice of niches



Phases

Phase 1

The first phase consists of the main functions that are needed for a heritage site. These main ones can be listed as a visitor's centre, exhibition areas, and a museum. Most of the monumental structures are in this area of the site: Boys' School, Girls' School, and the Upper Church. Following the functions listed above, there is also a school for children and locals' market area. There are many functions planned in one part of the site that can be effective in promoting the site in different aspects. The importance of locals' market lies in its connection with the local people. It can sustain the willingness of their participation in improving the site. It is undeniably an advantage for tourists as well, since they can find goods and services close to the cultural zone of the area.

Phase 2

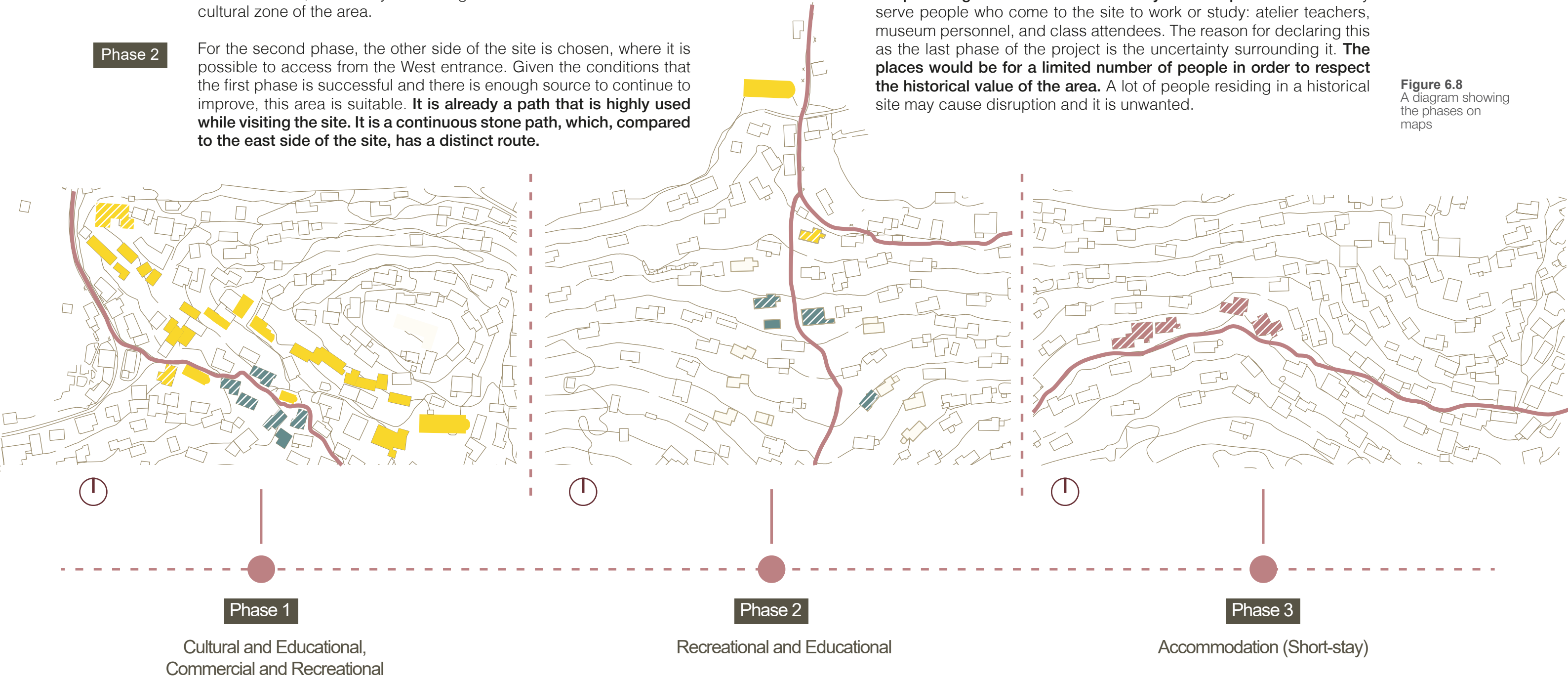
For the second phase, the other side of the site is chosen, where it is possible to access from the West entrance. Given the conditions that the first phase is successful and there is enough source to continue to improve, this area is suitable. It is already a path that is highly used while visiting the site. It is a continuous stone path, which, compared to the east side of the site, has a distinct route.

It always goes up without distractions. Here, the chosen ruins are not always adjacent to each other, but it is not a problem for planning because the functions are suitable to work separately. There will be a cafe, a restaurant, ateliers, and service areas. They will be scattered through the path, blending with the ruins and the environment. The aim is not to create a dense look of rebuilt structures. But rather, rare occasions of functional spaces that will serve in the open museum.

In this part of the phase, a couple of ruins can be spared for a short stay. Depending on the requisition for the activities on the site, the option for providing an accommodation may be an option. It will mainly serve people who come to the site to work or study: atelier teachers, museum personnel, and class attendees. The reason for declaring this as the last phase of the project is the uncertainty surrounding it. The places would be for a limited number of people in order to respect the historical value of the area. A lot of people residing in a historical site may cause disruption and it is unwanted.

Phase 3

Figure 6.8
A diagram showing the phases on maps



Masterplan

1/2000



Legend

- Selected buildings for the 3 phases
- Habited houses on site
- Site entrance
- Carpark entrance

Phase 1

- Cultural and Educational
 - Temporary and Permanent Exhibitions
 - Museum
 - School for Children
- Commercial and Recreational
 - Locals' Market

Phase 2

- Recreational and Educational
 - Ateliers
 - Gardens
 - Cafes
 - Restaurants
 - Resting and Observing Spaces

Phase 3

- Accommodation (Short-stay)
- Residentials

Selected Structures for the Design Guidelines

Phase 1

Cultural and Educational
Commercial and Recreational
Local Market

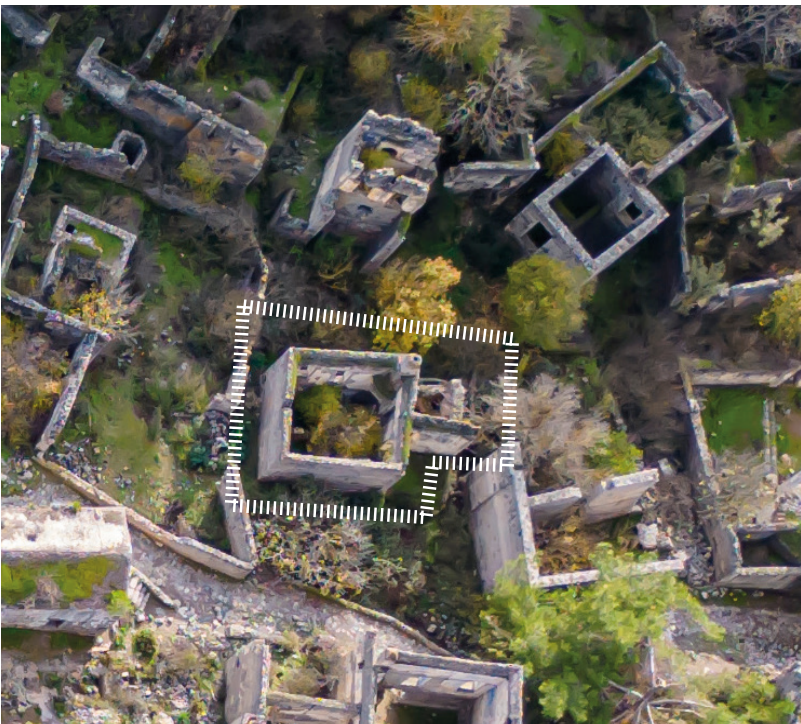


Figure 6.9 A photo showing one of the selected ruins for the function of “local market”

Phase 2

Recreational and Educational
Atelier

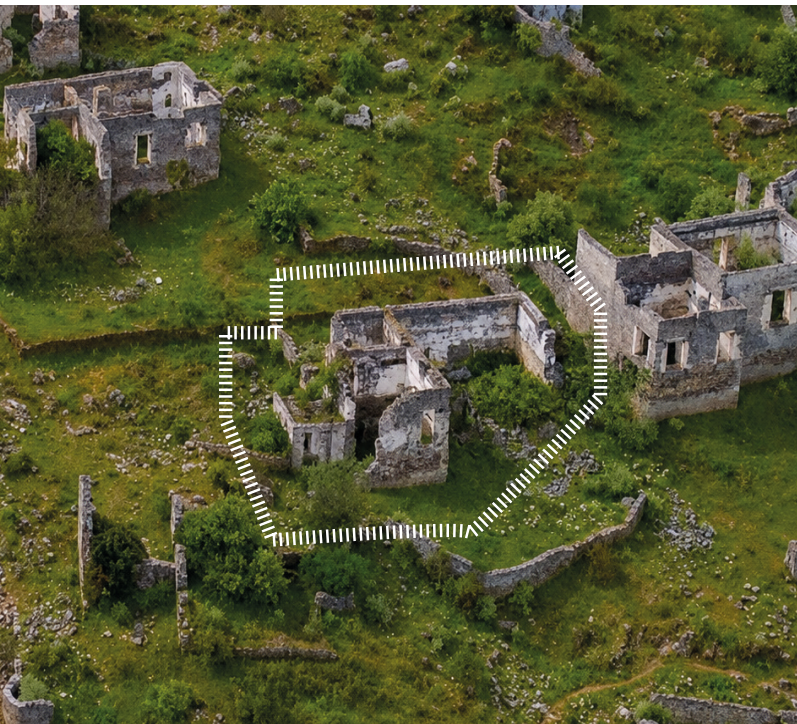


Figure 6.10 A photo showing one of the selected ruins for the function of “atelier”

Phase 3

Accommodation
Short-Stay



Figure 6.11 A photo showing one of the selected ruins for the function of “short-stay”

Partial Site Plan

Cultural, Educational,
Recreational

1/750

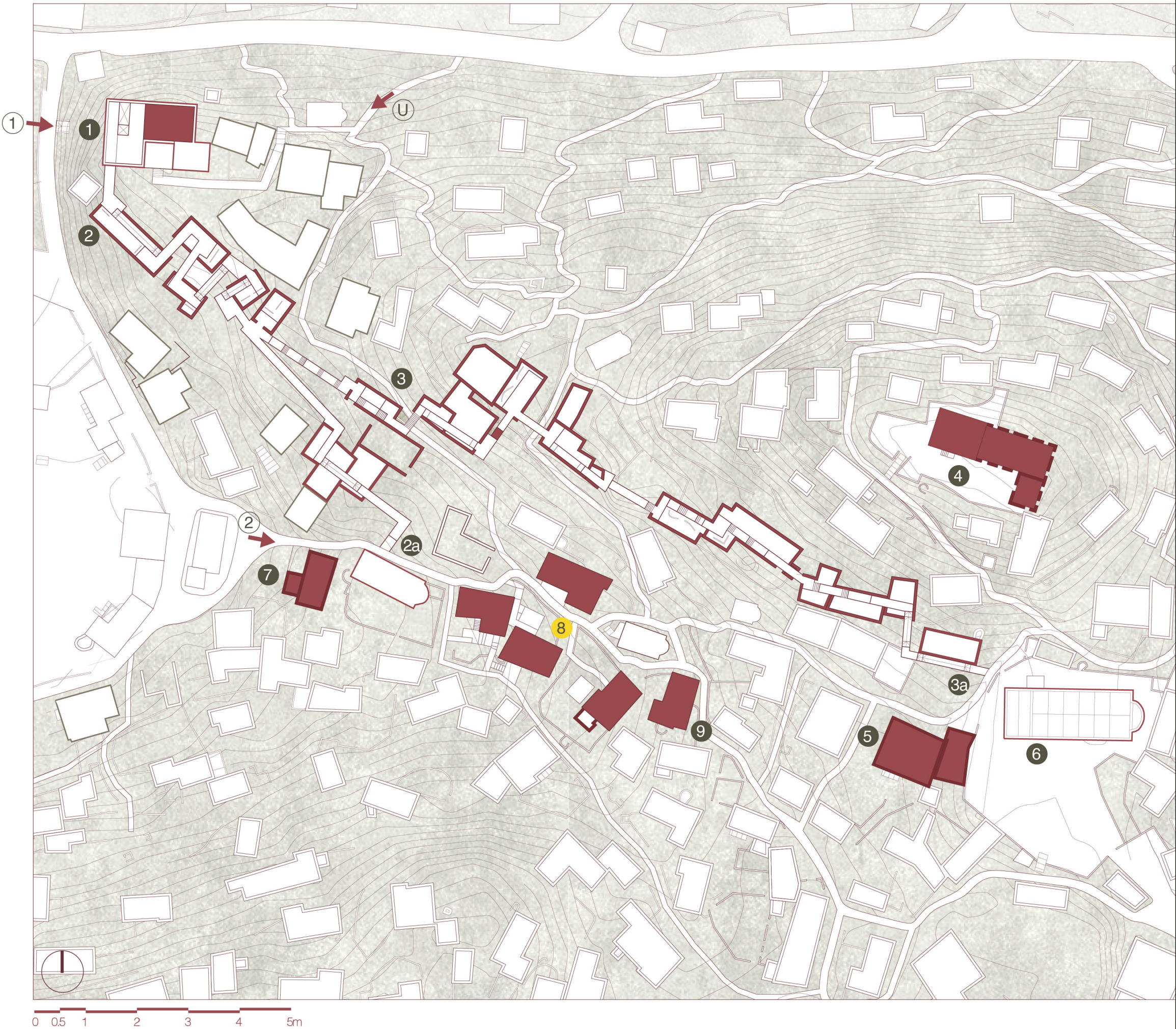
Phase 1

Legend

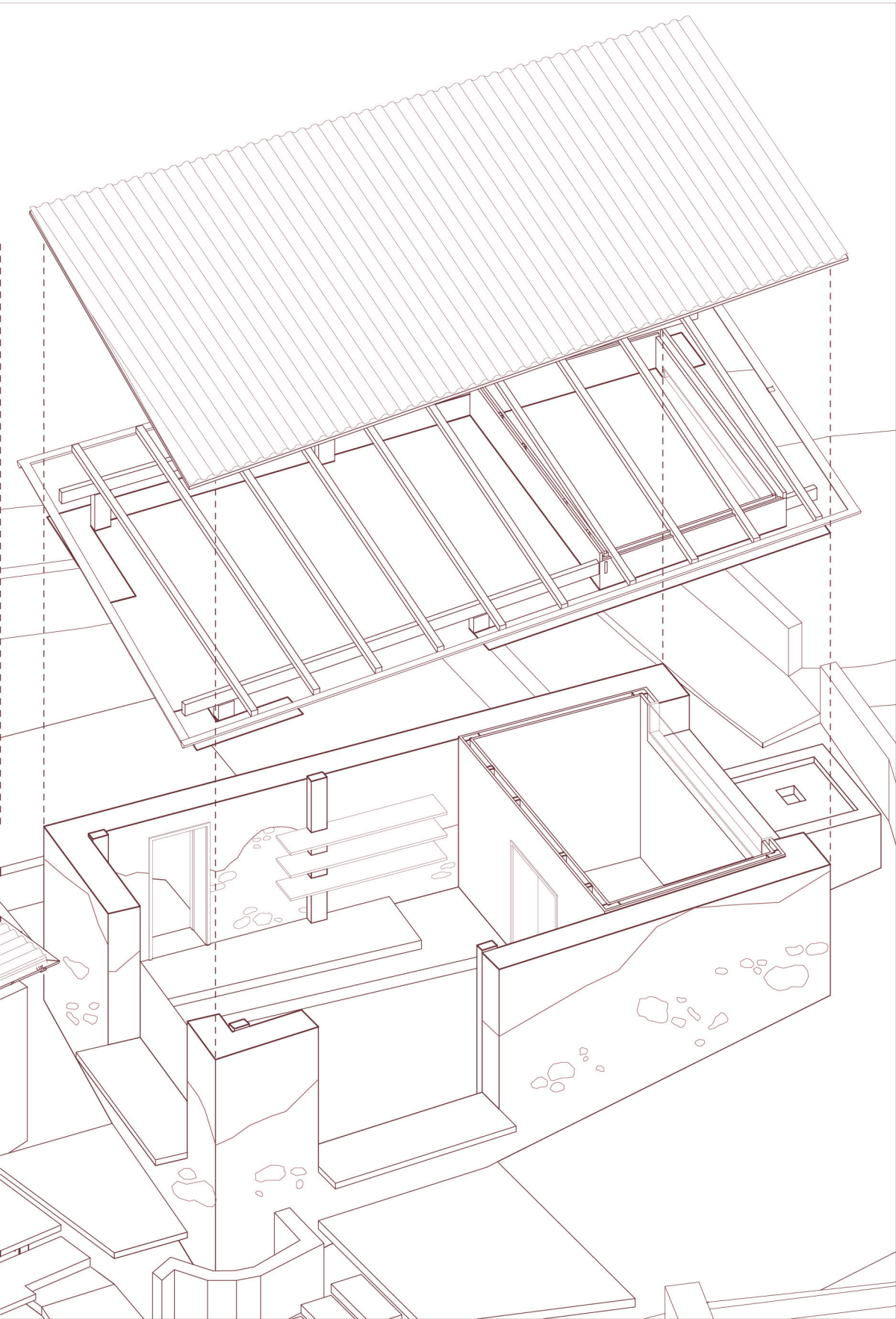
-  Selected buildings for the 3 phases
-  Inhabited houses on site
-  Site entrance
-  1st Main entrance with an elevator
-  2nd Main entrance
-  Unofficial entrance near the houses

Functions

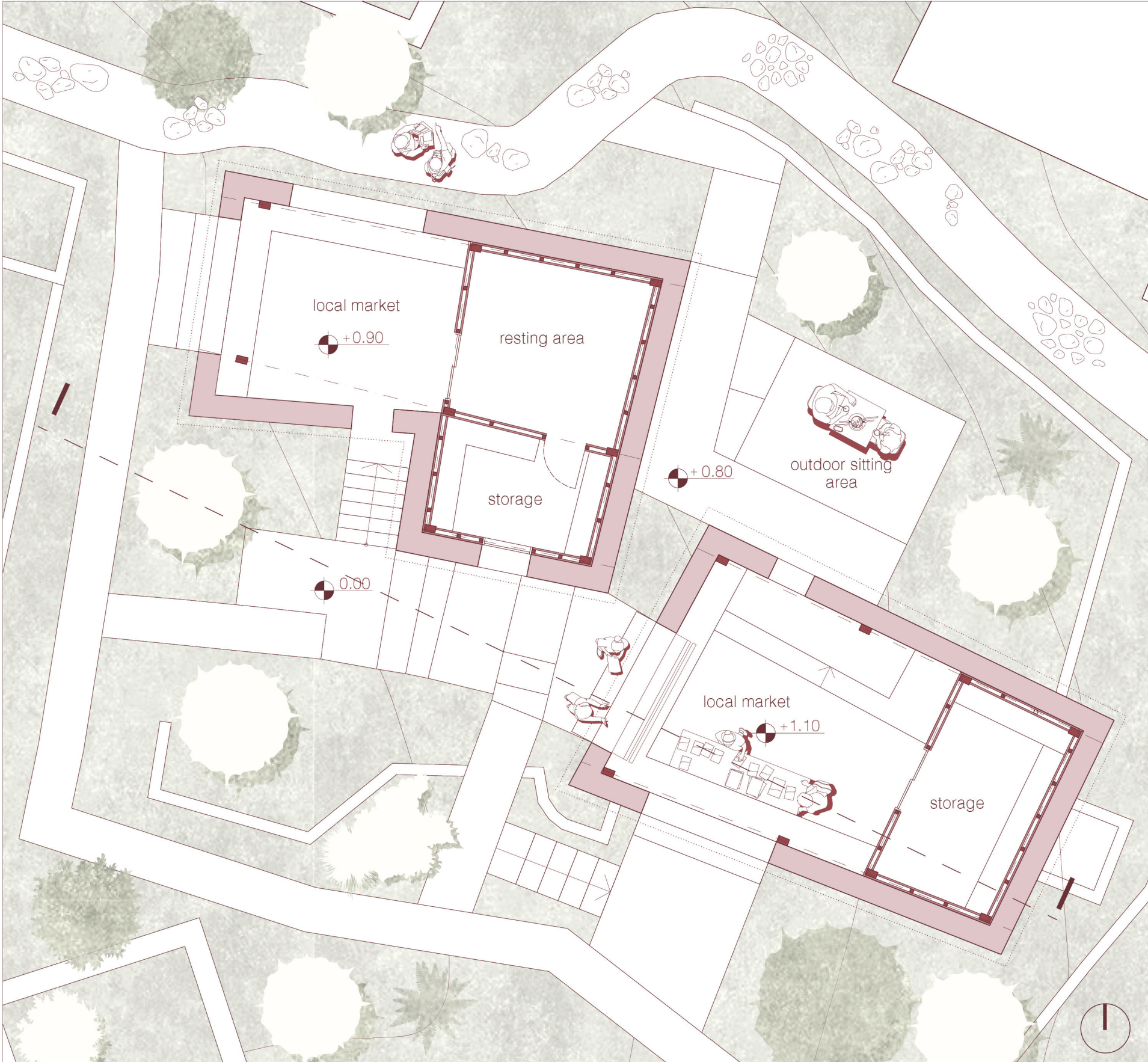
-  Visitors Centre
-  The start of the Permanent Exhibition
-  The exit of the Permanent Exhibiton
-  The start of the Temporary Exhibition
-  The exit of the Temporary Exhibiton
-  School for Children
-  Museum
-  The Upper Church
-  The Entrance: Ticketing
-  Local Market Area
-  Service Area



Guidelines

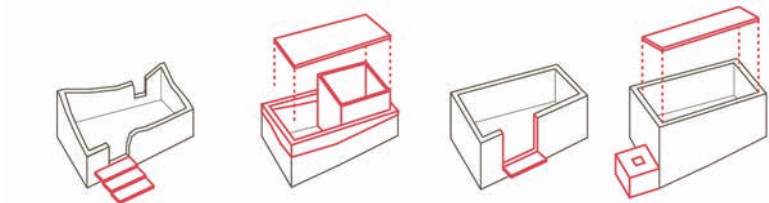


Exploded Axonometric 1/100



Floor Plan 1/100

Guidelines



1 Platforms

Corten steel platforms for the circulation between several buildings

They are **constructed on sloped areas to create steps.**

The connection with the soil ground is through **steel pillars.**

2 Openings

According to the local market function, the openings serve **the purpose of communication and commercial activity.**

A window is constructed only in the closed space where there is a need for enclosing and privacy.

3 Semi-open space

Serves for the commercial activity.

The historic walls are left as they were. Then **the wall is completed with a new material** distinguishable from the original.

4 Walls (Closed space)

Consists of resting and storage areas.

Construction elements of **the walls are timber studs and panels. The studs are attached to the primary timber beams.**

5 Roof

Consists of timber columns, primary beams and studs. **The cover is metal sheet on a timber panel.**

6 Rainwater collection

The roof is inclined for the purpose of water collection. On the Southeast end, **the collected water can be stored in a cistern.**

7 Flooring

The foundation is steel helical piles. It provides a strong foundation with a minimum excavation.



The steel foundation connects with the timber columns.

Flooring consists of timber elements.





Figure 6.12 A render showing the buildings for local market, temporary exhibitions are shown behind

Partial Site Plan

Educational, Recreational
1/750

Phase 2

Legend

- Selected buildings
for the 3 phases
- Site entrance
- ①

 3rd Main entrance

Functions

- ① The Lower Church
- ② The Entrance: Ticketing
- ③ Ateliers

3a

3b

3c

3d

3e

3f

3g

3h

3i

3j

3k

3l
- ④ Cafe
- ⑤ Restaurant
- ⑥ Service Areas

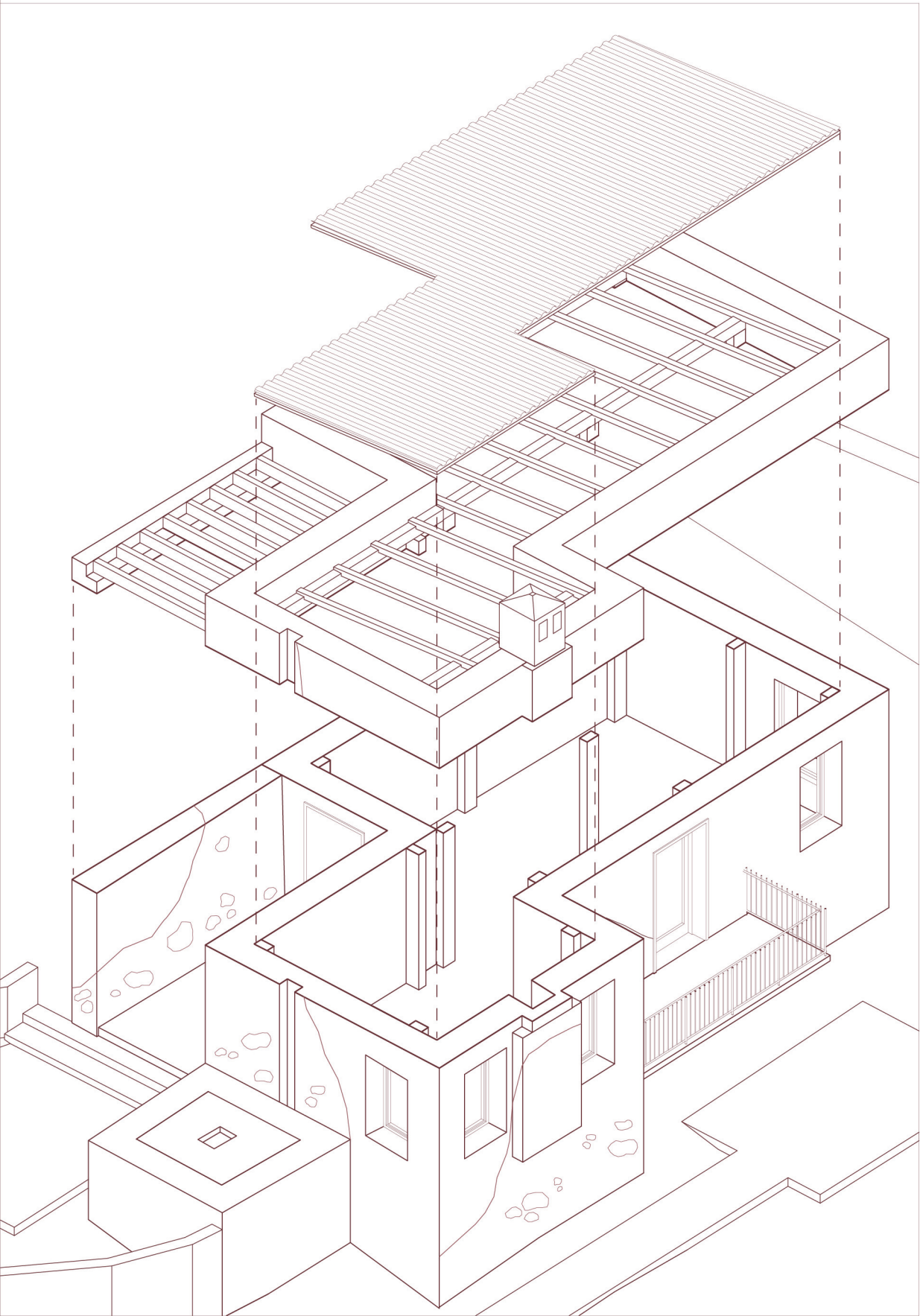
6a

6b

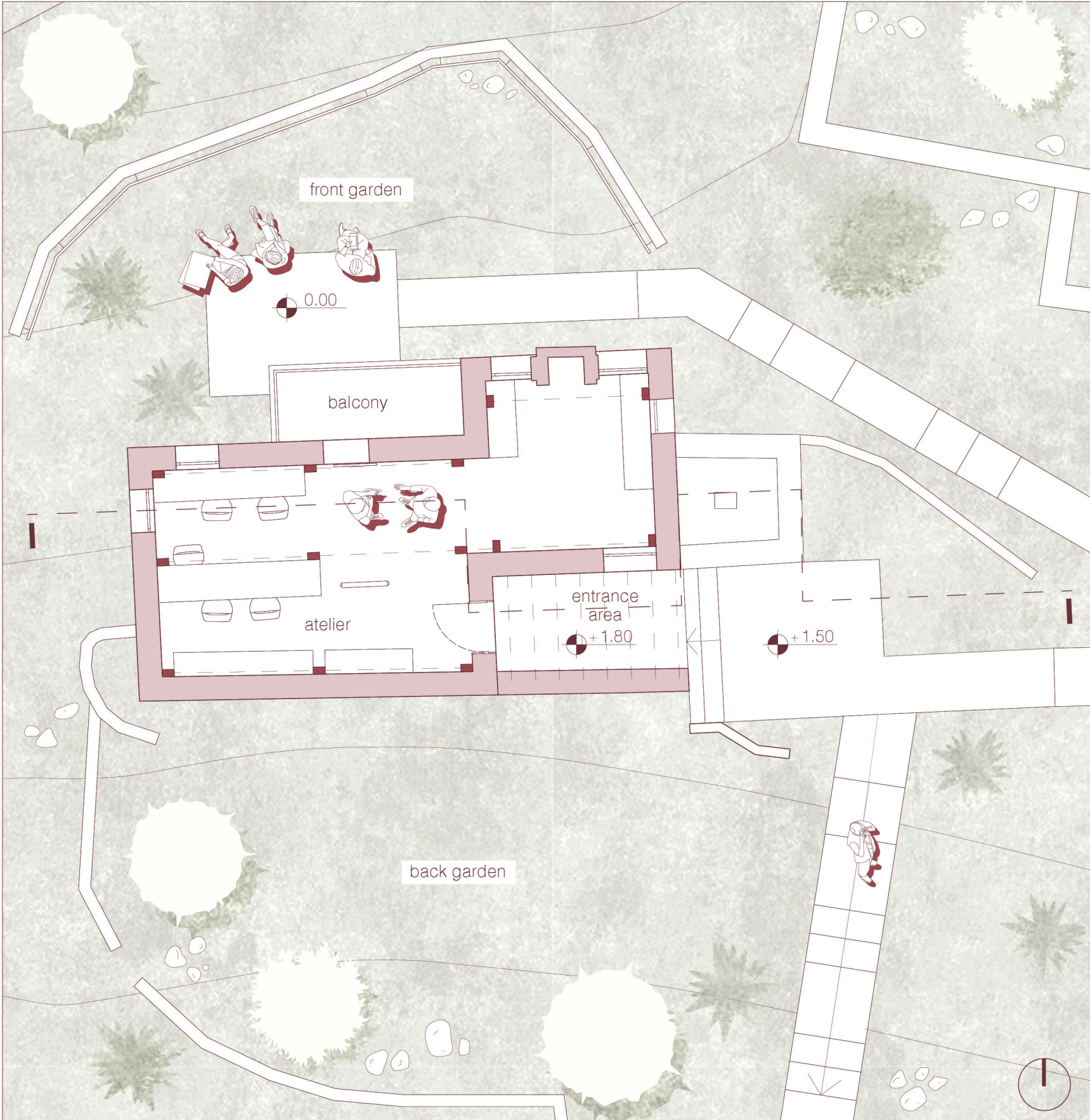


Guidelines

Educational Phase 2 3a Atelier

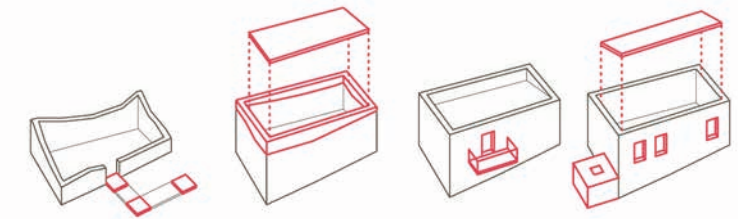


Exploded Axonometric 1/100



Floor Plan 1/100

Guidelines



1 Platforms

Corten steel platforms for the circulation between several buildings

The construction of steel platforms are made **between already existing paths for the purpose of repair**

The connection with the soil ground is through **steel pillars**.

2 Openings

Original layout of the openings and the dimensions are preserved.

The white painting of the perimeter of the windows is repeated to continue the original design choice.

3 Semi-open space

The form already exists in the houses of Kayaköy. Entrance areas are usually semi-open spaces.

4 Walls (Closed space)

The form already exists in the houses of Kayaköy. Entrance areas are usually semi-open spaces.

Construction elements of **the walls are timber studs and panels.** The studs are attached to the primary timber beams.

5 Roof

Consists of timber columns, primary beams and studs. **The cover is metal sheet on a timber panel.**

6 Rainwater collection

The roof is inclined for the purpose of water collection. The collected water can be stored in a cistern.

7 Flooring

The foundation is steel helical piles. It provides a strong foundation with a minimum excavation.

The steel foundation connects with the timber columns.

Flooring consists of timber elements.

34



Sufficient connection

Good or medium



West entrance



Environmental design choices are present

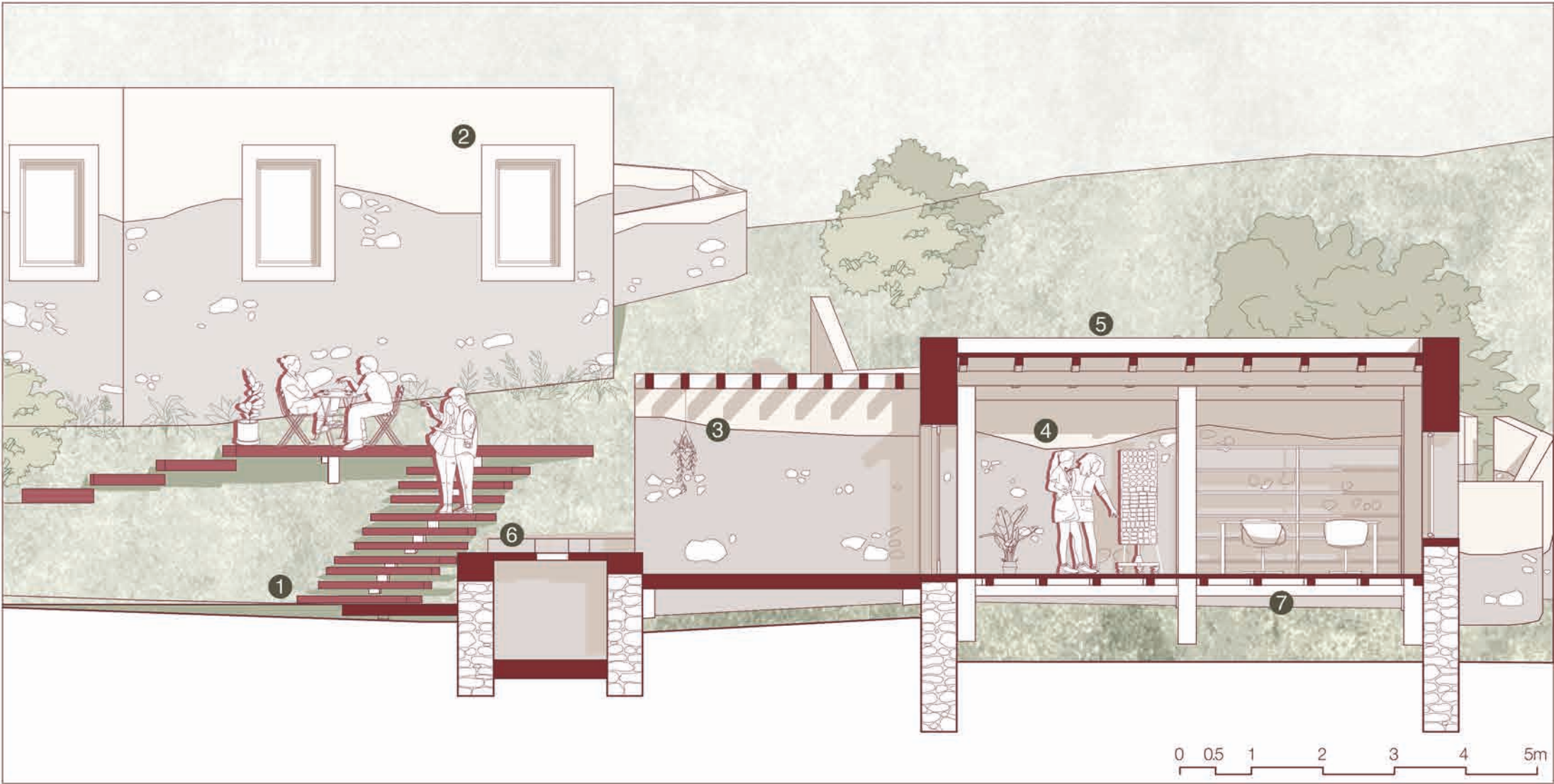




Figure 6.13 A render showing the building for atelier

Partial Site Plan

Accommodation
1/750

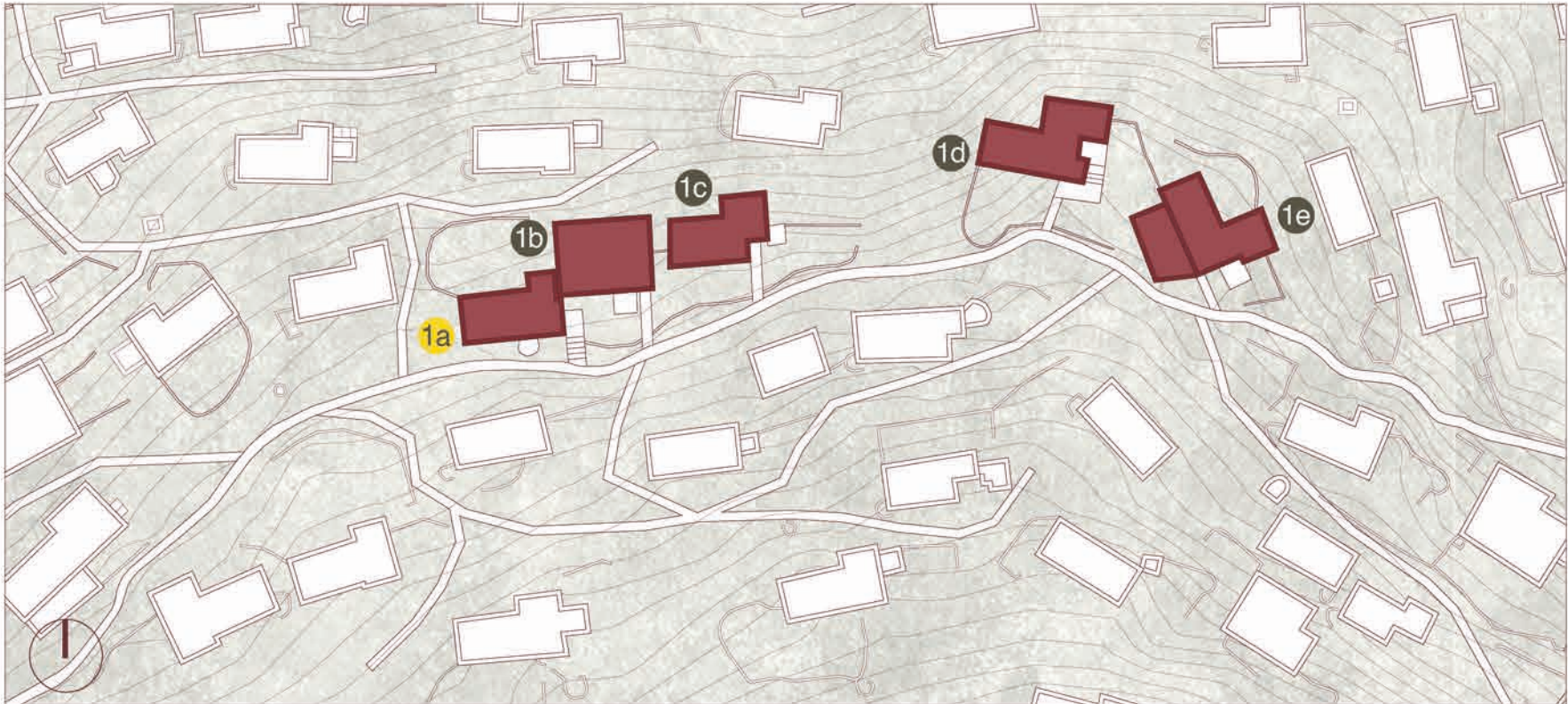
Phase 3

Legend

 Selected buildings for the 3 phases

Functions

-  Short-stay
-  1a
-  1b
-  1c
-  1d
-  1e

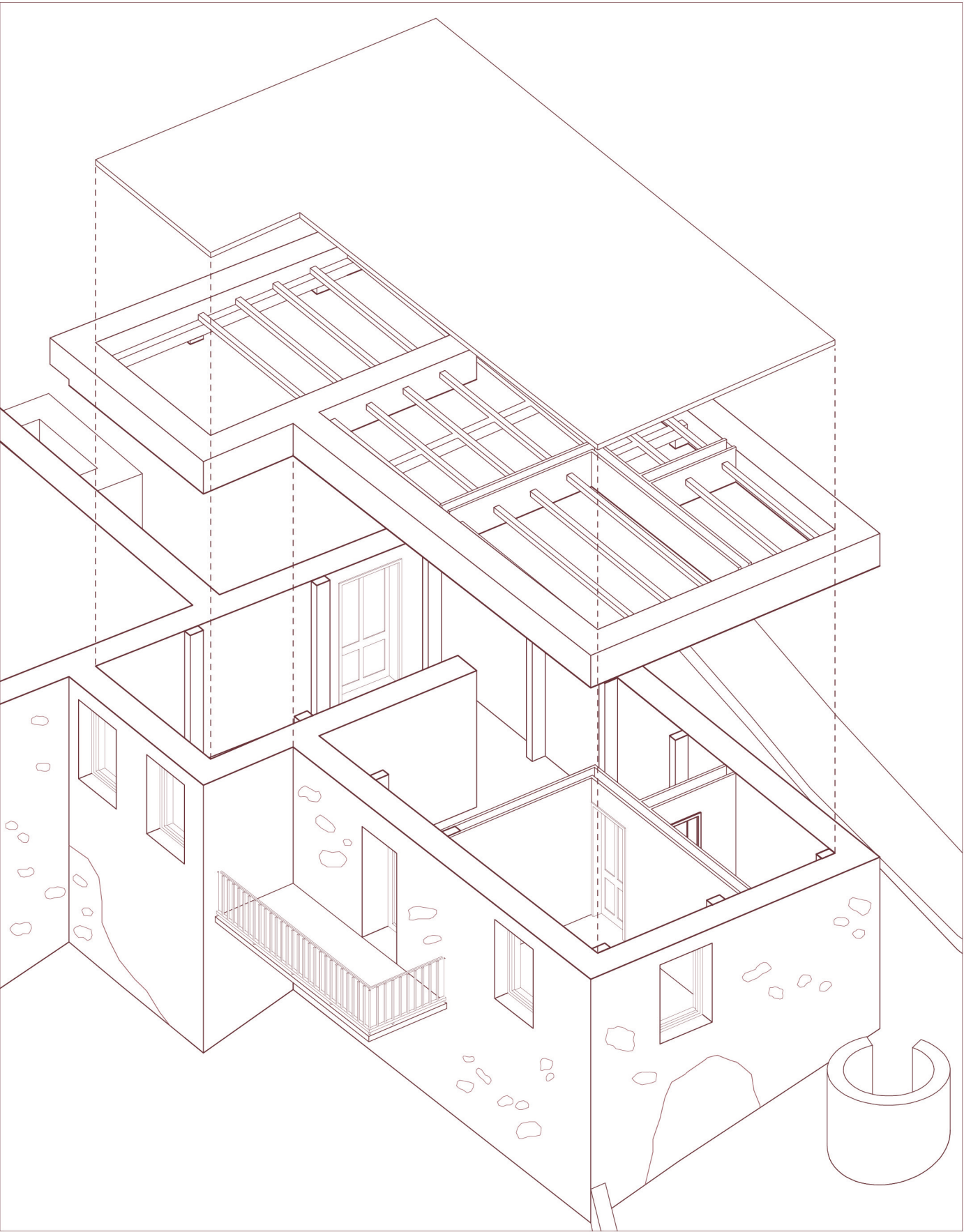


Guidelines

Accommodation

Phase 3

1a Short-stay



Exploded Axonometric 1/100

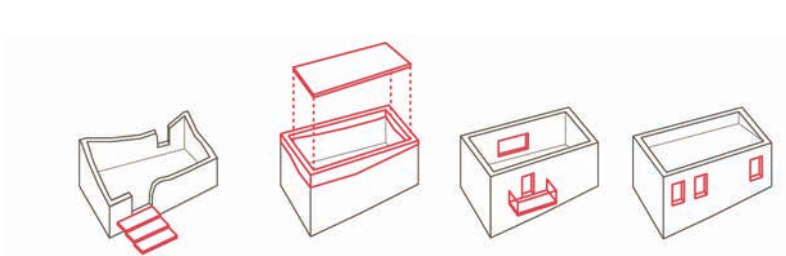


Floor Plan 1/100

Guidelines

Accommodation

Phase 3 1a Short-stay



1 Platforms

Corten steel platforms for the **connection to the main stone path**

The connection with the soil ground is through **steel pillars**.

2 Openings

Original layout of the openings and the dimensions are preserved.

3 Interior elements

The interior layout is preserved with the existing walls.
New wall niches are designed for the space that is a deliberate design choice in the original layout.

4 Walls (Closed space)

Construction elements of the **walls are timber studs and panels. The studs are attached to the primary timber beams.**

The walls are insulated on the interior side to create a comfortable living area.

The interior finishing colours are chosen from the **original colour swatch** of the houses.

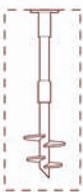
5 Roof

Consists of **timber columns, primary beams and studs.**

The roof is flat (2%).

6 Flooring

The foundation is steel helical piles. It provides a strong foundation with a minimum excavation.



The steel foundation connects with the timber columns.

Flooring consists of timber elements.

48



Sufficient connection



Good or medium



Middle of East-West entrance



Environmental design choices are present

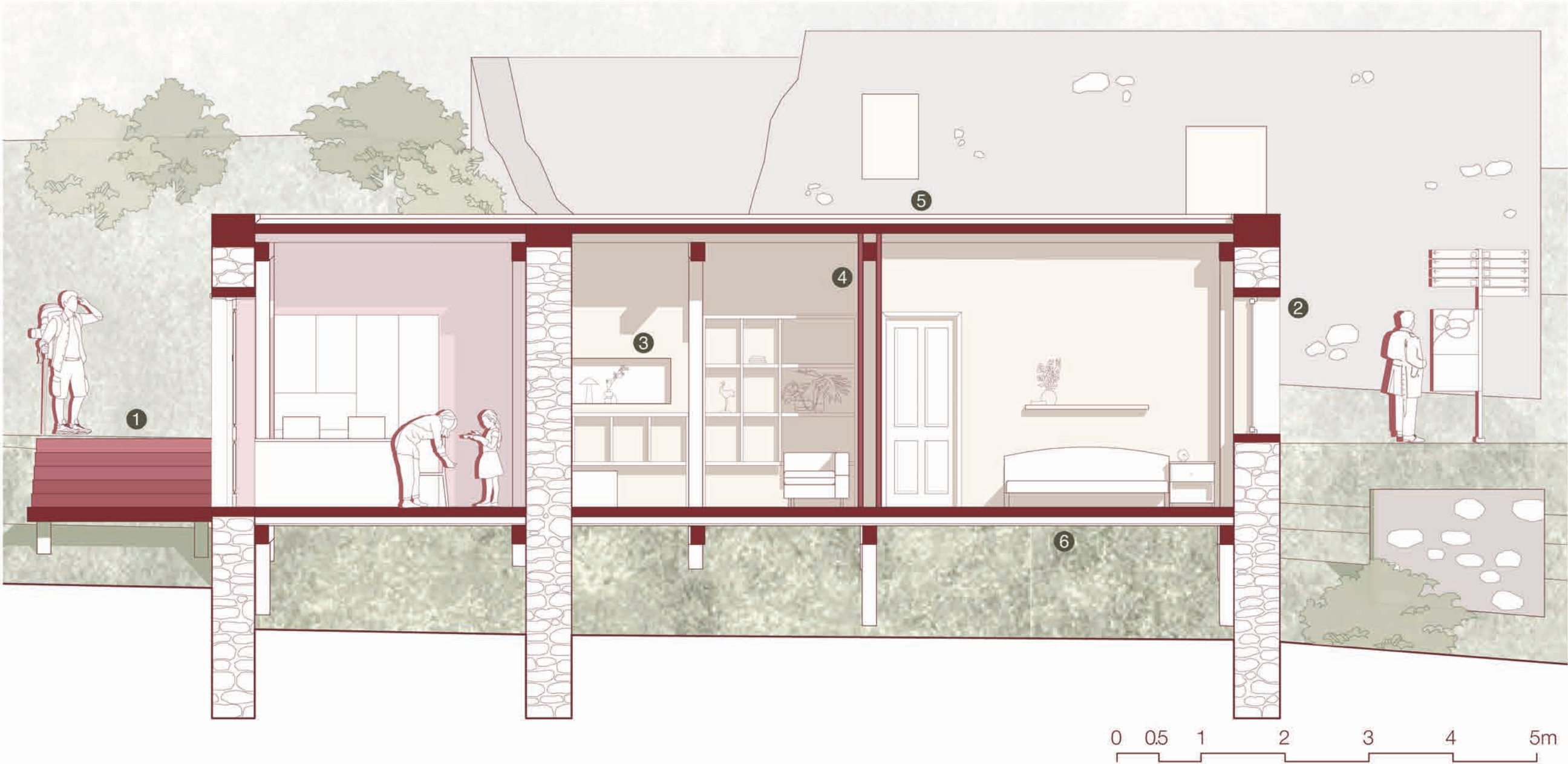
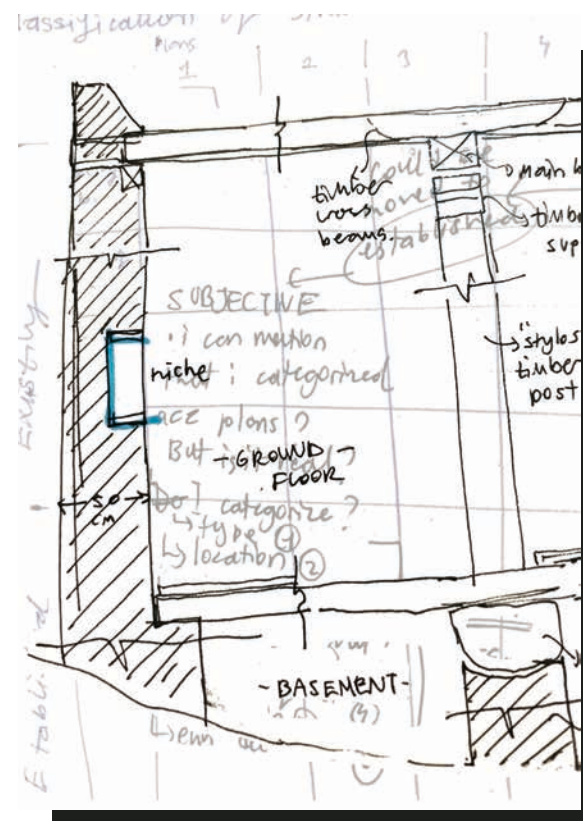




Figure 6.14 A render showing the building for short-stay

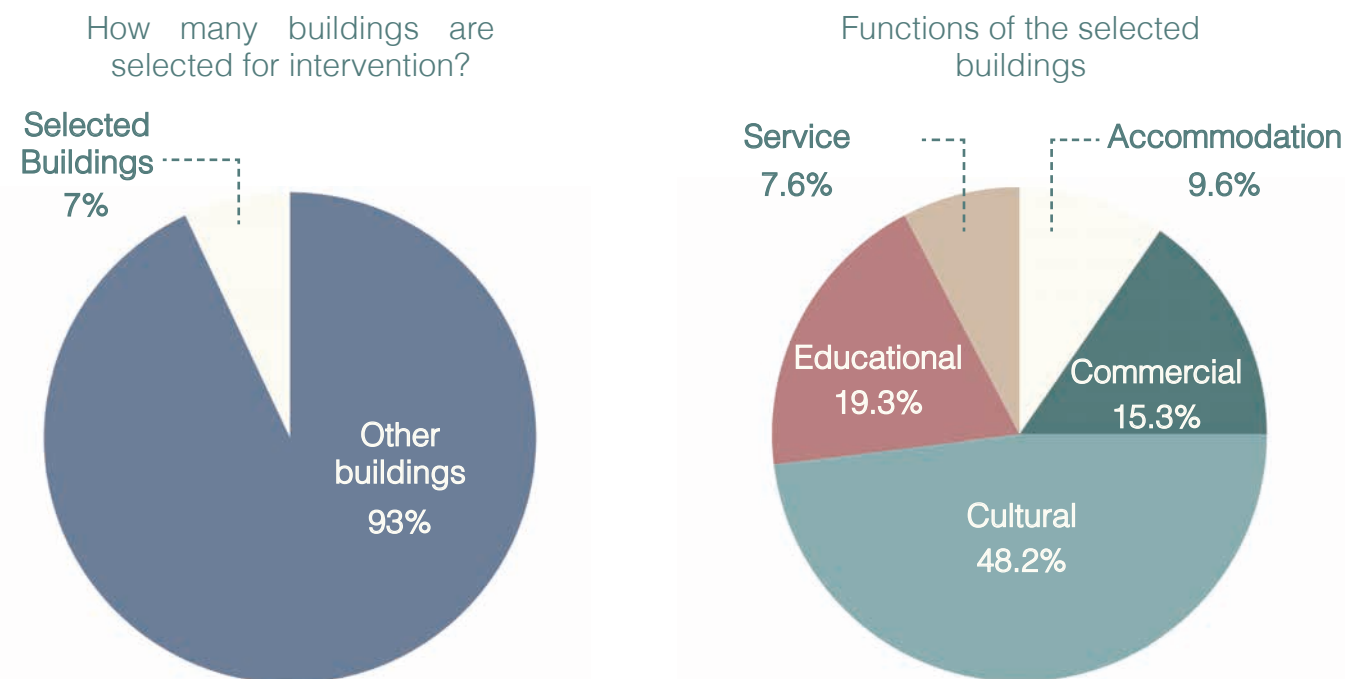


Conclusion

This thesis examined the abandoned village of Kayaköy and aimed to create a design guide that can be effective both for the planning of the phases and the architectural design. There have been ongoing discussions about its future regarding its importance as a heritage asset and its cultural importance. However, the lack of planning in Kayaköy causes concerns, considering the cultural and environmental value of the site. Therefore, the main objective of the thesis is to create clear design rules that can be applied to a variety of structures that require different approaches according to their existing properties and planned future interventions.

After completing the first step, which is historical research, the next step was to make a site visit to collect data and observe the site to be able to understand it more profoundly. The site visit, along with the study of literature and collecting information from a variety of sources, made it possible to prepare territorial and architectural analyses. During the site visit and upon the completion of analyses, the problems and potentials in the site became visible. Crucial properties of the site, which can be both addressed as a problem and a potential, were explained regarding the paths. Therefore, the circulation and the perception of the surroundings according to the main paths became critical. The site's large size required analysis to measure the comfort and connectivity of the main paths. According to these, the existing main paths were evaluated and classified to be repaired, altered, or left without any change in their form or design.

Figure 7.1
Two pie charts showing the percentage of selected buildings in total buildings and functions of the selected buildings



Deciding on the main circulation paths played a part in choosing the structures that have the potential to be intervened in. Another determinant was the restoration potential of the structures, which was referenced from a thesis and then improved with present knowledge. There are approximately 720 structures in the abandoned village of Kayaköy. Four of them are regarded as monumental buildings: two schools and two churches. The cisterns are not counted separately if they are attached to a house and if their dimensions are small. Selection of the buildings is done in three parts of the site, which at the same time determine the phases of planning and construction. The total number of selected structures is 52, which means 7% of the structures on site are proposed for interventions.

The outcome of the selection of main paths and buildings was used to determine a possible layout for the masterplan. It can be said that the process of acquiring design rules started from the very beginning in terms of the site's historical, architectural, and environmental identity. However, before the introduction of the rules, it was essential to deduce their causes in order to explain the reasoning behind their formation. The causes are the conditions that are listed in two main categories and five sub-categories. They determined the key properties of selected structures, which are illustrated in the tables. A variety of buildings, which are from different phases of the site planning, are determined to be illustrated in detail for the explanation of the design rules.

As one of the essential objectives of the thesis, the design guidelines serve for the entirety of the site. The reason is the deliberate choice of selecting a general list of conditions that are used to classify the buildings. This is possible since all the structures on the site can be listed according to the five conditions. Therefore, the rules are applicable even for the buildings that are not included in the list of selected structures in this thesis. The guidelines are not fixed for a limited area in the site. The potential of the guide comes from its inclusivity since the application of the rules has a wide range in terms of diversity. Creating design guidelines for Kayaköy provides the benefit of planning ahead of time while being accurate for the present and the future. It provides clarity for the possible design choices and sustains compatibility with the context of the site. Thus, the transformation of the site can be in harmony with its identity.

1. Collecting Information

- Collecting information can be divided into two different categories: site survey and research.

2. Analysis

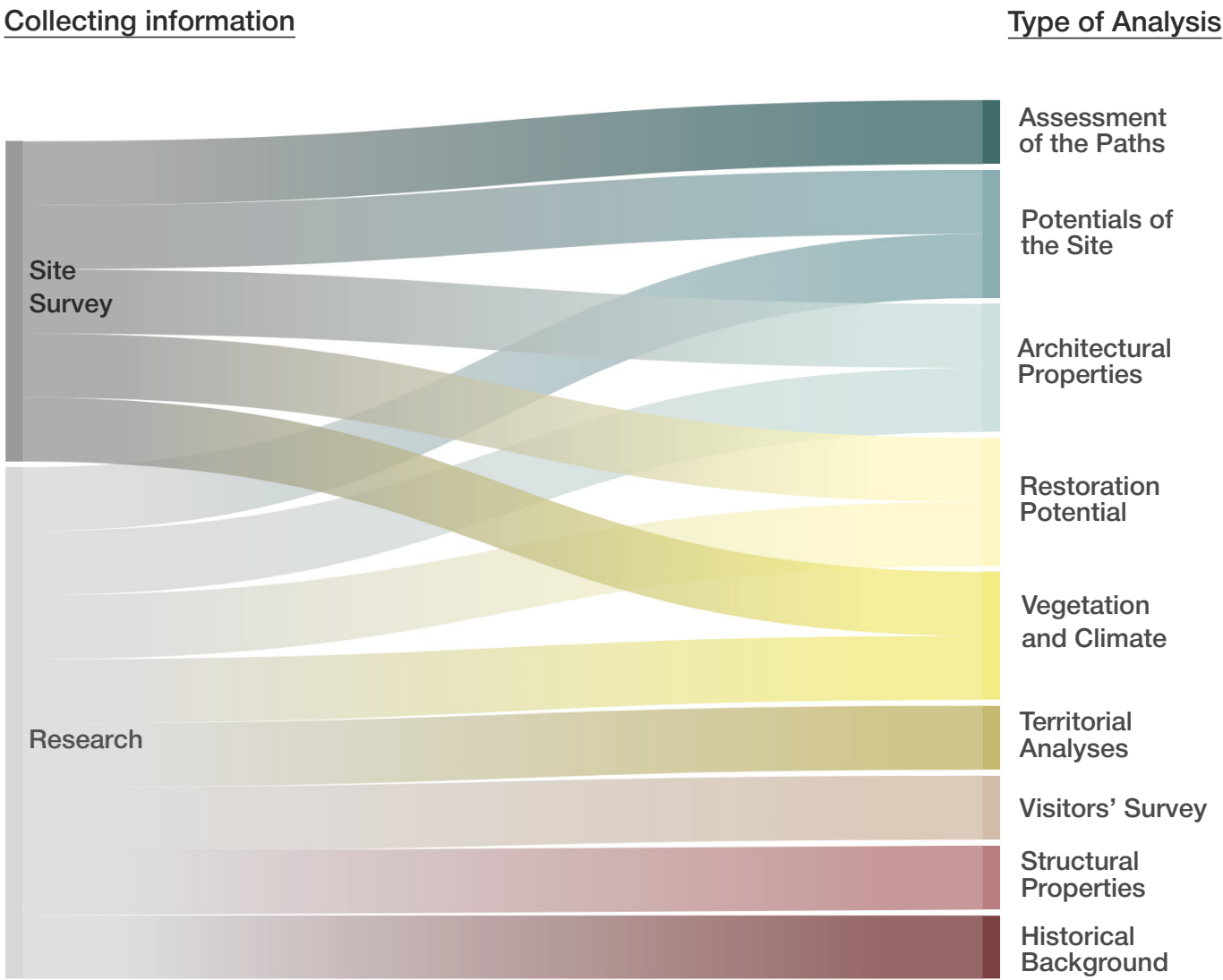
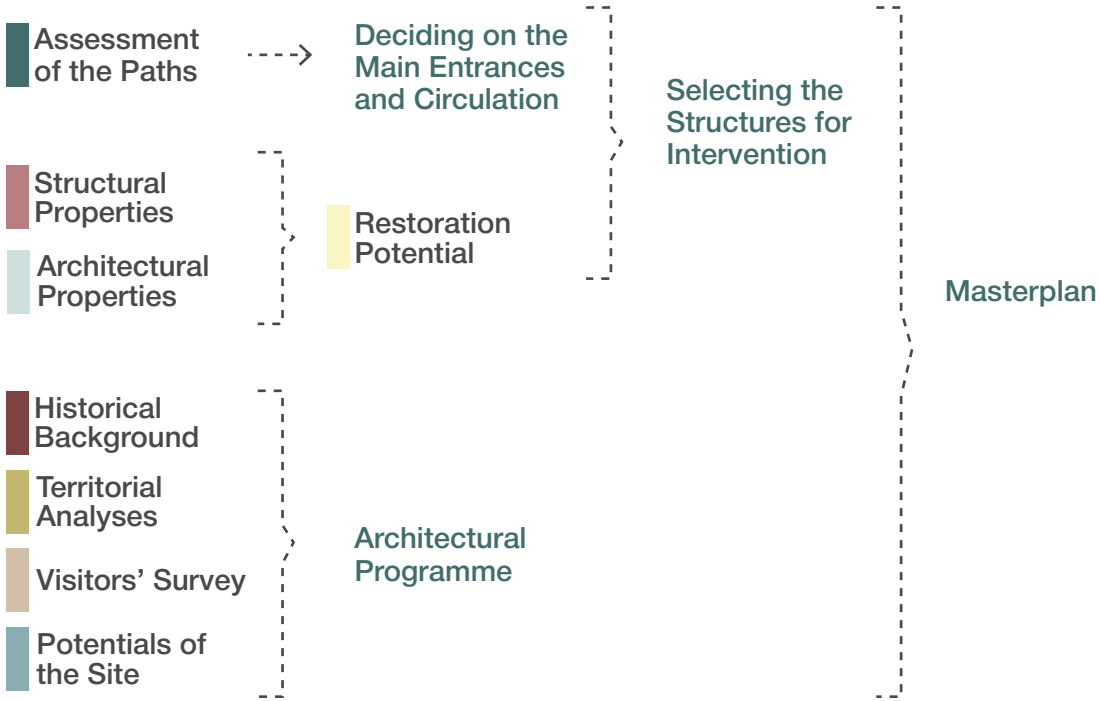


Figure 7.2 A connection diagram that shows the relation between the type of data collection and the analysis

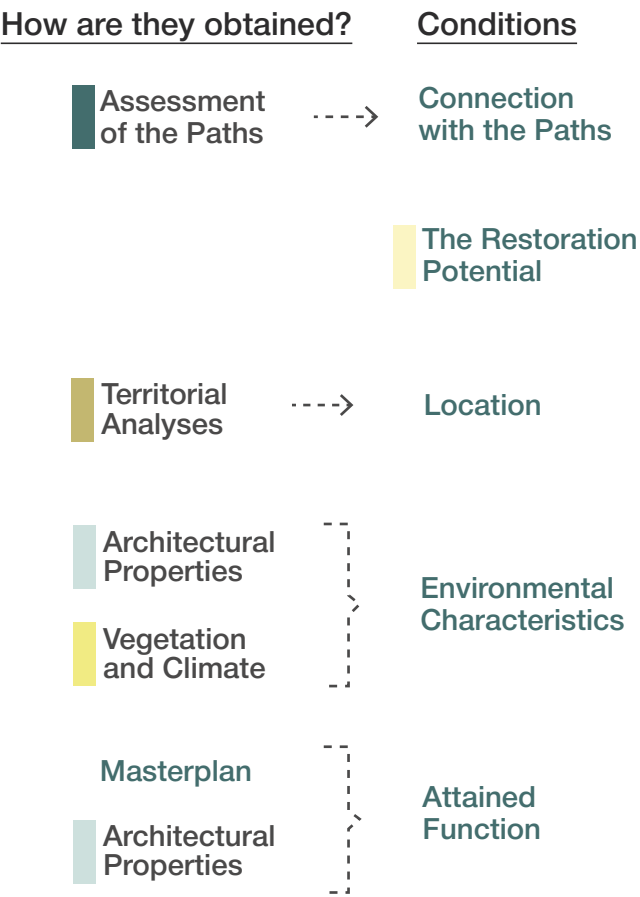
3. Case Studies

- Provides insight and gives references to what type of guide is necessary for the site

4. Masterplan Decisions



5. Forming the Guide



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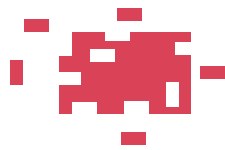
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